



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:04 PM GMT

PDB ID : 4U4U
Title : Crystal structure of Lycorine bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-24
Resolution : 3.00 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 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : **FAILED**
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

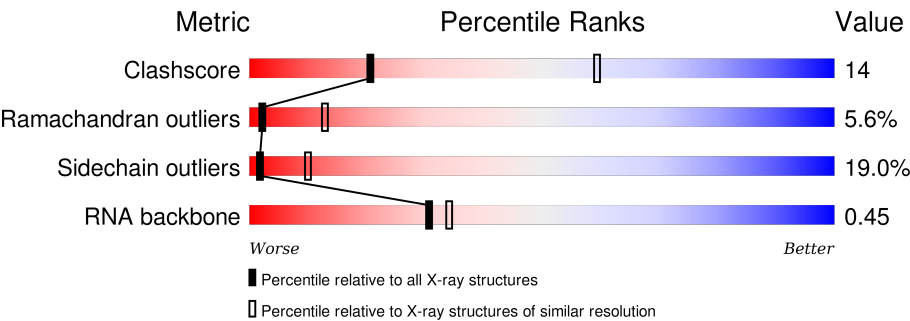
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1912 (3.00-3.00)
Ramachandran outliers	100387	1853 (3.00-3.00)
Sidechain outliers	100360	1856 (3.00-3.00)
RNA backbone	2183	1036 (3.40-2.60)

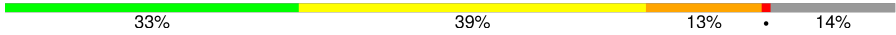



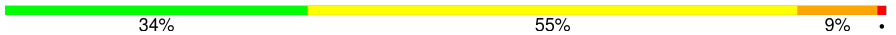

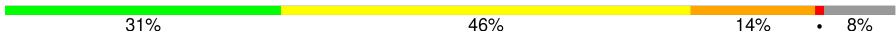

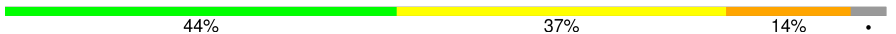

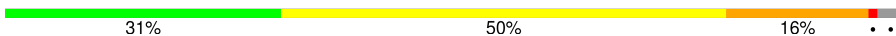

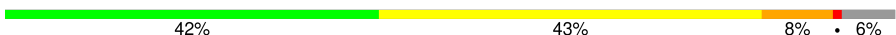







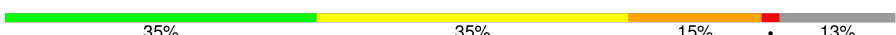




The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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>36%</div><div>42%</div><div>17%</div><div>• •</div></div></div>
1	6	1800	<div><div></div><div><div>38%</div><div>41%</div><div>17%</div><div>•</div></div></div>
2	S0	251	<div><div></div><div><div>23%</div><div>43%</div><div>15%</div><div>•</div><div>18%</div></div></div>
2	s0	251	<div><div></div><div><div>61%</div><div>18%</div><div>•</div><div>18%</div></div></div>
3	S1	254	<div><div></div><div><div>22%</div><div>46%</div><div>15%</div><div>•</div><div>16%</div></div></div>
3	s1	254	<div><div></div><div><div>70%</div><div>15%</div><div>15%</div></div></div>


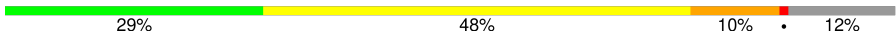



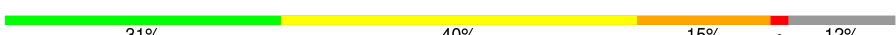

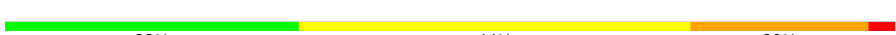



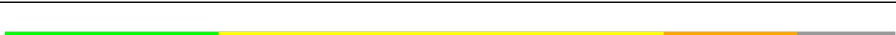

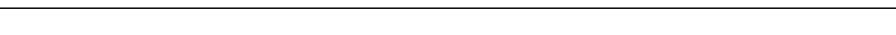
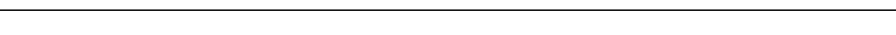
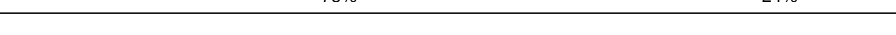

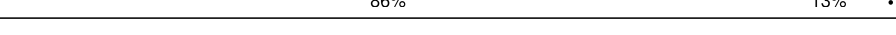






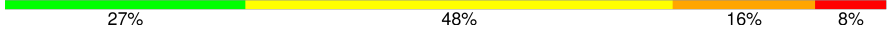
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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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







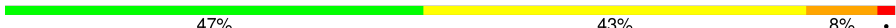


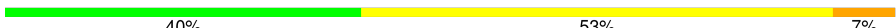


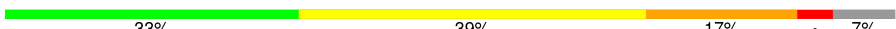
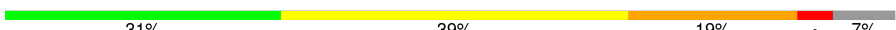


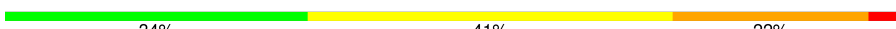
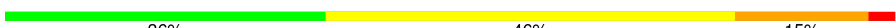


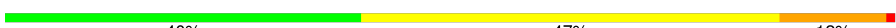

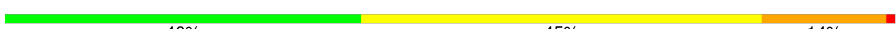


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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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






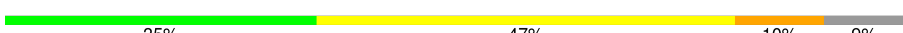





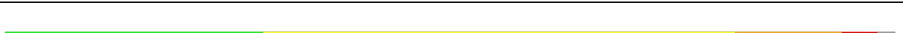













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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3	386	
40	l3	386	
41	L4	361	
41	l4	361	
42	L5	296	







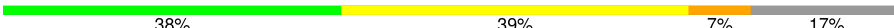



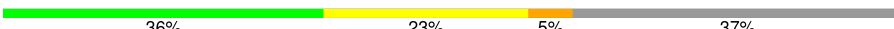





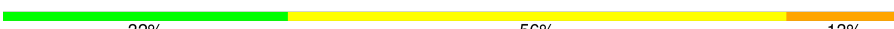





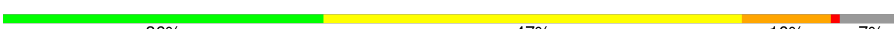


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Mol	Chain	Length	Quality of chain
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	
54	m8	185	


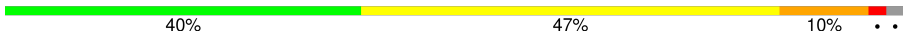



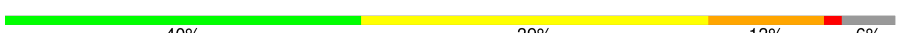





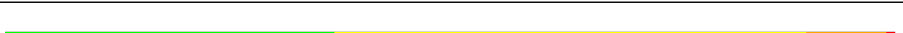













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Mol	Chain	Length	Quality of chain
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	
67	O1	112	

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Mol	Chain	Length	Quality of chain
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	
79	q3	91	

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Mol	Chain	Length	Quality of chain
80	e0	62	
81	sM	273	
82	m2	160	
83	p0	311	
84	p1	47	
85	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
87	OHX	1	3945	-	-	X	-
87	OHX	1	3964	-	-	X	-
87	OHX	1	3966	-	-	X	-
87	OHX	1	3978	-	-	X	-
87	OHX	1	4009	-	-	X	-
87	OHX	1	4034	-	-	X	-
87	OHX	1	4037	-	-	X	-
87	OHX	1	4042	-	-	X	-
87	OHX	1	4048	-	-	X	-
87	OHX	1	4049	-	-	X	-
87	OHX	1	4060	-	-	X	-
87	OHX	1	4061	-	-	X	-
87	OHX	1	4085	-	-	X	-
87	OHX	1	4089	-	-	X	-
87	OHX	1	4137	-	-	X	-
87	OHX	1	4145	-	-	X	-
87	OHX	1	4151	-	-	X	-
87	OHX	1	4155	-	-	X	-
87	OHX	1	4159	-	-	X	-
87	OHX	1	4161	-	-	X	-
87	OHX	1	4168	-	-	X	-
87	OHX	1	4177	-	-	X	-
87	OHX	1	4186	-	-	X	-
87	OHX	1	4203	-	-	X	-
87	OHX	2	2029	-	-	X	-
87	OHX	2	2042	-	-	X	-
87	OHX	2	2081	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	2	2083	-	-	X	-
87	OHX	2	2088	-	-	X	-
87	OHX	2	2097	-	-	X	-
87	OHX	2	2109	-	-	X	-
87	OHX	2	2129	-	-	X	-
87	OHX	2	2144	-	-	X	-
87	OHX	5	3943	-	-	X	-
87	OHX	5	3963	-	-	X	-
87	OHX	5	3974	-	-	X	-
87	OHX	5	3979	-	-	X	-
87	OHX	5	4002	-	-	X	-
87	OHX	5	4003	-	-	X	-
87	OHX	5	4011	-	-	X	-
87	OHX	5	4021	-	-	X	-
87	OHX	5	4024	-	-	X	-
87	OHX	5	4056	-	-	X	-
87	OHX	5	4067	-	-	X	-
87	OHX	5	4091	-	-	X	-
87	OHX	5	4092	-	-	X	-
87	OHX	5	4096	-	-	X	-
87	OHX	5	4104	-	-	X	-
87	OHX	5	4144	-	-	X	-
87	OHX	5	4191	-	-	X	-
87	OHX	5	4193	-	-	X	-
87	OHX	5	4200	-	-	X	-
87	OHX	5	4201	-	-	X	-
87	OHX	5	4202	-	-	X	-
87	OHX	5	4215	-	-	X	-
87	OHX	5	4218	-	-	X	-
87	OHX	5	4225	-	-	X	-
87	OHX	5	4235	-	-	X	-
87	OHX	5	4237	-	-	X	-
87	OHX	5	4244	-	-	X	-
87	OHX	6	2063	-	-	X	-
87	OHX	6	2124	-	-	X	-
87	OHX	6	2150	-	-	X	-
87	OHX	6	2162	-	-	X	-
87	OHX	6	2174	-	-	X	-
87	OHX	6	2192	-	-	X	-
87	OHX	8	217	-	-	X	-
87	OHX	8	225	-	-	X	-
87	OHX	C5	201	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	O7	103	-	-	X	-
88	ZN	Q2	501	-	-	X	-

2 Entry composition

There are 89 unique types of molecules in this entry. The entry contains 411211 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			
			1111	711	204	196	0	0	0

- 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		
			926	577	177	170	2	0	0
19	c7	117	Total	C	N	O	S		
			906	563	174	167	2	0	0

- 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		
			1192	743	237	210	2	0	0
20	c8	145	Total	C	N	O	S		
			1192	743	237	210	2	0	0

- 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		
			1112	694	208	208	2	0	0
21	c9	143	Total	C	N	O	S		
			1112	694	208	208	2	0	0

- 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		
			855	539	156	159	1	0	0
22	d0	110	Total	C	N	O	S		
			882	554	161	166	1	0	0

- 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		
			684	420	125	137	2	0	0
23	d1	87	Total	C	N	O	S		
			684	420	125	137	2	0	0

- 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			

- 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	12	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				
55	m9	188	Total	C	N	O		0	0	0
			1521	935	326	260				

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 80 is a protein called 40S ribosomal protein 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 Suppressor protein STM1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
81	sM	104	Total	C	N	O	0	0	0
			681	404	140	137			

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

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

- Molecule 83 is a protein called 60S acidic ribosomal protein P0.

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

- Molecule 84 is a protein called unknown protein chain p1.

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

- Molecule 85 is a protein called unknown protein chain p2.

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

- Molecule 86 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	L7	2	Total	Mg	0	0
			2	2		
86	m6	1	Total	Mg	0	0
			1	1		
86	n8	5	Total	Mg	0	0
			5	5		
86	o1	2	Total	Mg	0	0
			2	2		
86	N5	1	Total	Mg	0	0
			1	1		
86	6	149	Total	Mg	0	0
			149	149		
86	sM	2	Total	Mg	0	0
			2	2		
86	O4	1	Total	Mg	0	0
			1	1		
86	m5	3	Total	Mg	0	0
			3	3		
86	l3	2	Total	Mg	0	0
			2	2		
86	M1	1	Total	Mg	0	0
			1	1		
86	l4	1	Total	Mg	0	0
			1	1		
86	2	123	Total	Mg	0	0
			123	123		
86	n0	1	Total	Mg	0	0
			1	1		
86	L4	2	Total	Mg	0	0
			2	2		
86	l7	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	M5	1	Total 1	Mg 1	0	0
86	S2	1	Total 1	Mg 1	0	0
86	L8	1	Total 1	Mg 1	0	0
86	D3	1	Total 1	Mg 1	0	0
86	M9	1	Total 1	Mg 1	0	0
86	q0	1	Total 1	Mg 1	0	0
86	SM	1	Total 1	Mg 1	0	0
86	o4	1	Total 1	Mg 1	0	0
86	M0	2	Total 2	Mg 2	0	0
86	c1	1	Total 1	Mg 1	0	0
86	n6	1	Total 1	Mg 1	0	0
86	5	506	Total 506	Mg 506	0	0
86	L5	2	Total 2	Mg 2	0	0
86	O7	1	Total 1	Mg 1	0	0
86	Q2	1	Total 1	Mg 1	0	0
86	1	477	Total 477	Mg 477	0	0
86	D0	1	Total 1	Mg 1	0	0
86	S8	1	Total 1	Mg 1	0	0
86	m1	1	Total 1	Mg 1	0	0
86	M8	1	Total 1	Mg 1	0	0
86	q3	1	Total 1	Mg 1	0	0

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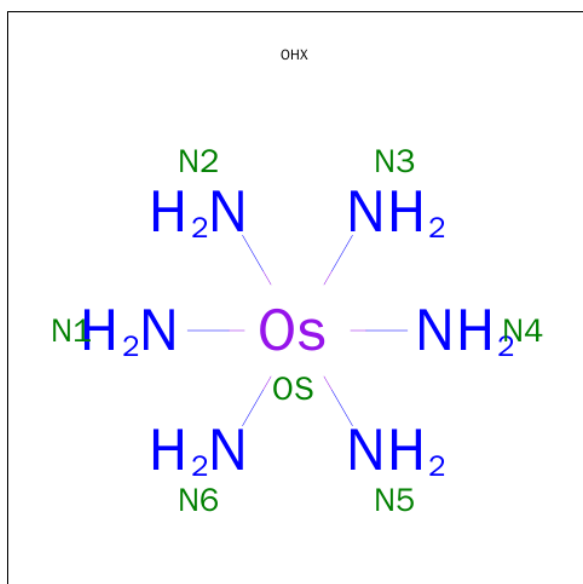
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	o3	2	Total 2	Mg 2	0	0
86	d3	2	Total 2	Mg 2	0	0
86	M3	3	Total 3	Mg 3	0	0
86	N3	3	Total 3	Mg 3	0	0
86	4	21	Total 21	Mg 21	0	0
86	D4	1	Total 1	Mg 1	0	0
86	L2	1	Total 1	Mg 1	0	0
86	l5	2	Total 2	Mg 2	0	0
86	m7	5	Total 5	Mg 5	0	0
86	M7	6	Total 6	Mg 6	0	0
86	N8	3	Total 3	Mg 3	0	0
86	s1	1	Total 1	Mg 1	0	0
86	l9	1	Total 1	Mg 1	0	0
86	s8	2	Total 2	Mg 2	0	0
86	O8	1	Total 1	Mg 1	0	0
86	c7	1	Total 1	Mg 1	0	0
86	7	16	Total 16	Mg 16	0	0
86	n3	2	Total 2	Mg 2	0	0
86	q1	1	Total 1	Mg 1	0	0
86	L3	2	Total 2	Mg 2	0	0
86	d4	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	s4	1	Total	Mg	0	0
			1	1		
86	l2	2	Total	Mg	0	0
			2	2		
86	8	14	Total	Mg	0	0
			14	14		
86	M6	1	Total	Mg	0	0
			1	1		
86	N0	1	Total	Mg	0	0
			1	1		
86	3	14	Total	Mg	0	0
			14	14		

- Molecule 87 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	S8	1	Total	N	Os	0	0
			7	6	1		
87	C3	1	Total	N	Os	0	0
			7	6	1		
87	C5	1	Total	N	Os	0	0
			7	6	1		
87	C8	1	Total	N	Os	0	0
			7	6	1		
87	D3	1	Total	N	Os	0	0
			7	6	1		
87	D9	1	Total	N	Os	0	0
			7	6	1		
87	SR	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	3	1	Total	N	Os	0	0
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87	3	1	Total	N	Os	0	0
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87	3	1	Total	N	Os	0	0
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87	4	1	Total	N	Os	0	0
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87	4	1	Total	N	Os	0	0
			7	6	1		
87	4	1	Total	N	Os	0	0
			7	6	1		
87	4	1	Total	N	Os	0	0
			7	6	1		
87	4	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	4	1	Total 7	N 6	Os 1	0	0
87	L3	1	Total 7	N 6	Os 1	0	0
87	L3	1	Total 7	N 6	Os 1	0	0
87	L3	1	Total 7	N 6	Os 1	0	0
87	L4	1	Total 7	N 6	Os 1	0	0
87	M0	1	Total 7	N 6	Os 1	0	0
87	M5	1	Total 7	N 6	Os 1	0	0
87	M6	1	Total 7	N 6	Os 1	0	0
87	M7	1	Total 7	N 6	Os 1	0	0
87	M7	1	Total 7	N 6	Os 1	0	0
87	M8	1	Total 7	N 6	Os 1	0	0
87	M9	1	Total 7	N 6	Os 1	0	0
87	N1	1	Total 7	N 6	Os 1	0	0
87	N9	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
87	O3	1	Total	N	Os	0	0
			7	6	1		
87	O7	1	Total	N	Os	0	0
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87	O7	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
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87	6	1	Total 7	N 6	Os 1	0	0
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87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
87	s1	1	Total 7	N 6	Os 1	0	0
87	s1	1	Total 7	N 6	Os 1	0	0
87	s4	1	Total 7	N 6	Os 1	0	0
87	s8	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	c1	1	Total	N	Os	0	0
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87	c3	1	Total	N	Os	0	0
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87	c5	1	Total	N	Os	0	0
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87	c8	1	Total	N	Os	0	0
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87	d4	1	Total	N	Os	0	0
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87	d9	1	Total	N	Os	0	0
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87	sR	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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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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			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	5	1	Total	N	Os	0	0
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	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		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		
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87	7	1	Total	N	Os	0	0
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87	7	1	Total	N	Os	0	0
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87	7	1	Total	N	Os	0	0
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87	7	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	13	1	Total	N	Os	0	0
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87	13	1	Total	N	Os	0	0
			7	6	1		
87	14	1	Total	N	Os	0	0
			7	6	1		
87	14	1	Total	N	Os	0	0
			7	6	1		
87	15	1	Total	N	Os	0	0
			7	6	1		
87	15	1	Total	N	Os	0	0
			7	6	1		
87	15	1	Total	N	Os	0	0
			7	6	1		
87	19	1	Total	N	Os	0	0
			7	6	1		
87	m0	1	Total	N	Os	0	0
			7	6	1		
87	m0	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	m1	1	Total	N	Os	0	0
			7	6	1		
87	m4	1	Total	N	Os	0	0
			7	6	1		
87	m5	1	Total	N	Os	0	0
			7	6	1		
87	m6	1	Total	N	Os	0	0
			7	6	1		
87	m7	1	Total	N	Os	0	0
			7	6	1		
87	m8	1	Total	N	Os	0	0
			7	6	1		
87	m9	1	Total	N	Os	0	0
			7	6	1		
87	n3	1	Total	N	Os	0	0
			7	6	1		
87	n6	1	Total	N	Os	0	0
			7	6	1		
87	n9	1	Total	N	Os	0	0
			7	6	1		
87	o2	1	Total	N	Os	0	0
			7	6	1		
87	o3	1	Total	N	Os	0	0
			7	6	1		
87	o7	1	Total	N	Os	0	0
			7	6	1		
87	o7	1	Total	N	Os	0	0
			7	6	1		
87	q2	1	Total	N	Os	0	0
			7	6	1		

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

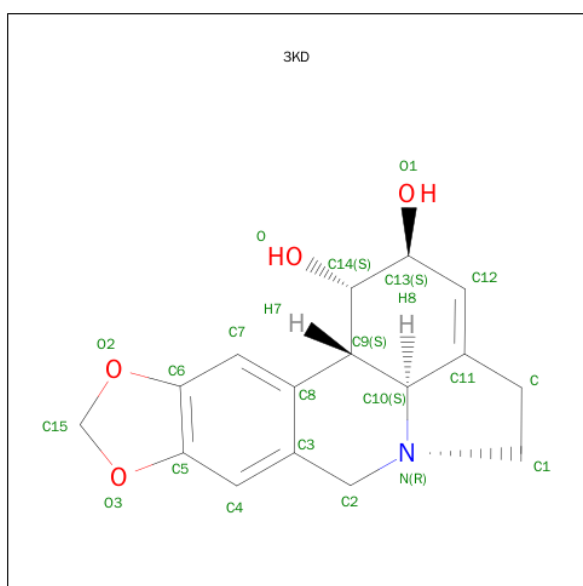
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	q0	1	Total	Zn	0	0
			1	1		
88	D6	1	Total	Zn	0	0
			1	1		
88	Q2	1	Total	Zn	0	0
			1	1		
88	e1	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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		

- Molecule 89 is (1S,2S,12bS,12cS)-2,4,5,7,12b,12c-hexahydro-1H-[1,3]dioxolo[4,5-j]pyrrolo[3,2,1-de]phenanthridine-1,2-diol (three-letter code: 3KD) (formula: C₁₆H₁₇NO₄).



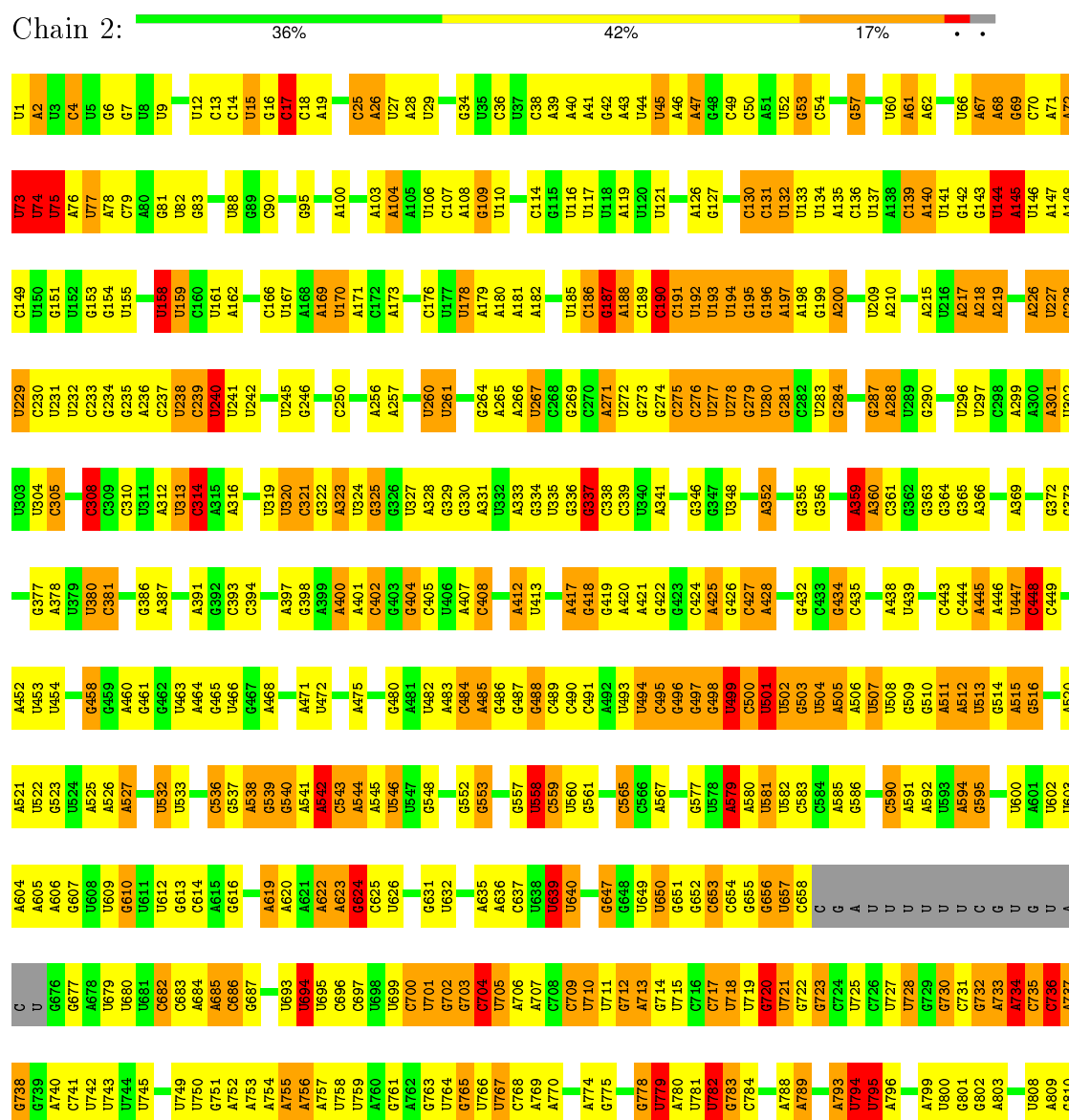
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
89	1	1	Total	C	N	O	0	0
			21	16	1	4		
89	5	1	Total	C	N	O	0	0
			21	16	1	4		

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 errors 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.

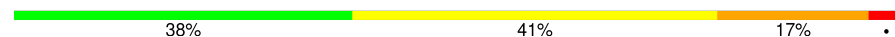
• Molecule 1: 18S ribosomal RNA



A1681	A1753	G1601	G1536	U1473	C1399	A1331	G1255	A1184	G1110	A1026	C943	G875	A811
U1682	A1754	C1602	C1537	G1474	A1400	C1332	A1256	U1185	G1111	A1027	A944	G876	A812
C1683	A1755	U1603	U1538	A1475	A1401	C1333	U1257	U1186	A1112	C1028	A951	G879	U813
U1684	A1756	G1604	G1539	C1476	A1402	U1334	U1258	A1189	A1113	U1029	A952	G880	A814
G1685	G1757	G1605	G1540	A1479	C1403	U1335	G1263	A1190	G1114	A1030	A959	A881	G815
C		C1606	G1541	G1480	A1404	A1336	G1264	U1191	U1115	U1031	U859	U882	G816
U		G1607	G1542	C1481	A1405	C1337	G1265	A1192	A1116	G1032	U860	C883	A817
A		U1608	A1543	G1482	A1406	C1338	G1266	A1193	U1117	G1033	U861	C884	C818
G		G1609	U1544	A1483	A1407	C1339	G1267	A1194	G1118	C1034	C962	G885	G819
G		G1610	A1545	G1484	G1408	U1340	G1268	C1195	G1119	A1039	A966	U886	U820
A		A1611	A1546	A1485	A1409	A1341	G1269	C1196	G1120	G1040	A967	A887	U821
G		A1614	G1548	C1486	A1410	C1342	U1269	A1196	U1121	G1041	A968	U888	U822
A		C1615	A1550	G1487	A1411	U1343	G1270	C1197	C1128	G1042	U868	U889	G823
G		G1616	G1553	U1488	G1412	A1344	G1271	G1198	G1129		C969	C890	G824
G		G1618	G1554	U1489	U1413	A1345	U1272	G1199	U1130	G1046	A970	U891	U825
C		C1620	U1554	A1490	A1414	A1346	G1273	G1200	G1131	A971	A971	A892	U826
G		U1621	A1555	U1491	G1415	U1347	C1274	G1201	A1132	G1051	A972	U893	C827
G		G1622	A1556	A1492	A1416	A1348	G1275	A1202	A1133	U1052	A973	U894	U828
C		C1623	U1557	A1493	A1417	G1349	U1276	A1203	A1138	G1053	A974	C895	A829
A		G1624	G1558	C1494	G1418	U1350	G1277	C1207	A1139	U1058	A975	U896	U830
A		C1625	A1559	U1495	A1424	G1354	G1278	C1208	G1140	U1059	A976	C897	U831
C		U1626	U1560	A1496	A1425	C1355	U1280	C1209	U1145	A1060	A977	A898	U832
U		G1627	U1561	U1497	A1426	G1356	G1281		U1146	A1061	A978	G899	U833
C		G1628	G1562	A1498	A1427	C1357	U1282	G1212	A1147	A1062	A979	A900	G837
C		G1629	C1563	G1499	G1428	G1358	U1283	G1213	C1148	U1063	A980	G901	G838
A		U1630	U1564	C1500	A1429	A1359	U1286	U1214	G1149	G1064	G985	G902	U839
U		A1631	C1565	G1501	U1430	A1360	U1287	G1215	G1150	A1065	G986	U840	U841
C		G1635	G1566	G1502	A1431	U1361	U1290	A1217	G1151	G1066	G987	A905	C842
U		A1636	C1567	A1503	U1432	U1362	G1291	G1218	A1152	C1067	G991	U911	U843
C		A1638	C1568	G1504	A1433	U1363	U1292	U1225	G1153	C1068	A992	U912	U844
A		G1639	A1569	A1505	U1434	G1364	G1297	A1226	C1156		A993	G913	G845
G		C1640	U1570	C1507	G1438	U1365	U1297	A1227	A1157	G1073	G994	G914	G846
A		G1641	G1571	U1508	U1448	G1366	A1300	G1228	C1158	A1074	A995	A915	U847
G		G1642	C1572	C1509	U1450	G1367	U1301	G1229	U1159	U1079	G996	U916	U848
C		U1646	A1573	U1510	A1446	U1368	G1304	U1230	A1160	U1080	G997	U917	U851
G		G1647	G1574	U1511	C1447	U1370	U1305	U1231	C1161	A1081	U998	U918	C852
A		U1648	U1575	C1514	U1448	A1371	G1306	U1232	C1162	C1082	U999	A919	C853
U		G1649	C1580	A1515	U1449	A1375	U1307	A1234	A1163	U854	A1000	G921	U855
C		U1650	A1581	A1516	A1451	U1376	U1310	C1235	G1164	A1086	G1002	G922	A856
G		A1651	C1582	C1517	C1451	U1377	U1311	A1236	A1165	A1087	U1003	A923	U857
A		C1652	A1583	U1518	G1455	C1378	U1312	G1237	A1166	U1088	A1004	C927	G858
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U		C1654	U1585	U1520	C1457	U1381	U1314	U1239	U1168	C1090	C1006	A929	U860
G		U1655	A1586	G1521	G1458	A1382	U1315	U1240	G1169	A1091		A930	U861
C		A1587	G1588	U1522	C1459	G1383	G1316	G1241	U1170	A1092	G1010	C931	U862
U		G1574	G1588	G1523	A1460	A1384	C1317		A1171	A1093	U1012	U932	A863
A		U1575	C1589	A1524	C1461	G1385	U1318	A1244	G1172	U1088	A1013	A933	U864
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A		G1594	U1528	U1528	G1464	A1388	A1321	U1247	U1175	U1098	C1016	G936	U869
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U		U1596	U1530	G1531	G1466	U1390	U1316	U1249	G1177	G1100	U1018	A939	G871
C		G1597	G1531	U1532	A1469	A1391	G1324	U1250	G1178	G1101	A1019	A940	G872
A		U1598	C1533	U1533	C1470	U1392	A1325	C1252	U1182	G1107	U1023	G942	C874
G		G1599	G1534	U1535	A1471	C1393	A1329	U1253	A1183	G1108			
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• Molecule 1: 18S ribosomal RNA

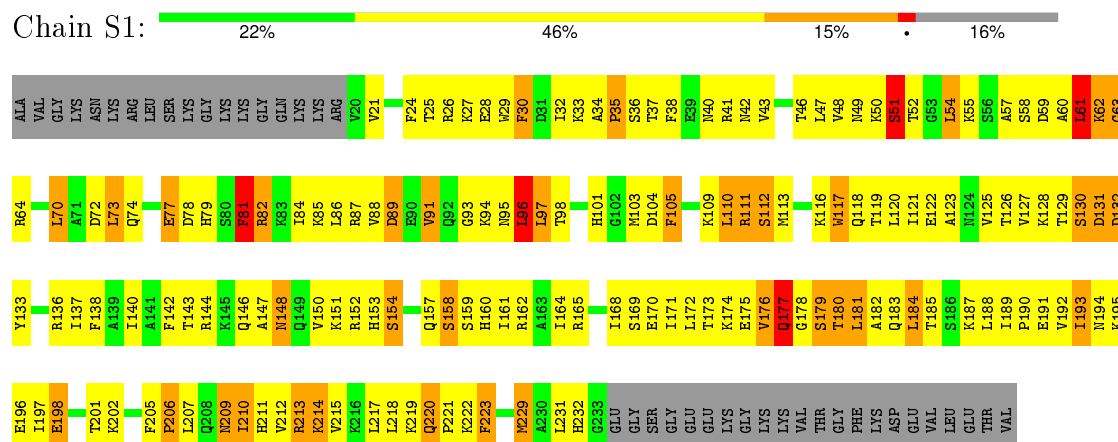
Chain 6:



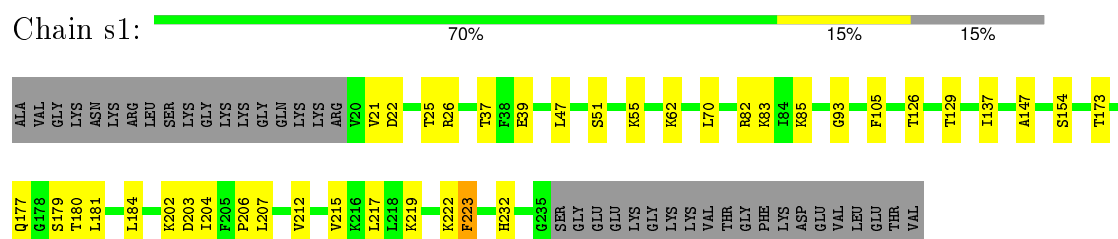
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U1272	G1200	U1120	G1041	A973	G902	G823	U758	G681	A604	G538	U472	G398	U324	U232	U159	
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G1274	A1202	G1122	A1043	G975	G904	U825	A760	G683	A606	G540	A474	A401	G235	G234	U161	G83
A1275	G1207	G1123	U1044	G976	A906	U826	G761	A684		A541	A475	A402	G236	G235	U162	A84
	A1208	A1124	C1045	A977	A907	C827	U764		U609	G542	U476	C402	G329	A236	G163	A85
	A1208	A1125		A978		U828	G765	G687	U610	C543	A477	G403	G330		A164	A86
	G1209	G1126	G1050	A979	U911	A829	U766			A544	A478	G404	A331	U240	G165	
	G1210	U1120	G1051		U912	U830	U767	G691	G616	A545	G479	C405	U332	U241	C166	C90
	G1211	U1129	U1052	A983	G913	U831	U767		U617	A546	G480	U406	A333		U167	
	G1212	G1130	G1053		G914	U832	C768	U694	U618	A547	A481	A407	G334	G246	A168	U94
	G1213		U1054		A915	U833	A769	U695	A619	G548		C408	U335		A169	
		A1133	U1055		U916	U834	A770	C896	A620	G549	C484		G336	U249		
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	G1291	U1135	U1057		U918	U836	G772	U698	A622		A486		G338		U178	U101
	U1293	U1136	U1058		A919	U837	C773	U699	A623	G553	G487	C415	U339	U261	A179	U102
	G1294	A1137	U1059		U920	C774	A774	C700	G624	G554	G488	A416	U340		A180	A103
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						A859	U792	G720	G652	G574	A505		G362		G199	G123
							A793	G721	G653		A506		G363	G287	A200	
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						A863	U795	G723		U578	U508	C444	G365	G291	A206	
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							U800	C725		A580	G510	A446			U208	U
						G868	G801	U726	C659	U581	A511	U447	G371	U297	U209	U
						A869	G802	C726	G660	U582	A512	C448		C298	A210	A
						C870	A803	U727	A661	C583	U513	C449	C376	A299	U137	C136
						G871	A804	U728	U662	C584	A515	U450	C377	A300	U138	
						U872	U805	G729	U663	A585				A301	G214	A138
						U873	A806	G730	U664	C586	U453	U454	U380		A213	
						G876	A807		U665	C587	U517	U455	C382	U306	U216	C139
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						A885	A811	U742	G669	A591	U522	G459	A387		A220	U144
						U886	U812	U743	U670	A592	U523	A460		C314	A221	A145
							U813	U744	U	U593	G523	A461		C315	A222	U146
							A814	U745		A594		G462		C316	U223	
						A892	G815		A673	G595	A527	U463	G390	A317	A224	C149
						U893	G816	G751	C674	C596		U464	A391	G317	A225	
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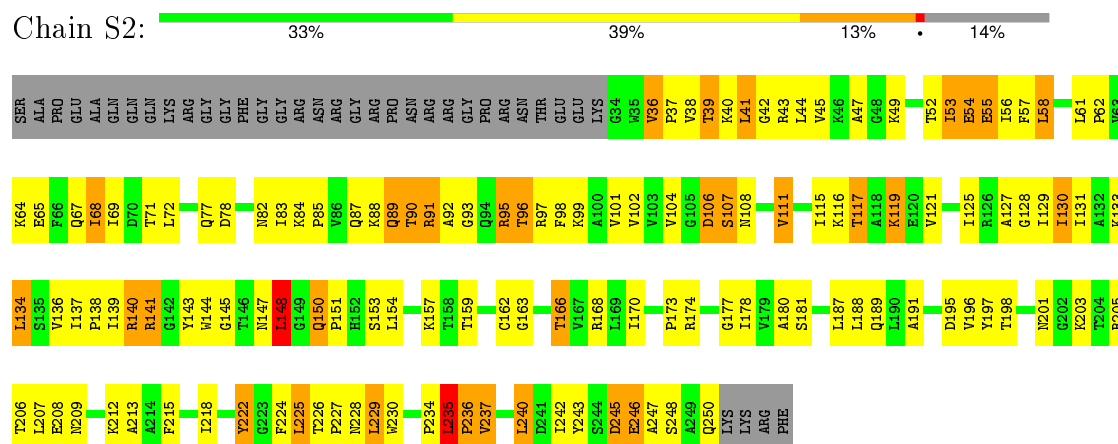
- Molecule 3: 40S ribosomal protein S1-A



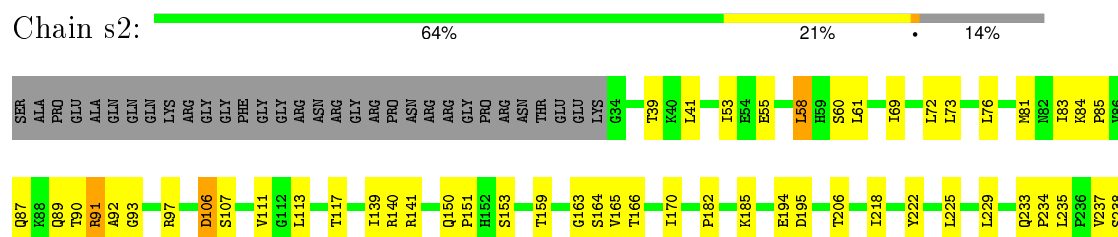
- Molecule 3: 40S ribosomal protein S1-A

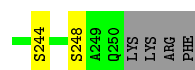


- Molecule 4: 40S ribosomal protein S2



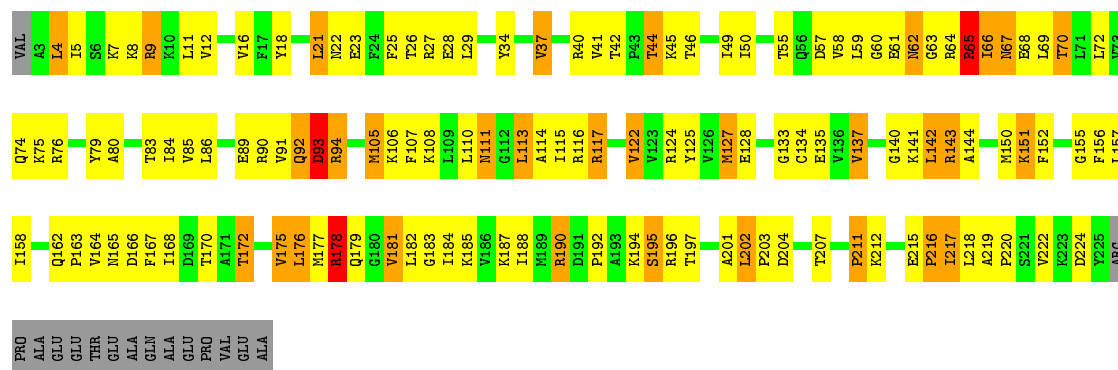
- Molecule 4: 40S ribosomal protein S2





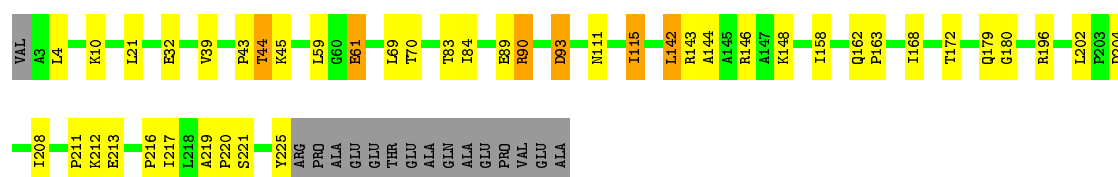
• Molecule 5: 40S ribosomal protein S3

Chain S3: 38% 41% 13% 7%



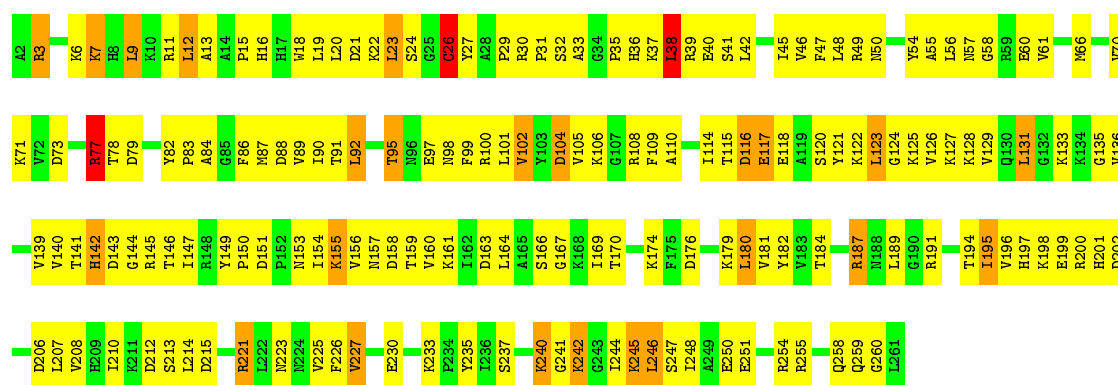
• Molecule 5: 40S ribosomal protein S3

Chain s3: 75% 16% 7%



• Molecule 6: 40S ribosomal protein S4-A

Chain S4: 34% 55% 9%



• Molecule 6: 40S ribosomal protein S4-A

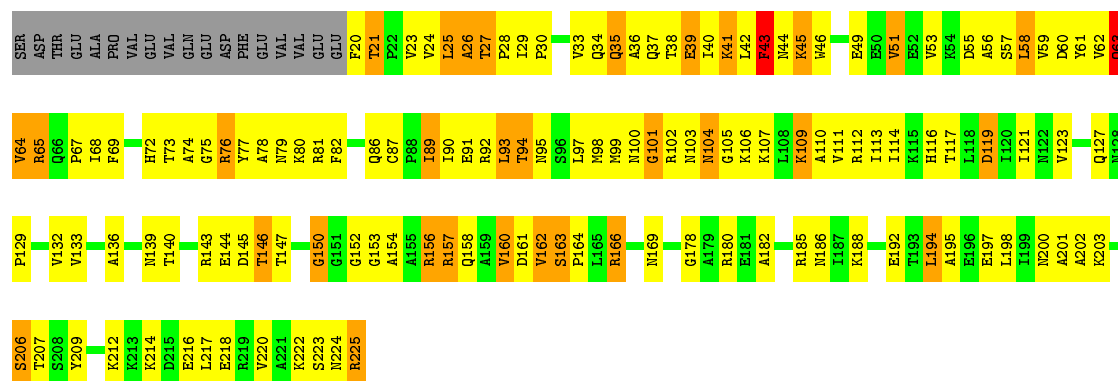
Chain s4: 80% 19%





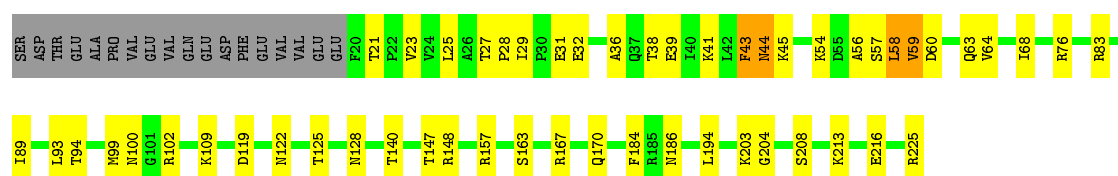
• Molecule 7: 40S ribosomal protein S5

Chain S5: 31% 46% 14% 8%



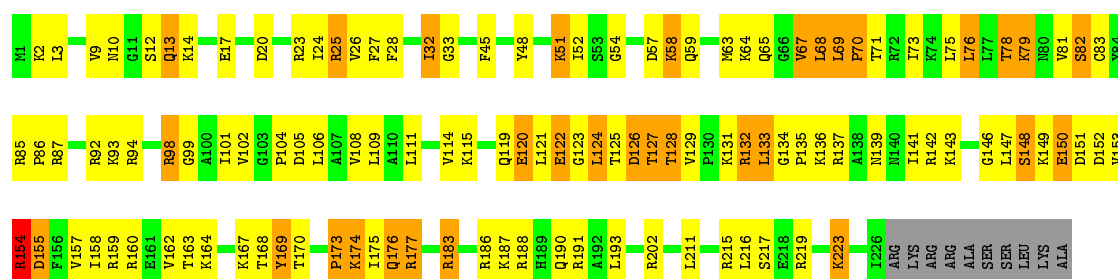
• Molecule 7: 40S ribosomal protein S5

Chain s5: 68% 22% 8%



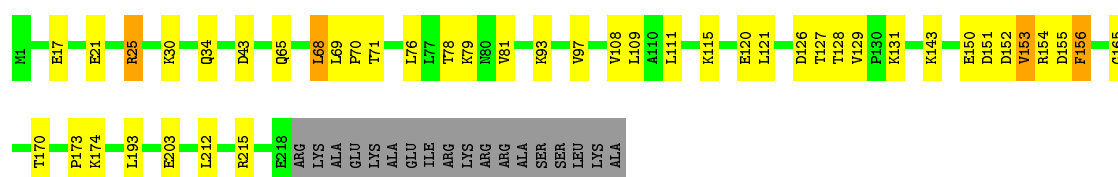
• Molecule 8: 40S ribosomal protein S6-A

Chain S6: 44% 37% 14%

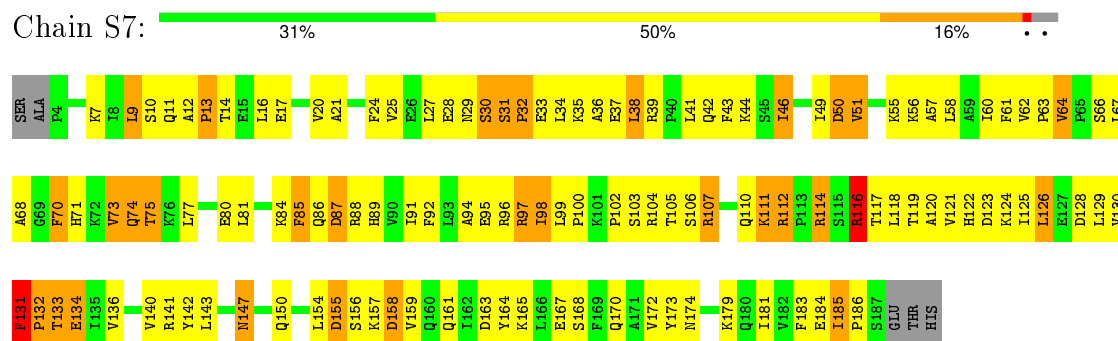


• Molecule 8: 40S ribosomal protein S6-A

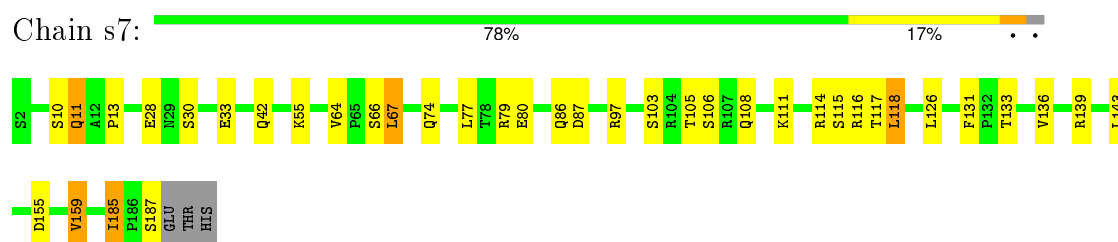
Chain s6: 74% 17% 8%



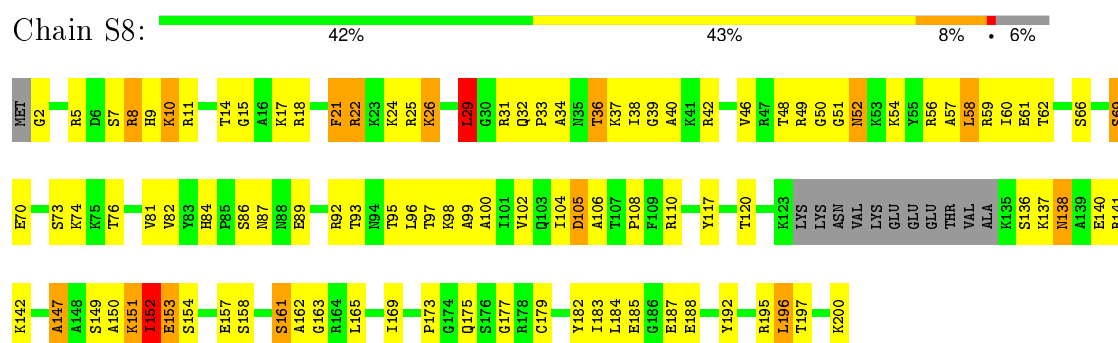
- Molecule 9: 40S ribosomal protein S7-A



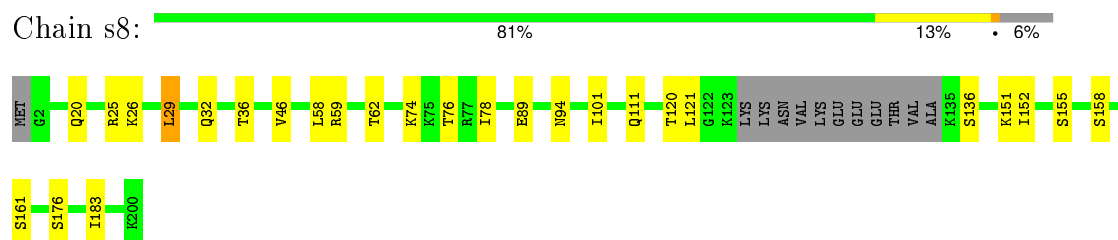
- Molecule 9: 40S ribosomal protein S7-A



- Molecule 10: 40S ribosomal protein S8-A

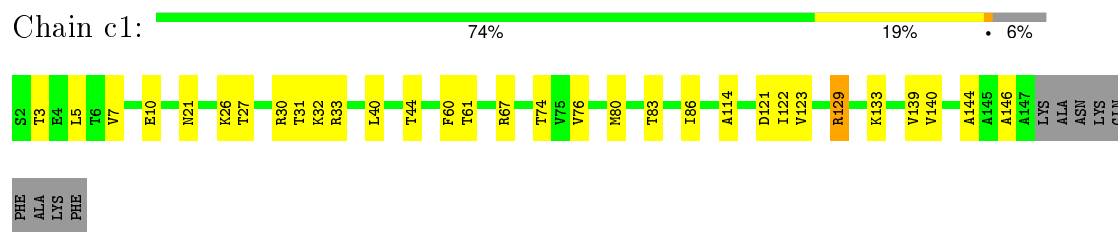


- Molecule 10: 40S ribosomal protein S8-A

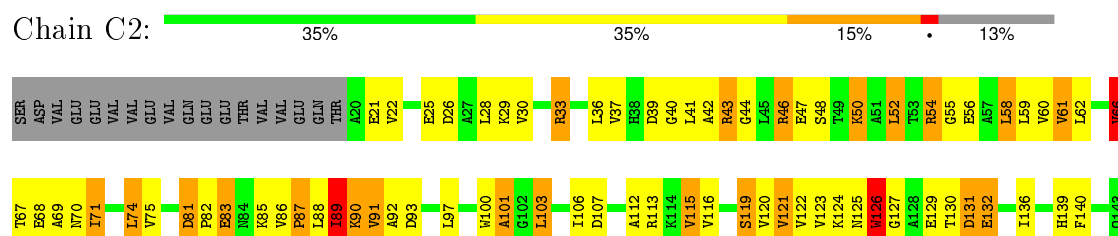


- Molecule 11: 40S ribosomal protein S9-A

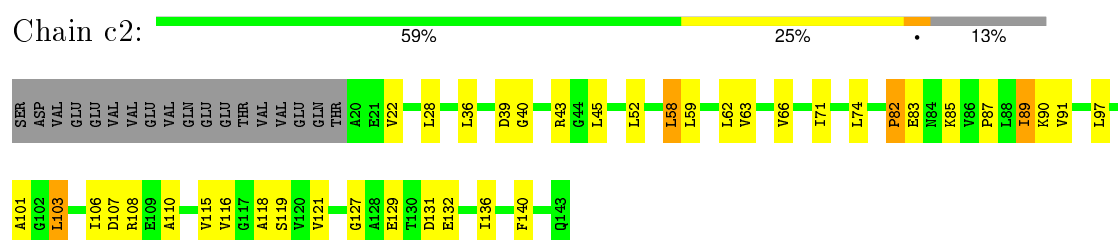




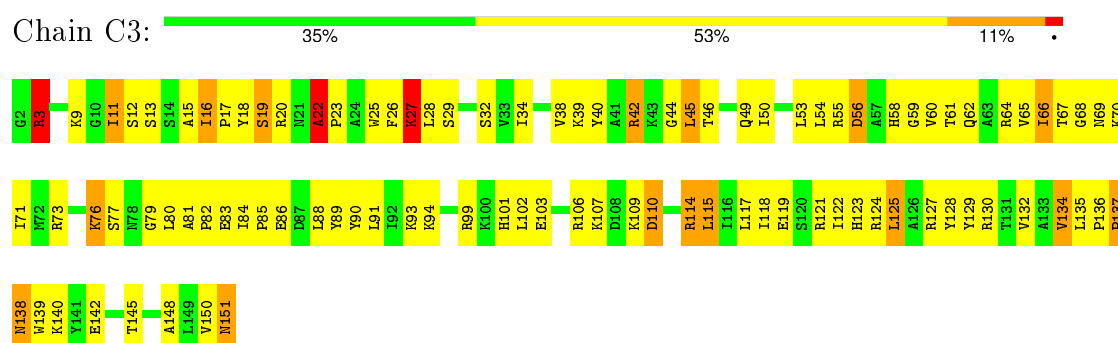
- Molecule 14: 40S ribosomal protein S12



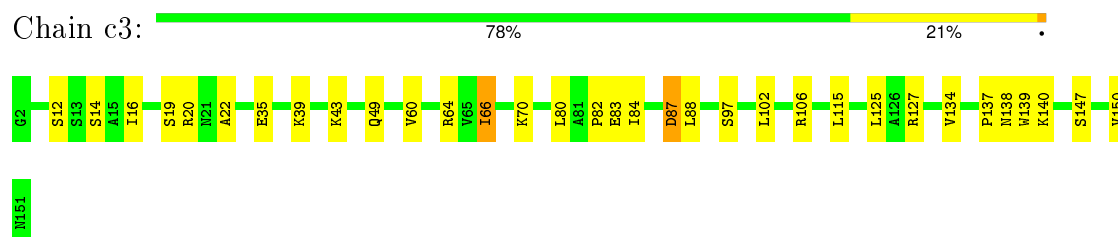
- Molecule 14: 40S ribosomal protein S12



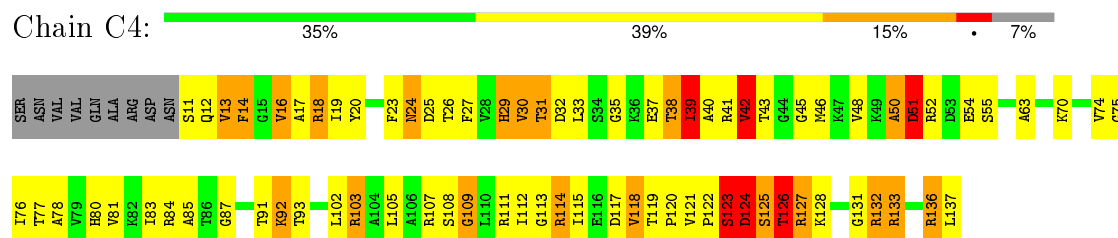
- Molecule 15: 40S ribosomal protein S13



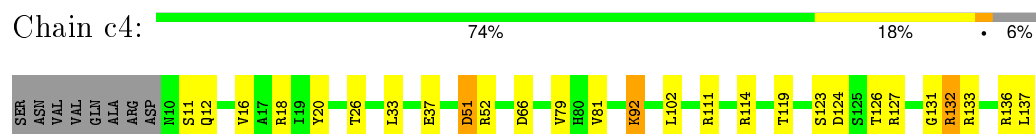
- Molecule 15: 40S ribosomal protein S13



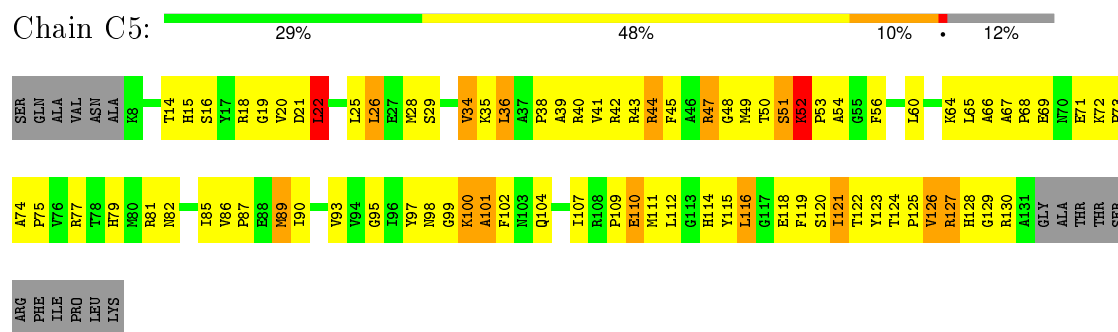
- Molecule 16: 40S ribosomal protein S14-A



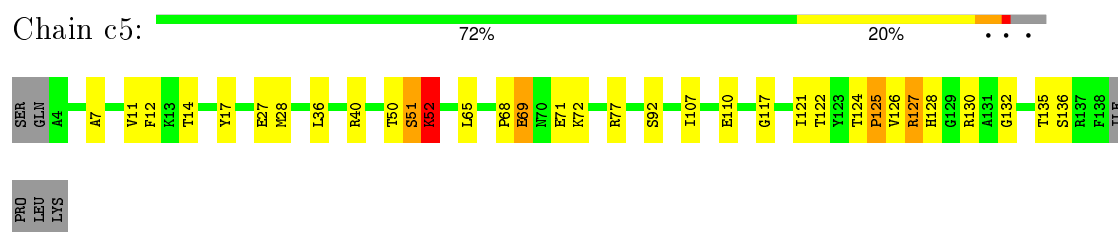
- Molecule 16: 40S ribosomal protein S14-A



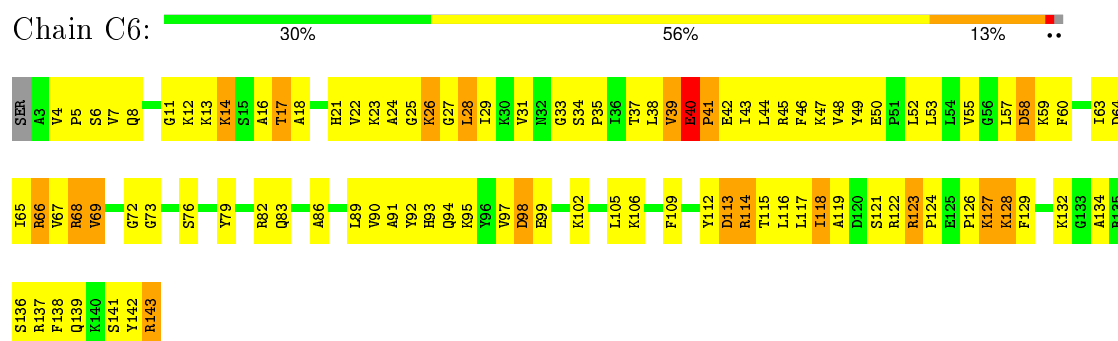
- Molecule 17: 40S ribosomal protein S15




- Molecule 17: 40S ribosomal protein S15



- Molecule 18: 40S ribosomal protein S16-A



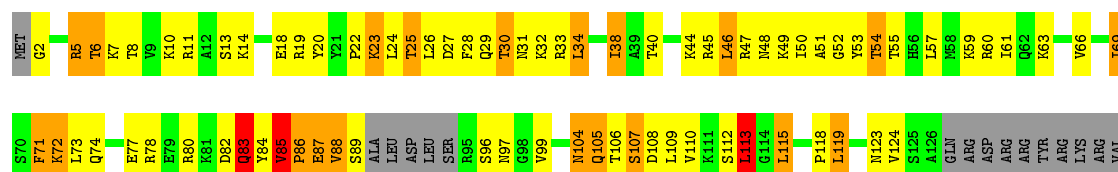
- Molecule 18: 40S ribosomal protein S16-A

Chain c6:  77% 21% •



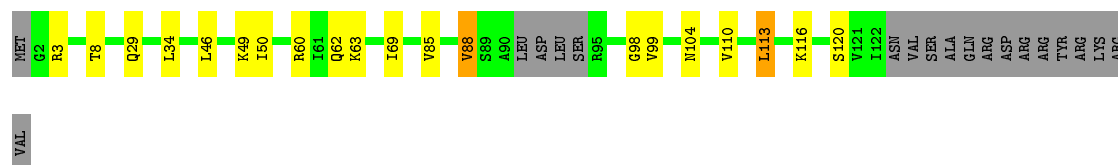
- Molecule 19: 40S ribosomal protein S17-A

Chain C7:  31% 40% 15% 12% •



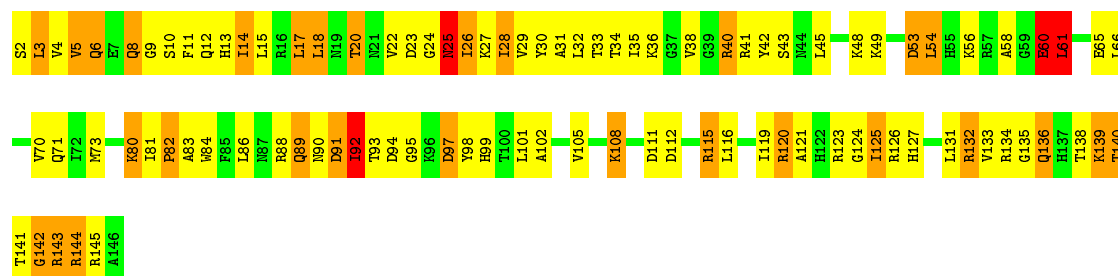
- Molecule 19: 40S ribosomal protein S17-A

Chain c7:  71% 13% 14% •




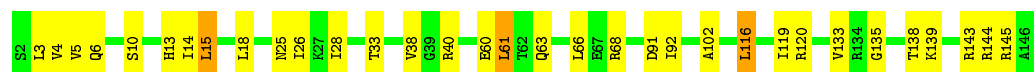
- Molecule 20: 40S ribosomal protein S18-A

Chain C8:  33% 44% 20% •



- Molecule 20: 40S ribosomal protein S18-A

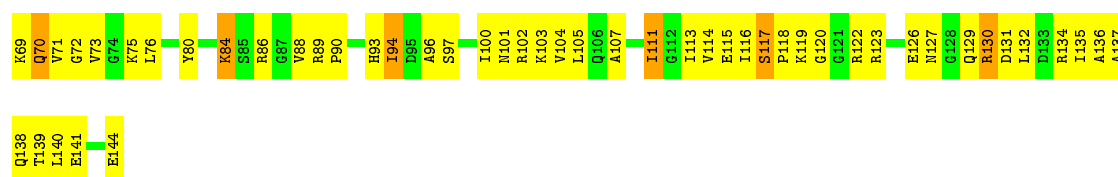
Chain c8:  77% 21% •



- Molecule 21: 40S ribosomal protein S19-A

Chain C9:  36% 52% 12%





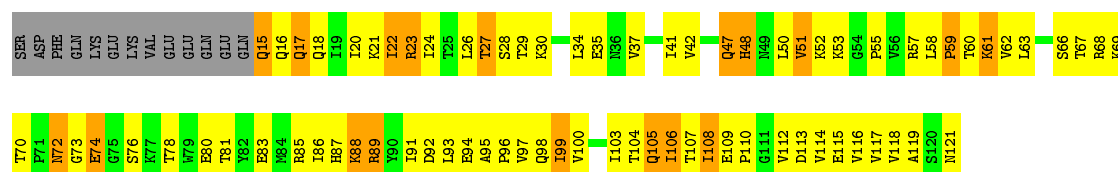
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 81% 17%



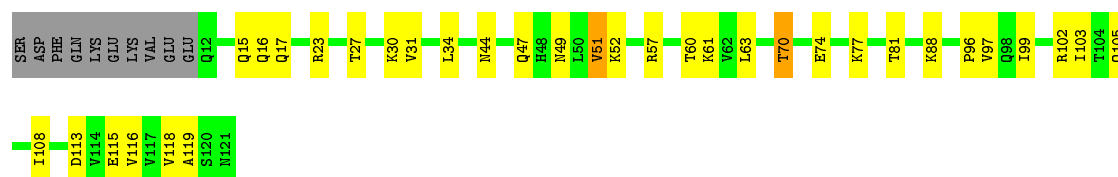
- Molecule 22: 40S ribosomal protein S20

Chain D0: 24% 50% 15% 11%



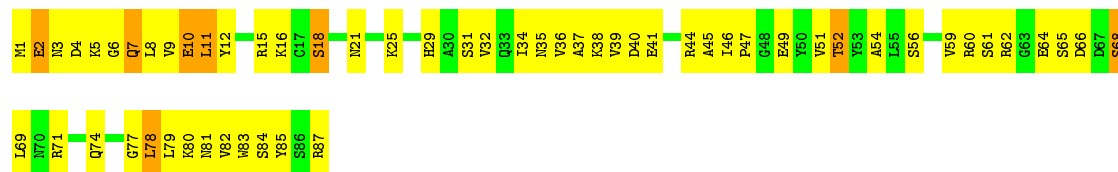
- Molecule 22: 40S ribosomal protein S20

Chain d0: 63% 27% 8%



- Molecule 23: 40S ribosomal protein S21-A

Chain D1: 33% 57% 9%

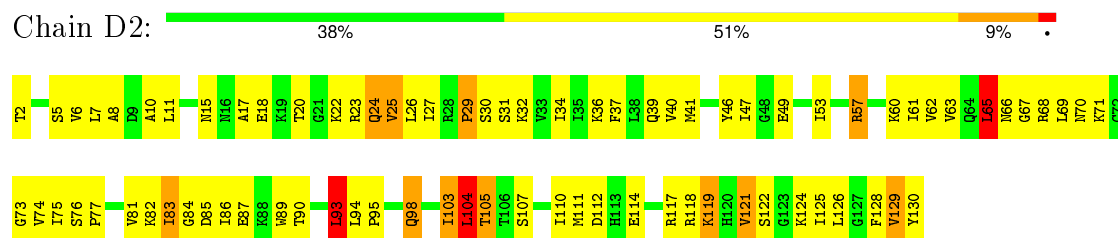


- Molecule 23: 40S ribosomal protein S21-A

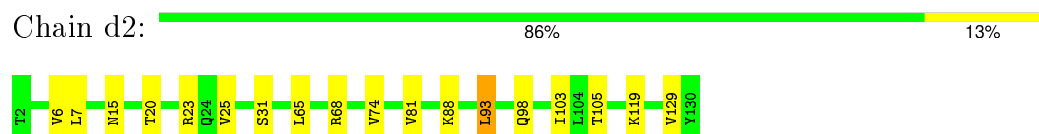
Chain d1: 75% 24%



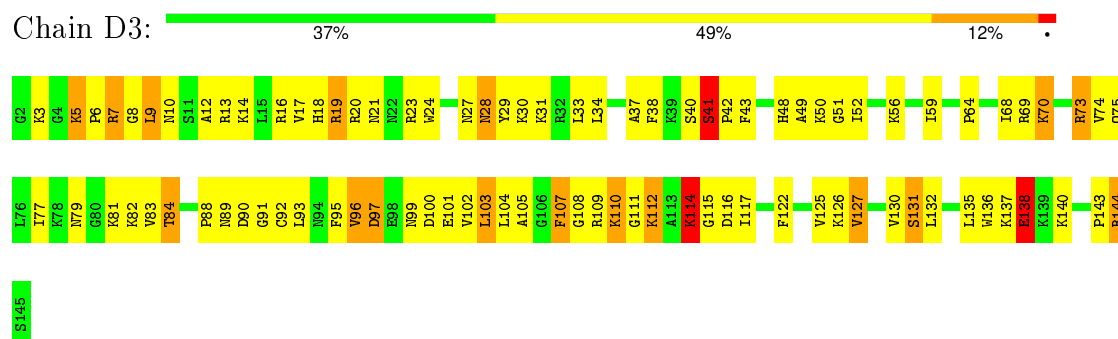
- Molecule 24: 40S ribosomal protein S22-A



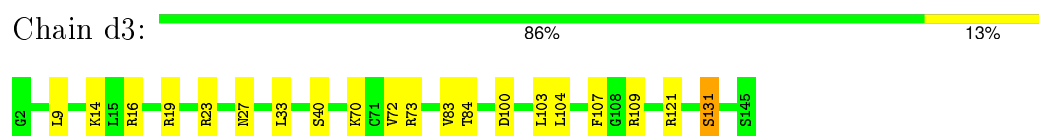
- Molecule 24: 40S ribosomal protein S22-A



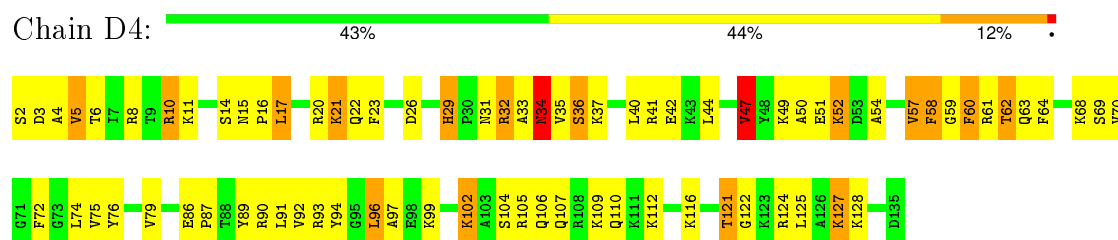
- Molecule 25: 40S ribosomal protein S23-A



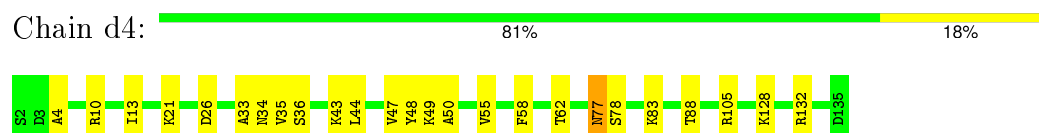
- Molecule 25: 40S ribosomal protein S23-A



- Molecule 26: 40S ribosomal protein S24-A

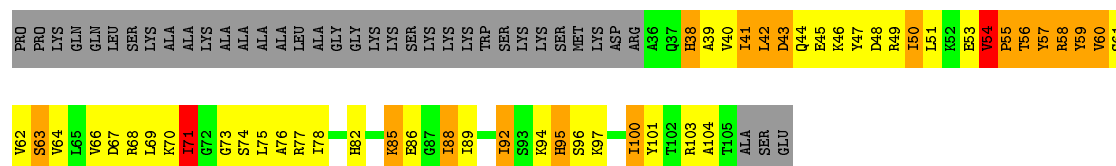


- Molecule 26: 40S ribosomal protein S24-A



- Molecule 27: 40S ribosomal protein S25-A

Chain D5:  17% 31% 16% 35%

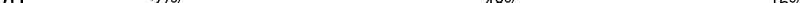


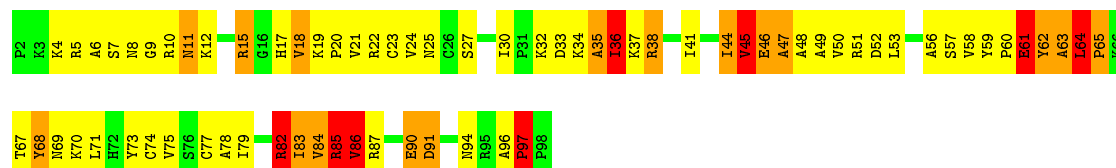
- Molecule 27: 40S ribosomal protein S25-A

Chain d5: 50% 15% 36%



- Molecule 28: 40S ribosomal protein S26-B

Chain D6: 



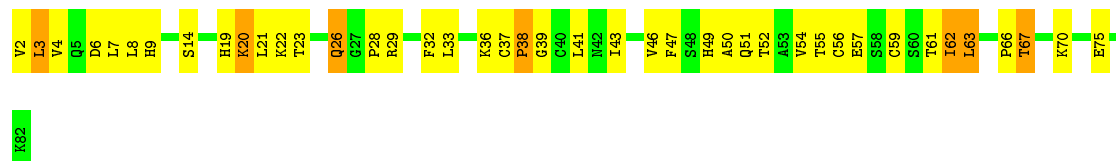
- Molecule 28: 40S ribosomal protein S26-B

Chain d6:

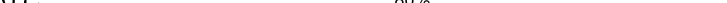


- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 



- Molecule 29: 40S ribosomal protein S27-A

Chain d7:  80% 19%



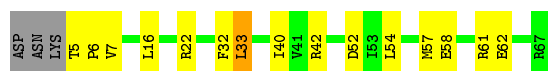
- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 33% 47% 14% 5%



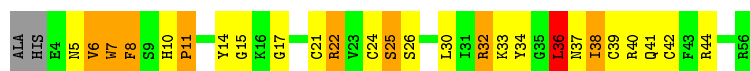
- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 73% 21% 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 49% 31% 15% 5%



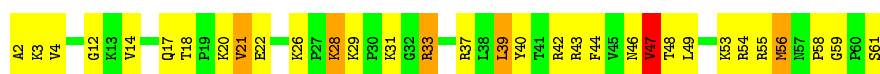
- Molecule 31: 40S ribosomal protein S29-A

Chain d9: 71% 25% 5%



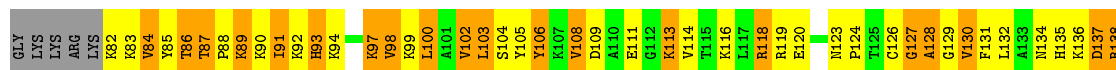
- Molecule 32: 40S ribosomal protein S30-A

Chain E0: 47% 43% 8% 5%



- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 24% 37% 33% 7%



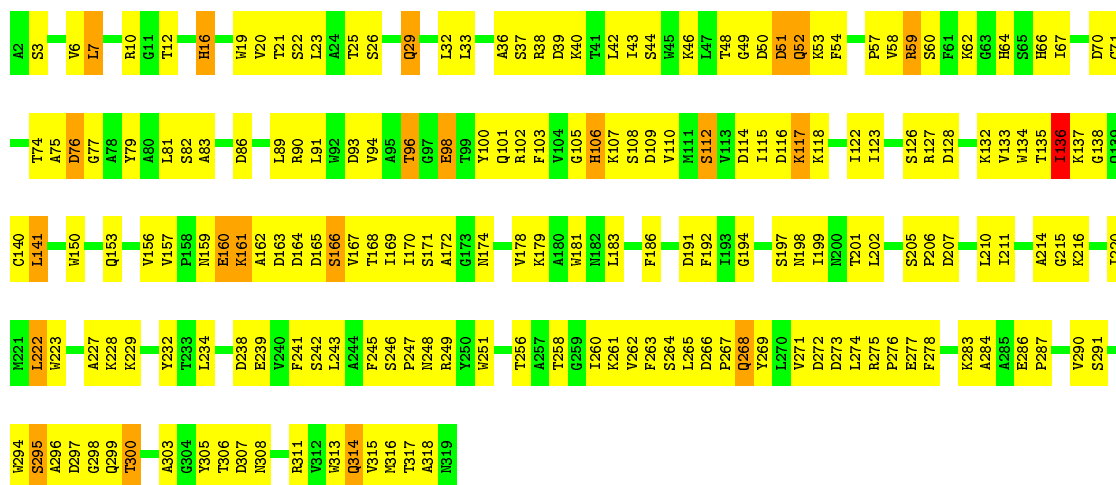
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1: 59% 34% 7%



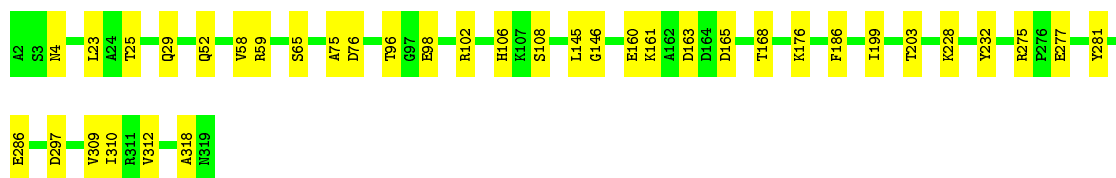
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR: 40% 53% 7%



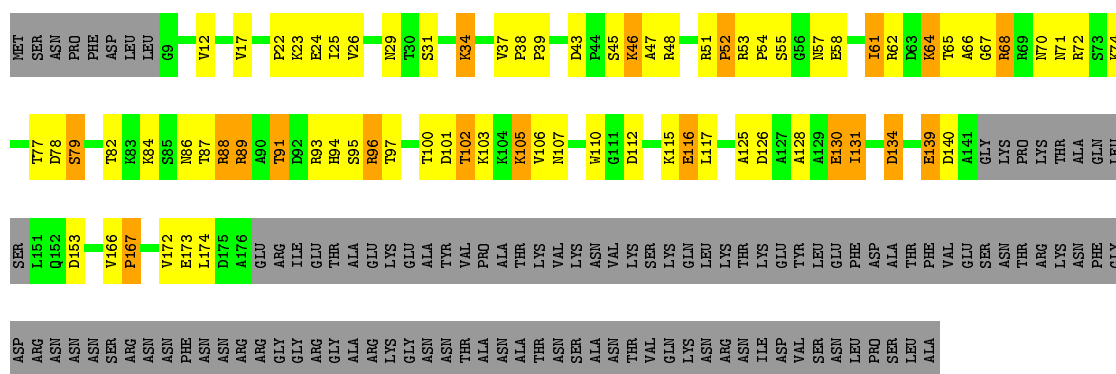
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR: 88% 12%



• Molecule 35: Suppressor protein STM1

Chain SM: 30% 21% 7% 42%



• Molecule 36: 25S ribosomal RNA

Chain 1: 33% 39% 17% 7%

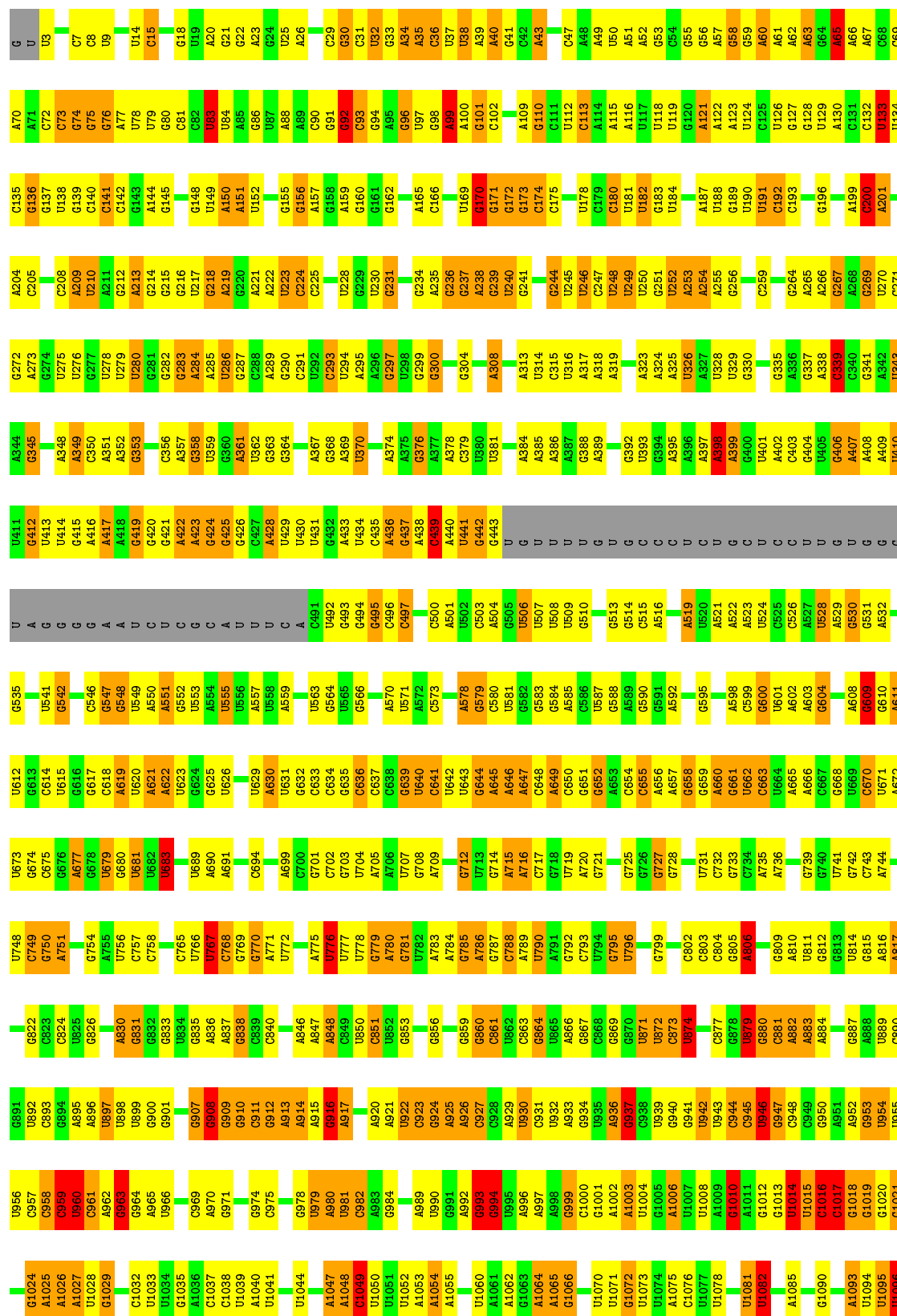
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G1145	A1074	A1003	C838	C863	G792	U707	U639	A572	G	U430	A357	A289	U217	U134	C72	U4
	A1075	U1004	U939	G864	C793	A708	C641	U574	U	U430	G358	G290	G218	U135	C73	G5
G1148	U1078	A1006	G941	G870	U794	A709	C641	C574	G494	C435	U359	C291	G219	G136	G74	A6
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A1150	A1080		U943	U872	U797	G712	A645			G437	U362	A295	C220	U138	C8	
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A1152	U1082	G1013	U874	G875	G799	G714	A647	C580	A501	C439	G363	G297	A222	U140	A77	
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A1165	G1101	U1026	C958	G887	G812	C730	A660	C593	U520	U	A385	U315	A238	G162	G92	G24
G1166	A1102	G1028	C959	U888	G813	G737	C661	U594	A521	C	A386	U316	G239	G163	G93	U25
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G1177	U1114		G971			U756	A672	A608	A537	U	A398		U252	C180	G103	
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		U1056	G984	U920	C840	U777	U687	U622	U553	U	U412	G342	A266	U118	G53	
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C2237	C2237	C2163	A	A1900	G1811	U1740	C1644	A1571	C1502	U1436	G1367	U1305	G1233
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G2248	G2248	U2171	C	C1907	U1818	U1743	G1658	U1578	A1509	G1445	G1374	C1312	U1241
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C2250	C2250	U2173	U	A1909	U1820	C1745	G1660	C1580	U1447	A1448	G1377	U1315	G1243
U2251	U2251	G2174	G	U1910	U1821	G1746	G1661	C1581	G1513	U1449	U1378	A1244	A1245
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G2253	G2253	U2176	G	U1912	U1823	A1749	G1663	A1583	A1515	G1451	A1381	A1318	U1247
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G2258	G2258	U2185	U	C1917	U1837	C1761	G1674	A1588	G1525	C1459	U1388	C1327	A1259
U2259	U2259	A2186	G	U1918	G1838	U1762	G1675	G1592	U1526	A1460	G1389	C1328	A1260
C2260	C2260	U2187	U	U1919	U1839	U1763	A1676	A1594	C1527	A1461	C1391	G1261	G1262
U2261	U2261	G2188	G	C1920	U1840	U1764	G1680	U1595	G1528	A1462	A1392	A1330	G1263
G2262	G2262	U2189	C	U1921	U1841	U1765	U1681	C1596	U1529	U1463	A1393	A1332	G1264
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G2267	G2267	U2194	C	C1926	G1846	U1772	C1686	A1602	A1534	U1468	U1398	A1337	U1269
U2268	U2268	G2195	G	U1927	U1847	C1773	U1687	A1603	A1535	C1469	G1400	C1338	A1270
C2269	C2269	U2196	U	C1928	C1848	G1780	U1688	G1604	U1539	U1470	A1401	C1339	G1271
U2270	U2270	G2197	G	U1929	A1849	C1781	U1689	A1605	U1540	U1471	C1402	G1340	C1272
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G2276	G2276	U2203	G	U1935	U1855	U1787	U1695	U1611	U1546	U1477			
A2277	A2277	U2204	C	U1936	U1856	U1788	U1696	U1612	U1547	U1478			
U2278	U2278	G2205	U	U1937	U1857	U1789	U1697	U1613	U1548	U1479			
C2279	C2279	U2206	U	U1938	U1858	U1790	U1698	U1614	U1549	U1480			
U2280	U2280	G2207	G	U1939	U1859	U1791	U1699	U1615	U1550	U1481			
A2281	A2281	U2208	C	U1940	U1860	U1792	U1700	U1616	U1551	U1482			
G2282	G2282	G2209	U	U1941	U1861	U1793	U1701	U1617	U1552	U1483			
U2283	U2283	U2210	U	U1942	U1862	U1794	U1702	U1618	U1553	U1484			
C2284	C2284	G2211	G	U1943	U1863	U1795	U1703	U1619	U1554	U1485			
U2285	U2285	U2212	C	U1944	U1864	U1796	U1704	U1620	U1555	U1486			
G2286	G2286	G2213	U	U1945	U1865	U1797	U1705	U1621	U1556	U1487			
A2287	A2287	U2214	C	U1946	U1866	U1798	U1706	U1622	U1557	U1488			
G2288	G2288	G2215	U	U1947	U1867	U1799	U1707	U1623	U1558	U1489			
U2289	U2289	U2216	G	U1948	U1868	U1800	U1708	U1624	U1559	U1490			
C2290	C2290	G2217	C	U1949	U1869	U1801	U1709	U1625	U1560	U1491			
U2291	U2291	U2218	U	U1950	U1870	U1802	U1710	U1626	U1561	U1492			
A2292	A2292	G2219	G	U1951	U1871	U1803	U1711	U1627	U1562	U1493			
G2293	G2293	U2220	C	U1952	U1872	U1804	U1712	U1628	U1563	U1494			
U2294	U2294	G2221	U	U1953	U1873	U1805	U1713	U1629	U1564	U1495			
C2295	C2295	U2222	A	U1954	U1874	U1806	U1714	U1630	U1565	U1496			
U2296	U2296	G2223	G	U1955	U1875	U1807	U1715	U1631	U1566	U1497			
G2297	G2297	U2224	C	U1956	U1876	U1808	U1716	U1632	U1567	U1498			
U2298	U2298	G2225	U	U1957	U1877	U1809	U1717	U1633	U1568	U1499			
C2299	C2299	U2226	C	U1958	U1878	U1810	U1718	U1634	U1569	U1500			
U2300	U2300	G2227	U	U1959	U1879	U1811	U1719	U1635	U1570	U1501			
A2301	A2301	U2228	A	U1960	U1880	U1812	U1720	U1636	U1571	U1502			
G2302	G2302	G2229	C	U1961	U1881	U1813	U1721	U1637	U1572	U1503			
A2303	A2303	U2230	U	U1962	U1882	U1814	U1722	U1638	U1573	U1504			
C2304	C2304	G2231	G	U1963	U1883	U1815	U1723	U1639	U1574	U1505			
U2305	U2305	U2232	C	U1964	U1884	U1816	U1724	U1640	U1575	U1506			
G2306	G2306	G2233	U	U1965	U1885	U1817	U1725	U1641	U1576	U1507			
U2307	U2307	U2234	A	U1966	U1886	U1818	U1726	U1642	U1577	U1508			
C2308	C2308	G2235	C	U1967	U1887	U1819	U1727	U1643	U1578	U1509			
A2309	A2309	U2236	U	U1968	U1888	U1820	U1728	U1644	U1579	U1510			
U2310	U2310	G2237	G	U1969	U1889	U1821	U1729	U1645	U1580	U1511			
C2311	C2311	U2238	C	U1970	U1890	U1822	U1730	U1646	U1581	U1512			
A2312	A2312	G2239	U	U1971	U1891	U1823	U1731	U1647	U1582	U1513			
G2313	G2313	U2240	U	U1972	U1892	U1824	U1732	U1648	U1583	U1514			
U2314	U2314	G2241	G	U1973	U1893	U1825	U1733	U1649	U1584	U1515			
C2315	C2315	U2242	C	U1974	U1894	U1826	U1734	U1650	U1585	U1516			
U2316	U2316	G2243	U	U1975	U1895	U1827							

G3315	A3316	G3317	G3318	A3319	A3320	G3321	A3322	A3323	G3326	G3327	G3328	U3329	A3330	U3331	U3332	A3335	A3336	G3340	U3341	A3342	G3343	A3344	G3345	U3350	U3351	G3352	G3353	A3354	U3355	G3356	U3357	U3358	A3359	C3360	G3361	A3362	U3363	C3364	U3365	G3366	C3367	U3368	G3369	A3375	A3376	G3377	G3378	U3382	G3383	U3384						
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A3244	A3245	G3246	G3247	U3251	G3252	G3253	U3259	G3265	A3266	A3267	A3268	U3269	U3270	U3271	U3272	U3273	U3274	U3275	U3276	U3277	U3278	U3279	U3280	U3281	U3282	U3283	U3284	U3285	U3286	U3287	U3288	U3289	U3290	U3291	U3292	U3293	U3294	U3295	U3296	U3297	U3298	U3299	U3302	U3303	U3304	U3305	U3306	U3307	U3308	U3309	U3310	U3311	U3312	U3313	U3314	
G3101	G3102	A3103	A3106	U3107	G3108	G3109	G3110	G3111	G3112	G3113	A3114	G3115	G3116	G3117	A3118	G3119	A3120	U3121	A3122	G3128	A3129	G3130	U3131	G3132	U3133	U3134	U3135	G3136	G3137	U3138	A3139	G3140	A3141	A3142	G3143	U3148	G3149	A3150	U3151	U3152	U3153	G3154	U3155	U3156	U3157	G3158	G3159	U3160	G3161	A3162	A3163	G3164	A3165	G3166	A3167	A3168
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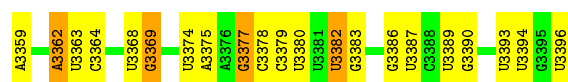
• Molecule 36: 25S ribosomal RNA

Chain 5: 



C2192	C2128	G	U	U1853	G1790	U1695	G1604	U1533	G1464	A1394	G1323	U1241	U1162	G1097
A2198	U2129	G	G	C1856	C1791	A1696	A1605	U1533	A1464	G1395	G1329	G1242	A1098	A1098
A2199	A2130	U	C	C1857	C1792	A1699	U1606	G1536	A1465	C1396	A1330	G1243	A1099	A1099
U2200	A2131	A	U	C1857	C1793	A1699	U1607	G1536	A1466	C1397	A1330	G1244	U1100	U1100
G2201	U2132	G	U	A1858	C1794	G1700	C1608	G1541	A1467	U1398	U1331	A1245	G1101	G1101
G2202	U2133	G	U	A1859	C1795	C1701	C1609	G1542	A1468	A1399	A1332	G1246	A1102	A1102
U2203	G2134	U	U	G1863	U1796	U1702	U1610	G1542	G1400	C1393	C1333	G1249	A1103	A1103
C2204	U2135	C	U	U1863	C1797	C1710	A1613	G1547	U1472	U1334	U1334	G1250	A1170	G1104
U2205	C2136	U	G	C1866	A1798	C1711	C1614	G1548	G1473	C1335	C1335	G1251	U1108	U1108
G2206	U2137	C	G	A1867	A1799	C1711	C1615	G1549	A1474	U1336	A1337	A1252	C1175	U1109
A2207	A2138	U	G	G1868	A1800	G1716	U1620	U1553	A1475	U1405	A1337	U1253	U1110	U1110
A2208	U2140	G	C	U1868	A1801	U1717	U1621	U1553	A1476	A1406	C1338	C1254	U1111	U1111
U2209	U2141	U	U	A1874	C1802	G1718	A1621	U1554	A1477	G1408	U1258	G1259	A1112	A1112
G2210	A2142	A	U	G1875	C1803	G1719	U1622	U1555	C1478	G1409	A1259	A1180	G1113	G1113
U2211	C2143	G	U	A1876	A1804	U1720	U1623	U1556	A1479	U1410	A1260	U1181	U1114	U1114
C2212	A2144	A	C	U1877	C1805	U1721	A1639	C1566	A1480	C1411	U1353	A1261	G1115	G1115
A2213	U2145	C	U	G1878	A1806	U1722	G1620	G1560	A1481	G1412	U1353	G1262	C1183	G1116
C2214	C2146	C	C	A1879	C1807	A1723	C1631	G1561	A1482	G1413	U1349	A1263	G1117	G1117
A2215	U2147	G	U	U1880	G1808	U1724	A1632	C1562	A1483	U1414	U1351	A1264	C1118	C1118
G2220	U2148	U	G	A1881	A1809	C1725	A1637	C1563	G1487	U1415	A1352	U1265	C1189	C1119
C2221	A2149	C	C	U1882	A1810	C1726	U1638	U1564	G1488	G1416	U1353	U1266	U1120	U1120
A2222	G2150	G	U	G1883	C1811	G1727	A1639	G1565	A1489	G1417	U1353	U1265	U1121	U1121
U2223	U2153	C	A	U1884	G1812	G1733	G1640	A1566	A1490	A1418	G1354	A1265	U1122	U1122
C2224	C2154	U	G	A1885	A1813	G1734	U1641	U1567	A1491	A1419	A1355	A1270	U1191	U1191
U2225	G2155	G	C	A1886	A1814	G1735	U1642	U1568	A1492	C1420	U1357	A1271	C1192	U1124
C2226	U2156	C	C	U1887	C1815	G1736	A1643	U1569	G1493	G1422	G1357	U1276	U1125	U1125
G2227	C2157	U	G	U1888	A1817	A1736	U1644	U1570	A1494	C1423	C1359	U1276	G1126	G1126
A2228	A2158	A	A	A1891	G1818	U1750	U1645	U1572	U1495	C1424	G1362	G1289	U1127	U1127
C2229	U2159	C	U	U1890	A1819	G1761	U1658	G1573	C1496	U1427	U1362	A1290	A1197	A1197
G2230	C2160	U	C	U1891	U1820	A1762	U1659	C1574	C1499	A1428	A1363	A1290	C1198	A1198
C2231	A2161	A	A	U1894	A1821	G1763	U1660	C1575	C1500	A1429	C1364	G1295	C1199	A1130
U2232	C2162	U	C	A1895	C1822	C1764	G1662	G1576	A1501	U1430	U1366	G1296	A1200	G1131
A2233	A2164	U	C	U1896	A1823	C1765	G1662	G1577	C1502	U1431	A1366	C1297	A1201	A1132
G2234	G2165	C	U	G1897	U1824	C1766	A1667	C1578	A1503	C1432	G1367	C1298	A1202	A1133
C2235	A2166	A	G	U1898	G1825	U1766	U1668	C1579	A1504	C1433	U1368	U1298	A1203	G1134
G2236	U2167	C	G	G1902	G1830	A1760	U1669	A1580	C1505	A1434	A1369	G1300	A1204	A1135
A2243	C2168	C	C	G1906	U1831	C1761	C1669	C1581	C1506	G1434	U1370	A1301	A1205	A1136
A2244	U2169	G	U	C1907	A1832	C1762	G1661	C1582	A1507	A1435	C1371	A1302	U1208	C1137
C2245	U2170	C	C	A1907	G1833	U1763	G1662	U1583	G1507	U1436	C1372	A1303	G1209	U1138
U2246	A2174	U	C	A1910	U1834	U1765	A1667	C1585	A1509	U1438	G1374	U1305	A1212	A1143
C2248	U2175	C	U	U1911	U1837	G1766	U1668	G1586	G1513	U1439	C1375	G1306	G1213	U1144
G2249	U2176	U	U	U1912	G1838	G1769	C1669	A1587	G1514	A1440	G1377	A1308	G1147	U1145
U2250	A2178	G	G	A1913	A1839	C1770	G1677	A1588	A1515	U1445	U1378	U1309	U1220	C1146
C2253	C2179	U	U	G1914	U1840	C1771	G1678	A1590	C1516	A1446	G1379	A1310	A1221	G1148
U2254	G2180	G	C	A1915	A1841	U1772	C1677	G1591	G1517	G1447	G1380	G1311	G1222	G1149
A2255	C2181	U	U	U1916	A1842	C1773	U1678	G1592	U1518	U1448	A1381	C1312	A1150	A1150
C2256	A2182	A	U	C1917	C1843	U1773	A1683	G1593	G1519	A1449	G1375	G1313	U1151	U1151
U2258	U2183	G	A	U1918	C1844	G1778	U1684	A1594	G1520	G1450	C1385	C1314	G1152	G1152
G2259	C2184	C	C	G1919	G1845	C1779	U1685	U1595	G1521	U1451	A1386	U1315	C1232	A1153
U2260	A2185	A	U	U1920	A1846	C1780	U1686	C1596	U1522	A1452	G1387	C1316	C1155	C1155
C2261	G2186	U	C	U1921	C1847	C1781	U1687	C1597	U1523	U1455	U1388	A1317	U1235	C1156
U2262	A2187	G	G	G1922	A1848	U1782	U1688	G1598	A1524	U1456	G1389	A1318	G1236	G1157
C2263	U2188	U	U	U1923	C1849	U1782	U1689	G1599	G1528	A1456	A1390	G1319	G1237	A1158
U2264	G2189	C	G	G1924	A1850	U1785	U1690	U1600	G1529	A1460	C1391	C1320	C1238	A1159
C2265	U2190	U	C	A1925	G1851	G1786	U1691	U1601	U1530	A1461	A1393	G1321	C1239	C1160
U2266	A2191	C	U	U1932	G1852	A1787	U1691	U1601	U1530	A1461	A1393	U1322	A1240	G1161





• Molecule 37: 5S ribosomal RNA

Chain 3: 39% 50% 11%



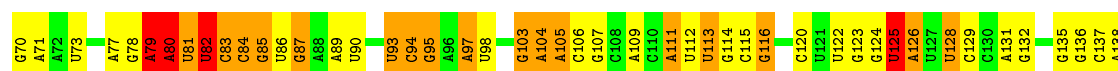
• Molecule 37: 5S ribosomal RNA

Chain 7: 35% 43% 17% 6%



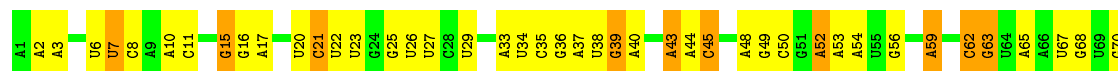
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 34% 41% 22%



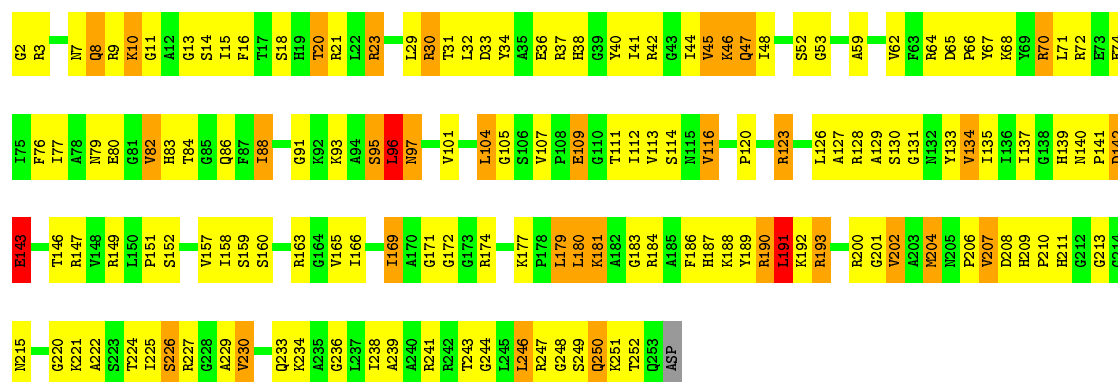
• Molecule 38: 5.8S ribosomal RNA

Chain 8: 36% 46% 15%

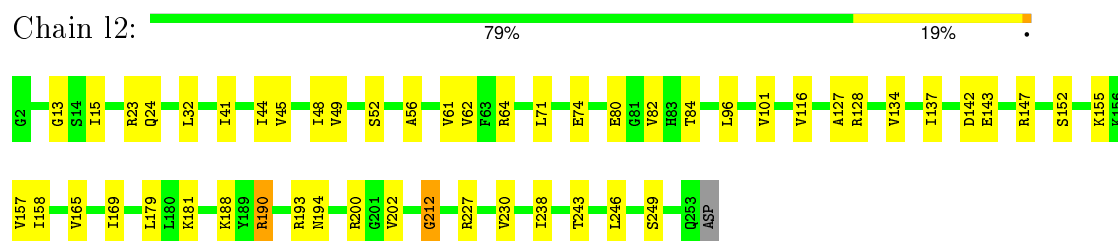


• Molecule 39: 60S ribosomal protein L2-A

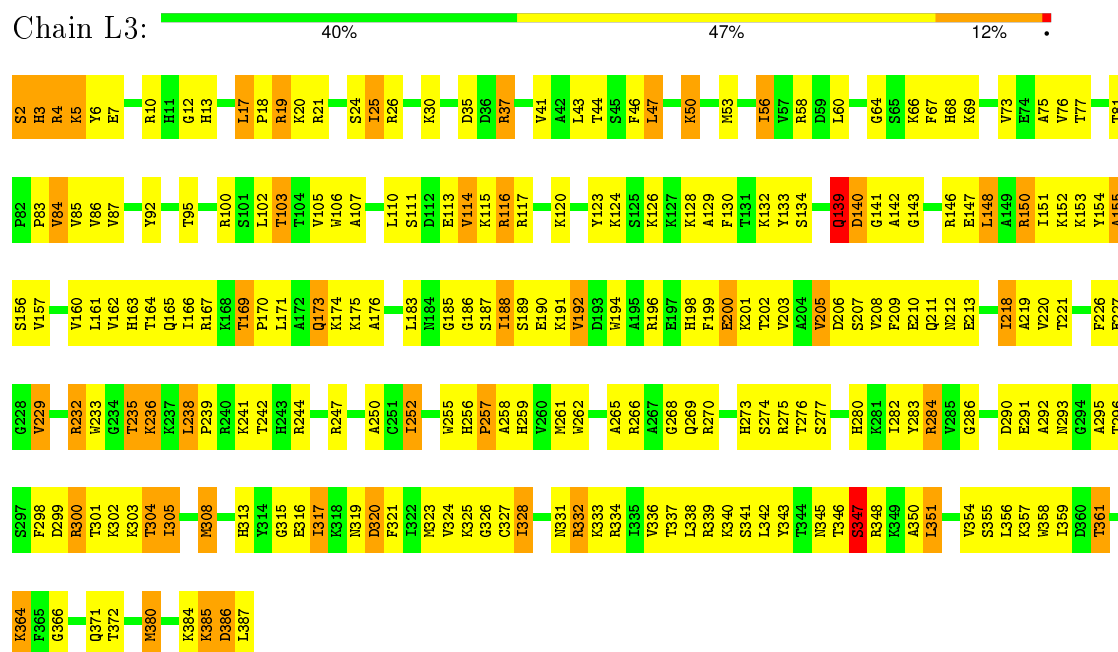
Chain L2: 40% 46% 13%



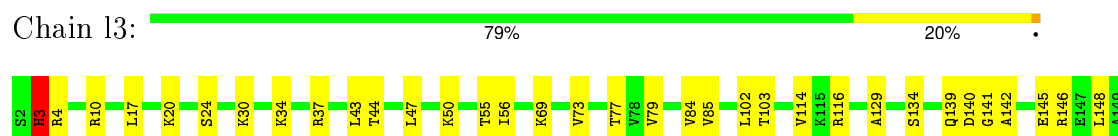
• Molecule 39: 60S ribosomal protein L2-A

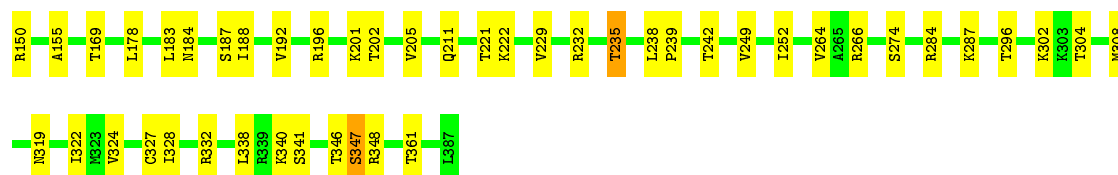


• Molecule 40: 60S ribosomal protein L3

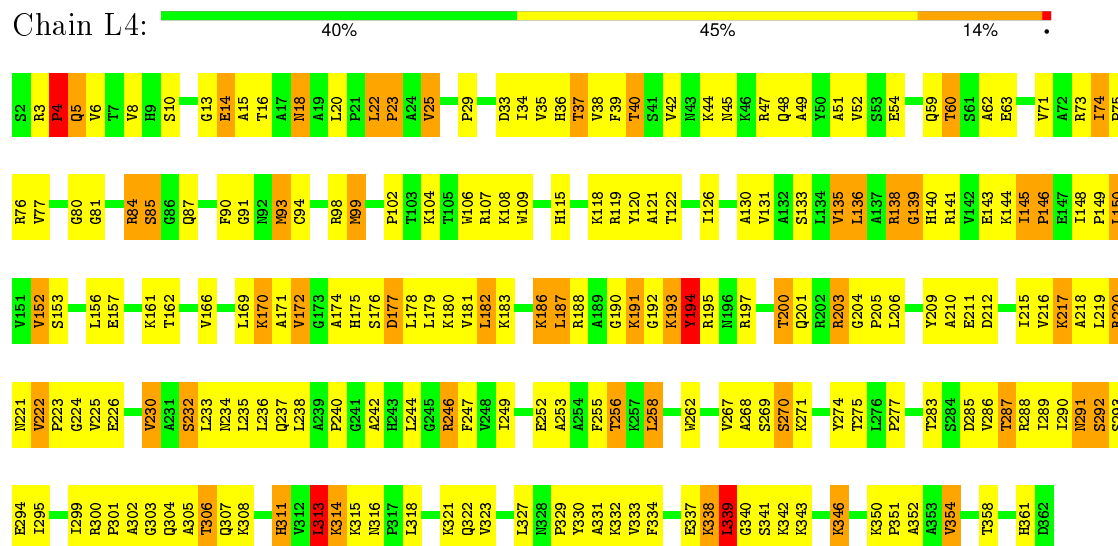


• Molecule 40: 60S ribosomal protein L3

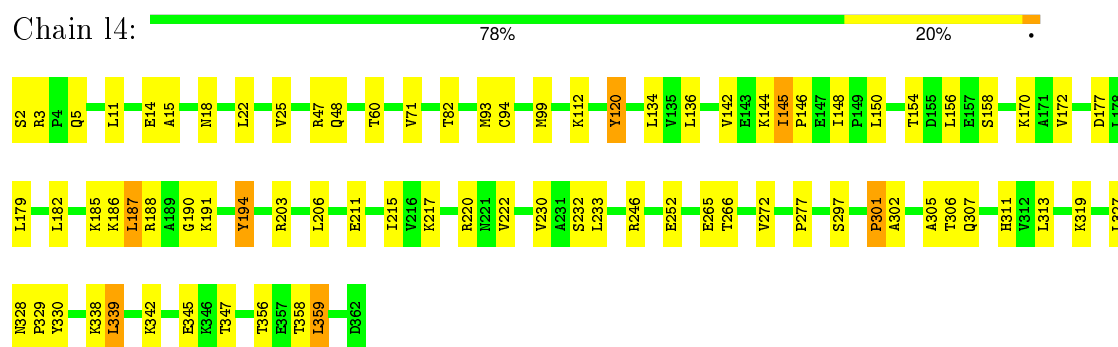




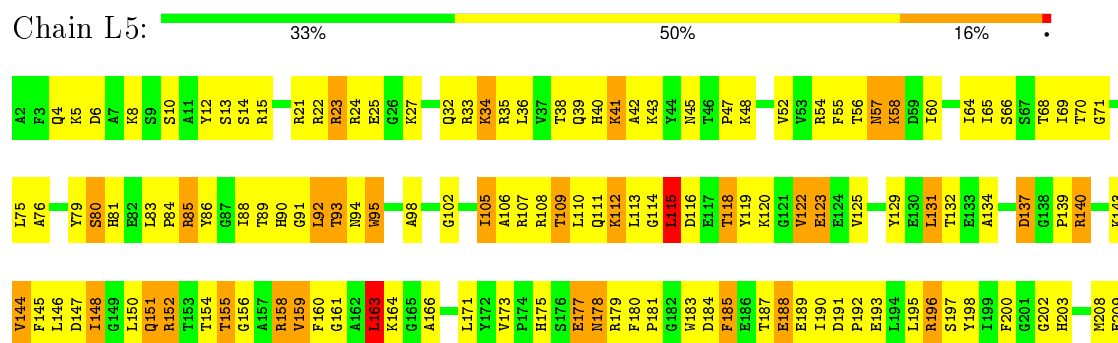
• Molecule 41: 60S ribosomal protein L4-A

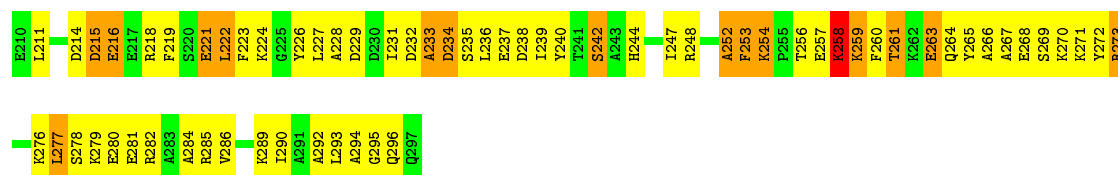


• Molecule 41: 60S ribosomal protein L4-A

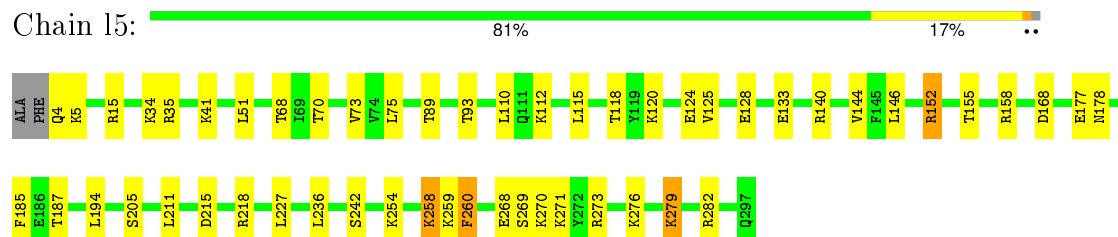


• Molecule 42: 60S ribosomal protein L5

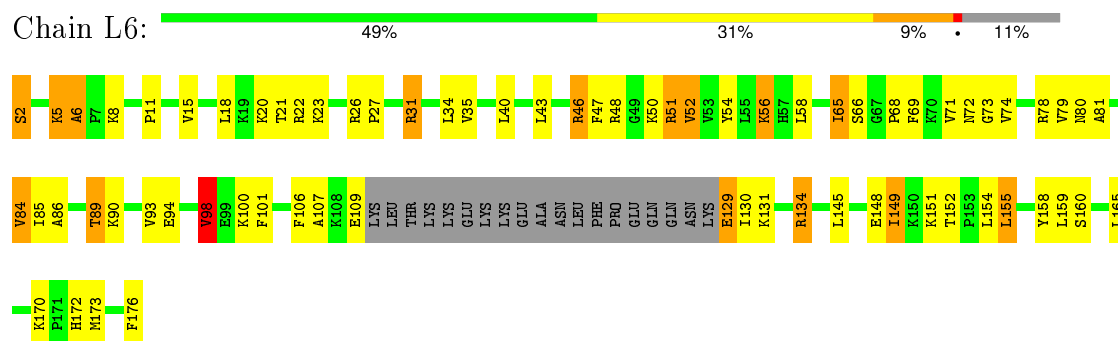




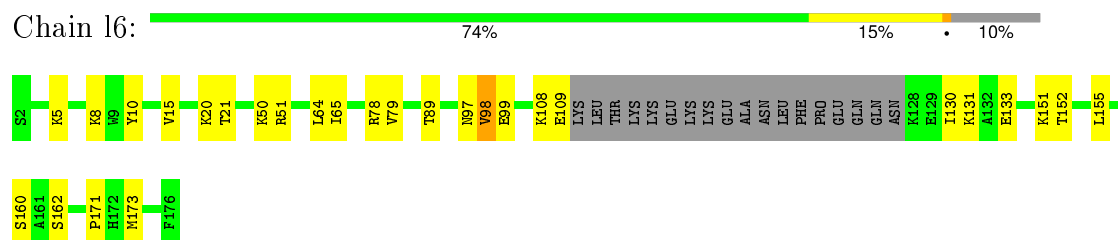
• Molecule 42: 60S ribosomal protein L5



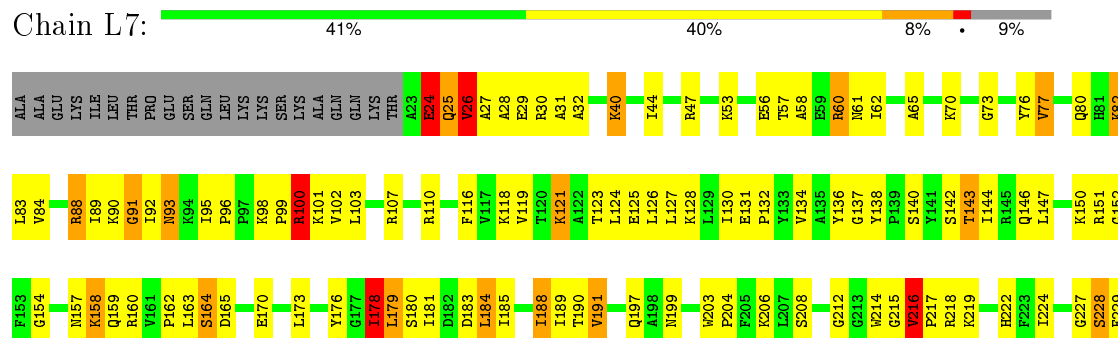
• Molecule 43: 60S ribosomal protein L6-A



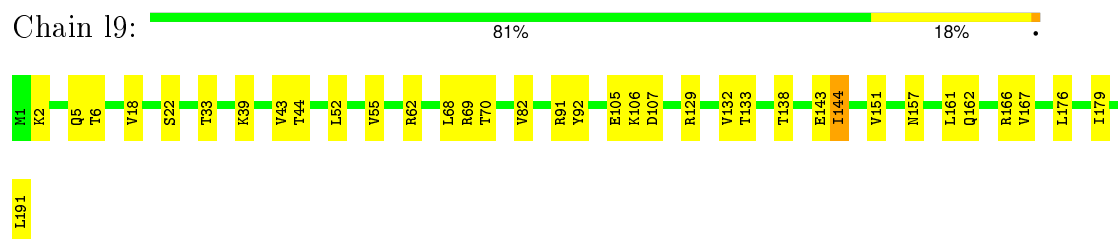
• Molecule 43: 60S ribosomal protein L6-A



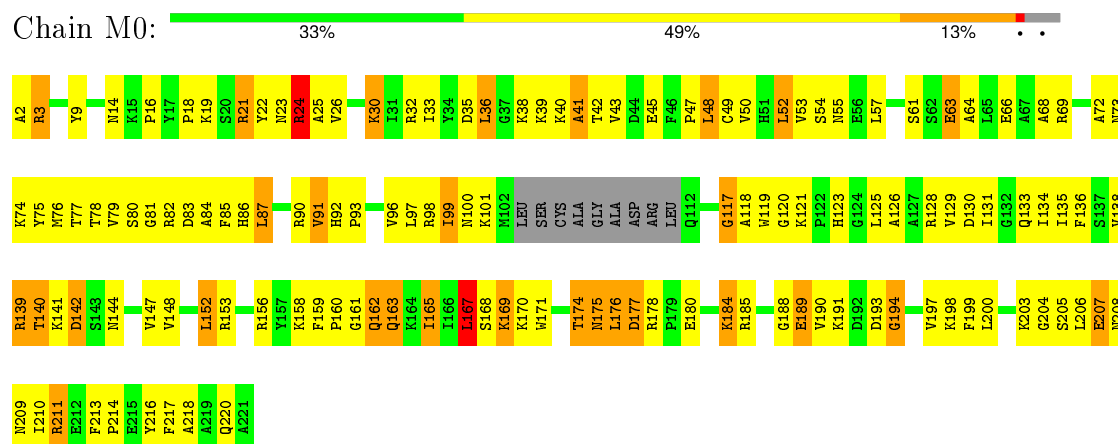
• Molecule 44: 60S ribosomal protein L7-A



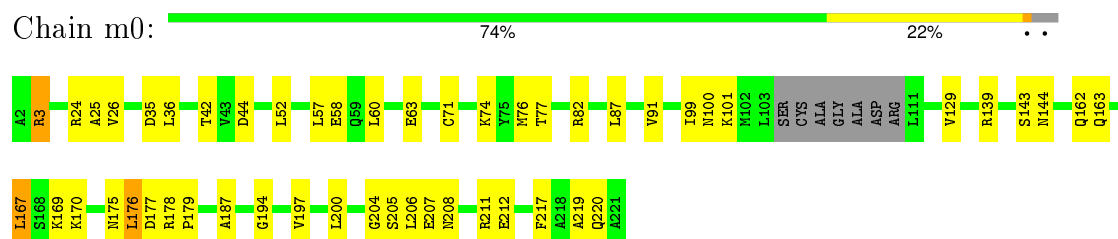
- Molecule 46: 60S ribosomal protein L9-A



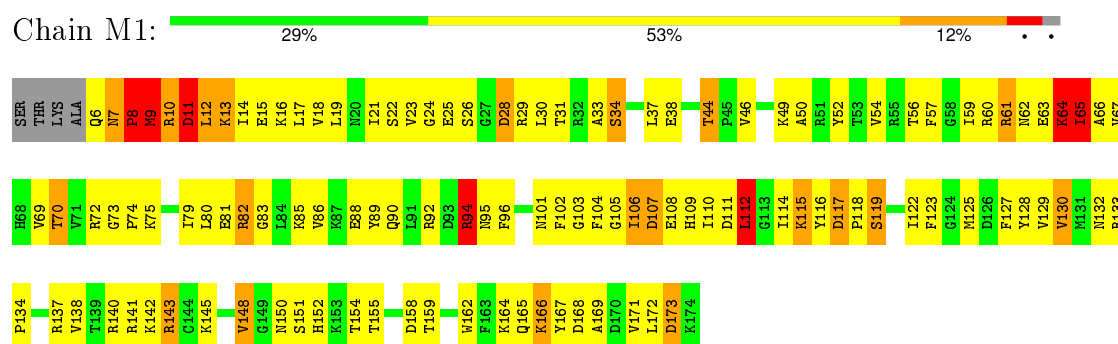
- Molecule 47: 60S ribosomal protein L10



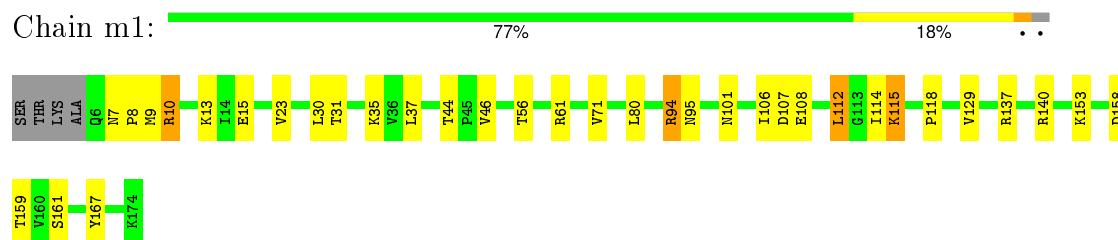
- Molecule 47: 60S ribosomal protein L10



- Molecule 48: 60S ribosomal protein L11-B



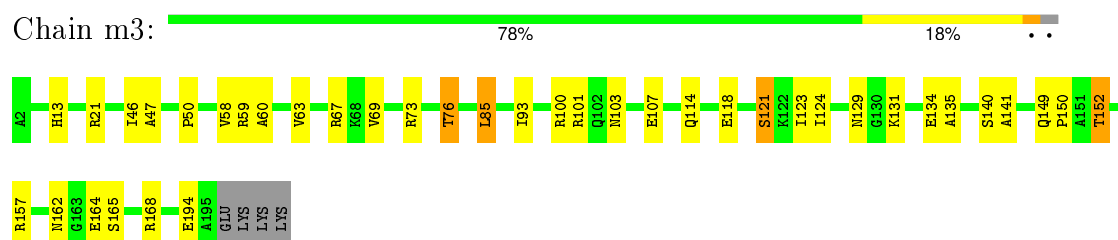
- Molecule 48: 60S ribosomal protein L11-B



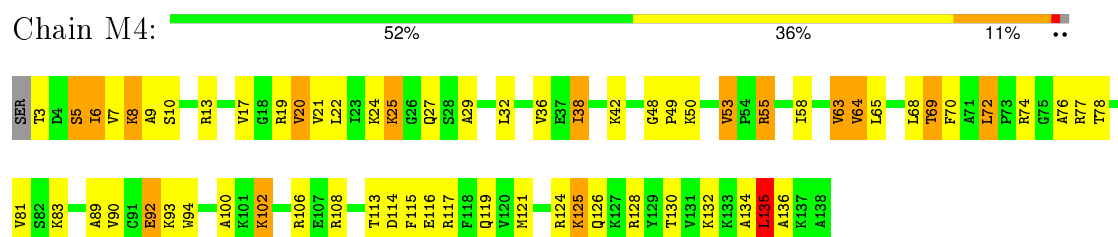
- Molecule 49: 60S ribosomal protein L13-A



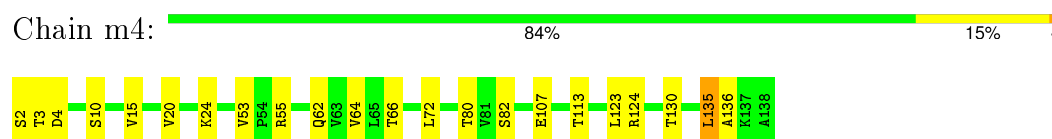
- Molecule 49: 60S ribosomal protein L13-A



- Molecule 50: 60S ribosomal protein L14-A



- Molecule 50: 60S ribosomal protein L14-A



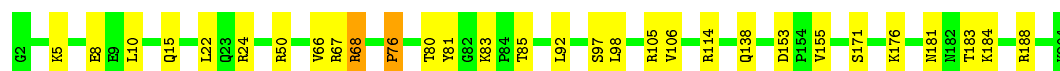
- Molecule 51: 60S ribosomal protein L15-A





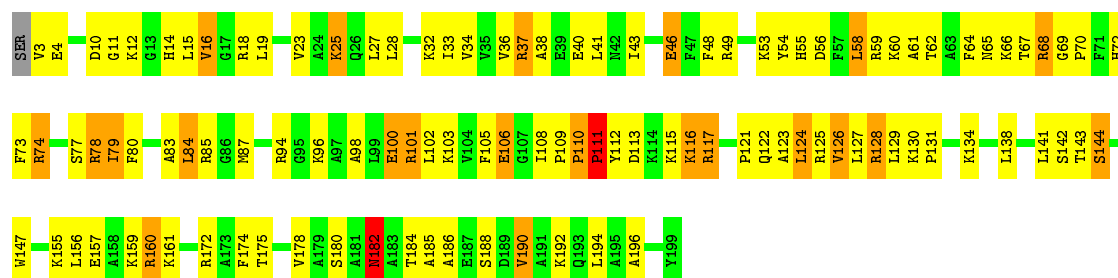
- Molecule 51: 60S ribosomal protein L15-A

Chain m5: 85% 14% .



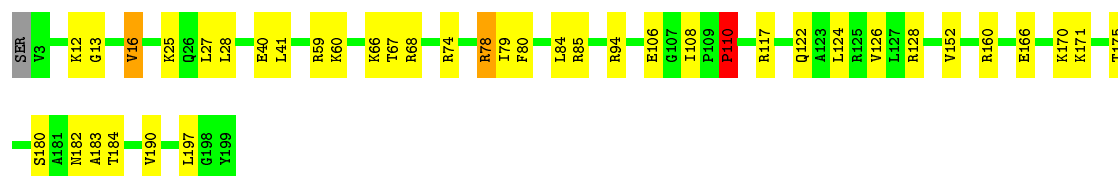
- Molecule 52: 60S ribosomal protein L16-A

Chain M6: 44% 43% 11% ..



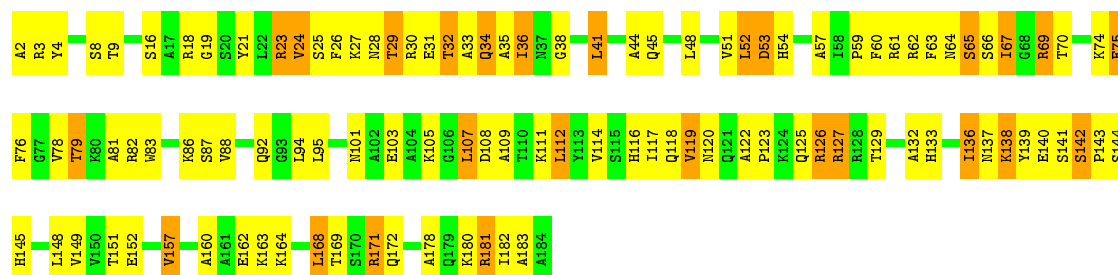
- Molecule 52: 60S ribosomal protein L16-A

Chain m6: 79% 19% ...

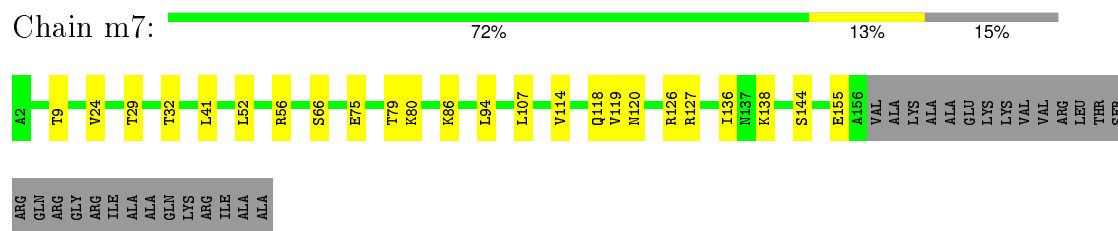


- Molecule 53: 60S ribosomal protein L17-A

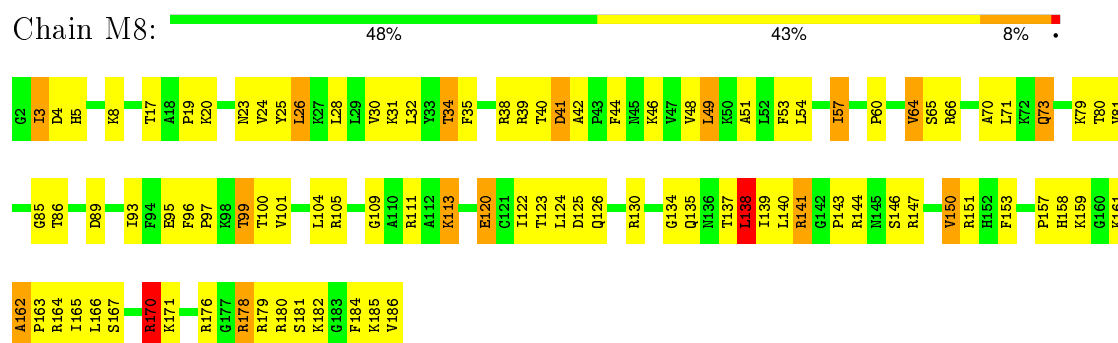
Chain M7: 41% 45% 14%



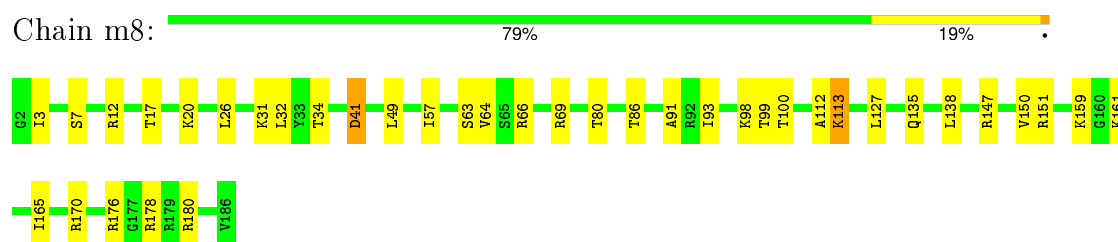
- Molecule 53: 60S ribosomal protein L17-A



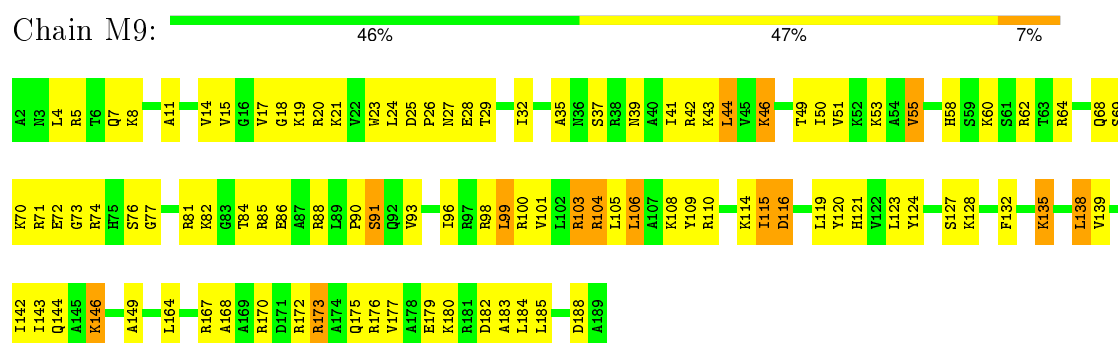
- Molecule 54: 60S ribosomal protein L18-A



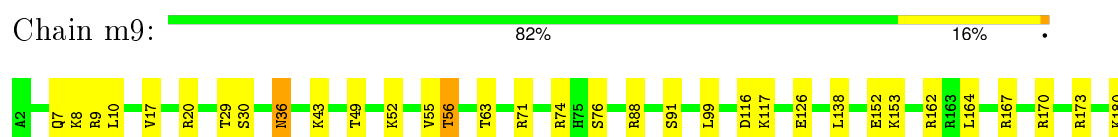
- Molecule 54: 60S ribosomal protein L18-A



- Molecule 55: 60S ribosomal protein L19-A

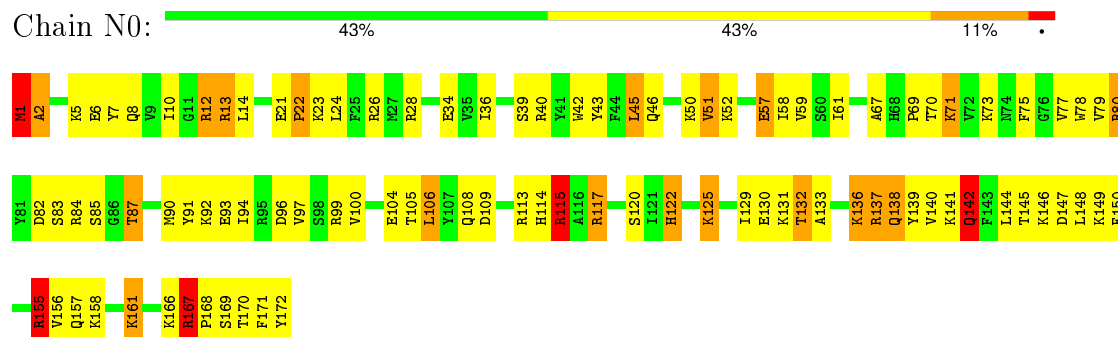


- Molecule 55: 60S ribosomal protein L19-A

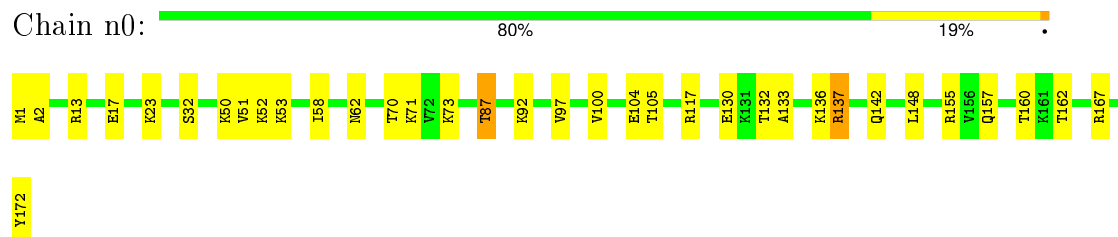




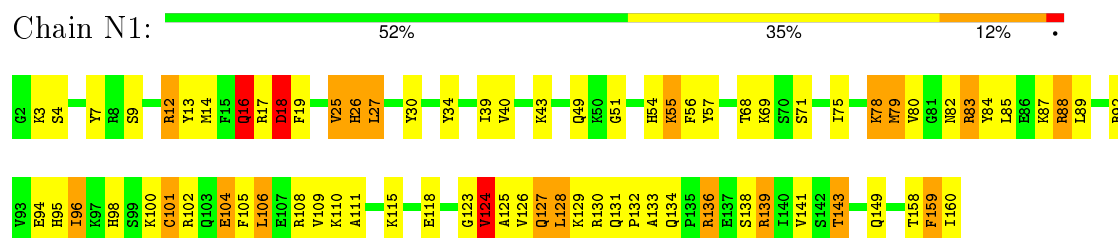
- Molecule 56: 60S ribosomal protein L20-A



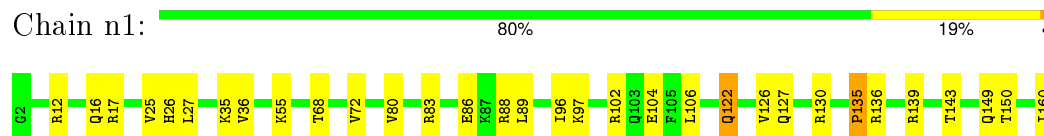
- Molecule 56: 60S ribosomal protein L20-A



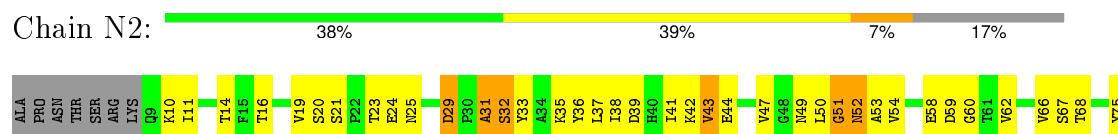
- Molecule 57: 60S ribosomal protein L21-A



- Molecule 57: 60S ribosomal protein L21-A



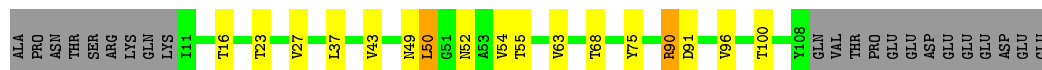
- Molecule 58: 60S ribosomal protein L22-A





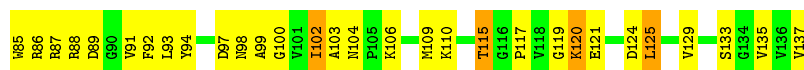
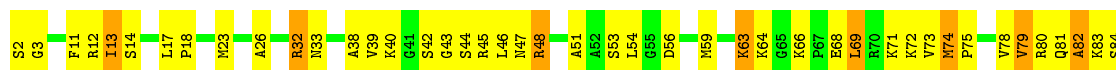
- Molecule 58: 60S ribosomal protein L22-A

Chain n2: 68% 13% 18%



- Molecule 59: 60S ribosomal protein L23-A

Chain N3: 46% 46% 9%



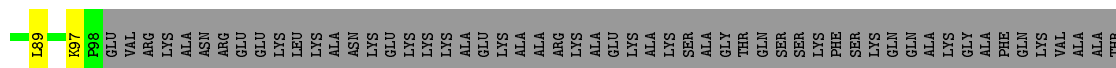
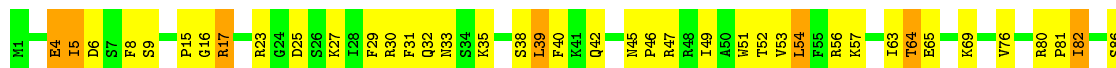
- Molecule 59: 60S ribosomal protein L23-A

Chain n3: 91% 8%



- Molecule 60: 60S ribosomal protein L24-A

Chain N4: 36% 23% 5% 37%

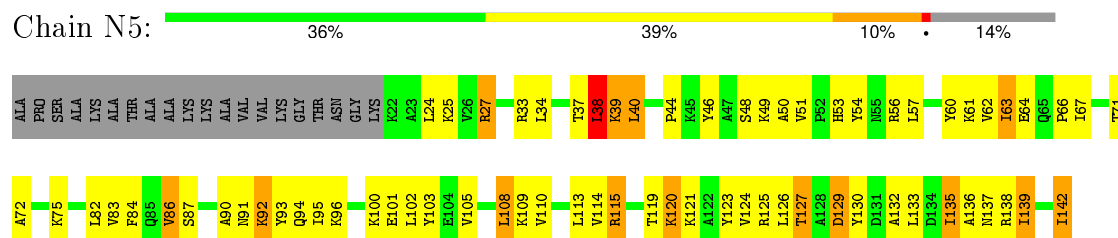


- Molecule 60: 60S ribosomal protein L24-A

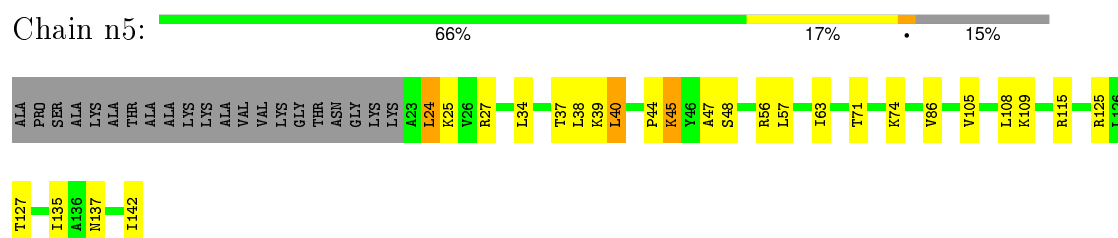
Chain n4: 71% 15% 13%



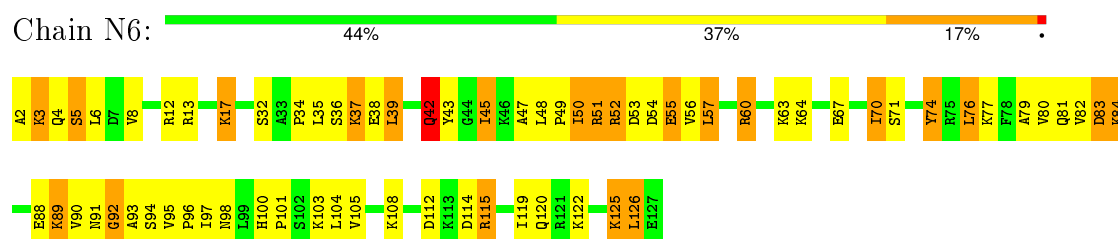
- Molecule 61: 60S ribosomal protein L25



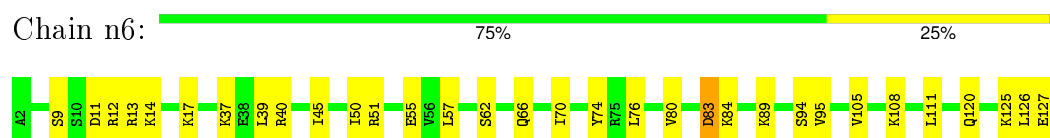
- Molecule 61: 60S ribosomal protein L25



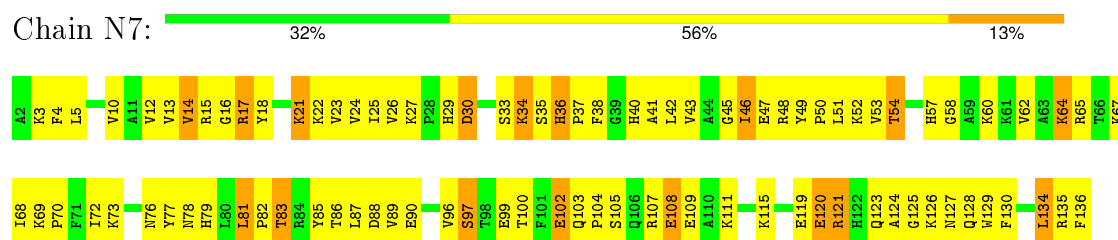
- Molecule 62: 60S ribosomal protein L26-A



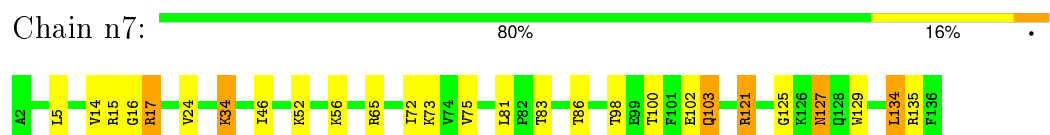
- Molecule 62: 60S ribosomal protein L26-A



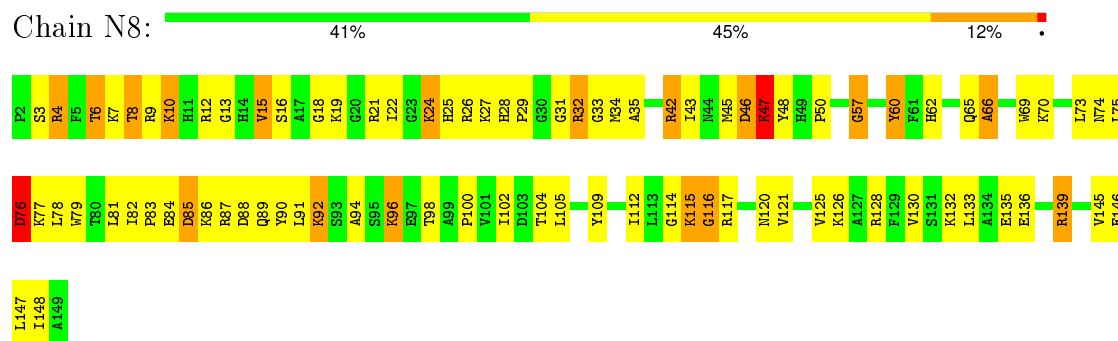
- Molecule 63: 60S ribosomal protein L27-A



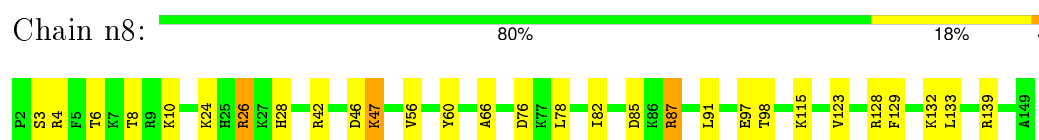
- Molecule 63: 60S ribosomal protein L27-A



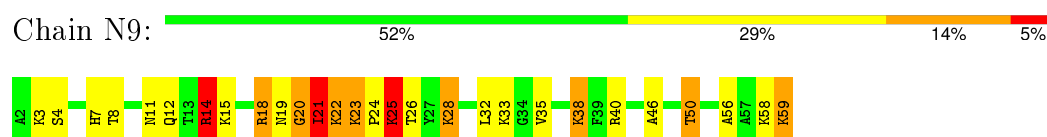
- Molecule 64: 60S ribosomal protein L28



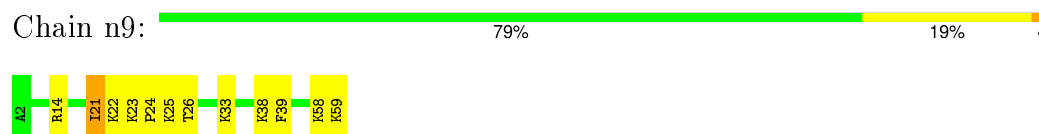
- Molecule 64: 60S ribosomal protein L28



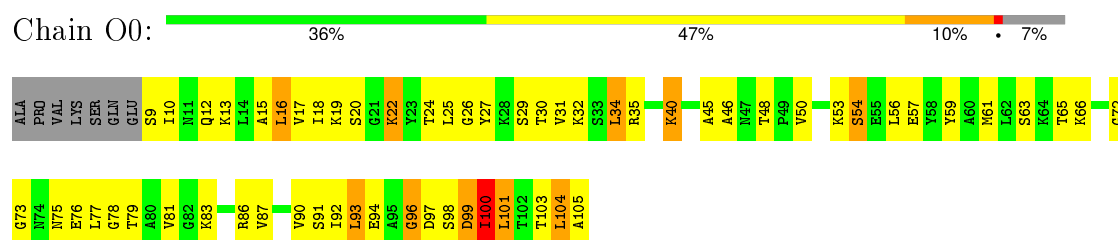
- Molecule 65: 60S ribosomal protein L29



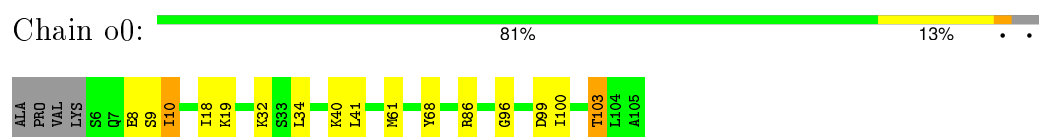
- Molecule 65: 60S ribosomal protein L29



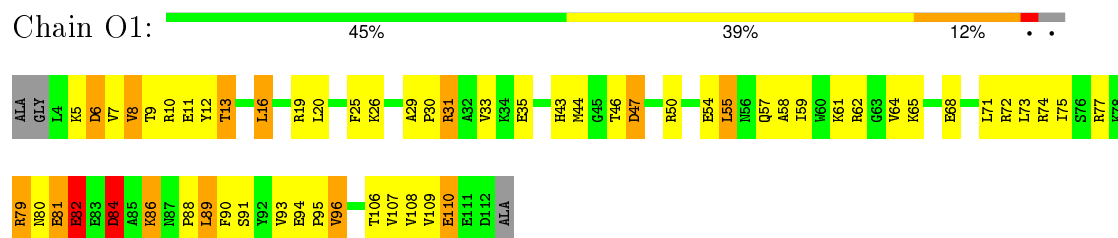
- Molecule 66: 60S ribosomal protein L30



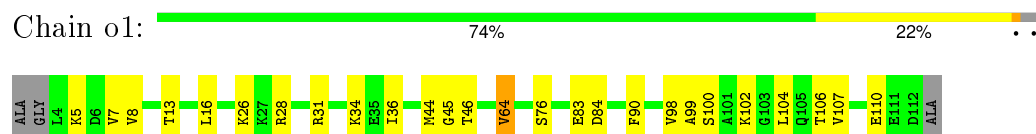
- Molecule 66: 60S ribosomal protein L30



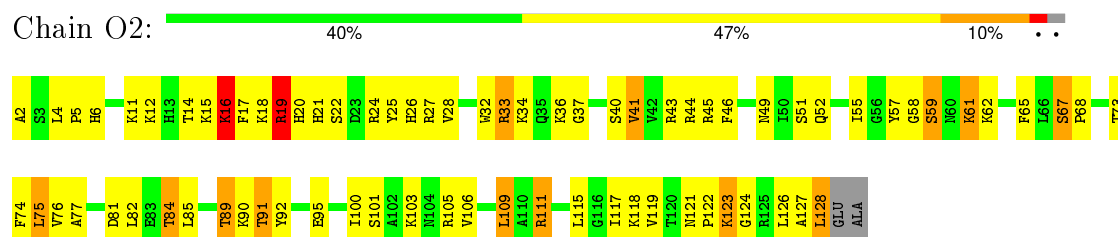
- Molecule 67: 60S ribosomal protein L31-A



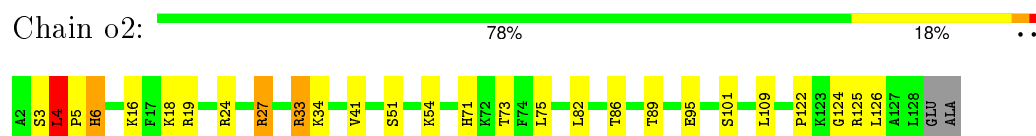
- Molecule 67: 60S ribosomal protein L31-A



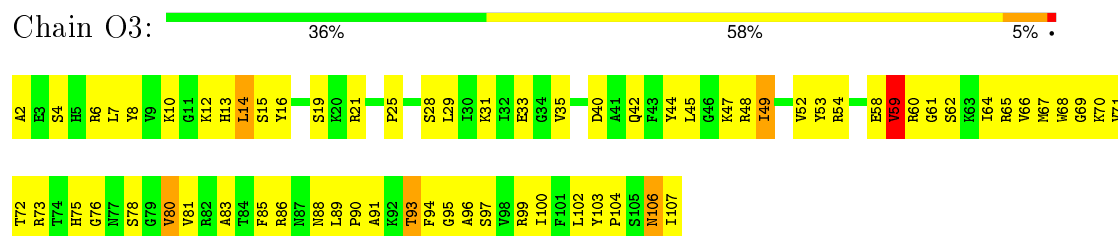
- Molecule 68: 60S ribosomal protein L32



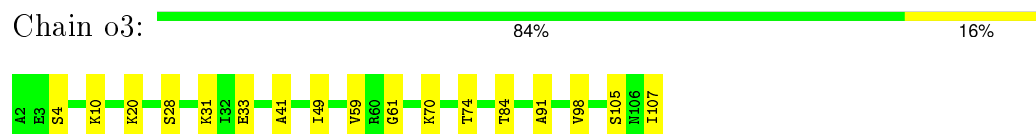
- Molecule 68: 60S ribosomal protein L32



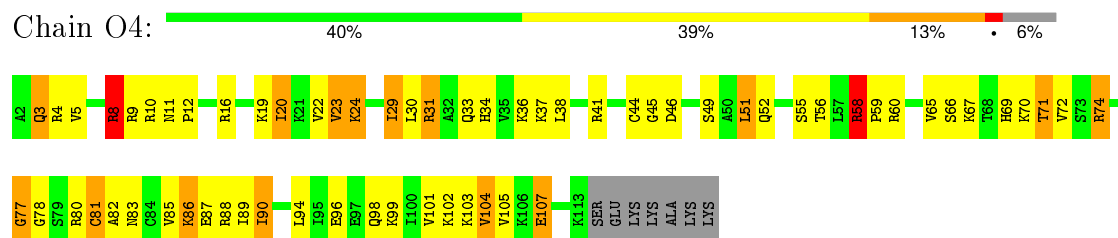
- Molecule 69: 60S ribosomal protein L33-A



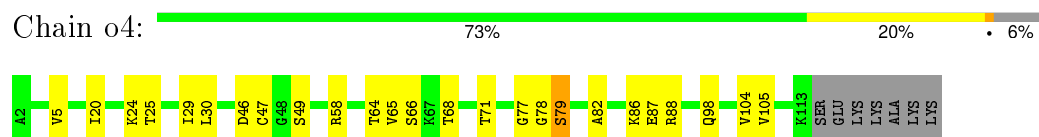
- Molecule 69: 60S ribosomal protein L33-A



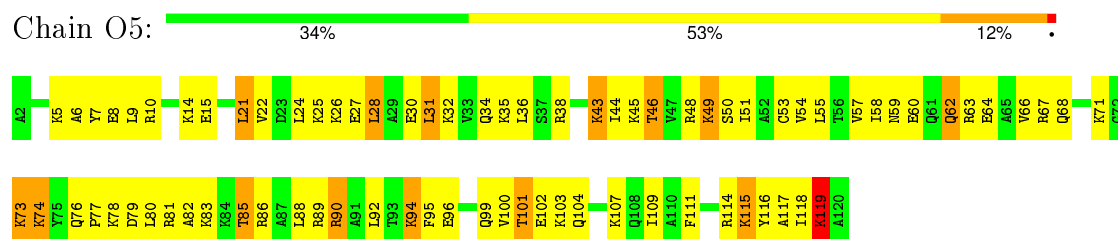
- Molecule 70: 60S ribosomal protein L34-A



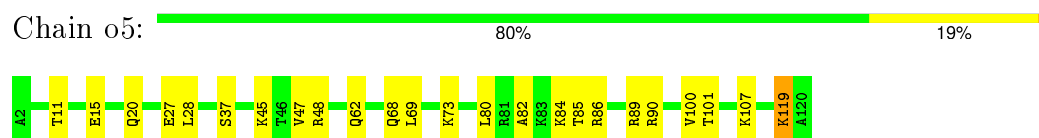
- Molecule 70: 60S ribosomal protein L34-A



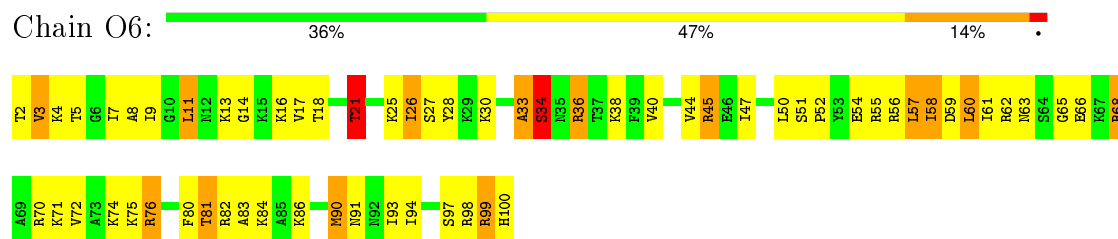
- Molecule 71: 60S ribosomal protein L35-A



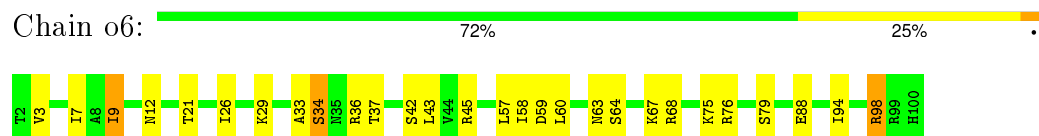
- Molecule 71: 60S ribosomal protein L35-A



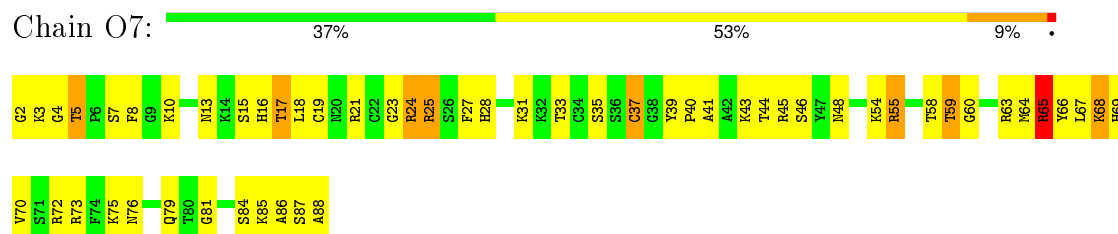
- Molecule 72: 60S ribosomal protein L36-A



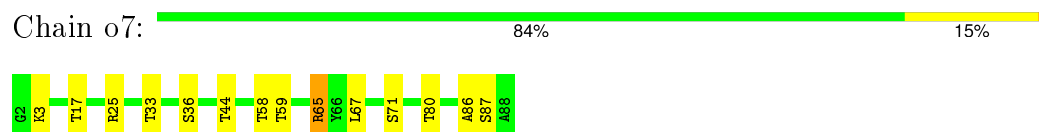
- Molecule 72: 60S ribosomal protein L36-A



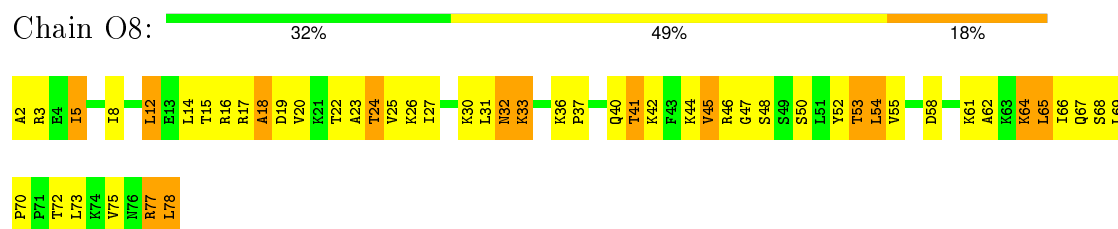
- Molecule 73: 60S ribosomal protein L37-A



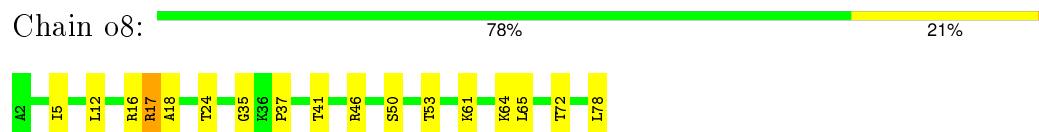
- Molecule 73: 60S ribosomal protein L37-A



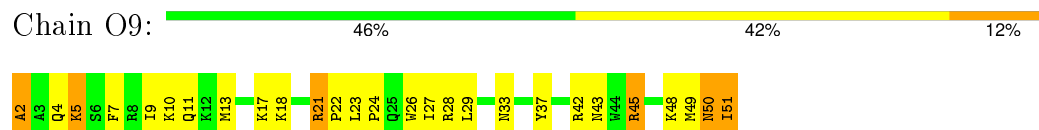
- Molecule 74: 60S ribosomal protein L38



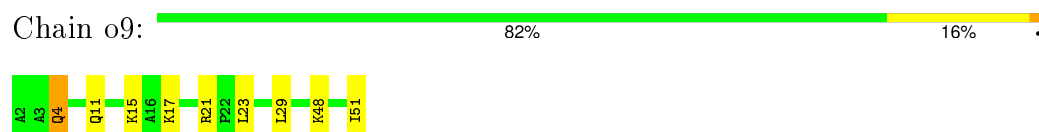
- Molecule 74: 60S ribosomal protein L38



- Molecule 75: 60S ribosomal protein L39

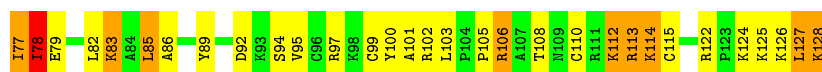


- Molecule 75: 60S ribosomal protein L39



- Molecule 76: Ubiquitin-60S ribosomal protein L40





- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0: 75% 23% .



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1: 12% 64% 20% .



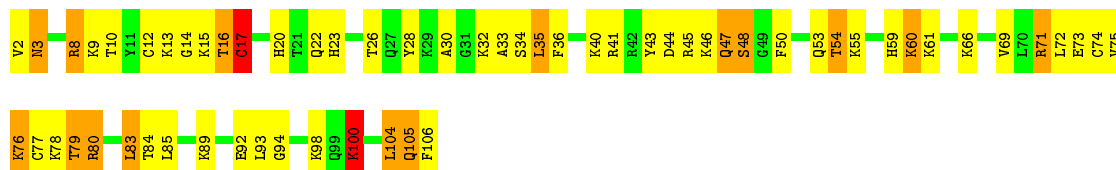
- Molecule 77: 60S ribosomal protein L41-A

Chain q1: 64% 28% 8% .



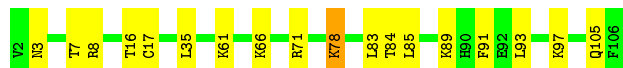
- Molecule 78: 60S ribosomal protein L42-A

Chain Q2: 42% 42% 14% .



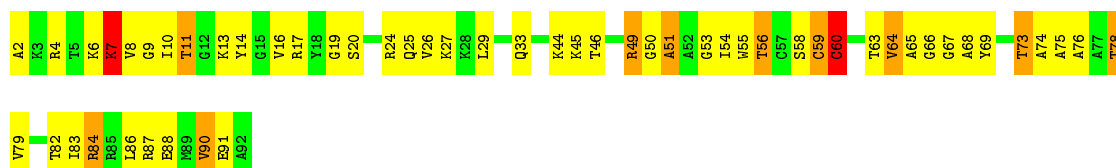
- Molecule 78: 60S ribosomal protein L42-A

Chain q2: 83% 16% .



- Molecule 79: 60S ribosomal protein L43-A

Chain Q3: 41% 46% 11% .



- Molecule 79: 60S ribosomal protein L43-A

Chain q3: 90% 10%



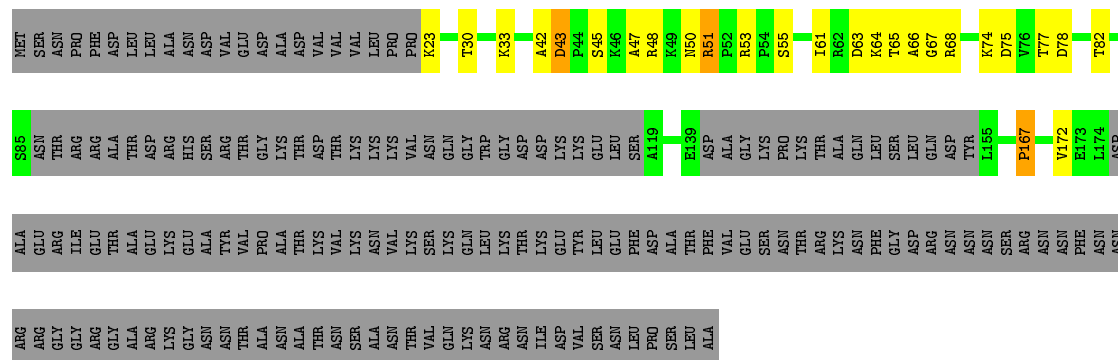
- Molecule 80: 40S ribosomal protein S30-A

Chain e0: 74% 24% 2%



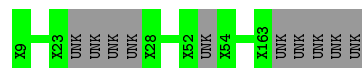
- Molecule 81: Suppressor protein STM1

Chain sM: 

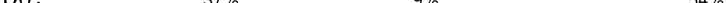


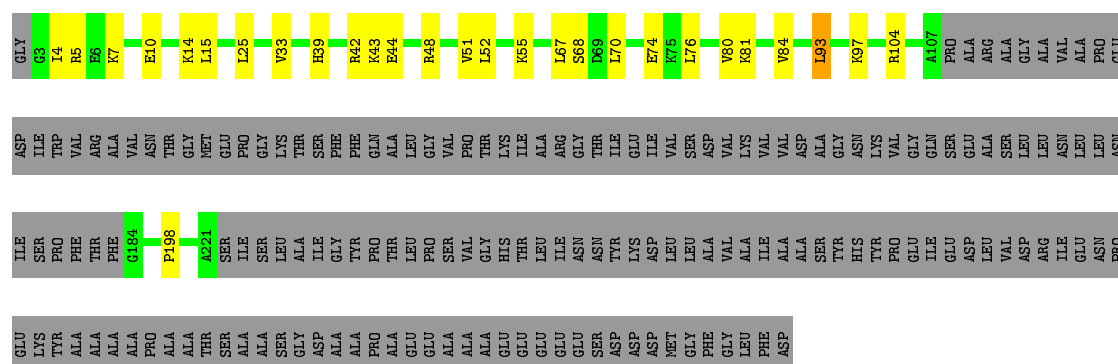
- Molecule 82: unknown protein chain m2

Chain m2:  94% 6%



- Molecule 83: 60S acidic ribosomal protein P0

Chain p0:  37% 9% 54%



- Molecule 84: unknown protein chain p1

Chain p1:  100%

There are no outlier residues recorded for this chain.

- Molecule 85: unknown protein chain p2

Chain p2:  100%

There are no outlier residues recorded for this chain.

4 Data and refinement statistics

EDS failed to run properly - this section will therefore be incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	435.26Å 287.54Å 304.02Å 90.00° 98.97° 90.00°	Depositor
Resolution (Å)	73.99 – 3.00	Depositor
% Data completeness (in resolution range)	100.0 (73.99-3.00)	Depositor
R_{merge}	0.29	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.30 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.211 , 0.259	Depositor
Wilson B-factor (Å ²)	64.9	Xtriage
Anisotropy	0.199	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 1468952 reflections	Xtriage
Total number of atoms	411211	wwPDB-VP
Average B, all atoms (Å ²)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.43% 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, 0.375 respectively for untwinned datasets, and 0.333, 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: 3KD, ZN, OHX, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	2	0.71	1/41698 (0.0%)	1.27	275/64972 (0.4%)
1	6	0.88	13/42765 (0.0%)	1.38	436/66634 (0.7%)
2	S0	0.43	0/1617	0.66	0/2215
2	s0	0.49	0/1623	0.71	0/2222
3	S1	0.35	0/1735	0.63	1/2335 (0.0%)
3	s1	0.48	0/1748	0.66	0/2352
4	S2	0.49	0/1665	0.67	0/2263
4	s2	0.57	0/1665	0.75	2/2263 (0.1%)
5	S3	0.48	0/1759	0.66	1/2368 (0.0%)
5	s3	0.42	0/1759	0.60	0/2368
6	S4	0.46	0/2109	0.73	1/2839 (0.0%)
6	s4	0.55	0/2109	0.78	1/2839 (0.0%)
7	S5	0.36	0/1629	0.58	0/2202
7	s5	0.44	0/1629	0.64	0/2202
8	S6	0.44	0/1823	0.64	0/2439
8	s6	0.54	0/1779	0.70	0/2379
9	S7	0.42	0/1506	0.65	0/2028
9	s7	0.45	0/1516	0.67	1/2043 (0.0%)
10	S8	0.54	0/1514	0.72	1/2021 (0.0%)
10	s8	0.60	0/1514	0.76	1/2021 (0.0%)
11	S9	0.47	0/1519	0.64	0/2035
11	s9	0.55	0/1519	0.76	2/2035 (0.1%)
12	C0	0.42	0/790	0.70	1/1069 (0.1%)
12	c0	0.36	0/777	0.63	3/1049 (0.3%)
13	C1	0.55	0/1240	0.66	0/1675
13	c1	0.61	0/1194	0.77	0/1610
14	C2	0.38	0/900	0.62	0/1224
14	c2	0.28	0/900	0.56	0/1224
15	C3	0.47	0/1215	0.68	2/1638 (0.1%)
15	c3	0.56	0/1215	0.73	0/1638
16	C4	0.36	0/901	0.63	0/1217
16	c4	0.52	0/960	0.72	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.44	0/998	0.68	0/1341
17	c5	0.45	0/1060	0.66	0/1426
18	C6	0.41	0/1125	0.69	2/1510 (0.1%)
18	c6	0.49	0/1131	0.69	0/1518
19	C7	0.41	0/935	0.62	0/1254
19	c7	0.48	0/914	0.71	0/1224
20	C8	0.42	0/1211	0.63	0/1628
20	c8	0.49	0/1211	0.71	2/1628 (0.1%)
21	C9	0.41	0/1130	0.63	0/1517
21	c9	0.50	0/1130	0.70	2/1517 (0.1%)
22	D0	0.45	0/865	0.64	0/1169
22	d0	0.46	0/892	0.65	0/1205
23	D1	0.44	0/693	0.62	0/935
23	d1	0.54	0/693	0.71	0/935
24	D2	0.48	0/1038	0.73	3/1395 (0.2%)
24	d2	0.59	0/1038	0.74	1/1395 (0.1%)
25	D3	0.60	0/1139	0.77	1/1518 (0.1%)
25	d3	0.70	0/1139	0.89	3/1518 (0.2%)
26	D4	0.44	0/1087	0.63	0/1449
26	d4	0.53	0/1087	0.73	0/1449
27	D5	0.39	0/571	0.68	0/768
27	d5	0.41	0/566	0.63	0/761
28	D6	0.43	0/782	0.67	0/1047
28	d6	0.56	0/782	0.71	0/1047
29	D7	0.42	0/620	0.66	0/838
29	d7	0.46	0/620	0.66	0/838
30	D8	0.35	0/499	0.57	0/670
30	d8	0.44	0/499	0.64	0/670
31	D9	0.50	0/452	0.70	1/600 (0.2%)
31	d9	0.50	0/452	0.64	0/600
32	E0	0.46	0/483	0.63	0/643
33	E1	0.42	0/577	0.78	0/770
33	e1	0.39	0/619	0.72	0/822
34	SR	0.37	0/2494	0.57	0/3393
34	sR	0.38	0/2495	0.56	0/3395
35	SM	0.48	0/1113	0.70	2/1502 (0.1%)
36	1	1.16	153/75394 (0.2%)	1.66	1837/117545 (1.6%)
36	5	1.20	178/75414 (0.2%)	1.67	1863/117575 (1.6%)
37	3	0.95	2/2883 (0.1%)	1.47	39/4491 (0.9%)
37	7	1.16	5/2883 (0.2%)	1.62	57/4491 (1.3%)
38	4	1.13	5/3746 (0.1%)	1.66	86/5832 (1.5%)
38	8	0.98	2/3746 (0.1%)	1.48	42/5832 (0.7%)
39	L2	0.74	0/1948	0.84	3/2617 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	l2	0.71	0/1946	0.86	2/2614 (0.1%)
40	L3	0.74	1/3146 (0.0%)	0.82	1/4228 (0.0%)
40	l3	0.88	1/3146 (0.0%)	0.89	2/4228 (0.0%)
41	L4	0.84	1/2800 (0.0%)	0.94	7/3790 (0.2%)
41	l4	0.74	1/2800 (0.0%)	0.90	6/3790 (0.2%)
42	L5	0.57	0/2425	0.69	1/3271 (0.0%)
42	l5	0.73	0/2408	0.82	1/3248 (0.0%)
43	L6	0.76	0/1260	0.84	0/1694
43	l6	0.78	0/1269	0.84	1/1705 (0.1%)
44	L7	0.78	1/1821 (0.1%)	0.90	2/2451 (0.1%)
44	l7	0.85	1/1828 (0.1%)	0.90	4/2461 (0.2%)
45	L8	0.55	0/1836	0.70	1/2481 (0.0%)
45	l8	0.51	0/1795	0.65	1/2429 (0.0%)
46	L9	0.65	0/1539	0.77	1/2073 (0.0%)
46	l9	0.77	0/1539	0.85	0/2073
47	M0	0.71	0/1741	0.84	3/2335 (0.1%)
47	m0	0.75	0/1758	0.87	2/2358 (0.1%)
48	M1	0.54	0/1374	0.73	1/1842 (0.1%)
48	m1	0.65	0/1374	0.82	2/1842 (0.1%)
49	M3	0.75	0/1568	0.86	0/2106
49	m3	0.69	0/1573	0.85	3/2113 (0.1%)
50	M4	0.73	0/1068	0.80	1/1438 (0.1%)
50	m4	0.82	0/1074	0.85	0/1446
51	M5	0.77	0/1757	0.85	0/2354
51	m5	0.66	0/1757	0.79	0/2354
52	M6	0.86	1/1585 (0.1%)	0.92	3/2128 (0.1%)
52	m6	1.02	5/1585 (0.3%)	0.98	7/2128 (0.3%)
53	M7	0.80	0/1443	0.85	2/1944 (0.1%)
53	m7	0.89	0/1250	0.89	0/1683
54	M8	0.79	0/1465	0.92	3/1965 (0.2%)
54	m8	0.73	0/1465	0.95	2/1965 (0.1%)
55	M9	0.57	0/1538	0.69	0/2050
55	m9	0.61	0/1538	0.70	0/2050
56	N0	0.78	0/1481	0.87	4/1990 (0.2%)
56	n0	0.87	0/1481	0.91	2/1990 (0.1%)
57	N1	0.78	0/1300	0.82	0/1743
57	n1	0.85	1/1300 (0.1%)	0.86	1/1743 (0.1%)
58	N2	0.42	0/812	0.62	0/1099
58	n2	0.51	0/794	0.65	0/1076
59	N3	0.70	0/1018	0.81	0/1369
59	n3	0.87	0/1018	0.98	1/1369 (0.1%)
60	N4	0.56	0/712	0.68	0/958
60	n4	0.69	0/1052	0.75	0/1398

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	N5	0.63	0/979	0.80	2/1321 (0.2%)
61	n5	0.65	0/974	0.77	0/1314
62	N6	0.68	0/1004	0.90	1/1341 (0.1%)
62	n6	0.71	1/1004 (0.1%)	0.84	0/1341
63	N7	0.52	0/1118	0.66	0/1497
63	n7	0.46	0/1118	0.63	0/1497
64	N8	0.82	0/1204	0.92	2/1612 (0.1%)
64	n8	0.79	0/1204	0.90	0/1612
65	N9	0.67	0/473	0.83	2/629 (0.3%)
65	n9	0.80	0/473	0.97	0/629
66	O0	0.48	0/751	0.66	0/1008
66	o0	0.49	0/775	0.65	0/1040
67	O1	0.60	0/890	0.72	0/1196
67	o1	0.76	0/897	0.86	0/1205
68	O2	0.85	0/1041	0.89	2/1394 (0.1%)
68	o2	0.82	0/1041	0.94	2/1394 (0.1%)
69	O3	0.95	0/868	0.91	1/1168 (0.1%)
69	o3	0.92	0/868	0.84	0/1168
70	O4	0.58	0/890	0.82	4/1189 (0.3%)
70	o4	0.59	0/890	0.78	0/1189
71	O5	0.70	0/978	0.81	1/1301 (0.1%)
71	o5	0.59	0/974	0.72	0/1297
72	O6	0.64	0/778	0.79	0/1034
72	o6	0.54	0/777	0.73	0/1033
73	O7	0.78	0/696	0.90	1/923 (0.1%)
73	o7	0.75	0/696	0.85	1/923 (0.1%)
74	O8	0.51	0/618	0.64	0/826
74	o8	0.42	0/614	0.61	0/822
75	O9	0.83	1/443 (0.2%)	0.90	0/588
75	o9	0.76	0/443	0.83	0/588
76	Q0	0.73	0/423	0.84	0/562
76	q0	0.95	0/423	1.03	1/562 (0.2%)
77	Q1	0.72	0/234	0.96	1/300 (0.3%)
77	q1	0.82	0/234	1.05	2/300 (0.7%)
78	Q2	0.93	1/860 (0.1%)	0.85	1/1136 (0.1%)
78	q2	0.82	1/860 (0.1%)	0.83	0/1136
79	Q3	0.74	0/701	0.85	0/934
79	q3	0.72	0/701	0.81	0/934
80	e0	0.56	0/499	0.74	0/665
81	sM	0.50	0/684	0.69	1/925 (0.1%)
83	p0	0.46	0/1092	0.61	0/1474
All	All	0.90	376/430075 (0.1%)	1.30	4764/631366 (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
7	s5	0	2
9	S7	0	1
10	S8	0	1
16	C4	0	2
17	c5	0	1
18	c6	0	1
19	C7	0	2
22	d0	0	1
27	D5	0	2
28	D6	0	1
33	E1	0	1
39	l2	0	1
42	l5	0	2
43	L6	0	1
43	l6	0	1
44	l7	0	2
45	L8	0	1
48	M1	0	2
51	M5	0	1
52	M6	0	1
52	m6	0	1
53	M7	0	1
55	m9	0	1
56	N0	0	2
56	n0	0	2
57	N1	0	1
62	n6	0	1
64	N8	0	1
64	n8	0	2
65	N9	0	1
67	O1	0	1
67	o1	0	2
All	All	0	43

All (376) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	15.91	2.09	1.82
36	5	1152	G	N9-C4	-12.55	1.27	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	q2	17	CYS	CB-SG	11.87	2.02	1.82
36	1	3181	C	N3-C4	-9.25	1.27	1.33
36	5	2138	A	N7-C5	-8.87	1.33	1.39
36	5	953	G	C5-C4	-8.69	1.32	1.38
36	5	1152	G	N3-C4	-8.53	1.29	1.35
36	5	2980	U	C2-O2	-8.15	1.15	1.22
36	5	953	G	N7-C5	-7.97	1.34	1.39
36	5	2987	A	N7-C5	-7.84	1.34	1.39
36	5	647	A	N9-C4	-7.81	1.33	1.37
36	5	953	G	C5-C6	-7.58	1.34	1.42
36	5	642	U	C2-N3	-7.47	1.32	1.37
36	1	200	C	N1-C6	-7.42	1.32	1.37
36	1	1394	A	N9-C4	-7.29	1.33	1.37
36	1	637	C	N1-C6	-7.28	1.32	1.37
36	5	1332	A	N3-C4	-7.17	1.30	1.34
36	1	1103	A	N9-C4	7.17	1.42	1.37
36	1	1452	A	N9-C4	-7.15	1.33	1.37
36	5	1847	A	N9-C4	-7.12	1.33	1.37
36	1	34	A	N9-C4	-7.09	1.33	1.37
36	5	1152	G	N1-C2	7.04	1.43	1.37
36	1	1547	G	C5-C4	-7.04	1.33	1.38
36	1	2281	A	N9-C4	-7.04	1.33	1.37
36	5	895	A	N9-C4	-7.03	1.33	1.37
36	5	924	G	C2-N3	-7.01	1.27	1.32
57	n1	104	GLU	CB-CG	6.99	1.65	1.52
36	5	2335	G	N3-C4	-6.96	1.30	1.35
36	5	631	U	C2-N3	-6.94	1.32	1.37
41	l4	94	CYS	CB-SG	-6.91	1.70	1.82
36	5	523	A	N9-C4	-6.90	1.33	1.37
36	1	1143	A	N9-C4	-6.88	1.33	1.37
36	5	2280	A	N9-C4	-6.83	1.33	1.37
36	5	2636	A	C6-N1	-6.81	1.30	1.35
36	1	1116	G	N7-C5	-6.81	1.35	1.39
36	5	1332	A	C5-C4	-6.81	1.33	1.38
52	m6	16	VAL	CB-CG2	-6.80	1.38	1.52
36	5	1199	C	N1-C6	-6.78	1.33	1.37
36	5	2704	A	N9-C4	-6.77	1.33	1.37
36	1	1114	U	C2-N3	-6.72	1.33	1.37
36	5	2830	G	N3-C4	-6.71	1.30	1.35
36	5	960	U	N1-C2	6.70	1.44	1.38
36	5	2726	C	N3-C4	-6.70	1.29	1.33
36	1	1103	A	N3-C4	6.67	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	644	G	N7-C5	-6.66	1.35	1.39
36	1	2396	G	N9-C8	-6.62	1.33	1.37
36	5	1304	A	N3-C4	6.61	1.38	1.34
36	5	3008	A	N9-C4	-6.59	1.33	1.37
36	5	2335	G	C5-C4	-6.58	1.33	1.38
40	L3	200	GLU	CG-CD	6.56	1.61	1.51
36	5	40	A	N7-C5	-6.55	1.35	1.39
36	5	2147	A	C5-C6	-6.53	1.35	1.41
36	5	2943	G	N7-C5	-6.53	1.35	1.39
36	5	3106	A	N7-C5	-6.51	1.35	1.39
36	1	1132	C	N3-C4	-6.51	1.29	1.33
36	5	1841	A	N7-C5	-6.50	1.35	1.39
36	1	2911	A	N9-C4	-6.47	1.33	1.37
36	5	416	A	N7-C5	-6.42	1.35	1.39
36	1	49	A	N9-C4	-6.42	1.34	1.37
36	1	2356	A	N9-C4	-6.39	1.34	1.37
1	6	163	G	N9-C4	-6.39	1.32	1.38
36	1	343	U	N3-C4	-6.38	1.32	1.38
36	1	970	A	N3-C4	-6.38	1.31	1.34
36	5	367	A	N9-C4	-6.35	1.34	1.37
36	5	1149	G	N9-C8	-6.34	1.33	1.37
36	1	2406	C	N1-C6	-6.33	1.33	1.37
36	1	3209	A	C5-C4	6.31	1.43	1.38
36	5	1143	A	N9-C4	-6.28	1.34	1.37
36	5	802	C	N1-C6	-6.27	1.33	1.37
36	5	2944	U	C2-N3	-6.27	1.33	1.37
36	1	2800	G	C5-C4	-6.26	1.33	1.38
75	O9	2	ALA	CA-CB	-6.23	1.39	1.52
36	5	2894	C	C4-C5	-6.23	1.38	1.43
36	5	1152	G	C5-C6	-6.21	1.36	1.42
52	m6	80	PHE	CB-CG	-6.20	1.40	1.51
36	1	1143	A	N3-C4	-6.18	1.31	1.34
36	1	1159	A	C6-N1	-6.18	1.31	1.35
36	1	2147	A	N9-C4	-6.17	1.34	1.37
36	1	338	A	N7-C5	-6.17	1.35	1.39
36	1	1116	G	N1-C2	-6.16	1.32	1.37
36	5	1304	A	N7-C5	-6.15	1.35	1.39
36	1	2147	A	N3-C4	-6.13	1.31	1.34
36	1	2169	G	C5-C6	6.12	1.48	1.42
38	4	52	A	N3-C4	-6.11	1.31	1.34
36	5	883	A	C5-C4	-6.10	1.34	1.38
36	5	634	C	C4-C5	-6.10	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2915	U	C2-N3	-6.09	1.33	1.37
36	1	876	A	N3-C4	6.08	1.38	1.34
36	1	1154	A	N7-C5	-6.08	1.35	1.39
36	1	2762	A	N3-C4	-6.08	1.31	1.34
36	1	1382	G	C5-C4	-6.08	1.34	1.38
36	1	2419	A	N9-C4	-6.08	1.34	1.37
36	5	699	A	N9-C4	-6.05	1.34	1.37
36	5	1476	G	N9-C4	-6.05	1.33	1.38
36	5	1311	G	C5-C4	-6.04	1.34	1.38
36	5	1149	G	N7-C5	-6.04	1.35	1.39
36	1	3278	C	N3-C4	-6.03	1.29	1.33
62	n6	55	GLU	CG-CD	6.03	1.60	1.51
36	5	36	C	C4-C5	-6.01	1.38	1.43
36	1	1308	A	N3-C4	-6.01	1.31	1.34
36	1	1392	G	C5-C4	-6.00	1.34	1.38
36	5	2727	A	N7-C5	-6.00	1.35	1.39
36	1	638	C	N1-C6	-6.00	1.33	1.37
36	5	1849	C	N3-C4	-5.99	1.29	1.33
1	6	623	A	N9-C4	-5.98	1.34	1.37
36	1	960	U	N3-C4	5.97	1.43	1.38
36	1	1133	A	C5-C4	-5.96	1.34	1.38
36	5	3004	C	N1-C6	-5.96	1.33	1.37
36	1	3142	A	N3-C4	-5.95	1.31	1.34
36	1	1159	A	N3-C4	-5.93	1.31	1.34
36	1	1367	G	C5-C6	-5.93	1.36	1.42
1	6	163	G	N3-C4	-5.93	1.31	1.35
36	5	426	G	C5-C4	-5.91	1.34	1.38
36	5	1152	G	C2-N3	-5.90	1.28	1.32
36	1	2910	A	N9-C4	-5.90	1.34	1.37
36	1	661	G	N7-C5	-5.89	1.35	1.39
36	1	895	A	C5-C6	-5.89	1.35	1.41
36	1	1164	G	N7-C5	-5.89	1.35	1.39
36	1	2867	C	N3-C4	-5.89	1.29	1.33
36	5	1863	G	C5-C4	-5.89	1.34	1.38
36	5	1370	G	C6-N1	-5.89	1.35	1.39
36	5	2860	U	C4-O4	5.87	1.28	1.23
36	1	1492	G	C8-N7	-5.87	1.27	1.30
36	5	2953	U	C2-N3	5.87	1.41	1.37
36	5	3095	U	C2-N3	-5.86	1.33	1.37
36	5	1134	G	N3-C4	-5.86	1.31	1.35
36	1	92	G	C5-C4	-5.84	1.34	1.38
36	5	2903	A	N9-C4	-5.84	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	426	G	N9-C8	-5.83	1.33	1.37
36	5	2813	A	N7-C5	-5.82	1.35	1.39
36	5	1103	A	N9-C4	5.81	1.41	1.37
36	1	2917	G	C5-C4	-5.80	1.34	1.38
36	5	2799	A	C6-N1	-5.80	1.31	1.35
36	5	36	C	N1-C2	-5.79	1.34	1.40
1	2	992	A	N9-C4	-5.79	1.34	1.37
36	5	1307	G	P-O5'	-5.79	1.53	1.59
36	5	2419	A	P-O5'	5.79	1.65	1.59
36	5	1320	C	C4-C5	-5.78	1.38	1.43
36	1	895	A	N7-C5	-5.78	1.35	1.39
36	1	979	U	N1-C2	5.77	1.43	1.38
36	1	659	G	N7-C5	-5.77	1.35	1.39
36	5	895	A	N3-C4	-5.75	1.31	1.34
36	1	2617	U	N3-C4	-5.74	1.33	1.38
36	5	872	U	C4-O4	-5.73	1.19	1.23
36	5	970	A	N9-C4	-5.73	1.34	1.37
37	7	102	A	N9-C4	-5.72	1.34	1.37
36	1	980	A	N9-C4	5.72	1.41	1.37
36	5	1169	A	N3-C4	-5.71	1.31	1.34
36	1	1153	A	N7-C5	-5.71	1.35	1.39
36	5	2899	C	N3-C4	-5.70	1.29	1.33
36	1	2714	G	N9-C4	-5.69	1.33	1.38
36	5	1476	G	C5-C4	-5.69	1.34	1.38
36	1	2761	G	N9-C8	-5.68	1.33	1.37
36	5	2291	A	N9-C4	-5.68	1.34	1.37
36	5	2871	G	C6-N1	-5.68	1.35	1.39
36	5	2993	G	C5-C4	-5.66	1.34	1.38
36	1	407	A	C5-C6	-5.66	1.35	1.41
36	5	924	G	C5-C4	-5.65	1.34	1.38
36	5	1103	A	N3-C4	5.65	1.38	1.34
36	1	2802	A	C8-N7	5.63	1.35	1.31
36	1	2917	G	N7-C5	-5.63	1.35	1.39
36	1	1310	G	C6-N1	-5.61	1.35	1.39
36	5	1311	G	C8-N7	-5.61	1.27	1.30
1	6	17	C	N3-C4	-5.61	1.30	1.33
36	5	3042	U	C4-O4	-5.60	1.19	1.23
1	6	1137	A	C5-C4	-5.60	1.34	1.38
36	1	952	A	N3-C4	-5.59	1.31	1.34
36	1	407	A	N7-C5	-5.59	1.35	1.39
36	1	1129	A	C5-C6	-5.59	1.36	1.41
36	5	2823	G	N7-C5	-5.58	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2620	G	N1-C2	-5.58	1.33	1.37
36	1	1468	A	N7-C5	-5.57	1.35	1.39
36	5	2411	U	C2-N3	-5.57	1.33	1.37
36	5	2342	U	C2-N3	-5.57	1.33	1.37
36	1	1495	U	N3-C4	-5.56	1.33	1.38
36	1	942	U	C5-C6	-5.55	1.29	1.34
36	5	3210	A	N9-C4	-5.54	1.34	1.37
36	1	2411	U	C2-O2	-5.54	1.17	1.22
52	m6	40	GLU	CG-CD	5.54	1.60	1.51
36	5	639	G	N9-C4	-5.54	1.33	1.38
36	1	1377	G	N1-C2	-5.53	1.33	1.37
36	1	1127	G	C5-C6	-5.53	1.36	1.42
36	1	1308	A	N7-C5	-5.53	1.35	1.39
36	5	2643	A	N9-C4	-5.52	1.34	1.37
36	1	2598	G	C5-C4	-5.51	1.34	1.38
36	1	505	G	N3-C4	-5.51	1.31	1.35
36	5	649	A	C5-C6	-5.50	1.36	1.41
1	6	1119	G	N7-C5	-5.49	1.35	1.39
36	1	369	A	N3-C4	-5.49	1.31	1.34
36	1	1436	U	C4-C5	-5.48	1.38	1.43
38	4	28	C	N1-C6	-5.48	1.33	1.37
1	6	1746	A	N7-C5	-5.47	1.35	1.39
36	1	3130	A	N7-C5	-5.47	1.35	1.39
36	5	1451	C	N1-C6	-5.47	1.33	1.37
36	1	1141	C	N1-C6	-5.47	1.33	1.37
52	M6	100	GLU	CD-OE1	5.46	1.31	1.25
36	5	1338	C	N1-C6	-5.46	1.33	1.37
36	5	1132	C	N3-C4	-5.46	1.30	1.33
36	5	2808	A	N7-C5	-5.46	1.35	1.39
36	1	645	A	N7-C5	-5.46	1.35	1.39
36	1	2147	A	C5-C4	-5.45	1.34	1.38
36	5	101	G	C6-N1	-5.45	1.35	1.39
36	1	3087	A	N3-C4	-5.45	1.31	1.34
36	5	1331	U	C5-C6	-5.43	1.29	1.34
36	1	957	C	N1-C6	-5.43	1.33	1.37
36	1	1492	G	N7-C5	-5.43	1.35	1.39
36	1	1416	C	N3-C4	-5.43	1.30	1.33
37	3	83	U	C2-N3	-5.42	1.33	1.37
36	1	1330	A	C5-C4	-5.42	1.34	1.38
36	5	407	A	N7-C5	-5.42	1.35	1.39
36	1	1179	A	C6-N1	-5.42	1.31	1.35
36	1	910	G	N7-C5	-5.41	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2335	G	N1-C2	-5.41	1.33	1.37
52	m6	40	GLU	CD-OE1	5.41	1.31	1.25
36	5	1301	A	C5-C6	-5.40	1.36	1.41
36	5	2639	G	N7-C5	-5.40	1.36	1.39
36	5	2871	G	N7-C5	5.40	1.42	1.39
36	1	2714	G	N9-C8	5.40	1.41	1.37
1	6	1744	A	N9-C4	-5.40	1.34	1.37
36	5	2924	U	N1-C2	-5.40	1.33	1.38
36	1	699	A	N9-C4	-5.39	1.34	1.37
1	6	542	A	N7-C5	-5.39	1.36	1.39
36	1	2652	U	N3-C4	-5.38	1.33	1.38
36	1	1102	A	N9-C4	-5.38	1.34	1.37
36	1	1556	C	N1-C2	5.38	1.45	1.40
36	1	2386	A	N7-C5	-5.38	1.36	1.39
36	5	810	A	N3-C4	5.38	1.38	1.34
36	1	2819	A	C5-C4	-5.38	1.34	1.38
36	5	2899	C	C2-N3	-5.38	1.31	1.35
36	1	2138	A	N7-C5	-5.37	1.36	1.39
36	5	2954	U	N1-C2	5.36	1.43	1.38
36	1	2333	C	N3-C4	-5.36	1.30	1.33
36	1	504	A	N3-C4	-5.35	1.31	1.34
36	5	3042	U	N3-C4	-5.35	1.33	1.38
36	1	1132	C	N1-C6	-5.35	1.33	1.37
36	5	1152	G	N9-C8	5.35	1.41	1.37
36	5	795	G	C5-C4	-5.34	1.34	1.38
36	5	2934	A	C6-N1	-5.34	1.31	1.35
36	5	889	U	C4-O4	-5.33	1.19	1.23
36	1	2619	G	C5-C4	-5.33	1.34	1.38
36	5	509	U	N1-C2	-5.33	1.33	1.38
36	1	1495	U	N1-C6	-5.32	1.33	1.38
36	1	952	A	N7-C5	-5.31	1.36	1.39
36	1	2793	G	C2-N3	-5.30	1.28	1.32
36	1	1330	A	N9-C4	-5.30	1.34	1.37
36	1	658	G	C8-N7	-5.30	1.27	1.30
36	1	61	A	N3-C4	-5.29	1.31	1.34
41	L4	211	GLU	CG-CD	5.29	1.59	1.51
36	5	980	A	N7-C5	5.29	1.42	1.39
36	1	652	G	C6-N1	-5.29	1.35	1.39
36	5	1303	A	C5-C4	-5.29	1.35	1.38
36	5	2728	G	C5-C4	-5.29	1.34	1.38
37	7	88	G	N1-C2	-5.29	1.33	1.37
36	5	3005	A	N7-C5	-5.28	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	l3	327	CYS	CB-SG	-5.28	1.73	1.81
36	1	1103	A	N7-C5	5.28	1.42	1.39
36	5	1152	G	C8-N7	5.28	1.34	1.30
36	1	343	U	N1-C6	-5.28	1.33	1.38
36	1	919	U	C2-N3	-5.28	1.34	1.37
36	1	296	A	N9-C4	5.27	1.41	1.37
36	5	925	A	N7-C5	-5.27	1.36	1.39
36	1	1137	C	N1-C6	-5.27	1.33	1.37
36	1	2614	G	N9-C8	-5.27	1.34	1.37
36	1	716	A	N9-C4	-5.27	1.34	1.37
36	1	951	A	N9-C4	-5.27	1.34	1.37
36	1	2402	A	C5-C4	-5.26	1.35	1.38
36	5	2943	G	N9-C8	-5.25	1.34	1.37
44	L7	234	GLU	CD-OE2	5.24	1.31	1.25
36	5	1370	G	N1-C2	-5.24	1.33	1.37
36	5	1902	G	C5-C4	-5.23	1.34	1.38
36	5	1151	U	C2-N3	5.23	1.41	1.37
36	1	1099	A	N7-C5	-5.23	1.36	1.39
38	4	79	A	N9-C4	5.23	1.41	1.37
36	1	655	C	C2-O2	-5.22	1.19	1.24
36	1	2115	G	N7-C5	-5.22	1.36	1.39
36	5	1433	A	N7-C5	-5.22	1.36	1.39
36	5	2348	A	N3-C4	-5.22	1.31	1.34
36	5	924	G	N1-C2	-5.22	1.33	1.37
36	5	2302	G	N1-C2	-5.22	1.33	1.37
36	1	1310	G	N3-C4	-5.22	1.31	1.35
36	1	2326	A	N9-C4	-5.22	1.34	1.37
36	5	642	U	N3-C4	-5.22	1.33	1.38
36	5	1476	G	N3-C4	-5.20	1.31	1.35
36	1	92	G	P-O5'	-5.20	1.54	1.59
37	3	82	G	C6-N1	-5.20	1.35	1.39
36	5	1306	G	C8-N7	-5.20	1.27	1.30
36	1	919	U	C4-O4	-5.19	1.19	1.23
36	5	2358	A	N9-C4	-5.17	1.34	1.37
36	1	1126	G	N7-C5	-5.17	1.36	1.39
36	5	63	A	N7-C5	-5.16	1.36	1.39
36	5	1113	G	N3-C4	-5.16	1.31	1.35
1	6	1748	G	C5-C4	-5.16	1.34	1.38
36	5	425	G	C5-C6	-5.15	1.37	1.42
36	5	2302	G	C6-N1	-5.15	1.35	1.39
36	5	278	U	N1-C2	-5.15	1.33	1.38
36	5	2375	G	C5-C4	-5.14	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1049	C	C4-C5	-5.14	1.38	1.43
36	5	2362	C	N3-C4	-5.14	1.30	1.33
36	1	654	C	N1-C6	-5.14	1.34	1.37
36	1	657	A	C5-C4	-5.13	1.35	1.38
36	1	1660	C	N1-C6	-5.13	1.34	1.37
36	5	1429	G	N9-C4	-5.13	1.33	1.38
36	5	2912	G	C5-C4	-5.13	1.34	1.38
37	7	11	A	C5-C6	-5.13	1.36	1.41
36	1	40	A	C8-N7	-5.13	1.27	1.31
36	5	2877	G	N1-C2	-5.13	1.33	1.37
36	5	2334	U	C4-O4	-5.12	1.19	1.23
38	4	13	A	N7-C5	-5.12	1.36	1.39
36	5	2138	A	N3-C4	-5.12	1.31	1.34
36	1	3006	A	N9-C4	-5.12	1.34	1.37
1	6	366	A	N9-C4	-5.12	1.34	1.37
36	5	1170	A	N7-C5	-5.12	1.36	1.39
36	5	2372	A	N7-C5	-5.12	1.36	1.39
36	1	1369	A	N9-C4	-5.12	1.34	1.37
38	8	15	G	C8-N7	-5.12	1.27	1.30
36	1	3209	A	N7-C5	5.11	1.42	1.39
36	5	950	G	C5-C4	-5.11	1.34	1.38
36	5	2897	A	C5-C4	-5.11	1.35	1.38
1	6	754	A	N9-C4	5.11	1.41	1.37
36	5	3218	A	C5-C6	-5.11	1.36	1.41
36	1	584	G	C5-C4	-5.10	1.34	1.38
36	5	848	A	N3-C4	-5.10	1.31	1.34
36	5	1432	C	N1-C6	-5.10	1.34	1.37
36	5	1189	C	N1-C6	-5.10	1.34	1.37
36	5	1434	G	C5-C4	-5.10	1.34	1.38
36	5	895	A	C5-C4	-5.09	1.35	1.38
36	5	214	G	C8-N7	-5.09	1.27	1.30
36	5	1203	A	C5-C6	-5.09	1.36	1.41
36	1	40	A	N9-C8	-5.08	1.33	1.37
36	1	1429	G	N9-C8	-5.08	1.34	1.37
36	5	356	C	N1-C6	-5.08	1.34	1.37
36	5	1157	G	N9-C8	-5.08	1.34	1.37
36	1	2945	G	N7-C5	-5.08	1.36	1.39
37	7	11	A	N7-C5	-5.08	1.36	1.39
36	5	2286	U	C2-N3	-5.08	1.34	1.37
36	5	2942	C	N1-C6	-5.08	1.34	1.37
36	5	3174	A	N9-C8	5.07	1.41	1.37
36	1	2797	C	N1-C2	-5.07	1.35	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1902	G	N7-C5	-5.07	1.36	1.39
36	5	2145	A	C6-N1	-5.07	1.32	1.35
36	5	962	A	N7-C5	-5.06	1.36	1.39
36	5	1049	C	N3-C4	-5.06	1.30	1.33
44	17	234	GLU	CD-OE1	5.06	1.31	1.25
36	1	1905	G	N1-C2	-5.06	1.33	1.37
36	1	92	G	C5-C6	-5.06	1.37	1.42
36	1	2817	A	C6-N6	-5.06	1.29	1.33
36	5	2860	U	N3-C4	5.06	1.43	1.38
36	5	3174	A	C5-C4	5.06	1.42	1.38
36	1	423	A	N7-C5	-5.05	1.36	1.39
36	1	716	A	C5-C6	-5.05	1.36	1.41
36	1	2335	G	C5-C4	-5.05	1.34	1.38
36	5	1175	C	N3-C4	-5.05	1.30	1.33
36	1	1417	G	N9-C4	-5.05	1.33	1.38
36	1	1330	A	C5-C6	-5.05	1.36	1.41
36	5	430	U	N1-C2	-5.05	1.34	1.38
36	5	635	G	N3-C4	-5.05	1.31	1.35
36	5	1499	C	N3-C4	-5.05	1.30	1.33
38	8	79	A	C5-C4	5.04	1.42	1.38
36	5	1049	C	C4-N4	-5.04	1.29	1.33
1	6	343	C	N1-C6	-5.03	1.34	1.37
36	1	792	G	N9-C4	-5.03	1.33	1.38
36	5	2243	A	N3-C4	-5.02	1.31	1.34
36	1	1133	A	N9-C4	-5.02	1.34	1.37
37	7	95	A	N7-C5	-5.02	1.36	1.39
36	1	2968	G	C6-N1	-5.02	1.36	1.39
36	5	2970	C	N1-C6	-5.02	1.34	1.37
36	5	1874	A	N9-C4	-5.01	1.34	1.37
36	1	953	G	C5-C4	-5.01	1.34	1.38
52	m6	80	PHE	CD1-CE1	-5.01	1.29	1.39
36	1	426	G	N1-C2	-5.01	1.33	1.37
36	1	1127	G	C5-C4	-5.01	1.34	1.38
36	5	2351	U	N3-C4	-5.01	1.33	1.38
38	4	20	U	C4-O4	-5.01	1.19	1.23
36	1	1307	G	C3'-O3'	5.01	1.49	1.42
36	5	1175	C	C4-N4	-5.01	1.29	1.33
36	5	2971	A	N9-C4	5.00	1.40	1.37

All (4764) bond angle outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	24.25	140.73	128.60
36	5	1152	G	N3-C4-N9	-22.33	112.60	126.00
36	5	1152	G	C2-N3-C4	-20.90	101.45	111.90
36	1	2945	G	O5'-P-OP2	-17.25	90.00	110.70
36	1	1308	A	O5'-P-OP2	-17.00	90.30	110.70
36	5	2385	G	O5'-P-OP1	-16.30	91.03	105.70
36	5	1152	G	N1-C6-O6	15.87	129.42	119.90
36	5	1152	G	N3-C2-N2	-15.79	108.85	119.90
36	1	1450	G	O5'-P-OP1	-15.75	91.53	105.70
36	5	642	U	O5'-P-OP2	-14.86	92.33	105.70
36	5	1308	A	O5'-P-OP1	-14.52	92.63	105.70
36	1	960	U	C5-C4-O4	-13.69	117.69	125.90
36	5	2875	U	C5-C6-N1	-13.69	115.86	122.70
36	1	2714	G	N3-C4-C5	13.65	135.42	128.60
36	5	1152	G	C5-N7-C8	-13.47	97.57	104.30
1	6	163	G	N3-C4-N9	-13.39	117.97	126.00
36	1	979	U	N3-C2-O2	-13.39	112.83	122.20
36	1	2371	G	O5'-P-OP2	-13.37	93.66	105.70
36	1	1495	U	C5-C6-N1	-13.32	116.04	122.70
36	1	2617	U	C5-C6-N1	-13.17	116.12	122.70
36	1	406	G	O4'-C1'-N9	12.84	118.47	108.20
1	2	553	G	N1-C6-O6	12.78	127.57	119.90
36	1	1304	A	O5'-P-OP1	-12.70	94.27	105.70
36	1	636	C	O5'-P-OP1	-12.60	94.36	105.70
36	1	1160	C	O5'-P-OP1	-12.53	94.42	105.70
36	5	2875	U	C2-N3-C4	-12.52	119.49	127.00
36	1	2831	G	N1-C6-O6	12.44	127.36	119.90
36	5	3005	A	O5'-P-OP2	-12.36	94.57	105.70
36	1	960	U	N3-C2-O2	12.12	130.68	122.20
36	1	958	C	N3-C4-C5	12.10	126.74	121.90
36	1	2617	U	N1-C2-N3	12.06	122.14	114.90
36	1	979	U	C6-N1-C2	-11.99	113.80	121.00
1	6	1773	C	N3-C4-C5	-11.86	117.16	121.90
36	5	3245	A	C2-N3-C4	-11.85	104.68	110.60
37	7	101	G	N1-C6-O6	11.70	126.92	119.90
36	1	2808	A	N1-C6-N6	11.67	125.60	118.60
1	2	1200	G	N1-C6-O6	11.67	126.90	119.90
36	1	2617	U	C5-C4-O4	11.55	132.83	125.90
36	5	877	C	N3-C4-C5	11.53	126.51	121.90
36	1	1308	A	C8-N9-C4	-11.49	101.20	105.80
36	1	2953	U	N1-C2-O2	-11.47	114.77	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	639	U	N3-C2-O2	-11.38	114.24	122.20
36	5	662	U	O5'-P-OP1	-11.30	95.53	105.70
36	5	2403	G	O5'-P-OP2	-11.25	95.58	105.70
36	1	1495	U	C4-C5-C6	11.24	126.45	119.70
36	1	2404	A	N1-C6-N6	11.22	125.33	118.60
36	1	2281	A	O5'-P-OP2	-11.19	95.63	105.70
36	1	1838	G	N1-C6-O6	11.15	126.59	119.90
36	5	776	U	C5-C6-N1	-11.12	117.14	122.70
36	1	1381	A	O5'-P-OP2	11.10	124.02	110.70
36	1	2797	C	O5'-P-OP1	-11.10	95.71	105.70
36	1	422	A	N1-C6-N6	-11.05	111.97	118.60
36	5	2704	A	O5'-P-OP1	-11.01	95.79	105.70
36	5	2923	U	O5'-P-OP1	-11.01	95.79	105.70
36	1	1381	A	O5'-P-OP1	-11.00	95.80	105.70
36	1	960	U	N1-C2-O2	-10.98	115.12	122.80
36	5	1152	G	C8-N9-C1'	10.96	141.24	127.00
36	1	1346	G	O5'-P-OP2	-10.93	95.87	105.70
36	1	1858	A	C2-N3-C4	10.90	116.05	110.60
36	1	1308	A	N7-C8-N9	10.90	119.25	113.80
36	1	2798	C	C6-N1-C2	-10.88	115.95	120.30
36	1	2846	U	N3-C2-O2	-10.87	114.59	122.20
36	5	3245	A	C5-N7-C8	-10.87	98.47	103.90
36	5	922	U	N3-C2-O2	-10.86	114.60	122.20
36	1	2714	G	N3-C4-N9	-10.83	119.50	126.00
36	1	636	C	N3-C4-C5	10.76	126.20	121.90
36	5	2875	U	C2-N1-C1'	-10.76	104.79	117.70
36	1	3172	A	C8-N9-C4	10.74	110.10	105.80
36	5	426	G	C8-N9-C4	10.73	110.69	106.40
36	1	2871	G	O5'-P-OP2	-10.73	96.05	105.70
36	1	2996	U	C2-N1-C1'	10.72	130.57	117.70
1	6	453	U	N3-C2-O2	-10.72	114.69	122.20
36	1	957	C	O5'-P-OP2	-10.68	96.09	105.70
1	6	163	G	N3-C4-C5	10.67	133.94	128.60
36	5	641	C	N1-C2-O2	-10.66	112.50	118.90
36	5	806	A	O5'-P-OP1	-10.62	96.14	105.70
36	1	2621	G	N3-C2-N2	-10.61	112.47	119.90
1	6	901	G	C4-C5-N7	10.61	115.04	110.80
36	1	1367	G	N1-C6-O6	10.57	126.25	119.90
36	1	2622	C	C6-N1-C2	-10.57	116.07	120.30
36	1	2870	C	C2-N1-C1'	-10.57	107.17	118.80
36	1	2617	U	N3-C2-O2	-10.56	114.81	122.20
1	6	901	G	C5-C6-O6	-10.55	122.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3278	C	N3-C2-O2	-10.54	114.52	121.90
36	1	2314	U	C5-C4-O4	-10.53	119.58	125.90
36	5	1307	G	P-O3'-C3'	10.52	132.32	119.70
36	1	2860	U	C5-C6-N1	10.51	127.95	122.70
36	1	1433	A	C5-C6-N6	-10.48	115.32	123.70
36	5	2374	C	N1-C2-O2	-10.46	112.62	118.90
38	8	80	A	C8-N9-C4	-10.42	101.63	105.80
36	1	1127	G	C5-C6-O6	-10.41	122.35	128.60
36	5	1116	G	O5'-P-OP1	-10.41	96.33	105.70
36	1	3181	C	C5-C4-N4	10.41	127.49	120.20
36	5	2617	U	O5'-P-OP2	-10.35	96.39	105.70
36	1	2165	G	O5'-P-OP2	-10.34	96.39	105.70
36	1	716	A	N9-C4-C5	-10.33	101.67	105.80
36	5	1152	G	C4-N9-C1'	-10.30	113.11	126.50
36	1	639	G	N1-C6-O6	10.29	126.07	119.90
36	1	2945	G	O5'-P-OP1	10.29	123.04	110.70
36	1	2617	U	C4-C5-C6	10.28	125.87	119.70
36	5	2393	G	O5'-P-OP2	-10.27	96.46	105.70
36	5	1127	G	C5-C6-N1	10.17	116.58	111.50
36	1	958	C	C2-N3-C4	-10.13	114.83	119.90
36	1	608	A	N1-C6-N6	10.13	124.68	118.60
36	1	1132	C	O5'-P-OP1	-10.12	96.59	105.70
36	5	1390	A	N9-C4-C5	10.08	109.83	105.80
36	1	2279	A	N9-C4-C5	-10.06	101.78	105.80
36	1	895	A	C2-N3-C4	-10.05	105.57	110.60
36	5	3218	A	N1-C6-N6	10.05	124.63	118.60
36	5	3377	G	N1-C6-O6	10.04	125.92	119.90
36	1	218	G	O5'-P-OP2	-10.03	96.67	105.70
36	5	953	G	C5-C6-O6	-10.03	122.58	128.60
36	1	3181	C	N3-C4-N4	-10.02	110.98	118.00
36	5	1370	G	N1-C2-N2	-9.99	107.21	116.20
36	1	1405	U	C2-N3-C4	-9.95	121.03	127.00
36	1	1450	G	O5'-P-OP2	9.94	122.63	110.70
36	5	3244	A	O5'-P-OP1	-9.93	96.76	105.70
36	1	282	G	C8-N9-C4	-9.91	102.44	106.40
36	5	406	G	O4'-C1'-N9	9.91	116.13	108.20
36	1	2831	G	C5-C6-O6	-9.82	122.71	128.60
1	2	558	U	N1-C2-O2	9.81	129.67	122.80
36	1	776	U	C4-C5-C6	9.80	125.58	119.70
36	1	2169	G	N1-C6-O6	-9.80	114.02	119.90
36	5	1308	A	O5'-P-OP2	9.79	122.45	110.70
36	1	646	A	O5'-P-OP2	-9.78	96.90	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1047	A	N1-C6-N6	9.78	124.47	118.60
36	5	2389	C	N3-C4-C5	9.77	125.81	121.90
36	5	2392	C	N3-C4-C5	9.75	125.80	121.90
36	1	2247	G	N1-C6-O6	9.75	125.75	119.90
36	5	1152	G	C5-C6-O6	-9.73	122.76	128.60
36	1	2798	C	N3-C4-C5	-9.73	118.01	121.90
36	1	439	C	N1-C2-O2	9.72	124.73	118.90
36	5	2953	U	N3-C4-O4	9.71	126.20	119.40
36	5	1301	A	N1-C6-N6	9.71	124.42	118.60
36	1	369	A	O5'-P-OP2	-9.70	96.97	105.70
36	5	3154	C	N1-C2-O2	9.69	124.72	118.90
36	1	677	A	O5'-P-OP1	-9.68	96.99	105.70
36	1	3306	U	N3-C4-O4	-9.67	112.63	119.40
36	1	2870	C	N3-C4-C5	9.65	125.76	121.90
36	1	86	G	O5'-P-OP2	-9.64	97.03	105.70
36	5	2815	G	C8-N9-C4	9.64	110.25	106.40
36	5	2954	U	C2-N1-C1'	9.62	129.24	117.70
36	1	3278	C	N1-C2-O2	9.61	124.67	118.90
36	5	2816	G	C5-C6-O6	-9.58	122.85	128.60
36	5	2408	U	C5-C6-N1	-9.56	117.92	122.70
36	5	2297	U	O5'-P-OP2	-9.55	97.10	105.70
36	5	3377	G	C5-C6-O6	-9.55	122.87	128.60
37	7	101	G	C5-C6-O6	-9.54	122.87	128.60
36	1	201	A	O5'-P-OP2	-9.54	97.12	105.70
36	5	2383	C	N1-C2-O2	-9.53	113.18	118.90
1	6	901	G	N1-C6-O6	9.51	125.61	119.90
36	5	437	G	C8-N9-C4	-9.51	102.60	106.40
36	1	1367	G	C5-C6-O6	-9.51	122.90	128.60
36	1	1405	U	N3-C4-C5	9.50	120.30	114.60
38	8	8	C	C6-N1-C2	-9.49	116.50	120.30
36	1	1495	U	N1-C2-N3	9.49	120.59	114.90
36	1	2349	U	O5'-P-OP2	-9.49	97.16	105.70
36	5	2830	G	N9-C4-C5	9.49	109.19	105.40
38	4	31	G	O5'-P-OP2	-9.49	97.16	105.70
36	5	2572	C	N1-C2-O2	9.47	124.58	118.90
59	n3	45	ARG	NE-CZ-NH1	-9.45	115.58	120.30
36	1	805	G	C8-N9-C4	9.44	110.18	106.40
36	1	1197	A	N1-C6-N6	9.44	124.26	118.60
36	1	2409	G	C2-N3-C4	9.43	116.62	111.90
36	5	2726	C	C5-C4-N4	9.41	126.79	120.20
36	5	2726	C	C6-N1-C2	-9.40	116.54	120.30
36	5	2913	C	C6-N1-C2	-9.39	116.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3245	A	N7-C8-N9	9.39	118.49	113.80
36	1	2875	U	N3-C4-O4	9.38	125.97	119.40
36	1	876	A	N9-C4-C5	-9.38	102.05	105.80
1	2	639	U	N1-C2-O2	9.36	129.35	122.80
38	4	103	G	C8-N9-C4	-9.35	102.66	106.40
36	5	2402	A	N9-C4-C5	9.35	109.54	105.80
36	5	2980	U	N1-C2-N3	9.34	120.50	114.90
36	5	1412	G	C8-N9-C4	-9.34	102.67	106.40
36	5	636	C	C6-N1-C2	9.33	124.03	120.30
38	8	80	A	N7-C8-N9	9.32	118.46	113.80
36	1	1127	G	N1-C6-O6	9.31	125.48	119.90
36	1	2617	U	C2-N3-C4	-9.29	121.42	127.00
36	1	2870	C	C6-N1-C1'	9.28	131.94	120.80
36	1	716	A	C8-N9-C4	9.28	109.51	105.80
36	5	2601	A	N1-C6-N6	-9.27	113.04	118.60
36	5	1452	A	N9-C4-C5	-9.26	102.09	105.80
36	1	282	G	O5'-P-OP1	-9.26	97.37	105.70
36	1	1303	A	C8-N9-C4	9.25	109.50	105.80
1	2	577	G	C4-C5-N7	9.25	114.50	110.80
36	1	435	C	C6-N1-C2	9.24	124.00	120.30
36	1	3181	C	N3-C2-O2	-9.24	115.43	121.90
36	5	2830	G	C4-C5-N7	-9.23	107.11	110.80
36	5	57	A	C8-N9-C4	9.23	109.49	105.80
36	5	1390	A	N1-C6-N6	-9.22	113.07	118.60
36	1	1492	G	C5-N7-C8	9.21	108.91	104.30
36	1	2996	U	C6-N1-C1'	-9.21	108.31	121.20
38	4	103	G	N3-C4-C5	-9.20	124.00	128.60
1	6	163	G	N3-C2-N2	-9.19	113.47	119.90
36	5	1187	C	C6-N1-C2	9.18	123.97	120.30
36	5	2875	U	N1-C2-N3	9.18	120.41	114.90
36	5	3188	G	N1-C6-O6	-9.17	114.40	119.90
36	1	1165	A	C8-N9-C4	9.15	109.46	105.80
36	1	2402	A	O5'-P-OP2	-9.15	97.46	105.70
36	5	1483	G	O4'-C1'-N9	9.15	115.52	108.20
36	5	1513	G	C8-N9-C4	-9.14	102.74	106.40
38	4	113	U	N1-C2-N3	9.13	120.38	114.90
36	1	2714	G	C2-N3-C4	-9.12	107.34	111.90
1	2	73	U	O4'-C1'-N1	9.12	115.49	108.20
36	5	2764	C	N3-C4-C5	9.11	125.54	121.90
36	5	189	G	N1-C6-O6	-9.10	114.44	119.90
36	5	1911	A	O5'-P-OP2	-9.09	97.52	105.70
36	5	2189	U	O5'-P-OP1	-9.09	97.52	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	439	C	C2-N1-C1'	9.09	128.79	118.80
36	5	3100	U	O5'-P-OP1	-9.08	97.53	105.70
36	5	923	C	C6-N1-C2	9.07	123.93	120.30
1	2	542	A	O4'-C1'-N9	9.07	115.46	108.20
36	1	2617	U	N3-C4-O4	-9.06	113.06	119.40
36	5	776	U	C4-C5-C6	9.06	125.14	119.70
36	5	2372	A	C8-N9-C4	-9.03	102.19	105.80
36	1	672	A	N1-C6-N6	9.03	124.02	118.60
36	5	907	G	O5'-P-OP1	-9.03	97.58	105.70
36	5	3060	C	N1-C2-O2	-9.01	113.50	118.90
36	1	972	A	C8-N9-C4	9.00	109.40	105.80
36	5	515	C	O5'-P-OP2	-8.99	97.61	105.70
36	5	3043	C	C6-N1-C2	8.99	123.89	120.30
36	5	672	A	N1-C6-N6	8.98	123.99	118.60
1	6	139	C	N3-C2-O2	-8.97	115.62	121.90
36	5	1130	A	C2-N3-C4	8.97	115.08	110.60
1	6	782	U	N3-C2-O2	-8.97	115.92	122.20
36	5	2404	A	N1-C6-N6	8.97	123.98	118.60
36	5	2281	A	O5'-P-OP2	-8.96	97.63	105.70
36	1	681	U	C5-C4-O4	-8.95	120.53	125.90
36	1	1556	C	C6-N1-C2	-8.95	116.72	120.30
36	5	2393	G	C5-C6-O6	-8.95	123.23	128.60
36	1	421	G	N9-C4-C5	-8.94	101.82	105.40
36	1	2409	G	N3-C4-C5	-8.94	124.13	128.60
36	1	2865	U	C5-C4-O4	-8.93	120.54	125.90
36	5	2980	U	N3-C2-O2	-8.93	115.95	122.20
1	2	558	U	N3-C2-O2	-8.93	115.95	122.20
36	5	1148	G	C5-C6-O6	-8.92	123.25	128.60
36	5	1370	G	N3-C2-N2	8.92	126.14	119.90
1	6	163	G	C2-N3-C4	-8.90	107.45	111.90
1	2	1560	U	N3-C2-O2	-8.90	115.97	122.20
36	1	2836	C	C4-C5-C6	8.88	121.84	117.40
1	2	553	G	C6-C5-N7	-8.87	125.08	130.40
36	1	2726	C	N3-C4-N4	-8.87	111.79	118.00
36	1	636	C	C2-N3-C4	-8.86	115.47	119.90
36	1	922	U	N1-C2-O2	8.86	129.00	122.80
36	5	404	G	O5'-P-OP2	-8.86	97.73	105.70
36	1	1148	G	C8-N9-C4	8.85	109.94	106.40
36	5	2954	U	O4'-C1'-N1	8.84	115.27	108.20
1	2	453	U	N3-C2-O2	-8.84	116.01	122.20
36	1	885	U	C5-C6-N1	-8.84	118.28	122.70
36	1	2768	U	O5'-P-OP2	-8.84	97.75	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3122	A	O5'-P-OP1	-8.82	97.76	105.70
36	1	979	U	P-O3'-C3'	8.81	130.28	119.70
36	1	339	C	N3-C2-O2	-8.80	115.74	121.90
36	1	2856	G	C8-N9-C4	8.81	109.92	106.40
37	3	88	G	N1-C6-O6	-8.80	114.62	119.90
36	5	63	A	N1-C6-N6	8.80	123.88	118.60
36	5	2893	C	N3-C4-C5	-8.80	118.38	121.90
1	6	337	G	C6-C5-N7	-8.79	125.13	130.40
1	6	1657	U	O5'-P-OP2	-8.79	97.79	105.70
36	5	2954	U	C6-N1-C1'	-8.79	108.90	121.20
36	1	1795	U	C5-C4-O4	-8.78	120.63	125.90
36	5	838	G	C5-C6-O6	8.77	133.86	128.60
36	1	2693	C	C6-N1-C2	8.77	123.81	120.30
36	1	716	A	N1-C6-N6	8.76	123.86	118.60
36	1	2279	A	C8-N9-C4	8.76	109.30	105.80
36	5	2315	G	O5'-P-OP1	-8.76	97.82	105.70
36	5	2353	G	C5-C6-O6	-8.76	123.35	128.60
36	1	639	G	O5'-P-OP1	8.75	121.20	110.70
36	5	3214	U	N3-C2-O2	-8.75	116.08	122.20
36	1	2867	C	N3-C4-C5	8.75	125.40	121.90
1	6	795	U	N3-C2-O2	-8.74	116.08	122.20
36	1	1556	C	C2-N1-C1'	8.74	128.41	118.80
1	6	1596	C	N3-C2-O2	-8.74	115.78	121.90
36	5	874	U	O5'-P-OP1	-8.74	97.83	105.70
36	5	2904	U	C5-C6-N1	-8.74	118.33	122.70
36	1	350	C	C6-N1-C2	-8.72	116.81	120.30
36	1	681	U	N3-C4-O4	8.72	125.51	119.40
36	5	2815	G	N7-C8-N9	-8.72	108.74	113.10
36	1	648	C	C6-N1-C2	-8.72	116.81	120.30
36	5	1897	G	C5-C6-O6	-8.71	123.37	128.60
36	1	3178	A	N1-C6-N6	8.70	123.82	118.60
36	1	2935	U	O5'-P-OP2	-8.68	97.89	105.70
36	5	1152	G	C4-C5-N7	8.68	114.27	110.80
36	5	2272	G	O4'-C1'-N9	8.68	115.14	108.20
36	5	640	U	N1-C2-O2	-8.67	116.73	122.80
36	5	2816	G	N1-C6-O6	8.65	125.09	119.90
36	5	3185	U	O5'-P-OP2	-8.65	97.91	105.70
36	1	1838	G	C5-C6-O6	-8.64	123.42	128.60
36	1	2130	G	N1-C6-O6	-8.64	114.72	119.90
36	5	1320	C	O5'-P-OP2	-8.63	97.93	105.70
1	6	17	C	N1-C2-O2	8.62	124.07	118.90
36	1	1116	G	C8-N9-C4	-8.62	102.95	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2257	C	C6-N1-C2	-8.61	116.86	120.30
36	1	2621	G	N1-C6-O6	8.61	125.07	119.90
36	5	636	C	N3-C4-C5	8.61	125.34	121.90
36	5	2199	G	N1-C6-O6	8.60	125.06	119.90
36	5	3042	U	N3-C4-O4	-8.59	113.39	119.40
36	5	222	A	O5'-P-OP2	-8.59	97.97	105.70
36	5	2524	A	O4'-C1'-N9	8.58	115.06	108.20
36	5	941	G	N1-C6-O6	-8.58	114.75	119.90
36	5	1047	A	C5-C6-N6	-8.56	116.85	123.70
36	5	1856	C	C6-N1-C2	-8.56	116.88	120.30
1	6	314	C	C6-N1-C2	-8.55	116.88	120.30
1	6	1473	U	N3-C2-O2	-8.55	116.22	122.20
36	1	2846	U	C5-C4-O4	8.53	131.02	125.90
36	5	424	G	C5-C6-O6	-8.53	123.48	128.60
36	1	2874	G	C5-C6-N1	-8.52	107.24	111.50
36	5	719	U	N1-C2-O2	8.52	128.76	122.80
1	6	453	U	N1-C2-O2	8.52	128.76	122.80
36	5	2213	A	O5'-P-OP2	-8.51	98.04	105.70
36	1	2827	U	C2-N1-C1'	-8.50	107.50	117.70
37	3	86	U	C2-N3-C4	-8.50	121.90	127.00
36	1	1556	C	N3-C2-O2	-8.50	115.95	121.90
1	6	609	U	C5-C4-O4	8.49	131.00	125.90
36	1	439	C	C6-N1-C1'	-8.49	110.62	120.80
1	6	1745	G	C5-C6-O6	-8.48	123.51	128.60
36	1	2314	U	C2-N1-C1'	8.48	127.87	117.70
36	5	1108	U	O5'-P-OP2	-8.47	98.07	105.70
36	5	3308	C	N1-C2-O2	-8.47	113.82	118.90
36	5	398	A	O5'-P-OP2	-8.47	98.08	105.70
36	1	3362	A	O4'-C1'-N9	8.46	114.97	108.20
36	5	1929	G	N3-C2-N2	-8.46	113.98	119.90
37	3	86	U	C5-C4-O4	-8.44	120.83	125.90
36	5	966	U	N3-C2-O2	-8.44	116.29	122.20
36	1	2643	A	C8-N9-C4	8.44	109.17	105.80
36	1	2400	G	N3-C2-N2	-8.43	114.00	119.90
36	5	2314	U	C5-C4-O4	-8.43	120.84	125.90
36	5	1848	G	C5-C6-O6	-8.43	123.54	128.60
1	2	553	G	C5-C6-O6	-8.43	123.55	128.60
36	5	1161	G	C5-C6-N1	8.42	115.71	111.50
36	5	2278	C	C4-C5-C6	-8.42	113.19	117.40
36	1	646	A	C8-N9-C4	-8.42	102.43	105.80
52	m6	78	ARG	NE-CZ-NH2	-8.42	116.09	120.30
36	1	2622	C	N3-C4-C5	-8.41	118.53	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1700	C	N1-C2-O2	8.41	123.95	118.90
36	5	952	A	O5'-P-OP2	-8.40	98.14	105.70
36	1	1847	A	O5'-P-OP1	-8.40	98.14	105.70
36	1	421	G	O5'-P-OP1	-8.39	98.14	105.70
36	1	1433	A	N1-C6-N6	8.39	123.63	118.60
36	5	2634	U	C2-N3-C4	-8.39	121.97	127.00
36	1	645	A	C6-N1-C2	-8.39	113.57	118.60
36	1	1414	G	N1-C6-O6	8.39	124.93	119.90
36	5	3218	A	C4-C5-N7	8.39	114.89	110.70
36	1	2314	U	C6-N1-C1'	-8.38	109.47	121.20
36	1	979	U	N1-C2-N3	8.37	119.92	114.90
36	1	650	C	N1-C2-O2	-8.37	113.88	118.90
36	5	1336	U	O5'-P-OP2	-8.37	98.17	105.70
36	5	2667	A	O5'-P-OP1	-8.37	98.17	105.70
36	1	3143	C	O5'-P-OP2	-8.37	98.17	105.70
1	6	17	C	C6-N1-C2	-8.37	116.95	120.30
36	5	2824	G	O5'-P-OP2	-8.36	98.17	105.70
36	1	939	U	N1-C2-O2	-8.36	116.95	122.80
36	1	2572	C	N1-C2-O2	8.36	123.92	118.90
36	5	1592	G	C8-N9-C4	-8.36	103.06	106.40
36	1	2396	G	C4-C5-N7	-8.36	107.46	110.80
1	2	577	G	C5-C6-O6	-8.35	123.59	128.60
36	1	776	U	C5-C6-N1	-8.35	118.52	122.70
36	1	2374	C	C2-N1-C1'	-8.35	109.62	118.80
36	1	2572	C	C2-N1-C1'	8.35	127.98	118.80
36	5	1390	A	C8-N9-C4	-8.35	102.46	105.80
36	1	1445	U	N1-C2-O2	-8.35	116.96	122.80
37	3	82	G	N1-C2-N2	-8.34	108.69	116.20
36	5	2857	C	N3-C4-C5	8.34	125.24	121.90
36	1	655	C	C6-N1-C2	-8.32	116.97	120.30
36	5	3362	A	C2-N3-C4	-8.31	106.44	110.60
36	1	1429	G	N3-C2-N2	8.31	125.72	119.90
36	1	578	A	O5'-P-OP1	-8.31	98.22	105.70
36	1	895	A	C4-C5-N7	8.30	114.85	110.70
36	1	1377	G	C4-C5-N7	8.30	114.12	110.80
36	1	2393	G	C5-C6-O6	-8.30	123.62	128.60
1	6	941	A	N1-C6-N6	-8.30	113.62	118.60
36	1	2870	C	C4-C5-C6	-8.29	113.25	117.40
36	1	2409	G	N1-C6-O6	-8.29	114.93	119.90
36	1	770	G	O4'-C1'-N9	8.29	114.83	108.20
36	5	3127	A	N1-C6-N6	-8.29	113.63	118.60
36	1	922	U	C5-C4-O4	8.28	130.87	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1405	U	C5-C4-O4	-8.28	120.93	125.90
36	1	922	U	N3-C4-O4	-8.28	113.61	119.40
36	5	2980	U	C6-N1-C2	-8.27	116.04	121.00
36	1	1365	G	C8-N9-C4	-8.27	103.09	106.40
36	1	776	U	N1-C2-N3	8.26	119.86	114.90
1	6	1700	C	C2-N1-C1'	8.26	127.89	118.80
36	5	860	G	O5'-P-OP2	-8.26	98.26	105.70
36	1	2811	A	N1-C6-N6	-8.26	113.65	118.60
36	5	960	U	C2-N3-C4	-8.24	122.06	127.00
36	1	933	A	C4-C5-C6	8.23	121.12	117.00
36	1	1118	C	C6-N1-C2	-8.23	117.01	120.30
1	6	65	A	C2-N3-C4	-8.23	106.48	110.60
1	2	75	U	N1-C2-O2	8.23	128.56	122.80
36	1	922	U	N3-C2-O2	-8.23	116.44	122.20
1	6	139	C	C6-N1-C2	-8.21	117.01	120.30
36	1	1380	G	C2-N3-C4	-8.21	107.79	111.90
1	6	957	G	N1-C6-O6	8.21	124.83	119.90
36	1	1495	U	C2-N3-C4	-8.21	122.08	127.00
36	5	1148	G	N9-C4-C5	-8.21	102.12	105.40
36	1	963	G	O5'-P-OP1	8.20	120.54	110.70
36	5	2142	A	C5-C6-N1	8.20	121.80	117.70
48	m1	112	LEU	CA-CB-CG	8.20	134.15	115.30
1	6	416	A	N1-C6-N6	8.19	123.52	118.60
36	5	922	U	C2-N3-C4	-8.19	122.09	127.00
36	1	3265	C	C6-N1-C2	8.18	123.57	120.30
36	1	3269	U	C5-C4-O4	8.18	130.81	125.90
36	5	2945	G	C5-C6-O6	-8.18	123.69	128.60
1	2	75	U	N3-C2-O2	-8.18	116.48	122.20
36	1	1176	C	N3-C4-C5	8.16	125.17	121.90
36	1	2808	A	N9-C4-C5	-8.16	102.53	105.80
36	5	2794	G	C5-C6-O6	-8.16	123.70	128.60
36	5	923	C	N3-C4-C5	8.16	125.16	121.90
36	5	38	U	O5'-P-OP2	-8.15	98.36	105.70
36	1	3278	C	C5-C4-N4	8.15	125.90	120.20
36	1	963	G	O5'-P-OP2	-8.15	98.37	105.70
36	1	1094	U	C5-C6-N1	8.15	126.77	122.70
36	5	2796	G	O5'-P-OP2	-8.15	98.37	105.70
36	5	3362	A	N1-C2-N3	8.14	133.37	129.30
36	1	610	G	O5'-P-OP2	-8.14	98.38	105.70
36	1	2404	A	C6-C5-N7	-8.14	126.60	132.30
1	6	1773	C	N1-C2-O2	-8.13	114.02	118.90
36	5	419	G	N3-C4-N9	8.13	130.88	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2899	C	N3-C2-O2	-8.13	116.21	121.90
36	1	961	C	C6-N1-C2	8.12	123.55	120.30
36	1	2816	G	C8-N9-C4	8.12	109.65	106.40
36	1	2983	C	C5-C4-N4	8.12	125.88	120.20
36	5	658	G	C5-C6-O6	-8.12	123.73	128.60
36	5	960	U	N3-C4-C5	8.11	119.47	114.60
38	4	94	C	N3-C4-C5	8.10	125.14	121.90
70	O4	51	LEU	CA-CB-CG	8.10	133.94	115.30
36	1	421	G	C4-C5-N7	8.10	114.04	110.80
36	1	1414	G	C5-C6-O6	-8.10	123.74	128.60
1	6	543	C	C5-C6-N1	8.10	125.05	121.00
36	5	1879	A	N1-C6-N6	8.09	123.45	118.60
36	1	611	A	O5'-P-OP2	-8.08	98.42	105.70
36	1	3055	U	C5-C4-O4	-8.07	121.06	125.90
36	5	189	G	C5-C6-O6	8.06	133.44	128.60
36	1	1510	G	N3-C4-N9	8.06	130.84	126.00
36	5	2293	C	C2-N1-C1'	8.06	127.66	118.80
36	1	2345	A	N1-C6-N6	8.05	123.43	118.60
36	1	2756	C	C6-N1-C2	-8.05	117.08	120.30
36	1	2917	G	C5-C6-O6	-8.05	123.77	128.60
38	4	47	C	N3-C2-O2	-8.04	116.27	121.90
36	5	1130	A	N1-C2-N3	-8.02	125.29	129.30
36	1	2138	A	C8-N9-C4	-8.02	102.59	105.80
36	1	2374	C	N1-C2-O2	-8.02	114.09	118.90
36	5	2323	G	O5'-P-OP2	8.02	120.32	110.70
36	5	2404	A	N9-C4-C5	-8.02	102.59	105.80
1	6	25	C	N1-C2-O2	-8.01	114.09	118.90
36	1	1168	U	O5'-P-OP1	8.01	120.31	110.70
36	1	2808	A	C6-C5-N7	-8.01	126.70	132.30
36	1	893	C	C6-N1-C2	-8.00	117.10	120.30
36	1	2419	A	OP1-P-OP2	-8.00	107.60	119.60
36	1	1419	A	O5'-P-OP1	8.00	120.30	110.70
1	2	577	G	C5-N7-C8	-7.99	100.31	104.30
36	5	1452	A	N1-C6-N6	7.99	123.39	118.60
36	5	945	C	C6-N1-C2	7.98	123.49	120.30
36	1	3217	C	C2-N1-C1'	7.98	127.58	118.80
25	d3	33	LEU	CA-CB-CG	-7.98	96.94	115.30
36	5	519	A	N1-C6-N6	7.98	123.39	118.60
36	1	2817	A	C5-C6-N1	7.97	121.69	117.70
36	5	646	A	C8-N9-C4	-7.97	102.61	105.80
36	5	578	A	O5'-P-OP2	7.96	120.25	110.70
36	5	1450	G	N3-C2-N2	-7.96	114.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N1-C2-N2	7.96	123.36	116.20
36	1	1168	U	N3-C2-O2	-7.96	116.63	122.20
36	1	1163	A	O5'-P-OP2	-7.95	98.54	105.70
1	6	1581	C	C6-N1-C2	7.95	123.48	120.30
36	1	2959	C	N1-C2-O2	-7.95	114.13	118.90
1	2	453	U	C2-N1-C1'	7.94	127.23	117.70
36	1	2812	C	C6-N1-C2	7.94	123.48	120.30
36	5	2234	G	C5-C6-O6	-7.94	123.83	128.60
36	5	2825	C	C6-N1-C2	7.94	123.48	120.30
36	5	1118	C	O5'-P-OP1	-7.94	98.56	105.70
38	4	140	G	C8-N9-C4	-7.94	103.22	106.40
1	6	1773	C	N3-C4-N4	7.94	123.56	118.00
1	6	1560	U	N3-C2-O2	-7.93	116.65	122.20
36	1	1389	G	C4-C5-N7	7.92	113.97	110.80
36	5	2667	A	C8-N9-C4	-7.92	102.63	105.80
1	6	901	G	N9-C4-C5	-7.92	102.23	105.40
36	1	2385	G	N3-C4-C5	7.92	132.56	128.60
36	1	2279	A	N1-C6-N6	7.92	123.35	118.60
36	5	2572	C	N3-C2-O2	-7.92	116.36	121.90
36	1	645	A	N3-C4-C5	-7.91	121.26	126.80
36	5	941	G	C5-C6-N1	7.91	115.45	111.50
36	5	960	U	N3-C2-O2	-7.91	116.66	122.20
37	7	110	G	O5'-P-OP2	-7.91	98.58	105.70
36	5	1149	G	O5'-P-OP2	-7.91	98.58	105.70
38	4	15	G	C5-C6-O6	-7.90	123.86	128.60
38	4	25	G	C5-C6-O6	7.90	133.34	128.60
38	4	113	U	C5-C4-O4	7.90	130.64	125.90
36	1	2247	G	C5-C6-O6	-7.89	123.86	128.60
36	5	1456	A	N1-C6-N6	7.89	123.33	118.60
36	5	437	G	N7-C8-N9	7.89	117.04	113.10
36	1	29	C	C5-C4-N4	-7.88	114.68	120.20
36	1	1116	G	N3-C4-C5	-7.88	124.66	128.60
36	5	2754	G	C5-C6-O6	7.88	133.33	128.60
1	2	1432	U	C6-N1-C2	7.87	125.72	121.00
36	5	2872	A	O5'-P-OP2	-7.87	98.62	105.70
36	1	1130	A	C2-N3-C4	7.86	114.53	110.60
36	1	660	A	O5'-P-OP2	-7.85	98.63	105.70
36	5	824	C	C6-N1-C2	-7.85	117.16	120.30
36	5	2572	C	C2-N1-C1'	7.85	127.43	118.80
36	5	1419	A	O5'-P-OP2	-7.84	98.64	105.70
1	2	577	G	N1-C6-O6	7.84	124.61	119.90
36	5	2950	G	O4'-C1'-N9	7.84	114.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2790	A	O5'-P-OP2	-7.83	98.65	105.70
36	1	3344	A	N7-C8-N9	7.83	117.72	113.80
1	6	44	U	N1-C2-O2	-7.83	117.32	122.80
1	6	57	G	O5'-P-OP2	-7.83	98.66	105.70
36	1	2850	G	C5-C6-O6	-7.82	123.91	128.60
1	6	103	A	C8-N9-C4	-7.82	102.67	105.80
36	1	1351	U	N1-C2-O2	7.82	128.27	122.80
36	5	56	G	N1-C6-O6	-7.82	115.21	119.90
36	5	1208	U	N3-C2-O2	-7.82	116.72	122.20
36	5	2758	A	C2-N3-C4	7.82	114.51	110.60
1	6	973	A	O5'-P-OP2	-7.81	98.67	105.70
36	1	936	A	N1-C6-N6	7.81	123.28	118.60
36	1	1525	G	O5'-P-OP2	-7.81	98.67	105.70
52	m6	78	ARG	NE-CZ-NH1	7.81	124.20	120.30
36	5	881	C	C5-C6-N1	7.79	124.90	121.00
1	2	830	U	N3-C2-O2	-7.79	116.75	122.20
36	1	1177	G	N3-C2-N2	-7.79	114.45	119.90
36	1	1149	G	N1-C6-O6	7.78	124.57	119.90
36	1	1949	G	O5'-P-OP1	-7.78	98.70	105.70
36	5	1452	A	C5-C6-N6	-7.78	117.48	123.70
36	1	2827	U	C6-N1-C1'	7.78	132.09	121.20
1	6	119	A	C2-N3-C4	-7.77	106.71	110.60
1	6	453	U	C2-N1-C1'	7.77	127.03	117.70
37	7	120	C	C6-N1-C2	7.76	123.41	120.30
36	1	421	G	C5-C6-O6	-7.76	123.94	128.60
36	1	2875	U	C2-N1-C1'	7.76	127.01	117.70
37	7	35	C	C6-N1-C2	7.75	123.40	120.30
42	15	152	ARG	NE-CZ-NH1	7.75	124.17	120.30
36	1	96	G	C2-N3-C4	-7.75	108.03	111.90
36	5	1004	U	N1-C2-O2	7.75	128.22	122.80
36	5	2889	C	N3-C4-C5	7.74	125.00	121.90
36	5	1054	A	C8-N9-C4	7.74	108.89	105.80
36	5	2871	G	N1-C6-O6	-7.74	115.26	119.90
36	1	1157	G	C4-C5-N7	-7.73	107.71	110.80
36	1	2827	U	C5-C4-O4	7.73	130.54	125.90
36	5	2372	A	P-O3'-C3'	7.73	128.97	119.70
36	5	3005	A	C8-N9-C4	-7.73	102.71	105.80
36	1	2404	A	N9-C4-C5	-7.72	102.71	105.80
36	1	2875	U	C5-C4-O4	-7.72	121.27	125.90
44	17	229	PHE	CB-CG-CD1	7.72	126.20	120.80
36	5	3041	U	N3-C2-O2	7.72	127.60	122.20
36	5	2852	C	O5'-P-OP1	7.71	119.96	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	144	U	N3-C2-O2	-7.71	116.80	122.20
36	5	908	G	C5-C6-O6	-7.71	123.97	128.60
36	5	835	G	O4'-C1'-N9	7.71	114.36	108.20
36	5	2308	C	N1-C2-O2	-7.71	114.28	118.90
36	5	881	C	N1-C2-O2	7.70	123.52	118.90
36	5	1897	G	N1-C6-O6	7.70	124.52	119.90
36	1	1306	G	C8-N9-C4	7.70	109.48	106.40
36	1	640	U	C5-C4-O4	-7.69	121.28	125.90
36	5	1049	C	C4-C5-C6	-7.69	113.55	117.40
36	5	2927	C	OP2-P-O3'	7.68	122.11	105.20
36	5	1176	C	C2-N3-C4	-7.68	116.06	119.90
36	5	1450	G	N1-C2-N2	7.68	123.11	116.20
1	2	1600	A	C2-N3-C4	-7.68	106.76	110.60
1	6	17	C	N3-C2-O2	-7.67	116.53	121.90
1	2	1039	A	O4'-C1'-N9	7.67	114.33	108.20
36	5	3154	C	C2-N1-C1'	7.67	127.23	118.80
36	5	2944	U	N1-C2-O2	7.67	128.17	122.80
36	5	1154	A	C2-N3-C4	7.66	114.43	110.60
36	5	1886	A	O5'-P-OP2	-7.66	98.80	105.70
36	5	2754	G	N1-C6-O6	-7.66	115.30	119.90
1	6	1473	U	C5-C4-O4	7.66	130.50	125.90
36	5	947	G	O5'-P-OP2	-7.66	98.81	105.70
36	1	1140	G	C4-C5-N7	7.66	113.86	110.80
36	5	2345	A	N1-C6-N6	7.66	123.19	118.60
36	1	2884	C	N3-C4-C5	7.65	124.96	121.90
36	5	1049	C	C5-C6-N1	7.65	124.83	121.00
36	5	2726	C	N3-C2-O2	-7.65	116.55	121.90
36	5	3245	A	C4-C5-N7	7.65	114.52	110.70
36	5	215	G	C8-N9-C4	-7.64	103.34	106.40
36	1	2693	C	N3-C4-C5	7.64	124.96	121.90
36	5	2211	U	C4-C5-C6	7.64	124.29	119.70
36	5	3188	G	N9-C4-C5	7.64	108.46	105.40
38	8	113	U	C2-N1-C1'	7.64	126.87	117.70
36	5	2861	U	O5'-P-OP1	-7.64	98.82	105.70
36	1	1366	A	N1-C2-N3	-7.64	125.48	129.30
1	6	630	A	N1-C6-N6	7.64	123.18	118.60
1	2	1761	U	C6-N1-C2	-7.63	116.42	121.00
38	4	27	U	OP1-P-OP2	-7.63	108.15	119.60
36	5	999	G	N1-C6-O6	-7.63	115.32	119.90
36	5	1464	G	C8-N9-C4	7.62	109.45	106.40
38	4	40	A	N1-C6-N6	7.62	123.17	118.60
36	1	2355	G	N1-C6-O6	7.62	124.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3034	C	C6-N1-C2	7.61	123.34	120.30
1	6	321	C	N3-C2-O2	-7.61	116.57	121.90
36	5	1449	A	N1-C6-N6	7.61	123.16	118.60
36	5	877	C	C4-C5-C6	-7.61	113.60	117.40
36	1	648	C	N3-C4-N4	7.60	123.32	118.00
36	5	1192	C	C5-C4-N4	-7.59	114.88	120.20
1	2	1291	G	N3-C4-N9	-7.59	121.44	126.00
36	1	895	A	C5-N7-C8	-7.59	100.11	103.90
12	C0	88	PRO	N-CA-CB	7.58	112.40	103.30
36	5	2199	G	C5-C6-O6	-7.58	124.05	128.60
36	1	3172	A	N7-C8-N9	-7.58	110.01	113.80
36	1	1838	G	C4-C5-N7	7.58	113.83	110.80
36	5	2831	G	C5-C6-O6	-7.58	124.05	128.60
36	1	1161	G	O5'-P-OP2	-7.57	98.88	105.70
36	1	2943	G	O5'-P-OP2	-7.57	98.89	105.70
1	6	1354	G	C8-N9-C4	-7.57	103.37	106.40
36	5	2377	G	O5'-P-OP2	-7.57	98.89	105.70
36	1	3362	A	N7-C8-N9	7.56	117.58	113.80
36	1	671	U	O5'-P-OP1	-7.55	98.90	105.70
36	5	3078	U	N3-C2-O2	-7.55	116.92	122.20
36	5	1392	G	C8-N9-C4	7.54	109.42	106.40
36	5	2865	U	N1-C2-O2	7.54	128.08	122.80
36	1	2302	G	C5-C6-O6	7.54	133.12	128.60
36	1	2983	C	N3-C4-N4	-7.54	112.72	118.00
36	1	2816	G	N1-C6-O6	7.53	124.42	119.90
36	5	2858	U	N3-C2-O2	-7.53	116.93	122.20
36	5	1838	G	C5-C6-O6	-7.52	124.09	128.60
36	5	2117	A	N1-C6-N6	-7.52	114.09	118.60
36	1	3306	U	C5-C4-O4	7.52	130.41	125.90
36	1	1198	C	N1-C2-O2	-7.51	114.39	118.90
36	5	914	A	O5'-P-OP1	-7.51	98.94	105.70
36	1	2831	G	C6-C5-N7	-7.51	125.90	130.40
36	1	661	G	C8-N9-C4	-7.50	103.40	106.40
36	5	645	A	C6-N1-C2	-7.50	114.10	118.60
36	1	2878	G	O5'-P-OP2	-7.49	98.96	105.70
36	1	810	A	N1-C6-N6	-7.49	114.11	118.60
36	5	1006	A	O5'-P-OP2	-7.49	98.96	105.70
49	m3	21	ARG	NE-CZ-NH1	-7.49	116.56	120.30
36	5	2857	C	C6-N1-C2	7.49	123.29	120.30
36	1	2633	U	OP1-P-O3'	7.48	121.67	105.20
36	1	2283	G	N1-C6-O6	7.48	124.39	119.90
36	1	2816	G	O4'-C1'-N9	7.48	114.18	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	805	G	C8-N9-C4	7.48	109.39	106.40
1	6	1777	G	O5'-P-OP1	-7.48	98.97	105.70
36	5	679	U	C5-C4-O4	7.48	130.39	125.90
36	5	1838	G	N1-C6-O6	7.47	124.38	119.90
36	1	2833	A	O5'-P-OP2	-7.47	98.98	105.70
36	5	963	G	O5'-P-OP2	-7.46	98.98	105.70
36	1	1329	U	O4'-C1'-N1	7.46	114.17	108.20
36	1	54	C	N3-C4-C5	7.46	124.89	121.90
36	5	3140	G	C5-C6-O6	-7.46	124.12	128.60
36	1	954	U	C6-N1-C2	-7.45	116.53	121.00
36	1	2726	C	N3-C2-O2	-7.45	116.69	121.90
36	5	1152	G	C5-C6-N1	-7.44	107.78	111.50
36	5	2343	C	C5-C6-N1	-7.44	117.28	121.00
1	6	542	A	C6-C5-N7	-7.44	127.09	132.30
36	5	2726	C	N1-C2-N3	7.44	124.41	119.20
36	5	585	A	O5'-P-OP2	-7.44	99.00	105.70
36	1	1495	U	N3-C2-O2	-7.43	117.00	122.20
37	3	82	G	N3-C2-N2	7.43	125.10	119.90
36	5	3095	U	N3-C2-O2	-7.43	117.00	122.20
36	5	1154	A	N1-C2-N3	-7.43	125.58	129.30
41	14	339	LEU	CA-CB-CG	7.43	132.38	115.30
36	5	871	U	C5-C4-O4	7.42	130.35	125.90
36	1	98	G	C2-N3-C4	-7.42	108.19	111.90
36	1	2400	G	C5-C6-O6	-7.42	124.15	128.60
36	1	714	G	N9-C4-C5	-7.42	102.43	105.40
36	5	660	A	C8-N9-C4	7.42	108.77	105.80
36	5	2343	C	C6-N1-C2	7.42	123.27	120.30
36	5	2875	U	N3-C4-O4	-7.42	114.21	119.40
37	7	89	G	N3-C2-N2	7.42	125.09	119.90
1	2	933	A	C8-N9-C4	-7.41	102.83	105.80
36	5	1399	A	N1-C6-N6	7.41	123.05	118.60
36	5	2293	C	C5-C4-N4	-7.41	115.01	120.20
36	5	2843	U	N3-C2-O2	-7.41	117.01	122.20
36	1	304	G	N1-C2-N2	7.41	122.87	116.20
36	5	2870	C	C2-N1-C1'	-7.41	110.66	118.80
36	5	1406	A	N1-C6-N6	7.40	123.04	118.60
36	5	2889	C	C2-N3-C4	-7.40	116.20	119.90
36	1	1886	A	O5'-P-OP2	-7.40	99.04	105.70
36	5	1875	G	N1-C6-O6	-7.40	115.46	119.90
36	5	2295	A	C5-C6-N1	7.40	121.40	117.70
36	5	2942	C	C6-N1-C1'	-7.40	111.92	120.80
36	1	2942	C	C6-N1-C2	7.40	123.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1157	G	N9-C4-C5	7.39	108.36	105.40
1	6	782	U	N1-C2-O2	7.39	127.98	122.80
36	1	2329	C	O5'-P-OP2	-7.39	99.05	105.70
52	m6	94	ARG	NE-CZ-NH1	-7.39	116.60	120.30
36	5	838	G	N1-C6-O6	-7.39	115.47	119.90
36	5	3059	G	O5'-P-OP1	-7.39	99.05	105.70
36	5	2135	U	N3-C4-C5	7.38	119.03	114.60
36	5	2693	C	N3-C4-C5	7.38	124.85	121.90
36	1	2827	U	O4'-C1'-N1	7.38	114.10	108.20
36	5	3351	U	N3-C2-O2	-7.38	117.03	122.20
36	5	2834	G	O5'-P-OP1	-7.38	99.06	105.70
36	1	1331	U	C5-C4-O4	-7.38	121.47	125.90
1	2	1745	G	N3-C4-N9	7.37	130.42	126.00
36	5	3127	A	O5'-P-OP2	-7.37	99.06	105.70
36	1	876	A	N1-C6-N6	7.37	123.02	118.60
1	6	609	U	C5-C6-N1	-7.37	119.02	122.70
36	5	2753	G	N3-C2-N2	-7.37	114.74	119.90
36	5	719	U	N3-C2-O2	-7.37	117.04	122.20
36	5	2402	A	C8-N9-C4	-7.37	102.85	105.80
36	1	964	G	N1-C6-O6	-7.36	115.48	119.90
1	6	1	U	C2-N1-C1'	7.36	126.53	117.70
36	5	1375	G	C2-N3-C4	7.36	115.58	111.90
36	1	920	A	N1-C2-N3	7.36	132.98	129.30
36	1	2772	C	P-O3'-C3'	7.36	128.53	119.70
36	5	1331	U	N3-C4-C5	7.36	119.01	114.60
36	1	304	G	N3-C2-N2	-7.35	114.75	119.90
36	1	636	C	C5-C4-N4	-7.35	115.05	120.20
38	4	115	C	O5'-P-OP2	-7.35	99.09	105.70
36	5	39	A	N1-C6-N6	7.35	123.01	118.60
36	5	3200	G	N1-C6-O6	7.35	124.31	119.90
36	5	1879	A	C6-C5-N7	-7.34	127.16	132.30
36	5	2875	U	N1-C2-O2	-7.34	117.66	122.80
36	1	1148	G	N9-C4-C5	-7.34	102.46	105.40
1	2	1118	G	N1-C6-O6	7.34	124.30	119.90
38	4	109	A	N1-C6-N6	7.34	123.00	118.60
36	5	1925	U	O5'-P-OP2	-7.34	99.09	105.70
36	5	908	G	N1-C6-O6	7.34	124.30	119.90
1	6	308	C	C5-C6-N1	-7.33	117.33	121.00
36	1	2827	U	N1-C2-N3	7.32	119.29	114.90
1	6	421	A	C8-N9-C4	7.32	108.73	105.80
36	1	2343	C	N3-C4-C5	7.32	124.83	121.90
36	1	52	A	O5'-P-OP2	-7.31	99.12	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2726	C	C5-C4-N4	7.31	125.32	120.20
1	2	453	U	N1-C2-O2	7.31	127.92	122.80
1	6	557	G	N1-C6-O6	-7.31	115.51	119.90
36	5	882	A	N1-C2-N3	7.31	132.95	129.30
36	1	1906	G	C5-C6-O6	-7.30	124.22	128.60
36	1	2374	C	C6-N1-C1'	7.30	129.57	120.80
1	6	1514	U	N3-C4-O4	-7.30	114.29	119.40
36	5	2996	U	O5'-P-OP1	7.30	119.47	110.70
36	1	1896	A	O5'-P-OP1	-7.30	99.13	105.70
36	1	421	G	N3-C4-N9	7.30	130.38	126.00
36	1	697	A	C8-N9-C4	7.30	108.72	105.80
36	1	1599	G	O5'-P-OP2	-7.30	99.13	105.70
1	6	1600	A	C2-N3-C4	-7.30	106.95	110.60
36	1	650	C	C2-N3-C4	-7.30	116.25	119.90
36	5	655	C	C6-N1-C2	-7.30	117.38	120.30
36	1	1166	G	N1-C6-O6	7.29	124.28	119.90
37	7	7	G	O5'-P-OP1	7.29	119.45	110.70
36	5	1412	G	N9-C4-C5	7.29	108.31	105.40
36	1	2621	G	N1-C2-N2	7.29	122.76	116.20
36	5	3374	U	C5-C6-N1	-7.28	119.06	122.70
36	5	2351	U	N3-C2-O2	-7.28	117.10	122.20
36	5	2806	U	C5-C6-N1	-7.28	119.06	122.70
1	6	542	A	O4'-C1'-N9	7.28	114.02	108.20
36	1	2366	C	C5-C6-N1	7.28	124.64	121.00
36	1	3214	U	N3-C2-O2	-7.27	117.11	122.20
36	1	1923	C	C6-N1-C2	7.27	123.21	120.30
36	1	2642	A	C5-C6-N1	-7.26	114.07	117.70
1	6	901	G	C6-C5-N7	-7.26	126.04	130.40
38	4	9	A	O5'-P-OP2	-7.26	99.17	105.70
36	5	3046	A	N1-C6-N6	-7.26	114.25	118.60
36	5	2764	C	C6-N1-C2	7.26	123.20	120.30
36	5	3218	A	N9-C4-C5	-7.25	102.90	105.80
36	1	802	C	O5'-P-OP2	7.25	119.40	110.70
36	1	697	A	N9-C4-C5	-7.25	102.90	105.80
36	5	2953	U	C4-C5-C6	7.25	124.05	119.70
36	5	3103	A	C5-C6-N1	7.25	121.32	117.70
36	1	2169	G	C4-C5-N7	-7.25	107.90	110.80
36	1	2699	G	N1-C6-O6	7.25	124.25	119.90
36	5	3377	G	C4-C5-N7	7.25	113.70	110.80
36	1	2176	U	N3-C2-O2	-7.24	117.13	122.20
1	6	194	U	C2-N1-C1'	7.24	126.39	117.70
36	5	339	C	N3-C4-N4	-7.23	112.94	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	88	A	N1-C6-N6	7.23	122.94	118.60
36	1	645	A	N3-C4-N9	7.23	133.18	127.40
36	1	936	A	O5'-P-OP2	-7.23	99.19	105.70
24	d2	93	LEU	CA-CB-CG	7.23	131.92	115.30
36	5	2181	C	O5'-P-OP1	-7.22	99.20	105.70
36	1	1351	U	N3-C2-O2	-7.22	117.15	122.20
36	1	2550	U	N3-C2-O2	-7.22	117.15	122.20
36	5	2821	C	C5-C4-N4	-7.22	115.15	120.20
36	1	2808	A	O4'-C1'-N9	-7.22	102.43	108.20
36	5	3339	A	N1-C6-N6	7.22	122.93	118.60
36	1	2953	U	N1-C2-N3	7.21	119.22	114.90
36	1	802	C	O5'-P-OP1	-7.21	99.21	105.70
36	1	2173	U	N1-C2-O2	-7.21	117.76	122.80
36	5	1112	A	C5-C6-N6	-7.21	117.94	123.70
36	1	2255	A	C8-N9-C4	7.20	108.68	105.80
36	1	960	U	C2-N3-C4	-7.20	122.68	127.00
36	1	1405	U	C6-N1-C2	7.20	125.32	121.00
36	5	1311	G	O5'-P-OP2	-7.19	99.22	105.70
36	1	1389	G	C5-C6-O6	-7.19	124.28	128.60
36	1	1846	C	N1-C2-O2	-7.19	114.58	118.90
36	5	341	G	C5-C6-O6	-7.19	124.29	128.60
36	1	793	C	C5-C4-N4	-7.19	115.17	120.20
36	1	407	A	C5-C6-N6	-7.18	117.95	123.70
36	1	2936	A	O5'-P-OP1	-7.18	99.23	105.70
36	5	3218	A	C6-C5-N7	-7.18	127.27	132.30
36	5	3218	A	C5-N7-C8	-7.18	100.31	103.90
36	1	1165	A	N7-C8-N9	-7.18	110.21	113.80
36	5	1380	G	C8-N9-C4	7.18	109.27	106.40
36	5	1607	U	N3-C2-O2	-7.18	117.17	122.20
36	5	750	G	O5'-P-OP2	-7.18	99.24	105.70
36	1	1547	G	N7-C8-N9	-7.18	109.51	113.10
38	4	79	A	C8-N9-C4	-7.18	102.93	105.80
36	5	2796	G	N9-C4-C5	-7.18	102.53	105.40
36	5	804	C	N3-C4-C5	-7.18	119.03	121.90
36	5	2621	G	C5-C6-O6	-7.18	124.30	128.60
36	5	3188	G	C4-C5-N7	-7.18	107.93	110.80
36	1	2827	U	N3-C4-O4	-7.17	114.38	119.40
36	1	2406	C	C6-N1-C2	7.17	123.17	120.30
36	5	923	C	C5-C4-N4	-7.17	115.18	120.20
36	1	1205	A	O5'-P-OP2	-7.17	99.25	105.70
36	5	1607	U	P-O3'-C3'	7.17	128.30	119.70
36	1	1382	G	C8-N9-C4	7.17	109.27	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	861	C	C6-N1-C2	7.17	123.17	120.30
37	7	100	C	C6-N1-C2	7.17	123.17	120.30
36	5	200	C	N3-C4-N4	7.16	123.01	118.00
36	5	2928	C	C6-N1-C2	-7.16	117.44	120.30
36	1	699	A	C2-N3-C4	-7.16	107.02	110.60
36	1	2773	C	O5'-P-OP2	-7.16	99.25	105.70
36	1	1307	G	P-O3'-C3'	7.16	128.29	119.70
36	5	2362	C	N1-C2-O2	7.16	123.20	118.90
36	5	2765	C	C5-C6-N1	7.16	124.58	121.00
36	1	651	G	N3-C4-N9	7.16	130.29	126.00
1	6	1634	C	C2-N1-C1'	7.16	126.67	118.80
36	5	1859	A	O5'-P-OP2	-7.16	99.26	105.70
36	1	417	A	N1-C6-N6	7.15	122.89	118.60
36	1	895	A	C6-C5-N7	-7.15	127.29	132.30
38	4	140	G	N9-C4-C5	7.15	108.26	105.40
1	2	36	C	C6-N1-C2	7.15	123.16	120.30
1	6	139	C	P-O3'-C3'	7.15	128.28	119.70
36	1	2420	C	C6-N1-C2	-7.15	117.44	120.30
36	5	2813	A	C8-N9-C4	-7.15	102.94	105.80
36	1	2816	G	C5-C6-O6	-7.14	124.31	128.60
53	M7	23	ARG	NE-CZ-NH1	-7.14	116.73	120.30
36	5	1208	U	C5-C4-O4	7.14	130.18	125.90
36	5	2366	C	C5-C6-N1	7.14	124.57	121.00
36	1	668	G	N1-C6-O6	-7.13	115.62	119.90
36	1	422	A	N9-C4-C5	7.13	108.65	105.80
1	6	542	A	N1-C6-N6	7.13	122.88	118.60
36	5	911	C	C2-N3-C4	-7.13	116.33	119.90
36	5	2392	C	C2-N3-C4	-7.13	116.33	119.90
36	5	2824	G	C5-C6-O6	-7.13	124.32	128.60
36	1	701	G	OP2-P-O3'	7.13	120.89	105.20
50	M4	135	LEU	CA-CB-CG	7.13	131.70	115.30
36	5	1449	A	C2-N3-C4	-7.13	107.03	110.60
36	5	922	U	N3-C4-O4	-7.12	114.41	119.40
36	1	802	C	N3-C2-O2	-7.12	116.91	121.90
36	1	1405	U	N1-C2-O2	-7.12	117.81	122.80
36	5	1208	U	N3-C4-O4	-7.12	114.41	119.40
36	5	911	C	N1-C2-O2	-7.12	114.63	118.90
36	5	2631	U	OP1-P-O3'	7.12	120.87	105.20
36	1	369	A	C8-N9-C4	-7.12	102.95	105.80
36	1	922	U	C5-C6-N1	7.12	126.26	122.70
36	1	2639	G	C5-C6-O6	-7.12	124.33	128.60
1	2	942	G	N1-C6-O6	-7.12	115.63	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	419	G	N1-C2-N2	-7.12	109.79	116.20
36	1	3265	C	N3-C4-C5	7.12	124.75	121.90
36	5	2822	U	C6-N1-C2	7.12	125.27	121.00
36	5	1452	A	C8-N9-C4	7.12	108.65	105.80
1	2	1280	C	N3-C4-C5	-7.12	119.05	121.90
36	5	216	G	N1-C6-O6	7.12	124.17	119.90
36	1	827	A	C8-N9-C4	7.11	108.65	105.80
36	1	968	G	C5-C6-O6	-7.11	124.33	128.60
37	3	88	G	C5-C6-O6	7.11	132.87	128.60
36	5	2870	C	C4-C5-C6	-7.11	113.84	117.40
36	1	641	C	C2-N3-C4	-7.11	116.35	119.90
36	5	914	A	C2-N3-C4	-7.10	107.05	110.60
36	1	1216	C	C6-N1-C2	-7.10	117.46	120.30
36	1	2954	U	C6-N1-C2	7.10	125.26	121.00
1	2	74	U	O5'-P-OP1	-7.10	99.31	105.70
36	1	2836	C	C6-N1-C2	-7.10	117.46	120.30
36	1	639	G	C5-C6-O6	-7.10	124.34	128.60
36	1	644	G	C6-C5-N7	-7.10	126.14	130.40
36	1	1342	C	N3-C4-C5	7.10	124.74	121.90
36	1	2314	U	N1-C2-N3	-7.10	110.64	114.90
36	1	3109	G	O5'-P-OP2	7.10	119.22	110.70
36	5	2186	U	N3-C2-O2	-7.10	117.23	122.20
36	5	1190	A	C8-N9-C4	-7.09	102.96	105.80
1	2	1082	C	N1-C2-O2	7.09	123.16	118.90
36	1	960	U	C6-N1-C2	7.09	125.25	121.00
36	5	53	G	C8-N9-C4	7.09	109.24	106.40
1	2	1280	C	C6-N1-C2	-7.09	117.46	120.30
36	1	2169	G	C5-C6-O6	7.09	132.85	128.60
36	5	349	A	O5'-P-OP2	-7.09	99.32	105.70
36	5	869	G	C5-C6-N1	7.09	115.05	111.50
36	5	3039	C	O5'-P-OP2	-7.09	99.32	105.70
36	1	671	U	N1-C2-O2	-7.09	117.84	122.80
1	6	1535	U	N3-C2-O2	-7.09	117.24	122.20
36	1	196	G	C5-C6-O6	-7.08	124.35	128.60
1	2	1432	U	C5-C6-N1	-7.08	119.16	122.70
36	1	608	A	C5-C6-N6	-7.08	118.03	123.70
1	2	1200	G	C5-C6-N1	-7.08	107.96	111.50
1	2	1745	G	C5-C6-O6	-7.08	124.35	128.60
36	1	662	U	C5-C4-O4	7.08	130.15	125.90
36	5	1157	G	OP2-P-O3'	7.08	120.77	105.20
38	4	94	C	C6-N1-C2	7.08	123.13	120.30
36	5	1116	G	C4-C5-N7	-7.07	107.97	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1314	C	N3-C4-C5	7.07	124.73	121.90
36	1	908	G	O4'-C1'-N9	-7.07	102.54	108.20
36	1	1279	C	C6-N1-C2	-7.07	117.47	120.30
36	1	2144	A	C5-C6-N6	-7.07	118.04	123.70
36	1	2194	G	C6-C5-N7	-7.07	126.16	130.40
36	5	974	G	N3-C4-C5	-7.07	125.06	128.60
37	7	11	A	N1-C6-N6	7.07	122.84	118.60
36	1	2874	G	N1-C2-N3	7.07	128.14	123.90
36	1	111	C	C6-N1-C2	7.07	123.13	120.30
36	5	3136	G	C2-N3-C4	-7.06	108.37	111.90
36	5	1307	G	O5'-P-OP1	-7.06	99.34	105.70
36	5	1371	G	N1-C6-O6	-7.06	115.66	119.90
36	5	3195	U	P-O3'-C3'	7.06	128.17	119.70
36	5	1184	A	N1-C6-N6	-7.05	114.37	118.60
18	C6	40	GLU	C-N-CD	-7.05	105.09	120.60
36	5	1131	G	O5'-P-OP2	-7.05	99.35	105.70
36	1	1920	U	N3-C2-O2	-7.05	117.27	122.20
1	2	1773	C	C6-N1-C2	-7.05	117.48	120.30
36	5	1192	C	C2-N3-C4	-7.05	116.38	119.90
1	6	163	G	C8-N9-C1'	7.04	136.16	127.00
36	1	1365	G	N3-C4-C5	-7.04	125.08	128.60
36	5	646	A	N7-C8-N9	7.04	117.32	113.80
36	5	864	G	C5-C6-O6	-7.04	124.38	128.60
36	5	2937	G	N1-C6-O6	7.04	124.12	119.90
36	5	872	U	C5-C4-O4	-7.04	121.68	125.90
36	5	993	G	O5'-P-OP2	-7.04	99.37	105.70
36	5	936	A	C8-N9-C4	-7.03	102.99	105.80
36	5	2371	G	N3-C2-N2	7.03	124.82	119.90
36	5	2797	C	N3-C4-C5	-7.03	119.09	121.90
1	6	1614	A	N1-C6-N6	7.03	122.82	118.60
36	5	424	G	C4-C5-N7	7.03	113.61	110.80
36	1	34	A	OP2-P-O3'	7.03	120.65	105.20
1	6	1537	C	N1-C2-O2	-7.03	114.68	118.90
36	5	869	G	N1-C6-O6	-7.03	115.69	119.90
36	1	2243	A	O5'-P-OP2	-7.02	99.38	105.70
36	5	1321	G	C6-C5-N7	-7.02	126.19	130.40
62	N6	126	LEU	CA-CB-CG	7.01	131.43	115.30
36	1	2874	G	N9-C4-C5	7.01	108.20	105.40
36	1	2659	G	N1-C6-O6	7.00	124.10	119.90
38	4	82	U	C5-C6-N1	7.00	126.20	122.70
36	5	911	C	C5-C6-N1	-7.00	117.50	121.00
36	1	1429	G	N1-C2-N2	-7.00	109.90	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	999	G	OP2-P-O3'	7.00	120.59	105.20
36	5	3188	G	C5-C6-O6	7.00	132.80	128.60
1	2	75	U	C2-N1-C1'	7.00	126.09	117.70
36	1	2409	G	N3-C2-N2	6.99	124.80	119.90
36	1	1316	C	O5'-P-OP2	-6.99	99.41	105.70
36	1	2283	G	C5-C6-O6	-6.99	124.41	128.60
36	5	641	C	C2-N3-C4	-6.99	116.41	119.90
36	5	1111	U	C5-C4-O4	-6.99	121.71	125.90
36	5	3093	C	N1-C2-O2	-6.99	114.71	118.90
38	8	100	U	C2-N1-C1'	6.99	126.09	117.70
36	1	874	U	OP1-P-O3'	6.99	120.57	105.20
1	6	385	A	N1-C6-N6	-6.99	114.41	118.60
36	5	3333	G	O5'-P-OP2	-6.99	99.41	105.70
36	5	1496	C	N3-C4-C5	6.98	124.69	121.90
36	5	2419	A	C8-N9-C4	-6.98	103.01	105.80
36	1	817	A	C4-C5-C6	6.98	120.49	117.00
1	6	771	A	N1-C6-N6	6.97	122.78	118.60
36	1	92	G	C5-C6-O6	-6.97	124.42	128.60
36	1	675	C	N1-C2-O2	-6.97	114.72	118.90
1	6	1003	A	C8-N9-C4	6.97	108.59	105.80
36	5	3041	U	C4-C5-C6	-6.97	115.52	119.70
1	2	934	C	C2-N1-C1'	6.97	126.47	118.80
36	5	353	G	C4-N9-C1'	-6.97	117.44	126.50
36	5	1170	A	N1-C6-N6	6.97	122.78	118.60
36	5	1520	G	C5-C6-O6	-6.97	124.42	128.60
36	1	2373	A	OP1-P-O3'	6.97	120.53	105.20
36	5	2211	U	N3-C2-O2	-6.97	117.32	122.20
36	1	909	G	C8-N9-C4	6.97	109.19	106.40
36	5	2117	A	N9-C4-C5	6.97	108.59	105.80
1	6	352	A	O5'-P-OP2	-6.96	99.43	105.70
1	2	1118	G	C5-C6-O6	-6.96	124.42	128.60
36	5	3060	C	N3-C2-O2	6.96	126.77	121.90
37	7	73	C	C6-N1-C2	-6.96	117.52	120.30
36	1	2732	G	N3-C2-N2	6.96	124.77	119.90
36	1	2879	C	C6-N1-C2	6.96	123.08	120.30
36	1	1116	G	OP2-P-O3'	6.95	120.49	105.20
36	1	2879	C	N3-C2-O2	6.95	126.77	121.90
39	L2	96	LEU	CA-CB-CG	6.95	131.28	115.30
36	5	2138	A	C8-N9-C4	-6.95	103.02	105.80
36	5	2815	G	C5-N7-C8	6.95	107.77	104.30
36	5	1298	C	C6-N1-C2	-6.95	117.52	120.30
36	5	2343	C	N3-C4-C5	6.95	124.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	m0	167	LEU	CA-CB-CG	6.95	131.27	115.30
36	1	714	G	C6-C5-N7	-6.94	126.23	130.40
36	5	1370	G	N1-C6-O6	-6.94	115.73	119.90
36	1	1139	G	O5'-P-OP1	-6.94	99.45	105.70
36	5	1110	U	N1-C2-O2	6.94	127.66	122.80
36	5	2278	C	N3-C4-C5	6.94	124.68	121.90
36	5	2283	G	O5'-P-OP2	-6.94	99.45	105.70
36	1	2986	U	N1-C2-N3	6.94	119.06	114.90
36	1	2878	G	O5'-P-OP1	6.94	119.02	110.70
38	8	56	G	N1-C6-O6	6.94	124.06	119.90
36	5	1496	C	O5'-P-OP2	-6.93	99.46	105.70
36	1	880	G	N1-C6-O6	-6.93	115.74	119.90
38	4	98	U	C5-C4-O4	-6.93	121.74	125.90
36	5	1010	G	O5'-P-OP2	-6.93	99.47	105.70
36	1	984	G	C8-N9-C4	-6.93	103.63	106.40
36	5	907	G	N9-C4-C5	-6.93	102.63	105.40
36	5	950	G	C5-C6-O6	-6.93	124.44	128.60
36	5	3093	C	C6-N1-C2	6.93	123.07	120.30
1	2	581	U	C2-N1-C1'	6.92	126.01	117.70
36	1	1429	G	N3-C4-C5	-6.92	125.14	128.60
36	1	2640	A	C6-N1-C2	-6.92	114.44	118.60
36	1	3344	A	C5-N7-C8	-6.92	100.44	103.90
1	6	163	G	C5-N7-C8	-6.92	100.84	104.30
15	C3	22	ALA	C-N-CD	-6.92	105.38	120.60
36	1	28	C	N3-C4-C5	6.92	124.67	121.90
36	1	1429	G	N3-C4-N9	6.92	130.15	126.00
36	1	2372	A	C2-N3-C4	6.92	114.06	110.60
36	5	946	U	O5'-P-OP2	-6.92	99.47	105.70
36	5	1101	G	N3-C2-N2	6.92	124.74	119.90
36	1	639	G	N3-C2-N2	-6.91	115.06	119.90
36	1	809	G	N9-C4-C5	-6.91	102.64	105.40
36	5	633	C	N1-C2-O2	-6.91	114.75	118.90
36	1	640	U	N3-C4-O4	6.91	124.23	119.40
36	1	1307	G	OP1-P-O3'	6.91	120.39	105.20
36	5	672	A	C5-C6-N6	-6.90	118.18	123.70
36	1	1137	C	C5-C4-N4	-6.90	115.37	120.20
36	5	3043	C	N3-C4-C5	6.90	124.66	121.90
36	1	3344	A	O4'-C1'-N9	6.90	113.72	108.20
36	1	2867	C	N3-C4-N4	-6.89	113.17	118.00
36	5	3343	G	N3-C4-N9	6.89	130.14	126.00
1	2	359	A	C8-N9-C4	6.89	108.56	105.80
36	1	1140	G	N9-C4-C5	-6.89	102.64	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	426	G	N7-C8-N9	-6.89	109.65	113.10
36	5	3190	C	C6-N1-C2	-6.89	117.54	120.30
1	2	378	A	N1-C6-N6	6.89	122.73	118.60
1	2	830	U	N1-C2-O2	6.89	127.62	122.80
36	1	2983	C	C5-C6-N1	-6.89	117.56	121.00
36	5	425	G	C5-C6-O6	-6.89	124.47	128.60
36	1	1838	G	C6-C5-N7	-6.89	126.27	130.40
38	4	40	A	C5-C6-N6	-6.89	118.19	123.70
36	5	1181	U	O5'-P-OP1	-6.89	99.50	105.70
36	1	970	A	C8-N9-C4	-6.88	103.05	105.80
36	1	942	U	OP1-P-OP2	-6.88	109.28	119.60
37	3	93	C	N3-C4-N4	-6.88	113.18	118.00
36	1	918	C	C6-N1-C2	-6.88	117.55	120.30
1	6	1780	G	N3-C2-N2	6.88	124.71	119.90
36	5	509	U	N1-C2-O2	-6.88	117.99	122.80
36	5	2364	G	N1-C6-O6	-6.88	115.77	119.90
36	1	2140	U	O5'-P-OP2	-6.87	99.51	105.70
36	1	2944	U	O5'-P-OP1	-6.87	99.51	105.70
36	1	3178	A	C2-N3-C4	-6.87	107.16	110.60
36	5	2822	U	C5-C6-N1	-6.87	119.26	122.70
37	7	33	U	N3-C2-O2	-6.87	117.39	122.20
36	1	3092	C	O5'-P-OP1	-6.87	99.52	105.70
37	7	36	C	O5'-P-OP2	6.87	118.94	110.70
36	1	1300	G	C5-C6-O6	-6.87	124.48	128.60
36	1	2760	C	N3-C4-C5	-6.87	119.15	121.90
36	1	3212	C	C6-N1-C2	6.87	123.05	120.30
1	2	323	A	C8-N9-C4	-6.87	103.05	105.80
36	1	1177	G	O5'-P-OP2	-6.87	99.52	105.70
36	1	1307	G	N1-C6-O6	-6.86	115.78	119.90
36	5	2404	A	C8-N9-C4	6.86	108.55	105.80
36	5	2407	C	O5'-P-OP2	-6.86	99.52	105.70
36	1	1712	G	C6-C5-N7	-6.86	126.28	130.40
36	5	1452	A	C4-C5-N7	6.86	114.13	110.70
36	5	2754	G	N3-C2-N2	6.86	124.70	119.90
36	1	1412	G	O5'-P-OP1	-6.86	99.53	105.70
36	1	2308	C	N1-C2-O2	-6.85	114.79	118.90
36	5	75	G	C5-C6-O6	-6.85	124.49	128.60
36	1	2315	G	C5-C6-O6	6.85	132.71	128.60
36	5	2278	C	C5-C6-N1	6.85	124.43	121.00
36	1	3079	U	C5-C6-N1	-6.85	119.28	122.70
36	1	1144	U	C5-C6-N1	-6.85	119.28	122.70
36	1	3362	A	C2-N3-C4	-6.85	107.18	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	SM	167	PRO	N-CA-CB	6.84	111.51	103.30
36	1	1420	C	C5-C4-N4	6.84	124.99	120.20
36	5	1060	U	N3-C4-O4	-6.84	114.61	119.40
36	1	1197	A	C5-C6-N6	-6.84	118.23	123.70
36	5	776	U	N1-C2-N3	6.84	119.00	114.90
36	5	1882	G	O5'-P-OP1	-6.84	99.55	105.70
36	5	3269	U	P-O3'-C3'	6.84	127.91	119.70
36	1	2836	C	N3-C4-C5	-6.83	119.17	121.90
37	3	96	U	C5-C6-N1	-6.83	119.28	122.70
1	6	1600	A	C5-N7-C8	-6.83	100.48	103.90
36	5	1112	A	N1-C6-N6	6.83	122.70	118.60
36	5	2942	C	C5-C4-N4	-6.83	115.42	120.20
38	8	26	U	O5'-P-OP2	-6.83	99.55	105.70
36	1	96	G	C4-C5-N7	6.83	113.53	110.80
36	1	1306	G	N1-C6-O6	6.83	124.00	119.90
38	4	103	G	N9-C4-C5	6.83	108.13	105.40
36	5	1395	G	OP2-P-O3'	6.83	120.22	105.20
36	5	2806	U	C2-N3-C4	-6.83	122.90	127.00
36	5	3374	U	C6-N1-C2	6.83	125.10	121.00
36	1	2177	G	N3-C4-N9	6.82	130.09	126.00
1	6	1600	A	N9-C1'-C2'	6.82	122.87	114.00
36	5	644	G	N9-C4-C5	6.82	108.13	105.40
36	5	2875	U	C6-N1-C1'	6.82	130.75	121.20
38	4	89	A	C8-N9-C4	6.82	108.53	105.80
36	5	612	U	O5'-P-OP1	-6.82	99.56	105.70
36	5	2821	C	N3-C4-C5	6.82	124.63	121.90
1	2	287	G	O4'-C1'-N9	6.82	113.65	108.20
36	1	805	G	N7-C8-N9	-6.82	109.69	113.10
36	1	2942	C	N3-C4-C5	6.82	124.63	121.90
36	1	220	G	N1-C6-O6	6.82	123.99	119.90
36	1	1303	A	N9-C4-C5	-6.82	103.07	105.80
36	1	2808	A	C4-C5-N7	6.82	114.11	110.70
1	6	609	U	N3-C2-O2	-6.82	117.43	122.20
36	5	1513	G	N7-C8-N9	6.82	116.51	113.10
36	5	2763	U	C5-C4-O4	-6.82	121.81	125.90
73	O7	65	ARG	NE-CZ-NH1	6.81	123.71	120.30
1	2	728	U	C2-N1-C1'	6.81	125.88	117.70
36	1	1132	C	C5-C6-N1	-6.81	117.59	121.00
36	1	1902	G	N1-C6-O6	-6.81	115.81	119.90
36	5	648	C	O5'-P-OP2	-6.81	99.57	105.70
36	5	1456	A	N9-C4-C5	-6.81	103.08	105.80
36	5	1657	C	N1-C2-O2	6.81	122.99	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1462	G	C5-C6-O6	-6.81	124.52	128.60
36	5	2234	G	C8-N9-C4	6.81	109.12	106.40
36	1	639	G	N9-C1'-C2'	-6.80	104.52	112.00
1	6	308	C	C2-N1-C1'	-6.80	111.31	118.80
1	6	942	G	N1-C6-O6	-6.80	115.82	119.90
36	5	644	G	C4-C5-N7	-6.80	108.08	110.80
36	5	3123	A	C8-N9-C4	6.80	108.52	105.80
1	2	90	C	C6-N1-C2	-6.80	117.58	120.30
1	6	965	U	N1-C2-O2	6.80	127.56	122.80
36	1	1661	G	N3-C4-N9	6.80	130.08	126.00
38	4	47	C	N1-C2-O2	6.80	122.98	118.90
36	5	61	A	C2-N3-C4	-6.80	107.20	110.60
36	5	2389	C	C2-N3-C4	-6.80	116.50	119.90
36	5	2754	G	N1-C2-N2	-6.80	110.08	116.20
36	1	1308	A	C5-N7-C8	-6.79	100.50	103.90
36	1	1604	G	C4-N9-C1'	6.79	135.33	126.50
36	5	1838	G	N3-C2-N2	-6.79	115.14	119.90
36	1	339	C	N3-C4-N4	-6.79	113.25	118.00
36	1	2862	U	C5-C6-N1	-6.79	119.31	122.70
36	5	419	G	N9-C4-C5	-6.79	102.68	105.40
36	5	1116	G	N3-C4-C5	-6.79	125.20	128.60
36	1	821	U	C5-C4-O4	6.79	129.97	125.90
36	5	1148	G	C4-C5-N7	6.79	113.52	110.80
1	6	1632	C	N1-C2-O2	6.79	122.97	118.90
36	1	666	A	N1-C6-N6	-6.79	114.53	118.60
36	5	3362	A	O4'-C1'-N9	6.79	113.63	108.20
1	2	507	U	N1-C2-O2	6.78	127.55	122.80
1	2	1112	G	N1-C6-O6	6.78	123.97	119.90
36	1	1060	U	C5-C6-N1	-6.78	119.31	122.70
36	5	2694	A	C2-N3-C4	6.77	113.99	110.60
36	5	361	A	N1-C6-N6	-6.77	114.54	118.60
36	5	1301	A	C5-C6-N6	-6.77	118.28	123.70
1	6	453	U	C6-N1-C2	-6.77	116.94	121.00
1	6	1537	C	C6-N1-C2	-6.77	117.59	120.30
1	2	647	G	N3-C4-N9	-6.76	121.94	126.00
36	5	2816	G	O4'-C1'-N9	6.76	113.61	108.20
36	1	3110	C	C6-N1-C2	-6.76	117.60	120.30
36	1	386	A	N1-C6-N6	6.76	122.66	118.60
1	6	1614	A	C4-C5-N7	6.76	114.08	110.70
36	5	216	G	C5-C6-O6	-6.76	124.54	128.60
36	1	1168	U	N1-C2-O2	6.76	127.53	122.80
36	1	206	G	C2-N3-C4	6.76	115.28	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2388	U	N1-C2-O2	-6.75	118.07	122.80
36	5	1205	A	O5'-P-OP2	-6.75	99.62	105.70
36	1	24	G	N3-C2-N2	-6.75	115.17	119.90
36	1	3048	A	O5'-P-OP2	-6.75	99.62	105.70
36	1	970	A	C5-N7-C8	-6.75	100.53	103.90
36	1	2130	G	C5-C6-O6	6.75	132.65	128.60
36	5	953	G	C4-C5-N7	6.75	113.50	110.80
36	1	1377	G	N9-C4-C5	-6.75	102.70	105.40
36	5	32	U	C6-N1-C2	-6.74	116.95	121.00
36	1	894	G	C5-C6-O6	-6.74	124.56	128.60
1	6	371	G	N3-C4-N9	6.74	130.04	126.00
36	1	1616	U	O5'-P-OP1	-6.74	99.63	105.70
38	4	113	U	C5-C6-N1	-6.74	119.33	122.70
36	5	1115	G	C8-N9-C4	-6.74	103.70	106.40
36	1	2314	U	N3-C4-O4	6.74	124.12	119.40
36	1	1396	C	C6-N1-C2	6.74	123.00	120.30
36	1	1396	C	N3-C4-C5	6.74	124.59	121.90
36	1	2983	C	C4-C5-C6	6.74	120.77	117.40
36	1	876	A	C5-C6-N6	-6.73	118.31	123.70
36	1	2115	G	C5-C6-O6	-6.73	124.56	128.60
36	5	926	A	N1-C6-N6	6.73	122.64	118.60
36	1	2870	C	N3-C4-N4	-6.73	113.29	118.00
36	1	632	G	OP2-P-O3'	6.73	120.00	105.20
36	1	1133	A	C8-N9-C4	6.72	108.49	105.80
1	6	163	G	N9-C4-C5	6.72	108.09	105.40
36	5	1858	A	C8-N9-C4	-6.72	103.11	105.80
36	5	1456	A	C8-N9-C4	6.72	108.49	105.80
36	5	3218	A	P-O3'-C3'	6.72	127.77	119.70
36	1	2249	G	N3-C4-N9	6.71	130.03	126.00
36	1	3305	A	N1-C6-N6	-6.71	114.57	118.60
36	5	389	A	C8-N9-C4	-6.71	103.11	105.80
36	1	718	G	C4-C5-N7	6.71	113.48	110.80
36	1	817	A	C8-N9-C4	-6.71	103.11	105.80
36	5	573	C	C6-N1-C2	-6.71	117.61	120.30
36	5	1513	G	N3-C4-C5	-6.71	125.25	128.60
1	2	579	A	N1-C2-N3	6.71	132.65	129.30
1	6	459	G	N1-C6-O6	6.71	123.92	119.90
1	6	609	U	N3-C4-O4	-6.71	114.70	119.40
36	5	413	U	N1-C2-O2	-6.71	118.10	122.80
36	5	751	A	O5'-P-OP2	-6.71	99.66	105.70
36	1	3368	U	C2-N1-C1'	-6.71	109.65	117.70
36	5	1113	G	C2-N3-C4	-6.71	108.55	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1461	A	C8-N9-C4	6.70	108.48	105.80
36	5	1902	G	C5-C6-N1	6.70	114.85	111.50
36	5	2902	A	N1-C6-N6	6.70	122.62	118.60
36	5	1101	G	C8-N9-C4	6.70	109.08	106.40
36	5	2391	G	N1-C6-O6	-6.70	115.88	119.90
36	1	974	G	N3-C4-C5	-6.70	125.25	128.60
1	2	1761	U	P-O3'-C3'	6.70	127.74	119.70
36	1	1405	U	N3-C2-O2	6.70	126.89	122.20
36	1	1515	A	N1-C6-N6	6.70	122.62	118.60
36	1	2144	A	C2-N3-C4	6.70	113.95	110.60
36	5	433	A	C2-N3-C4	-6.70	107.25	110.60
1	2	1654	G	C5-C6-O6	-6.70	124.58	128.60
36	1	2115	G	N1-C6-O6	6.70	123.92	119.90
36	1	1144	U	C2-N3-C4	-6.69	122.98	127.00
36	1	1433	A	C5-C6-N1	6.69	121.05	117.70
36	5	1085	A	C2-N3-C4	-6.69	107.25	110.60
36	5	2900	A	OP2-P-O3'	6.69	119.92	105.20
36	1	1489	A	C8-N9-C4	6.69	108.48	105.80
1	6	1773	C	C4-C5-C6	6.69	120.75	117.40
36	1	2356	A	N1-C6-N6	6.69	122.61	118.60
36	1	644	G	C8-N9-C4	-6.69	103.72	106.40
36	1	1191	U	N1-C2-O2	-6.69	118.12	122.80
36	1	3278	C	N3-C4-N4	-6.69	113.32	118.00
36	5	1170	A	N9-C4-C5	-6.69	103.12	105.80
36	5	2278	C	N1-C2-O2	6.68	122.91	118.90
36	5	2634	U	C5-C4-O4	-6.68	121.89	125.90
36	1	640	U	N1-C2-O2	-6.68	118.12	122.80
1	6	977	A	N1-C6-N6	6.68	122.61	118.60
36	1	1496	C	C5-C6-N1	6.68	124.34	121.00
38	4	16	G	C8-N9-C4	6.68	109.07	106.40
36	1	1867	A	C8-N9-C4	6.67	108.47	105.80
1	6	1794	A	O5'-P-OP1	-6.67	99.69	105.70
36	5	218	G	O5'-P-OP2	-6.67	99.69	105.70
77	q1	9	ARG	NE-CZ-NH1	6.67	123.64	120.30
38	4	13	A	N7-C8-N9	6.67	117.14	113.80
36	5	1487	G	N9-C4-C5	6.67	108.07	105.40
36	5	2953	U	N1-C2-O2	-6.67	118.13	122.80
36	1	2936	A	O5'-P-OP2	6.67	118.70	110.70
36	1	196	G	N9-C4-C5	-6.67	102.73	105.40
36	1	2865	U	N3-C4-C5	6.66	118.60	114.60
36	5	2818	U	O5'-P-OP1	-6.66	99.70	105.70
36	5	2942	C	C2-N1-C1'	6.66	126.13	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3154	C	N3-C2-O2	-6.66	117.23	121.90
1	6	1489	U	C2-N1-C1'	6.66	125.69	117.70
1	2	507	U	N3-C2-O2	-6.66	117.54	122.20
36	1	2899	C	C2-N1-C1'	6.66	126.13	118.80
36	1	3036	G	N3-C4-C5	-6.66	125.27	128.60
36	5	2728	G	C2-N3-C4	6.66	115.23	111.90
36	1	2996	U	N1-C2-O2	6.66	127.46	122.80
36	5	892	U	N3-C4-O4	-6.66	114.74	119.40
36	5	2417	U	N3-C4-O4	6.66	124.06	119.40
36	1	2414	G	N3-C2-N2	-6.66	115.24	119.90
1	2	864	U	N3-C2-O2	-6.66	117.54	122.20
36	5	213	A	O5'-P-OP1	6.66	118.69	110.70
36	5	931	C	C5-C6-N1	-6.66	117.67	121.00
36	5	994	G	N3-C4-N9	6.66	129.99	126.00
36	5	2333	C	N3-C4-C5	6.66	124.56	121.90
36	1	895	A	C8-N9-C4	-6.65	103.14	105.80
36	5	2796	G	C4-C5-N7	6.65	113.46	110.80
36	1	1589	A	O4'-C1'-N9	-6.65	102.88	108.20
1	6	18	C	N3-C4-C5	-6.65	119.24	121.90
1	6	639	U	N3-C2-O2	-6.65	117.55	122.20
36	1	419	G	N3-C2-N2	6.65	124.55	119.90
36	5	2851	A	N1-C2-N3	6.65	132.62	129.30
36	5	1371	G	C4-C5-N7	-6.65	108.14	110.80
36	1	648	C	O5'-P-OP1	-6.64	99.72	105.70
1	6	453	U	C5-C4-O4	6.64	129.89	125.90
36	5	3362	A	C5-N7-C8	-6.64	100.58	103.90
1	6	1100	G	N3-C4-C5	-6.64	125.28	128.60
36	1	695	C	N3-C4-C5	6.64	124.55	121.90
36	1	2869	U	OP2-P-O3'	6.64	119.80	105.20
36	5	3154	C	C5-C6-N1	6.64	124.32	121.00
36	1	397	A	C5-C6-N1	6.63	121.02	117.70
1	6	858	G	O4'-C1'-N9	6.63	113.51	108.20
1	6	543	C	C6-N1-C2	-6.63	117.65	120.30
36	1	2836	C	C5-C4-N4	6.63	124.84	120.20
36	1	608	A	C6-C5-N7	-6.63	127.66	132.30
36	5	931	C	C2-N3-C4	-6.62	116.59	119.90
36	5	2331	C	N3-C4-C5	-6.62	119.25	121.90
36	5	2368	A	N1-C6-N6	-6.62	114.63	118.60
1	6	1043	A	N1-C6-N6	6.62	122.57	118.60
36	5	1370	G	N3-C4-N9	6.62	129.97	126.00
36	1	933	A	N1-C2-N3	6.62	132.61	129.30
36	1	2281	A	C8-N9-C4	6.62	108.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2418	G	OP2-P-O3'	6.62	119.76	105.20
1	6	1773	C	C6-N1-C2	-6.62	117.65	120.30
36	5	1825	G	O5'-P-OP2	-6.62	99.74	105.70
36	1	2615	G	C5-C6-O6	-6.62	124.63	128.60
36	5	2634	U	N1-C2-O2	-6.62	118.17	122.80
36	1	1119	C	N3-C4-N4	-6.61	113.37	118.00
1	6	402	C	O5'-P-OP2	-6.61	99.75	105.70
1	6	794	U	N1-C2-O2	6.61	127.43	122.80
36	5	1307	G	C2'-C3'-O3'	6.61	124.28	113.70
36	1	1181	U	N3-C2-O2	-6.61	117.57	122.20
36	5	326	U	OP2-P-O3'	6.61	119.74	105.20
36	1	2661	G	C5-C6-O6	-6.61	124.64	128.60
36	5	681	U	N3-C4-O4	6.61	124.03	119.40
38	4	26	U	OP1-P-O3'	6.61	119.73	105.20
36	1	3181	C	C6-N1-C2	-6.60	117.66	120.30
1	6	103	A	N7-C8-N9	6.60	117.10	113.80
36	5	3285	C	C2-N1-C1'	6.60	126.06	118.80
36	1	2618	G	N1-C2-N2	-6.60	110.26	116.20
1	6	1106	U	O5'-P-OP1	-6.60	99.76	105.70
36	5	2234	G	N1-C6-O6	6.60	123.86	119.90
1	6	543	C	N1-C2-O2	6.60	122.86	118.90
36	5	2870	C	C6-N1-C1'	6.60	128.72	120.80
36	1	1324	U	O5'-P-OP1	6.59	118.61	110.70
41	L4	327	LEU	CA-CB-CG	6.59	130.47	115.30
36	5	86	G	O5'-P-OP2	-6.59	99.77	105.70
36	5	673	U	C5-C6-N1	-6.59	119.40	122.70
1	2	1486	G	C8-N9-C4	-6.59	103.76	106.40
36	5	2953	U	N3-C4-C5	-6.59	110.65	114.60
36	1	1310	G	C5-C6-O6	6.59	132.55	128.60
36	1	1351	U	C2-N1-C1'	6.59	125.61	117.70
36	1	1405	U	C5-C6-N1	-6.59	119.41	122.70
36	5	343	U	O5'-P-OP1	-6.59	99.77	105.70
36	5	2954	U	C5-C4-O4	-6.59	121.95	125.90
37	7	85	G	O5'-P-OP2	6.59	118.61	110.70
36	1	52	A	OP1-P-OP2	6.59	129.48	119.60
36	1	54	C	C2-N1-C1'	-6.59	111.56	118.80
36	1	1346	G	C5-C6-N1	-6.59	108.21	111.50
38	4	113	U	N3-C2-O2	-6.59	117.59	122.20
36	1	2392	C	N3-C4-C5	6.58	124.53	121.90
36	5	415	G	N1-C6-O6	-6.58	115.95	119.90
36	5	2411	U	N3-C4-O4	-6.58	114.79	119.40
1	6	914	G	N9-C4-C5	-6.58	102.77	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	662	U	N3-C4-O4	-6.58	114.80	119.40
36	1	212	G	O4'-C1'-N9	6.58	113.46	108.20
36	5	2289	U	N1-C2-O2	6.58	127.40	122.80
36	5	1016	C	O5'-P-OP1	-6.57	99.79	105.70
36	5	1317	A	C2-N3-C4	6.57	113.89	110.60
36	1	716	A	C4-C5-N7	6.57	113.98	110.70
36	1	2349	U	N3-C4-C5	6.57	118.54	114.60
1	6	18	C	C6-N1-C2	-6.57	117.67	120.30
36	1	1820	U	P-O3'-C3'	6.57	127.58	119.70
36	1	2874	G	C8-N9-C4	-6.57	103.77	106.40
36	1	3344	A	C6-C5-N7	-6.57	127.70	132.30
38	4	109	A	C5-C6-N6	-6.57	118.45	123.70
36	5	3026	G	C5-C6-O6	-6.57	124.66	128.60
36	5	2889	C	N3-C2-O2	-6.57	117.30	121.90
36	1	655	C	N3-C4-C5	-6.56	119.28	121.90
36	1	2816	G	N9-C4-C5	-6.56	102.78	105.40
36	1	2621	G	C5-C6-O6	-6.56	124.66	128.60
1	6	272	U	N3-C2-O2	-6.56	117.61	122.20
1	6	1097	U	P-O3'-C3'	6.56	127.57	119.70
36	5	2741	C	N1-C2-O2	-6.56	114.97	118.90
1	6	914	G	C5-C6-O6	-6.56	124.67	128.60
36	5	984	G	C4-C5-C6	6.56	122.73	118.80
36	5	1135	A	N1-C6-N6	-6.56	114.67	118.60
1	2	1765	A	O5'-P-OP1	-6.55	99.80	105.70
36	1	3235	C	O5'-P-OP1	-6.55	99.80	105.70
36	5	2830	G	N1-C2-N3	6.55	127.83	123.90
36	5	2858	U	N1-C2-O2	6.55	127.39	122.80
37	7	13	A	N1-C6-N6	6.55	122.53	118.60
36	1	1849	C	N1-C2-O2	-6.55	114.97	118.90
36	1	1906	G	N1-C6-O6	6.55	123.83	119.90
37	3	38	U	O5'-P-OP2	-6.55	99.81	105.70
36	5	2379	U	C5-C6-N1	-6.55	119.43	122.70
36	1	2309	A	O5'-P-OP1	-6.54	99.81	105.70
36	5	810	A	N1-C2-N3	-6.54	126.03	129.30
36	5	1148	G	N1-C6-O6	6.54	123.83	119.90
1	2	532	U	O5'-P-OP1	-6.54	99.81	105.70
36	5	3266	G	C5-C6-O6	6.54	132.53	128.60
41	L4	139	GLY	N-CA-C	-6.54	96.75	113.10
36	5	2703	A	N9-C4-C5	6.54	108.42	105.80
36	1	3362	A	C5-N7-C8	-6.54	100.63	103.90
38	4	120	C	N1-C2-O2	-6.54	114.98	118.90
1	6	337	G	C4-N9-C1'	6.54	135.00	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3042	U	N3-C4-C5	6.54	118.52	114.60
1	6	163	G	C8-N9-C4	-6.53	103.79	106.40
36	5	3306	U	N3-C4-C5	6.53	118.52	114.60
36	5	2400	G	N1-C6-O6	6.53	123.82	119.90
36	5	2130	G	C5-C6-O6	6.53	132.52	128.60
36	5	2364	G	C5-C6-O6	6.53	132.52	128.60
36	5	3187	A	N1-C6-N6	-6.53	114.68	118.60
36	1	2376	G	C5-N7-C8	-6.53	101.03	104.30
36	1	1140	G	C6-C5-N7	-6.53	126.48	130.40
36	1	2886	U	C5-C4-O4	-6.53	121.98	125.90
36	1	1100	U	C5-C6-N1	-6.53	119.44	122.70
36	1	1890	U	C2-N3-C4	-6.53	123.08	127.00
38	4	6	U	C5-C4-O4	-6.53	121.98	125.90
1	6	610	G	C8-N9-C1'	-6.53	118.52	127.00
1	6	1644	C	O5'-P-OP2	-6.53	99.83	105.70
1	6	308	C	C2-N3-C4	-6.52	116.64	119.90
1	2	1200	G	N3-C2-N2	-6.52	115.33	119.90
36	1	282	G	N9-C4-C5	6.52	108.01	105.40
36	5	2249	G	C8-N9-C4	-6.52	103.79	106.40
36	1	1510	G	N3-C2-N2	6.52	124.47	119.90
36	5	2650	U	N3-C4-O4	-6.52	114.83	119.40
1	6	1340	U	N3-C2-O2	-6.52	117.64	122.20
36	5	34	A	OP2-P-O3'	6.52	119.54	105.20
36	5	2965	U	N1-C2-O2	-6.52	118.24	122.80
36	1	2417	U	C2-N3-C4	-6.52	123.09	127.00
36	1	859	G	C6-C5-N7	-6.51	126.49	130.40
36	1	960	U	N3-C4-C5	6.51	118.51	114.60
36	1	3217	C	N1-C2-O2	6.51	122.81	118.90
36	5	2700	G	O5'-P-OP2	-6.51	99.84	105.70
36	1	407	A	N1-C6-N6	6.51	122.51	118.60
36	5	3195	U	OP1-P-O3'	6.51	119.53	105.20
36	1	1382	G	N7-C8-N9	-6.51	109.84	113.10
36	1	2937	G	C8-N9-C4	6.51	109.00	106.40
36	5	2667	A	N7-C8-N9	6.51	117.05	113.80
1	2	49	C	C6-N1-C2	-6.50	117.70	120.30
36	5	912	G	C2-N3-C4	6.50	115.15	111.90
1	2	158	U	N3-C2-O2	-6.50	117.65	122.20
36	1	362	U	OP1-P-O3'	6.50	119.51	105.20
36	1	2978	U	O4'-C1'-N1	6.50	113.40	108.20
1	6	794	U	N3-C2-O2	-6.50	117.65	122.20
36	5	2190	U	C6-N1-C2	-6.50	117.10	121.00
1	6	1596	C	N3-C4-N4	-6.50	113.45	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2726	C	N3-C4-N4	-6.50	113.45	118.00
36	5	1212	A	O5'-P-OP2	-6.50	99.85	105.70
36	5	2132	C	C6-N1-C2	-6.50	117.70	120.30
1	6	158	U	P-O3'-C3'	6.50	127.50	119.70
36	5	210	U	C5-C6-N1	-6.50	119.45	122.70
36	1	1114	U	N1-C2-O2	6.50	127.35	122.80
36	5	1112	A	N9-C4-C5	-6.50	103.20	105.80
36	5	2393	G	N1-C6-O6	6.50	123.80	119.90
36	5	2824	G	C6-C5-N7	-6.50	126.50	130.40
36	1	2169	G	C6-C5-N7	6.49	134.30	130.40
36	5	2199	G	C4-C5-N7	6.49	113.40	110.80
36	5	2602	G	O5'-P-OP2	-6.49	99.86	105.70
36	1	709	A	C8-N9-C4	6.49	108.40	105.80
36	5	908	G	C6-C5-N7	-6.49	126.51	130.40
36	5	313	A	C8-N9-C4	-6.49	103.20	105.80
36	1	1547	G	C5-N7-C8	6.49	107.54	104.30
1	2	1431	C	C6-N1-C2	6.49	122.89	120.30
1	6	543	C	C4-C5-C6	-6.49	114.16	117.40
36	5	1169	A	N1-C2-N3	6.49	132.54	129.30
36	5	1198	C	N1-C2-O2	6.49	122.79	118.90
36	1	1790	G	N1-C6-O6	6.48	123.79	119.90
36	5	971	G	C4-C5-N7	-6.48	108.21	110.80
36	5	1464	G	N9-C4-C5	-6.48	102.81	105.40
36	1	65	A	P-O3'-C3'	6.48	127.48	119.70
36	5	907	G	N3-C4-N9	6.48	129.89	126.00
36	5	994	G	N3-C2-N2	6.48	124.44	119.90
36	1	673	U	N3-C4-O4	-6.48	114.86	119.40
36	1	2660	G	C8-N9-C4	6.48	108.99	106.40
36	5	2372	A	N9-C4-C5	6.48	108.39	105.80
1	2	1777	G	N1-C6-O6	6.48	123.79	119.90
36	5	1496	C	O5'-P-OP1	6.48	118.47	110.70
36	5	3049	A	C8-N9-C4	6.48	108.39	105.80
36	1	2653	C	N3-C2-O2	-6.47	117.37	121.90
1	6	1614	A	C5-N7-C8	-6.47	100.66	103.90
36	5	3245	A	C6-C5-N7	-6.47	127.77	132.30
1	6	1756	A	N1-C6-N6	-6.47	114.72	118.60
36	5	1430	U	C6-N1-C2	6.47	124.88	121.00
36	5	2531	C	C2-N1-C1'	6.47	125.92	118.80
36	5	2818	U	C5-C4-O4	-6.47	122.02	125.90
36	1	2279	A	C5-C6-N6	-6.47	118.53	123.70
36	1	421	G	C8-N9-C4	6.47	108.99	106.40
36	1	2376	G	O5'-P-OP1	-6.47	99.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3375	A	C8-N9-C4	-6.47	103.21	105.80
38	8	98	U	C5-C4-O4	-6.46	122.02	125.90
36	1	1313	G	C4-C5-N7	6.46	113.38	110.80
36	1	2142	A	C6-N1-C2	-6.46	114.72	118.60
36	1	965	A	OP1-P-OP2	-6.46	109.91	119.60
36	1	2624	G	O5'-P-OP1	-6.46	99.89	105.70
36	5	1152	G	N1-C2-N3	6.46	127.77	123.90
36	1	887	G	C5-C6-O6	6.46	132.47	128.60
36	5	53	G	N9-C4-C5	-6.46	102.82	105.40
36	1	1197	A	C6-C5-N7	-6.45	127.78	132.30
36	1	1420	C	N3-C2-O2	-6.45	117.38	121.90
36	1	1585	C	C6-N1-C2	6.45	122.88	120.30
36	5	1319	G	N9-C4-C5	6.45	107.98	105.40
36	1	1294	A	O4'-C1'-N9	6.45	113.36	108.20
36	5	950	G	C5-C6-N1	6.45	114.73	111.50
36	1	2393	G	N1-C6-O6	6.45	123.77	119.90
36	5	975	C	N1-C2-O2	-6.45	115.03	118.90
36	1	1848	G	C5-C6-O6	-6.45	124.73	128.60
1	6	328	A	O5'-P-OP2	-6.45	99.90	105.70
36	1	3368	U	C6-N1-C1'	6.45	130.22	121.20
36	1	54	C	N3-C4-N4	-6.45	113.49	118.00
36	1	655	C	C5-C4-N4	6.45	124.71	120.20
36	1	961	C	C5-C6-N1	-6.45	117.78	121.00
36	1	1556	C	N1-C2-O2	6.45	122.77	118.90
36	5	2834	G	OP1-P-OP2	6.45	129.27	119.60
36	1	645	A	C5-C6-N1	6.44	120.92	117.70
36	1	972	A	N7-C8-N9	-6.44	110.58	113.80
36	5	2305	G	C6-C5-N7	-6.44	126.53	130.40
36	1	190	U	O4'-C1'-N1	6.44	113.35	108.20
36	1	1392	G	C5-C6-O6	-6.44	124.73	128.60
36	1	2867	C	O5'-P-OP2	-6.44	99.90	105.70
36	1	2637	A	O5'-P-OP1	-6.44	99.91	105.70
36	5	369	A	C8-N9-C4	-6.44	103.22	105.80
1	2	1762	A	C8-N9-C4	6.43	108.37	105.80
1	2	1674	C	C6-N1-C2	-6.43	117.73	120.30
36	5	926	A	C5-C6-N6	-6.43	118.56	123.70
36	5	2187	G	N9-C4-C5	-6.43	102.83	105.40
1	2	158	U	N1-C2-O2	6.43	127.30	122.80
1	6	358	U	O5'-P-OP1	-6.43	99.91	105.70
1	6	794	U	C2-N1-C1'	6.43	125.41	117.70
36	1	895	A	N1-C6-N6	6.43	122.45	118.60
36	1	2389	C	C6-N1-C2	6.43	122.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2374	C	N3-C2-O2	6.42	126.39	121.90
36	1	2861	U	O5'-P-OP1	-6.42	99.92	105.70
38	4	114	G	C8-N9-C4	6.42	108.97	106.40
36	5	1239	C	C5-C6-N1	6.42	124.21	121.00
36	5	1891	A	O5'-P-OP2	-6.42	99.92	105.70
36	5	2746	A	C8-N9-C4	6.42	108.37	105.80
36	5	2871	G	O5'-P-OP2	-6.42	99.92	105.70
36	5	1321	G	N1-C6-O6	6.42	123.75	119.90
36	5	1436	U	OP1-P-O3'	6.42	119.32	105.20
1	2	704	C	N1-C2-O2	6.42	122.75	118.90
36	1	663	C	N1-C2-O2	-6.42	115.05	118.90
36	5	831	G	C5-C6-O6	-6.42	124.75	128.60
36	1	1468	A	C2-N3-C4	-6.41	107.39	110.60
37	3	86	U	N1-C2-O2	-6.41	118.31	122.80
36	1	895	A	N7-C8-N9	6.41	117.01	113.80
36	1	2808	A	C2-N3-C4	-6.41	107.39	110.60
36	5	2293	C	C6-N1-C1'	-6.41	113.11	120.80
36	1	1300	G	N3-C4-N9	6.41	129.84	126.00
36	1	2367	A	C4-C5-C6	6.41	120.20	117.00
36	5	86	G	N1-C6-O6	-6.41	116.06	119.90
36	5	804	C	C4-C5-C6	6.41	120.61	117.40
36	5	1912	U	N3-C2-O2	6.41	126.69	122.20
1	6	1354	G	N7-C8-N9	6.41	116.30	113.10
36	1	797	U	OP1-P-OP2	-6.41	109.99	119.60
36	1	2603	G	N3-C2-N2	6.41	124.38	119.90
1	6	1783	C	N1-C2-O2	6.41	122.74	118.90
36	1	1175	C	C2-N3-C4	-6.40	116.70	119.90
36	1	3114	A	O5'-P-OP2	-6.40	99.94	105.70
1	6	106	U	OP2-P-O3'	6.40	119.29	105.20
36	5	2373	A	OP1-P-OP2	-6.40	110.00	119.60
36	1	3209	A	N1-C6-N6	6.40	122.44	118.60
37	7	89	G	C8-N9-C4	6.40	108.96	106.40
36	5	2375	G	O4'-C1'-N9	6.40	113.32	108.20
1	6	390	G	O5'-P-OP2	-6.40	99.94	105.70
1	6	805	U	C6-N1-C2	-6.40	117.16	121.00
36	5	3330	A	N1-C6-N6	-6.40	114.76	118.60
36	5	2176	U	N3-C2-O2	-6.40	117.72	122.20
36	1	1329	U	C6-N1-C2	-6.39	117.16	121.00
1	6	351	C	C2-N1-C1'	6.39	125.83	118.80
1	6	362	G	O5'-P-OP2	-6.39	99.94	105.70
36	5	790	U	C5-C4-O4	6.39	129.74	125.90
36	1	2372	A	O5'-P-OP2	-6.39	99.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	637	C	N3-C4-N4	-6.39	113.53	118.00
36	5	776	U	C2-N3-C4	-6.39	123.17	127.00
36	5	1481	A	C8-N9-C4	-6.39	103.24	105.80
36	1	1419	A	O5'-P-OP2	-6.39	99.95	105.70
36	5	407	A	N1-C6-N6	6.39	122.44	118.60
36	5	339	C	C6-N1-C2	-6.39	117.74	120.30
36	5	809	G	N9-C4-C5	-6.39	102.84	105.40
36	1	92	G	C8-N9-C4	6.39	108.95	106.40
36	5	1115	G	C4-N9-C1'	6.38	134.80	126.50
36	5	2385	G	C5-C6-O6	-6.38	124.77	128.60
38	4	53	A	C2-N3-C4	6.38	113.79	110.60
36	5	1187	C	N3-C4-C5	6.38	124.45	121.90
1	2	1339	C	P-O3'-C3'	6.38	127.35	119.70
36	1	662	U	N3-C2-O2	-6.38	117.73	122.20
36	5	2728	G	N9-C4-C5	6.38	107.95	105.40
76	q0	103	LEU	CB-CG-CD2	-6.38	100.16	111.00
1	6	542	A	N7-C8-N9	6.38	116.99	113.80
36	5	805	G	N9-C4-C5	-6.38	102.85	105.40
36	5	1419	A	N1-C6-N6	-6.38	114.78	118.60
36	5	2405	C	C2-N3-C4	-6.38	116.71	119.90
36	1	49	A	O5'-P-OP1	-6.38	99.96	105.70
36	1	893	C	C5-C6-N1	6.38	124.19	121.00
36	1	2359	C	O5'-P-OP2	-6.38	99.96	105.70
36	5	2944	U	N3-C2-O2	-6.38	117.74	122.20
1	2	1116	A	C8-N9-C4	6.37	108.35	105.80
36	5	3197	G	N3-C2-N2	-6.37	115.44	119.90
36	1	116	A	O4'-C1'-N9	6.37	113.30	108.20
36	1	220	G	C6-C5-N7	-6.37	126.58	130.40
36	5	2364	G	C8-N9-C4	-6.37	103.85	106.40
36	1	930	U	O5'-P-OP1	-6.37	99.97	105.70
36	1	1433	A	N3-C4-N9	6.37	132.50	127.40
38	8	84	C	C6-N1-C2	-6.37	117.75	120.30
36	1	2777	G	C5-C6-O6	6.37	132.42	128.60
36	1	3306	U	N3-C2-O2	-6.37	117.74	122.20
36	5	1521	G	N3-C2-N2	6.37	124.36	119.90
36	1	2712	U	C5-C4-O4	6.37	129.72	125.90
36	5	872	U	N3-C4-C5	6.37	118.42	114.60
36	5	1331	U	N3-C2-O2	6.37	126.66	122.20
36	5	1440	G	N9-C4-C5	6.37	107.95	105.40
36	5	2417	U	C4-C5-C6	6.37	123.52	119.70
36	1	655	C	OP2-P-O3'	6.36	119.20	105.20
36	1	680	G	O5'-P-OP1	-6.36	99.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	44	U	N1-C2-O2	-6.36	118.35	122.80
36	5	1395	G	N1-C6-O6	6.36	123.72	119.90
36	5	923	C	N3-C2-O2	6.36	126.35	121.90
36	5	1495	U	C6-N1-C2	-6.36	117.18	121.00
36	1	1858	A	N1-C2-N3	-6.36	126.12	129.30
36	5	1198	C	N3-C2-O2	-6.36	117.45	121.90
36	5	3260	G	C5-C6-O6	6.36	132.41	128.60
36	5	341	G	N1-C6-O6	6.35	123.71	119.90
1	2	314	C	O5'-P-OP1	-6.35	99.98	105.70
36	1	979	U	N1-C2-O2	6.35	127.25	122.80
1	2	507	U	C2-N1-C1'	6.35	125.32	117.70
36	1	2850	G	C4-C5-N7	6.35	113.34	110.80
47	M0	24	ARG	NE-CZ-NH1	6.35	123.47	120.30
1	6	385	A	C5-C6-N6	6.35	128.78	123.70
36	5	1319	G	C8-N9-C4	-6.35	103.86	106.40
40	l3	3	HIS	N-CA-C	-6.35	93.86	111.00
1	2	320	U	C5-C4-O4	-6.35	122.09	125.90
81	sM	167	PRO	N-CA-CB	6.35	110.92	103.30
36	5	1155	C	N3-C4-C5	6.35	124.44	121.90
36	1	718	G	C5-N7-C8	-6.34	101.13	104.30
36	1	959	C	C6-N1-C2	6.34	122.84	120.30
1	6	1783	C	O5'-P-OP2	-6.34	99.99	105.70
36	1	895	A	C5-C6-N1	-6.34	114.53	117.70
36	5	2820	A	C8-N9-C4	-6.34	103.26	105.80
36	1	2411	U	N3-C4-O4	-6.34	114.96	119.40
36	1	2679	A	O4'-C1'-N9	6.34	113.27	108.20
36	5	2531	C	N1-C2-O2	6.34	122.70	118.90
10	s8	29	LEU	CA-CB-CG	6.34	129.87	115.30
36	5	1391	C	N3-C2-O2	6.34	126.34	121.90
36	5	641	C	N1-C2-N3	6.33	123.63	119.20
36	5	2825	C	C5-C4-N4	-6.33	115.77	120.20
36	5	958	C	N1-C2-O2	6.33	122.70	118.90
36	5	2191	U	N3-C4-O4	-6.33	114.97	119.40
36	5	660	A	N7-C8-N9	-6.32	110.64	113.80
1	6	394	C	N1-C2-O2	-6.32	115.11	118.90
37	7	101	G	C6-C5-N7	-6.32	126.61	130.40
36	1	1663	C	O5'-P-OP1	-6.32	100.01	105.70
38	4	82	U	N1-C2-O2	-6.32	118.38	122.80
36	5	960	U	N1-C2-O2	6.32	127.22	122.80
36	5	2302	G	N1-C6-O6	-6.32	116.11	119.90
36	5	2976	A	OP2-P-O3'	6.32	119.10	105.20
36	5	3225	C	C2-N1-C1'	6.32	125.75	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	633	C	N1-C2-O2	-6.32	115.11	118.90
36	1	2215	A	C4-C5-C6	-6.32	113.84	117.00
1	6	1361	U	C2-N1-C1'	6.32	125.28	117.70
36	5	714	G	C8-N9-C4	6.32	108.93	106.40
36	5	922	U	C5-C6-N1	-6.32	119.54	122.70
36	1	645	A	C2-N3-C4	6.31	113.76	110.60
36	1	2900	A	C8-N9-C4	6.31	108.33	105.80
36	1	651	G	N3-C4-C5	-6.31	125.44	128.60
1	6	767	U	N3-C2-O2	-6.31	117.78	122.20
1	6	795	U	N1-C2-O2	6.31	127.22	122.80
36	5	1516	C	N3-C4-C5	6.31	124.42	121.90
36	5	1372	C	C6-N1-C2	6.31	122.82	120.30
36	1	1216	C	C5-C6-N1	6.31	124.16	121.00
38	4	109	A	N9-C4-C5	-6.31	103.28	105.80
1	6	1776	A	O5'-P-OP2	-6.31	100.02	105.70
1	2	1568	C	P-O3'-C3'	6.31	127.27	119.70
36	1	498	A	N1-C6-N6	-6.31	114.82	118.60
36	1	1429	G	N1-C6-O6	-6.31	116.12	119.90
36	1	2572	C	N3-C2-O2	-6.31	117.48	121.90
36	1	3302	U	C6-N1-C2	6.31	124.78	121.00
1	6	337	G	C4-C5-N7	6.31	113.32	110.80
1	6	1655	A	C8-N9-C4	6.31	108.32	105.80
36	5	3245	A	N1-C2-N3	6.31	132.45	129.30
36	1	1127	G	C4-C5-N7	6.31	113.32	110.80
1	6	558	U	C2-N1-C1'	6.30	125.26	117.70
38	4	98	U	N3-C4-O4	6.30	123.81	119.40
36	5	1879	A	C4-C5-N7	6.30	113.85	110.70
1	6	337	G	N3-C4-N9	6.30	129.78	126.00
36	1	1201	C	N3-C4-N4	6.30	122.41	118.00
36	5	2711	C	C6-N1-C2	-6.30	117.78	120.30
36	1	1510	G	C6-C5-N7	-6.30	126.62	130.40
36	1	3362	A	C6-C5-N7	-6.30	127.89	132.30
36	1	876	A	C8-N9-C4	6.29	108.32	105.80
36	1	3344	A	C8-N9-C4	-6.29	103.28	105.80
1	6	864	U	O4'-C1'-N1	6.29	113.24	108.20
36	5	930	U	OP1-P-O3'	6.29	119.04	105.20
36	1	2202	C	O5'-P-OP2	6.29	118.25	110.70
1	6	914	G	N1-C6-O6	6.29	123.67	119.90
36	5	2772	C	P-O3'-C3'	6.29	127.25	119.70
1	6	1560	U	N1-C2-O2	6.29	127.20	122.80
36	5	2928	C	C2-N1-C1'	6.29	125.72	118.80
1	2	1657	U	O4'-C1'-N1	6.29	113.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3362	A	N1-C2-N3	6.29	132.44	129.30
36	5	308	A	O5'-P-OP1	6.29	118.25	110.70
1	6	1597	A	C8-N9-C4	6.29	108.31	105.80
36	1	407	A	O5'-P-OP2	-6.29	100.04	105.70
36	1	1356	U	O5'-P-OP1	-6.29	100.04	105.70
36	5	3004	C	N3-C4-N4	6.29	122.40	118.00
36	1	350	C	N3-C2-O2	-6.28	117.50	121.90
36	5	1792	C	O5'-P-OP2	-6.28	100.05	105.70
36	5	2150	G	C8-N9-C4	-6.28	103.89	106.40
36	5	2199	G	C6-C5-N7	-6.28	126.63	130.40
36	1	1179	A	O5'-P-OP1	-6.28	100.05	105.70
36	1	2126	A	C8-N9-C4	6.28	108.31	105.80
36	5	647	A	C2-N3-C4	-6.28	107.46	110.60
36	1	1551	C	N1-C2-O2	6.28	122.67	118.90
36	1	2314	U	N1-C2-O2	6.28	127.19	122.80
45	L8	189	LEU	CA-CB-CG	6.28	129.74	115.30
36	1	2355	G	N3-C2-N2	-6.28	115.51	119.90
36	1	2361	A	OP2-P-O3'	6.28	119.01	105.20
36	5	3099	C	N1-C2-O2	-6.28	115.14	118.90
36	5	3272	C	N1-C2-O2	-6.28	115.14	118.90
36	1	960	U	N3-C4-O4	6.27	123.79	119.40
36	1	2283	G	N3-C2-N2	-6.27	115.51	119.90
36	5	1116	G	N9-C4-C5	6.27	107.91	105.40
36	1	2812	C	C5-C6-N1	-6.27	117.86	121.00
36	5	3377	G	N9-C4-C5	-6.27	102.89	105.40
1	2	1198	G	C8-N9-C4	-6.27	103.89	106.40
36	1	639	G	OP1-P-OP2	-6.27	110.19	119.60
36	1	2642	A	C6-N1-C2	6.27	122.36	118.60
36	1	709	A	O5'-P-OP2	6.27	118.22	110.70
36	1	2383	C	C6-N1-C2	6.27	122.81	120.30
36	1	908	G	C8-N9-C1'	-6.27	118.85	127.00
36	1	2356	A	C5-N7-C8	-6.27	100.77	103.90
36	1	2411	U	N1-C2-N3	6.27	118.66	114.90
1	6	1766	A	N1-C6-N6	6.27	122.36	118.60
36	5	1799	A	N1-C6-N6	6.27	122.36	118.60
38	8	151	C	C6-N1-C2	6.27	122.81	120.30
36	1	1157	G	C5-C6-O6	6.27	132.36	128.60
36	1	895	A	O5'-P-OP1	-6.26	100.06	105.70
36	5	3245	A	C8-N9-C4	-6.26	103.29	105.80
36	5	890	C	C4-C5-C6	6.26	120.53	117.40
37	7	89	G	N9-C4-C5	-6.26	102.90	105.40
36	1	797	U	OP2-P-O3'	6.26	118.97	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2879	C	N3-C4-N4	6.26	122.38	118.00
36	5	1127	G	C6-N1-C2	-6.26	121.34	125.10
36	5	2327	U	C5-C6-N1	-6.26	119.57	122.70
36	5	2912	G	N1-C2-N2	6.26	121.83	116.20
36	5	1605	A	O4'-C1'-N9	6.26	113.20	108.20
1	2	1092	A	N1-C6-N6	6.25	122.35	118.60
36	5	1592	G	N9-C4-C5	6.25	107.90	105.40
36	1	304	G	C6-C5-N7	6.25	134.15	130.40
36	1	372	A	N9-C4-C5	-6.25	103.30	105.80
36	1	651	G	C8-N9-C1'	-6.25	118.88	127.00
36	5	2334	U	O5'-P-OP1	6.25	118.20	110.70
36	5	3214	U	C5-C4-O4	6.25	129.65	125.90
1	2	1200	G	C6-C5-N7	-6.25	126.65	130.40
36	1	714	G	C4-C5-N7	6.25	113.30	110.80
36	5	587	U	C6-N1-C2	6.25	124.75	121.00
36	1	2418	G	C2-N3-C4	6.25	115.02	111.90
36	5	1481	A	N7-C8-N9	6.25	116.92	113.80
36	5	2281	A	C8-N9-C4	6.25	108.30	105.80
36	1	813	G	C2-N3-C4	6.24	115.02	111.90
1	6	914	G	C4-C5-N7	6.24	113.30	110.80
36	5	2813	A	C4-C5-C6	6.24	120.12	117.00
36	1	1409	G	N1-C6-O6	-6.24	116.16	119.90
1	6	1503	A	C2-N3-C4	-6.24	107.48	110.60
36	5	2362	C	N3-C2-O2	-6.24	117.53	121.90
36	1	220	G	C5-C6-O6	-6.24	124.86	128.60
1	6	609	U	N1-C2-N3	6.24	118.64	114.90
1	2	1291	G	N3-C4-C5	6.24	131.72	128.60
36	1	724	U	C6-N1-C2	6.24	124.74	121.00
36	5	931	C	N3-C4-C5	6.24	124.39	121.90
36	5	2421	U	N1-C2-O2	-6.24	118.44	122.80
36	5	2914	G	O5'-P-OP2	-6.24	100.09	105.70
36	1	2323	G	N3-C4-C5	-6.23	125.48	128.60
36	1	2381	G	C2-N3-C4	6.23	115.02	111.90
36	5	1521	G	C5-C6-O6	6.23	132.34	128.60
1	6	44	U	N3-C2-O2	6.23	126.56	122.20
36	1	2222	A	C8-N9-C4	-6.23	103.31	105.80
36	1	2811	A	N9-C4-C5	6.23	108.29	105.80
1	6	1472	C	C2-N1-C1'	-6.23	111.95	118.80
36	5	895	A	C8-N9-C4	6.23	108.29	105.80
36	5	1331	U	C6-N1-C2	6.23	124.74	121.00
36	5	1906	G	N9-C4-C5	-6.23	102.91	105.40
36	5	1910	A	OP2-P-O3'	6.23	118.90	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1149	G	C5-C6-O6	-6.22	124.87	128.60
36	5	2338	C	N1-C2-O2	-6.22	115.17	118.90
36	5	57	A	N9-C4-C5	-6.22	103.31	105.80
36	5	639	G	O5'-P-OP1	6.22	118.16	110.70
36	1	220	G	C4-C5-N7	6.22	113.29	110.80
36	1	231	G	N1-C6-O6	-6.22	116.17	119.90
36	5	141	C	N1-C2-O2	-6.22	115.17	118.90
36	5	1116	G	OP2-P-O3'	6.22	118.88	105.20
36	5	2341	A	N7-C8-N9	-6.22	110.69	113.80
36	1	958	C	N3-C4-N4	-6.21	113.65	118.00
36	5	282	G	O5'-P-OP1	-6.21	100.11	105.70
36	1	1807	G	C8-N9-C4	-6.21	103.92	106.40
36	5	65	A	O5'-P-OP2	-6.21	100.11	105.70
36	5	1175	C	N3-C4-C5	6.21	124.38	121.90
36	5	2234	G	N9-C4-C5	-6.21	102.92	105.40
36	5	2790	A	O5'-P-OP2	-6.21	100.11	105.70
36	1	59	G	N1-C6-O6	6.21	123.62	119.90
36	1	644	G	C4-C5-C6	6.21	122.53	118.80
36	5	699	A	C2-N3-C4	-6.21	107.50	110.60
36	5	1847	A	N3-C4-C5	6.21	131.15	126.80
36	5	3017	A	C5-C6-N6	-6.21	118.73	123.70
36	1	57	A	C2-N3-C4	-6.21	107.50	110.60
36	5	954	U	C5-C6-N1	6.21	125.80	122.70
36	1	2773	C	OP1-P-OP2	6.21	128.91	119.60
1	6	308	C	C6-N1-C1'	6.21	128.25	120.80
1	6	431	C	N1-C2-O2	6.20	122.62	118.90
10	S8	29	LEU	CA-CB-CG	6.20	129.56	115.30
12	c0	83	PRO	N-CA-CB	6.20	110.74	103.30
36	5	3174	A	C5-N7-C8	-6.20	100.80	103.90
36	5	714	G	N9-C4-C5	-6.20	102.92	105.40
36	1	3181	C	N1-C2-N3	6.20	123.54	119.20
36	5	36	C	C5-C6-N1	6.20	124.10	121.00
36	1	2356	A	C4-C5-N7	6.19	113.80	110.70
36	1	3094	A	O5'-P-OP1	-6.19	100.13	105.70
36	5	32	U	N1-C2-N3	6.19	118.62	114.90
36	1	2901	G	N1-C6-O6	6.19	123.61	119.90
36	5	2874	G	C5-C6-O6	6.19	132.31	128.60
36	1	674	G	N9-C4-C5	6.19	107.88	105.40
36	1	2142	A	O5'-P-OP2	6.19	118.12	110.70
36	1	2357	A	N1-C6-N6	6.19	122.31	118.60
36	5	3144	G	C8-N9-C4	-6.19	103.92	106.40
36	1	2874	G	C2-N3-C4	-6.18	108.81	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	321	C	N1-C2-O2	6.18	122.61	118.90
1	6	337	G	C8-N9-C1'	-6.18	118.96	127.00
36	5	2524	A	N9-C1'-C2'	6.18	122.04	114.00
36	5	133	U	N1-C2-O2	6.18	127.13	122.80
36	5	3110	C	C2-N3-C4	-6.18	116.81	119.90
36	1	2901	G	N3-C2-N2	-6.18	115.57	119.90
38	8	43	A	C8-N9-C4	-6.18	103.33	105.80
43	16	173	MET	CB-CG-SD	-6.18	93.86	112.40
36	5	1879	A	C5-N7-C8	-6.18	100.81	103.90
36	1	2381	G	N3-C4-C5	-6.18	125.51	128.60
36	5	1733	G	C5-C6-O6	-6.18	124.89	128.60
36	1	363	G	N1-C6-O6	6.17	123.61	119.90
36	1	671	U	N3-C2-O2	6.17	126.52	122.20
36	1	963	G	C5-C6-O6	-6.17	124.89	128.60
36	1	1156	C	N3-C4-N4	-6.17	113.68	118.00
36	1	1492	G	C4-C5-C6	6.17	122.50	118.80
36	1	3269	U	N3-C2-O2	-6.17	117.88	122.20
36	5	209	A	C8-N9-C4	-6.17	103.33	105.80
1	2	1560	U	C5-C4-O4	6.17	129.60	125.90
36	1	660	A	N1-C2-N3	-6.17	126.22	129.30
36	1	663	C	C5-C4-N4	-6.17	115.88	120.20
36	1	859	G	N3-C4-N9	6.17	129.70	126.00
36	1	2983	C	N1-C2-N3	6.17	123.52	119.20
36	5	283	G	C5-N7-C8	-6.17	101.22	104.30
36	5	1296	C	O5'-P-OP1	-6.17	100.15	105.70
36	5	1524	A	C8-N9-C4	6.17	108.27	105.80
36	5	3104	U	N3-C4-C5	6.17	118.30	114.60
36	1	2850	G	C6-C5-N7	-6.17	126.70	130.40
36	5	640	U	N1-C2-N3	6.17	118.60	114.90
36	5	3009	G	N1-C6-O6	-6.17	116.20	119.90
36	5	1112	A	N3-C4-N9	6.16	132.33	127.40
36	5	2330	C	O5'-P-OP2	-6.16	100.15	105.70
1	2	1654	G	O5'-P-OP2	-6.16	100.16	105.70
36	1	585	A	O5'-P-OP2	-6.16	100.16	105.70
36	1	810	A	C8-N9-C4	-6.16	103.34	105.80
12	c0	97	PRO	N-CA-CB	6.16	110.69	103.30
36	5	2634	U	N1-C2-N3	6.16	118.60	114.90
36	5	423	A	N7-C8-N9	-6.16	110.72	113.80
36	5	1493	G	O4'-C1'-N9	6.16	113.13	108.20
36	5	2364	G	O4'-C1'-N9	6.16	113.13	108.20
36	5	2916	U	N3-C4-O4	6.16	123.71	119.40
38	4	40	A	C6-C5-N7	-6.15	127.99	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2295	A	C5-C6-N6	-6.15	118.78	123.70
36	5	3315	G	N1-C6-O6	-6.15	116.21	119.90
36	5	1878	G	C4-N9-C1'	6.15	134.50	126.50
36	5	297	G	O4'-C1'-N9	6.15	113.12	108.20
36	5	1331	U	C5-C4-O4	-6.15	122.21	125.90
36	5	2187	G	C8-N9-C4	6.15	108.86	106.40
36	5	2283	G	C5-C6-O6	-6.15	124.91	128.60
36	5	2838	A	N1-C6-N6	6.15	122.29	118.60
36	1	816	A	OP2-P-O3'	6.15	118.72	105.20
36	5	2709	C	N3-C4-C5	6.15	124.36	121.90
36	5	3204	C	N3-C4-C5	6.15	124.36	121.90
36	1	3090	U	N3-C2-O2	6.15	126.50	122.20
36	5	3041	U	N3-C4-C5	6.15	118.29	114.60
1	6	542	A	C4-C5-C6	6.14	120.07	117.00
36	5	416	A	C4-C5-C6	6.14	120.07	117.00
36	1	98	G	N3-C4-C5	6.14	131.67	128.60
36	1	1330	A	N1-C6-N6	6.14	122.28	118.60
36	5	937	G	O4'-C1'-N9	6.14	113.11	108.20
1	2	337	G	C5-C6-O6	-6.14	124.92	128.60
36	1	2815	G	N1-C2-N2	-6.14	110.67	116.20
36	5	2244	A	O5'-P-OP1	6.14	118.07	110.70
36	5	993	G	O4'-C1'-N9	6.14	113.11	108.20
36	5	2404	A	C4-C5-N7	6.14	113.77	110.70
36	1	111	C	N3-C4-C5	6.14	124.36	121.90
36	1	1890	U	C5-C6-N1	-6.14	119.63	122.70
36	5	516	A	C8-N9-C4	6.14	108.25	105.80
36	5	3217	C	C2-N1-C1'	-6.14	112.05	118.80
1	6	1537	C	N3-C4-C5	-6.13	119.45	121.90
36	5	916	G	N3-C4-C5	6.13	131.67	128.60
36	5	2650	U	N1-C2-N3	6.13	118.58	114.90
36	5	2824	G	N9-C4-C5	-6.13	102.95	105.40
36	5	2933	A	OP2-P-O3'	6.13	118.69	105.20
36	1	63	A	C8-N9-C4	-6.13	103.35	105.80
36	5	3060	C	C5-C4-N4	-6.13	115.91	120.20
1	2	1096	C	N1-C2-O2	6.13	122.58	118.90
36	1	326	U	O5'-P-OP2	-6.13	100.18	105.70
36	1	1434	G	N7-C8-N9	6.13	116.17	113.10
36	1	2295	A	N1-C6-N6	6.13	122.28	118.60
36	5	419	G	C6-C5-N7	-6.13	126.72	130.40
36	5	809	G	N3-C4-N9	6.13	129.68	126.00
36	1	1802	C	C6-N1-C2	-6.13	117.85	120.30
36	5	674	G	C8-N9-C4	-6.13	103.95	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	767	U	N3-C2-O2	-6.13	117.91	122.20
36	1	811	U	C4-C5-C6	6.13	123.38	119.70
36	5	1317	A	OP2-P-O3'	6.13	118.68	105.20
36	5	1791	C	C6-N1-C2	-6.13	117.85	120.30
36	5	3174	A	N7-C8-N9	6.12	116.86	113.80
1	2	110	U	N3-C2-O2	-6.12	117.91	122.20
1	2	448	C	C6-N1-C2	-6.12	117.85	120.30
36	1	2349	U	N3-C2-O2	-6.12	117.91	122.20
1	6	1700	C	C6-N1-C1'	-6.12	113.45	120.80
36	5	3362	A	N7-C8-N9	6.12	116.86	113.80
36	1	1183	C	N3-C4-C5	6.12	124.35	121.90
1	6	944	A	O5'-P-OP1	-6.12	100.19	105.70
1	6	1514	U	C5-C4-O4	6.12	129.57	125.90
1	6	1614	A	C2-N3-C4	-6.12	107.54	110.60
36	5	2371	G	N9-C4-C5	-6.12	102.95	105.40
36	1	1452	A	C8-N9-C4	6.12	108.25	105.80
1	2	1462	G	C4-C5-N7	6.12	113.25	110.80
36	1	1189	C	C4-C5-C6	6.12	120.46	117.40
36	5	1239	C	C2-N1-C1'	6.12	125.53	118.80
36	1	1305	U	N1-C2-O2	6.12	127.08	122.80
36	1	1374	G	N3-C2-N2	6.12	124.18	119.90
36	1	2662	G	N1-C6-O6	6.12	123.57	119.90
36	1	120	G	C8-N9-C4	6.12	108.85	106.40
36	1	815	G	C8-N9-C4	-6.12	103.95	106.40
36	1	1139	G	C5-C6-O6	6.11	132.27	128.60
36	1	1176	C	C6-N1-C2	6.11	122.75	120.30
36	5	609	G	N1-C6-O6	6.11	123.57	119.90
36	5	908	G	C4-C5-N7	6.11	113.25	110.80
36	1	3298	C	C6-N1-C2	6.11	122.75	120.30
36	5	1448	U	C6-N1-C2	6.11	124.67	121.00
37	7	11	A	C4-C5-N7	6.11	113.76	110.70
36	1	938	C	C5-C4-N4	-6.11	115.92	120.20
36	1	72	C	C2-N1-C1'	-6.11	112.08	118.80
1	6	542	A	O5'-P-OP1	-6.11	100.20	105.70
36	5	2985	C	C5-C6-N1	6.11	124.05	121.00
36	1	1141	C	N3-C4-C5	-6.11	119.46	121.90
36	1	1367	G	C6-C5-N7	-6.11	126.74	130.40
36	1	2298	U	C5-C6-N1	-6.11	119.65	122.70
36	1	3135	U	C5-C6-N1	-6.10	119.65	122.70
36	1	3217	C	C6-N1-C1'	-6.10	113.47	120.80
36	5	326	U	N3-C2-O2	6.10	126.47	122.20
36	5	680	G	O5'-P-OP2	-6.10	100.21	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2848	G	C6-C5-N7	-6.10	126.74	130.40
1	6	1119	G	C6-C5-N7	-6.10	126.74	130.40
36	5	2660	G	O5'-P-OP2	-6.10	100.21	105.70
36	5	3050	U	C5-C4-O4	6.10	129.56	125.90
36	5	2396	G	N9-C4-C5	6.10	107.84	105.40
36	1	340	C	C2-N3-C4	-6.10	116.85	119.90
36	1	2944	U	OP1-P-O3'	6.10	118.62	105.20
36	5	2352	A	C4-C5-C6	6.10	120.05	117.00
36	5	2729	U	N1-C2-O2	6.10	127.07	122.80
36	1	2409	G	C8-N9-C4	-6.10	103.96	106.40
36	5	2824	G	C4-C5-N7	6.10	113.24	110.80
36	1	1879	A	O4'-C1'-N9	6.09	113.08	108.20
36	5	641	C	O4'-C1'-N1	6.09	113.08	108.20
36	5	911	C	C6-N1-C2	6.09	122.74	120.30
36	1	1199	C	C6-N1-C2	6.09	122.74	120.30
36	1	1433	A	C2-N3-C4	6.09	113.65	110.60
36	5	1468	A	N1-C6-N6	6.09	122.26	118.60
1	2	1733	C	N3-C4-N4	6.09	122.26	118.00
36	1	369	A	N9-C4-C5	6.09	108.24	105.80
1	2	402	C	O5'-P-OP1	-6.09	100.22	105.70
1	6	756	A	N7-C8-N9	6.09	116.84	113.80
36	5	652	G	O5'-P-OP2	-6.09	100.22	105.70
36	5	1151	U	N1-C2-O2	-6.09	118.54	122.80
36	5	1131	G	OP1-P-OP2	6.09	128.73	119.60
36	1	1380	G	O5'-P-OP1	6.09	118.00	110.70
1	6	57	G	N3-C4-N9	6.09	129.65	126.00
1	6	408	C	N3-C4-C5	-6.09	119.47	121.90
36	1	910	G	C5-C6-N1	-6.08	108.46	111.50
36	1	2812	C	O5'-P-OP2	6.08	118.00	110.70
1	6	338	C	C5-C4-N4	-6.08	115.94	120.20
36	5	416	A	C6-C5-N7	-6.08	128.04	132.30
36	5	668	G	N3-C2-N2	6.08	124.16	119.90
36	5	884	A	C4-C5-C6	-6.08	113.96	117.00
36	1	805	G	N9-C4-C5	-6.08	102.97	105.40
36	5	369	A	N7-C8-N9	6.08	116.84	113.80
36	1	199	A	O4'-C1'-N9	6.08	113.06	108.20
36	1	611	A	O5'-P-OP1	6.08	117.99	110.70
36	5	1476	G	N3-C4-C5	6.08	131.64	128.60
36	5	1150	A	O5'-P-OP2	-6.08	100.23	105.70
36	5	922	U	N1-C2-O2	6.08	127.05	122.80
36	1	1149	G	N3-C2-N2	-6.07	115.65	119.90
1	6	1596	C	C5-C4-N4	6.07	124.45	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	514	G	N1-C6-O6	6.07	123.54	119.90
36	5	3140	G	N1-C6-O6	6.07	123.54	119.90
36	1	283	G	O4'-C1'-N9	-6.07	103.34	108.20
36	1	2107	A	O5'-P-OP1	-6.07	100.24	105.70
36	5	1085	A	N1-C6-N6	6.07	122.24	118.60
36	1	2388	U	N3-C2-O2	6.07	126.45	122.20
1	6	416	A	C4-C5-N7	6.07	113.73	110.70
36	5	3060	C	N3-C4-N4	6.07	122.25	118.00
36	1	580	C	N1-C2-O2	-6.07	115.26	118.90
36	1	2382	G	C5-C6-O6	6.07	132.24	128.60
36	1	2728	G	C5-C6-N1	6.07	114.53	111.50
38	4	40	A	N9-C4-C5	-6.07	103.37	105.80
36	1	695	C	N3-C4-N4	-6.06	113.75	118.00
36	5	2656	A	C8-N9-C4	-6.06	103.38	105.80
36	1	405	U	N3-C2-O2	6.06	126.44	122.20
36	1	1151	U	C5-C6-N1	6.06	125.73	122.70
36	1	2892	A	N1-C6-N6	-6.06	114.96	118.60
36	1	835	G	O4'-C1'-N9	6.06	113.05	108.20
36	1	1904	C	C6-N1-C2	-6.06	117.88	120.30
36	5	1481	A	P-O3'-C3'	6.06	126.97	119.70
36	5	2416	U	C6-N1-C2	-6.06	117.36	121.00
36	5	2601	A	N9-C4-C5	6.06	108.22	105.80
36	5	2765	C	C6-N1-C2	-6.06	117.88	120.30
36	1	911	C	O5'-P-OP1	-6.06	100.25	105.70
36	1	1298	C	O5'-P-OP1	-6.06	100.25	105.70
36	5	101	G	O4'-C1'-N9	6.06	113.05	108.20
36	5	3154	C	C6-N1-C2	-6.06	117.88	120.30
36	1	1683	A	N1-C6-N6	6.06	122.23	118.60
36	5	2824	G	N1-C6-O6	6.06	123.53	119.90
1	6	1700	C	N3-C2-O2	-6.05	117.66	121.90
36	5	2865	U	C4-C5-C6	-6.05	116.07	119.70
36	1	936	A	C5-C6-N6	-6.05	118.86	123.70
36	1	2632	G	N1-C6-O6	-6.05	116.27	119.90
1	6	337	G	C5-C6-O6	-6.05	124.97	128.60
36	5	966	U	O5'-P-OP2	-6.05	100.25	105.70
36	5	1858	A	O4'-C1'-N9	6.05	113.04	108.20
36	5	2360	C	N1-C2-O2	-6.05	115.27	118.90
36	1	2397	A	N1-C6-N6	6.05	122.23	118.60
37	3	96	U	C2-N3-C4	-6.05	123.37	127.00
1	6	1796	C	N3-C4-N4	-6.05	113.77	118.00
36	5	939	U	O5'-P-OP1	6.05	117.96	110.70
36	5	1582	C	C6-N1-C2	-6.05	117.88	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2618	G	C5-C6-N1	6.05	114.53	111.50
36	5	2878	G	C5-C6-O6	-6.05	124.97	128.60
36	5	2831	G	C5-C6-N1	6.05	114.52	111.50
36	5	2945	G	N1-C6-O6	6.05	123.53	119.90
36	5	61	A	N1-C2-N3	6.04	132.32	129.30
1	2	831	U	C5-C6-N1	6.04	125.72	122.70
36	1	969	C	N3-C4-C5	6.04	124.32	121.90
36	1	2891	U	C5-C4-O4	-6.04	122.28	125.90
36	5	2124	G	N1-C6-O6	6.04	123.52	119.90
36	5	2142	A	C6-N1-C2	-6.04	114.98	118.60
36	5	2383	C	N3-C4-N4	6.04	122.23	118.00
36	5	2653	C	C6-N1-C2	-6.04	117.88	120.30
36	1	94	G	O4'-C1'-N9	6.04	113.03	108.20
36	1	284	A	O4'-C1'-N9	6.04	113.03	108.20
36	1	1376	C	C4-C5-C6	6.04	120.42	117.40
1	6	1094	G	N1-C6-O6	-6.04	116.28	119.90
36	1	674	G	C8-N9-C4	-6.04	103.98	106.40
36	1	3053	G	N1-C6-O6	-6.03	116.28	119.90
1	6	1472	C	C6-N1-C1'	6.03	128.04	120.80
36	5	1008	U	C2-N1-C1'	-6.03	110.46	117.70
36	5	1790	G	O5'-P-OP1	-6.03	100.27	105.70
36	5	2822	U	O5'-P-OP1	-6.03	100.27	105.70
36	1	2719	U	N1-C2-N3	6.03	118.52	114.90
36	5	880	G	C4-N9-C1'	-6.03	118.66	126.50
36	5	1304	A	N1-C2-N3	-6.03	126.28	129.30
36	1	2856	G	N7-C8-N9	-6.03	110.08	113.10
36	5	1897	G	C4-C5-N7	6.03	113.21	110.80
36	1	422	A	C5-C6-N6	6.03	128.52	123.70
36	1	1459	C	N3-C4-C5	6.03	124.31	121.90
36	5	2830	G	C5-C6-O6	6.03	132.22	128.60
36	5	2130	G	N1-C6-O6	-6.03	116.28	119.90
36	5	3374	U	N3-C4-C5	6.03	118.22	114.60
36	1	206	G	C5-C6-N1	6.02	114.51	111.50
36	1	2404	A	C5-C6-N6	-6.02	118.88	123.70
36	5	2293	C	N1-C2-O2	6.02	122.51	118.90
36	1	765	C	N3-C2-O2	-6.02	117.69	121.90
1	2	765	G	O4'-C1'-N9	-6.02	103.39	108.20
36	1	101	G	O4'-C1'-N9	6.02	113.02	108.20
36	1	2356	A	C5-C6-N6	-6.02	118.89	123.70
1	2	402	C	C6-N1-C2	6.02	122.71	120.30
1	2	1777	G	C6-C5-N7	-6.02	126.79	130.40
36	1	1420	C	C6-N1-C2	-6.02	117.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	959	C	O4'-C1'-N1	6.02	113.01	108.20
36	5	1170	A	C8-N9-C4	6.02	108.21	105.80
36	5	2138	A	C4-C5-C6	6.02	120.01	117.00
36	1	1445	U	C2-N3-C4	-6.01	123.39	127.00
1	6	1768	G	C5-C6-O6	6.01	132.21	128.60
36	5	1907	C	N1-C2-O2	-6.01	115.29	118.90
36	1	2821	C	OP1-P-OP2	-6.01	110.58	119.60
36	5	659	G	OP2-P-O3'	6.01	118.42	105.20
36	5	2914	G	C8-N9-C1'	-6.01	119.18	127.00
38	8	37	A	N1-C6-N6	-6.01	114.99	118.60
36	1	795	G	C2-N3-C4	6.01	114.91	111.90
36	1	2366	C	C6-N1-C2	-6.01	117.90	120.30
1	6	1141	G	O5'-P-OP1	-6.01	100.29	105.70
36	5	2699	G	C5-C6-O6	-6.01	125.00	128.60
36	5	2892	A	N9-C4-C5	6.01	108.20	105.80
36	5	3092	C	O4'-C1'-N1	6.01	113.01	108.20
36	1	814	U	O5'-P-OP2	6.01	117.91	110.70
36	5	639	G	N3-C2-N2	-6.01	115.69	119.90
36	5	966	U	C2-N1-C1'	6.01	124.91	117.70
36	5	1399	A	C5-C6-N6	-6.01	118.89	123.70
36	5	3078	U	N1-C2-O2	6.01	127.00	122.80
36	1	2806	U	O5'-P-OP2	-6.00	100.30	105.70
36	5	2984	C	OP1-P-O3'	6.00	118.41	105.20
52	M6	101	ARG	NE-CZ-NH1	6.00	123.30	120.30
1	6	804	A	N1-C6-N6	6.00	122.20	118.60
36	5	631	U	N3-C2-O2	-6.00	118.00	122.20
36	5	2920	U	N1-C2-O2	-6.00	118.60	122.80
36	1	2130	G	N1-C2-N2	-6.00	110.80	116.20
36	5	925	A	N1-C6-N6	6.00	122.20	118.60
36	1	3361	G	N3-C4-N9	6.00	129.60	126.00
37	7	93	C	N3-C2-O2	-6.00	117.70	121.90
36	1	1269	U	C2-N1-C1'	6.00	124.90	117.70
36	1	1484	U	N3-C2-O2	-6.00	118.00	122.20
1	6	113	U	N1-C2-O2	-6.00	118.60	122.80
1	6	1537	C	C6-N1-C1'	6.00	128.00	120.80
36	5	2964	G	N1-C6-O6	-6.00	116.30	119.90
36	5	3245	A	N1-C6-N6	6.00	122.20	118.60
36	1	352	A	O4'-C1'-N9	6.00	113.00	108.20
36	1	1437	C	N1-C2-O2	-6.00	115.30	118.90
36	1	1858	A	C8-N9-C4	-6.00	103.40	105.80
36	1	2216	G	N9-C4-C5	6.00	107.80	105.40
36	1	579	G	OP2-P-O3'	6.00	118.39	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2142	A	C2-N3-C4	6.00	113.60	110.60
1	6	630	A	C2-N3-C4	-5.99	107.60	110.60
36	5	2364	G	N9-C4-C5	5.99	107.80	105.40
36	5	2757	U	N1-C2-N3	5.99	118.50	114.90
36	5	2865	U	N1-C2-N3	-5.99	111.30	114.90
38	4	113	U	C4-C5-C6	5.99	123.30	119.70
36	5	622	A	N1-C6-N6	5.99	122.19	118.60
36	5	2871	G	C5-C6-O6	5.99	132.19	128.60
1	6	31	C	C5-C4-N4	5.99	124.39	120.20
1	6	107	C	C6-N1-C2	5.99	122.69	120.30
36	5	2248	C	C6-N1-C2	5.99	122.70	120.30
36	5	283	G	O4'-C1'-N9	-5.99	103.41	108.20
36	5	1450	G	C6-C5-N7	5.99	133.99	130.40
36	1	641	C	C2-N1-C1'	-5.99	112.22	118.80
36	5	1306	G	C5-C6-O6	-5.99	125.01	128.60
36	5	2341	A	C8-N9-C4	5.99	108.19	105.80
36	5	2993	G	C4-C5-N7	5.99	113.19	110.80
36	1	346	C	C5-C6-N1	-5.98	118.01	121.00
36	1	3318	G	C8-N9-C4	-5.98	104.01	106.40
36	1	206	G	N7-C8-N9	-5.98	110.11	113.10
36	1	2169	G	N9-C4-C5	5.98	107.79	105.40
37	3	57	G	N1-C6-O6	-5.98	116.31	119.90
36	5	2401	A	C2-N3-C4	-5.98	107.61	110.60
36	1	2879	C	C5-C4-N4	-5.98	116.01	120.20
1	6	1776	A	OP2-P-O3'	5.98	118.36	105.20
36	5	2957	G	O5'-P-OP1	-5.98	100.32	105.70
36	1	91	G	N3-C4-C5	5.98	131.59	128.60
36	1	1116	G	N9-C4-C5	5.98	107.79	105.40
36	1	2585	G	N3-C4-C5	-5.98	125.61	128.60
36	5	1161	G	C2-N3-C4	5.98	114.89	111.90
36	5	2996	U	O4'-C1'-N1	-5.98	103.42	108.20
36	5	1338	C	N1-C2-O2	-5.98	115.31	118.90
36	1	1112	A	O5'-P-OP2	-5.97	100.32	105.70
36	1	1314	C	C6-N1-C2	-5.97	117.91	120.30
36	1	2614	G	C5-N7-C8	5.97	107.29	104.30
36	1	3103	A	O5'-P-OP2	-5.97	100.32	105.70
38	4	25	G	C4-C5-N7	-5.97	108.41	110.80
38	4	52	A	O5'-P-OP1	-5.97	100.32	105.70
1	6	1082	C	C6-N1-C2	-5.97	117.91	120.30
36	5	2411	U	N3-C4-C5	5.97	118.19	114.60
37	3	42	A	C8-N9-C4	5.97	108.19	105.80
1	6	444	C	C6-N1-C2	5.97	122.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	871	U	N3-C4-O4	-5.97	115.22	119.40
36	1	1421	G	N7-C8-N9	-5.97	110.11	113.10
36	5	1226	G	N3-C4-N9	5.97	129.58	126.00
36	1	2412	G	C8-N9-C4	-5.97	104.01	106.40
48	M1	112	LEU	CA-CB-CG	5.97	129.02	115.30
1	6	542	A	C4-N9-C1'	5.97	137.04	126.30
36	5	2345	A	C5-C6-N6	-5.97	118.93	123.70
1	2	1324	G	N3-C2-N2	-5.96	115.72	119.90
36	1	331	G	C2-N3-C4	5.96	114.88	111.90
36	5	881	C	C2-N3-C4	5.96	122.88	119.90
38	4	13	A	C8-N9-C4	-5.96	103.42	105.80
1	6	619	A	OP2-P-O3'	5.96	118.32	105.20
38	8	7	U	C5-C4-O4	-5.96	122.32	125.90
36	1	1349	G	C2-N3-C4	5.96	114.88	111.90
36	1	1890	U	C5-C4-O4	-5.96	122.32	125.90
36	1	2572	C	C6-N1-C1'	-5.96	113.65	120.80
36	1	1902	G	C8-N9-C4	-5.96	104.02	106.40
36	5	681	U	C5-C4-O4	-5.96	122.33	125.90
39	12	190	ARG	NE-CZ-NH1	-5.96	117.32	120.30
36	1	1846	C	N3-C4-C5	-5.96	119.52	121.90
36	1	3275	U	OP1-P-O3'	5.96	118.31	105.20
36	1	398	A	C5-C6-N6	-5.96	118.94	123.70
69	O3	67	MET	CG-SD-CE	-5.96	90.67	100.20
1	2	1560	U	N1-C2-N3	5.95	118.47	114.90
36	1	92	G	N9-C4-C5	-5.95	103.02	105.40
36	1	2245	C	C6-N1-C2	-5.95	117.92	120.30
36	1	2747	A	N1-C6-N6	-5.95	115.03	118.60
36	5	3107	U	OP2-P-O3'	5.95	118.30	105.20
1	2	158	U	P-O3'-C3'	5.95	126.84	119.70
36	1	709	A	N7-C8-N9	-5.95	110.83	113.80
36	1	2339	C	C6-N1-C2	-5.95	117.92	120.30
36	5	659	G	C5-C6-O6	-5.95	125.03	128.60
36	5	1303	A	N1-C2-N3	-5.95	126.33	129.30
36	1	2846	U	N1-C2-O2	5.95	126.96	122.80
36	5	980	A	N1-C6-N6	-5.95	115.03	118.60
1	2	1560	U	C6-N1-C2	-5.95	117.43	121.00
1	2	323	A	N7-C8-N9	5.95	116.77	113.80
36	5	204	A	C5-C6-N1	5.95	120.67	117.70
36	5	659	G	P-O3'-C3'	5.95	126.83	119.70
36	1	646	A	N1-C2-N3	5.94	132.27	129.30
36	5	3377	G	C6-C5-N7	-5.94	126.83	130.40
36	1	1140	G	N3-C2-N2	5.94	124.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1312	C	N1-C2-O2	-5.94	115.33	118.90
36	1	2406	C	C5-C6-N1	-5.94	118.03	121.00
36	1	1409	G	C6-C5-N7	5.94	133.96	130.40
36	1	2354	C	O5'-P-OP1	-5.94	100.35	105.70
36	1	2978	U	P-O3'-C3'	5.94	126.83	119.70
36	5	1406	A	C5-N7-C8	-5.94	100.93	103.90
36	1	964	G	C5-C6-N1	5.94	114.47	111.50
36	5	3382	U	C2-N1-C1'	5.94	124.83	117.70
1	2	1657	U	C4-C5-C6	5.94	123.26	119.70
36	5	1880	U	O5'-P-OP2	5.94	117.83	110.70
1	2	158	U	C2-N1-C1'	5.94	124.82	117.70
36	1	2811	A	C5-C6-N1	5.94	120.67	117.70
36	5	2880	U	C6-N1-C2	-5.94	117.44	121.00
36	1	200	C	N1-C2-O2	5.93	122.46	118.90
36	5	283	G	C5-C6-O6	-5.93	125.04	128.60
36	5	974	G	C2-N3-C4	5.93	114.87	111.90
36	5	2434	U	C5-C4-O4	5.93	129.46	125.90
1	2	1652	C	C5-C6-N1	5.93	123.97	121.00
36	1	785	G	C2-N3-C4	5.93	114.87	111.90
36	1	1589	A	OP2-P-O3'	5.93	118.25	105.20
38	4	73	U	N1-C2-O2	5.93	126.95	122.80
1	6	57	G	N3-C4-C5	-5.93	125.63	128.60
36	5	1733	G	N1-C6-O6	5.93	123.46	119.90
36	1	673	U	N3-C4-C5	5.93	118.16	114.60
36	5	283	G	C8-N9-C4	-5.93	104.03	106.40
38	8	45	C	C6-N1-C2	-5.93	117.93	120.30
36	5	2404	A	C5-C6-N6	-5.93	118.96	123.70
36	5	2408	U	C2-N3-C4	-5.93	123.44	127.00
1	6	804	A	N9-C4-C5	-5.93	103.43	105.80
36	5	1226	G	N9-C4-C5	-5.93	103.03	105.40
36	5	3214	U	N3-C4-O4	-5.93	115.25	119.40
37	3	15	C	C6-N1-C2	5.93	122.67	120.30
36	5	335	G	O5'-P-OP2	5.93	117.81	110.70
36	1	1792	C	C4-C5-C6	5.92	120.36	117.40
36	1	2861	U	N3-C2-O2	-5.92	118.05	122.20
37	3	81	U	C2-N3-C4	-5.92	123.44	127.00
36	5	933	A	C6-N1-C2	-5.92	115.05	118.60
38	8	56	G	C6-C5-N7	-5.92	126.84	130.40
36	1	2712	U	N3-C2-O2	-5.92	118.05	122.20
1	2	879	G	O5'-P-OP2	-5.92	100.37	105.70
36	5	631	U	N1-C2-O2	5.92	126.94	122.80
36	5	1213	G	C4-C5-N7	5.92	113.17	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3188	G	C8-N9-C4	-5.92	104.03	106.40
36	1	1169	A	OP2-P-O3'	5.92	118.22	105.20
36	5	859	G	O5'-P-OP1	-5.92	100.37	105.70
36	5	913	A	O5'-P-OP1	-5.92	100.37	105.70
36	1	1176	C	C5-C4-N4	-5.92	116.06	120.20
36	1	2947	G	C5-C6-O6	-5.92	125.05	128.60
36	1	793	C	N3-C4-N4	5.92	122.14	118.00
1	6	1111	G	N3-C4-N9	5.92	129.55	126.00
36	5	3218	A	C5-C6-N6	-5.92	118.97	123.70
37	7	102	A	C5-C6-N1	-5.92	114.74	117.70
36	1	109	A	N1-C6-N6	-5.91	115.05	118.60
36	1	1294	A	C2-N3-C4	5.91	113.56	110.60
36	1	2298	U	O4'-C1'-N1	5.91	112.93	108.20
1	6	977	A	C8-N9-C4	5.91	108.17	105.80
36	5	2400	G	C5-C6-O6	-5.91	125.05	128.60
36	5	3306	U	C6-N1-C2	5.91	124.55	121.00
1	2	1174	C	N1-C2-O2	5.91	122.45	118.90
36	5	940	G	C2-N3-C4	5.91	114.86	111.90
36	5	960	U	OP2-P-O3'	5.91	118.21	105.20
36	5	2650	U	C2-N3-C4	-5.91	123.45	127.00
36	1	2619	G	OP1-P-OP2	5.91	128.47	119.60
1	6	1012	U	C5-C4-O4	-5.91	122.35	125.90
36	5	2421	U	N1-C2-N3	5.91	118.45	114.90
36	1	333	G	C5-C6-O6	5.91	132.15	128.60
36	1	2859	U	C4-C5-C6	5.91	123.25	119.70
36	5	776	U	N3-C2-O2	-5.91	118.06	122.20
1	2	553	G	C4-C5-C6	5.91	122.34	118.80
36	1	361	A	N1-C6-N6	-5.91	115.06	118.60
1	6	957	G	N3-C2-N2	-5.91	115.77	119.90
1	2	1258	U	N3-C2-O2	-5.91	118.07	122.20
36	1	29	C	C6-N1-C2	5.91	122.66	120.30
36	1	200	C	C6-N1-C1'	-5.91	113.71	120.80
36	1	1843	C	N1-C2-O2	-5.91	115.36	118.90
1	6	1745	G	N1-C6-O6	5.91	123.44	119.90
20	c8	116	LEU	CA-CB-CG	5.91	128.88	115.30
37	7	37	G	N3-C4-C5	-5.91	125.65	128.60
36	1	940	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	1476	G	C8-N9-C4	5.90	108.76	106.40
36	5	2337	C	N3-C4-C5	5.90	124.26	121.90
36	5	3076	C	N3-C4-C5	5.90	124.26	121.90
36	1	934	G	C8-N9-C1'	-5.90	119.33	127.00
36	5	264	G	N9-C4-C5	-5.90	103.04	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1307	G	C2-N3-C4	5.90	114.85	111.90
36	5	2890	A	C5-C6-N1	-5.90	114.75	117.70
36	5	3174	A	C8-N9-C4	-5.90	103.44	105.80
36	1	1394	A	OP2-P-O3'	5.90	118.18	105.20
36	1	2846	U	N1-C2-N3	5.90	118.44	114.90
1	6	542	A	C8-N9-C4	-5.90	103.44	105.80
36	5	1473	G	C8-N9-C4	5.90	108.76	106.40
1	6	639	U	C2-N1-C1'	5.90	124.78	117.70
36	5	56	G	C6-C5-N7	5.90	133.94	130.40
36	5	92	G	C5-C6-N1	5.90	114.45	111.50
36	5	892	U	C5-C6-N1	-5.90	119.75	122.70
36	5	2899	C	N3-C2-O2	-5.90	117.77	121.90
38	8	56	G	C5-C6-O6	-5.90	125.06	128.60
36	5	1881	A	O5'-P-OP2	-5.90	100.39	105.70
36	1	1184	A	OP2-P-O3'	5.89	118.17	105.20
36	1	2898	G	O4'-C1'-N9	-5.89	103.48	108.20
38	4	30	C	O5'-P-OP1	-5.89	100.39	105.70
36	5	982	C	OP2-P-O3'	5.89	118.17	105.20
36	5	3120	C	C2-N3-C4	5.89	122.85	119.90
36	1	3055	U	N3-C4-C5	5.89	118.14	114.60
1	6	272	U	P-O3'-C3'	5.89	126.77	119.70
36	5	795	G	N1-C2-N3	-5.89	120.36	123.90
36	5	1147	G	C4-C5-N7	-5.89	108.44	110.80
36	1	66	A	O5'-P-OP1	-5.89	100.40	105.70
36	1	517	G	C8-N9-C4	-5.89	104.05	106.40
36	1	970	A	N7-C8-N9	5.89	116.75	113.80
36	1	1294	A	N1-C6-N6	-5.89	115.07	118.60
36	1	2305	G	N1-C6-O6	5.89	123.43	119.90
36	1	2958	A	C5-C6-N1	5.89	120.64	117.70
1	6	114	C	N1-C2-O2	5.89	122.43	118.90
36	5	2902	A	C5-C6-N6	-5.89	118.99	123.70
36	1	2726	C	N1-C2-N3	5.89	123.32	119.20
36	1	2917	G	C2-N3-C4	5.89	114.84	111.90
1	6	965	U	N3-C4-C5	5.89	118.13	114.60
36	1	1362	G	C8-N9-C4	5.89	108.75	106.40
1	6	402	C	O4'-C1'-N1	5.89	112.91	108.20
36	5	648	C	C2-N1-C1'	5.89	125.28	118.80
36	5	869	G	N3-C4-C5	-5.89	125.66	128.60
36	5	2870	C	N3-C4-C5	5.89	124.25	121.90
36	1	1891	A	C2-N3-C4	-5.88	107.66	110.60
1	6	426	G	C4-N9-C1'	5.88	134.15	126.50
1	6	1120	U	N3-C2-O2	-5.88	118.08	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1655	A	N1-C6-N6	5.88	122.13	118.60
36	5	788	C	OP2-P-O3'	5.88	118.14	105.20
36	5	795	G	C2-N3-C4	5.88	114.84	111.90
36	5	953	G	N1-C6-O6	5.88	123.43	119.90
36	5	1833	G	N1-C6-O6	-5.88	116.37	119.90
36	1	714	G	C8-N9-C1'	-5.88	119.35	127.00
1	6	687	G	N3-C4-N9	-5.88	122.47	126.00
37	3	95	A	N1-C6-N6	5.88	122.13	118.60
1	6	558	U	N1-C2-O2	5.88	126.92	122.80
36	5	1406	A	C5-C6-N6	-5.88	119.00	123.70
36	5	212	G	OP1-P-O3'	5.88	118.14	105.20
36	1	1007	U	C5-C4-O4	-5.88	122.37	125.90
36	1	2662	G	C6-C5-N7	-5.88	126.87	130.40
36	5	2257	C	C5-C6-N1	5.88	123.94	121.00
36	1	102	C	N1-C2-O2	-5.88	115.37	118.90
36	1	2434	U	C5-C4-O4	5.88	129.43	125.90
36	1	2634	U	C2-N3-C4	-5.88	123.47	127.00
36	1	2953	U	N3-C4-O4	5.88	123.51	119.40
36	5	1398	U	OP2-P-O3'	5.88	118.13	105.20
36	5	2142	A	O5'-P-OP1	5.88	117.75	110.70
1	6	1354	G	C4-N9-C1'	5.88	134.14	126.50
36	5	883	A	C8-N9-C4	5.88	108.15	105.80
36	1	645	A	C5-C6-N6	-5.87	119.00	123.70
36	1	810	A	N9-C4-C5	5.87	108.15	105.80
36	1	2831	G	C4-C5-N7	5.87	113.15	110.80
1	6	1582	U	C5-C6-N1	-5.87	119.76	122.70
36	5	966	U	N1-C2-O2	5.87	126.91	122.80
37	7	13	A	C5-C6-N6	-5.87	119.00	123.70
1	2	1273	G	O4'-C1'-N9	5.87	112.90	108.20
36	1	198	A	C8-N9-C4	-5.87	103.45	105.80
36	1	2286	U	N3-C2-O2	-5.87	118.09	122.20
47	M0	152	LEU	CA-CB-CG	-5.87	101.80	115.30
36	5	1017	C	N1-C2-O2	5.87	122.42	118.90
36	5	1592	G	OP2-P-O3'	5.87	118.12	105.20
36	5	2691	A	C8-N9-C4	-5.87	103.45	105.80
36	5	3183	A	OP1-P-OP2	-5.87	110.79	119.60
36	5	1878	G	C8-N9-C4	-5.87	104.05	106.40
36	1	2653	C	N1-C2-O2	5.87	122.42	118.90
52	M6	37	ARG	NE-CZ-NH1	-5.87	117.37	120.30
36	5	982	C	N1-C2-O2	5.87	122.42	118.90
36	5	2866	U	OP1-P-O3'	5.87	118.11	105.20
1	2	1012	U	C2-N3-C4	5.87	130.52	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	282	G	N1-C6-O6	-5.87	116.38	119.90
36	1	1712	G	C4-C5-N7	5.87	113.15	110.80
36	5	2360	C	N3-C4-N4	5.87	122.11	118.00
1	2	380	U	N1-C2-O2	5.86	126.90	122.80
36	1	2830	G	N3-C2-N2	-5.86	115.80	119.90
36	5	1148	G	C8-N9-C4	5.86	108.75	106.40
36	5	3322	A	O5'-P-OP2	-5.86	100.42	105.70
36	5	3351	U	N1-C2-O2	5.86	126.90	122.80
36	1	2585	G	C2-N3-C4	5.86	114.83	111.90
36	1	3178	A	N9-C4-C5	-5.86	103.45	105.80
36	1	196	G	C4-C5-N7	5.86	113.14	110.80
36	1	2362	C	N1-C2-O2	5.86	122.42	118.90
1	6	426	G	N3-C4-C5	-5.86	125.67	128.60
36	1	217	U	OP1-P-O3'	5.86	118.09	105.20
36	1	398	A	N1-C6-N6	5.86	122.11	118.60
36	1	1335	C	N3-C4-N4	-5.86	113.90	118.00
36	1	2121	G	C5-C6-O6	5.86	132.12	128.60
36	1	282	G	C2'-C3'-O3'	5.86	123.07	113.70
36	5	846	A	O5'-P-OP2	-5.86	100.43	105.70
36	5	881	C	C2-N1-C1'	5.86	125.24	118.80
36	5	948	C	C5-C4-N4	-5.86	116.10	120.20
36	5	1513	G	N1-C6-O6	-5.86	116.39	119.90
36	1	660	A	C2-N3-C4	5.86	113.53	110.60
36	5	809	G	C5-C6-O6	-5.86	125.09	128.60
36	5	1449	A	C6-C5-N7	-5.86	128.20	132.30
36	5	3186	A	O5'-P-OP2	-5.86	100.43	105.70
36	5	339	C	C5-C4-N4	5.85	124.30	120.20
36	5	2685	C	C2-N3-C4	-5.85	116.97	119.90
36	1	1292	C	C6-N1-C2	5.85	122.64	120.30
36	5	2643	A	N1-C2-N3	-5.85	126.37	129.30
56	n0	137	ARG	NE-CZ-NH1	5.85	123.23	120.30
36	1	1530	U	C6-N1-C2	5.85	124.51	121.00
36	1	2345	A	C5-C6-N6	-5.85	119.02	123.70
36	5	2382	G	N9-C4-C5	5.85	107.74	105.40
36	1	1300	G	N1-C6-O6	5.85	123.41	119.90
36	1	2142	A	N3-C4-C5	-5.85	122.71	126.80
36	1	2526	C	C2-N1-C1'	5.85	125.23	118.80
36	1	2656	A	C2-N3-C4	5.85	113.52	110.60
37	7	99	G	N1-C6-O6	-5.85	116.39	119.90
36	5	1132	C	N3-C4-C5	5.84	124.24	121.90
36	5	2131	A	N1-C6-N6	5.84	122.11	118.60
36	5	2395	G	C4-C5-N7	5.84	113.14	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3140	G	C6-C5-N7	-5.84	126.89	130.40
36	1	2944	U	N3-C4-C5	5.84	118.11	114.60
36	5	63	A	C6-C5-N7	-5.84	128.21	132.30
36	5	210	U	C2-N1-C1'	-5.84	110.69	117.70
1	2	1503	A	N1-C6-N6	5.84	122.11	118.60
36	1	155	G	N3-C4-N9	5.84	129.50	126.00
36	1	870	G	C5-C6-O6	-5.84	125.09	128.60
1	6	1503	A	C5-N7-C8	-5.84	100.98	103.90
36	5	1517	G	O5'-P-OP2	-5.84	100.44	105.70
36	1	58	G	C5-C6-O6	-5.84	125.10	128.60
36	1	2878	G	C8-N9-C4	5.84	108.73	106.40
36	5	2985	C	C6-N1-C2	-5.84	117.97	120.30
36	1	1842	A	N1-C6-N6	-5.84	115.10	118.60
36	1	2292	U	C2-N1-C1'	5.84	124.70	117.70
36	1	2808	A	C5-C6-N6	-5.84	119.03	123.70
37	3	5	G	C2-N3-C4	-5.84	108.98	111.90
1	6	1596	C	N1-C2-O2	5.84	122.40	118.90
36	5	1301	A	C6-C5-N7	-5.84	128.21	132.30
36	5	2377	G	C5-C6-O6	5.83	132.10	128.60
36	5	3239	G	N1-C6-O6	5.83	123.40	119.90
1	2	1798	U	C2-N1-C1'	5.83	124.70	117.70
36	1	1201	C	C5-C4-N4	-5.83	116.12	120.20
36	1	1380	G	N3-C4-C5	5.83	131.52	128.60
36	5	2817	A	OP1-P-OP2	-5.83	110.85	119.60
36	1	300	G	O5'-P-OP1	-5.83	100.45	105.70
36	1	426	G	N3-C4-N9	5.83	129.50	126.00
1	6	914	G	C8-N9-C4	5.83	108.73	106.40
1	6	1037	C	C6-N1-C2	5.83	122.63	120.30
36	5	1190	A	N7-C8-N9	5.83	116.72	113.80
36	5	2117	A	O5'-P-OP2	-5.83	100.45	105.70
36	1	2300	G	OP2-P-O3'	5.83	118.03	105.20
36	5	2618	G	C5-C6-O6	-5.83	125.10	128.60
36	1	2142	A	OP1-P-OP2	-5.83	110.86	119.60
1	6	75	U	O4'-C1'-N1	5.83	112.86	108.20
57	n1	106	LEU	CA-CB-CG	-5.83	101.90	115.30
36	5	1848	G	N1-C6-O6	5.83	123.40	119.90
36	1	965	A	OP1-P-O3'	5.83	118.02	105.20
36	1	1125	U	OP2-P-O3'	5.83	118.02	105.20
36	5	609	G	N3-C2-N2	-5.83	115.82	119.90
36	5	1047	A	C4-C5-N7	5.83	113.61	110.70
36	1	395	A	O5'-P-OP2	-5.82	100.46	105.70
36	5	2190	U	N1-C2-N3	5.82	118.39	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1114	G	C8-N9-C4	5.82	108.73	106.40
36	1	2815	G	N3-C2-N2	5.82	123.98	119.90
36	5	1301	A	C4-C5-N7	5.82	113.61	110.70
1	2	704	C	O4'-C1'-N1	5.82	112.86	108.20
36	1	1858	A	N3-C4-C5	-5.82	122.73	126.80
36	5	2305	G	C4-C5-N7	5.82	113.13	110.80
1	2	973	A	O5'-P-OP2	-5.82	100.46	105.70
36	1	730	C	C6-N1-C2	5.82	122.63	120.30
36	1	1103	A	N9-C4-C5	-5.82	103.47	105.80
36	1	1333	C	O5'-P-OP1	5.82	117.68	110.70
36	5	2211	U	C5-C6-N1	-5.82	119.79	122.70
36	1	788	C	C2-N1-C1'	-5.82	112.40	118.80
36	1	1507	G	O4'-C1'-N9	-5.82	103.55	108.20
36	5	709	A	O5'-P-OP1	-5.82	100.47	105.70
36	5	838	G	C4-C5-N7	-5.82	108.47	110.80
36	5	2399	A	OP1-P-OP2	-5.82	110.88	119.60
1	6	139	C	N1-C2-O2	5.81	122.39	118.90
36	5	636	C	C5-C6-N1	-5.81	118.09	121.00
36	1	206	G	C8-N9-C4	5.81	108.72	106.40
36	5	2290	C	C5-C4-N4	-5.81	116.13	120.20
36	1	21	G	N1-C6-O6	-5.81	116.41	119.90
1	6	771	A	N9-C4-C5	-5.81	103.48	105.80
36	5	3050	U	N3-C2-O2	-5.81	118.13	122.20
36	1	793	C	N1-C2-O2	-5.81	115.42	118.90
36	1	2247	G	C6-C5-N7	-5.81	126.92	130.40
1	6	901	G	C5-N7-C8	-5.81	101.40	104.30
36	1	2405	C	C4-C5-C6	5.81	120.30	117.40
36	1	3078	U	N3-C2-O2	-5.81	118.14	122.20
1	6	647	G	N3-C4-N9	-5.81	122.52	126.00
36	1	2714	G	C5-N7-C8	-5.81	101.40	104.30
36	5	2391	G	OP1-P-OP2	-5.81	110.89	119.60
36	5	3214	U	N1-C2-N3	5.81	118.38	114.90
36	1	44	U	C2-N1-C1'	-5.80	110.73	117.70
36	1	2376	G	N7-C8-N9	5.80	116.00	113.10
45	18	69	LEU	CA-CB-CG	5.80	128.65	115.30
1	2	337	G	C6-C5-N7	-5.80	126.92	130.40
1	2	190	C	O4'-C1'-N1	5.80	112.84	108.20
1	2	1462	G	N9-C4-C5	-5.80	103.08	105.40
36	1	325	A	C5-C6-N1	5.80	120.60	117.70
36	5	2621	G	N1-C6-O6	5.80	123.38	119.90
36	5	3197	G	C8-N9-C4	-5.80	104.08	106.40
1	6	1649	G	N3-C2-N2	5.80	123.96	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1151	U	N3-C2-O2	5.80	126.26	122.20
37	7	19	C	O5'-P-OP2	-5.80	100.48	105.70
36	5	1506	A	N9-C4-C5	5.80	108.12	105.80
36	5	1884	A	N1-C6-N6	5.80	122.08	118.60
36	5	2874	G	C5-C6-N1	-5.80	108.60	111.50
1	2	145	A	C8-N9-C4	-5.80	103.48	105.80
36	1	821	U	N3-C4-O4	-5.80	115.34	119.40
36	1	1604	G	C8-N9-C1'	-5.79	119.47	127.00
36	1	2870	C	O4'-C1'-N1	5.79	112.84	108.20
36	1	2875	U	N3-C2-O2	-5.79	118.14	122.20
1	2	186	C	C2-N1-C1'	5.79	125.17	118.80
36	1	515	C	N3-C4-N4	5.79	122.06	118.00
36	1	666	A	C6-C5-N7	5.79	136.35	132.30
36	1	1141	C	C6-N1-C2	-5.79	117.98	120.30
36	1	2993	G	N9-C4-C5	-5.79	103.08	105.40
36	5	1369	A	N1-C2-N3	-5.79	126.40	129.30
36	5	514	G	C4-C5-N7	5.79	113.12	110.80
36	5	1825	G	O5'-P-OP1	5.79	117.65	110.70
36	5	780	A	N1-C6-N6	5.79	122.07	118.60
36	5	2882	U	O5'-P-OP2	-5.79	100.49	105.70
36	5	3105	U	OP2-P-O3'	5.79	117.94	105.20
36	1	1507	G	N3-C2-N2	-5.79	115.85	119.90
1	6	1194	A	N1-C6-N6	5.79	122.07	118.60
6	s4	38	LEU	CA-CB-CG	5.79	128.62	115.30
36	5	1506	A	C8-N9-C4	-5.79	103.48	105.80
36	1	2404	A	C4-C5-C6	5.79	119.89	117.00
36	5	417	A	N7-C8-N9	-5.79	110.91	113.80
36	5	1181	U	OP1-P-OP2	5.79	128.28	119.60
36	5	2334	U	N3-C2-O2	-5.79	118.15	122.20
36	1	1657	C	C6-N1-C2	5.79	122.61	120.30
1	6	957	G	C8-N9-C4	5.79	108.71	106.40
36	5	74	G	O5'-P-OP1	-5.79	100.49	105.70
1	2	271	A	O5'-P-OP2	-5.78	100.49	105.70
36	1	827	A	N7-C8-N9	-5.78	110.91	113.80
36	1	2816	G	O5'-P-OP2	-5.78	100.49	105.70
36	5	43	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	2873	U	O5'-P-OP2	-5.78	100.50	105.70
36	1	347	G	C5-N7-C8	-5.78	101.41	104.30
36	1	2130	G	N3-C2-N2	5.78	123.95	119.90
36	1	2850	G	N1-C6-O6	5.78	123.37	119.90
36	5	2857	C	C2-N3-C4	-5.78	117.01	119.90
1	6	400	A	OP2-P-O3'	5.78	117.91	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1400	G	O5'-P-OP2	-5.78	100.50	105.70
36	1	1510	G	N9-C4-C5	-5.78	103.09	105.40
1	6	90	C	N3-C2-O2	-5.78	117.86	121.90
36	5	410	U	OP2-P-O3'	5.78	117.91	105.20
36	5	2135	U	C6-N1-C2	5.78	124.47	121.00
36	5	2818	U	N3-C4-C5	5.78	118.07	114.60
36	5	3175	U	O5'-P-OP2	-5.78	100.50	105.70
36	1	885	U	C4-C5-C6	5.78	123.17	119.70
36	5	50	U	C5-C6-N1	5.78	125.59	122.70
36	5	1104	G	C8-N9-C4	-5.78	104.09	106.40
36	5	2140	U	N1-C2-O2	-5.78	118.76	122.80
36	5	2753	G	C8-N9-C4	-5.78	104.09	106.40
1	2	1200	G	C5-C6-O6	-5.77	125.14	128.60
36	1	1371	G	C8-N9-C4	5.77	108.71	106.40
36	5	2186	U	C5-C4-O4	5.77	129.36	125.90
36	1	934	G	C4-N9-C1'	5.77	134.00	126.50
36	1	2869	U	C2-N1-C1'	5.77	124.62	117.70
1	6	1151	A	C8-N9-C4	-5.77	103.49	105.80
1	2	2	A	O4'-C1'-N9	-5.77	103.59	108.20
1	2	1291	G	C2-N3-C4	-5.77	109.02	111.90
37	3	40	C	C6-N1-C2	-5.77	117.99	120.30
36	5	213	A	O5'-P-OP2	-5.77	100.51	105.70
36	5	3178	A	O5'-P-OP1	-5.77	100.51	105.70
36	1	1492	G	C4-C5-N7	-5.76	108.49	110.80
44	L7	215	GLY	N-CA-C	-5.76	98.69	113.10
36	5	770	G	O4'-C1'-N9	5.76	112.81	108.20
36	5	1884	A	C5-N7-C8	-5.76	101.02	103.90
36	5	2186	U	O5'-P-OP2	-5.76	100.51	105.70
1	2	1573	A	P-O3'-C3'	5.76	126.61	119.70
1	2	1773	C	N3-C4-N4	5.76	122.03	118.00
36	1	860	G	C5-C6-O6	-5.76	125.14	128.60
36	1	894	G	N1-C6-O6	5.76	123.36	119.90
36	1	976	U	C5-C4-O4	-5.76	122.44	125.90
36	1	2314	U	P-O3'-C3'	-5.76	112.79	119.70
36	5	584	G	N9-C4-C5	5.76	107.70	105.40
36	1	1320	C	O5'-P-OP2	-5.76	100.52	105.70
36	5	908	G	O4'-C1'-N9	-5.76	103.59	108.20
36	1	656	A	N9-C4-C5	5.76	108.10	105.80
36	5	668	G	C5-C6-N1	5.76	114.38	111.50
36	5	1487	G	C8-N9-C4	-5.76	104.10	106.40
36	5	2820	A	N7-C8-N9	5.76	116.68	113.80
36	1	919	U	O5'-P-OP2	-5.75	100.52	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1434	G	C8-N9-C4	-5.75	104.10	106.40
1	6	310	C	N3-C4-C5	-5.75	119.60	121.90
1	6	361	C	OP1-P-OP2	-5.75	110.97	119.60
36	5	625	G	N9-C4-C5	5.75	107.70	105.40
36	5	2699	G	N1-C6-O6	5.75	123.35	119.90
68	O2	16	LYS	CD-CE-NZ	5.75	124.93	111.70
1	6	1031	U	C6-N1-C2	5.75	124.45	121.00
1	6	1697	G	N3-C4-C5	-5.75	125.72	128.60
36	5	519	A	O5'-P-OP2	-5.75	100.52	105.70
36	5	2872	A	O5'-P-OP1	5.75	117.61	110.70
36	1	1510	G	C4-C5-N7	5.75	113.10	110.80
36	1	3305	A	O5'-P-OP2	-5.75	100.52	105.70
36	5	1561	G	O4'-C1'-N9	5.75	112.80	108.20
1	2	1241	G	O4'-C1'-N9	5.75	112.80	108.20
36	1	2728	G	C5-C6-O6	-5.75	125.15	128.60
1	6	1600	A	N7-C8-N9	5.75	116.67	113.80
36	5	426	G	N9-C4-C5	-5.75	103.10	105.40
36	5	1926	C	C2-N1-C1'	-5.75	112.48	118.80
36	1	3143	C	N1-C2-O2	-5.75	115.45	118.90
36	5	1529	A	C8-N9-C4	5.75	108.10	105.80
36	5	2541	U	C2-N1-C1'	5.75	124.60	117.70
36	5	2704	A	C5'-C4'-O4'	-5.75	102.20	109.10
36	1	200	C	C2-N1-C1'	5.74	125.12	118.80
21	c9	57	ARG	NE-CZ-NH2	-5.74	117.43	120.30
36	5	3014	U	C5-C4-O4	-5.74	122.45	125.90
37	7	35	C	C5-C6-N1	-5.74	118.13	121.00
36	1	2979	U	N1-C2-N3	5.74	118.34	114.90
36	5	670	C	C6-N1-C2	-5.74	118.00	120.30
36	5	2333	C	C6-N1-C2	5.74	122.60	120.30
36	5	2350	C	C2-N3-C4	-5.74	117.03	119.90
1	2	408	C	O5'-P-OP2	-5.74	100.53	105.70
1	2	447	U	C6-N1-C2	-5.74	117.56	121.00
36	1	2181	C	N3-C4-C5	5.74	124.20	121.90
38	4	84	C	C6-N1-C2	5.74	122.60	120.30
36	5	679	U	N3-C4-O4	-5.74	115.38	119.40
36	5	793	C	N3-C4-N4	5.74	122.02	118.00
36	5	969	C	C6-N1-C2	5.74	122.60	120.30
37	7	92	A	N1-C6-N6	5.74	122.04	118.60
36	1	347	G	C5-C6-O6	-5.74	125.16	128.60
36	1	646	A	N9-C4-C5	5.74	108.09	105.80
1	6	1119	G	N3-C4-C5	-5.74	125.73	128.60
36	5	353	G	C8-N9-C1'	5.74	134.46	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1168	U	C5-C6-N1	5.74	125.57	122.70
36	1	1197	A	N9-C4-C5	-5.74	103.50	105.80
36	1	1516	C	N1-C2-O2	-5.74	115.46	118.90
36	5	1365	G	N1-C2-N2	-5.74	111.04	116.20
37	7	85	G	OP2-P-O3'	5.74	117.82	105.20
36	1	35	A	N1-C6-N6	5.74	122.04	118.60
36	5	2345	A	C6-C5-N7	-5.73	128.29	132.30
36	1	944	C	OP2-P-O3'	5.73	117.81	105.20
38	4	93	U	C5-C4-O4	-5.73	122.46	125.90
1	6	53	G	O5'-P-OP2	-5.73	100.54	105.70
36	5	672	A	C6-C5-N7	-5.73	128.29	132.30
36	5	3101	G	O5'-P-OP1	-5.73	100.54	105.70
44	17	163	LEU	CB-CG-CD1	-5.73	101.25	111.00
36	1	601	U	N1-C2-O2	5.73	126.81	122.80
1	6	1663	G	C8-N9-C4	-5.73	104.11	106.40
36	5	1363	A	N1-C6-N6	-5.73	115.16	118.60
36	5	2354	C	N3-C2-O2	5.73	125.91	121.90
36	5	2366	C	C6-N1-C2	-5.73	118.01	120.30
36	1	221	A	O5'-P-OP2	-5.73	100.54	105.70
36	1	304	G	C2-N3-C4	5.73	114.76	111.90
36	5	883	A	N7-C8-N9	-5.73	110.94	113.80
36	1	907	G	N3-C2-N2	5.73	123.91	119.90
36	1	3043	C	OP2-P-O3'	5.73	117.80	105.20
1	6	542	A	P-O3'-C3'	5.73	126.57	119.70
1	6	1747	G	C8-N9-C4	5.73	108.69	106.40
1	2	1486	G	N7-C8-N9	5.73	115.96	113.10
36	1	648	C	C2-N1-C1'	5.73	125.10	118.80
36	1	2139	A	N1-C6-N6	-5.73	115.17	118.60
36	1	1119	C	N3-C4-C5	5.72	124.19	121.90
36	1	1133	A	N1-C2-N3	-5.72	126.44	129.30
36	1	1878	G	O5'-P-OP1	-5.72	100.55	105.70
36	5	1331	U	N1-C2-N3	-5.72	111.47	114.90
36	5	2385	G	N1-C6-O6	5.72	123.33	119.90
36	5	2916	U	N1-C2-O2	-5.72	118.79	122.80
36	1	1367	G	N9-C4-C5	-5.72	103.11	105.40
36	1	2357	A	C6-C5-N7	-5.72	128.29	132.30
36	1	2947	G	N1-C6-O6	5.72	123.33	119.90
36	1	3344	A	N1-C6-N6	5.72	122.03	118.60
36	5	966	U	C6-N1-C2	-5.72	117.57	121.00
36	5	1359	C	N3-C4-N4	5.72	122.01	118.00
36	1	2176	U	N1-C2-O2	5.72	126.81	122.80
36	1	3277	U	N3-C2-O2	-5.72	118.19	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	37	A	C8-N9-C4	-5.72	103.51	105.80
1	2	1363	U	N3-C2-O2	-5.72	118.20	122.20
36	1	1367	G	C4-C5-N7	5.72	113.09	110.80
36	5	1878	G	N3-C4-C5	-5.72	125.74	128.60
36	5	2737	C	O5'-P-OP2	-5.72	100.55	105.70
36	5	2849	C	C5-C6-N1	5.72	123.86	121.00
36	5	3129	A	OP1-P-OP2	5.72	128.18	119.60
36	1	2129	U	C6-N1-C2	-5.72	117.57	121.00
1	6	795	U	C6-N1-C2	-5.72	117.57	121.00
36	5	1302	A	C8-N9-C4	-5.72	103.51	105.80
36	5	2341	A	C2-N3-C4	5.72	113.46	110.60
1	2	1777	G	C4-C5-N7	5.72	113.09	110.80
36	5	1906	G	N3-C4-N9	5.72	129.43	126.00
37	3	85	G	C5-C6-O6	-5.71	125.17	128.60
37	7	98	C	O5'-P-OP2	-5.71	100.56	105.70
36	1	2152	A	N1-C6-N6	-5.71	115.17	118.60
36	1	1495	U	C5-C4-O4	5.71	129.33	125.90
36	1	1506	A	N1-C6-N6	-5.71	115.17	118.60
36	1	2982	A	C8-N9-C4	5.71	108.08	105.80
36	5	2147	A	N1-C6-N6	5.71	122.03	118.60
36	5	3092	C	N3-C2-O2	-5.71	117.90	121.90
36	1	2980	U	N3-C2-O2	-5.71	118.20	122.20
1	6	687	G	N3-C2-N2	-5.71	115.90	119.90
36	5	407	A	N3-C4-N9	5.71	131.97	127.40
36	5	3093	C	C5-C6-N1	-5.71	118.14	121.00
36	1	1294	A	N9-C4-C5	5.71	108.08	105.80
36	1	3201	C	N3-C4-C5	-5.71	119.62	121.90
1	6	1141	G	C8-N9-C4	5.71	108.68	106.40
36	5	1866	C	O4'-C1'-N1	-5.71	103.63	108.20
36	1	1172	G	N9-C4-C5	-5.71	103.12	105.40
36	1	2884	C	C6-N1-C2	5.71	122.58	120.30
36	5	909	G	C5-C6-O6	5.71	132.02	128.60
36	5	1604	G	C4-N9-C1'	5.71	133.92	126.50
36	5	1884	A	C2-N3-C4	-5.71	107.75	110.60
36	5	2637	A	N9-C4-C5	-5.71	103.52	105.80
36	1	3244	A	C8-N9-C4	5.71	108.08	105.80
36	1	974	G	N3-C4-N9	5.70	129.42	126.00
36	1	1195	A	O5'-P-OP2	5.70	117.54	110.70
36	1	2624	G	N7-C8-N9	5.70	115.95	113.10
1	6	416	A	C6-C5-N7	-5.70	128.31	132.30
36	5	2174	G	N1-C6-O6	5.70	123.32	119.90
36	5	2191	U	N3-C4-C5	5.70	118.02	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2985	C	N3-C4-C5	-5.70	119.62	121.90
36	1	828	A	N1-C6-N6	5.70	122.02	118.60
37	3	88	G	N3-C2-N2	5.70	123.89	119.90
68	O2	19	ARG	NE-CZ-NH2	5.70	123.15	120.30
36	5	393	U	O5'-P-OP1	-5.70	100.57	105.70
36	5	2729	U	N3-C2-O2	-5.70	118.21	122.20
36	1	1002	A	O5'-P-OP1	5.70	117.54	110.70
36	1	3090	U	C5-C4-O4	-5.70	122.48	125.90
36	1	422	A	C6-C5-N7	5.70	136.29	132.30
36	1	2398	A	C5-N7-C8	5.70	106.75	103.90
36	5	648	C	OP1-P-OP2	5.70	128.15	119.60
36	5	833	G	C5-C6-O6	-5.70	125.18	128.60
1	2	969	C	C5-C4-N4	-5.70	116.21	120.20
36	1	734	C	C2-N1-C1'	5.70	125.07	118.80
36	1	1129	A	N1-C6-N6	5.70	122.02	118.60
36	1	1189	C	C2-N3-C4	-5.70	117.05	119.90
36	5	2754	G	N3-C4-C5	-5.70	125.75	128.60
1	2	73	U	OP1-P-O3'	5.69	117.73	105.20
1	2	736	C	C2-N1-C1'	5.69	125.06	118.80
36	1	1344	G	C8-N9-C4	5.69	108.68	106.40
36	1	1419	A	C5'-C4'-O4'	5.69	115.93	109.10
36	1	1926	C	N3-C4-C5	5.69	124.18	121.90
36	1	2682	C	O5'-P-OP2	-5.69	100.58	105.70
36	5	53	G	O5'-P-OP2	-5.69	100.58	105.70
1	6	337	G	N1-C6-O6	5.69	123.31	119.90
36	5	2904	U	C2-N3-C4	-5.69	123.59	127.00
36	5	3096	C	N1-C2-O2	-5.69	115.49	118.90
1	2	728	U	N1-C2-O2	5.69	126.78	122.80
1	2	1096	C	C2-N1-C1'	5.69	125.06	118.80
36	1	1189	C	C5-C6-N1	-5.69	118.16	121.00
36	1	1802	C	C5-C6-N1	5.69	123.84	121.00
36	1	2385	G	N3-C4-N9	-5.69	122.59	126.00
36	5	869	G	C6-N1-C2	-5.69	121.69	125.10
36	5	1096	U	N1-C2-O2	-5.69	118.82	122.80
49	m3	85	LEU	CA-CB-CG	5.69	128.38	115.30
1	2	794	U	P-O3'-C3'	5.69	126.53	119.70
1	2	1363	U	C2-N1-C1'	5.69	124.53	117.70
36	1	1168	U	OP1-P-OP2	-5.69	111.07	119.60
36	1	1923	C	N3-C4-C5	5.69	124.17	121.90
1	6	297	U	N3-C4-O4	5.69	123.38	119.40
36	1	955	U	N1-C2-O2	-5.69	118.82	122.80
36	1	2800	G	C5-C6-O6	-5.69	125.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	610	G	C4-N9-C1'	5.69	133.89	126.50
36	5	922	U	N1-C2-N3	5.68	118.31	114.90
36	5	1304	A	C5-C6-N6	-5.68	119.15	123.70
36	1	308	A	OP2-P-O3'	5.68	117.70	105.20
36	1	829	U	N3-C2-O2	-5.68	118.22	122.20
36	1	2661	G	C4-C5-N7	5.68	113.07	110.80
36	5	1192	C	N3-C4-N4	5.68	121.98	118.00
41	14	194	TYR	CA-CB-CG	5.68	124.20	113.40
36	1	1153	A	C4-C5-C6	5.68	119.84	117.00
38	4	16	G	O4'-C1'-N9	5.68	112.75	108.20
1	6	1333	C	N3-C4-C5	5.68	124.17	121.90
36	1	334	A	C8-N9-C4	-5.68	103.53	105.80
36	1	2631	U	OP1-P-O3'	5.68	117.69	105.20
36	5	86	G	N3-C2-N2	5.68	123.87	119.90
36	5	278	U	N1-C2-O2	-5.68	118.83	122.80
36	1	2323	G	N3-C4-N9	5.68	129.41	126.00
1	2	1324	G	N3-C4-N9	-5.67	122.59	126.00
36	1	1837	U	N3-C2-O2	5.67	126.17	122.20
37	3	81	U	C5-C6-N1	-5.67	119.86	122.70
1	6	39	A	O4'-C1'-N9	5.67	112.74	108.20
36	5	1390	A	C5-C6-N6	5.67	128.24	123.70
36	1	2623	G	N1-C2-N2	-5.67	111.09	116.20
37	3	86	U	N3-C4-C5	5.67	118.00	114.60
1	6	29	U	C5-C4-O4	5.67	129.30	125.90
36	1	945	C	N3-C4-C5	5.67	124.17	121.90
36	1	1657	C	N3-C2-O2	5.67	125.87	121.90
36	5	3362	A	C6-C5-N7	-5.67	128.33	132.30
36	1	655	C	N1-C2-N3	5.67	123.17	119.20
70	O4	58	ARG	NE-CZ-NH1	5.67	123.14	120.30
1	6	1749	A	C2-N3-C4	-5.67	107.77	110.60
36	1	2836	C	N1-C2-N3	5.67	123.17	119.20
36	5	428	A	OP2-P-O3'	5.67	117.67	105.20
36	5	2382	G	C4-C5-N7	-5.67	108.53	110.80
36	1	2640	A	N1-C6-N6	-5.67	115.20	118.60
36	1	2824	G	N3-C4-N9	-5.67	122.60	126.00
1	6	869	A	O5'-P-OP1	-5.67	100.60	105.70
36	5	1192	C	C4-C5-C6	5.67	120.23	117.40
36	1	1589	A	C5-C6-N6	-5.67	119.17	123.70
1	6	1736	G	N3-C2-N2	-5.67	115.93	119.90
36	5	1847	A	N3-C4-N9	-5.67	122.87	127.40
36	5	2361	A	C4-C5-C6	5.67	119.83	117.00
36	1	803	C	O5'-P-OP1	5.66	117.50	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	631	U	C4-C5-C6	-5.66	116.30	119.70
1	2	1389	C	N1-C2-O2	5.66	122.30	118.90
36	1	1468	A	N1-C2-N3	5.66	132.13	129.30
36	1	1685	C	N1-C2-O2	5.66	122.30	118.90
36	1	2945	G	N1-C6-O6	5.66	123.30	119.90
36	5	283	G	N7-C8-N9	5.66	115.93	113.10
36	5	3105	U	N1-C2-O2	-5.66	118.84	122.80
48	m1	30	LEU	CA-CB-CG	5.66	128.32	115.30
1	2	720	G	P-O3'-C3'	5.66	126.49	119.70
1	6	1535	U	O5'-P-OP1	5.66	117.49	110.70
36	5	2389	C	C6-N1-C2	5.66	122.56	120.30
1	2	1780	G	N1-C6-O6	5.66	123.30	119.90
36	1	2627	C	C6-N1-C2	5.66	122.56	120.30
1	6	1117	U	C6-N1-C2	-5.66	117.61	121.00
1	6	1796	C	C5-C6-N1	-5.66	118.17	121.00
36	5	2601	A	C5-C6-N6	5.66	128.23	123.70
37	3	95	A	C6-C5-N7	-5.66	128.34	132.30
36	5	1419	A	O5'-P-OP1	5.66	117.49	110.70
36	1	651	G	OP2-P-O3'	5.66	117.64	105.20
36	1	964	G	OP2-P-O3'	5.66	117.64	105.20
1	6	1145	U	N3-C4-O4	5.66	123.36	119.40
36	5	57	A	N7-C8-N9	-5.66	110.97	113.80
36	1	1174	G	C4-N9-C1'	5.65	133.85	126.50
36	1	2304	C	N3-C2-O2	-5.65	117.94	121.90
36	1	1136	A	C8-N9-C4	-5.65	103.54	105.80
1	2	794	U	N1-C2-O2	5.65	126.75	122.80
36	1	3090	U	N1-C2-O2	-5.65	118.84	122.80
36	5	1375	G	N1-C2-N3	-5.65	120.51	123.90
36	5	2608	G	OP1-P-OP2	-5.65	111.12	119.60
36	1	2730	G	N3-C4-N9	-5.65	122.61	126.00
36	1	3201	C	C6-N1-C2	-5.65	118.04	120.30
36	5	936	A	N9-C4-C5	5.65	108.06	105.80
37	7	26	C	OP1-P-O3'	5.65	117.63	105.20
36	1	1310	G	N1-C2-N3	5.65	127.29	123.90
36	1	1374	G	OP2-P-O3'	5.65	117.62	105.20
1	6	1026	A	O5'-P-OP1	-5.65	100.62	105.70
1	2	435	C	C5-C4-N4	5.64	124.15	120.20
1	2	1241	G	C4-N9-C1'	5.64	133.84	126.50
1	2	1596	C	N3-C2-O2	-5.64	117.95	121.90
36	5	326	U	N1-C2-O2	-5.64	118.85	122.80
36	5	1881	A	N1-C6-N6	5.64	121.99	118.60
36	5	2767	U	O5'-P-OP2	-5.64	100.62	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	720	G	OP1-P-O3'	5.64	117.61	105.20
36	1	1156	C	N3-C4-C5	5.64	124.16	121.90
36	1	3326	G	C8-N9-C4	5.64	108.66	106.40
36	5	349	A	OP2-P-O3'	5.64	117.61	105.20
36	5	1937	U	C5-C6-N1	-5.64	119.88	122.70
36	5	2928	C	N3-C2-O2	-5.64	117.95	121.90
36	5	3004	C	C5-C4-N4	-5.64	116.25	120.20
36	5	3214	U	C5-C6-N1	-5.64	119.88	122.70
38	8	39	G	N3-C4-C5	-5.64	125.78	128.60
1	2	734	A	P-O3'-C3'	5.64	126.47	119.70
36	1	1909	A	C8-N9-C4	5.64	108.06	105.80
36	1	2190	U	C5-C4-O4	-5.64	122.52	125.90
1	6	352	A	OP2-P-O3'	5.64	117.61	105.20
36	5	1049	C	N3-C4-C5	5.64	124.16	121.90
36	1	776	U	C2-N3-C4	-5.64	123.62	127.00
36	1	1129	A	C5-C6-N6	-5.64	119.19	123.70
36	1	1926	C	N1-C2-O2	-5.64	115.52	118.90
36	1	2238	G	C5-C6-O6	-5.64	125.22	128.60
36	1	1148	G	C5-C6-O6	-5.63	125.22	128.60
1	6	401	A	O5'-P-OP2	-5.63	100.63	105.70
36	5	925	A	N9-C4-C5	-5.63	103.55	105.80
36	5	2121	G	C5-C6-O6	-5.63	125.22	128.60
36	1	1168	U	C5-C4-O4	5.63	129.28	125.90
36	5	50	U	O5'-P-OP1	-5.63	100.63	105.70
36	5	1461	A	N7-C8-N9	-5.63	110.98	113.80
36	5	2704	A	OP1-P-OP2	5.63	128.05	119.60
36	5	1592	G	C5-C6-N1	-5.63	108.68	111.50
36	5	2632	G	N1-C6-O6	-5.63	116.52	119.90
1	2	1761	U	C5-C4-O4	5.63	129.28	125.90
1	2	380	U	N3-C2-O2	-5.63	118.26	122.20
40	L3	17	LEU	CA-CB-CG	5.63	128.25	115.30
36	5	348	A	O5'-P-OP1	-5.63	100.64	105.70
36	5	658	G	N1-C6-O6	5.63	123.28	119.90
1	2	992	A	N3-C4-C5	5.63	130.74	126.80
36	1	86	G	O5'-P-OP1	5.63	117.45	110.70
36	5	506	U	C5-C6-N1	-5.63	119.89	122.70
36	5	2353	G	N1-C6-O6	5.63	123.28	119.90
36	5	2996	U	N1-C2-O2	5.63	126.74	122.80
36	5	776	U	C5-C4-O4	5.62	129.28	125.90
36	5	1297	C	O5'-P-OP1	-5.62	100.64	105.70
36	1	1837	U	N1-C2-O2	-5.62	118.86	122.80
54	M8	170	ARG	NE-CZ-NH1	-5.62	117.49	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	459	G	C6-C5-N7	-5.62	127.03	130.40
36	5	2810	C	O5'-P-OP2	-5.62	100.64	105.70
1	6	971	A	OP1-P-OP2	-5.62	111.17	119.60
36	5	2165	G	C5-C6-O6	-5.62	125.23	128.60
36	1	372	A	O5'-P-OP2	-5.62	100.64	105.70
36	1	979	U	C5-C4-O4	5.62	129.27	125.90
64	N8	57	GLY	N-CA-C	5.62	127.15	113.10
1	6	1748	G	C8-N9-C4	5.62	108.65	106.40
36	5	2687	G	O5'-P-OP2	-5.62	100.64	105.70
36	5	2915	U	C2-N3-C4	-5.62	123.63	127.00
36	5	3271	G	O5'-P-OP2	-5.62	100.64	105.70
36	1	651	G	C4-N9-C1'	5.62	133.80	126.50
36	1	1349	G	N3-C4-C5	-5.62	125.79	128.60
36	1	3344	A	C4-C5-N7	5.62	113.51	110.70
36	1	283	G	C5-C6-O6	-5.62	125.23	128.60
36	1	3217	C	N3-C2-O2	-5.62	117.97	121.90
38	4	40	A	N3-C4-N9	5.61	131.89	127.40
1	6	365	G	N3-C4-N9	5.61	129.37	126.00
36	5	1307	G	OP2-P-O3'	5.61	117.55	105.20
37	7	11	A	C6-C5-N7	-5.61	128.37	132.30
1	2	1650	U	C6-N1-C2	5.61	124.37	121.00
36	1	641	C	N3-C4-C5	5.61	124.14	121.90
36	1	1795	U	N1-C2-O2	-5.61	118.87	122.80
36	5	964	G	C8-N9-C4	-5.61	104.16	106.40
36	5	1127	G	C5-C6-O6	-5.61	125.23	128.60
36	5	2621	G	N3-C2-N2	-5.61	115.97	119.90
36	5	2948	C	O5'-P-OP1	5.61	117.43	110.70
1	2	110	U	C6-N1-C2	-5.61	117.64	121.00
1	2	1082	C	N3-C2-O2	-5.61	117.97	121.90
36	1	1741	A	C2-N3-C4	-5.61	107.80	110.60
36	1	2860	U	N3-C4-O4	5.61	123.33	119.40
70	O4	8	ARG	NE-CZ-NH2	-5.61	117.50	120.30
36	5	974	G	C8-N9-C4	-5.61	104.16	106.40
1	2	1652	C	C6-N1-C2	-5.61	118.06	120.30
1	2	1657	U	N3-C4-O4	5.61	123.32	119.40
36	1	2938	G	OP1-P-OP2	5.61	128.01	119.60
1	6	65	A	N1-C6-N6	5.61	121.96	118.60
36	5	1406	A	C4-C5-N7	5.61	113.50	110.70
37	3	72	A	C8-N9-C4	-5.60	103.56	105.80
38	8	54	A	C2-N3-C4	-5.60	107.80	110.60
38	4	69	U	C6-N1-C2	5.60	124.36	121.00
36	5	1592	G	N7-C8-N9	5.60	115.90	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1496	C	C6-N1-C2	-5.60	118.06	120.30
36	5	1841	A	N1-C6-N6	5.60	121.96	118.60
36	1	412	G	O5'-P-OP2	-5.60	100.66	105.70
36	1	1098	A	C8-N9-C4	-5.60	103.56	105.80
36	1	2404	A	C4-C5-N7	5.60	113.50	110.70
1	6	1	U	C6-N1-C1'	-5.60	113.36	121.20
36	5	1096	U	N3-C2-O2	5.60	126.12	122.20
36	5	1449	A	C4-C5-C6	5.60	119.80	117.00
36	1	427	C	N1-C2-O2	-5.60	115.54	118.90
36	1	876	A	C4-C5-N7	5.60	113.50	110.70
36	1	921	A	O4'-C1'-N9	-5.60	103.72	108.20
36	1	2315	G	N1-C6-O6	-5.60	116.54	119.90
36	1	3055	U	C6-N1-C1'	-5.60	113.36	121.20
36	5	712	G	O5'-P-OP2	-5.60	100.66	105.70
36	5	2360	C	OP1-P-OP2	-5.60	111.20	119.60
36	1	1391	C	N3-C4-C5	-5.59	119.66	121.90
36	1	2378	C	C6-N1-C2	5.59	122.54	120.30
36	1	2973	G	N1-C6-O6	5.59	123.26	119.90
1	6	1292	G	N1-C6-O6	5.59	123.26	119.90
36	5	219	A	N1-C6-N6	5.59	121.96	118.60
36	5	230	U	N1-C2-N3	5.59	118.26	114.90
36	1	3344	A	C2-N3-C4	-5.59	107.80	110.60
36	5	1846	C	C2-N3-C4	-5.59	117.10	119.90
36	1	227	G	C5-C6-O6	-5.59	125.25	128.60
36	1	1472	U	C6-N1-C2	5.59	124.36	121.00
36	1	2412	G	OP1-P-O3'	5.59	117.50	105.20
36	5	2385	G	N3-C4-C5	5.59	131.40	128.60
36	5	2841	G	OP1-P-OP2	5.59	127.99	119.60
36	5	2917	G	C5-C6-O6	-5.59	125.25	128.60
36	1	2399	A	OP1-P-OP2	-5.59	111.22	119.60
36	1	2640	A	C5-C6-N1	5.59	120.50	117.70
36	1	2688	U	N1-C2-N3	-5.59	111.55	114.90
36	1	3266	G	N9-C4-C5	5.59	107.64	105.40
36	5	1115	G	P-O3'-C3'	5.59	126.41	119.70
36	1	1353	U	N3-C2-O2	-5.59	118.29	122.20
49	m3	46	ILE	CG1-CB-CG2	-5.59	99.11	111.40
36	1	2804	A	OP2-P-O3'	5.59	117.49	105.20
36	1	3209	A	N9-C4-C5	-5.59	103.56	105.80
36	5	1075	A	C8-N9-C4	5.59	108.03	105.80
36	5	1126	G	C5-C6-N1	-5.59	108.71	111.50
36	5	1340	G	C8-N9-C4	5.59	108.64	106.40
36	5	1722	U	N3-C2-O2	5.59	126.11	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2395	G	C5-C6-O6	-5.59	125.25	128.60
36	1	942	U	C5-C4-O4	-5.58	122.55	125.90
36	1	1300	G	C6-C5-N7	-5.58	127.05	130.40
36	1	1838	G	OP1-P-O3'	5.58	117.48	105.20
36	1	2874	G	C5-C6-O6	5.58	131.95	128.60
1	6	443	C	C6-N1-C2	5.58	122.53	120.30
12	c0	88	PRO	N-CA-CB	5.58	110.00	103.30
36	5	423	A	OP2-P-O3'	5.58	117.48	105.20
36	5	654	C	O5'-P-OP1	-5.58	100.67	105.70
36	5	2111	G	C8-N9-C4	5.58	108.63	106.40
36	1	2651	G	N7-C8-N9	-5.58	110.31	113.10
38	4	25	G	C5-N7-C8	5.58	107.09	104.30
1	6	1269	U	N3-C2-O2	-5.58	118.29	122.20
36	5	47	C	C6-N1-C2	5.58	122.53	120.30
36	5	767	U	O4'-C1'-N1	5.58	112.67	108.20
36	5	950	G	C4-C5-N7	5.58	113.03	110.80
36	1	2138	A	N9-C4-C5	5.58	108.03	105.80
41	L4	84	ARG	NE-CZ-NH1	-5.58	117.51	120.30
36	5	2416	U	OP1-P-OP2	-5.58	111.23	119.60
36	1	363	G	C5-C6-O6	-5.58	125.25	128.60
36	1	369	A	O5'-P-OP1	5.58	117.39	110.70
36	1	1183	C	C6-N1-C2	5.58	122.53	120.30
36	1	2754	G	C8-N9-C4	5.58	108.63	106.40
36	5	1509	A	N9-C4-C5	-5.58	103.57	105.80
36	5	2866	U	N3-C2-O2	-5.58	118.30	122.20
36	5	3052	G	N3-C4-N9	-5.58	122.65	126.00
36	1	2624	G	N1-C6-O6	5.58	123.25	119.90
36	5	437	G	N9-C4-C5	5.58	107.63	105.40
36	5	2836	C	C2-N3-C4	-5.58	117.11	119.90
36	5	2984	C	C6-N1-C2	-5.58	118.07	120.30
36	1	641	C	N1-C2-O2	-5.58	115.56	118.90
36	5	3298	C	O5'-P-OP2	-5.58	100.68	105.70
1	2	1175	U	OP1-P-O3'	5.57	117.46	105.20
36	1	63	A	N9-C4-C5	5.57	108.03	105.80
36	1	1893	A	N1-C2-N3	5.57	132.09	129.30
36	1	2688	U	C6-N1-C1'	-5.57	113.40	121.20
36	5	1380	G	N9-C4-C5	-5.57	103.17	105.40
36	5	2372	A	O5'-P-OP2	5.57	117.39	110.70
36	5	2402	A	C5-C6-N6	5.57	128.16	123.70
36	1	349	A	OP2-P-O3'	5.57	117.46	105.20
36	1	776	U	N1-C2-O2	-5.57	118.90	122.80
36	5	2142	A	C2-N3-C4	5.57	113.39	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2661	G	OP1-P-O3'	5.57	117.46	105.20
36	5	2848	G	C4-N9-C1'	5.57	133.74	126.50
36	1	1130	A	N1-C2-N3	-5.57	126.51	129.30
36	1	1417	G	N3-C4-N9	-5.57	122.66	126.00
36	5	1204	A	N1-C6-N6	-5.57	115.26	118.60
36	5	2139	A	C5-C6-N6	5.57	128.16	123.70
36	5	3141	A	O5'-P-OP1	-5.57	100.69	105.70
36	1	2293	C	C5-C4-N4	-5.57	116.30	120.20
1	2	17	C	C6-N1-C2	-5.57	118.07	120.30
36	1	2714	G	C4-C5-C6	-5.57	115.46	118.80
36	1	2802	A	N9-C4-C5	5.57	108.03	105.80
1	6	100	A	C5-C6-N1	-5.57	114.92	117.70
1	6	454	U	O5'-P-OP2	-5.57	100.69	105.70
36	5	887	G	N3-C2-N2	5.57	123.80	119.90
36	5	3041	U	N1-C2-N3	-5.57	111.56	114.90
36	5	3315	G	N9-C4-C5	5.57	107.63	105.40
36	1	344	A	C4-C5-C6	-5.57	114.22	117.00
36	1	3361	G	C4-N9-C1'	5.57	133.74	126.50
36	5	215	G	N7-C8-N9	5.57	115.88	113.10
36	5	501	A	O5'-P-OP2	-5.57	100.69	105.70
36	5	717	C	OP2-P-O3'	5.57	117.44	105.20
37	7	48	U	N1-C2-O2	-5.57	118.90	122.80
37	7	105	C	C6-N1-C2	-5.57	118.07	120.30
36	1	1304	A	OP1-P-OP2	5.56	127.95	119.60
36	5	1371	G	C5-N7-C8	5.56	107.08	104.30
36	5	961	C	C2-N1-C1'	5.56	124.92	118.80
36	5	2299	A	O5'-P-OP2	-5.56	100.69	105.70
36	5	2960	C	N3-C4-N4	-5.56	114.11	118.00
37	3	85	G	OP2-P-O3'	5.56	117.44	105.20
1	6	1584	G	O5'-P-OP1	-5.56	100.69	105.70
36	5	3181	C	C6-N1-C2	-5.56	118.08	120.30
36	1	2396	G	N9-C4-C5	5.56	107.62	105.40
39	L2	191	LEU	CA-CB-CG	-5.56	102.51	115.30
1	6	610	G	N3-C4-N9	5.56	129.34	126.00
1	6	623	A	N1-C6-N6	5.56	121.94	118.60
36	5	617	G	C4-C5-N7	5.56	113.02	110.80
36	1	1377	G	C5-C6-O6	-5.56	125.27	128.60
36	1	1445	U	N3-C2-O2	5.56	126.09	122.20
41	L4	182	LEU	CA-CB-CG	5.56	128.08	115.30
36	5	1487	G	C4-C5-N7	-5.56	108.58	110.80
38	4	28	C	N1-C2-O2	5.56	122.23	118.90
36	5	2864	A	OP2-P-O3'	5.56	117.42	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	226	C	N3-C4-C5	-5.55	119.68	121.90
36	1	1137	C	N3-C4-N4	5.55	121.89	118.00
36	1	1712	G	N1-C6-O6	5.55	123.23	119.90
36	5	1604	G	C8-N9-C1'	-5.55	119.78	127.00
36	5	622	A	N9-C4-C5	-5.55	103.58	105.80
36	5	2623	G	N9-C4-C5	-5.55	103.18	105.40
36	1	808	A	C8-N9-C4	5.55	108.02	105.80
36	1	1607	U	C5-C4-O4	5.55	129.23	125.90
36	1	2345	A	N9-C4-C5	-5.55	103.58	105.80
1	6	630	A	N9-C4-C5	-5.55	103.58	105.80
36	5	63	A	C5-C6-N6	-5.55	119.26	123.70
36	5	2360	C	N3-C4-C5	-5.55	119.68	121.90
36	1	805	G	C5-N7-C8	5.55	107.07	104.30
1	6	996	U	C2-N1-C1'	5.55	124.36	117.70
36	5	102	C	N3-C4-N4	5.55	121.88	118.00
36	5	1127	G	N3-C4-N9	5.55	129.33	126.00
36	5	1449	A	N1-C2-N3	5.55	132.07	129.30
36	5	2840	C	O5'-P-OP1	-5.55	100.70	105.70
36	5	407	A	C6-C5-N7	-5.55	128.42	132.30
36	5	2300	G	C5-C6-N1	5.55	114.27	111.50
36	5	2704	A	C8-N9-C4	5.55	108.02	105.80
36	1	2238	G	C4-C5-N7	5.55	113.02	110.80
1	6	1039	A	O4'-C1'-N9	5.55	112.64	108.20
36	5	2622	C	C4-C5-C6	5.55	120.17	117.40
36	1	1480	G	N1-C6-O6	5.54	123.23	119.90
36	1	1547	G	C6-C5-N7	5.54	133.73	130.40
36	1	2550	U	C5-C4-O4	5.54	129.23	125.90
36	5	1554	U	OP1-P-O3'	5.54	117.40	105.20
36	5	2382	G	N1-C6-O6	-5.54	116.57	119.90
36	1	671	U	N3-C4-O4	5.54	123.28	119.40
36	1	1313	G	C5-C6-O6	-5.54	125.27	128.60
36	5	639	G	N1-C6-O6	5.54	123.23	119.90
36	5	3200	G	N3-C2-N2	-5.54	116.02	119.90
1	2	966	A	N1-C6-N6	5.54	121.92	118.60
36	1	672	A	C6-C5-N7	-5.54	128.42	132.30
36	1	2984	C	C6-N1-C2	-5.54	118.08	120.30
36	5	1101	G	N9-C4-C5	-5.54	103.18	105.40
36	5	1152	G	N7-C8-N9	5.54	115.87	113.10
36	5	201	A	OP1-P-OP2	-5.54	111.29	119.60
36	5	2175	U	C2-N3-C4	-5.54	123.68	127.00
36	1	92	G	C5-C6-N1	5.54	114.27	111.50
36	1	3092	C	C6-N1-C2	5.54	122.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	389	A	N9-C4-C5	5.54	108.02	105.80
36	5	884	A	C2-N3-C4	-5.54	107.83	110.60
36	1	1661	G	C8-N9-C1'	-5.54	119.80	127.00
36	5	423	A	C8-N9-C4	5.54	108.02	105.80
36	5	2117	A	C4-C5-N7	-5.54	107.93	110.70
36	1	325	A	C2-N3-C4	5.54	113.37	110.60
36	1	1050	U	N1-C2-O2	5.54	126.67	122.80
36	1	2859	U	N1-C2-N3	5.54	118.22	114.90
1	6	350	U	N1-C2-N3	5.54	118.22	114.90
36	5	622	A	C5-C6-N6	-5.54	119.27	123.70
36	5	861	C	C5-C4-N4	-5.54	116.33	120.20
36	5	964	G	N7-C8-N9	5.54	115.87	113.10
36	1	2354	C	C4-C5-C6	5.53	120.17	117.40
36	5	1014	U	C2-N1-C1'	5.53	124.34	117.70
36	5	1373	A	OP2-P-O3'	5.53	117.37	105.20
36	5	3188	G	N3-C4-C5	-5.53	125.83	128.60
36	1	200	C	C5-C4-N4	-5.53	116.33	120.20
36	1	960	U	C2-N1-C1'	-5.53	111.06	117.70
36	1	1926	C	N3-C2-O2	5.53	125.77	121.90
38	4	103	G	N1-C6-O6	-5.53	116.58	119.90
37	7	8	G	N3-C2-N2	5.53	123.77	119.90
36	1	350	C	C2-N1-C1'	5.53	124.88	118.80
36	1	920	A	C2-N3-C4	-5.53	107.83	110.60
9	s7	118	LEU	CA-CB-CG	5.53	128.02	115.30
36	5	864	G	N1-C6-O6	5.53	123.22	119.90
38	8	96	A	C8-N9-C4	5.53	108.01	105.80
41	L4	313	LEU	CA-CB-CG	5.53	128.02	115.30
1	6	536	C	C2-N1-C1'	5.53	124.88	118.80
36	1	895	A	N3-C4-C5	5.53	130.67	126.80
36	1	2772	C	O4'-C1'-N1	5.53	112.62	108.20
36	5	1376	C	OP1-P-OP2	5.53	127.89	119.60
36	5	2836	C	O4'-C1'-N1	5.53	112.62	108.20
77	q1	9	ARG	NE-CZ-NH2	-5.53	117.54	120.30
36	1	1340	G	N3-C4-N9	5.53	129.31	126.00
1	6	558	U	N3-C2-O2	-5.53	118.33	122.20
36	5	41	G	N1-C6-O6	5.53	123.22	119.90
36	5	1846	C	N1-C2-O2	-5.53	115.58	118.90
36	5	3049	A	N1-C6-N6	5.53	121.92	118.60
1	2	458	G	C5-C6-N1	-5.52	108.74	111.50
1	2	1514	U	O5'-P-OP1	-5.52	100.73	105.70
1	6	536	C	C6-N1-C2	-5.52	118.09	120.30
1	2	1761	U	N3-C2-O2	-5.52	118.33	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1796	G	C8-N9-C4	-5.52	104.19	106.40
36	1	2700	G	C6-C5-N7	-5.52	127.09	130.40
36	5	907	G	N3-C2-N2	5.52	123.77	119.90
36	5	2281	A	O4'-C1'-N9	5.52	112.62	108.20
36	5	2572	C	C6-N1-C2	-5.52	118.09	120.30
36	1	907	G	N3-C4-N9	5.52	129.31	126.00
36	1	2622	C	C5-C6-N1	5.52	123.76	121.00
1	6	1746	A	O5'-P-OP1	-5.52	100.73	105.70
36	1	284	A	C8-N9-C4	-5.52	103.59	105.80
36	1	1842	A	OP1-P-O3'	5.52	117.34	105.20
36	5	1929	G	C2-N3-C4	-5.52	109.14	111.90
36	1	1115	G	OP1-P-O3'	5.52	117.34	105.20
36	1	1116	G	C4-C5-C6	5.52	122.11	118.80
36	1	2408	U	O5'-P-OP1	-5.52	100.73	105.70
38	4	32	C	C6-N1-C1'	5.52	127.42	120.80
1	6	1697	G	N3-C4-N9	5.52	129.31	126.00
36	5	948	C	C6-N1-C2	5.52	122.51	120.30
1	2	734	A	OP1-P-O3'	5.52	117.33	105.20
36	5	1751	G	C8-N9-C4	5.52	108.61	106.40
36	1	635	G	C5-C6-O6	-5.51	125.29	128.60
36	1	1402	C	C2-N3-C4	-5.51	117.14	119.90
36	1	2631	U	C5-C6-N1	-5.51	119.94	122.70
36	1	2850	G	N3-C4-N9	5.51	129.31	126.00
36	1	2852	C	C6-N1-C2	5.51	122.51	120.30
1	6	678	A	P-O3'-C3'	5.51	126.32	119.70
36	5	2124	G	C6-C5-N7	-5.51	127.09	130.40
36	5	2158	A	C5-C6-N1	5.51	120.46	117.70
36	5	2855	U	N3-C4-C5	5.51	117.91	114.60
36	5	661	G	C4-C5-N7	5.51	113.00	110.80
36	1	2599	U	C5-C6-N1	5.51	125.46	122.70
36	5	2285	C	C6-N1-C2	-5.51	118.09	120.30
1	2	704	C	C2-N1-C1'	5.51	124.86	118.80
36	1	197	G	N1-C6-O6	5.51	123.21	119.90
36	1	1206	G	O5'-P-OP2	-5.51	100.74	105.70
36	1	2661	G	N1-C6-O6	5.51	123.21	119.90
1	6	1058	U	OP1-P-O3'	5.51	117.32	105.20
1	6	1481	C	C6-N1-C2	-5.51	118.10	120.30
1	6	1774	G	C5-C6-O6	5.51	131.91	128.60
36	5	2141	U	OP2-P-O3'	5.51	117.32	105.20
36	5	2859	U	N1-C2-O2	-5.51	118.94	122.80
1	2	1600	A	C5-C6-N1	-5.51	114.95	117.70
36	1	609	G	C2-N3-C4	5.51	114.65	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	403	G	C2-N3-C4	-5.51	109.15	111.90
1	6	1280	C	N3-C4-C5	-5.51	119.70	121.90
36	5	300	G	O5'-P-OP1	-5.50	100.75	105.70
36	5	933	A	N1-C2-N3	5.50	132.05	129.30
36	5	1151	U	C5-C6-N1	5.50	125.45	122.70
36	5	2636	A	O5'-P-OP2	5.50	117.31	110.70
1	2	985	G	C5-C6-O6	-5.50	125.30	128.60
36	1	2237	C	C6-N1-C2	5.50	122.50	120.30
1	6	308	C	N1-C2-N3	5.50	123.05	119.20
36	5	2601	A	OP2-P-O3'	5.50	117.31	105.20
36	5	3092	C	N1-C2-O2	5.50	122.20	118.90
36	1	407	A	C4-C5-N7	5.50	113.45	110.70
36	1	984	G	C5-C6-O6	5.50	131.90	128.60
36	5	2245	C	N3-C4-C5	-5.50	119.70	121.90
36	5	2978	U	C5-C6-N1	-5.50	119.95	122.70
37	7	44	C	N1-C2-O2	-5.50	115.60	118.90
36	1	2933	A	N1-C2-N3	-5.50	126.55	129.30
36	1	1157	G	OP2-P-O3'	5.50	117.30	105.20
36	1	1417	G	N3-C4-C5	5.50	131.35	128.60
36	1	2836	C	N3-C2-O2	-5.50	118.05	121.90
36	1	3057	U	N3-C4-O4	-5.50	115.55	119.40
36	5	159	A	C8-N9-C4	5.50	108.00	105.80
36	5	1392	G	N7-C8-N9	-5.50	110.35	113.10
36	5	1907	C	N3-C4-N4	5.50	121.85	118.00
36	1	668	G	C5-C6-O6	5.50	131.90	128.60
36	1	1379	G	OP2-P-O3'	5.50	117.29	105.20
36	5	2234	G	C4-C5-N7	5.50	113.00	110.80
36	5	2333	C	C2-N3-C4	-5.50	117.15	119.90
36	5	2914	G	C4-N9-C1'	5.50	133.65	126.50
36	1	1157	G	N1-C2-N3	5.50	127.20	123.90
36	1	3036	G	N3-C4-N9	5.50	129.30	126.00
1	6	1457	C	O4'-C1'-N1	5.50	112.60	108.20
36	5	2996	U	N1-C2-N3	-5.50	111.60	114.90
5	S3	202	LEU	CA-CB-CG	5.49	127.93	115.30
36	1	1148	G	N7-C8-N9	-5.49	110.35	113.10
38	4	22	U	C5-C6-N1	-5.49	119.95	122.70
36	1	2278	C	C5-C6-N1	5.49	123.75	121.00
36	1	2945	G	OP1-P-OP2	-5.49	111.36	119.60
1	2	992	A	N3-C4-N9	-5.49	123.01	127.40
36	5	625	G	C4-C5-N7	-5.49	108.60	110.80
1	2	402	C	O5'-P-OP2	5.49	117.29	110.70
36	1	61	A	N1-C6-N6	5.49	121.89	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	320	G	O5'-P-OP2	-5.49	100.76	105.70
36	1	2911	A	C8-N9-C4	5.49	108.00	105.80
1	6	434	G	O5'-P-OP2	-5.49	100.76	105.70
36	5	39	A	O5'-P-OP2	-5.49	100.76	105.70
36	5	214	G	C8-N9-C4	5.49	108.59	106.40
36	5	907	G	N1-C2-N2	-5.49	111.26	116.20
36	1	54	C	C6-N1-C2	5.49	122.50	120.30
1	6	337	G	N9-C4-C5	-5.49	103.20	105.40
42	L5	163	LEU	CA-CB-CG	5.49	127.92	115.30
25	d3	16	ARG	NE-CZ-NH2	-5.49	117.56	120.30
36	5	2949	U	C5-C6-N1	5.49	125.44	122.70
36	5	2984	C	N3-C2-O2	-5.49	118.06	121.90
36	5	3206	C	N1-C2-O2	5.49	122.19	118.90
36	5	1212	A	N1-C6-N6	5.48	121.89	118.60
1	2	577	G	C6-C5-N7	-5.48	127.11	130.40
36	1	2314	U	C5-C6-N1	5.48	125.44	122.70
36	5	192	C	C4-C5-C6	5.48	120.14	117.40
1	6	421	A	N9-C4-C5	-5.48	103.61	105.80
36	5	1314	C	C2-N1-C1'	5.48	124.83	118.80
1	2	73	U	P-O3'-C3'	5.48	126.28	119.70
36	1	979	U	C2-N1-C1'	5.48	124.28	117.70
36	1	2372	A	N3-C4-C5	-5.48	122.97	126.80
36	1	2381	G	N9-C4-C5	5.48	107.59	105.40
36	5	2993	G	C5-C6-O6	-5.48	125.31	128.60
37	7	93	C	O5'-P-OP2	-5.48	100.77	105.70
36	5	200	C	OP2-P-O3'	5.48	117.25	105.20
36	5	936	A	P-O3'-C3'	5.48	126.27	119.70
38	8	63	G	N1-C6-O6	-5.48	116.61	119.90
36	5	3309	G	N3-C4-C5	-5.47	125.86	128.60
38	4	40	A	C4-C5-N7	5.47	113.44	110.70
38	4	56	G	N1-C6-O6	-5.47	116.62	119.90
1	6	431	C	N3-C2-O2	-5.47	118.07	121.90
36	5	1882	G	O5'-P-OP2	5.47	117.27	110.70
36	5	1906	G	N1-C2-N2	-5.47	111.28	116.20
36	5	2930	A	O4'-C1'-N9	5.47	112.58	108.20
38	8	77	A	N1-C6-N6	5.47	121.88	118.60
1	6	400	A	N1-C6-N6	5.47	121.88	118.60
1	6	1058	U	P-O3'-C3'	5.47	126.27	119.70
38	8	22	U	O5'-P-OP1	-5.47	100.78	105.70
1	2	95	G	C4-C5-N7	-5.47	108.61	110.80
36	5	424	G	N1-C6-O6	5.47	123.18	119.90
36	5	2611	U	C4-C5-C6	5.47	122.98	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2613	U	N3-C4-C5	-5.47	111.32	114.60
1	2	435	C	N3-C4-N4	-5.47	114.17	118.00
36	1	1075	A	C8-N9-C4	5.47	107.99	105.80
36	1	2240	G	OP2-P-O3'	5.47	117.23	105.20
36	1	2424	A	O5'-P-OP2	-5.47	100.78	105.70
36	1	3034	C	N1-C2-O2	5.47	122.18	118.90
36	5	2383	C	C4-C5-C6	5.47	120.13	117.40
36	1	2616	C	O5'-P-OP1	-5.47	100.78	105.70
36	5	2212	C	OP2-P-O3'	5.47	117.23	105.20
38	8	37	A	N9-C4-C5	5.47	107.99	105.80
1	2	829	A	P-O3'-C3'	5.46	126.26	119.70
36	1	981	U	O5'-P-OP2	-5.46	100.78	105.70
36	5	3343	G	N3-C2-N2	5.46	123.72	119.90
56	N0	155	ARG	NE-CZ-NH2	5.46	123.03	120.30
36	5	590	G	O5'-P-OP1	-5.46	100.78	105.70
37	7	76	A	C8-N9-C4	5.46	107.98	105.80
1	2	139	C	P-O3'-C3'	5.46	126.25	119.70
1	2	1747	G	C5-C6-N1	-5.46	108.77	111.50
36	1	1168	U	N3-C4-O4	-5.46	115.58	119.40
36	1	1906	G	C6-C5-N7	-5.46	127.12	130.40
36	1	2278	C	O5'-P-OP1	-5.46	100.78	105.70
36	1	3017	A	N1-C6-N6	5.46	121.88	118.60
36	5	2390	A	OP2-P-O3'	5.46	117.22	105.20
36	5	2978	U	O4'-C1'-N1	5.46	112.57	108.20
36	1	2700	G	C8-N9-C4	-5.46	104.22	106.40
61	N5	34	LEU	CA-CB-CG	5.46	127.86	115.30
36	1	192	C	O5'-P-OP1	-5.46	100.79	105.70
36	1	374	A	P-O3'-C3'	5.46	126.25	119.70
36	1	1870	C	C6-N1-C2	5.46	122.48	120.30
36	1	2980	U	OP1-P-O3'	5.46	117.21	105.20
36	5	889	U	N3-C4-C5	5.46	117.88	114.60
36	1	924	G	O5'-P-OP1	-5.46	100.79	105.70
36	1	2165	G	C6-C5-N7	-5.46	127.13	130.40
36	1	2366	C	C2-N1-C1'	5.46	124.80	118.80
1	6	1192	C	N1-C2-O2	5.46	122.17	118.90
1	6	1361	U	C6-N1-C1'	-5.46	113.56	121.20
36	5	826	G	C4-C5-N7	5.46	112.98	110.80
36	5	931	C	N3-C4-N4	-5.46	114.18	118.00
36	5	960	U	C2-N1-C1'	5.46	124.25	117.70
36	5	2310	U	O5'-P-OP2	-5.46	100.79	105.70
36	5	2412	G	N3-C4-C5	-5.46	125.87	128.60
36	1	701	G	OP1-P-O3'	-5.46	93.20	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	N8	116	GLY	N-CA-C	5.46	126.74	113.10
1	6	62	A	N1-C6-N6	5.46	121.87	118.60
1	6	579	A	P-O3'-C3'	5.46	126.25	119.70
36	5	526	C	C5-C4-N4	-5.46	116.38	120.20
36	1	1492	G	N7-C8-N9	-5.45	110.37	113.10
36	1	2349	U	C2-N3-C4	-5.45	123.73	127.00
36	5	297	G	N1-C6-O6	-5.45	116.63	119.90
36	5	654	C	OP1-P-OP2	5.45	127.78	119.60
36	5	2147	A	C5-C6-N6	-5.45	119.34	123.70
36	5	2748	A	OP2-P-O3'	5.45	117.20	105.20
36	5	2991	A	OP2-P-O3'	5.45	117.20	105.20
38	8	7	U	N3-C2-O2	5.45	126.02	122.20
36	1	3133	C	C5-C6-N1	5.45	123.73	121.00
1	6	1634	C	N1-C2-O2	5.45	122.17	118.90
36	1	1414	G	C4-C5-N7	5.45	112.98	110.80
36	1	2209	U	C5-C6-N1	5.45	125.42	122.70
36	5	419	G	C8-N9-C1'	-5.45	119.92	127.00
36	5	2830	G	N3-C2-N2	-5.45	116.08	119.90
36	1	72	C	N1-C2-O2	-5.45	115.63	118.90
36	1	883	A	N1-C6-N6	-5.45	115.33	118.60
36	1	1152	G	O4'-C1'-N9	5.45	112.56	108.20
36	1	1373	A	OP2-P-O3'	5.45	117.19	105.20
36	1	1389	G	OP1-P-OP2	5.45	127.77	119.60
36	1	2601	A	N1-C2-N3	-5.45	126.58	129.30
54	M8	164	ARG	NE-CZ-NH1	5.45	123.02	120.30
36	5	961	C	N3-C2-O2	-5.45	118.09	121.90
36	5	2632	G	O5'-P-OP1	-5.45	100.80	105.70
36	5	3176	G	N3-C2-N2	-5.45	116.09	119.90
36	1	1406	A	N1-C6-N6	5.45	121.87	118.60
36	1	2859	U	N3-C4-C5	-5.45	111.33	114.60
37	3	84	A	N1-C6-N6	5.45	121.87	118.60
38	4	116	G	C8-N9-C4	5.45	108.58	106.40
36	5	2708	C	C5-C4-N4	-5.45	116.39	120.20
36	1	99	A	O4'-C1'-N9	5.44	112.56	108.20
36	1	1845	G	OP2-P-O3'	5.44	117.18	105.20
36	1	2305	G	C5-C6-O6	-5.44	125.33	128.60
36	5	1879	A	N7-C8-N9	5.44	116.52	113.80
36	1	950	G	C4-C5-N7	5.44	112.98	110.80
36	1	2192	C	C5-C6-N1	-5.44	118.28	121.00
36	1	2610	G	O4'-C1'-N9	5.44	112.55	108.20
36	5	632	G	OP2-P-O3'	5.44	117.17	105.20
36	5	1400	G	O5'-P-OP1	-5.44	100.80	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	282	G	P-O3'-C3'	5.44	126.23	119.70
36	1	1846	C	C6-N1-C2	-5.44	118.12	120.30
36	1	2802	A	OP2-P-O3'	5.44	117.17	105.20
1	6	1653	C	O5'-P-OP2	-5.44	100.81	105.70
36	5	2758	A	O4'-C1'-N9	5.44	112.55	108.20
1	2	1129	U	N3-C4-C5	5.44	117.86	114.60
36	1	2953	U	N3-C2-O2	5.43	126.00	122.20
36	5	631	U	N3-C4-O4	-5.43	115.60	119.40
36	5	2861	U	O5'-P-OP2	5.43	117.22	110.70
1	2	1196	A	OP1-P-O3'	5.43	117.15	105.20
36	1	2249	G	C3'-C2'-C1'	-5.43	97.15	101.50
36	1	3272	C	O5'-P-OP1	-5.43	100.81	105.70
1	6	801	G	N1-C6-O6	-5.43	116.64	119.90
36	5	424	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	514	G	C6-C5-N7	-5.43	127.14	130.40
36	5	1884	A	C4-C5-N7	5.43	113.42	110.70
36	5	3174	A	O4'-C1'-N9	5.43	112.55	108.20
36	1	1116	G	C5'-C4'-O4'	5.43	115.62	109.10
36	1	1159	A	N1-C6-N6	-5.43	115.34	118.60
38	8	29	U	C2-N1-C1'	5.43	124.22	117.70
1	6	1297	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	362	U	C5-C6-N1	5.43	125.42	122.70
36	5	439	C	C4-C5-C6	5.43	120.11	117.40
36	5	661	G	P-O3'-C3'	5.43	126.22	119.70
36	5	2728	G	C5-C6-N1	5.43	114.21	111.50
36	1	1329	U	N3-C2-O2	-5.43	118.40	122.20
36	1	2296	A	C2-N3-C4	-5.43	107.89	110.60
36	5	2333	C	OP2-P-O3'	5.43	117.14	105.20
1	2	934	C	C6-N1-C1'	-5.43	114.29	120.80
36	1	650	C	OP2-P-O3'	5.43	117.14	105.20
36	1	1421	G	C8-N9-C4	5.43	108.57	106.40
36	1	1795	U	N3-C2-O2	5.43	126.00	122.20
36	5	1128	U	C5-C6-N1	-5.43	119.99	122.70
36	5	3206	C	OP1-P-OP2	5.43	127.74	119.60
36	1	878	G	C5-C6-N1	-5.42	108.79	111.50
36	1	3198	U	N3-C2-O2	5.42	126.00	122.20
1	6	767	U	N1-C2-N3	5.42	118.15	114.90
36	5	866	A	C8-N9-C4	5.42	107.97	105.80
36	1	155	G	N3-C4-C5	-5.42	125.89	128.60
36	1	1340	G	N9-C4-C5	-5.42	103.23	105.40
36	1	1528	G	C8-N9-C4	-5.42	104.23	106.40
1	6	1607	G	C4-C5-N7	-5.42	108.63	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	c9	57	ARG	NE-CZ-NH1	5.42	123.01	120.30
36	5	879	U	C2-N1-C1'	5.42	124.20	117.70
36	1	2249	G	N9-C1'-C2'	-5.42	106.04	112.00
36	1	2916	U	O5'-P-OP1	5.42	117.20	110.70
36	1	3269	U	N1-C2-N3	5.42	118.15	114.90
36	5	63	A	N9-C4-C5	-5.42	103.63	105.80
36	5	1830	G	OP1-P-O3'	5.42	117.12	105.20
36	5	2818	U	C4-C5-C6	-5.42	116.45	119.70
36	1	1126	G	N1-C6-O6	5.42	123.15	119.90
36	1	3314	A	C8-N9-C4	-5.42	103.63	105.80
38	4	38	U	N1-C2-N3	5.42	118.15	114.90
1	6	1547	A	N1-C6-N6	-5.42	115.35	118.60
4	s2	58	LEU	CA-CB-CG	5.42	127.76	115.30
36	1	2805	G	N3-C2-N2	5.42	123.69	119.90
36	1	918	C	N1-C2-O2	-5.41	115.65	118.90
1	6	323	A	C8-N9-C4	-5.41	103.64	105.80
36	1	2952	G	C5-C6-N1	-5.41	108.79	111.50
1	2	624	G	N1-C6-O6	-5.41	116.65	119.90
36	1	2114	C	OP1-P-OP2	5.41	127.72	119.60
36	1	2413	A	O5'-P-OP1	-5.41	100.83	105.70
36	1	2700	G	N7-C8-N9	5.41	115.81	113.10
36	1	2800	G	C6-N1-C2	-5.41	121.85	125.10
36	1	2846	U	N3-C4-O4	-5.41	115.61	119.40
36	1	2916	U	OP1-P-O3'	5.41	117.10	105.20
1	6	639	U	N1-C2-O2	5.41	126.59	122.80
36	5	504	A	C8-N9-C4	5.41	107.96	105.80
36	5	1385	C	C4-C5-C6	-5.41	114.69	117.40
36	5	2770	G	C8-N9-C4	-5.41	104.24	106.40
1	2	1363	U	N1-C2-O2	5.41	126.59	122.80
1	6	454	U	C6-N1-C2	5.41	124.25	121.00
36	5	1335	C	OP2-P-O3'	5.41	117.10	105.20
52	m6	94	ARG	NE-CZ-NH2	5.41	123.00	120.30
36	1	2689	A	N1-C6-N6	-5.41	115.36	118.60
36	5	2524	A	C4-N9-C1'	5.41	136.03	126.30
36	1	49	A	C5-C6-N1	-5.41	115.00	117.70
36	1	1343	A	N1-C6-N6	5.41	121.84	118.60
36	1	1815	U	P-O3'-C3'	5.41	126.19	119.70
1	6	1111	G	N3-C4-C5	-5.41	125.90	128.60
36	5	415	G	OP1-P-OP2	-5.41	111.49	119.60
36	5	1304	A	C2-N3-C4	5.41	113.30	110.60
36	5	3309	G	C4-N9-C1'	5.41	133.53	126.50
36	1	1362	G	N7-C8-N9	-5.40	110.40	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2728	G	C2-N3-C4	5.40	114.60	111.90
36	1	2973	G	OP1-P-O3'	5.40	117.09	105.20
36	1	3207	U	OP2-P-O3'	5.40	117.09	105.20
36	5	999	G	C6-C5-N7	5.40	133.64	130.40
36	1	614	C	C6-N1-C2	5.40	122.46	120.30
36	1	919	U	N1-C2-O2	5.40	126.58	122.80
36	1	1329	U	C5-C6-N1	5.40	125.40	122.70
36	1	1604	G	N3-C4-C5	-5.40	125.90	128.60
36	1	2854	U	OP2-P-O3'	5.40	117.08	105.20
38	4	80	A	C8-N9-C4	5.40	107.96	105.80
36	5	2353	G	C6-N1-C2	-5.40	121.86	125.10
1	2	1268	G	O5'-P-OP2	-5.40	100.84	105.70
36	1	343	U	C2-N3-C4	5.40	130.24	127.00
36	5	1837	U	OP2-P-O3'	5.40	117.08	105.20
36	5	2231	C	O4'-C1'-N1	5.40	112.52	108.20
1	2	109	G	N1-C6-O6	5.40	123.14	119.90
1	2	1324	G	C6-C5-N7	5.40	133.64	130.40
36	1	1428	A	N1-C6-N6	5.40	121.84	118.60
36	1	2257	C	C2-N1-C1'	5.40	124.74	118.80
56	N0	155	ARG	NE-CZ-NH1	-5.40	117.60	120.30
1	6	1119	G	C8-N9-C4	-5.40	104.24	106.40
36	5	969	C	N3-C4-C5	5.40	124.06	121.90
36	5	1607	U	N1-C2-N3	5.40	118.14	114.90
40	13	102	LEU	CA-CB-CG	5.40	127.72	115.30
1	6	383	G	C8-N9-C4	-5.40	104.24	106.40
36	5	1098	A	N7-C8-N9	5.40	116.50	113.80
36	5	2870	C	O4'-C1'-N1	5.40	112.52	108.20
36	5	3285	C	N1-C2-O2	5.40	122.14	118.90
68	o2	33	ARG	NE-CZ-NH2	-5.40	117.60	120.30
36	1	2693	C	C4-C5-C6	-5.40	114.70	117.40
36	1	1194	G	OP1-P-O3'	5.39	117.07	105.20
36	1	2241	U	O5'-P-OP1	-5.39	100.84	105.70
36	1	2662	G	C4-C5-N7	5.39	112.96	110.80
1	6	826	U	C5-C6-N1	5.39	125.40	122.70
1	2	121	U	N3-C2-O2	-5.39	118.43	122.20
1	2	378	A	C5-C6-N6	-5.39	119.39	123.70
36	1	920	A	OP1-P-O3'	5.39	117.06	105.20
36	1	1136	A	C6-N1-C2	-5.39	115.36	118.60
36	1	1496	C	C2-N1-C1'	5.39	124.73	118.80
36	5	192	C	C2-N1-C1'	5.39	124.73	118.80
36	5	407	A	C5-C6-N6	-5.39	119.39	123.70
36	5	635	G	N3-C4-C5	5.39	131.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1049	C	N1-C2-O2	5.39	122.14	118.90
36	1	228	U	N3-C2-O2	-5.39	118.43	122.20
36	1	662	U	N1-C2-O2	5.39	126.57	122.80
36	1	1329	U	N1-C1'-C2'	-5.39	106.07	112.00
1	6	1481	C	N3-C2-O2	-5.39	118.13	121.90
36	5	39	A	C5-C6-N6	-5.39	119.39	123.70
36	1	109	A	C5-C6-N6	5.39	128.01	123.70
36	1	631	U	C5-C4-O4	-5.39	122.67	125.90
36	5	2724	U	C6-N1-C2	-5.39	117.77	121.00
36	1	1409	G	C4-N9-C1'	-5.39	119.50	126.50
36	5	75	G	N1-C6-O6	5.39	123.13	119.90
36	5	1770	G	C4-N9-C1'	5.39	133.50	126.50
68	o2	4	LEU	C-N-CA	-5.39	99.38	122.00
36	1	517	G	C4-N9-C1'	5.38	133.50	126.50
36	1	3368	U	N1-C2-O2	-5.38	119.03	122.80
36	5	1194	G	C2-N3-C4	5.38	114.59	111.90
36	5	2849	C	N1-C2-O2	-5.38	115.67	118.90
36	1	307	A	O5'-P-OP2	-5.38	100.86	105.70
36	1	1433	A	O5'-P-OP1	-5.38	100.86	105.70
36	1	2797	C	N1-C2-O2	-5.38	115.67	118.90
1	6	711	U	C2-N1-C1'	5.38	124.16	117.70
36	5	1440	G	N3-C4-N9	-5.38	122.77	126.00
1	2	61	A	N7-C8-N9	5.38	116.49	113.80
36	5	1407	A	C2-N3-C4	-5.38	107.91	110.60
1	6	767	U	C5-C4-O4	5.38	129.13	125.90
1	6	1745	G	C4-C5-N7	5.38	112.95	110.80
36	1	439	C	C4-C5-C6	-5.38	114.71	117.40
36	1	2664	C	N3-C4-C5	5.38	124.05	121.90
38	4	8	C	OP2-P-O3'	5.38	117.03	105.20
38	4	52	A	C8-N9-C4	-5.38	103.65	105.80
36	5	1670	C	C6-N1-C2	5.38	122.45	120.30
36	5	2860	U	OP1-P-O3'	5.38	117.03	105.20
36	5	2983	C	C4-C5-C6	5.38	120.09	117.40
52	m6	27	LEU	CB-CG-CD1	-5.38	101.86	111.00
36	1	1420	C	N1-C2-N3	5.38	122.96	119.20
36	1	1481	A	O4'-C1'-N9	5.38	112.50	108.20
36	1	2937	G	N7-C8-N9	-5.38	110.41	113.10
38	4	9	A	N1-C6-N6	-5.38	115.37	118.60
1	6	1643	U	C2-N3-C4	-5.38	123.77	127.00
36	5	352	A	O4'-C1'-N9	5.38	112.50	108.20
36	5	648	C	OP1-P-O3'	5.38	117.03	105.20
36	5	2836	C	N3-C4-N4	-5.38	114.24	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2993	G	P-O3'-C3'	5.38	126.15	119.70
1	2	831	U	C6-N1-C2	-5.38	117.78	121.00
36	1	2134	G	OP1-P-OP2	-5.38	111.54	119.60
1	2	558	U	C2-N1-C1'	5.37	124.15	117.70
36	5	83	U	OP1-P-OP2	5.37	127.66	119.60
36	5	2645	G	C2-N3-C4	5.37	114.59	111.90
36	1	580	C	N3-C2-O2	5.37	125.66	121.90
36	5	416	A	N1-C6-N6	5.37	121.82	118.60
36	5	811	U	C5-C4-O4	-5.37	122.68	125.90
36	5	1308	A	N1-C6-N6	-5.37	115.38	118.60
36	5	2643	A	C8-N9-C4	5.37	107.95	105.80
36	5	3294	A	C8-N9-C4	-5.37	103.65	105.80
36	1	3050	U	N1-C2-O2	5.37	126.56	122.80
38	4	15	G	C5-C6-N1	5.37	114.18	111.50
1	6	2	A	O5'-P-OP2	-5.37	100.87	105.70
36	5	422	A	C8-N9-C4	-5.37	103.65	105.80
36	5	2208	A	O4'-C1'-N9	5.37	112.49	108.20
36	5	2286	U	N3-C2-O2	-5.37	118.44	122.20
36	5	2343	C	O5'-P-OP2	-5.37	100.87	105.70
36	5	2593	A	P-O3'-C3'	5.37	126.14	119.70
1	6	1539	G	O4'-C1'-N9	-5.37	103.91	108.20
36	5	1180	A	O4'-C1'-N9	-5.37	103.91	108.20
39	12	212	GLY	N-CA-C	5.37	126.52	113.10
1	2	969	C	N3-C2-O2	5.37	125.66	121.90
1	2	1202	A	C2-N3-C4	5.37	113.28	110.60
36	1	1926	C	C5-C4-N4	-5.37	116.44	120.20
36	5	414	U	C5-C6-N1	-5.37	120.02	122.70
36	5	1014	U	C6-N1-C1'	-5.37	113.69	121.20
36	5	2175	U	N1-C2-O2	-5.37	119.04	122.80
36	5	2336	U	C5-C4-O4	-5.37	122.68	125.90
36	5	3206	C	N3-C2-O2	-5.37	118.14	121.90
1	2	736	C	C5-C6-N1	5.36	123.68	121.00
36	1	639	G	N1-C2-N2	5.36	121.03	116.20
36	1	2163	C	C5-C6-N1	-5.36	118.32	121.00
36	1	2257	C	O4'-C1'-N1	5.36	112.49	108.20
1	6	194	U	N1-C2-O2	5.36	126.55	122.80
1	6	755	A	C8-N9-C4	-5.36	103.65	105.80
36	5	708	G	C8-N9-C4	-5.36	104.25	106.40
36	1	1156	C	N3-C2-O2	-5.36	118.15	121.90
1	6	1535	U	N1-C2-O2	5.36	126.55	122.80
36	1	1607	U	N3-C2-O2	-5.36	118.45	122.20
36	1	2993	G	N3-C4-N9	5.36	129.22	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1303	A	C8-N9-C4	5.36	107.94	105.80
36	5	2857	C	C5-C4-N4	-5.36	116.45	120.20
36	5	2912	G	C5-C6-O6	-5.36	125.38	128.60
36	1	339	C	C5-C4-N4	5.36	123.95	120.20
36	1	2620	G	C8-N9-C4	5.36	108.54	106.40
36	1	2173	U	N1-C2-N3	5.36	118.11	114.90
1	6	366	A	C2-N3-C4	-5.36	107.92	110.60
36	5	932	U	C6-N1-C2	5.36	124.21	121.00
36	5	2848	G	N1-C6-O6	5.36	123.11	119.90
36	1	388	G	C8-N9-C4	-5.36	104.26	106.40
36	1	896	A	C8-N9-C4	-5.36	103.66	105.80
36	1	906	A	C5-C6-N6	-5.36	119.42	123.70
36	1	2281	A	C2-N3-C4	-5.36	107.92	110.60
36	5	1112	A	C8-N9-C1'	-5.36	118.06	127.70
36	5	1208	U	N1-C2-O2	5.36	126.55	122.80
36	5	2892	A	C8-N9-C4	-5.36	103.66	105.80
36	5	3082	C	C6-N1-C2	-5.36	118.16	120.30
1	6	1660	A	N1-C6-N6	-5.35	115.39	118.60
36	5	2293	C	N3-C4-N4	5.35	121.75	118.00
36	5	2339	C	OP1-P-O3'	5.35	116.98	105.20
36	1	979	U	C5-C6-N1	5.35	125.38	122.70
36	1	1396	C	OP2-P-O3'	5.35	116.98	105.20
36	1	1655	G	N3-C4-N9	5.35	129.21	126.00
1	6	407	A	N1-C6-N6	5.35	121.81	118.60
37	7	37	G	N3-C4-N9	5.35	129.21	126.00
36	1	1330	A	N9-C4-C5	-5.35	103.66	105.80
36	1	1407	A	C8-N9-C4	5.35	107.94	105.80
36	5	2572	C	C6-N1-C1'	-5.35	114.38	120.80
36	5	2726	C	C4-C5-C6	5.35	120.08	117.40
36	1	333	G	N9-C4-C5	5.35	107.54	105.40
36	1	645	A	C4-C5-C6	5.35	119.67	117.00
36	1	909	G	N7-C8-N9	-5.35	110.43	113.10
36	1	2286	U	N3-C4-O4	-5.35	115.66	119.40
36	1	2301	U	N3-C2-O2	-5.35	118.45	122.20
38	4	98	U	N3-C2-O2	5.35	125.94	122.20
1	6	25	C	P-O3'-C3'	5.35	126.12	119.70
1	6	287	G	C5-C6-O6	-5.35	125.39	128.60
36	5	423	A	C5-N7-C8	5.35	106.58	103.90
36	5	2419	A	O5'-P-OP2	5.35	117.12	110.70
36	5	2726	C	N3-C4-C5	-5.35	119.76	121.90
1	2	1781	A	C5-C6-N1	-5.35	115.03	117.70
36	1	2362	C	C2-N3-C4	5.35	122.57	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2403	G	N9-C4-C5	-5.35	103.26	105.40
36	1	2901	G	C5-C6-O6	-5.35	125.39	128.60
1	6	1751	C	C6-N1-C2	5.35	122.44	120.30
36	5	359	U	OP2-P-O3'	5.35	116.96	105.20
36	5	683	U	O5'-P-OP2	-5.35	100.89	105.70
36	5	1884	A	OP2-P-O3'	5.35	116.96	105.20
36	1	1389	G	N9-C4-C5	-5.35	103.26	105.40
36	5	662	U	N3-C4-O4	-5.34	115.66	119.40
36	5	2908	G	C8-N9-C4	-5.34	104.26	106.40
36	5	3105	U	C2-N3-C4	-5.34	123.79	127.00
36	5	359	U	N1-C2-O2	-5.34	119.06	122.80
1	2	1780	G	C4-C5-N7	5.34	112.94	110.80
36	1	575	G	C8-N9-C4	5.34	108.54	106.40
36	1	1891	A	C8-N9-C4	5.34	107.94	105.80
38	4	115	C	C6-N1-C2	5.34	122.44	120.30
1	6	165	G	C8-N9-C4	-5.34	104.26	106.40
1	6	813	U	N1-C2-O2	5.34	126.54	122.80
1	6	1200	G	N1-C6-O6	5.34	123.11	119.90
36	5	1906	G	OP1-P-O3'	5.34	116.95	105.20
36	5	2136	C	C2-N3-C4	-5.34	117.23	119.90
36	1	805	G	N1-C6-O6	-5.34	116.70	119.90
36	1	1133	A	N7-C8-N9	-5.34	111.13	113.80
36	1	2633	U	N3-C2-O2	-5.34	118.46	122.20
36	1	2798	C	C5-C6-N1	5.34	123.67	121.00
1	6	858	G	C4-N9-C1'	5.34	133.44	126.50
1	6	1600	A	N1-C2-N3	5.34	131.97	129.30
1	6	1767	G	C8-N9-C4	5.34	108.53	106.40
36	5	2654	C	N1-C2-O2	-5.34	115.70	118.90
36	5	2799	A	N1-C6-N6	-5.34	115.40	118.60
24	D2	65	LEU	CA-CB-CG	5.34	127.58	115.30
36	1	716	A	O4'-C1'-N9	-5.34	103.93	108.20
36	1	796	U	OP2-P-O3'	5.34	116.94	105.20
1	6	1473	U	N1-C2-O2	5.34	126.54	122.80
36	1	1113	G	N3-C2-N2	-5.34	116.17	119.90
36	1	1329	U	OP1-P-OP2	5.34	127.61	119.60
36	1	2754	G	C5-C6-O6	5.34	131.80	128.60
36	1	2865	U	C6-N1-C2	5.34	124.20	121.00
36	1	2917	G	N3-C4-N9	5.34	129.20	126.00
36	5	2807	U	OP1-P-O3'	5.34	116.94	105.20
36	5	3127	A	N9-C4-C5	5.34	107.93	105.80
1	2	1745	G	C6-C5-N7	-5.33	127.20	130.40
36	1	75	G	C4-N9-C1'	5.33	133.44	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	308	C	N1-C2-O2	-5.33	115.70	118.90
1	2	553	G	N3-C2-N2	-5.33	116.17	119.90
1	2	1773	C	N3-C4-C5	-5.33	119.77	121.90
36	1	636	C	C5-C6-N1	-5.33	118.33	121.00
36	1	636	C	OP1-P-OP2	5.33	127.60	119.60
36	5	1716	U	P-O3'-C3'	5.33	126.10	119.70
36	5	2980	U	C5-C4-O4	5.33	129.10	125.90
36	5	3245	A	N3-C4-C5	5.33	130.53	126.80
36	1	341	G	C5-C6-O6	-5.33	125.40	128.60
36	1	1100	U	C2-N3-C4	-5.33	123.80	127.00
36	1	1547	G	N1-C2-N2	5.33	121.00	116.20
36	1	2409	G	N9-C4-C5	5.33	107.53	105.40
36	1	2633	U	N1-C2-O2	5.33	126.53	122.80
36	5	504	A	N1-C2-N3	-5.33	126.63	129.30
36	5	1338	C	C4-C5-C6	5.33	120.07	117.40
38	8	36	G	O5'-P-OP1	-5.33	100.90	105.70
36	1	1345	G	OP2-P-O3'	5.33	116.93	105.20
37	7	72	A	OP2-P-O3'	5.33	116.92	105.20
36	1	656	A	O5'-P-OP2	-5.33	100.90	105.70
1	6	7	G	N3-C2-N2	5.33	123.63	119.90
36	5	941	G	C2-N3-C4	5.33	114.56	111.90
1	2	704	C	N3-C2-O2	-5.33	118.17	121.90
36	1	2308	C	C2-N3-C4	-5.33	117.24	119.90
36	1	2403	G	C8-N9-C4	5.33	108.53	106.40
1	6	52	U	N1-C2-N3	5.33	118.09	114.90
1	2	1081	A	O4'-C1'-N9	5.32	112.46	108.20
36	1	407	A	C6-C5-N7	-5.32	128.57	132.30
36	1	658	G	C4-N9-C1'	5.32	133.42	126.50
36	1	765	C	N1-C2-O2	5.32	122.09	118.90
36	1	1297	C	C6-N1-C2	5.32	122.43	120.30
36	1	1392	G	C2-N3-C4	5.32	114.56	111.90
36	1	2993	G	C5-C6-O6	-5.32	125.41	128.60
1	6	392	G	C8-N9-C4	-5.32	104.27	106.40
1	6	448	C	C6-N1-C2	-5.32	118.17	120.30
36	1	439	C	C5-C6-N1	5.32	123.66	121.00
36	1	1487	G	N9-C4-C5	5.32	107.53	105.40
20	c8	15	LEU	CA-CB-CG	5.32	127.54	115.30
36	1	1296	C	N3-C4-C5	-5.32	119.77	121.90
36	1	1474	A	O5'-P-OP2	5.32	117.08	110.70
38	4	113	U	C6-N1-C1'	5.32	128.65	121.20
36	5	1399	A	C6-C5-N7	-5.32	128.58	132.30
36	5	1547	G	N1-C6-O6	5.32	123.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1929	G	N1-C2-N3	5.32	127.09	123.90
38	8	45	C	N3-C4-C5	-5.32	119.77	121.90
36	1	3302	U	C5-C6-N1	-5.32	120.04	122.70
36	5	934	G	C4-N9-C1'	5.32	133.41	126.50
36	5	2134	G	N3-C4-N9	5.32	129.19	126.00
36	5	2285	C	N1-C2-O2	-5.32	115.71	118.90
36	1	28	C	C6-N1-C2	5.32	122.43	120.30
36	1	1592	G	N3-C4-C5	-5.32	125.94	128.60
36	5	2342	U	N3-C2-O2	-5.32	118.48	122.20
36	1	2177	G	N3-C4-C5	-5.32	125.94	128.60
36	1	2212	C	OP2-P-O3'	5.32	116.89	105.20
36	1	3310	A	N9-C4-C5	-5.32	103.67	105.80
36	5	1480	G	O4'-C1'-N9	5.32	112.45	108.20
36	1	824	C	N3-C4-N4	-5.31	114.28	118.00
36	1	984	G	N1-C6-O6	-5.31	116.71	119.90
36	1	1794	G	O4'-C1'-N9	-5.31	103.95	108.20
36	1	2623	G	N3-C2-N2	5.31	123.62	119.90
11	s9	99	LEU	CA-CB-CG	5.31	127.52	115.30
1	2	1483	A	C8-N9-C4	-5.31	103.67	105.80
37	3	88	G	O5'-P-OP1	-5.31	100.92	105.70
36	5	1907	C	N3-C2-O2	5.31	125.62	121.90
36	5	2158	A	C6-N1-C2	-5.31	115.41	118.60
36	5	3140	G	C4-C5-N7	5.31	112.92	110.80
37	7	11	A	C5-C6-N6	-5.31	119.45	123.70
36	1	40	A	N9-C4-C5	-5.31	103.68	105.80
36	1	2169	G	OP2-P-O3'	5.31	116.88	105.20
36	5	2753	G	N1-C6-O6	5.31	123.09	119.90
36	1	394	G	N3-C4-N9	-5.31	122.81	126.00
36	1	800	G	C5-C6-O6	5.31	131.79	128.60
36	1	1151	U	C6-N1-C2	-5.31	117.81	121.00
36	1	1192	C	C6-N1-C1'	-5.31	114.43	120.80
36	1	2861	U	O5'-P-OP2	5.31	117.07	110.70
36	1	2920	U	C2-N3-C4	-5.31	123.81	127.00
36	1	3138	U	OP2-P-O3'	5.31	116.88	105.20
36	5	30	G	OP1-P-O3'	5.31	116.88	105.20
36	5	313	A	N7-C8-N9	5.31	116.45	113.80
36	1	341	G	N3-C4-N9	5.31	129.19	126.00
36	1	805	G	C5-C6-N1	5.31	114.15	111.50
38	4	115	C	N3-C4-C5	5.31	124.02	121.90
36	5	100	A	N1-C6-N6	5.31	121.78	118.60
36	5	2300	G	N1-C6-O6	-5.31	116.72	119.90
1	2	1600	A	N1-C6-N6	5.31	121.78	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	423	A	N9-C4-C5	5.31	107.92	105.80
36	1	1017	C	C5-C6-N1	5.31	123.65	121.00
36	1	694	C	N1-C2-O2	-5.30	115.72	118.90
36	1	1838	G	N9-C4-C5	-5.30	103.28	105.40
52	M6	78	ARG	NE-CZ-NH2	-5.30	117.65	120.30
36	5	363	G	OP1-P-O3'	5.30	116.87	105.20
36	5	908	G	C8-N9-C1'	-5.30	120.10	127.00
36	5	1301	A	C5-N7-C8	-5.30	101.25	103.90
1	6	333	A	C8-N9-C4	5.30	107.92	105.80
36	5	1047	A	N9-C4-C5	-5.30	103.68	105.80
36	5	1048	A	OP1-P-O3'	5.30	116.87	105.20
36	1	973	A	N1-C2-N3	5.30	131.95	129.30
36	1	1179	A	OP2-P-O3'	5.30	116.86	105.20
36	1	1586	G	N3-C4-N9	5.30	129.18	126.00
38	4	1	A	C4-C5-C6	-5.30	114.35	117.00
38	4	55	U	C5-C6-N1	-5.30	120.05	122.70
36	5	500	C	C6-N1-C2	5.30	122.42	120.30
36	5	2153	U	C5-C4-O4	-5.30	122.72	125.90
36	5	2310	U	O5'-P-OP1	5.30	117.06	110.70
1	2	337	G	N1-C6-O6	5.30	123.08	119.90
36	1	131	C	C6-N1-C2	-5.30	118.18	120.30
36	1	1501	U	C5-C6-N1	5.30	125.35	122.70
36	1	2115	G	C4-C5-N7	5.30	112.92	110.80
36	1	2763	U	N1-C2-O2	-5.30	119.09	122.80
36	1	2988	C	C2-N1-C1'	-5.30	112.97	118.80
36	1	3178	A	C6-C5-N7	-5.30	128.59	132.30
1	6	366	A	C8-N9-C4	5.30	107.92	105.80
1	6	756	A	C8-N9-C4	-5.30	103.68	105.80
36	5	205	C	N3-C4-C5	5.30	124.02	121.90
36	5	338	A	OP2-P-O3'	5.30	116.86	105.20
36	5	3164	C	O4'-C1'-N1	5.30	112.44	108.20
36	5	3225	C	N3-C4-N4	5.30	121.71	118.00
36	1	406	G	O5'-P-OP2	-5.30	100.93	105.70
36	5	78	U	O5'-P-OP1	-5.30	100.93	105.70
36	5	2875	U	C6-N1-C2	5.30	124.18	121.00
36	5	3055	U	C5-C4-O4	-5.30	122.72	125.90
36	5	38	U	C5-C4-O4	-5.30	122.72	125.90
36	1	1670	C	N1-C2-O2	-5.29	115.72	118.90
41	14	187	LEU	CA-CB-CG	5.29	127.48	115.30
36	1	229	G	N3-C2-N2	-5.29	116.19	119.90
36	1	1136	A	C5-C6-N6	-5.29	119.47	123.70
1	6	338	C	N3-C4-N4	5.29	121.70	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1509	C	N3-C2-O2	-5.29	118.19	121.90
1	6	1766	A	OP1-P-O3'	5.29	116.84	105.20
36	5	704	U	C2-N1-C1'	-5.29	111.35	117.70
36	5	2877	G	C5-C6-O6	5.29	131.78	128.60
1	2	1189	A	C8-N9-C4	5.29	107.92	105.80
36	1	1398	U	OP2-P-O3'	5.29	116.84	105.20
36	1	3355	U	C2-N1-C1'	5.29	124.05	117.70
36	5	2923	U	N1-C2-O2	-5.29	119.09	122.80
36	1	1174	G	C8-N9-C1'	-5.29	120.12	127.00
36	1	2550	U	N1-C2-N3	5.29	118.07	114.90
36	1	2830	G	C4-C5-N7	-5.29	108.68	110.80
36	5	864	G	OP2-P-O3'	5.29	116.84	105.20
38	8	126	A	OP1-P-O3'	5.29	116.84	105.20
36	1	329	U	N1-C2-N3	5.29	118.07	114.90
36	1	2984	C	C5-C4-N4	5.29	123.90	120.20
1	6	17	C	N3-C4-N4	-5.29	114.30	118.00
36	5	2913	C	N1-C2-N3	5.29	122.90	119.20
36	5	3181	C	N3-C4-C5	-5.29	119.78	121.90
1	2	1773	C	C5-C6-N1	5.29	123.64	121.00
36	1	2133	U	O4'-C1'-N1	5.29	112.43	108.20
36	1	2206	G	C5-C6-O6	-5.29	125.43	128.60
36	5	1879	A	P-O3'-C3'	5.29	126.04	119.70
36	5	2409	G	O5'-P-OP2	-5.29	100.94	105.70
36	5	2971	A	N9-C4-C5	-5.29	103.69	105.80
36	5	3138	U	OP2-P-O3'	5.29	116.83	105.20
36	1	225	C	N3-C4-N4	5.29	121.70	118.00
38	4	79	A	N7-C8-N9	5.29	116.44	113.80
70	O4	8	ARG	NE-CZ-NH1	5.29	122.94	120.30
1	6	457	G	N1-C6-O6	5.29	123.07	119.90
36	5	2174	G	OP1-P-O3'	5.29	116.83	105.20
1	2	1747	G	N1-C6-O6	5.28	123.07	119.90
36	5	907	G	C8-N9-C4	5.28	108.51	106.40
36	5	3154	C	C2-N3-C4	5.28	122.54	119.90
36	1	2176	U	C5-C4-O4	5.28	129.07	125.90
36	5	3382	U	N1-C2-O2	5.28	126.50	122.80
1	6	114	C	C2-N1-C1'	5.28	124.61	118.80
1	6	351	C	N3-C2-O2	-5.28	118.20	121.90
36	5	293	C	C6-N1-C2	5.28	122.41	120.30
36	5	2942	C	N3-C4-N4	5.28	121.70	118.00
36	1	2791	G	C8-N9-C4	-5.28	104.29	106.40
36	1	917	A	C5-C6-N6	5.28	127.92	123.70
36	1	1359	C	N3-C2-O2	5.28	125.59	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2688	U	C2-N1-C1'	5.28	124.03	117.70
1	6	539	G	C8-N9-C4	-5.28	104.29	106.40
36	5	1047	A	C6-C5-N7	-5.28	128.61	132.30
36	5	1416	C	C2-N1-C1'	5.28	124.61	118.80
36	5	2704	A	C4-C5-N7	5.28	113.34	110.70
1	2	15	U	C6-N1-C2	-5.28	117.83	121.00
36	1	1158	A	C5-C6-N6	-5.28	119.48	123.70
36	1	2159	U	C6-N1-C2	5.28	124.17	121.00
36	1	2939	G	OP1-P-O3'	-5.28	93.59	105.20
47	M0	167	LEU	CA-CB-CG	5.28	127.44	115.30
36	5	658	G	N3-C2-N2	-5.28	116.21	119.90
38	4	7	U	N1-C2-N3	5.27	118.06	114.90
36	5	643	U	C2-N3-C4	-5.27	123.84	127.00
36	5	1446	A	OP1-P-O3'	5.27	116.80	105.20
36	5	1450	G	C2-N3-C4	5.27	114.54	111.90
36	5	2153	U	N3-C4-O4	5.27	123.09	119.40
38	8	137	C	N3-C4-N4	5.27	121.69	118.00
36	1	718	G	C2-N3-C4	-5.27	109.26	111.90
36	1	1297	C	O5'-P-OP1	-5.27	100.95	105.70
1	6	1620	C	C6-N1-C2	-5.27	118.19	120.30
36	5	2891	U	C5-C6-N1	-5.27	120.06	122.70
1	6	1698	G	P-O3'-C3'	5.27	126.03	119.70
36	5	2893	C	C4-C5-C6	5.27	120.04	117.40
36	5	3288	G	C5-C6-N1	5.27	114.14	111.50
36	5	694	C	N3-C2-O2	-5.27	118.21	121.90
3	S1	96	LEU	CA-CB-CG	5.27	127.42	115.30
36	1	2619	G	O5'-P-OP1	-5.27	100.96	105.70
38	4	6	U	N3-C4-C5	5.27	117.76	114.60
1	6	87	C	C6-N1-C2	-5.27	118.19	120.30
36	5	1295	G	OP2-P-O3'	5.27	116.79	105.20
36	1	1379	G	N3-C2-N2	-5.27	116.21	119.90
36	1	1406	A	C5-C6-N6	-5.27	119.49	123.70
36	1	1500	G	OP2-P-O3'	5.27	116.78	105.20
1	6	539	G	N7-C8-N9	5.27	115.73	113.10
36	5	99	A	C8-N9-C4	5.27	107.91	105.80
36	5	822	G	O5'-P-OP1	-5.27	100.96	105.70
36	5	3309	G	C8-N9-C4	-5.27	104.29	106.40
36	1	730	C	N3-C4-C5	5.26	124.00	121.90
38	4	82	U	N3-C2-O2	5.26	125.89	122.20
77	Q1	9	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	6	431	C	O5'-P-OP1	-5.26	100.96	105.70
1	6	1491	U	P-O3'-C3'	5.26	126.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	637	C	N3-C4-C5	5.26	124.01	121.90
36	5	1321	G	N9-C4-C5	-5.26	103.29	105.40
36	5	1489	A	N1-C6-N6	5.26	121.76	118.60
36	5	2531	C	N3-C2-O2	-5.26	118.21	121.90
36	5	2601	A	C6-C5-N7	5.26	135.99	132.30
36	5	2733	A	O5'-P-OP2	-5.26	100.96	105.70
36	1	2930	A	N1-C6-N6	-5.26	115.44	118.60
36	5	1199	C	C4-C5-C6	5.26	120.03	117.40
36	5	1338	C	N3-C4-N4	5.26	121.68	118.00
36	5	2354	C	N3-C4-N4	5.26	121.68	118.00
36	5	2602	G	C8-N9-C4	-5.26	104.30	106.40
37	7	53	U	O5'-P-OP2	-5.26	100.96	105.70
38	8	22	U	O5'-P-OP2	5.26	117.02	110.70
36	1	343	U	N3-C4-C5	-5.26	111.44	114.60
36	1	2551	U	N3-C2-O2	-5.26	118.52	122.20
36	1	3269	U	N3-C4-O4	-5.26	115.72	119.40
1	6	1129	U	N3-C4-O4	-5.26	115.72	119.40
36	5	2137	U	N3-C4-C5	5.26	117.76	114.60
36	5	2352	A	N3-C4-C5	-5.26	123.12	126.80
36	5	2398	A	N1-C6-N6	-5.26	115.44	118.60
38	8	39	G	N3-C4-N9	5.26	129.16	126.00
1	2	453	U	C6-N1-C1'	-5.26	113.84	121.20
36	1	3362	A	C8-N9-C4	-5.26	103.70	105.80
36	5	584	G	C4-C5-N7	-5.26	108.70	110.80
36	5	809	G	C8-N9-C4	5.26	108.50	106.40
36	5	994	G	N3-C4-C5	-5.26	125.97	128.60
36	5	2354	C	N1-C2-O2	-5.26	115.74	118.90
36	5	2830	G	C5-N7-C8	5.26	106.93	104.30
36	5	2851	A	C6-N1-C2	-5.26	115.44	118.60
25	D3	111	GLY	N-CA-C	-5.26	99.95	113.10
1	6	417	A	C4-C5-C6	5.26	119.63	117.00
1	6	426	G	O5'-P-OP2	-5.26	100.97	105.70
1	2	186	C	C5-C6-N1	5.26	123.63	121.00
1	2	1324	G	N9-C4-C5	5.26	107.50	105.40
36	1	425	G	OP1-P-OP2	-5.26	111.72	119.60
36	1	2637	A	C8-N9-C4	-5.26	103.70	105.80
36	1	2660	G	N9-C4-C5	-5.26	103.30	105.40
36	1	3053	G	N3-C2-N2	5.26	123.58	119.90
1	6	1137	A	N7-C8-N9	-5.26	111.17	113.80
36	5	915	A	C8-N9-C4	-5.26	103.70	105.80
36	5	942	U	C6-N1-C2	-5.26	117.85	121.00
36	5	1047	A	C5-N7-C8	-5.26	101.27	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1314	C	C5-C4-N4	-5.26	116.52	120.20
36	5	1391	C	N1-C2-O2	-5.26	115.75	118.90
36	5	2343	C	C2-N3-C4	-5.26	117.27	119.90
36	5	2632	G	N3-C2-N2	5.26	123.58	119.90
36	1	2148	U	N1-C2-O2	-5.25	119.12	122.80
37	7	93	C	C6-N1-C2	-5.25	118.20	120.30
1	2	1494	C	C6-N1-C2	-5.25	118.20	120.30
36	5	633	C	OP2-P-O3'	5.25	116.76	105.20
36	5	3386	G	O5'-P-OP2	-5.25	100.97	105.70
36	1	592	A	N9-C4-C5	-5.25	103.70	105.80
36	1	1140	G	C8-N9-C1'	-5.25	120.17	127.00
1	6	365	G	N1-C2-N2	-5.25	111.47	116.20
1	6	1340	U	N1-C2-O2	5.25	126.48	122.80
36	5	1456	A	C5-C6-N6	-5.25	119.50	123.70
36	5	2165	G	N3-C4-N9	5.25	129.15	126.00
36	5	2637	A	N1-C6-N6	5.25	121.75	118.60
36	1	1177	G	N1-C2-N2	5.25	120.92	116.20
36	1	1890	U	N3-C4-C5	5.25	117.75	114.60
36	1	2732	G	N1-C2-N2	-5.25	111.47	116.20
36	5	2397	A	N1-C6-N6	-5.25	115.45	118.60
36	5	2927	C	C5-C6-N1	5.25	123.62	121.00
1	2	610	G	C4-N9-C1'	5.25	133.32	126.50
56	N0	115	ARG	NE-CZ-NH1	5.25	122.92	120.30
36	5	721	G	C5-C6-N1	5.25	114.12	111.50
36	5	2283	G	N1-C6-O6	5.25	123.05	119.90
36	5	3324	C	N3-C2-O2	5.25	125.57	121.90
36	1	545	U	N1-C2-O2	5.25	126.47	122.80
36	1	3361	G	N3-C4-C5	-5.25	125.98	128.60
36	5	2675	C	N1-C2-O2	-5.25	115.75	118.90
37	7	28	C	N3-C4-C5	-5.25	119.80	121.90
36	1	88	A	N9-C4-C5	-5.24	103.70	105.80
36	1	2853	A	C2-N3-C4	5.24	113.22	110.60
1	6	194	U	C5-C6-N1	5.24	125.32	122.70
1	6	408	C	C6-N1-C2	-5.24	118.20	120.30
36	5	437	G	N1-C2-N3	5.24	127.05	123.90
36	5	3306	U	C5-C4-O4	-5.24	122.75	125.90
1	6	1463	C	C6-N1-C2	5.24	122.40	120.30
36	5	519	A	C6-C5-N7	-5.24	128.63	132.30
36	1	2288	G	C5-C6-O6	5.24	131.74	128.60
36	1	2541	U	P-O3'-C3'	5.24	125.99	119.70
36	5	873	C	P-O3'-C3'	5.24	125.99	119.70
36	5	1317	A	N1-C2-N3	-5.24	126.68	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3186	A	N1-C6-N6	-5.24	115.46	118.60
1	2	380	U	C2-N1-C1'	5.24	123.99	117.70
1	2	1241	G	C6-C5-N7	-5.24	127.26	130.40
36	1	282	G	C5-C6-O6	5.24	131.74	128.60
36	1	706	A	C8-N9-C4	5.24	107.89	105.80
36	1	2343	C	C5-C4-N4	-5.24	116.53	120.20
37	3	82	G	C8-N9-C1'	-5.24	120.19	127.00
36	5	3315	G	C5-C6-O6	5.24	131.74	128.60
1	6	782	U	C2-N1-C1'	5.24	123.98	117.70
36	5	2187	G	O5'-P-OP2	5.24	116.98	110.70
36	5	2830	G	N3-C4-N9	-5.24	122.86	126.00
36	5	3225	C	O5'-P-OP1	-5.24	100.99	105.70
1	2	553	G	C5-C6-N1	-5.24	108.88	111.50
36	1	99	A	C5'-C4'-O4'	5.24	115.38	109.10
36	1	1848	G	N1-C6-O6	5.24	123.04	119.90
1	6	194	U	N3-C2-O2	-5.24	118.54	122.20
36	5	514	G	C5-C6-O6	-5.24	125.46	128.60
36	5	867	G	C8-N9-C4	5.24	108.49	106.40
36	5	901	G	N3-C2-N2	5.24	123.56	119.90
36	5	1138	U	C2-N3-C4	-5.24	123.86	127.00
36	5	3209	A	N1-C2-N3	5.24	131.92	129.30
36	1	1114	U	N3-C4-O4	-5.23	115.74	119.40
36	5	1129	A	O5'-P-OP2	-5.23	100.99	105.70
36	5	2367	A	C8-N9-C4	-5.23	103.71	105.80
36	5	2746	A	N7-C8-N9	-5.23	111.18	113.80
1	2	447	U	C5-C6-N1	5.23	125.32	122.70
36	1	96	G	N3-C4-C5	5.23	131.22	128.60
36	1	339	C	N1-C2-O2	5.23	122.04	118.90
73	o7	65	ARG	NE-CZ-NH1	5.23	122.92	120.30
36	1	1484	U	N1-C2-O2	5.23	126.46	122.80
36	1	1515	A	N9-C4-C5	-5.23	103.71	105.80
36	1	2200	U	N1-C2-O2	-5.23	119.14	122.80
1	6	1003	A	N9-C4-C5	-5.23	103.71	105.80
36	5	162	G	N1-C6-O6	-5.23	116.76	119.90
36	5	1323	G	C8-N9-C4	-5.23	104.31	106.40
46	L9	166	ARG	NE-CZ-NH2	5.23	122.92	120.30
36	5	431	U	C5-C4-O4	-5.23	122.76	125.90
36	5	636	C	C2-N3-C4	-5.23	117.28	119.90
36	5	776	U	P-O3'-C3'	5.23	125.97	119.70
36	5	1193	A	C4-C5-C6	5.23	119.61	117.00
36	1	355	A	C2-N3-C4	-5.23	107.99	110.60
36	1	2961	G	O5'-P-OP2	-5.23	101.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	765	G	O4'-C1'-N9	-5.23	104.02	108.20
36	5	362	U	C5-C4-O4	-5.23	122.76	125.90
36	5	1794	G	N1-C2-N2	-5.23	111.49	116.20
36	5	2800	G	N9-C4-C5	5.23	107.49	105.40
38	8	116	G	N1-C6-O6	5.23	123.04	119.90
1	2	1745	G	N3-C4-C5	-5.22	125.99	128.60
1	2	1777	G	C5-C6-O6	-5.22	125.47	128.60
36	1	96	G	C5-N7-C8	-5.22	101.69	104.30
36	1	716	A	C2-N3-C4	-5.22	107.99	110.60
36	1	1297	C	C5-C6-N1	-5.22	118.39	121.00
36	1	2623	G	C8-N9-C4	5.22	108.49	106.40
1	6	792	U	C6-N1-C2	-5.22	117.86	121.00
36	5	866	A	OP1-P-OP2	-5.22	111.76	119.60
54	m8	176	ARG	NE-CZ-NH1	-5.22	117.69	120.30
1	2	381	C	N1-C2-O2	5.22	122.03	118.90
15	C3	22	ALA	C-N-CA	5.22	143.94	122.00
36	1	1389	G	N1-C6-O6	5.22	123.03	119.90
1	6	578	U	C5-C6-N1	-5.22	120.09	122.70
36	5	864	G	C6-N1-C2	-5.22	121.97	125.10
36	5	1133	A	C2-N3-C4	5.22	113.21	110.60
36	5	1914	G	N1-C6-O6	-5.22	116.77	119.90
36	5	2627	C	OP2-P-O3'	5.22	116.69	105.20
36	5	2816	G	C8-N9-C4	5.22	108.49	106.40
36	1	376	G	C5-C6-N1	-5.22	108.89	111.50
11	s9	3	ARG	NE-CZ-NH2	5.22	122.91	120.30
36	5	960	U	C6-N1-C1'	-5.22	113.89	121.20
36	5	1589	A	C2-N3-C4	5.22	113.21	110.60
36	5	2745	G	O4'-C1'-N9	5.22	112.38	108.20
36	1	332	C	N1-C2-O2	5.22	122.03	118.90
36	1	410	U	OP1-P-OP2	-5.22	111.77	119.60
1	6	1629	G	OP2-P-O3'	5.22	116.68	105.20
36	5	513	G	N9-C4-C5	-5.22	103.31	105.40
36	5	1047	A	OP2-P-O3'	5.22	116.68	105.20
36	5	663	C	O5'-P-OP1	5.22	116.96	110.70
36	5	2601	A	C4-C5-N7	-5.22	108.09	110.70
36	1	197	G	O5'-P-OP2	5.22	116.96	110.70
36	1	2114	C	O5'-P-OP2	-5.22	101.00	105.70
36	1	2163	C	C4-C5-C6	5.22	120.01	117.40
36	5	1162	U	O5'-P-OP2	-5.22	101.00	105.70
36	5	1300	G	N1-C6-O6	5.22	123.03	119.90
36	5	2249	G	N3-C4-C5	-5.22	125.99	128.60
36	5	3142	A	O5'-P-OP1	-5.22	101.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3339	A	C5-C6-N6	-5.22	119.53	123.70
37	7	50	U	C5-C6-N1	5.22	125.31	122.70
1	2	1269	U	C2-N1-C1'	5.21	123.96	117.70
36	1	639	G	C8-N9-C4	5.21	108.49	106.40
36	1	893	C	C2-N3-C4	5.21	122.51	119.90
36	1	1097	G	P-O3'-C3'	5.21	125.96	119.70
1	6	1629	G	N3-C4-C5	-5.21	125.99	128.60
1	6	1634	C	C6-N1-C2	-5.21	118.21	120.30
36	5	1316	C	N1-C2-O2	-5.21	115.77	118.90
54	m8	151	ARG	NE-CZ-NH1	-5.21	117.69	120.30
36	1	2411	U	C2-N3-C4	-5.21	123.87	127.00
36	5	1060	U	N3-C4-C5	5.21	117.73	114.60
36	5	2285	C	O5'-P-OP1	-5.21	101.01	105.70
36	1	594	U	C5-C6-N1	-5.21	120.09	122.70
36	1	2954	U	OP1-P-O3'	5.21	116.67	105.20
37	3	57	G	OP2-P-O3'	5.21	116.67	105.20
65	N9	14	ARG	NE-CZ-NH2	-5.21	117.69	120.30
1	6	1745	G	N9-C4-C5	-5.21	103.31	105.40
36	5	714	G	C5-C6-O6	-5.21	125.47	128.60
36	1	109	A	OP1-P-O3'	5.21	116.66	105.20
36	1	2626	A	N1-C2-N3	5.21	131.91	129.30
36	5	3032	A	N9-C4-C5	-5.21	103.72	105.80
1	2	1006	C	C6-N1-C2	-5.21	118.22	120.30
36	1	315	C	O5'-P-OP1	-5.21	101.01	105.70
36	1	593	C	N1-C2-O2	-5.21	115.78	118.90
36	5	630	A	C2-N3-C4	-5.21	108.00	110.60
36	5	2108	C	N1-C2-O2	-5.21	115.78	118.90
36	5	2138	A	N9-C4-C5	5.21	107.88	105.80
38	8	80	A	C4-C5-C6	5.21	119.61	117.00
36	1	697	A	C5-C6-N6	-5.21	119.53	123.70
36	1	2292	U	C5-C4-O4	-5.21	122.78	125.90
36	1	3102	G	C5-C6-O6	5.21	131.72	128.60
1	6	1031	U	C2-N1-C1'	-5.21	111.45	117.70
36	5	2279	A	N1-C6-N6	5.21	121.72	118.60
36	5	2350	C	OP1-P-OP2	-5.21	111.79	119.60
36	5	3272	C	C6-N1-C2	5.21	122.38	120.30
36	1	156	G	N3-C2-N2	5.21	123.54	119.90
36	1	2627	C	N3-C4-N4	-5.21	114.36	118.00
1	2	360	A	C8-N9-C4	5.20	107.88	105.80
36	1	1416	C	N3-C4-N4	-5.20	114.36	118.00
36	1	1904	C	C5-C6-N1	5.20	123.60	121.00
36	1	2408	U	N3-C2-O2	-5.20	118.56	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	421	A	N1-C6-N6	5.20	121.72	118.60
36	5	965	A	C5-C6-N6	-5.20	119.54	123.70
36	5	1695	U	N3-C2-O2	-5.20	118.56	122.20
36	5	1794	G	O4'-C1'-N9	-5.20	104.04	108.20
52	m6	27	LEU	CB-CG-CD2	-5.20	102.16	111.00
36	1	2800	G	O5'-P-OP1	5.20	116.94	110.70
36	5	419	G	C4-C5-N7	5.20	112.88	110.80
36	5	1124	U	C4-C5-C6	-5.20	116.58	119.70
36	5	2367	A	N7-C8-N9	5.20	116.40	113.80
36	5	2865	U	N3-C4-C5	5.20	117.72	114.60
1	2	1314	U	N3-C2-O2	-5.20	118.56	122.20
36	1	2623	G	OP1-P-OP2	-5.20	111.80	119.60
36	1	2960	C	N3-C4-C5	5.20	123.98	121.90
36	5	799	G	C5-C6-N1	5.20	114.10	111.50
36	5	2144	A	O5'-P-OP2	-5.20	101.02	105.70
41	14	188	ARG	NE-CZ-NH2	-5.20	117.70	120.30
36	1	2286	U	C5-C4-O4	5.20	129.02	125.90
1	6	622	A	C4-C5-N7	-5.20	108.10	110.70
1	6	1781	A	C8-N9-C4	-5.20	103.72	105.80
36	5	666	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	893	C	C2-N3-C4	5.20	122.50	119.90
36	5	1298	C	N1-C2-O2	-5.20	115.78	118.90
36	5	2759	U	C5-C6-N1	-5.20	120.10	122.70
37	3	98	C	N3-C4-C5	-5.20	119.82	121.90
1	6	1541	G	N3-C4-C5	-5.20	126.00	128.60
36	5	2784	G	N3-C4-C5	-5.20	126.00	128.60
1	2	240	U	OP2-P-O3'	5.20	116.63	105.20
36	1	716	A	N3-C4-C5	5.20	130.44	126.80
36	1	2826	U	OP2-P-O3'	5.20	116.63	105.20
36	5	215	G	N9-C4-C5	5.20	107.48	105.40
36	5	2312	A	C5-C6-N1	5.20	120.30	117.70
36	1	1053	A	C8-N9-C4	5.19	107.88	105.80
36	1	2255	A	N7-C8-N9	-5.19	111.20	113.80
36	5	1317	A	P-O3'-C3'	5.19	125.93	119.70
36	5	3020	U	C6-N1-C2	-5.19	117.88	121.00
1	2	1121	C	C2-N1-C1'	-5.19	113.09	118.80
1	2	1455	G	C8-N9-C4	-5.19	104.32	106.40
36	1	954	U	N1-C2-N3	5.19	118.02	114.90
1	6	1196	A	O4'-C1'-N9	5.19	112.35	108.20
1	6	1509	C	N1-C2-O2	5.19	122.02	118.90
36	5	209	A	N7-C8-N9	5.19	116.40	113.80
36	5	3093	C	C2-N3-C4	-5.19	117.30	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2389	C	N1-C2-O2	5.19	122.01	118.90
1	6	543	C	N3-C2-O2	-5.19	118.27	121.90
36	5	1170	A	C5-C6-N6	-5.19	119.55	123.70
37	7	32	U	C5-C6-N1	-5.19	120.11	122.70
1	2	1600	A	N9-C4-C5	-5.19	103.72	105.80
36	1	281	G	N1-C2-N3	5.19	127.01	123.90
36	1	590	G	C5-C6-O6	-5.19	125.49	128.60
36	1	1546	A	N1-C2-N3	-5.19	126.70	129.30
36	1	2365	C	N1-C2-O2	5.19	122.01	118.90
1	6	31	C	N3-C4-N4	-5.19	114.37	118.00
1	2	1426	C	N3-C2-O2	5.19	125.53	121.90
36	1	1331	U	C6-N1-C1'	-5.19	113.94	121.20
36	1	1429	G	C5-N7-C8	5.19	106.89	104.30
36	1	2121	G	N1-C6-O6	-5.19	116.79	119.90
36	1	2795	U	O5'-P-OP1	-5.19	101.03	105.70
36	1	3150	A	C8-N9-C4	5.19	107.88	105.80
61	N5	38	LEU	CA-CB-CG	5.19	127.23	115.30
36	1	95	A	C5-C6-N1	-5.19	115.11	117.70
36	5	3027	A	N1-C6-N6	5.19	121.71	118.60
36	1	1192	C	C2-N1-C1'	5.18	124.50	118.80
36	1	2983	C	C2-N3-C4	-5.18	117.31	119.90
36	1	3323	A	N1-C6-N6	5.18	121.71	118.60
36	5	47	C	C5-C6-N1	-5.18	118.41	121.00
36	5	1302	A	N9-C4-C5	5.18	107.87	105.80
38	8	39	G	C4-N9-C1'	5.18	133.24	126.50
41	14	359	LEU	CA-CB-CG	5.18	127.22	115.30
35	SM	134	ASP	CB-CG-OD2	5.18	122.97	118.30
36	1	648	C	C5-C4-N4	-5.18	116.57	120.20
36	5	528	U	N3-C2-O2	-5.18	118.57	122.20
36	5	2796	G	N3-C4-N9	5.18	129.11	126.00
36	5	2887	A	O5'-P-OP1	-5.18	101.03	105.70
36	1	29	C	N3-C4-N4	5.18	121.63	118.00
36	1	98	G	N3-C4-N9	-5.18	122.89	126.00
36	1	427	C	C6-N1-C2	-5.18	118.23	120.30
36	1	2520	A	OP2-P-O3'	5.18	116.60	105.20
1	6	965	U	C2-N1-C1'	5.18	123.92	117.70
1	2	779	U	O4'-C1'-N1	5.18	112.34	108.20
36	1	96	G	C6-C5-N7	-5.18	127.29	130.40
36	1	517	G	N7-C8-N9	5.18	115.69	113.10
36	1	797	U	C5-C6-N1	-5.18	120.11	122.70
36	1	1116	G	O5'-P-OP1	-5.18	101.04	105.70
36	1	1441	G	N3-C4-C5	-5.18	126.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	417	A	N1-C6-N6	-5.18	115.49	118.60
36	5	934	G	C8-N9-C1'	-5.18	120.27	127.00
36	5	1794	G	N9-C4-C5	-5.18	103.33	105.40
36	5	2366	C	C2-N3-C4	5.18	122.49	119.90
36	5	2584	G	OP2-P-O3'	5.18	116.59	105.20
1	2	795	U	C4-C5-C6	5.18	122.81	119.70
1	6	1779	U	N1-C2-O2	5.18	126.42	122.80
36	5	939	U	C2-N3-C4	-5.18	123.89	127.00
36	1	184	U	N3-C2-O2	-5.18	118.58	122.20
36	1	889	U	N3-C2-O2	-5.18	118.58	122.20
36	1	1330	A	C4-C5-N7	5.18	113.29	110.70
36	1	2618	G	N3-C2-N2	5.18	123.52	119.90
36	1	2939	G	OP2-P-O3'	5.18	116.59	105.20
36	5	884	A	N3-C4-C5	5.18	130.42	126.80
36	5	1130	A	N1-C6-N6	-5.18	115.49	118.60
36	5	1434	G	C2-N3-C4	5.18	114.49	111.90
37	7	102	A	N1-C6-N6	5.18	121.70	118.60
1	2	602	U	O5'-P-OP1	-5.17	101.04	105.70
1	2	782	U	P-O3'-C3'	5.17	125.91	119.70
1	2	1014	G	N9-C4-C5	5.17	107.47	105.40
1	2	1462	G	N1-C6-O6	5.17	123.00	119.90
36	1	201	A	O5'-P-OP1	5.17	116.91	110.70
36	1	958	C	C5-C6-N1	-5.17	118.41	121.00
36	1	964	G	C2-N3-C4	5.17	114.49	111.90
36	1	2400	G	C6-N1-C2	-5.17	122.00	125.10
36	1	2412	G	N3-C4-C5	-5.17	126.01	128.60
1	6	455	C	N1-C2-O2	-5.17	115.80	118.90
1	6	1737	G	N1-C6-O6	5.17	123.00	119.90
36	5	58	G	O5'-P-OP1	5.17	116.91	110.70
36	5	2725	U	OP1-P-OP2	-5.17	111.84	119.60
4	s2	113	LEU	CA-CB-CG	5.17	127.20	115.30
36	5	3298	C	C4-C5-C6	5.17	119.99	117.40
38	8	113	U	C2-N3-C4	5.17	130.10	127.00
36	1	2216	G	O5'-P-OP2	5.17	116.91	110.70
36	1	2874	G	N3-C4-N9	-5.17	122.90	126.00
1	6	280	U	C2-N1-C1'	5.17	123.91	117.70
36	5	1476	G	N7-C8-N9	-5.17	110.51	113.10
36	5	2994	A	C4-C5-C6	5.17	119.59	117.00
36	1	1520	G	C5-N7-C8	5.17	106.89	104.30
1	6	416	A	C5-N7-C8	-5.17	101.31	103.90
36	5	345	G	C5-C6-O6	-5.17	125.50	128.60
36	5	1115	G	N7-C8-N9	5.17	115.69	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2145	A	C6-N1-C2	-5.17	115.50	118.60
36	1	635	G	C5-C6-N1	5.17	114.08	111.50
36	1	2860	U	N3-C2-O2	5.17	125.82	122.20
36	5	99	A	N1-C6-N6	5.17	121.70	118.60
36	5	2340	U	C4-C5-C6	-5.17	116.60	119.70
36	1	582	G	N3-C4-N9	-5.17	122.90	126.00
36	1	765	C	C6-N1-C2	-5.17	118.23	120.30
36	1	2606	G	OP2-P-O3'	5.17	116.57	105.20
36	5	2113	A	O4'-C1'-N9	-5.17	104.07	108.20
1	2	1164	G	C5-C6-O6	-5.17	125.50	128.60
36	1	2385	G	C8-N9-C4	5.17	108.47	106.40
36	1	2614	G	N7-C8-N9	-5.17	110.52	113.10
36	5	3098	G	OP2-P-O3'	5.17	116.56	105.20
44	17	221	LYS	N-CA-C	-5.17	97.05	111.00
1	2	187	G	P-O3'-C3'	5.16	125.90	119.70
36	1	405	U	C6-N1-C2	5.16	124.10	121.00
36	1	896	A	O4'-C1'-N9	5.16	112.33	108.20
36	1	2761	G	C5-C6-N1	-5.16	108.92	111.50
36	1	3013	U	O5'-P-OP2	-5.16	101.05	105.70
36	5	1879	A	O5'-P-OP2	-5.16	101.05	105.70
36	5	3319	U	O4'-C1'-N1	5.16	112.33	108.20
1	2	1092	A	N9-C4-C5	-5.16	103.73	105.80
36	5	714	G	N1-C6-O6	5.16	123.00	119.90
36	1	197	G	C5-C6-O6	-5.16	125.50	128.60
36	1	980	A	C8-N9-C4	-5.16	103.73	105.80
1	6	144	U	O4'-C1'-N1	5.16	112.33	108.20
36	5	775	A	C8-N9-C4	-5.16	103.74	105.80
36	5	1362	G	OP2-P-O3'	5.16	116.55	105.20
38	8	116	G	C6-C5-N7	-5.16	127.30	130.40
41	14	134	LEU	CA-CB-CG	5.16	127.17	115.30
36	1	124	U	N3-C2-O2	-5.16	118.59	122.20
36	1	1142	G	C5-C6-N1	5.16	114.08	111.50
1	6	358	U	OP1-P-OP2	5.16	127.34	119.60
36	5	1591	G	C8-N9-C4	-5.16	104.34	106.40
1	6	1656	U	O5'-P-OP1	5.16	116.89	110.70
36	5	393	U	C6-N1-C2	-5.16	117.91	121.00
36	5	2186	U	N1-C2-O2	5.16	126.41	122.80
36	5	2351	U	C6-N1-C2	-5.16	117.91	121.00
1	2	301	A	OP2-P-O3'	5.16	116.54	105.20
36	1	2302	G	N1-C6-O6	-5.16	116.81	119.90
36	1	2974	U	O5'-P-OP1	-5.16	101.06	105.70
36	1	3214	U	C5-C4-O4	5.16	128.99	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	17	C	C5-C6-N1	5.16	123.58	121.00
36	5	289	A	C5-C6-N6	-5.16	119.58	123.70
36	5	895	A	N7-C8-N9	-5.16	111.22	113.80
36	5	1410	U	O5'-P-OP2	-5.16	101.06	105.70
37	7	41	G	C5-C6-O6	-5.16	125.51	128.60
1	2	499	U	C3'-C2'-C1'	5.15	105.62	101.50
36	1	1054	A	N1-C2-N3	-5.15	126.72	129.30
36	5	2848	G	C8-N9-C1'	-5.15	120.30	127.00
1	2	969	C	C6-N1-C2	5.15	122.36	120.30
18	C6	40	GLU	C-N-CA	5.15	143.64	122.00
36	1	158	G	N3-C2-N2	-5.15	116.29	119.90
36	1	714	G	N1-C6-O6	5.15	122.99	119.90
36	1	817	A	N9-C1'-C2'	5.15	120.70	114.00
36	1	932	U	N1-C2-O2	-5.15	119.19	122.80
36	1	1056	U	C5-C6-N1	5.15	125.28	122.70
36	1	2335	G	C5-C6-N1	5.15	114.08	111.50
36	1	2789	U	C6-N1-C2	-5.15	117.91	121.00
36	1	2983	C	N3-C2-O2	-5.15	118.29	121.90
36	1	3022	G	O4'-C1'-N9	5.15	112.32	108.20
36	5	399	A	N1-C2-N3	-5.15	126.72	129.30
36	5	3078	U	N1-C1'-C2'	-5.15	106.33	112.00
36	1	1359	C	N1-C2-O2	-5.15	115.81	118.90
36	1	1359	C	C5-C4-N4	-5.15	116.59	120.20
36	1	2144	A	C5-C6-N1	5.15	120.28	117.70
1	6	965	U	C6-N1-C1'	-5.15	113.99	121.20
1	6	1584	G	OP1-P-O3'	5.15	116.53	105.20
36	5	389	A	N1-C6-N6	-5.15	115.51	118.60
36	5	1875	G	C5-C6-O6	5.15	131.69	128.60
37	7	26	C	C4-C5-C6	5.15	119.97	117.40
1	2	499	U	P-O3'-C3'	5.15	125.88	119.70
36	1	95	A	N1-C2-N3	5.15	131.88	129.30
36	1	1177	G	C5-C6-O6	-5.15	125.51	128.60
38	4	93	U	C2-N1-C1'	5.15	123.88	117.70
1	6	1472	C	N1-C2-O2	-5.15	115.81	118.90
36	5	267	G	O4'-C1'-N9	-5.15	104.08	108.20
36	5	407	A	N9-C4-C5	-5.15	103.74	105.80
36	1	426	G	C8-N9-C1'	-5.15	120.31	127.00
36	1	1445	U	C2-N1-C1'	-5.15	111.52	117.70
36	5	516	A	O5'-P-OP2	-5.15	101.07	105.70
36	5	581	U	C6-N1-C2	-5.15	117.91	121.00
36	5	590	G	C2-N3-C4	5.15	114.47	111.90
36	5	2997	G	N3-C4-C5	5.15	131.17	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1505	C	N3-C4-C5	-5.15	119.84	121.90
37	7	57	G	C5-C6-O6	5.15	131.69	128.60
36	1	756	U	OP2-P-O3'	5.14	116.52	105.20
36	1	1183	C	N3-C2-O2	5.14	125.50	121.90
36	1	2596	U	C5-C4-O4	-5.14	122.81	125.90
36	1	2899	C	C4-C5-C6	5.14	119.97	117.40
36	5	1158	A	N1-C6-N6	5.14	121.69	118.60
36	5	2699	G	C2-N3-C4	5.14	114.47	111.90
36	5	3037	U	N1-C2-N3	5.14	117.99	114.90
1	2	1339	C	C3'-C2'-C1'	5.14	105.61	101.50
36	1	217	U	OP1-P-OP2	5.14	127.31	119.60
36	1	1269	U	N1-C2-O2	5.14	126.40	122.80
36	1	1466	G	N3-C2-N2	5.14	123.50	119.90
36	1	2293	C	N3-C4-N4	5.14	121.60	118.00
1	6	1607	G	C5-C6-O6	5.14	131.69	128.60
36	5	1352	A	P-O3'-C3'	5.14	125.87	119.70
36	5	2112	U	P-O3'-C3'	5.14	125.87	119.70
36	5	2277	C	O5'-P-OP2	-5.14	101.07	105.70
36	1	3107	U	O5'-P-OP2	-5.14	101.07	105.70
36	5	1200	A	N1-C6-N6	5.14	121.69	118.60
36	1	805	G	N3-C4-N9	5.14	129.08	126.00
37	3	58	C	C6-N1-C2	-5.14	118.25	120.30
1	6	457	G	C4-C5-N7	5.14	112.86	110.80
36	5	893	C	N3-C4-C5	-5.14	119.84	121.90
36	5	2796	G	C8-N9-C1'	-5.14	120.32	127.00
36	5	3387	U	N3-C2-O2	-5.14	118.60	122.20
1	2	1200	G	C4-C5-C6	5.14	121.88	118.80
36	1	628	A	N1-C6-N6	5.14	121.68	118.60
36	1	807	A	N1-C6-N6	5.14	121.68	118.60
36	1	1421	G	C5-C6-N1	5.14	114.07	111.50
1	6	1145	U	N1-C2-O2	-5.14	119.20	122.80
36	5	644	G	C5-N7-C8	5.14	106.87	104.30
36	5	2174	G	C6-C5-N7	-5.14	127.32	130.40
47	m0	57	LEU	CA-CB-CG	5.14	127.12	115.30
36	1	608	A	N9-C4-C5	-5.14	103.75	105.80
36	1	878	G	C5-C6-O6	5.14	131.68	128.60
36	1	1661	G	N9-C4-C5	-5.14	103.35	105.40
36	1	2350	C	N1-C2-N3	5.14	122.80	119.20
36	1	2408	U	C2-N1-C1'	5.14	123.86	117.70
1	6	418	G	C6-C5-N7	-5.14	127.32	130.40
36	5	2117	A	C5-C6-N6	5.14	127.81	123.70
36	5	2401	A	O5'-P-OP1	-5.14	101.08	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	694	U	C2-N1-C1'	5.13	123.86	117.70
36	1	1197	A	C4-C5-C6	5.13	119.57	117.00
39	L2	123	ARG	NE-CZ-NH1	-5.13	117.73	120.30
53	M7	19	GLY	N-CA-C	-5.13	100.26	113.10
36	5	960	U	OP1-P-O3'	-5.13	93.90	105.20
36	5	1926	C	C6-N1-C2	5.13	122.35	120.30
36	5	2377	G	N3-C2-N2	5.13	123.49	119.90
36	1	1556	C	C6-N1-C1'	-5.13	114.64	120.80
36	1	2144	A	N1-C6-N6	5.13	121.68	118.60
36	1	2400	G	N1-C6-O6	5.13	122.98	119.90
36	1	2726	C	C2-N3-C4	-5.13	117.33	119.90
36	1	3306	U	O5'-P-OP2	-5.13	101.08	105.70
37	3	82	G	N3-C4-N9	5.13	129.08	126.00
1	6	380	U	N3-C2-O2	-5.13	118.61	122.20
1	6	1624	C	O5'-P-OP1	-5.13	101.08	105.70
36	5	1099	A	N1-C6-N6	5.13	121.68	118.60
36	5	2654	C	N3-C2-O2	5.13	125.49	121.90
37	7	49	G	O4'-C1'-N9	5.13	112.31	108.20
36	1	215	G	N3-C4-C5	-5.13	126.03	128.60
1	6	970	A	P-O3'-C3'	5.13	125.86	119.70
36	1	2192	C	C4-C5-C6	5.13	119.96	117.40
36	1	3267	A	N1-C6-N6	-5.13	115.52	118.60
36	5	280	U	C5-C4-O4	-5.13	122.82	125.90
36	5	1541	G	N9-C4-C5	-5.13	103.35	105.40
37	7	8	G	N3-C4-C5	-5.13	126.04	128.60
38	8	104	A	N9-C4-C5	-5.13	103.75	105.80
36	1	351	A	C8-N9-C4	5.13	107.85	105.80
36	1	356	C	C6-N1-C2	5.13	122.35	120.30
36	1	545	U	C2-N1-C1'	5.13	123.85	117.70
36	1	1000	C	O4'-C1'-N1	5.13	112.30	108.20
36	1	2572	C	C6-N1-C2	-5.13	118.25	120.30
36	1	2772	C	O3'-P-O5'	5.13	113.74	104.00
1	6	1043	A	O5'-P-OP2	-5.13	101.09	105.70
1	2	1479	A	N1-C6-N6	5.12	121.67	118.60
36	1	425	G	C8-N9-C4	-5.12	104.35	106.40
1	6	664	U	C2-N1-C1'	5.12	123.85	117.70
1	2	1314	U	N1-C2-N3	5.12	117.97	114.90
36	1	1122	U	N3-C4-C5	5.12	117.67	114.60
36	1	2402	A	N9-C4-C5	5.12	107.85	105.80
1	6	265	A	N1-C6-N6	5.12	121.67	118.60
1	6	794	U	OP2-P-O3'	5.12	116.47	105.20
36	5	2857	C	C5-C6-N1	-5.12	118.44	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	58	G	N1-C6-O6	5.12	122.97	119.90
36	5	358	G	N1-C6-O6	5.12	122.97	119.90
36	5	1166	G	C5-C6-O6	5.12	131.67	128.60
36	5	1364	C	OP2-P-O3'	5.12	116.47	105.20
36	5	2712	U	C5-C4-O4	5.12	128.97	125.90
36	5	2838	A	C5-C6-N6	-5.12	119.60	123.70
36	1	663	C	N3-C4-N4	5.12	121.58	118.00
36	1	1659	U	C6-N1-C2	-5.12	117.93	121.00
36	1	1414	G	OP1-P-O3'	5.12	116.46	105.20
36	1	2396	G	C5-N7-C8	5.12	106.86	104.30
38	4	73	U	C4-C5-C6	-5.12	116.63	119.70
1	6	339	C	OP2-P-O3'	5.12	116.46	105.20
1	6	1137	A	C8-N9-C4	5.12	107.85	105.80
36	5	1338	C	N3-C2-O2	5.12	125.48	121.90
36	5	1390	A	C4-C5-N7	-5.12	108.14	110.70
36	5	1487	G	C5-C6-O6	5.12	131.67	128.60
36	5	2849	C	N3-C4-C5	-5.12	119.85	121.90
37	7	39	C	C6-N1-C2	-5.12	118.25	120.30
1	2	144	U	N3-C2-O2	-5.12	118.62	122.20
1	2	937	C	C6-N1-C2	-5.12	118.25	120.30
36	1	2714	G	C4-N9-C1'	-5.12	119.85	126.50
37	3	88	G	N3-C4-N9	5.12	129.07	126.00
36	1	3006	A	O5'-P-OP1	-5.12	101.09	105.70
36	5	1110	U	N3-C2-O2	-5.12	118.62	122.20
1	2	305	C	C6-N1-C2	-5.11	118.25	120.30
1	2	1096	C	C6-N1-C1'	-5.11	114.66	120.80
24	D2	93	LEU	CA-CB-CG	5.11	127.06	115.30
36	1	2409	G	C5-C6-O6	5.11	131.67	128.60
1	6	1000	C	N3-C2-O2	-5.11	118.32	121.90
36	5	645	A	N1-C2-N3	5.11	131.86	129.30
36	5	897	U	N1-C2-N3	5.11	117.97	114.90
36	5	1422	G	N7-C8-N9	5.11	115.66	113.10
36	5	2113	A	C8-N9-C4	5.11	107.84	105.80
36	5	2978	U	OP2-P-O3'	5.11	116.45	105.20
36	1	371	G	O5'-P-OP2	-5.11	101.10	105.70
36	1	1480	G	O5'-P-OP2	-5.11	101.10	105.70
37	3	39	C	OP1-P-OP2	5.11	127.27	119.60
36	5	1307	G	OP1-P-OP2	5.11	127.27	119.60
36	5	1321	G	C5-C6-N1	-5.11	108.94	111.50
36	5	2817	A	C2-N3-C4	5.11	113.16	110.60
36	5	2956	A	N7-C8-N9	5.11	116.36	113.80
36	5	3127	A	C5-C6-N1	5.11	120.26	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1650	U	C5-C6-N1	-5.11	120.14	122.70
36	1	97	U	OP2-P-O3'	5.11	116.44	105.20
36	1	158	G	N1-C6-O6	5.11	122.97	119.90
36	1	1586	G	O5'-P-OP2	-5.11	101.10	105.70
36	5	672	A	N9-C4-C5	-5.11	103.76	105.80
36	5	1202	A	O5'-P-OP1	-5.11	101.10	105.70
36	5	2619	G	C5-C6-O6	-5.11	125.53	128.60
36	1	933	A	N3-C4-C5	-5.11	123.22	126.80
41	L4	186	LYS	CD-CE-NZ	5.11	123.45	111.70
36	1	767	U	O4'-C1'-N1	5.11	112.29	108.20
36	1	799	G	OP1-P-O3'	5.11	116.44	105.20
44	L7	216	VAL	N-CA-C	5.11	124.79	111.00
36	5	1678	G	N1-C6-O6	-5.11	116.83	119.90
36	1	652	G	O5'-P-OP2	-5.11	101.11	105.70
36	1	1378	U	C2-N1-C1'	5.11	123.83	117.70
36	1	2383	C	O5'-P-OP1	-5.11	101.11	105.70
36	5	205	C	N3-C4-N4	-5.11	114.43	118.00
36	5	1476	G	C4-N9-C1'	-5.11	119.86	126.50
36	5	1868	G	N9-C4-C5	-5.11	103.36	105.40
36	5	2941	A	C8-N9-C4	5.11	107.84	105.80
36	5	2971	A	C4-C5-N7	5.11	113.25	110.70
36	5	2978	U	P-O3'-C3'	5.11	125.83	119.70
36	5	3051	U	N3-C2-O2	-5.11	118.63	122.20
36	5	3374	U	N3-C4-O4	-5.11	115.83	119.40
36	1	341	G	C5-C6-N1	5.10	114.05	111.50
36	5	1476	G	N3-C4-N9	-5.10	122.94	126.00
38	8	80	A	N3-C4-C5	-5.10	123.23	126.80
36	1	340	C	N3-C4-C5	5.10	123.94	121.90
36	1	2957	G	N9-C4-C5	5.10	107.44	105.40
1	6	2	A	O5'-P-OP1	5.10	116.82	110.70
36	5	1119	C	N3-C4-C5	5.10	123.94	121.90
36	5	2130	G	O5'-P-OP2	-5.10	101.11	105.70
36	1	608	A	N3-C4-N9	5.10	131.48	127.40
41	L4	194	TYR	CA-CB-CG	5.10	123.09	113.40
36	5	642	U	C5-C6-N1	-5.10	120.15	122.70
36	5	999	G	C5-C6-O6	5.10	131.66	128.60
36	5	2389	C	C5-C6-N1	-5.10	118.45	121.00
1	2	590	C	C2-N1-C1'	5.10	124.41	118.80
36	1	1127	G	C6-C5-N7	-5.10	127.34	130.40
36	1	1332	A	OP2-P-O3'	5.10	116.41	105.20
36	1	1436	U	OP1-P-OP2	-5.10	111.95	119.60
36	1	2984	C	N3-C4-N4	-5.10	114.43	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1300	G	C5-C6-O6	-5.10	125.54	128.60
37	7	67	G	N3-C2-N2	-5.10	116.33	119.90
36	1	675	C	N3-C2-O2	5.10	125.47	121.90
36	1	1389	G	C5-N7-C8	-5.10	101.75	104.30
36	5	3153	U	N1-C2-O2	5.10	126.37	122.80
36	1	828	A	C4-C5-C6	5.09	119.55	117.00
36	1	1317	A	N1-C2-N3	-5.09	126.75	129.30
36	1	2875	U	C6-N1-C1'	-5.09	114.07	121.20
36	1	3154	C	C2-N1-C1'	5.09	124.40	118.80
1	6	1136	U	C5-C6-N1	5.09	125.25	122.70
1	6	1588	G	N1-C6-O6	-5.09	116.84	119.90
36	5	810	A	C2-N3-C4	5.09	113.15	110.60
36	5	1387	G	OP1-P-OP2	5.09	127.24	119.60
36	1	943	U	N3-C2-O2	-5.09	118.64	122.20
36	1	999	G	C5-C6-N1	5.09	114.05	111.50
36	1	1153	A	N1-C6-N6	5.09	121.66	118.60
36	1	2679	A	C2-N3-C4	-5.09	108.05	110.60
36	5	1434	G	C5-N7-C8	-5.09	101.75	104.30
36	5	2215	A	C2-N3-C4	-5.09	108.05	110.60
36	5	2353	G	N3-C2-N2	-5.09	116.33	119.90
36	1	363	G	C6-C5-N7	-5.09	127.34	130.40
36	1	633	C	C4-C5-C6	5.09	119.94	117.40
36	1	930	U	N3-C4-O4	-5.09	115.83	119.40
36	1	2867	C	C6-N1-C2	5.09	122.34	120.30
1	6	1615	C	C3'-C2'-C1'	5.09	105.57	101.50
36	5	641	C	OP1-P-OP2	5.09	127.24	119.60
36	5	1455	U	OP1-P-O3'	5.09	116.40	105.20
36	5	1607	U	C6-N1-C2	-5.09	117.95	121.00
36	5	2116	G	C6-C5-N7	-5.09	127.34	130.40
36	5	2633	U	OP1-P-O3'	5.09	116.40	105.20
1	2	335	U	N1-C2-O2	-5.09	119.24	122.80
24	D2	104	LEU	CA-CB-CG	5.09	127.01	115.30
36	1	2238	G	O5'-P-OP2	5.09	116.81	110.70
36	1	2885	C	C6-N1-C2	5.09	122.33	120.30
1	6	418	G	N1-C6-O6	5.09	122.95	119.90
36	5	424	G	N9-C4-C5	-5.09	103.36	105.40
36	5	909	G	N1-C6-O6	-5.09	116.85	119.90
36	5	1445	U	N1-C2-O2	-5.09	119.24	122.80
36	5	2645	G	N1-C6-O6	-5.09	116.85	119.90
36	5	2783	U	O5'-P-OP1	5.09	116.81	110.70
36	1	2373	A	O5'-P-OP1	-5.09	101.12	105.70
36	5	1004	U	N3-C2-O2	-5.09	118.64	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1305	U	C5-C4-O4	5.09	128.95	125.90
1	2	1781	A	C5-C6-N6	5.09	127.77	123.70
36	5	2606	G	C5-C6-O6	5.09	131.65	128.60
36	5	3272	C	C5-C6-N1	-5.09	118.46	121.00
37	7	48	U	C5-C4-O4	-5.09	122.85	125.90
36	1	92	G	C4-C5-N7	5.08	112.83	110.80
36	1	948	C	O5'-P-OP1	5.08	116.80	110.70
36	1	2699	G	C5-C6-O6	-5.08	125.55	128.60
38	4	4	C	C6-N1-C1'	-5.08	114.70	120.80
36	5	2215	A	C8-N9-C4	5.08	107.83	105.80
37	7	120	C	C5-C6-N1	-5.08	118.46	121.00
36	1	1834	U	N3-C4-C5	-5.08	111.55	114.60
36	5	2531	C	C6-N1-C2	-5.08	118.27	120.30
36	5	2817	A	OP2-P-O3'	5.08	116.39	105.20
36	5	3113	A	C5-N7-C8	5.08	106.44	103.90
36	1	810	A	OP1-P-OP2	-5.08	111.98	119.60
36	1	1103	A	N3-C4-N9	5.08	131.47	127.40
36	1	1822	C	C6-N1-C2	-5.08	118.27	120.30
36	1	2424	A	N1-C2-N3	-5.08	126.76	129.30
36	1	2828	G	N3-C4-N9	5.08	129.05	126.00
36	5	264	G	C4-C5-N7	5.08	112.83	110.80
36	5	2372	A	N7-C8-N9	5.08	116.34	113.80
37	7	99	G	N3-C2-N2	5.08	123.46	119.90
36	1	1144	U	N1-C2-N3	5.08	117.95	114.90
36	5	2608	G	N3-C2-N2	5.08	123.46	119.90
36	5	2796	G	C6-C5-N7	-5.08	127.35	130.40
36	1	1307	G	C5'-C4'-O4'	-5.08	103.01	109.10
36	1	2314	U	O5'-P-OP2	-5.08	101.13	105.70
36	1	3055	U	C6-N1-C2	5.08	124.05	121.00
38	4	93	U	N3-C4-O4	5.08	122.95	119.40
36	5	945	C	N1-C2-O2	5.08	121.95	118.90
36	5	412	G	C8-N9-C4	-5.08	104.37	106.40
36	5	948	C	N3-C4-N4	5.08	121.55	118.00
36	1	42	C	C6-N1-C2	-5.08	118.27	120.30
36	1	2632	G	N3-C2-N2	5.08	123.45	119.90
36	1	2923	U	C6-N1-C2	5.08	124.05	121.00
38	4	4	C	C2-N1-C1'	5.08	124.38	118.80
56	N0	14	LEU	CB-CG-CD1	-5.08	102.37	111.00
71	O5	36	LEU	CA-CB-CG	5.08	126.97	115.30
36	5	840	C	O5'-P-OP2	-5.08	101.13	105.70
36	1	1195	A	O5'-P-OP1	-5.07	101.13	105.70
36	1	2865	U	N3-C2-O2	5.07	125.75	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2944	U	C5-C6-N1	5.07	125.24	122.70
36	1	2964	G	O5'-P-OP2	-5.07	101.13	105.70
36	5	192	C	N3-C4-C5	-5.07	119.87	121.90
36	5	880	G	C8-N9-C1'	5.07	133.59	127.00
36	5	1667	A	N1-C6-N6	5.07	121.64	118.60
36	5	1846	C	C5-C6-N1	-5.07	118.46	121.00
36	5	2656	A	C5-C6-N6	5.07	127.76	123.70
37	7	83	U	N3-C4-C5	5.07	117.64	114.60
1	2	70	C	C6-N1-C2	5.07	122.33	120.30
36	1	969	C	C2-N3-C4	-5.07	117.36	119.90
36	1	1336	U	OP1-P-OP2	-5.07	111.99	119.60
36	1	1893	A	C8-N9-C4	-5.07	103.77	105.80
36	5	530	G	O4'-C1'-N9	5.07	112.26	108.20
36	5	824	C	N3-C2-O2	-5.07	118.35	121.90
1	2	1596	C	N1-C2-O2	5.07	121.94	118.90
36	1	1332	A	N7-C8-N9	5.07	116.34	113.80
36	1	1344	G	N9-C4-C5	-5.07	103.37	105.40
36	1	1371	G	OP2-P-O3'	5.07	116.36	105.20
1	6	1615	C	N1-C1'-C2'	-5.07	106.42	112.00
36	5	1041	U	O5'-P-OP2	-5.07	101.14	105.70
36	5	1838	G	OP1-P-O3'	5.07	116.36	105.20
36	5	1894	U	C2-N1-C1'	-5.07	111.61	117.70
36	5	3128	G	N3-C4-N9	5.07	129.04	126.00
36	1	2643	A	N9-C4-C5	-5.07	103.77	105.80
1	6	1667	A	OP1-P-OP2	-5.07	112.00	119.60
36	5	1314	C	C6-N1-C1'	-5.07	114.72	120.80
36	5	2145	A	C8-N9-C4	-5.07	103.77	105.80
36	5	2951	G	OP1-P-O3'	5.07	116.35	105.20
36	1	28	C	C4-C5-C6	-5.07	114.87	117.40
36	1	782	U	N3-C4-C5	5.07	117.64	114.60
36	1	816	A	O5'-P-OP2	-5.07	101.14	105.70
36	1	1683	A	C5-C6-N6	-5.07	119.65	123.70
36	1	2400	G	N1-C2-N2	5.07	120.76	116.20
36	1	2611	U	N3-C4-C5	5.07	117.64	114.60
1	6	911	U	C6-N1-C2	-5.07	117.96	121.00
1	6	1117	U	N3-C4-C5	-5.07	111.56	114.60
36	5	2376	G	N7-C8-N9	5.07	115.63	113.10
36	5	2856	G	OP1-P-O3'	5.07	116.35	105.20
1	2	187	G	OP1-P-O3'	5.07	116.35	105.20
36	1	69	C	N3-C4-C5	-5.07	119.87	121.90
36	1	666	A	C4-C5-C6	-5.07	114.47	117.00
36	1	1515	A	C6-C5-N7	-5.07	128.75	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	96	G	OP2-P-O3'	5.07	116.34	105.20
36	5	1436	U	C5-C4-O4	-5.07	122.86	125.90
36	5	2926	A	C8-N9-C4	-5.07	103.77	105.80
36	1	2408	U	N1-C2-O2	5.06	126.34	122.80
36	1	3316	A	C2-N3-C4	-5.06	108.07	110.60
1	6	418	G	C4-C5-N7	5.06	112.83	110.80
36	5	406	G	C5-C6-N1	5.06	114.03	111.50
36	5	803	C	N3-C4-N4	5.06	121.55	118.00
36	5	2135	U	N1-C2-N3	-5.06	111.86	114.90
36	5	2620	G	N9-C4-C5	5.06	107.43	105.40
36	5	1430	U	N1-C2-N3	-5.06	111.86	114.90
36	5	2310	U	N3-C2-O2	-5.06	118.66	122.20
36	1	718	G	N7-C8-N9	5.06	115.63	113.10
36	1	3382	U	N3-C2-O2	-5.06	118.66	122.20
36	5	2794	G	N1-C6-O6	5.06	122.94	119.90
1	2	404	G	C8-N9-C4	5.06	108.42	106.40
36	1	2126	A	N9-C4-C5	-5.06	103.78	105.80
36	1	2964	G	OP1-P-O3'	5.06	116.33	105.20
37	3	73	C	N1-C2-O2	5.06	121.94	118.90
36	5	648	C	O5'-P-OP1	-5.06	101.15	105.70
36	5	2394	G	OP1-P-O3'	5.06	116.33	105.20
36	1	907	G	O4'-C1'-N9	5.06	112.25	108.20
36	1	1304	A	N1-C6-N6	-5.06	115.57	118.60
36	1	1510	G	N3-C4-C5	-5.06	126.07	128.60
36	1	2120	A	O5'-P-OP2	-5.06	101.15	105.70
37	3	103	A	OP2-P-O3'	5.06	116.33	105.20
36	5	359	U	OP1-P-OP2	-5.06	112.01	119.60
36	5	884	A	C4-N9-C1'	-5.06	117.20	126.30
37	7	86	U	C2-N3-C4	-5.06	123.97	127.00
1	6	1600	A	C4-C5-N7	5.06	113.23	110.70
36	5	2433	U	N3-C4-C5	5.06	117.63	114.60
36	5	2725	U	N3-C4-C5	5.06	117.63	114.60
36	1	863	C	OP2-P-O3'	5.05	116.32	105.20
36	1	1135	A	O5'-P-OP2	-5.05	101.15	105.70
36	1	1496	C	N1-C2-O2	5.05	121.93	118.90
1	6	1549	C	C6-N1-C2	-5.05	118.28	120.30
36	5	35	A	N1-C6-N6	5.05	121.63	118.60
36	5	3245	A	C5-C6-N1	-5.05	115.17	117.70
36	1	2525	G	C4-C5-N7	5.05	112.82	110.80
36	1	3311	C	C6-N1-C2	5.05	122.32	120.30
36	5	2281	A	N1-C6-N6	5.05	121.63	118.60
36	5	2402	A	N3-C4-N9	-5.05	123.36	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2729	U	C5-C4-O4	5.05	128.93	125.90
1	2	1120	U	N3-C2-O2	-5.05	118.66	122.20
36	1	1901	A	N1-C6-N6	-5.05	115.57	118.60
36	1	2244	A	P-O3'-C3'	5.05	125.76	119.70
1	6	514	G	N3-C2-N2	5.05	123.44	119.90
36	5	217	U	C5-C6-N1	-5.05	120.17	122.70
36	5	431	U	N3-C4-C5	5.05	117.63	114.60
36	5	1072	G	OP1-P-O3'	5.05	116.31	105.20
36	5	1159	A	O5'-P-OP2	5.05	116.76	110.70
36	5	1416	C	N3-C2-O2	-5.05	118.36	121.90
36	5	2176	U	C2-N1-C1'	5.05	123.76	117.70
36	5	2860	U	C6-N1-C2	5.05	124.03	121.00
36	1	936	A	C5-N7-C8	-5.05	101.38	103.90
36	1	946	U	N1-C2-N3	5.05	117.93	114.90
36	1	2899	C	C6-N1-C1'	-5.05	114.74	120.80
36	5	835	G	C5-C6-N1	5.05	114.03	111.50
36	5	1919	G	N1-C6-O6	5.05	122.93	119.90
36	5	2796	G	C5-C6-O6	-5.05	125.57	128.60
36	5	2980	U	N3-C4-O4	-5.05	115.86	119.40
44	17	229	PHE	CB-CG-CD2	-5.05	117.27	120.80
36	1	933	A	C6-N1-C2	-5.05	115.57	118.60
36	1	1607	U	C6-N1-C2	-5.05	117.97	121.00
36	1	3172	A	N9-C4-C5	-5.05	103.78	105.80
36	5	1514	G	C5-C6-O6	-5.05	125.57	128.60
36	5	2719	U	N1-C2-N3	5.05	117.93	114.90
36	5	3048	A	O5'-P-OP2	-5.05	101.16	105.70
31	D9	36	LEU	CA-CB-CG	5.05	126.91	115.30
36	1	59	G	C6-C5-N7	-5.05	127.37	130.40
36	1	2123	G	N7-C8-N9	-5.05	110.58	113.10
36	1	3209	A	C5-N7-C8	-5.05	101.38	103.90
38	4	40	A	C4-N9-C1'	5.05	135.38	126.30
38	4	103	G	N7-C8-N9	5.05	115.62	113.10
1	6	600	U	O5'-P-OP2	-5.05	101.16	105.70
36	5	413	U	N3-C2-O2	5.05	125.73	122.20
36	5	419	G	N3-C2-N2	5.05	123.43	119.90
36	5	788	C	N1-C2-O2	-5.05	115.87	118.90
36	5	2350	C	O5'-P-OP1	5.05	116.75	110.70
36	5	3150	A	N1-C6-N6	5.05	121.63	118.60
36	5	2607	G	OP2-P-O3'	5.04	116.30	105.20
36	5	2917	G	N1-C6-O6	5.04	122.93	119.90
36	1	1508	C	C5-C6-N1	5.04	123.52	121.00
36	1	2215	A	C8-N9-C4	5.04	107.82	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2772	C	C3'-C2'-C1'	-5.04	97.47	101.50
1	6	977	A	N9-C4-C5	-5.04	103.78	105.80
1	6	1082	C	OP1-P-OP2	5.04	127.16	119.60
1	2	412	A	N1-C6-N6	5.04	121.62	118.60
36	1	1064	A	O4'-C1'-N9	-5.04	104.17	108.20
36	1	1081	U	C2-N1-C1'	5.04	123.75	117.70
37	3	86	U	OP1-P-O3'	5.04	116.29	105.20
36	5	1199	C	N3-C4-C5	-5.04	119.88	121.90
36	5	1304	A	N1-C6-N6	5.04	121.62	118.60
1	2	337	G	C4-C5-N7	5.04	112.82	110.80
38	4	116	G	C8-N9-C1'	-5.04	120.45	127.00
54	M8	138	LEU	CA-CB-CG	5.04	126.89	115.30
36	5	1898	G	O4'-C1'-N9	5.04	112.23	108.20
36	5	2618	G	N3-C4-N9	5.04	129.02	126.00
36	5	3144	G	C5-C6-O6	5.04	131.62	128.60
36	1	705	A	OP1-P-O3'	5.04	116.29	105.20
36	1	1315	U	N3-C2-O2	-5.04	118.67	122.20
36	1	1685	C	N3-C2-O2	-5.04	118.37	121.90
36	1	2351	U	O5'-P-OP2	5.04	116.75	110.70
65	N9	20	GLY	N-CA-C	5.04	125.70	113.10
36	5	425	G	N1-C6-O6	5.04	122.92	119.90
36	5	1336	U	OP2-P-O3'	5.04	116.28	105.20
36	5	1733	G	C6-C5-N7	-5.04	127.38	130.40
36	5	2400	G	O5'-P-OP2	-5.04	101.17	105.70
36	5	2992	U	N1-C2-O2	5.04	126.33	122.80
36	5	1082	U	N1-C2-O2	-5.04	119.27	122.80
1	2	501	U	P-O3'-C3'	5.04	125.74	119.70
36	1	873	C	C6-N1-C2	-5.04	118.29	120.30
36	1	1002	A	C4-C5-C6	-5.04	114.48	117.00
36	1	1115	G	P-O3'-C3'	5.04	125.74	119.70
36	1	2249	G	C5-C6-N1	5.04	114.02	111.50
36	1	2857	C	C5-C4-N4	-5.04	116.67	120.20
38	4	112	U	C2-N1-C1'	-5.04	111.66	117.70
38	4	125	U	C2-N1-C1'	5.04	123.74	117.70
1	6	472	U	N1-C2-N3	5.04	117.92	114.90
36	5	200	C	C5-C4-N4	-5.04	116.68	120.20
36	5	530	G	N9-C4-C5	5.04	107.41	105.40
36	5	1060	U	C6-N1-C2	5.04	124.02	121.00
36	5	1434	G	C5-C6-O6	-5.04	125.58	128.60
36	5	1912	U	N1-C2-O2	-5.04	119.28	122.80
36	5	2687	G	N3-C4-C5	-5.04	126.08	128.60
36	1	304	G	N9-C4-C5	5.03	107.41	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	304	G	C5-C6-N1	5.03	114.02	111.50
36	1	417	A	C5-C6-N6	-5.03	119.67	123.70
36	1	828	A	C6-C5-N7	-5.03	128.78	132.30
36	1	1213	G	C5'-C4'-O4'	-5.03	103.06	109.10
36	1	1392	G	N1-C2-N3	-5.03	120.88	123.90
38	4	111	A	N1-C6-N6	5.03	121.62	118.60
36	5	884	A	N3-C4-N9	-5.03	123.37	127.40
36	5	1586	G	C6-C5-N7	-5.03	127.38	130.40
36	5	3276	G	OP1-P-OP2	-5.03	112.05	119.60
36	1	1380	G	O5'-P-OP2	-5.03	101.17	105.70
36	1	665	A	N1-C6-N6	-5.03	115.58	118.60
36	5	1085	A	O5'-P-OP1	-5.03	101.17	105.70
36	5	1171	G	C6-N1-C2	-5.03	122.08	125.10
36	5	1183	C	N3-C4-C5	5.03	123.91	121.90
36	5	2204	C	N3-C4-N4	-5.03	114.48	118.00
36	5	3115	C	C6-N1-C2	-5.03	118.29	120.30
38	8	109	A	O5'-P-OP2	-5.03	101.17	105.70
36	5	2374	C	N3-C2-O2	5.03	125.42	121.90
1	2	53	G	N1-C6-O6	-5.03	116.88	119.90
1	2	305	C	N3-C2-O2	-5.03	118.38	121.90
36	1	681	U	C2-N3-C4	-5.03	123.98	127.00
36	1	1177	G	N1-C6-O6	5.03	122.92	119.90
36	1	1352	A	P-O3'-C3'	5.03	125.73	119.70
36	1	2176	U	N3-C4-O4	-5.03	115.88	119.40
36	5	673	U	C2-N3-C4	-5.03	123.98	127.00
36	5	749	C	N1-C2-O2	-5.03	115.88	118.90
36	5	779	G	OP2-P-O3'	5.03	116.26	105.20
36	5	981	U	C5-C6-N1	5.03	125.21	122.70
36	5	3314	A	OP2-P-O3'	5.03	116.26	105.20
1	2	794	U	N3-C2-O2	-5.03	118.68	122.20
1	2	1747	G	C2-N3-C4	-5.03	109.39	111.90
36	1	659	G	C5-C6-O6	-5.03	125.58	128.60
36	1	2123	G	C8-N9-C4	5.03	108.41	106.40
36	1	2311	G	C5-N7-C8	-5.03	101.79	104.30
1	6	1124	A	N9-C4-C5	-5.03	103.79	105.80
25	d3	104	LEU	CB-CG-CD1	-5.03	102.45	111.00
36	5	410	U	O5'-P-OP1	-5.03	101.18	105.70
36	5	1521	G	N1-C2-N2	-5.03	111.68	116.20
36	5	2319	U	OP1-P-O3'	5.03	116.26	105.20
36	5	2383	C	N3-C2-O2	5.03	125.42	121.90
38	8	109	A	C5-C6-N1	5.03	120.21	117.70
36	1	78	U	N1-C2-O2	-5.02	119.28	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	419	G	N3-C4-N9	5.02	129.01	126.00
36	1	1300	G	C8-N9-C1'	-5.02	120.47	127.00
36	1	1389	G	O5'-P-OP1	-5.02	101.18	105.70
36	1	2122	G	O5'-P-OP2	-5.02	101.18	105.70
1	6	622	A	N1-C6-N6	-5.02	115.58	118.60
36	5	361	A	C5-C6-N6	5.02	127.72	123.70
36	5	892	U	N3-C4-C5	5.02	117.61	114.60
36	5	1412	G	N3-C4-N9	-5.02	122.99	126.00
38	8	104	A	C8-N9-C4	5.02	107.81	105.80
52	m6	28	LEU	CA-CB-CG	-5.02	103.74	115.30
36	1	2621	G	OP1-P-OP2	-5.02	112.07	119.60
36	1	2714	G	C4-C5-N7	5.02	112.81	110.80
36	1	3316	A	N3-C4-C5	5.02	130.32	126.80
36	5	86	G	O5'-P-OP1	5.02	116.73	110.70
36	5	1830	G	O5'-P-OP2	-5.02	101.18	105.70
36	5	2279	A	C5-C6-N6	-5.02	119.68	123.70
1	2	1212	G	C4-C5-N7	5.02	112.81	110.80
36	1	2912	G	C5-C6-N1	5.02	114.01	111.50
1	6	1581	C	N3-C4-C5	5.02	123.91	121.90
36	5	133	U	N3-C2-O2	-5.02	118.69	122.20
36	5	2271	A	N1-C2-N3	-5.02	126.79	129.30
1	2	1324	G	C8-N9-C1'	5.02	133.53	127.00
36	1	922	U	C4-C5-C6	-5.02	116.69	119.70
36	1	1141	C	C4-C5-C6	5.02	119.91	117.40
1	6	297	U	C5-C4-O4	-5.02	122.89	125.90
36	5	497	C	OP2-P-O3'	5.02	116.24	105.20
1	2	310	C	C6-N1-C2	-5.02	118.29	120.30
36	1	1330	A	C8-N9-C4	5.02	107.81	105.80
36	1	2986	U	N1-C2-O2	-5.02	119.29	122.80
36	5	925	A	C8-N9-C4	5.02	107.81	105.80
36	5	3200	G	C5-C6-O6	-5.02	125.59	128.60
36	5	3368	U	C2-N1-C1'	-5.02	111.68	117.70
36	1	73	C	C6-N1-C2	5.02	122.31	120.30
36	1	636	C	O5'-P-OP2	5.02	116.72	110.70
36	5	617	G	N9-C4-C5	-5.02	103.39	105.40
36	5	1126	G	C8-N9-C4	-5.02	104.39	106.40
36	5	2913	C	N1-C2-O2	-5.02	115.89	118.90
36	5	3027	A	C5-C6-N6	-5.02	119.69	123.70
1	2	581	U	C5-C6-N1	5.01	125.21	122.70
36	1	1169	A	OP1-P-OP2	-5.01	112.08	119.60
36	1	2322	C	C2-N1-C1'	-5.01	113.28	118.80
36	1	3318	G	N3-C4-C5	-5.01	126.09	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	408	C	O5'-P-OP2	-5.01	101.19	105.70
36	5	674	G	N9-C4-C5	5.01	107.41	105.40
36	5	927	C	O5'-P-OP1	-5.01	101.19	105.70
36	5	1044	U	OP1-P-OP2	-5.01	112.08	119.60
36	5	2413	A	C2-N3-C4	-5.01	108.09	110.60
36	5	2875	U	C4-C5-C6	5.01	122.71	119.70
36	1	988	U	C6-N1-C2	5.01	124.01	121.00
36	1	1154	A	C8-N9-C4	-5.01	103.80	105.80
36	1	1880	U	N3-C2-O2	5.01	125.71	122.20
36	1	3055	U	C2-N3-C4	-5.01	123.99	127.00
36	5	1132	C	N3-C4-N4	-5.01	114.49	118.00
6	S4	38	LEU	CA-CB-CG	5.01	126.83	115.30
36	1	1446	A	N1-C6-N6	5.01	121.61	118.60
36	1	2373	A	C5'-C4'-O4'	-5.01	103.09	109.10
36	5	2805	G	C5-C6-O6	-5.01	125.59	128.60
36	5	2939	G	N1-C2-N2	5.01	120.71	116.20
36	1	295	A	N7-C8-N9	5.01	116.31	113.80
36	1	859	G	C8-N9-C1'	-5.01	120.49	127.00
36	5	180	C	N3-C2-O2	-5.01	118.39	121.90
36	5	909	G	C4-C5-N7	-5.01	108.80	110.80
36	5	2155	G	N1-C2-N3	-5.01	120.89	123.90
36	5	2724	U	C5-C4-O4	5.01	128.91	125.90
36	5	2974	U	OP1-P-O3'	5.01	116.22	105.20
36	5	3131	U	O5'-P-OP1	-5.01	101.19	105.70
36	1	1476	G	N1-C6-O6	-5.01	116.89	119.90
36	1	1870	C	N3-C4-C5	5.01	123.90	121.90
37	3	89	G	C5-N7-C8	5.01	106.80	104.30
36	5	216	G	C6-C5-N7	-5.01	127.39	130.40
36	5	2728	G	O4'-C1'-N9	5.01	112.21	108.20
36	1	608	A	C4-C5-C6	5.01	119.50	117.00
36	1	2714	G	C8-N9-C1'	5.01	133.51	127.00
78	Q2	71	ARG	NE-CZ-NH1	5.01	122.80	120.30
1	6	163	G	C4-N9-C1'	-5.01	119.99	126.50
1	6	804	A	C8-N9-C4	5.01	107.80	105.80
36	5	170	G	C4-N9-C1'	5.01	133.01	126.50
36	5	867	G	N9-C4-C5	-5.01	103.40	105.40
36	5	1393	A	C5-N7-C8	-5.01	101.40	103.90
36	5	1492	G	C4-C5-N7	5.01	112.80	110.80
36	5	1683	A	N1-C6-N6	5.01	121.60	118.60
36	5	3082	C	O5'-P-OP2	-5.01	101.19	105.70
36	5	3084	C	N3-C4-C5	5.01	123.90	121.90
36	1	333	G	N3-C4-N9	-5.00	123.00	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2177	G	C5-C6-N1	5.00	114.00	111.50
36	5	1130	A	C5-N7-C8	5.00	106.40	103.90
36	5	1816	A	P-O3'-C3'	5.00	125.71	119.70
36	5	2181	C	OP2-P-O3'	5.00	116.21	105.20
36	5	2973	G	C8-N9-C4	-5.00	104.40	106.40
56	n0	155	ARG	NE-CZ-NH2	5.00	122.80	120.30
1	2	427	C	N3-C2-O2	-5.00	118.40	121.90
36	1	2362	C	O5'-P-OP2	-5.00	101.20	105.70
36	1	2869	U	O5'-P-OP1	-5.00	101.20	105.70
36	1	2949	U	O5'-P-OP2	-5.00	101.20	105.70
37	3	33	U	N1-C2-O2	5.00	126.30	122.80
36	5	3094	A	C8-N9-C4	5.00	107.80	105.80
38	8	139	U	C5-C4-O4	5.00	128.90	125.90
1	2	872	G	N3-C4-N9	-5.00	123.00	126.00
36	1	1121	U	O5'-P-OP2	-5.00	101.20	105.70
36	1	3130	A	O5'-P-OP2	-5.00	101.20	105.70
1	6	1138	A	C2-N3-C4	-5.00	108.10	110.60
1	6	1459	C	O5'-P-OP2	-5.00	101.20	105.70
36	5	1919	G	C6-C5-N7	-5.00	127.40	130.40

There are no chirality outliers.

All (43) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	105	TYR	Peptide
43	L6	51	ARG	Peptide
45	L8	30	THR	Peptide
48	M1	64	LYS	Peptide
48	M1	8	PRO	Peptide
51	M5	182	ASN	Peptide
52	M6	110	PRO	Peptide
53	M7	8	SER	Peptide
56	N0	1	MET	Peptide
56	N0	22	PRO	Peptide
57	N1	16	GLN	Peptide

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Mol	Chain	Res	Type	Group
64	N8	15	VAL	Peptide
65	N9	19	ASN	Peptide
67	O1	5	LYS	Peptide
9	S7	131	PHE	Peptide
10	S8	147	ALA	Peptide
17	c5	52	LYS	Peptide
18	c6	41	PRO	Peptide
22	d0	70	THR	Peptide
39	l2	143	GLU	Peptide
42	l5	270	LYS	Peptide
42	l5	271	LYS	Peptide
43	l6	51	ARG	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
52	m6	110	PRO	Peptide
55	m9	56	THR	Peptide
56	n0	133	ALA	Peptide
56	n0	87	THR	Peptide
62	n6	111	LEU	Peptide
64	n8	26	ARG	Peptide
64	n8	66	ALA	Peptide
67	o1	64	VAL	Peptide
67	o1	90	PHE	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18757	928	0
1	6	38238	0	19240	830	0
2	S0	1577	0	1567	168	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	163	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	128	0
4	s2	1635	0	1723	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	S3	1734	0	1817	125	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	150	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	151	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	118	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	117	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	117	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	146	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	62	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	89	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	54	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	93	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	97	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	97	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	116	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	82	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	111	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	87	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	83	0
22	d0	882	0	939	0	0
23	D1	684	0	672	57	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	74	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	89	0
25	d3	1121	0	1196	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	D4	1073	0	1132	87	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	64	0
27	d5	558	0	598	0	0
28	D6	769	0	814	94	0
28	d6	769	0	814	0	0
29	D7	610	0	630	39	0
29	d7	610	0	631	0	0
30	D8	497	0	535	40	0
30	d8	497	0	535	0	0
31	D9	442	0	428	25	0
31	d9	442	0	428	0	0
32	E0	475	0	525	37	0
33	E1	566	0	601	58	0
33	e1	608	0	657	0	0
34	SR	2441	0	2397	155	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	74	0
36	1	67355	0	33845	1266	0
36	5	67376	0	33851	1268	0
37	3	2579	0	1304	51	0
37	7	2579	0	1303	52	0
38	4	3353	0	1695	77	0
38	8	3353	0	1695	71	0
39	L2	1914	0	1981	166	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	242	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	206	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	210	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	62	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	124	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	129	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	121	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	127	0
47	m0	1722	0	1755	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	M1	1353	0	1383	95	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	136	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	63	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	130	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	109	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	115	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	92	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	99	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	94	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	84	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	38	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	70	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	27	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	63	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	65	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	86	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1214	86	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	35	0
65	n9	462	0	491	0	0
66	O0	743	0	797	53	0
66	o0	767	0	816	0	0
67	O1	876	0	912	52	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	82	0
68	o2	1020	0	1090	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
69	O3	850	0	880	67	0
69	o3	850	0	880	0	0
70	O4	880	0	945	72	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	75	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	64	0
72	o6	770	0	846	0	0
73	O7	681	0	683	52	0
73	o7	681	0	683	0	0
74	O8	612	0	682	44	0
74	o8	608	0	671	0	0
75	O9	436	0	475	36	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	25	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	27	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	59	0
78	q2	847	0	916	0	0
79	Q3	694	0	734	58	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	sM	681	0	609	0	0
82	m2	750	0	179	0	0
83	p0	1077	0	1041	0	0
84	p1	235	0	50	0	0
85	p2	230	0	51	0	0
86	1	477	0	0	0	0
86	2	123	0	0	0	0
86	3	14	0	0	0	0
86	4	21	0	0	0	0
86	5	506	0	0	0	0
86	6	149	0	0	0	0
86	7	16	0	0	0	0
86	8	14	0	0	0	0
86	D0	1	0	0	0	0
86	D3	1	0	0	0	0
86	D4	1	0	0	0	0
86	L2	1	0	0	0	0
86	L3	2	0	0	0	0
86	L4	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	L5	2	0	0	0	0
86	L7	2	0	0	0	0
86	L8	1	0	0	0	0
86	M0	2	0	0	0	0
86	M1	1	0	0	0	0
86	M3	3	0	0	0	0
86	M5	1	0	0	0	0
86	M6	1	0	0	0	0
86	M7	6	0	0	0	0
86	M8	1	0	0	0	0
86	M9	1	0	0	0	0
86	N0	1	0	0	0	0
86	N3	3	0	0	0	0
86	N5	1	0	0	0	0
86	N8	3	0	0	0	0
86	O4	1	0	0	0	0
86	O7	1	0	0	0	0
86	O8	1	0	0	0	0
86	Q2	1	0	0	0	0
86	S2	1	0	0	0	0
86	S8	1	0	0	0	0
86	SM	1	0	0	0	0
86	c1	1	0	0	0	0
86	c7	1	0	0	0	0
86	d3	2	0	0	0	0
86	d4	1	0	0	0	0
86	l2	2	0	0	0	0
86	l3	2	0	0	0	0
86	l4	1	0	0	0	0
86	l5	2	0	0	0	0
86	l7	2	0	0	0	0
86	l9	1	0	0	0	0
86	m1	1	0	0	0	0
86	m5	3	0	0	0	0
86	m6	1	0	0	0	0
86	m7	5	0	0	0	0
86	n0	1	0	0	0	0
86	n3	2	0	0	0	0
86	n6	1	0	0	0	0
86	n8	5	0	0	0	0
86	o1	2	0	0	0	0
86	o3	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	o4	1	0	0	0	0
86	q0	1	0	0	0	0
86	q1	1	0	0	0	0
86	q3	1	0	0	0	0
86	s1	1	0	0	0	0
86	s4	1	0	0	0	0
86	s8	2	0	0	0	0
86	sM	2	0	0	0	0
87	1	2436	0	0	267	0
87	2	1106	0	0	125	0
87	3	84	0	0	5	0
87	4	91	0	0	6	0
87	5	2478	0	0	273	0
87	6	1106	0	0	114	0
87	7	77	0	0	6	0
87	8	112	0	0	16	0
87	C3	7	0	0	2	0
87	C5	7	0	0	4	0
87	C8	7	0	0	0	0
87	D3	7	0	0	0	0
87	D9	7	0	0	1	0
87	L3	21	0	0	3	0
87	L4	7	0	0	3	0
87	M0	7	0	0	0	0
87	M5	7	0	0	1	0
87	M6	7	0	0	0	0
87	M7	14	0	0	3	0
87	M8	7	0	0	0	0
87	M9	7	0	0	1	0
87	N1	7	0	0	0	0
87	N9	7	0	0	0	0
87	O2	7	0	0	1	0
87	O3	7	0	0	1	0
87	O7	14	0	0	7	0
87	O9	7	0	0	3	0
87	Q2	7	0	0	3	0
87	S8	7	0	0	0	0
87	SR	7	0	0	0	0
87	c1	7	0	0	0	0
87	c3	7	0	0	0	0
87	c5	7	0	0	0	0
87	c8	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	d4	7	0	0	0	0
87	d9	7	0	0	0	0
87	l3	14	0	0	0	0
87	l4	14	0	0	0	0
87	l5	21	0	0	0	0
87	l9	7	0	0	0	0
87	m0	14	0	0	0	0
87	m1	7	0	0	0	0
87	m4	7	0	0	0	0
87	m5	7	0	0	0	0
87	m6	7	0	0	0	0
87	m7	7	0	0	0	0
87	m8	7	0	0	0	0
87	m9	7	0	0	0	0
87	n3	7	0	0	0	0
87	n6	7	0	0	0	0
87	n9	7	0	0	0	0
87	o2	7	0	0	0	0
87	o3	7	0	0	0	0
87	o7	14	0	0	0	0
87	q2	7	0	0	0	0
87	s1	14	0	0	0	0
87	s4	7	0	0	0	0
87	s8	7	0	0	0	0
87	s9	7	0	0	0	0
87	sR	7	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	3	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
89	1	21	0	17	0	0
89	5	21	0	17	1	0
All	All	411211	0	297317	9909	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 14.

All (9909) 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	1.48
78:Q2:17:CYS:CB	88:Q2:501:ZN:ZN	1.11	1.28
36:1:1481:A:O2'	36:1:1858:A:N3	1.84	1.10
42:L5:152:ARG:HH11	42:L5:152:ARG:HG3	1.87	1.10
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.36	1.05
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.67	1.04
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.25	1.02
36:5:2273:G:O6	87:5:4200:OHX:N5	1.93	1.01
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.22	1.01
59:N3:81:GLN:O	59:N3:98:ASN:ND2	1.92	1.01
36:1:31:C:OP2	51:M5:188:ARG:NH2	1.94	1.00
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	1.94	1.00
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.82	0.99
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.45	0.98
36:5:3274:A:H3'	36:5:3275:U:H5''	1.42	0.98
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.96	0.98
1:6:755:A:HO2'	1:6:756:A:H8	1.07	0.98
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.46	0.98
55:M9:23:TRP:CH2	55:M9:25:ASP:HB3	2.00	0.97
36:1:3050:U:OP2	87:1:4186:OHX:N4	1.97	0.97
36:5:2818:U:H6	36:5:2818:U:H5'	1.30	0.95
1:6:1588:G:H1	1:6:1608:U:H3	1.14	0.95
36:5:343:U:OP2	87:5:3926:OHX:N3	1.98	0.95
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.00	0.94
36:5:2836:C:H5	36:5:2852:C:H42	1.07	0.93
87:1:4085:OHX:N1	72:O6:28:TYR:O	2.02	0.92
36:5:3194:C:O2	36:5:3197:G:N2	2.02	0.92
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.02	0.92
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.02	0.92
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.44	0.92
1:2:320:U:H3'	1:2:321:C:H5''	1.50	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:77:THR:HG22	47:M0:82:ARG:HA	2.49	0.91
38:4:79:A:H2'	38:4:80:A:H1'	1.52	0.91
36:1:13:A:OP2	87:1:4208:OHX:N5	2.03	0.90
78:Q2:17:CYS:SG	88:Q2:501:ZN:ZN	1.61	0.90
36:5:1239:C:H42	36:5:1249:G:H1	1.15	0.90
36:5:438:A:N1	36:5:621:A:N6	2.19	0.90
46:L9:49:ASN:O	46:L9:51:GLN:N	2.05	0.90
19:C7:8:THR:HG21	1:6:1330:G:H21	418.64	0.90
24:D2:70:ASN:ND2	24:D2:130:TYR:O	2.02	0.90
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.37	0.90
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.66	0.90
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.37	0.90
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.04	0.90
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.35	0.89
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.96	0.89
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.52	0.89
47:M0:76:MET:HE1	47:M0:148:VAL:HA	3.66	0.89
36:1:3344:A:H2	36:1:3361:G:H21	1.19	0.89
36:5:2258:U:OP2	87:5:3949:OHX:N4	2.06	0.89
51:M5:98:LEU:HD23	51:M5:128:LYS:HD2	2.99	0.89
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.55	0.89
36:1:2208:A:N1	87:1:4048:OHX:N2	2.21	0.89
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.06	0.88
41:L4:329:PRO:O	41:L4:331:ALA:N	3.30	0.88
36:1:1898:G:OP2	87:1:3937:OHX:N4	2.05	0.88
50:M4:132:LYS:HD3	36:5:3230:G:H4'	287.22	0.88
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.25	0.88
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.07	0.88
40:L3:139:GLN:O	40:L3:141:GLY:N	2.06	0.88
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	2.12	0.87
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.77	0.87
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.55	0.87
1:2:471:A:OP2	87:2:2074:OHX:N4	2.08	0.87
36:5:2620:G:O6	87:5:4244:OHX:N4	2.07	0.87
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	3.98	0.87
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.35	0.87
42:L5:279:LYS:NZ	37:7:110:G:OP2	325.51	0.87
1:2:1585:U:H3	1:2:1611:A:H2	1.22	0.87
3:S1:125:VAL:HG11	3:S1:173:THR:HG22	2.93	0.87
36:1:2535:A:H61	36:1:2544:U:H3	1.22	0.86
36:5:3153:U:H4'	36:5:3154:C:H5'	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1015:U:O2'	36:5:1017:C:OP1	1.93	0.86
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.55	0.86
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.56	0.86
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.54	0.86
1:2:1488:G:H3'	1:2:1515:A:H61	1.39	0.86
1:2:452:A:OP2	87:2:2036:OHX:N5	2.08	0.86
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.08	0.86
36:5:1414:G:O6	87:5:4148:OHX:N1	2.08	0.86
36:1:979:U:H1'	36:1:980:A:C8	2.10	0.86
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.40	0.86
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.15	0.86
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.41	0.86
39:L2:213:GLY:HA3	36:5:2967:A:H5''	204.81	0.86
1:2:1588:G:H1	1:2:1608:U:H3	1.23	0.86
1:2:1291:G:N2	1:2:1324:G:H22	1.74	0.86
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.24	0.85
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	2.35	0.85
36:5:2996:U:OP1	36:5:2996:U:H4'	1.75	0.85
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.32	0.85
25:D3:64:PRO:O	87:6:2162:OHX:N2	360.11	0.85
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.09	0.85
36:1:2767:U:OP2	87:1:4138:OHX:N2	2.10	0.85
49:M3:165:SER:O	49:M3:167:PHE:N	2.09	0.85
1:6:1595:U:H3	1:6:1600:A:H2	1.21	0.85
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	1.57	0.85
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.09	0.85
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.10	0.85
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.09	0.85
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH2	2.09	0.84
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	3.93	0.84
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.42	0.84
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	2.16	0.84
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.59	0.84
87:1:3878:OHX:N5	38:4:2:A:OP2	2.10	0.84
1:2:1010:C:OP2	87:2:2129:OHX:N6	2.11	0.84
44:L7:80:GLN:HE21	57:N1:136:ARG:HB2	6.81	0.84
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.18	0.84
38:4:70:G:O6	87:O7:103:OHX:N4	2.11	0.84
36:5:955:U:H2'	36:5:956:U:C6	2.13	0.83
36:1:2206:G:H1	36:1:2237:C:H42	1.25	0.83
1:2:1508:U:O4	87:2:2029:OHX:N5	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2766:U:O4	87:1:4042:OHX:N2	2.11	0.83
1:2:1202:A:OP1	87:2:2109:OHX:N1	2.11	0.83
42:L5:85:ARG:NH1	42:L5:86:TYR:OH	2.12	0.83
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.55	0.83
55:M9:27:ASN:O	87:M9:202:OHX:N6	2.10	0.83
48:M1:94:ARG:O	48:M1:96:PHE:N	2.10	0.83
36:5:3343:G:H21	36:5:3362:A:H2	1.22	0.83
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.10	0.83
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.59	0.83
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.72	0.83
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.42	0.83
36:1:3224:G:O6	87:1:3898:OHX:N4	2.11	0.83
73:O7:87:SER:O	87:O7:103:OHX:N3	2.12	0.82
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.11	0.82
1:6:1665:U:O4	87:6:2127:OHX:N6	2.12	0.82
36:5:3165:A:H61	36:5:3285:C:H42	1.27	0.82
36:5:410:U:O4	87:5:4104:OHX:N1	2.12	0.82
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.12	0.82
1:6:1011:G:OP2	87:6:2124:OHX:N3	2.12	0.82
45:L8:36:ILE:HG22	45:L8:37:GLY:H	1.43	0.82
36:1:300:G:O6	87:1:4155:OHX:N1	2.12	0.82
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.60	0.82
36:1:770:G:N7	87:1:4100:OHX:N6	2.27	0.82
36:5:2977:G:OP1	87:5:4154:OHX:N4	2.13	0.82
36:5:863:C:OP1	87:5:3918:OHX:N3	2.12	0.82
53:M7:62:ARG:O	87:M7:207:OHX:N1	2.13	0.82
36:1:1951:C:H42	36:1:2095:G:H1	1.28	0.82
36:5:155:G:H5'	36:5:156:G:C8	2.14	0.82
2:S0:163:ASN:O	2:S0:165:ARG:N	2.60	0.82
36:5:1599:G:OP1	87:5:4138:OHX:N4	2.11	0.82
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.83	0.82
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.11	0.82
22:D0:27:THR:HB	22:D0:88:LYS:HG2	1.96	0.82
1:6:484:C:H42	1:6:503:G:H1	1.28	0.82
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	2.04	0.82
54:M8:147:ARG:NH2	36:5:670:C:OP1	162.76	0.82
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.12	0.82
1:2:823:G:H2'	1:2:824:G:C8	2.15	0.82
1:2:1339:C:O2'	1:2:1341:A:N7	2.13	0.81
51:M5:50:ARG:HH11	36:5:267:G:H4'	111.01	0.81
36:1:3165:A:H61	36:1:3285:C:H42	1.27	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.69	0.81
87:1:4210:OHX:N4	38:4:16:G:OP1	2.13	0.81
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.13	0.81
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.51	0.81
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.39	0.81
46:L9:9:GLN:O	46:L9:72:LYS:NZ	2.89	0.81
36:5:1541:G:OP2	87:5:4095:OHX:N4	2.14	0.81
36:1:1409:G:N7	87:1:4071:OHX:N3	2.28	0.81
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.63	0.81
36:1:1230:G:H1	36:1:1279:C:H42	1.28	0.81
1:6:1636:C:H4'	1:6:1637:C:H5''	1.61	0.81
75:O9:2:ALA:N	36:5:1493:G:O6	122.78	0.81
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.63	0.81
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.61	0.81
1:2:514:G:H1	1:2:543:C:H5	1.26	0.81
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.14	0.81
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.61	0.81
33:E1:97:LYS:NZ	1:6:1253:U:O4	440.22	0.81
36:5:2233:A:OP2	87:5:3963:OHX:N5	2.13	0.81
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.61	0.81
50:M4:19:ARG:HA	50:M4:69:THR:HG22	3.89	0.81
36:1:3155:U:H3'	36:1:3156:U:H4'	1.62	0.81
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.14	0.81
72:O6:28:TYR:O	87:5:4191:OHX:N2	104.26	0.80
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.61	0.80
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.63	0.80
21:C9:52:GLY:O	21:C9:54:PHE:N	2.13	0.80
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.14	0.80
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.81	0.80
1:2:702:G:O6	1:2:736:C:N4	2.12	0.80
53:M7:25:SER:O	53:M7:29:THR:HG23	1.85	0.80
37:3:60:G:H2'	37:3:61:G:H8	1.44	0.80
12:C0:8:ARG:HD2	12:C0:12:HIS:HE1	1.45	0.80
44:L7:217:PRO:O	87:5:4003:OHX:N3	259.84	0.80
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.13	0.80
73:O7:72:ARG:NH1	38:8:95:G:OP2	51.90	0.80
36:5:272:G:OP2	87:5:4075:OHX:N6	2.14	0.80
66:O0:18:ILE:HG22	66:O0:19:LYS:HG2	3.73	0.80
36:1:1310:G:O6	87:1:4033:OHX:N1	2.14	0.80
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.15	0.80
36:1:2836:C:H5	36:1:2852:C:H42	1.26	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:365:G:N2	1:6:376:C:O2	2.13	0.80
8:S6:20:ASP:HB3	8:S6:23:ARG:HG3	2.22	0.80
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.55	0.80
36:5:658:G:OP1	87:5:4093:OHX:N5	2.14	0.80
36:1:3375:A:O2'	36:1:3378:C:OP2	1.98	0.80
41:L4:20:LEU:HD11	41:L4:252:GLU:HG2	2.89	0.80
17:C5:43:ARG:NH2	1:6:1552:U:OP2	403.12	0.80
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.64	0.80
62:N6:71:SER:HB3	62:N6:83:ASP:HB2	1.63	0.80
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.62	0.80
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.61	0.80
62:N6:52:ARG:O	62:N6:54:ASP:N	2.15	0.80
1:6:1579:U:OP1	87:6:2185:OHX:N4	2.15	0.80
56:N0:52:LYS:NZ	37:7:100:C:OP2	281.10	0.80
36:1:368:G:OP1	87:1:3889:OHX:N1	2.14	0.80
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.61	0.80
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	1.47	0.80
67:O1:31:ARG:HH11	67:O1:31:ARG:HB3	1.46	0.80
1:6:915:A:OP1	87:6:2074:OHX:N6	2.15	0.80
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.92	0.79
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.64	0.79
36:1:917:A:OP2	87:1:4148:OHX:N2	2.15	0.79
40:L3:173:GLN:O	40:L3:175:LYS:N	2.14	0.79
5:S3:141:LYS:NZ	5:S3:179:GLN:OE1	2.33	0.79
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.25	0.79
1:2:142:G:H22	1:2:173:A:H2	1.27	0.79
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG3	3.11	0.79
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.15	0.79
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.65	0.79
36:1:3166:C:H42	36:1:3284:G:H1	1.28	0.79
5:S3:175:VAL:HG13	5:S3:182:LEU:HB2	1.65	0.79
20:C8:36:LYS:NZ	1:6:1568:C:OP1	334.38	0.79
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.64	0.79
36:5:2234:G:O6	87:5:3963:OHX:N1	2.15	0.79
1:2:104:A:OP2	1:2:308:C:N4	2.15	0.79
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.47	0.79
36:5:2211:U:O4	87:5:3963:OHX:N4	2.16	0.79
36:5:3229:G:O6	36:5:3258:U:N3	2.15	0.79
36:1:2120:A:OP2	87:1:4014:OHX:N2	2.15	0.79
36:5:1103:A:H3'	36:5:1104:G:H5'	1.64	0.79
1:2:992:A:OP1	87:2:2033:OHX:N2	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1745:G:O6	87:2:2084:OHX:N6	2.15	0.79
68:O2:91:THR:HG22	68:O2:92:TYR:HD2	1.45	0.79
1:6:1150:G:O6	87:6:2118:OHX:N5	2.15	0.79
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.65	0.79
36:1:2924:U:O4	87:1:4023:OHX:N1	2.16	0.79
36:1:2818:U:H6	36:1:2818:U:H5'	1.47	0.79
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.45	0.79
36:1:1196:C:O2	87:3:218:OHX:N2	2.16	0.79
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.16	0.79
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	4.77	0.79
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.15	0.79
36:5:2187:G:OP2	87:5:3973:OHX:N4	2.15	0.78
36:1:2233:A:OP2	87:1:4048:OHX:N5	2.16	0.78
1:6:235:G:H2'	1:6:236:A:H8	1.47	0.78
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.05	0.78
16:C4:38:THR:HG21	1:6:895:G:H21	262.64	0.78
55:M9:43:LYS:HZ3	36:5:1765:U:H5'	92.77	0.78
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.13	0.78
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.02	0.78
47:M0:76:MET:HE3	47:M0:148:VAL:HG13	1.66	0.78
38:8:16:G:O6	87:8:215:OHX:N6	2.15	0.78
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.17	0.78
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.66	0.78
62:N6:112:ASP:HB3	62:N6:115:ARG:HB2	4.05	0.78
40:L3:346:THR:O	40:L3:348:ARG:N	2.16	0.78
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.50	0.78
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.56	0.78
1:2:1203:A:OP2	87:2:2109:OHX:N5	2.16	0.78
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.17	0.78
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.39	0.78
28:D6:35:ALA:HB3	28:D6:37:LYS:HE3	1.65	0.78
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.66	0.78
36:1:1878:G:OP1	87:1:3933:OHX:N4	2.17	0.78
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.52	0.78
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.34	0.78
26:D4:3:ASP:HB2	26:D4:31:ASN:HB2	3.34	0.77
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.10	0.77
52:M6:110:PRO:O	52:M6:112:TYR:N	3.22	0.77
52:M6:110:PRO:O	52:M6:113:ASP:N	5.21	0.77
36:1:410:U:O4	87:1:4061:OHX:N5	2.16	0.77
1:6:1584:G:N2	1:6:1611:A:OP2	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1565:G:N1	36:5:1574:C:N3	2.33	0.77
36:5:2818:U:C6	36:5:2818:U:H5'	2.19	0.77
69:O3:59:VAL:HG23	69:O3:60:ARG:H	1.71	0.77
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.31	0.77
1:2:1073:G:H2'	1:2:1074:G:H5''	1.66	0.77
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.17	0.77
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.66	0.77
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.65	0.77
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.15	0.77
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.18	0.77
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.66	0.77
36:1:3376:A:OP2	87:1:3912:OHX:N5	2.18	0.77
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.62	0.77
1:2:701:U:H3	1:2:737:A:H61	1.33	0.77
10:S8:89:GLU:OE1	10:S8:92:ARG:NH2	2.16	0.77
1:2:818:C:N4	1:2:819:G:O6	2.18	0.77
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.66	0.77
10:S8:10:LYS:NZ	1:6:339:C:OP2	283.06	0.77
36:5:437:G:H22	36:5:622:A:H61	1.31	0.77
36:5:437:G:N2	36:5:622:A:H61	1.83	0.77
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.50	0.77
41:L4:193:LYS:NZ	38:8:21:C:OP1	108.68	0.77
36:5:2975:U:OP1	87:5:4090:OHX:N3	2.17	0.77
22:D0:89:ARG:NH2	1:6:1383:G:OP1	445.48	0.77
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.13	0.77
36:5:2255:A:H5'	36:5:2261:G:H22	1.49	0.77
1:2:1720:G:O6	87:2:2080:OHX:N5	2.18	0.77
36:1:2940:A:N7	40:L3:2:SER:N	2.32	0.76
22:D0:24:ILE:HG12	22:D0:116:VAL:HG22	1.67	0.76
51:M5:149:ASN:OD1	87:M5:302:OHX:N2	2.18	0.76
1:6:991:G:OP2	87:6:2174:OHX:N2	2.18	0.76
16:C4:50:ALA:O	16:C4:52:ARG:N	2.32	0.76
17:C5:69:GLU:OE1	87:C5:201:OHX:N4	2.18	0.76
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.67	0.76
46:L9:22:SER:OG	46:L9:23:ARG:N	2.11	0.76
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.20	0.76
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.40	0.76
36:5:1952:G:H1	36:5:2094:C:H42	1.33	0.76
1:2:1118:G:O6	87:2:2146:OHX:N1	2.19	0.76
1:2:1533:C:H4'	1:2:1539:G:N1	1.99	0.76
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:371:G:O6	87:1:4185:OHX:N4	2.19	0.76
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.55	0.76
15:C3:67:THR:O	15:C3:69:ASN:N	2.18	0.76
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.50	0.76
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	2.07	0.76
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.49	0.76
36:1:3122:A:N1	46:L9:70:THR:HG21	2.01	0.76
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.67	0.76
36:5:132:C:H2'	36:5:133:U:H5''	1.68	0.76
5:S3:7:LYS:HE2	22:D0:27:THR:HG21	1.66	0.76
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	3.62	0.76
1:6:990:C:OP2	87:6:2124:OHX:N2	2.19	0.76
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.01	0.76
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.73	0.76
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	1.99	0.76
36:5:409:A:OP2	87:5:4104:OHX:N5	2.18	0.76
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.43	0.76
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	1.57	0.76
1:2:579:A:H2	5:S3:143:ARG:HG3	1.51	0.76
36:5:1806:A:OP2	87:5:4025:OHX:N5	2.19	0.76
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.19	0.76
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	2.09	0.76
36:5:1152:G:H22	36:5:1200:A:H61	1.34	0.76
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	1.68	0.75
78:Q2:50:PHE:O	87:Q2:503:OHX:N2	2.19	0.75
36:1:1466:G:O6	87:1:3884:OHX:N4	2.19	0.75
9:S7:131:PHE:O	9:S7:133:THR:N	2.19	0.75
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.79	0.75
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.66	0.75
51:M5:49:ARG:NH1	36:5:149:U:OP2	100.41	0.75
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.68	0.75
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.52	0.75
22:D0:74:GLU:HG2	1:6:1429:G:H1'	377.89	0.75
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.62	0.75
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	2.39	0.75
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.67	0.75
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.18	0.75
4:S2:87:GLN:HG2	4:S2:96:THR:HB	1.67	0.75
19:C7:27:ASP:O	19:C7:31:ASN:ND2	4.02	0.75
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.57	0.75
36:5:25:U:O4	87:5:3908:OHX:N6	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:207:VAL:HG21	36:5:916:G:C6	186.36	0.75
70:O4:37:LYS:NZ	36:5:1591:G:OP1	159.97	0.75
13:C1:132:SER:O	13:C1:134:THR:N	3.17	0.75
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.69	0.75
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.20	0.75
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.69	0.75
41:L4:143:GLU:O	87:L4:403:OHX:N2	2.20	0.75
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.23	0.75
76:Q0:114:LYS:NZ	36:5:3107:U:OP1	300.67	0.75
15:C3:94:LYS:HE3	1:6:952:A:H5''	298.43	0.75
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.68	0.75
11:S9:157:ASP:OD1	11:S9:158:PHE:N	3.94	0.75
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.20	0.75
36:1:1581:C:H2'	36:1:1582:C:H5''	1.66	0.75
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.18	0.75
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.47	0.75
36:5:2198:A:OP2	87:5:4194:OHX:N4	2.19	0.75
56:N0:71:LYS:NZ	36:5:563:U:OP1	340.95	0.74
16:C4:11:SER:OG	16:C4:12:GLN:N	4.36	0.74
1:2:717:C:H42	1:2:720:G:H22	1.32	0.74
36:1:12:A:OP1	87:1:4208:OHX:N6	2.20	0.74
87:1:3964:OHX:N6	44:L7:217:PRO:O	2.20	0.74
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.69	0.74
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	2.80	0.74
36:5:1066:G:OP1	87:5:4229:OHX:N2	2.20	0.74
1:6:987:G:O6	87:6:2123:OHX:N4	2.20	0.74
36:5:3066:U:O4	87:5:4107:OHX:N4	2.19	0.74
51:M5:172:ARG:HB3	51:M5:174:ILE:HD12	1.68	0.74
1:6:1595:U:N3	1:6:1600:A:H2	1.85	0.74
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.20	0.74
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.53	0.74
39:L2:70:ARG:HD2	39:L2:72:ARG:HE	3.20	0.74
36:5:1345:G:N7	87:5:4067:OHX:N5	2.35	0.74
10:S8:52:ASN:OD1	87:6:2139:OHX:N3	310.28	0.74
10:S8:36:THR:HB	10:S8:57:ALA:O	1.87	0.74
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.69	0.74
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.20	0.74
36:1:807:A:H61	36:1:934:G:H22	1.32	0.74
1:6:1202:A:OP1	87:6:2133:OHX:N2	2.20	0.74
1:6:1695:G:H21	1:6:1706:C:H41	1.32	0.74
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.34	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:833:U:O4	87:6:2104:OHX:N2	2.19	0.74
1:2:9:U:O4	87:2:2153:OHX:N6	2.20	0.74
66:O0:29:SER:HA	66:O0:32:LYS:HD3	1.69	0.74
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.21	0.74
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.34	0.74
13:C1:94:ILE:HD13	25:D3:16:ARG:HD2	1.66	0.74
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	3.04	0.74
36:1:2503:G:H1'	36:1:2504:U:H5	1.53	0.74
42:L5:265:TYR:OH	37:7:121:U:OP2	312.55	0.74
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	4.83	0.74
1:6:1765:A:OP1	87:6:2129:OHX:N2	2.21	0.74
68:O2:124:GLY:O	68:O2:126:LEU:N	2.69	0.74
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	1.70	0.74
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.12	0.74
1:2:895:G:H1	1:2:917:U:H3	1.36	0.74
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.68	0.74
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.69	0.74
26:D4:29:HIS:HB2	26:D4:32:ARG:HB2	3.82	0.74
36:1:924:G:OP1	87:1:4148:OHX:N5	2.21	0.74
36:1:1844:C:H2'	36:1:1845:G:H5''	1.68	0.74
37:3:60:G:H2'	37:3:61:G:C8	2.22	0.74
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	8.15	0.74
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	2.63	0.74
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.01	0.74
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	2.11	0.73
36:1:829:U:H3	36:1:895:A:H62	1.36	0.73
1:2:348:U:O4	87:2:2125:OHX:N5	2.21	0.73
3:S1:154:SER:OG	3:S1:154:SER:O	2.17	0.73
87:1:4186:OHX:N1	40:L3:364:LYS:O	2.20	0.73
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.21	0.73
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.38	0.73
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.22	0.73
54:M8:185:LYS:NZ	36:5:779:G:OP1	179.35	0.73
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	2.83	0.73
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.22	0.73
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.21	0.73
36:5:2227:C:H2'	36:5:2228:A:H5''	1.68	0.73
36:1:1815:U:O2'	36:1:1816:A:OP2	2.06	0.73
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.69	0.73
43:L6:78:ARG:NH1	36:5:3272:C:OP2	247.07	0.73
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.22	0.73
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.20	0.73
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.70	0.73
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.36	0.73
30:D8:36:THR:OG1	30:D8:37:SER:N	2.21	0.73
1:6:1385:G:N7	87:6:2125:OHX:N6	2.36	0.73
1:6:1726:G:N7	87:6:2150:OHX:N5	2.36	0.73
36:5:438:A:H2'	36:5:494:G:H21	1.53	0.73
72:O6:33:ALA:HB1	72:O6:38:LYS:HD2	4.46	0.73
36:5:1878:G:OP1	87:5:3958:OHX:N5	2.20	0.73
2:S0:56:LYS:HD2	2:S0:158:VAL:HG23	1.68	0.73
36:1:742:G:N7	87:1:3981:OHX:N1	2.35	0.73
12:C0:53:GLY:O	12:C0:55:VAL:N	2.20	0.73
32:E0:59:GLY:O	32:E0:61:SER:N	3.65	0.73
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.22	0.73
62:N6:50:ILE:HD11	62:N6:70:ILE:HD13	1.71	0.73
36:5:783:A:OP2	87:5:4195:OHX:N6	2.22	0.73
36:1:2108:C:O2'	36:1:3362:A:N6	2.21	0.73
36:5:1170:A:OP2	87:5:4003:OHX:N4	2.22	0.73
72:O6:63:ASN:O	72:O6:65:GLY:N	4.82	0.73
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.23	0.73
36:1:3319:U:O2'	36:1:3320:A:OP1	2.04	0.73
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.28	0.73
1:6:770:A:OP2	87:6:2141:OHX:N3	2.22	0.73
1:2:1291:G:H22	1:2:1324:G:H22	1.34	0.73
36:1:1171:G:O6	87:1:3964:OHX:N2	2.22	0.73
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	2.74	0.73
16:C4:125:SER:OG	16:C4:126:THR:N	2.93	0.73
87:1:3975:OHX:N1	38:4:31:G:OP2	2.22	0.73
36:1:1240:A:H61	36:1:1244:A:H5''	1.53	0.73
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.34	0.73
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.22	0.73
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.69	0.73
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.22	0.73
70:O4:74:ARG:NH2	36:5:1639:C:OP2	199.99	0.72
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.70	0.72
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.71	0.72
1:2:820:U:H2'	1:2:821:U:H4'	1.70	0.72
7:S5:57:SER:O	7:S5:59:VAL:N	2.21	0.72
36:5:1231:A:H5''	36:5:1232:C:H5'	1.70	0.72
36:1:1362:G:H4'	44:L7:159:GLN:O	1.87	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:2:2034:OHX:N2	10:S8:17:LYS:O	2.22	0.72
36:5:1934:G:O6	87:5:3917:OHX:N2	2.22	0.72
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.69	0.72
42:L5:265:TYR:HE1	37:7:121:U:H5''	316.57	0.72
87:5:3943:OHX:N5	87:5:4235:OHX:N6	2.37	0.72
36:5:1734:G:O6	87:5:3970:OHX:N5	2.22	0.72
37:3:49:G:N7	42:L5:58:LYS:HG3	2.03	0.72
1:6:755:A:O2'	1:6:756:A:H5''	1.89	0.72
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.72	0.72
66:O0:9:SER:OG	66:O0:10:ILE:N	2.39	0.72
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.88	0.72
1:6:1767:G:OP1	1:6:1770:U:H4'	1.88	0.72
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.71	0.72
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.22	0.72
1:2:1002:G:N1	1:2:1761:U:OP1	2.22	0.72
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.71	0.72
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.24	0.72
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.53	0.72
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.71	0.72
36:1:1308:A:C8	36:1:1308:A:OP2	2.43	0.72
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	2.13	0.72
6:S4:176:ASP:HB2	6:S4:179:LYS:HZ3	1.53	0.72
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.22	0.72
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.40	0.72
46:L9:115:ARG:HG2	46:L9:123:ILE:HG23	1.72	0.72
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.72	0.72
1:6:471:A:OP2	87:6:2106:OHX:N5	2.21	0.72
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.70	0.72
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.70	0.72
36:1:1744:G:O6	87:1:4099:OHX:N2	2.22	0.72
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	2.16	0.72
1:2:1564:U:H2'	1:2:1565:C:C6	2.25	0.72
44:L7:158:LYS:HD2	44:L7:159:GLN:N	4.32	0.72
14:C2:89:ILE:HG23	14:C2:90:LYS:H	1.54	0.72
15:C3:103:GLU:O	15:C3:106:ARG:NH2	2.22	0.72
56:N0:108:GLN:NE2	36:5:1322:U:O2	293.03	0.72
36:5:990:U:O4	87:5:4186:OHX:N6	2.22	0.72
36:1:3259:U:H6	36:1:3259:U:H5'	1.55	0.72
46:L9:70:THR:HG21	36:5:3122:A:N1	324.36	0.72
36:1:1564:U:H2'	36:1:1565:G:H8	1.53	0.72
36:5:3103:A:OP2	87:5:4160:OHX:N4	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:46:ALA:HB2	66:O0:72:GLY:H	1.55	0.72
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.57	0.72
1:6:213:A:OP2	87:6:2153:OHX:N1	2.23	0.72
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.28	0.72
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.23	0.72
76:Q0:77:ILE:HG13	76:Q0:78:ILE:H	3.95	0.72
56:N0:155:ARG:HG2	56:N0:155:ARG:HH21	1.54	0.72
36:1:3195:U:O2'	36:1:3197:G:N2	2.23	0.72
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.23	0.72
36:1:3316:A:OP1	36:1:3318:G:N2	2.23	0.72
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.71	0.72
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.23	0.72
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.29	0.72
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.72	0.72
1:6:1041:G:OP1	87:6:2178:OHX:N4	2.23	0.72
1:6:320:U:H2'	1:6:321:C:C2	2.24	0.72
1:6:1350:U:H2'	1:6:1351:G:H8	1.55	0.72
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.03	0.72
48:M1:73:GLY:O	48:M1:75:LYS:N	2.22	0.72
39:L2:224:THR:HG21	36:5:2201:G:H21	222.38	0.72
68:O2:40:SER:O	68:O2:44:ARG:HG3	1.94	0.72
36:5:3276:G:OP2	36:5:3276:G:H2'	1.89	0.71
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.72	0.71
1:2:770:A:OP2	87:2:2136:OHX:N6	2.23	0.71
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.72	0.71
1:6:301:A:OP2	87:6:2096:OHX:N1	2.23	0.71
87:5:3943:OHX:N1	87:5:4235:OHX:N4	2.38	0.71
1:6:140:A:N6	1:6:281:G:OP1	2.23	0.71
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.23	0.71
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.22	0.71
36:5:2236:G:OP1	87:5:4250:OHX:N3	2.23	0.71
18:C6:47:LYS:NZ	18:C6:114:ARG:HD3	4.45	0.71
16:C4:80:HIS:ND1	16:C4:113:GLY:O	3.42	0.71
1:2:886:U:O2'	16:C4:121:VAL:O	2.08	0.71
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.79	0.71
9:S7:66:SER:O	9:S7:68:ALA:N	3.34	0.71
18:C6:66:ARG:HH21	18:C6:68:ARG:HG2	3.52	0.71
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.20	0.71
1:2:814:A:H5''	55:M9:170:ARG:HH22	1.53	0.71
1:6:194:U:O2	1:6:195:G:O2'	2.08	0.71
1:2:901:G:N2	16:C4:54:GLU:OE1	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:68:GLU:O	14:C2:70:ASN:ND2	2.22	0.71
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.72	0.71
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.55	0.71
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.54	0.71
36:1:2860:U:H6	36:1:2860:U:H5'	1.55	0.71
54:M8:80:THR:HG22	54:M8:100:THR:HB	1.71	0.71
6:S4:248:ILE:HD12	1:6:789:A:H2	400.08	0.71
1:6:1699:G:H22	1:6:1701:A:H3'	1.54	0.71
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.25	0.71
49:M3:58:VAL:HG13	36:5:75:G:H5''	87.87	0.71
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.23	0.71
53:M7:138:LYS:NZ	36:5:2356:A:OP1	148.08	0.71
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.23	0.71
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.23	0.71
66:O0:63:SER:HG	66:O0:65:THR:HG1	1.32	0.71
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.54	0.71
1:2:1550:A:OP1	17:C5:42:ARG:NH2	2.20	0.71
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.72	0.71
8:S6:159:ARG:NH2	1:6:79:C:OP1	348.99	0.71
3:S1:105:PHE:H	3:S1:214:LYS:HZ3	1.38	0.71
42:L5:270:LYS:HB3	37:7:1:G:O2'	322.54	0.71
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.38	0.71
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.23	0.71
69:O3:86:ARG:O	87:O3:201:OHX:N1	2.23	0.71
38:8:67:U:O4	87:8:227:OHX:N3	2.24	0.71
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.84	0.71
11:S9:163:PRO:O	11:S9:165:GLY:N	2.24	0.71
1:6:1010:C:OP2	87:6:2174:OHX:N3	2.24	0.71
1:6:895:G:H1	1:6:917:U:H3	1.35	0.71
1:2:356:G:OP2	87:2:2034:OHX:N6	2.23	0.71
36:1:73:C:C2	49:M3:59:ARG:HD3	2.26	0.71
74:O8:26:LYS:HE2	36:5:1751:G:H5''	127.32	0.71
4:S2:90:THR:HG23	4:S2:92:ALA:H	1.53	0.71
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.71	0.71
1:2:513:U:H2'	1:2:514:G:C8	2.26	0.71
1:2:741:C:O2	9:S7:107:ARG:NH1	2.23	0.71
1:2:1657:U:H5	36:1:2125:A:O3'	1.74	0.71
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.24	0.71
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.71	0.71
36:5:2402:A:OP2	87:5:4111:OHX:N3	2.24	0.71
36:5:1887:A:OP1	87:5:4115:OHX:N6	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:140:LYS:O	51:M5:144:ARG:HG3	1.91	0.71
1:2:1642:G:O6	87:2:2021:OHX:N6	2.24	0.71
87:2:2029:OHX:N4	87:2:2144:OHX:N2	2.39	0.71
87:2:2029:OHX:N6	87:2:2144:OHX:N5	2.38	0.71
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	2.25	0.71
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.23	0.71
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.24	0.71
54:M8:40:THR:O	54:M8:42:ALA:N	2.23	0.71
63:N7:88:ASP:O	63:N7:121:ARG:NH2	2.70	0.71
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.24	0.71
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.72	0.71
36:1:1429:G:OP2	41:L4:107:ARG:NH2	2.22	0.71
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.24	0.70
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.72	0.70
36:1:1233:G:H1	36:1:1255:C:H42	1.37	0.70
6:S4:108:ARG:NH1	1:6:788:A:OP2	396.89	0.70
1:6:1042:G:N2	1:6:1077:C:O2	2.23	0.70
1:2:1670:G:N7	87:2:2121:OHX:N5	2.39	0.70
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.98	0.70
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.73	0.70
1:2:140:A:N6	1:2:281:G:OP1	2.23	0.70
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.72	0.70
37:3:4:U:H2'	37:3:5:G:C8	2.25	0.70
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.02	0.70
1:2:1041:G:OP1	87:2:2147:OHX:N5	2.24	0.70
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	1.73	0.70
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.21	0.70
40:L3:140:ASP:OD2	40:L3:141:GLY:N	4.18	0.70
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.89	0.70
36:5:1025:A:H3'	36:5:1026:A:H4'	1.73	0.70
87:2:2029:OHX:N4	87:2:2144:OHX:N1	2.39	0.70
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.24	0.70
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.74	0.70
1:6:1208:A:N1	1:6:1455:G:N2	2.39	0.70
36:5:2440:G:H2'	36:5:2441:A:C8	2.27	0.70
1:2:986:G:OP2	39:L2:251:LYS:NZ	2.21	0.70
47:M0:158:LYS:NZ	36:5:2852:C:N3	308.19	0.70
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.25	0.70
36:5:3152:U:O2	87:5:4227:OHX:N5	2.25	0.70
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.24	0.70
1:2:1544:U:OP1	20:C8:136:GLN:NE2	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1238:C:O2'	36:5:1239:C:OP1	2.06	0.70
36:1:410:U:O4	87:1:4061:OHX:N2	2.24	0.70
42:L5:56:THR:O	42:L5:58:LYS:N	2.24	0.70
1:2:656:G:O2'	1:2:657:U:O4'	2.08	0.70
1:6:1230:A:H8	1:6:1258:U:C4	2.09	0.70
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.56	0.70
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	1.77	0.70
1:2:959:U:C6	15:C3:61:THR:HB	2.26	0.70
1:6:75:U:O2'	1:6:76:A:O5'	2.08	0.70
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.73	0.70
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.74	0.70
45:L8:36:ILE:O	45:L8:38:GLN:N	2.25	0.70
36:5:1877:U:H5''	36:5:1878:G:H5'	1.73	0.70
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.25	0.70
2:S0:110:TYR:O	2:S0:112:THR:N	2.87	0.70
49:M3:16:LYS:NZ	36:5:98:G:OP1	133.30	0.70
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.10	0.70
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.25	0.70
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	3.06	0.70
36:5:873:C:H5''	36:5:874:U:O5'	1.91	0.70
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.58	0.70
1:2:800:U:H2'	1:2:801:G:H8	1.56	0.70
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.73	0.70
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	2.17	0.70
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.34	0.70
36:5:2248:C:OP2	87:5:3979:OHX:N6	2.25	0.70
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.55	0.70
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.72	0.70
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.73	0.70
36:1:2953:U:H2'	36:1:2954:U:H2'	1.73	0.70
47:M0:174:THR:OG1	47:M0:175:ASN:N	3.29	0.70
27:D5:74:SER:OG	1:6:1534:G:OP2	343.96	0.70
87:5:3943:OHX:N1	87:5:4235:OHX:N3	2.40	0.70
36:5:2840:C:OP1	87:5:4139:OHX:N3	2.25	0.70
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.88	0.70
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.23	0.70
36:1:1790:G:O6	87:1:4173:OHX:N4	2.23	0.70
36:5:2942:C:O2	87:5:4110:OHX:N2	2.25	0.70
32:E0:18:THR:HG21	1:6:584:C:H1'	389.21	0.70
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.25	0.70
51:M5:38:ARG:NH2	38:8:143:U:OP1	108.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2311:G:OP2	87:5:4200:OHX:N1	2.25	0.69
36:1:367:A:OP1	87:1:3889:OHX:N2	2.25	0.69
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	3.15	0.69
87:5:3943:OHX:N5	87:5:4235:OHX:N3	2.40	0.69
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.74	0.69
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.36	0.69
1:6:1714:A:H2'	1:6:1715:G:O4'	1.92	0.69
36:5:1596:C:H2'	36:5:1597:C:C6	2.27	0.69
1:2:1606:C:H2'	1:2:1607:G:C8	2.27	0.69
42:L5:8:LYS:NZ	37:7:15:C:O3'	312.16	0.69
36:5:2444:C:H42	36:5:2503:G:H1	1.38	0.69
36:5:2209:U:O4	87:5:3963:OHX:N4	2.26	0.69
87:5:3943:OHX:N2	87:5:4235:OHX:N6	2.40	0.69
5:S3:68:GLU:OE2	12:C0:67:THR:OG1	3.73	0.69
1:2:380:U:H5	11:S9:5:PRO:HA	1.54	0.69
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.25	0.69
1:2:7:G:O6	4:S2:205:ARG:NH2	2.26	0.69
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.92	0.69
36:1:2310:U:OP1	87:1:4144:OHX:N1	2.25	0.69
1:6:1280:C:H2'	1:6:1281:G:H8	1.56	0.69
36:1:2340:U:OP1	40:L3:236:LYS:HE3	1.92	0.69
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.95	0.69
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.38	0.69
1:2:854:U:O4	55:M9:173:ARG:NH2	2.25	0.69
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.09	0.69
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.08	0.69
46:L9:188:THR:HG22	46:L9:189:GLU:H	4.54	0.69
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.32	0.69
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	1.90	0.69
36:1:239:G:O2'	36:1:240:U:OP1	2.07	0.69
1:2:1625:C:OP1	4:S2:91:ARG:NH2	2.26	0.69
44:L7:88:ARG:HD2	44:L7:90:LYS:O	1.99	0.69
87:5:3943:OHX:N2	87:5:4235:OHX:N4	2.41	0.69
36:1:2794:G:N7	87:1:3940:OHX:N2	2.40	0.69
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	2.96	0.69
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.22	0.69
37:3:60:G:OP2	87:3:226:OHX:N3	2.26	0.69
36:5:955:U:H2'	36:5:956:U:H6	1.56	0.69
59:N3:120:LYS:HD3	59:N3:121:GLU:HG3	1.74	0.69
40:L3:35:ASP:OD2	40:L3:37:ARG:NH1	2.22	0.69
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.59	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.26	0.69
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.75	0.69
36:1:356:C:OP2	87:O9:101:OHX:N1	2.25	0.69
18:C6:82:ARG:HH22	18:C6:114:ARG:HG3	3.82	0.69
36:5:3049:A:H8	36:5:3049:A:H5'	1.56	0.69
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.74	0.69
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.67	0.69
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.24	0.69
2:S0:59:LEU:HD11	23:D1:78:LEU:HD12	1.74	0.69
1:2:144:U:HO2'	1:2:145:A:H8	1.39	0.69
2:S0:62:ARG:HG3	2:S0:62:ARG:HH11	3.67	0.69
1:6:486:G:H22	1:6:501:U:H3	1.41	0.69
36:5:129:U:H2'	36:5:130:A:C8	2.27	0.69
55:M9:5:ARG:NH2	36:5:1471:U:OP1	121.13	0.69
36:1:1740:U:H1'	36:1:1741:A:H2	1.56	0.69
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.58	0.69
36:5:566:G:N7	87:5:4132:OHX:N5	2.41	0.69
1:6:1315:U:OP1	1:6:1328:G:N2	2.23	0.69
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.30	0.69
36:1:1887:A:OP1	87:1:4092:OHX:N3	2.26	0.69
51:M5:112:ASN:ND2	51:M5:113:LEU:HD13	2.08	0.69
8:S6:173:PRO:HG3	1:6:66:U:H5	333.41	0.69
7:S5:113:ILE:O	7:S5:117:THR:OG1	2.09	0.69
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.75	0.69
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.95	0.69
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.75	0.69
18:C6:58:ASP:O	18:C6:60:PHE:N	2.26	0.69
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.28	0.69
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.75	0.69
1:2:687:G:H5'	24:D2:119:LYS:HD3	1.74	0.69
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.51	0.69
36:1:1819:U:O4	87:1:4045:OHX:N6	2.26	0.69
1:6:1130:G:OP2	87:6:2116:OHX:N1	2.26	0.69
39:L2:246:LEU:HD23	39:L2:248:GLY:H	7.44	0.69
36:1:2207:A:H2'	36:1:2208:A:H8	1.58	0.68
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.25	0.68
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	7.09	0.68
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.75	0.68
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.59	0.68
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.26	0.68
36:5:3195:U:H1'	36:5:3196:U:OP1	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:58:C:OP1	87:7:218:OHX:N3	2.26	0.68
36:1:155:G:H5''	36:1:156:G:C8	2.28	0.68
1:2:651:G:N7	87:2:2102:OHX:N6	2.40	0.68
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.84	0.68
1:6:1680:G:O6	87:6:2192:OHX:N4	2.26	0.68
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.25	0.68
29:D7:37:CYS:O	29:D7:39:GLY:N	2.25	0.68
38:4:62:C:O2	87:4:225:OHX:N5	2.25	0.68
57:N1:17:ARG:HH11	57:N1:17:ARG:HG2	4.03	0.68
36:1:2123:G:N7	87:1:4204:OHX:N2	2.42	0.68
20:C8:120:ARG:HD3	35:SM:61:ILE:HG21	3.84	0.68
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.78	0.68
41:L4:60:THR:HG23	36:5:364:G:OP1	128.25	0.68
36:1:1808:G:O6	87:1:3988:OHX:N3	2.26	0.68
36:1:1841:A:H2	75:O9:45:ARG:HH22	1.39	0.68
87:2:2029:OHX:N3	87:2:2144:OHX:N5	2.41	0.68
36:1:1310:G:N7	87:1:4033:OHX:N5	2.42	0.68
1:2:1535:U:O2'	1:2:1536:G:N3	2.24	0.68
26:D4:47:VAL:O	26:D4:49:LYS:NZ	2.21	0.68
36:5:1724:U:H1'	36:5:1725:C:C6	2.28	0.68
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	2.44	0.68
15:C3:76:LYS:NZ	1:6:813:U:OP2	316.97	0.68
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.28	0.68
26:D4:109:LYS:NZ	1:6:459:G:OP1	357.69	0.68
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.76	0.68
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.76	0.68
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.59	0.68
41:L4:338:LYS:O	41:L4:340:GLY:N	2.24	0.68
1:6:1623:C:H2'	1:6:1624:C:H6	1.58	0.68
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.94	0.68
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.74	0.68
1:2:734:A:H5''	1:2:735:C:OP1	1.94	0.68
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.76	0.68
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.27	0.68
3:S1:70:LEU:O	3:S1:74:GLN:N	2.26	0.68
1:2:637:C:O2	9:S7:114:ARG:NH2	2.27	0.68
3:S1:62:LYS:O	3:S1:64:ARG:N	2.27	0.68
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.57	0.68
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.26	0.68
10:S8:31:ARG:NH2	1:6:333:A:OP1	297.48	0.68
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3047:U:O2'	36:5:3048:A:H5'	1.94	0.68
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.26	0.68
36:5:1536:G:N7	87:5:3924:OHX:N2	2.41	0.68
1:2:149:C:OP1	26:D4:121:THR:OG1	2.11	0.68
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.75	0.68
59:N3:2:SER:HA	59:N3:56:ASP:HA	4.20	0.68
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.95	0.68
25:D3:137:LYS:O	25:D3:138:GLU:HB2	1.94	0.68
1:6:550:A:OP2	87:6:2053:OHX:N2	2.27	0.68
36:5:1879:A:H2'	36:5:1879:A:N3	2.08	0.68
44:L7:80:GLN:NE2	57:N1:136:ARG:HB2	6.28	0.68
37:3:26:C:H5'	42:L5:56:THR:HB	1.75	0.68
49:M3:59:ARG:HD3	36:5:73:C:C2	93.78	0.68
36:1:3358:U:H2'	36:1:3359:A:O4'	1.94	0.68
1:2:1620:C:OP2	87:2:2164:OHX:N6	2.27	0.68
36:5:1070:U:O4	87:5:4112:OHX:N6	2.27	0.68
6:S4:100:ARG:HG2	6:S4:102:VAL:HG12	1.76	0.67
39:L2:68:LYS:HG2	39:L2:70:ARG:HE	4.16	0.67
42:L5:265:TYR:O	42:L5:269:SER:HB3	4.04	0.67
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.94	0.67
1:2:740:A:H2'	1:2:741:C:H5''	1.75	0.67
49:M3:89:TYR:O	49:M3:92:THR:OG1	2.54	0.67
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.42	0.67
79:Q3:83:ILE:HG22	79:Q3:87:ARG:HH12	1.59	0.67
78:Q2:17:CYS:HB2	88:Q2:501:ZN:ZN	1.19	0.67
87:2:2037:OHX:N1	25:D3:64:PRO:O	2.26	0.67
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.87	0.67
36:1:541:U:O4	87:1:4198:OHX:N2	2.27	0.67
1:2:218:A:O2'	1:2:219:A:OP1	2.12	0.67
8:S6:148:SER:O	8:S6:150:GLU:N	2.28	0.67
1:2:987:G:C2	39:L2:249:SER:HB2	2.29	0.67
36:1:2299:A:OP1	87:1:3953:OHX:N1	2.28	0.67
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.16	0.67
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.74	0.67
36:5:330:G:OP2	87:5:4050:OHX:N1	2.27	0.67
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.28	0.67
48:M1:23:VAL:HG12	48:M1:25:GLU:H	3.16	0.67
36:1:3148:U:O4	87:1:4114:OHX:N2	2.27	0.67
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.94	0.67
24:D2:89:TRP:O	24:D2:93:LEU:HD23	2.67	0.67
1:6:647:G:N2	1:6:687:G:H22	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:28:GLN:OE1	51:M5:201:ARG:NH1	2.83	0.67
36:1:2107:A:H2	36:1:3344:A:H8	1.42	0.67
2:S0:185:ARG:H	23:D1:45:ALA:H	2.02	0.67
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	2.05	0.67
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.28	0.67
36:5:231:G:O6	87:5:4134:OHX:N4	2.28	0.67
46:L9:44:THR:HG22	36:5:3186:A:N3	326.33	0.67
14:C2:81:ASP:O	14:C2:83:GLU:N	2.93	0.67
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.26	0.67
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	1.76	0.67
48:M1:8:PRO:CG	48:M1:9:MET:H	3.29	0.67
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.26	0.67
64:N8:132:LYS:O	64:N8:136:GLU:HG3	3.69	0.67
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.75	0.67
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	1.94	0.67
20:C8:134:ARG:O	20:C8:136:GLN:N	3.51	0.67
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.76	0.67
63:N7:97:SER:HB2	63:N7:99:GLU:HG3	1.76	0.67
1:2:1649:G:N7	87:2:2049:OHX:N1	2.43	0.67
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.58	0.67
62:N6:82:VAL:O	62:N6:84:LYS:N	2.80	0.67
1:2:142:G:O6	8:S6:177:ARG:NH1	2.26	0.67
21:C9:115:GLU:OE1	21:C9:123:ARG:NH1	4.06	0.67
36:1:425:G:O6	87:1:3880:OHX:N6	2.28	0.67
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	4.33	0.67
36:1:662:U:OP1	64:N8:8:THR:HG21	1.93	0.67
36:1:1454:A:H5''	36:1:1455:U:H5'	1.75	0.67
36:5:3317:U:O2'	87:5:4141:OHX:N6	2.28	0.67
74:O8:58:ASP:OD2	74:O8:61:LYS:N	2.20	0.67
1:2:975:C:H5''	15:C3:109:LYS:HE3	1.76	0.67
1:2:649:U:O2'	1:2:650:U:O5'	2.13	0.67
39:L2:3:ARG:HD3	36:5:911:C:H42	178.98	0.67
36:1:1596:C:H2'	36:1:1597:C:C6	2.30	0.67
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.57	0.67
36:1:1334:U:H1'	44:L7:208:SER:HB2	1.76	0.67
1:2:1067:C:H2'	1:2:1068:C:H6	1.58	0.67
1:2:732:G:O2'	1:2:733:A:O4'	2.11	0.67
10:S8:87:ASN:ND2	1:6:341:A:H4'	256.88	0.67
1:6:486:G:O6	1:6:488:G:N2	2.28	0.67
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.76	0.67
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:101:ARG:NH2	1:6:1321:A:OP2	400.22	0.67
1:6:822:U:H2'	1:6:823:G:H5''	1.77	0.67
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.76	0.67
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	3.67	0.67
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	1.97	0.67
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.35	0.67
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.28	0.67
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.27	0.67
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.78	0.67
77:Q1:23:ARG:O	87:5:4002:OHX:N2	264.15	0.67
36:5:1387:G:OP1	87:5:4202:OHX:N3	2.27	0.67
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.27	0.67
1:2:542:A:H5''	1:2:544:A:C8	2.30	0.67
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.63	0.67
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.28	0.67
3:S1:34:ALA:N	3:S1:41:ARG:O	2.27	0.67
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	3.04	0.67
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.20	0.67
36:5:510:G:O6	87:5:4024:OHX:N2	2.27	0.67
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.09	0.67
1:6:1122:G:O6	87:6:2165:OHX:N6	2.28	0.67
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.77	0.66
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.59	0.66
9:S7:114:ARG:O	9:S7:117:THR:HB	3.14	0.66
41:L4:146:PRO:O	87:L4:403:OHX:N5	2.28	0.66
36:1:409:A:OP2	87:1:4061:OHX:N5	2.28	0.66
3:S1:157:GLN:O	3:S1:159:SER:N	2.28	0.66
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.11	0.66
74:O8:46:ARG:NH1	74:O8:47:GLY:O	3.65	0.66
36:1:3074:G:OP1	87:1:4043:OHX:N1	2.27	0.66
36:5:2123:G:N7	87:5:4101:OHX:N1	2.43	0.66
48:M1:8:PRO:HG2	48:M1:9:MET:H	3.09	0.66
1:2:732:G:O6	87:2:2127:OHX:N5	2.28	0.66
41:L4:337:GLU:O	41:L4:339:LEU:N	2.28	0.66
24:D2:104:LEU:HB2	24:D2:124:LYS:O	1.94	0.66
1:2:793:A:H5''	1:2:794:U:C5	2.30	0.66
1:2:197:A:H61	10:S8:138:ASN:ND2	1.92	0.66
1:6:25:C:OP2	1:6:25:C:H4'	1.91	0.66
36:1:735:A:H2'	36:1:736:A:C8	2.31	0.66
67:O1:44:MET:O	67:O1:46:THR:N	3.31	0.66
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:88:ALA:O	87:O7:103:OHX:N1	2.28	0.66
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.25	0.66
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.76	0.66
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.77	0.66
1:6:595:G:H2'	1:6:596:C:C6	2.31	0.66
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.60	0.66
35:SM:23:LYS:HE3	35:SM:24:GLU:H	6.79	0.66
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.78	0.66
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.31	0.66
36:5:279:U:H2'	36:5:280:U:H6	1.61	0.66
36:1:2128:C:OP1	87:1:3963:OHX:N4	2.28	0.66
1:6:383:G:N7	87:6:2152:OHX:N5	2.42	0.66
57:N1:101:CYS:HB3	36:5:990:U:H1'	251.33	0.66
41:L4:63:GLU:O	41:L4:76:ARG:N	2.28	0.66
1:2:116:U:H2'	1:2:117:U:C6	2.30	0.66
1:6:1159:C:N3	87:6:2140:OHX:N5	2.43	0.66
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.13	0.66
66:O0:99:ASP:O	66:O0:101:LEU:N	2.77	0.66
76:Q0:125:LYS:HG3	36:5:2897:A:H5''	327.03	0.66
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.98	0.66
36:5:2211:U:H5	36:5:2234:G:O6	1.78	0.66
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	3.04	0.66
17:C5:65:LEU:O	87:C5:201:OHX:N2	4.39	0.66
36:5:2128:C:OP1	87:5:4091:OHX:N3	2.29	0.66
69:O3:19:SER:HB3	36:5:1330:A:OP1	233.38	0.66
63:N7:81:LEU:HD11	70:O4:90:ILE:HG23	1.76	0.66
1:6:218:A:H2'	1:6:219:A:H5''	1.76	0.66
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	2.06	0.66
48:M1:148:VAL:HG13	48:M1:152:HIS:HB3	1.77	0.66
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.78	0.66
1:6:230:C:H42	1:6:235:G:H1	1.42	0.66
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.77	0.66
36:1:3103:A:OP2	87:1:4172:OHX:N1	2.28	0.66
38:4:87:G:OP2	71:O5:7:TYR:OH	2.11	0.66
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.89	0.66
36:1:2732:G:OP2	87:1:4209:OHX:N2	2.29	0.66
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.29	0.66
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.85	0.66
26:D4:122:GLY:O	26:D4:125:LEU:N	2.44	0.66
36:5:3238:G:H5''	36:5:3238:G:H8	1.61	0.66
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.71	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1428:G:H5'	1:2:1428:G:H8	1.61	0.66
57:N1:40:VAL:HG21	57:N1:96:ILE:HG13	1.77	0.66
47:M0:73:ASN:O	47:M0:77:THR:HG23	1.96	0.66
55:M9:170:ARG:HH12	1:6:814:A:H2'	321.92	0.66
1:2:1657:U:H4'	1:2:1658:G:O5'	1.96	0.66
2:S0:71:GLU:O	2:S0:96:THR:HG22	1.94	0.66
4:S2:53:ILE:HG12	4:S2:72:LEU:HD23	1.78	0.66
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	1.86	0.66
36:1:2850:G:O6	87:1:4080:OHX:N6	2.29	0.66
38:4:97:A:OP1	71:O5:67:ARG:NH2	2.22	0.66
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.78	0.66
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.28	0.66
36:1:250:U:H5	36:1:251:G:N7	1.93	0.66
36:1:3152:U:O2	87:1:4149:OHX:N4	2.28	0.66
40:L3:120:LYS:NZ	36:5:3001:C:OP1	205.20	0.66
28:D6:75:VAL:O	28:D6:79:ILE:N	2.26	0.66
62:N6:114:ASP:OD1	87:8:225:OHX:N2	21.42	0.66
36:1:3066:U:O4	87:1:4140:OHX:N5	2.29	0.66
1:2:260:U:H3'	1:2:261:U:H5''	1.78	0.66
1:2:1600:A:H4'	1:2:1601:G:OP1	1.94	0.66
52:M6:3:VAL:HG22	52:M6:4:GLU:HG3	1.76	0.66
40:L3:296:THR:HG22	40:L3:298:PHE:N	2.10	0.66
1:6:578:U:O2	87:6:2157:OHX:N3	2.29	0.66
36:1:3155:U:H3'	36:1:3156:U:C4'	2.26	0.66
27:D5:88:ILE:HG22	27:D5:89:ILE:HG23	2.29	0.66
36:1:1024:G:N7	87:1:4170:OHX:N6	2.44	0.66
1:6:754:A:N6	1:6:793:A:N7	2.43	0.66
36:1:1317:A:OP1	87:1:4068:OHX:N2	2.29	0.66
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.58	0.66
45:L8:129:PRO:HB3	36:5:121:A:C2	101.76	0.66
36:1:1899:G:N7	87:1:3937:OHX:N3	2.44	0.66
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.61	0.66
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.03	0.66
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	3.55	0.66
79:Q3:84:ARG:NH2	79:Q3:88:GLU:OE2	2.29	0.66
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	1.96	0.66
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.11	0.66
29:D7:47:PHE:HD1	29:D7:49:HIS:O	1.79	0.66
36:1:3087:A:P	87:1:4186:OHX:N5	2.70	0.65
33:E1:144:CYS:O	33:E1:146:SER:N	2.49	0.65
1:2:703:G:H2'	1:2:704:C:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	1.79	0.65
36:5:1808:G:O6	87:5:4025:OHX:N3	2.30	0.65
1:6:647:G:H1	1:6:687:G:H1	1.43	0.65
44:L7:150:LYS:HG2	44:L7:151:ARG:HG2	1.77	0.65
1:6:761:G:O6	87:6:2087:OHX:N1	2.29	0.65
5:S3:142:LEU:H	5:S3:142:LEU:HD22	3.09	0.65
68:O2:26:HIS:O	68:O2:28:VAL:N	2.84	0.65
1:2:1584:G:H5'	18:C6:122:ARG:HG2	1.79	0.65
1:2:1672:G:H2'	1:2:1673:G:C8	2.31	0.65
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.26	0.65
25:D3:23:ARG:HG3	25:D3:23:ARG:HH11	2.11	0.65
59:N3:74:MET:HG3	59:N3:102:ILE:HD13	1.77	0.65
55:M9:104:ARG:HE	55:M9:105:LEU:N	1.94	0.65
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	2.91	0.65
1:2:1290:U:H2'	1:2:1291:G:C8	2.31	0.65
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.76	0.65
74:O8:3:ARG:NH2	36:5:1824:U:OP1	148.54	0.65
67:O1:86:LYS:HD2	67:O1:86:LYS:H	1.61	0.65
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.61	0.65
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.43	0.65
36:1:107:A:OP1	49:M3:39:ARG:NH1	2.28	0.65
78:Q2:17:CYS:HG	78:Q2:74:CYS:HG	1.30	0.65
1:2:538:A:H5'	1:2:543:C:H42	1.61	0.65
57:N1:39:ILE:HD12	57:N1:102:ARG:HD2	2.04	0.65
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.50	0.65
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	4.14	0.65
63:N7:21:LYS:HD3	63:N7:47:GLU:HA	1.78	0.65
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.79	0.65
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.29	0.65
36:1:1615:C:OP1	87:1:4184:OHX:N3	2.29	0.65
36:1:718:G:C2	36:1:721:G:H1'	2.31	0.65
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.78	0.65
75:O9:50:ASN:OD1	87:O9:101:OHX:N6	2.28	0.65
36:1:3276:G:O6	69:O3:60:ARG:NH1	2.29	0.65
45:L8:45:ASN:ND2	45:L8:47:SER:HB3	2.12	0.65
36:1:1243:G:N2	36:1:1244:A:N7	2.45	0.65
1:6:1698:G:N2	1:6:1699:G:N7	2.45	0.65
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	1.79	0.65
1:6:1227:A:H4'	1:6:1228:G:H5'	1.77	0.65
36:1:2526:C:OP1	39:L2:38:HIS:NE2	2.26	0.65
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	2.18	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.77	0.65
36:5:3274:A:H3'	36:5:3275:U:C5'	2.25	0.65
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.79	0.65
15:C3:65:VAL:O	15:C3:67:THR:N	3.05	0.65
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.61	0.65
36:1:2686:A:OP2	87:1:3904:OHX:N2	2.30	0.65
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.78	0.65
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.11	0.65
36:5:2101:C:H2'	36:5:2102:U:C6	2.31	0.65
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	2.62	0.65
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.74	0.65
37:3:112:G:OP2	87:3:221:OHX:N1	2.30	0.65
1:2:377:G:O6	87:2:2076:OHX:N5	2.29	0.65
36:5:299:G:N7	87:5:4191:OHX:N1	2.45	0.65
36:5:314:U:O4	87:5:4193:OHX:N5	2.29	0.65
5:S3:179:GLN:NE2	1:6:1438:G:O2'	393.70	0.65
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.92	0.65
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.84	0.65
3:S1:136:ARG:NH1	1:6:885:G:OP1	274.64	0.65
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	5.19	0.65
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.29	0.65
36:1:118:U:O2	36:1:121:A:H5'	1.97	0.65
36:5:419:G:N7	87:5:3906:OHX:N3	2.44	0.65
36:5:980:A:H2'	36:5:981:U:C2	2.31	0.65
1:6:151:G:H1	1:6:163:G:H1	1.44	0.65
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.10	0.65
7:S5:64:VAL:HG12	7:S5:65:ARG:HD3	1.79	0.65
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.78	0.65
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.78	0.65
15:C3:27:LYS:HE2	15:C3:27:LYS:H	1.60	0.65
1:2:1550:A:P	17:C5:42:ARG:HH22	2.19	0.65
1:6:1680:G:O6	87:6:2192:OHX:N1	2.29	0.65
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.32	0.65
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.28	0.65
36:5:1096:U:H4'	36:5:1097:G:O5'	1.96	0.65
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.79	0.65
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.61	0.65
36:1:1078:U:O4	87:1:3972:OHX:N2	2.30	0.65
56:N0:84:ARG:HG3	36:5:1295:G:OP1	294.71	0.65
45:L8:91:PHE:CE2	45:L8:185:ARG:HD3	4.96	0.65
52:M6:77:SER:OG	52:M6:106:GLU:OE2	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	2.37	0.65
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.79	0.65
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.13	0.65
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.29	0.65
1:6:25:C:O2	87:6:2111:OHX:N5	2.30	0.65
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.78	0.65
51:M5:190:THR:O	51:M5:194:GLN:HG2	1.96	0.65
1:6:67:A:O2'	1:6:69:G:OP1	2.05	0.65
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.30	0.65
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.15	0.65
36:1:1720:U:P	55:M9:110:ARG:HH12	2.19	0.65
56:N0:42:TRP:O	56:N0:46:GLN:HG3	1.97	0.65
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.38	0.65
62:N6:63:LYS:HE3	62:N6:97:ILE:HD13	1.78	0.65
36:5:3279:A:C2'	36:5:3280:U:H5'	2.26	0.65
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.77	0.65
1:2:565:C:O2	87:2:2037:OHX:N5	2.30	0.64
35:SM:72:ARG:NH1	1:6:1460:A:O2'	323.26	0.64
1:2:1796:C:H5	28:D6:6:ALA:H	1.42	0.64
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.29	0.64
1:6:1166:A:H2'	1:6:1167:G:O4'	1.98	0.64
1:2:1665:U:O4	87:2:2134:OHX:N4	2.30	0.64
36:1:1688:U:H2'	36:1:1689:U:C6	2.32	0.64
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.79	0.64
36:5:3242:G:H5'	36:5:3245:A:H8	1.62	0.64
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.31	0.64
36:1:1355:A:H4'	36:1:1356:U:O5'	1.96	0.64
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.48	0.64
36:5:2718:U:O4	87:5:4233:OHX:N6	2.31	0.64
36:5:3128:G:OP2	87:5:4160:OHX:N3	2.30	0.64
1:6:1350:U:H2'	1:6:1351:G:C8	2.31	0.64
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.63	0.64
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.17	0.64
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	1.79	0.64
36:1:2442:G:H22	36:1:2505:U:H3	1.43	0.64
13:C1:72:THR:HG22	13:C1:124:THR:HG23	3.21	0.64
40:L3:361:THR:HG22	40:L3:371:GLN:HB3	2.09	0.64
44:L7:143:THR:HG21	44:L7:237:ASN:HB3	1.79	0.64
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.49	0.64
3:S1:178:GLY:O	3:S1:179:SER:HB2	4.71	0.64
53:M7:62:ARG:NH1	36:5:412:G:OP1	159.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:46:LEU:O	12:C0:50:THR:HG23	1.98	0.64
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.60	0.64
57:N1:13:TYR:O	87:5:3912:OHX:N4	260.95	0.64
36:5:1631:C:H5''	36:5:1632:A:H5'	1.79	0.64
36:1:160:G:O6	87:1:4200:OHX:N6	2.30	0.64
7:S5:44:ASN:H	7:S5:44:ASN:HD22	3.77	0.64
36:1:2108:C:H1'	36:1:3344:A:C8	2.32	0.64
36:1:978:G:O2'	36:1:979:U:O2	2.10	0.64
33:E1:138:ARG:HD2	33:E1:149:LYS:HD2	6.62	0.64
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.80	0.64
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.78	0.64
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.06	0.64
6:S4:19:LEU:HD22	1:6:788:A:H2'	389.88	0.64
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.31	0.64
40:L3:171:LEU:O	87:L3:404:OHX:N6	2.31	0.64
1:2:1479:A:P	21:C9:57:ARG:HH12	2.20	0.64
11:S9:27:GLU:OE1	11:S9:39:LYS:NZ	3.33	0.64
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.28	0.64
7:S5:178:GLY:HA3	7:S5:209:TYR:CD2	2.33	0.64
36:1:2734:A:OP1	87:1:4012:OHX:N3	2.30	0.64
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.79	0.64
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.78	0.64
55:M9:23:TRP:CZ2	55:M9:25:ASP:HB3	2.32	0.64
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.26	0.64
1:2:851:U:H2'	1:2:852:C:C6	2.31	0.64
65:N9:14:ARG:NH2	65:N9:18:ARG:HD3	2.12	0.64
12:C0:44:LYS:NZ	12:C0:47:GLN:OE1	2.86	0.64
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.80	0.64
36:1:1674:G:OP2	87:1:3954:OHX:N2	2.31	0.64
36:1:679:U:O4	87:1:3979:OHX:N1	2.31	0.64
36:1:514:G:N3	41:L4:341:SER:OG	2.30	0.64
4:S2:83:ILE:HD12	35:SM:117:LEU:HD12	1.80	0.64
36:5:742:G:N7	87:5:4004:OHX:N4	2.45	0.64
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	2.32	0.64
36:1:1495:U:H5	36:1:1835:A:N1	1.94	0.64
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.80	0.64
38:4:85:G:O6	62:N6:112:ASP:HB3	1.98	0.64
87:2:2029:OHX:N3	87:2:2144:OHX:N1	2.46	0.64
50:M4:121:MET:HG3	36:5:3214:U:C4	282.63	0.64
1:6:484:C:N4	1:6:503:G:H1	1.96	0.64
8:S6:173:PRO:HG3	1:6:66:U:C5	333.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2507:C:O2'	36:5:2508:U:OP1	2.16	0.64
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.46	0.64
37:3:39:C:N3	48:M1:70:THR:HG23	2.13	0.64
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.06	0.64
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	4.61	0.64
10:S8:2:GLY:N	1:6:393:C:OP2	291.93	0.64
8:S6:10:ASN:HB3	8:S6:128:THR:HA	1.86	0.64
72:O6:4:LYS:O	72:O6:16:LYS:NZ	3.86	0.64
38:8:83:C:H4'	38:8:85:G:C2	2.33	0.64
8:S6:155:ASP:OD2	8:S6:155:ASP:N	2.30	0.64
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.78	0.64
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.80	0.64
1:2:1280:C:H2'	1:2:1281:G:H8	1.61	0.64
1:6:1564:U:H2'	1:6:1565:C:C6	2.32	0.64
67:O1:19:ARG:HB3	67:O1:35:GLU:HG2	1.78	0.64
15:C3:62:GLN:HB2	15:C3:65:VAL:HG23	1.79	0.64
42:L5:233:ALA:O	42:L5:235:SER:N	2.30	0.64
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.05	0.64
1:2:480:G:H22	1:2:509:G:H1'	1.63	0.64
36:1:2356:A:H61	36:1:2983:C:H5	1.44	0.64
38:4:16:G:O6	87:4:221:OHX:N3	2.31	0.64
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.64	0.64
36:1:1454:A:OP2	87:1:4212:OHX:N6	2.30	0.64
36:1:276:U:O2	51:M5:93:LYS:NZ	2.25	0.64
55:M9:86:GLU:OE2	55:M9:91:SER:OG	2.15	0.64
4:S2:121:VAL:O	4:S2:125:ILE:HG13	1.97	0.64
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	4.78	0.64
14:C2:33:ARG:HA	14:C2:36:LEU:HD12	1.79	0.64
36:1:3343:G:H21	36:1:3362:A:H2	1.45	0.64
40:L3:3:HIS:O	40:L3:5:LYS:N	2.31	0.64
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.52	0.64
36:5:1152:G:N2	36:5:1200:A:H61	1.94	0.64
13:C1:77:SER:HB3	13:C1:85:VAL:HB	1.84	0.64
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.80	0.64
53:M7:69:ARG:HD3	36:5:3309:G:H1'	185.84	0.64
17:C5:85:ILE:HD12	17:C5:111:MET:HB3	2.58	0.64
36:1:3174:A:OP1	69:O3:97:SER:OG	2.13	0.64
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.32	0.64
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.63	0.64
69:O3:10:LYS:O	69:O3:33:GLU:HB2	2.69	0.64
1:2:1542:G:N2	1:2:1568:C:H1'	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.65	0.64
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.80	0.64
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.66	0.64
1:2:405:C:O2'	8:S6:92:ARG:O	2.16	0.64
15:C3:25:TRP:HA	15:C3:27:LYS:HE2	6.14	0.64
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.90	0.64
6:S4:42:LEU:HD22	6:S4:47:PHE:HB2	1.79	0.64
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.31	0.64
36:1:582:G:O6	87:1:4177:OHX:N2	2.31	0.64
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	1.87	0.64
37:7:86:U:O2	87:7:220:OHX:N4	2.30	0.64
13:C1:5:LEU:O	13:C1:7:VAL:N	2.27	0.64
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	1.63	0.64
1:2:1680:G:O6	87:2:2108:OHX:N5	2.31	0.64
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.62	0.64
1:2:827:C:H2'	1:2:828:U:H6	1.63	0.64
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.40	0.63
41:L4:144:LYS:HG2	41:L4:145:ILE:H	5.82	0.63
41:L4:145:ILE:O	41:L4:145:ILE:HG13	2.07	0.63
1:2:1041:G:H2'	1:2:1042:G:C8	2.33	0.63
2:S0:109:ASN:O	2:S0:112:THR:HG22	1.99	0.63
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.97	0.63
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.80	0.63
75:O9:4:GLN:HG2	36:5:1588:A:C2	126.74	0.63
1:2:802:G:H21	24:D2:107:SER:HB3	1.63	0.63
36:5:67:A:OP1	87:5:3956:OHX:N6	2.31	0.63
1:2:488:G:OP1	1:2:488:G:H4'	1.98	0.63
36:5:739:G:O6	87:5:3967:OHX:N6	2.31	0.63
36:5:1409:G:N7	87:5:4163:OHX:N6	2.45	0.63
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	2.68	0.63
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.19	0.63
1:2:768:C:C2	11:S9:143:ILE:HD13	2.33	0.63
1:2:1599:C:O2	87:2:2109:OHX:N3	2.31	0.63
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.30	0.63
10:S8:61:GLU:HG3	10:S8:62:THR:HG23	2.41	0.63
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	2.64	0.63
3:S1:104:ASP:HA	3:S1:214:LYS:HE2	1.80	0.63
37:7:3:U:H2'	37:7:4:U:C6	2.33	0.63
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.26	0.63
49:M3:59:ARG:NH1	49:M3:66:ASN:O	2.63	0.63
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:159:ASN:HD22	34:SR:163:ASP:HA	1.63	0.63
1:2:794:U:O2'	1:2:795:U:O2	2.16	0.63
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.10	0.63
1:6:1160:A:H2'	1:6:1161:C:C6	2.33	0.63
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.97	0.63
36:1:223:U:O4	87:1:4201:OHX:N5	2.31	0.63
36:1:1338:C:OP2	87:1:4202:OHX:N2	2.31	0.63
1:2:484:C:H42	1:2:503:G:H22	1.46	0.63
36:5:1581:C:OP2	36:5:1581:C:H4'	1.96	0.63
36:5:3074:G:OP1	87:5:4120:OHX:N4	2.30	0.63
53:M7:36:ILE:HD11	53:M7:48:LEU:HD11	1.79	0.63
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.31	0.63
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.64	0.63
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.30	0.63
20:C8:125:ILE:HG12	35:SM:61:ILE:HG23	1.81	0.63
1:6:800:U:H2'	1:6:801:G:H8	1.61	0.63
1:6:453:U:O2	1:6:453:U:H3'	1.98	0.63
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.24	0.63
17:C5:19:GLY:N	20:C8:93:THR:O	2.31	0.63
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.63	0.63
36:1:2107:A:H2	36:1:3344:A:C8	2.15	0.63
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.71	0.63
87:2:2029:OHX:N6	87:2:2144:OHX:N2	2.46	0.63
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.33	0.63
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.62	0.63
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.80	0.63
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.20	0.63
1:2:959:U:H6	15:C3:61:THR:HB	1.63	0.63
1:2:647:G:N2	1:2:687:G:H22	1.96	0.63
1:2:1542:G:N2	1:2:1569:A:OP2	2.26	0.63
36:1:873:C:H5''	36:1:874:U:O5'	1.99	0.63
11:S9:9:SER:OG	1:6:771:A:OP1	390.70	0.63
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.81	0.63
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.39	0.63
53:M7:168:LEU:HB2	53:M7:172:GLN:HB3	1.80	0.63
48:M1:137:ARG:HG2	37:7:28:C:H5''	306.31	0.63
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.33	0.63
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.34	0.63
33:E1:127:GLY:O	33:E1:129:GLY:N	2.32	0.63
36:5:2509:U:H2'	36:5:2510:U:H5''	1.79	0.63
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3192:U:O4	87:5:4145:OHX:N6	2.31	0.63
87:6:2124:OHX:N2	87:6:2174:OHX:N1	2.47	0.63
36:1:1564:U:H2'	36:1:1565:G:C8	2.34	0.63
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.64	0.63
39:L2:250:GLN:HG2	39:L2:251:LYS:H	4.24	0.63
63:N7:16:GLY:O	63:N7:18:TYR:N	2.36	0.63
36:1:65:A:H3'	36:1:111:C:N4	2.14	0.63
79:Q3:59:CYS:O	79:Q3:60:CYS:HB3	1.97	0.63
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.24	0.63
1:6:1268:G:H1'	1:6:1448:G:H5''	1.79	0.63
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.63	0.63
26:D4:86:GLU:OE2	26:D4:90:ARG:NH1	2.81	0.63
10:S8:152:ILE:O	10:S8:153:GLU:HB2	1.98	0.63
36:1:2840:C:N4	36:1:2845:A:O2'	2.31	0.63
39:L2:137:ILE:HG12	39:L2:147:ARG:HG3	4.39	0.63
1:2:514:G:N1	1:2:543:C:H5	1.96	0.63
17:C5:121:ILE:HD13	17:C5:123:TYR:H	2.97	0.63
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.09	0.63
29:D7:61:THR:OG1	29:D7:62:ILE:N	3.32	0.63
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.32	0.63
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.43	0.63
1:6:1491:U:H4'	1:6:1492:A:H5''	1.80	0.63
1:6:1294:G:O6	87:6:2072:OHX:N5	2.32	0.63
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	2.39	0.63
1:2:1291:G:H22	1:2:1324:G:N2	1.96	0.63
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.64	0.63
1:6:235:G:H2'	1:6:236:A:C8	2.33	0.63
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.31	0.63
87:5:4021:OHX:N6	87:5:4218:OHX:N2	2.47	0.63
40:L3:56:ILE:HG12	40:L3:323:MET:HE3	1.81	0.63
3:S1:51:SER:HB3	3:S1:57:ALA:H	2.15	0.63
11:S9:78:ARG:NH1	1:6:764:U:OP2	419.74	0.63
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.32	0.63
36:5:3335:A:H8	36:5:3335:A:H5'	1.62	0.63
1:6:542:A:C8	1:6:543:C:H5'	2.34	0.63
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.65	0.63
14:C2:50:LYS:HZ1	33:E1:131:PHE:HE2	1.46	0.63
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.79	0.63
36:5:2249:G:OP1	87:5:4200:OHX:N6	2.32	0.63
36:1:3087:A:O5'	87:1:4186:OHX:N5	2.32	0.63
36:1:3087:A:OP1	87:1:4186:OHX:N5	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.45	0.63
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.81	0.63
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.07	0.63
11:S9:149:ARG:HD2	1:6:765:G:N7	427.68	0.63
56:N0:90:MET:HG2	36:5:1213:G:H4'	318.75	0.63
24:D2:10:ALA:HB1	24:D2:27:ILE:HD13	2.85	0.63
36:1:1613:A:OP1	74:O8:2:ALA:N	2.32	0.63
66:O0:50:VAL:HG11	36:5:2552:C:H2'	233.64	0.63
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	4.14	0.63
8:S6:131:LYS:O	60:N4:82:ILE:HA	1.99	0.63
36:5:1378:U:OP1	87:5:4028:OHX:N3	2.31	0.63
12:C0:52:LYS:HE2	1:6:1220:C:H5'	444.08	0.63
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	2.11	0.63
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.30	0.62
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	1.80	0.62
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	5.90	0.62
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.28	0.62
41:L4:141:ARG:O	41:L4:144:LYS:NZ	8.32	0.62
20:C8:27:LYS:O	20:C8:31:ALA:N	3.06	0.62
7:S5:123:VAL:O	27:D5:58:ARG:NH1	2.27	0.62
36:1:1103:A:H4'	36:1:1103:A:OP2	1.99	0.62
16:C4:51:ASP:OD1	1:6:902:G:N1	282.73	0.62
57:N1:17:ARG:O	57:N1:18:ASP:HB2	1.99	0.62
36:1:544:C:H1'	36:1:548:G:H22	1.64	0.62
5:S3:142:LEU:O	5:S3:144:ALA:N	2.32	0.62
36:1:1605:A:O2'	36:1:1607:U:OP2	2.12	0.62
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.33	0.62
36:1:3136:G:OP2	87:1:4104:OHX:N6	2.32	0.62
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.64	0.62
36:1:1014:U:H2'	36:1:1015:U:H5''	1.81	0.62
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	1.99	0.62
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	3.64	0.62
42:L5:150:LEU:HD12	48:M1:143:ARG:HG3	2.79	0.62
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.64	0.62
1:2:1483:A:H2'	1:2:1484:G:C8	2.34	0.62
10:S8:2:GLY:HA2	1:6:1729:C:O2'	286.62	0.62
36:1:2947:G:H4'	36:1:2947:G:OP2	1.98	0.62
20:C8:23:ASP:OD1	20:C8:25:ASN:ND2	3.45	0.62
1:2:1006:C:O2	87:2:2143:OHX:N2	2.32	0.62
1:2:1335:U:H3	1:2:1416:G:H1	1.47	0.62
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:99:LYS:O	70:O4:103:LYS:HG2	1.99	0.62
4:S2:159:THR:HG21	1:6:1097:U:O3'	382.91	0.62
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.81	0.62
87:5:4021:OHX:N3	87:5:4218:OHX:N1	2.48	0.62
36:1:1119:C:OP2	87:1:3960:OHX:N1	2.31	0.62
1:6:417:A:H4'	1:6:418:G:O5'	1.99	0.62
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.06	0.62
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.81	0.62
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.80	0.62
37:3:89:G:N2	37:3:92:A:OP2	2.32	0.62
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.22	0.62
37:3:10:C:OP2	57:N1:26:HIS:HD2	1.83	0.62
87:6:2124:OHX:N6	87:6:2174:OHX:N5	2.47	0.62
62:N6:8:VAL:HG11	36:5:228:U:H5''	65.83	0.62
18:C6:38:LEU:O	18:C6:40:GLU:N	2.33	0.62
1:6:139:C:H4'	1:6:140:A:O5'	1.98	0.62
36:1:3353:G:O2'	36:1:3356:G:H5'	1.98	0.62
41:L4:84:ARG:O	41:L4:87:GLN:HG3	1.99	0.62
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.80	0.62
1:2:260:U:H3'	1:2:261:U:C5'	2.29	0.62
36:1:1488:G:O2'	70:O4:10:ARG:O	2.17	0.62
36:1:1724:U:H1'	36:1:1725:C:C6	2.35	0.62
74:O8:25:VAL:HB	74:O8:77:ARG:HD2	2.57	0.62
36:1:109:A:H4'	36:1:110:G:OP1	1.99	0.62
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.80	0.62
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.80	0.62
1:6:152:U:C2	1:6:163:G:N2	2.68	0.62
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.45	0.62
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.71	0.62
51:M5:125:SER:HB3	36:5:2433:U:H1'	161.25	0.62
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	3.00	0.62
53:M7:127:ARG:NH2	36:5:1508:C:OP1	138.07	0.62
1:2:780:A:H8	26:D4:8:ARG:HB3	1.64	0.62
87:1:3945:OHX:N5	87:1:4203:OHX:N6	2.48	0.62
36:1:980:A:H2'	36:1:981:U:N1	2.14	0.62
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	4.87	0.62
36:1:1278:A:O2'	36:1:1279:C:O5'	2.15	0.62
11:S9:149:ARG:O	11:S9:151:ASP:N	2.32	0.62
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.93	0.62
36:5:1595:U:C2	36:5:1596:C:C5	2.87	0.62
1:2:1470:C:OP1	1:2:1540:G:O2'	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1580:A:O2'	36:5:1581:C:OP2	2.18	0.62
36:1:2418:G:H4'	36:1:2419:A:OP2	2.00	0.62
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.34	0.62
36:5:22:G:H1'	38:8:104:A:N3	2.14	0.62
1:2:491:C:H42	1:2:496:G:H1	1.46	0.62
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.16	0.62
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	4.50	0.62
1:2:1367:G:N7	87:2:2107:OHX:N6	2.47	0.62
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.42	0.62
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.28	0.62
14:C2:124:LYS:O	14:C2:126:TRP:N	2.33	0.62
1:2:1169:G:N1	1:2:1575:G:OP2	2.32	0.62
6:S4:141:THR:O	6:S4:144:GLY:N	2.32	0.62
36:5:173:G:HO2'	36:5:174:C:H6	1.48	0.62
36:5:776:U:H5	36:5:2719:U:O2	1.81	0.62
19:C7:7:LYS:N	1:6:1316:G:OP1	410.10	0.62
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.99	0.62
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.33	0.62
22:D0:28:SER:OG	22:D0:29:THR:N	2.29	0.62
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.92	0.62
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.16	0.62
36:1:1362:G:H2'	36:1:1363:A:C8	2.35	0.62
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.35	0.62
36:1:3233:C:H2'	36:1:3234:A:C8	2.35	0.62
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	1.91	0.62
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.80	0.62
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.44	0.62
1:2:301:A:OP2	87:2:2062:OHX:N2	2.33	0.62
36:1:1796:G:H5''	36:1:1797:A:OP1	1.99	0.62
1:2:1358:G:H2'	1:2:1359:C:C6	2.35	0.62
59:N3:39:VAL:O	59:N3:42:SER:OG	2.76	0.62
59:N3:33:ASN:HD22	59:N3:63:LYS:HB2	3.88	0.62
87:5:3974:OHX:N3	87:5:4244:OHX:N5	2.47	0.62
18:C6:109:PHE:O	18:C6:113:ASP:N	2.58	0.62
10:S8:39:GLY:O	10:S8:59:ARG:HB3	2.00	0.62
36:1:3113:A:H1'	46:L9:70:THR:HG22	1.81	0.62
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	1.81	0.62
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.49	0.62
1:6:357:G:OP2	87:6:2078:OHX:N6	2.33	0.62
50:M4:106:ARG:HD3	36:5:3209:A:C5	294.56	0.62
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.27	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	1.81	0.62
1:2:489:C:H42	1:2:497:G:H22	1.47	0.62
63:N7:67:LYS:NZ	36:5:1630:U:OP1	196.52	0.62
36:1:1553:U:H4'	36:1:1554:U:H5'	1.82	0.62
36:5:850:U:H2'	36:5:851:C:C6	2.35	0.62
36:1:1752:A:OP2	87:1:4052:OHX:N5	2.33	0.62
36:1:980:A:OP2	36:1:980:A:H8	1.82	0.62
87:6:2124:OHX:N6	87:6:2174:OHX:N3	2.48	0.62
37:7:3:U:H2'	37:7:4:U:H6	1.64	0.62
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.00	0.62
7:S5:91:GLU:HA	7:S5:94:THR:HG23	2.01	0.62
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.56	0.62
36:5:1790:G:O6	87:5:4199:OHX:N4	2.33	0.62
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.82	0.62
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.04	0.62
25:D3:91:GLY:O	25:D3:93:LEU:N	2.32	0.62
36:5:1661:G:H2'	36:5:1662:G:C8	2.35	0.62
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	280.17	0.62
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.21	0.62
36:5:1564:U:H2'	36:5:1565:G:C8	2.35	0.61
36:1:1429:G:C5	41:L4:99:MET:HE1	2.34	0.61
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.65	0.61
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.60	0.61
66:O0:100:ILE:HD12	66:O0:101:LEU:HD23	1.82	0.61
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.91	0.61
33:E1:102:VAL:O	33:E1:104:SER:N	2.33	0.61
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	1.82	0.61
36:1:1441:G:O6	87:1:3931:OHX:N1	2.33	0.61
29:D7:41:LEU:H	29:D7:41:LEU:HD23	3.46	0.61
57:N1:79:MET:HA	57:N1:84:TYR:HA	1.81	0.61
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.36	0.61
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.34	0.61
36:5:3343:G:N2	36:5:3362:A:H2	1.97	0.61
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.15	0.61
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.00	0.61
18:C6:99:GLU:O	18:C6:102:LYS:N	2.72	0.61
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	1.81	0.61
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.97	0.61
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.26	0.61
36:1:2236:G:OP1	87:1:4123:OHX:N6	2.33	0.61
6:S4:141:THR:O	6:S4:143:ASP:N	2.33	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'	1.99	0.61
16:C4:103:ARG:NH2	28:D6:52:ASP:OD1	2.33	0.61
36:1:1952:G:H3'	36:1:1953:G:H5''	1.82	0.61
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.32	0.61
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.77	0.61
17:C5:77:ARG:NH1	1:6:1241:G:OP2	383.40	0.61
1:2:539:G:OP2	1:2:539:G:H8	1.82	0.61
1:2:1274:C:H5	35:SM:96:ARG:H	1.46	0.61
12:C0:87:VAL:O	12:C0:89:ALA:N	5.18	0.61
1:6:868:G:H1	1:6:960:U:H3	1.47	0.61
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.22	0.61
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.00	0.61
87:6:2124:OHX:N2	87:6:2174:OHX:N5	2.48	0.61
53:M7:67:ILE:HD11	36:5:1447:G:H3'	165.24	0.61
6:S4:194:THR:O	6:S4:195:ILE:HB	2.00	0.61
36:1:1507:G:H5'	36:1:1507:G:N3	2.15	0.61
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.97	0.61
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.52	0.61
34:SR:133:VAL:O	34:SR:141:LEU:N	2.73	0.61
36:1:111:C:O2'	36:1:112:U:H5'	2.00	0.61
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	1.90	0.61
36:5:2374:C:N4	36:5:2941:A:O4'	2.33	0.61
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.33	0.61
1:2:782:U:H4'	1:2:783:G:OP2	2.01	0.61
1:6:751:G:H2'	1:6:752:A:C8	2.35	0.61
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.77	0.61
36:5:1563:C:O2	36:5:1577:G:N2	2.34	0.61
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.33	0.61
56:N0:82:ASP:OD1	56:N0:87:THR:HB	2.01	0.61
1:2:1194:A:H2'	1:2:1195:C:H5'	1.82	0.61
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	2.64	0.61
1:6:1280:C:H2'	1:6:1281:G:C8	2.34	0.61
1:2:1239:U:O4	87:2:2045:OHX:N2	2.33	0.61
87:5:4021:OHX:N5	87:5:4218:OHX:N2	2.49	0.61
20:C8:29:VAL:HG21	20:C8:54:LEU:HD23	5.88	0.61
36:1:2261:G:O6	87:1:3939:OHX:N4	2.34	0.61
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.04	0.61
11:S9:62:ARG:CZ	11:S9:68:LYS:HD3	3.72	0.61
37:3:85:G:O6	87:3:216:OHX:N4	2.33	0.61
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	3.19	0.61
52:M6:188:SER:O	52:M6:192:LYS:HG2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:900:A:OP1	16:C4:43:THR:OG1	2.16	0.61
36:1:1108:U:H2'	36:1:1109:U:C6	2.35	0.61
52:M6:84:LEU:HD13	52:M6:102:LEU:HD21	2.07	0.61
40:L3:296:THR:CG2	40:L3:298:PHE:H	2.38	0.61
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	1.83	0.61
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.34	0.61
36:5:1940:G:H21	36:5:3362:A:H8	1.49	0.61
52:M6:110:PRO:O	52:M6:111:PRO:C	3.61	0.61
1:6:138:A:N6	1:6:266:A:H61	1.99	0.61
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	1.82	0.61
42:L5:10:SER:HB2	37:7:67:G:H5'	310.73	0.61
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.90	0.61
36:5:1246:G:O2'	36:5:1264:G:OP2	2.17	0.61
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.90	0.61
21:C9:63:ARG:HH12	1:6:1481:C:P	404.85	0.61
36:5:2115:G:H22	36:5:2120:A:H1'	1.65	0.61
42:L5:48:LYS:NZ	36:5:2748:A:O3'	243.71	0.61
8:S6:3:LEU:HD13	8:S6:111:LEU:HD11	2.48	0.61
1:2:520:A:H2'	1:2:521:A:C8	2.35	0.61
36:1:929:A:H2'	36:1:930:U:C6	2.35	0.61
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	3.89	0.61
40:L3:147:GLU:OE1	40:L3:150:ARG:NH2	4.90	0.61
36:5:2619:G:N7	87:5:4244:OHX:N2	2.48	0.61
11:S9:95:TYR:HD2	11:S9:98:ALA:HB3	1.65	0.61
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.82	0.61
36:5:2960:C:OP1	87:5:3973:OHX:N5	2.34	0.61
1:6:104:A:H61	1:6:308:C:H5'	1.65	0.61
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.32	0.61
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.19	0.61
55:M9:173:ARG:HH21	55:M9:177:VAL:HG21	9.20	0.61
24:D2:89:TRP:HE3	24:D2:93:LEU:HD22	2.66	0.61
87:5:4021:OHX:N5	87:5:4218:OHX:N1	2.48	0.61
29:D7:54:VAL:O	29:D7:63:LEU:HB2	1.99	0.61
26:D4:10:ARG:HD2	1:6:778:G:O6	429.68	0.61
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	2.47	0.61
1:6:1757:G:O6	87:6:2050:OHX:N4	2.33	0.61
49:M3:3:ILE:HG21	64:N8:45:MET:HE3	5.63	0.61
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.34	0.61
1:6:1234:A:HO2'	1:6:1235:C:H6	1.49	0.61
51:M5:50:ARG:NH1	36:5:267:G:H4'	111.69	0.61
36:5:1765:U:H4'	36:5:1765:U:OP1	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:46:LYS:HZ1	36:5:1766:G:H8	100.56	0.61
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.39	0.61
1:6:1688:U:H3	1:6:1713:G:H1	1.48	0.61
3:S1:151:LYS:NZ	1:6:1066:C:OP1	336.63	0.61
18:C6:26:LYS:NZ	1:6:1364:G:O3'	435.69	0.61
9:S7:164:TYR:CE1	9:S7:165:LYS:HG3	2.61	0.61
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	1.82	0.61
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.34	0.61
36:5:2962:U:OP1	87:5:3979:OHX:N4	2.34	0.61
1:2:639:U:OP1	9:S7:117:THR:OG1	2.16	0.61
36:1:2818:U:C6	36:1:2818:U:H5'	2.35	0.61
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.64	0.61
59:N3:3:GLY:HA2	59:N3:40:LYS:HB3	5.90	0.61
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.03	0.61
36:1:900:G:H1'	36:1:1589:A:N6	2.15	0.61
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.61	0.61
36:1:595:G:N1	36:1:609:G:H5''	2.15	0.61
55:M9:84:THR:O	55:M9:88:ARG:HG2	3.81	0.61
52:M6:54:TYR:HE2	52:M6:58:LEU:HD13	2.58	0.61
46:L9:168:ARG:HD2	36:5:2894:C:OP1	306.27	0.61
1:6:291:G:H2'	1:6:292:U:C6	2.36	0.61
36:1:1480:G:H4'	36:1:1481:A:OP1	2.01	0.61
36:5:2836:C:H5	36:5:2852:C:N4	1.89	0.61
1:2:514:G:O2'	1:2:515:A:H5'	2.01	0.61
11:S9:108:ARG:HB2	11:S9:110:GLN:HB3	2.22	0.61
36:5:437:G:H22	36:5:622:A:N6	1.99	0.61
48:M1:137:ARG:HD3	37:7:28:C:OP1	303.38	0.61
44:L7:159:GLN:O	44:L7:160:ARG:HB3	2.01	0.61
1:6:191:C:O2'	1:6:192:U:O5'	2.18	0.61
1:2:749:U:H3	1:2:800:U:H3	1.48	0.61
25:D3:24:TRP:HE3	25:D3:30:LYS:HD2	1.65	0.61
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.83	0.61
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.01	0.61
1:2:1385:G:N7	87:2:2130:OHX:N3	2.48	0.61
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.83	0.61
63:N7:115:LYS:O	63:N7:119:GLU:HB2	3.25	0.61
11:S9:114:TYR:HD1	11:S9:121:SER:H	1.86	0.61
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.36	0.61
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.83	0.61
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.82	0.61
1:6:454:U:H5''	1:6:455:C:C5	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:137:C:OP2	87:4:229:OHX:N5	2.33	0.61
64:N8:16:SER:HA	36:5:942:U:N3	169.46	0.61
1:2:1564:U:H2'	1:2:1565:C:H6	1.66	0.61
36:1:3165:A:H2'	36:1:3166:C:C6	2.36	0.61
35:SM:26:VAL:HG11	48:M1:49:LYS:HE2	3.27	0.61
18:C6:11:GLY:HA2	18:C6:83:GLN:HE21	1.66	0.61
1:2:1683:C:O2'	1:2:1684:U:O5'	2.18	0.61
1:6:219:A:H2'	1:6:831:U:O2	2.01	0.61
38:8:79:A:H3'	38:8:80:A:C8	2.35	0.61
36:5:1355:A:H1'	36:5:1356:U:OP2	2.01	0.61
46:L9:75:VAL:HA	46:L9:78:MET:HE2	1.83	0.61
56:N0:77:VAL:HG11	56:N0:106:LEU:HD13	1.82	0.61
4:S2:206:THR:HG21	1:6:14:C:OP2	375.40	0.61
1:6:1645:G:OP2	87:6:2186:OHX:N3	2.33	0.61
46:L9:4:ILE:HG22	56:N0:142:GLN:OE1	2.43	0.61
32:E0:26:LYS:NZ	1:6:588:U:OP2	418.35	0.61
36:1:2318:U:O4	87:1:4044:OHX:N2	2.34	0.61
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.45	0.61
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.13	0.60
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.82	0.60
20:C8:145:ARG:HB2	35:SM:68:ARG:HH22	1.65	0.60
18:C6:47:LYS:HZ1	18:C6:114:ARG:HD3	3.97	0.60
48:M1:44:THR:O	37:7:39:C:O2'	299.71	0.60
1:2:1034:C:HO2'	24:D2:2:THR:N	1.99	0.60
1:2:1776:A:H2'	1:2:1777:G:C8	2.36	0.60
36:5:2787:G:OP2	87:5:4035:OHX:N6	2.33	0.60
54:M8:141:ARG:HD3	36:5:743:C:O2	174.72	0.60
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.83	0.60
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.36	0.60
9:S7:118:LEU:N	1:6:639:U:OP1	366.10	0.60
62:N6:50:ILE:HD13	62:N6:51:ARG:H	2.21	0.60
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	4.62	0.60
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	3.13	0.60
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.24	0.60
1:2:494:U:O2'	1:2:495:C:O5'	2.17	0.60
1:6:9:U:O4	87:6:2149:OHX:N3	2.34	0.60
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.01	0.60
45:L8:33:ASN:O	45:L8:35:GLY:N	3.36	0.60
1:6:660:G:H2'	1:6:661:A:H4'	1.82	0.60
36:5:1549:U:O4	87:5:4203:OHX:N2	2.34	0.60
36:1:1938:U:O4	87:1:3920:OHX:N2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1533:C:H4'	1:6:1539:G:N1	2.16	0.60
20:C8:26:ILE:HD11	20:C8:30:TYR:HB2	1.84	0.60
36:1:562:C:H2'	36:1:563:U:H6	1.65	0.60
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.65	0.60
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.83	0.60
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.83	0.60
36:1:567:G:O6	87:1:4008:OHX:N1	2.34	0.60
1:2:1192:C:H5'	18:C6:142:TYR:HA	1.82	0.60
36:1:1544:G:O6	87:1:4062:OHX:N4	2.33	0.60
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.01	0.60
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.33	0.60
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	1.84	0.60
29:D7:67:THR:OG1	29:D7:70:LYS:O	2.19	0.60
36:1:2592:G:H4'	36:1:2594:C:C2	2.36	0.60
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.09	0.60
3:S1:169:SER:O	3:S1:173:THR:HG23	2.44	0.60
1:2:66:U:C5	8:S6:173:PRO:HG3	2.37	0.60
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.54	0.60
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.82	0.60
36:5:3364:C:OP1	87:5:3943:OHX:N1	2.34	0.60
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.26	0.60
34:SR:164:ASP:O	34:SR:166:SER:N	2.58	0.60
67:O1:46:THR:HG23	67:O1:47:ASP:H	4.11	0.60
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.21	0.60
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	2.02	0.60
43:L6:129:GLU:HG2	43:L6:130:ILE:H	3.55	0.60
36:5:2533:G:N2	36:5:2546:C:O2	2.32	0.60
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.71	0.60
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.24	0.60
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.45	0.60
34:SR:201:THR:HG21	34:SR:243:LEU:N	2.17	0.60
36:1:1414:G:N7	87:1:4127:OHX:N2	2.48	0.60
36:5:900:G:H1'	36:5:1589:A:N6	2.16	0.60
1:2:1459:C:OP2	20:C8:138:THR:OG1	2.16	0.60
36:5:920:A:OP1	36:5:922:U:H5	1.82	0.60
70:O4:8:ARG:HH11	70:O4:8:ARG:HG2	1.65	0.60
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.30	0.60
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.34	0.60
55:M9:17:VAL:HG13	55:M9:21:LYS:HB2	3.10	0.60
1:6:500:C:O2'	1:6:501:U:O4'	2.20	0.60
34:SR:159:ASN:O	34:SR:161:LYS:N	4.10	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:542:A:H2'	1:6:542:A:OP1	2.01	0.60
1:2:558:U:O2'	1:2:559:C:O5'	2.20	0.60
24:D2:2:THR:N	1:6:1034:C:HO2'	337.73	0.60
1:6:1311:U:O4	87:6:2187:OHX:N4	2.34	0.60
34:SR:299:GLN:NE2	34:SR:315:VAL:O	2.35	0.60
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.74	0.60
38:8:108:C:N4	38:8:114:G:O6	2.19	0.60
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.01	0.60
1:6:1657:U:O2'	1:6:1658:G:OP2	2.17	0.60
5:S3:46:THR:N	5:S3:83:THR:O	3.03	0.60
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.63	0.60
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	1.88	0.60
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.84	0.60
27:D5:55:PRO:O	27:D5:57:TYR:N	2.31	0.60
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.86	0.60
41:L4:181:VAL:HG21	41:L4:224:GLY:HA3	1.83	0.60
1:2:195:G:O6	10:S8:141:ARG:NH2	2.34	0.60
13:C1:83:THR:HG21	1:6:325:G:H4'	289.13	0.60
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	3.97	0.60
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.66	0.60
1:6:1427:A:O2'	1:6:1428:G:OP1	2.18	0.60
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	2.44	0.60
36:5:1650:G:N7	87:5:4183:OHX:N3	2.49	0.60
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.88	0.60
36:1:2572:C:O2'	36:1:2573:G:O4'	2.15	0.60
36:1:999:G:N3	36:1:1002:A:N6	2.49	0.60
1:2:320:U:H3'	1:2:321:C:C5'	2.28	0.60
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.75	0.60
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	4.14	0.60
14:C2:46:ARG:NH2	1:6:1253:U:OP2	453.12	0.60
1:2:702:G:O6	1:2:737:A:N6	2.35	0.60
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.84	0.60
34:SR:37:SER:OG	34:SR:38:ARG:N	2.83	0.60
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.57	0.60
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.34	0.60
36:5:279:U:H2'	36:5:280:U:C6	2.37	0.60
36:5:1409:G:O6	87:5:4163:OHX:N6	2.35	0.60
36:1:2593:A:H4'	36:1:2594:C:O5'	2.00	0.60
78:Q2:9:LYS:HE2	78:Q2:22:GLN:OE1	2.02	0.60
35:SM:43:ASP:OD1	35:SM:45:SER:OG	2.90	0.60
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.94	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.37	0.60
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.67	0.60
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.56	0.60
1:2:1191:U:H4'	18:C6:143:ARG:HB3	1.82	0.60
36:5:408:A:OP1	87:5:4104:OHX:N6	2.34	0.60
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	2.16	0.60
1:6:488:G:N2	1:6:499:U:H3	1.99	0.60
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.66	0.60
1:2:187:G:H4'	1:2:188:A:OP1	2.02	0.60
1:6:1645:G:H22	1:6:1756:A:H2	1.49	0.60
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	1.83	0.60
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.30	0.60
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.83	0.60
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.02	0.60
5:S3:44:THR:HG22	5:S3:45:LYS:HG3	1.83	0.60
36:1:1410:U:OP1	87:1:3959:OHX:N3	2.34	0.60
64:N8:85:ASP:O	64:N8:89:GLN:HG3	2.01	0.60
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.83	0.60
2:S0:27:ARG:HG2	2:S0:28:ASN:H	1.66	0.60
87:6:2124:OHX:N4	87:6:2174:OHX:N3	2.49	0.60
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.48	0.60
1:2:355:G:OP2	87:2:2034:OHX:N4	2.33	0.60
30:D8:32:PHE:O	30:D8:34:GLU:N	3.89	0.60
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.34	0.60
73:O7:35:SER:OG	36:5:361:A:H5'	125.82	0.60
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.33	0.60
25:D3:30:LYS:HE2	25:D3:34:LEU:HD11	3.02	0.60
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.98	0.60
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.16	0.60
36:5:2101:C:H2'	36:5:2102:U:H6	1.67	0.60
1:2:1280:C:H2'	1:2:1281:G:C8	2.36	0.60
1:6:453:U:O4	87:6:2065:OHX:N4	2.35	0.60
63:N7:5:LEU:HD22	63:N7:77:TYR:CE2	5.78	0.60
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	6.69	0.60
24:D2:82:LYS:O	24:D2:84:GLY:N	2.29	0.60
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	4.19	0.60
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.68	0.60
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.37	0.60
64:N8:84:GLU:O	64:N8:87:ARG:HB2	2.99	0.60
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.34	0.60
1:6:1429:G:H2'	1:6:1430:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.67	0.60
5:S3:64:ARG:O	5:S3:66:ILE:N	2.34	0.60
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.84	0.60
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	3.03	0.60
36:1:1235:U:H4'	36:1:1236:G:H5'	1.84	0.60
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.25	0.60
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.84	0.60
36:5:1155:C:O2'	36:5:1197:A:N1	2.35	0.60
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.83	0.60
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	2.95	0.60
1:2:25:C:H4'	1:2:25:C:OP2	2.02	0.60
36:5:208:C:C2'	36:5:209:A:H5'	2.31	0.60
36:1:272:G:OP2	87:1:4035:OHX:N3	2.34	0.60
36:5:2209:U:H4'	36:5:2210:G:OP1	2.01	0.59
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.84	0.59
54:M8:30:VAL:O	54:M8:34:THR:HG23	2.02	0.59
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	2.99	0.59
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	1.84	0.59
1:2:1735:U:O4	87:2:2134:OHX:N2	2.35	0.59
56:N0:148:LEU:HD12	56:N0:149:LYS:H	1.67	0.59
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.82	0.59
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	2.74	0.59
1:2:843:U:H2'	1:2:844:A:C8	2.37	0.59
1:6:1508:U:O4	87:6:2058:OHX:N4	2.35	0.59
1:2:855:A:C2	1:2:857:U:H1'	2.37	0.59
59:N3:13:ILE:HD13	59:N3:53:SER:HB2	2.84	0.59
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.10	0.59
24:D2:18:GLU:OE1	24:D2:69:LEU:HB3	3.21	0.59
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.10	0.59
36:1:2689:A:N3	36:1:2689:A:H2'	2.17	0.59
36:1:3078:U:H4'	36:1:3079:U:O5'	2.03	0.59
35:SM:65:THR:O	35:SM:67:GLY:N	4.91	0.59
36:1:618:C:H5'	53:M7:169:THR:HG22	1.84	0.59
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	2.29	0.59
25:D3:69:ARG:NH2	1:6:568:G:N7	364.99	0.59
36:1:1789:G:N7	87:1:4173:OHX:N2	2.49	0.59
36:1:692:A:OP1	51:M5:201:ARG:NH2	2.35	0.59
77:Q1:22:ALA:O	77:Q1:25:LYS:N	2.99	0.59
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	1.95	0.59
1:2:491:C:N3	1:2:496:G:N2	2.48	0.59
36:1:1942:U:HO2'	36:1:3345:G:HO2'	1.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:697:C:OP2	87:6:2077:OHX:N5	2.35	0.59
36:5:2924:U:O4	87:5:4060:OHX:N2	2.35	0.59
1:6:197:A:H2'	1:6:198:A:C8	2.37	0.59
55:M9:175:GLN:O	55:M9:179:GLU:N	2.33	0.59
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.35	0.59
3:S1:70:LEU:HA	3:S1:73:LEU:HD23	1.85	0.59
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.02	0.59
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.66	0.59
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	2.84	0.59
1:6:542:A:H8	1:6:543:C:H5'	1.66	0.59
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.18	0.59
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.80	0.59
36:1:440:A:OP1	36:1:494:G:H1'	2.02	0.59
36:1:3138:U:H2'	36:1:3139:A:H5''	1.83	0.59
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.01	0.59
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.36	0.59
1:6:564:G:O6	87:6:2157:OHX:N5	2.34	0.59
28:D6:87:ARG:HD2	1:6:1797:A:C6	343.66	0.59
1:6:1542:G:N2	1:6:1568:C:H1'	2.17	0.59
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.17	0.59
1:2:916:U:H3	16:C4:41:ARG:NH2	2.01	0.59
67:O1:77:ARG:HD2	67:O1:89:LEU:HD23	2.31	0.59
1:2:1595:U:N3	1:2:1600:A:H2	2.01	0.59
87:1:3945:OHX:N3	87:1:4203:OHX:N4	2.50	0.59
1:2:1459:C:OP1	20:C8:126:ARG:NH1	2.34	0.59
36:1:1763:U:H5'	36:1:1764:U:OP2	2.02	0.59
34:SR:135:THR:O	34:SR:138:GLY:N	2.26	0.59
1:2:61:A:H8	1:2:269:G:HO2'	1.46	0.59
31:D9:24:CYS:SG	31:D9:26:SER:HB3	3.02	0.59
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.01	0.59
11:S9:142:ASN:HD22	11:S9:142:ASN:C	4.54	0.59
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.18	0.59
47:M0:16:PRO:HD3	47:M0:128:ARG:NH1	2.68	0.59
78:Q2:46:LYS:O	87:Q2:503:OHX:N6	2.36	0.59
34:SR:197:SER:HB2	34:SR:216:LYS:HB3	2.98	0.59
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.84	0.59
36:5:23:A:OP1	87:5:3908:OHX:N4	2.35	0.59
42:L5:269:SER:OG	37:7:1:G:N3	315.68	0.59
42:L5:294:ALA:O	42:L5:296:GLN:N	2.31	0.59
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.85	0.59
1:2:1537:C:O2'	1:2:1540:G:O6	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:3:SER:O	64:N8:6:THR:HB	2.54	0.59
1:2:1321:A:OP2	2:S0:101:ARG:NH2	2.34	0.59
1:2:1726:G:N7	87:2:2097:OHX:N4	2.50	0.59
36:1:430:U:OP1	87:1:4137:OHX:N6	2.35	0.59
29:D7:36:LYS:HG2	29:D7:43:ILE:HG22	1.85	0.59
48:M1:117:ASP:O	48:M1:119:SER:N	2.97	0.59
87:2:2030:OHX:N3	15:C3:12:SER:O	2.35	0.59
21:C9:37:VAL:HG11	21:C9:100:ILE:HD11	1.92	0.59
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.20	0.59
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.84	0.59
8:S6:164:LYS:NZ	1:6:71:A:OP2	371.87	0.59
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.85	0.59
34:SR:227:ALA:O	34:SR:229:LYS:NZ	2.28	0.59
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.91	0.59
9:S7:49:ILE:O	9:S7:57:ALA:N	2.31	0.59
41:L4:23:PRO:HG2	41:L4:258:LEU:HD23	1.85	0.59
36:5:252:U:H4'	36:5:253:A:C5'	2.32	0.59
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.67	0.59
36:5:1717:U:H2'	36:5:1718:G:C8	2.38	0.59
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.84	0.59
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.91	0.59
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.88	0.59
36:5:385:A:H2'	36:5:386:A:C8	2.37	0.59
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.85	0.59
9:S7:184:GLU:HG2	9:S7:185:ILE:H	1.65	0.59
36:1:1933:A:OP2	87:1:3890:OHX:N6	2.36	0.59
36:5:3295:A:H2'	36:5:3296:A:C8	2.38	0.59
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.02	0.59
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.45	0.59
12:C0:12:HIS:HD2	12:C0:76:LEU:HD12	1.66	0.59
36:1:1170:A:OP2	87:1:3964:OHX:N5	2.35	0.59
42:L5:261:THR:H	42:L5:264:GLN:NE2	2.37	0.59
7:S5:51:VAL:O	7:S5:65:ARG:NH1	3.97	0.59
70:O4:99:LYS:HG2	70:O4:103:LYS:HZ1	1.67	0.59
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.38	0.59
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.02	0.59
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.83	0.59
1:2:304:U:H2'	1:2:305:C:H6	1.67	0.59
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.28	0.59
87:1:3945:OHX:N1	87:1:4203:OHX:N4	2.51	0.59
87:1:3945:OHX:N1	87:1:4203:OHX:N2	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.35	0.59
49:M3:162:ASN:ND2	49:M3:164:GLU:HB2	3.17	0.59
36:1:1221:A:H3'	36:1:1222:G:H5''	1.85	0.59
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.31	0.59
74:O8:45:VAL:HG23	74:O8:52:TYR:HB2	1.84	0.59
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.63	0.59
1:6:489:C:O2'	1:6:490:C:O4'	2.19	0.59
59:N3:23:MET:SD	59:N3:78:VAL:HG22	2.99	0.59
1:2:767:U:H5	11:S9:142:ASN:OD1	1.84	0.59
78:Q2:35:LEU:HD23	78:Q2:35:LEU:H	1.66	0.59
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.17	0.59
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.70	0.59
36:5:864:G:OP2	87:5:3918:OHX:N4	2.36	0.59
36:5:3227:A:H2'	36:5:3228:C:H5'	1.85	0.59
36:1:408:A:OP1	87:1:4061:OHX:N3	2.36	0.59
1:6:1765:A:OP2	87:6:2129:OHX:N4	2.36	0.59
36:1:3197:G:H2'	36:1:3198:U:H5''	1.84	0.59
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.68	0.59
1:2:795:U:C5	1:2:796:A:C8	2.90	0.59
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	1.85	0.59
2:S0:79:ARG:NH1	2:S0:164:ASN:O	2.77	0.59
87:1:3945:OHX:N5	87:1:4203:OHX:N2	2.51	0.59
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.76	0.59
1:2:558:U:H2'	1:2:558:U:O2	2.00	0.59
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.87	0.59
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.23	0.59
33:E1:134:ASN:H	1:6:1251:U:H4'	442.49	0.59
74:O8:44:LYS:HG2	74:O8:53:THR:HB	2.15	0.59
59:N3:93:LEU:H	59:N3:93:LEU:HD23	2.09	0.59
39:L2:149:ARG:NH2	39:L2:252:THR:O	4.53	0.59
47:M0:142:ASP:OD1	47:M0:178:ARG:NH2	2.35	0.59
3:S1:184:LEU:HD12	3:S1:188:LEU:HG	3.42	0.59
1:6:470:A:H8	1:6:470:A:H5''	1.66	0.59
40:L3:188:ILE:HD12	40:L3:188:ILE:H	2.49	0.59
5:S3:29:LEU:HD21	5:S3:69:LEU:HD21	3.54	0.59
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.02	0.59
51:M5:186:GLY:O	51:M5:190:THR:HG23	2.79	0.59
36:1:743:C:O2	54:M8:141:ARG:HD2	2.02	0.59
36:5:1235:U:H4'	36:5:1236:G:H5'	1.85	0.59
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.72	0.59
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1567:U:H5	36:1:1568:U:C2	2.21	0.59
50:M4:124:ARG:NH2	36:5:3212:C:OP2	289.45	0.59
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.03	0.59
11:S9:37:LYS:HB2	32:E0:33:ARG:H	1.68	0.59
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.14	0.59
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.68	0.59
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.20	0.59
53:M7:138:LYS:HG3	53:M7:140:GLU:HG3	1.84	0.59
1:2:190:C:N4	1:2:196:G:O6	2.36	0.59
36:5:980:A:H2'	36:5:981:U:N1	2.18	0.59
36:5:3241:G:H2'	36:5:3245:A:C8	2.38	0.59
36:1:595:G:H1	36:1:609:G:H5''	1.68	0.59
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	3.25	0.59
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.84	0.59
36:1:3295:A:OP2	40:L3:126:LYS:N	2.35	0.59
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.84	0.59
1:2:176:C:OP1	87:2:2071:OHX:N3	2.35	0.59
36:1:191:U:H2'	36:1:192:C:C6	2.38	0.59
36:5:3165:A:H61	36:5:3285:C:N4	1.99	0.58
44:L7:217:PRO:O	87:5:4003:OHX:N6	259.33	0.58
6:S4:54:TYR:O	26:D4:15:ASN:ND2	2.55	0.58
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	2.06	0.58
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.35	0.58
46:L9:189:GLU:C	46:L9:191:LEU:H	2.05	0.58
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	4.22	0.58
40:L3:21:ARG:NH2	36:5:3309:G:O6	199.15	0.58
55:M9:18:GLY:HA3	36:5:1874:A:H5''	136.02	0.58
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.09	0.58
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.27	0.58
36:5:1363:A:OP2	87:5:4201:OHX:N3	2.36	0.58
16:C4:108:SER:OG	16:C4:109:GLY:N	2.36	0.58
1:6:539:G:OP2	1:6:539:G:H8	1.86	0.58
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.38	0.58
1:6:604:A:OP2	87:6:2154:OHX:N4	2.36	0.58
36:1:2107:A:C2	36:1:3344:A:H8	2.21	0.58
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.23	0.58
46:L9:70:THR:HB	36:5:3112:G:O2'	329.53	0.58
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.37	0.58
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.66	0.58
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.64	0.58
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.97	0.58
87:1:3978:OHX:N6	87:1:4161:OHX:N4	2.51	0.58
36:5:1081:U:O2'	36:5:1082:U:O5'	2.20	0.58
36:1:2415:C:OP1	39:L2:2:GLY:HA2	2.03	0.58
39:L2:79:ASN:O	39:L2:82:VAL:HG13	2.02	0.58
31:D9:6:VAL:O	31:D9:8:PHE:N	4.17	0.58
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.04	0.58
36:1:2218:G:H2'	36:1:2219:A:H8	1.68	0.58
36:1:2207:A:H2'	36:1:2208:A:C8	2.38	0.58
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.02	0.58
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.38	0.58
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.86	0.58
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.85	0.58
40:L3:262:TRP:HE1	52:M6:66:LYS:HZ3	1.50	0.58
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.02	0.58
44:L7:158:LYS:HE2	44:L7:159:GLN:N	2.18	0.58
36:1:1307:G:H5''	52:M6:60:LYS:HZ2	1.68	0.58
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.35	0.58
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.09	0.58
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.86	0.58
36:1:239:G:HO2'	36:1:240:U:P	2.23	0.58
36:1:3299:A:H2	36:1:3315:G:H22	1.51	0.58
10:S8:142:LYS:NZ	1:6:187:G:OP2	272.43	0.58
47:M0:193:ASP:OD2	47:M0:194:GLY:N	2.36	0.58
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.03	0.58
19:C7:105:GLN:O	19:C7:109:LEU:N	2.53	0.58
25:D3:79:ASN:HB3	25:D3:81:LYS:HG3	1.84	0.58
39:L2:29:LEU:O	39:L2:123:ARG:NH2	3.01	0.58
52:M6:182:ASN:HD21	52:M6:186:ALA:HB2	5.24	0.58
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.17	0.58
46:L9:105:GLU:HA	46:L9:109:ALA:HB3	1.85	0.58
36:5:1110:U:H2'	36:5:1111:U:C6	2.37	0.58
36:1:242:C:HO2'	36:1:243:G:H8	1.51	0.58
1:6:938:G:N7	87:6:2109:OHX:N3	2.51	0.58
63:N7:14:VAL:HG22	70:O4:86:LYS:HG2	2.39	0.58
36:5:90:C:H2'	36:5:91:G:H5'	1.85	0.58
17:C5:130:ARG:HH21	35:SM:66:ALA:HA	4.16	0.58
1:6:1542:G:H22	1:6:1568:C:H1'	1.68	0.58
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.53	0.58
1:6:1491:U:H5'	1:6:1492:A:OP1	2.02	0.58
1:2:1769:U:OP2	87:2:2143:OHX:N1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:191:U:H2'	36:1:192:C:H6	1.68	0.58
1:6:315:A:O2'	87:6:2163:OHX:N1	2.36	0.58
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.93	0.58
39:L2:36:GLU:OE1	39:L2:163:ARG:NH1	2.71	0.58
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.02	0.58
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.39	0.58
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.68	0.58
38:4:126:A:O2'	38:4:128:U:OP1	2.21	0.58
49:M3:46:ILE:HG23	49:M3:49:ARG:HB2	1.85	0.58
28:D6:87:ARG:NH1	1:6:1796:C:OP1	344.58	0.58
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.49	0.58
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.03	0.58
34:SR:161:LYS:HE3	34:SR:164:ASP:HB3	1.85	0.58
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.19	0.58
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.39	0.58
62:N6:38:GLU:HG2	62:N6:39:LEU:HD23	1.85	0.58
47:M0:177:ASP:N	47:M0:177:ASP:OD2	3.28	0.58
36:5:2372:A:H5''	36:5:2373:A:H5'	1.86	0.58
25:D3:75:GLN:HG3	25:D3:82:LYS:HG3	1.86	0.58
41:L4:48:GLN:HG3	36:5:337:G:H4'	98.24	0.58
1:2:1325:A:OP2	19:C7:11:ARG:NH1	2.36	0.58
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.69	0.58
28:D6:73:TYR:CZ	28:D6:82:ARG:HD2	2.39	0.58
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.30	0.58
1:2:1160:A:H2'	1:2:1161:C:C6	2.37	0.58
54:M8:170:ARG:O	54:M8:171:LYS:HB2	3.96	0.58
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.86	0.58
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.90	0.58
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.36	0.58
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.84	0.58
63:N7:51:LEU:HD12	63:N7:65:ARG:HD2	2.21	0.58
36:1:1307:G:H5''	52:M6:60:LYS:NZ	2.18	0.58
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.85	0.58
1:2:108:A:H2'	1:2:109:G:C8	2.38	0.58
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.83	0.58
38:4:155:A:H5'	45:L8:185:ARG:CZ	2.33	0.58
1:2:780:A:C8	26:D4:8:ARG:HB3	2.39	0.58
36:5:173:G:H1'	36:5:174:C:H5'	1.85	0.58
36:5:90:C:C2'	36:5:91:G:H5'	2.34	0.58
36:1:956:U:OP1	87:1:4130:OHX:N1	2.37	0.58
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.38	0.58
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.27	0.58
1:6:1535:U:O2'	1:6:1536:G:O5'	2.22	0.58
63:N7:15:ARG:NH2	70:O4:83:ASN:OD1	2.36	0.58
36:5:1614:C:H2'	36:5:1615:C:H6	1.67	0.58
1:2:1450:U:OP2	87:2:2060:OHX:N5	2.37	0.58
43:L6:52:VAL:HG11	43:L6:65:ILE:HG13	2.05	0.58
36:5:961:C:N3	87:5:4180:OHX:N4	2.51	0.58
36:5:398:A:O2'	36:5:1416:C:OP1	2.13	0.58
36:1:2662:G:H2'	36:1:2663:G:C8	2.38	0.58
1:6:1458:G:H5''	1:6:1459:C:OP2	2.03	0.58
1:6:694:U:H3'	1:6:695:U:O2	2.03	0.58
1:2:639:U:P	9:S7:117:THR:HG1	2.26	0.58
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.85	0.58
67:O1:31:ARG:HB3	67:O1:31:ARG:NH1	2.16	0.58
27:D5:77:ARG:NH1	1:6:1533:C:OP2	351.52	0.58
76:Q0:77:ILE:HG13	76:Q0:78:ILE:N	4.18	0.58
1:6:823:G:H2'	1:6:824:G:O4'	2.02	0.58
77:Q1:22:ALA:HA	77:Q1:25:LYS:HG3	1.86	0.58
87:5:4021:OHX:N6	87:5:4218:OHX:N4	2.51	0.58
36:5:2436:U:H2'	36:5:2437:G:H5''	1.85	0.58
36:1:2255:A:H5'	36:1:2261:G:H22	1.68	0.58
61:N5:51:VAL:HG21	71:O5:62:GLN:HB3	2.28	0.58
36:5:1237:G:H22	36:5:1251:A:H2	1.51	0.58
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.41	0.58
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.20	0.58
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.03	0.58
36:5:1276:U:OP2	87:5:4007:OHX:N1	2.36	0.58
33:E1:91:ILE:HG12	33:E1:92:LYS:H	1.68	0.58
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.85	0.58
1:6:363:G:OP1	87:6:2115:OHX:N1	2.35	0.58
36:1:3278:C:H2'	36:1:3278:C:O2	2.03	0.58
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.86	0.58
1:6:1244:A:H3'	1:6:1244:A:N3	2.17	0.58
71:O5:31:LEU:HD23	71:O5:44:ILE:HA	1.86	0.58
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.70	0.58
36:1:547:G:O2'	36:1:548:G:C8	2.54	0.58
36:5:1070:U:C4	36:5:1071:U:C4	2.91	0.58
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.68	0.58
39:L2:71:LEU:HD22	36:5:1651:U:H5''	188.68	0.58
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2699:G:OP2	87:1:3913:OHX:N1	2.37	0.58
12:C0:10:LYS:NZ	12:C0:36:ASP:O	3.08	0.58
36:5:3053:G:O6	87:5:4174:OHX:N6	2.37	0.58
36:1:715:A:H8	64:N8:115:LYS:HG2	1.68	0.58
69:O3:13:HIS:O	69:O3:95:GLY:N	2.32	0.58
25:D3:90:ASP:OD2	1:6:567:A:O2'	373.45	0.58
36:1:2778:G:H2'	36:1:2779:A:H5'	1.85	0.58
41:L4:42:VAL:HG12	41:L4:236:LEU:HD21	1.84	0.58
68:O2:126:LEU:O	68:O2:128:LEU:N	2.36	0.58
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.84	0.58
36:1:1033:U:H2'	36:1:1034:U:C6	2.39	0.58
1:2:1681:A:H2'	1:2:1682:U:H5'	1.86	0.58
73:O7:46:SER:OG	87:5:3908:OHX:N2	111.15	0.58
28:D6:84:VAL:O	28:D6:86:VAL:N	2.36	0.58
87:1:4037:OHX:N2	87:1:4049:OHX:N1	2.52	0.58
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.18	0.58
14:C2:47:GLU:N	1:6:1229:G:O6	461.90	0.58
36:5:1696:A:OP2	87:5:4187:OHX:N6	2.36	0.58
1:6:1482:C:OP2	1:6:1521:G:N1	2.36	0.58
1:6:377:G:O6	87:6:2115:OHX:N4	2.37	0.58
36:1:863:C:H2'	36:1:864:G:O4'	2.04	0.58
13:C1:40:LEU:HD22	1:6:246:G:C2	326.31	0.58
29:D7:19:HIS:HE1	29:D7:21:LEU:HG	2.62	0.58
9:S7:142:TYR:HE1	24:D2:39:GLN:HE21	1.52	0.58
1:2:603:U:H2'	1:2:604:A:H8	1.69	0.58
36:1:627:U:H2'	36:1:628:A:C8	2.39	0.58
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.29	0.58
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.84	0.58
47:M0:73:ASN:O	47:M0:77:THR:OG1	3.70	0.58
36:1:2522:G:O6	39:L2:70:ARG:NH2	2.37	0.58
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.67	0.58
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	2.80	0.58
49:M3:61:PRO:HD3	49:M3:70:ARG:HH21	2.13	0.58
6:S4:187:ARG:NH2	1:6:753:A:H62	374.83	0.58
2:S0:90:ALA:HB1	2:S0:95:ALA:O	2.65	0.58
1:2:826:U:H2'	1:2:827:C:C6	2.39	0.58
36:1:2960:C:OP1	87:1:4007:OHX:N4	2.37	0.58
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.68	0.58
36:1:3134:A:OP1	87:1:3906:OHX:N4	2.37	0.58
79:Q3:56:THR:HB	79:Q3:63:THR:OG1	2.04	0.58
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.78	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:26:SER:HB3	48:M1:63:GLU:HG2	2.69	0.58
47:M0:81:GLY:O	47:M0:83:ASP:N	2.91	0.58
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.69	0.58
36:1:3159:C:H2'	36:1:3160:U:H6	1.69	0.58
1:2:331:A:H5'	10:S8:33:PRO:HA	1.86	0.58
39:L2:40:TYR:N	36:5:2550:U:O4	213.71	0.57
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.17	0.57
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.04	0.57
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.31	0.57
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	1.85	0.57
38:4:77:A:OP2	87:4:223:OHX:N2	2.37	0.57
4:S2:128:GLY:HA2	4:S2:131:ILE:HD12	1.85	0.57
1:6:826:U:O4	87:6:2069:OHX:N3	2.37	0.57
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.87	0.57
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.37	0.57
36:1:2206:G:OP2	36:1:2206:G:H8	1.87	0.57
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.40	0.57
10:S8:37:LYS:NZ	10:S8:95:THR:OG1	4.43	0.57
36:5:2207:A:H62	36:5:2236:G:H1	1.51	0.57
56:N0:12:ARG:HG3	56:N0:13:ARG:O	4.64	0.57
1:2:1537:C:N3	87:2:2152:OHX:N3	2.52	0.57
47:M0:193:ASP:OD1	36:5:1010:G:N2	335.01	0.57
1:2:1282:U:OP1	87:2:2113:OHX:N5	2.37	0.57
87:1:3945:OHX:N3	87:1:4203:OHX:N6	2.53	0.57
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	2.15	0.57
36:1:715:A:H4'	36:1:716:A:OP1	2.02	0.57
8:S6:94:ARG:HH21	1:6:407:A:H5'	288.93	0.57
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.30	0.57
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.39	0.57
36:5:2732:G:OP2	87:5:4220:OHX:N1	2.36	0.57
75:O9:26:TRP:HA	75:O9:29:LEU:HD22	3.11	0.57
42:L5:107:ARG:NH2	42:L5:120:LYS:HA	2.15	0.57
36:1:1492:G:N7	75:O9:2:ALA:CB	2.68	0.57
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.19	0.57
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.03	0.57
39:L2:209:HIS:HD2	39:L2:211:HIS:N	2.02	0.57
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	1.85	0.57
41:L4:269:SER:OG	41:L4:269:SER:O	2.22	0.57
36:1:1724:U:H4'	36:1:1725:C:OP1	2.04	0.57
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.43	0.57
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:45:U:O2'	1:2:46:A:H2'	2.03	0.57
51:M5:4:TYR:OH	36:5:148:G:OP2	110.08	0.57
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.03	0.57
34:SR:25:THR:OG1	34:SR:26:SER:N	3.42	0.57
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.37	0.57
36:1:722:G:O6	87:1:4021:OHX:N6	2.37	0.57
42:L5:214:ASP:O	42:L5:215:ASP:HB2	2.05	0.57
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.47	0.57
1:2:702:G:O2'	1:2:703:G:O4'	2.23	0.57
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.36	0.57
47:M0:35:ASP:OD1	47:M0:86:HIS:NE2	2.83	0.57
39:L2:131:GLY:H	39:L2:169:ILE:HG22	1.94	0.57
1:6:1230:A:H2	1:6:1255:G:H21	1.49	0.57
64:N8:3:SER:OG	36:5:1430:U:O4	139.82	0.57
20:C8:54:LEU:H	20:C8:54:LEU:HD12	3.77	0.57
36:1:743:C:N3	54:M8:141:ARG:NH1	2.52	0.57
1:2:652:G:H1	1:2:682:C:H42	1.53	0.57
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.32	0.57
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.86	0.57
36:1:1246:G:H8	36:1:1246:G:OP1	1.87	0.57
63:N7:128:GLN:O	63:N7:130:PHE:N	3.37	0.57
36:5:1876:U:H6	36:5:1876:U:H5''	1.69	0.57
4:S2:98:PHE:CZ	35:SM:116:GLU:HG3	2.40	0.57
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	2.56	0.57
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.20	0.57
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.04	0.57
56:N0:155:ARG:HG2	56:N0:155:ARG:NH2	2.17	0.57
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.82	0.57
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	2.96	0.57
24:D2:46:TYR:HB3	24:D2:69:LEU:HD13	1.85	0.57
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.27	0.57
36:1:2112:U:H4'	36:1:2113:A:H5'	1.86	0.57
41:L4:191:LYS:HD2	41:L4:194:TYR:CE2	4.37	0.57
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.86	0.57
77:Q1:8:LYS:O	77:Q1:12:ARG:HG3	2.61	0.57
36:1:2371:G:O6	87:1:3877:OHX:N3	2.38	0.57
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.24	0.57
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.69	0.57
53:M7:169:THR:HG23	69:O3:60:ARG:HH11	1.68	0.57
65:N9:46:ALA:O	65:N9:50:THR:HG23	2.59	0.57
27:D5:43:ASP:O	27:D5:45:GLU:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:59:ASN:O	71:O5:63:ARG:HG2	3.87	0.57
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.41	0.57
36:5:1804:A:H2'	36:5:1805:C:C6	2.39	0.57
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.68	0.57
38:8:6:U:H2'	38:8:7:U:C6	2.40	0.57
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.84	0.57
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.04	0.57
36:5:2882:U:H2'	36:5:2883:U:C6	2.40	0.57
38:8:139:U:O4	87:8:223:OHX:N5	2.38	0.57
36:5:59:G:H2'	38:8:33:A:O2'	2.04	0.57
52:M6:172:ARG:HA	52:M6:175:THR:HG22	1.85	0.57
71:O5:95:PHE:CG	36:5:136:G:H5'	61.46	0.57
11:S9:142:ASN:HD22	11:S9:143:ILE:HG13	5.47	0.57
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.69	0.57
3:S1:133:TYR:CE2	3:S1:181:LEU:HD12	4.55	0.57
35:SM:64:LYS:O	35:SM:66:ALA:N	3.57	0.57
18:C6:50:GLU:OE2	18:C6:82:ARG:NH2	3.17	0.57
13:C1:132:SER:O	13:C1:135:VAL:N	3.92	0.57
44:L7:158:LYS:HD2	44:L7:159:GLN:HA	4.88	0.57
36:1:3043:C:P	59:N3:48:ARG:HH22	2.27	0.57
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.05	0.57
40:L3:218:ILE:HD13	40:L3:276:THR:HG23	1.87	0.57
36:1:2227:C:OP1	78:Q2:32:LYS:NZ	2.36	0.57
36:1:1064:A:H4'	36:1:1065:A:O5'	2.03	0.57
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.05	0.57
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.39	0.57
36:5:2843:U:O2	36:5:2843:U:H2'	2.03	0.57
36:5:1530:U:OP1	87:5:3992:OHX:N1	2.38	0.57
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.40	0.57
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	1.95	0.57
63:N7:29:HIS:HB2	63:N7:40:HIS:O	3.15	0.57
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.38	0.57
1:2:1202:A:N6	1:2:1457:C:H5''	2.20	0.57
1:6:230:C:N3	1:6:235:G:N2	2.39	0.57
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.86	0.57
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.61	0.57
1:6:76:A:H3'	87:6:2195:OHX:N1	2.20	0.57
36:5:3279:A:H2'	36:5:3280:U:H5'	1.86	0.57
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	7.69	0.57
36:1:1413:G:N7	87:1:4127:OHX:N4	2.53	0.57
38:4:103:G:O6	87:4:222:OHX:N4	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:14:SER:OG	37:7:68:C:OP1	299.89	0.57
36:1:3143:C:O2'	87:1:3905:OHX:N2	2.38	0.57
1:6:700:C:H2'	1:6:701:U:C6	2.39	0.57
36:1:603:A:H2'	36:1:604:G:O4'	2.05	0.57
36:1:1207:G:N7	87:1:4067:OHX:N2	2.52	0.57
29:D7:50:ALA:O	29:D7:52:THR:N	2.38	0.57
1:6:918:U:H2'	1:6:919:A:H8	1.70	0.57
60:N4:27:LYS:HD3	60:N4:29:PHE:CZ	3.49	0.57
39:L2:221:LYS:NZ	36:5:2965:U:O2	212.36	0.57
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.57	0.57
36:5:1716:U:H5'	36:5:1716:U:H6	1.70	0.57
51:M5:58:GLY:HA3	51:M5:142:ILE:HD13	1.87	0.57
36:1:1204:A:H2	36:1:2834:G:N3	2.03	0.57
1:6:1681:A:H2	1:6:1720:G:H21	1.53	0.57
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.69	0.57
1:2:991:G:OP2	87:2:2129:OHX:N1	2.38	0.57
6:S4:163:ASP:HB3	6:S4:167:GLY:O	4.48	0.57
17:C5:43:ARG:NH1	1:6:1553:G:O6	398.93	0.57
36:5:132:C:C2'	36:5:133:U:H5''	2.33	0.57
36:1:562:C:H2'	36:1:563:U:C6	2.39	0.57
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.85	0.57
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.05	0.57
36:1:239:G:H2'	36:1:240:U:C6	2.40	0.57
8:S6:153:VAL:O	8:S6:155:ASP:N	2.38	0.57
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.37	0.57
56:N0:161:LYS:HZ2	36:5:3209:A:P	279.33	0.57
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.04	0.57
73:O7:15:SER:HG	36:5:817:A:H8	140.26	0.57
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.67	0.57
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.06	0.57
1:6:1324:G:N7	87:6:2107:OHX:N2	2.53	0.57
18:C6:73:GLY:H	18:C6:76:SER:HB2	1.70	0.57
18:C6:37:THR:O	18:C6:37:THR:OG1	3.22	0.57
47:M0:63:GLU:HB2	36:5:2853:A:H5'	297.04	0.57
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.17	0.57
36:5:1171:G:O6	87:5:4003:OHX:N1	2.38	0.57
36:1:1386:A:N7	41:L4:183:LYS:HE3	2.19	0.57
1:2:443:C:OP2	26:D4:105:ARG:HB3	2.05	0.57
1:2:581:U:OP2	5:S3:143:ARG:NH1	2.38	0.57
36:1:561:C:H2'	36:1:562:C:H6	1.68	0.57
1:6:1202:A:OP1	87:6:2133:OHX:N1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:73:U:H2'	1:6:74:U:C6	2.39	0.57
36:1:3346:U:H3	36:1:3359:A:N6	2.03	0.57
1:6:151:G:H2'	1:6:152:U:H6	1.70	0.57
1:6:1492:A:O2'	1:6:1493:A:H8	1.87	0.57
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.69	0.57
24:D2:5:SER:HB2	1:6:1101:G:O2'	353.12	0.57
32:E0:49:LEU:HG	32:E0:58:PRO:HG3	5.70	0.57
36:1:1095:U:H4'	36:1:1096:U:H5''	1.87	0.57
36:5:59:G:H4'	36:5:60:A:H4'	1.87	0.57
1:2:1783:C:H2'	1:2:1784:C:H6	1.68	0.57
36:1:2973:G:N7	87:1:4103:OHX:N2	2.53	0.57
28:D6:11:ASN:HB3	1:6:934:C:H6	331.89	0.57
1:6:711:U:H5'	1:6:712:G:OP2	2.05	0.57
7:S5:166:ARG:HD3	30:D8:45:LYS:HG3	1.86	0.57
48:M1:106:ILE:HD13	48:M1:125:MET:HG2	4.97	0.57
59:N3:32:ARG:O	59:N3:32:ARG:NH1	7.45	0.57
36:5:936:A:H5''	36:5:937:G:OP1	2.04	0.57
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	4.71	0.57
1:2:1370:U:O4	87:2:2119:OHX:N1	2.38	0.57
45:L8:27:THR:O	45:L8:28:HIS:ND1	2.60	0.57
26:D4:105:ARG:HB2	1:6:443:C:OP2	372.01	0.56
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.68	0.56
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.91	0.56
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.22	0.56
1:6:470:A:H5''	1:6:470:A:C8	2.39	0.56
47:M0:193:ASP:OD2	47:M0:198:LYS:NZ	4.84	0.56
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	2.95	0.56
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	1.94	0.56
31:D9:34:TYR:OH	1:6:1487:A:OP1	418.87	0.56
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.05	0.56
6:S4:66:MET:HB3	1:6:454:U:C4	375.94	0.56
36:1:208:C:C2'	36:1:209:A:H5'	2.35	0.56
78:Q2:13:LYS:HE2	36:5:2717:U:O3'	197.49	0.56
36:5:908:G:H4'	36:5:909:G:O5'	2.05	0.56
5:S3:176:LEU:HA	5:S3:181:VAL:HG12	3.10	0.56
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	2.56	0.56
38:4:124:G:H1	38:4:129:C:H42	1.53	0.56
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.05	0.56
36:5:2970:C:H4'	36:5:2971:A:N1	2.19	0.56
68:O2:5:PRO:HD2	68:O2:6:HIS:H	5.18	0.56
36:5:595:G:C8	36:5:609:G:C6	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:632:U:OP2	13:C1:102:LYS:NZ	2.34	0.56
1:2:181:A:H2'	1:2:182:A:C8	2.40	0.56
36:5:1317:A:OP1	87:5:4099:OHX:N1	2.38	0.56
11:S9:123:HIS:CE1	32:E0:37:ARG:HD2	3.47	0.56
18:C6:115:THR:HB	18:C6:118:ILE:O	2.06	0.56
7:S5:87:CYS:HB3	7:S5:92:ARG:HD2	2.76	0.56
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.18	0.56
36:1:3318:G:H2'	36:1:3318:G:OP2	2.06	0.56
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.20	0.56
14:C2:119:SER:OG	1:6:1228:G:OP1	464.61	0.56
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	1.86	0.56
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.38	0.56
36:5:255:A:H2'	36:5:256:G:H8	1.70	0.56
18:C6:126:PRO:O	18:C6:128:LYS:NZ	3.28	0.56
45:L8:81:THR:OG1	45:L8:82:LEU:N	2.79	0.56
32:E0:17:GLN:OE1	1:6:563:U:H4'	382.43	0.56
42:L5:114:GLY:C	42:L5:116:ASP:H	2.09	0.56
5:S3:7:LYS:NZ	22:D0:115:GLU:OE2	2.37	0.56
49:M3:168:ARG:O	49:M3:172:LEU:HG	2.51	0.56
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH1	2.43	0.56
1:2:992:A:C2	1:2:1012:U:N3	2.68	0.56
1:6:1584:G:H22	1:6:1611:A:P	2.25	0.56
36:1:1815:U:HO2'	36:1:1816:A:P	2.28	0.56
72:O6:62:ARG:O	72:O6:63:ASN:ND2	5.26	0.56
36:1:1363:A:OP2	87:1:4049:OHX:N6	2.38	0.56
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.41	0.56
36:5:128:G:O6	87:5:3934:OHX:N4	2.39	0.56
36:5:1024:G:N2	36:5:1026:A:OP2	2.38	0.56
17:C5:122:THR:CG2	1:6:1558:U:H3	366.32	0.56
36:5:2841:G:OP2	87:5:4139:OHX:N1	2.38	0.56
36:1:1789:G:O6	87:1:4173:OHX:N4	2.38	0.56
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	1.95	0.56
36:1:364:G:OP1	41:L4:60:THR:HG23	2.06	0.56
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.05	0.56
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.79	0.56
36:5:1554:U:H4'	36:5:1555:U:OP1	2.05	0.56
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.70	0.56
87:1:4009:OHX:N3	87:1:4177:OHX:N3	2.53	0.56
29:D7:29:ARG:NH1	29:D7:29:ARG:HG3	2.20	0.56
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.75	0.56
40:L3:81:THR:HG21	40:L3:205:VAL:HG11	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.87	0.56
19:C7:104:ASN:O	19:C7:106:THR:N	3.59	0.56
32:E0:48:THR:OG1	32:E0:49:LEU:N	2.82	0.56
59:N3:32:ARG:HB3	59:N3:64:LYS:O	2.04	0.56
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.39	0.56
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.86	0.56
38:8:62:C:O2	87:8:221:OHX:N1	2.39	0.56
33:E1:90:LYS:HB2	33:E1:93:HIS:CE1	10.67	0.56
1:6:1754:A:H4'	1:6:1755:A:O5'	2.05	0.56
1:6:667:U:H4'	1:6:668:C:OP1	2.05	0.56
36:5:2528:G:N7	87:5:4209:OHX:N3	2.53	0.56
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.71	0.56
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.86	0.56
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	1.70	0.56
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.25	0.56
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.04	0.56
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.39	0.56
36:1:1352:A:H4'	36:1:1353:U:OP1	2.06	0.56
39:L2:133:TYR:HE1	39:L2:135:ILE:HD11	1.71	0.56
3:S1:137:ILE:HD11	3:S1:172:LEU:HD22	2.55	0.56
41:L4:93:MET:HB2	36:5:658:G:N2	145.50	0.56
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.86	0.56
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.84	0.56
59:N3:48:ARG:HH22	36:5:3043:C:P	251.09	0.56
79:Q3:73:THR:HG22	79:Q3:75:ALA:H	3.45	0.56
3:S1:164:ILE:O	3:S1:168:ILE:HG13	2.53	0.56
22:D0:72:ASN:OD1	22:D0:72:ASN:N	2.38	0.56
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	1.88	0.56
36:5:1818:U:H2'	36:5:1819:U:H6	1.69	0.56
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.38	0.56
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.38	0.56
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.56	0.56
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.63	0.56
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.12	0.56
36:5:3341:U:H5''	36:5:3342:A:OP2	2.06	0.56
4:S2:163:GLY:HA3	4:S2:209:ASN:ND2	2.20	0.56
36:1:3344:A:H2	36:1:3361:G:N2	1.97	0.56
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.07	0.56
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.87	0.56
12:C0:55:VAL:HB	12:C0:68:LEU:HD12	3.16	0.56
36:5:339:C:OP1	36:5:1380:G:O2'	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:5:4021:OHX:N3	87:5:4218:OHX:N4	2.54	0.56
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.04	0.56
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.88	0.56
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.06	0.56
1:2:1754:A:O2'	87:2:2056:OHX:N5	2.38	0.56
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.88	0.56
1:2:75:U:H2'	1:2:76:A:O4'	2.05	0.56
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.90	0.56
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	2.27	0.56
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.91	0.56
42:L5:4:GLN:CD	42:L5:4:GLN:H	2.09	0.56
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.05	0.56
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.05	0.56
36:1:2535:A:N6	36:1:2544:U:H3	1.97	0.56
17:C5:127:ARG:NH2	35:SM:66:ALA:HB2	4.02	0.56
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.05	0.56
54:M8:120:GLU:OE2	54:M8:130:ARG:NH2	2.93	0.56
76:Q0:78:ILE:HD11	76:Q0:83:LYS:HA	7.38	0.56
1:6:1696:G:H2'	1:6:1698:G:O6	2.06	0.56
1:6:1696:G:H5''	1:6:1696:G:H8	1.70	0.56
1:6:1700:C:O2'	1:6:1701:A:OP1	2.21	0.56
63:N7:26:VAL:HB	63:N7:89:VAL:HG21	1.86	0.56
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.82	0.56
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.61	0.56
36:1:2573:G:O6	87:1:4003:OHX:N3	2.38	0.56
36:5:252:U:H4'	36:5:253:A:H5''	1.88	0.56
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.37	0.56
34:SR:26:SER:OG	34:SR:75:ALA:O	2.24	0.56
36:1:2970:C:HO2'	36:1:2971:A:H2	1.54	0.56
36:1:1675:G:H2'	36:1:1676:A:H8	1.71	0.56
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.05	0.56
1:6:1603:U:H2'	1:6:1604:U:H6	1.70	0.56
36:5:2568:C:O2'	36:5:2569:A:O5'	2.17	0.56
36:1:2977:G:OP1	87:1:4124:OHX:N5	2.37	0.56
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	3.84	0.56
1:6:1342:C:C2'	1:6:1343:U:H5'	2.35	0.56
55:M9:115:ILE:HD12	55:M9:142:ILE:HD13	1.87	0.56
36:5:3155:U:H4'	36:5:3156:U:OP2	2.06	0.56
8:S6:162:VAL:O	8:S6:169:TYR:N	2.33	0.56
44:L7:40:LYS:HD3	44:L7:170:GLU:OE2	2.11	0.56
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2373:A:H3'	36:1:2373:A:OP2	2.05	0.56
36:5:1239:C:N3	36:5:1249:G:N2	2.46	0.56
36:1:291:C:H5''	51:M5:68:ARG:HH12	1.71	0.56
11:S9:143:ILE:HD13	1:6:768:C:C2	417.51	0.56
3:S1:129:THR:HB	3:S1:180:THR:HA	1.87	0.56
2:S0:27:ARG:HG3	2:S0:44:GLY:O	2.06	0.56
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.04	0.56
87:5:4215:OHX:N4	87:5:4225:OHX:N3	2.52	0.56
87:8:217:OHX:N2	87:8:225:OHX:N1	2.54	0.56
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.06	0.56
4:S2:111:VAL:O	4:S2:137:ILE:HG22	3.45	0.56
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.43	0.56
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.60	0.56
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.20	0.56
64:N8:76:ASP:HB2	64:N8:115:LYS:O	5.37	0.56
36:5:1523:U:OP2	36:5:1604:G:O2'	2.23	0.56
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.40	0.56
36:5:2666:C:H2'	36:5:2667:A:H5''	1.88	0.56
1:6:1451:C:H2'	1:6:1452:U:H6	1.71	0.56
36:1:1161:G:OP1	87:1:3973:OHX:N5	2.39	0.56
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.29	0.56
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.53	0.56
5:S3:178:ARG:H	5:S3:178:ARG:HE	1.53	0.56
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.19	0.56
36:1:2717:U:OP1	87:1:3989:OHX:N6	2.38	0.56
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.06	0.56
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.37	0.56
55:M9:104:ARG:HH21	55:M9:105:LEU:HB2	1.70	0.56
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.79	0.56
3:S1:181:LEU:O	3:S1:185:THR:N	2.19	0.56
36:5:1015:U:O3'	36:5:1016:C:H2'	2.06	0.56
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.20	0.56
1:2:144:U:H5	8:S6:137:ARG:NH1	2.04	0.56
6:S4:95:THR:HG22	26:D4:16:PRO:HG2	1.88	0.56
17:C5:71:GLU:HG2	17:C5:72:LYS:H	1.71	0.56
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.88	0.56
57:N1:100:LYS:O	57:N1:102:ARG:N	2.39	0.56
63:N7:135:ARG:O	36:5:2555:G:N2	210.49	0.56
1:2:827:C:H2'	1:2:828:U:C6	2.38	0.56
36:1:1108:U:H2'	36:1:1109:U:H6	1.70	0.56
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	4.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.45	0.56
13:C1:3:THR:HG1	13:C1:82:ARG:HE	1.53	0.56
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.40	0.56
36:5:374:A:N3	36:5:376:G:H5''	2.21	0.56
36:1:1176:C:H2'	36:1:1177:G:N2	2.21	0.56
36:5:2549:G:C8	36:5:2549:G:H5'	2.41	0.56
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.88	0.56
27:D5:88:ILE:O	27:D5:104:ALA:HA	3.14	0.56
36:5:284:A:H4'	36:5:285:A:C2	2.40	0.56
1:2:717:C:N4	1:2:720:G:H22	2.04	0.56
64:N8:6:THR:HG23	64:N8:8:THR:H	1.71	0.56
66:O0:100:ILE:HG13	66:O0:101:LEU:H	2.76	0.56
1:6:219:A:C6	1:6:843:U:H1'	2.41	0.56
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.40	0.56
8:S6:121:LEU:H	8:S6:125:THR:HB	3.14	0.56
50:M4:106:ARG:HD3	36:5:3209:A:C4	294.12	0.56
1:2:61:A:H8	1:2:269:G:O2'	1.87	0.56
36:5:255:A:H2'	36:5:256:G:C8	2.41	0.56
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.40	0.56
1:6:717:C:O2	1:6:722:G:N2	2.38	0.56
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.86	0.56
1:2:38:C:C2'	1:2:39:A:H5'	2.36	0.56
36:1:299:G:N7	87:1:4085:OHX:N2	2.55	0.56
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	4.33	0.56
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	2.80	0.56
26:D4:20:ARG:HE	26:D4:22:GLN:NE2	4.04	0.56
33:E1:126:CYS:O	33:E1:128:ALA:N	2.37	0.56
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.53	0.56
1:2:901:G:H22	16:C4:54:GLU:CD	2.09	0.56
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.32	0.56
1:6:158:U:O2'	1:6:159:U:H3'	2.06	0.56
1:2:159:U:O2'	8:S6:87:ARG:NH1	2.39	0.56
40:L3:166:ILE:O	40:L3:169:THR:HG22	3.14	0.56
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.08	0.56
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.06	0.56
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.42	0.56
87:2:2042:OHX:N1	87:2:2097:OHX:N3	2.53	0.56
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.87	0.56
1:6:542:A:C8	1:6:543:C:H2'	2.40	0.56
29:D7:19:HIS:CE1	29:D7:21:LEU:H	3.17	0.56
36:1:3159:C:H2'	36:1:3160:U:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:191:LYS:HG2	41:L4:194:TYR:CE2	2.40	0.56
36:5:1796:G:H5''	36:5:1797:A:OP1	2.06	0.56
36:1:2510:U:O2'	36:1:2511:A:H5''	2.06	0.56
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.06	0.56
57:N1:124:VAL:HG12	57:N1:125:ALA:H	2.24	0.56
45:L8:193:LYS:HB3	36:5:7:C:H5''	122.63	0.56
1:6:913:G:O6	36:5:2205:U:H1'	2.06	0.56
64:N8:13:GLY:O	68:O2:36:LYS:HE2	2.40	0.56
21:C9:4:VAL:HG11	21:C9:137:ALA:HB2	1.87	0.56
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	2.46	0.55
1:2:1409:G:N2	1:2:1411:A:H3'	2.22	0.55
36:1:1877:U:OP2	87:1:3933:OHX:N2	2.39	0.55
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	1.94	0.55
36:1:3121:U:H1'	36:1:3122:A:H5''	1.88	0.55
36:5:3119:U:OP2	87:5:3919:OHX:N3	2.39	0.55
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.06	0.55
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.07	0.55
87:2:2042:OHX:N1	87:2:2097:OHX:N5	2.54	0.55
27:D5:71:ILE:HG23	27:D5:73:GLY:H	6.98	0.55
1:2:778:G:H22	26:D4:10:ARG:HH12	1.54	0.55
48:M1:15:GLU:HB2	48:M1:132:ASN:ND2	2.21	0.55
70:O4:56:THR:O	70:O4:56:THR:OG1	2.24	0.55
52:M6:72:HIS:HB2	52:M6:74:ARG:NH1	2.21	0.55
1:6:1057:U:O2'	1:6:1059:U:OP1	2.23	0.55
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.39	0.55
1:6:737:A:H2'	1:6:738:G:C8	2.41	0.55
36:5:308:A:H5'	36:5:2223:A:O2'	2.05	0.55
1:2:16:G:H2'	1:2:17:C:C6	2.41	0.55
36:5:438:A:H2'	36:5:494:G:N2	2.21	0.55
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.94	0.55
21:C9:31:PRO:HG2	21:C9:34:VAL:HB	4.56	0.55
28:D6:24:VAL:HG21	28:D6:71:LEU:HD13	1.88	0.55
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.87	0.55
1:6:1679:G:O6	87:6:2192:OHX:N3	2.39	0.55
7:S5:146:THR:HG23	7:S5:157:ARG:HB3	3.87	0.55
24:D2:23:ARG:HD2	24:D2:65:LEU:O	2.07	0.55
49:M3:162:ASN:HD21	49:M3:164:GLU:HB2	2.54	0.55
9:S7:154:LEU:HD11	9:S7:183:PHE:HD1	3.61	0.55
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.04	0.55
36:1:1227:C:H5'	36:1:1228:C:OP2	2.05	0.55
36:1:2927:C:H2'	36:1:2928:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:43:LYS:NZ	36:5:55:G:OP1	114.66	0.55
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.80	0.55
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	3.15	0.55
1:2:1588:G:OP1	87:2:2115:OHX:N3	2.38	0.55
1:2:704:C:OP2	1:2:704:C:H3'	2.06	0.55
1:2:142:G:N2	1:2:173:A:H2	2.02	0.55
16:C4:50:ALA:C	16:C4:52:ARG:H	2.60	0.55
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.64	0.55
3:S1:62:LYS:HD2	3:S1:91:VAL:HB	1.89	0.55
27:D5:43:ASP:O	27:D5:46:LYS:N	2.30	0.55
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.88	0.55
36:1:1659:U:H2'	36:1:1660:C:C6	2.41	0.55
51:M5:173:GLY:HA3	51:M5:183:THR:OG1	2.05	0.55
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.88	0.55
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.41	0.55
9:S7:170:GLN:HG2	9:S7:181:ILE:HG22	1.88	0.55
1:6:85:A:OP1	87:6:2191:OHX:N4	2.40	0.55
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.39	0.55
87:1:4089:OHX:N4	55:M9:14:VAL:O	2.39	0.55
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.32	0.55
48:M1:109:HIS:HD2	48:M1:123:PHE:H	1.53	0.55
1:2:978:A:H2'	1:2:979:A:O4'	2.06	0.55
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.05	0.55
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.88	0.55
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.07	0.55
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.94	0.55
40:L3:296:THR:HG21	40:L3:357:LYS:O	2.39	0.55
1:6:476:U:OP1	1:6:477:A:O2'	2.21	0.55
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HE	1.71	0.55
25:D3:17:VAL:HG23	25:D3:20:ARG:NH2	4.65	0.55
38:4:82:U:H5'	38:4:82:U:H6	1.71	0.55
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	1.87	0.55
52:M6:60:LYS:HE2	36:5:1307:G:H5''	250.22	0.55
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.89	0.55
36:1:1565:G:N2	36:1:1574:C:O2	2.39	0.55
41:L4:52:VAL:HB	41:L4:99:MET:HE3	2.23	0.55
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.22	0.55
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.88	0.55
1:2:591:A:H2'	1:2:592:A:C8	2.41	0.55
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.09	0.55
1:2:1226:A:O2'	1:2:1227:A:OP1	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:112:ARG:HD3	1:6:1529:C:OP1	372.97	0.55
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	1.88	0.55
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.56	0.55
33:E1:86:THR:O	33:E1:87:THR:OG1	2.65	0.55
36:5:2727:A:OP2	36:5:2728:G:N2	2.39	0.55
1:6:1691:A:H2'	1:6:1692:G:C8	2.41	0.55
36:1:764:U:O4	87:1:3968:OHX:N5	2.39	0.55
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.40	0.55
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	4.17	0.55
38:4:58:G:O6	73:O7:63:ARG:NH2	2.39	0.55
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.38	0.55
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.59	0.55
36:5:2696:A:H2'	36:5:2697:A:C8	2.41	0.55
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	1.88	0.55
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	4.15	0.55
36:5:439:C:H4'	36:5:440:A:H5'	1.88	0.55
36:1:2836:C:H5	36:1:2852:C:N4	2.00	0.55
36:5:2264:U:OP2	87:5:3957:OHX:N4	2.39	0.55
46:L9:41:ILE:HD13	46:L9:41:ILE:O	2.05	0.55
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.42	0.55
36:1:1814:A:H4'	36:1:1815:U:H5'	1.87	0.55
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.35	0.55
1:6:1699:G:H22	1:6:1702:A:H5''	1.72	0.55
36:1:75:G:H5'	49:M3:58:VAL:HG13	1.88	0.55
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.07	0.55
79:Q3:83:ILE:HG22	79:Q3:87:ARG:NH1	2.21	0.55
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.42	0.55
13:C1:21:ASN:HD22	13:C1:31:THR:HA	1.91	0.55
36:1:1934:G:N7	87:1:3890:OHX:N2	2.54	0.55
87:5:3992:OHX:N4	38:8:112:U:O2	2.39	0.55
41:L4:219:LEU:O	41:L4:221:ASN:N	2.40	0.55
45:L8:81:THR:HG21	45:L8:181:LYS:HD2	1.89	0.55
36:5:899:U:O4	87:5:3964:OHX:N5	2.39	0.55
36:5:495:G:H2'	36:5:496:C:O4'	2.05	0.55
34:SR:205:SER:OG	34:SR:207:ASP:OD1	2.22	0.55
47:M0:52:LEU:HB2	47:M0:136:PHE:HB2	1.88	0.55
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.88	0.55
36:1:230:U:H2'	36:1:231:G:O4'	2.07	0.55
38:8:43:A:OP1	87:8:226:OHX:N3	2.39	0.55
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.42	0.55
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:391:A:OP2	87:1:4151:OHX:N1	2.40	0.55
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	2.13	0.55
3:S1:47:LEU:HD12	3:S1:47:LEU:H	2.53	0.55
36:1:1286:A:O2'	36:1:1287:A:OP2	2.14	0.55
36:5:2973:G:N7	87:5:4118:OHX:N1	2.55	0.55
1:6:1588:G:OP1	87:6:2128:OHX:N2	2.40	0.55
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.15	0.55
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	2.19	0.55
61:N5:57:LEU:HD22	61:N5:62:VAL:HG22	4.15	0.55
11:S9:49:LEU:HD11	11:S9:100:LYS:HA	3.11	0.55
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.07	0.55
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.04	0.55
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	1.88	0.55
87:1:4009:OHX:N3	87:1:4177:OHX:N5	2.55	0.55
34:SR:74:THR:O	34:SR:77:GLY:N	2.80	0.55
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.05	0.55
1:6:189:C:H2'	1:6:190:C:H5'	1.89	0.55
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	2.20	0.55
36:5:629:U:H2'	36:5:630:A:C8	2.42	0.55
1:6:1344:A:O2'	1:6:1345:A:OP1	2.24	0.55
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.81	0.55
24:D2:90:THR:HB	24:D2:94:LEU:HD12	1.89	0.55
36:5:1638:A:H2	36:5:1736:G:N3	2.05	0.55
3:S1:40:ASN:ND2	3:S1:72:ASP:O	4.60	0.55
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.81	0.55
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.89	0.55
36:1:1443:G:O6	87:1:3983:OHX:N3	2.39	0.55
36:1:2683:U:H2'	36:1:2684:C:C6	2.42	0.55
36:5:1501:U:O2'	36:5:1502:C:H5'	2.06	0.55
1:2:768:C:N1	11:S9:143:ILE:HD13	2.22	0.55
38:4:85:G:C8	38:4:85:G:H3'	2.41	0.55
87:2:2088:OHX:N5	87:2:2129:OHX:N2	2.54	0.55
41:L4:140:HIS:H	41:L4:180:LYS:HE2	1.70	0.55
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	1.87	0.55
87:5:4067:OHX:N5	87:5:4144:OHX:N2	2.55	0.55
3:S1:33:LYS:O	3:S1:98:THR:OG1	5.18	0.55
36:5:304:G:N3	36:5:304:G:H5'	2.20	0.55
19:C7:44:LYS:O	19:C7:48:ASN:N	2.95	0.55
1:2:1469:A:H2'	1:2:1470:C:C6	2.41	0.55
49:M3:119:TYR:CZ	49:M3:123:ILE:HG21	2.56	0.55
21:C9:89:ARG:HG3	21:C9:89:ARG:HH11	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:961:U:H2'	1:6:962:C:H6	1.71	0.55
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.39	0.55
36:1:1349:G:O2'	36:1:1350:A:O4'	2.21	0.55
1:6:845:G:H2'	1:6:846:G:H8	1.71	0.55
6:S4:212:ASP:OD1	6:S4:214:LEU:N	2.40	0.55
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.07	0.55
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.42	0.55
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.17	0.55
17:C5:69:GLU:OE1	87:C5:201:OHX:N6	2.39	0.55
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.37	0.55
2:S0:112:THR:HG22	2:S0:115:PHE:HB2	3.00	0.55
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.89	0.55
66:O0:13:LYS:NZ	66:O0:99:ASP:OD2	2.39	0.55
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.89	0.55
54:M8:93:ILE:HG23	36:5:784:A:C6	150.55	0.55
64:N8:73:LEU:HD23	64:N8:109:TYR:CZ	5.85	0.55
18:C6:28:LEU:HD12	18:C6:65:ILE:H	1.72	0.55
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.96	0.55
37:7:95:A:OP2	87:7:226:OHX:N1	2.40	0.55
53:M7:24:VAL:HG12	53:M7:86:LYS:HD2	4.53	0.55
9:S7:44:LYS:NZ	9:S7:95:GLU:HG2	2.22	0.55
72:O6:25:LYS:HB3	36:5:156:G:OP2	88.53	0.55
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.20	0.55
26:D4:15:ASN:HD22	26:D4:22:GLN:NE2	3.00	0.55
62:N6:5:SER:OG	62:N6:6:LEU:N	2.39	0.55
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.39	0.55
49:M3:89:TYR:O	49:M3:92:THR:N	2.40	0.55
36:1:1924:U:OP1	77:Q1:25:LYS:NZ	2.39	0.55
63:N7:12:VAL:HB	63:N7:81:LEU:HB3	3.21	0.55
36:5:3242:G:H5'	36:5:3245:A:C8	2.40	0.55
87:1:4009:OHX:N6	87:1:4177:OHX:N1	2.55	0.55
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.39	0.55
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.89	0.55
40:L3:255:TRP:CD1	40:L3:256:HIS:CE1	2.95	0.55
59:N3:133:SER:O	87:6:2121:OHX:N3	296.00	0.55
36:5:2425:G:H2'	36:5:2426:U:O4'	2.05	0.55
36:1:2298:U:O4	36:1:2923:U:H5	1.90	0.55
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.25	0.55
36:5:1786:G:H2'	36:5:1787:A:C8	2.41	0.55
39:L2:14:SER:OG	39:L2:15:ILE:N	2.39	0.55
15:C3:20:ARG:NE	1:6:862:A:OP1	355.98	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:18:C:H2'	37:3:19:C:H6	1.72	0.55
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.91	0.55
38:4:95:G:H1'	73:O7:81:GLY:O	2.06	0.55
18:C6:83:GLN:HE22	18:C6:119:ALA:HB2	1.70	0.55
36:5:1152:G:H22	36:5:1200:A:N6	2.04	0.55
55:M9:96:ILE:HG12	36:5:1722:U:O4'	218.16	0.55
1:2:1480:G:H3'	1:2:1481:C:C6	2.42	0.55
36:5:1877:U:OP2	87:5:3958:OHX:N1	2.40	0.55
21:C9:57:ARG:NH1	1:6:1479:A:OP1	391.65	0.55
51:M5:112:ASN:HD22	51:M5:113:LEU:HD13	1.72	0.55
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.80	0.55
36:5:2101:C:O2'	36:5:2102:U:OP1	2.22	0.55
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.89	0.55
6:S4:71:LYS:O	6:S4:90:ILE:HA	3.14	0.55
1:2:67:A:C2	1:2:69:G:H1'	2.42	0.55
1:6:188:A:H2'	1:6:189:C:O4'	2.07	0.55
1:2:1158:C:OP2	87:2:2171:OHX:N5	2.40	0.55
36:1:1238:C:N4	36:1:1245:A:OP2	2.36	0.55
36:1:1675:G:H2'	36:1:1676:A:C8	2.42	0.55
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.06	0.55
1:6:691:C:OP1	1:6:696:C:N4	2.35	0.55
42:L5:148:ILE:HG23	42:L5:151:GLN:HB2	1.89	0.55
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.34	0.55
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.56	0.55
55:M9:70:LYS:O	55:M9:73:GLY:N	2.35	0.55
36:5:192:C:H2'	36:5:193:C:C6	2.42	0.55
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.42	0.55
1:6:782:U:H5''	1:6:782:U:O2	2.07	0.55
1:2:1498:G:C2'	1:2:1499:G:H5'	2.37	0.55
36:5:138:U:H2'	36:5:139:G:H8	1.71	0.55
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	1.89	0.55
36:1:291:C:H5''	51:M5:68:ARG:NH1	2.21	0.54
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.40	0.54
19:C7:34:LEU:HD22	19:C7:38:ILE:HD13	5.18	0.54
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.13	0.54
39:L2:208:ASP:OD2	36:5:912:G:N1	186.44	0.54
1:6:333:A:C6	1:6:334:G:C6	2.95	0.54
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.78	0.54
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.88	0.54
17:C5:111:MET:HG3	20:C8:119:ILE:HG13	3.22	0.54
13:C1:4:GLU:HG3	13:C1:5:LEU:HG	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.42	0.54
63:N7:23:VAL:HA	63:N7:45:GLY:HA2	1.89	0.54
36:1:2248:C:OP2	87:1:3887:OHX:N3	2.41	0.54
87:5:4056:OHX:N5	87:5:4201:OHX:N6	2.55	0.54
87:1:3978:OHX:N5	87:1:4161:OHX:N1	2.55	0.54
73:O7:55:ARG:NH1	36:5:353:G:O6	112.43	0.54
1:6:1590:G:H2'	1:6:1591:C:H6	1.72	0.54
36:5:181:U:H1'	36:5:236:G:N2	2.22	0.54
36:1:1448:U:H5''	53:M7:66:SER:HB2	1.89	0.54
42:L5:187:THR:O	42:L5:189:GLU:N	2.39	0.54
47:M0:208:ASN:HB2	47:M0:211:ARG:HD2	1.89	0.54
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.88	0.54
36:1:530:G:N7	87:1:3926:OHX:N6	2.56	0.54
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.40	0.54
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.30	0.54
42:L5:68:THR:HB	42:L5:71:GLY:O	2.07	0.54
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.26	0.54
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.07	0.54
1:2:365:G:N7	87:2:2104:OHX:N5	2.54	0.54
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.44	0.54
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	2.36	0.54
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.30	0.54
2:S0:62:ARG:HG3	2:S0:62:ARG:NH1	3.94	0.54
54:M8:122:ILE:HD11	54:M8:130:ARG:NH2	2.42	0.54
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.89	0.54
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.42	0.54
41:L4:197:ARG:NH2	36:5:339:C:OP2	107.78	0.54
1:6:1208:A:H5''	1:6:1209:C:OP2	2.06	0.54
87:5:4002:OHX:N4	87:5:4091:OHX:N2	2.55	0.54
3:S1:229:MET:O	3:S1:232:HIS:N	3.78	0.54
1:2:485:A:H2'	1:2:486:G:O4'	2.08	0.54
36:5:3335:A:C8	36:5:3335:A:H5'	2.42	0.54
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.40	0.54
74:O8:73:LEU:HD23	74:O8:75:VAL:HG22	1.90	0.54
36:1:2320:A:OP2	87:1:4214:OHX:N5	2.40	0.54
36:1:210:U:C2	36:1:230:U:H4'	2.41	0.54
37:7:114:U:H2'	37:7:115:G:H8	1.72	0.54
55:M9:60:LYS:O	55:M9:64:ARG:HG3	2.30	0.54
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.91	0.54
36:1:612:U:H2'	36:1:613:G:H8	1.72	0.54
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.68	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.82	0.54
36:1:1307:G:H1'	36:1:1308:A:C8	2.42	0.54
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.07	0.54
19:C7:88:VAL:HG22	19:C7:89:SER:O	4.79	0.54
1:6:647:G:H22	1:6:687:G:N2	2.04	0.54
52:M6:68:ARG:NH1	36:5:2988:C:P	216.38	0.54
36:5:118:U:O2	36:5:121:A:H5'	2.08	0.54
42:L5:256:THR:HG23	37:7:119:U:OP1	293.19	0.54
1:2:284:G:N7	8:S6:188:ARG:NH1	2.55	0.54
38:4:107:G:OP2	87:4:229:OHX:N2	2.41	0.54
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.51	0.54
39:L2:140:ASN:ND2	39:L2:142:ASP:OD1	6.34	0.54
36:5:1586:G:OP1	87:5:3992:OHX:N3	2.40	0.54
36:1:805:G:H1'	41:L4:73:ARG:NH1	2.22	0.54
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	3.27	0.54
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.90	0.54
36:5:1466:G:O6	87:5:3914:OHX:N5	2.40	0.54
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.06	0.54
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	4.36	0.54
6:S4:179:LYS:N	6:S4:194:THR:O	2.41	0.54
1:6:193:U:C2	1:6:195:G:H1'	2.41	0.54
36:1:3128:G:OP2	87:1:4172:OHX:N6	2.39	0.54
63:N7:46:ILE:HD11	63:N7:49:TYR:CG	2.43	0.54
2:S0:148:ASP:N	2:S0:151:SER:OG	2.57	0.54
69:O3:16:TYR:OH	69:O3:91:ALA:HB2	2.07	0.54
1:6:407:A:H2'	1:6:408:C:C6	2.42	0.54
1:6:919:A:H2'	1:6:920:U:C6	2.43	0.54
4:S2:173:PRO:HG2	11:S9:57:ARG:HD2	3.01	0.54
9:S7:39:ARG:HH12	55:M9:188:ASP:HB2	1.72	0.54
45:L8:57:ARG:O	45:L8:61:GLN:HG3	2.78	0.54
48:M1:28:ASP:HA	48:M1:31:THR:CG2	4.14	0.54
1:2:434:G:N7	87:2:2046:OHX:N4	2.55	0.54
78:Q2:8:ARG:HH21	78:Q2:83:LEU:HD11	1.73	0.54
1:2:1391:A:H2'	1:2:1392:U:C6	2.42	0.54
1:2:527:A:OP2	87:2:2051:OHX:N4	2.41	0.54
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.85	0.54
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.17	0.54
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.06	0.54
36:5:2403:G:H5'	36:5:2872:A:C2	2.43	0.54
1:2:472:U:H5''	11:S9:11:THR:HG23	1.90	0.54
36:5:2434:U:H4'	36:5:2435:G:O5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:85:ALA:N	16:C4:119:THR:HG22	2.06	0.54
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.41	0.54
34:SR:90:ARG:HH21	34:SR:102:ARG:HE	3.11	0.54
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	1.97	0.54
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.48	0.54
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.41	0.54
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	2.96	0.54
7:S5:59:VAL:O	7:S5:61:TYR:N	2.97	0.54
36:5:1367:G:HO2'	36:5:1368:U:H6	1.54	0.54
87:8:217:OHX:N2	87:8:225:OHX:N4	2.56	0.54
1:6:187:G:H8	1:6:187:G:O5'	1.90	0.54
36:5:1560:G:O2'	36:5:1561:G:OP1	2.25	0.54
40:L3:250:ALA:HB3	36:5:2880:U:O2	224.17	0.54
49:M3:164:GLU:O	49:M3:166:ALA:N	2.40	0.54
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.89	0.54
87:1:3978:OHX:N6	87:1:4161:OHX:N2	2.56	0.54
12:C0:10:LYS:HZ3	12:C0:36:ASP:C	3.79	0.54
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	6.07	0.54
36:5:1688:U:H2'	36:5:1689:U:C6	2.42	0.54
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.89	0.54
69:O3:2:ALA:HB2	36:5:3216:G:OP2	265.67	0.54
36:1:1556:C:H5"	36:1:2169:G:H22	1.72	0.54
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.63	0.54
1:6:1265:G:N7	87:6:2197:OHX:N6	2.56	0.54
52:M6:157:GLU:O	52:M6:161:LYS:HG3	2.47	0.54
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.90	0.54
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.73	0.54
28:D6:60:PRO:C	28:D6:62:TYR:H	2.11	0.54
36:1:2157:G:O6	39:L2:151:PRO:HD2	2.08	0.54
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.16	0.54
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.27	0.54
36:5:2837:A:H8	36:5:2837:A:OP2	1.90	0.54
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	3.18	0.54
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.37	0.54
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.21	0.54
42:L5:236:LEU:HD12	42:L5:239:ILE:HD12	1.89	0.54
36:1:561:C:H2'	36:1:562:C:C6	2.42	0.54
1:2:929:A:C8	16:C4:123:SER:HA	2.42	0.54
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.08	0.54
17:C5:122:THR:HG22	1:6:1558:U:H3	366.67	0.54
46:L9:188:THR:HG22	46:L9:189:GLU:N	4.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:81:THR:O	40:L3:81:THR:HG22	2.31	0.54
36:1:776:U:C5	36:1:2719:U:O2	2.61	0.54
36:1:3115:C:O2'	36:1:3117:C:N4	2.38	0.54
36:1:1668:G:C6	36:1:1669:C:C4	2.96	0.54
50:M4:134:ALA:O	50:M4:136:ALA:N	2.78	0.54
36:1:2896:A:OP1	76:Q0:102:ARG:NE	2.29	0.54
36:1:964:G:OP1	87:1:3970:OHX:N2	2.40	0.54
74:O8:27:ILE:HD13	74:O8:41:THR:HB	2.56	0.54
36:5:3358:U:H2'	36:5:3359:A:H8	1.71	0.54
36:1:40:A:H5''	64:N8:35:ALA:HB1	1.90	0.54
36:1:3246:G:O6	87:1:4112:OHX:N4	2.39	0.54
36:1:3251:U:H2'	36:1:3252:G:C8	2.42	0.54
8:S6:154:ARG:HD3	1:6:78:A:C8	339.68	0.54
11:S9:108:ARG:O	11:S9:111:THR:OG1	2.24	0.54
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.16	0.54
36:1:2768:U:H2'	36:1:2769:A:C8	2.42	0.54
1:2:66:U:H5'	8:S6:173:PRO:HA	1.89	0.54
41:L4:145:ILE:O	87:L4:403:OHX:N5	2.41	0.54
1:2:896:U:O4'	16:C4:38:THR:HG21	2.07	0.54
27:D5:61:SER:H	27:D5:64:VAL:HB	1.73	0.54
36:5:3049:A:C8	36:5:3049:A:H5'	2.38	0.54
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.95	0.54
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.38	0.54
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.08	0.54
1:6:1699:G:N1	1:6:1701:A:H5''	2.23	0.54
87:8:217:OHX:N5	87:8:225:OHX:N3	2.56	0.54
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.89	0.54
1:6:647:G:N2	1:6:687:G:N2	2.55	0.54
68:O2:19:ARG:HD2	68:O2:28:VAL:HG13	2.04	0.54
1:6:151:G:N2	1:6:163:G:N2	2.56	0.54
17:C5:102:PHE:HZ	1:6:1241:G:H5''	385.02	0.54
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.82	0.54
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	3.28	0.54
1:6:829:A:OP1	1:6:829:A:H4'	2.08	0.54
51:M5:71:ARG:NH2	36:5:32:U:O3'	139.67	0.54
53:M7:101:ASN:OD1	36:5:388:G:N2	114.78	0.54
1:2:607:G:H5'	1:2:613:G:N2	2.23	0.54
36:5:2514:U:OP1	36:5:2514:U:H6	1.91	0.54
36:1:3119:U:OP2	87:1:3896:OHX:N3	2.41	0.54
12:C0:80:LEU:O	12:C0:82:LEU:N	2.41	0.54
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:46:LYS:HA	36:5:1018:G:H4'	324.55	0.54
1:2:1291:G:H8	1:2:1291:G:O5'	1.90	0.54
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.43	0.54
2:S0:185:ARG:HG3	23:D1:47:PRO:HD3	1.88	0.54
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.69	0.54
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	1.89	0.54
11:S9:39:LYS:HB3	11:S9:43:TYR:CZ	2.42	0.54
1:2:1542:G:H22	1:2:1568:C:H1'	1.73	0.54
1:2:1274:C:C5	35:SM:95:SER:HA	2.43	0.54
55:M9:88:ARG:HG3	55:M9:88:ARG:HH11	3.51	0.54
1:2:1449:U:H2'	1:2:1450:U:C6	2.43	0.54
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.72	0.54
36:1:1577:G:H2'	36:1:1578:C:O4'	2.08	0.54
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	2.40	0.54
36:5:2250:G:O6	87:5:3948:OHX:N6	2.40	0.54
1:6:1524:A:H2'	1:6:1525:A:C8	2.43	0.54
41:L4:361:HIS:O	56:N0:28:ARG:NH2	2.89	0.54
20:C8:73:MET:HB3	20:C8:101:LEU:HD11	1.90	0.54
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	2.21	0.54
36:5:1556:C:H2'	36:5:2169:G:N1	2.23	0.54
36:5:1481:A:O4'	36:5:1481:A:OP1	2.26	0.54
49:M3:15:ARG:CZ	36:5:96:G:H5''	151.72	0.54
19:C7:6:THR:OG1	19:C7:8:THR:HG23	3.91	0.54
36:5:3228:C:H4'	36:5:3229:G:O5'	2.08	0.54
70:O4:98:GLN:O	70:O4:102:LYS:HD3	2.08	0.54
87:1:4037:OHX:N6	87:1:4049:OHX:N3	2.55	0.54
1:6:485:A:C6	1:6:486:G:H1'	2.43	0.54
87:8:217:OHX:N6	87:8:225:OHX:N3	2.55	0.54
36:1:2339:C:OP2	59:N3:48:ARG:HG2	2.07	0.54
36:1:250:U:C5	36:1:251:G:N7	2.75	0.54
36:1:3152:U:O2'	36:1:3153:U:H5'	2.08	0.54
39:L2:147:ARG:HG3	39:L2:157:VAL:HG12	1.90	0.54
36:5:2533:G:O6	87:5:4042:OHX:N1	2.41	0.54
36:5:644:G:H2'	36:5:2372:A:N7	2.22	0.54
36:1:685:G:OP1	49:M3:35:ARG:NH1	2.40	0.54
36:1:2995:A:C3'	36:1:2996:U:H5''	2.38	0.54
36:5:1157:G:H2'	36:5:1158:A:O4'	2.08	0.54
4:S2:38:VAL:O	4:S2:39:THR:OG1	2.22	0.54
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.90	0.54
36:5:1365:G:OP2	87:5:4030:OHX:N3	2.41	0.54
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.07	0.54
41:L4:220:ARG:NH1	62:N6:4:GLN:OE1	2.40	0.54
36:1:162:G:N2	36:1:259:C:O2	2.38	0.54
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.98	0.54
1:2:1433:G:H2'	1:2:1434:U:C6	2.42	0.54
36:1:2771:U:O2'	36:1:2772:C:O4'	2.24	0.54
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.55	0.54
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.90	0.54
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.07	0.54
36:5:150:A:H2'	36:5:151:A:H5'	1.90	0.54
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.90	0.54
36:1:1623:G:OP2	87:1:4045:OHX:N1	2.41	0.54
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.08	0.54
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.71	0.54
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.43	0.54
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.73	0.54
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.88	0.54
87:5:4056:OHX:N3	87:5:4201:OHX:N6	2.55	0.54
9:S7:173:TYR:CE1	9:S7:181:ILE:HD13	2.43	0.54
1:2:38:C:H2'	1:2:39:A:H5'	1.88	0.54
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.38	0.54
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.41	0.54
36:1:792:G:H2'	36:1:793:C:C6	2.43	0.54
15:C3:148:ALA:O	87:C3:201:OHX:N4	5.67	0.54
1:6:820:U:O2'	1:6:821:U:H5''	2.08	0.54
1:6:1371:A:H5'	1:6:1372:U:OP2	2.08	0.54
4:S2:162:CYS:H	4:S2:213:ALA:HB2	1.92	0.54
1:2:1166:A:H2'	1:2:1167:G:O4'	2.08	0.54
1:2:1217:A:H8	1:2:1217:A:H5'	1.72	0.54
1:2:918:U:H2'	1:2:919:A:C8	2.43	0.54
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.33	0.53
41:L4:301:PRO:C	54:M8:39:ARG:HH12	2.94	0.53
45:L8:36:ILE:HG22	45:L8:37:GLY:N	2.18	0.53
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.25	0.53
41:L4:140:HIS:NE2	41:L4:246:ARG:HG2	3.48	0.53
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.72	0.53
2:S0:157:ASP:OD2	23:D1:60:ARG:NE	3.58	0.53
36:1:1308:A:H8	36:1:1308:A:OP2	1.90	0.53
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.90	0.53
36:5:3316:A:H5''	36:5:3318:G:N2	2.23	0.53
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.50	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:77:ARG:HG3	17:C5:95:GLY:HA3	3.54	0.53
79:Q3:44:LYS:NZ	36:5:1727:G:OP1	229.93	0.53
52:M6:182:ASN:ND2	52:M6:186:ALA:HB2	5.13	0.53
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.11	0.53
48:M1:16:LYS:HG2	48:M1:130:VAL:HG13	1.89	0.53
46:L9:62:ARG:NH2	36:5:3115:C:OP1	330.22	0.53
53:M7:24:VAL:CG1	53:M7:86:LYS:HG2	2.38	0.53
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.54	0.53
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.90	0.53
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.05	0.53
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.88	0.53
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.90	0.53
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	2.20	0.53
1:2:1615:C:O2'	1:2:1616:G:OP2	2.26	0.53
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.26	0.53
36:1:2209:U:H6	36:1:2209:U:OP2	1.90	0.53
46:L9:89:LYS:HB2	46:L9:183:HIS:HB3	1.90	0.53
87:5:3979:OHX:N6	87:5:4200:OHX:N3	2.56	0.53
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.37	0.53
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	2.38	0.53
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.90	0.53
36:1:1014:U:C2'	36:1:1015:U:H5''	2.38	0.53
9:S7:114:ARG:NH2	1:6:637:C:O2	350.95	0.53
18:C6:47:LYS:HZ3	18:C6:114:ARG:CZ	2.20	0.53
69:O3:59:VAL:HG23	69:O3:60:ARG:N	2.41	0.53
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.51	0.53
87:5:4067:OHX:N3	87:5:4144:OHX:N4	2.56	0.53
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.40	0.53
36:5:656:A:H2'	36:5:657:A:C8	2.43	0.53
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.90	0.53
71:O5:64:GLU:OE1	71:O5:68:GLN:NE2	7.40	0.53
1:2:1595:U:H3	1:2:1600:A:H2	1.57	0.53
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.33	0.53
87:2:2042:OHX:N2	87:2:2097:OHX:N5	2.56	0.53
87:1:4009:OHX:N6	87:1:4177:OHX:N5	2.55	0.53
48:M1:166:LYS:O	48:M1:168:ASP:N	3.65	0.53
36:1:1095:U:O2	57:N1:128:LEU:N	2.40	0.53
72:O6:60:LEU:HD11	72:O6:68:ARG:HD2	1.90	0.53
52:M6:174:PHE:O	52:M6:178:VAL:HG23	2.21	0.53
15:C3:124:ARG:NH2	1:6:967:A:OP2	318.90	0.53
45:L8:67:ILE:HG22	45:L8:237:ILE:HB	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:146:THR:HG21	1:6:123:G:H21	340.43	0.53
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	1.93	0.53
55:M9:68:GLN:NE2	55:M9:72:GLU:OE2	5.13	0.53
44:L7:163:LEU:O	44:L7:165:ASP:N	2.41	0.53
46:L9:91:ARG:NH2	46:L9:141:LYS:O	5.26	0.53
36:5:2407:C:H2'	36:5:2408:U:C6	2.44	0.53
19:C7:71:PHE:CE1	19:C7:74:GLN:HB2	5.33	0.53
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.09	0.53
55:M9:101:VAL:O	55:M9:104:ARG:NE	2.41	0.53
42:L5:254:LYS:O	42:L5:254:LYS:HG3	3.61	0.53
48:M1:92:ARG:NH2	48:M1:94:ARG:HD2	6.79	0.53
36:5:3165:A:N6	36:5:3285:C:H42	2.01	0.53
26:D4:60:PHE:O	1:6:523:G:H5'	412.56	0.53
36:1:2585:G:N3	38:4:151:C:H5	2.07	0.53
1:6:1202:A:N6	1:6:1457:C:OP1	2.37	0.53
52:M6:59:ARG:HD3	36:5:1307:G:OP1	255.39	0.53
6:S4:176:ASP:HB2	6:S4:179:LYS:NZ	2.21	0.53
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.36	0.53
4:S2:90:THR:HG22	4:S2:93:GLY:O	2.08	0.53
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.42	0.53
1:2:1466:G:O2'	1:2:1602:C:OP1	2.26	0.53
38:8:83:C:H4'	38:8:85:G:N2	2.24	0.53
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.90	0.53
87:5:4056:OHX:N1	87:5:4201:OHX:N2	2.56	0.53
57:N1:130:ARG:O	36:5:1098:A:O2'	256.50	0.53
36:5:191:U:H2'	36:5:192:C:C6	2.43	0.53
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.23	0.53
1:2:364:G:OP1	87:2:2104:OHX:N2	2.41	0.53
36:1:1486:G:N7	87:1:4160:OHX:N2	2.55	0.53
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.73	0.53
5:S3:127:MET:HE1	5:S3:155:GLY:HA3	1.90	0.53
7:S5:220:VAL:HA	7:S5:223:SER:HB3	1.91	0.53
36:5:1853:U:OP2	87:5:4057:OHX:N6	2.41	0.53
45:L8:106:LYS:O	45:L8:110:THR:HG23	2.21	0.53
36:1:3281:U:H2'	36:1:3282:U:C6	2.43	0.53
79:Q3:9:GLY:O	36:5:836:A:O2'	234.67	0.53
1:6:702:G:N7	87:6:2102:OHX:N4	2.56	0.53
1:2:417:A:H4'	1:2:418:G:O5'	2.08	0.53
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.25	0.53
5:S3:106:LYS:HG2	5:S3:110:LEU:HD12	1.90	0.53
36:5:1310:G:O6	87:5:4027:OHX:N4	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:60:THR:HG22	1:6:1382:A:H5''	435.12	0.53
42:L5:76:ALA:CB	42:L5:109:THR:HG22	2.64	0.53
87:2:2088:OHX:N3	87:2:2129:OHX:N6	2.56	0.53
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.27	0.53
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.91	0.53
14:C2:68:GLU:O	14:C2:70:ASN:N	2.41	0.53
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.60	0.53
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	2.23	0.53
1:6:542:A:OP1	1:6:544:A:C5	2.62	0.53
21:C9:14:PHE:HE1	21:C9:136:ALA:HB2	2.24	0.53
5:S3:45:LYS:HD2	5:S3:85:VAL:HG21	1.90	0.53
19:C7:107:SER:O	19:C7:110:VAL:HG23	3.62	0.53
36:1:1387:G:OP1	87:1:4161:OHX:N6	2.42	0.53
87:1:3978:OHX:N3	87:1:4161:OHX:N1	2.56	0.53
36:5:3052:G:N7	87:5:4174:OHX:N3	2.56	0.53
36:1:353:G:N7	73:O7:55:ARG:HD3	2.23	0.53
36:1:2746:A:H2'	36:1:2747:A:O4'	2.09	0.53
1:2:1163:A:N6	1:2:1164:G:C6	2.77	0.53
15:C3:119:GLU:O	15:C3:123:HIS:ND1	3.18	0.53
1:6:1336:A:OP1	87:6:2181:OHX:N1	2.42	0.53
36:1:883:A:H5'	53:M7:133:HIS:HA	1.90	0.53
20:C8:48:LYS:HD3	21:C9:35:ASP:OD2	2.09	0.53
36:5:2964:G:N7	87:5:3983:OHX:N6	2.55	0.53
36:5:3159:C:H2'	36:5:3160:U:C6	2.43	0.53
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	1.93	0.53
44:L7:53:LYS:O	44:L7:57:THR:HG23	2.52	0.53
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.91	0.53
15:C3:140:LYS:NZ	36:1:847:A:OP1	2.42	0.53
1:2:542:A:O2'	1:2:543:C:O5'	2.26	0.53
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.22	0.53
8:S6:136:LYS:NZ	1:6:66:U:OP1	335.46	0.53
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.25	0.53
36:1:92:G:OP2	36:1:93:C:H5''	2.08	0.53
1:2:1534:G:OP2	27:D5:74:SER:OG	2.19	0.53
1:6:300:A:O2'	1:6:301:A:H5'	2.08	0.53
2:S0:139:VAL:HG13	2:S0:141:ILE:HG13	2.40	0.53
54:M8:19:PRO:HG3	54:M8:26:LEU:HD13	1.90	0.53
1:6:491:C:H42	1:6:497:G:H21	1.56	0.53
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.89	0.53
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.42	0.53
64:N8:74:ASN:HB3	64:N8:115:LYS:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:21:ARG:NH1	47:M0:22:TYR:CE2	4.66	0.53
36:5:428:A:H2'	36:5:429:U:C6	2.43	0.53
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	3.12	0.53
41:L4:10:SER:OG	41:L4:14:GLU:HG3	4.88	0.53
87:1:3918:OHX:N6	51:M5:32:GLN:O	2.41	0.53
36:5:2810:C:OP1	87:5:4080:OHX:N3	2.41	0.53
36:5:3056:U:OP2	87:5:3942:OHX:N2	2.41	0.53
1:6:558:U:O2	1:6:558:U:H2'	2.09	0.53
36:5:112:U:O2'	36:5:113:C:OP2	2.23	0.53
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	2.42	0.53
87:5:3979:OHX:N2	87:5:4200:OHX:N5	2.57	0.53
75:O9:9:ILE:HD11	75:O9:51:ILE:HD13	1.91	0.53
36:1:1639:C:H5'	70:O4:52:GLN:HG3	1.89	0.53
1:2:1388:A:HO2'	1:2:1411:A:H2	1.55	0.53
1:6:234:G:H2'	1:6:235:G:O4'	2.09	0.53
40:L3:3:HIS:ND1	40:L3:3:HIS:O	2.41	0.53
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.42	0.53
87:5:4067:OHX:N1	87:5:4144:OHX:N2	2.56	0.53
11:S9:83:VAL:HA	11:S9:149:ARG:HA	1.88	0.53
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.09	0.53
36:5:283:G:O6	36:5:304:G:H1'	2.08	0.53
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.38	0.53
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.91	0.53
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.39	0.53
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	2.00	0.53
36:5:20:A:O2'	36:5:21:G:H5'	2.08	0.53
52:M6:54:TYR:CE2	52:M6:58:LEU:HD13	3.26	0.53
48:M1:65:ILE:HG22	48:M1:66:ALA:HB2	3.54	0.53
87:5:4056:OHX:N1	87:5:4201:OHX:N4	2.57	0.53
87:1:3978:OHX:N3	87:1:4161:OHX:N4	2.56	0.53
1:6:825:U:O2'	1:6:826:U:H6	1.91	0.53
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.90	0.53
1:2:631:G:H2'	1:2:632:U:C6	2.44	0.53
87:1:3882:OHX:N5	51:M5:91:GLU:OE2	2.41	0.53
1:2:1101:G:H5''	24:D2:76:SER:HB3	1.91	0.53
36:1:3383:G:H2'	36:1:3384:U:H6	1.72	0.53
1:2:623:A:OP1	87:2:2155:OHX:N2	2.42	0.53
36:1:422:A:C2	36:1:2363:A:H4'	2.44	0.53
1:6:1638:G:C2	1:6:1639:C:H1'	2.43	0.53
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.08	0.53
36:1:713:U:H5'	49:M3:171:ARG:HH11	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:115:HIS:CE1	41:L4:119:ARG:NH2	3.11	0.53
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.18	0.53
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.09	0.53
40:L3:252:ILE:HG12	40:L3:266:ARG:NH2	2.23	0.53
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.09	0.53
18:C6:114:ARG:O	18:C6:115:THR:OG1	2.27	0.53
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.26	0.53
1:2:819:G:O2'	1:2:821:U:OP2	2.16	0.53
37:7:2:G:O2'	37:7:23:A:N1	2.36	0.53
56:N0:155:ARG:HH21	56:N0:155:ARG:CG	2.20	0.53
6:S4:108:ARG:HH22	1:6:788:A:H3'	392.93	0.53
49:M3:100:ARG:NH1	36:5:76:G:O2'	83.84	0.53
1:6:1133:A:H2'	1:6:1134:C:O4'	2.09	0.53
1:6:217:A:C8	1:6:218:A:C8	2.96	0.53
36:1:121:A:C2	45:L8:129:PRO:HB3	2.44	0.53
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.07	0.53
38:8:77:A:H2'	38:8:78:G:O4'	2.08	0.53
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.89	0.53
36:1:953:G:N2	36:1:1116:G:H2'	2.23	0.53
37:7:112:G:OP2	87:7:222:OHX:N2	2.42	0.53
1:2:1490:C:H4'	1:2:1491:U:OP1	2.08	0.53
63:N7:105:SER:HA	63:N7:108:GLU:HG3	1.91	0.53
1:6:532:U:H2'	1:6:533:U:O4'	2.08	0.53
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.14	0.53
1:2:1426:C:H5''	35:SM:93:ARG:HH12	1.74	0.53
5:S3:192:PRO:HB2	5:S3:201:ALA:HA	1.91	0.53
3:S1:176:VAL:O	3:S1:178:GLY:N	2.42	0.53
1:2:1010:C:OP2	87:2:2129:OHX:N5	2.42	0.53
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.40	0.53
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.09	0.53
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.08	0.53
42:L5:270:LYS:O	42:L5:273:ARG:HB3	2.86	0.53
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.08	0.53
21:C9:117:SER:OG	21:C9:118:PRO:O	2.26	0.53
1:6:1229:G:O2'	1:6:1255:G:N2	2.31	0.53
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.94	0.53
2:S0:73:VAL:O	2:S0:95:ALA:HA	2.09	0.53
7:S5:99:MET:HG3	7:S5:180:ARG:NH2	2.23	0.53
1:2:190:C:N4	1:2:196:G:C6	2.77	0.53
36:5:1064:A:H4'	36:5:1065:A:O5'	2.07	0.53
1:2:498:G:C4	1:2:499:U:N3	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2946:A:H5''	36:1:2947:G:H5'	1.90	0.53
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.09	0.53
1:6:1431:C:H1'	1:6:1437:U:O4	2.09	0.53
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.06	0.53
5:S3:116:ARG:HH11	5:S3:116:ARG:HB2	4.66	0.53
48:M1:16:LYS:NZ	36:5:2684:C:OP1	308.65	0.53
36:5:2971:A:H5''	36:5:2972:G:C5'	2.38	0.53
47:M0:161:GLY:O	47:M0:163:GLN:NE2	2.58	0.53
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.44	0.53
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.27	0.53
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.61	0.53
34:SR:106:HIS:CD2	34:SR:110:VAL:HG22	2.43	0.53
1:2:1140:G:OP2	87:2:2063:OHX:N6	2.41	0.53
1:6:719:U:C4	1:6:721:U:H5	2.26	0.53
36:5:1915:A:H2'	36:5:1916:U:C6	2.44	0.53
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.91	0.53
36:1:2101:C:O2'	36:1:2102:U:O5'	2.25	0.53
49:M3:190:LYS:NZ	49:M3:190:LYS:HB2	2.23	0.53
11:S9:22:SER:OG	11:S9:23:ARG:N	2.86	0.53
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	3.03	0.53
42:L5:107:ARG:HH21	42:L5:110:LEU:HD23	1.74	0.53
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.09	0.53
17:C5:130:ARG:NH2	35:SM:66:ALA:HA	4.30	0.53
1:2:1202:A:OP2	87:2:2109:OHX:N2	2.41	0.53
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.38	0.53
36:5:2263:C:OP1	87:5:3957:OHX:N2	2.42	0.53
1:2:1539:G:H5'	1:2:1539:G:C8	2.44	0.53
1:6:485:A:N6	1:6:486:G:N3	2.56	0.53
36:1:361:A:H5'	73:O7:35:SER:OG	2.09	0.53
26:D4:44:LEU:HA	26:D4:47:VAL:HG13	5.02	0.53
36:1:3298:C:C2	36:1:3299:A:C8	2.97	0.53
53:M7:69:ARG:HD2	36:5:3308:C:O2	184.83	0.53
1:2:591:A:H2'	1:2:592:A:H8	1.74	0.53
41:L4:269:SER:O	41:L4:271:LYS:N	2.39	0.53
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.46	0.53
36:5:1594:A:H1'	36:5:1615:C:H1'	1.91	0.53
36:5:1895:A:O2'	36:5:3053:G:H4'	2.07	0.53
48:M1:12:LEU:HD12	48:M1:162:TRP:CD1	4.62	0.53
9:S7:173:TYR:CE1	9:S7:179:LYS:HB2	2.44	0.53
15:C3:40:TYR:O	15:C3:45:LEU:HB2	2.40	0.53
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:871:G:H2'	1:6:872:G:C8	2.43	0.53
78:Q2:55:LYS:HD2	36:5:92:G:O2'	174.74	0.53
9:S7:73:VAL:O	9:S7:75:THR:N	2.55	0.53
72:O6:2:THR:OG1	72:O6:3:VAL:N	2.42	0.53
1:6:1216:C:O2'	1:6:1444:A:N1	2.33	0.53
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.44	0.53
1:2:328:A:H2'	1:2:329:G:O4'	2.08	0.53
2:S0:134:LYS:O	2:S0:137:SER:OG	2.19	0.53
2:S0:147:THR:O	2:S0:161:PRO:HA	2.42	0.53
36:5:1881:A:OP2	87:5:4031:OHX:N6	2.42	0.53
38:4:79:A:H5''	71:O5:43:LYS:NZ	2.23	0.53
36:5:408:A:N6	38:8:15:G:H1'	2.23	0.53
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.44	0.53
3:S1:27:LYS:NZ	3:S1:48:VAL:O	2.29	0.53
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.24	0.53
10:S8:56:ARG:HH22	1:6:332:U:P	286.90	0.53
40:L3:152:LYS:HD3	40:L3:189:SER:HA	1.91	0.53
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.26	0.53
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.22	0.53
36:1:2261:G:H21	36:1:2262:A:N6	2.07	0.53
87:5:4056:OHX:N5	87:5:4201:OHX:N2	2.57	0.53
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.40	0.53
1:2:1450:U:H2'	1:2:1451:C:C6	2.44	0.53
36:5:2568:C:N4	36:5:2574:G:O6	2.42	0.53
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.91	0.53
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	2.25	0.53
71:O5:35:LYS:NZ	38:8:50:C:OP1	62.38	0.53
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	2.50	0.53
20:C8:124:GLY:O	20:C8:127:HIS:N	2.41	0.53
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.94	0.53
36:5:2676:A:H4'	36:5:2677:G:O5'	2.09	0.53
36:5:1176:C:H2'	36:5:1177:G:N2	2.24	0.53
73:O7:84:SER:O	73:O7:85:LYS:HB3	3.85	0.53
62:N6:2:ALA:N	36:5:213:A:H5''	80.42	0.53
36:1:1295:G:H2'	36:1:1296:C:C6	2.43	0.53
23:D1:2:GLU:HG2	23:D1:6:GLY:HA2	4.36	0.53
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.20	0.53
79:Q3:20:SER:O	79:Q3:24:ARG:HB2	3.87	0.53
36:1:2662:G:H2'	36:1:2663:G:H8	1.73	0.52
47:M0:72:ALA:O	47:M0:76:MET:HG3	2.25	0.52
1:6:1175:U:H2'	1:6:1176:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:131:GLU:HG3	44:L7:230:GLY:HA2	4.01	0.52
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.09	0.52
7:S5:57:SER:OG	7:S5:58:LEU:N	2.85	0.52
36:1:1103:A:N3	36:1:1103:A:H2'	2.25	0.52
14:C2:40:GLY:O	14:C2:124:LYS:N	2.71	0.52
1:6:830:U:H2'	1:6:831:U:H5'	1.90	0.52
87:2:2042:OHX:N4	87:2:2097:OHX:N6	2.57	0.52
74:O8:17:ARG:O	74:O8:19:ASP:N	2.41	0.52
36:1:508:U:O4	87:1:4177:OHX:N5	2.41	0.52
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.59	0.52
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	3.58	0.52
36:1:1286:A:N3	36:1:1287:A:H1'	2.24	0.52
65:N9:23:LYS:O	65:N9:25:LYS:HE3	2.09	0.52
36:5:328:U:O4	87:5:4023:OHX:N1	2.41	0.52
1:2:393:C:H2'	1:2:394:C:C6	2.44	0.52
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.22	0.52
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.88	0.52
36:1:172:G:N7	87:1:3998:OHX:N2	2.56	0.52
36:5:357:A:OP2	87:5:4210:OHX:N5	2.42	0.52
36:1:1273:A:O2'	36:1:1274:A:OP1	2.25	0.52
36:5:3275:U:H4'	36:5:3276:G:OP2	2.08	0.52
68:O2:118:LYS:NZ	36:5:438:A:OP2	176.90	0.52
36:5:493:G:N2	36:5:494:G:H1'	2.24	0.52
1:2:515:A:OP2	87:2:2068:OHX:N3	2.41	0.52
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	2.93	0.52
41:L4:141:ARG:NH1	41:L4:180:LYS:HD3	2.29	0.52
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.10	0.52
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.90	0.52
87:1:4037:OHX:N4	87:1:4049:OHX:N3	2.57	0.52
40:L3:81:THR:O	40:L3:320:ASP:HB2	3.53	0.52
16:C4:103:ARG:HH12	28:D6:48:ALA:HB3	3.50	0.52
36:1:900:G:H1'	36:1:1589:A:H61	1.72	0.52
36:5:2546:C:H2'	36:5:2547:A:C8	2.44	0.52
46:L9:109:ALA:O	46:L9:110:LYS:HB2	2.13	0.52
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	3.47	0.52
36:5:2572:C:O2'	36:5:2573:G:OP2	2.18	0.52
1:6:914:G:H5'	1:6:914:G:C8	2.44	0.52
36:1:1577:G:H2'	36:1:1578:C:C1'	2.40	0.52
15:C3:138:ASN:O	15:C3:140:LYS:N	3.62	0.52
36:5:1769:G:C2	36:5:1770:G:C8	2.98	0.52
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.41	0.52
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	1.91	0.52
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.91	0.52
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.53	0.52
36:5:2442:G:H22	36:5:2506:U:H3	1.58	0.52
87:5:3979:OHX:N4	87:5:4200:OHX:N3	2.57	0.52
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.41	0.52
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.45	0.52
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.51	0.52
1:6:837:G:O6	87:6:2104:OHX:N1	2.42	0.52
37:3:49:G:O6	42:L5:58:LYS:NZ	2.33	0.52
36:5:304:G:OP2	36:5:304:G:H3'	2.10	0.52
4:S2:157:LYS:HD2	4:S2:168:ARG:NH2	2.25	0.52
1:2:1572:G:H1'	7:S5:185:ARG:HH12	1.74	0.52
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.33	0.52
5:S3:18:TYR:HE1	5:S3:37:VAL:HG23	1.75	0.52
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.08	0.52
6:S4:42:LEU:HD12	6:S4:109:PHE:HB2	1.91	0.52
36:5:1528:G:H2'	36:5:1529:A:O4'	2.09	0.52
1:2:484:C:N4	1:2:503:G:H22	2.07	0.52
36:1:2247:G:OP1	87:1:3887:OHX:N1	2.42	0.52
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.52	0.52
36:5:3294:A:H2'	36:5:3295:A:O4'	2.09	0.52
36:1:3094:A:H2'	36:1:3095:U:C6	2.45	0.52
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.22	0.52
41:L4:288:ARG:O	41:L4:291:ASN:N	3.29	0.52
1:2:1081:A:H5''	1:2:1082:C:OP1	2.10	0.52
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.09	0.52
36:5:1772:U:H5''	36:5:1773:C:H5'	1.91	0.52
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.10	0.52
36:1:1547:G:P	51:M5:105:ARG:HH11	2.33	0.52
1:2:256:A:H2'	1:2:257:A:O4'	2.09	0.52
38:4:83:C:H1'	38:4:85:G:N2	2.24	0.52
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	9.44	0.52
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.53	0.52
36:1:911:C:H42	39:L2:3:ARG:HH11	1.57	0.52
36:1:2503:G:H1'	36:1:2504:U:C5	2.38	0.52
36:1:1844:C:C2'	36:1:1845:G:H5''	2.39	0.52
36:1:1240:A:H3'	36:1:1241:U:C5'	2.39	0.52
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.33	0.52
36:1:1887:A:OP2	87:1:3897:OHX:N4	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2899:C:C5	46:L9:171:ASP:HA	2.43	0.52
3:S1:97:LEU:HG	3:S1:232:HIS:CE1	2.44	0.52
1:2:796:A:OP2	87:2:2055:OHX:N6	2.42	0.52
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.90	0.52
1:2:480:G:N2	1:2:509:G:H1'	2.24	0.52
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.40	0.52
87:1:4009:OHX:N5	87:1:4177:OHX:N5	2.57	0.52
1:6:542:A:H1'	1:6:543:C:OP1	2.10	0.52
36:5:169:U:H4'	36:5:170:G:OP1	2.07	0.52
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.43	0.52
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.92	0.52
1:6:913:G:H3'	1:6:914:G:C5'	2.40	0.52
36:1:2357:A:OP1	87:1:3983:OHX:N2	2.43	0.52
68:O2:33:ARG:HH22	36:5:1408:G:P	159.64	0.52
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.45	0.52
44:L7:125:GLU:OE1	44:L7:128:LYS:HE2	2.09	0.52
36:5:2919:A:N1	36:5:2927:C:O2	2.43	0.52
26:D4:54:ALA:HB2	26:D4:79:VAL:HG22	2.52	0.52
13:C1:6:THR:O	13:C1:8:GLN:N	2.42	0.52
1:2:209:U:H2'	1:2:210:A:C8	2.44	0.52
16:C4:132:ARG:HB3	1:6:1787:C:OP2	291.73	0.52
45:L8:143:ILE:HG23	45:L8:175:VAL:HG21	2.63	0.52
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.42	0.52
36:1:2812:C:O2'	36:1:2813:A:H5'	2.10	0.52
67:O1:25:PHE:HB3	67:O1:65:LYS:HG3	4.83	0.52
1:6:1263:G:H2'	1:6:1264:G:O4'	2.09	0.52
36:1:2676:A:H4'	36:1:2677:G:O5'	2.10	0.52
48:M1:110:ILE:HD13	48:M1:122:ILE:HD11	2.71	0.52
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.15	0.52
1:2:505:A:N3	1:2:505:A:H2'	2.25	0.52
36:1:1478:C:H2'	36:1:1479:U:C6	2.45	0.52
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.20	0.52
24:D2:41:MET:HG2	24:D2:129:VAL:HG11	2.42	0.52
87:5:3979:OHX:N6	87:5:4200:OHX:N5	2.58	0.52
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.90	0.52
1:6:1600:A:H4'	1:6:1601:G:OP1	2.09	0.52
87:2:2088:OHX:N1	87:2:2129:OHX:N2	2.57	0.52
87:2:2088:OHX:N3	87:2:2129:OHX:N4	2.57	0.52
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.74	0.52
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.91	0.52
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:154:GLY:O	44:L7:160:ARG:HA	2.09	0.52
1:6:485:A:C5	1:6:486:G:H1'	2.45	0.52
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.74	0.52
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.73	0.52
36:1:3085:G:OP2	87:1:3892:OHX:N2	2.43	0.52
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	1.92	0.52
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	2.60	0.52
1:2:778:G:H1	26:D4:10:ARG:NH1	2.07	0.52
1:2:778:G:H22	26:D4:10:ARG:NH1	2.06	0.52
19:C7:2:GLY:N	1:6:1312:A:OP1	390.90	0.52
45:L8:65:LEU:O	45:L8:69:LEU:HD13	2.83	0.52
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.43	0.52
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	3.18	0.52
70:O4:67:LYS:HA	70:O4:70:LYS:HE2	1.90	0.52
1:6:1058:U:H4'	1:6:1059:U:OP1	2.09	0.52
41:L4:289:ILE:O	41:L4:292:SER:HB3	2.09	0.52
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.59	0.52
36:5:2103:U:H2'	36:5:2104:A:C8	2.45	0.52
54:M8:178:ARG:HD2	64:N8:50:PRO:HB2	4.24	0.52
40:L3:58:ARG:NH1	40:L3:354:VAL:HG12	2.25	0.52
4:S2:54:GLU:OE1	23:D1:11:LEU:HB2	3.97	0.52
36:5:1078:U:O4	87:5:4000:OHX:N5	2.42	0.52
36:5:1313:G:O6	87:5:4164:OHX:N6	2.42	0.52
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.10	0.52
36:5:2257:C:H6	36:5:2257:C:O5'	1.92	0.52
1:2:1488:G:H5'	1:2:1489:U:OP1	2.09	0.52
1:2:1291:G:H5'	4:S2:119:LYS:HE3	1.92	0.52
10:S8:62:THR:HA	10:S8:76:THR:O	2.63	0.52
10:S8:51:GLY:O	10:S8:52:ASN:HB2	3.31	0.52
40:L3:290:ASP:OD2	40:L3:292:ALA:N	4.85	0.52
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.24	0.52
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.67	0.52
8:S6:78:THR:HG22	8:S6:79:LYS:H	2.30	0.52
36:1:3084:C:OP2	87:1:3892:OHX:N5	2.43	0.52
14:C2:119:SER:OG	14:C2:120:VAL:N	2.43	0.52
36:1:517:G:P	44:L7:60:ARG:HH22	2.32	0.52
36:5:2551:U:H4'	36:5:2552:C:OP1	2.08	0.52
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.45	0.52
36:1:2419:A:H2'	36:1:2420:C:C6	2.45	0.52
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.10	0.52
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.17	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.91	0.52
57:N1:128:LEU:H	57:N1:128:LEU:HD12	1.74	0.52
7:S5:162:VAL:HB	30:D8:45:LYS:HB3	1.91	0.52
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.90	0.52
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.41	0.52
69:O3:88:ASN:HB2	36:5:429:U:H5'	214.77	0.52
1:2:830:U:O2'	1:2:831:U:H6	1.92	0.52
39:L2:179:LEU:HD12	39:L2:184:ARG:HB3	1.90	0.52
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.91	0.52
36:5:522:A:OP1	87:5:3940:OHX:N1	2.43	0.52
43:L6:56:LYS:NZ	43:L6:98:VAL:O	2.36	0.52
1:6:1237:G:N2	1:6:1248:C:O2	2.31	0.52
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.24	0.52
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.09	0.52
36:5:2951:G:O2'	36:5:2952:G:H5'	2.10	0.52
36:5:3078:U:O2'	87:5:4197:OHX:N1	2.43	0.52
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.75	0.52
67:O1:57:GLN:NE2	36:5:1474:A:O2'	140.85	0.52
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.21	0.52
5:S3:113:LEU:HD21	5:S3:117:ARG:NH1	2.24	0.52
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.91	0.52
35:SM:48:ARG:NH1	36:5:1017:C:H5''	336.24	0.52
40:L3:252:ILE:HG12	40:L3:266:ARG:HH21	1.73	0.52
39:L2:70:ARG:HD2	39:L2:72:ARG:NE	3.80	0.52
1:2:1301:U:H5'	4:S2:88:LYS:HD2	1.92	0.52
39:L2:201:GLY:O	39:L2:204:MET:HG3	2.09	0.52
3:S1:126:THR:HG22	3:S1:136:ARG:HE	2.10	0.52
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.96	0.52
36:5:655:C:H2'	36:5:656:A:C8	2.44	0.52
36:5:1329:U:H4'	36:5:1330:A:OP1	2.09	0.52
36:1:249:U:O2	36:1:250:U:N3	2.38	0.52
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	1.92	0.52
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	2.67	0.52
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.66	0.52
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	4.09	0.52
1:6:489:C:O2'	1:6:490:C:O5'	2.28	0.52
36:1:860:G:O5'	39:L2:181:LYS:NZ	2.41	0.52
36:5:2569:A:H4'	36:5:2570:U:H5'	1.90	0.52
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	3.29	0.52
1:6:1590:G:H2'	1:6:1591:C:C6	2.43	0.52
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	7.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:658:G:OP1	87:1:4050:OHX:N4	2.43	0.52
45:L8:159:PRO:HG3	51:M5:43:THR:O	3.82	0.52
19:C7:60:ARG:HG3	19:C7:66:VAL:HG21	2.48	0.52
36:5:996:A:C2	36:5:1054:A:C4	2.97	0.52
73:O7:48:ASN:OD1	73:O7:54:LYS:NZ	2.61	0.52
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.40	0.52
36:1:789:A:H2'	36:1:790:U:C6	2.44	0.52
42:L5:183:TRP:CZ3	42:L5:185:PHE:HA	7.00	0.52
1:6:5:U:H2'	1:6:6:G:H8	1.73	0.52
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.25	0.52
54:M8:20:LYS:HD3	36:5:671:U:O2'	157.20	0.52
36:1:1470:U:H2'	36:1:1471:U:H6	1.75	0.52
36:5:2530:G:H2'	36:5:2531:C:H5'	1.92	0.52
1:6:577:G:N1	87:6:2162:OHX:N4	2.57	0.52
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.75	0.52
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.29	0.52
39:L2:3:ARG:HD3	36:5:911:C:N4	178.63	0.52
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.74	0.52
3:S1:212:VAL:O	3:S1:214:LYS:N	2.43	0.52
44:L7:158:LYS:HD2	44:L7:159:GLN:CA	5.15	0.52
41:L4:182:LEU:HD12	41:L4:223:PRO:HB2	1.91	0.52
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.51	0.52
4:S2:157:LYS:HG3	24:D2:95:PRO:O	2.68	0.52
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.18	0.52
36:1:3066:U:H2'	36:1:3067:C:C6	2.44	0.52
36:1:1614:C:H2'	36:1:1615:C:H6	1.75	0.52
1:2:1248:C:H2'	1:2:1249:U:H6	1.75	0.52
11:S9:121:SER:HB3	11:S9:124:HIS:HB2	2.79	0.52
63:N7:54:THR:H	63:N7:57:HIS:CD2	2.55	0.52
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.78	0.52
38:4:125:U:HO2'	38:4:126:A:P	2.33	0.52
36:5:909:G:O2'	87:5:4079:OHX:N2	2.43	0.52
57:N1:68:THR:HG22	57:N1:71:SER:H	5.56	0.52
49:M3:69:VAL:N	49:M3:149:GLN:OE1	2.80	0.52
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.45	0.52
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	1.94	0.52
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	2.58	0.52
4:S2:108:ASN:O	4:S2:108:ASN:ND2	3.59	0.52
79:Q3:91:GLU:N	79:Q3:91:GLU:OE2	2.43	0.52
1:2:446:A:N6	1:2:461:G:H21	2.08	0.52
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.55	0.52
36:5:409:A:OP2	87:5:4104:OHX:N3	2.43	0.52
18:C6:52:LEU:HB2	18:C6:53:LEU:HD23	2.31	0.52
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	2.14	0.52
70:O4:99:LYS:HG2	70:O4:103:LYS:NZ	2.24	0.52
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	3.71	0.52
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	5.94	0.52
36:1:2443:A:N6	36:1:2504:U:C4	2.78	0.52
36:1:1814:A:OP1	87:1:4095:OHX:N2	2.43	0.52
44:L7:73:GLY:O	57:N1:143:THR:HB	2.10	0.52
45:L8:101:THR:H	45:L8:104:GLU:HB2	1.74	0.52
36:1:3060:C:OP1	87:1:4043:OHX:N4	2.43	0.52
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.91	0.52
87:1:3978:OHX:N5	87:1:4161:OHX:N2	2.57	0.52
36:1:2218:G:H2'	36:1:2219:A:C8	2.45	0.52
36:1:1556:C:H2'	36:1:2169:G:N1	2.25	0.52
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.10	0.52
1:2:1351:G:C2	1:2:1375:A:C2	2.98	0.52
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	2.42	0.52
36:1:3027:A:H2'	36:1:3028:G:O4'	2.10	0.52
36:1:1074:U:O2'	36:1:1075:A:H2'	2.10	0.52
5:S3:61:GLU:O	5:S3:63:GLY:N	2.43	0.52
1:6:922:G:H2'	1:6:923:A:H8	1.75	0.52
36:1:1237:G:H2'	36:1:1237:G:N3	2.24	0.52
36:5:3351:U:H3'	36:5:3351:U:O2	2.10	0.52
67:O1:58:ALA:O	67:O1:61:LYS:HB3	2.97	0.52
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.90	0.52
1:2:1646:C:H2'	1:2:1647:U:C6	2.45	0.52
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.10	0.52
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.37	0.52
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.09	0.52
5:S3:167:PHE:HD1	5:S3:190:ARG:HD3	1.74	0.52
1:2:1592:A:H2'	1:2:1593:A:C8	2.44	0.52
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	3.58	0.52
36:1:1170:A:OP2	87:1:3964:OHX:N3	2.43	0.52
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.75	0.52
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.33	0.52
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.10	0.52
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.91	0.52
36:1:3195:U:O2'	36:1:3196:U:H5'	2.10	0.52
68:O2:44:ARG:NH1	36:5:1145:G:OP1	207.11	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:24:LEU:HD22	56:N0:59:VAL:HG21	3.35	0.52
1:2:1537:C:N4	1:2:1572:G:H1	2.08	0.52
37:3:112:G:H2'	37:3:113:C:C6	2.45	0.52
1:2:1283:U:OP1	87:2:2113:OHX:N2	2.43	0.52
1:2:25:C:H1'	1:2:26:A:OP2	2.10	0.52
59:N3:13:ILE:CD1	59:N3:53:SER:HB2	2.70	0.52
15:C3:12:SER:HB3	1:6:956:C:OP2	334.46	0.52
1:6:827:C:H2'	1:6:828:U:H6	1.75	0.52
1:6:1783:C:H2'	1:6:1784:C:C6	2.44	0.52
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	3.67	0.52
1:6:819:G:O2'	1:6:821:U:OP2	2.28	0.52
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.50	0.52
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.16	0.52
38:8:74:U:O2	87:8:220:OHX:N5	2.43	0.52
36:5:626:U:O4	87:5:3984:OHX:N4	2.42	0.52
1:2:420:A:H2'	1:2:421:A:O4'	2.11	0.52
36:1:2264:U:OP2	87:1:3992:OHX:N5	2.43	0.52
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.43	0.51
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.29	0.51
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.10	0.51
1:2:1796:C:H1'	28:D6:7:SER:OG	2.09	0.51
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.46	0.51
16:C4:126:THR:HB	1:6:989:U:O2'	276.68	0.51
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.46	0.51
4:S2:90:THR:O	4:S2:92:ALA:N	2.50	0.51
33:E1:98:VAL:HG21	1:6:1252:C:H41	434.13	0.51
45:L8:112:GLU:O	45:L8:116:VAL:HB	2.11	0.51
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.92	0.51
17:C5:85:ILE:HG13	17:C5:114:HIS:O	2.88	0.51
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.84	0.51
52:M6:10:ASP:CG	52:M6:37:ARG:HH21	2.99	0.51
10:S8:97:THR:O	10:S8:100:ALA:HB2	2.77	0.51
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.43	0.51
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.72	0.51
68:O2:6:HIS:O	68:O2:6:HIS:ND1	3.14	0.51
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.59	0.51
1:2:1101:G:O3'	24:D2:76:SER:HB2	2.10	0.51
24:D2:76:SER:OG	24:D2:77:PRO:HD3	2.10	0.51
36:1:2427:U:H2'	36:1:2428:U:C6	2.44	0.51
36:5:80:G:H2'	36:5:81:C:C6	2.45	0.51
1:2:583:C:OP1	87:2:2024:OHX:N3	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:102:PHE:O	2:S0:103:THR:HB	2.08	0.51
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	2.19	0.51
1:2:131:C:O2'	1:2:132:U:OP1	2.25	0.51
9:S7:140:VAL:HG22	9:S7:150:GLN:HG2	2.68	0.51
36:1:650:C:H2'	36:1:651:G:C8	2.45	0.51
4:S2:147:ASN:O	23:D1:4:ASP:N	2.43	0.51
42:L5:211:LEU:HD11	42:L5:222:LEU:HD12	3.88	0.51
11:S9:108:ARG:CB	11:S9:110:GLN:HB3	3.00	0.51
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.26	0.51
36:1:1231:A:OP2	87:1:4090:OHX:N5	2.43	0.51
4:S2:140:ARG:HD2	23:D1:10:GLU:OE1	3.60	0.51
38:4:71:A:H2	38:4:82:U:O2	1.94	0.51
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	1.92	0.51
10:S8:37:LYS:H	10:S8:59:ARG:H	1.56	0.51
36:1:409:A:OP2	87:1:4061:OHX:N6	2.44	0.51
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.10	0.51
44:L7:160:ARG:HB2	44:L7:203:TRP:CE3	2.45	0.51
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.60	0.51
87:1:4137:OHX:N5	87:1:4169:OHX:N6	2.58	0.51
1:2:1382:A:H5"	22:D0:60:THR:H	1.75	0.51
36:1:2881:C:H2'	36:1:2882:U:H6	1.75	0.51
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.53	0.51
40:L3:226:PHE:CE1	40:L3:268:GLY:HA2	2.95	0.51
49:M3:6:ASN:HB2	64:N8:48:TYR:CE2	2.45	0.51
36:5:2762:A:H1'	36:5:2800:G:C6	2.45	0.51
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	3.03	0.51
39:L2:200:ARG:HB3	36:5:2185:G:OP2	209.19	0.51
8:S6:58:LYS:HE3	8:S6:105:ASP:HA	1.92	0.51
20:C8:15:LEU:HD23	20:C8:22:VAL:O	2.25	0.51
45:L8:26:LEU:HD12	45:L8:26:LEU:H	1.74	0.51
1:2:799:A:H5"	6:S4:201:HIS:CE1	2.46	0.51
71:O5:28:LEU:HD13	71:O5:32:LYS:HE2	1.91	0.51
36:5:1781:C:H2'	36:5:1782:U:C6	2.45	0.51
78:Q2:33:ALA:O	78:Q2:34:SER:HB3	2.11	0.51
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	4.03	0.51
1:6:1735:U:O4	87:6:2127:OHX:N5	2.43	0.51
41:L4:91:GLY:HA3	41:L4:93:MET:HE2	1.91	0.51
7:S5:35:GLN:O	7:S5:37:GLN:N	3.00	0.51
61:N5:25:LYS:HD3	61:N5:27:ARG:NH1	2.26	0.51
37:3:22:A:H2'	37:3:23:A:C8	2.45	0.51
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.47	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:13:HIS:NE2	36:5:98:G:N7	139.08	0.51
36:1:2278:C:H2'	36:1:2279:A:H5''	1.91	0.51
67:O1:86:LYS:HD2	67:O1:86:LYS:N	2.24	0.51
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.44	0.51
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.25	0.51
47:M0:177:ASP:O	47:M0:180:GLU:N	2.90	0.51
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.92	0.51
40:L3:83:PRO:O	40:L3:165:GLN:NE2	2.37	0.51
49:M3:2:ALA:N	64:N8:33:GLY:O	4.85	0.51
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.33	0.51
40:L3:160:VAL:HG13	40:L3:183:LEU:HD22	4.64	0.51
36:5:1090:G:O6	87:5:4192:OHX:N5	2.43	0.51
1:6:355:G:OP1	87:6:2070:OHX:N5	2.43	0.51
1:6:729:G:O2'	1:6:730:G:O5'	2.25	0.51
1:2:438:A:H1'	1:2:466:U:O2	2.10	0.51
36:1:279:U:H2'	36:1:280:U:C6	2.44	0.51
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.76	0.51
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	2.10	0.51
35:SM:26:VAL:HG11	48:M1:49:LYS:HE3	1.91	0.51
38:4:71:A:O2'	62:N6:52:ARG:NH2	2.43	0.51
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	4.85	0.51
39:L2:3:ARG:HB3	39:L2:207:VAL:O	2.10	0.51
87:5:4067:OHX:N5	87:5:4144:OHX:N6	2.58	0.51
1:6:1695:G:H21	1:6:1706:C:N4	2.07	0.51
36:1:1743:G:H2'	36:1:1744:G:H8	1.76	0.51
1:6:1097:U:H4'	1:6:1098:U:H5'	1.92	0.51
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.26	0.51
59:N3:2:SER:HB2	59:N3:125:LEU:HD21	5.41	0.51
52:M6:62:THR:HA	36:5:1306:G:C6	233.18	0.51
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.48	0.51
41:L4:342:LYS:HE2	44:L7:56:GLU:OE2	4.09	0.51
6:S4:71:LYS:HG3	6:S4:91:THR:HB	1.92	0.51
1:6:542:A:O2'	1:6:543:C:O5'	2.25	0.51
1:2:682:C:H2'	1:2:683:C:O4'	2.11	0.51
40:L3:247:ARG:HD3	36:5:1888:U:OP1	210.13	0.51
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.10	0.51
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	1.92	0.51
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.61	0.51
54:M8:51:ALA:HA	54:M8:54:LEU:HD12	1.92	0.51
1:6:513:U:H2'	1:6:514:G:C8	2.46	0.51
72:O6:5:THR:OG1	72:O6:7:ILE:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.92	0.51
64:N8:77:LYS:O	64:N8:79:TRP:N	2.43	0.51
1:6:1171:A:H2'	1:6:1172:G:C8	2.45	0.51
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	1.91	0.51
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.26	0.51
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.11	0.51
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.22	0.51
36:1:2314:U:O2'	36:1:2315:G:OP1	2.25	0.51
36:5:2537:U:O2'	36:5:2538:U:O4'	2.28	0.51
1:2:1515:A:OP2	5:S3:7:LYS:HB2	2.11	0.51
35:SM:65:THR:OG1	35:SM:66:ALA:N	3.91	0.51
1:2:823:G:H2'	1:2:824:G:H8	1.71	0.51
12:C0:72:GLY:O	12:C0:76:LEU:HD22	2.11	0.51
62:N6:50:ILE:HD13	62:N6:51:ARG:N	2.29	0.51
1:2:1338:C:H1'	1:2:1410:A:C4	2.46	0.51
3:S1:144:ARG:NH2	3:S1:207:LEU:O	2.87	0.51
26:D4:2:SER:N	26:D4:32:ARG:HG3	2.25	0.51
39:L2:246:LEU:HD23	39:L2:248:GLY:N	6.85	0.51
59:N3:40:LYS:HD3	59:N3:59:MET:HE2	1.92	0.51
87:2:2042:OHX:N4	87:2:2097:OHX:N3	2.58	0.51
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.11	0.51
1:6:454:U:OP1	1:6:455:C:N4	2.43	0.51
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.93	0.51
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.28	0.51
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	3.78	0.51
1:2:811:A:C2	1:2:858:G:H1'	2.46	0.51
65:N9:59:LYS:HD3	65:N9:59:LYS:H	1.75	0.51
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.39	0.51
68:O2:55:ILE:HB	36:5:947:G:H5''	188.25	0.51
1:6:199:G:HO2'	1:6:200:A:H8	1.57	0.51
71:O5:83:LYS:HA	38:8:38:U:H5	65.49	0.51
22:D0:26:LEU:HD23	22:D0:114:VAL:HG13	2.66	0.51
46:L9:19:SER:HB3	50:M4:6:ILE:H	5.14	0.51
36:1:2697:A:H2'	36:1:2698:G:C8	2.45	0.51
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.31	0.51
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.93	0.51
11:S9:142:ASN:OD1	26:D4:64:PHE:HZ	3.11	0.51
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.44	0.51
38:4:68:G:OP2	87:O7:103:OHX:N6	2.43	0.51
1:2:992:A:H2	1:2:1012:U:H3	1.50	0.51
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.10	0.51
39:L2:204:MET:HE3	39:L2:208:ASP:HB3	2.21	0.51
87:6:2063:OHX:N2	87:6:2150:OHX:N4	2.59	0.51
16:C4:122:PRO:O	16:C4:124:ASP:N	2.44	0.51
5:S3:74:GLN:O	5:S3:79:TYR:N	3.35	0.51
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.92	0.51
36:1:2532:U:H3	36:1:2547:A:H61	1.57	0.51
1:2:333:A:H2'	1:2:334:G:C8	2.45	0.51
1:2:503:G:O2'	1:2:504:U:OP1	2.28	0.51
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	1.91	0.51
36:1:1752:A:OP2	87:1:4052:OHX:N3	2.44	0.51
32:E0:48:THR:OG1	32:E0:49:LEU:HD22	3.92	0.51
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.11	0.51
36:1:715:A:H5''	64:N8:114:GLY:O	2.11	0.51
87:1:4050:OHX:N2	38:4:18:U:OP1	2.44	0.51
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.75	0.51
20:C8:17:LEU:O	20:C8:20:THR:N	3.07	0.51
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.32	0.51
42:L5:164:LYS:HG2	42:L5:180:PHE:CZ	2.46	0.51
36:1:2376:G:H2'	36:1:2377:G:C8	2.46	0.51
40:L3:299:ASP:OD1	40:L3:301:THR:HG23	2.46	0.51
5:S3:60:GLY:O	5:S3:62:ASN:N	3.49	0.51
36:5:407:A:C2	38:8:17:A:H1'	2.46	0.51
36:5:701:G:H2'	36:5:702:C:C6	2.45	0.51
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.51	0.51
36:1:290:G:H2'	36:1:291:C:C6	2.45	0.51
1:6:475:A:H2'	1:6:476:U:O4'	2.10	0.51
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.44	0.51
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.35	0.51
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.93	0.51
42:L5:88:ILE:HD12	42:L5:240:TYR:CE1	4.31	0.51
2:S0:110:TYR:CE2	4:S2:64:LYS:HG2	2.46	0.51
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.25	0.51
4:S2:41:LEU:HD13	4:S2:68:ILE:HD13	2.57	0.51
10:S8:138:ASN:O	10:S8:142:LYS:HG3	2.10	0.51
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.11	0.51
38:8:83:C:H4'	38:8:85:G:N3	2.26	0.51
73:O7:13:ASN:O	36:5:817:A:C4	139.63	0.51
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.50	0.51
36:1:955:U:H2'	36:1:956:U:C6	2.45	0.51
9:S7:55:LYS:HE2	9:S7:87:ASP:HA	2.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:79:VAL:HG13	59:N3:100:GLY:HA2	1.93	0.51
36:5:2407:C:H2'	36:5:2408:U:H6	1.75	0.51
42:L5:216:GLU:HG2	42:L5:219:PHE:HB3	1.92	0.51
34:SR:264:SER:O	34:SR:268:GLN:HA	2.11	0.51
13:C1:142:VAL:HG12	13:C1:144:ALA:H	1.75	0.51
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.10	0.51
5:S3:195:SER:O	5:S3:197:THR:N	2.41	0.51
36:1:1134:G:O2'	36:1:2642:A:N3	2.38	0.51
36:5:65:A:C4	36:5:110:G:N7	2.78	0.51
36:1:909:G:OP2	51:M5:77:LYS:HE3	2.11	0.51
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	3.56	0.51
36:5:2211:U:C5	36:5:2234:G:O6	2.63	0.51
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.91	0.51
36:5:1764:U:H3'	36:5:1765:U:H5''	1.92	0.51
16:C4:13:VAL:H	16:C4:77:THR:HG1	1.57	0.51
36:5:1750:A:H4'	36:5:1751:G:H5'	1.92	0.51
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.41	0.51
36:1:110:G:H5''	49:M3:91:ARG:HH21	1.76	0.51
40:L3:166:ILE:O	40:L3:169:THR:HB	2.11	0.51
87:5:4011:OHX:N6	87:5:4202:OHX:N5	2.58	0.51
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	1.92	0.51
36:1:2880:U:O2	40:L3:250:ALA:HB3	2.11	0.51
36:5:776:U:C5	36:5:2719:U:O2	2.64	0.51
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	1.91	0.51
11:S9:28:LEU:HB3	32:E0:44:PHE:HZ	4.36	0.51
19:C7:51:ALA:O	19:C7:55:THR:HG23	4.92	0.51
36:1:953:G:OP1	65:N9:15:LYS:NZ	2.26	0.51
26:D4:50:ALA:HB1	26:D4:54:ALA:HB3	3.13	0.51
36:1:1470:U:H2'	36:1:1471:U:C6	2.46	0.51
36:1:571:U:O2'	36:1:572:A:H5'	2.11	0.51
63:N7:33:SER:OG	63:N7:34:LYS:N	3.00	0.51
1:6:1239:U:O4	87:6:2100:OHX:N1	2.43	0.51
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	2.21	0.51
1:2:407:A:H2'	1:2:408:C:C6	2.46	0.51
36:5:1643:A:H4'	36:5:1822:C:H5'	1.93	0.51
36:5:549:U:O4	87:5:4013:OHX:N4	2.43	0.51
45:L8:230:LYS:HG3	45:L8:230:LYS:O	2.63	0.51
55:M9:116:ASP:OD1	55:M9:116:ASP:N	4.39	0.51
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.46	0.51
37:3:28:C:H2'	37:3:29:C:H5'	1.93	0.51
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.93	0.51
36:5:1564:U:H2'	36:5:1565:G:H8	1.75	0.51
36:1:3106:A:H2'	36:1:3107:U:O4'	2.11	0.51
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.01	0.51
3:S1:62:LYS:C	3:S1:64:ARG:H	2.14	0.51
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	3.77	0.51
11:S9:149:ARG:O	11:S9:152:SER:HB3	5.42	0.51
38:4:143:U:H2'	38:4:144:G:O4'	2.11	0.51
4:S2:45:VAL:HG21	4:S2:68:ILE:HG12	1.93	0.51
1:2:1153:G:N7	87:2:2165:OHX:N1	2.58	0.51
87:5:4011:OHX:N3	87:5:4202:OHX:N5	2.58	0.51
36:1:3085:G:H5''	36:1:3086:A:OP1	2.11	0.51
36:1:1495:U:C5	36:1:1835:A:N1	2.77	0.51
41:L4:138:ARG:HG3	41:L4:244:LEU:O	2.11	0.51
17:C5:51:SER:C	17:C5:53:PRO:HD2	4.32	0.51
36:1:956:U:H2'	36:1:957:C:C6	2.46	0.51
36:1:612:U:H2'	36:1:613:G:C8	2.45	0.51
12:C0:77:ARG:HD3	12:C0:84:GLU:HA	1.92	0.51
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.92	0.51
36:1:908:G:H4'	36:1:909:G:O5'	2.11	0.51
38:4:52:A:H62	75:O9:27:ILE:HD13	1.74	0.51
1:2:1404:C:H2'	1:2:1405:G:H8	1.75	0.51
37:3:64:A:H3'	47:M0:204:GLY:O	2.11	0.51
87:5:3979:OHX:N2	87:5:4200:OHX:N1	2.59	0.51
36:5:1014:U:C3'	36:5:1015:U:H5'	2.41	0.51
41:L4:302:ALA:HB2	54:M8:39:ARG:NH2	2.26	0.51
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.44	0.51
13:C1:101:GLU:OE1	13:C1:103:ARG:NH2	2.93	0.51
36:5:1765:U:H2'	36:5:1766:G:O4'	2.11	0.51
26:D4:3:ASP:O	26:D4:5:VAL:N	2.32	0.51
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.11	0.51
6:S4:104:ASP:OD1	6:S4:110:ALA:HB2	2.11	0.51
1:6:1557:U:O2'	1:6:1558:U:H2'	2.11	0.51
36:5:1597:C:H42	36:5:1610:G:H1	1.59	0.51
36:1:239:G:O6	87:1:4039:OHX:N3	2.44	0.51
40:L3:187:SER:O	40:L3:190:GLU:N	2.42	0.51
1:2:794:U:O2'	1:2:795:U:C2	2.60	0.51
1:2:1428:G:H5'	1:2:1428:G:C8	2.45	0.51
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.41	0.51
22:D0:62:VAL:HG22	22:D0:85:ARG:HG2	3.28	0.51
36:1:3174:A:C2'	36:1:3175:U:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2418:G:O6	87:1:4123:OHX:N1	2.44	0.51
39:L2:52:SER:HB3	39:L2:191:LEU:HD22	1.92	0.51
38:4:103:G:H4'	73:O7:21:ARG:HG3	1.91	0.51
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.11	0.51
36:5:1317:A:C4	36:5:1319:G:C8	2.99	0.51
57:N1:105:PHE:CE2	36:5:1062:A:H4'	244.36	0.51
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.59	0.51
16:C4:127:ARG:HG3	28:D6:22:ARG:HH12	1.77	0.51
54:M8:178:ARG:CD	64:N8:50:PRO:HB2	3.33	0.51
36:1:1069:C:H2'	36:1:1070:U:H6	1.74	0.51
36:1:795:G:O6	87:1:3899:OHX:N3	2.44	0.51
36:1:1397:C:C2'	36:1:1398:U:H5'	2.41	0.51
64:N8:24:LYS:HD2	64:N8:26:ARG:NH2	2.26	0.51
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.93	0.51
36:5:2911:A:H4'	36:5:2912:G:C8	2.47	0.51
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.11	0.51
7:S5:98:MET:HB2	7:S5:105:GLY:O	2.11	0.51
1:6:22:A:OP2	87:6:2151:OHX:N6	2.44	0.51
1:6:848:C:H2'	1:6:849:C:C6	2.46	0.51
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.11	0.51
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.11	0.51
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.51	0.51
79:Q3:6:LYS:HD3	79:Q3:7:LYS:HZ2	7.17	0.50
36:1:2768:U:H2'	36:1:2769:A:H8	1.76	0.50
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.20	0.50
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.76	0.50
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.94	0.50
36:5:3112:G:O6	87:5:3919:OHX:N6	2.44	0.50
87:5:4067:OHX:N3	87:5:4144:OHX:N6	2.59	0.50
56:N0:139:TYR:HD2	56:N0:140:VAL:HG23	2.09	0.50
87:1:4037:OHX:N2	87:1:4049:OHX:N5	2.60	0.50
36:5:1307:G:C2	36:5:1308:A:C2	2.99	0.50
1:6:499:U:O2	1:6:500:C:N4	2.45	0.50
30:D8:44:VAL:HG11	30:D8:48:VAL:HG21	2.67	0.50
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	2.21	0.50
87:5:4011:OHX:N3	87:5:4202:OHX:N1	2.59	0.50
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.11	0.50
14:C2:36:LEU:HD11	14:C2:101:ALA:O	2.12	0.50
21:C9:63:ARG:NH1	1:6:1481:C:OP2	405.21	0.50
42:L5:34:LYS:HE3	42:L5:38:THR:OG1	7.58	0.50
1:2:25:C:O2	87:2:2082:OHX:N3	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.32	0.50
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.10	0.50
1:2:422:G:N7	87:2:2106:OHX:N5	2.58	0.50
36:5:703:G:O2'	36:5:787:G:H4'	2.10	0.50
34:SR:23:LEU:HG	34:SR:291:SER:HB2	2.88	0.50
61:N5:72:ALA:HA	61:N5:75:LYS:HG3	1.93	0.50
34:SR:206:PRO:HG2	34:SR:247:PRO:HA	2.91	0.50
36:5:604:G:N7	87:5:4169:OHX:N2	2.59	0.50
42:L5:263:GLU:O	42:L5:266:ALA:HB3	2.10	0.50
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.11	0.50
1:2:1145:U:O2'	4:S2:89:GLN:O	2.22	0.50
36:5:3:U:H3	38:8:156:U:H3	1.59	0.50
1:2:1765:A:OP1	87:2:2090:OHX:N3	2.44	0.50
36:1:1717:U:H2'	36:1:1718:G:C8	2.46	0.50
48:M1:155:THR:O	48:M1:159:THR:HG23	5.27	0.50
58:N2:89:LEU:O	58:N2:93:ILE:HG13	2.12	0.50
13:C1:99:ARG:HB2	25:D3:12:ALA:HB2	1.92	0.50
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.93	0.50
65:N9:50:THR:CG2	36:5:1073:U:H1'	205.45	0.50
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	3.33	0.50
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.93	0.50
36:1:1581:C:C2	36:1:1582:C:H5'	2.46	0.50
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.46	0.50
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.76	0.50
34:SR:43:ILE:HD13	34:SR:60:SER:HA	1.92	0.50
1:6:75:U:O2'	1:6:76:A:O4'	2.30	0.50
51:M5:38:ARG:CZ	51:M5:60:VAL:HG13	2.42	0.50
10:S8:26:LYS:O	10:S8:26:LYS:HG3	2.12	0.50
74:O8:17:ARG:NH2	36:5:1824:U:O3'	137.76	0.50
1:6:162:A:H2'	1:6:163:G:C8	2.46	0.50
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.46	0.50
38:4:104:A:C8	38:4:105:A:C8	2.99	0.50
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.26	0.50
39:L2:172:GLY:HA3	79:Q3:68:ALA:H	4.22	0.50
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.11	0.50
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.56	0.50
1:2:71:A:N1	1:2:72:A:C6	2.80	0.50
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	4.50	0.50
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.78	0.50
45:L8:130:TYR:HD1	45:L8:202:GLU:HB3	1.76	0.50
1:2:130:C:O2'	1:2:131:C:OP1	2.23	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:44:SER:O	34:SR:58:VAL:HG13	3.69	0.50
36:1:80:G:H2'	36:1:81:C:H6	1.77	0.50
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.12	0.50
5:S3:203:PRO:HB3	1:6:1332:C:H4'	427.46	0.50
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.27	0.50
35:SM:77:THR:OG1	35:SM:79:SER:OG	2.55	0.50
28:D6:49:ALA:O	28:D6:53:LEU:N	2.45	0.50
51:M5:11:GLN:HG2	51:M5:44:ARG:HH21	1.74	0.50
40:L3:366:GLY:HA3	36:5:3330:A:H4'	219.52	0.50
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	1.92	0.50
49:M3:191:ALA:O	49:M3:194:GLU:HB2	7.51	0.50
36:5:830:A:O2'	36:5:1866:C:H2'	2.11	0.50
36:1:2383:C:H2'	36:1:2384:A:H5'	1.91	0.50
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.43	0.50
36:5:1249:G:H2'	36:5:1250:G:H8	1.75	0.50
42:L5:106:ALA:O	42:L5:110:LEU:HB2	2.12	0.50
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.61	0.50
3:S1:127:VAL:HG11	3:S1:176:VAL:HG21	1.93	0.50
49:M3:165:SER:HB3	49:M3:168:ARG:HB3	1.92	0.50
1:2:1251:U:H5'	33:E1:135:HIS:HD2	1.76	0.50
1:2:701:U:H3	1:2:737:A:N6	2.06	0.50
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	4.13	0.50
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.70	0.50
36:5:1566:A:H2'	36:5:1567:U:H5'	1.93	0.50
1:2:1533:C:H4'	1:2:1539:G:C6	2.45	0.50
3:S1:24:PHE:HA	3:S1:27:LYS:HG3	3.54	0.50
57:N1:39:ILE:HD12	57:N1:102:ARG:CD	2.90	0.50
50:M4:113:THR:CG2	50:M4:116:GLU:H	2.39	0.50
39:L2:193:ARG:NH1	36:5:2174:G:OP2	190.75	0.50
22:D0:106:ILE:C	22:D0:108:ILE:H	2.13	0.50
39:L2:96:LEU:HD23	39:L2:166:ILE:HD12	1.93	0.50
36:5:980:A:N6	36:5:1102:A:C6	2.79	0.50
72:O6:4:LYS:HD3	72:O6:13:LYS:O	2.10	0.50
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.93	0.50
1:2:67:A:O3'	1:2:68:A:H3'	2.11	0.50
36:1:608:A:C4	43:L6:22:ARG:NH1	2.79	0.50
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.74	0.50
47:M0:48:LEU:HA	47:M0:178:ARG:HH12	1.76	0.50
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.75	0.50
1:2:40:A:H2'	1:2:41:A:O4'	2.11	0.50
36:1:3159:C:OP1	87:1:4154:OHX:N1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1716:U:H5'	36:5:1716:U:C6	2.46	0.50
1:6:1342:C:H2'	1:6:1343:U:H5'	1.94	0.50
7:S5:29:ILE:O	7:S5:34:GLN:HG3	2.12	0.50
36:5:3358:U:H2'	36:5:3359:A:C8	2.46	0.50
42:L5:178:ASN:HA	42:L5:183:TRP:CD1	3.14	0.50
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.26	0.50
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.11	0.50
61:N5:114:VAL:HB	75:O9:10:LYS:NZ	2.26	0.50
50:M4:20:VAL:HG13	50:M4:68:LEU:HB2	2.02	0.50
4:S2:215:PHE:HA	4:S2:218:ILE:HD11	2.62	0.50
36:1:816:A:H5''	36:1:920:A:H62	1.74	0.50
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.07	0.50
37:7:106:U:H2'	37:7:107:C:O4'	2.12	0.50
4:S2:44:LEU:HG	4:S2:247:ALA:HB2	1.94	0.50
36:1:1481:A:H2'	36:1:1481:A:N3	2.26	0.50
16:C4:84:ARG:HG3	16:C4:85:ALA:O	3.27	0.50
23:D1:36:VAL:HG11	23:D1:78:LEU:HD13	1.93	0.50
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.93	0.50
87:6:2124:OHX:N4	87:6:2174:OHX:N1	2.58	0.50
8:S6:173:PRO:HA	1:6:66:U:H5'	340.48	0.50
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.12	0.50
18:C6:47:LYS:HZ2	18:C6:114:ARG:HD3	5.20	0.50
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.37	0.50
40:L3:262:TRP:HE1	52:M6:66:LYS:NZ	2.09	0.50
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.15	0.50
1:6:592:A:O2'	1:6:596:C:OP1	2.25	0.50
5:S3:70:THR:O	5:S3:74:GLN:N	2.32	0.50
87:8:217:OHX:N5	87:8:225:OHX:N1	2.59	0.50
59:N3:48:ARG:HG2	36:5:2339:C:OP2	246.12	0.50
36:5:2439:A:N6	36:5:2508:U:H3	2.08	0.50
5:S3:18:TYR:CE1	5:S3:37:VAL:HG23	2.46	0.50
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.11	0.50
36:5:1528:G:O2'	36:5:1588:A:N3	2.36	0.50
1:2:269:G:C6	1:2:287:G:C6	2.99	0.50
36:1:3010:U:OP2	87:1:4206:OHX:N5	2.44	0.50
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.25	0.50
36:1:1618:G:H4'	38:4:129:C:H1'	1.93	0.50
15:C3:26:PHE:HE1	15:C3:59:GLY:O	1.95	0.50
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	2.95	0.50
59:N3:11:PHE:CD2	59:N3:88:ARG:NE	3.05	0.50
36:5:1241:U:O2'	36:5:1242:G:O5'	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.46	0.50
27:D5:92:ILE:HG12	27:D5:100:ILE:HG22	1.93	0.50
65:N9:7:HIS:CG	65:N9:8:THR:N	2.96	0.50
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.49	0.50
34:SR:153:GLN:O	34:SR:172:ALA:N	2.42	0.50
1:2:170:U:H6	1:2:267:U:HO2'	1.59	0.50
36:1:1908:A:O5'	36:1:1908:A:H8	1.95	0.50
45:L8:178:ALA:HB2	45:L8:218:ILE:HG23	1.93	0.50
36:5:2158:A:H5'	36:5:2160:G:O4'	2.12	0.50
36:1:385:A:H2'	36:1:386:A:C8	2.46	0.50
36:1:2400:G:OP1	87:1:4093:OHX:N2	2.44	0.50
35:SM:34:LYS:HE3	36:1:2692:A:O3'	2.12	0.50
87:5:3974:OHX:N1	87:5:4244:OHX:N1	2.59	0.50
36:1:3312:U:H5''	40:L3:25:ILE:HD12	1.92	0.50
36:5:3165:A:H2'	36:5:3166:C:C6	2.47	0.50
53:M7:31:GLU:CG	53:M7:60:PHE:HA	3.44	0.50
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.11	0.50
36:1:342:A:N1	36:1:349:A:O2'	2.37	0.50
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	3.46	0.50
7:S5:35:GLN:C	7:S5:37:GLN:H	3.01	0.50
7:S5:41:LYS:HZ2	18:C6:112:TYR:HE2	3.45	0.50
55:M9:43:LYS:HE2	36:5:1765:U:C6	92.46	0.50
36:1:1071:U:O2'	36:1:1072:G:OP2	2.24	0.50
40:L3:5:LYS:HG3	40:L3:6:TYR:CD1	2.47	0.50
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	1.94	0.50
16:C4:113:GLY:HA2	28:D6:59:TYR:HE2	1.77	0.50
30:D8:32:PHE:CE2	30:D8:38:ARG:HB3	2.47	0.50
1:6:1685:G:H1	1:6:1716:C:H42	1.59	0.50
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.30	0.50
26:D4:124:ARG:NH2	1:6:151:G:O6	319.29	0.50
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.12	0.50
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	3.22	0.50
64:N8:16:SER:HA	36:5:942:U:C4	170.45	0.50
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.69	0.50
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.76	0.50
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.46	0.50
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.24	0.50
36:5:595:G:H1	36:5:609:G:H5''	1.76	0.50
36:1:1273:A:HO2'	36:1:1274:A:P	2.34	0.50
36:5:2927:C:H2'	36:5:2928:C:C6	2.46	0.50
36:1:796:U:H2'	36:1:797:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	2.77	0.50
36:5:3203:U:H2'	36:5:3204:C:C6	2.47	0.50
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.92	0.50
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	3.06	0.50
44:L7:185:ILE:O	44:L7:189:ILE:HG22	2.11	0.50
36:5:3035:A:OP2	87:5:4052:OHX:N5	2.44	0.50
74:O8:32:ASN:HD21	74:O8:36:LYS:H	1.58	0.50
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.70	0.50
36:1:975:C:H2'	36:1:976:U:H6	1.76	0.50
43:L6:26:ARG:HG2	43:L6:27:PRO:HD2	3.07	0.50
36:1:2280:A:H5''	36:1:2281:A:OP2	2.11	0.50
36:1:1159:A:O2'	36:1:1160:C:H5''	2.11	0.50
1:6:180:A:H2'	1:6:181:A:O4'	2.11	0.50
36:5:748:U:H2'	36:5:749:C:C6	2.46	0.50
44:L7:44:ILE:HD13	44:L7:180:SER:HB3	1.92	0.50
30:D8:27:GLN:NE2	30:D8:64:ARG:O	2.45	0.50
36:1:2916:U:C1'	59:N3:44:SER:HB3	2.42	0.50
60:N4:35:LYS:O	60:N4:39:LEU:HD22	2.53	0.50
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.26	0.50
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.81	0.50
70:O4:38:LEU:HD12	70:O4:38:LEU:H	2.98	0.50
36:1:3:U:C2	38:4:157:U:C2	2.99	0.50
1:6:381:C:H1'	1:6:756:A:C2	2.47	0.50
42:L5:107:ARG:HA	42:L5:107:ARG:HE	1.77	0.50
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.12	0.50
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.47	0.50
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.46	0.50
36:5:123:A:C6	36:5:150:A:C5	3.00	0.50
4:S2:53:ILE:O	4:S2:56:ILE:N	2.45	0.50
87:5:4011:OHX:N6	87:5:4202:OHX:N2	2.60	0.50
36:1:3060:C:H1'	36:1:3332:U:H1'	1.94	0.50
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.47	0.50
1:2:1783:C:OP2	77:Q1:1:MET:HB2	2.11	0.50
1:6:717:C:H42	1:6:720:G:H1	1.60	0.50
36:1:1285:G:O2'	36:1:1286:A:OP2	2.28	0.50
1:2:1365:C:H5''	18:C6:28:LEU:HD23	1.94	0.50
1:2:711:U:H1'	1:2:712:G:H5'	1.93	0.50
46:L9:47:LYS:NZ	50:M4:5:SER:H	2.10	0.50
1:2:1065:A:OP1	87:2:2031:OHX:N3	2.44	0.50
6:S4:98:ASN:ND2	6:S4:116:ASP:HA	2.26	0.50
12:C0:64:TYR:HB3	12:C0:66:TYR:CE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1071:U:H2'	1:6:1072:C:C6	2.47	0.50
36:5:2213:A:H2	36:5:2601:A:N3	2.09	0.50
1:6:538:A:H2	1:6:540:G:H22	1.59	0.50
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.49	0.50
36:5:51:A:H2'	36:5:52:A:O4'	2.11	0.50
36:1:781:G:OP1	54:M8:151:ARG:HD2	2.12	0.50
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.39	0.50
1:2:715:U:H3	1:2:723:G:H1	1.59	0.50
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.44	0.50
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	1.93	0.50
13:C1:105:LYS:HD2	1:6:306:U:OP1	322.29	0.50
1:2:1487:A:H2'	1:2:1488:G:C8	2.47	0.50
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.99	0.50
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.12	0.50
21:C9:49:ASP:O	21:C9:51:GLU:N	2.44	0.50
36:5:3121:U:H1'	36:5:3122:A:H5''	1.93	0.50
36:1:1845:G:H5'	36:1:1845:G:H8	1.77	0.50
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.93	0.50
36:1:1240:A:H2	36:1:1248:C:H41	1.59	0.50
87:8:217:OHX:N6	87:8:225:OHX:N4	2.59	0.50
38:4:143:U:OP1	51:M5:38:ARG:NH2	2.43	0.50
38:4:141:C:H1'	51:M5:112:ASN:OD1	2.12	0.50
36:1:1818:U:H3'	36:1:1819:U:H5''	1.92	0.50
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.12	0.50
36:1:2552:C:N4	66:O0:57:GLU:OE2	2.44	0.50
36:1:1838:G:H4'	36:1:1839:A:N3	2.27	0.50
69:O3:49:ILE:HD12	69:O3:85:PHE:CZ	3.41	0.50
45:L8:68:ARG:HA	45:L8:236:GLY:O	5.05	0.50
51:M5:58:GLY:HA3	51:M5:142:ILE:CD1	2.41	0.50
58:N2:33:TYR:CE1	58:N2:80:THR:HG23	4.41	0.50
69:O3:8:TYR:CD2	69:O3:99:ARG:HB3	2.46	0.50
36:5:2204:C:H4'	36:5:2205:U:OP1	2.11	0.50
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.28	0.50
24:D2:86:ILE:HD12	24:D2:87:GLU:HG3	1.92	0.50
44:L7:70:LYS:NZ	36:5:519:A:OP2	314.19	0.50
36:1:1039:U:H2'	36:1:1040:A:C8	2.47	0.50
40:L3:274:SER:OG	36:5:3139:A:OP1	228.19	0.50
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.52	0.50
36:5:727:G:H2'	36:5:728:G:O4'	2.12	0.50
26:D4:63:GLN:N	26:D4:68:LYS:O	2.58	0.50
36:1:1798:A:H2'	36:1:1799:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2669:G:N7	87:1:4075:OHX:N4	2.60	0.50
36:1:821:U:OP2	87:1:3986:OHX:N3	2.45	0.50
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	1.93	0.50
72:O6:26:ILE:C	72:O6:28:TYR:H	2.15	0.50
68:O2:121:ASN:OD1	68:O2:121:ASN:N	2.42	0.50
47:M0:82:ARG:O	47:M0:82:ARG:HG2	3.98	0.50
87:5:3974:OHX:N4	87:5:4244:OHX:N2	2.60	0.50
3:S1:133:TYR:CD2	3:S1:181:LEU:HD11	2.45	0.50
1:2:1592:A:H2'	1:2:1593:A:H8	1.76	0.50
36:1:2767:U:O4	87:1:4042:OHX:N6	2.45	0.50
6:S4:36:HIS:NE2	6:S4:88:ASP:OD2	2.45	0.50
1:2:144:U:H5	8:S6:137:ARG:HH12	1.58	0.50
36:1:3319:U:HO2'	36:1:3320:A:P	2.31	0.50
55:M9:17:VAL:CG1	55:M9:21:LYS:HB2	2.74	0.50
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.93	0.50
2:S0:146:LEU:HD12	2:S0:170:ILE:HG23	1.93	0.50
36:1:1488:G:H5''	36:1:1838:G:O6	2.12	0.50
16:C4:103:ARG:HH12	28:D6:48:ALA:CB	3.48	0.50
1:6:1688:U:H2'	1:6:1689:A:C8	2.46	0.50
36:1:2226:U:O2'	36:1:2227:C:H5'	2.12	0.50
39:L2:220:GLY:O	39:L2:221:LYS:HG3	2.11	0.50
47:M0:153:ARG:HG3	47:M0:165:ILE:CD1	5.61	0.50
36:5:2717:U:OP1	87:5:4069:OHX:N3	2.44	0.50
1:2:623:A:OP1	87:2:2155:OHX:N1	2.45	0.50
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.91	0.50
42:L5:24:ARG:NH2	37:7:13:A:N3	292.64	0.50
69:O3:73:ARG:NH1	36:5:1166:G:H5''	244.16	0.50
62:N6:81:GLN:NE2	62:N6:96:PRO:HB2	2.80	0.50
4:S2:78:ASP:HA	4:S2:104:VAL:HG12	1.94	0.50
15:C3:18:TYR:O	15:C3:19:SER:HB2	4.64	0.50
36:5:1752:A:OP2	87:5:4081:OHX:N6	2.45	0.50
1:2:1610:G:H5''	7:S5:107:LYS:HB2	1.94	0.50
36:1:2842:U:C5	36:1:2843:U:C4	3.00	0.50
57:N1:82:ASN:OD1	57:N1:82:ASN:N	2.42	0.50
36:5:770:G:N7	87:5:4098:OHX:N6	2.60	0.50
6:S4:200:ARG:NH2	6:S4:202:ASP:OD1	2.45	0.50
36:1:2723:U:OP1	57:N1:87:LYS:HD3	2.11	0.50
71:O5:34:GLN:HB3	71:O5:38:ARG:NH2	4.45	0.50
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.47	0.50
37:3:62:U:O4	37:3:63:A:N6	2.45	0.50
33:E1:146:SER:HB3	1:6:1234:A:H4'	433.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.11	0.50
6:S4:114:ILE:HB	6:S4:118:GLU:OE2	2.12	0.50
6:S4:121:TYR:HA	6:S4:164:LEU:HG	1.93	0.50
43:L6:11:PRO:HD2	68:O2:91:THR:HG21	2.88	0.50
1:2:1410:A:H2'	1:2:1411:A:O4'	2.12	0.50
37:7:55:A:H2'	37:7:56:A:O4'	2.12	0.50
1:2:1386:G:OP2	19:C7:44:LYS:NZ	2.43	0.50
40:L3:232:ARG:NH2	36:5:2989:U:O2'	214.97	0.50
1:2:779:U:OP2	1:2:780:A:H2	1.94	0.50
36:5:2546:C:H2'	36:5:2547:A:H8	1.76	0.50
1:6:190:C:N4	1:6:196:G:O6	2.44	0.50
36:1:208:C:O2'	36:1:209:A:H5'	2.11	0.50
1:6:1417:A:OP1	87:6:2090:OHX:N4	2.44	0.50
36:5:1785:U:H2'	36:5:1786:G:C8	2.47	0.50
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.93	0.50
36:5:1556:C:H2'	36:5:2169:G:H1	1.77	0.50
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.16	0.50
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.77	0.50
35:SM:77:THR:HG1	35:SM:79:SER:HG	2.06	0.50
36:1:1390:A:N6	36:1:1418:A:O2'	2.45	0.50
1:2:1650:U:H2'	1:2:1651:A:C8	2.47	0.50
36:1:619:A:H5''	36:1:620:U:OP1	2.11	0.50
34:SR:258:THR:O	34:SR:275:ARG:NH1	2.39	0.50
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.73	0.49
1:2:1202:A:H2'	1:2:1203:A:H5''	1.94	0.49
11:S9:90:LYS:HB2	11:S9:95:TYR:HD1	1.77	0.49
13:C1:101:GLU:CD	25:D3:16:ARG:HH22	3.28	0.49
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.77	0.49
1:2:905:A:H5''	16:C4:52:ARG:HD3	1.93	0.49
20:C8:30:TYR:HE2	20:C8:40:ARG:HD2	2.42	0.49
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.77	0.49
36:1:829:U:H3	36:1:895:A:N6	2.07	0.49
47:M0:206:LEU:O	47:M0:210:ILE:HG12	3.79	0.49
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.94	0.49
9:S7:11:GLN:HG3	9:S7:12:ALA:H	1.77	0.49
36:1:3084:C:H2'	36:1:3085:G:O4'	2.12	0.49
36:1:718:G:O6	36:1:751:A:H1'	2.11	0.49
23:D1:3:ASN:HD21	23:D1:7:GLN:CB	3.11	0.49
20:C8:92:ILE:HD13	20:C8:115:ARG:NH2	5.51	0.49
27:D5:95:HIS:CG	27:D5:96:SER:N	2.80	0.49
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	3.88	0.49
37:3:27:A:P	42:L5:57:ASN:H	2.35	0.49
36:5:247:C:C2	36:5:248:U:H1'	2.47	0.49
26:D4:92:VAL:HG12	26:D4:97:ALA:O	5.25	0.49
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.77	0.49
63:N7:104:PRO:O	63:N7:108:GLU:HG3	2.68	0.49
40:L3:10:ARG:NH1	40:L3:12:GLY:O	2.40	0.49
55:M9:35:ALA:O	55:M9:37:SER:N	3.68	0.49
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.93	0.49
36:5:529:A:H2'	36:5:530:G:O4'	2.12	0.49
4:S2:52:THR:O	4:S2:55:GLU:HB2	2.11	0.49
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.59	0.49
66:O0:45:ALA:O	66:O0:48:THR:HG22	2.12	0.49
36:1:2561:A:N1	45:L8:32:LYS:HB2	2.27	0.49
1:6:352:A:OP2	1:6:352:A:H8	1.95	0.49
49:M3:80:VAL:HG12	49:M3:85:LEU:O	2.12	0.49
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.93	0.49
36:1:3362:A:H2'	36:1:3363:U:O4'	2.12	0.49
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.92	0.49
1:2:280:U:O2'	1:2:281:G:OP2	2.25	0.49
1:2:144:U:O2'	1:2:145:A:H8	1.94	0.49
9:S7:133:THR:HG22	9:S7:157:LYS:O	3.32	0.49
36:5:563:U:H2'	36:5:564:G:H8	1.77	0.49
1:2:788:A:H3'	6:S4:108:ARG:NH2	2.27	0.49
49:M3:58:VAL:CG1	36:5:75:G:H5''	87.55	0.49
1:2:158:U:O2'	1:2:159:U:H3'	2.12	0.49
36:1:2282:U:O2	36:1:2310:U:H4'	2.13	0.49
1:6:760:A:OP2	87:6:2087:OHX:N5	2.45	0.49
1:6:82:U:H2'	1:6:83:G:O4'	2.12	0.49
2:S0:125:ASP:O	2:S0:129:ASP:N	2.86	0.49
41:L4:269:SER:C	41:L4:271:LYS:H	2.16	0.49
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.48	0.49
36:1:2255:A:OP1	87:1:3939:OHX:N3	2.45	0.49
46:L9:163:GLN:O	46:L9:166:ARG:HD3	2.12	0.49
2:S0:195:TRP:NE1	2:S0:197:ILE:HD13	3.21	0.49
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.45	0.49
1:2:1157:A:HO2'	1:2:1158:C:P	2.35	0.49
1:2:1450:U:H2'	1:2:1451:C:H6	1.77	0.49
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.12	0.49
36:5:945:C:H2'	36:5:946:U:C6	2.46	0.49
42:L5:68:THR:HG22	42:L5:70:THR:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:111:LYS:HB3	53:M7:152:GLU:HB3	2.89	0.49
15:C3:136:PRO:O	15:C3:138:ASN:N	2.79	0.49
9:S7:103:SER:OG	9:S7:104:ARG:N	2.45	0.49
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.50	0.49
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.12	0.49
34:SR:122:ILE:O	34:SR:134:TRP:N	2.32	0.49
5:S3:172:THR:HA	5:S3:184:ILE:O	2.30	0.49
36:5:2765:C:H2'	36:5:2766:U:H6	1.76	0.49
36:1:3228:C:O2'	36:1:3229:G:OP2	2.26	0.49
1:2:12:U:H2'	1:2:13:C:C6	2.47	0.49
50:M4:70:PHE:HE2	50:M4:72:LEU:HD23	1.75	0.49
36:5:879:U:O2	36:5:2357:A:H1'	2.13	0.49
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.78	0.49
11:S9:126:ARG:O	11:S9:129:ILE:N	2.82	0.49
87:5:3974:OHX:N1	87:5:4244:OHX:N5	2.60	0.49
21:C9:122:ARG:NH1	1:6:1499:G:OP1	421.38	0.49
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.12	0.49
18:C6:112:TYR:HH	18:C6:114:ARG:HH11	1.59	0.49
7:S5:62:VAL:HG22	7:S5:89:ILE:HG21	1.94	0.49
36:5:622:A:H2'	36:5:623:U:O4'	2.12	0.49
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.70	0.49
59:N3:120:LYS:HB3	59:N3:137:VAL:CG2	2.42	0.49
37:3:45:A:H5'	42:L5:154:THR:HG21	1.93	0.49
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.77	0.49
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	2.91	0.49
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.09	0.49
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	1.94	0.49
1:2:495:C:H3'	1:2:496:G:O4'	2.12	0.49
36:5:1818:U:H2'	36:5:1819:U:C6	2.47	0.49
43:L6:52:VAL:CG1	43:L6:65:ILE:HG13	2.56	0.49
1:6:1450:U:OP2	87:6:2131:OHX:N4	2.45	0.49
54:M8:165:ILE:HD12	54:M8:167:SER:O	4.77	0.49
43:L6:56:LYS:NZ	43:L6:101:PHE:O	2.39	0.49
4:S2:143:TYR:O	24:D2:98:GLN:NE2	2.60	0.49
36:1:2881:C:H2'	36:1:2882:U:C6	2.47	0.49
36:5:2998:U:O4	87:5:4143:OHX:N4	2.45	0.49
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.11	0.49
36:1:3112:G:O6	36:1:3120:C:H5''	2.12	0.49
87:5:4096:OHX:N1	87:5:4237:OHX:N2	2.60	0.49
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.22	0.49
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:129:ALA:O	36:5:3150:A:H5'	211.60	0.49
36:1:197:G:N2	36:1:372:A:C8	2.80	0.49
38:4:79:A:H5''	71:O5:43:LYS:HZ1	1.77	0.49
3:S1:183:GLN:O	3:S1:187:LYS:N	2.46	0.49
1:2:1514:U:H5''	1:2:1515:A:O4'	2.12	0.49
28:D6:36:ILE:HG21	28:D6:78:ALA:HB2	1.93	0.49
1:6:1542:G:N2	1:6:1569:A:OP2	2.45	0.49
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.56	0.49
16:C4:37:GLU:HA	1:6:895:G:O2'	258.61	0.49
87:5:4067:OHX:N1	87:5:4144:OHX:N4	2.60	0.49
11:S9:151:ASP:OD1	11:S9:151:ASP:N	2.45	0.49
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.13	0.49
36:1:239:G:O3'	71:O5:94:LYS:NZ	2.45	0.49
38:4:62:C:H4'	38:4:63:G:O5'	2.12	0.49
36:1:2897:A:H2'	36:1:2899:C:H5''	1.95	0.49
36:1:2278:C:OP1	87:1:3963:OHX:N3	2.45	0.49
8:S6:122:GLU:O	8:S6:124:LEU:N	2.45	0.49
51:M5:184:LYS:H	51:M5:186:GLY:H	1.60	0.49
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.41	0.49
2:S0:125:ASP:HB3	2:S0:128:SER:HB2	2.97	0.49
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.32	0.49
7:S5:145:ASP:CG	7:S5:146:THR:H	2.16	0.49
1:2:603:U:H2'	1:2:604:A:C8	2.48	0.49
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	2.48	0.49
1:6:419:G:N7	87:6:2121:OHX:N1	2.60	0.49
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	1.94	0.49
1:6:1525:A:H2'	1:6:1526:A:O4'	2.13	0.49
36:1:712:G:H2'	36:1:713:U:C6	2.48	0.49
1:2:393:C:H2'	1:2:394:C:H6	1.77	0.49
19:C7:18:GLU:HG3	19:C7:69:ILE:HG22	1.95	0.49
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	1.94	0.49
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.67	0.49
34:SR:116:ASP:HB2	34:SR:117:LYS:HD2	1.93	0.49
25:D3:110:LYS:O	25:D3:112:LYS:HG2	2.12	0.49
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.11	0.49
36:5:3132:C:H2'	36:5:3133:C:C6	2.47	0.49
25:D3:83:VAL:HG21	25:D3:122:PHE:CE2	3.65	0.49
36:5:1919:G:N7	87:5:4073:OHX:N4	2.60	0.49
42:L5:45:ASN:O	42:L5:47:PRO:HD3	2.37	0.49
36:5:2520:A:H2'	36:5:2521:U:C6	2.47	0.49
1:6:946:U:H2'	1:6:947:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:273:G:H2'	1:2:274:G:O4'	2.12	0.49
75:O9:50:ASN:O	75:O9:51:ILE:HB	2.19	0.49
11:S9:36:LEU:HD11	11:S9:105:LEU:HD21	4.09	0.49
11:S9:110:GLN:HE21	11:S9:110:GLN:HA	2.22	0.49
41:L4:139:GLY:O	41:L4:141:ARG:NH1	4.33	0.49
26:D4:36:SER:O	26:D4:40:LEU:HG	2.13	0.49
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.13	0.49
10:S8:137:LYS:NZ	1:6:192:U:O4	263.98	0.49
13:C1:127:GLN:HG3	13:C1:137:PHE:CZ	2.48	0.49
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.13	0.49
87:1:4009:OHX:N3	87:1:4177:OHX:N1	2.60	0.49
38:8:6:U:H2'	38:8:7:U:H6	1.77	0.49
1:2:1370:U:H4'	1:2:1371:A:C5'	2.43	0.49
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	2.20	0.49
1:2:14:C:H2'	1:2:15:U:H6	1.78	0.49
65:N9:58:LYS:O	65:N9:59:LYS:HE3	7.03	0.49
13:C1:87:ARG:HH21	13:C1:104:HIS:CE1	3.07	0.49
36:5:1420:C:OP1	38:8:20:U:H5''	2.12	0.49
59:N3:84:SER:HA	59:N3:94:TYR:HB3	2.17	0.49
20:C8:18:LEU:HD22	20:C8:70:VAL:HG13	1.93	0.49
1:6:982:U:OP1	87:6:2079:OHX:N2	2.46	0.49
37:3:79:A:C2	37:3:102:A:C4	3.00	0.49
36:1:2744:U:OP1	87:1:4081:OHX:N1	2.46	0.49
72:O6:93:ILE:O	72:O6:97:SER:HB3	2.12	0.49
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.23	0.49
46:L9:49:ASN:O	46:L9:52:LEU:N	2.45	0.49
5:S3:162:GLN:O	5:S3:164:VAL:N	2.83	0.49
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.46	0.49
21:C9:31:PRO:HG3	21:C9:103:LYS:HD3	1.94	0.49
38:4:81:U:O2	38:4:82:U:C6	2.66	0.49
49:M3:180:ARG:HG2	49:M3:184:GLU:OE1	5.34	0.49
36:1:270:U:O2'	36:1:318:A:H1'	2.12	0.49
36:1:3048:A:H5'	40:L3:53:MET:HE3	1.93	0.49
3:S1:70:LEU:HD21	3:S1:79:HIS:CG	2.47	0.49
1:2:929:A:H1'	16:C4:124:ASP:H	1.78	0.49
1:6:1255:G:H4'	1:6:1256:A:OP1	2.12	0.49
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.41	0.49
7:S5:97:LEU:O	7:S5:99:MET:N	2.96	0.49
36:1:3074:G:O6	87:1:4140:OHX:N5	2.45	0.49
36:1:250:U:H5''	36:1:251:G:H5''	1.94	0.49
1:6:163:G:H8	1:6:163:G:O5'	1.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.11	0.49
16:C4:91:THR:O	16:C4:93:THR:N	2.64	0.49
32:E0:28:LYS:HD3	1:6:542:A:N1	429.34	0.49
36:1:840:C:O2'	55:M9:128:LYS:HG2	2.12	0.49
59:N3:13:ILE:HG12	59:N3:14:SER:N	2.88	0.49
70:O4:36:LYS:HE2	36:5:1594:A:OP1	149.35	0.49
28:D6:17:HIS:ND1	28:D6:18:VAL:O	2.46	0.49
36:1:2995:A:H2'	36:1:2996:U:H5''	1.95	0.49
41:L4:222:VAL:HG22	41:L4:225:VAL:HG23	1.93	0.49
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.13	0.49
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.48	0.49
74:O8:12:LEU:O	74:O8:15:THR:OG1	2.30	0.49
57:N1:88:ARG:HE	65:N9:33:LYS:HD2	3.34	0.49
1:2:1229:G:O2'	1:2:1255:G:N2	2.45	0.49
4:S2:229:LEU:O	23:D1:16:LYS:NZ	2.45	0.49
68:O2:89:THR:HG22	68:O2:117:ILE:HA	1.94	0.49
36:1:2657:A:C2	36:1:2694:A:C8	3.00	0.49
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.18	0.49
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.42	0.49
11:S9:37:LYS:HB2	32:E0:33:ARG:N	2.27	0.49
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.89	0.49
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.11	0.49
1:6:1458:G:C2	1:6:1459:C:C4	3.01	0.49
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.26	0.49
36:1:3164:C:O2'	36:1:3165:A:H8	1.96	0.49
17:C5:47:ARG:HH21	1:6:1555:A:P	403.01	0.49
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.13	0.49
1:6:1541:G:C6	1:6:1542:G:N1	2.81	0.49
18:C6:52:LEU:HA	18:C6:60:PHE:HE1	2.38	0.49
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.80	0.49
10:S8:69:SER:OG	10:S8:185:GLU:OE2	3.26	0.49
56:N0:155:ARG:HH21	56:N0:172:TYR:H	5.36	0.49
14:C2:68:GLU:C	14:C2:70:ASN:H	2.15	0.49
5:S3:65:ARG:HA	5:S3:68:GLU:HG3	1.94	0.49
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.30	0.49
38:8:88:A:H2'	38:8:89:A:O4'	2.12	0.49
36:1:2310:U:OP1	87:1:4144:OHX:N2	2.46	0.49
1:2:1600:A:O2'	1:2:1602:C:N4	2.46	0.49
1:6:1228:G:H2'	1:6:1228:G:N3	2.26	0.49
34:SR:169:ILE:HG13	34:SR:181:TRP:HB2	1.95	0.49
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1539:A:H2'	36:1:1540:U:H5'	1.95	0.49
36:1:440:A:OP2	36:1:440:A:H8	1.95	0.49
1:2:1157:A:H2'	1:2:1160:A:N7	2.28	0.49
41:L4:219:LEU:HD22	41:L4:225:VAL:HG11	3.56	0.49
45:L8:181:LYS:HD3	38:8:154:C:H5''	150.00	0.49
87:1:4089:OHX:N2	87:1:4159:OHX:N4	2.60	0.49
71:O5:15:GLU:N	71:O5:15:GLU:OE2	4.63	0.49
1:2:1615:C:N4	7:S5:78:ALA:O	2.45	0.49
65:N9:12:GLN:OE1	65:N9:15:LYS:NZ	3.27	0.49
19:C7:14:LYS:HG3	19:C7:69:ILE:HG23	2.08	0.49
49:M3:85:LEU:HD22	49:M3:120:GLN:HE22	1.76	0.49
36:5:2704:A:OP2	87:5:3900:OHX:N2	2.46	0.49
61:N5:64:GLU:OE2	61:N5:87:SER:HA	2.59	0.49
36:5:1801:U:H2'	36:5:1802:C:C6	2.48	0.49
30:D8:18:ARG:HD2	30:D8:23:GLY:O	2.13	0.49
1:6:805:U:C2'	1:6:806:A:H5'	2.43	0.49
36:5:2768:U:H2'	36:5:2769:A:C8	2.48	0.49
64:N8:18:GLY:O	36:5:1370:G:H5''	174.52	0.49
6:S4:31:PRO:HD2	6:S4:38:LEU:HD13	2.88	0.49
1:2:237:C:H5''	1:2:238:U:H5'	1.94	0.49
1:6:277:U:O2'	1:6:278:U:OP1	2.28	0.49
36:5:1495:U:H2'	36:5:1842:A:C2	2.48	0.49
36:1:1260:A:H1'	36:1:1280:C:H1'	1.94	0.49
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.87	0.49
48:M1:86:VAL:HG22	48:M1:111:ASP:O	2.12	0.49
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.13	0.49
72:O6:98:ARG:H	72:O6:98:ARG:HD2	1.77	0.49
36:5:1778:G:O2'	36:5:1780:G:OP2	2.27	0.49
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.13	0.49
35:SM:65:THR:C	35:SM:67:GLY:H	4.85	0.49
1:6:1339:C:O2'	1:6:1341:A:N7	2.44	0.49
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.15	0.49
3:S1:77:GLU:C	3:S1:79:HIS:H	2.16	0.49
1:6:833:U:OP2	87:6:2205:OHX:N5	2.45	0.49
57:N1:100:LYS:HB3	36:5:990:U:H4'	258.85	0.49
1:6:119:A:H1'	1:6:397:A:C5	2.47	0.49
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.22	0.49
36:1:2860:U:H2'	36:1:2861:U:H5'	1.94	0.49
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.29	0.49
39:L2:192:LYS:HB3	39:L2:193:ARG:NH2	2.28	0.49
48:M1:9:MET:HG3	48:M1:9:MET:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:10:ARG:HH12	67:O1:44:MET:CG	4.69	0.49
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.13	0.49
10:S8:54:LYS:HG2	10:S8:175:GLN:O	2.13	0.49
36:5:182:U:H2'	36:5:183:G:C8	2.47	0.49
25:D3:50:LYS:HB2	25:D3:103:LEU:HD23	1.95	0.49
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.12	0.49
42:L5:256:THR:HA	42:L5:257:GLU:OE1	7.63	0.49
36:5:244:G:C6	36:5:245:U:C4	3.01	0.49
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.28	0.49
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.48	0.49
47:M0:48:LEU:HA	47:M0:178:ARG:NH1	2.28	0.49
6:S4:26:CYS:SG	11:S9:3:ARG:HG3	4.41	0.49
1:2:73:U:H4'	1:2:74:U:OP1	2.12	0.49
53:M7:24:VAL:HG12	53:M7:86:LYS:HG2	1.95	0.49
36:5:1481:A:H2'	36:5:1858:A:N3	2.28	0.49
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.12	0.49
36:5:789:A:H2'	36:5:790:U:C6	2.47	0.49
1:6:405:C:H6	1:6:405:C:O5'	1.96	0.49
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.12	0.49
26:D4:41:ARG:NH2	26:D4:52:LYS:HD2	2.28	0.49
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.13	0.49
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.52	0.49
46:L9:92:TYR:N	46:L9:92:TYR:CD2	4.09	0.49
20:C8:8:GLN:C	20:C8:10:SER:H	2.63	0.49
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.42	0.49
36:5:1944:U:H2'	36:5:1945:A:H8	1.78	0.49
31:D9:22:ARG:HG2	31:D9:37:ASN:O	2.13	0.49
6:S4:7:LYS:HB2	1:6:94:U:O2'	345.58	0.49
44:L7:179:LEU:HD22	44:L7:179:LEU:H	2.22	0.49
61:N5:60:TYR:OH	71:O5:26:LYS:HG3	2.13	0.49
2:S0:52:LYS:NZ	23:D1:82:VAL:O	2.39	0.49
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	1.82	0.49
3:S1:180:THR:HB	3:S1:182:ALA:H	1.76	0.49
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.97	0.49
2:S0:27:ARG:CG	2:S0:28:ASN:H	2.25	0.49
87:6:2063:OHX:N1	87:6:2150:OHX:N3	2.61	0.49
42:L5:40:HIS:HB3	42:L5:43:LYS:HE2	1.94	0.49
1:6:219:A:N6	1:6:843:U:C2	2.81	0.49
45:L8:108:ARG:O	45:L8:112:GLU:HG2	2.12	0.49
68:O2:19:ARG:HD2	68:O2:28:VAL:CG1	2.50	0.49
3:S1:51:SER:HA	3:S1:57:ALA:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.24	0.49
69:O3:16:TYR:CG	69:O3:25:PRO:HA	2.87	0.49
36:1:1540:U:OP1	87:1:4025:OHX:N1	2.45	0.49
36:5:2372:A:H4'	36:5:2373:A:OP2	2.13	0.49
1:2:180:A:H2'	1:2:181:A:O4'	2.13	0.49
36:1:611:A:HO2'	36:1:612:U:H6	1.61	0.49
18:C6:24:ALA:HA	18:C6:63:ILE:HA	1.95	0.49
36:5:3160:U:H2'	36:5:3161:C:C6	2.48	0.49
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.53	0.49
1:2:622:A:H4'	1:2:623:A:OP1	2.11	0.49
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.83	0.49
31:D9:22:ARG:HG2	31:D9:38:ILE:HD13	3.55	0.49
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.13	0.49
36:5:1699:A:H2'	36:5:1700:G:H8	1.78	0.49
36:1:1608:C:H2'	36:1:1609:C:C6	2.48	0.49
36:5:1119:C:OP2	87:5:3987:OHX:N2	2.45	0.49
4:S2:106:ASP:O	4:S2:107:SER:OG	2.24	0.49
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	7.61	0.49
37:3:93:C:O2'	37:3:94:C:H5'	2.12	0.49
87:1:3966:OHX:N5	87:1:4145:OHX:N6	2.61	0.49
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.43	0.49
39:L2:95:SER:O	39:L2:97:ASN:N	3.00	0.49
36:1:801:A:O2'	87:1:3987:OHX:N2	2.46	0.49
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CZ	2.48	0.49
22:D0:67:THR:HG22	22:D0:68:ARG:O	2.13	0.49
36:1:1493:G:C6	75:O9:13:MET:HE1	2.47	0.49
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.57	0.49
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.86	0.49
34:SR:102:ARG:NH2	1:6:1341:A:HO2'	458.54	0.49
40:L3:53:MET:HE2	40:L3:77:THR:HG22	1.94	0.49
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.60	0.49
56:N0:24:LEU:HD21	57:N1:141:VAL:HG21	2.54	0.49
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.48	0.49
1:6:151:G:H2'	1:6:152:U:C6	2.48	0.49
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.47	0.49
36:5:3334:U:H4'	36:5:3335:A:H5''	1.95	0.49
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.43	0.49
46:L9:4:ILE:HG22	56:N0:142:GLN:CD	2.32	0.49
36:1:2395:G:H5''	40:L3:255:TRP:CD1	2.48	0.49
69:O3:13:HIS:CD2	69:O3:28:SER:HG	2.72	0.49
36:1:3160:U:H2'	36:1:3161:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2537:U:HO2'	36:5:2538:U:C4'	2.26	0.49
53:M7:57:ALA:HB2	53:M7:83:TRP:NE1	2.98	0.49
1:6:221:A:C2'	1:6:222:A:H5'	2.43	0.49
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.69	0.49
78:Q2:100:LYS:HE3	78:Q2:100:LYS:H	1.78	0.49
1:2:1629:G:H2'	1:2:1630:U:C6	2.48	0.49
41:L4:304:GLN:HB3	41:L4:306:THR:O	2.51	0.49
56:N0:109:ASP:OD1	56:N0:113:ARG:NH1	2.43	0.49
1:2:1640:C:OP1	87:2:2172:OHX:N6	2.46	0.49
9:S7:156:SER:O	9:S7:159:VAL:HG22	2.89	0.49
1:6:1398:U:H3'	1:6:1399:C:H4'	1.95	0.49
59:N3:66:LYS:HB3	59:N3:68:GLU:OE1	2.12	0.49
47:M0:19:LYS:HD2	47:M0:26:VAL:HG22	1.94	0.49
47:M0:24:ARG:HG3	47:M0:24:ARG:HH11	1.77	0.49
26:D4:109:LYS:HE2	1:6:458:G:OP1	359.69	0.48
1:2:523:G:H5''	26:D4:59:GLY:O	2.13	0.48
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.12	0.48
1:2:1761:U:O2'	1:2:1762:A:OP2	2.20	0.48
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.28	0.48
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.46	0.48
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.28	0.48
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.13	0.48
71:O5:64:GLU:HA	71:O5:67:ARG:HE	2.98	0.48
36:5:2987:A:H2'	36:5:2988:C:C6	2.47	0.48
51:M5:194:GLN:OE1	36:5:99:A:H5'	120.49	0.48
1:2:1171:A:H2'	1:2:1172:G:C8	2.48	0.48
29:D7:59:CYS:O	29:D7:61:THR:N	2.78	0.48
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	1.95	0.48
43:L6:149:ILE:HG12	43:L6:155:LEU:HD13	1.94	0.48
36:5:1651:U:O4	87:5:4183:OHX:N1	2.45	0.48
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.12	0.48
36:1:1245:A:N6	36:1:1272:C:O2'	2.46	0.48
36:1:2718:U:H2'	36:1:2719:U:C6	2.48	0.48
1:6:86:A:OP2	87:6:2191:OHX:N1	2.46	0.48
45:L8:75:ILE:O	45:L8:76:ALA:HB3	2.13	0.48
36:5:3218:A:H4'	36:5:3219:G:O5'	2.13	0.48
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.24	0.48
1:2:712:G:H2'	1:2:713:A:O4'	2.13	0.48
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	2.77	0.48
36:5:550:A:H2'	36:5:551:A:C8	2.47	0.48
34:SR:122:ILE:HB	34:SR:134:TRP:HB2	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.48	0.48
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.66	0.48
1:6:1518:C:OP2	87:6:2146:OHX:N1	2.46	0.48
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.43	0.48
38:8:126:A:O2'	38:8:128:U:OP2	2.22	0.48
36:5:36:C:H2'	36:5:37:U:H5'	1.95	0.48
36:1:2633:U:H2'	36:1:2634:U:O4'	2.12	0.48
49:M3:37:ASN:O	49:M3:41:THR:HG23	5.28	0.48
51:M5:69:GLY:O	36:5:290:G:H4'	145.29	0.48
36:1:1696:A:OP2	87:1:4163:OHX:N3	2.46	0.48
36:5:1289:G:H2'	36:5:1290:A:C8	2.48	0.48
55:M9:167:ARG:HB3	55:M9:167:ARG:NH1	4.80	0.48
36:5:1032:C:H5'	36:5:1033:U:OP2	2.13	0.48
36:1:304:G:H5'	36:1:304:G:N3	2.28	0.48
1:2:516:G:N2	1:2:537:G:H1'	2.28	0.48
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.45	0.48
1:2:693:U:H5'	1:2:694:U:H5''	1.95	0.48
28:D6:30:ILE:HG12	28:D6:34:LYS:HB3	3.39	0.48
56:N0:166:LYS:O	56:N0:167:ARG:HB2	2.13	0.48
1:2:1553:G:N2	1:2:1555:A:H3'	2.28	0.48
10:S8:9:HIS:CD2	10:S8:10:LYS:HB2	2.48	0.48
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.49	0.48
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	3.01	0.48
36:5:1152:G:OP2	36:5:1152:G:C8	2.66	0.48
36:5:2227:C:C2'	36:5:2228:A:H5''	2.42	0.48
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.95	0.48
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.95	0.48
39:L2:18:SER:O	39:L2:20:THR:HG23	5.63	0.48
36:5:2207:A:H2'	36:5:2208:A:O4'	2.14	0.48
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.46	0.48
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.56	0.48
16:C4:25:ASP:HA	16:C4:54:GLU:O	2.13	0.48
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.14	0.48
56:N0:13:ARG:HG2	56:N0:51:VAL:CG1	2.43	0.48
1:6:647:G:O5'	1:6:647:G:H8	1.95	0.48
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.25	0.48
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.13	0.48
41:L4:316:ASN:HD21	44:L7:150:LYS:HD2	1.78	0.48
87:5:4024:OHX:N4	87:5:4218:OHX:N3	2.61	0.48
1:2:151:G:O6	26:D4:124:ARG:NH2	2.46	0.48
1:2:498:G:O2'	1:2:499:U:O5'	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:163:GLN:O	46:L9:166:ARG:HG3	3.18	0.48
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	2.07	0.48
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.48	0.48
36:1:2216:G:OP1	72:O6:75:LYS:NZ	2.30	0.48
1:2:446:A:H2'	1:2:447:U:H6	1.77	0.48
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.94	0.48
1:2:1207:C:H42	1:2:1456:C:H5	1.59	0.48
36:5:1192:C:H5	87:5:4092:OHX:N3	2.11	0.48
6:S4:184:THR:C	6:S4:189:LEU:HD13	3.04	0.48
1:2:931:C:O2'	3:S1:118:GLN:O	2.28	0.48
36:5:3089:C:H2'	36:5:3090:U:O4'	2.13	0.48
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.72	0.48
1:6:1650:U:H2'	1:6:1651:A:C8	2.48	0.48
25:D3:28:ASN:OD1	25:D3:28:ASN:N	2.38	0.48
19:C7:119:LEU:H	19:C7:119:LEU:HD12	1.78	0.48
68:O2:34:LYS:O	68:O2:34:LYS:HG3	2.44	0.48
36:1:2528:G:N7	87:1:4188:OHX:N3	2.61	0.48
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.23	0.48
36:1:979:U:C2	36:1:980:A:C4	3.01	0.48
9:S7:120:ALA:O	9:S7:124:LYS:HG2	3.06	0.48
25:D3:14:LYS:HA	25:D3:17:VAL:HG12	5.00	0.48
36:5:2315:G:OP2	87:5:3973:OHX:N6	2.47	0.48
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.94	0.48
27:D5:74:SER:HA	27:D5:77:ARG:HH12	1.79	0.48
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.25	0.48
33:E1:143:LYS:HD3	1:6:1254:U:OP1	456.51	0.48
36:1:911:C:N4	39:L2:3:ARG:HH11	2.12	0.48
14:C2:60:VAL:O	14:C2:89:ILE:HG22	2.14	0.48
49:M3:54:LEU:HD13	49:M3:75:PHE:CZ	2.48	0.48
63:N7:136:PHE:HB2	70:O4:88:ARG:HG3	3.37	0.48
48:M1:8:PRO:HD2	48:M1:10:ARG:HG2	2.51	0.48
36:1:735:A:H2'	36:1:736:A:H8	1.77	0.48
1:6:831:U:O2'	1:6:832:U:H5'	2.14	0.48
63:N7:46:ILE:HD12	63:N7:47:GLU:N	2.40	0.48
26:D4:104:SER:HB3	26:D4:107:GLN:CG	2.43	0.48
1:2:501:U:HO2'	1:2:502:U:H6	1.61	0.48
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.95	0.48
1:2:1168:U:H2'	1:2:1169:G:H5'	1.95	0.48
36:1:608:A:H5''	36:1:609:G:OP2	2.12	0.48
33:E1:91:ILE:HG12	33:E1:92:LYS:N	2.28	0.48
36:5:2883:U:OP2	87:5:4062:OHX:N4	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:54:HIS:CE1	57:N1:55:LYS:HD3	2.48	0.48
36:5:2697:A:H2'	36:5:2698:G:C8	2.47	0.48
46:L9:89:LYS:HG2	46:L9:145:VAL:HG22	1.95	0.48
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.93	0.48
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.95	0.48
1:2:422:G:OP1	87:2:2040:OHX:N6	2.45	0.48
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.95	0.48
87:1:3966:OHX:N1	87:1:4145:OHX:N4	2.60	0.48
1:2:346:G:O6	87:2:2123:OHX:N5	2.46	0.48
36:1:677:A:H4'	36:1:678:G:O5'	2.12	0.48
1:6:527:A:OP2	87:6:2086:OHX:N5	2.46	0.48
36:1:2617:U:H5	36:1:2621:G:OP2	1.96	0.48
36:5:2746:A:H2'	36:5:2747:A:O4'	2.12	0.48
26:D4:106:GLN:O	26:D4:110:GLN:HG3	2.54	0.48
11:S9:77:ILE:HA	11:S9:80:LEU:HD12	1.95	0.48
36:1:993:G:N3	36:1:2637:A:H2'	2.28	0.48
24:D2:26:LEU:HB2	29:D7:7:LEU:HD13	1.95	0.48
2:S0:9:LEU:HD13	2:S0:10:THR:C	3.09	0.48
47:M0:30:LYS:HD2	47:M0:63:GLU:OE1	2.14	0.48
53:M7:32:THR:HG21	53:M7:87:SER:HB3	2.04	0.48
1:2:1429:G:O2'	22:D0:74:GLU:HB3	2.13	0.48
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.13	0.48
36:5:2211:U:H5	36:5:2234:G:C6	2.31	0.48
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	6.72	0.48
65:N9:50:THR:HG22	36:5:1073:U:C1'	205.99	0.48
2:S0:184:LEU:HB3	23:D1:45:ALA:HB2	1.96	0.48
2:S0:188:LEU:HD12	2:S0:189:VAL:HG12	1.96	0.48
1:2:1000:C:H2'	1:2:1002:G:OP2	2.14	0.48
1:6:595:G:OP2	87:6:2106:OHX:N6	2.45	0.48
9:S7:56:LYS:HB2	9:S7:88:ARG:NH1	2.28	0.48
37:3:3:U:H2'	37:3:4:U:C6	2.48	0.48
56:N0:13:ARG:NH2	56:N0:50:LYS:O	3.10	0.48
20:C8:125:ILE:HD11	35:SM:57:ASN:HB3	2.26	0.48
77:Q1:2:ARG:HG3	77:Q1:3:ALA:N	2.67	0.48
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	4.91	0.48
32:E0:21:VAL:HG22	1:6:586:G:H4'	409.56	0.48
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.48	0.48
68:O2:4:LEU:HG	68:O2:5:PRO:HD3	3.19	0.48
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.70	0.48
39:L2:243:THR:OG1	36:5:2244:A:H5''	227.77	0.48
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.68	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.95	0.48
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.47	0.48
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CZ	3.18	0.48
1:6:322:G:OP1	87:6:2110:OHX:N5	2.45	0.48
26:D4:62:THR:HA	26:D4:69:SER:HA	1.95	0.48
54:M8:81:VAL:HG22	54:M8:101:VAL:HG13	1.95	0.48
1:2:883:C:H2'	1:2:884:A:H8	1.78	0.48
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.49	0.48
1:6:1198:G:OP1	1:6:1199:G:H1'	2.13	0.48
36:5:2957:G:H5'	36:5:2957:G:H8	1.78	0.48
1:6:1671:A:H2'	1:6:1672:G:O4'	2.13	0.48
36:5:3084:C:H2'	36:5:3085:G:O4'	2.14	0.48
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.28	0.48
87:5:3974:OHX:N3	87:5:4244:OHX:N2	2.61	0.48
1:6:1459:C:OP2	1:6:1459:C:H6	1.96	0.48
17:C5:127:ARG:N	17:C5:127:ARG:HD2	3.90	0.48
9:S7:119:THR:HG23	1:6:639:U:OP2	368.40	0.48
11:S9:92:LYS:O	11:S9:93:LEU:HD23	2.12	0.48
18:C6:52:LEU:HD22	18:C6:60:PHE:CE1	3.09	0.48
26:D4:37:LYS:HE3	1:6:523:G:OP2	412.85	0.48
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.04	0.48
2:S0:63:ILE:HD12	2:S0:158:VAL:HG11	2.91	0.48
16:C4:121:VAL:O	1:6:886:U:O2'	286.65	0.48
36:1:1362:G:OP1	87:1:4037:OHX:N6	2.47	0.48
15:C3:132:VAL:HG23	15:C3:134:VAL:HG12	1.95	0.48
1:2:651:G:O6	87:2:2102:OHX:N4	2.46	0.48
87:5:4011:OHX:N4	87:5:4202:OHX:N2	2.61	0.48
56:N0:42:TRP:CZ2	56:N0:58:ILE:HD12	4.45	0.48
36:1:872:U:H2'	36:1:873:C:C6	2.48	0.48
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	1.95	0.48
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.32	0.48
51:M5:23:GLN:NE2	51:M5:122:ASN:OD1	2.70	0.48
36:1:1221:A:H3'	36:1:1222:G:C5'	2.42	0.48
49:M3:170:LEU:HB3	72:O6:9:ILE:HD11	1.96	0.48
15:C3:135:LEU:HD22	15:C3:139:TRP:CD1	2.49	0.48
1:2:461:G:N7	87:2:2141:OHX:N1	2.62	0.48
34:SR:214:ALA:HB2	34:SR:220:ILE:HG12	1.95	0.48
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	4.35	0.48
78:Q2:3:ASN:HB2	78:Q2:92:GLU:HG3	1.95	0.48
87:1:3966:OHX:N1	87:1:4145:OHX:N3	2.62	0.48
37:7:64:A:H5'	37:7:65:G:H5''	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.78	0.48
36:5:196:G:C2	36:5:199:A:C8	3.01	0.48
1:2:178:U:C4	8:S6:191:ARG:HD3	2.48	0.48
36:1:2562:A:H2	45:L8:31:PRO:HD3	1.78	0.48
36:5:1020:G:H2'	36:5:1021:G:O4'	2.13	0.48
68:O2:2:ALA:O	68:O2:90:LYS:HG2	2.13	0.48
34:SR:32:LEU:HG	34:SR:33:LEU:N	2.59	0.48
36:1:2405:C:O2	36:1:2819:A:N1	2.47	0.48
42:L5:113:LEU:HA	42:L5:113:LEU:HD12	2.03	0.48
87:5:3974:OHX:N1	87:5:4244:OHX:N2	2.60	0.48
1:2:1291:G:H1	1:2:1324:G:H1	1.62	0.48
1:2:66:U:O4	8:S6:134:GLY:N	2.44	0.48
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.12	0.48
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.22	0.48
27:D5:49:ARG:HD2	27:D5:53:GLU:OE1	2.78	0.48
36:5:126:U:H2'	36:5:127:G:O4'	2.14	0.48
36:1:2273:G:N7	87:1:4144:OHX:N5	2.62	0.48
36:1:1596:C:OP2	36:1:1606:U:N3	2.42	0.48
5:S3:29:LEU:HB2	5:S3:34:TYR:HB2	1.94	0.48
77:Q1:4:LYS:NZ	1:6:1774:G:N7	300.20	0.48
87:5:4056:OHX:N3	87:5:4201:OHX:N4	2.61	0.48
1:6:1212:G:C2	1:6:1213:G:C8	3.02	0.48
28:D6:17:HIS:CE1	28:D6:18:VAL:O	2.66	0.48
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.96	0.48
47:M0:22:TYR:CZ	36:5:1048:A:H2'	267.35	0.48
18:C6:7:VAL:HG12	18:C6:22:VAL:HB	5.75	0.48
1:2:1498:G:H5''	21:C9:72:GLY:HA3	1.95	0.48
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.20	0.48
41:L4:115:HIS:CE1	41:L4:119:ARG:HH21	3.12	0.48
1:2:809:A:C6	1:2:810:G:C6	3.02	0.48
40:L3:261:MET:HE2	52:M6:64:PHE:HA	1.95	0.48
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.81	0.48
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.31	0.48
36:1:2802:A:N6	78:Q2:53:GLN:O	2.43	0.48
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.95	0.48
25:D3:59:ILE:HD12	32:E0:4:VAL:HG22	1.96	0.48
47:M0:100:ASN:O	47:M0:101:LYS:HB3	4.66	0.48
36:5:547:G:C5	36:5:548:G:H1'	2.48	0.48
52:M6:128:ARG:HD2	52:M6:128:ARG:HA	3.87	0.48
1:2:217:A:OP1	1:2:217:A:H2'	2.14	0.48
45:L8:195:SER:O	45:L8:196:ALA:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2228:A:H2'	36:1:2229:A:C8	2.49	0.48
70:O4:44:CYS:HB3	70:O4:49:SER:H	2.89	0.48
1:2:1291:G:H5'	4:S2:119:LYS:CE	2.44	0.48
9:S7:98:ILE:HG12	9:S7:121:VAL:HG21	2.44	0.48
36:5:3163:A:O2'	36:5:3164:C:H5'	2.13	0.48
36:5:3289:G:H4'	36:5:3290:G:OP1	2.13	0.48
53:M7:64:ASN:OD1	87:M7:207:OHX:N2	2.46	0.48
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.64	0.48
10:S8:87:ASN:HD22	1:6:341:A:H4'	257.73	0.48
16:C4:13:VAL:HG22	16:C4:76:ILE:HA	1.95	0.48
87:6:2063:OHX:N5	87:6:2150:OHX:N3	2.62	0.48
1:2:1760:G:C2'	1:2:1761:U:H5'	2.43	0.48
36:1:2860:U:H6	36:1:2860:U:C5'	2.25	0.48
41:L4:107:ARG:HD2	41:L4:109:TRP:CZ2	2.49	0.48
10:S8:56:ARG:NH2	1:6:332:U:OP2	285.86	0.48
45:L8:108:ARG:O	45:L8:112:GLU:N	2.75	0.48
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.14	0.48
36:1:2653:C:C2'	36:1:2654:C:H5'	2.43	0.48
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.45	0.48
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.77	0.48
36:5:22:G:O4'	38:8:104:A:H1'	2.13	0.48
1:6:454:U:H5''	1:6:455:C:H5	1.76	0.48
36:1:2225:U:H2'	36:1:2226:U:C6	2.48	0.48
1:2:329:G:H5'	10:S8:99:ALA:HB2	1.95	0.48
36:5:702:C:O2	36:5:788:C:H4'	2.14	0.48
36:1:80:G:H2'	36:1:81:C:C6	2.48	0.48
36:5:2767:U:H2'	36:5:2768:U:C6	2.49	0.48
36:5:602:A:H2'	36:5:603:A:C8	2.49	0.48
17:C5:104:GLN:NE2	36:1:1025:A:N3	2.49	0.48
1:2:839:U:H2'	1:2:840:U:H5'	1.96	0.48
36:5:1258:U:O2	36:5:1260:A:H8	1.97	0.48
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.12	0.48
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.49	0.48
33:E1:82:LYS:O	33:E1:84:VAL:N	4.94	0.48
36:5:2427:U:H2'	36:5:2428:U:C6	2.48	0.48
1:6:546:U:H2'	1:6:547:U:C6	2.49	0.48
36:1:26:A:C4	36:1:330:G:C8	3.02	0.48
34:SR:160:GLU:O	34:SR:162:ALA:N	2.36	0.48
47:M0:45:GLU:O	47:M0:141:LYS:HE3	2.94	0.48
37:7:8:G:C6	37:7:9:C:C4	3.02	0.48
36:5:2309:A:H4'	87:5:4200:OHX:N4	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:31:LEU:HD21	71:O5:43:LYS:HG3	5.05	0.48
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.00	0.48
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.31	0.48
48:M1:49:LYS:HD3	48:M1:62:ASN:HB3	1.95	0.48
41:L4:183:LYS:HE3	36:5:1386:A:N7	120.27	0.48
18:C6:114:ARG:O	18:C6:115:THR:HB	3.86	0.48
3:S1:35:PRO:HB3	3:S1:231:LEU:HD11	3.66	0.48
36:1:779:G:OP1	54:M8:185:LYS:NZ	2.47	0.48
36:1:1815:U:H1'	36:1:1816:A:O5'	2.13	0.48
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.44	0.48
68:O2:43:ARG:NH1	36:5:1368:U:H5'	193.57	0.48
11:S9:163:PRO:C	11:S9:165:GLY:H	2.61	0.48
41:L4:40:THR:O	41:L4:44:LYS:HE3	4.40	0.48
87:5:4011:OHX:N4	87:5:4202:OHX:N1	2.61	0.48
1:2:197:A:H61	10:S8:138:ASN:HD22	1.62	0.48
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.77	0.48
12:C0:32:HIS:CD2	12:C0:35:ILE:HB	2.48	0.48
12:C0:11:ILE:HD12	12:C0:42:VAL:HA	1.94	0.48
2:S0:124:THR:HA	2:S0:146:LEU:HB2	1.95	0.48
1:6:542:A:H1'	1:6:543:C:P	2.54	0.48
1:2:325:G:H4'	13:C1:83:THR:HG21	1.96	0.48
37:3:71:G:H2'	37:3:72:A:C8	2.49	0.48
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.42	0.48
87:1:4034:OHX:N6	87:1:4151:OHX:N5	2.62	0.48
1:6:846:G:H2'	1:6:847:A:C8	2.49	0.48
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.78	0.48
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.95	0.48
40:L3:261:MET:CE	52:M6:64:PHE:HA	2.44	0.48
21:C9:39:THR:O	21:C9:96:ALA:HB1	2.66	0.48
1:2:560:U:H2'	1:2:561:G:H8	1.78	0.48
36:5:2823:G:O6	87:5:3954:OHX:N4	2.47	0.48
1:6:976:G:C6	1:6:1023:A:C4	3.02	0.48
4:S2:177:GLY:O	4:S2:195:ASP:HA	2.13	0.48
46:L9:176:LEU:HB3	76:Q0:86:ALA:HB1	2.34	0.48
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.48	0.48
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.96	0.48
10:S8:70:GLU:OE2	10:S8:117:TYR:OH	3.72	0.48
3:S1:140:ILE:O	3:S1:210:ILE:HA	2.13	0.48
2:S0:167:LYS:HB3	2:S0:168:HIS:HD2	2.32	0.48
64:N8:65:GLN:O	64:N8:66:ALA:HB2	2.14	0.48
36:1:2890:A:N1	36:1:2913:C:N3	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.83	0.48
42:L5:197:SER:O	42:L5:202:GLY:N	2.42	0.48
36:1:621:A:H4'	36:1:622:A:OP1	2.14	0.48
18:C6:139:GLN:NE2	1:6:1465:C:OP1	352.85	0.48
36:1:174:C:H2'	36:1:175:C:C6	2.48	0.48
41:L4:90:PHE:O	41:L4:94:CYS:HB2	4.44	0.48
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	3.00	0.48
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.79	0.48
1:6:1207:C:H42	1:6:1456:C:H5	1.61	0.48
36:1:564:G:H2'	36:1:565:U:C6	2.49	0.48
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.75	0.48
21:C9:138:GLN:O	21:C9:141:GLU:HG3	4.15	0.48
23:D1:81:ASN:N	23:D1:81:ASN:OD1	2.86	0.48
38:4:79:A:O3'	38:4:80:A:H4'	2.13	0.48
36:1:2108:C:H1'	36:1:3344:A:H8	1.79	0.48
36:1:1634:G:H5"	63:N7:107:ARG:HH12	1.79	0.48
1:6:565:C:C2	87:6:2162:OHX:N4	2.82	0.48
18:C6:115:THR:O	18:C6:117:LEU:N	3.79	0.48
18:C6:47:LYS:NZ	18:C6:50:GLU:OE2	2.43	0.48
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.86	0.48
3:S1:36:SER:HB3	3:S1:231:LEU:HD13	1.95	0.48
7:S5:81:ARG:HG2	7:S5:82:PHE:CD2	3.88	0.48
1:2:348:U:OP1	13:C1:85:VAL:HG11	2.14	0.48
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	2.12	0.48
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.47	0.48
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.95	0.48
7:S5:100:ASN:O	7:S5:102:ARG:N	2.46	0.48
45:L8:116:VAL:O	45:L8:118:GLU:N	3.01	0.48
1:2:1248:C:H2'	1:2:1249:U:C6	2.49	0.48
17:C5:49:MET:HB3	17:C5:50:THR:H	4.04	0.48
41:L4:23:PRO:O	41:L4:25:VAL:N	2.54	0.48
51:M5:106:VAL:O	51:M5:109:ARG:N	2.45	0.48
18:C6:128:LYS:HE3	1:6:1417:A:O3'	393.69	0.48
20:C8:15:LEU:HD12	20:C8:66:LEU:HD11	2.57	0.48
37:7:107:C:H2'	37:7:108:A:C8	2.48	0.48
47:M0:24:ARG:CG	47:M0:24:ARG:HH11	2.27	0.48
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.29	0.48
73:O7:31:LYS:NZ	36:5:815:G:OP2	138.63	0.48
58:N2:58:GLU:C	58:N2:60:GLY:H	2.18	0.48
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.14	0.48
1:2:1120:U:H2'	1:2:1121:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:226:SER:N	36:5:2202:C:H5''	208.43	0.48
1:6:1081:A:O2'	1:6:1082:C:O5'	2.32	0.48
36:5:1204:A:H2'	36:5:1205:A:H5'	1.96	0.48
36:5:929:A:H2'	36:5:930:U:C6	2.49	0.48
37:3:13:A:H5''	37:3:13:A:C8	2.49	0.48
60:N4:17:ARG:HA	60:N4:17:ARG:HD3	1.60	0.48
36:5:1037:C:H2'	36:5:1038:C:H6	1.78	0.48
36:1:1194:G:H2'	36:1:1195:A:C8	2.49	0.48
15:C3:42:ARG:C	15:C3:44:GLY:H	2.60	0.48
1:6:1309:C:H2'	1:6:1310:U:O4'	2.13	0.48
1:2:1556:A:C5	1:2:1560:U:C2	3.02	0.48
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.76	0.48
70:O4:82:ALA:O	70:O4:85:VAL:N	2.67	0.48
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.27	0.48
1:2:1586:A:H2'	1:2:1587:A:O4'	2.13	0.48
28:D6:10:ARG:HH11	28:D6:36:ILE:HG13	4.46	0.48
15:C3:17:PRO:HD2	15:C3:62:GLN:NE2	2.28	0.48
36:1:18:G:OP2	61:N5:46:TYR:OH	2.21	0.48
7:S5:59:VAL:C	7:S5:61:TYR:H	2.28	0.48
87:6:2063:OHX:N2	87:6:2150:OHX:N6	2.62	0.48
52:M6:56:ASP:O	52:M6:59:ARG:HG3	3.38	0.48
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.28	0.48
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	1.78	0.48
4:S2:90:THR:C	4:S2:92:ALA:H	2.29	0.48
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	2.04	0.48
45:L8:101:THR:HB	45:L8:104:GLU:OE2	2.13	0.48
21:C9:57:ARG:HH11	21:C9:57:ARG:HB2	1.79	0.48
72:O6:55:ARG:O	72:O6:58:ILE:HD13	2.14	0.48
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.64	0.48
36:1:3084:C:O2'	36:1:3332:U:OP1	2.22	0.48
67:O1:88:PRO:O	67:O1:89:LEU:HD12	2.53	0.48
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	5.40	0.48
36:5:2947:G:N2	36:5:2948:C:C2	2.82	0.48
8:S6:52:ILE:HA	8:S6:111:LEU:HD23	1.96	0.48
36:1:2513:U:H4'	36:1:2514:U:OP1	2.11	0.48
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.33	0.48
36:5:1235:U:C4'	36:5:1236:G:H5'	2.43	0.48
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.14	0.48
15:C3:20:ARG:HH11	15:C3:20:ARG:HG3	4.05	0.48
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.49	0.48
52:M6:83:ALA:O	52:M6:87:MET:HG3	3.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.95	0.48
10:S8:117:TYR:CE1	10:S8:150:ALA:HA	2.72	0.48
36:5:3013:U:H2'	36:5:3014:U:C6	2.48	0.48
10:S8:184:LEU:HD21	10:S8:192:TYR:CD2	2.65	0.48
36:5:2274:U:OP2	87:5:3985:OHX:N6	2.47	0.48
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.29	0.48
36:1:1127:G:O5'	36:1:1127:G:H8	1.97	0.48
36:1:1535:A:OP2	87:1:3881:OHX:N1	2.47	0.48
36:1:2162:U:OP1	39:L2:234:LYS:NZ	2.47	0.48
36:1:2623:G:H2'	36:1:2624:G:H8	1.78	0.48
36:5:370:U:OP1	87:5:4167:OHX:N1	2.47	0.48
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.14	0.48
5:S3:157:LEU:HD23	5:S3:187:LYS:HD3	1.95	0.48
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.49	0.48
33:E1:119:ARG:O	33:E1:132:LEU:N	3.02	0.48
48:M1:79:ILE:HG22	48:M1:127:PHE:HE2	1.78	0.48
60:N4:32:GLN:OE1	60:N4:33:ASN:ND2	2.55	0.48
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.46	0.48
44:L7:127:LEU:HA	44:L7:127:LEU:HD23	2.34	0.48
36:5:2709:C:H2'	36:5:2710:C:C6	2.49	0.48
1:2:912:U:H4'	1:2:913:G:O5'	2.13	0.48
36:5:297:G:C8	36:5:299:G:H1'	2.48	0.47
2:S0:163:ASN:C	2:S0:165:ARG:H	2.17	0.47
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	2.41	0.47
40:L3:345:ASN:OD1	40:L3:346:THR:N	2.47	0.47
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.45	0.47
36:5:123:A:H5'	36:5:124:U:OP2	2.14	0.47
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	2.49	0.47
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.42	0.47
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.14	0.47
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.23	0.47
36:1:1845:G:H5'	36:1:1845:G:C8	2.48	0.47
12:C0:47:GLN:O	12:C0:50:THR:OG1	2.27	0.47
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.78	0.47
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.43	0.47
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.14	0.47
1:6:793:A:OP2	1:6:793:A:C8	2.67	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.96	0.47
46:L9:44:THR:HG22	36:5:3186:A:C2	326.93	0.47
39:L2:77:ILE:CD1	39:L2:128:ARG:HB3	2.44	0.47
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:187:HIS:ND1	39:L2:190:ARG:NH2	2.61	0.47
17:C5:102:PHE:CZ	1:6:1241:G:H5''	384.32	0.47
1:6:751:G:H2'	1:6:752:A:H8	1.79	0.47
87:1:4025:OHX:N4	87:1:4062:OHX:N2	2.62	0.47
36:5:1131:G:C4	36:5:2373:A:C2	3.02	0.47
12:C0:10:LYS:NZ	12:C0:36:ASP:HB3	3.12	0.47
43:L6:40:LEU:HB3	43:L6:84:VAL:HG13	3.03	0.47
36:5:2683:U:H2'	36:5:2684:C:C6	2.48	0.47
61:N5:132:ALA:O	61:N5:136:ALA:N	2.47	0.47
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.49	0.47
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	4.39	0.47
5:S3:94:ARG:HG3	5:S3:94:ARG:H	1.48	0.47
5:S3:94:ARG:NH1	35:SM:130:GLU:OE2	2.36	0.47
64:N8:75:LEU:O	64:N8:77:LYS:N	2.54	0.47
34:SR:29:GLN:HG3	34:SR:32:LEU:HB3	1.95	0.47
73:O7:28:HIS:CE1	73:O7:31:LYS:HG3	2.48	0.47
16:C4:128:LYS:HD3	28:D6:27:SER:OG	2.86	0.47
40:L3:221:THR:HB	40:L3:273:HIS:O	2.51	0.47
36:5:1815:U:O2'	36:5:1816:A:OP2	2.31	0.47
55:M9:119:LEU:O	55:M9:123:LEU:HG	2.14	0.47
68:O2:14:THR:O	87:O2:201:OHX:N5	4.88	0.47
36:5:1390:A:N3	36:5:1390:A:H5'	2.29	0.47
36:5:2612:U:H2'	36:5:2613:U:O4'	2.14	0.47
67:O1:8:VAL:HG12	67:O1:9:THR:H	2.41	0.47
15:C3:46:THR:OG1	15:C3:49:GLN:HG2	3.86	0.47
42:L5:279:LYS:HD3	42:L5:282:ARG:NH2	4.55	0.47
39:L2:206:PRO:HD3	39:L2:213:GLY:HA2	2.55	0.47
20:C8:24:GLY:O	20:C8:26:ILE:N	2.38	0.47
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.57	0.47
1:6:836:U:H2'	1:6:837:G:H8	1.79	0.47
42:L5:269:SER:HB2	37:7:1:G:H21	316.81	0.47
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.95	0.47
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.60	0.47
36:1:1362:G:H2'	36:1:1363:A:H8	1.79	0.47
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.51	0.47
1:6:1700:C:O2	1:6:1700:C:H2'	2.14	0.47
36:5:1449:A:C2	36:5:2356:A:C4	3.02	0.47
36:5:15:C:H6	36:5:15:C:H5'	1.78	0.47
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.54	0.47
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	310.46	0.47
25:D3:23:ARG:HG3	25:D3:23:ARG:NH1	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:119:GLN:HG3	8:S6:120:GLU:N	2.28	0.47
36:5:1093:A:H2	36:5:1096:U:O2	1.97	0.47
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.79	0.47
53:M7:36:ILE:CD1	53:M7:95:LEU:HD11	2.45	0.47
36:1:2419:A:H2'	36:1:2420:C:H6	1.79	0.47
6:S4:125:LYS:NZ	6:S4:225:VAL:O	2.35	0.47
1:2:1530:C:OP2	27:D5:95:HIS:HD2	1.97	0.47
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.48	0.47
1:6:1586:A:H2'	1:6:1587:A:O4'	2.14	0.47
1:6:196:G:O2'	1:6:197:A:OP2	2.25	0.47
36:5:1817:G:OP1	87:5:4182:OHX:N1	2.47	0.47
1:6:1244:A:O2'	1:6:1245:G:O5'	2.26	0.47
42:L5:215:ASP:OD1	42:L5:218:ARG:HG3	2.14	0.47
1:6:1603:U:H2'	1:6:1604:U:C6	2.48	0.47
36:5:1514:G:C6	36:5:1841:A:C5	3.03	0.47
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.22	0.47
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.50	0.47
39:L2:225:ILE:O	39:L2:238:ILE:O	4.81	0.47
36:1:3329:U:H5''	40:L3:308:MET:HE1	1.96	0.47
61:N5:127:THR:OG1	61:N5:129:ASP:OD2	2.32	0.47
17:C5:98:ASN:HB3	17:C5:120:SER:OG	2.13	0.47
36:1:2269:U:C2	36:1:2272:G:C2	3.02	0.47
1:6:1690:G:H1	1:6:1711:C:H42	1.62	0.47
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.13	0.47
47:M0:130:ASP:HB2	47:M0:133:GLN:HB2	1.95	0.47
55:M9:127:SER:HA	55:M9:132:PHE:HD2	1.79	0.47
36:1:1662:G:N2	36:1:1788:C:O2	2.47	0.47
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.64	0.47
61:N5:108:LEU:HA	61:N5:108:LEU:HD23	1.82	0.47
62:N6:103:LYS:HA	62:N6:103:LYS:HD3	2.07	0.47
36:1:656:A:C2	36:1:1440:G:C2	3.02	0.47
1:6:1305:U:OP2	1:6:1306:C:N4	2.41	0.47
36:5:2358:A:H2'	36:5:2359:C:O4'	2.13	0.47
55:M9:24:LEU:HD22	55:M9:50:ILE:HG12	5.65	0.47
36:5:300:G:O6	87:5:4193:OHX:N2	2.47	0.47
47:M0:2:ALA:O	47:M0:3:ARG:HB2	4.52	0.47
1:2:538:A:H8	1:2:543:C:N4	2.11	0.47
20:C8:140:THR:HA	20:C8:143:ARG:HH11	2.46	0.47
11:S9:90:LYS:HB2	11:S9:95:TYR:CD1	2.50	0.47
73:O7:81:GLY:O	38:8:95:G:H1'	41.08	0.47
69:O3:59:VAL:O	69:O3:61:GLY:N	2.85	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.15	0.47
36:1:911:C:N4	39:L2:3:ARG:HD3	2.28	0.47
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.45	0.47
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.49	0.47
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.79	0.47
56:N0:155:ARG:HD3	56:N0:172:TYR:CD2	2.49	0.47
5:S3:57:ASP:O	5:S3:65:ARG:HG2	4.73	0.47
12:C0:32:HIS:CE1	12:C0:42:VAL:HG11	4.28	0.47
33:E1:100:LEU:HD12	33:E1:102:VAL:HA	6.39	0.47
24:D2:82:LYS:O	24:D2:85:ASP:HB2	4.76	0.47
1:2:25:C:O2	87:2:2082:OHX:N1	2.47	0.47
1:2:72:A:C2	1:2:73:U:N3	2.82	0.47
36:1:776:U:H5	36:1:2719:U:O2	1.97	0.47
1:2:14:C:H2'	1:2:15:U:C6	2.49	0.47
36:5:138:U:H2'	36:5:139:G:C8	2.49	0.47
28:D6:60:PRO:O	28:D6:61:GLU:HB3	3.03	0.47
50:M4:135:LEU:HD21	52:M6:174:PHE:HE2	1.79	0.47
41:L4:80:GLY:O	36:5:357:A:H1'	130.27	0.47
36:1:781:G:O6	87:1:3947:OHX:N5	2.47	0.47
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.15	0.47
36:1:2722:U:OP1	65:N9:33:LYS:NZ	2.41	0.47
1:2:178:U:N3	8:S6:191:ARG:HD3	2.29	0.47
1:2:839:U:C2'	1:2:840:U:H5'	2.44	0.47
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.65	0.47
44:L7:118:LYS:HG3	44:L7:191:VAL:HG11	1.94	0.47
1:2:922:G:H2'	1:2:923:A:C8	2.49	0.47
40:L3:167:ARG:O	87:L3:403:OHX:N5	24.07	0.47
36:1:1944:U:H2'	36:1:1945:A:C8	2.49	0.47
36:1:2712:U:H2'	36:1:2713:U:C6	2.49	0.47
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.01	0.47
36:5:275:U:H2'	36:5:276:U:C6	2.49	0.47
38:8:133:G:O6	87:8:222:OHX:N6	2.47	0.47
36:1:3393:U:H2'	36:1:3394:U:C6	2.49	0.47
1:6:808:U:H2'	1:6:809:A:C8	2.48	0.47
1:2:872:G:H2'	1:2:873:U:O4'	2.13	0.47
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.53	0.47
40:L3:100:ARG:NH2	36:5:3244:A:OP2	249.20	0.47
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.57	0.47
54:M8:8:LYS:HB2	54:M8:8:LYS:HE3	1.42	0.47
1:6:1393:C:H2'	1:6:1394:G:H8	1.77	0.47
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:359:A:C2	25:D3:38:PHE:HB3	2.48	0.47
54:M8:179:ARG:HD2	54:M8:182:LYS:HG3	2.66	0.47
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.14	0.47
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.96	0.47
20:C8:139:LYS:HE2	1:6:1459:C:N4	349.30	0.47
87:2:2088:OHX:N1	87:2:2129:OHX:N4	2.62	0.47
9:S7:99:LEU:HA	9:S7:100:PRO:HD2	2.51	0.47
36:1:3215:A:C5'	50:M4:121:MET:HE1	2.44	0.47
36:1:1951:C:N4	36:1:2095:G:H1	2.04	0.47
1:2:702:G:O2'	1:2:703:G:H8	1.97	0.47
7:S5:35:GLN:HB3	7:S5:36:ALA:H	1.54	0.47
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.14	0.47
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.37	0.47
13:C1:133:LYS:NZ	1:6:324:U:OP1	292.03	0.47
37:3:45:A:H2'	37:3:46:A:C8	2.49	0.47
39:L2:201:GLY:HA2	39:L2:204:MET:SD	2.80	0.47
36:1:3389:U:O2'	36:1:3390:G:OP2	2.30	0.47
36:5:2400:G:OP1	87:5:4111:OHX:N1	2.47	0.47
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	16.30	0.47
4:S2:61:LEU:HD23	4:S2:61:LEU:HA	1.69	0.47
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	2.15	0.47
72:O6:51:SER:O	72:O6:55:ARG:HG3	3.00	0.47
87:5:4002:OHX:N6	87:5:4091:OHX:N2	2.62	0.47
17:C5:110:GLU:HB2	20:C8:119:ILE:HG12	1.96	0.47
36:1:839:C:H2'	36:1:840:C:C6	2.49	0.47
36:1:595:G:C8	36:1:609:G:C6	3.02	0.47
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.97	0.47
40:L3:259:HIS:NE2	36:5:2366:C:H5'	217.06	0.47
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.80	0.47
48:M1:132:ASN:HA	48:M1:154:THR:HG21	2.14	0.47
87:1:4034:OHX:N2	87:1:4151:OHX:N1	2.63	0.47
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.67	0.47
1:2:1163:A:C6	1:2:1164:G:C5	3.02	0.47
1:6:558:U:O2'	1:6:559:C:O5'	2.32	0.47
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	3.60	0.47
75:O9:27:ILE:HD13	38:8:52:A:H62	77.78	0.47
1:2:1767:G:OP1	1:2:1770:U:H4'	2.14	0.47
65:N9:21:ILE:HG22	65:N9:22:LYS:O	3.93	0.47
36:1:1944:U:H2'	36:1:1945:A:H8	1.79	0.47
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.63	0.47
45:L8:60:ARG:O	45:L8:64:ILE:HG13	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:57:LEU:HD23	62:N6:67:GLU:HG2	3.50	0.47
36:5:434:U:H2'	36:5:435:C:C6	2.49	0.47
36:5:223:U:O4	87:5:4245:OHX:N4	2.47	0.47
75:O9:37:TYR:O	36:5:351:A:N6	93.95	0.47
36:5:2130:G:OP1	87:5:4189:OHX:N5	2.47	0.47
1:2:230:C:H2'	1:2:231:U:H5''	1.96	0.47
1:2:1344:A:H4'	1:2:1345:A:OP1	2.14	0.47
1:6:1473:U:O2	1:6:1473:U:H2'	2.14	0.47
1:2:1312:A:OP1	1:2:1312:A:H8	1.97	0.47
50:M4:108:ARG:NH2	52:M6:196:ALA:O	2.48	0.47
14:C2:29:LYS:HG3	14:C2:100:TRP:CD1	2.49	0.47
1:6:209:U:H2'	1:6:210:A:C8	2.49	0.47
60:N4:63:ILE:O	60:N4:65:GLU:N	2.63	0.47
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.96	0.47
47:M0:174:THR:HG23	47:M0:176:LEU:N	2.16	0.47
36:1:1940:G:H21	36:1:3362:A:H8	1.58	0.47
3:S1:133:TYR:HE1	3:S1:220:GLN:HG2	3.90	0.47
1:2:79:C:H4'	8:S6:173:PRO:O	2.15	0.47
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.78	0.47
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.14	0.47
1:6:894:U:H2'	1:6:895:G:C8	2.49	0.47
1:2:522:U:H2'	1:2:523:G:O4'	2.14	0.47
51:M5:49:ARG:HD3	36:5:115:A:OP1	104.32	0.47
39:L2:130:SER:OG	39:L2:174:ARG:NH2	3.04	0.47
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.44	0.47
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.48	0.47
1:2:380:U:C5	11:S9:5:PRO:HA	2.42	0.47
39:L2:53:GLY:O	39:L2:192:LYS:HE2	3.40	0.47
1:2:1067:C:H2'	1:2:1068:C:C6	2.45	0.47
48:M1:18:VAL:HG22	48:M1:70:THR:HB	1.97	0.47
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.96	0.47
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	2.67	0.47
36:1:439:C:H3'	36:1:440:A:C8	2.50	0.47
36:1:685:G:P	49:M3:35:ARG:NH1	2.88	0.47
1:2:72:A:C2	1:2:73:U:C4	3.03	0.47
13:C1:81:HIS:NE2	13:C1:82:ARG:HD2	4.29	0.47
1:6:717:C:O2'	1:6:718:U:OP1	2.26	0.47
36:5:137:G:H2'	36:5:138:U:C6	2.50	0.47
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.80	0.47
41:L4:220:ARG:O	41:L4:220:ARG:HG3	2.14	0.47
36:1:2209:U:C6	36:1:2209:U:OP2	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2677:G:OP2	87:5:4158:OHX:N5	2.48	0.47
36:5:541:U:H2'	36:5:542:G:C8	2.50	0.47
36:1:2400:G:H5''	36:1:2401:A:OP2	2.13	0.47
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.46	0.47
53:M7:54:HIS:HA	53:M7:83:TRP:CD1	2.49	0.47
1:6:1308:G:C2	1:6:1309:C:C2	3.03	0.47
32:E0:56:MET:HG2	1:6:590:C:H5'	417.52	0.47
1:6:318:U:O4	87:6:2164:OHX:N4	2.48	0.47
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.53	0.47
47:M0:188:GLY:O	47:M0:190:VAL:N	2.46	0.47
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.59	0.47
36:1:2611:U:H2'	36:1:2612:U:C6	2.49	0.47
1:6:1151:A:O3'	1:6:1766:A:N6	2.47	0.47
1:6:156:A:H2'	1:6:157:A:O4'	2.15	0.47
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.50	0.47
33:E1:123:ASN:OD1	33:E1:124:PRO:HD2	2.15	0.47
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.96	0.47
74:O8:48:SER:HB3	36:5:1825:G:OP1	132.43	0.47
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.58	0.47
35:SM:91:THR:OG1	35:SM:91:THR:O	2.32	0.47
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.30	0.47
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.26	0.47
56:N0:136:LYS:HE2	56:N0:136:LYS:HB3	3.93	0.47
54:M8:23:ASN:OD1	54:M8:25:TYR:N	2.47	0.47
11:S9:109:LEU:O	11:S9:113:VAL:HB	2.14	0.47
36:1:2534:G:H2'	36:1:2535:A:H8	1.80	0.47
7:S5:73:THR:HG23	18:C6:114:ARG:HE	4.51	0.47
7:S5:61:TYR:CD2	7:S5:164:PRO:HB2	2.93	0.47
36:1:1565:G:N2	36:1:1574:C:C2	2.83	0.47
1:6:901:G:N1	1:6:902:G:C6	2.82	0.47
16:C4:24:ASN:O	16:C4:54:GLU:HB3	2.14	0.47
36:1:362:U:OP1	73:O7:45:ARG:NH2	2.48	0.47
36:1:2989:U:O2'	40:L3:232:ARG:NH2	2.48	0.47
36:5:3242:G:N2	36:5:3245:A:H5''	2.29	0.47
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	2.58	0.47
36:1:3174:A:H2'	36:1:3175:U:H5'	1.96	0.47
1:2:499:U:O2'	1:2:500:C:O4'	2.33	0.47
63:N7:77:TYR:C	63:N7:79:HIS:H	2.18	0.47
36:5:2842:U:C4	36:5:2843:U:C5	3.02	0.47
60:N4:27:LYS:HB3	60:N4:29:PHE:HE2	5.46	0.47
1:6:1783:C:H2'	1:6:1784:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:106:ILE:CD1	48:M1:125:MET:HG2	5.66	0.47
70:O4:24:LYS:HE2	36:5:1669:C:OP1	156.41	0.47
41:L4:216:VAL:HG23	41:L4:217:LYS:N	2.28	0.47
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.64	0.47
42:L5:41:LYS:HA	42:L5:41:LYS:HE3	3.32	0.47
49:M3:113:VAL:HA	49:M3:116:LEU:HD12	1.96	0.47
45:L8:195:SER:O	45:L8:195:SER:OG	2.83	0.47
36:5:240:U:O2'	36:5:241:G:H8	1.97	0.47
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.14	0.47
2:S0:54:TRP:O	2:S0:58:VAL:HG23	2.15	0.47
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.14	0.47
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.49	0.47
1:6:841:U:H2'	1:6:842:C:C6	2.49	0.47
1:6:1271:G:H2'	1:6:1272:U:O4'	2.15	0.47
36:1:1532:C:H2'	36:1:1533:U:C6	2.50	0.47
36:5:1852:G:N7	87:5:4040:OHX:N6	2.62	0.47
36:1:261:U:H2'	36:1:262:U:C6	2.49	0.47
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.14	0.47
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	2.98	0.47
40:L3:305:ILE:HD11	40:L3:317:ILE:HG21	1.96	0.47
68:O2:59:SER:OG	36:5:1405:U:OP2	184.69	0.47
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.45	0.47
54:M8:157:PRO:HA	54:M8:186:VAL:HG12	2.48	0.47
51:M5:67:ARG:O	51:M5:68:ARG:HB3	4.69	0.47
41:L4:330:TYR:HA	41:L4:333:VAL:HG13	2.49	0.47
11:S9:126:ARG:HG3	32:E0:33:ARG:HD2	1.96	0.47
1:6:1347:U:O2	1:6:1516:A:H5'	2.15	0.47
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.47	0.47
36:5:406:G:H1'	38:8:16:G:N2	2.29	0.47
28:D6:10:ARG:HB3	28:D6:34:LYS:HA	1.95	0.47
36:1:2094:C:H2'	36:1:2095:G:C8	2.50	0.47
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.95	0.47
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.49	0.47
26:D4:60:PHE:HA	26:D4:70:VAL:O	2.28	0.47
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.36	0.47
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.15	0.47
12:C0:54:TYR:CE2	12:C0:75:TYR:HB2	3.43	0.47
1:6:884:A:H2'	1:6:885:G:C8	2.50	0.47
44:L7:160:ARG:HD2	44:L7:203:TRP:CE2	2.49	0.47
87:2:2094:OHX:N6	13:C1:18:HIS:O	2.48	0.47
16:C4:54:GLU:CD	1:6:901:G:H22	281.75	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2400:G:H5''	36:5:2401:A:OP2	2.15	0.47
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.52	0.47
28:D6:44:ILE:HD13	28:D6:65:PRO:HG2	4.14	0.47
24:D2:31:SER:HB3	24:D2:34:ILE:HG13	3.31	0.47
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.79	0.47
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.15	0.47
11:S9:17:ARG:NH1	1:6:4:C:O2'	388.46	0.47
1:6:1623:C:H2'	1:6:1624:C:C6	2.44	0.47
39:L2:112:ILE:HD12	79:Q3:79:VAL:HG22	1.96	0.47
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.15	0.47
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.96	0.47
12:C0:14:TYR:CZ	12:C0:18:GLU:HG3	2.86	0.47
34:SR:123:ILE:HG21	34:SR:169:ILE:HG21	1.95	0.47
1:2:487:G:H3'	1:2:488:G:H5''	1.97	0.47
26:D4:86:GLU:HB2	26:D4:91:LEU:HD21	2.65	0.47
40:L3:250:ALA:HB1	36:5:2947:G:C2	220.07	0.47
36:1:1505:C:H5''	53:M7:127:ARG:HD2	1.96	0.47
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.14	0.47
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	2.50	0.47
36:5:2774:C:C2	36:5:2787:G:C2	3.02	0.47
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.14	0.47
36:5:2533:G:O6	87:5:4042:OHX:N2	2.47	0.47
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	3.47	0.47
35:SM:43:ASP:OD2	35:SM:45:SER:HB2	2.14	0.47
36:5:253:A:O2'	36:5:254:A:H8	1.98	0.47
6:S4:11:ARG:HB2	6:S4:27:TYR:C	2.98	0.47
33:E1:91:ILE:HB	1:6:1445:G:C6	386.47	0.47
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.15	0.47
36:1:1064:A:H5''	36:1:1066:G:O4'	2.15	0.47
69:O3:8:TYR:CG	69:O3:99:ARG:HB3	2.49	0.47
1:2:1391:A:H2'	1:2:1392:U:H6	1.79	0.47
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	1.96	0.47
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.90	0.47
1:2:1165:G:C6	1:2:1166:A:C6	3.03	0.47
36:5:2682:C:C6	36:5:2682:C:H3'	2.50	0.47
62:N6:2:ALA:N	36:5:213:A:OP1	82.03	0.47
52:M6:25:LYS:HE3	36:5:1176:C:OP1	247.49	0.47
5:S3:108:LYS:O	5:S3:113:LEU:HB2	2.26	0.47
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.15	0.47
12:C0:59:PHE:CE1	12:C0:62:GLN:HA	2.50	0.47
36:5:549:U:H2'	36:5:550:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:267:U:OP1	8:S6:183:ARG:NE	2.44	0.47
1:2:274:G:H3'	1:2:275:C:C6	2.49	0.47
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.29	0.47
78:Q2:100:LYS:HE2	36:5:2657:A:OP2	259.71	0.47
16:C4:112:ILE:H	28:D6:57:SER:HA	1.80	0.47
36:1:3328:G:C2'	36:1:3329:U:H5'	2.45	0.47
62:N6:55:GLU:HB2	62:N6:108:LYS:HB3	3.94	0.47
36:1:1215:U:H2'	36:1:1216:C:O4'	2.15	0.47
1:6:1368:G:O6	87:6:2088:OHX:N3	2.48	0.47
42:L5:238:ASP:O	42:L5:242:SER:HB3	2.43	0.47
1:6:1064:G:H2'	1:6:1065:A:C8	2.50	0.47
36:1:1785:U:H2'	36:1:1786:G:C8	2.50	0.47
36:5:1354:G:C6	36:5:1358:C:H5'	2.50	0.47
55:M9:109:TYR:CD2	55:M9:114:LYS:HD2	5.98	0.47
46:L9:112:ILE:N	46:L9:126:VAL:O	2.39	0.47
36:1:2853:A:O3'	47:M0:64:ALA:HB2	2.15	0.47
36:1:2367:A:H2'	36:1:2368:A:O4'	2.15	0.47
1:6:876:G:H2'	1:6:936:G:N2	2.29	0.47
36:1:3218:A:H5''	36:1:3219:G:C5	2.49	0.47
36:1:638:C:H2'	36:1:639:G:C8	2.50	0.47
36:5:2405:C:O2	36:5:2819:A:N1	2.48	0.47
51:M5:48:ALA:C	51:M5:53:TYR:HB3	2.64	0.47
52:M6:46:GLU:OE2	52:M6:134:LYS:HE3	2.14	0.47
28:D6:15:ARG:NH1	1:6:936:G:N7	319.39	0.47
36:1:2501:U:H4'	36:1:2502:A:OP1	2.14	0.47
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.15	0.47
36:5:3026:G:N7	87:5:3941:OHX:N3	2.63	0.47
36:1:3007:U:OP1	52:M6:73:PHE:HA	2.15	0.47
1:6:978:A:H2'	1:6:979:A:O4'	2.15	0.47
36:1:1593:A:O4'	70:O4:60:ARG:HD3	2.15	0.47
1:6:1511:U:H2'	1:6:1512:G:C8	2.50	0.47
3:S1:191:GLU:HB3	3:S1:194:ASN:ND2	3.66	0.47
65:N9:38:LYS:HD3	36:5:1076:C:H4'	213.19	0.47
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.96	0.47
36:5:2584:G:H5'	36:5:2585:G:OP2	2.14	0.47
1:6:1029:U:O2'	1:6:1030:A:H5'	2.15	0.47
36:1:2567:C:C2'	36:1:2568:C:H5'	2.45	0.47
1:2:1062:A:OP2	87:2:2163:OHX:N4	2.47	0.47
38:8:10:A:H2'	38:8:11:C:C6	2.48	0.47
36:1:817:A:OP2	36:1:817:A:H4'	2.15	0.47
1:2:28:A:H2'	1:2:29:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1162:U:H4'	68:O2:57:TYR:CE1	2.50	0.47
1:6:1776:A:H2'	1:6:1777:G:C8	2.50	0.47
78:Q2:17:CYS:SG	78:Q2:76:LYS:HB2	2.87	0.47
36:1:2207:A:O2'	36:1:2208:A:H5'	2.14	0.47
36:1:1927:G:P	79:Q3:6:LYS:H	2.38	0.47
49:M3:172:LEU:HD23	49:M3:172:LEU:HA	1.72	0.47
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.48	0.47
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.53	0.47
50:M4:121:MET:HG3	36:5:3214:U:C5	281.62	0.47
28:D6:36:ILE:HD12	28:D6:36:ILE:H	5.92	0.47
13:C1:99:ARG:HB3	25:D3:9:LEU:O	2.14	0.47
1:2:706:A:C6	1:2:734:A:N6	2.82	0.47
1:2:1409:G:N2	1:2:1412:G:OP2	2.47	0.47
2:S0:187:ALA:O	2:S0:188:LEU:HD23	3.30	0.47
61:N5:25:LYS:HD3	61:N5:27:ARG:HH12	1.79	0.47
87:5:4215:OHX:N1	87:5:4225:OHX:N5	2.62	0.47
1:2:1002:G:N2	1:2:1760:G:O3'	2.47	0.47
14:C2:41:LEU:O	14:C2:43:ARG:HD3	2.99	0.47
44:L7:151:ARG:NH2	36:5:1334:U:O2'	240.99	0.47
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.74	0.47
36:1:3174:A:C6	36:1:3175:U:C4	3.03	0.47
1:2:1172:G:H4'	1:2:1569:A:H2	1.80	0.47
1:2:1530:C:C2	1:2:1531:G:C8	3.03	0.47
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.14	0.47
38:4:107:G:C2	38:4:116:G:C5	3.02	0.47
54:M8:64:VAL:HG11	54:M8:113:LYS:HD2	2.10	0.47
59:N3:13:ILE:HG13	59:N3:85:TRP:CG	3.19	0.47
1:6:1535:U:H4'	1:6:1535:U:OP1	2.15	0.47
36:5:595:G:N1	36:5:609:G:H5''	2.30	0.47
36:1:3008:A:OP2	52:M6:74:ARG:NH1	2.48	0.47
34:SR:107:LYS:HB2	34:SR:128:ASP:HB3	2.75	0.47
36:5:2103:U:H2'	36:5:2104:A:H8	1.80	0.47
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.50	0.47
87:5:4096:OHX:N3	87:5:4237:OHX:N6	2.63	0.47
27:D5:82:HIS:O	27:D5:85:LYS:N	3.68	0.47
36:1:2743:A:H2'	36:1:2744:U:O4'	2.14	0.47
1:6:404:G:H2'	1:6:405:C:C6	2.50	0.47
36:5:2611:U:H2'	36:5:2612:U:C6	2.50	0.47
51:M5:73:ARG:HG2	51:M5:75:VAL:HG13	2.29	0.47
36:5:2659:G:H4'	36:5:2751:G:O2'	2.15	0.47
36:5:2922:G:N1	36:5:2923:U:O2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2267:C:H2'	36:1:2268:U:O4'	2.15	0.47
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.35	0.47
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.84	0.47
34:SR:157:VAL:HB	34:SR:168:THR:HG22	3.38	0.47
28:D6:90:GLU:H	28:D6:90:GLU:CD	4.04	0.47
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.64	0.47
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.50	0.47
1:2:516:G:OP2	87:2:2068:OHX:N6	2.48	0.47
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.20	0.47
36:1:2544:U:H2'	36:1:2545:C:C6	2.50	0.47
1:2:693:U:H5'	1:2:694:U:C5'	2.44	0.47
36:5:3164:C:H1'	36:5:3165:A:H5'	1.95	0.47
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.56	0.47
1:2:445:A:H1'	1:2:525:A:OP1	2.15	0.47
36:5:2960:C:H2'	36:5:2961:G:C8	2.49	0.47
27:D5:54:VAL:HG22	27:D5:57:TYR:CE1	2.50	0.47
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	3.53	0.47
87:6:2063:OHX:N5	87:6:2150:OHX:N6	2.63	0.47
36:1:2155:G:O3'	39:L2:227:ARG:NH2	2.40	0.47
49:M3:64:LYS:HD3	49:M3:65:TYR:CE1	2.74	0.47
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	2.18	0.47
54:M8:126:GLN:O	54:M8:130:ARG:HG3	2.14	0.47
14:C2:41:LEU:HD21	14:C2:123:VAL:HG22	1.97	0.47
13:C1:13:PHE:HD2	13:C1:15:LYS:HD2	1.79	0.47
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.38	0.47
79:Q3:73:THR:HB	79:Q3:76:ALA:CB	3.93	0.47
36:5:2177:G:O6	87:5:3976:OHX:N1	2.48	0.47
36:1:871:U:H2'	36:1:872:U:C6	2.50	0.47
9:S7:91:ILE:HG12	9:S7:129:LEU:HD23	2.51	0.47
43:L6:129:GLU:OE2	43:L6:130:ILE:N	2.37	0.47
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.54	0.47
1:6:189:C:C2'	1:6:190:C:H5'	2.45	0.47
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.50	0.47
53:M7:21:TYR:H	53:M7:145:HIS:CE1	2.80	0.47
36:1:2700:G:N7	87:1:3913:OHX:N5	2.63	0.47
36:1:1245:A:H3'	36:1:1246:G:H5''	1.96	0.47
36:5:2971:A:H3'	36:5:2971:A:N3	2.30	0.47
1:2:77:U:H4'	1:2:78:A:O5'	2.14	0.47
36:1:1556:C:H5''	36:1:2169:G:N2	2.30	0.47
1:6:1370:U:H4'	1:6:1371:A:H4'	1.96	0.47
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:93:C:OP2	36:5:2764:C:O2'	2.23	0.47
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.14	0.47
24:D2:83:ILE:HG12	24:D2:117:ARG:HH12	1.80	0.47
36:1:975:C:H2'	36:1:976:U:C6	2.50	0.47
38:8:102:U:H2'	38:8:103:G:C8	2.49	0.47
36:5:2829:U:H5''	36:5:2830:G:OP2	2.15	0.47
36:5:2993:G:C6	36:5:3142:A:C4	3.03	0.47
43:L6:5:LYS:O	43:L6:6:ALA:HB3	2.15	0.47
1:2:1233:G:OP1	87:2:2150:OHX:N1	2.47	0.47
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	1.96	0.47
40:L3:113:GLU:HB3	40:L3:176:ALA:HB2	1.96	0.47
58:N2:59:ASP:HB3	58:N2:62:VAL:HB	1.97	0.47
58:N2:95:PHE:HA	58:N2:105:LEU:HD12	2.22	0.47
55:M9:143:ILE:HG13	36:5:2093:A:P	251.36	0.47
59:N3:69:LEU:HA	59:N3:69:LEU:HD12	1.96	0.47
36:1:2875:U:H3'	36:1:2875:U:H6	1.80	0.47
18:C6:12:LYS:HG2	18:C6:17:THR:HB	2.35	0.47
38:8:44:A:H2'	38:8:45:C:C6	2.50	0.47
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.36	0.47
36:1:1834:U:OP1	75:O9:5:LYS:HE2	2.15	0.47
1:2:1250:U:HO2'	1:2:1251:U:P	2.38	0.47
45:L8:37:GLY:HA3	36:5:2550:U:C6	212.01	0.47
1:2:823:G:O2'	1:2:824:G:O5'	2.33	0.47
40:L3:2:SER:O	36:5:2939:G:OP2	246.58	0.47
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.66	0.47
51:M5:164:LEU:HD23	51:M5:172:ARG:HH12	1.79	0.47
2:S0:62:ARG:HH11	2:S0:62:ARG:CG	3.60	0.47
7:S5:53:VAL:O	7:S5:55:ASP:N	2.91	0.47
36:1:3316:A:H2	36:1:3389:U:H5'	1.80	0.47
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.43	0.47
2:S0:119:ARG:HH21	4:S2:240:LEU:HD23	1.80	0.47
56:N0:12:ARG:NH2	56:N0:57:GLU:OE1	2.47	0.47
7:S5:102:ARG:HG3	7:S5:103:ASN:ND2	2.30	0.47
38:4:63:G:O2'	71:O5:49:LYS:HE2	2.15	0.47
7:S5:185:ARG:NH1	1:6:1471:A:OP1	332.94	0.47
49:M3:89:TYR:HB2	71:O5:111:PHE:HE1	3.21	0.47
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.30	0.47
1:6:648:G:C2	1:6:687:G:C2	3.03	0.47
36:5:979:U:H1'	36:5:980:A:C4	2.49	0.47
1:2:592:A:OP2	11:S9:39:LYS:HE3	2.14	0.47
36:5:741:U:H2'	36:5:742:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:65:A:H3'	36:1:111:C:H41	1.78	0.47
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.14	0.47
63:N7:5:LEU:HD13	63:N7:30:ASP:OD2	7.19	0.47
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.32	0.47
36:1:2778:G:C2'	36:1:2779:A:H5'	2.44	0.47
9:S7:173:TYR:CD1	9:S7:181:ILE:HD13	2.50	0.47
1:2:74:U:O2'	1:2:75:U:OP2	2.28	0.47
1:2:76:A:H5'	1:2:77:U:OP2	2.15	0.47
48:M1:85:LYS:O	48:M1:88:GLU:N	2.53	0.47
41:L4:10:SER:OG	41:L4:13:GLY:O	2.28	0.47
40:L3:183:LEU:HA	40:L3:183:LEU:HD12	2.07	0.47
71:O5:82:ALA:O	38:8:38:U:C5	65.40	0.47
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.15	0.47
2:S0:202:TYR:O	2:S0:203:PHE:CG	2.68	0.47
36:5:2317:A:OP2	87:5:4189:OHX:N4	2.48	0.47
1:2:1475:A:H2'	1:2:1476:C:O4'	2.15	0.47
1:6:784:C:H2'	1:6:785:U:H6	1.80	0.47
36:5:1151:U:OP1	87:5:4212:OHX:N1	2.48	0.47
34:SR:114:ASP:OD1	34:SR:115:ILE:N	3.06	0.47
36:1:3317:U:O2'	87:1:4029:OHX:N3	2.47	0.47
38:4:35:C:H5''	73:O7:70:VAL:HG11	1.97	0.47
36:1:1434:G:OP1	36:1:1437:C:N4	2.48	0.47
60:N4:31:PHE:HZ	60:N4:40:PHE:CD1	2.33	0.47
45:L8:109:LEU:HD23	45:L8:109:LEU:HA	1.69	0.47
36:5:2344:U:H2'	36:5:2345:A:C8	2.49	0.47
3:S1:158:SER:O	3:S1:162:ARG:HG3	2.15	0.47
1:2:1175:U:H2'	1:2:1176:G:C8	2.50	0.47
1:6:1031:U:H4'	1:6:1032:G:OP2	2.15	0.47
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.48	0.46
22:D0:37:VAL:HG21	22:D0:112:VAL:HG11	3.52	0.46
1:2:143:G:N7	8:S6:177:ARG:NH2	2.62	0.46
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.82	0.46
36:5:917:A:OP2	87:5:4225:OHX:N3	2.48	0.46
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.97	0.46
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.45	0.46
1:6:138:A:H2'	1:6:139:C:H5'	1.97	0.46
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	2.37	0.46
1:2:740:A:C2'	1:2:741:C:H5''	2.45	0.46
87:5:4002:OHX:N3	87:5:4091:OHX:N5	2.63	0.46
6:S4:128:LYS:HA	6:S4:156:VAL:HG22	1.95	0.46
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:736:A:H2'	36:1:737:G:O4'	2.15	0.46
9:S7:35:LYS:O	9:S7:37:GLU:N	2.37	0.46
52:M6:65:ASN:HB3	52:M6:68:ARG:HD3	2.26	0.46
51:M5:175:ASN:O	51:M5:184:LYS:HG3	2.14	0.46
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	2.31	0.46
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.00	0.46
36:5:2437:G:H2'	36:5:2438:A:O4'	2.15	0.46
74:O8:66:ILE:HG21	74:O8:77:ARG:NH2	2.30	0.46
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	1.79	0.46
41:L4:23:PRO:HB3	41:L4:258:LEU:HB3	1.97	0.46
36:5:2733:A:OP1	87:5:4135:OHX:N1	2.48	0.46
36:1:2834:G:OP1	87:1:4193:OHX:N3	2.48	0.46
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.40	0.46
58:N2:42:LYS:NZ	36:5:1686:U:OP1	176.42	0.46
53:M7:109:ALA:O	53:M7:112:LEU:HB2	2.55	0.46
28:D6:60:PRO:O	28:D6:62:TYR:N	2.47	0.46
8:S6:2:LYS:HB3	8:S6:108:VAL:HG22	1.97	0.46
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.47	0.46
1:2:1629:G:H2'	1:2:1630:U:H6	1.80	0.46
9:S7:155:ASP:OD2	9:S7:156:SER:N	2.53	0.46
36:1:304:G:H2'	36:1:304:G:N3	2.30	0.46
36:1:2617:U:C5	36:1:2621:G:OP2	2.68	0.46
36:1:359:U:HO2'	73:O7:16:HIS:CE1	2.33	0.46
36:1:1662:G:O6	87:1:3891:OHX:N2	2.47	0.46
55:M9:28:GLU:O	55:M9:32:ILE:HG13	2.39	0.46
1:2:482:U:H2'	1:2:483:A:H8	1.80	0.46
47:M0:49:CYS:O	47:M0:168:SER:HB3	2.15	0.46
36:1:696:C:HO2'	36:1:697:A:H8	1.60	0.46
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.33	0.46
36:1:2948:C:H2'	36:1:2949:U:O4'	2.15	0.46
31:D9:15:GLY:O	31:D9:17:GLY:N	3.16	0.46
36:5:650:C:H2'	36:5:651:G:C8	2.50	0.46
28:D6:45:VAL:HG21	28:D6:64:LEU:HD13	4.83	0.46
36:5:847:A:H2'	36:5:848:A:C8	2.50	0.46
36:5:3356:G:C6	36:5:3357:U:C4	3.03	0.46
36:1:2577:C:H2'	36:1:2578:U:O4'	2.14	0.46
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.48	0.46
1:2:635:A:H2'	1:2:636:A:C8	2.50	0.46
36:5:1049:C:H2'	36:5:1050:U:C6	2.50	0.46
36:5:368:G:OP1	87:5:3926:OHX:N4	2.49	0.46
55:M9:105:LEU:HA	55:M9:108:LYS:HE3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.15	0.46
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.82	0.46
1:2:767:U:C5	11:S9:143:ILE:HD12	2.50	0.46
37:3:20:A:C4	37:3:60:G:N2	2.82	0.46
1:6:1011:G:HO2'	1:6:1012:U:H6	1.63	0.46
7:S5:73:THR:C	7:S5:75:GLY:H	2.71	0.46
36:1:2585:G:N7	45:L8:47:SER:OG	2.48	0.46
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.73	0.46
19:C7:44:LYS:O	19:C7:48:ASN:ND2	2.49	0.46
36:1:1818:U:H2'	36:1:1819:U:O4'	2.15	0.46
71:O5:63:ARG:HB2	71:O5:67:ARG:NH2	4.75	0.46
38:4:154:C:H2'	38:4:155:A:O4'	2.16	0.46
11:S9:174:ARG:HE	11:S9:174:ARG:HA	1.79	0.46
4:S2:82:ASN:HD22	4:S2:207:LEU:HD12	1.80	0.46
41:L4:126:ILE:HD11	41:L4:233:LEU:CD1	2.79	0.46
1:6:992:A:O2'	1:6:1785:U:O2	2.33	0.46
36:5:920:A:OP1	36:5:922:U:C5	2.67	0.46
36:1:1566:A:H2'	36:1:1567:U:H5''	1.97	0.46
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.50	0.46
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.84	0.46
58:N2:20:SER:OG	58:N2:21:SER:N	2.48	0.46
1:2:624:G:OP2	87:2:2155:OHX:N2	2.48	0.46
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.81	0.46
25:D3:114:LYS:HE2	1:6:571:G:C5'	363.56	0.46
17:C5:74:ALA:HA	17:C5:75:PRO:HD3	2.09	0.46
36:5:1049:C:H2'	36:5:1050:U:H6	1.79	0.46
1:2:763:G:C6	1:2:764:U:C4	3.04	0.46
30:D8:21:SER:OG	30:D8:67:ARG:O	3.53	0.46
1:6:1614:A:C6	1:6:1615:C:N4	2.83	0.46
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.14	0.46
36:5:1190:A:C8	36:5:1193:A:H1'	2.50	0.46
87:1:4060:OHX:N4	87:1:4168:OHX:N1	2.63	0.46
1:6:463:U:OP1	87:6:2207:OHX:N1	2.48	0.46
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.50	0.46
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.49	0.46
25:D3:33:LEU:HD23	25:D3:33:LEU:HA	1.69	0.46
36:1:2249:G:H3'	36:1:2249:G:C8	2.49	0.46
36:1:157:A:C8	72:O6:26:ILE:HG12	2.49	0.46
47:M0:171:TRP:O	47:M0:174:THR:HG23	3.80	0.46
20:C8:143:ARG:C	20:C8:145:ARG:H	4.09	0.46
18:C6:112:TYR:HH	18:C6:114:ARG:NH1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.21	0.46
40:L3:3:HIS:O	40:L3:4:ARG:C	2.54	0.46
61:N5:24:LEU:HB3	61:N5:25:LYS:H	2.47	0.46
37:3:45:A:H2'	37:3:46:A:H8	1.80	0.46
87:5:4215:OHX:N2	87:5:4225:OHX:N5	2.62	0.46
87:6:2063:OHX:N1	87:6:2150:OHX:N4	2.63	0.46
1:2:885:G:H21	16:C4:123:SER:HB2	1.78	0.46
36:1:98:G:N7	49:M3:13:HIS:NE2	2.54	0.46
49:M3:70:ARG:NH1	36:5:76:G:OP1	87.64	0.46
36:1:1807:G:C6	36:1:1808:G:N1	2.83	0.46
39:L2:96:LEU:HD22	79:Q3:83:ILE:HG23	1.96	0.46
1:2:304:U:H2'	1:2:305:C:C6	2.49	0.46
36:5:2897:A:H2'	36:5:2899:C:C5'	2.46	0.46
1:2:1595:U:H5	1:2:1596:C:C5	2.33	0.46
36:1:1306:G:C6	52:M6:62:THR:HA	2.50	0.46
40:L3:284:ARG:HB3	40:L3:323:MET:CB	2.45	0.46
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.16	0.46
36:5:208:C:H2'	36:5:209:A:H5'	1.97	0.46
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.48	0.46
36:1:2907:G:OP1	87:1:4193:OHX:N1	2.48	0.46
36:1:2745:G:O2'	36:1:2747:A:N7	2.44	0.46
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.15	0.46
1:6:1236:A:H2'	1:6:1237:G:C8	2.51	0.46
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.39	0.46
54:M8:54:LEU:HA	54:M8:54:LEU:HD23	1.91	0.46
36:5:1838:G:H4'	36:5:1839:A:N3	2.30	0.46
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.15	0.46
36:5:2768:U:H2'	36:5:2769:A:H8	1.81	0.46
41:L4:304:GLN:C	41:L4:306:THR:H	2.19	0.46
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.69	0.46
36:5:144:A:N6	36:5:145:G:C2	2.83	0.46
64:N8:27:LYS:O	64:N8:28:HIS:HB2	4.23	0.46
36:5:679:U:O4	87:5:4015:OHX:N2	2.49	0.46
36:1:1770:G:H5'	36:1:1771:C:OP2	2.15	0.46
52:M6:130:LYS:HG3	52:M6:131:PRO:N	3.08	0.46
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.81	0.46
1:6:17:C:H2'	1:6:18:C:C6	2.51	0.46
13:C1:10:GLU:HG3	13:C1:11:ARG:H	1.79	0.46
1:2:1130:G:OP2	87:2:2072:OHX:N2	2.48	0.46
40:L3:380:MET:HE3	36:5:3369:G:C6	224.69	0.46
36:5:2140:U:O2'	36:5:2978:U:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1701:C:H2'	36:1:1702:U:O4'	2.15	0.46
17:C5:89:MET:O	17:C5:107:ILE:HG13	3.18	0.46
1:2:1051:G:O2'	1:2:1052:U:P	2.73	0.46
1:2:1604:U:C4	1:2:1605:G:N7	2.84	0.46
9:S7:16:LEU:O	9:S7:20:VAL:HG23	2.14	0.46
36:1:29:C:H4'	36:1:62:A:H4'	1.98	0.46
36:1:534:U:O2	56:N0:146:LYS:HA	2.15	0.46
21:C9:127:ASN:O	21:C9:130:ARG:HB3	2.45	0.46
36:1:1369:A:H2'	36:1:1370:G:O4'	2.14	0.46
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	1.78	0.46
87:1:3957:OHX:N2	87:1:4042:OHX:N6	2.64	0.46
9:S7:98:ILE:HG13	1:6:694:U:N3	372.51	0.46
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.84	0.46
28:D6:87:ARG:HD2	1:6:1797:A:N1	344.50	0.46
1:6:1011:G:N7	87:6:2124:OHX:N4	2.64	0.46
40:L3:117:ARG:HA	40:L3:175:LYS:HD2	4.54	0.46
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.96	0.46
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.10	0.46
3:S1:105:PHE:H	3:S1:214:LYS:NZ	2.10	0.46
11:S9:84:GLY:HA3	11:S9:150:LEU:HD13	1.96	0.46
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.16	0.46
87:1:4037:OHX:N4	87:1:4049:OHX:N1	2.64	0.46
36:1:2307:G:O2'	36:1:2310:U:OP2	2.33	0.46
36:1:2795:U:O2	36:1:2800:G:H1'	2.15	0.46
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.37	0.46
7:S5:144:GLU:HB2	7:S5:160:VAL:O	2.16	0.46
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.21	0.46
36:1:2433:U:OP2	36:1:2434:U:O2'	2.25	0.46
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.28	0.46
41:L4:42:VAL:HA	41:L4:45:ASN:ND2	2.30	0.46
36:1:2320:A:C2	79:Q3:16:VAL:HG13	2.48	0.46
1:6:828:U:H2'	1:6:829:A:H5''	1.97	0.46
1:6:918:U:H2'	1:6:919:A:C8	2.50	0.46
36:1:200:C:P	62:N6:60:ARG:NH1	2.89	0.46
36:5:3255:U:H2'	36:5:3256:G:H8	1.81	0.46
6:S4:251:GLU:O	6:S4:255:ARG:HG2	3.91	0.46
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.13	0.46
65:N9:7:HIS:O	36:5:1135:A:H5'	226.69	0.46
46:L9:92:TYR:HB2	46:L9:142:ASP:HB3	1.97	0.46
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.50	0.46
87:1:4060:OHX:N6	87:1:4168:OHX:N3	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.46	0.46
1:2:1003:A:H1'	1:2:1005:A:N7	2.29	0.46
36:1:3231:U:H2'	36:1:3232:G:H8	1.79	0.46
36:5:614:C:H2'	36:5:615:U:H6	1.80	0.46
7:S5:140:THR:HA	7:S5:214:LYS:HD2	2.32	0.46
1:6:423:G:N7	87:6:2089:OHX:N6	2.62	0.46
15:C3:73:ARG:HD3	1:6:859:A:C5	330.69	0.46
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.15	0.46
68:O2:37:GLY:HA3	36:5:639:G:OP1	184.43	0.46
1:2:881:A:H2'	1:2:882:U:O4'	2.15	0.46
36:5:756:U:H2'	36:5:757:C:C6	2.51	0.46
45:L8:231:LYS:HB2	45:L8:231:LYS:HE3	4.68	0.46
36:1:1351:U:H2'	36:1:1351:U:O2	2.16	0.46
5:S3:124:ARG:O	5:S3:128:GLU:HB2	2.15	0.46
36:1:1192:C:H5	87:1:4055:OHX:N1	2.13	0.46
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	2.33	0.46
34:SR:39:ASP:O	34:SR:40:LYS:HB2	2.14	0.46
36:5:270:U:O2	36:5:318:A:H2	1.97	0.46
36:1:1383:G:O6	87:1:3886:OHX:N3	2.49	0.46
38:4:136:G:OP1	61:N5:48:SER:HB3	2.15	0.46
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.50	0.46
63:N7:83:THR:CG2	63:N7:85:TYR:H	2.39	0.46
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.47	0.46
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.16	0.46
50:M4:125:LYS:HD2	50:M4:128:ARG:HH12	1.79	0.46
1:2:1555:A:OP2	17:C5:47:ARG:NH2	2.49	0.46
36:5:3227:A:C2'	36:5:3228:C:H5'	2.46	0.46
36:5:1565:G:N2	36:5:1566:A:H1'	2.31	0.46
41:L4:187:LEU:HD13	41:L4:193:LYS:HE2	1.97	0.46
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.29	0.46
1:6:72:A:H5'	1:6:73:U:OP2	2.15	0.46
41:L4:192:GLY:O	41:L4:195:ARG:N	2.81	0.46
44:L7:102:VAL:CG1	44:L7:130:ILE:HD12	5.11	0.46
1:2:1317:C:H2'	1:2:1318:G:O4'	2.15	0.46
45:L8:190:VAL:O	45:L8:191:ASN:HB2	2.14	0.46
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	4.20	0.46
36:1:2754:G:OP2	87:1:4012:OHX:N6	2.48	0.46
4:S2:129:ILE:O	4:S2:133:LYS:HG2	2.16	0.46
1:2:501:U:O2'	1:2:502:U:H6	1.98	0.46
27:D5:70:LYS:HG3	27:D5:71:ILE:H	1.80	0.46
34:SR:96:THR:HG23	34:SR:98:GLU:HB3	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:608:A:OP1	41:L4:315:LYS:NZ	2.43	0.46
19:C7:105:GLN:HA	19:C7:108:ASP:HB2	2.28	0.46
29:D7:19:HIS:CE1	29:D7:20:LYS:HB3	4.23	0.46
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.15	0.46
1:2:632:U:OP1	13:C1:102:LYS:HG3	2.14	0.46
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.80	0.46
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.62	0.46
36:5:2573:G:H3'	36:5:2574:G:H5''	1.98	0.46
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.49	0.46
36:1:40:A:N7	64:N8:29:PRO:O	2.48	0.46
7:S5:133:VAL:HG22	7:S5:198:LEU:HD22	4.46	0.46
1:2:830:U:O2	1:2:830:U:H2'	2.16	0.46
36:5:2147:A:H2'	36:5:2148:U:O4'	2.15	0.46
40:L3:301:THR:O	40:L3:301:THR:OG1	2.33	0.46
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.46
25:D3:38:PHE:HB3	1:6:359:A:C2	325.18	0.46
36:5:223:U:HO2'	36:5:224:C:P	2.39	0.46
61:N5:48:SER:OG	61:N5:49:LYS:N	4.32	0.46
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.72	0.46
36:1:2197:C:N4	36:1:2241:U:H2'	2.30	0.46
1:2:856:A:H1'	9:S7:64:VAL:HG11	1.97	0.46
28:D6:21:VAL:HG13	28:D6:32:LYS:HB2	2.47	0.46
55:M9:99:LEU:O	55:M9:99:LEU:HD22	2.21	0.46
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.30	0.46
36:5:2308:C:O2	87:5:4241:OHX:N1	2.48	0.46
36:1:1322:U:OP1	56:N0:117:ARG:HD2	2.16	0.46
39:L2:152:SER:HB2	36:5:2178:A:C2	216.50	0.46
43:L6:69:PHE:CZ	36:5:3267:A:H2'	259.27	0.46
44:L7:147:LEU:HA	44:L7:147:LEU:HD23	2.19	0.46
1:2:1738:U:H2'	1:2:1739:C:C6	2.50	0.46
66:O0:25:LEU:HD22	66:O0:90:VAL:HG22	2.10	0.46
40:L3:296:THR:HG21	40:L3:357:LYS:C	2.54	0.46
36:5:314:U:H2'	36:5:315:C:C6	2.51	0.46
68:O2:126:LEU:HD23	68:O2:126:LEU:HA	1.68	0.46
61:N5:56:ARG:O	61:N5:57:LEU:HB2	2.82	0.46
20:C8:140:THR:HG21	1:6:1176:G:O6	350.31	0.46
20:C8:131:LEU:HD22	1:6:1459:C:H5'	343.42	0.46
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.52	0.46
36:1:915:A:C5	36:1:917:A:H1'	2.51	0.46
7:S5:89:ILE:HD12	7:S5:90:ILE:H	2.00	0.46
16:C4:31:THR:HA	16:C4:38:THR:HA	2.75	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:581:U:O4	35:SM:115:LYS:NZ	2.49	0.46
36:1:664:U:H5'	41:L4:107:ARG:HA	1.97	0.46
1:2:749:U:H2'	1:2:750:U:C6	2.51	0.46
46:L9:191:LEU:HA	46:L9:191:LEU:HD13	4.43	0.46
40:L3:169:THR:CG2	40:L3:171:LEU:HG	2.49	0.46
1:2:1672:G:N7	87:2:2042:OHX:N5	2.63	0.46
25:D3:19:ARG:O	25:D3:23:ARG:HG2	2.15	0.46
1:6:151:G:H22	1:6:163:G:N2	2.12	0.46
11:S9:171:ARG:HA	11:S9:174:ARG:HB2	2.20	0.46
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	236.88	0.46
7:S5:144:GLU:OE1	7:S5:225:ARG:NH2	2.48	0.46
1:6:992:A:OP1	1:6:1786:G:H5'	2.14	0.46
6:S4:66:MET:HE1	6:S4:78:THR:HG23	4.75	0.46
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.30	0.46
39:L2:83:HIS:HB3	79:Q3:64:VAL:HG13	1.97	0.46
33:E1:87:THR:O	1:6:1445:G:N1	377.90	0.46
38:8:154:C:H2'	38:8:155:A:O4'	2.16	0.46
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.16	0.46
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.14	0.46
36:5:112:U:O2'	36:5:113:C:H5''	2.16	0.46
52:M6:159:LYS:NZ	36:5:3243:A:OP1	267.30	0.46
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.84	0.46
1:2:829:A:O2'	1:2:830:U:OP2	2.24	0.46
2:S0:17:LEU:HD23	2:S0:172:LEU:HD13	1.97	0.46
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.50	0.46
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.44	0.46
15:C3:91:LEU:HB3	15:C3:122:ILE:HG12	2.01	0.46
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.97	0.46
36:1:3013:U:H2'	36:1:3014:U:C6	2.51	0.46
1:6:1423:U:H2'	1:6:1424:A:O4'	2.15	0.46
36:5:1439:U:H2'	36:5:1440:G:O4'	2.16	0.46
16:C4:131:GLY:O	16:C4:133:ARG:N	2.76	0.46
22:D0:16:GLN:HG3	22:D0:17:GLN:H	3.99	0.46
42:L5:278:SER:O	42:L5:280:GLU:N	3.28	0.46
4:S2:101:VAL:HG22	4:S2:115:ILE:HG23	1.97	0.46
1:2:976:G:C6	1:2:1023:A:C4	3.04	0.46
38:8:157:U:H2'	38:8:158:U:C6	2.51	0.46
1:2:609:U:H4'	1:2:610:G:O5'	2.15	0.46
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.54	0.46
1:2:372:G:H1'	1:2:612:U:O2	2.16	0.46
13:C1:118:GLN:O	13:C1:121:ASP:HB2	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:178:GLY:O	3:S1:180:THR:N	2.48	0.46
36:1:1019:G:H2'	36:1:1020:G:O4'	2.15	0.46
49:M3:46:ILE:HG23	49:M3:49:ARG:CZ	3.66	0.46
38:4:83:C:H1'	38:4:85:G:H21	1.80	0.46
22:D0:109:GLU:HG3	22:D0:110:PRO:HD2	3.01	0.46
56:N0:166:LYS:O	56:N0:167:ARG:CB	2.64	0.46
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.15	0.46
41:L4:20:LEU:HD13	41:L4:256:THR:HG23	2.73	0.46
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.94	0.46
36:1:92:G:O5'	78:Q2:46:LYS:NZ	2.49	0.46
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.50	0.46
36:5:1572:U:HO2'	36:5:1573:G:H8	1.60	0.46
36:5:150:A:C2'	36:5:151:A:H5'	2.45	0.46
1:2:1253:U:H4'	33:E1:143:LYS:N	2.31	0.46
50:M4:77:ARG:NH2	36:5:524:U:OP1	341.42	0.46
42:L5:268:GLU:O	42:L5:270:LYS:N	3.59	0.46
37:7:28:C:H1'	37:7:55:A:H61	1.80	0.46
42:L5:40:HIS:HD2	42:L5:42:ALA:N	2.09	0.46
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.49	0.46
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.80	0.46
1:6:116:U:O2	1:6:333:A:H2	1.98	0.46
1:2:1214:U:OP1	1:2:1246:C:H1'	2.16	0.46
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.57	0.46
8:S6:27:PHE:HD1	8:S6:52:ILE:HD11	1.81	0.46
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.53	0.46
34:SR:201:THR:HG21	34:SR:243:LEU:H	1.80	0.46
22:D0:55:PRO:HA	22:D0:91:ILE:HG12	1.98	0.46
1:2:1783:C:H2'	1:2:1784:C:C6	2.49	0.46
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.15	0.46
50:M4:135:LEU:O	50:M4:135:LEU:HD22	2.15	0.46
36:5:324:A:H2'	36:5:325:A:C8	2.50	0.46
1:2:874:C:OP1	87:2:2031:OHX:N2	2.48	0.46
5:S3:156:PHE:O	5:S3:157:LEU:HD12	2.15	0.46
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.96	0.46
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.15	0.46
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.49	0.46
2:S0:51:GLY:O	2:S0:55:GLU:N	2.39	0.46
34:SR:300:THR:HG23	34:SR:314:GLN:HG3	1.97	0.46
1:2:625:C:H2'	1:2:626:U:C6	2.50	0.46
7:S5:182:ALA:O	7:S5:186:ASN:ND2	2.49	0.46
36:1:1909:A:H2'	36:1:1910:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:182:ILE:HG22	53:M7:183:ALA:N	2.31	0.46
1:2:1277:G:H2'	1:2:1278:G:O4'	2.15	0.46
1:2:911:U:O2'	1:2:915:A:H1'	2.16	0.46
9:S7:141:ARG:NE	24:D2:49:GLU:OE1	2.47	0.46
21:C9:135:ILE:O	21:C9:139:THR:OG1	2.58	0.46
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.97	0.46
42:L5:110:LEU:O	42:L5:116:ASP:HB3	4.51	0.46
75:O9:49:MET:O	75:O9:51:ILE:N	2.48	0.46
36:5:1014:U:C2'	36:5:1015:U:H5'	2.46	0.46
36:1:2767:U:OP1	78:Q2:33:ALA:O	2.34	0.46
44:L7:80:GLN:HG3	57:N1:136:ARG:HB2	4.63	0.46
36:5:3287:U:H2'	36:5:3288:G:H5'	1.98	0.46
87:5:4077:OHX:N1	87:5:4138:OHX:N2	2.64	0.46
10:S8:21:PHE:CZ	1:6:106:U:H4'	318.86	0.46
1:6:906:A:H2'	1:6:907:A:C8	2.51	0.46
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	1.97	0.46
36:1:73:C:H4'	36:1:74:G:OP2	2.16	0.46
36:5:361:A:N3	36:5:814:U:H1'	2.30	0.46
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.31	0.46
51:M5:183:THR:HG23	51:M5:183:THR:O	2.21	0.46
36:1:1674:G:N2	36:1:1773:C:O2	2.44	0.46
41:L4:262:TRP:CZ3	41:L4:271:LYS:HE3	3.26	0.46
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.25	0.46
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.33	0.46
40:L3:44:THR:O	40:L3:340:LYS:HG2	3.83	0.46
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.51	0.46
1:6:826:U:H2'	1:6:827:C:C6	2.51	0.46
52:M6:172:ARG:HE	52:M6:172:ARG:HB3	1.52	0.46
77:Q1:1:MET:HB2	1:6:1783:C:OP2	309.23	0.46
1:2:71:A:H5''	1:2:72:A:OP2	2.16	0.46
36:5:172:G:O6	87:5:4078:OHX:N4	2.48	0.46
1:6:1591:C:H2'	1:6:1592:A:C8	2.51	0.46
52:M6:156:LEU:HD22	36:5:3243:A:C8	265.15	0.46
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.51	0.46
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.23	0.46
1:2:635:A:H2'	1:2:636:A:H8	1.80	0.46
36:5:599:C:H2'	36:5:600:G:O4'	2.16	0.46
36:1:600:G:N7	87:1:4101:OHX:N1	2.64	0.46
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.24	0.46
1:6:794:U:H4'	1:6:795:U:OP2	2.14	0.46
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:521:A:H2'	1:6:522:U:O4'	2.16	0.46
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.16	0.46
36:5:731:U:H2'	36:5:732:C:H6	1.81	0.46
1:6:1089:U:O2'	1:6:1090:C:H5'	2.14	0.46
48:M1:116:TYR:CD1	48:M1:118:PRO:HD3	2.78	0.46
52:M6:129:LEU:HA	52:M6:129:LEU:HD12	1.89	0.46
45:L8:245:LYS:HG2	45:L8:245:LYS:O	2.78	0.46
63:N7:10:VAL:HB	63:N7:83:THR:CG2	2.46	0.46
3:S1:133:TYR:CE1	3:S1:220:GLN:HG2	4.55	0.46
33:E1:144:CYS:C	33:E1:146:SER:H	2.45	0.46
36:5:1754:G:OP1	87:5:4077:OHX:N1	2.49	0.46
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.97	0.46
2:S0:187:ALA:O	2:S0:188:LEU:HD22	2.16	0.46
46:L9:63:LYS:HD3	36:5:3122:A:O2'	314.13	0.46
3:S1:109:LYS:O	3:S1:112:SER:OG	2.93	0.46
37:7:23:A:H2'	37:7:24:A:C8	2.51	0.46
36:1:1233:G:H22	36:1:1255:C:N4	2.13	0.46
59:N3:46:LEU:HD12	59:N3:46:LEU:HA	1.47	0.46
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.58	0.46
49:M3:93:ILE:O	49:M3:93:ILE:HG22	2.15	0.46
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.85	0.46
1:6:151:G:N2	1:6:163:G:H22	2.13	0.46
87:1:4137:OHX:N1	87:1:4169:OHX:N4	2.64	0.46
74:O8:23:ALA:HB3	74:O8:73:LEU:HD21	1.97	0.46
6:S4:26:CYS:HB2	6:S4:27:TYR:CE2	5.35	0.46
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.49	0.46
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.49	0.46
40:L3:227:GLU:CG	40:L3:270:ARG:HE	3.29	0.46
36:5:898:U:H2'	36:5:899:U:O4'	2.16	0.46
36:5:181:U:H1'	36:5:236:G:H22	1.80	0.46
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.46	0.46
36:5:92:G:OP2	36:5:93:C:H5''	2.16	0.46
55:M9:35:ALA:HB1	55:M9:41:ILE:HD12	1.98	0.46
36:1:3218:A:H4'	36:1:3219:G:O5'	2.16	0.46
1:2:1061:A:H2'	1:2:1062:A:H5'	1.98	0.46
58:N2:59:ASP:N	58:N2:62:VAL:O	2.45	0.46
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.98	0.46
1:2:1757:G:H4'	36:1:2256:A:N7	2.31	0.46
36:1:309:U:OP1	72:O6:84:LYS:NZ	2.39	0.46
36:1:3286:G:H3'	36:1:3287:U:H5''	1.98	0.46
36:1:1509:A:H2'	36:1:1510:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:913:A:H2	36:5:2134:G:N3	2.14	0.46
36:1:428:A:H2'	36:1:429:U:C6	2.51	0.46
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.04	0.46
36:5:953:G:O2'	36:5:1116:G:H5'	2.15	0.46
1:2:1182:U:O2	1:2:1184:A:H8	1.97	0.46
21:C9:126:GLU:HA	21:C9:129:GLN:HG3	1.97	0.46
36:1:2223:A:H8	36:1:2223:A:OP2	1.98	0.46
17:C5:99:GLY:O	1:6:1211:A:H1'	375.37	0.46
34:SR:49:GLY:HA2	34:SR:54:PHE:CD1	2.51	0.46
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.16	0.46
36:5:438:A:C8	36:5:439:C:C5	3.03	0.46
47:M0:61:SER:HA	47:M0:126:ALA:HA	2.45	0.46
36:1:979:U:H1'	36:1:980:A:N9	2.30	0.46
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.15	0.46
6:S4:118:GLU:C	6:S4:120:SER:H	2.60	0.46
1:6:897:C:HO2'	1:6:898:A:H8	1.63	0.46
36:5:1566:A:C2'	36:5:1567:U:H5'	2.46	0.46
9:S7:71:HIS:CG	9:S7:131:PHE:CZ	3.04	0.46
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.83	0.46
72:O6:59:ASP:O	72:O6:63:ASN:HB2	2.23	0.46
17:C5:25:LEU:HA	17:C5:28:MET:SD	2.96	0.46
1:2:398:G:OP1	10:S8:50:GLY:N	2.45	0.46
1:2:788:A:H3'	6:S4:108:ARG:HH22	1.81	0.46
59:N3:45:ARG:HB3	59:N3:48:ARG:HG3	1.98	0.46
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.16	0.46
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.16	0.46
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.16	0.46
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.98	0.46
6:S4:90:ILE:HD12	6:S4:101:LEU:HD21	1.96	0.46
6:S4:78:THR:OG1	6:S4:78:THR:O	2.27	0.46
1:6:919:A:H2'	1:6:920:U:H6	1.79	0.46
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	1.97	0.46
68:O2:33:ARG:HG3	36:5:945:C:OP1	170.32	0.46
7:S5:223:SER:OG	7:S5:223:SER:O	2.33	0.46
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.45	0.46
42:L5:41:LYS:HA	42:L5:41:LYS:HD2	1.67	0.46
4:S2:40:LYS:HA	4:S2:43:ARG:HH12	1.81	0.46
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.23	0.46
36:5:2765:C:H2'	36:5:2766:U:C6	2.51	0.46
61:N5:87:SER:HB3	61:N5:90:ALA:HB2	2.62	0.46
1:2:1207:C:N4	1:2:1456:C:H5	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:15:GLN:O	22:D0:16:GLN:HB2	4.01	0.46
73:O7:19:CYS:O	73:O7:23:GLY:N	2.43	0.46
1:2:833:U:OP2	87:2:2139:OHX:N4	2.49	0.46
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	1.79	0.46
36:5:1621:A:H2'	36:5:1622:U:C6	2.51	0.46
1:6:1432:U:H4'	1:6:1433:G:H5''	1.97	0.46
36:1:437:G:H2'	36:1:438:A:O4'	2.16	0.46
44:L7:29:GLU:O	44:L7:32:ALA:HB3	2.94	0.46
22:D0:47:GLN:O	22:D0:47:GLN:HG2	2.16	0.46
26:D4:102:LYS:HD2	26:D4:102:LYS:H	1.81	0.46
1:6:63:G:C6	1:6:64:U:C5	3.04	0.46
36:1:3336:A:O5'	36:1:3336:A:H8	1.99	0.46
58:N2:77:LYS:O	58:N2:81:LYS:HB2	2.16	0.46
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.67	0.45
11:S9:106:GLU:O	11:S9:111:THR:OG1	3.40	0.45
6:S4:123:LEU:HD21	6:S4:235:TYR:HB2	2.18	0.45
41:L4:144:LYS:HD2	41:L4:145:ILE:HG23	6.26	0.45
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.30	0.45
7:S5:41:LYS:NZ	18:C6:112:TYR:HE2	2.88	0.45
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.58	0.45
46:L9:90:MET:O	46:L9:143:GLU:O	4.66	0.45
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	1.89	0.45
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.30	0.45
21:C9:73:VAL:HG21	21:C9:102:ARG:HB2	1.98	0.45
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.97	0.45
39:L2:189:TYR:HA	39:L2:192:LYS:HG3	3.22	0.45
48:M1:23:VAL:HG13	48:M1:29:ARG:HH11	1.81	0.45
1:2:795:U:H5	1:2:796:A:C8	2.34	0.45
36:5:420:G:O5'	36:5:420:G:OP2	2.32	0.45
2:S0:148:ASP:HB2	2:S0:164:ASN:ND2	2.31	0.45
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	5.44	0.45
34:SR:79:TYR:HB3	34:SR:91:LEU:HD11	1.97	0.45
70:O4:8:ARG:CG	70:O4:8:ARG:HH11	2.30	0.45
19:C7:2:GLY:N	1:6:1311:U:O3'	391.67	0.45
36:1:412:G:C6	36:1:413:U:C4	3.04	0.45
16:C4:16:VAL:HG21	16:C4:18:ARG:NH2	2.30	0.45
36:5:1614:C:H2'	36:5:1615:C:C6	2.51	0.45
39:L2:181:LYS:HZ3	36:5:860:G:P	214.15	0.45
1:6:1451:C:H2'	1:6:1452:U:C6	2.51	0.45
6:S4:38:LEU:O	6:S4:41:SER:OG	3.05	0.45
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:141:LYS:O	47:M0:144:ASN:N	2.78	0.45
36:1:3216:G:H3'	36:1:3219:G:N3	2.31	0.45
42:L5:91:GLY:HA3	42:L5:94:ASN:ND2	3.27	0.45
2:S0:35:PRO:C	2:S0:37:VAL:H	2.19	0.45
68:O2:74:PHE:HB3	68:O2:85:LEU:HD11	2.89	0.45
36:5:3205:G:H2'	36:5:3206:C:C5	2.51	0.45
36:5:2641:U:H5''	36:5:2642:A:OP1	2.16	0.45
36:1:1128:U:H2'	36:1:1129:A:O4'	2.16	0.45
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	3.04	0.45
1:2:1320:U:O2	1:2:1322:A:H5'	2.15	0.45
1:2:1031:U:H4'	1:2:1032:G:OP2	2.16	0.45
36:1:3305:A:H2'	36:1:3306:U:O2	2.16	0.45
64:N8:22:ILE:HD12	36:5:1114:U:H5''	191.59	0.45
57:N1:106:LEU:HA	57:N1:106:LEU:HD23	4.39	0.45
71:O5:24:LEU:HD23	71:O5:24:LEU:HA	1.86	0.45
63:N7:10:VAL:O	63:N7:83:THR:HG22	2.51	0.45
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.76	0.45
6:S4:49:ARG:HH12	1:6:448:C:P	377.46	0.45
63:N7:17:ARG:HG3	36:5:1639:C:N4	197.36	0.45
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.16	0.45
5:S3:163:PRO:HA	5:S3:166:ASP:HB2	2.10	0.45
11:S9:99:LEU:O	11:S9:100:LYS:HB3	2.16	0.45
36:5:3289:G:H2'	36:5:3290:G:C8	2.51	0.45
12:C0:1:MET:HG3	12:C0:2:LEU:H	3.26	0.45
27:D5:89:ILE:HB	27:D5:101:TYR:CD1	2.51	0.45
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.41	0.45
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.15	0.45
5:S3:64:ARG:HA	5:S3:67:ASN:HB2	2.61	0.45
6:S4:248:ILE:HG13	11:S9:71:PHE:CE2	4.01	0.45
14:C2:42:ALA:HB1	14:C2:47:GLU:O	2.17	0.45
8:S6:167:LYS:HZ3	1:6:73:U:H5	372.73	0.45
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.26	0.45
36:1:1720:U:OP2	55:M9:120:TYR:OH	2.25	0.45
87:5:4002:OHX:N4	87:5:4091:OHX:N1	2.65	0.45
13:C1:21:ASN:ND2	13:C1:31:THR:HA	2.46	0.45
57:N1:12:ARG:O	57:N1:16:GLN:HG3	4.11	0.45
35:SM:25:ILE:HG12	37:3:39:C:H5'	1.98	0.45
1:6:542:A:H1'	1:6:543:C:H5'	1.98	0.45
50:M4:102:LYS:O	50:M4:106:ARG:HG2	2.17	0.45
36:5:850:U:H2'	36:5:851:C:H6	1.79	0.45
17:C5:41:VAL:O	17:C5:44:ARG:HB3	3.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:51:SER:HB3	17:C5:52:LYS:H	3.87	0.45
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.38	0.45
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	1.97	0.45
1:6:722:G:O2'	1:6:723:G:H5''	2.16	0.45
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.17	0.45
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.98	0.45
1:2:460:A:H5'	1:2:461:G:OP2	2.16	0.45
36:1:2697:A:H2'	36:1:2698:G:H8	1.82	0.45
2:S0:172:LEU:HA	2:S0:172:LEU:HD23	1.92	0.45
36:1:3231:U:H2'	36:1:3232:G:C8	2.51	0.45
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.20	0.45
1:2:968:U:O3'	1:2:1032:G:N2	2.49	0.45
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	1.98	0.45
42:L5:143:LYS:HE3	42:L5:145:PHE:HZ	2.85	0.45
36:5:1262:G:H5''	36:5:1263:A:OP2	2.16	0.45
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.86	0.45
4:S2:180:ALA:HB2	4:S2:198:THR:HG21	2.16	0.45
36:1:501:A:H2'	36:1:502:U:C6	2.51	0.45
1:2:1417:A:H2'	1:2:1418:G:O4'	2.17	0.45
58:N2:39:ASP:O	58:N2:47:VAL:HB	3.06	0.45
1:2:1150:G:HO2'	1:2:1151:A:P	2.38	0.45
36:5:3167:A:H2'	36:5:3168:A:O4'	2.16	0.45
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.15	0.45
1:6:282:C:H2'	1:6:283:U:O4'	2.17	0.45
26:D4:94:TYR:HB2	26:D4:96:LEU:HD11	1.97	0.45
36:5:392:G:O6	87:5:4068:OHX:N3	2.48	0.45
57:N1:129:LYS:H	57:N1:129:LYS:HG2	3.56	0.45
36:1:1104:G:O5'	36:1:1104:G:H8	1.98	0.45
36:1:634:C:H5'	69:O3:21:ARG:O	2.17	0.45
23:D1:38:LYS:HE3	23:D1:51:VAL:HG23	2.41	0.45
8:S6:32:ILE:HD11	8:S6:54:GLY:HA2	1.97	0.45
1:6:869:A:H2'	1:6:870:C:O4'	2.16	0.45
87:5:3979:OHX:N4	87:5:4200:OHX:N1	2.64	0.45
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.16	0.45
42:L5:282:ARG:O	42:L5:286:VAL:HG23	3.13	0.45
62:N6:122:LYS:HE3	62:N6:122:LYS:HB3	3.60	0.45
1:2:1565:C:OP1	20:C8:41:ARG:HG3	2.16	0.45
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.62	0.45
22:D0:34:LEU:HD21	22:D0:89:ARG:NH1	5.98	0.45
24:D2:17:ALA:HB2	24:D2:25:VAL:HG13	1.98	0.45
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.49	0.45
56:N0:104:GLU:O	56:N0:108:GLN:HG2	2.15	0.45
68:O2:45:ARG:NH2	36:5:1367:G:OP1	197.96	0.45
68:O2:45:ARG:O	36:5:1145:G:O2'	207.91	0.45
36:5:127:G:H2'	36:5:128:G:C8	2.52	0.45
4:S2:41:LEU:HD23	4:S2:240:LEU:HD11	1.97	0.45
1:6:219:A:O2'	1:6:220:A:O5'	2.34	0.45
1:2:1316:G:H2'	1:2:1317:C:C6	2.52	0.45
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.63	0.45
11:S9:171:ARG:HE	11:S9:174:ARG:CB	5.17	0.45
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.82	0.45
36:5:2437:G:H8	36:5:2437:G:H5'	1.82	0.45
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	5.80	0.45
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.72	0.45
53:M7:127:ARG:HH11	53:M7:127:ARG:HB2	1.81	0.45
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.98	0.45
46:L9:166:ARG:NH2	46:L9:168:ARG:HH12	11.66	0.45
43:L6:129:GLU:OE1	43:L6:131:LYS:HE2	12.19	0.45
36:1:3295:A:H2'	36:1:3296:A:C8	2.51	0.45
1:6:825:U:O2'	1:6:826:U:OP2	2.29	0.45
36:1:1093:A:N3	36:1:1096:U:N3	2.63	0.45
1:6:711:U:C2	1:6:728:U:C2	3.04	0.45
36:1:209:A:H4'	36:1:211:A:C8	2.51	0.45
53:M7:112:LEU:HA	53:M7:151:THR:O	2.35	0.45
36:1:3383:G:H2'	36:1:3384:U:C6	2.51	0.45
55:M9:85:ARG:NH2	36:5:1916:U:O3'	230.60	0.45
41:L4:80:GLY:HA2	41:L4:85:SER:OG	2.83	0.45
1:2:808:U:H2'	1:2:809:A:C8	2.51	0.45
1:6:922:G:H2'	1:6:923:A:C8	2.51	0.45
1:2:1793:G:H4'	87:2:2090:OHX:N4	2.31	0.45
36:1:373:A:N1	36:1:394:G:H4'	2.32	0.45
36:1:1110:U:H2'	36:1:1111:U:C6	2.51	0.45
2:S0:202:TYR:O	2:S0:203:PHE:CD2	2.72	0.45
62:N6:108:LYS:HA	62:N6:108:LYS:HD3	3.55	0.45
4:S2:178:ILE:HD12	4:S2:189:GLN:HG2	1.98	0.45
36:1:2525:G:H2'	39:L2:34:TYR:CE1	2.51	0.45
49:M3:14:PHE:CE1	36:5:665:A:H1'	133.10	0.45
53:M7:70:THR:CG2	53:M7:81:ALA:HB3	2.52	0.45
53:M7:70:THR:HG21	53:M7:81:ALA:HB3	2.28	0.45
34:SR:171:SER:N	34:SR:179:LYS:O	2.36	0.45
39:L2:104:LEU:HB3	39:L2:146:THR:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:312:A:C2	1:2:314:C:H2'	2.52	0.45
36:5:1831:U:H2'	36:5:1832:C:C6	2.51	0.45
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.17	0.45
1:2:1059:U:O2'	1:2:1060:U:N3	2.49	0.45
8:S6:24:ILE:O	8:S6:26:VAL:N	2.49	0.45
2:S0:140:ASN:ND2	23:D1:29:HIS:HA	2.31	0.45
42:L5:277:LEU:HD12	42:L5:277:LEU:HA	1.61	0.45
35:SM:131:ILE:O	35:SM:134:ASP:N	3.68	0.45
36:5:2793:G:N7	87:5:3990:OHX:N1	2.64	0.45
36:5:3377:G:O6	87:5:4089:OHX:N2	2.50	0.45
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.73	0.45
3:S1:173:THR:O	3:S1:177:GLN:HB2	6.08	0.45
36:1:1017:C:O2'	36:1:1018:G:P	2.75	0.45
43:L6:78:ARG:NH2	43:L6:106:PHE:HB2	2.31	0.45
38:4:69:U:OP2	87:O7:103:OHX:N3	2.48	0.45
28:D6:6:ALA:H	1:6:1796:C:H5	344.31	0.45
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	2.29	0.45
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.17	0.45
87:1:3964:OHX:N3	44:L7:217:PRO:O	2.49	0.45
1:2:992:A:H2'	1:2:993:A:H5'	1.98	0.45
36:5:436:A:H3'	36:5:437:G:C8	2.52	0.45
22:D0:50:LEU:HB3	22:D0:51:VAL:H	1.47	0.45
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.81	0.45
37:3:22:A:C6	37:3:23:A:C6	3.04	0.45
36:1:1307:G:H1'	36:1:1308:A:N7	2.32	0.45
36:1:1565:G:H1'	36:1:1575:A:C2	2.52	0.45
14:C2:58:LEU:HG	14:C2:126:TRP:CZ3	5.41	0.45
36:1:2278:C:C2'	36:1:2279:A:H5''	2.47	0.45
63:N7:12:VAL:HG12	63:N7:13:VAL:O	2.16	0.45
25:D3:23:ARG:HB3	25:D3:29:TYR:CD1	2.74	0.45
8:S6:13:GLN:NE2	1:6:151:G:H21	312.13	0.45
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.30	0.45
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.98	0.45
2:S0:193:GLN:O	2:S0:195:TRP:N	2.49	0.45
45:L8:68:ARG:HG2	45:L8:68:ARG:H	2.16	0.45
59:N3:32:ARG:O	59:N3:32:ARG:HG3	2.23	0.45
9:S7:86:GLN:CG	9:S7:87:ASP:H	2.29	0.45
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.98	0.45
1:2:526:A:H2'	1:2:527:A:O4'	2.16	0.45
1:2:1217:A:C8	1:2:1217:A:H5'	2.50	0.45
60:N4:49:ILE:O	60:N4:52:THR:OG1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2505:U:H2'	36:5:2506:U:C4	2.51	0.45
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.52	0.45
36:5:1165:A:H2'	36:5:1166:G:O4'	2.16	0.45
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.93	0.45
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	3.04	0.45
15:C3:90:TYR:CG	1:6:869:A:H5'	307.43	0.45
46:L9:5:GLN:C	46:L9:6:THR:HG22	2.98	0.45
1:6:792:U:OP1	87:6:2196:OHX:N4	2.50	0.45
36:1:289:A:H5'	51:M5:95:GLN:O	2.16	0.45
36:1:237:G:H2'	36:1:238:A:O4'	2.17	0.45
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.15	0.45
36:1:1826:C:H2'	36:1:1827:C:H6	1.82	0.45
64:N8:83:PRO:HG2	64:N8:86:LYS:HG3	3.77	0.45
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.17	0.45
36:1:2665:U:H4'	36:1:2666:C:OP1	2.16	0.45
40:L3:331:ASN:OD1	40:L3:331:ASN:N	2.47	0.45
5:S3:217:ILE:HG22	5:S3:219:ALA:H	3.40	0.45
43:L6:107:ALA:O	43:L6:109:GLU:HG2	2.16	0.45
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.16	0.45
36:5:1948:G:C2	36:5:1949:G:C8	3.05	0.45
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.47	0.45
36:5:1012:G:O2'	36:5:1013:G:H5'	2.16	0.45
36:5:1940:G:H2'	36:5:1941:C:O4'	2.17	0.45
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.16	0.45
53:M7:31:GLU:CD	53:M7:61:ARG:H	2.48	0.45
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.20	0.45
26:D4:3:ASP:C	26:D4:5:VAL:H	2.19	0.45
70:O4:102:LYS:HG2	70:O4:103:LYS:HE3	4.03	0.45
36:5:1807:G:C6	36:5:1808:G:N1	2.84	0.45
15:C3:94:LYS:HE2	1:6:953:G:P	300.90	0.45
1:2:927:C:H1'	16:C4:125:SER:HB2	1.98	0.45
41:L4:178:LEU:O	41:L4:182:LEU:HD13	2.16	0.45
57:N1:100:LYS:C	57:N1:102:ARG:H	2.19	0.45
1:6:1482:C:OP2	1:6:1521:G:N2	2.50	0.45
34:SR:164:ASP:C	34:SR:166:SER:H	2.20	0.45
79:Q3:79:VAL:O	79:Q3:83:ILE:HG12	2.16	0.45
74:O8:58:ASP:HB3	74:O8:61:LYS:HG2	4.19	0.45
1:2:1053:G:C2	1:2:1067:C:C2	3.05	0.45
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.44	0.45
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.98	0.45
11:S9:170:GLY:O	11:S9:174:ARG:HG3	3.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:74:LEU:HD21	33:E1:106:TYR:HB3	2.84	0.45
36:1:1464:G:O6	87:1:3945:OHX:N6	2.49	0.45
38:8:104:A:C8	38:8:105:A:C8	3.04	0.45
46:L9:75:VAL:HA	46:L9:78:MET:HE3	3.25	0.45
19:C7:112:SER:O	19:C7:113:LEU:HB3	2.17	0.45
1:6:1719:A:H2'	1:6:1720:G:O4'	2.17	0.45
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.18	0.45
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	2.43	0.45
34:SR:117:LYS:HE2	34:SR:117:LYS:H	1.81	0.45
36:5:3085:G:H5''	36:5:3086:A:OP1	2.16	0.45
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.15	0.45
1:2:912:U:H5'	1:2:913:G:H8	1.81	0.45
36:5:2298:U:O4	36:5:2923:U:H5	2.00	0.45
18:C6:12:LYS:NZ	1:6:1380:U:OP1	424.26	0.45
36:5:600:G:H5'	36:5:601:U:OP2	2.16	0.45
71:O5:45:LYS:O	71:O5:48:ARG:HB2	4.82	0.45
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	1.99	0.45
40:L3:334:ARG:NH2	36:5:3304:U:O2'	212.66	0.45
1:2:876:G:H1'	1:2:944:A:O4'	2.16	0.45
36:1:2714:G:H4'	36:1:2715:A:O5'	2.16	0.45
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.16	0.45
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.80	0.45
36:5:1658:G:H2'	36:5:1659:U:C6	2.52	0.45
40:L3:209:PHE:HB3	40:L3:282:ILE:CD1	2.73	0.45
6:S4:55:ALA:O	6:S4:56:LEU:HD23	2.90	0.45
5:S3:212:LYS:HE2	5:S3:212:LYS:HB2	1.68	0.45
6:S4:117:GLU:O	6:S4:117:GLU:HG2	2.16	0.45
45:L8:94:PHE:HB3	45:L8:189:LEU:HD21	3.09	0.45
64:N8:96:LYS:O	64:N8:98:THR:N	2.47	0.45
54:M8:184:PHE:CG	36:5:2730:G:H4'	190.62	0.45
38:4:85:G:H3'	38:4:85:G:H8	1.79	0.45
62:N6:45:ILE:HD13	62:N6:122:LYS:HE2	4.32	0.45
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	4.02	0.45
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.37	0.45
43:L6:2:SER:HA	68:O2:81:ASP:OD2	2.36	0.45
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	2.50	0.45
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.46	0.45
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.16	0.45
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.70	0.45
26:D4:105:ARG:NH2	1:6:459:G:OP2	363.49	0.45
40:L3:345:ASN:CG	40:L3:347:SER:HB2	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:172:ARG:HH11	36:5:30:G:P	107.37	0.45
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	1.99	0.45
56:N0:171:PHE:C	56:N0:171:PHE:CD2	3.30	0.45
19:C7:32:LYS:HD2	19:C7:47:ARG:NH1	2.32	0.45
1:2:959:U:C4	29:D7:32:PHE:HE2	2.34	0.45
57:N1:17:ARG:HG3	57:N1:17:ARG:O	2.16	0.45
26:D4:23:PHE:HZ	26:D4:44:LEU:HD13	1.80	0.45
36:1:3065:G:O6	87:1:4140:OHX:N6	2.49	0.45
67:O1:44:MET:HB3	67:O1:77:ARG:HH11	3.59	0.45
1:6:219:A:OP1	1:6:219:A:H4'	2.16	0.45
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.55	0.45
43:L6:155:LEU:O	43:L6:158:TYR:HB3	2.23	0.45
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	3.90	0.45
69:O3:13:HIS:NE2	69:O3:28:SER:OG	2.72	0.45
36:5:2732:G:H2'	36:5:2733:A:O4'	2.16	0.45
36:5:171:G:C2	36:5:172:G:H1'	2.52	0.45
78:Q2:8:ARG:HH21	78:Q2:83:LEU:CD1	2.30	0.45
51:M5:147:ARG:NH2	36:5:113:C:OP1	77.28	0.45
1:2:1128:C:H2'	1:2:1129:U:O4'	2.16	0.45
1:2:391:A:C2	1:2:407:A:C2	3.05	0.45
52:M6:115:LYS:HD3	36:5:3178:A:C2	260.49	0.45
46:L9:92:TYR:CD2	46:L9:142:ASP:HB3	2.52	0.45
34:SR:29:GLN:HG3	34:SR:32:LEU:CB	2.46	0.45
36:1:1025:A:OP1	36:1:1025:A:C8	2.69	0.45
36:5:650:C:O5'	36:5:650:C:H6	2.00	0.45
56:N0:146:LYS:HG3	56:N0:147:ASP:N	2.31	0.45
25:D3:52:ILE:HG22	25:D3:99:ASN:HA	3.08	0.45
36:1:1211:U:H2'	36:1:1212:A:C8	2.51	0.45
52:M6:32:LYS:HA	52:M6:101:ARG:HB3	1.98	0.45
36:1:85:A:O2'	87:1:4146:OHX:N6	2.49	0.45
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.68	0.45
1:2:861:U:H5'	1:2:862:A:OP2	2.17	0.45
52:M6:141:LEU:O	52:M6:144:SER:HB3	2.93	0.45
36:5:1270:A:H2'	36:5:1271:A:C8	2.52	0.45
36:1:3100:U:O2'	36:1:3101:G:H5''	2.16	0.45
71:O5:77:PRO:HD2	71:O5:80:LEU:HD12	2.36	0.45
1:6:1079:U:H2'	1:6:1080:U:O4'	2.16	0.45
2:S0:133:ILE:H	2:S0:133:ILE:HD12	1.81	0.45
49:M3:161:ASP:OD1	64:N8:139:ARG:NH1	3.27	0.45
44:L7:103:LEU:HA	44:L7:103:LEU:HD23	2.40	0.45
69:O3:102:LEU:HD23	69:O3:102:LEU:HA	1.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:70:LYS:H	15:C3:70:LYS:HG2	2.14	0.45
41:L4:322:GLN:OE1	36:5:598:A:H1'	256.23	0.45
36:5:438:A:N7	36:5:439:C:H5	2.14	0.45
36:5:2257:C:H2'	36:5:2258:U:H6	1.82	0.45
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.46	0.45
36:1:2767:U:H2'	36:1:2768:U:C6	2.51	0.45
1:6:1595:U:N3	1:6:1600:A:C2	2.75	0.45
33:E1:144:CYS:C	33:E1:146:SER:N	2.70	0.45
28:D6:5:ARG:NH1	1:6:1796:C:OP2	340.41	0.45
28:D6:6:ALA:C	28:D6:8:ASN:H	2.20	0.45
36:1:1230:G:H1	36:1:1279:C:N4	2.07	0.45
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.11	0.45
87:5:4215:OHX:N2	87:5:4225:OHX:N6	2.65	0.45
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.84	0.45
36:1:1429:G:C6	41:L4:99:MET:HE1	2.51	0.45
20:C8:120:ARG:HD2	35:SM:58:GLU:OE1	2.56	0.45
79:Q3:73:THR:HG22	79:Q3:75:ALA:N	3.52	0.45
63:N7:81:LEU:HA	63:N7:81:LEU:HD23	1.75	0.45
68:O2:19:ARG:HH22	36:5:1433:A:P	164.10	0.45
36:1:2653:C:OP1	78:Q2:89:LYS:HB2	2.16	0.45
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	3.30	0.45
71:O5:9:LEU:HD23	71:O5:9:LEU:HA	1.78	0.45
10:S8:84:HIS:HE2	10:S8:97:THR:HG1	2.14	0.45
48:M1:59:ILE:HD12	48:M1:65:ILE:HD11	3.05	0.45
36:1:439:C:N4	36:1:440:A:N1	2.65	0.45
57:N1:56:PHE:CE1	57:N1:78:LYS:HD2	3.74	0.45
36:5:2726:C:O2'	36:5:2727:A:H2'	2.16	0.45
1:2:1561:U:H2'	1:2:1562:G:H8	1.81	0.45
53:M7:65:SER:O	53:M7:66:SER:HB2	2.69	0.45
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.52	0.45
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.54	0.45
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	1.99	0.45
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	4.06	0.45
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	1.99	0.45
8:S6:191:ARG:NH1	1:6:177:U:H1'	318.61	0.45
1:2:840:U:O2'	1:2:841:U:H5''	2.16	0.45
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.52	0.45
1:6:16:G:H2'	1:6:17:C:C6	2.51	0.45
1:6:386:G:H2'	1:6:387:A:C8	2.52	0.45
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	1.97	0.45
1:2:199:G:HO2'	1:2:200:A:H8	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:87:ARG:O	29:D7:14:SER:OG	2.23	0.45
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.42	0.45
13:C1:59:PRO:HG2	13:C1:60:PHE:CE2	2.51	0.45
36:5:1450:G:OP1	87:5:4230:OHX:N4	2.49	0.45
1:2:1402:G:H2'	1:2:1403:C:C6	2.52	0.45
48:M1:105:GLY:HA3	36:5:2674:A:H5''	332.82	0.45
39:L2:41:ILE:HG13	39:L2:42:ARG:N	3.38	0.45
1:6:512:A:C8	1:6:512:A:H3'	2.52	0.45
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.17	0.45
17:C5:127:ARG:O	17:C5:129:GLY:N	4.36	0.45
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.75	0.45
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.37	0.45
33:E1:89:LYS:HD2	33:E1:89:LYS:HA	1.71	0.45
78:Q2:48:SER:O	87:Q2:503:OHX:N6	2.50	0.45
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.93	0.45
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.39	0.45
1:6:103:A:H4'	1:6:104:A:O5'	2.16	0.45
2:S0:179:ARG:O	2:S0:183:ARG:HD3	3.49	0.45
4:S2:88:LYS:O	4:S2:95:ARG:N	2.75	0.45
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.63	0.45
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	1.76	0.45
56:N0:91:TYR:HD1	56:N0:137:ARG:NH1	2.15	0.45
16:C4:45:GLY:HA2	16:C4:54:GLU:HG2	1.98	0.45
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	2.23	0.45
4:S2:61:LEU:HA	4:S2:62:PRO:HD2	1.80	0.45
59:N3:40:LYS:HD3	59:N3:59:MET:CE	2.46	0.45
49:M3:92:THR:HB	71:O5:114:ARG:HG2	1.99	0.45
36:1:3103:A:OP2	87:1:4172:OHX:N3	2.50	0.45
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	2.22	0.45
36:1:99:A:H5'	51:M5:194:GLN:OE1	2.16	0.45
36:5:3241:G:H2'	36:5:3245:A:H8	1.81	0.45
6:S4:42:LEU:HD12	6:S4:101:LEU:HD22	4.96	0.45
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	3.28	0.45
34:SR:81:LEU:HD23	34:SR:91:LEU:HA	3.56	0.45
57:N1:25:VAL:HG22	57:N1:30:TYR:HE2	1.81	0.45
38:8:78:G:H5''	38:8:79:A:OP2	2.17	0.45
45:L8:160:ILE:O	45:L8:164:VAL:HG13	2.16	0.45
1:2:287:G:O2'	1:2:288:A:OP2	2.33	0.45
2:S0:142:PRO:HG3	23:D1:32:VAL:HG13	1.98	0.45
1:6:938:G:N2	1:6:941:A:OP2	2.41	0.45
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:94:ARG:NH2	1:6:407:A:H5'	288.25	0.45
41:L4:73:ARG:NH2	36:5:2814:G:OP1	172.02	0.45
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.16	0.45
11:S9:30:LEU:HD23	11:S9:30:LEU:HA	1.79	0.45
1:2:1504:G:H2'	1:2:1505:A:C8	2.51	0.45
36:5:3078:U:H4'	36:5:3079:U:O5'	2.16	0.45
36:5:1781:C:H2'	36:5:1782:U:H6	1.80	0.45
64:N8:25:HIS:HD2	64:N8:26:ARG:O	2.34	0.45
69:O3:40:ASP:O	69:O3:42:GLN:N	3.32	0.45
87:5:4096:OHX:N1	87:5:4237:OHX:N4	2.65	0.45
36:5:789:A:H2'	36:5:790:U:H6	1.81	0.45
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.92	0.45
2:S0:84:ARG:NE	2:S0:201:LEU:O	3.22	0.45
1:2:1114:G:O2'	1:2:1130:G:O6	2.30	0.45
36:5:732:C:H2'	36:5:733:G:O4'	2.17	0.45
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.98	0.45
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	1.98	0.45
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.33	0.45
54:M8:3:ILE:HG13	54:M8:5:HIS:CE1	2.68	0.45
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.98	0.45
1:6:1572:G:H2'	1:6:1572:G:N3	2.32	0.45
36:1:1193:A:P	52:M6:49:ARG:HH22	2.39	0.45
78:Q2:20:HIS:ND1	36:5:2741:C:O2'	214.35	0.45
36:1:1560:G:H2'	36:1:1561:G:H5'	1.99	0.45
1:6:950:C:H2'	1:6:951:A:C8	2.52	0.45
78:Q2:74:CYS:HB3	78:Q2:77:CYS:SG	2.56	0.45
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.82	0.45
73:O7:18:LEU:HD21	75:O9:51:ILE:CG2	2.47	0.45
75:O9:5:LYS:O	36:5:1833:G:H4'	115.05	0.45
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.50	0.45
36:5:3163:A:C6	36:5:3164:C:N4	2.85	0.45
51:M5:8:GLU:CG	51:M5:50:ARG:HH12	4.06	0.45
50:M4:19:ARG:HE	50:M4:19:ARG:HB2	1.62	0.45
66:O0:12:GLN:O	66:O0:15:ALA:HB3	2.68	0.45
4:S2:140:ARG:HA	23:D1:10:GLU:OE1	2.16	0.45
1:2:1682:U:O2'	1:2:1683:C:H5'	2.17	0.45
36:1:284:A:O4'	78:Q2:41:ARG:HD2	2.17	0.45
42:L5:95:TRP:CH2	42:L5:161:GLY:HA2	2.52	0.45
3:S1:120:LEU:CD2	3:S1:122:GLU:HG3	2.56	0.45
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	5.96	0.45
1:6:1699:G:N2	1:6:1701:A:H3'	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:40:THR:C	54:M8:42:ALA:H	2.19	0.45
36:1:3353:G:O2'	36:1:3356:G:OP2	2.27	0.45
54:M8:49:LEU:HD22	54:M8:53:PHE:CZ	2.51	0.45
2:S0:101:ARG:NH2	1:6:1320:U:H3'	399.29	0.45
87:5:4002:OHX:N6	87:5:4091:OHX:N5	2.65	0.45
57:N1:96:ILE:HA	57:N1:96:ILE:HD12	1.66	0.45
39:L2:105:GLY:CA	39:L2:160:SER:HB3	2.75	0.45
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.46	0.45
1:2:502:U:H2'	1:2:503:G:O4'	2.17	0.45
21:C9:14:PHE:CD2	21:C9:63:ARG:HD3	2.52	0.45
2:S0:175:TYR:OH	2:S0:195:TRP:HB3	3.31	0.45
25:D3:92:CYS:SG	25:D3:132:LEU:HD12	2.57	0.45
31:D9:5:ASN:C	31:D9:7:TRP:H	2.21	0.45
36:1:2217:U:H2'	36:1:2218:G:H8	1.82	0.45
25:D3:42:PRO:O	25:D3:79:ASN:ND2	2.50	0.45
1:2:386:G:C6	1:2:387:A:N6	2.85	0.45
1:2:400:A:O5'	10:S8:25:ARG:HD3	2.17	0.45
59:N3:79:VAL:HG22	59:N3:99:ALA:O	2.16	0.45
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.50	0.45
36:1:1577:G:H2'	36:1:1578:C:H1'	1.99	0.45
50:M4:135:LEU:HD21	52:M6:174:PHE:CE2	2.52	0.45
1:2:616:G:C2	1:2:622:A:N7	2.84	0.45
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.49	0.45
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	1.99	0.45
43:L6:50:LYS:HG2	43:L6:74:VAL:HG21	1.98	0.45
7:S5:95:ASN:OD1	7:S5:107:LYS:NZ	2.88	0.45
87:5:4096:OHX:N5	87:5:4237:OHX:N6	2.65	0.45
1:6:1029:U:O4	87:6:2202:OHX:N6	2.49	0.45
1:6:784:C:H2'	1:6:785:U:C6	2.52	0.45
76:Q0:113:ARG:NH2	36:5:1190:A:H4'	290.64	0.45
34:SR:16:HIS:CD2	34:SR:20:VAL:HG22	2.52	0.45
2:S0:4:PRO:HB2	2:S0:7:PHE:HB2	1.98	0.45
44:L7:95:ILE:HG22	44:L7:100:ARG:HB2	3.39	0.45
36:5:2299:A:OP2	87:5:3961:OHX:N1	2.50	0.45
40:L3:387:LEU:HD12	40:L3:387:LEU:H	1.81	0.45
36:5:2581:U:O2'	36:5:2582:C:H5'	2.16	0.45
1:2:264:G:N7	87:2:2032:OHX:N1	2.64	0.45
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	1.82	0.45
36:5:2579:G:O6	87:5:4032:OHX:N3	2.50	0.45
1:6:1218:G:N2	1:6:1443:U:H2'	2.32	0.45
12:C0:51:SER:OG	1:6:1219:A:N3	431.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:12:ARG:NH2	36:5:661:G:OP2	152.32	0.45
53:M7:25:SER:CB	53:M7:28:ASN:HB2	3.26	0.45
63:N7:17:ARG:HG3	36:5:1639:C:H42	197.45	0.45
1:2:1586:A:H1'	1:2:1611:A:N6	2.32	0.45
36:5:1018:G:H2'	36:5:1019:G:O4'	2.17	0.45
1:2:1381:U:H1'	1:2:1516:A:N6	2.32	0.45
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HG2	2.11	0.45
11:S9:90:LYS:HG2	11:S9:95:TYR:CD1	3.97	0.45
36:1:1171:G:OP2	44:L7:218:ARG:HD2	2.17	0.45
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.49	0.45
39:L2:174:ARG:HA	79:Q3:69:TYR:CE2	2.79	0.45
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	3.45	0.45
3:S1:113:MET:CE	3:S1:209:ASN:HB3	4.20	0.45
1:6:836:U:H2'	1:6:837:G:C8	2.51	0.45
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.16	0.45
36:5:1232:C:C5	36:5:1261:G:H2'	2.52	0.45
36:1:75:G:H5'	49:M3:58:VAL:CG1	2.47	0.45
36:5:2822:U:H4'	36:5:2942:C:OP2	2.16	0.45
79:Q3:73:THR:HB	79:Q3:76:ALA:HB3	3.41	0.45
67:O1:55:LEU:O	67:O1:59:ILE:HG13	2.49	0.45
36:1:2505:U:H2'	36:1:2506:U:H6	1.81	0.45
36:5:173:G:N1	36:5:246:U:C2	2.85	0.45
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.17	0.45
23:D1:64:GLU:HG3	29:D7:3:LEU:HG	1.99	0.45
69:O3:12:LYS:NZ	69:O3:95:GLY:O	2.43	0.45
45:L8:156:ASP:HB2	45:L8:183:LYS:HD3	1.98	0.45
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.67	0.45
36:1:2995:A:C2'	36:1:2996:U:H5''	2.47	0.45
36:1:2996:U:O4	36:1:3143:C:C2	2.70	0.45
1:2:1370:U:O4	87:2:2119:OHX:N5	2.50	0.45
36:1:2970:C:O2'	36:1:2971:A:H2	1.99	0.45
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.17	0.45
36:1:1668:G:C5	36:1:1669:C:C5	3.05	0.45
36:1:938:C:OP2	64:N8:26:ARG:NH1	2.50	0.45
2:S0:88:LYS:HB3	2:S0:202:TYR:CE1	2.71	0.45
36:5:3025:C:H2'	36:5:3026:G:O4'	2.17	0.45
43:L6:148:GLU:OE1	43:L6:151:LYS:NZ	5.09	0.45
10:S8:66:SER:O	10:S8:183:ILE:HG23	6.13	0.45
36:1:407:A:C2	38:4:17:A:H1'	2.51	0.45
36:5:3055:U:O2'	36:5:3057:U:OP1	2.34	0.45
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1733:C:H2'	1:6:1734:U:H6	1.81	0.45
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.99	0.45
36:5:249:U:OP2	36:5:249:U:H2'	2.17	0.45
1:2:229:U:H6	1:2:229:U:O5'	2.00	0.45
10:S8:151:LYS:HA	10:S8:151:LYS:HD2	4.02	0.45
4:S2:212:LYS:HE2	4:S2:212:LYS:HB3	1.84	0.45
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.17	0.45
36:1:1664:G:H2'	36:1:1665:C:C6	2.51	0.45
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.98	0.44
36:1:2208:A:N1	87:1:4048:OHX:N4	2.65	0.44
37:3:19:C:C2	37:3:20:A:C8	3.05	0.44
6:S4:92:LEU:HB2	6:S4:95:THR:CG2	4.72	0.44
10:S8:8:ARG:HH22	10:S8:21:PHE:H	1.66	0.44
17:C5:65:LEU:C	17:C5:67:ALA:H	2.19	0.44
46:L9:136:PHE:CE1	46:L9:144:ILE:HG12	4.82	0.44
39:L2:130:SER:HA	39:L2:169:ILE:CG2	2.46	0.44
36:1:1393:A:O5'	36:1:1393:A:H8	1.99	0.44
38:4:30:C:H2'	38:4:31:G:H8	1.82	0.44
22:D0:48:HIS:O	22:D0:48:HIS:CG	2.70	0.44
41:L4:182:LEU:CD1	41:L4:223:PRO:HB2	2.47	0.44
1:6:486:G:H4'	1:6:486:G:OP1	2.18	0.44
1:2:1657:U:C4	87:2:2087:OHX:N2	2.86	0.44
37:3:4:U:H2'	37:3:5:G:H8	1.79	0.44
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.47	0.44
5:S3:224:ASP:OD1	34:SR:228:LYS:HD2	2.16	0.44
28:D6:44:ILE:H	28:D6:44:ILE:CD1	2.30	0.44
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.64	0.44
24:D2:105:THR:OG1	24:D2:126:LEU:HG	2.16	0.44
1:2:190:C:H1'	1:2:191:C:H5'	1.97	0.44
1:2:1316:G:H2'	1:2:1317:C:H6	1.82	0.44
22:D0:83:GLU:OE1	22:D0:85:ARG:NH2	2.49	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	1.99	0.44
67:O1:13:THR:HG22	67:O1:72:ARG:NH2	4.17	0.44
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.32	0.44
52:M6:108:ILE:HG21	52:M6:108:ILE:HD13	1.98	0.44
17:C5:16:SER:HB2	17:C5:20:VAL:O	3.56	0.44
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.72	0.44
36:5:384:A:H2'	36:5:385:A:O4'	2.17	0.44
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.86	0.44
14:C2:66:VAL:HB	14:C2:67:THR:H	1.55	0.44
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.88	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:5:THR:HG23	36:5:1845:G:O2'	156.61	0.44
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.32	0.44
1:2:17:C:H2'	1:2:18:C:C6	2.52	0.44
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.81	0.44
9:S7:103:SER:HB3	9:S7:106:SER:HB3	1.98	0.44
20:C8:8:GLN:HB3	20:C8:9:GLY:H	2.91	0.44
37:3:13:A:H8	37:3:13:A:H5''	1.82	0.44
87:1:4060:OHX:N2	87:1:4168:OHX:N1	2.66	0.44
34:SR:109:ASP:OD2	34:SR:127:ARG:NH1	2.51	0.44
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.71	0.44
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.17	0.44
36:5:2541:U:H4'	36:5:2542:U:OP1	2.17	0.44
3:S1:93:GLY:C	3:S1:95:ASN:H	2.79	0.44
36:1:1063:G:N7	36:1:1097:G:H2'	2.33	0.44
36:1:1919:G:N7	87:1:4019:OHX:N5	2.65	0.44
36:1:1327:C:O2'	69:O3:76:GLY:HA2	2.17	0.44
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.52	0.44
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	1.99	0.44
36:5:72:C:C2	36:5:74:G:H1'	2.52	0.44
36:5:1641:U:O2'	36:5:1642:A:H3'	2.17	0.44
62:N6:17:LYS:HG2	38:8:23:U:H1'	80.18	0.44
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	3.14	0.44
1:6:1015:U:OP1	87:6:2059:OHX:N5	2.50	0.44
36:5:3094:A:H2'	36:5:3095:U:C6	2.52	0.44
5:S3:215:GLU:HG2	5:S3:215:GLU:O	2.17	0.44
8:S6:158:ILE:HG12	8:S6:158:ILE:H	4.47	0.44
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.72	0.44
70:O4:74:ARG:HB3	70:O4:74:ARG:CZ	2.47	0.44
1:2:1516:A:OP1	22:D0:88:LYS:NZ	2.32	0.44
1:2:1323:C:H2'	1:2:1324:G:O4'	2.17	0.44
36:5:3163:A:C6	36:5:3288:G:O6	2.71	0.44
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.32	0.44
36:5:1599:G:OP1	87:5:4077:OHX:N3	2.51	0.44
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.44	0.44
7:S5:101:GLY:HA3	1:6:1167:G:OP1	356.40	0.44
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.46	0.44
1:2:458:G:P	26:D4:105:ARG:HH22	2.39	0.44
55:M9:43:LYS:HE2	36:5:1765:U:H6	92.68	0.44
36:5:622:A:H8	36:5:622:A:O5'	2.00	0.44
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	2.00	0.44
16:C4:50:ALA:C	16:C4:52:ARG:N	2.94	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:74:SER:HA	27:D5:77:ARG:NH1	2.32	0.44
42:L5:88:ILE:HD13	42:L5:239:ILE:HG22	5.27	0.44
3:S1:36:SER:O	3:S1:38:PHE:N	2.45	0.44
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.32	0.44
2:S0:56:LYS:NZ	2:S0:159:ALA:H	2.16	0.44
36:1:1573:G:N2	36:1:1574:C:O2'	2.51	0.44
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.99	0.44
1:6:1230:A:H2	1:6:1255:G:N2	2.15	0.44
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	3.41	0.44
45:L8:41:GLN:OE1	36:5:2525:G:N1	197.39	0.44
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	1.99	0.44
34:SR:161:LYS:HE3	34:SR:164:ASP:CB	2.46	0.44
10:S8:29:LEU:C	10:S8:29:LEU:HD23	2.37	0.44
36:1:1595:U:C2	36:1:1596:C:C5	3.06	0.44
24:D2:104:LEU:HA	24:D2:126:LEU:H	1.82	0.44
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.16	0.44
36:5:419:G:O3'	36:5:420:G:OP2	2.34	0.44
36:1:2651:G:H4'	36:1:2652:U:OP2	2.17	0.44
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.50	0.44
36:1:1441:G:C2'	36:1:1442:U:H5'	2.48	0.44
51:M5:14:LYS:NZ	36:5:269:G:H5''	132.51	0.44
64:N8:15:VAL:HG12	64:N8:16:SER:N	3.08	0.44
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.49	0.44
2:S0:195:TRP:HE1	2:S0:197:ILE:HD13	3.06	0.44
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.65	0.44
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.17	0.44
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.46	0.44
36:1:2941:A:N7	40:L3:256:HIS:HE1	2.15	0.44
64:N8:115:LYS:HA	36:5:715:A:H3'	148.58	0.44
36:5:247:C:N3	36:5:248:U:H1'	2.33	0.44
1:6:914:G:H5'	1:6:914:G:H8	1.81	0.44
87:1:4089:OHX:N6	87:1:4159:OHX:N4	2.65	0.44
61:N5:67:ILE:HG12	61:N5:115:ARG:HH21	1.82	0.44
41:L4:157:GLU:HA	41:L4:215:ILE:HB	2.00	0.44
67:O1:11:GLU:OE2	67:O1:74:ARG:NE	2.50	0.44
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	1.99	0.44
5:S3:117:ARG:HE	35:SM:126:ASP:CB	6.54	0.44
61:N5:86:VAL:HG11	61:N5:95:ILE:HD11	1.99	0.44
36:5:1397:C:H2'	36:5:1398:U:C6	2.52	0.44
59:N3:68:GLU:OE1	59:N3:68:GLU:N	2.40	0.44
16:C4:111:ARG:NH1	28:D6:57:SER:O	4.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2582:C:H2'	36:5:2583:C:H6	1.82	0.44
8:S6:158:ILE:HA	8:S6:158:ILE:HD12	1.66	0.44
36:1:3348:G:H1	36:1:3357:U:H3	1.65	0.44
13:C1:130:PRO:O	1:6:336:G:H5'	299.23	0.44
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	2.10	0.44
1:6:1697:G:H8	1:6:1705:C:N3	2.15	0.44
36:1:2444:C:H3'	36:1:2445:A:H5''	1.99	0.44
17:C5:116:LEU:O	17:C5:118:GLU:N	3.08	0.44
1:2:594:A:H4'	1:2:595:G:H5'	1.99	0.44
61:N5:50:ALA:HB2	71:O5:79:ASP:CB	5.26	0.44
56:N0:67:ALA:O	56:N0:69:PRO:HD3	2.64	0.44
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.21	0.44
1:6:1003:A:H1'	1:6:1005:A:N7	2.32	0.44
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.17	0.44
61:N5:109:LYS:HE2	61:N5:109:LYS:HB2	1.81	0.44
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.45	0.44
13:C1:112:SER:C	13:C1:114:ALA:H	2.20	0.44
87:5:4191:OHX:N1	87:5:4193:OHX:N4	2.65	0.44
38:4:79:A:H2'	38:4:80:A:C1'	2.36	0.44
75:O9:5:LYS:HD3	75:O9:13:MET:CE	3.91	0.44
17:C5:130:ARG:HH22	35:SM:70:ASN:HB3	1.82	0.44
28:D6:8:ASN:HB2	28:D6:9:GLY:H	2.51	0.44
23:D1:9:VAL:HG22	23:D1:10:GLU:H	2.02	0.44
49:M3:177:LYS:HA	72:O6:11:LEU:HD13	3.06	0.44
18:C6:113:ASP:CG	18:C6:115:THR:H	2.21	0.44
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.17	0.44
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.17	0.44
51:M5:172:ARG:HH22	36:5:63:A:P	101.00	0.44
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	4.05	0.44
3:S1:205:PHE:HD1	3:S1:207:LEU:HD12	1.82	0.44
2:S0:62:ARG:NE	23:D1:37:ALA:O	2.87	0.44
28:D6:74:CYS:O	28:D6:75:VAL:HB	2.18	0.44
56:N0:171:PHE:O	56:N0:172:TYR:C	4.20	0.44
42:L5:52:VAL:HG22	42:L5:147:ASP:HB3	1.99	0.44
2:S0:105:GLY:O	2:S0:109:ASN:HB3	2.70	0.44
10:S8:162:ALA:HA	36:1:3353:G:C5'	2.46	0.44
36:5:358:G:N2	36:5:361:A:OP2	2.47	0.44
36:5:1597:C:C4'	36:5:1696:A:H1'	2.48	0.44
46:L9:188:THR:O	46:L9:188:THR:OG1	2.33	0.44
64:N8:8:THR:HG21	36:5:662:U:OP1	149.31	0.44
36:5:999:G:C6	36:5:1000:C:N4	2.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:108:ARG:NH1	36:5:121:A:C4	96.07	0.44
33:E1:113:LYS:HE3	33:E1:113:LYS:HB3	2.58	0.44
8:S6:13:GLN:CD	1:6:151:G:H21	311.60	0.44
7:S5:222:LYS:HA	7:S5:225:ARG:NH1	3.73	0.44
36:1:2356:A:N6	36:1:2983:C:H5	2.14	0.44
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.47	0.44
1:2:1541:G:C6	1:2:1542:G:N1	2.85	0.44
1:2:1334:U:H2'	1:2:1335:U:C6	2.52	0.44
36:1:1504:A:C5	36:1:1505:C:C5	3.05	0.44
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.41	0.44
36:5:784:A:O2'	36:5:785:G:OP2	2.34	0.44
7:S5:143:ARG:N	7:S5:218:GLU:OE2	2.36	0.44
32:E0:53:LYS:HE2	32:E0:55:ARG:HD3	8.95	0.44
1:2:1116:A:P	77:Q1:17:ARG:HH21	2.40	0.44
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	2.00	0.44
1:6:86:A:O2'	1:6:87:C:H5'	2.17	0.44
36:1:1047:A:C6	36:1:1048:A:C6	3.05	0.44
21:C9:72:GLY:O	21:C9:76:LEU:HG	2.17	0.44
6:S4:246:LEU:HD13	6:S4:251:GLU:HG2	1.99	0.44
41:L4:217:LYS:HG3	41:L4:220:ARG:HH21	1.82	0.44
39:L2:200:ARG:HG3	36:5:2147:A:OP1	208.00	0.44
33:E1:82:LYS:O	33:E1:83:LYS:HG3	2.17	0.44
51:M5:75:VAL:O	51:M5:75:VAL:HG23	2.17	0.44
58:N2:105:LEU:HD12	58:N2:105:LEU:HA	1.95	0.44
43:L6:73:GLY:HA3	36:5:3267:A:C4	261.34	0.44
1:2:373:G:N7	87:2:2157:OHX:N6	2.66	0.44
51:M5:179:LYS:O	36:5:287:G:H5'	124.27	0.44
40:L3:60:LEU:HD23	40:L3:67:PHE:O	2.33	0.44
42:L5:281:GLU:O	42:L5:284:ALA:HB3	2.59	0.44
1:2:1266:U:H2'	1:2:1267:G:C8	2.52	0.44
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.23	0.44
36:1:1501:U:H6	36:1:1501:U:O5'	2.00	0.44
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.02	0.44
36:1:2554:A:C8	36:1:2554:A:H5'	2.52	0.44
1:2:545:A:N3	1:2:546:U:H1'	2.33	0.44
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.17	0.44
37:3:61:G:H2'	37:3:62:U:H6	1.82	0.44
35:SM:46:LYS:O	36:1:1018:G:H5''	2.17	0.44
87:1:3957:OHX:N4	87:1:4042:OHX:N5	2.66	0.44
49:M3:168:ARG:NH2	36:5:769:G:O2'	146.09	0.44
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.94	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.02	0.44
67:O1:19:ARG:NH1	36:5:3324:C:OP1	173.72	0.44
5:S3:175:VAL:CG1	5:S3:182:LEU:HB2	2.43	0.44
1:6:896:U:H2'	1:6:897:C:C6	2.53	0.44
10:S8:169:ILE:HD12	10:S8:179:CYS:SG	2.57	0.44
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.83	0.44
3:S1:121:ILE:HG23	3:S1:161:ILE:HG23	2.89	0.44
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	5.81	0.44
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.31	0.44
87:2:2094:OHX:N6	13:C1:19:ILE:HD13	2.33	0.44
1:2:788:A:H2'	6:S4:19:LEU:HD22	1.99	0.44
1:2:1657:U:N3	87:2:2087:OHX:N4	2.64	0.44
21:C9:57:ARG:O	21:C9:61:VAL:HG23	2.78	0.44
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.82	0.44
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.83	0.44
1:2:189:C:H2'	1:2:190:C:H5'	1.98	0.44
36:5:3278:C:O2'	36:5:3279:A:OP2	2.33	0.44
36:5:3242:G:H21	36:5:3245:A:H5''	1.83	0.44
1:2:1281:G:H2'	1:2:1282:U:H6	1.82	0.44
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.53	0.44
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	4.72	0.44
36:1:2435:G:N7	36:1:2593:A:H2'	2.33	0.44
1:2:246:G:N3	13:C1:40:LEU:HD13	2.32	0.44
36:1:1246:G:H2'	36:1:1247:U:O4'	2.18	0.44
41:L4:191:LYS:HB2	41:L4:191:LYS:HE3	1.76	0.44
1:2:1579:U:H2'	1:2:1580:C:H6	1.82	0.44
36:1:2209:U:O2'	36:1:2210:G:OP1	2.29	0.44
7:S5:26:ALA:N	18:C6:27:GLY:O	2.96	0.44
2:S0:117:GLU:HB3	4:S2:40:LYS:HE3	4.87	0.44
87:1:3966:OHX:N2	87:1:4145:OHX:N6	2.66	0.44
36:5:1192:C:C5	87:5:4092:OHX:N6	2.85	0.44
36:5:199:A:C4	36:5:201:A:C8	3.05	0.44
87:1:4060:OHX:N6	87:1:4168:OHX:N5	2.65	0.44
36:5:1253:U:O2	36:5:1263:A:H5'	2.17	0.44
1:2:545:A:H4'	1:2:546:U:OP1	2.16	0.44
36:1:2416:U:H2'	36:1:2417:U:C6	2.52	0.44
1:2:106:U:H2'	1:2:107:C:O4'	2.17	0.44
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.26	0.44
75:O9:17:LYS:HG3	75:O9:18:LYS:N	4.12	0.44
1:2:1026:A:H4'	1:2:1028:C:C4	2.53	0.44
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2163:C:H4'	39:L2:7:ASN:O	2.17	0.44
5:S3:207:THR:HB	19:C7:40:THR:OG1	2.17	0.44
38:8:92:A:H2'	38:8:93:U:O4'	2.17	0.44
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.19	0.44
40:L3:87:VAL:HB	40:L3:110:LEU:HD11	1.98	0.44
1:2:1509:C:H2'	1:2:1510:U:O4'	2.18	0.44
11:S9:138:LYS:O	11:S9:138:LYS:NZ	2.34	0.44
70:O4:16:ARG:HH11	70:O4:16:ARG:HG3	4.59	0.44
68:O2:32:TRP:CZ2	68:O2:52:GLN:HG2	3.61	0.44
1:2:366:A:OP1	1:2:758:U:O2'	2.27	0.44
25:D3:37:ALA:O	25:D3:41:SER:HB3	2.98	0.44
69:O3:103:TYR:HA	69:O3:104:PRO:C	2.38	0.44
70:O4:44:CYS:N	70:O4:49:SER:O	2.78	0.44
43:L6:80:ASN:HB2	36:5:3272:C:O2	247.97	0.44
87:2:2088:OHX:N5	87:2:2129:OHX:N6	2.65	0.44
36:1:3215:A:H5'	50:M4:121:MET:HE1	1.99	0.44
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.41	0.44
36:1:317:A:C2	36:1:318:A:C4	3.05	0.44
10:S8:10:LYS:HG2	13:C1:133:LYS:CE	3.16	0.44
42:L5:209:GLU:OE1	42:L5:233:ALA:HB3	2.18	0.44
1:2:720:G:H2'	1:2:720:G:N3	2.32	0.44
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	3.26	0.44
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.57	0.44
11:S9:150:LEU:HB3	11:S9:151:ASP:OD1	2.17	0.44
49:M3:61:PRO:HD3	49:M3:70:ARG:NH2	2.56	0.44
1:6:813:U:H2'	1:6:813:U:O2	2.17	0.44
36:1:2897:A:H2'	36:1:2899:C:C5'	2.47	0.44
36:1:3298:C:C4	36:1:3299:A:C5	3.06	0.44
77:Q1:25:LYS:HE2	87:5:4002:OHX:N1	260.59	0.44
24:D2:105:THR:HG23	24:D2:110:ILE:HG13	3.43	0.44
1:6:1402:G:C6	1:6:1403:C:C4	3.06	0.44
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.18	0.44
36:5:1560:G:C6	36:5:1580:A:N6	2.85	0.44
27:D5:38:HIS:HA	27:D5:70:LYS:HG2	9.28	0.44
36:1:3279:A:N6	36:1:3280:U:O4	2.50	0.44
1:6:1363:U:O2'	1:6:1364:G:H5'	2.17	0.44
38:4:41:A:O2'	73:O7:59:THR:HG22	2.18	0.44
36:1:3138:U:C2'	36:1:3139:A:H5''	2.46	0.44
36:1:2395:G:H4'	40:L3:258:ALA:HB1	1.99	0.44
74:O8:70:PRO:HB2	74:O8:73:LEU:HB2	1.99	0.44
1:2:1156:C:C2'	1:2:1157:A:H5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:65:ILE:HG12	43:L6:66:SER:N	2.33	0.44
15:C3:15:ALA:H	29:D7:20:LYS:NZ	2.14	0.44
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	2.00	0.44
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	2.02	0.44
48:M1:28:ASP:HA	48:M1:31:THR:HG23	3.76	0.44
1:6:709:C:O2	1:6:730:G:N2	2.51	0.44
36:1:706:A:H4'	36:1:781:G:O2'	2.18	0.44
1:2:240:U:OP1	1:2:240:U:H4'	2.16	0.44
53:M7:57:ALA:HB2	53:M7:83:TRP:CE2	2.90	0.44
36:5:3266:G:C6	36:5:3267:A:C6	3.05	0.44
38:8:157:U:O2'	38:8:158:U:H5'	2.18	0.44
36:1:3335:A:H2'	36:1:3336:A:C8	2.52	0.44
39:L2:104:LEU:O	39:L2:139:HIS:HE1	2.00	0.44
1:6:385:A:H2'	1:6:386:G:C8	2.52	0.44
36:1:1579:C:N4	36:1:1580:A:H62	2.16	0.44
36:1:1579:C:H2'	36:1:1580:A:C8	2.53	0.44
36:1:128:G:H2'	36:1:129:U:O4'	2.17	0.44
51:M5:72:LYS:NZ	36:5:2167:A:OP1	162.51	0.44
36:5:441:U:H2'	36:5:442:G:C8	2.52	0.44
36:1:1694:U:N3	36:1:1695:U:C4	2.85	0.44
36:1:3055:U:H1'	36:1:3057:U:OP2	2.17	0.44
1:6:616:G:C2	1:6:622:A:N7	2.86	0.44
1:2:1781:A:H2'	1:2:1782:A:O4'	2.18	0.44
45:L8:49:TYR:O	36:5:2523:A:H2'	170.35	0.44
58:N2:35:LYS:O	58:N2:38:ILE:HG22	2.18	0.44
36:1:2640:A:H2'	36:1:2641:U:C6	2.52	0.44
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	1.99	0.44
36:5:2220:A:N6	36:5:2221:G:C6	2.86	0.44
36:1:532:A:H2	36:1:560:G:H22	1.63	0.44
36:1:1631:C:H5''	36:1:1632:A:H5''	1.98	0.44
42:L5:92:LEU:HA	42:L5:92:LEU:HD23	3.97	0.44
78:Q2:74:CYS:CB	78:Q2:77:CYS:SG	3.06	0.44
36:5:3181:C:H2'	36:5:3182:G:O4'	2.18	0.44
36:1:3361:G:O6	87:1:4165:OHX:N6	2.50	0.44
3:S1:130:SER:OG	3:S1:131:ASP:N	2.48	0.44
87:1:4138:OHX:N3	87:1:4196:OHX:N4	2.65	0.44
20:C8:143:ARG:O	20:C8:144:ARG:HB2	4.62	0.44
43:L6:86:ALA:H	69:O3:107:ILE:HG21	5.13	0.44
36:5:2261:G:O2'	36:5:2263:C:N4	2.51	0.44
15:C3:65:VAL:HG23	15:C3:66:ILE:N	4.51	0.44
13:C1:129:ARG:O	13:C1:131:ILE:HG13	4.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	2.28	0.44
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.38	0.44
1:2:717:C:H2'	1:2:718:U:H5''	1.99	0.44
1:6:986:G:H2'	1:6:987:G:O4'	2.18	0.44
87:5:4215:OHX:N1	87:5:4225:OHX:N3	2.66	0.44
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.99	0.44
36:1:1103:A:N6	36:1:1363:A:H1'	2.33	0.44
48:M1:9:MET:O	48:M1:11:ASP:N	3.54	0.44
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	4.99	0.44
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.53	0.44
74:O8:17:ARG:O	74:O8:18:ALA:HB3	2.53	0.44
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.38	0.44
36:5:2510:U:O2'	36:5:2511:A:H5''	2.17	0.44
70:O4:10:ARG:O	36:5:1488:G:O2'	138.97	0.44
1:6:1314:U:OP2	87:6:2187:OHX:N4	2.50	0.44
63:N7:77:TYR:O	63:N7:79:HIS:N	2.51	0.44
11:S9:28:LEU:HD11	32:E0:39:LEU:HB3	1.99	0.44
36:5:1251:A:H2'	36:5:1252:A:O4'	2.18	0.44
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	2.00	0.44
28:D6:11:ASN:HB3	1:6:934:C:C6	332.76	0.44
39:L2:181:LYS:NZ	36:5:860:G:O4'	210.20	0.44
36:5:8:C:H2'	36:5:9:U:O4'	2.17	0.44
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.63	0.44
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.67	0.44
36:5:2512:C:H5''	36:5:2512:C:H6	1.81	0.44
36:5:3216:G:H3'	36:5:3219:G:N3	2.32	0.44
36:5:2169:G:O6	87:5:3955:OHX:N5	2.51	0.44
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.32	0.44
46:L9:91:ARG:HG3	46:L9:91:ARG:HH21	1.83	0.44
1:2:810:G:C4	9:S7:111:LYS:HD2	2.52	0.44
19:C7:60:ARG:NH2	1:6:1400:A:H4'	409.48	0.44
1:6:1672:G:H2'	1:6:1673:G:C8	2.53	0.44
36:1:1162:U:H4'	68:O2:57:TYR:CD1	2.53	0.44
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.51	0.44
6:S4:230:GLU:HB2	6:S4:233:LYS:NZ	5.11	0.44
1:6:1143:A:O2'	1:6:1144:U:H5'	2.17	0.44
41:L4:162:THR:HA	41:L4:218:ALA:O	2.18	0.44
36:5:2590:A:C5	36:5:2591:A:C8	3.06	0.44
1:6:1573:A:H4'	1:6:1574:G:H5'	1.99	0.44
47:M0:152:LEU:HA	47:M0:152:LEU:HD23	1.65	0.44
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:542:A:HO2'	1:2:542:A:H8	1.63	0.44
1:2:543:C:O2	1:2:543:C:H5'	2.17	0.44
13:C1:99:ARG:HH12	25:D3:7:ARG:C	2.21	0.44
13:C1:99:ARG:NH1	25:D3:8:GLY:O	2.44	0.44
1:2:705:U:H2'	1:2:706:A:C8	2.52	0.44
4:S2:140:ARG:CZ	23:D1:1:MET:SD	3.06	0.44
41:L4:150:LEU:HD11	41:L4:172:VAL:HG13	1.98	0.44
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.53	0.44
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	6.09	0.44
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	1.99	0.44
54:M8:99:THR:HB	54:M8:100:THR:H	1.53	0.44
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.37	0.44
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.58	0.44
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	2.00	0.44
21:C9:42:GLY:CA	21:C9:84:LYS:HB2	2.48	0.44
70:O4:23:VAL:HG11	36:5:1696:A:H4'	147.27	0.44
1:2:1238:A:H2'	1:2:1239:U:O4'	2.17	0.44
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.82	0.44
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.53	0.44
1:2:1584:G:C8	18:C6:122:ARG:HD2	2.53	0.44
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.24	0.44
17:C5:18:ARG:HD2	17:C5:36:LEU:O	2.60	0.44
36:1:3173:G:N3	69:O3:96:ALA:HB2	2.33	0.44
34:SR:74:THR:O	34:SR:76:ASP:N	2.90	0.44
24:D2:67:GLY:O	24:D2:69:LEU:N	3.27	0.44
68:O2:6:HIS:C	68:O2:6:HIS:HD1	2.86	0.44
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.47	0.44
36:1:1599:G:OP1	87:1:4089:OHX:N5	2.51	0.44
36:5:191:U:H2'	36:5:192:C:H6	1.83	0.44
42:L5:68:THR:HG22	42:L5:71:GLY:N	3.11	0.44
36:5:1221:A:H3'	36:5:1222:G:H5'	2.00	0.44
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	9.53	0.44
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.83	0.44
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.62	0.44
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.47	0.44
1:6:1639:C:O2	1:6:1763:A:N1	2.51	0.44
44:L7:27:ALA:O	44:L7:31:ALA:N	2.50	0.44
36:1:1478:C:H2'	36:1:1479:U:H6	1.80	0.44
4:S2:44:LEU:HA	4:S2:44:LEU:HD23	1.88	0.44
47:M0:19:LYS:HG3	47:M0:26:VAL:CG2	4.00	0.44
48:M1:104:PHE:O	48:M1:127:PHE:HB2	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:86:VAL:O	17:C5:89:MET:HG3	2.17	0.44
34:SR:126:SER:OG	34:SR:127:ARG:N	2.51	0.44
44:L7:25:GLN:CD	44:L7:29:GLU:HB2	2.39	0.44
36:5:1270:A:C6	36:5:1271:A:C6	3.06	0.44
46:L9:180:TYR:HB2	76:Q0:85:LEU:HD13	2.00	0.44
36:1:787:G:H2'	36:1:788:C:C6	2.52	0.44
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.03	0.44
37:7:92:A:C5	37:7:93:C:H1'	2.53	0.44
3:S1:146:GLN:O	3:S1:148:ASN:N	2.46	0.44
36:1:1157:G:C2	36:1:1158:A:H1'	2.52	0.44
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.17	0.44
62:N6:91:ASN:O	62:N6:93:ALA:N	2.50	0.44
1:2:412:A:H2'	1:2:413:U:H6	1.82	0.44
47:M0:53:VAL:HG22	47:M0:134:ILE:HG12	1.99	0.44
36:1:2292:U:C4	36:1:2293:C:N4	2.86	0.44
36:1:1461:A:O2'	36:1:1462:A:H5'	2.18	0.44
8:S6:76:LEU:HD23	8:S6:76:LEU:HA	1.76	0.44
57:N1:160:ILE:HD12	57:N1:160:ILE:HA	2.04	0.44
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	1.88	0.44
44:L7:92:ILE:HA	44:L7:92:ILE:HD12	1.72	0.44
72:O6:86:LYS:HA	72:O6:86:LYS:HD3	1.80	0.44
40:L3:206:ASP:OD1	40:L3:206:ASP:N	2.51	0.44
1:2:1186:U:O4	1:2:1200:G:N2	2.48	0.44
42:L5:111:GLN:C	42:L5:113:LEU:H	2.21	0.44
51:M5:68:ARG:HD2	51:M5:128:LYS:HG3	3.41	0.44
36:1:2208:A:C6	87:1:4048:OHX:N2	2.85	0.44
1:6:768:C:H2'	1:6:769:A:O4'	2.17	0.44
11:S9:110:GLN:HE22	11:S9:126:ARG:CG	2.50	0.44
1:2:1486:G:H1'	1:2:1592:A:O2'	2.17	0.44
49:M3:168:ARG:O	49:M3:168:ARG:HG3	2.18	0.44
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	2.71	0.44
1:6:1579:U:H2'	1:6:1580:C:C6	2.53	0.44
10:S8:42:ARG:HB3	10:S8:59:ARG:HB2	2.39	0.44
10:S8:81:VAL:HG22	10:S8:102:VAL:HG12	2.12	0.44
36:5:1567:U:H2'	36:5:1568:U:H4'	1.98	0.44
1:2:819:G:O6	1:2:853:G:C6	2.71	0.44
40:L3:2:SER:HA	36:5:2940:A:N7	238.90	0.44
1:2:1533:C:P	20:C8:27:LYS:HZ2	2.40	0.44
9:S7:157:LYS:HB2	9:S7:157:LYS:HE3	4.33	0.44
27:D5:46:LYS:HE3	27:D5:46:LYS:HB2	4.28	0.44
18:C6:94:GLN:HG3	18:C6:95:LYS:N	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:27:LYS:NZ	37:7:5:G:OP2	294.43	0.44
2:S0:63:ILE:HG23	23:D1:35:ASN:O	2.18	0.44
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.18	0.44
44:L7:160:ARG:HG3	44:L7:203:TRP:CD2	3.57	0.44
21:C9:114:VAL:HG23	21:C9:123:ARG:O	2.17	0.44
1:2:1473:U:O3'	7:S5:109:LYS:HE2	2.17	0.44
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.51	0.44
1:6:1282:U:OP1	87:6:2140:OHX:N4	2.51	0.44
9:S7:33:GLU:HA	9:S7:37:GLU:OE2	2.18	0.44
47:M0:191:LYS:HG2	47:M0:198:LYS:HB2	2.00	0.44
36:1:718:G:N2	36:1:721:G:H1'	2.33	0.44
44:L7:77:VAL:HG21	57:N1:139:ARG:HD3	3.57	0.44
21:C9:25:GLN:HG2	21:C9:27:LYS:HG3	3.42	0.44
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.18	0.44
36:1:1488:G:C2	36:1:1489:A:C8	3.05	0.44
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.52	0.44
62:N6:32:SER:OG	36:5:225:C:O3'	57.38	0.44
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	2.00	0.44
48:M1:166:LYS:C	48:M1:168:ASP:H	2.71	0.44
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.68	0.44
36:1:2971:A:N3	36:1:2971:A:H3'	2.33	0.44
66:O0:77:LEU:HG	66:O0:87:VAL:HG22	1.99	0.44
45:L8:110:THR:O	45:L8:114:ALA:HB3	2.50	0.44
34:SR:106:HIS:ND1	34:SR:128:ASP:OD2	3.14	0.44
36:5:92:G:H5''	36:5:94:G:N7	2.32	0.44
55:M9:7:GLN:HG2	55:M9:7:GLN:H	3.81	0.44
36:1:2812:C:H2'	36:1:2813:A:H8	1.82	0.44
19:C7:60:ARG:HH22	1:6:1400:A:H4'	409.13	0.44
36:5:325:A:H5''	36:5:326:U:OP2	2.17	0.44
36:1:781:G:N7	87:1:3947:OHX:N5	2.65	0.44
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.80	0.44
87:5:4096:OHX:N3	87:5:4237:OHX:N4	2.66	0.44
1:2:237:C:H4'	1:2:238:U:H5'	1.99	0.44
36:5:1494:U:H4'	36:5:1495:U:O5'	2.18	0.44
26:D4:42:GLU:OE2	26:D4:52:LYS:HD2	6.19	0.44
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	2.00	0.44
22:D0:67:THR:HG21	31:D9:40:ARG:HB2	1.99	0.44
35:SM:52:PRO:C	35:SM:54:PRO:HD3	4.54	0.44
36:1:2223:A:C6	36:1:2224:A:C6	3.06	0.44
39:L2:8:GLN:HA	36:5:2163:C:H4'	183.98	0.44
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:602:U:H2'	1:6:603:U:C6	2.52	0.44
36:1:1691:U:H2'	36:1:1692:U:C6	2.53	0.44
45:L8:137:ASN:OD1	51:M5:3:ALA:N	2.42	0.44
45:L8:150:LEU:HD23	45:L8:176:PRO:O	2.18	0.44
39:L2:59:ALA:HB3	39:L2:76:PHE:HB2	2.69	0.44
79:Q3:86:LEU:O	79:Q3:90:VAL:HG13	6.36	0.44
36:5:2985:C:H2'	36:5:2986:U:C6	2.52	0.44
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.75	0.44
36:5:2256:A:OP2	36:5:2256:A:H2'	2.17	0.44
44:L7:93:ASN:OD1	44:L7:93:ASN:N	2.51	0.44
71:O5:73:LYS:HA	71:O5:73:LYS:HD2	5.26	0.44
64:N8:10:LYS:HE2	36:5:1374:G:O6	163.72	0.44
1:2:767:U:C5	11:S9:142:ASN:OD1	2.68	0.44
11:S9:143:ILE:HA	11:S9:144:PRO:HD3	1.79	0.44
17:C5:130:ARG:NH2	35:SM:70:ASN:HB3	2.32	0.44
36:5:3287:U:N3	36:5:3288:G:C8	2.86	0.44
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	3.76	0.44
14:C2:44:GLY:O	14:C2:48:SER:N	2.50	0.44
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	2.00	0.44
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	2.00	0.44
1:6:895:G:H2'	1:6:896:U:C6	2.52	0.44
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.51	0.44
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.51	0.44
59:N3:120:LYS:HB3	59:N3:137:VAL:HG23	2.00	0.44
56:N0:71:LYS:HG2	56:N0:73:LYS:HD3	5.61	0.44
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	2.00	0.44
3:S1:113:MET:HE3	3:S1:209:ASN:HD22	6.30	0.44
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	2.20	0.44
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	1.99	0.44
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.30	0.44
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.03	0.44
51:M5:113:LEU:HA	51:M5:113:LEU:HD12	1.76	0.44
1:2:647:G:H22	1:2:687:G:N2	2.15	0.44
67:O1:79:ARG:HA	67:O1:89:LEU:HD12	2.00	0.44
36:5:3174:A:N6	36:5:3278:C:N3	2.65	0.44
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.18	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:HD2	2.00	0.44
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.18	0.44
87:5:4094:OHX:N4	87:7:220:OHX:N1	2.66	0.44
87:5:4094:OHX:N6	87:7:220:OHX:N3	2.66	0.44
38:8:39:G:N3	38:8:105:A:C2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:286:GLY:O	40:L3:320:ASP:HB3	2.18	0.44
42:L5:38:THR:O	42:L5:48:LYS:HE3	4.68	0.44
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.33	0.44
73:O7:3:LYS:HB3	36:5:2138:A:C4	170.46	0.44
32:E0:44:PHE:HD2	32:E0:54:ARG:HH22	8.51	0.44
75:O9:23:LEU:HD23	75:O9:24:PRO:HD2	3.43	0.44
1:2:330:G:C6	1:2:331:A:C6	3.06	0.44
48:M1:13:LYS:HG3	48:M1:132:ASN:O	2.18	0.44
41:L4:219:LEU:HD13	41:L4:225:VAL:HG11	2.00	0.44
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	2.86	0.44
7:S5:29:ILE:HG22	7:S5:34:GLN:HG3	2.00	0.44
13:C1:46:LYS:HE2	1:6:846:G:H21	310.05	0.44
1:2:730:G:O6	87:2:2154:OHX:N4	2.51	0.44
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.39	0.44
43:L6:73:GLY:O	36:5:3267:A:O2'	257.47	0.44
44:L7:224:ILE:HD13	56:N0:39:SER:HB2	2.00	0.44
36:5:2734:A:OP1	87:5:4047:OHX:N6	2.51	0.44
36:5:3011:A:N3	36:5:3012:A:H1'	2.32	0.44
6:S4:136:VAL:HG13	6:S4:149:TYR:CE1	2.53	0.44
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.53	0.44
36:1:1680:G:C4	36:1:1681:U:C5	3.06	0.44
52:M6:96:LYS:O	52:M6:100:GLU:HG3	2.16	0.44
58:N2:29:ASP:OD1	58:N2:31:ALA:HB3	2.17	0.44
36:1:1347:U:OP1	41:L4:303:GLY:N	2.46	0.44
1:2:699:U:H2'	1:2:700:C:C6	2.52	0.44
36:1:2558:U:O2'	36:1:2559:U:H5'	2.18	0.44
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	3.10	0.44
36:5:707:U:H1'	36:5:754:G:O2'	2.17	0.44
36:5:2409:G:H4'	36:5:2410:U:OP2	2.18	0.44
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	2.02	0.44
21:C9:70:GLN:HG3	21:C9:120:GLY:O	2.88	0.44
7:S5:200:ASN:OD1	7:S5:207:THR:OG1	4.38	0.44
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.76	0.44
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.82	0.43
11:S9:134:ILE:N	11:S9:134:ILE:HD12	4.34	0.43
37:3:18:C:H2'	37:3:19:C:C6	2.51	0.43
61:N5:57:LEU:HG	61:N5:62:VAL:HG22	2.00	0.43
38:8:15:G:C6	38:8:16:G:N1	2.86	0.43
1:6:484:C:H42	1:6:503:G:H22	1.65	0.43
21:C9:105:LEU:HD13	21:C9:122:ARG:NE	2.33	0.43
18:C6:114:ARG:H	18:C6:116:LEU:HD22	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:3:218:OHX:N2	87:3:223:OHX:N5	2.66	0.43
1:2:896:U:C4'	16:C4:38:THR:HG21	2.48	0.43
1:6:105:A:H2'	1:6:106:U:O4'	2.18	0.43
40:L3:4:ARG:HG2	40:L3:4:ARG:HH11	1.81	0.43
20:C8:30:TYR:OH	20:C8:40:ARG:NH1	3.70	0.43
2:S0:184:LEU:O	2:S0:186:GLY:N	2.70	0.43
13:C1:131:ILE:HB	13:C1:135:VAL:HG12	3.10	0.43
3:S1:143:THR:HB	3:S1:205:PHE:CE1	2.53	0.43
39:L2:204:MET:HE2	39:L2:204:MET:HB2	3.58	0.43
63:N7:4:PHE:CD1	63:N7:4:PHE:O	4.37	0.43
59:N3:48:ARG:NH2	36:5:3043:C:P	251.40	0.43
36:5:2439:A:H62	36:5:2508:U:H3	1.65	0.43
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.18	0.43
1:2:1536:G:H5'	1:2:1537:C:OP2	2.18	0.43
67:O1:10:ARG:HH12	67:O1:44:MET:HG2	4.83	0.43
26:D4:124:ARG:O	26:D4:127:LYS:HB3	4.67	0.43
61:N5:33:ARG:HD3	36:5:1580:A:H61	152.47	0.43
17:C5:18:ARG:HG2	20:C8:92:ILE:HA	2.39	0.43
2:S0:124:THR:O	2:S0:146:LEU:HB2	2.74	0.43
36:5:2948:C:O2'	36:5:2949:U:H5'	2.18	0.43
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.16	0.43
1:6:1045:C:C2	1:6:1074:G:C2	3.06	0.43
42:L5:48:LYS:NZ	36:5:2749:G:P	242.42	0.43
5:S3:45:LYS:HB2	5:S3:45:LYS:HE2	1.73	0.43
77:Q1:16:LYS:NZ	1:6:1750:A:OP1	287.12	0.43
36:1:3139:A:H8	36:1:3139:A:C5'	2.31	0.43
12:C0:10:LYS:HZ1	12:C0:36:ASP:HB3	3.93	0.43
37:3:106:U:H2'	37:3:107:C:C6	2.53	0.43
45:L8:155:ASN:OD1	45:L8:181:LYS:HA	2.18	0.43
19:C7:71:PHE:C	19:C7:73:LEU:H	2.22	0.43
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.55	0.43
49:M3:171:ARG:HB3	49:M3:171:ARG:HE	4.36	0.43
2:S0:48:ILE:HG21	2:S0:161:PRO:HB2	2.28	0.43
36:1:2383:C:C2'	36:1:2384:A:H5'	2.47	0.43
25:D3:59:ILE:HG12	32:E0:4:VAL:HG22	4.60	0.43
17:C5:100:LYS:HG3	17:C5:101:ALA:N	3.56	0.43
36:5:1840:U:OP2	87:5:4040:OHX:N4	2.51	0.43
36:5:614:C:H2'	36:5:615:U:C6	2.53	0.43
72:O6:81:THR:O	72:O6:84:LYS:HB2	2.18	0.43
36:1:1826:C:H2'	36:1:1827:C:C6	2.53	0.43
38:8:2:A:H3'	38:8:3:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1138:A:H2'	1:6:1139:A:C8	2.53	0.43
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.17	0.43
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.53	0.43
36:1:2265:C:C4	36:1:2266:U:C4	3.06	0.43
36:5:2513:U:C2'	36:5:2592:G:H1	2.31	0.43
1:6:624:G:H2'	1:6:625:C:H6	1.83	0.43
6:S4:33:ALA:O	1:6:121:U:H1'	350.81	0.43
7:S5:20:PHE:O	7:S5:21:THR:OG1	2.33	0.43
36:1:2630:C:H3'	57:N1:4:SER:OG	2.18	0.43
42:L5:191:ASP:OD1	42:L5:193:GLU:HB2	4.06	0.43
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	1.99	0.43
44:L7:24:GLU:O	44:L7:26:VAL:N	2.40	0.43
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.14	0.43
56:N0:157:GLN:H	56:N0:157:GLN:HG2	2.14	0.43
36:1:2887:A:N3	36:1:2887:A:H2'	2.33	0.43
43:L6:165:LEU:HD23	43:L6:165:LEU:HA	1.74	0.43
36:5:83:U:OP2	87:5:4208:OHX:N4	2.50	0.43
36:5:959:C:OP2	36:5:960:U:H5	2.00	0.43
34:SR:276:PRO:HB2	34:SR:278:PHE:CE1	4.17	0.43
68:O2:111:ARG:NH2	68:O2:115:LEU:HD21	2.33	0.43
42:L5:208:MET:HG2	42:L5:223:PHE:CE2	2.80	0.43
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.57	0.43
3:S1:176:VAL:C	3:S1:178:GLY:H	2.21	0.43
35:SM:48:ARG:HA	36:5:1019:G:OP1	333.99	0.43
1:2:1489:U:OP2	5:S3:9:ARG:NH2	2.51	0.43
54:M8:57:ILE:HG12	54:M8:147:ARG:HD2	2.01	0.43
4:S2:228:ASN:ND2	23:D1:1:MET:HB3	2.33	0.43
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.18	0.43
71:O5:92:LEU:HD13	71:O5:96:GLU:O	2.19	0.43
10:S8:8:ARG:NH2	10:S8:21:PHE:H	2.16	0.43
36:5:856:G:OP1	36:5:1722:U:O2'	2.23	0.43
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.18	0.43
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.18	0.43
1:6:833:U:O4	87:6:2104:OHX:N5	2.50	0.43
56:N0:155:ARG:O	56:N0:170:THR:HG22	2.18	0.43
38:8:67:U:H2'	38:8:68:G:C8	2.52	0.43
55:M9:173:ARG:NH2	55:M9:177:VAL:HG21	9.36	0.43
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.27	0.43
87:5:4024:OHX:N2	87:5:4218:OHX:N5	2.65	0.43
67:O1:80:ASN:N	67:O1:88:PRO:O	2.48	0.43
63:N7:82:PRO:HG2	66:O0:59:TYR:CE2	3.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.44	0.43
12:C0:14:TYR:OH	12:C0:34:GLU:OE1	2.97	0.43
4:S2:141:ARG:H	4:S2:141:ARG:HG2	1.63	0.43
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.83	0.43
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.76	0.43
33:E1:106:TYR:HE2	33:E1:116:LYS:HG2	2.08	0.43
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	2.00	0.43
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.18	0.43
70:O4:20:ILE:HD13	70:O4:20:ILE:HA	1.68	0.43
1:2:25:C:OP2	1:2:26:A:H2'	2.18	0.43
36:1:780:A:O4'	54:M8:162:ALA:HB2	2.18	0.43
36:5:715:A:H4'	36:5:716:A:OP1	2.18	0.43
36:1:1094:U:H3'	36:1:1094:U:H6	1.82	0.43
36:5:2971:A:H5''	36:5:2972:G:O5'	2.17	0.43
68:O2:5:PRO:CD	68:O2:6:HIS:H	4.97	0.43
1:2:57:G:OP2	26:D4:116:LYS:HE3	2.18	0.43
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.67	0.43
36:1:945:C:OP1	68:O2:33:ARG:HG3	2.18	0.43
49:M3:116:LEU:HD23	49:M3:116:LEU:HA	2.54	0.43
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	2.00	0.43
36:1:3228:C:H4'	36:1:3229:G:O5'	2.17	0.43
3:S1:170:GLU:O	3:S1:174:LYS:HG3	2.18	0.43
56:N0:40:ARG:HD2	56:N0:40:ARG:HA	1.66	0.43
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	2.25	0.43
36:5:3045:G:H2'	36:5:3046:A:O4'	2.18	0.43
56:N0:10:ILE:HG12	56:N0:26:ARG:HB2	2.42	0.43
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.00	0.43
36:1:3192:U:H2'	36:1:3193:C:C6	2.53	0.43
36:1:629:U:H2'	36:1:630:A:C8	2.52	0.43
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.82	0.43
8:S6:193:LEU:HA	8:S6:193:LEU:HD23	1.81	0.43
1:6:412:A:O5'	1:6:412:A:H8	2.00	0.43
6:S4:155:LYS:HB3	6:S4:155:LYS:HE2	1.76	0.43
36:5:2689:A:C8	36:5:2702:A:C6	3.06	0.43
36:1:2775:U:H2'	36:1:2776:C:C6	2.53	0.43
36:1:2777:G:C2	64:N8:60:TYR:CE2	3.06	0.43
44:L7:65:ALA:HB1	44:L7:76:TYR:CD1	2.63	0.43
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.33	0.43
36:5:2836:C:H2'	36:5:2837:A:O4'	2.18	0.43
68:O2:122:PRO:O	68:O2:123:LYS:CB	2.66	0.43
38:4:78:G:H2'	38:4:79:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	2.00	0.43
36:1:357:A:O4'	41:L4:81:GLY:HA3	2.19	0.43
1:2:1250:U:O2'	1:2:1251:U:OP1	2.30	0.43
28:D6:30:ILE:HG23	28:D6:35:ALA:HB2	4.20	0.43
1:2:1339:C:O2'	1:2:1341:A:C8	2.66	0.43
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	3.54	0.43
1:2:279:G:N7	1:2:281:G:C8	2.86	0.43
87:1:3964:OHX:N4	44:L7:217:PRO:HA	2.33	0.43
36:5:978:G:N2	36:5:1104:G:C4	2.86	0.43
20:C8:31:ALA:CB	20:C8:58:ALA:HB2	2.60	0.43
36:1:371:G:H4'	36:1:396:A:N1	2.33	0.43
36:1:2585:G:C6	61:N5:24:LEU:HD13	2.53	0.43
36:5:1710:C:H2'	36:5:1711:C:H6	1.83	0.43
37:3:3:U:H2'	37:3:4:U:H6	1.83	0.43
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.99	0.43
36:1:3355:U:H3'	36:1:3356:G:H5''	2.01	0.43
6:S4:187:ARG:NH2	1:6:753:A:N7	374.14	0.43
56:N0:12:ARG:O	56:N0:13:ARG:C	2.55	0.43
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.28	0.43
63:N7:13:VAL:HB	63:N7:18:TYR:O	2.18	0.43
36:1:718:G:H3'	36:1:719:U:C5'	2.48	0.43
1:6:1227:A:O2'	1:6:1228:G:OP2	2.28	0.43
8:S6:13:GLN:HE22	1:6:151:G:H21	311.86	0.43
13:C1:29:LYS:O	13:C1:31:THR:N	2.50	0.43
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.41	0.43
16:C4:91:THR:C	16:C4:93:THR:H	2.36	0.43
10:S8:152:ILE:HB	10:S8:153:GLU:H	1.62	0.43
1:2:301:A:H2'	1:2:302:U:O4'	2.18	0.43
47:M0:74:LYS:HD3	47:M0:74:LYS:HA	2.55	0.43
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.54	0.43
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.52	0.43
7:S5:24:VAL:C	7:S5:25:LEU:HD13	2.71	0.43
34:SR:107:LYS:HB2	34:SR:128:ASP:CB	3.11	0.43
36:5:79:U:H2'	36:5:80:G:C8	2.54	0.43
1:2:155:U:H4'	8:S6:59:GLN:H	1.83	0.43
36:1:2314:U:H6	36:1:2314:U:H2'	1.30	0.43
65:N9:56:ALA:C	65:N9:58:LYS:H	2.81	0.43
36:5:1240:A:H2'	36:5:1241:U:H5'	1.99	0.43
36:5:2158:A:O4'	36:5:2160:G:C8	2.71	0.43
36:5:2694:A:N6	36:5:2695:A:N6	2.67	0.43
36:5:2582:C:H2'	36:5:2583:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	2.00	0.43
36:1:1347:U:H4'	41:L4:305:ALA:HB2	2.00	0.43
36:1:2883:U:H2'	36:1:2884:C:C6	2.53	0.43
1:6:964:U:H4'	1:6:965:U:O4'	2.18	0.43
36:1:1016:C:O2'	36:1:1028:U:H5'	2.17	0.43
36:5:423:A:H2'	36:5:424:G:O4'	2.18	0.43
36:1:1586:G:OP1	87:1:3949:OHX:N5	2.51	0.43
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.18	0.43
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.18	0.43
36:1:959:C:H5'	36:1:960:U:O5'	2.18	0.43
36:1:782:U:H2'	36:1:783:A:O4'	2.18	0.43
59:N3:18:PRO:HA	59:N3:51:ALA:HA	2.01	0.43
42:L5:177:GLU:H	42:L5:177:GLU:HG3	1.66	0.43
63:N7:72:ILE:HD13	63:N7:111:LYS:HG3	2.81	0.43
1:6:817:A:H2'	1:6:818:C:O4'	2.18	0.43
36:5:570:A:H2'	36:5:571:U:O4'	2.18	0.43
36:5:1121:U:C4	36:5:1122:U:C4	3.06	0.43
1:2:1089:U:O2'	1:2:1090:C:H5'	2.18	0.43
41:L4:346:LYS:HA	41:L4:346:LYS:HD2	4.44	0.43
74:O8:33:LYS:HD3	74:O8:33:LYS:HA	1.78	0.43
36:5:771:A:H2'	36:5:772:U:O4'	2.18	0.43
47:M0:76:MET:CE	47:M0:138:VAL:HG11	2.48	0.43
51:M5:128:LYS:NZ	36:5:291:C:OP2	141.02	0.43
1:2:516:G:N2	1:2:536:C:O2	2.48	0.43
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.70	0.43
17:C5:129:GLY:O	17:C5:130:ARG:HB2	2.50	0.43
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.83	0.43
1:2:1235:C:O2	33:E1:138:ARG:NE	2.51	0.43
21:C9:33:TYR:O	21:C9:36:ILE:HG12	2.18	0.43
36:1:3163:A:H2'	36:1:3164:C:H5'	2.00	0.43
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.54	0.43
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.71	0.43
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	7.50	0.43
40:L3:53:MET:HE1	40:L3:327:CYS:HB3	2.19	0.43
36:1:3048:A:C5'	40:L3:53:MET:HE3	2.48	0.43
46:L9:103:ILE:HG13	46:L9:136:PHE:CE2	2.52	0.43
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.82	0.43
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.43	0.43
7:S5:56:ALA:O	7:S5:57:SER:OG	2.34	0.43
11:S9:149:ARG:NH1	1:6:765:G:C6	428.22	0.43
28:D6:85:ARG:HD3	28:D6:85:ARG:HA	1.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	1.83	0.43
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.29	0.43
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	2.56	0.43
36:1:1334:U:H5''	44:L7:206:LYS:HB3	2.01	0.43
48:M1:150:ASN:C	48:M1:152:HIS:H	2.21	0.43
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.53	0.43
36:1:1507:G:N7	53:M7:129:THR:HG22	2.33	0.43
45:L8:190:VAL:HG13	45:L8:192:GLN:HG2	2.01	0.43
37:3:113:C:H2'	37:3:114:U:O4'	2.19	0.43
1:6:152:U:O2	1:6:163:G:N2	2.51	0.43
8:S6:48:TYR:OH	8:S6:119:GLN:O	2.28	0.43
36:1:2652:U:C5	36:1:2653:C:C5	3.06	0.43
7:S5:222:LYS:HG3	7:S5:225:ARG:NH1	2.33	0.43
1:2:1543:A:H1'	1:2:1569:A:C2	2.53	0.43
6:S4:42:LEU:O	6:S4:84:ALA:HB3	2.19	0.43
7:S5:112:ARG:HD3	27:D5:95:HIS:CE1	2.53	0.43
7:S5:116:HIS:NE2	27:D5:95:HIS:HE1	2.16	0.43
46:L9:4:ILE:CD1	56:N0:148:LEU:HD11	2.48	0.43
17:C5:49:MET:O	17:C5:51:SER:N	3.83	0.43
32:E0:53:LYS:O	32:E0:54:ARG:HB3	2.57	0.43
36:5:1236:G:H3'	36:5:1237:G:C5'	2.47	0.43
75:O9:23:LEU:HD13	75:O9:24:PRO:N	2.33	0.43
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.67	0.43
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.24	0.43
47:M0:156:ARG:HD3	47:M0:156:ARG:HH11	1.69	0.43
57:N1:105:PHE:O	57:N1:108:ARG:N	2.51	0.43
38:4:122:U:H2'	38:4:123:G:H8	1.83	0.43
58:N2:20:SER:O	58:N2:24:GLU:HG2	2.22	0.43
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.93	0.43
44:L7:98:LYS:HB3	44:L7:99:PRO:HD3	2.16	0.43
1:2:966:A:P	15:C3:124:ARG:HH21	2.42	0.43
34:SR:106:HIS:HD2	34:SR:110:VAL:HG22	1.82	0.43
66:O0:16:LEU:HD12	66:O0:98:SER:N	2.34	0.43
1:2:1145:U:C4	1:2:1146:G:N7	2.87	0.43
56:N0:1:MET:HE2	56:N0:1:MET:HB3	1.74	0.43
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.10	0.43
36:1:565:U:H2'	36:1:566:G:H8	1.84	0.43
36:5:2610:G:H2'	36:5:2611:U:O4'	2.19	0.43
36:5:2694:A:C6	36:5:2695:A:C6	3.06	0.43
1:6:336:G:OP2	87:6:2158:OHX:N4	2.51	0.43
40:L3:66:LYS:HE3	59:N3:124:ASP:OD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:199:A:C4	36:1:201:A:C8	3.07	0.43
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.53	0.43
51:M5:97:SER:O	51:M5:100:ALA:HB3	2.39	0.43
11:S9:7:THR:HG21	1:6:758:U:OP1	383.14	0.43
37:3:58:C:H2'	37:3:59:U:H6	1.84	0.43
36:1:140:C:O2'	36:1:141:C:H5'	2.19	0.43
34:SR:307:ASP:OD2	34:SR:311:ARG:NH1	2.45	0.43
36:5:265:A:H5''	36:5:266:A:OP2	2.18	0.43
74:O8:30:LYS:NZ	74:O8:40:GLN:HE22	4.79	0.43
30:D8:13:ILE:HD13	30:D8:31:GLU:HB2	2.01	0.43
1:6:433:C:H5''	1:6:434:G:OP2	2.18	0.43
1:2:88:U:H4'	1:2:171:A:O4'	2.18	0.43
1:2:1406:A:OP2	7:S5:80:LYS:HE2	2.19	0.43
23:D1:18:SER:OG	23:D1:54:ALA:N	2.50	0.43
87:1:4066:OHX:N3	87:1:4179:OHX:N1	2.66	0.43
36:5:3236:U:H1'	36:5:3252:G:N2	2.33	0.43
1:2:1091:A:N3	1:2:1091:A:H5''	2.34	0.43
62:N6:76:LEU:O	62:N6:76:LEU:HD22	2.53	0.43
50:M4:42:LYS:HE2	50:M4:42:LYS:HB3	3.72	0.43
1:2:276:C:O2'	1:2:277:U:H5''	2.19	0.43
44:L7:58:ALA:O	44:L7:61:ASN:HB2	2.67	0.43
36:5:690:A:H4'	36:5:691:A:OP1	2.19	0.43
49:M3:129:ASN:OD1	49:M3:130:GLY:N	4.79	0.43
36:1:1015:U:HO2'	36:1:1017:C:P	2.41	0.43
36:1:1018:G:H2'	36:1:1019:G:O4'	2.19	0.43
78:Q2:35:LEU:HA	78:Q2:40:LYS:HG2	1.99	0.43
70:O4:29:ILE:HD13	87:5:4138:OHX:N5	134.17	0.43
21:C9:52:GLY:HA2	21:C9:55:TYR:HD2	1.83	0.43
41:L4:141:ARG:HA	41:L4:141:ARG:HD3	2.26	0.43
7:S5:90:ILE:HA	7:S5:90:ILE:HD13	1.94	0.43
26:D4:29:HIS:NE2	26:D4:34:ASN:HA	2.33	0.43
26:D4:34:ASN:O	26:D4:35:VAL:HB	4.37	0.43
66:O0:63:SER:OG	66:O0:65:THR:OG1	2.09	0.43
1:6:1258:U:H5	1:6:1259:U:C2	2.36	0.43
7:S5:103:ASN:HA	7:S5:106:LYS:HD2	2.00	0.43
9:S7:9:LEU:HB3	9:S7:10:SER:H	3.08	0.43
1:2:647:G:N2	1:2:687:G:N2	2.66	0.43
47:M0:197:VAL:HG13	47:M0:198:LYS:N	3.10	0.43
36:1:119:U:C2	45:L8:138:HIS:CE1	3.06	0.43
22:D0:83:GLU:OE1	22:D0:85:ARG:NE	2.51	0.43
36:1:839:C:H4'	36:1:1724:U:H2'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:125:LYS:HE3	6:S4:157:ASN:HA	1.99	0.43
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	3.72	0.43
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.85	0.43
45:L8:161:GLU:C	45:L8:163:VAL:H	2.22	0.43
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.53	0.43
19:C7:106:THR:O	19:C7:109:LEU:HB3	2.19	0.43
36:1:413:U:H5''	53:M7:34:GLN:OE1	2.18	0.43
47:M0:48:LEU:HD23	47:M0:178:ARG:HH12	1.83	0.43
68:O2:6:HIS:ND1	68:O2:6:HIS:C	3.10	0.43
40:L3:50:LYS:HG2	40:L3:332:ARG:HA	2.07	0.43
1:2:73:U:H1'	1:2:74:U:H5'	2.00	0.43
1:2:75:U:H3'	1:2:75:U:O2	2.19	0.43
36:5:3155:U:H3'	36:5:3156:U:H5''	2.00	0.43
53:M7:4:TYR:CE1	53:M7:16:SER:HB2	2.73	0.43
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.54	0.43
87:1:4089:OHX:N6	87:1:4159:OHX:N3	2.67	0.43
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.60	0.43
1:2:1788:G:N7	16:C4:132:ARG:NE	2.66	0.43
25:D3:107:PHE:CD1	25:D3:114:LYS:HD3	4.46	0.43
36:1:795:G:O2'	36:1:796:U:H5'	2.18	0.43
42:L5:21:ARG:HA	42:L5:24:ARG:NH2	2.33	0.43
5:S3:157:LEU:CD2	5:S3:187:LYS:HD3	2.48	0.43
18:C6:12:LYS:HG2	18:C6:17:THR:HA	2.00	0.43
36:5:651:G:C6	36:5:652:G:C6	3.06	0.43
1:2:1184:A:O2'	1:2:1209:C:O2'	2.29	0.43
5:S3:215:GLU:N	5:S3:215:GLU:OE2	2.49	0.43
36:1:138:U:H2'	36:1:139:G:C8	2.54	0.43
36:1:3011:A:C5	40:L3:13:HIS:CD2	3.06	0.43
8:S6:219:ARG:O	8:S6:223:LYS:HB2	2.18	0.43
36:5:3306:U:O5'	36:5:3306:U:H6	2.02	0.43
1:6:1395:G:O6	87:6:2092:OHX:N3	2.51	0.43
6:S4:250:GLU:O	6:S4:254:ARG:HG2	4.12	0.43
34:SR:132:LYS:HD3	34:SR:140:CYS:SG	2.59	0.43
36:1:1522:U:H4'	36:1:1523:U:OP2	2.19	0.43
52:M6:11:GLY:O	52:M6:14:HIS:ND1	2.48	0.43
1:2:1485:C:OP1	87:2:2098:OHX:N6	2.51	0.43
1:2:1458:G:N3	1:2:1458:G:H2'	2.32	0.43
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	4.08	0.43
1:6:1275:A:H8	1:6:1275:A:OP2	2.02	0.43
36:1:3217:C:H2'	36:1:3217:C:O2	2.18	0.43
3:S1:211:HIS:CD2	3:S1:211:HIS:N	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:11:ILE:HG13	15:C3:11:ILE:O	2.19	0.43
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.99	0.43
36:1:1403:C:H5'	68:O2:67:SER:HB3	2.00	0.43
39:L2:9:ARG:C	39:L2:11:GLY:H	2.22	0.43
36:1:2692:A:H8	36:1:2692:A:O5'	2.02	0.43
36:5:618:C:H2'	36:5:619:A:C8	2.53	0.43
42:L5:109:THR:O	42:L5:112:LYS:HG3	2.18	0.43
11:S9:108:ARG:HB3	11:S9:144:PRO:O	2.45	0.43
42:L5:282:ARG:O	42:L5:285:ARG:HB2	2.78	0.43
36:1:2534:G:O6	87:1:4002:OHX:N6	2.51	0.43
33:E1:149:LYS:NZ	1:6:1235:C:O2'	433.20	0.43
9:S7:117:THR:HG23	1:6:639:U:OP1	364.39	0.43
36:5:3288:G:C4	36:5:3289:G:C8	3.07	0.43
1:2:735:C:OP2	1:2:735:C:H2'	2.18	0.43
38:4:81:U:O2	38:4:82:U:H3'	2.19	0.43
2:S0:186:GLY:O	2:S0:188:LEU:N	2.44	0.43
1:6:119:A:H1'	1:6:397:A:C4	2.54	0.43
1:2:1570:A:H2'	1:2:1571:C:O4'	2.19	0.43
6:S4:126:VAL:CG2	6:S4:156:VAL:HA	2.57	0.43
66:O0:100:ILE:O	66:O0:105:ALA:HB3	2.18	0.43
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.53	0.43
8:S6:124:LEU:HB3	8:S6:125:THR:H	2.09	0.43
1:2:539:G:C8	1:2:539:G:OP2	2.67	0.43
46:L9:163:GLN:HB3	46:L9:166:ARG:HH11	1.82	0.43
36:1:1094:U:H4'	36:1:1095:U:OP1	2.17	0.43
36:5:595:G:C8	36:5:609:G:C5	3.06	0.43
36:1:1353:U:O2'	43:L6:8:LYS:O	2.35	0.43
36:5:2573:G:O6	87:5:4196:OHX:N6	2.51	0.43
87:1:4089:OHX:N5	87:1:4159:OHX:N1	2.67	0.43
36:1:190:U:H2'	62:N6:60:ARG:NH2	2.33	0.43
36:5:1220:U:OP1	36:5:1221:A:O2'	2.24	0.43
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	3.01	0.43
36:1:846:A:H2'	36:1:847:A:O4'	2.17	0.43
15:C3:130:ARG:HD3	15:C3:137:PRO:O	4.97	0.43
42:L5:211:LEU:HD13	42:L5:219:PHE:HA	2.81	0.43
36:1:372:A:H2'	36:1:373:A:O4'	2.18	0.43
20:C8:18:LEU:HA	20:C8:18:LEU:HD13	1.86	0.43
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.34	0.43
1:6:1488:G:O2'	1:6:1494:C:O2	2.12	0.43
39:L2:107:VAL:HB	39:L2:111:THR:HG21	2.28	0.43
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:10:A:H2'	38:4:11:C:C6	2.53	0.43
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.43	0.43
35:SM:29:ASN:O	35:SM:31:SER:N	3.16	0.43
1:2:1330:G:N1	5:S3:204:ASP:OD1	2.50	0.43
41:L4:4:PRO:HD2	41:L4:22:LEU:HB2	3.43	0.43
36:1:1373:A:OP2	64:N8:7:LYS:NZ	2.50	0.43
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.93	0.43
36:1:2093:A:H3'	36:1:2093:A:N3	2.34	0.43
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.18	0.43
47:M0:169:LYS:HD2	47:M0:169:LYS:O	4.93	0.43
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	3.11	0.43
1:2:694:U:H3	9:S7:98:ILE:HD12	1.82	0.43
36:5:3362:A:C2	36:5:3363:U:C2	3.07	0.43
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	2.39	0.43
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.48	0.43
6:S4:95:THR:O	6:S4:97:GLU:HG3	2.89	0.43
41:L4:193:LYS:HE3	41:L4:193:LYS:HB2	1.78	0.43
36:5:23:A:O4'	38:8:40:A:H2	2.01	0.43
1:2:717:C:N3	1:2:720:G:N1	2.61	0.43
3:S1:104:ASP:OD1	3:S1:214:LYS:HD3	2.19	0.43
44:L7:159:GLN:HA	36:5:1362:G:O2'	217.83	0.43
1:6:1699:G:C2'	1:6:1700:C:H5'	2.49	0.43
54:M8:41:ASP:HB2	54:M8:42:ALA:H	4.48	0.43
36:5:2440:G:N2	36:5:2508:U:C2	2.87	0.43
2:S0:110:TYR:HE2	4:S2:64:LYS:HG2	1.83	0.43
1:2:800:U:O4	87:2:2052:OHX:N5	2.52	0.43
36:1:2794:G:H1'	36:1:2795:U:C6	2.54	0.43
56:N0:13:ARG:HG2	56:N0:51:VAL:HG11	2.01	0.43
1:2:795:U:C5	1:2:796:A:N7	2.86	0.43
36:1:2350:C:H4'	36:1:3308:C:O2'	2.19	0.43
36:1:1615:C:H2'	36:1:1616:U:C6	2.54	0.43
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.56	0.43
4:S2:139:ILE:CG2	4:S2:141:ARG:HD2	3.06	0.43
47:M0:55:ASN:O	47:M0:131:ILE:HG12	3.22	0.43
66:O0:50:VAL:HA	66:O0:53:LYS:HB3	2.01	0.43
34:SR:79:TYR:HE1	34:SR:100:TYR:HE1	2.94	0.43
64:N8:82:ILE:HD13	64:N8:102:ILE:HG12	4.40	0.43
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.19	0.43
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	2.00	0.43
68:O2:4:LEU:HD12	68:O2:4:LEU:HA	1.80	0.43
45:L8:75:ILE:HG22	45:L8:76:ALA:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1434:U:H6	1:2:1434:U:O5'	2.02	0.43
36:5:80:G:H2'	36:5:81:C:H6	1.83	0.43
36:1:2612:U:H1'	36:1:2803:A:C2	2.54	0.43
36:5:1438:U:H2'	36:5:1439:U:C6	2.54	0.43
1:6:223:U:H2'	1:6:224:C:C6	2.54	0.43
36:1:2725:U:O4	87:1:3915:OHX:N2	2.52	0.43
34:SR:267:PRO:HG2	34:SR:269:TYR:CE1	2.54	0.43
1:6:1515:A:O2'	1:6:1517:U:OP2	2.31	0.43
1:2:1623:C:H2'	1:2:1624:C:C6	2.54	0.43
40:L3:277:SER:OG	40:L3:280:HIS:NE2	3.01	0.43
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.34	0.43
36:5:926:A:H2'	36:5:927:C:C6	2.54	0.43
36:1:2115:G:O2'	55:M9:82:LYS:HE3	2.19	0.43
1:2:245:U:O4	87:2:2091:OHX:N5	2.52	0.43
66:O0:103:THR:HB	66:O0:104:LEU:H	1.95	0.43
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.34	0.43
1:6:1575:G:C2	1:6:1576:A:C4	3.07	0.43
37:7:43:U:C4	37:7:44:C:C4	3.07	0.43
54:M8:124:LEU:HD23	54:M8:124:LEU:HA	2.09	0.43
55:M9:146:LYS:O	55:M9:149:ALA:N	4.02	0.43
1:2:552:G:C6	1:2:553:G:C6	3.06	0.43
16:C4:117:ASP:OD2	16:C4:119:THR:HG23	2.96	0.43
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.52	0.43
36:1:357:A:OP2	87:O9:101:OHX:N4	2.51	0.43
1:6:766:U:H3'	1:6:768:C:OP2	2.19	0.43
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.87	0.43
9:S7:118:LEU:HB2	1:6:639:U:O2	369.63	0.43
2:S0:157:ASP:OD2	23:D1:60:ARG:HD2	2.19	0.43
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.18	0.43
21:C9:65:ILE:HG12	21:C9:71:VAL:HG13	4.37	0.43
39:L2:192:LYS:HD3	39:L2:193:ARG:HH22	1.84	0.43
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.19	0.43
25:D3:21:ASN:O	25:D3:24:TRP:HD1	2.44	0.43
87:5:4024:OHX:N6	87:5:4218:OHX:N5	2.67	0.43
71:O5:6:ALA:O	71:O5:9:LEU:N	2.52	0.43
1:2:1541:G:C5	1:2:1542:G:C6	3.07	0.43
29:D7:62:ILE:HD12	29:D7:62:ILE:HA	2.32	0.43
36:5:2437:G:C6	36:5:2511:A:C6	3.07	0.43
1:2:1769:U:O2	16:C4:136:ARG:HD2	2.19	0.43
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.65	0.43
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:174:C:H2'	36:5:175:C:O4'	2.18	0.43
36:1:929:A:H2'	36:1:930:U:H6	1.83	0.43
36:1:439:C:H5'	36:1:440:A:OP2	2.18	0.43
31:D9:6:VAL:HB	31:D9:7:TRP:H	4.18	0.43
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.52	0.43
36:5:937:G:N3	36:5:963:G:H1'	2.33	0.43
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	2.01	0.43
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.79	0.43
64:N8:24:LYS:HZ2	64:N8:24:LYS:HG2	1.41	0.43
51:M5:11:GLN:HG3	51:M5:11:GLN:O	2.18	0.43
30:D8:64:ARG:HD2	30:D8:64:ARG:HA	1.77	0.43
36:5:1944:U:H2'	36:5:1945:A:C8	2.52	0.43
36:5:1192:C:H5	87:5:4092:OHX:N4	2.17	0.43
36:5:2709:C:H2'	36:5:2710:C:H6	1.83	0.43
1:6:463:U:H2'	1:6:464:A:C8	2.54	0.43
44:L7:25:GLN:N	44:L7:28:ALA:HB3	2.34	0.43
6:S4:58:GLY:O	6:S4:61:VAL:N	2.52	0.43
42:L5:119:TYR:HE2	42:L5:139:PRO:O	2.02	0.43
13:C1:86:ILE:O	13:C1:106:ASN:HA	2.18	0.43
36:1:855:U:H2'	36:1:856:G:O4'	2.19	0.43
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.33	0.43
1:2:381:C:H1'	1:2:756:A:C2	2.54	0.43
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.19	0.43
72:O6:99:ARG:HB3	72:O6:100:HIS:H	1.51	0.43
9:S7:27:LEU:HD22	9:S7:80:GLU:HG2	2.00	0.43
6:S4:15:PRO:HD2	6:S4:18:TRP:CZ3	3.57	0.43
6:S4:23:LEU:O	6:S4:24:SER:CB	2.93	0.43
1:2:226:A:H2'	1:2:227:U:H5'	2.00	0.43
1:6:1357:A:H2'	1:6:1358:G:C8	2.53	0.43
36:1:336:A:C2	36:1:337:G:C5	3.07	0.43
1:6:1092:A:C8	1:6:1094:G:C8	3.07	0.43
1:6:108:A:H2'	1:6:109:G:C8	2.54	0.43
1:2:1244:A:HO2'	1:2:1245:G:P	2.41	0.43
36:5:1846:C:H3'	36:5:1847:A:H8	1.83	0.43
36:1:263:C:H2'	36:1:264:G:O4'	2.19	0.43
36:1:3075:G:H5''	67:O1:62:ARG:O	2.19	0.43
47:M0:92:HIS:HA	47:M0:93:PRO:HD3	2.15	0.43
1:2:1178:G:H2'	1:2:1179:G:O4'	2.18	0.43
36:1:2424:A:H8	36:1:2424:A:O5'	2.01	0.43
36:5:2553:U:H2'	36:5:2553:U:O2	2.18	0.43
45:L8:24:ASN:N	45:L8:25:PRO:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:77:GLY:O	23:D1:78:LEU:HD13	6.28	0.43
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	2.01	0.43
36:5:1015:U:O2'	36:5:1016:C:H3'	2.18	0.43
2:S0:162:CYS:HB2	2:S0:163:ASN:H	1.48	0.43
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.23	0.43
1:2:1796:C:H4'	1:2:1797:A:OP2	2.19	0.43
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.18	0.43
41:L4:174:ALA:O	41:L4:177:ASP:N	2.51	0.43
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.19	0.43
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.94	0.43
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	4.10	0.43
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.18	0.43
36:1:1845:G:C5'	36:1:1845:G:H8	2.31	0.43
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.34	0.43
1:6:1699:G:H2'	1:6:1700:C:H5'	2.00	0.43
20:C8:120:ARG:HA	20:C8:120:ARG:HD3	1.78	0.43
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.34	0.43
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.52	0.43
3:S1:110:LEU:HD21	3:S1:213:ARG:HD2	1.99	0.43
34:SR:159:ASN:ND2	34:SR:163:ASP:HA	2.30	0.43
49:M3:141:ALA:O	49:M3:145:PHE:HD2	2.02	0.43
36:5:508:U:O4	87:5:4021:OHX:N3	2.52	0.43
36:1:249:U:H1'	36:1:250:U:C2	2.54	0.43
45:L8:100:GLU:OE1	45:L8:108:ARG:HD3	2.19	0.43
36:1:2989:U:H2'	36:1:2990:G:O4'	2.18	0.43
44:L7:77:VAL:HG22	57:N1:139:ARG:CG	2.46	0.43
1:2:333:A:P	10:S8:48:THR:HB	2.59	0.43
79:Q3:8:VAL:CB	79:Q3:11:THR:HG22	2.47	0.43
6:S4:125:LYS:O	6:S4:141:THR:HA	2.43	0.43
68:O2:21:HIS:CD2	68:O2:24:ARG:HD2	2.53	0.43
42:L5:218:ARG:HA	42:L5:221:GLU:OE2	2.19	0.43
1:2:652:G:H1	1:2:682:C:N4	2.15	0.43
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.41	0.43
36:5:7:C:H2'	36:5:8:C:C6	2.54	0.43
42:L5:184:ASP:OD1	42:L5:187:THR:HG22	2.19	0.43
8:S6:154:ARG:HD3	8:S6:154:ARG:H	1.84	0.43
60:N4:9:SER:O	60:N4:53:VAL:HG23	3.03	0.43
36:5:407:A:O2'	36:5:1397:C:OP1	2.37	0.43
3:S1:128:LYS:HE3	3:S1:132:ASP:HB3	2.01	0.43
36:5:2213:A:H2'	36:5:2214:A:C8	2.53	0.43
65:N9:21:ILE:HD12	65:N9:21:ILE:HA	3.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:655:C:H2'	36:1:656:A:C8	2.54	0.43
36:1:3317:U:H1'	87:1:4029:OHX:N6	2.33	0.43
36:1:2949:U:C5	36:1:2950:G:C6	3.07	0.43
52:M6:27:LEU:HB3	52:M6:98:ALA:HB1	2.01	0.43
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.53	0.43
62:N6:101:PRO:HA	62:N6:104:LEU:HD12	2.01	0.43
54:M8:44:PHE:CD1	54:M8:139:ILE:HD11	2.54	0.43
74:O8:30:LYS:HD2	74:O8:40:GLN:NE2	2.80	0.43
1:2:755:A:HO2'	1:2:756:A:P	2.41	0.43
6:S4:23:LEU:N	6:S4:23:LEU:HD13	2.47	0.43
1:2:296:U:H2'	1:2:297:U:C6	2.53	0.43
1:6:1119:G:O6	87:6:2179:OHX:N2	2.52	0.43
44:L7:239:LEU:O	44:L7:242:SER:N	2.80	0.43
1:2:1340:U:O4'	1:2:1378:U:H5'	2.18	0.43
32:E0:31:LYS:HE3	1:6:545:A:P	417.97	0.43
36:1:1712:G:N2	36:1:1731:A:OP2	2.45	0.43
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.95	0.43
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.13	0.43
46:L9:20:ILE:HG23	46:L9:25:VAL:HA	2.01	0.43
1:6:207:U:H2'	1:6:208:U:C6	2.53	0.43
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.48	0.43
36:5:316:U:H4'	36:5:317:A:H5'	2.01	0.43
36:1:1571:A:H2'	36:1:1572:U:O4'	2.18	0.43
55:M9:135:LYS:NZ	36:5:1949:G:OP2	224.74	0.43
68:O2:121:ASN:C	68:O2:122:PRO:O	3.29	0.43
11:S9:34:PHE:CD2	11:S9:105:LEU:HD23	3.91	0.43
5:S3:162:GLN:N	5:S3:163:PRO:HD2	2.85	0.43
36:5:1542:G:N7	87:5:4095:OHX:N3	2.66	0.43
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.59	0.43
26:D4:15:ASN:HD22	26:D4:22:GLN:HE22	3.03	0.43
61:N5:40:LEU:HD13	61:N5:40:LEU:HA	2.79	0.43
36:1:3276:G:N7	53:M7:171:ARG:NH1	2.66	0.43
36:5:284:A:H4'	36:5:285:A:N3	2.34	0.43
49:M3:126:PHE:CD1	49:M3:133:PRO:HG2	2.53	0.43
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.45	0.43
38:4:151:C:C5	61:N5:24:LEU:HD11	2.54	0.43
1:2:1253:U:H5''	33:E1:130:VAL:HB	2.01	0.43
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.18	0.43
51:M5:151:ILE:HA	51:M5:151:ILE:HD13	1.64	0.43
47:M0:99:ILE:CD1	47:M0:121:LYS:HB2	7.31	0.43
36:5:2228:A:H2'	36:5:2229:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.54	0.43
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.63	0.43
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.45	0.43
25:D3:69:ARG:HH11	25:D3:116:ASP:CG	2.22	0.43
1:6:1257:U:O2'	1:6:1258:U:O4'	2.37	0.43
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	5.64	0.43
36:1:1842:A:H4'	36:1:1843:C:OP2	2.19	0.43
87:2:2042:OHX:N2	87:2:2097:OHX:N6	2.67	0.43
1:6:83:G:OP2	87:6:2101:OHX:N4	2.52	0.43
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.19	0.43
1:2:1568:C:H6	1:2:1568:C:H2'	1.65	0.43
14:C2:50:LYS:O	14:C2:54:ARG:HG2	2.44	0.43
22:D0:72:ASN:HD22	22:D0:73:GLY:H	2.96	0.43
56:N0:148:LEU:O	56:N0:149:LYS:HG2	2.19	0.43
25:D3:132:LEU:HD23	25:D3:132:LEU:HA	3.39	0.43
1:6:1100:G:H4'	1:6:1101:G:OP1	2.18	0.43
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.62	0.43
10:S8:25:ARG:HB3	1:6:400:A:O5'	310.88	0.43
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.19	0.43
11:S9:57:ARG:O	11:S9:61:THR:HG23	2.49	0.43
36:1:2437:G:N2	36:1:2511:A:H1'	2.34	0.43
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.54	0.43
5:S3:113:LEU:HD21	5:S3:117:ARG:CZ	2.49	0.43
1:2:709:C:N4	1:2:710:U:H1'	2.34	0.43
36:1:2642:A:OP2	57:N1:3:LYS:HE3	2.19	0.43
64:N8:24:LYS:HD2	64:N8:26:ARG:CZ	2.49	0.43
79:Q3:2:ALA:HB2	36:5:853:G:N7	249.85	0.43
36:5:1800:A:H2'	36:5:1801:U:O4'	2.19	0.43
1:6:209:U:H2'	1:6:210:A:H8	1.83	0.43
36:1:114:A:N1	36:1:266:A:O2'	2.43	0.43
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	2.01	0.43
17:C5:116:LEU:HD23	17:C5:116:LEU:HA	1.85	0.43
34:SR:276:PRO:HG2	34:SR:278:PHE:CE1	2.54	0.43
10:S8:104:ILE:HG13	10:S8:165:LEU:HB2	2.35	0.43
1:2:1622:G:H2'	1:2:1623:C:C6	2.54	0.43
36:5:2816:G:HO2'	36:5:2869:U:H5	1.65	0.43
78:Q2:10:THR:O	78:Q2:23:HIS:HE1	2.02	0.43
1:6:206:A:OP2	87:6:2134:OHX:N4	2.52	0.43
1:2:961:U:H2'	1:2:962:C:C6	2.54	0.43
62:N6:90:VAL:C	62:N6:92:GLY:H	2.22	0.43
36:5:792:G:N7	87:5:4188:OHX:N2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:2:SER:N	27:D5:78:ILE:HG13	2.33	0.43
11:S9:81:VAL:HG22	11:S9:86:LEU:O	3.30	0.43
36:5:1478:C:H2'	36:5:1479:U:C6	2.54	0.43
1:2:889:U:H2'	1:2:890:C:O4'	2.19	0.43
32:E0:2:ALA:O	1:6:1647:U:H1'	330.03	0.43
1:6:921:U:O4	87:6:2182:OHX:N3	2.52	0.43
76:Q0:103:LEU:HA	76:Q0:103:LEU:HD23	2.26	0.43
65:N9:28:LYS:HD3	65:N9:28:LYS:HA	1.72	0.43
1:6:853:G:H2'	1:6:854:U:C6	2.54	0.43
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	2.01	0.43
36:1:1339:C:OP1	68:O2:61:LYS:HB2	2.19	0.43
36:5:3379:C:H2'	36:5:3380:U:O4'	2.19	0.43
1:2:538:A:H8	1:2:543:C:C4	2.37	0.42
1:2:538:A:C8	1:2:543:C:C4	3.07	0.42
11:S9:108:ARG:HH11	11:S9:110:GLN:HG2	2.22	0.42
36:1:980:A:H2'	36:1:981:U:C1'	2.48	0.42
28:D6:5:ARG:NH2	1:6:1793:G:O2'	334.81	0.42
25:D3:13:ARG:O	25:D3:17:VAL:HG23	2.18	0.42
73:O7:69:HIS:ND1	73:O7:72:ARG:NH2	2.86	0.42
4:S2:140:ARG:HD2	23:D1:10:GLU:HG2	2.01	0.42
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.75	0.42
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	6.88	0.42
51:M5:49:ARG:HH21	36:5:115:A:P	99.54	0.42
55:M9:96:ILE:HD11	36:5:1722:U:H1'	216.16	0.42
42:L5:80:SER:O	42:L5:83:LEU:HG	2.52	0.42
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.46	0.42
26:D4:40:LEU:HD23	26:D4:40:LEU:HA	1.80	0.42
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	2.00	0.42
56:N0:137:ARG:HD3	36:5:1213:G:OP1	325.24	0.42
41:L4:354:VAL:HG11	57:N1:143:THR:CG2	2.47	0.42
1:2:1760:G:H2'	1:2:1761:U:H5'	1.99	0.42
1:6:149:C:H2'	1:6:150:U:H6	1.83	0.42
1:2:119:A:H1'	1:2:397:A:C4	2.54	0.42
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	3.50	0.42
1:2:901:G:H2'	1:2:902:G:C8	2.54	0.42
42:L5:54:ARG:NH2	42:L5:147:ASP:OD1	2.71	0.42
9:S7:38:LEU:HD21	9:S7:77:LEU:HD11	2.01	0.42
14:C2:41:LEU:HA	14:C2:41:LEU:HD23	1.79	0.42
40:L3:384:LYS:O	87:L3:404:OHX:N6	33.28	0.42
2:S0:69:ASN:HB3	2:S0:71:GLU:CD	2.68	0.42
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.69	0.42
44:L7:206:LYS:HB3	36:5:1334:U:OP1	235.33	0.42
36:5:2897:A:H2'	36:5:2899:C:H5''	2.00	0.42
45:L8:138:HIS:CE1	36:5:119:U:C2	104.60	0.42
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.19	0.42
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.30	0.42
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	2.01	0.42
7:S5:197:GLU:OE1	7:S5:209:TYR:N	2.76	0.42
36:1:1449:A:C2	36:1:2356:A:C4	3.06	0.42
29:D7:23:THR:HG21	29:D7:29:ARG:HH21	2.09	0.42
36:1:223:U:HO2'	36:1:224:C:P	2.42	0.42
33:E1:127:GLY:C	33:E1:129:GLY:H	2.21	0.42
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.70	0.42
14:C2:50:LYS:HZ3	33:E1:103:LEU:HD11	1.84	0.42
1:2:558:U:HO2'	1:2:559:C:P	2.42	0.42
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.19	0.42
54:M8:65:SER:HA	54:M8:93:ILE:HD13	2.00	0.42
36:1:3010:U:O4	87:1:3906:OHX:N2	2.52	0.42
1:2:74:U:H1'	1:2:75:U:O5'	2.20	0.42
60:N4:53:VAL:O	60:N4:57:LYS:HB2	2.84	0.42
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.69	0.42
1:2:1549:C:P	17:C5:39:ALA:H	2.42	0.42
36:1:1547:G:OP2	51:M5:105:ARG:NH1	2.52	0.42
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.54	0.42
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.50	0.42
24:D2:26:LEU:HD21	24:D2:60:LYS:HD3	2.00	0.42
2:S0:84:ARG:HD3	2:S0:203:PHE:O	4.01	0.42
36:1:1127:G:H5'	47:M0:118:ALA:O	2.19	0.42
36:1:2623:G:H2'	36:1:2624:G:C8	2.53	0.42
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.51	0.42
36:5:2921:U:H2'	36:5:2923:U:H5''	2.01	0.42
42:L5:143:LYS:HE3	42:L5:145:PHE:CZ	3.69	0.42
36:1:1080:A:P	42:L5:140:ARG:NH2	2.92	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:HB2	2.67	0.42
47:M0:184:LYS:O	47:M0:189:GLU:HB2	2.19	0.42
38:4:21:C:H2'	38:4:22:U:H5'	2.01	0.42
71:O5:21:LEU:HD11	71:O5:55:LEU:HD21	2.01	0.42
36:5:1434:G:OP1	36:5:1437:C:N4	2.51	0.42
15:C3:79:GLY:O	15:C3:80:LEU:HD13	3.77	0.42
1:6:431:C:H2'	1:6:432:G:O4'	2.19	0.42
52:M6:142:SER:HB3	52:M6:147:TRP:HB2	2.15	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:60:GLY:O	87:O7:104:OHX:N6	2.52	0.42
1:6:449:C:H2'	1:6:450:U:H6	1.84	0.42
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.24	0.42
58:N2:54:VAL:HG12	58:N2:67:SER:HA	2.00	0.42
36:1:811:U:H2'	36:1:812:G:C8	2.53	0.42
51:M5:5:LYS:HA	51:M5:5:LYS:HD3	2.03	0.42
36:5:954:U:O4	36:5:1115:G:H1'	2.19	0.42
14:C2:88:LEU:HA	14:C2:88:LEU:HD12	2.14	0.42
43:L6:20:LYS:HE3	43:L6:20:LYS:HA	4.71	0.42
43:L6:34:LEU:HA	43:L6:34:LEU:HD23	1.90	0.42
1:2:1732:A:H2'	1:2:1733:C:C6	2.54	0.42
36:5:493:G:C2	36:5:494:G:H1'	2.54	0.42
11:S9:133:HIS:HB3	11:S9:162:SER:OG	3.75	0.42
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.49	0.42
21:C9:53:TRP:HH2	21:C9:100:ILE:HD12	2.10	0.42
9:S7:100:PRO:HG3	1:6:695:U:H4'	366.21	0.42
36:5:3288:G:N2	36:5:3289:G:H1'	2.34	0.42
28:D6:37:LYS:NZ	1:6:933:A:OP2	320.64	0.42
1:2:1258:U:H5'	12:C0:1:MET:O	2.20	0.42
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.71	0.42
8:S6:137:ARG:HH21	8:S6:177:ARG:HE	1.66	0.42
18:C6:82:ARG:NH1	18:C6:114:ARG:O	3.39	0.42
19:C7:34:LEU:O	19:C7:38:ILE:HG12	5.43	0.42
40:L3:4:ARG:O	40:L3:5:LYS:CB	2.67	0.42
42:L5:231:ILE:HG21	42:L5:239:ILE:HD11	2.00	0.42
10:S8:169:ILE:HD13	10:S8:169:ILE:HA	2.34	0.42
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.54	0.42
1:2:927:C:H1'	16:C4:125:SER:CB	2.50	0.42
1:2:512:A:H5''	11:S9:163:PRO:HG3	2.02	0.42
1:6:74:U:H5''	1:6:75:U:OP2	2.19	0.42
46:L9:190:ASP:OD1	46:L9:191:LEU:HD12	2.19	0.42
1:2:190:C:C4	1:2:196:G:C6	3.08	0.42
36:1:121:A:N1	45:L8:129:PRO:HB3	2.34	0.42
74:O8:16:ARG:O	74:O8:18:ALA:N	3.28	0.42
36:5:420:G:OP1	36:5:420:G:OP2	2.37	0.42
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.41	0.42
36:1:3242:G:H2'	40:L3:154:TYR:CE1	2.54	0.42
27:D5:70:LYS:HD3	27:D5:70:LYS:HA	1.83	0.42
38:4:104:A:H3'	38:4:105:A:H5''	2.00	0.42
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.36	0.42
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.56	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:53:GLY:HA2	79:Q3:67:GLY:O	2.76	0.42
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.54	0.42
10:S8:24:LYS:O	1:6:400:A:H5'	307.36	0.42
16:C4:32:ASP:O	16:C4:35:GLY:N	2.43	0.42
36:1:209:A:N3	41:L4:221:ASN:ND2	2.64	0.42
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.84	0.42
5:S3:178:ARG:H	5:S3:178:ARG:HG2	2.21	0.42
1:6:723:G:H5'	1:6:724:C:OP2	2.18	0.42
7:S5:34:GLN:HG2	18:C6:57:LEU:HD13	2.01	0.42
59:N3:129:VAL:O	59:N3:133:SER:OG	2.50	0.42
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.58	0.42
36:1:1686:U:OP1	58:N2:42:LYS:NZ	2.36	0.42
36:5:2406:C:H2'	36:5:2407:C:C6	2.54	0.42
41:L4:13:GLY:N	41:L4:171:ALA:HB1	2.34	0.42
36:1:3243:A:H4'	40:L3:95:THR:HG22	2.01	0.42
1:6:329:G:H2'	1:6:330:G:H8	1.85	0.42
34:SR:112:SER:OG	34:SR:153:GLN:OE1	2.36	0.42
1:2:1628:U:H2'	1:2:1629:G:C8	2.54	0.42
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	4.37	0.42
67:O1:82:GLU:O	67:O1:82:GLU:HG3	2.18	0.42
1:2:1175:U:H3	1:2:1464:G:H1	1.66	0.42
65:N9:32:LEU:HD23	65:N9:32:LEU:HA	2.10	0.42
68:O2:37:GLY:HA3	36:5:639:G:P	184.76	0.42
21:C9:6:VAL:C	21:C9:8:ASP:H	2.57	0.42
1:2:967:A:H2'	1:2:968:U:O4'	2.19	0.42
36:1:2163:C:H4'	39:L2:8:GLN:HA	2.01	0.42
39:L2:180:LEU:HG	79:Q3:26:VAL:HG21	2.02	0.42
1:6:108:A:OP2	87:6:2094:OHX:N4	2.53	0.42
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.51	0.42
39:L2:236:GLY:H	36:5:2183:A:HO2'	205.53	0.42
37:7:90:U:C4	37:7:91:G:C5	3.07	0.42
45:L8:95:ASN:OD1	45:L8:98:ARG:NH1	4.36	0.42
87:2:2081:OHX:N6	87:2:2083:OHX:N2	2.67	0.42
31:D9:25:SER:HB3	87:D9:102:OHX:N3	2.34	0.42
64:N8:125:VAL:O	64:N8:145:VAL:HA	2.19	0.42
57:N1:111:ALA:O	57:N1:115:LYS:HG3	2.18	0.42
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.64	0.42
36:5:683:U:H6	36:5:683:U:O5'	2.02	0.42
36:1:3347:A:H8	36:1:3347:A:OP2	2.02	0.42
10:S8:195:ARG:HA	10:S8:195:ARG:HD3	2.36	0.42
44:L7:234:GLU:H	44:L7:234:GLU:HG2	2.74	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:25:ASN:OD1	58:N2:25:ASN:N	2.69	0.42
28:D6:41:ILE:H	28:D6:41:ILE:HG12	1.62	0.42
72:O6:71:LYS:HE2	72:O6:71:LYS:HB3	1.84	0.42
1:2:1329:A:H8	1:2:1329:A:O5'	2.02	0.42
44:L7:188:ILE:HA	44:L7:188:ILE:HD13	1.95	0.42
1:6:674:C:H2'	1:6:675:U:C6	2.54	0.42
46:L9:53:ILE:HD13	50:M4:7:VAL:HG21	2.10	0.42
2:S0:38:PHE:HD2	2:S0:49:ASN:HD22	3.94	0.42
70:O4:74:ARG:HD2	70:O4:85:VAL:HG21	4.19	0.42
5:S3:7:LYS:CE	22:D0:27:THR:HG21	2.43	0.42
62:N6:34:PRO:HA	62:N6:47:ALA:HB2	2.33	0.42
44:L7:80:GLN:HG3	57:N1:136:ARG:CB	4.09	0.42
41:L4:8:VAL:O	41:L4:16:THR:HB	2.20	0.42
1:2:702:G:C2	1:2:703:G:H1'	2.54	0.42
8:S6:137:ARG:NH1	1:6:144:U:H5	311.60	0.42
36:1:3276:G:H1	69:O3:60:ARG:HH22	1.68	0.42
27:D5:57:TYR:CE2	27:D5:68:ARG:HD3	4.77	0.42
1:2:1533:C:H5	27:D5:77:ARG:HH21	1.67	0.42
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.51	0.42
1:2:579:A:C2	5:S3:143:ARG:HG3	2.42	0.42
1:6:1695:G:N2	1:6:1706:C:H41	2.08	0.42
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.55	0.42
44:L7:160:ARG:HG3	44:L7:203:TRP:CG	3.47	0.42
53:M7:126:ARG:HD2	53:M7:138:LYS:HB2	2.01	0.42
6:S4:187:ARG:NH2	1:6:754:A:C8	375.08	0.42
74:O8:58:ASP:HB3	74:O8:61:LYS:CG	3.50	0.42
36:5:3238:G:H5"	36:5:3238:G:C8	2.48	0.42
5:S3:137:VAL:HB	5:S3:185:LYS:HB2	2.01	0.42
40:L3:250:ALA:HB1	36:5:2947:G:N3	218.87	0.42
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.04	0.42
59:N3:33:ASN:ND2	59:N3:63:LYS:HB2	3.20	0.42
34:SR:79:TYR:HE1	34:SR:100:TYR:CE1	3.50	0.42
20:C8:80:LYS:HA	20:C8:80:LYS:HD2	1.83	0.42
1:2:778:G:H22	26:D4:10:ARG:NH2	2.18	0.42
52:M6:55:HIS:HA	52:M6:58:LEU:HD23	2.01	0.42
40:L3:339:ARG:HG2	40:L3:340:LYS:N	2.33	0.42
63:N7:3:LYS:HE3	63:N7:5:LEU:HD12	7.39	0.42
1:6:196:G:N3	1:6:197:A:H1'	2.34	0.42
36:1:439:C:C4	36:1:440:A:C6	3.06	0.42
39:L2:142:ASP:C	39:L2:143:GLU:HG3	2.40	0.42
22:D0:61:LYS:HG3	22:D0:86:ILE:HB	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:161:LYS:O	54:M8:162:ALA:CB	2.68	0.42
13:C1:40:LEU:HD22	1:6:246:G:N2	325.27	0.42
58:N2:43:VAL:HG21	58:N2:50:LEU:HD23	2.00	0.42
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.84	0.42
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.58	0.42
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.36	0.42
36:5:1464:G:N2	36:5:1466:G:H3'	2.34	0.42
15:C3:151:ASN:O	87:C3:201:OHX:N6	2.52	0.42
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.19	0.42
1:2:1597:A:H2'	1:2:1598:U:H6	1.83	0.42
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.54	0.42
36:1:1471:U:H2'	36:1:1472:U:C6	2.55	0.42
34:SR:44:SER:O	34:SR:58:VAL:HG22	2.20	0.42
61:N5:114:VAL:HB	75:O9:10:LYS:HZ1	1.85	0.42
4:S2:218:ILE:HG13	4:S2:218:ILE:H	1.64	0.42
1:6:1081:A:H4'	1:6:1082:C:O5'	2.19	0.42
36:1:2623:G:C5	36:1:2624:G:C5	3.07	0.42
57:N1:131:GLN:HA	57:N1:132:PRO:HD3	1.86	0.42
1:2:1183:A:C5	1:2:1184:A:C6	3.08	0.42
45:L8:56:VAL:O	45:L8:59:GLN:HG2	2.65	0.42
36:5:677:A:C4	36:5:786:A:C2	3.07	0.42
70:O4:101:VAL:O	70:O4:105:VAL:HB	2.96	0.42
36:1:3322:A:H2'	36:1:3323:A:C8	2.54	0.42
41:L4:210:ALA:HB3	41:L4:253:ALA:HB1	2.41	0.42
28:D6:25:ASN:HB3	28:D6:77:CYS:SG	2.59	0.42
1:2:1111:G:C2	1:2:1112:G:H1'	2.54	0.42
15:C3:81:ALA:HA	15:C3:82:PRO:HD2	2.02	0.42
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.52	0.42
36:1:2539:C:H5'	36:1:2541:U:O4	2.18	0.42
1:2:761:G:H4'	11:S9:72:GLU:OE1	2.19	0.42
5:S3:194:LYS:O	5:S3:196:ARG:N	2.52	0.42
36:5:1927:G:N2	36:5:1928:G:C8	2.87	0.42
36:1:21:G:C8	38:4:37:A:C6	3.08	0.42
34:SR:256:THR:HG21	34:SR:261:LYS:HZ2	2.78	0.42
47:M0:119:TRP:HZ3	36:5:1126:G:H5''	256.52	0.42
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	2.00	0.42
36:5:381:U:O4	87:5:4127:OHX:N5	2.52	0.42
36:1:8:C:H2'	36:1:9:U:O4'	2.19	0.42
55:M9:105:LEU:HD11	55:M9:139:VAL:CG2	2.48	0.42
87:1:4085:OHX:N4	87:1:4155:OHX:N1	2.68	0.42
72:O6:28:TYR:OH	36:5:315:C:OP2	97.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:8:THR:HG21	1:6:1330:G:N2	418.61	0.42
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.20	0.42
37:7:110:G:C6	37:7:111:U:C4	3.08	0.42
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	2.00	0.42
1:6:1175:U:H4'	1:6:1196:A:C6	2.55	0.42
36:5:956:U:H2'	36:5:957:C:C6	2.55	0.42
36:1:2206:G:H2'	36:1:2206:G:N3	2.35	0.42
51:M5:129:TYR:N	51:M5:129:TYR:CD2	2.87	0.42
10:S8:11:ARG:HD3	10:S8:15:GLY:O	2.38	0.42
40:L3:53:MET:HB2	36:5:3049:A:H5''	233.90	0.42
36:1:3186:A:O2'	46:L9:23:ARG:NH2	2.52	0.42
49:M3:124:ILE:HD11	49:M3:126:PHE:CE1	2.54	0.42
44:L7:229:PHE:HD1	44:L7:230:GLY:N	2.78	0.42
52:M6:61:ALA:HB1	52:M6:66:LYS:HG3	2.21	0.42
3:S1:61:LEU:HD12	3:S1:64:ARG:HD2	6.30	0.42
3:S1:113:MET:HB3	3:S1:142:PHE:CE2	2.54	0.42
26:D4:34:ASN:HB3	26:D4:35:VAL:H	4.06	0.42
27:D5:53:GLU:O	27:D5:56:THR:N	5.73	0.42
2:S0:157:ASP:O	2:S0:158:VAL:C	2.85	0.42
28:D6:84:VAL:HG22	28:D6:85:ARG:C	2.40	0.42
30:D8:8:THR:HG21	30:D8:32:PHE:CE1	5.00	0.42
36:1:1573:G:C2	36:1:1574:C:H1'	2.55	0.42
6:S4:108:ARG:HH12	1:6:788:A:P	397.62	0.42
1:2:161:U:H2'	1:2:162:A:H8	1.83	0.42
36:5:655:C:H2'	36:5:656:A:H8	1.82	0.42
10:S8:29:LEU:HD21	10:S8:31:ARG:HG3	2.19	0.42
63:N7:97:SER:O	63:N7:100:THR:OG1	3.41	0.42
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	2.01	0.42
36:1:2732:G:H2'	36:1:2733:A:O4'	2.20	0.42
1:2:1774:G:N7	77:Q1:4:LYS:NZ	2.63	0.42
74:O8:17:ARG:HH12	36:5:1824:U:H4'	142.40	0.42
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.51	0.42
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.33	0.42
38:4:39:G:O2'	38:4:105:A:N1	2.48	0.42
38:4:38:U:H4'	38:4:39:G:OP2	2.19	0.42
26:D4:10:ARG:HB3	1:6:778:G:O6	428.41	0.42
63:N7:23:VAL:HB	63:N7:43:VAL:HB	2.01	0.42
46:L9:111:PHE:CD1	46:L9:127:PRO:HA	2.54	0.42
62:N6:39:LEU:HA	62:N6:42:GLN:HB2	2.02	0.42
36:1:685:G:P	49:M3:35:ARG:HH12	2.42	0.42
1:2:46:A:N1	1:2:432:G:O2'	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:25:THR:HG21	34:SR:295:SER:HA	2.29	0.42
50:M4:24:LYS:HE2	50:M4:24:LYS:HB3	4.37	0.42
58:N2:49:ASN:O	58:N2:49:ASN:ND2	2.53	0.42
70:O4:3:GLN:OE1	70:O4:30:LEU:HB2	3.66	0.42
1:2:18:C:C4	1:2:19:A:N7	2.88	0.42
87:1:4034:OHX:N4	87:1:4151:OHX:N1	2.67	0.42
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.84	0.42
7:S5:224:ASN:HA	7:S5:224:ASN:HD22	1.72	0.42
1:2:710:U:H2'	1:2:711:U:H5'	2.02	0.42
36:1:789:A:H2'	36:1:790:U:H6	1.85	0.42
58:N2:93:ILE:HA	58:N2:106:ALA:O	2.39	0.42
36:5:2213:A:H61	36:5:2429:G:H1'	1.85	0.42
30:D8:19:THR:O	30:D8:23:GLY:HA2	2.19	0.42
36:5:1699:A:H2'	36:5:1700:G:C8	2.54	0.42
45:L8:149:LYS:O	45:L8:150:LEU:HB2	2.64	0.42
44:L7:62:ILE:O	44:L7:65:ALA:HB3	2.30	0.42
36:5:3305:A:H2'	36:5:3306:U:C6	2.54	0.42
40:L3:24:SER:O	40:L3:220:VAL:HG21	2.19	0.42
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.68	0.42
36:1:1508:C:C6	36:1:1880:U:H1'	2.54	0.42
42:L5:33:ARG:NH2	37:7:7:G:O3'	270.41	0.42
36:5:883:A:H8	36:5:883:A:O5'	2.03	0.42
36:5:871:U:H2'	36:5:872:U:C6	2.54	0.42
1:6:1388:A:HO2'	1:6:1411:A:H2	1.67	0.42
1:6:1752:U:OP2	87:6:2064:OHX:N5	2.51	0.42
87:5:4191:OHX:N5	87:5:4193:OHX:N6	2.68	0.42
75:O9:49:MET:HE2	36:5:1493:G:O5'	113.41	0.42
11:S9:129:ILE:HA	11:S9:134:ILE:HD11	2.93	0.42
57:N1:136:ARG:HD2	57:N1:136:ARG:HH21	4.28	0.42
1:2:1497:U:OP2	87:2:2029:OHX:N1	2.53	0.42
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	2.01	0.42
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.51	0.42
36:1:670:C:P	54:M8:147:ARG:NH2	2.93	0.42
1:2:702:G:N2	1:2:703:G:H1'	2.34	0.42
66:O0:18:ILE:HA	66:O0:18:ILE:HD12	1.92	0.42
1:6:1570:A:C6	1:6:1571:C:C2	3.06	0.42
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.40	0.42
1:6:103:A:H5'	1:6:105:A:C4	2.54	0.42
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.48	0.42
44:L7:158:LYS:O	44:L7:159:GLN:O	4.27	0.42
52:M6:53:LYS:O	52:M6:56:ASP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:164:ILE:HA	46:L9:164:ILE:HD13	1.78	0.42
51:M5:140:LYS:HG3	36:5:127:G:OP1	79.33	0.42
54:M8:66:ARG:NH2	54:M8:143:PRO:HG3	2.35	0.42
49:M3:70:ARG:HD2	49:M3:71:ALA:O	2.93	0.42
36:1:2273:G:O2'	36:1:2274:U:P	2.77	0.42
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.58	0.42
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.14	0.42
63:N7:134:LEU:HD22	63:N7:135:ARG:N	2.34	0.42
59:N3:38:ALA:HB3	59:N3:59:MET:HB2	2.37	0.42
36:1:1433:A:P	68:O2:19:ARG:HH22	2.42	0.42
68:O2:22:SER:HA	68:O2:28:VAL:HG12	2.00	0.42
63:N7:46:ILE:HD11	63:N7:49:TYR:CD2	2.61	0.42
36:5:993:G:OP1	87:5:3912:OHX:N6	2.53	0.42
34:SR:169:ILE:HG13	34:SR:169:ILE:O	2.46	0.42
40:L3:205:VAL:O	40:L3:208:VAL:N	2.49	0.42
1:2:82:U:H2'	1:2:83:G:O4'	2.19	0.42
34:SR:74:THR:HG23	34:SR:79:TYR:HB2	2.01	0.42
1:6:751:G:C2	1:6:752:A:C4	3.07	0.42
9:S7:89:HIS:CG	9:S7:165:LYS:HG2	3.34	0.42
56:N0:148:LEU:C	56:N0:149:LYS:HG2	2.40	0.42
36:1:402:A:C6	53:M7:21:TYR:CE2	3.07	0.42
37:3:71:G:O2'	37:3:72:A:H5'	2.19	0.42
36:1:2718:U:OP2	87:1:3989:OHX:N3	2.52	0.42
36:5:1796:G:O6	87:5:4228:OHX:N5	2.52	0.42
1:6:913:G:O4'	1:6:913:G:N3	2.53	0.42
1:2:15:U:H2'	1:2:16:G:O4'	2.20	0.42
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	2.11	0.42
1:2:1578:U:O2'	1:2:1579:U:H5'	2.20	0.42
55:M9:4:LEU:HD22	55:M9:7:GLN:HG3	5.27	0.42
44:L7:214:TRP:CD2	44:L7:219:LYS:HD2	3.34	0.42
1:2:711:U:H1'	1:2:712:G:C8	2.54	0.42
49:M3:83:ALA:HB2	49:M3:116:LEU:HD13	2.01	0.42
58:N2:89:LEU:HD13	58:N2:93:ILE:HD12	2.44	0.42
36:5:1242:G:H2'	36:5:1243:G:O4'	2.20	0.42
41:L4:304:GLN:O	41:L4:306:THR:N	2.55	0.42
1:2:560:U:H2'	1:2:561:G:C8	2.55	0.42
4:S2:150:GLN:HG3	4:S2:151:PRO:HD2	4.85	0.42
36:1:3393:U:O2'	36:1:3394:U:H5'	2.19	0.42
36:1:1192:C:C5	87:1:4055:OHX:N3	2.88	0.42
36:5:953:G:H2'	36:5:1117:G:H5''	2.02	0.42
36:1:438:A:O2'	36:1:495:G:H4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:91:C:H2'	38:8:92:A:H8	1.83	0.42
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.20	0.42
34:SR:286:GLU:HA	34:SR:287:PRO:HD3	1.74	0.42
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.54	0.42
55:M9:176:ARG:HD3	55:M9:176:ARG:HA	2.04	0.42
87:2:2081:OHX:N3	87:2:2083:OHX:N1	2.67	0.42
52:M6:105:PHE:CD1	52:M6:109:PRO:HG3	2.84	0.42
36:5:1792:C:H2'	36:5:1795:U:C5	2.54	0.42
1:6:1050:G:N2	1:6:1068:C:O2	2.52	0.42
36:1:1225:A:H1'	36:1:3116:G:N2	2.34	0.42
1:2:864:U:C5	29:D7:22:LYS:HG2	2.54	0.42
57:N1:34:TYR:CD1	57:N1:98:HIS:CE1	3.48	0.42
36:5:378:A:H3'	36:5:379:C:H6	1.84	0.42
1:6:1537:C:O2'	1:6:1540:G:O6	2.35	0.42
60:N4:45:ASN:HA	60:N4:46:PRO:HD3	1.80	0.42
36:1:435:C:H2'	36:1:436:A:C8	2.54	0.42
36:1:2296:A:OP1	87:1:4152:OHX:N2	2.53	0.42
5:S3:107:PHE:O	5:S3:111:ASN:N	2.91	0.42
1:6:926:A:H2'	1:6:927:C:C6	2.54	0.42
37:7:101:G:H8	37:7:101:G:O5'	2.03	0.42
36:5:2836:C:C5	36:5:2852:C:N4	2.74	0.42
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.52	0.42
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.42	0.42
5:S3:163:PRO:O	5:S3:167:PHE:N	2.45	0.42
21:C9:33:TYR:CD1	21:C9:37:VAL:HG21	3.51	0.42
42:L5:85:ARG:NH2	42:L5:252:ALA:O	4.59	0.42
1:2:639:U:H4'	1:2:639:U:OP2	2.19	0.42
8:S6:173:PRO:O	1:6:79:C:H4'	344.14	0.42
14:C2:44:GLY:O	14:C2:46:ARG:N	3.20	0.42
6:S4:121:TYR:CE2	6:S4:161:LYS:HE3	2.55	0.42
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.19	0.42
49:M3:180:ARG:HD3	72:O6:11:LEU:HD11	3.03	0.42
26:D4:57:VAL:HB	26:D4:60:PHE:HE2	4.00	0.42
39:L2:68:LYS:HG2	39:L2:70:ARG:HH21	5.85	0.42
36:5:1573:G:C5	36:5:1574:C:H1'	2.54	0.42
2:S0:185:ARG:CG	23:D1:47:PRO:HD3	2.50	0.42
49:M3:48:PRO:HG3	49:M3:126:PHE:HE2	3.22	0.42
42:L5:58:LYS:HA	42:L5:93:THR:HB	2.01	0.42
17:C5:22:LEU:HD13	17:C5:26:LEU:HD11	2.02	0.42
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.33	0.42
38:8:70:G:N7	87:8:225:OHX:N1	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:101:ARG:HB2	36:5:76:G:N7	84.58	0.42
36:1:1658:G:H2'	36:1:1659:U:C6	2.55	0.42
1:6:1715:G:C6	1:6:1716:C:N4	2.87	0.42
36:5:1596:C:O2'	36:5:1696:A:N3	2.43	0.42
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.55	0.42
36:5:662:U:H2'	36:5:663:C:C6	2.54	0.42
55:M9:124:TYR:CE2	36:5:1720:U:C4	235.77	0.42
41:L4:334:PHE:CD1	41:L4:339:LEU:HD11	4.72	0.42
1:2:194:U:O2'	1:2:195:G:O4'	2.37	0.42
1:2:1201:G:H21	1:2:1600:A:H5''	1.84	0.42
5:S3:144:ALA:HB2	35:SM:106:VAL:HG22	2.01	0.42
69:O3:71:VAL:HG13	69:O3:81:VAL:HG13	2.02	0.42
42:L5:258:LYS:O	42:L5:258:LYS:HG2	4.95	0.42
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	2.01	0.42
38:4:104:A:H3'	38:4:105:A:C5'	2.49	0.42
46:L9:4:ILE:HD13	46:L9:4:ILE:HG21	1.80	0.42
34:SR:297:ASP:O	34:SR:299:GLN:N	2.93	0.42
38:8:108:C:N3	38:8:114:G:N1	2.49	0.42
5:S3:80:ALA:O	5:S3:83:THR:OG1	2.65	0.42
17:C5:15:HIS:CG	17:C5:16:SER:N	2.88	0.42
68:O2:24:ARG:HG2	68:O2:25:TYR:CE1	2.86	0.42
75:O9:23:LEU:HA	75:O9:24:PRO:HD2	2.39	0.42
36:1:1247:U:H2'	36:1:1268:G:O6	2.20	0.42
36:5:1876:U:C6	36:5:1876:U:H5''	2.50	0.42
36:5:909:G:N2	36:5:910:G:H1'	2.35	0.42
19:C7:83:GLN:O	19:C7:85:VAL:HG22	6.85	0.42
7:S5:121:ILE:HD11	7:S5:198:LEU:HD12	2.01	0.42
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.54	0.42
41:L4:115:HIS:O	41:L4:119:ARG:HG3	4.06	0.42
1:6:570:A:H5''	1:6:571:G:OP2	2.19	0.42
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.87	0.42
10:S8:147:ALA:HA	10:S8:150:ALA:H	1.83	0.42
64:N8:65:GLN:HG2	64:N8:65:GLN:H	1.66	0.42
36:5:1205:A:H4'	36:5:2835:U:O2'	2.20	0.42
36:5:812:G:C2	36:5:929:A:C2	3.07	0.42
40:L3:308:MET:HE2	40:L3:372:THR:C	4.93	0.42
7:S5:186:ASN:OD1	7:S5:188:LYS:HB2	2.48	0.42
15:C3:101:HIS:CE1	1:6:950:C:HO2'	281.77	0.42
42:L5:267:ALA:O	42:L5:271:LYS:HG2	3.53	0.42
15:C3:77:SER:C	15:C3:79:GLY:H	2.23	0.42
58:N2:67:SER:OG	58:N2:68:THR:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	2.45	0.42
1:6:605:A:C5	1:6:606:A:C2	3.07	0.42
36:1:1895:A:H1'	36:1:3053:G:O2'	2.20	0.42
36:1:3003:G:OP2	40:L3:26:ARG:NH2	2.52	0.42
49:M3:25:HIS:CD2	49:M3:25:HIS:N	2.88	0.42
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	2.02	0.42
36:1:733:G:O6	87:1:4070:OHX:N2	2.52	0.42
39:L2:241:ARG:HG2	36:5:2155:G:OP1	220.89	0.42
52:M6:28:LEU:HA	52:M6:28:LEU:HD23	1.99	0.42
36:1:313:A:H2'	36:1:314:U:O4'	2.20	0.42
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	3.94	0.42
3:S1:131:ASP:CG	3:S1:180:THR:HB	5.20	0.42
36:5:1013:G:H2'	36:5:1014:U:O4'	2.19	0.42
1:2:1486:G:C8	1:2:1487:A:C8	3.07	0.42
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.68	0.42
1:6:565:C:N3	87:6:2162:OHX:N4	2.68	0.42
17:C5:128:HIS:HA	1:6:1180:C:O2'	334.08	0.42
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.18	0.42
9:S7:116:ARG:HE	9:S7:116:ARG:HB2	1.61	0.42
36:1:1277:C:HO2'	36:1:1278:A:H8	1.62	0.42
6:S4:87:MET:HG3	6:S4:123:LEU:O	2.72	0.42
1:2:1654:G:O6	87:2:2084:OHX:N6	2.52	0.42
26:D4:20:ARG:HD3	26:D4:76:TYR:CE2	3.05	0.42
36:1:3047:U:O2'	36:1:3048:A:H5'	2.20	0.42
62:N6:5:SER:HB3	62:N6:8:VAL:HG22	5.31	0.42
36:5:1200:A:H5'	36:5:1201:C:O5'	2.19	0.42
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.20	0.42
42:L5:236:LEU:HD12	42:L5:236:LEU:HA	1.87	0.42
42:L5:55:PHE:HE1	42:L5:60:ILE:HD13	1.85	0.42
36:1:2503:G:HO2'	36:1:2504:U:H5	1.64	0.42
26:D4:35:VAL:HG13	26:D4:36:SER:N	2.30	0.42
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	2.17	0.42
1:6:320:U:H3'	1:6:321:C:H2'	2.01	0.42
40:L3:302:LYS:HB3	40:L3:302:LYS:HE3	1.80	0.42
1:6:192:U:HO2'	1:6:193:U:P	2.42	0.42
1:2:1484:G:O4'	1:2:1607:G:H4'	2.19	0.42
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	2.02	0.42
44:L7:150:LYS:HD3	44:L7:244:ASN:OD1	4.36	0.42
45:L8:190:VAL:O	45:L8:190:VAL:HG12	3.55	0.42
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.68	0.42
41:L4:232:SER:OG	41:L4:233:LEU:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:102:LYS:HB2	50:M4:102:LYS:HE3	1.67	0.42
53:M7:53:ASP:O	87:M7:208:OHX:N3	2.52	0.42
1:6:955:A:H2'	1:6:956:C:O4'	2.19	0.42
45:L8:78:PHE:CD2	45:L8:179:ILE:HD13	2.71	0.42
51:M5:135:VAL:CG1	51:M5:142:ILE:HG12	2.50	0.42
9:S7:55:LYS:HE2	9:S7:55:LYS:HB3	2.17	0.42
36:5:1500:G:H2'	36:5:1501:U:C6	2.54	0.42
15:C3:71:ILE:HD12	1:6:961:U:H5''	328.37	0.42
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.17	0.42
45:L8:147:LYS:O	45:L8:201:THR:HB	2.54	0.42
1:2:1164:G:H2'	1:2:1165:G:H8	1.83	0.42
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	1.90	0.42
2:S0:23:HIS:HA	2:S0:48:ILE:HB	2.02	0.42
1:2:1504:G:C6	1:2:1505:A:C6	3.08	0.42
36:1:1547:G:P	51:M5:105:ARG:NH1	2.93	0.42
1:2:730:G:H2'	1:2:730:G:N3	2.35	0.42
34:SR:21:THR:HA	34:SR:290:VAL:HG23	2.19	0.42
34:SR:305:TYR:HH	34:SR:313:TRP:HH2	2.22	0.42
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	2.02	0.42
36:1:2616:C:C2'	36:1:2617:U:H5'	2.48	0.42
2:S0:167:LYS:HD3	2:S0:168:HIS:HD2	2.39	0.42
49:M3:153:ASP:OD2	49:M3:157:ARG:HD3	5.29	0.42
36:5:2610:G:O6	87:5:4175:OHX:N3	2.53	0.42
36:5:2585:G:C2	38:8:151:C:H5	2.38	0.42
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.52	0.42
53:M7:178:ALA:HA	53:M7:181:ARG:HH21	1.83	0.42
40:L3:386:ASP:HB3	40:L3:387:LEU:H	1.53	0.42
41:L4:162:THR:O	41:L4:166:VAL:HG23	2.47	0.42
1:6:1138:A:H2'	1:6:1139:A:H8	1.84	0.42
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.39	0.42
42:L5:129:TYR:CG	42:L5:177:GLU:HG2	2.55	0.42
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	3.85	0.42
6:S4:89:VAL:O	6:S4:99:PHE:O	4.77	0.42
41:L4:169:LEU:HD22	41:L4:249:ILE:HD12	2.32	0.42
68:O2:58:GLY:HA3	36:5:1339:C:O2'	189.85	0.42
1:2:939:A:H2'	1:2:940:A:C8	2.54	0.42
45:L8:211:LEU:O	45:L8:215:VAL:HG23	2.48	0.42
36:5:29:C:H4'	36:5:62:A:H4'	2.00	0.42
1:6:1703:C:H2'	1:6:1704:U:H6	1.85	0.42
49:M3:24:VAL:HG21	49:M3:26:PHE:CE2	2.55	0.42
11:S9:159:ALA:C	11:S9:161:THR:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:136:SER:O	10:S8:140:GLU:HG3	5.37	0.42
36:1:2564:G:C6	36:1:2565:U:C4	3.07	0.42
49:M3:73:ARG:NH2	36:5:77:A:N7	80.23	0.42
49:M3:5:LYS:HB2	49:M3:7:LEU:HG	2.02	0.42
36:1:2606:G:H2'	36:1:2606:G:N3	2.34	0.42
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.33	0.42
40:L3:364:LYS:HD2	40:L3:364:LYS:N	2.35	0.42
36:1:3050:U:O2'	60:N4:16:GLY:O	2.31	0.42
36:5:3197:G:C2	36:5:3199:G:C5	3.07	0.42
3:S1:130:SER:OG	3:S1:180:THR:HG22	5.13	0.42
36:5:408:A:H61	38:8:15:G:H1'	1.84	0.42
45:L8:36:ILE:CG2	45:L8:37:GLY:H	2.24	0.42
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.19	0.42
60:N4:6:ASP:HA	60:N4:30:ARG:O	2.19	0.42
36:5:2211:U:H2'	36:5:2212:C:O4'	2.19	0.42
36:1:1169:A:OP1	87:1:3964:OHX:N1	2.53	0.42
36:1:2407:C:H1'	36:1:2818:U:O2	2.20	0.42
19:C7:20:TYR:CD1	19:C7:38:ILE:HD12	3.49	0.42
27:D5:54:VAL:HG22	27:D5:57:TYR:HE1	1.85	0.42
71:O5:76:GLN:O	71:O5:81:ARG:HD2	2.20	0.42
79:Q3:10:ILE:HD12	36:5:837:A:H1'	229.88	0.42
38:4:151:C:C4	61:N5:24:LEU:HD11	2.55	0.42
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.48	0.42
23:D1:35:ASN:OD1	23:D1:52:THR:HB	2.56	0.42
28:D6:79:ILE:HA	28:D6:84:VAL:HB	2.01	0.42
44:L7:107:ARG:HB3	44:L7:204:PRO:HG3	2.59	0.42
40:L3:35:ASP:CG	40:L3:37:ARG:HD2	2.81	0.42
56:N0:13:ARG:NH2	37:7:73:C:O2	303.28	0.42
39:L2:188:LYS:O	39:L2:192:LYS:HG3	2.67	0.42
41:L4:338:LYS:C	41:L4:340:GLY:H	2.19	0.42
44:L7:206:LYS:HB3	36:5:1334:U:H5"	236.83	0.42
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.86	0.42
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.08	0.42
76:Q0:125:LYS:NZ	36:5:2898:G:O6	328.39	0.42
63:N7:81:LEU:HD22	63:N7:82:PRO:CD	3.47	0.42
1:6:831:U:OP2	1:6:831:U:H6	2.03	0.42
36:1:717:C:N4	36:1:718:G:N1	2.67	0.42
17:C5:110:GLU:HG2	17:C5:110:GLU:H	1.66	0.42
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.53	0.42
6:S4:141:THR:OG1	6:S4:145:ARG:HB2	2.67	0.42
40:L3:81:THR:HG21	40:L3:205:VAL:CG1	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:9:ARG:HG3	70:O4:34:HIS:CE1	3.77	0.42
34:SR:101:GLN:HG2	34:SR:138:GLY:HA3	2.62	0.42
36:5:1819:U:O2'	36:5:1820:U:OP1	2.28	0.42
41:L4:48:GLN:HG3	36:5:337:G:C4'	98.03	0.42
49:M3:35:ARG:HG2	49:M3:35:ARG:HH11	1.84	0.42
1:2:47:A:N1	1:2:386:G:H1'	2.35	0.42
36:1:2976:A:OP1	87:1:4124:OHX:N6	2.53	0.42
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.87	0.42
49:M3:105:ASN:OD1	49:M3:107:GLU:N	2.88	0.42
36:1:1669:C:OP1	70:O4:24:LYS:HE2	2.19	0.42
51:M5:34:ASN:OD1	87:5:3955:OHX:N6	141.87	0.42
71:O5:119:LYS:HA	71:O5:119:LYS:HE2	2.01	0.42
87:1:3982:OHX:N1	87:1:4160:OHX:N4	2.68	0.42
48:M1:85:LYS:HB2	48:M1:85:LYS:HE3	1.86	0.42
36:5:112:U:H2'	36:5:112:U:H6	1.60	0.42
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	2.01	0.42
36:5:996:A:H2'	36:5:997:A:O4'	2.20	0.42
36:5:79:U:C2	36:5:325:A:C2	3.08	0.42
1:2:1149:G:H1'	1:2:1765:A:C4	2.54	0.42
36:1:677:A:C8	36:1:786:A:C6	3.08	0.42
36:1:786:A:H5''	54:M8:146:SER:O	2.20	0.42
44:L7:25:GLN:O	44:L7:28:ALA:HB3	3.21	0.42
1:6:791:A:H2'	1:6:792:U:O4'	2.19	0.42
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	2.39	0.42
42:L5:129:TYR:CD1	42:L5:177:GLU:HG2	2.54	0.42
36:1:7:C:H2'	36:1:8:C:C6	2.55	0.42
36:1:2429:G:OP2	87:1:3993:OHX:N4	2.53	0.42
76:Q0:94:SER:HB2	76:Q0:122:ARG:O	2.20	0.42
1:2:757:A:H4'	6:S4:22:LYS:HD3	2.02	0.42
3:S1:32:ILE:HB	3:S1:43:VAL:HB	2.85	0.42
4:S2:148:LEU:O	4:S2:174:ARG:NH2	5.39	0.42
1:6:516:G:C5	1:6:517:U:C5	3.08	0.42
36:1:2257:C:H2'	36:1:2258:U:O4'	2.19	0.42
1:2:1494:C:H2'	1:2:1495:C:H6	1.83	0.42
36:5:2379:U:H2'	36:5:2380:U:H6	1.85	0.42
42:L5:15:ARG:CZ	36:5:1003:A:H1'	289.86	0.42
4:S2:49:LYS:HA	4:S2:49:LYS:HD3	2.16	0.42
38:8:145:U:H2'	38:8:146:U:C6	2.54	0.42
55:M9:121:HIS:HE1	36:5:1719:G:N7	240.35	0.42
36:5:2770:G:C2'	36:5:2771:U:H5'	2.50	0.42
1:2:147:A:H2'	1:2:148:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.25	0.42
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.55	0.42
36:1:1809:A:H2'	36:1:1810:A:O4'	2.20	0.42
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.53	0.42
45:L8:70:LYS:HE3	45:L8:70:LYS:HB3	1.87	0.42
64:N8:62:HIS:CG	64:N8:62:HIS:O	2.73	0.42
39:L2:120:PRO:HD3	39:L2:159:SER:HB3	2.02	0.42
36:1:2597:U:H2'	36:1:2598:G:H8	1.85	0.42
68:O2:46:PHE:O	68:O2:49:ASN:ND2	5.54	0.42
36:1:295:A:H1'	72:O6:82:ARG:HH11	1.85	0.42
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.89	0.42
36:1:1949:G:P	55:M9:104:ARG:HH12	2.42	0.42
87:5:4191:OHX:N5	87:5:4193:OHX:N2	2.68	0.42
87:5:3974:OHX:N5	87:5:4244:OHX:N5	2.67	0.42
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.20	0.42
38:4:85:G:C8	38:4:85:G:C3'	3.02	0.42
4:S2:140:ARG:HB2	4:S2:222:TYR:CE2	2.95	0.42
51:M5:143:ARG:NH2	71:O5:92:LEU:HA	2.50	0.42
18:C6:83:GLN:OE1	18:C6:119:ALA:HA	2.28	0.42
26:D4:17:LEU:H	26:D4:17:LEU:HG	1.58	0.42
26:D4:21:LYS:N	26:D4:21:LYS:HD2	2.35	0.42
17:C5:68:PRO:O	87:C5:201:OHX:N1	6.93	0.42
15:C3:66:ILE:HG13	15:C3:67:THR:N	2.77	0.42
3:S1:88:VAL:HG11	3:S1:96:LEU:HD12	2.00	0.42
36:1:1240:A:H3'	36:1:1241:U:H5'	2.02	0.42
6:S4:195:ILE:O	6:S4:196:VAL:HG23	4.01	0.42
18:C6:86:ALA:O	18:C6:90:VAL:HG12	3.86	0.42
36:1:109:A:H8	36:1:109:A:O5'	2.02	0.42
1:2:567:A:H1'	32:E0:14:VAL:HG23	2.01	0.42
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.52	0.42
22:D0:108:ILE:H	22:D0:108:ILE:HG13	1.52	0.42
25:D3:24:TRP:CE3	25:D3:30:LYS:HD2	2.51	0.42
66:O0:30:THR:O	66:O0:34:LEU:HB2	2.19	0.42
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.57	0.42
51:M5:185:ALA:HB3	51:M5:190:THR:HG22	2.66	0.42
36:5:958:C:OP1	36:5:2799:A:H3'	2.19	0.42
34:SR:100:TYR:HA	34:SR:100:TYR:HD2	2.35	0.42
34:SR:71:CYS:HA	34:SR:81:LEU:O	2.20	0.42
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.55	0.42
18:C6:55:VAL:HG21	18:C6:89:LEU:HD21	3.86	0.42
16:C4:18:ARG:HB2	16:C4:18:ARG:HE	4.14	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:295:SER:OG	34:SR:296:ALA:N	2.53	0.42
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.59	0.42
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.19	0.42
24:D2:90:THR:O	24:D2:94:LEU:HB2	2.31	0.42
53:M7:24:VAL:CG1	53:M7:86:LYS:HD2	4.88	0.42
11:S9:11:THR:HG23	1:6:472:U:H5'	397.43	0.42
7:S5:223:SER:O	7:S5:224:ASN:ND2	2.52	0.42
5:S3:113:LEU:HD12	5:S3:117:ARG:HH11	4.59	0.42
34:SR:21:THR:O	34:SR:291:SER:HB3	2.19	0.42
36:1:330:G:OP2	87:1:4047:OHX:N2	2.53	0.42
87:1:4060:OHX:N4	87:1:4168:OHX:N3	2.68	0.42
18:C6:23:LYS:HG3	18:C6:64:ASP:HB2	2.01	0.42
48:M1:116:TYR:CE1	48:M1:118:PRO:HB3	2.96	0.42
36:1:3305:A:C6	36:1:3306:U:C4	3.07	0.42
36:1:661:G:OP2	64:N8:12:ARG:NH2	2.53	0.42
19:C7:63:LYS:HE2	34:SR:284:ALA:HB2	2.01	0.42
69:O3:58:GLU:HA	69:O3:62:SER:O	2.19	0.42
63:N7:36:HIS:HA	63:N7:38:PHE:CE1	2.88	0.42
1:2:751:G:H2'	1:2:752:A:H8	1.85	0.42
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CE1	3.71	0.42
6:S4:159:THR:HB	6:S4:227:VAL:HG23	2.02	0.42
47:M0:167:LEU:H	47:M0:167:LEU:HD22	3.53	0.42
36:5:69:C:H2'	36:5:70:A:O4'	2.20	0.42
37:3:11:A:N6	42:L5:13:SER:O	2.52	0.42
1:2:759:U:OP1	87:2:2158:OHX:N1	2.53	0.42
1:6:1628:U:H2'	1:6:1629:G:C8	2.55	0.42
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.89	0.42
36:5:2225:U:H2'	36:5:2226:U:H6	1.84	0.42
17:C5:115:TYR:OH	1:6:1556:A:H5'	385.22	0.42
36:5:2314:U:OP2	36:5:2314:U:H4'	2.20	0.42
36:1:831:G:O6	87:1:3894:OHX:N4	2.53	0.42
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.19	0.42
42:L5:105:ILE:HD13	42:L5:105:ILE:HA	1.81	0.42
36:1:1940:G:H2'	36:1:1941:C:O4'	2.20	0.42
3:S1:184:LEU:O	3:S1:188:LEU:HG	2.20	0.42
79:Q3:7:LYS:HE2	79:Q3:7:LYS:HB3	1.63	0.42
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.20	0.42
1:6:1010:C:OP2	87:6:2124:OHX:N6	2.53	0.42
53:M7:26:PHE:HZ	36:5:412:G:H5'	150.57	0.42
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	2.02	0.42
1:2:704:C:H4'	1:2:705:U:OP1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:53:MET:HE1	40:L3:327:CYS:HB2	2.11	0.42
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.55	0.42
42:L5:200:PHE:O	42:L5:240:TYR:HD2	2.03	0.42
36:5:912:G:H1'	36:5:917:A:C2	2.55	0.42
11:S9:150:LEU:C	11:S9:152:SER:H	2.37	0.42
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.11	0.42
1:6:470:A:OP2	87:6:2106:OHX:N1	2.53	0.42
1:2:916:U:HO2'	16:C4:27:PHE:HZ	1.64	0.42
37:7:57:G:H3'	37:7:58:C:H6	1.85	0.42
3:S1:150:VAL:HG23	1:6:1067:C:H5''	353.61	0.42
1:6:599:A:H2'	1:6:600:U:C6	2.55	0.42
36:1:3153:U:O2	36:1:3158:G:N1	2.53	0.42
51:M5:182:ASN:O	51:M5:183:THR:HG22	3.93	0.42
51:M5:194:GLN:H	51:M5:194:GLN:HG2	1.62	0.42
12:C0:4:PRO:HG2	12:C0:7:ASP:OD1	2.19	0.42
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.53	0.42
40:L3:303:LYS:NZ	40:L3:361:THR:HB	2.48	0.42
44:L7:56:GLU:O	44:L7:60:ARG:HB2	2.75	0.42
6:S4:47:PHE:CD2	6:S4:90:ILE:HD13	2.55	0.42
20:C8:92:ILE:HG23	20:C8:93:THR:HG23	2.50	0.42
25:D3:126:LYS:HB3	25:D3:131:SER:H	1.84	0.42
2:S0:79:ARG:O	2:S0:83:GLN:HG3	2.50	0.42
14:C2:26:ASP:O	14:C2:30:VAL:HG23	2.20	0.42
69:O3:54:ARG:NH1	69:O3:64:ILE:HD11	2.64	0.42
1:2:67:A:N6	1:2:83:G:O2'	2.53	0.42
69:O3:90:PRO:HD2	69:O3:93:THR:HG21	2.80	0.42
69:O3:89:LEU:HA	69:O3:90:PRO:HD3	1.88	0.42
21:C9:14:PHE:HZ	21:C9:132:LEU:HB3	3.51	0.42
11:S9:29:LYS:HG2	32:E0:44:PHE:CE1	5.36	0.42
74:O8:23:ALA:HB1	74:O8:44:LYS:O	2.59	0.42
3:S1:85:LYS:HB3	3:S1:101:HIS:HB3	2.01	0.42
87:1:4089:OHX:N5	87:1:4159:OHX:N3	2.68	0.42
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.20	0.42
55:M9:69:SER:HA	55:M9:72:GLU:HB2	2.02	0.42
36:1:2361:A:N6	36:1:2376:G:O6	2.53	0.42
87:5:4096:OHX:N5	87:5:4237:OHX:N2	2.68	0.42
1:2:53:G:H2'	1:2:54:C:O4'	2.19	0.42
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.19	0.42
40:L3:293:ASN:HB2	40:L3:305:ILE:H	3.16	0.42
1:2:1051:G:O2'	1:2:1052:U:O5'	2.35	0.42
54:M8:159:LYS:HB3	54:M8:159:LYS:NZ	3.09	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1304:G:H5'	1:2:1322:A:OP2	2.19	0.42
36:1:1560:G:C2'	36:1:1561:G:H5'	2.50	0.42
15:C3:101:HIS:ND1	1:6:950:C:O2'	281.18	0.42
34:SR:307:ASP:CG	34:SR:311:ARG:HH12	2.23	0.42
47:M0:169:LYS:O	47:M0:170:LYS:HB2	4.72	0.42
62:N6:89:LYS:HB3	62:N6:90:VAL:H	1.65	0.42
87:2:2081:OHX:N6	87:2:2083:OHX:N5	2.68	0.42
36:1:3244:A:C6	52:M6:105:PHE:HE1	2.38	0.42
1:2:1748:G:O6	87:2:2103:OHX:N4	2.53	0.42
67:O1:50:ARG:NH2	67:O1:90:PHE:CE2	4.61	0.42
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.56	0.42
36:5:2821:C:O2	36:5:2875:U:O2	2.38	0.42
1:6:1054:U:H2'	1:6:1055:U:O4'	2.20	0.42
37:7:83:U:H2'	37:7:84:A:H5'	2.02	0.42
61:N5:83:VAL:HG22	61:N5:123:TYR:HD1	2.55	0.42
36:1:1400:G:C2	36:1:1401:A:C8	3.07	0.42
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.38	0.42
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.19	0.42
3:S1:50:LYS:O	3:S1:52:THR:N	2.51	0.42
70:O4:45:GLY:HA3	36:5:1652:G:O2'	189.00	0.42
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.29	0.42
36:1:537:A:C2	36:1:557:A:C4	3.08	0.42
36:1:535:G:C6	36:1:555:U:N3	2.88	0.42
42:L5:118:THR:HG22	42:L5:118:THR:H	1.59	0.42
1:2:1080:U:H6	1:2:1080:U:OP2	2.03	0.42
34:SR:262:VAL:HG12	34:SR:271:VAL:HB	2.68	0.42
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.30	0.42
68:O2:65:PHE:HA	36:5:1403:C:O3'	176.44	0.42
1:2:464:A:C2	1:2:465:G:C8	3.08	0.42
8:S6:33:GLY:O	8:S6:51:LYS:HD2	2.19	0.42
64:N8:21:ARG:HD2	64:N8:21:ARG:HH11	1.70	0.41
75:O9:48:LYS:HD2	75:O9:48:LYS:HA	2.29	0.41
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.20	0.41
1:2:1555:A:P	17:C5:47:ARG:HH21	2.42	0.41
7:S5:33:VAL:HG21	18:C6:49:TYR:CE2	4.04	0.41
70:O4:94:LEU:O	70:O4:98:GLN:HB2	2.83	0.41
42:L5:83:LEU:HD13	42:L5:88:ILE:HG13	4.59	0.41
13:C1:22:ASN:HB3	13:C1:25:VAL:HG23	3.09	0.41
3:S1:70:LEU:HD23	3:S1:70:LEU:HA	4.13	0.41
6:S4:77:ARG:HD2	6:S4:82:TYR:CD1	5.22	0.41
27:D5:46:LYS:O	27:D5:49:ARG:HB2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	2.79	0.41
1:2:927:C:H2'	1:2:928:U:C6	2.55	0.41
1:2:929:A:N6	1:2:930:A:C6	2.88	0.41
42:L5:56:THR:HG21	37:7:26:C:H5''	295.23	0.41
42:L5:289:LYS:O	42:L5:292:ALA:HB3	3.18	0.41
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.20	0.41
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	2.62	0.41
1:6:1230:A:C8	1:6:1258:U:C4	2.99	0.41
49:M3:75:PHE:O	49:M3:76:THR:OG1	2.31	0.41
16:C4:81:VAL:HG22	16:C4:115:ILE:CB	2.47	0.41
36:5:2840:C:H2'	36:5:2841:G:O4'	2.20	0.41
36:1:1841:A:O2'	36:1:1842:A:H5''	2.20	0.41
67:O1:55:LEU:HD22	67:O1:55:LEU:O	2.25	0.41
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.01	0.41
24:D2:75:ILE:HG13	24:D2:125:ILE:HD11	2.01	0.41
45:L8:134:TYR:O	45:L8:138:HIS:HB3	2.20	0.41
65:N9:26:THR:OG1	36:5:1065:A:N1	215.37	0.41
12:C0:3:MET:HA	12:C0:4:PRO:HD2	2.11	0.41
3:S1:175:GLU:HG3	3:S1:193:ILE:HG23	2.02	0.41
11:S9:13:SER:O	11:S9:43:TYR:HB3	2.33	0.41
36:1:2653:C:O2'	36:1:2654:C:H5'	2.20	0.41
1:2:1567:U:C5	1:2:1568:C:C4	3.08	0.41
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.01	0.41
7:S5:146:THR:CG2	7:S5:157:ARG:HB3	2.93	0.41
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.35	0.41
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.45	0.41
36:5:900:G:H1'	36:5:1589:A:H61	1.82	0.41
36:5:961:C:O2	87:5:4180:OHX:N4	2.53	0.41
8:S6:163:THR:HA	8:S6:168:THR:HA	2.01	0.41
1:6:825:U:O2'	1:6:826:U:P	2.78	0.41
1:2:386:G:C6	1:2:387:A:C6	3.08	0.41
36:1:1245:A:C3'	36:1:1246:G:H5''	2.50	0.41
1:6:737:A:H2'	1:6:738:G:H8	1.83	0.41
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.48	0.41
36:5:2726:C:O2	36:5:2726:C:O5'	2.38	0.41
20:C8:42:TYR:CZ	20:C8:99:HIS:CD2	3.08	0.41
1:6:557:G:O2'	1:6:558:U:OP1	2.33	0.41
36:1:2588:U:OP1	45:L8:48:ARG:NH2	2.35	0.41
4:S2:143:TYR:CD2	4:S2:147:ASN:HA	3.99	0.41
36:1:2402:A:OP2	87:1:4093:OHX:N6	2.53	0.41
1:2:803:A:C5	9:S7:104:ARG:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:183:GLY:O	5:S3:184:ILE:HD13	3.54	0.41
74:O8:12:LEU:HA	74:O8:12:LEU:HD12	4.51	0.41
1:6:1398:U:H4'	1:6:1399:C:OP2	2.20	0.41
36:5:1289:G:H2'	36:5:1290:A:H8	1.84	0.41
2:S0:18:LEU:HD23	2:S0:18:LEU:HA	2.39	0.41
14:C2:29:LYS:HE2	14:C2:100:TRP:CD1	2.55	0.41
45:L8:109:LEU:HD22	45:L8:109:LEU:HA	2.33	0.41
28:D6:45:VAL:HB	28:D6:46:GLU:H	1.60	0.41
1:2:859:A:C6	15:C3:73:ARG:HD3	2.55	0.41
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.22	0.41
36:1:1748:G:C6	36:1:1749:A:C6	3.08	0.41
38:8:145:U:H2'	38:8:146:U:O4'	2.20	0.41
50:M4:89:ALA:O	50:M4:92:GLU:HG2	2.19	0.41
36:1:2984:C:H2'	36:1:2985:C:H6	1.84	0.41
36:5:1701:C:H2'	36:5:1702:U:O4'	2.20	0.41
36:1:2158:A:H5'	36:1:2160:G:O4'	2.20	0.41
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	2.10	0.41
48:M1:21:ILE:HG21	48:M1:33:ALA:HB1	2.00	0.41
87:2:2073:OHX:N3	87:2:2160:OHX:N1	2.68	0.41
36:5:345:G:O2'	38:8:25:G:N3	2.51	0.41
36:1:1704:A:HO2'	36:1:1705:U:H5	1.66	0.41
36:1:708:G:H5''	36:1:708:G:H8	1.84	0.41
56:N0:75:PHE:HB2	56:N0:94:ILE:O	2.20	0.41
7:S5:192:GLU:OE2	27:D5:63:SER:OG	3.63	0.41
1:2:352:A:OP2	1:2:352:A:H8	2.03	0.41
40:L3:328:ILE:HD13	40:L3:328:ILE:HG21	1.70	0.41
41:L4:313:LEU:HA	41:L4:313:LEU:HD23	2.72	0.41
72:O6:21:THR:OG1	72:O6:21:THR:O	2.36	0.41
61:N5:130:TYR:N	61:N5:130:TYR:CD1	2.87	0.41
6:S4:208:VAL:HG12	6:S4:210:ILE:HD11	2.00	0.41
1:2:1638:G:P	35:SM:94:HIS:HE2	2.42	0.41
47:M0:47:PRO:HB3	47:M0:171:TRP:CE2	2.87	0.41
11:S9:129:ILE:HG12	11:S9:134:ILE:HG12	4.39	0.41
5:S3:167:PHE:O	5:S3:190:ARG:HG2	4.85	0.41
3:S1:87:ARG:NH1	3:S1:133:TYR:OH	2.53	0.41
49:M3:46:ILE:HG23	49:M3:49:ARG:NH1	4.39	0.41
21:C9:100:ILE:H	21:C9:100:ILE:HG12	2.34	0.41
36:5:863:C:H2'	36:5:864:G:O4'	2.20	0.41
8:S6:173:PRO:HB2	8:S6:174:LYS:H	1.66	0.41
36:5:1171:G:N7	87:5:4003:OHX:N1	2.69	0.41
36:5:271:C:H2'	36:5:272:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:168:A:H2'	1:6:169:A:C8	2.55	0.41
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.49	0.41
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.19	0.41
53:M7:171:ARG:H	53:M7:171:ARG:HG3	1.64	0.41
17:C5:79:HIS:O	17:C5:81:ARG:N	2.61	0.41
1:2:337:G:H1'	10:S8:10:LYS:HZ1	1.83	0.41
33:E1:130:VAL:HG11	33:E1:143:LYS:HG2	2.03	0.41
3:S1:61:LEU:O	3:S1:63:GLY:N	2.52	0.41
36:1:1817:G:OP1	87:1:4095:OHX:N1	2.52	0.41
55:M9:19:LYS:C	55:M9:21:LYS:H	2.22	0.41
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	2.02	0.41
57:N1:39:ILE:HD12	57:N1:102:ARG:NE	3.89	0.41
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.49	0.41
7:S5:109:LYS:HE2	1:6:1474:G:OP2	362.84	0.41
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.20	0.41
8:S6:78:THR:HG22	8:S6:79:LYS:N	2.99	0.41
4:S2:111:VAL:HG13	4:S2:191:ALA:HA	2.21	0.41
36:5:183:G:H2'	36:5:184:U:O4'	2.19	0.41
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	2.32	0.41
16:C4:136:ARG:NH1	1:6:1785:U:OP1	297.27	0.41
39:L2:190:ARG:HG2	39:L2:191:LEU:HD22	5.43	0.41
20:C8:56:LYS:HD3	20:C8:60:GLU:HG3	2.02	0.41
1:2:287:G:O2'	1:2:288:A:P	2.78	0.41
36:1:624:G:OP2	87:1:4137:OHX:N3	2.53	0.41
39:L2:2:GLY:HA2	36:5:925:A:H61	179.82	0.41
58:N2:50:LEU:HG	58:N2:50:LEU:H	2.09	0.41
38:4:131:A:H2'	38:4:132:G:H8	1.85	0.41
18:C6:28:LEU:C	18:C6:29:ILE:HG13	2.77	0.41
36:1:2157:G:C6	39:L2:151:PRO:HD2	2.55	0.41
72:O6:68:ARG:O	72:O6:72:VAL:HG23	2.20	0.41
4:S2:162:CYS:N	4:S2:213:ALA:HB2	2.75	0.41
1:2:1505:A:H5''	1:2:1506:G:OP2	2.20	0.41
43:L6:18:LEU:HA	43:L6:18:LEU:HD13	1.75	0.41
4:S2:58:LEU:HD23	4:S2:58:LEU:HA	1.74	0.41
58:N2:51:GLY:C	58:N2:53:ALA:N	2.83	0.41
1:2:1404:C:H2'	1:2:1405:G:C8	2.54	0.41
1:2:1225:U:O2	1:2:1230:A:H4'	2.19	0.41
30:D8:19:THR:HB	30:D8:20:GLY:H	1.97	0.41
1:2:239:C:H2'	1:2:240:U:C6	2.55	0.41
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.40	0.41
39:L2:129:ALA:HB3	36:5:2178:A:H5''	212.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:136:LEU:O	45:L8:140:VAL:HG23	2.55	0.41
10:S8:151:LYS:HZ2	10:S8:151:LYS:HB3	5.20	0.41
36:1:2183:A:H5''	39:L2:7:ASN:HB2	2.02	0.41
42:L5:208:MET:HG2	42:L5:223:PHE:CE1	2.55	0.41
36:5:2689:A:N3	36:5:2689:A:H2'	2.35	0.41
42:L5:129:TYR:OH	42:L5:175:HIS:O	2.32	0.41
36:5:994:G:N2	36:5:1053:A:H2'	2.36	0.41
36:5:2724:U:O4	87:5:3960:OHX:N1	2.53	0.41
1:2:1:U:C4	1:2:369:A:C6	3.08	0.41
36:5:982:C:H42	36:5:1101:G:H1	1.68	0.41
36:5:3027:A:H2'	36:5:3028:G:O4'	2.21	0.41
1:2:1017:U:H2'	1:2:1018:U:C6	2.55	0.41
1:6:481:A:C2	1:6:508:U:C2	3.08	0.41
38:8:82:U:O2	38:8:87:G:H4'	2.19	0.41
59:N3:12:ARG:NH2	36:5:3092:C:H2'	253.44	0.41
1:6:802:G:C6	1:6:803:A:N1	2.87	0.41
1:6:445:A:C2	1:6:446:A:C8	3.08	0.41
47:M0:96:VAL:HG22	47:M0:125:LEU:HD21	2.00	0.41
36:1:168:U:H2'	36:1:169:U:C6	2.55	0.41
36:1:3038:U:H2'	36:1:3039:C:O4'	2.20	0.41
10:S8:161:SER:OG	36:5:3353:G:OP1	232.27	0.41
59:N3:104:ASN:OD1	59:N3:106:LYS:N	2.51	0.41
52:M6:190:VAL:O	52:M6:194:LEU:HD12	2.20	0.41
36:5:1690:C:C4	36:5:1691:U:C4	3.09	0.41
46:L9:26:LYS:HA	46:L9:35:THR:HG22	2.02	0.41
69:O3:52:VAL:HG22	69:O3:66:VAL:HG13	2.45	0.41
36:1:1266:G:N2	36:1:1276:U:H1'	2.35	0.41
4:S2:153:SER:C	4:S2:154:LEU:HD12	2.81	0.41
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.20	0.41
42:L5:107:ARG:HD2	42:L5:107:ARG:HA	3.63	0.41
36:1:2208:A:C2	87:1:4048:OHX:N6	2.89	0.41
1:2:768:C:H2'	1:2:769:A:O4'	2.20	0.41
11:S9:142:ASN:ND2	11:S9:142:ASN:C	4.18	0.41
5:S3:168:ILE:O	5:S3:168:ILE:HD12	2.20	0.41
28:D6:38:ARG:HA	28:D6:38:ARG:HD3	4.17	0.41
39:L2:40:TYR:O	36:5:2550:U:H5	211.34	0.41
1:2:1719:A:N6	1:2:1720:G:C2	2.88	0.41
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.58	0.41
36:1:283:G:OP2	36:1:285:A:H4'	2.20	0.41
38:8:68:G:OP1	87:8:217:OHX:N3	2.53	0.41
36:5:128:G:H2'	36:5:129:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:23:LYS:H	35:SM:23:LYS:CD	2.28	0.41
2:S0:64:ILE:HG12	2:S0:122:ILE:HD11	2.02	0.41
36:5:583:G:O6	87:5:4021:OHX:N1	2.53	0.41
36:1:3065:G:H2'	36:1:3066:U:O4'	2.20	0.41
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.20	0.41
46:L9:86:TYR:CZ	46:L9:151:VAL:HG22	3.04	0.41
8:S6:12:SER:C	8:S6:13:GLN:HG2	2.40	0.41
36:5:3279:A:N6	36:5:3280:U:O4	2.53	0.41
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.67	0.41
4:S2:188:LEU:HA	4:S2:188:LEU:HD23	1.77	0.41
52:M6:121:PRO:O	52:M6:123:ALA:N	2.75	0.41
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.42	0.41
1:2:61:A:C6	1:2:62:A:C6	3.08	0.41
32:E0:40:TYR:CD2	32:E0:44:PHE:HE1	7.32	0.41
4:S2:99:LYS:HE2	4:S2:208:GLU:HG3	2.01	0.41
36:5:944:C:O2'	36:5:945:C:H5'	2.20	0.41
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.68	0.41
36:5:787:G:H2'	36:5:788:C:C6	2.55	0.41
36:1:607:A:C4	43:L6:26:ARG:NH2	2.89	0.41
87:5:4143:OHX:N4	87:5:4185:OHX:N3	2.69	0.41
34:SR:274:LEU:HD22	34:SR:313:TRP:CD1	2.88	0.41
36:1:359:U:O2'	73:O7:16:HIS:ND1	2.46	0.41
48:M1:54:VAL:O	48:M1:56:THR:N	2.50	0.41
36:1:1316:C:O4'	52:M6:130:LYS:HD3	2.20	0.41
40:L3:161:LEU:HA	40:L3:161:LEU:HD23	1.77	0.41
42:L5:81:HIS:O	42:L5:84:PRO:HD2	2.20	0.41
36:5:2651:G:H4'	36:5:2652:U:OP2	2.20	0.41
36:5:2523:A:O2'	36:5:2587:U:H1'	2.21	0.41
1:6:625:C:O2	1:6:974:A:N1	2.53	0.41
41:L4:3:ARG:HA	41:L4:4:PRO:HD3	2.09	0.41
1:2:227:U:O2'	1:2:228:G:H5''	2.20	0.41
1:2:751:G:H2'	1:2:752:A:C8	2.54	0.41
36:5:2269:U:H4'	36:5:2270:A:OP1	2.20	0.41
36:1:3365:U:H2'	36:1:3366:G:C8	2.55	0.41
1:2:1015:U:H5''	1:2:1016:C:OP2	2.20	0.41
1:6:1140:G:OP2	87:6:2075:OHX:N3	2.53	0.41
1:6:892:A:C5	1:6:893:U:C4	3.08	0.41
63:N7:73:LYS:HE3	36:5:1637:A:OP1	210.76	0.41
1:6:1625:C:H2'	1:6:1626:U:C6	2.55	0.41
68:O2:11:LYS:O	68:O2:12:LYS:CB	2.86	0.41
54:M8:89:ASP:HB2	54:M8:109:GLY:HA3	2.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1273:G:H4'	1:6:1274:C:H5''	2.02	0.41
40:L3:43:LEU:HD22	40:L3:203:VAL:HG11	2.01	0.41
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	2.20	0.41
41:L4:200:THR:O	41:L4:201:GLN:HB3	2.20	0.41
1:6:1740:A:H2'	1:6:1741:U:C6	2.56	0.41
13:C1:54:ILE:HD13	13:C1:54:ILE:HA	3.02	0.41
44:L7:82:LYS:HB3	44:L7:82:LYS:HE2	1.92	0.41
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	1.84	0.41
5:S3:28:GLU:OE2	5:S3:28:GLU:HA	2.20	0.41
9:S7:97:ARG:HA	9:S7:97:ARG:HD3	3.41	0.41
11:S9:120:LYS:NZ	11:S9:120:LYS:HB3	2.35	0.41
5:S3:4:LEU:HA	5:S3:4:LEU:HD22	2.64	0.41
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.80	0.41
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	2.03	0.41
36:1:31:C:H2'	36:1:32:U:O4'	2.21	0.41
16:C4:19:ILE:HD11	16:C4:105:LEU:HD21	2.01	0.41
40:L3:298:PHE:O	40:L3:300:ARG:HG2	3.52	0.41
46:L9:52:LEU:HA	46:L9:52:LEU:HD23	1.83	0.41
11:S9:105:LEU:HA	11:S9:105:LEU:HD12	2.19	0.41
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	5.13	0.41
42:L5:85:ARG:HH12	42:L5:254:LYS:H	4.40	0.41
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.20	0.41
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.09	0.41
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.78	0.41
1:6:228:G:H1	1:6:236:A:H61	1.68	0.41
61:N5:38:LEU:HD13	61:N5:38:LEU:O	2.21	0.41
36:5:2255:A:H5'	36:5:2261:G:N2	2.25	0.41
20:C8:35:ILE:HB	20:C8:38:VAL:HG21	2.03	0.41
3:S1:36:SER:HB3	3:S1:231:LEU:O	3.96	0.41
3:S1:82:ARG:HA	3:S1:104:ASP:O	2.50	0.41
36:5:1710:C:H2'	36:5:1711:C:C6	2.56	0.41
38:4:140:G:H2'	38:4:141:C:O4'	2.20	0.41
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	1.92	0.41
1:2:193:U:H2'	1:2:194:U:H2'	2.02	0.41
36:1:1317:A:C4	36:1:1319:G:C8	3.09	0.41
22:D0:63:LEU:O	22:D0:83:GLU:HA	2.23	0.41
36:5:1409:G:C6	87:5:4163:OHX:N6	2.88	0.41
1:6:417:A:H5'	1:6:418:G:C5	2.55	0.41
7:S5:145:ASP:OD2	7:S5:217:LEU:HD22	3.00	0.41
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.89	0.41
17:C5:77:ARG:HG2	17:C5:102:PHE:CD1	3.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:58:GLY:O	63:N7:62:VAL:HG23	3.38	0.41
1:2:61:A:C8	1:2:269:G:O2'	2.65	0.41
1:6:1535:U:H1'	1:6:1536:G:C2	2.56	0.41
1:6:1213:G:H1	1:6:1450:U:H3	1.69	0.41
61:N5:63:ILE:O	61:N5:63:ILE:HD13	2.20	0.41
36:1:1352:A:H1'	36:1:1353:U:O5'	2.20	0.41
34:SR:205:SER:HB3	34:SR:210:LEU:HB2	2.02	0.41
54:M8:181:SER:HB3	36:5:2790:A:OP2	183.51	0.41
36:5:1686:U:O2	36:5:1688:U:H1'	2.21	0.41
1:2:1788:G:P	16:C4:127:ARG:HH12	2.44	0.41
36:1:2253:G:C2	36:1:2264:U:C2	3.09	0.41
36:5:1839:A:N6	36:5:1843:C:C2	2.89	0.41
44:L7:189:ILE:HG23	44:L7:190:THR:HG23	2.17	0.41
30:D8:27:GLN:HE22	30:D8:64:ARG:HE	1.68	0.41
36:5:2359:C:O5'	36:5:2359:C:H6	2.02	0.41
1:6:424:C:O2'	1:6:426:G:OP1	2.34	0.41
68:O2:74:PHE:CD2	68:O2:85:LEU:HD21	2.56	0.41
10:S8:106:ALA:O	10:S8:110:ARG:N	2.52	0.41
36:1:2541:U:H1'	36:1:2542:U:OP2	2.21	0.41
36:1:2296:A:H2	36:1:2918:G:N3	2.18	0.41
5:S3:107:PHE:O	5:S3:111:ASN:HB2	2.20	0.41
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.21	0.41
70:O4:72:VAL:HG22	70:O4:77:GLY:O	2.79	0.41
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.21	0.41
36:5:2664:C:O2'	36:5:2665:U:H5'	2.21	0.41
36:1:1602:A:C6	36:1:1603:A:C6	3.08	0.41
25:D3:88:PRO:O	25:D3:89:ASN:HB2	2.20	0.41
73:O7:64:MET:HB2	73:O7:68:LYS:HB3	5.17	0.41
42:L5:32:GLN:O	42:L5:36:LEU:N	2.49	0.41
36:1:1528:G:H2'	36:1:1529:A:O4'	2.19	0.41
36:1:2379:U:H2'	36:1:2380:U:C6	2.56	0.41
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.89	0.41
16:C4:14:PHE:HA	16:C4:78:ALA:O	2.43	0.41
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.20	0.41
47:M0:63:GLU:H	47:M0:63:GLU:HG2	1.63	0.41
75:O9:5:LYS:HE3	36:5:1834:U:OP1	112.37	0.41
1:2:1381:U:H4'	22:D0:59:PRO:HG3	2.01	0.41
36:5:3289:G:H2'	36:5:3290:G:O4'	2.21	0.41
36:1:1230:G:O6	36:1:1231:A:N6	2.53	0.41
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.55	0.41
26:D4:15:ASN:HA	26:D4:16:PRO:HD2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:8:ARG:HH22	10:S8:21:PHE:N	2.19	0.41
29:D7:28:PRO:HB3	1:6:959:U:H5''	351.04	0.41
36:5:563:U:H2'	36:5:564:G:C8	2.55	0.41
39:L2:204:MET:HE3	39:L2:208:ASP:CB	2.76	0.41
42:L5:270:LYS:C	42:L5:272:TYR:H	2.67	0.41
1:2:1480:G:C2	1:2:1528:U:C2	3.08	0.41
1:6:885:G:H2'	1:6:886:U:C6	2.56	0.41
41:L4:178:LEU:HD23	41:L4:178:LEU:HA	1.93	0.41
36:1:1307:G:P	52:M6:59:ARG:NH1	2.94	0.41
1:6:1699:G:C2	1:6:1701:A:H5''	2.55	0.41
2:S0:112:THR:HG23	2:S0:115:PHE:HB2	2.02	0.41
24:D2:30:SER:OG	24:D2:31:SER:N	2.53	0.41
59:N3:2:SER:OG	59:N3:3:GLY:N	4.13	0.41
55:M9:106:LEU:HB3	55:M9:120:TYR:HE1	1.85	0.41
9:S7:28:GLU:O	9:S7:30:SER:N	2.53	0.41
46:L9:57:VAL:HG13	46:L9:64:HIS:CE1	2.68	0.41
51:M5:183:THR:O	51:M5:184:LYS:HB3	3.41	0.41
3:S1:175:GLU:HG2	3:S1:193:ILE:CD1	4.32	0.41
40:L3:76:VAL:HG11	40:L3:323:MET:CE	2.64	0.41
40:L3:283:TYR:OH	40:L3:325:LYS:HD2	2.19	0.41
11:S9:168:ARG:HD3	11:S9:171:ARG:HH11	1.86	0.41
13:C1:27:THR:HB	13:C1:29:LYS:O	7.11	0.41
1:6:542:A:N7	1:6:543:C:H2'	2.36	0.41
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.15	0.41
52:M6:192:LYS:HG2	52:M6:192:LYS:H	1.99	0.41
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.25	0.41
52:M6:121:PRO:O	52:M6:124:LEU:HB2	2.81	0.41
34:SR:201:THR:HB	34:SR:241:PHE:O	2.20	0.41
34:SR:7:LEU:HD23	34:SR:315:VAL:HG22	2.01	0.41
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.79	0.41
45:L8:78:PHE:C	45:L8:80:TYR:H	2.24	0.41
1:6:1213:G:O2'	1:6:1244:A:N6	2.54	0.41
36:1:1093:A:O2'	36:1:1094:U:O5'	2.34	0.41
4:S2:98:PHE:CE1	35:SM:116:GLU:HG3	2.56	0.41
48:M1:14:ILE:HG23	48:M1:129:VAL:HG13	2.03	0.41
1:6:1720:G:O6	87:6:2097:OHX:N4	2.53	0.41
36:5:1317:A:C4	36:5:1319:G:N7	2.89	0.41
9:S7:126:LEU:HD22	9:S7:173:TYR:CE2	2.91	0.41
59:N3:79:VAL:HG23	59:N3:80:ARG:HG3	2.01	0.41
13:C1:46:LYS:HE2	1:6:846:G:N2	310.18	0.41
15:C3:20:ARG:NH1	15:C3:20:ARG:HG3	4.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:75:LYS:HE3	36:5:181:U:O3'	50.31	0.41
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.40	0.41
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.35	0.41
1:2:711:U:H4'	1:2:712:G:OP1	2.20	0.41
25:D3:114:LYS:HB3	25:D3:115:GLY:H	1.68	0.41
36:1:1069:C:H2'	36:1:1070:U:C6	2.54	0.41
1:2:1651:A:N1	1:2:1749:A:H2	2.18	0.41
1:6:322:G:O4'	1:6:323:A:H8	2.03	0.41
55:M9:143:ILE:HG22	55:M9:144:GLN:N	2.55	0.41
55:M9:99:LEU:O	55:M9:103:ARG:HG3	4.98	0.41
1:6:794:U:H3'	1:6:795:U:H5'	2.03	0.41
36:5:286:U:H2'	36:5:287:G:C8	2.56	0.41
1:2:700:C:H42	1:2:738:G:H1	1.68	0.41
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.19	0.41
60:N4:8:PHE:CD2	60:N4:46:PRO:HG3	2.56	0.41
1:6:926:A:H2'	1:6:927:C:H6	1.86	0.41
14:C2:62:LEU:O	14:C2:91:VAL:HG12	4.85	0.41
8:S6:202:ARG:NH2	1:6:127:G:N7	329.73	0.41
57:N1:43:LYS:HD2	36:5:992:A:H5''	256.32	0.41
8:S6:85:ARG:HA	8:S6:86:PRO:HD3	1.85	0.41
36:5:2561:A:HO2'	36:5:2562:A:H8	1.68	0.41
1:2:685:A:HO2'	1:2:686:C:P	2.43	0.41
1:2:533:U:H4'	26:D4:33:ALA:HB2	2.02	0.41
1:2:1407:U:H2'	1:2:1408:G:O4'	2.20	0.41
36:5:641:C:N4	36:5:645:A:C8	2.89	0.41
28:D6:51:ARG:NH2	30:D8:60:GLU:OE1	8.25	0.41
42:L5:190:ILE:HD11	42:L5:195:LEU:HD22	2.85	0.41
38:4:93:U:H2'	38:4:94:C:O4'	2.20	0.41
36:1:2604:U:O4	87:1:3871:OHX:N4	2.54	0.41
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.71	0.41
69:O3:7:LEU:HD23	69:O3:7:LEU:HA	1.79	0.41
1:6:1096:C:H6	1:6:1096:C:H2'	1.62	0.41
36:5:2267:C:H2'	36:5:2268:U:C6	2.56	0.41
36:1:3182:G:H2'	36:1:3183:A:O4'	2.21	0.41
2:S0:24:LEU:HD12	2:S0:24:LEU:HA	2.30	0.41
61:N5:57:LEU:HA	61:N5:57:LEU:HD12	1.74	0.41
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.21	0.41
1:2:1565:C:H2'	1:2:1566:U:O4'	2.20	0.41
21:C9:53:TRP:HA	21:C9:56:LYS:HB2	2.03	0.41
1:2:694:U:N3	9:S7:98:ILE:HD12	2.36	0.41
48:M1:94:ARG:H	48:M1:94:ARG:HG2	1.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.64	0.41
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.20	0.41
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	3.85	0.41
34:SR:102:ARG:HH21	1:6:1341:A:HO2'	458.20	0.41
36:5:2860:U:H1'	36:5:2939:G:OP1	2.19	0.41
40:L3:4:ARG:O	40:L3:5:LYS:HB3	2.21	0.41
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.84	0.41
3:S1:35:PRO:CB	3:S1:231:LEU:HD11	4.30	0.41
36:1:1393:A:O5'	36:1:1393:A:C8	2.74	0.41
18:C6:90:VAL:HG23	18:C6:102:LYS:CG	5.17	0.41
50:M4:113:THR:HB	50:M4:116:GLU:HB2	2.01	0.41
59:N3:45:ARG:O	59:N3:46:LEU:C	2.58	0.41
36:5:129:U:H2'	36:5:130:A:H8	1.80	0.41
36:1:2532:U:H5'	36:1:2533:G:OP2	2.21	0.41
9:S7:7:LYS:C	9:S7:9:LEU:H	2.61	0.41
1:6:1680:G:O6	87:6:2192:OHX:N3	2.53	0.41
34:SR:161:LYS:HB3	34:SR:161:LYS:HE3	2.11	0.41
59:N3:125:LEU:HA	59:N3:125:LEU:HD12	2.39	0.41
1:2:649:U:O2'	1:2:650:U:H6	2.03	0.41
1:2:363:G:OP1	87:2:2076:OHX:N2	2.53	0.41
15:C3:27:LYS:HE2	15:C3:27:LYS:N	2.32	0.41
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	2.02	0.41
20:C8:91:ASP:OD1	20:C8:93:THR:N	2.85	0.41
25:D3:130:VAL:HG21	25:D3:135:LEU:HD21	2.02	0.41
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.84	0.41
32:E0:47:VAL:HG22	32:E0:48:THR:H	1.85	0.41
36:5:1266:G:C6	36:5:1276:U:C2	3.09	0.41
36:1:208:C:H2'	36:1:209:A:H5'	2.03	0.41
57:N1:14:MET:CE	57:N1:55:LYS:HB2	2.85	0.41
24:D2:94:LEU:HA	24:D2:94:LEU:HD23	1.90	0.41
13:C1:46:LYS:O	13:C1:50:GLU:HG2	3.81	0.41
42:L5:148:ILE:HD11	42:L5:160:PHE:CZ	2.55	0.41
36:5:945:C:H2'	36:5:946:U:H6	1.85	0.41
36:1:2105:G:C2'	36:1:2106:A:H5'	2.50	0.41
61:N5:86:VAL:HG12	61:N5:120:LYS:HB3	2.03	0.41
1:2:238:U:O2'	1:2:239:C:H5'	2.20	0.41
36:5:1841:A:O2'	36:5:1842:A:H5''	2.20	0.41
87:1:3966:OHX:N2	87:1:4145:OHX:N4	2.67	0.41
34:SR:29:GLN:H	34:SR:29:GLN:HG2	1.72	0.41
67:O1:9:THR:O	67:O1:109:VAL:HB	2.81	0.41
1:6:1393:C:H2'	1:6:1394:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2093:A:H3'	36:5:2093:A:N3	2.35	0.41
39:L2:152:SER:HB3	36:5:2157:G:O6	216.70	0.41
1:2:625:C:O2	1:2:974:A:N1	2.53	0.41
1:2:832:U:H2'	1:2:833:U:H5''	2.03	0.41
40:L3:66:LYS:HD3	40:L3:67:PHE:CD2	4.10	0.41
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	2.14	0.41
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	2.03	0.41
87:2:2073:OHX:N6	87:2:2160:OHX:N2	2.68	0.41
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	2.02	0.41
1:2:653:C:H2'	1:2:654:C:O4'	2.20	0.41
43:L6:23:LYS:HE3	36:5:611:A:O4'	233.65	0.41
45:L8:213:LYS:O	45:L8:217:THR:HG22	6.38	0.41
36:5:1352:A:H1'	36:5:1353:U:H5'	2.02	0.41
1:2:1297:G:N2	1:2:1300:A:OP2	2.48	0.41
1:6:705:U:HO2'	1:6:706:A:H8	1.68	0.41
7:S5:152:GLY:O	7:S5:154:ALA:N	2.54	0.41
73:O7:4:GLY:O	73:O7:7:SER:N	3.15	0.41
36:5:2112:U:O2	87:5:3977:OHX:N1	2.54	0.41
36:1:1506:A:C2	36:1:1513:G:C2	3.09	0.41
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.54	0.41
36:5:1194:G:OP1	87:5:4014:OHX:N6	2.54	0.41
75:O9:42:ARG:HG2	75:O9:43:ASN:N	2.77	0.41
63:N7:87:LEU:HD13	63:N7:127:ASN:CG	2.71	0.41
36:1:1802:C:H2'	36:1:1803:C:C6	2.55	0.41
36:5:3170:A:C6	36:5:3171:U:C4	3.09	0.41
49:M3:118:GLU:HG3	49:M3:118:GLU:O	5.04	0.41
43:L6:145:LEU:HD23	43:L6:145:LEU:HA	2.14	0.41
67:O1:20:LEU:HA	67:O1:20:LEU:HD23	1.87	0.41
36:5:1127:G:N2	36:5:1129:A:H3'	2.35	0.41
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.47	0.41
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.35	0.41
36:1:3340:G:O6	87:1:4057:OHX:N4	2.54	0.41
36:1:806:A:C4	36:1:936:A:C2	3.09	0.41
1:6:565:C:H4'	1:6:566:C:O5'	2.20	0.41
1:6:638:U:H3'	1:6:639:U:H5'	2.03	0.41
11:S9:95:TYR:CD2	11:S9:98:ALA:HB3	2.51	0.41
21:C9:105:LEU:HA	21:C9:105:LEU:HD23	1.76	0.41
56:N0:52:LYS:NZ	37:7:100:C:P	279.82	0.41
1:6:1438:G:H2'	1:6:1439:C:C6	2.56	0.41
7:S5:92:ARG:NH1	7:S5:92:ARG:HG2	2.60	0.41
10:S8:93:THR:HG1	10:S8:95:THR:HG1	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2939:G:C8	40:L3:2:SER:O	2.73	0.41
40:L3:3:HIS:ND1	40:L3:4:ARG:O	5.35	0.41
2:S0:13:ASP:O	2:S0:16:LEU:N	3.04	0.41
1:2:581:U:P	5:S3:143:ARG:HH12	2.44	0.41
1:6:836:U:C2	1:6:837:G:C8	3.09	0.41
18:C6:94:GLN:OE1	34:SR:62:LYS:HE3	2.19	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:N	2.36	0.41
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.44	0.41
13:C1:17:PRO:HB2	13:C1:18:HIS:CD2	3.67	0.41
1:6:488:G:H21	1:6:499:U:H3	1.66	0.41
36:1:1144:U:H1'	36:1:1145:G:C8	2.55	0.41
40:L3:290:ASP:C	40:L3:290:ASP:OD2	3.16	0.41
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.78	0.41
36:1:1819:U:O4	87:1:4045:OHX:N4	2.53	0.41
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.48	0.41
1:6:648:G:N3	1:6:687:G:N2	2.69	0.41
48:M1:7:ASN:HA	48:M1:8:PRO:HD3	1.80	0.41
21:C9:28:LEU:O	21:C9:107:ALA:HB1	2.20	0.41
41:L4:76:ARG:HA	41:L4:87:GLN:O	2.21	0.41
53:M7:36:ILE:CD1	53:M7:48:LEU:HD11	2.48	0.41
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.21	0.41
36:5:253:A:HO2'	36:5:254:A:H8	1.69	0.41
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.87	0.41
36:1:2727:A:H4'	36:1:2728:G:OP2	2.21	0.41
1:2:1752:U:OP2	87:2:2056:OHX:N2	2.54	0.41
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.94	0.41
87:1:4034:OHX:N4	87:1:4151:OHX:N3	2.69	0.41
36:1:2683:U:H2'	36:1:2684:C:H6	1.84	0.41
36:1:1350:A:OP1	41:L4:287:THR:HG21	2.20	0.41
45:L8:71:VAL:CG2	45:L8:76:ALA:HB2	2.51	0.41
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.49	0.41
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	2.36	0.41
36:5:139:G:H2'	36:5:140:C:C6	2.55	0.41
36:5:140:C:H2'	36:5:141:C:C6	2.55	0.41
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.55	0.41
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.44	0.41
36:1:795:G:C2'	36:1:796:U:H5'	2.50	0.41
13:C1:78:THR:HG22	13:C1:84:ILE:HG22	2.03	0.41
44:L7:84:VAL:HG13	44:L7:119:VAL:CG2	2.51	0.41
36:5:1397:C:O2'	36:5:1398:U:H5'	2.20	0.41
63:N7:34:LYS:HD2	63:N7:34:LYS:HA	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1243:G:OP2	36:5:1243:G:H8	2.03	0.41
60:N4:39:LEU:HA	60:N4:39:LEU:HD12	1.93	0.41
1:2:427:C:C4	1:2:428:A:N7	2.89	0.41
48:M1:90:GLN:HB3	48:M1:172:LEU:HD11	2.02	0.41
1:2:883:C:H2'	1:2:884:A:C8	2.55	0.41
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.23	0.41
1:2:872:G:O6	87:2:2124:OHX:N3	2.52	0.41
53:M7:178:ALA:O	53:M7:182:ILE:HB	2.20	0.41
40:L3:123:TYR:CE2	36:5:3315:G:C5	183.48	0.41
38:8:91:C:H2'	38:8:92:A:C8	2.55	0.41
42:L5:163:LEU:HD11	42:L5:175:HIS:CG	2.56	0.41
68:O2:41:VAL:HG12	68:O2:46:PHE:HB2	2.18	0.41
42:L5:224:LYS:HE3	42:L5:224:LYS:HB2	2.34	0.41
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.27	0.41
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.30	0.41
36:1:1419:A:H5'	38:4:20:U:O2'	2.21	0.41
1:2:1107:G:C6	1:2:1108:G:C6	3.09	0.41
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.20	0.41
67:O1:108:VAL:HG12	67:O1:110:GLU:OE1	3.14	0.41
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.54	0.41
36:5:2519:A:C2	36:5:2589:G:C2	3.09	0.41
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.50	0.41
1:2:605:A:OP2	1:2:606:A:O2'	2.27	0.41
20:C8:108:LYS:O	20:C8:111:ASP:HB2	2.90	0.41
36:1:942:U:O5'	36:1:942:U:H6	2.03	0.41
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	4.37	0.41
30:D8:14:LYS:HB2	30:D8:14:LYS:HE3	4.21	0.41
66:O0:56:LEU:HD23	66:O0:56:LEU:HA	2.62	0.41
64:N8:81:LEU:HD23	64:N8:81:LEU:N	2.64	0.41
40:L3:142:ALA:O	40:L3:143:GLY:C	3.05	0.41
37:7:33:U:H2'	37:7:34:C:O4'	2.21	0.41
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.33	0.41
43:L6:68:PRO:HB2	43:L6:71:VAL:HG23	2.74	0.41
36:5:3263:G:N7	87:5:4121:OHX:N2	2.68	0.41
43:L6:72:ASN:HB3	43:L6:160:SER:HA	2.02	0.41
47:M0:174:THR:HG1	47:M0:175:ASN:N	3.92	0.41
36:1:355:A:H2'	36:1:356:C:O4'	2.21	0.41
11:S9:133:HIS:O	11:S9:134:ILE:HG13	4.45	0.41
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.50	0.41
1:6:1179:G:C6	1:6:1180:C:N3	2.88	0.41
21:C9:56:LYS:HD3	21:C9:56:LYS:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1797:A:C6	28:D6:87:ARG:HD2	2.56	0.41
1:2:1258:U:H4'	12:C0:2:LEU:HD13	2.03	0.41
36:5:293:C:H2'	36:5:294:U:O4'	2.21	0.41
36:1:342:A:O2'	87:1:3889:OHX:N5	2.54	0.41
36:5:1764:U:H3'	36:5:1765:U:C5'	2.50	0.41
10:S8:89:GLU:O	10:S8:93:THR:HG23	2.21	0.41
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.36	0.41
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.26	0.41
15:C3:17:PRO:HG3	1:6:959:U:C2	354.35	0.41
87:1:4037:OHX:N6	87:1:4049:OHX:N5	2.69	0.41
14:C2:89:ILE:O	14:C2:90:LYS:HB2	2.20	0.41
5:S3:67:ASN:O	5:S3:70:THR:OG1	2.36	0.41
36:5:128:G:H2'	36:5:129:U:O4'	2.20	0.41
36:5:1025:A:H5'	36:5:1026:A:OP2	2.20	0.41
36:1:1740:U:C1'	36:1:1741:A:H2	2.30	0.41
15:C3:76:LYS:HB3	15:C3:76:LYS:HE3	1.93	0.41
1:2:192:U:O2'	1:2:193:U:O4'	2.39	0.41
1:2:1334:U:H2'	1:2:1335:U:H6	1.86	0.41
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.21	0.41
1:2:586:G:H4'	32:E0:21:VAL:HG22	2.02	0.41
1:6:587:C:H2'	1:6:588:U:O4'	2.20	0.41
1:6:659:C:H2'	1:6:660:G:C8	2.56	0.41
46:L9:110:LYS:HB3	46:L9:128:VAL:HB	2.03	0.41
36:1:1095:U:N3	57:N1:127:GLN:HG2	2.36	0.41
28:D6:12:LYS:NZ	28:D6:12:LYS:HB3	4.30	0.41
1:2:1370:U:H1'	1:2:1371:A:OP2	2.21	0.41
33:E1:93:HIS:HB3	33:E1:94:LYS:H	1.52	0.41
36:1:1821:U:N3	70:O4:67:LYS:HD2	2.35	0.41
70:O4:67:LYS:HA	70:O4:70:LYS:HE3	2.80	0.41
58:N2:21:SER:HB3	58:N2:107:PHE:CB	3.90	0.41
62:N6:60:ARG:NH1	36:5:200:C:OP1	86.67	0.41
18:C6:57:LEU:H	18:C6:57:LEU:HD12	3.57	0.41
36:1:1295:G:OP1	56:N0:83:SER:HB2	2.21	0.41
41:L4:291:ASN:HB3	41:L4:292:SER:H	1.50	0.41
61:N5:86:VAL:HG11	61:N5:95:ILE:CD1	2.51	0.41
31:D9:21:CYS:HB2	31:D9:39:CYS:H	3.09	0.41
7:S5:72:HIS:HD2	7:S5:107:LYS:HG2	2.00	0.41
36:5:528:U:H2'	36:5:529:A:C8	2.56	0.41
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.34	0.41
1:2:52:U:H2'	1:2:53:G:C8	2.56	0.41
53:M7:114:VAL:HG13	53:M7:114:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:53:G:H2'	1:6:54:C:O4'	2.20	0.41
87:1:4060:OHX:N2	87:1:4168:OHX:N5	2.68	0.41
45:L8:94:PHE:HB3	45:L8:189:LEU:HD11	3.59	0.41
24:D2:57:ARG:HD2	24:D2:57:ARG:N	2.36	0.41
69:O3:47:LYS:HD3	69:O3:47:LYS:HA	1.87	0.41
42:L5:119:TYR:OH	42:L5:134:ALA:HA	2.21	0.41
6:S4:16:HIS:C	6:S4:18:TRP:H	2.23	0.41
68:O2:61:LYS:HB2	68:O2:61:LYS:HE2	2.51	0.41
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.13	0.41
37:7:90:U:H2'	37:7:91:G:O4'	2.21	0.41
20:C8:45:LEU:HG	20:C8:81:ILE:HD13	2.73	0.41
49:M3:25:HIS:C	49:M3:27:ASP:H	2.22	0.41
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.59	0.41
1:2:1079:U:H2'	1:2:1080:U:C6	2.56	0.41
61:N5:101:GLU:HG2	61:N5:102:LEU:N	3.45	0.41
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.23	0.41
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.17	0.41
36:1:38:U:H4'	64:N8:32:ARG:HD2	2.03	0.41
36:5:646:A:C2	36:5:2375:G:C2	3.08	0.41
4:S2:84:LYS:HA	4:S2:85:PRO:HD3	1.87	0.41
24:D2:111:MET:HE3	24:D2:121:VAL:HG23	2.03	0.41
63:N7:64:LYS:HD2	36:5:1812:G:O6	185.82	0.41
63:N7:124:ALA:O	63:N7:126:LYS:N	2.66	0.41
36:5:2304:C:C5	36:5:2305:G:C6	3.08	0.41
1:2:319:U:H1'	1:2:323:A:C4	2.56	0.41
1:6:548:G:H2'	1:6:549:G:O4'	2.21	0.41
40:L3:64:GLY:O	36:5:3038:U:H4'	288.19	0.41
1:2:511:A:H5'	11:S9:173:ALA:HB2	2.02	0.41
5:S3:55:THR:HG23	5:S3:90:ARG:HG2	2.03	0.41
1:2:892:A:C6	1:2:893:U:C4	3.08	0.41
36:5:750:G:H2'	36:5:751:A:H8	1.85	0.41
49:M3:68:LYS:HD2	49:M3:68:LYS:HA	1.91	0.41
51:M5:114:ARG:HA	51:M5:114:ARG:HD3	1.93	0.41
76:Q0:89:TYR:CD2	76:Q0:89:TYR:N	3.12	0.41
36:1:720:A:N3	36:1:720:A:H2'	2.36	0.41
36:1:1004:U:C4	36:1:1005:G:N7	2.89	0.41
1:6:1164:G:H1	1:6:1581:C:H42	1.69	0.41
36:1:5:G:H2'	36:1:6:A:O4'	2.21	0.41
36:5:297:G:H8	36:5:299:G:H1'	1.86	0.41
36:1:314:U:O4	87:1:4155:OHX:N4	2.54	0.41
71:O5:101:THR:HG23	71:O5:103:LYS:H	2.06	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.20	0.41
42:L5:279:LYS:HG2	42:L5:282:ARG:NH1	2.36	0.41
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.20	0.41
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.55	0.41
49:M3:46:ILE:HA	49:M3:46:ILE:HD13	1.56	0.41
73:O7:88:ALA:O	87:O7:103:OHX:N4	2.53	0.41
9:S7:117:THR:HG23	9:S7:120:ALA:H	1.85	0.41
1:2:639:U:O2'	1:2:640:U:OP2	2.32	0.41
36:5:3288:G:O2'	36:5:3289:G:P	2.79	0.41
8:S6:157:VAL:HG22	8:S6:173:PRO:HD2	2.03	0.41
1:2:1232:U:O4	33:E1:97:LYS:HD3	2.21	0.41
6:S4:118:GLU:C	6:S4:120:SER:N	3.08	0.41
87:5:4066:OHX:N6	87:5:4075:OHX:N5	2.68	0.41
38:4:81:U:H1'	38:4:82:U:H5'	2.02	0.41
36:1:915:A:H2'	36:1:915:A:N3	2.35	0.41
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	2.30	0.41
7:S5:40:ILE:HG12	7:S5:41:LYS:N	2.53	0.41
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	3.21	0.41
36:1:2521:U:C2'	36:1:2522:G:H5'	2.51	0.41
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.21	0.41
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.50	0.41
49:M3:32:LYS:O	49:M3:36:ARG:HG3	2.21	0.41
79:Q3:10:ILE:O	79:Q3:10:ILE:HG13	3.95	0.41
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.13	0.41
15:C3:94:LYS:HB2	15:C3:94:LYS:HE3	1.91	0.41
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.69	0.41
39:L2:209:HIS:ND1	39:L2:210:PRO:HD2	3.18	0.41
42:L5:269:SER:O	37:7:22:A:N1	324.18	0.41
42:L5:270:LYS:HD3	37:7:2:G:H4'	321.66	0.41
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	5.05	0.41
1:2:888:U:H1'	16:C4:126:THR:HG21	2.03	0.41
1:6:591:A:H2'	1:6:592:A:C8	2.56	0.41
8:S6:132:ARG:HD2	1:6:150:U:H1'	326.87	0.41
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.21	0.41
1:2:901:G:C6	1:2:902:G:C6	3.09	0.41
30:D8:26:THR:HB	30:D8:44:VAL:CG2	2.62	0.41
41:L4:29:PRO:HD2	41:L4:277:PRO:HB2	2.42	0.41
36:5:2441:A:N1	36:5:2507:C:C2	2.89	0.41
1:2:1545:A:C8	20:C8:134:ARG:NH2	2.88	0.41
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.12	0.41
2:S0:71:GLU:HA	2:S0:95:ALA:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:135:ARG:NH2	36:5:2556:C:O2'	200.06	0.41
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.55	0.41
63:N7:22:LYS:HE3	63:N7:134:LEU:HB2	2.33	0.41
7:S5:99:MET:HB2	7:S5:100:ASN:H	1.79	0.41
15:C3:128:TYR:O	15:C3:132:VAL:HG22	2.21	0.41
79:Q3:73:THR:HG22	79:Q3:76:ALA:CB	2.50	0.41
49:M3:28:GLN:HB3	51:M5:201:ARG:NH1	3.19	0.41
36:5:3317:U:H4'	36:5:3318:G:O5'	2.21	0.41
36:1:425:G:C5	36:1:635:G:C2	3.09	0.41
36:1:3067:C:H5"	55:M9:58:HIS:CD2	2.56	0.41
1:2:795:U:H5	1:2:796:A:C5	2.39	0.41
67:O1:46:THR:HG23	67:O1:47:ASP:N	3.58	0.41
53:M7:75:GLU:HG2	53:M7:76:PHE:CE2	2.69	0.41
1:6:1160:A:H2'	1:6:1161:C:H6	1.84	0.41
1:6:1283:U:OP1	87:6:2140:OHX:N1	2.54	0.41
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	2.40	0.41
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	1.84	0.41
36:1:1507:G:N7	53:M7:129:THR:CG2	2.84	0.41
36:5:118:U:C5	36:5:119:U:C4	3.08	0.41
53:M7:69:ARG:NH2	36:5:2991:A:N3	194.65	0.41
13:C1:109:VAL:HG22	13:C1:139:VAL:HG23	2.03	0.41
20:C8:29:VAL:O	20:C8:43:SER:OG	2.33	0.41
36:5:3279:A:C6	36:5:3280:U:C4	3.09	0.41
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.75	0.41
40:L3:153:LYS:HD3	40:L3:154:TYR:CE2	2.56	0.41
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.35	0.41
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.65	0.41
26:D4:86:GLU:CD	26:D4:90:ARG:HH11	2.81	0.41
25:D3:50:LYS:HA	25:D3:102:VAL:O	2.81	0.41
2:S0:126:PRO:HG2	2:S0:151:SER:HB3	2.24	0.41
1:6:415:C:C4	1:6:417:A:C2	3.09	0.41
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.20	0.41
41:L4:311:HIS:ND1	44:L7:162:PRO:HG3	2.35	0.41
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.23	0.41
52:M6:36:VAL:HB	52:M6:108:ILE:HB	4.73	0.41
87:1:4025:OHX:N6	87:1:4062:OHX:N2	2.68	0.41
34:SR:201:THR:HG21	34:SR:242:SER:HA	2.03	0.41
48:M1:65:ILE:HD13	48:M1:65:ILE:HG21	1.86	0.41
36:1:3139:A:C8	36:1:3139:A:C5'	3.04	0.41
17:C5:16:SER:HA	17:C5:20:VAL:O	2.21	0.41
36:5:1236:G:N2	36:5:1244:A:OP1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:126:LYS:HB2	40:L3:128:LYS:HG2	2.03	0.41
36:1:3151:U:OP1	40:L3:128:LYS:NZ	2.54	0.41
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.45	0.41
1:2:1157:A:H61	1:2:1621:U:H3	1.68	0.41
43:L6:65:ILE:HA	43:L6:65:ILE:HD12	4.41	0.41
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.26	0.41
36:1:2960:C:H2'	36:1:2961:G:C8	2.56	0.41
57:N1:127:GLN:HG2	36:5:1095:U:H3	260.78	0.41
36:1:604:G:H2'	36:1:605:U:O4'	2.21	0.41
1:6:1291:G:N3	1:6:1291:G:O4'	2.54	0.41
36:1:209:A:OP1	41:L4:161:LYS:NZ	2.54	0.41
13:C1:91:LEU:HD23	13:C1:102:LYS:HA	2.01	0.41
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.53	0.41
1:6:961:U:H2'	1:6:962:C:C6	2.55	0.41
36:5:3255:U:H2'	36:5:3256:G:C8	2.56	0.41
62:N6:120:GLN:HE22	62:N6:126:LEU:HA	8.37	0.41
36:5:1481:A:O4'	36:5:1481:A:P	2.78	0.41
15:C3:40:TYR:CE2	15:C3:53:LEU:HD23	2.71	0.41
8:S6:2:LYS:HB3	8:S6:108:VAL:HG12	5.24	0.41
1:2:868:G:C2	1:2:869:A:C8	3.09	0.41
36:1:422:A:N6	36:1:423:A:C6	2.89	0.41
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.20	0.41
58:N2:97:SER:HB2	58:N2:103:TYR:CE1	2.97	0.41
52:M6:83:ALA:CB	36:5:1313:G:H5'	258.75	0.41
24:D2:86:ILE:HB	24:D2:117:ARG:HH22	7.12	0.41
43:L6:56:LYS:HG2	43:L6:58:LEU:HD23	3.66	0.41
34:SR:220:ILE:HD12	34:SR:263:PHE:HE2	1.85	0.41
36:5:541:U:O4	87:5:4013:OHX:N3	2.54	0.41
69:O3:73:ARG:HH12	36:5:1166:G:H5''	243.99	0.41
47:M0:23:ASN:O	47:M0:24:ARG:HB2	2.21	0.41
36:1:1723:A:N1	36:1:1788:C:O2'	2.39	0.41
47:M0:190:VAL:HG22	47:M0:199:PHE:CD1	2.56	0.41
64:N8:105:LEU:HD13	64:N8:128:ARG:HD2	2.03	0.41
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.92	0.41
1:6:1433:G:H2'	1:6:1434:U:C6	2.56	0.41
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	1.91	0.41
39:L2:104:LEU:O	39:L2:107:VAL:HG22	2.75	0.41
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.61	0.41
2:S0:130:ALA:HA	2:S0:133:ILE:HD13	2.01	0.41
13:C1:55:ASP:OD2	13:C1:110:HIS:HE1	2.04	0.41
1:6:1005:A:C5	1:6:1006:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1157:G:H2'	36:1:1158:A:O4'	2.21	0.41
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.21	0.41
87:1:4066:OHX:N4	87:1:4179:OHX:N2	2.69	0.41
41:L4:22:LEU:HA	41:L4:22:LEU:HD23	1.87	0.41
36:5:1338:C:H2'	36:5:1339:C:H6	1.85	0.41
47:M0:50:VAL:HG22	47:M0:167:LEU:HD22	2.03	0.41
36:5:2724:U:C4	36:5:2725:U:O4	2.74	0.41
36:1:168:U:H2'	36:1:169:U:H6	1.86	0.41
36:5:3352:U:O4'	36:5:3353:G:C2	2.74	0.41
46:L9:147:SER:HB2	46:L9:187:ILE:CD1	2.84	0.41
42:L5:224:LYS:O	42:L5:227:LEU:HB2	2.21	0.41
61:N5:66:PRO:HG3	61:N5:139:ILE:HD11	2.02	0.41
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.87	0.41
1:2:42:G:H4'	1:2:43:A:O5'	2.21	0.41
36:5:795:G:C2'	36:5:796:U:H5'	2.50	0.41
1:6:65:A:H2	1:6:84:A:H62	1.69	0.41
51:M5:66:VAL:O	51:M5:127:TYR:HA	2.62	0.41
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.07	0.41
17:C5:34:VAL:HG11	17:C5:45:PHE:CD1	2.56	0.41
36:5:3113:A:H2'	36:5:3114:A:O4'	2.21	0.41
1:2:1170:G:C6	1:2:1574:G:C5	3.08	0.41
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.40	0.41
1:2:1675:C:H1'	10:S8:32:GLN:OE1	2.21	0.41
21:C9:18:TYR:HB3	21:C9:59:ALA:HB1	2.02	0.41
67:O1:12:TYR:O	67:O1:73:LEU:N	2.87	0.41
64:N8:88:ASP:O	64:N8:92:LYS:HG3	2.21	0.41
36:5:34:A:C6	36:5:35:A:C6	3.08	0.41
36:5:34:A:H3'	36:5:35:A:H8	1.86	0.41
1:6:100:A:H2'	1:6:101:U:O4'	2.21	0.41
59:N3:26:ALA:O	59:N3:115:THR:N	2.49	0.41
36:1:996:A:C2	36:1:1054:A:C4	3.09	0.41
41:L4:186:LYS:HE2	36:5:1389:G:O6	115.85	0.41
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	1.81	0.41
2:S0:87:LEU:HD12	2:S0:87:LEU:HA	1.77	0.41
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.64	0.41
35:SM:125:ALA:O	35:SM:128:ALA:HB3	2.21	0.41
36:1:1840:U:OP2	87:1:3984:OHX:N5	2.53	0.41
29:D7:26:GLN:NE2	1:6:864:U:OP2	353.27	0.41
36:5:767:U:H1'	36:5:768:C:C6	2.55	0.41
36:5:1584:U:H2'	36:5:1585:C:C6	2.56	0.41
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.31	0.41
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.18	0.41
36:1:1916:U:H2'	36:1:1917:C:C6	2.55	0.41
63:N7:120:GLU:O	63:N7:123:GLN:N	3.81	0.41
34:SR:232:TYR:OH	34:SR:265:LEU:HD22	5.35	0.41
1:6:1017:U:H2'	1:6:1018:U:C6	2.56	0.41
2:S0:89:PHE:O	2:S0:93:THR:HG23	2.44	0.41
36:5:3041:U:H2'	36:5:3042:U:C6	2.55	0.41
54:M8:28:LEU:HD23	54:M8:28:LEU:HA	2.22	0.41
61:N5:113:LEU:HD12	61:N5:113:LEU:C	2.41	0.41
51:M5:22:LEU:HD12	51:M5:22:LEU:HA	2.03	0.41
1:2:425:A:H5'	1:2:425:A:H8	1.86	0.41
47:M0:159:PHE:HA	47:M0:160:PRO:HD2	2.06	0.41
2:S0:38:PHE:HB2	2:S0:49:ASN:HB2	3.13	0.41
36:1:1034:U:H2'	36:1:1035:G:O4'	2.21	0.41
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.51	0.41
1:6:564:G:O2'	1:6:577:G:H4'	2.20	0.41
78:Q2:34:SER:OG	78:Q2:35:LEU:O	2.36	0.41
43:L6:31:ARG:HD3	69:O3:106:ASN:ND2	2.36	0.41
36:5:3287:U:N3	36:5:3288:G:N7	2.69	0.41
28:D6:10:ARG:HD3	28:D6:34:LYS:C	2.86	0.41
69:O3:29:LEU:HD22	69:O3:75:HIS:CD2	2.56	0.41
6:S4:235:TYR:HD2	6:S4:235:TYR:N	2.62	0.41
41:L4:139:GLY:O	41:L4:180:LYS:HE2	4.71	0.41
1:2:992:A:H2	1:2:1012:U:O4	2.04	0.41
36:1:2407:C:H1'	36:1:2818:U:C2	2.56	0.41
7:S5:75:GLY:O	7:S5:77:TYR:N	2.47	0.41
36:5:2186:U:H2'	36:5:2187:G:O4'	2.21	0.41
5:S3:211:PRO:HG3	19:C7:20:TYR:CE1	2.56	0.41
19:C7:34:LEU:HD23	19:C7:34:LEU:HA	2.67	0.41
18:C6:123:ARG:HB2	18:C6:123:ARG:HE	1.58	0.41
53:M7:172:GLN:OE1	69:O3:60:ARG:NH1	2.54	0.41
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.22	0.41
16:C4:52:ARG:HB3	1:6:906:A:OP2	294.40	0.41
17:C5:72:LYS:HG2	17:C5:72:LYS:H	3.33	0.41
36:1:3187:A:H5'	46:L9:22:SER:HA	2.02	0.41
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.51	0.41
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.21	0.41
7:S5:57:SER:HB3	30:D8:53:ILE:HB	2.03	0.41
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.06	0.41
36:5:3128:G:OP2	87:5:4160:OHX:N5	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1233:G:H22	36:1:1255:C:H42	1.69	0.41
5:S3:58:VAL:O	5:S3:65:ARG:HB3	2.20	0.41
1:6:1696:G:C8	1:6:1696:G:H5''	2.52	0.41
38:8:67:U:H2'	38:8:68:G:H8	1.85	0.41
43:L6:176:PHE:H	50:M4:117:ARG:HH22	4.67	0.41
36:5:1027:A:N7	36:5:1029:G:C2	2.88	0.41
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.22	0.41
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.50	0.41
26:D4:49:LYS:O	26:D4:49:LYS:HE2	4.91	0.41
12:C0:58:GLN:O	12:C0:65:TYR:N	2.56	0.41
36:5:2319:U:OP1	87:5:4002:OHX:N5	2.54	0.41
36:5:1329:U:O2'	36:5:1330:A:P	2.79	0.41
46:L9:86:TYR:CE1	46:L9:151:VAL:HG13	2.56	0.41
36:5:1064:A:N6	36:5:1096:U:C4	2.89	0.41
1:6:67:A:H2'	1:6:69:G:H5''	2.03	0.41
36:5:1810:A:H2'	36:5:1811:G:C8	2.56	0.41
34:SR:123:ILE:HD13	34:SR:169:ILE:HG21	2.26	0.41
34:SR:183:LEU:HD12	34:SR:186:PHE:CD1	6.05	0.41
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	2.03	0.41
69:O3:45:LEU:HD23	69:O3:71:VAL:HG12	2.03	0.41
36:5:1348:U:C5	36:5:1355:A:C5	3.09	0.41
43:L6:131:LYS:HB2	43:L6:134:ARG:HG2	5.93	0.41
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.28	0.41
53:M7:119:VAL:HA	53:M7:145:HIS:O	2.48	0.41
39:L2:30:ARG:HH22	39:L2:33:ASP:CG	2.24	0.41
36:1:705:A:C4	36:1:715:A:N6	2.88	0.41
45:L8:156:ASP:O	45:L8:157:VAL:HB	2.21	0.41
48:M1:72:ARG:NE	37:7:40:C:O2	306.96	0.41
48:M1:16:LYS:HB2	48:M1:72:ARG:HG2	2.03	0.41
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.21	0.41
1:6:716:C:H2'	1:6:717:C:O4'	2.21	0.41
18:C6:65:ILE:HD13	18:C6:65:ILE:HA	1.88	0.41
36:1:2242:A:H5''	39:L2:244:GLY:HA3	2.02	0.41
36:1:2104:A:H2'	36:1:2105:G:H8	1.86	0.41
55:M9:77:GLY:O	55:M9:81:ARG:HD3	2.21	0.41
36:5:113:C:C2	36:5:319:A:C2	3.09	0.41
36:1:3189:G:H2'	36:1:3190:C:C6	2.56	0.41
1:2:709:C:N4	1:2:730:G:C4	2.89	0.41
1:6:5:U:HO2'	1:6:553:G:HO2'	1.66	0.41
42:L5:222:LEU:HG	42:L5:222:LEU:H	1.58	0.41
8:S6:58:LYS:H	8:S6:58:LYS:HG2	1.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:222:LEU:HD23	34:SR:234:LEU:HD11	2.03	0.41
36:1:2991:A:P	40:L3:20:LYS:HB2	2.61	0.41
44:L7:181:ILE:O	44:L7:185:ILE:HD12	2.21	0.41
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	2.03	0.41
1:2:52:U:H2'	1:2:53:G:H8	1.85	0.41
36:5:1192:C:C5	87:5:4092:OHX:N4	2.89	0.41
1:6:1673:G:C6	1:6:1674:C:C4	3.09	0.41
41:L4:74:ILE:HA	41:L4:74:ILE:HD12	3.69	0.41
36:5:547:G:H2'	36:5:548:G:O4'	2.21	0.41
36:1:2659:G:C2	36:1:2712:U:O2	2.74	0.41
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.21	0.41
51:M5:75:VAL:HA	51:M5:76:PRO:HD3	1.86	0.41
36:5:675:C:O2'	36:5:679:U:OP1	2.34	0.41
36:1:2525:G:H2'	39:L2:34:TYR:HE1	1.86	0.41
1:2:336:G:H5'	13:C1:130:PRO:O	2.21	0.41
40:L3:358:TRP:CZ3	60:N4:15:PRO:HD2	2.56	0.41
23:D1:85:TYR:CE1	29:D7:6:ASP:HB2	3.30	0.41
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	2.03	0.41
47:M0:50:VAL:HG13	47:M0:167:LEU:HA	3.69	0.41
36:1:3364:C:H2'	36:1:3365:U:C6	2.56	0.41
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	3.05	0.41
36:5:880:G:H8	36:5:882:A:OP2	2.04	0.41
36:5:237:G:N2	36:5:238:A:O4'	2.54	0.41
70:O4:55:SER:OG	70:O4:69:HIS:HB3	2.21	0.41
40:L3:47:LEU:HD23	40:L3:164:THR:HG23	2.61	0.41
1:6:1509:C:C4	1:6:1510:U:C5	3.09	0.41
25:D3:68:ILE:HB	25:D3:70:LYS:HZ1	2.76	0.41
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.20	0.41
36:5:1349:G:N1	36:5:1350:A:N6	2.69	0.41
38:8:121:U:O2'	38:8:122:U:H5'	2.21	0.41
36:5:2604:U:OP2	87:5:4016:OHX:N3	2.53	0.41
36:1:3291:G:H2'	36:1:3292:A:H8	1.86	0.41
36:1:2284:C:H5''	36:1:2285:C:OP2	2.20	0.41
36:1:1165:A:H2'	36:1:1166:G:O4'	2.21	0.41
36:1:545:U:O2	36:1:545:U:H2'	2.21	0.41
9:S7:70:PHE:HD1	9:S7:70:PHE:HA	1.75	0.41
3:S1:54:LEU:HD23	3:S1:54:LEU:HA	2.27	0.41
6:S4:180:LEU:HD23	6:S4:180:LEU:HA	1.71	0.41
36:1:1297:C:H2'	36:1:1298:C:H6	1.85	0.41
78:Q2:17:CYS:HG	78:Q2:76:LYS:HB2	3.06	0.40
23:D1:74:GLN:HB2	23:D1:74:GLN:HE21	1.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:47:PRO:HB3	47:M0:171:TRP:CH2	2.56	0.40
42:L5:75:LEU:CD2	42:L5:112:LYS:HE2	4.95	0.40
36:1:1035:G:C6	36:1:1036:A:C6	3.09	0.40
39:L2:206:PRO:HG3	39:L2:213:GLY:CA	3.41	0.40
1:2:1497:U:C4	1:2:1511:U:O2	2.74	0.40
36:1:3215:A:H8	50:M4:121:MET:HE2	1.86	0.40
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	2.21	0.40
7:S5:43:PHE:H	7:S5:46:TRP:H	2.41	0.40
1:2:852:C:H6	1:2:852:C:O5'	2.04	0.40
1:2:852:C:N4	1:2:853:G:C6	2.89	0.40
46:L9:90:MET:HB2	46:L9:144:ILE:CG2	2.58	0.40
59:N3:120:LYS:HB2	59:N3:137:VAL:HG23	2.70	0.40
4:S2:87:GLN:HA	4:S2:95:ARG:O	2.21	0.40
36:1:916:G:N1	39:L2:207:VAL:HG11	2.36	0.40
37:7:4:U:H4'	37:7:26:C:C4'	2.51	0.40
36:1:3259:U:H5'	36:1:3259:U:C6	2.44	0.40
1:6:486:G:N2	1:6:487:G:N7	2.68	0.40
7:S5:161:ASP:OD2	30:D8:42:ARG:NH2	2.54	0.40
1:2:1657:U:C2	87:2:2087:OHX:N1	2.89	0.40
1:6:74:U:H3'	1:6:75:U:H3'	2.03	0.40
2:S0:60:ALA:HB1	2:S0:144:ILE:HG21	2.87	0.40
4:S2:41:LEU:HA	4:S2:41:LEU:HD23	2.29	0.40
36:5:2180:G:H2'	36:5:2181:C:C6	2.56	0.40
43:L6:46:ARG:HD3	36:5:3270:U:O2'	241.32	0.40
1:2:1648:A:H2'	1:2:1649:G:C8	2.55	0.40
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	2.77	0.40
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.42	0.40
13:C1:67:ARG:N	13:C1:67:ARG:HD3	2.36	0.40
36:1:1355:A:H1'	36:1:1356:U:OP2	2.22	0.40
2:S0:125:ASP:HA	2:S0:126:PRO:HD2	1.94	0.40
2:S0:33:GLN:HG3	2:S0:149:LEU:O	7.64	0.40
20:C8:25:ASN:O	27:D5:40:VAL:HG21	3.36	0.40
1:2:489:C:H2'	1:2:490:C:C6	2.56	0.40
46:L9:166:ARG:NH2	46:L9:168:ARG:HH22	9.39	0.40
5:S3:42:THR:OG1	5:S3:44:THR:O	5.79	0.40
15:C3:22:ALA:HB1	15:C3:23:PRO:CA	2.52	0.40
36:5:1817:G:O2'	36:5:1818:U:P	2.78	0.40
36:1:2217:U:H2'	36:1:2218:G:C8	2.56	0.40
46:L9:109:ALA:HB1	46:L9:111:PHE:CD2	2.55	0.40
41:L4:39:PHE:CG	41:L4:242:ALA:HB2	2.71	0.40
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.23	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.20	0.40
64:N8:73:LEU:HD23	64:N8:112:ILE:HD12	2.01	0.40
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.43	0.40
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.20	0.40
20:C8:121:ALA:O	20:C8:124:GLY:N	2.53	0.40
45:L8:139:VAL:O	45:L8:142:LEU:HB2	2.20	0.40
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.82	0.40
64:N8:25:HIS:CD2	64:N8:25:HIS:C	3.10	0.40
36:5:830:A:H5'	36:5:831:G:OP2	2.22	0.40
36:5:1135:A:C2	36:5:1136:A:C8	3.09	0.40
36:1:372:A:C6	36:1:373:A:C6	3.09	0.40
71:O5:22:VAL:O	71:O5:26:LYS:HG3	4.04	0.40
36:5:3085:G:O3'	36:5:3086:A:H8	2.04	0.40
41:L4:62:ALA:HB3	41:L4:90:PHE:CE2	2.73	0.40
16:C4:111:ARG:HA	28:D6:56:ALA:O	2.37	0.40
39:L2:229:ALA:HB3	39:L2:234:LYS:HG2	2.02	0.40
15:C3:91:LEU:HD23	15:C3:91:LEU:HA	2.57	0.40
1:6:876:G:H1'	1:6:944:A:O4'	2.20	0.40
35:SM:52:PRO:O	35:SM:54:PRO:HD3	5.16	0.40
1:2:312:A:H4'	1:2:313:U:H5''	2.03	0.40
37:3:98:C:OP1	56:N0:39:SER:OG	2.33	0.40
36:1:139:G:H2'	36:1:140:C:C6	2.56	0.40
34:SR:267:PRO:HG2	34:SR:269:TYR:HE1	1.85	0.40
71:O5:21:LEU:HD21	71:O5:25:LYS:HE3	2.78	0.40
87:2:2081:OHX:N4	87:2:2083:OHX:N1	2.69	0.40
1:6:926:A:H2'	1:6:927:C:O4'	2.21	0.40
36:1:1895:A:O2'	36:1:3053:G:H4'	2.20	0.40
4:S2:47:ALA:O	4:S2:49:LYS:HG2	2.21	0.40
17:C5:115:TYR:CZ	1:6:1556:A:H5''	384.49	0.40
42:L5:227:LEU:O	42:L5:229:ASP:N	2.53	0.40
36:5:238:A:H2'	36:5:239:G:O4'	2.22	0.40
1:2:1383:G:OP1	22:D0:87:HIS:ND1	2.44	0.40
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	283.82	0.40
36:1:2333:C:H2'	36:1:2334:U:O4'	2.21	0.40
46:L9:106:LYS:HG2	46:L9:107:ASP:OD1	2.21	0.40
36:1:22:G:O6	38:4:36:G:C6	2.75	0.40
36:5:532:A:C8	36:5:555:U:C4	3.09	0.40
51:M5:15:GLN:HG2	72:O6:52:PRO:HG2	2.98	0.40
37:3:77:G:O2'	37:3:101:G:O6	2.26	0.40
36:1:3024:A:C6	36:1:3032:A:C8	3.09	0.40
20:C8:61:LEU:HA	20:C8:65:GLU:OE1	3.11	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:579:G:O2'	36:5:580:C:H5'	2.21	0.40
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.58	0.40
42:L5:196:ARG:HB3	42:L5:196:ARG:HH11	1.86	0.40
66:O0:66:LYS:N	66:O0:66:LYS:HD2	4.10	0.40
36:1:180:C:H2'	36:1:181:U:C6	2.56	0.40
36:1:2763:U:H5'	54:M8:176:ARG:HG3	2.02	0.40
1:6:639:U:H1'	1:6:640:U:C5	2.57	0.40
11:S9:91:LYS:O	11:S9:92:LYS:HG2	2.21	0.40
36:5:3164:C:HO2'	36:5:3165:A:P	2.45	0.40
22:D0:109:GLU:HB3	22:D0:112:VAL:HB	2.89	0.40
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	1.88	0.40
36:5:273:A:N7	87:5:4066:OHX:N3	2.69	0.40
87:5:4066:OHX:N4	87:5:4075:OHX:N1	2.69	0.40
36:1:2407:C:H6	36:1:2407:C:O5'	2.04	0.40
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.55	0.40
36:5:1763:U:C4	36:5:1764:U:N3	2.89	0.40
36:1:1878:G:C3'	36:1:1879:A:H5'	2.50	0.40
36:1:2521:U:H2'	36:1:2522:G:H5'	2.03	0.40
36:1:3276:G:H1	69:O3:60:ARG:NH1	2.18	0.40
36:1:1072:G:H2'	36:1:1073:U:H6	1.86	0.40
18:C6:42:GLU:HG3	18:C6:43:ILE:N	4.13	0.40
52:M6:56:ASP:O	52:M6:59:ARG:HG2	2.22	0.40
47:M0:210:ILE:HD13	47:M0:217:PHE:CZ	4.46	0.40
1:2:902:G:H8	1:2:902:G:O5'	2.04	0.40
1:6:1698:G:O2'	1:6:1699:G:P	2.80	0.40
36:1:73:C:O2	49:M3:59:ARG:HD3	2.21	0.40
1:6:1716:C:HO2'	1:6:1717:G:C5'	2.33	0.40
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.31	0.40
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.20	0.40
1:2:1201:G:N2	1:2:1600:A:H5''	2.35	0.40
34:SR:167:VAL:HG12	34:SR:183:LEU:HB2	2.04	0.40
25:D3:126:LYS:HE2	25:D3:126:LYS:HB3	2.04	0.40
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.90	0.40
36:1:3279:A:C6	69:O3:54:ARG:NE	2.89	0.40
1:2:81:G:OP2	87:2:2138:OHX:N5	2.54	0.40
1:2:778:G:H22	26:D4:10:ARG:HH22	1.69	0.40
9:S7:58:LEU:N	9:S7:89:HIS:O	2.48	0.40
36:1:3294:A:H2'	36:1:3295:A:O4'	2.21	0.40
52:M6:182:ASN:O	52:M6:185:ALA:N	4.16	0.40
6:S4:11:ARG:NH1	6:S4:20:LEU:HB3	3.58	0.40
8:S6:94:ARG:NH2	1:6:406:U:O3'	290.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:18:VAL:HG21	28:D6:33:ASP:OD1	2.21	0.40
4:S2:98:PHE:O	4:S2:117:THR:HA	2.32	0.40
1:2:1518:C:OP1	87:2:2119:OHX:N5	2.54	0.40
41:L4:222:VAL:HG22	41:L4:225:VAL:HB	3.07	0.40
11:S9:123:HIS:CG	32:E0:37:ARG:HD2	3.94	0.40
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.67	0.40
70:O4:3:GLN:HG2	70:O4:4:ARG:N	4.05	0.40
1:2:14:C:O2'	1:2:619:A:N1	2.43	0.40
36:5:1556:C:C5	36:5:2169:G:C4	3.09	0.40
10:S8:98:LYS:O	10:S8:99:ALA:HB3	2.20	0.40
19:C7:26:LEU:HD13	19:C7:59:LYS:HG3	2.03	0.40
19:C7:66:VAL:O	19:C7:69:ILE:HG12	2.22	0.40
54:M8:8:LYS:HB2	54:M8:8:LYS:HE2	2.79	0.40
7:S5:150:GLY:H	30:D8:67:ARG:C	3.01	0.40
39:L2:42:ARG:HA	39:L2:88:ILE:O	2.57	0.40
3:S1:222:LYS:HD3	3:S1:222:LYS:HA	2.10	0.40
1:6:1357:A:H2'	1:6:1358:G:H8	1.86	0.40
1:6:926:A:H1'	1:6:988:A:C2	2.56	0.40
36:1:708:G:H5'	36:1:709:A:OP2	2.21	0.40
59:N3:104:ASN:OD1	59:N3:104:ASN:C	2.60	0.40
59:N3:43:GLY:HA3	36:5:3041:U:O2'	265.87	0.40
36:1:3350:C:O2'	36:1:3351:U:O5'	2.32	0.40
76:Q0:110:CYS:SG	76:Q0:112:LYS:HB2	2.61	0.40
37:3:30:G:C6	37:3:31:U:C4	3.10	0.40
5:S3:150:MET:HB3	5:S3:152:PHE:CE2	2.57	0.40
36:5:2376:G:H2'	36:5:2377:G:C8	2.56	0.40
87:1:4072:OHX:N1	87:1:4119:OHX:N2	2.69	0.40
36:5:806:A:H1'	36:5:2812:C:O2'	2.21	0.40
36:5:3312:U:H2'	36:5:3313:U:H5''	2.03	0.40
36:5:2364:G:H22	36:5:2396:G:H1'	1.85	0.40
1:6:745:U:C2	1:6:807:A:C2	3.09	0.40
11:S9:127:VAL:HA	11:S9:130:THR:HG23	2.75	0.40
36:5:2595:A:H2'	36:5:2596:U:O4'	2.21	0.40
1:6:273:G:H2'	1:6:274:G:O4'	2.21	0.40
68:O2:100:ILE:CD1	36:5:1388:U:H4'	136.15	0.40
34:SR:245:PHE:O	34:SR:294:TRP:CD1	2.90	0.40
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.29	0.40
1:2:1347:U:P	22:D0:23:ARG:HH22	2.44	0.40
1:2:540:G:OP2	1:2:540:G:H2'	2.21	0.40
53:M7:103:GLU:HA	53:M7:103:GLU:OE2	2.98	0.40
1:2:100:A:O5'	1:2:100:A:H8	2.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:23:LYS:HE3	49:M3:23:LYS:HB2	3.72	0.40
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.68	0.40
36:5:84:U:O2	36:5:101:G:N2	2.36	0.40
1:6:473:A:N6	1:6:474:A:C6	2.90	0.40
36:5:506:U:H2'	36:5:507:U:O4'	2.21	0.40
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.53	0.40
1:6:774:A:C2	1:6:775:G:C8	3.10	0.40
36:5:1393:A:C8	36:5:1418:A:C6	3.09	0.40
16:C4:83:ILE:HG22	16:C4:117:ASP:HA	3.07	0.40
64:N8:47:LYS:HG3	64:N8:47:LYS:O	3.22	0.40
1:6:755:A:O2'	1:6:756:A:H8	1.84	0.40
55:M9:25:ASP:HA	55:M9:26:PRO:HD2	1.70	0.40
42:L5:105:ILE:HA	42:L5:105:ILE:HD12	2.76	0.40
36:1:3272:C:O2	43:L6:80:ASN:HB2	2.21	0.40
62:N6:47:ALA:O	62:N6:48:LEU:HG	2.21	0.40
44:L7:80:GLN:H	44:L7:80:GLN:HG3	1.69	0.40
1:2:1457:C:H2'	1:2:1457:C:H6	1.73	0.40
48:M1:96:PHE:CD1	48:M1:102:PHE:HB3	2.56	0.40
1:6:1499:G:H2'	1:6:1500:C:O4'	2.22	0.40
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.30	0.40
6:S4:123:LEU:HD12	6:S4:161:LYS:HA	2.03	0.40
6:S4:235:TYR:N	6:S4:235:TYR:CD2	3.23	0.40
41:L4:180:LYS:HA	36:5:1386:A:N3	118.45	0.40
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.27	0.40
1:6:1541:G:H1'	1:6:1570:A:H61	1.85	0.40
7:S5:49:GLU:O	7:S5:51:VAL:HG23	2.21	0.40
10:S8:87:ASN:OD1	10:S8:89:GLU:HB3	4.37	0.40
1:2:1073:G:C2'	1:2:1074:G:H5''	2.44	0.40
53:M7:142:SER:HA	53:M7:143:PRO:HD3	1.69	0.40
24:D2:25:VAL:O	24:D2:62:VAL:HA	2.21	0.40
20:C8:3:LEU:HD23	20:C8:5:VAL:HG23	5.11	0.40
3:S1:117:TRP:O	3:S1:153:HIS:O	2.65	0.40
2:S0:156:VAL:O	23:D1:65:SER:HB3	2.96	0.40
16:C4:122:PRO:C	16:C4:124:ASP:H	2.54	0.40
17:C5:22:LEU:CD1	17:C5:26:LEU:HD21	2.51	0.40
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.37	0.40
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.23	0.40
36:5:3269:U:H4'	36:5:3270:U:O5'	2.22	0.40
63:N7:97:SER:HB3	63:N7:99:GLU:HG3	2.84	0.40
1:2:109:G:O2'	1:2:796:A:N1	2.42	0.40
67:O1:43:HIS:O	67:O1:44:MET:HE2	5.08	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	3.00	0.40
51:M5:190:THR:HB	51:M5:193:ARG:NH2	2.36	0.40
40:L3:153:LYS:NZ	36:5:3241:G:OP2	268.00	0.40
7:S5:178:GLY:HA3	7:S5:209:TYR:CG	2.56	0.40
4:S2:82:ASN:HD22	4:S2:207:LEU:CD1	2.34	0.40
1:2:1594:G:H5''	31:D9:33:LYS:HG3	2.02	0.40
53:M7:88:VAL:O	53:M7:92:GLN:N	2.62	0.40
2:S0:83:GLN:HB3	2:S0:99:ALA:HB1	2.04	0.40
34:SR:70:ASP:O	34:SR:71:CYS:HB3	2.70	0.40
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.22	0.40
66:O0:86:ARG:NH1	79:Q3:44:LYS:HG2	2.35	0.40
52:M6:121:PRO:C	52:M6:123:ALA:H	2.30	0.40
1:6:325:G:C2	1:6:344:A:C2	3.09	0.40
36:5:188:U:H1'	36:5:208:C:H1'	2.03	0.40
1:6:196:G:C2	1:6:197:A:H1'	2.56	0.40
36:1:2414:G:H2'	36:1:2415:C:O4'	2.20	0.40
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.74	0.40
10:S8:33:PRO:HA	1:6:331:A:H5'	276.68	0.40
36:5:1716:U:H3'	36:5:1716:U:P	2.61	0.40
58:N2:33:TYR:O	58:N2:36:TYR:N	2.54	0.40
64:N8:43:ILE:HG23	36:5:2727:A:C2	191.40	0.40
36:1:2656:A:C4	36:1:2658:G:N7	2.90	0.40
72:O6:72:VAL:O	72:O6:75:LYS:N	2.54	0.40
41:L4:216:VAL:HG23	41:L4:217:LYS:H	1.86	0.40
49:M3:174:ARG:HB2	72:O6:9:ILE:HD11	3.10	0.40
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.26	0.40
64:N8:94:ALA:HA	64:N8:121:VAL:HG13	2.03	0.40
58:N2:51:GLY:C	58:N2:53:ALA:H	2.28	0.40
1:2:1146:G:C6	1:2:1147:A:C6	3.09	0.40
70:O4:19:LYS:NZ	70:O4:38:LEU:HD12	3.60	0.40
36:5:2601:A:H2'	36:5:2602:G:C8	2.57	0.40
36:1:2617:U:H3'	65:N9:3:LYS:HD3	2.03	0.40
48:M1:54:VAL:HG11	48:M1:57:PHE:CD2	2.55	0.40
36:5:1620:U:O2	36:5:1825:G:N2	2.46	0.40
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.45	0.40
36:1:638:C:H2'	36:1:639:G:H8	1.86	0.40
36:1:2875:U:C3'	36:1:2875:U:H6	2.35	0.40
1:2:482:U:H2'	1:2:483:A:C8	2.56	0.40
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	2.03	0.40
34:SR:49:GLY:O	34:SR:51:ASP:N	2.44	0.40
36:1:633:C:H2'	36:1:634:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.50	0.40
36:1:2167:A:OP1	51:M5:72:LYS:NZ	2.50	0.40
34:SR:278:PHE:CE2	34:SR:287:PRO:HG2	2.56	0.40
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.52	0.40
1:2:276:C:HO2'	1:2:278:U:H3	1.67	0.40
1:6:1575:G:N2	1:6:1576:A:N3	2.69	0.40
1:2:552:G:C6	1:2:553:G:N1	2.89	0.40
39:L2:183:GLY:HA2	39:L2:186:PHE:HB3	2.03	0.40
38:4:22:U:OP1	62:N6:12:ARG:NH2	2.53	0.40
4:S2:148:LEU:HD22	4:S2:148:LEU:HA	1.81	0.40
18:C6:31:VAL:HG22	18:C6:67:VAL:HB	3.21	0.40
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	2.55	0.40
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.77	0.40
15:C3:110:ASP:OD2	1:6:877:G:N2	294.98	0.40
68:O2:75:LEU:HD23	68:O2:95:GLU:O	2.91	0.40
36:1:3289:G:N7	87:1:4136:OHX:N4	2.70	0.40
15:C3:86:GLU:HA	15:C3:89:TYR:HB3	2.03	0.40
36:1:880:G:H8	36:1:882:A:OP2	2.04	0.40
1:2:1263:G:C2	1:2:1264:G:H1'	2.56	0.40
36:5:2781:U:C4	36:5:2782:U:C4	3.10	0.40
36:5:1936:A:H2'	36:5:1937:U:O4'	2.22	0.40
72:O6:91:ASN:O	72:O6:94:ILE:HG22	4.39	0.40
54:M8:166:LEU:HA	54:M8:166:LEU:HD23	1.65	0.40
10:S8:58:LEU:H	10:S8:58:LEU:HD12	3.44	0.40
8:S6:133:LEU:HD12	8:S6:133:LEU:HA	1.93	0.40
44:L7:184:LEU:HD23	44:L7:184:LEU:HA	1.74	0.40
87:1:4085:OHX:N2	87:1:4155:OHX:N1	2.69	0.40
47:M0:77:THR:HG22	47:M0:85:PHE:CZ	2.57	0.40
47:M0:175:ASN:C	47:M0:176:LEU:HG	3.99	0.40
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.78	0.40
50:M4:121:MET:O	50:M4:125:LYS:HG3	3.03	0.40
36:5:3165:A:C6	36:5:3286:G:C6	3.09	0.40
17:C5:43:ARG:NH1	1:6:1553:G:N7	401.22	0.40
41:L4:180:LYS:HE3	41:L4:180:LYS:HB3	1.92	0.40
18:C6:50:GLU:HA	18:C6:53:LEU:HD12	2.04	0.40
1:6:230:C:N4	1:6:235:G:H1	2.13	0.40
52:M6:110:PRO:C	52:M6:112:TYR:N	3.01	0.40
17:C5:67:ALA:C	17:C5:69:GLU:H	2.25	0.40
1:2:720:G:H1'	1:2:721:U:H5''	2.03	0.40
1:6:460:A:H5'	1:6:461:G:OP2	2.21	0.40
56:N0:114:HIS:O	56:N0:115:ARG:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:67:ASN:HA	5:S3:70:THR:OG1	2.74	0.40
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	2.23	0.40
2:S0:105:GLY:O	2:S0:112:THR:HG21	2.21	0.40
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.21	0.40
15:C3:127:ARG:HG3	15:C3:128:TYR:N	3.84	0.40
57:N1:17:ARG:O	57:N1:18:ASP:CB	2.69	0.40
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.86	0.40
18:C6:18:ALA:CB	18:C6:69:VAL:HG13	2.67	0.40
77:Q1:4:LYS:HG3	77:Q1:5:TRP:CE3	2.57	0.40
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.31	0.40
4:S2:82:ASN:OD1	4:S2:83:ILE:N	2.55	0.40
34:SR:169:ILE:HG12	34:SR:183:LEU:CD2	3.03	0.40
4:S2:133:LYS:HA	4:S2:136:VAL:HG23	2.63	0.40
1:2:802:G:N2	24:D2:107:SER:HB3	2.33	0.40
46:L9:166:ARG:HH22	46:L9:168:ARG:HH22	9.83	0.40
36:5:817:A:H2'	36:5:920:A:C2	2.57	0.40
36:5:720:A:C2	36:5:784:A:H5'	2.56	0.40
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.56	0.40
1:6:188:A:H3'	1:6:189:C:H6	1.85	0.40
29:D7:3:LEU:HD23	29:D7:3:LEU:HA	1.70	0.40
45:L8:156:ASP:OD1	45:L8:183:LYS:HG2	3.04	0.40
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.37	0.40
1:2:74:U:HO2'	1:2:75:U:P	2.44	0.40
36:5:2667:A:C5'	36:5:2667:A:H8	2.33	0.40
50:M4:48:GLY:CA	50:M4:53:VAL:HG13	2.56	0.40
21:C9:89:ARG:NH1	21:C9:89:ARG:HG3	2.68	0.40
18:C6:24:ALA:HB2	18:C6:92:TYR:OH	2.23	0.40
1:6:872:G:H2'	1:6:873:U:O4'	2.21	0.40
71:O5:35:LYS:HG2	71:O5:35:LYS:O	2.21	0.40
1:2:709:C:C4	1:2:710:U:H1'	2.56	0.40
68:O2:55:ILE:HA	68:O2:55:ILE:HD12	2.05	0.40
40:L3:238:LEU:HD12	40:L3:238:LEU:HA	2.18	0.40
1:2:1610:G:OP1	7:S5:72:HIS:NE2	2.45	0.40
30:D8:18:ARG:NH1	1:6:1616:G:H4'	362.96	0.40
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.55	0.40
1:2:912:U:H4'	1:2:913:G:H2'	2.03	0.40
36:5:2921:U:O2	36:5:2923:U:H5'	2.22	0.40
36:5:652:G:C6	36:5:2361:A:O4'	2.75	0.40
21:C9:101:ASN:O	21:C9:104:VAL:N	2.53	0.40
57:N1:132:PRO:O	57:N1:134:GLN:NE2	2.54	0.40
34:SR:16:HIS:HD2	34:SR:20:VAL:HG22	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:502:U:OP1	87:1:3873:OHX:N3	2.55	0.40
36:1:1374:G:O6	64:N8:10:LYS:NZ	2.47	0.40
5:S3:202:LEU:C	5:S3:204:ASP:H	2.67	0.40
1:2:1378:U:H1'	18:C6:8:GLN:HG3	2.03	0.40
36:5:2821:C:O2	89:5:4254:3KD:N	2.54	0.40
36:1:168:U:C2	36:1:169:U:C5	3.10	0.40
49:M3:144:THR:C	49:M3:146:PRO:HD3	3.03	0.40
36:5:3136:G:OP2	87:5:4108:OHX:N3	2.54	0.40
6:S4:127:LYS:N	6:S4:140:VAL:O	2.66	0.40
45:L8:206:GLU:HG3	45:L8:206:GLU:H	1.60	0.40
45:L8:204:ARG:HD2	45:L8:206:GLU:OE2	4.98	0.40
36:1:126:U:H2'	36:1:127:G:O4'	2.21	0.40
8:S6:82:SER:O	8:S6:83:CYS:HB2	2.39	0.40
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.22	0.40
44:L7:138:TYR:CE2	44:L7:233:GLU:HG2	2.97	0.40
16:C4:70:LYS:O	16:C4:74:VAL:N	2.96	0.40
35:SM:37:VAL:HA	35:SM:38:PRO:HD2	2.19	0.40
36:1:2118:C:H2'	36:1:2119:A:O4'	2.21	0.40
46:L9:85:GLY:O	46:L9:186:PHE:HA	2.40	0.40
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.44	0.40
1:6:635:A:C2	1:6:863:A:C8	3.10	0.40
34:SR:150:TRP:HB2	34:SR:174:ASN:HD22	1.85	0.40
1:6:1737:G:H2'	1:6:1738:U:C6	2.56	0.40
1:2:1342:C:H2'	1:2:1343:U:C6	2.57	0.40
60:N4:38:SER:OG	60:N4:42:GLN:NE2	2.48	0.40
67:O1:84:ASP:OD1	67:O1:84:ASP:N	2.54	0.40
39:L2:109:GLU:H	39:L2:109:GLU:CD	3.51	0.40
36:5:3375:A:OP2	87:5:3959:OHX:N3	2.55	0.40
1:2:1270:G:N2	1:2:1271:G:C4	2.90	0.40
1:2:1275:A:C5	1:2:1438:G:C2	3.10	0.40
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.40	0.40
73:O7:17:THR:HG22	75:O9:51:ILE:CD1	2.51	0.40
5:S3:168:ILE:HA	5:S3:188:ILE:O	2.47	0.40
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	2.04	0.40
22:D0:27:THR:O	22:D0:113:ASP:HB3	2.89	0.40
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.09	0.40
60:N4:5:ILE:HD12	60:N4:6:ASP:O	2.22	0.40
41:L4:93:MET:H	41:L4:93:MET:HE2	2.72	0.40
36:5:1055:A:H4'	37:7:100:C:O2	2.21	0.40
18:C6:83:GLN:HG3	18:C6:116:LEU:O	2.21	0.40
1:2:449:C:C2	1:2:458:G:N2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:58:PHE:HB2	26:D4:59:GLY:H	1.76	0.40
36:1:1878:G:C2'	36:1:1879:A:H5'	2.52	0.40
10:S8:8:ARG:C	10:S8:9:HIS:O	2.59	0.40
22:D0:51:VAL:HB	22:D0:52:LYS:H	3.98	0.40
46:L9:41:ILE:HD13	46:L9:41:ILE:HG21	3.20	0.40
2:S0:183:ARG:HD2	2:S0:188:LEU:HD12	5.36	0.40
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.46	0.40
41:L4:170:LYS:HE2	41:L4:175:HIS:ND1	2.37	0.40
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.22	0.40
42:L5:95:TRP:O	42:L5:98:ALA:HB3	2.27	0.40
51:M5:151:ILE:HD11	51:M5:159:ARG:HD2	2.02	0.40
3:S1:59:ASP:C	3:S1:61:LEU:H	4.17	0.40
3:S1:70:LEU:HD12	3:S1:82:ARG:O	2.22	0.40
1:2:999:U:H2'	1:2:1000:C:H5'	2.04	0.40
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.22	0.40
1:6:487:G:H3'	1:6:488:G:C5'	2.50	0.40
8:S6:69:LEU:N	8:S6:101:ILE:HD12	2.74	0.40
1:2:1368:G:C6	1:2:1369:U:C4	3.10	0.40
1:2:380:U:C6	11:S9:5:PRO:HG3	2.56	0.40
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.21	0.40
46:L9:188:THR:CG2	46:L9:189:GLU:H	4.56	0.40
7:S5:94:THR:O	7:S5:97:LEU:HB2	2.20	0.40
1:2:647:G:H1	1:2:687:G:H1	1.69	0.40
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.51	0.40
1:6:1159:C:H5''	1:6:1160:A:C5'	2.52	0.40
1:2:1228:G:P	14:C2:119:SER:HG	2.44	0.40
36:5:1093:A:C2	36:5:1096:U:O2	2.74	0.40
20:C8:54:LEU:N	20:C8:54:LEU:HD12	3.83	0.40
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	2.04	0.40
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.50	0.40
38:8:104:A:H3'	38:8:105:A:H5''	2.03	0.40
36:1:3279:A:C6	36:1:3280:U:C4	3.09	0.40
1:2:81:G:C6	1:2:82:U:N3	2.89	0.40
21:C9:14:PHE:CE1	21:C9:136:ALA:HB2	3.01	0.40
21:C9:15:ILE:HD11	21:C9:63:ARG:HD2	5.02	0.40
48:M1:16:LYS:CB	48:M1:72:ARG:HG2	2.51	0.40
51:M5:81:TYR:OH	36:5:908:G:H3'	165.32	0.40
1:2:1524:A:C6	1:2:1525:A:C6	3.10	0.40
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.87	0.40
4:S2:246:GLU:HG2	4:S2:246:GLU:H	1.37	0.40
1:2:1392:U:H2'	1:2:1393:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:329:G:O2'	1:6:330:G:H5'	2.22	0.40
36:1:213:A:H5''	62:N6:2:ALA:HA	2.02	0.40
1:2:461:G:OP1	11:S9:2:PRO:HG2	2.21	0.40
1:6:680:U:C2	1:6:682:C:N4	2.90	0.40
1:2:1765:A:H5'	1:2:1767:G:N7	2.37	0.40
36:1:269:G:OP2	51:M5:44:ARG:NH2	2.55	0.40
36:1:818:C:N3	36:1:920:A:H5'	2.36	0.40
12:C0:64:TYR:HB3	12:C0:66:TYR:CZ	2.56	0.40
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.55	0.40
20:C8:8:GLN:HB2	20:C8:9:GLY:H	1.51	0.40
48:M1:172:LEU:HB3	48:M1:173:ASP:H	2.39	0.40
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	2.03	0.40
2:S0:140:ASN:HB3	23:D1:31:SER:O	2.20	0.40
13:C1:57:LYS:HB2	13:C1:110:HIS:NE2	2.37	0.40
15:C3:16:ILE:HG22	24:D2:57:ARG:NH2	2.36	0.40
45:L8:150:LEU:HA	45:L8:176:PRO:O	2.52	0.40
36:1:2775:U:H2'	36:1:2776:C:H6	1.86	0.40
52:M6:11:GLY:O	52:M6:14:HIS:HB2	2.35	0.40
38:4:21:C:C2'	38:4:22:U:H5'	2.51	0.40
15:C3:38:VAL:HG13	15:C3:80:LEU:HD23	3.06	0.40
1:6:675:U:H2'	1:6:676:G:C8	2.57	0.40
1:2:463:U:H2'	1:2:464:A:C8	2.57	0.40
55:M9:39:ASN:HD22	55:M9:42:ARG:HH21	1.69	0.40
36:1:3185:U:C6	52:M6:126:VAL:HG21	2.55	0.40
37:3:7:G:H5''	42:L5:22:ARG:HD3	2.03	0.40
1:6:619:A:N3	1:6:1141:G:H1'	2.36	0.40
36:5:1644:C:OP1	36:5:1821:U:H2'	2.21	0.40
36:1:528:U:H2'	36:1:529:A:C8	2.57	0.40
20:C8:102:ALA:O	20:C8:105:VAL:HG12	2.21	0.40
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.56	0.40
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.42	0.40
1:6:40:A:H2'	1:6:41:A:O4'	2.22	0.40
1:2:1086:A:C6	1:2:1087:A:C6	3.10	0.40
20:C8:97:ASP:N	20:C8:97:ASP:OD2	2.54	0.40
29:D7:8:LEU:HA	29:D7:8:LEU:HD23	1.87	0.40
36:5:1039:U:H2'	36:5:1040:A:C8	2.56	0.40
36:1:1313:G:O6	87:1:4096:OHX:N3	2.55	0.40
1:6:492:A:H2'	1:6:493:U:H5''	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/251 (81%)	152 (74%)	31 (15%)	21 (10%)	1	3
2	s0	204/251 (81%)	153 (75%)	26 (13%)	25 (12%)	0	2
3	S1	212/254 (84%)	146 (69%)	39 (18%)	27 (13%)	0	1
3	s1	214/254 (84%)	177 (83%)	26 (12%)	11 (5%)	2	15
4	S2	215/253 (85%)	187 (87%)	17 (8%)	11 (5%)	2	15
4	s2	215/253 (85%)	186 (86%)	16 (7%)	13 (6%)	2	11
5	S3	221/239 (92%)	179 (81%)	29 (13%)	13 (6%)	2	11
5	s3	221/239 (92%)	183 (83%)	19 (9%)	19 (9%)	1	4
6	S4	258/260 (99%)	206 (80%)	41 (16%)	11 (4%)	3	19
6	s4	258/260 (99%)	216 (84%)	24 (9%)	18 (7%)	1	7
7	S5	204/224 (91%)	158 (78%)	32 (16%)	14 (7%)	1	7
7	s5	204/224 (91%)	164 (80%)	25 (12%)	15 (7%)	1	6
8	S6	224/236 (95%)	194 (87%)	17 (8%)	13 (6%)	2	12
8	s6	216/236 (92%)	189 (88%)	15 (7%)	12 (6%)	2	13
9	S7	182/189 (96%)	137 (75%)	25 (14%)	20 (11%)	0	2
9	s7	184/189 (97%)	148 (80%)	21 (11%)	15 (8%)	1	5
10	S8	184/200 (92%)	154 (84%)	21 (11%)	9 (5%)	3	16
10	s8	184/200 (92%)	163 (89%)	16 (9%)	5 (3%)	6	32
11	S9	183/196 (93%)	151 (82%)	23 (13%)	9 (5%)	3	16
11	s9	183/196 (93%)	140 (76%)	34 (19%)	9 (5%)	3	16
12	C0	94/105 (90%)	68 (72%)	15 (16%)	11 (12%)	0	2
12	c0	92/105 (88%)	64 (70%)	14 (15%)	14 (15%)	0	1
13	C1	153/155 (99%)	126 (82%)	16 (10%)	11 (7%)	1	7
13	c1	144/155 (93%)	118 (82%)	17 (12%)	9 (6%)	2	9
14	C2	122/142 (86%)	70 (57%)	25 (20%)	27 (22%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	c2	122/142 (86%)	68 (56%)	32 (26%)	22 (18%)	0	0
15	C3	148/150 (99%)	123 (83%)	18 (12%)	7 (5%)	3	17
15	c3	148/150 (99%)	120 (81%)	17 (12%)	11 (7%)	1	6
16	C4	125/136 (92%)	94 (75%)	15 (12%)	16 (13%)	0	1
16	c4	126/136 (93%)	101 (80%)	16 (13%)	9 (7%)	1	7
17	C5	122/141 (86%)	88 (72%)	23 (19%)	11 (9%)	1	4
17	c5	133/141 (94%)	92 (69%)	22 (16%)	19 (14%)	0	1
18	C6	139/142 (98%)	116 (84%)	16 (12%)	7 (5%)	3	15
18	c6	140/142 (99%)	116 (83%)	16 (11%)	8 (6%)	2	12
19	C7	116/136 (85%)	91 (78%)	13 (11%)	12 (10%)	1	3
19	c7	113/136 (83%)	87 (77%)	18 (16%)	8 (7%)	1	7
20	C8	143/145 (99%)	115 (80%)	16 (11%)	12 (8%)	1	5
20	c8	143/145 (99%)	114 (80%)	20 (14%)	9 (6%)	2	9
21	C9	141/143 (99%)	115 (82%)	22 (16%)	4 (3%)	6	30
21	c9	141/143 (99%)	119 (84%)	16 (11%)	6 (4%)	3	19
22	D0	105/120 (88%)	88 (84%)	13 (12%)	4 (4%)	4	22
22	d0	108/120 (90%)	82 (76%)	16 (15%)	10 (9%)	1	4
23	D1	85/87 (98%)	61 (72%)	16 (19%)	8 (9%)	1	4
23	d1	85/87 (98%)	72 (85%)	8 (9%)	5 (6%)	2	11
24	D2	127/129 (98%)	106 (84%)	19 (15%)	2 (2%)	12	48
24	d2	127/129 (98%)	114 (90%)	12 (9%)	1 (1%)	24	66
25	D3	142/144 (99%)	113 (80%)	19 (13%)	10 (7%)	1	7
25	d3	142/144 (99%)	123 (87%)	16 (11%)	3 (2%)	9	40
26	D4	132/134 (98%)	103 (78%)	20 (15%)	9 (7%)	1	7
26	d4	132/134 (98%)	103 (78%)	21 (16%)	8 (6%)	2	11
27	D5	68/107 (64%)	47 (69%)	9 (13%)	12 (18%)	0	1
27	d5	67/107 (63%)	52 (78%)	9 (13%)	6 (9%)	1	4
28	D6	95/97 (98%)	59 (62%)	18 (19%)	18 (19%)	0	0
28	d6	95/97 (98%)	74 (78%)	12 (13%)	9 (10%)	1	3
29	D7	79/81 (98%)	66 (84%)	8 (10%)	5 (6%)	2	9
29	d7	79/81 (98%)	60 (76%)	12 (15%)	7 (9%)	1	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	D8	61/66 (92%)	51 (84%)	6 (10%)	4 (7%)	1	8
30	d8	61/66 (92%)	42 (69%)	15 (25%)	4 (7%)	1	8
31	D9	51/55 (93%)	41 (80%)	8 (16%)	2 (4%)	4	21
31	d9	51/55 (93%)	41 (80%)	6 (12%)	4 (8%)	1	6
32	E0	58/60 (97%)	44 (76%)	12 (21%)	2 (3%)	5	25
33	E1	69/76 (91%)	36 (52%)	17 (25%)	16 (23%)	0	0
33	e1	74/76 (97%)	36 (49%)	17 (23%)	21 (28%)	0	0
34	SR	316/318 (99%)	271 (86%)	35 (11%)	10 (3%)	5	27
34	sR	316/318 (99%)	270 (85%)	36 (11%)	10 (3%)	5	27
35	SM	155/273 (57%)	113 (73%)	23 (15%)	19 (12%)	0	2
39	L2	250/253 (99%)	223 (89%)	21 (8%)	6 (2%)	7	35
39	l2	250/253 (99%)	210 (84%)	30 (12%)	10 (4%)	4	21
40	L3	384/386 (100%)	326 (85%)	45 (12%)	13 (3%)	5	25
40	l3	384/386 (100%)	340 (88%)	32 (8%)	12 (3%)	5	28
41	L4	359/361 (99%)	299 (83%)	43 (12%)	17 (5%)	3	17
41	l4	359/361 (99%)	300 (84%)	39 (11%)	20 (6%)	2	13
42	L5	294/296 (99%)	242 (82%)	31 (10%)	21 (7%)	1	7
42	l5	292/296 (99%)	255 (87%)	30 (10%)	7 (2%)	7	35
43	L6	152/175 (87%)	132 (87%)	16 (10%)	4 (3%)	7	33
43	l6	153/175 (87%)	129 (84%)	20 (13%)	4 (3%)	7	33
44	L7	220/243 (90%)	198 (90%)	12 (6%)	10 (4%)	3	18
44	l7	221/243 (91%)	195 (88%)	20 (9%)	6 (3%)	6	32
45	L8	231/255 (91%)	188 (81%)	35 (15%)	8 (4%)	4	24
45	l8	229/255 (90%)	188 (82%)	21 (9%)	20 (9%)	1	4
46	L9	189/191 (99%)	167 (88%)	15 (8%)	7 (4%)	4	23
46	l9	189/191 (99%)	171 (90%)	15 (8%)	3 (2%)	12	48
47	M0	207/220 (94%)	178 (86%)	18 (9%)	11 (5%)	2	14
47	m0	209/220 (95%)	167 (80%)	27 (13%)	15 (7%)	1	7
48	M1	167/173 (96%)	131 (78%)	21 (13%)	15 (9%)	1	4
48	m1	167/173 (96%)	139 (83%)	16 (10%)	12 (7%)	1	7
49	M3	191/198 (96%)	164 (86%)	16 (8%)	11 (6%)	2	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	m3	192/198 (97%)	159 (83%)	17 (9%)	16 (8%)	1	5
50	M4	134/137 (98%)	117 (87%)	12 (9%)	5 (4%)	4	23
50	m4	135/137 (98%)	122 (90%)	10 (7%)	3 (2%)	8	38
51	M5	201/203 (99%)	181 (90%)	12 (6%)	8 (4%)	4	21
51	m5	201/203 (99%)	179 (89%)	16 (8%)	6 (3%)	5	29
52	M6	195/198 (98%)	181 (93%)	11 (6%)	3 (2%)	13	50
52	m6	195/198 (98%)	179 (92%)	8 (4%)	8 (4%)	3	20
53	M7	181/183 (99%)	152 (84%)	22 (12%)	7 (4%)	4	21
53	m7	153/183 (84%)	138 (90%)	13 (8%)	2 (1%)	15	53
54	M8	183/185 (99%)	165 (90%)	14 (8%)	4 (2%)	8	38
54	m8	183/185 (99%)	155 (85%)	22 (12%)	6 (3%)	5	26
55	M9	186/188 (99%)	172 (92%)	13 (7%)	1 (0%)	34	76
55	m9	186/188 (99%)	172 (92%)	13 (7%)	1 (0%)	34	76
56	N0	170/172 (99%)	150 (88%)	15 (9%)	5 (3%)	6	29
56	n0	170/172 (99%)	158 (93%)	11 (6%)	1 (1%)	30	72
57	N1	157/159 (99%)	133 (85%)	18 (12%)	6 (4%)	4	22
57	n1	157/159 (99%)	141 (90%)	12 (8%)	4 (2%)	7	34
58	N2	98/120 (82%)	76 (78%)	17 (17%)	5 (5%)	2	15
58	n2	96/120 (80%)	77 (80%)	13 (14%)	6 (6%)	2	9
59	N3	134/136 (98%)	124 (92%)	9 (7%)	1 (1%)	26	70
59	n3	134/136 (98%)	121 (90%)	11 (8%)	2 (2%)	13	50
60	N4	96/155 (62%)	74 (77%)	13 (14%)	9 (9%)	1	4
60	n4	133/155 (86%)	107 (80%)	17 (13%)	9 (7%)	1	7
61	N5	119/141 (84%)	106 (89%)	12 (10%)	1 (1%)	24	66
61	n5	118/141 (84%)	98 (83%)	11 (9%)	9 (8%)	1	6
62	N6	124/126 (98%)	110 (89%)	8 (6%)	6 (5%)	3	17
62	n6	124/126 (98%)	113 (91%)	7 (6%)	4 (3%)	5	27
63	N7	133/135 (98%)	109 (82%)	18 (14%)	6 (4%)	3	18
63	n7	133/135 (98%)	104 (78%)	18 (14%)	11 (8%)	1	5
64	N8	146/148 (99%)	121 (83%)	15 (10%)	10 (7%)	1	7
64	n8	146/148 (99%)	119 (82%)	22 (15%)	5 (3%)	5	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
65	N9	56/58 (97%)	48 (86%)	6 (11%)	2 (4%)	4	24
65	n9	56/58 (97%)	40 (71%)	12 (21%)	4 (7%)	1	7
66	O0	95/104 (91%)	89 (94%)	4 (4%)	2 (2%)	9	40
66	o0	98/104 (94%)	88 (90%)	6 (6%)	4 (4%)	3	20
67	O1	107/112 (96%)	95 (89%)	7 (6%)	5 (5%)	3	17
67	o1	107/112 (96%)	90 (84%)	12 (11%)	5 (5%)	3	17
68	O2	125/129 (97%)	112 (90%)	10 (8%)	3 (2%)	7	35
68	o2	125/129 (97%)	106 (85%)	13 (10%)	6 (5%)	3	17
69	O3	104/106 (98%)	94 (90%)	7 (7%)	3 (3%)	6	29
69	o3	104/106 (98%)	92 (88%)	8 (8%)	4 (4%)	4	22
70	O4	110/119 (92%)	97 (88%)	12 (11%)	1 (1%)	21	64
70	o4	110/119 (92%)	93 (84%)	11 (10%)	6 (6%)	2	13
71	O5	117/119 (98%)	104 (89%)	12 (10%)	1 (1%)	21	64
71	o5	117/119 (98%)	102 (87%)	13 (11%)	2 (2%)	11	46
72	O6	97/99 (98%)	77 (79%)	15 (16%)	5 (5%)	2	15
72	o6	97/99 (98%)	77 (79%)	13 (13%)	7 (7%)	1	7
73	O7	85/87 (98%)	74 (87%)	8 (9%)	3 (4%)	4	24
73	o7	85/87 (98%)	75 (88%)	8 (9%)	2 (2%)	7	35
74	O8	75/77 (97%)	62 (83%)	11 (15%)	2 (3%)	6	32
74	o8	75/77 (97%)	60 (80%)	11 (15%)	4 (5%)	2	14
75	O9	48/50 (96%)	39 (81%)	8 (17%)	1 (2%)	9	40
75	o9	48/50 (96%)	41 (85%)	6 (12%)	1 (2%)	9	40
76	Q0	50/52 (96%)	46 (92%)	2 (4%)	2 (4%)	4	21
76	q0	50/52 (96%)	47 (94%)	2 (4%)	1 (2%)	9	41
77	Q1	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
77	q1	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	3	19
78	Q2	103/105 (98%)	84 (82%)	13 (13%)	6 (6%)	2	12
78	q2	103/105 (98%)	92 (89%)	10 (10%)	1 (1%)	19	61
79	Q3	89/91 (98%)	77 (86%)	8 (9%)	4 (4%)	3	18
79	q3	89/91 (98%)	82 (92%)	6 (7%)	1 (1%)	17	58
80	e0	60/62 (97%)	43 (72%)	11 (18%)	6 (10%)	1	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
81	sM	98/273 (36%)	62 (63%)	22 (22%)	14 (14%)	0	1
83	p0	139/311 (45%)	120 (86%)	15 (11%)	4 (3%)	6	29
All	All	22333/24141 (92%)	18562 (83%)	2524 (11%)	1247 (6%)	2	13

All (1247) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	158	VAL
2	S0	191	ARG
3	S1	49	ASN
3	S1	58	SER
3	S1	60	ALA
3	S1	63	GLY
3	S1	177	GLN
3	S1	179	SER
3	S1	206	PRO
3	S1	213	ARG
4	S2	107	SER
5	S3	62	ASN
5	S3	65	ARG
5	S3	93	ASP
5	S3	220	PRO
6	S4	3	ARG
6	S4	104	ASP
6	S4	142	HIS
7	S5	26	ALA
7	S5	35	GLN
7	S5	39	GLU
7	S5	51	VAL
7	S5	63	GLN
7	S5	101	GLY
8	S6	122	GLU
8	S6	154	ARG
8	S6	173	PRO
8	S6	174	LYS
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL

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Mol	Chain	Res	Type
9	S7	85	PHE
9	S7	111	LYS
9	S7	112	ARG
9	S7	116	ARG
9	S7	131	PHE
9	S7	133	THR
9	S7	134	GLU
10	S8	40	ALA
10	S8	52	ASN
10	S8	153	GLU
11	S9	98	ALA
11	S9	121	SER
11	S9	134	ILE
11	S9	164	PHE
11	S9	168	ARG
12	C0	54	TYR
12	C0	60	SER
12	C0	81	ASN
12	C0	88	PRO
12	C0	94	GLU
13	C1	7	VAL
13	C1	29	LYS
14	C2	69	ALA
14	C2	83	GLU
14	C2	89	ILE
14	C2	90	LYS
14	C2	91	VAL
14	C2	93	ASP
14	C2	127	GLY
15	C3	138	ASN
16	C4	39	ILE
16	C4	124	ASP
16	C4	125	SER
17	C5	54	ALA
17	C5	125	PRO
17	C5	126	VAL
18	C6	40	GLU
18	C6	41	PRO
18	C6	59	LYS
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL

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Mol	Chain	Res	Type
19	C7	124	VAL
20	C8	14	ILE
20	C8	60	GLU
20	C8	82	PRO
20	C8	91	ASP
20	C8	92	ILE
20	C8	144	ARG
21	C9	31	PRO
21	C9	50	ALA
21	C9	53	TRP
23	D1	21	ASN
24	D2	57	ARG
24	D2	83	ILE
25	D3	3	LYS
25	D3	114	LYS
25	D3	138	GLU
26	D4	36	SER
27	D5	39	ALA
27	D5	44	GLN
27	D5	71	ILE
27	D5	97	LYS
28	D6	45	VAL
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
32	E0	47	VAL
33	E1	84	VAL
33	E1	102	VAL
33	E1	103	LEU
33	E1	106	TYR
33	E1	128	ALA
33	E1	138	ARG
34	SR	318	ALA
35	SM	47	ALA
35	SM	52	PRO
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO

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Mol	Chain	Res	Type
40	L3	4	ARG
40	L3	5	LYS
40	L3	140	ASP
40	L3	174	LYS
41	L4	291	ASN
41	L4	338	LYS
42	L5	215	ASP
42	L5	233	ALA
42	L5	234	ASP
43	L6	98	VAL
44	L7	24	GLU
44	L7	26	VAL
44	L7	216	VAL
45	L8	25	PRO
45	L8	31	PRO
45	L8	36	ILE
45	L8	37	GLY
46	L9	50	ASN
46	L9	109	ALA
47	M0	189	GLU
47	M0	211	ARG
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	74	PRO
48	M1	94	ARG
48	M1	115	LYS
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN
50	M4	8	LYS
50	M4	9	ALA
50	M4	10	SER
51	M5	74	PRO
51	M5	75	VAL
52	M6	111	PRO
53	M7	157	VAL
54	M8	41	ASP
54	M8	99	THR
56	N0	2	ALA
56	N0	13	ARG
57	N1	159	PHE

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Mol	Chain	Res	Type
60	N4	64	THR
60	N4	81	PRO
61	N5	44	PRO
62	N6	52	ARG
62	N6	53	ASP
62	N6	83	ASP
63	N7	125	GLY
64	N8	57	GLY
64	N8	66	ALA
64	N8	76	ASP
67	O1	6	ASP
67	O1	84	ASP
71	O5	119	LYS
72	O6	33	ALA
75	O9	50	ASN
76	Q0	78	ILE
78	Q2	15	LYS
78	Q2	30	ALA
78	Q2	60	LYS
79	Q3	58	SER
2	s0	4	PRO
2	s0	8	ASP
2	s0	111	ILE
2	s0	158	VAL
2	s0	164	ASN
2	s0	186	GLY
2	s0	189	VAL
2	s0	203	PHE
2	s0	206	ASP
3	s1	147	ALA
3	s1	179	SER
3	s1	206	PRO
3	s1	223	PHE
4	s2	91	ARG
4	s2	92	ALA
4	s2	107	SER
5	s3	61	GLU
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	104	ASP

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Mol	Chain	Res	Type
6	s4	163	ASP
6	s4	164	LEU
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	39	GLU
7	s5	184	PHE
7	s5	204	GLY
8	s6	153	VAL
8	s6	154	ARG
8	s6	156	PHE
8	s6	173	PRO
8	s6	174	LYS
9	s7	10	SER
9	s7	64	VAL
9	s7	66	SER
9	s7	67	LEU
9	s7	74	GLN
9	s7	131	PHE
9	s7	185	ILE
10	s8	136	SER
11	s9	121	SER
11	s9	134	ILE
12	c0	32	HIS
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE
12	c0	94	GLU
12	c0	97	PRO
13	c1	133	LYS
13	c1	146	ALA
14	c2	89	ILE
15	c3	19	SER
15	c3	43	LYS
15	c3	66	ILE
15	c3	137	PRO
15	c3	140	LYS
16	c4	126	THR
16	c4	132	ARG
17	c5	11	VAL
17	c5	50	THR

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Mol	Chain	Res	Type
17	c5	51	SER
17	c5	52	LYS
17	c5	125	PRO
17	c5	126	VAL
17	c5	132	GLY
18	c6	42	GLU
18	c6	116	LEU
19	c7	88	VAL
19	c7	99	VAL
19	c7	104	ASN
19	c7	116	LYS
20	c8	91	ASP
20	c8	92	ILE
20	c8	135	GLY
21	c9	29	GLU
21	c9	33	TYR
21	c9	34	VAL
22	d0	15	GLN
22	d0	49	ASN
22	d0	51	VAL
22	d0	52	LYS
22	d0	96	PRO
22	d0	97	VAL
22	d0	118	VAL
23	d1	44	ARG
24	d2	68	ARG
26	d4	33	ALA
26	d4	35	VAL
26	d4	132	ARG
27	d5	85	LYS
27	d5	104	ALA
28	d6	34	LYS
28	d6	35	ALA
28	d6	47	ALA
29	d7	38	PRO
29	d7	60	SER
30	d8	57	MET
30	d8	61	ARG
31	d9	6	VAL
31	d9	7	TRP
80	e0	60	PRO
33	e1	79	LYS

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Mol	Chain	Res	Type
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	4	ASN
34	sR	163	ASP
34	sR	165	ASP
34	sR	318	ALA
81	sM	50	ASN
81	sM	63	ASP
81	sM	66	ALA
39	l2	56	ALA
39	l2	96	LEU
39	l2	212	GLY
40	l3	3	HIS
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA
40	l3	235	THR
40	l3	347	SER
41	l4	14	GLU
41	l4	15	ALA
41	l4	232	SER
41	l4	272	VAL
41	l4	302	ALA
41	l4	329	PRO
42	l5	260	PHE
43	l6	98	VAL
44	l7	159	GLN
45	l8	25	PRO
45	l8	34	PHE
45	l8	112	GLU
45	l8	121	SER
45	l8	122	LYS
45	l8	133	LYS
45	l8	240	ASN
47	m0	82	ARG
47	m0	170	LYS
47	m0	175	ASN
47	m0	179	PRO

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Mol	Chain	Res	Type
47	m0	207	GLU
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	108	GLU
49	m3	13	HIS
49	m3	47	ALA
49	m3	101	ARG
49	m3	134	GLU
49	m3	150	PRO
50	m4	136	ALA
51	m5	76	PRO
52	m6	16	VAL
52	m6	110	PRO
52	m6	180	SER
54	m8	41	ASP
54	m8	99	THR
56	n0	2	ALA
57	n1	122	GLN
57	n1	135	PRO
58	n2	91	ASP
59	n3	42	SER
60	n4	25	ASP
60	n4	63	ILE
60	n4	71	ARG
60	n4	76	VAL
60	n4	77	LYS
61	n5	24	LEU
61	n5	25	LYS
61	n5	44	PRO
62	n6	83	ASP
62	n6	84	LYS
62	n6	126	LEU
63	n7	17	ARG
63	n7	125	GLY
63	n7	129	TRP
64	n8	76	ASP
65	n9	21	ILE
65	n9	25	LYS
65	n9	39	PHE
66	o0	100	ILE
67	o1	7	VAL

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Mol	Chain	Res	Type
67	o1	45	GLY
68	o2	4	LEU
68	o2	5	PRO
68	o2	27	ARG
70	o4	79	SER
72	o6	33	ALA
72	o6	63	ASN
72	o6	64	SER
72	o6	98	ARG
83	p0	93	LEU
2	S0	5	ALA
2	S0	49	ASN
2	S0	94	GLY
2	S0	95	ALA
2	S0	139	VAL
2	S0	187	ALA
2	S0	190	ASP
2	S0	203	PHE
3	S1	116	LYS
3	S1	147	ALA
3	S1	148	ASN
3	S1	176	VAL
3	S1	221	PRO
4	S2	148	LEU
4	S2	236	PRO
5	S3	216	PRO
6	S4	26	CYS
6	S4	77	ARG
6	S4	195	ILE
7	S5	43	PHE
7	S5	58	LEU
7	S5	150	GLY
7	S5	153	GLY
8	S6	25	ARG
8	S6	149	LYS
9	S7	98	ILE
9	S7	186	PRO
10	S8	22	ARG
10	S8	105	ASP
10	S8	149	SER
10	S8	152	ILE
11	S9	150	LEU

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Mol	Chain	Res	Type
11	S9	163	PRO
12	C0	64	TYR
13	C1	30	ARG
13	C1	55	ASP
13	C1	146	ALA
13	C1	154	ALA
14	C2	101	ALA
14	C2	126	TRP
14	C2	131	ASP
15	C3	19	SER
15	C3	22	ALA
15	C3	27	LYS
15	C3	68	GLY
16	C4	42	VAL
16	C4	50	ALA
16	C4	123	SER
16	C4	126	THR
17	C5	101	ALA
18	C6	113	ASP
18	C6	138	PHE
19	C7	6	THR
19	C7	23	LYS
19	C7	72	LYS
19	C7	87	GLU
19	C7	113	LEU
19	C7	115	LEU
19	C7	123	ASN
20	C8	61	LEU
20	C8	83	ALA
20	C8	142	GLY
23	D1	12	TYR
23	D1	44	ARG
25	D3	40	SER
25	D3	70	LYS
25	D3	112	LYS
25	D3	144	ARG
26	D4	5	VAL
26	D4	34	ASN
27	D5	43	ASP
27	D5	56	THR
28	D6	15	ARG
28	D6	18	VAL

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Mol	Chain	Res	Type
28	D6	36	ILE
28	D6	63	ALA
29	D7	51	GLN
29	D7	63	LEU
30	D8	36	THR
33	E1	98	VAL
33	E1	111	GLU
33	E1	127	GLY
34	SR	51	ASP
34	SR	136	ILE
34	SR	160	GLU
34	SR	161	LYS
34	SR	295	SER
35	SM	87	THR
35	SM	89	ARG
35	SM	102	THR
35	SM	139	GLU
39	L2	47	GLN
39	L2	143	GLU
39	L2	250	GLN
40	L3	347	SER
40	L3	351	LEU
40	L3	385	LYS
40	L3	386	ASP
41	L4	15	ALA
41	L4	190	GLY
41	L4	232	SER
41	L4	268	ALA
41	L4	294	GLU
41	L4	311	HIS
42	L5	57	ASN
42	L5	58	LYS
42	L5	137	ASP
42	L5	253	PHE
42	L5	260	PHE
42	L5	276	LYS
44	L7	164	SER
45	L8	39	ALA
45	L8	156	ASP
45	L8	254	ASP
47	M0	117	GLY
47	M0	194	GLY

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Mol	Chain	Res	Type
48	M1	65	ILE
48	M1	95	ASN
48	M1	167	TYR
49	M3	13	HIS
49	M3	164	GLU
51	M5	184	LYS
52	M6	16	VAL
53	M7	162	GLU
55	M9	53	LYS
56	N0	142	GLN
57	N1	124	VAL
58	N2	31	ALA
58	N2	51	GLY
60	N4	97	LYS
62	N6	84	LYS
62	N6	92	GLY
64	N8	24	LYS
64	N8	96	LYS
67	O1	82	GLU
68	O2	123	LYS
68	O2	127	ALA
70	O4	77	GLY
72	O6	34	SER
73	O7	86	ALA
78	Q2	94	GLY
2	s0	29	VAL
2	s0	44	GLY
2	s0	66	ALA
2	s0	95	ALA
2	s0	185	ARG
2	s0	191	ARG
3	s1	26	ARG
3	s1	39	GLU
3	s1	82	ARG
3	s1	93	GLY
3	s1	232	HIS
4	s2	93	GLY
4	s2	163	GLY
4	s2	182	PRO
5	s3	90	ARG
5	s3	179	GLN
6	s4	12	LEU

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Mol	Chain	Res	Type
6	s4	24	SER
7	s5	36	ALA
7	s5	43	PHE
8	s6	25	ARG
8	s6	68	LEU
8	s6	70	PRO
9	s7	155	ASP
10	s8	62	THR
11	s9	150	LEU
11	s9	164	PHE
12	c0	31	LYS
12	c0	35	ILE
13	c1	61	THR
13	c1	121	ASP
13	c1	144	ALA
14	c2	22	VAL
14	c2	58	LEU
14	c2	66	VAL
14	c2	82	PRO
14	c2	101	ALA
14	c2	119	SER
14	c2	131	ASP
15	c3	60	VAL
15	c3	87	ASP
17	c5	68	PRO
17	c5	117	GLY
18	c6	113	ASP
20	c8	102	ALA
22	d0	17	GLN
23	d1	21	ASN
25	d3	131	SER
27	d5	87	GLY
28	d6	13	LYS
28	d6	62	TYR
29	d7	20	LYS
29	d7	62	ILE
31	d9	16	LYS
80	e0	38	LEU
80	e0	47	VAL
80	e0	51	ASN
33	e1	100	LEU
33	e1	102	VAL

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Mol	Chain	Res	Type
33	e1	127	GLY
33	e1	145	HIS
34	sR	75	ALA
34	sR	160	GLU
81	sM	42	ALA
81	sM	48	ARG
81	sM	65	THR
81	sM	67	GLY
39	l2	13	GLY
39	l2	24	GLN
39	l2	127	ALA
39	l2	194	ASN
39	l2	249	SER
40	l3	141	GLY
40	l3	155	ALA
40	l3	187	SER
41	l4	146	PRO
41	l4	154	THR
41	l4	301	PRO
41	l4	311	HIS
42	l5	279	LYS
45	l8	39	ALA
45	l8	117	ALA
45	l8	120	LYS
45	l8	150	LEU
45	l8	203	VAL
46	l9	2	LYS
46	l9	144	ILE
47	m0	101	LYS
47	m0	204	GLY
48	m1	7	ASN
48	m1	15	GLU
48	m1	94	ARG
48	m1	115	LYS
48	m1	167	TYR
49	m3	93	ILE
49	m3	129	ASN
49	m3	135	ALA
49	m3	141	ALA
49	m3	162	ASN
51	m5	81	TYR
51	m5	184	LYS

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Mol	Chain	Res	Type
52	m6	12	LYS
54	m8	98	LYS
55	m9	36	ASN
58	n2	50	LEU
61	n5	40	LEU
63	n7	16	GLY
63	n7	56	LYS
67	o1	5	LYS
67	o1	83	GLU
67	o1	99	ALA
71	o5	82	ALA
71	o5	119	LYS
76	q0	78	ILE
77	q1	23	ARG
83	p0	198	PRO
2	S0	27	ARG
2	S0	103	THR
2	S0	163	ASN
2	S0	189	VAL
3	S1	35	PRO
3	S1	37	THR
3	S1	51	SER
3	S1	54	LEU
3	S1	158	SER
4	S2	91	ARG
5	S3	44	THR
5	S3	59	LEU
5	S3	211	PRO
5	S3	218	LEU
6	S4	12	LEU
6	S4	153	ASN
6	S4	240	LYS
6	S4	245	LYS
7	S5	76	ARG
7	S5	127	GLN
8	S6	123	GLY
8	S6	148	SER
9	S7	29	ASN
9	S7	30	SER
9	S7	84	LYS
10	S8	120	THR
13	C1	6	THR

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Mol	Chain	Res	Type
13	C1	145	ALA
14	C2	21	GLU
14	C2	66	VAL
14	C2	87	PRO
14	C2	107	ASP
14	C2	112	ALA
14	C2	119	SER
14	C2	130	THR
15	C3	137	PRO
16	C4	38	THR
16	C4	40	ALA
16	C4	51	ASP
16	C4	109	GLY
17	C5	22	LEU
17	C5	48	GLY
18	C6	33	GLY
19	C7	83	GLN
20	C8	25	ASN
22	D0	17	GLN
23	D1	2	GLU
23	D1	7	GLN
23	D1	8	LEU
23	D1	10	GLU
23	D1	15	ARG
25	D3	41	SER
26	D4	4	ALA
26	D4	11	LYS
27	D5	55	PRO
27	D5	57	TYR
28	D6	11	ASN
28	D6	61	GLU
28	D6	62	TYR
30	D8	20	GLY
32	E0	33	ARG
33	E1	87	THR
33	E1	118	ARG
33	E1	137	ASP
34	SR	50	ASP
35	SM	17	VAL
35	SM	88	ARG
35	SM	153	ASP
39	L2	13	GLY

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Mol	Chain	Res	Type
39	L2	127	ALA
41	L4	130	ALA
41	L4	146	PRO
41	L4	339	LEU
41	L4	352	ALA
42	L5	188	GLU
42	L5	228	ALA
42	L5	252	ALA
42	L5	258	LYS
46	L9	190	ASP
47	M0	24	ARG
47	M0	91	VAL
47	M0	207	GLU
47	M0	218	ALA
47	M0	220	GLN
49	M3	130	GLY
49	M3	136	GLU
49	M3	165	SER
49	M3	166	ALA
50	M4	29	ALA
51	M5	144	ARG
53	M7	160	ALA
53	M7	164	LYS
56	N0	167	ARG
57	N1	101	CYS
58	N2	11	ILE
58	N2	32	SER
58	N2	44	GLU
59	N3	82	ALA
63	N7	35	SER
63	N7	78	ASN
63	N7	102	GLU
64	N8	117	ARG
72	O6	3	VAL
73	O7	65	ARG
74	O8	33	LYS
2	s0	5	ALA
2	s0	10	THR
2	s0	30	GLN
2	s0	92	HIS
2	s0	94	GLY
2	s0	183	ARG

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Mol	Chain	Res	Type
4	s2	106	ASP
5	s3	93	ASP
5	s3	142	LEU
5	s3	144	ALA
5	s3	180	GLY
5	s3	221	SER
6	s4	171	ASP
6	s4	245	LYS
7	s5	56	ALA
7	s5	57	SER
7	s5	58	LEU
7	s5	60	ASP
8	s6	152	ASP
9	s7	111	LYS
12	c0	23	ALA
12	c0	30	ALA
13	c1	114	ALA
14	c2	45	LEU
14	c2	106	ILE
14	c2	108	ARG
15	c3	20	ARG
15	c3	22	ALA
15	c3	139	TRP
16	c4	92	LYS
17	c5	7	ALA
17	c5	14	THR
17	c5	17	TYR
17	c5	69	GLU
17	c5	127	ARG
17	c5	135	THR
17	c5	136	SER
18	c6	40	GLU
19	c7	113	LEU
19	c7	120	SER
20	c8	14	ILE
20	c8	61	LEU
21	c9	25	GLN
25	d3	70	LYS
26	d4	48	TYR
26	d4	50	ALA
26	d4	58	PHE
26	d4	77	ASN

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Mol	Chain	Res	Type
29	d7	3	LEU
29	d7	59	CYS
33	e1	83	LYS
33	e1	85	TYR
33	e1	128	ALA
33	e1	146	SER
34	sR	161	LYS
81	sM	30	THR
81	sM	43	ASP
81	sM	47	ALA
81	sM	64	LYS
39	l2	80	GLU
40	l3	4	ARG
40	l3	302	LYS
41	l4	120	TYR
41	l4	145	ILE
41	l4	305	ALA
41	l4	330	TYR
42	l5	215	ASP
43	l6	10	TYR
44	l7	157	ASN
45	l8	81	THR
45	l8	118	GLU
45	l8	196	ALA
45	l8	237	ILE
47	m0	3	ARG
47	m0	25	ALA
47	m0	176	LEU
47	m0	187	ALA
47	m0	219	ALA
50	m4	135	LEU
51	m5	183	THR
52	m6	184	THR
53	m7	66	SER
54	m8	91	ALA
54	m8	112	ALA
58	n2	52	ASN
60	n4	26	SER
60	n4	74	LYS
60	n4	132	GLY
61	n5	38	LEU
62	n6	125	LYS

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Mol	Chain	Res	Type
63	n7	34	LYS
63	n7	102	GLU
63	n7	121	ARG
64	n8	47	LYS
66	o0	10	ILE
68	o2	122	PRO
70	o4	47	CYS
70	o4	77	GLY
70	o4	78	GLY
70	o4	82	ALA
72	o6	34	SER
72	o6	67	LYS
73	o7	87	SER
74	o8	17	ARG
75	o9	4	GLN
2	S0	164	ASN
2	S0	195	TRP
3	S1	62	LYS
3	S1	132	ASP
4	S2	145	GLY
4	S2	150	GLN
4	S2	225	LEU
4	S2	248	SER
5	S3	92	GLN
5	S3	178	ARG
5	S3	217	ILE
7	S5	64	VAL
8	S6	70	PRO
8	S6	152	ASP
9	S7	73	VAL
9	S7	155	ASP
12	C0	25	LYS
12	C0	34	GLU
13	C1	4	GLU
13	C1	147	ALA
14	C2	25	GLU
14	C2	106	ILE
14	C2	125	ASN
16	C4	18	ARG
16	C4	127	ARG
17	C5	29	SER
17	C5	52	LYS

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Mol	Chain	Res	Type
17	C5	66	ALA
17	C5	127	ARG
18	C6	39	VAL
25	D3	5	LYS
26	D4	6	THR
26	D4	58	PHE
27	D5	54	VAL
28	D6	46	GLU
28	D6	47	ALA
28	D6	64	LEU
28	D6	97	PRO
30	D8	61	ARG
33	E1	100	LEU
34	SR	98	GLU
34	SR	194	GLY
35	SM	53	ARG
35	SM	86	ASN
35	SM	172	VAL
35	SM	173	GLU
35	SM	174	LEU
39	L2	246	LEU
40	L3	155	ALA
41	L4	5	GLN
41	L4	14	GLU
41	L4	270	SER
42	L5	115	LEU
42	L5	125	VAL
42	L5	151	GLN
42	L5	295	GLY
43	L6	100	LYS
44	L7	100	ARG
45	L8	157	VAL
46	L9	96	HIS
46	L9	120	ASP
47	M0	41	ALA
47	M0	142	ASP
48	M1	114	ILE
49	M3	5	LYS
49	M3	44	ALA
51	M5	34	ASN
51	M5	81	TYR
52	M6	182	ASN

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Mol	Chain	Res	Type
53	M7	75	GLU
53	M7	163	LYS
54	M8	162	ALA
57	N1	16	GLN
60	N4	86	SER
62	N6	42	GLN
63	N7	103	GLN
64	N8	47	LYS
65	N9	25	LYS
67	O1	7	VAL
72	O6	21	THR
73	O7	68	LYS
74	O8	18	ALA
79	Q3	7	LYS
2	s0	103	THR
4	s2	85	PRO
4	s2	235	LEU
4	s2	238	SER
5	s3	43	PRO
5	s3	45	LYS
6	s4	57	ASN
6	s4	90	ILE
6	s4	95	THR
7	s5	29	ILE
7	s5	59	VAL
7	s5	100	ASN
8	s6	165	GLY
9	s7	30	SER
9	s7	133	THR
11	s9	22	SER
12	c0	3	MET
12	c0	24	LYS
13	c1	129	ARG
14	c2	87	PRO
14	c2	103	LEU
14	c2	118	ALA
16	c4	11	SER
16	c4	12	GLN
17	c5	71	GLU
17	c5	130	ARG
18	c6	39	VAL
18	c6	97	VAL

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Mol	Chain	Res	Type
18	c6	142	TYR
20	c8	139	LYS
23	d1	42	GLU
26	d4	4	ALA
28	d6	63	ALA
31	d9	11	PRO
80	e0	54	ARG
80	e0	61	SER
33	e1	81	LYS
33	e1	131	PHE
33	e1	136	LYS
34	sR	146	GLY
41	l4	5	GLN
41	l4	233	LEU
44	l7	191	VAL
45	l8	26	LEU
45	l8	69	LEU
45	l8	188	THR
48	m1	95	ASN
48	m1	114	ILE
49	m3	76	THR
49	m3	121	SER
49	m3	152	THR
50	m4	10	SER
51	m5	181	ASN
52	m6	13	GLY
52	m6	122	GLN
57	n1	136	ARG
58	n2	49	ASN
58	n2	90	ARG
61	n5	47	ALA
61	n5	57	LEU
63	n7	127	ASN
63	n7	134	LEU
66	o0	103	THR
68	o2	6	HIS
69	o3	41	ALA
70	o4	46	ASP
73	o7	86	ALA
78	q2	78	LYS
79	q3	4	ARG
2	S0	36	TYR

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Mol	Chain	Res	Type
3	S1	26	ARG
3	S1	82	ARG
3	S1	130	SER
3	S1	210	ILE
4	S2	36	VAL
4	S2	39	THR
4	S2	235	LEU
5	S3	70	THR
6	S4	260	GLY
8	S6	69	LEU
9	S7	74	GLN
10	S8	10	LYS
11	S9	162	SER
12	C0	87	VAL
14	C2	22	VAL
14	C2	81	ASP
14	C2	113	ARG
15	C3	3	ARG
16	C4	92	LYS
16	C4	114	ARG
17	C5	51	SER
21	C9	69	LYS
22	D0	59	PRO
25	D3	96	VAL
26	D4	60	PHE
28	D6	35	ALA
30	D8	34	GLU
31	D9	8	PHE
33	E1	85	TYR
33	E1	86	THR
34	SR	105	GLY
40	L3	3	HIS
40	L3	139	GLN
40	L3	317	ILE
41	L4	4	PRO
42	L5	6	ASP
42	L5	221	GLU
42	L5	259	LYS
43	L6	6	ALA
46	L9	2	LYS
46	L9	66	ALA
48	M1	64	LYS

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Mol	Chain	Res	Type
48	M1	108	GLU
48	M1	117	ASP
49	M3	193	ALA
50	M4	6	ILE
51	M5	94	TYR
54	M8	4	ASP
60	N4	69	LYS
60	N4	80	ARG
60	N4	89	LEU
63	N7	36	HIS
64	N8	70	LYS
65	N9	21	ILE
66	O0	100	ILE
69	O3	14	LEU
69	O3	94	PHE
72	O6	27	SER
78	Q2	17	CYS
79	Q3	51	ALA
79	Q3	60	CYS
2	s0	49	ASN
3	s1	22	ASP
3	s1	207	LEU
4	s2	150	GLN
4	s2	151	PRO
5	s3	163	PRO
5	s3	196	ARG
6	s4	105	VAL
6	s4	168	LYS
7	s5	54	LYS
8	s6	131	LYS
9	s7	13	PRO
9	s7	106	SER
10	s8	78	ILE
10	s8	94	ASN
11	s9	110	GLN
11	s9	162	SER
11	s9	167	ALA
11	s9	183	ALA
12	c0	95	ARG
13	c1	7	VAL
14	c2	107	ASP
16	c4	51	ASP

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Mol	Chain	Res	Type
20	c8	18	LEU
20	c8	60	GLU
22	d0	16	GLN
22	d0	119	ALA
23	d1	10	GLU
25	d3	27	ASN
27	d5	38	HIS
28	d6	59	TYR
29	d7	58	SER
30	d8	33	LEU
33	e1	112	GLY
33	e1	148	TYR
34	sR	186	PHE
81	sM	167	PRO
39	l2	238	ILE
41	l4	190	GLY
41	l4	328	ASN
42	l5	125	VAL
42	l5	178	ASN
42	l5	258	LYS
43	l6	97	ASN
44	l7	32	ALA
46	l9	167	VAL
47	m0	100	ASN
47	m0	220	GLN
48	m1	118	PRO
49	m3	140	SER
51	m5	68	ARG
54	m8	113	LYS
58	n2	23	THR
60	n4	83	THR
61	n5	45	LYS
63	n7	103	GLN
64	n8	28	HIS
64	n8	129	PHE
66	o0	96	GLY
68	o2	124	GLY
69	o3	91	ALA
72	o6	9	ILE
74	o8	18	ALA
83	p0	33	VAL
83	p0	68	SER

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Mol	Chain	Res	Type
3	S1	61	LEU
3	S1	81	PHE
3	S1	209	ASN
8	S6	9	VAL
9	S7	13	PRO
11	S9	160	PRO
13	C1	113	PRO
14	C2	39	ASP
14	C2	82	PRO
20	C8	139	LYS
22	D0	21	LYS
26	D4	47	VAL
27	D5	38	HIS
29	D7	75	GLU
33	E1	148	TYR
35	SM	12	VAL
42	L5	178	ASN
44	L7	91	GLY
44	L7	178	ILE
48	M1	151	SER
51	M5	145	ASP
57	N1	18	ASP
60	N4	82	ILE
76	Q0	79	GLU
78	Q2	100	LYS
5	s3	44	THR
5	s3	115	ILE
5	s3	219	ALA
6	s4	30	ARG
6	s4	32	SER
6	s4	157	ASN
9	s7	11	GLN
10	s8	101	ILE
14	c2	90	LYS
14	c2	110	ALA
16	c4	37	GLU
16	c4	124	ASP
17	c5	65	LEU
18	c6	4	VAL
27	d5	44	GLN
28	d6	8	ASN
34	sR	281	TYR

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Mol	Chain	Res	Type
81	sM	51	ARG
42	l5	168	ASP
43	l6	151	LYS
44	l7	59	GLU
44	l7	178	ILE
49	m3	60	ALA
52	m6	183	ALA
53	m7	75	GLU
57	n1	16	GLN
61	n5	48	SER
64	n8	87	ARG
7	S5	21	THR
9	S7	132	PRO
12	C0	92	ILE
14	C2	115	VAL
16	C4	75	GLY
31	D9	11	PRO
44	L7	212	GLY
60	N4	76	VAL
69	O3	59	VAL
14	c2	40	GLY
14	c2	115	VAL
16	c4	131	GLY
19	c7	98	GLY
23	d1	77	GLY
41	l4	277	PRO
45	l8	239	GLY
2	S0	194	PRO
20	C8	125	ILE
22	D0	106	ILE
2	s0	194	PRO
8	s6	69	LEU
14	c2	91	VAL
15	c3	82	PRO
41	l4	142	VAL
69	o3	59	VAL
14	C2	55	GLY
27	D5	41	ILE
27	D5	88	ILE
35	SM	39	PRO
44	L7	188	ILE
44	L7	191	VAL

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Mol	Chain	Res	Type
56	N0	129	ILE
57	N1	123	GLY
68	O2	68	PRO
4	s2	234	PRO
6	s4	150	PRO
13	c1	139	VAL
14	c2	63	VAL
19	c7	50	ILE
21	c9	26	GLY
21	c9	100	ILE
30	d8	6	PRO
33	e1	124	PRO
81	sM	172	VAL
49	m3	50	PRO
65	n9	24	PRO
74	o8	37	PRO
12	C0	86	ILE
41	L4	23	PRO
64	N8	148	ILE
66	O0	96	GLY
67	O1	33	VAL
2	s0	139	VAL
9	s7	159	VAL
14	c2	127	GLY
47	m0	194	GLY
59	n3	41	GLY
69	o3	61	GLY
8	S6	146	GLY
43	L6	149	ILE
53	M7	51	VAL
64	N8	116	GLY
7	s5	21	THR
27	d5	55	PRO
28	d6	58	VAL
40	l3	239	PRO
74	o8	35	GLY
40	L3	257	PRO

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%)	133 (81%)	31 (19%)	2	10
2	s0	165/209 (79%)	131 (79%)	34 (21%)	1	7
3	S1	191/223 (86%)	155 (81%)	36 (19%)	2	10
3	s1	192/223 (86%)	163 (85%)	29 (15%)	3	17
4	S2	176/204 (86%)	142 (81%)	34 (19%)	2	9
4	s2	176/204 (86%)	133 (76%)	43 (24%)	1	4
5	S3	182/194 (94%)	145 (80%)	37 (20%)	1	7
5	s3	182/194 (94%)	151 (83%)	31 (17%)	2	13
6	S4	221/221 (100%)	183 (83%)	38 (17%)	2	12
6	s4	221/221 (100%)	183 (83%)	38 (17%)	2	12
7	S5	173/190 (91%)	142 (82%)	31 (18%)	2	11
7	s5	173/190 (91%)	133 (77%)	40 (23%)	1	5
8	S6	188/201 (94%)	148 (79%)	40 (21%)	1	6
8	s6	187/201 (93%)	151 (81%)	36 (19%)	2	9
9	S7	165/169 (98%)	140 (85%)	25 (15%)	3	16
9	s7	165/169 (98%)	138 (84%)	27 (16%)	3	14
10	S8	150/161 (93%)	130 (87%)	20 (13%)	5	21
10	s8	150/161 (93%)	128 (85%)	22 (15%)	4	18
11	S9	158/165 (96%)	123 (78%)	35 (22%)	1	5
11	s9	158/165 (96%)	128 (81%)	30 (19%)	2	10
12	C0	77/98 (79%)	67 (87%)	10 (13%)	5	22
12	c0	73/98 (74%)	63 (86%)	10 (14%)	4	20
13	C1	129/136 (95%)	107 (83%)	22 (17%)	2	12
13	c1	129/136 (95%)	106 (82%)	23 (18%)	2	11
14	C2	88/118 (75%)	66 (75%)	22 (25%)	1	3
14	c2	88/118 (75%)	66 (75%)	22 (25%)	1	3
15	C3	127/127 (100%)	100 (79%)	27 (21%)	1	6
15	c3	127/127 (100%)	103 (81%)	24 (19%)	2	10
16	C4	81/104 (78%)	60 (74%)	21 (26%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	c4	97/104 (93%)	76 (78%)	21 (22%)	1	6
17	C5	101/117 (86%)	85 (84%)	16 (16%)	3	15
17	c5	103/117 (88%)	84 (82%)	19 (18%)	2	10
18	C6	117/118 (99%)	94 (80%)	23 (20%)	1	9
18	c6	118/118 (100%)	93 (79%)	25 (21%)	1	6
19	C7	94/124 (76%)	72 (77%)	22 (23%)	1	4
19	c7	92/124 (74%)	78 (85%)	14 (15%)	3	16
20	C8	128/128 (100%)	95 (74%)	33 (26%)	0	3
20	c8	128/128 (100%)	103 (80%)	25 (20%)	2	9
21	C9	115/115 (100%)	92 (80%)	23 (20%)	1	8
21	c9	115/115 (100%)	93 (81%)	22 (19%)	2	10
22	D0	100/113 (88%)	78 (78%)	22 (22%)	1	6
22	d0	103/113 (91%)	78 (76%)	25 (24%)	1	4
23	D1	74/74 (100%)	61 (82%)	13 (18%)	2	12
23	d1	74/74 (100%)	56 (76%)	18 (24%)	1	4
24	D2	110/110 (100%)	94 (86%)	16 (14%)	4	18
24	d2	110/110 (100%)	93 (84%)	17 (16%)	3	16
25	D3	119/119 (100%)	98 (82%)	21 (18%)	2	12
25	d3	119/119 (100%)	104 (87%)	15 (13%)	5	24
26	D4	112/112 (100%)	93 (83%)	19 (17%)	2	13
26	d4	112/112 (100%)	94 (84%)	18 (16%)	3	14
27	D5	61/88 (69%)	46 (75%)	15 (25%)	1	4
27	d5	61/88 (69%)	51 (84%)	10 (16%)	3	14
28	D6	83/83 (100%)	67 (81%)	16 (19%)	2	9
28	d6	83/83 (100%)	73 (88%)	10 (12%)	6	26
29	D7	70/70 (100%)	64 (91%)	6 (9%)	13	44
29	d7	70/70 (100%)	60 (86%)	10 (14%)	4	19
30	D8	56/59 (95%)	44 (79%)	12 (21%)	1	6
30	d8	56/59 (95%)	44 (79%)	12 (21%)	1	6
31	D9	47/48 (98%)	39 (83%)	8 (17%)	2	13
31	d9	47/48 (98%)	37 (79%)	10 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	E0	51/51 (100%)	41 (80%)	10 (20%)	1	9
33	E1	62/66 (94%)	46 (74%)	16 (26%)	0	3
33	e1	66/66 (100%)	51 (77%)	15 (23%)	1	5
34	SR	260/261 (100%)	222 (85%)	38 (15%)	4	18
34	sR	260/261 (100%)	233 (90%)	27 (10%)	9	32
35	SM	97/228 (42%)	76 (78%)	21 (22%)	1	6
39	L2	193/195 (99%)	150 (78%)	43 (22%)	1	5
39	l2	192/195 (98%)	152 (79%)	40 (21%)	1	7
40	L3	321/322 (100%)	257 (80%)	64 (20%)	1	8
40	l3	320/322 (99%)	251 (78%)	69 (22%)	1	6
41	L4	288/288 (100%)	228 (79%)	60 (21%)	1	7
41	l4	288/288 (100%)	229 (80%)	59 (20%)	1	7
42	L5	244/244 (100%)	197 (81%)	47 (19%)	2	9
42	l5	243/244 (100%)	196 (81%)	47 (19%)	2	9
43	L6	134/152 (88%)	112 (84%)	22 (16%)	3	14
43	l6	135/152 (89%)	112 (83%)	23 (17%)	2	13
44	L7	186/204 (91%)	162 (87%)	24 (13%)	5	23
44	l7	187/204 (92%)	160 (86%)	27 (14%)	4	18
45	L8	187/207 (90%)	152 (81%)	35 (19%)	2	10
45	l8	177/207 (86%)	147 (83%)	30 (17%)	2	13
46	L9	171/171 (100%)	134 (78%)	37 (22%)	1	6
46	l9	171/171 (100%)	137 (80%)	34 (20%)	1	8
47	M0	177/186 (95%)	143 (81%)	34 (19%)	2	10
47	m0	179/186 (96%)	142 (79%)	37 (21%)	1	7
48	M1	147/150 (98%)	115 (78%)	32 (22%)	1	6
48	m1	147/150 (98%)	122 (83%)	25 (17%)	2	13
49	M3	154/158 (98%)	128 (83%)	26 (17%)	2	13
49	m3	154/158 (98%)	130 (84%)	24 (16%)	3	16
50	M4	107/108 (99%)	84 (78%)	23 (22%)	1	6
50	m4	108/108 (100%)	88 (82%)	20 (18%)	2	10
51	M5	175/175 (100%)	138 (79%)	37 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
51	m5	175/175 (100%)	149 (85%)	26 (15%)	4	17
52	M6	160/161 (99%)	133 (83%)	27 (17%)	2	13
52	m6	160/161 (99%)	132 (82%)	28 (18%)	2	12
53	M7	140/145 (97%)	109 (78%)	31 (22%)	1	5
53	m7	125/145 (86%)	103 (82%)	22 (18%)	2	12
54	M8	150/150 (100%)	128 (85%)	22 (15%)	4	18
54	m8	150/150 (100%)	118 (79%)	32 (21%)	1	6
55	M9	153/153 (100%)	132 (86%)	21 (14%)	4	20
55	m9	153/153 (100%)	120 (78%)	33 (22%)	1	6
56	N0	156/156 (100%)	121 (78%)	35 (22%)	1	5
56	n0	156/156 (100%)	124 (80%)	32 (20%)	1	7
57	N1	136/136 (100%)	108 (79%)	28 (21%)	1	7
57	n1	136/136 (100%)	108 (79%)	28 (21%)	1	7
58	N2	87/106 (82%)	74 (85%)	13 (15%)	4	17
58	n2	85/106 (80%)	72 (85%)	13 (15%)	3	16
59	N3	104/104 (100%)	86 (83%)	18 (17%)	2	12
59	n3	104/104 (100%)	94 (90%)	10 (10%)	10	38
60	N4	57/129 (44%)	50 (88%)	7 (12%)	6	25
60	n4	100/129 (78%)	82 (82%)	18 (18%)	2	11
61	N5	104/117 (89%)	84 (81%)	20 (19%)	2	10
61	n5	104/117 (89%)	83 (80%)	21 (20%)	1	8
62	N6	109/109 (100%)	83 (76%)	26 (24%)	1	4
62	n6	109/109 (100%)	82 (75%)	27 (25%)	1	3
63	N7	115/115 (100%)	94 (82%)	21 (18%)	2	11
63	n7	115/115 (100%)	93 (81%)	22 (19%)	2	10
64	N8	118/118 (100%)	96 (81%)	22 (19%)	2	10
64	n8	118/118 (100%)	93 (79%)	25 (21%)	1	6
65	N9	46/46 (100%)	35 (76%)	11 (24%)	1	4
65	n9	46/46 (100%)	37 (80%)	9 (20%)	1	9
66	O0	81/87 (93%)	68 (84%)	13 (16%)	3	15
66	o0	84/87 (97%)	70 (83%)	14 (17%)	3	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
67	O1	92/96 (96%)	71 (77%)	21 (23%)	1	5
67	o1	94/96 (98%)	74 (79%)	20 (21%)	1	6
68	O2	109/110 (99%)	87 (80%)	22 (20%)	1	8
68	o2	109/110 (99%)	85 (78%)	24 (22%)	1	6
69	O3	90/90 (100%)	81 (90%)	9 (10%)	9	34
69	o3	90/90 (100%)	77 (86%)	13 (14%)	4	18
70	O4	95/101 (94%)	74 (78%)	21 (22%)	1	5
70	o4	95/101 (94%)	75 (79%)	20 (21%)	1	6
71	O5	104/104 (100%)	80 (77%)	24 (23%)	1	5
71	o5	103/104 (99%)	80 (78%)	23 (22%)	1	5
72	O6	81/81 (100%)	65 (80%)	16 (20%)	1	8
72	o6	80/81 (99%)	56 (70%)	24 (30%)	0	2
73	O7	70/70 (100%)	58 (83%)	12 (17%)	2	12
73	o7	70/70 (100%)	58 (83%)	12 (17%)	2	12
74	O8	68/68 (100%)	52 (76%)	16 (24%)	1	4
74	o8	67/68 (98%)	53 (79%)	14 (21%)	1	7
75	O9	45/45 (100%)	40 (89%)	5 (11%)	8	29
75	o9	45/45 (100%)	36 (80%)	9 (20%)	1	8
76	Q0	47/47 (100%)	35 (74%)	12 (26%)	1	3
76	q0	47/47 (100%)	35 (74%)	12 (26%)	1	3
77	Q1	23/23 (100%)	15 (65%)	8 (35%)	0	1
77	q1	23/23 (100%)	14 (61%)	9 (39%)	0	0
78	Q2	90/90 (100%)	67 (74%)	23 (26%)	0	3
78	q2	90/90 (100%)	73 (81%)	17 (19%)	2	10
79	Q3	71/71 (100%)	56 (79%)	15 (21%)	1	6
79	q3	71/71 (100%)	63 (89%)	8 (11%)	7	28
80	e0	53/53 (100%)	42 (79%)	11 (21%)	1	7
81	sM	54/228 (24%)	40 (74%)	14 (26%)	0	3
83	p0	105/253 (42%)	80 (76%)	25 (24%)	1	4
All	All	18729/20239 (92%)	15175 (81%)	3554 (19%)	2	10

All (3554) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	7	PHE
2	S0	27	ARG
2	S0	30	GLN
2	S0	32	HIS
2	S0	33	GLN
2	S0	37	VAL
2	S0	49	ASN
2	S0	50	VAL
2	S0	57	LEU
2	S0	59	LEU
2	S0	62	ARG
2	S0	84	ARG
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	101	ARG
2	S0	111	ILE
2	S0	119	ARG
2	S0	123	VAL
2	S0	140	ASN
2	S0	146	LEU
2	S0	154	GLU
2	S0	156	VAL
2	S0	157	ASP
2	S0	170	ILE
2	S0	172	LEU
2	S0	177	LEU
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	46	THR
3	S1	51	SER
3	S1	61	LEU
3	S1	70	LEU
3	S1	73	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE

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Mol	Chain	Res	Type
3	S1	89	ASP
3	S1	91	VAL
3	S1	96	LEU
3	S1	97	LEU
3	S1	105	PHE
3	S1	110	LEU
3	S1	111	ARG
3	S1	112	SER
3	S1	117	TRP
3	S1	131	ASP
3	S1	154	SER
3	S1	177	GLN
3	S1	180	THR
3	S1	181	LEU
3	S1	184	LEU
3	S1	193	ILE
3	S1	198	GLU
3	S1	202	LYS
3	S1	214	LYS
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	223	PHE
3	S1	229	MET
4	S2	41	LEU
4	S2	53	ILE
4	S2	54	GLU
4	S2	55	GLU
4	S2	58	LEU
4	S2	68	ILE
4	S2	77	GLN
4	S2	89	GLN
4	S2	90	THR
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	106	ASP
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	140	ARG
4	S2	141	ARG
4	S2	148	LEU
4	S2	166	THR
4	S2	181	SER
4	S2	187	LEU
4	S2	222	TYR
4	S2	224	PHE
4	S2	226	THR
4	S2	229	LEU
4	S2	235	LEU
4	S2	237	VAL
4	S2	240	LEU
4	S2	245	ASP
4	S2	246	GLU
4	S2	250	GLN
5	S3	4	LEU
5	S3	5	ILE
5	S3	9	ARG
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	41	VAL
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	92	GLN
5	S3	93	ASP
5	S3	94	ARG
5	S3	105	MET
5	S3	111	ASN
5	S3	113	LEU
5	S3	117	ARG
5	S3	122	VAL
5	S3	127	MET
5	S3	134	CYS
5	S3	135	GLU
5	S3	137	VAL
5	S3	142	LEU

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Mol	Chain	Res	Type
5	S3	143	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	177	MET
5	S3	178	ARG
5	S3	181	VAL
5	S3	190	ARG
5	S3	195	SER
6	S4	6	LYS
6	S4	7	LYS
6	S4	9	LEU
6	S4	23	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	48	LEU
6	S4	70	VAL
6	S4	77	ARG
6	S4	92	LEU
6	S4	95	THR
6	S4	102	VAL
6	S4	115	THR
6	S4	116	ASP
6	S4	117	GLU
6	S4	123	LEU
6	S4	131	LEU
6	S4	133	LYS
6	S4	155	LYS
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	191	ARG
6	S4	197	HIS
6	S4	198	LYS
6	S4	206	ASP
6	S4	215	ASP
6	S4	221	ARG
6	S4	223	ASN
6	S4	226	PHE
6	S4	227	VAL

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Mol	Chain	Res	Type
6	S4	237	SER
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	258	GLN
6	S4	259	GLN
7	S5	25	LEU
7	S5	27	THR
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	63	GLN
7	S5	65	ARG
7	S5	76	ARG
7	S5	79	ASN
7	S5	86	GLN
7	S5	89	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	104	ASN
7	S5	109	LYS
7	S5	119	ASP
7	S5	139	ASN
7	S5	146	THR
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	163	SER
7	S5	166	ARG
7	S5	194	LEU
7	S5	203	LYS
7	S5	206	SER
7	S5	216	GLU
7	S5	225	ARG
8	S6	13	GLN
8	S6	14	LYS
8	S6	25	ARG
8	S6	32	ILE

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Mol	Chain	Res	Type
8	S6	45	PHE
8	S6	51	LYS
8	S6	58	LYS
8	S6	65	GLN
8	S6	67	VAL
8	S6	68	LEU
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	93	LYS
8	S6	98	ARG
8	S6	109	LEU
8	S6	120	GLU
8	S6	124	LEU
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	150	GLU
8	S6	154	ARG
8	S6	155	ASP
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	176	GLN
8	S6	177	ARG
8	S6	183	ARG
8	S6	211	LEU
8	S6	216	LEU
8	S6	217	SER
8	S6	223	LYS
9	S7	9	LEU
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	51	VAL
9	S7	70	PHE

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Mol	Chain	Res	Type
9	S7	75	THR
9	S7	85	PHE
9	S7	87	ASP
9	S7	97	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	134	GLU
9	S7	136	VAL
9	S7	147	ASN
9	S7	158	ASP
9	S7	163	ASP
9	S7	167	GLU
9	S7	174	ASN
9	S7	185	ILE
10	S8	7	SER
10	S8	8	ARG
10	S8	14	THR
10	S8	21	PHE
10	S8	26	LYS
10	S8	29	LEU
10	S8	36	THR
10	S8	46	VAL
10	S8	49	ARG
10	S8	58	LEU
10	S8	69	SER
10	S8	82	VAL
10	S8	138	ASN
10	S8	151	LYS
10	S8	152	ILE
10	S8	154	SER
10	S8	158	SER
10	S8	161	SER
10	S8	187	GLU
10	S8	196	LEU
11	S9	3	ARG
11	S9	7	THR
11	S9	14	THR

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Mol	Chain	Res	Type
11	S9	16	LYS
11	S9	28	LEU
11	S9	40	LYS
11	S9	46	SER
11	S9	49	LEU
11	S9	54	ARG
11	S9	60	LEU
11	S9	63	ASP
11	S9	78	ARG
11	S9	79	ARG
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	97	LEU
11	S9	99	LEU
11	S9	105	LEU
11	S9	109	LEU
11	S9	110	GLN
11	S9	113	VAL
11	S9	118	LEU
11	S9	134	ILE
11	S9	138	LYS
11	S9	145	SER
11	S9	149	ARG
11	S9	151	ASP
11	S9	157	ASP
11	S9	161	THR
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	182	GLU
12	C0	1	MET
12	C0	8	ARG
12	C0	27	PHE
12	C0	29	GLN
12	C0	32	HIS
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	82	LEU

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Mol	Chain	Res	Type
13	C1	8	GLN
13	C1	21	ASN
13	C1	27	THR
13	C1	29	LYS
13	C1	37	ASN
13	C1	40	LEU
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	79	LYS
13	C1	83	THR
13	C1	109	VAL
13	C1	112	SER
13	C1	118	GLN
13	C1	123	VAL
13	C1	127	GLN
13	C1	131	ILE
13	C1	140	VAL
13	C1	143	SER
14	C2	28	LEU
14	C2	33	ARG
14	C2	37	VAL
14	C2	43	ARG
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	54	ARG
14	C2	58	LEU
14	C2	61	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	86	VAL
14	C2	89	ILE
14	C2	103	LEU
14	C2	121	VAL
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU

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Mol	Chain	Res	Type
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG
15	C3	9	LYS
15	C3	11	ILE
15	C3	13	SER
15	C3	16	ILE
15	C3	27	LYS
15	C3	32	SER
15	C3	39	LYS
15	C3	42	ARG
15	C3	45	LEU
15	C3	50	ILE
15	C3	56	ASP
15	C3	58	HIS
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	83	GLU
15	C3	88	LEU
15	C3	102	LEU
15	C3	110	ASP
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	134	VAL
15	C3	142	GLU
15	C3	145	THR
15	C3	151	ASN
16	C4	13	VAL
16	C4	14	PHE
16	C4	16	VAL
16	C4	24	ASN
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	48	VAL
16	C4	51	ASP
16	C4	92	LYS
16	C4	102	LEU

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Mol	Chain	Res	Type
16	C4	103	ARG
16	C4	118	VAL
16	C4	123	SER
16	C4	126	THR
16	C4	132	ARG
16	C4	133	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	22	LEU
17	C5	26	LEU
17	C5	34	VAL
17	C5	35	LYS
17	C5	36	LEU
17	C5	40	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	60	LEU
17	C5	89	MET
17	C5	100	LYS
17	C5	110	GLU
17	C5	116	LEU
17	C5	121	ILE
17	C5	124	THR
18	C6	4	VAL
18	C6	13	LYS
18	C6	14	LYS
18	C6	17	THR
18	C6	26	LYS
18	C6	28	LEU
18	C6	44	LEU
18	C6	58	ASP
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	98	ASP
18	C6	106	LYS
18	C6	114	ARG
18	C6	118	ILE
18	C6	121	SER
18	C6	123	ARG
18	C6	127	LYS

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Mol	Chain	Res	Type
18	C6	128	LYS
18	C6	136	SER
18	C6	137	ARG
18	C6	141	SER
18	C6	143	ARG
19	C7	5	ARG
19	C7	25	THR
19	C7	29	GLN
19	C7	30	THR
19	C7	34	LEU
19	C7	38	ILE
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	69	ILE
19	C7	71	PHE
19	C7	72	LYS
19	C7	78	ARG
19	C7	83	GLN
19	C7	84	TYR
19	C7	87	GLU
19	C7	104	ASN
19	C7	105	GLN
19	C7	107	SER
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	6	GLN
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	18	LEU
20	C8	20	THR
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	32	LEU

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Mol	Chain	Res	Type
20	C8	40	ARG
20	C8	53	ASP
20	C8	54	LEU
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	80	LYS
20	C8	89	GLN
20	C8	92	ILE
20	C8	97	ASP
20	C8	108	LYS
20	C8	115	ARG
20	C8	116	LEU
20	C8	120	ARG
20	C8	132	ARG
20	C8	136	GLN
20	C8	140	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	18	TYR
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	57	ARG
21	C9	67	MET
21	C9	70	GLN
21	C9	84	LYS
21	C9	94	ILE
21	C9	111	ILE
21	C9	116	ILE
21	C9	117	SER
21	C9	130	ARG
21	C9	131	ASP
21	C9	134	ARG
21	C9	140	LEU
21	C9	144	GLU
22	D0	15	GLN

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Mol	Chain	Res	Type
22	D0	22	ILE
22	D0	23	ARG
22	D0	27	THR
22	D0	30	LYS
22	D0	47	GLN
22	D0	48	HIS
22	D0	51	VAL
22	D0	57	ARG
22	D0	61	LYS
22	D0	66	SER
22	D0	72	ASN
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	105	GLN
22	D0	108	ILE
22	D0	121	ASN
23	D1	5	LYS
23	D1	11	LEU
23	D1	18	SER
23	D1	25	LYS
23	D1	41	GLU
23	D1	49	GLU
23	D1	52	THR
23	D1	61	SER
23	D1	68	SER
23	D1	69	LEU
23	D1	78	LEU
23	D1	80	LYS
23	D1	84	SER
24	D2	7	LEU
24	D2	24	GLN
24	D2	25	VAL
24	D2	29	PRO
24	D2	53	ILE
24	D2	65	LEU
24	D2	81	VAL
24	D2	93	LEU

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Mol	Chain	Res	Type
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	119	LYS
24	D2	121	VAL
24	D2	122	SER
24	D2	129	VAL
25	D3	7	ARG
25	D3	9	LEU
25	D3	18	HIS
25	D3	19	ARG
25	D3	28	ASN
25	D3	41	SER
25	D3	73	ARG
25	D3	84	THR
25	D3	97	ASP
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	110	LYS
25	D3	114	LYS
25	D3	117	ILE
25	D3	127	VAL
25	D3	131	SER
25	D3	136	TRP
25	D3	138	GLU
25	D3	140	LYS
25	D3	144	ARG
26	D4	10	ARG
26	D4	17	LEU
26	D4	21	LYS
26	D4	29	HIS
26	D4	32	ARG
26	D4	34	ASN
26	D4	47	VAL
26	D4	51	GLU
26	D4	52	LYS
26	D4	57	VAL
26	D4	61	ARG
26	D4	62	THR
26	D4	74	LEU

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Mol	Chain	Res	Type
26	D4	96	LEU
26	D4	99	LYS
26	D4	102	LYS
26	D4	121	THR
26	D4	127	LYS
26	D4	128	LYS
27	D5	42	LEU
27	D5	48	ASP
27	D5	50	ILE
27	D5	58	ARG
27	D5	59	TYR
27	D5	60	VAL
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	95	HIS
27	D5	100	ILE
28	D6	36	ILE
28	D6	38	ARG
28	D6	44	ILE
28	D6	45	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	67	THR
28	D6	68	TYR
28	D6	69	ASN
28	D6	70	LYS
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	86	VAL
28	D6	90	GLU
28	D6	91	ASP
29	D7	3	LEU
29	D7	20	LYS
29	D7	26	GLN
29	D7	33	LEU
29	D7	55	THR

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Mol	Chain	Res	Type
29	D7	67	THR
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	32	PHE
30	D8	33	LEU
30	D8	35	ASP
30	D8	36	THR
30	D8	44	VAL
30	D8	49	ARG
30	D8	57	MET
30	D8	58	GLU
30	D8	64	ARG
31	D9	6	VAL
31	D9	7	TRP
31	D9	22	ARG
31	D9	25	SER
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
31	D9	38	ILE
32	E0	3	LYS
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	28	LYS
32	E0	29	LYS
32	E0	39	LEU
32	E0	42	ARG
32	E0	47	VAL
32	E0	56	MET
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	108	VAL
33	E1	109	ASP
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	130	VAL
33	E1	137	ASP

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Mol	Chain	Res	Type
33	E1	140	TYR
33	E1	146	SER
33	E1	147	VAL
33	E1	149	LYS
33	E1	151	ASN
34	SR	3	SER
34	SR	6	VAL
34	SR	7	LEU
34	SR	10	ARG
34	SR	12	THR
34	SR	16	HIS
34	SR	29	GLN
34	SR	46	LYS
34	SR	48	THR
34	SR	52	GLN
34	SR	59	ARG
34	SR	66	HIS
34	SR	76	ASP
34	SR	94	VAL
34	SR	96	THR
34	SR	106	HIS
34	SR	108	SER
34	SR	112	SER
34	SR	117	LYS
34	SR	118	LYS
34	SR	136	ILE
34	SR	137	LYS
34	SR	141	LEU
34	SR	165	ASP
34	SR	166	SER
34	SR	191	ASP
34	SR	199	ILE
34	SR	202	LEU
34	SR	222	LEU
34	SR	238	ASP
34	SR	266	ASP
34	SR	268	GLN
34	SR	277	GLU
34	SR	300	THR
34	SR	308	ASN
34	SR	314	GLN
34	SR	316	MET

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Mol	Chain	Res	Type
34	SR	317	THR
35	SM	34	LYS
35	SM	46	LYS
35	SM	51	ARG
35	SM	55	SER
35	SM	61	ILE
35	SM	64	LYS
35	SM	68	ARG
35	SM	78	ASP
35	SM	79	SER
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	96	ARG
35	SM	97	THR
35	SM	100	THR
35	SM	103	LYS
35	SM	105	LYS
35	SM	116	GLU
35	SM	130	GLU
35	SM	131	ILE
35	SM	139	GLU
39	L2	8	GLN
39	L2	10	LYS
39	L2	20	THR
39	L2	23	ARG
39	L2	30	ARG
39	L2	31	THR
39	L2	32	LEU
39	L2	37	ARG
39	L2	44	ILE
39	L2	45	VAL
39	L2	46	LYS
39	L2	62	VAL
39	L2	70	ARG
39	L2	74	GLU
39	L2	82	VAL
39	L2	88	ILE
39	L2	95	SER
39	L2	96	LEU
39	L2	97	ASN
39	L2	101	VAL

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Mol	Chain	Res	Type
39	L2	104	LEU
39	L2	109	GLU
39	L2	116	VAL
39	L2	134	VAL
39	L2	141	PRO
39	L2	142	ASP
39	L2	143	GLU
39	L2	158	ILE
39	L2	165	VAL
39	L2	169	ILE
39	L2	177	LYS
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	190	ARG
39	L2	191	LEU
39	L2	193	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	226	SER
39	L2	230	VAL
39	L2	247	ARG
40	L3	2	SER
40	L3	7	GLU
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	47	LEU
40	L3	50	LYS
40	L3	56	ILE
40	L3	73	VAL
40	L3	84	VAL
40	L3	85	VAL
40	L3	102	LEU
40	L3	103	THR
40	L3	114	VAL
40	L3	116	ARG
40	L3	134	SER
40	L3	139	GLN

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Mol	Chain	Res	Type
40	L3	146	ARG
40	L3	148	LEU
40	L3	150	ARG
40	L3	156	SER
40	L3	169	THR
40	L3	173	GLN
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	200	GLU
40	L3	201	LYS
40	L3	202	THR
40	L3	205	VAL
40	L3	207	SER
40	L3	212	ASN
40	L3	218	ILE
40	L3	229	VAL
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	284	ARG
40	L3	300	ARG
40	L3	304	THR
40	L3	305	ILE
40	L3	308	MET
40	L3	316	GLU
40	L3	319	ASN
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	337	THR
40	L3	338	LEU
40	L3	341	SER
40	L3	343	TYR
40	L3	347	SER
40	L3	355	SER
40	L3	361	THR

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Mol	Chain	Res	Type
40	L3	364	LYS
40	L3	380	MET
40	L3	385	LYS
41	L4	4	PRO
41	L4	18	ASN
41	L4	22	LEU
41	L4	25	VAL
41	L4	37	THR
41	L4	40	THR
41	L4	54	GLU
41	L4	60	THR
41	L4	71	VAL
41	L4	74	ILE
41	L4	85	SER
41	L4	93	MET
41	L4	99	MET
41	L4	133	SER
41	L4	135	VAL
41	L4	136	LEU
41	L4	138	ARG
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	187	LEU
41	L4	191	LYS
41	L4	193	LYS
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	217	LYS
41	L4	220	ARG
41	L4	222	VAL
41	L4	230	VAL
41	L4	246	ARG

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Mol	Chain	Res	Type
41	L4	256	THR
41	L4	258	LEU
41	L4	267	VAL
41	L4	270	SER
41	L4	275	THR
41	L4	287	THR
41	L4	292	SER
41	L4	293	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	308	LYS
41	L4	313	LEU
41	L4	314	LYS
41	L4	321	LYS
41	L4	323	VAL
41	L4	332	LYS
41	L4	339	LEU
41	L4	343	LYS
41	L4	346	LYS
41	L4	350	LYS
41	L4	354	VAL
42	L5	5	LYS
42	L5	23	ARG
42	L5	34	LYS
42	L5	35	ARG
42	L5	41	LYS
42	L5	66	SER
42	L5	69	ILE
42	L5	80	SER
42	L5	85	ARG
42	L5	89	THR
42	L5	92	LEU
42	L5	93	THR
42	L5	95	TRP
42	L5	105	ILE
42	L5	109	THR
42	L5	112	LYS
42	L5	115	LEU
42	L5	118	THR
42	L5	122	VAL
42	L5	123	GLU
42	L5	131	LEU

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Mol	Chain	Res	Type
42	L5	132	THR
42	L5	137	ASP
42	L5	140	ARG
42	L5	144	VAL
42	L5	146	LEU
42	L5	148	ILE
42	L5	152	ARG
42	L5	155	THR
42	L5	158	ARG
42	L5	159	VAL
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	196	ARG
42	L5	216	GLU
42	L5	222	LEU
42	L5	232	ASP
42	L5	242	SER
42	L5	254	LYS
42	L5	258	LYS
42	L5	259	LYS
42	L5	261	THR
42	L5	263	GLU
42	L5	273	ARG
42	L5	277	LEU
42	L5	293	LEU
43	L6	2	SER
43	L6	5	LYS
43	L6	15	VAL
43	L6	21	THR
43	L6	31	ARG
43	L6	35	VAL
43	L6	46	ARG
43	L6	48	ARG
43	L6	52	VAL
43	L6	56	LYS
43	L6	65	ILE
43	L6	79	VAL
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	93	VAL

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Mol	Chain	Res	Type
43	L6	94	GLU
43	L6	98	VAL
43	L6	129	GLU
43	L6	134	ARG
43	L6	152	THR
43	L6	155	LEU
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	40	LYS
44	L7	60	ARG
44	L7	77	VAL
44	L7	82	LYS
44	L7	88	ARG
44	L7	93	ASN
44	L7	100	ARG
44	L7	101	LYS
44	L7	110	ARG
44	L7	121	LYS
44	L7	124	LEU
44	L7	143	THR
44	L7	157	ASN
44	L7	158	LYS
44	L7	164	SER
44	L7	178	ILE
44	L7	179	LEU
44	L7	184	LEU
44	L7	228	SER
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	27	THR
45	L8	41	GLN
45	L8	47	SER
45	L8	63	LYS
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	84	ARG
45	L8	89	GLU
45	L8	92	LYS
45	L8	95	ASN

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Mol	Chain	Res	Type
45	L8	101	THR
45	L8	106	LYS
45	L8	110	THR
45	L8	132	VAL
45	L8	136	LEU
45	L8	145	ASN
45	L8	149	LYS
45	L8	150	LEU
45	L8	156	ASP
45	L8	160	ILE
45	L8	169	LEU
45	L8	172	LYS
45	L8	185	ARG
45	L8	190	VAL
45	L8	194	THR
45	L8	203	VAL
45	L8	206	GLU
45	L8	208	GLU
45	L8	214	LEU
45	L8	238	LEU
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
46	L9	4	ILE
46	L9	5	GLN
46	L9	6	THR
46	L9	12	VAL
46	L9	16	VAL
46	L9	18	VAL
46	L9	19	SER
46	L9	24	ILE
46	L9	33	THR
46	L9	34	LEU
46	L9	41	ILE
46	L9	48	VAL
46	L9	49	ASN
46	L9	52	LEU
46	L9	62	ARG
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	80	THR

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Mol	Chain	Res	Type
46	L9	82	VAL
46	L9	107	ASP
46	L9	123	ILE
46	L9	124	ARG
46	L9	133	THR
46	L9	135	GLU
46	L9	138	THR
46	L9	139	ASN
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	189	GLU
46	L9	190	ASP
46	L9	191	LEU
47	M0	3	ARG
47	M0	21	ARG
47	M0	24	ARG
47	M0	30	LYS
47	M0	32	ARG
47	M0	33	ILE
47	M0	36	LEU
47	M0	39	LYS
47	M0	40	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	57	LEU
47	M0	63	GLU
47	M0	87	LEU
47	M0	91	VAL
47	M0	99	ILE
47	M0	129	VAL
47	M0	139	ARG
47	M0	140	THR
47	M0	162	GLN
47	M0	163	GLN
47	M0	165	ILE
47	M0	167	LEU

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Mol	Chain	Res	Type
47	M0	169	LYS
47	M0	174	THR
47	M0	175	ASN
47	M0	176	LEU
47	M0	177	ASP
47	M0	184	LYS
47	M0	185	ARG
47	M0	200	LEU
47	M0	203	LYS
47	M0	207	GLU
48	M1	6	GLN
48	M1	7	ASN
48	M1	9	MET
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	13	LYS
48	M1	22	SER
48	M1	28	ASP
48	M1	34	SER
48	M1	44	THR
48	M1	46	VAL
48	M1	61	ARG
48	M1	65	ILE
48	M1	70	THR
48	M1	80	LEU
48	M1	82	ARG
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	143	ARG
48	M1	148	VAL
48	M1	158	ASP
48	M1	166	LYS
48	M1	173	ASP

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Mol	Chain	Res	Type
49	M3	23	LYS
49	M3	35	ARG
49	M3	46	ILE
49	M3	54	LEU
49	M3	55	ARG
49	M3	58	VAL
49	M3	59	ARG
49	M3	63	VAL
49	M3	67	ARG
49	M3	69	VAL
49	M3	70	ARG
49	M3	85	LEU
49	M3	100	ARG
49	M3	115	ARG
49	M3	120	GLN
49	M3	122	LYS
49	M3	124	ILE
49	M3	128	ARG
49	M3	131	LYS
49	M3	136	GLU
49	M3	164	GLU
49	M3	168	ARG
49	M3	171	ARG
49	M3	175	SER
49	M3	182	ILE
49	M3	190	LYS
50	M4	5	SER
50	M4	8	LYS
50	M4	20	VAL
50	M4	25	LYS
50	M4	27	GLN
50	M4	38	ILE
50	M4	50	LYS
50	M4	53	VAL
50	M4	55	ARG
50	M4	58	ILE
50	M4	63	VAL
50	M4	64	VAL
50	M4	69	THR
50	M4	72	LEU
50	M4	83	LYS
50	M4	90	VAL

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Mol	Chain	Res	Type
50	M4	92	GLU
50	M4	93	LYS
50	M4	102	LYS
50	M4	125	LYS
50	M4	126	GLN
50	M4	130	THR
50	M4	135	LEU
51	M5	10	LEU
51	M5	11	GLN
51	M5	15	GLN
51	M5	20	ARG
51	M5	22	LEU
51	M5	46	ASP
51	M5	50	ARG
51	M5	68	ARG
51	M5	77	LYS
51	M5	80	THR
51	M5	83	LYS
51	M5	85	THR
51	M5	91	GLU
51	M5	92	LEU
51	M5	96	ARG
51	M5	97	SER
51	M5	98	LEU
51	M5	105	ARG
51	M5	106	VAL
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	133	ILE
51	M5	138	GLN
51	M5	144	ARG
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	183	THR
51	M5	187	ARG
51	M5	190	THR
51	M5	194	GLN

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Mol	Chain	Res	Type
51	M5	196	THR
51	M5	204	LYS
52	M6	25	LYS
52	M6	33	ILE
52	M6	34	VAL
52	M6	46	GLU
52	M6	58	LEU
52	M6	68	ARG
52	M6	74	ARG
52	M6	78	ARG
52	M6	79	ILE
52	M6	84	LEU
52	M6	85	ARG
52	M6	94	ARG
52	M6	106	GLU
52	M6	111	PRO
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	124	LEU
52	M6	126	VAL
52	M6	128	ARG
52	M6	143	THR
52	M6	144	SER
52	M6	155	LYS
52	M6	160	ARG
52	M6	180	SER
52	M6	182	ASN
52	M6	190	VAL
53	M7	9	THR
53	M7	23	ARG
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	34	GLN
53	M7	36	ILE
53	M7	41	LEU
53	M7	52	LEU
53	M7	53	ASP
53	M7	65	SER
53	M7	67	ILE
53	M7	69	ARG

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Mol	Chain	Res	Type
53	M7	78	VAL
53	M7	79	THR
53	M7	107	LEU
53	M7	112	LEU
53	M7	118	GLN
53	M7	119	VAL
53	M7	123	PRO
53	M7	126	ARG
53	M7	127	ARG
53	M7	136	ILE
53	M7	138	LYS
53	M7	142	SER
53	M7	144	SER
53	M7	157	VAL
53	M7	168	LEU
53	M7	171	ARG
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	17	THR
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	46	LYS
54	M8	49	LEU
54	M8	57	ILE
54	M8	64	VAL
54	M8	73	GLN
54	M8	95	GLU
54	M8	111	ARG
54	M8	113	LYS
54	M8	120	GLU
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	150	VAL
54	M8	170	ARG
54	M8	178	ARG
54	M8	180	ARG
55	M9	29	THR
55	M9	44	LEU

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Mol	Chain	Res	Type
55	M9	46	LYS
55	M9	51	VAL
55	M9	55	VAL
55	M9	71	ARG
55	M9	74	ARG
55	M9	91	SER
55	M9	98	ARG
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	115	ILE
55	M9	116	ASP
55	M9	135	LYS
55	M9	138	LEU
55	M9	146	LYS
55	M9	164	LEU
55	M9	173	ARG
55	M9	182	ASP
56	N0	1	MET
56	N0	8	GLN
56	N0	12	ARG
56	N0	21	GLU
56	N0	45	LEU
56	N0	51	VAL
56	N0	57	GLU
56	N0	61	ILE
56	N0	71	LYS
56	N0	80	ARG
56	N0	85	SER
56	N0	87	THR
56	N0	92	LYS
56	N0	100	VAL
56	N0	105	THR
56	N0	106	LEU
56	N0	115	ARG
56	N0	117	ARG
56	N0	120	SER
56	N0	122	HIS
56	N0	125	LYS
56	N0	130	GLU
56	N0	131	LYS

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Mol	Chain	Res	Type
56	N0	132	THR
56	N0	136	LYS
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	158	LYS
56	N0	161	LYS
56	N0	167	ARG
56	N0	169	SER
57	N1	9	SER
57	N1	12	ARG
57	N1	18	ASP
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	55	LYS
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG
57	N1	88	ARG
57	N1	96	ILE
57	N1	104	GLU
57	N1	106	LEU
57	N1	110	LYS
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	149	GLN
57	N1	158	THR
57	N1	159	PHE
58	N2	10	LYS
58	N2	14	THR

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Mol	Chain	Res	Type
58	N2	16	THR
58	N2	29	ASP
58	N2	32	SER
58	N2	43	VAL
58	N2	52	ASN
58	N2	66	VAL
58	N2	75	TYR
58	N2	88	GLN
58	N2	93	ILE
58	N2	100	THR
58	N2	105	LEU
59	N3	13	ILE
59	N3	32	ARG
59	N3	48	ARG
59	N3	63	LYS
59	N3	69	LEU
59	N3	71	LYS
59	N3	72	LYS
59	N3	73	VAL
59	N3	74	MET
59	N3	79	VAL
59	N3	83	LYS
59	N3	102	ILE
59	N3	109	MET
59	N3	110	LYS
59	N3	115	THR
59	N3	120	LYS
59	N3	125	LEU
59	N3	135	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	17	ARG
60	N4	39	LEU
60	N4	47	ARG
60	N4	54	LEU
60	N4	64	THR
61	N5	27	ARG
61	N5	37	THR
61	N5	38	LEU
61	N5	39	LYS
61	N5	40	LEU
61	N5	63	ILE

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Mol	Chain	Res	Type
61	N5	71	THR
61	N5	86	VAL
61	N5	92	LYS
61	N5	108	LEU
61	N5	115	ARG
61	N5	120	LYS
61	N5	125	ARG
61	N5	127	THR
61	N5	129	ASP
61	N5	133	LEU
61	N5	135	ILE
61	N5	138	ARG
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	5	SER
62	N6	13	ARG
62	N6	17	LYS
62	N6	36	SER
62	N6	37	LYS
62	N6	39	LEU
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG
62	N6	55	GLU
62	N6	56	VAL
62	N6	57	LEU
62	N6	60	ARG
62	N6	64	LYS
62	N6	70	ILE
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	88	GLU
62	N6	89	LYS
62	N6	94	SER
62	N6	105	VAL
62	N6	115	ARG
62	N6	125	LYS
63	N7	14	VAL
63	N7	17	ARG

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Mol	Chain	Res	Type
63	N7	21	LYS
63	N7	24	VAL
63	N7	30	ASP
63	N7	34	LYS
63	N7	46	ILE
63	N7	54	THR
63	N7	60	LYS
63	N7	64	LYS
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	90	GLU
63	N7	97	SER
63	N7	102	GLU
63	N7	108	GLU
63	N7	109	GLU
63	N7	120	GLU
63	N7	121	ARG
63	N7	134	LEU
64	N8	4	ARG
64	N8	6	THR
64	N8	8	THR
64	N8	10	LYS
64	N8	19	LYS
64	N8	32	ARG
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	60	TYR
64	N8	76	ASP
64	N8	78	LEU
64	N8	85	ASP
64	N8	91	LEU
64	N8	92	LYS
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	135	GLU
64	N8	139	ARG
65	N9	14	ARG

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Mol	Chain	Res	Type
65	N9	18	ARG
65	N9	21	ILE
65	N9	22	LYS
65	N9	23	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	38	LYS
65	N9	40	ARG
65	N9	50	THR
65	N9	59	LYS
66	O0	16	LEU
66	O0	22	LYS
66	O0	34	LEU
66	O0	40	LYS
66	O0	54	SER
66	O0	61	MET
66	O0	79	THR
66	O0	83	LYS
66	O0	93	LEU
66	O0	99	ASP
66	O0	100	ILE
66	O0	101	LEU
66	O0	104	LEU
67	O1	6	ASP
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	31	ARG
67	O1	47	ASP
67	O1	55	LEU
67	O1	64	VAL
67	O1	68	GLU
67	O1	79	ARG
67	O1	81	GLU
67	O1	82	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	89	LEU
67	O1	94	GLU
67	O1	96	VAL
67	O1	106	THR

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Mol	Chain	Res	Type
67	O1	107	VAL
67	O1	110	GLU
68	O2	15	LYS
68	O2	16	LYS
68	O2	18	LYS
68	O2	19	ARG
68	O2	33	ARG
68	O2	41	VAL
68	O2	51	SER
68	O2	59	SER
68	O2	61	LYS
68	O2	62	LYS
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	82	LEU
68	O2	84	THR
68	O2	89	THR
68	O2	91	THR
68	O2	106	VAL
68	O2	109	LEU
68	O2	111	ARG
68	O2	128	LEU
69	O3	4	SER
69	O3	15	SER
69	O3	49	ILE
69	O3	59	VAL
69	O3	70	LYS
69	O3	78	SER
69	O3	80	VAL
69	O3	93	THR
69	O3	106	ASN
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	31	ARG
70	O4	33	GLN

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Mol	Chain	Res	Type
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
70	O4	87	GLU
70	O4	90	ILE
70	O4	104	VAL
70	O4	107	GLU
71	O5	5	LYS
71	O5	21	LEU
71	O5	27	GLU
71	O5	28	LEU
71	O5	31	LEU
71	O5	43	LYS
71	O5	46	THR
71	O5	49	LYS
71	O5	50	SER
71	O5	62	GLN
71	O5	71	LYS
71	O5	73	LYS
71	O5	74	LYS
71	O5	85	THR
71	O5	89	ARG
71	O5	90	ARG
71	O5	94	LYS
71	O5	99	GLN
71	O5	100	VAL
71	O5	101	THR
71	O5	102	GLU
71	O5	107	LYS
71	O5	115	LYS
71	O5	119	LYS
72	O6	11	LEU
72	O6	17	VAL
72	O6	18	THR
72	O6	21	THR
72	O6	26	ILE
72	O6	34	SER

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Mol	Chain	Res	Type
72	O6	36	ARG
72	O6	45	ARG
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	68	ARG
72	O6	76	ARG
72	O6	81	THR
72	O6	90	MET
72	O6	99	ARG
73	O7	5	THR
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	37	CYS
73	O7	44	THR
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
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	50	SER
74	O8	53	THR
74	O8	54	LEU
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	72	THR
74	O8	77	ARG
74	O8	78	LEU
75	O9	5	LYS
75	O9	11	GLN
75	O9	21	ARG
75	O9	45	ARG

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Mol	Chain	Res	Type
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	83	LYS
76	Q0	85	LEU
76	Q0	97	ARG
76	Q0	106	ARG
76	Q0	108	THR
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
76	Q0	128	LYS
77	Q1	2	ARG
77	Q1	4	LYS
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	3	ASN
78	Q2	8	ARG
78	Q2	16	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	47	GLN
78	Q2	48	SER
78	Q2	54	THR
78	Q2	60	LYS
78	Q2	66	LYS
78	Q2	72	LEU
78	Q2	76	LYS
78	Q2	78	LYS
78	Q2	79	THR
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	93	LEU
78	Q2	100	LYS

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Mol	Chain	Res	Type
78	Q2	104	LEU
78	Q2	105	GLN
79	Q3	7	LYS
79	Q3	11	THR
79	Q3	25	GLN
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	49	ARG
79	Q3	56	THR
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	64	VAL
79	Q3	73	THR
79	Q3	78	THR
79	Q3	82	THR
79	Q3	84	ARG
79	Q3	90	VAL
2	s0	9	LEU
2	s0	10	THR
2	s0	12	GLU
2	s0	24	LEU
2	s0	29	VAL
2	s0	30	GLN
2	s0	39	ASN
2	s0	41	ARG
2	s0	45	VAL
2	s0	55	GLU
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	101	ARG
2	s0	106	SER
2	s0	110	TYR
2	s0	111	ILE
2	s0	112	THR
2	s0	119	ARG
2	s0	124	THR
2	s0	144	ILE

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Mol	Chain	Res	Type
2	s0	151	SER
2	s0	153	SER
2	s0	154	GLU
2	s0	157	ASP
2	s0	172	LEU
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	189	VAL
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	51	SER
3	s1	55	LYS
3	s1	62	LYS
3	s1	70	LEU
3	s1	83	LYS
3	s1	85	LYS
3	s1	105	PHE
3	s1	126	THR
3	s1	129	THR
3	s1	137	ILE
3	s1	154	SER
3	s1	173	THR
3	s1	177	GLN
3	s1	180	THR
3	s1	181	LEU
3	s1	184	LEU
3	s1	202	LYS
3	s1	203	ASP
3	s1	204	ILE
3	s1	212	VAL
3	s1	215	VAL
3	s1	217	LEU
3	s1	219	LYS
3	s1	222	LYS
3	s1	223	PHE
4	s2	39	THR
4	s2	41	LEU
4	s2	53	ILE
4	s2	55	GLU

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Mol	Chain	Res	Type
4	s2	58	LEU
4	s2	60	SER
4	s2	61	LEU
4	s2	69	ILE
4	s2	72	LEU
4	s2	73	LEU
4	s2	76	LEU
4	s2	81	MET
4	s2	83	ILE
4	s2	84	LYS
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	117	THR
4	s2	139	ILE
4	s2	140	ARG
4	s2	141	ARG
4	s2	153	SER
4	s2	159	THR
4	s2	164	SER
4	s2	165	VAL
4	s2	166	THR
4	s2	170	ILE
4	s2	185	LYS
4	s2	194	GLU
4	s2	195	ASP
4	s2	206	THR
4	s2	218	ILE
4	s2	222	TYR
4	s2	225	LEU
4	s2	229	LEU
4	s2	233	GLN
4	s2	237	VAL
4	s2	244	SER
4	s2	248	SER
5	s3	4	LEU
5	s3	10	LYS
5	s3	21	LEU

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Mol	Chain	Res	Type
5	s3	32	GLU
5	s3	39	VAL
5	s3	44	THR
5	s3	59	LEU
5	s3	61	GLU
5	s3	69	LEU
5	s3	70	THR
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	142	LEU
5	s3	143	ARG
5	s3	146	ARG
5	s3	148	LYS
5	s3	158	ILE
5	s3	162	GLN
5	s3	168	ILE
5	s3	172	THR
5	s3	202	LEU
5	s3	204	ASP
5	s3	208	ILE
5	s3	212	LYS
5	s3	213	GLU
5	s3	225	TYR
6	s4	7	LYS
6	s4	12	LEU
6	s4	23	LEU
6	s4	38	LEU
6	s4	42	LEU
6	s4	48	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	67	GLN
6	s4	69	HIS
6	s4	70	VAL
6	s4	77	ARG
6	s4	78	THR
6	s4	81	THR

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Mol	Chain	Res	Type
6	s4	102	VAL
6	s4	105	VAL
6	s4	108	ARG
6	s4	113	ARG
6	s4	116	ASP
6	s4	123	LEU
6	s4	126	VAL
6	s4	131	LEU
6	s4	143	ASP
6	s4	146	THR
6	s4	147	ILE
6	s4	148	ARG
6	s4	159	THR
6	s4	180	LEU
6	s4	182	TYR
6	s4	187	ARG
6	s4	191	ARG
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	227	VAL
6	s4	237	SER
6	s4	245	LYS
6	s4	248	ILE
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	32	GLU
7	s5	38	THR
7	s5	41	LYS
7	s5	43	PHE
7	s5	44	ASN
7	s5	45	LYS
7	s5	58	LEU
7	s5	59	VAL
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	76	ARG
7	s5	83	ARG
7	s5	89	ILE

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Mol	Chain	Res	Type
7	s5	93	LEU
7	s5	94	THR
7	s5	102	ARG
7	s5	109	LYS
7	s5	119	ASP
7	s5	122	ASN
7	s5	125	THR
7	s5	128	ASN
7	s5	140	THR
7	s5	147	THR
7	s5	148	ARG
7	s5	157	ARG
7	s5	163	SER
7	s5	167	ARG
7	s5	170	GLN
7	s5	186	ASN
7	s5	194	LEU
7	s5	203	LYS
7	s5	208	SER
7	s5	213	LYS
7	s5	216	GLU
7	s5	225	ARG
8	s6	17	GLU
8	s6	21	GLU
8	s6	25	ARG
8	s6	30	LYS
8	s6	34	GLN
8	s6	43	ASP
8	s6	65	GLN
8	s6	68	LEU
8	s6	71	THR
8	s6	76	LEU
8	s6	78	THR
8	s6	79	LYS
8	s6	81	VAL
8	s6	93	LYS
8	s6	97	VAL
8	s6	108	VAL
8	s6	109	LEU
8	s6	111	LEU
8	s6	115	LYS
8	s6	120	GLU

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Mol	Chain	Res	Type
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	129	VAL
8	s6	143	LYS
8	s6	150	GLU
8	s6	151	ASP
8	s6	153	VAL
8	s6	155	ASP
8	s6	156	PHE
8	s6	170	THR
8	s6	193	LEU
8	s6	203	GLU
8	s6	212	LEU
8	s6	215	ARG
9	s7	11	GLN
9	s7	28	GLU
9	s7	33	GLU
9	s7	42	GLN
9	s7	55	LYS
9	s7	67	LEU
9	s7	77	LEU
9	s7	79	ARG
9	s7	80	GLU
9	s7	86	GLN
9	s7	87	ASP
9	s7	97	ARG
9	s7	103	SER
9	s7	105	THR
9	s7	108	GLN
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	126	LEU
9	s7	136	VAL
9	s7	139	ARG
9	s7	143	LEU
9	s7	159	VAL
9	s7	185	ILE

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Mol	Chain	Res	Type
9	s7	187	SER
10	s8	20	GLN
10	s8	25	ARG
10	s8	26	LYS
10	s8	29	LEU
10	s8	32	GLN
10	s8	36	THR
10	s8	46	VAL
10	s8	58	LEU
10	s8	59	ARG
10	s8	74	LYS
10	s8	76	THR
10	s8	89	GLU
10	s8	111	GLN
10	s8	120	THR
10	s8	121	LEU
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	158	SER
10	s8	161	SER
10	s8	176	SER
10	s8	183	ILE
11	s9	3	ARG
11	s9	7	THR
11	s9	22	SER
11	s9	28	LEU
11	s9	33	GLU
11	s9	39	LYS
11	s9	49	LEU
11	s9	54	ARG
11	s9	78	ARG
11	s9	82	ARG
11	s9	90	LYS
11	s9	93	LEU
11	s9	101	VAL
11	s9	109	LEU
11	s9	110	GLN
11	s9	111	THR
11	s9	115	LYS
11	s9	126	ARG
11	s9	127	VAL

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Mol	Chain	Res	Type
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	162	SER
11	s9	168	ARG
11	s9	172	VAL
11	s9	180	LYS
11	s9	182	GLU
12	c0	2	LEU
12	c0	3	MET
12	c0	5	LYS
12	c0	8	ARG
12	c0	12	HIS
12	c0	15	LEU
12	c0	20	VAL
12	c0	55	VAL
12	c0	57	THR
12	c0	71	GLU
13	c1	3	THR
13	c1	5	LEU
13	c1	10	GLU
13	c1	21	ASN
13	c1	26	LYS
13	c1	27	THR
13	c1	30	ARG
13	c1	31	THR
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	60	PHE
13	c1	67	ARG
13	c1	74	THR
13	c1	76	VAL
13	c1	80	MET
13	c1	83	THR
13	c1	86	ILE
13	c1	122	ILE
13	c1	123	VAL

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Mol	Chain	Res	Type
13	c1	129	ARG
13	c1	140	VAL
14	c2	28	LEU
14	c2	36	LEU
14	c2	39	ASP
14	c2	43	ARG
14	c2	52	LEU
14	c2	58	LEU
14	c2	59	LEU
14	c2	62	LEU
14	c2	71	ILE
14	c2	74	LEU
14	c2	82	PRO
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	121	VAL
14	c2	129	GLU
14	c2	132	GLU
14	c2	136	ILE
14	c2	140	PHE
15	c3	12	SER
15	c3	14	SER
15	c3	16	ILE
15	c3	35	GLU
15	c3	39	LYS
15	c3	49	GLN
15	c3	64	ARG
15	c3	66	ILE
15	c3	70	LYS
15	c3	80	LEU
15	c3	83	GLU
15	c3	84	ILE
15	c3	87	ASP
15	c3	88	LEU
15	c3	97	SER
15	c3	102	LEU
15	c3	106	ARG
15	c3	115	LEU

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Mol	Chain	Res	Type
15	c3	125	LEU
15	c3	127	ARG
15	c3	134	VAL
15	c3	138	ASN
15	c3	147	SER
15	c3	150	VAL
16	c4	16	VAL
16	c4	18	ARG
16	c4	20	TYR
16	c4	26	THR
16	c4	33	LEU
16	c4	51	ASP
16	c4	52	ARG
16	c4	66	ASP
16	c4	79	VAL
16	c4	81	VAL
16	c4	92	LYS
16	c4	102	LEU
16	c4	111	ARG
16	c4	114	ARG
16	c4	119	THR
16	c4	123	SER
16	c4	127	ARG
16	c4	132	ARG
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	27	GLU
17	c5	28	MET
17	c5	36	LEU
17	c5	40	ARG
17	c5	51	SER
17	c5	52	LYS
17	c5	69	GLU
17	c5	72	LYS
17	c5	77	ARG
17	c5	92	SER
17	c5	107	ILE
17	c5	110	GLU
17	c5	121	ILE
17	c5	122	THR

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Mol	Chain	Res	Type
17	c5	124	THR
17	c5	125	PRO
17	c5	127	ARG
17	c5	128	HIS
18	c6	17	THR
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	39	VAL
18	c6	40	GLU
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	57	LEU
18	c6	66	ARG
18	c6	68	ARG
18	c6	69	VAL
18	c6	70	THR
18	c6	81	ILE
18	c6	94	GLN
18	c6	98	ASP
18	c6	106	LYS
18	c6	110	THR
18	c6	114	ARG
18	c6	115	THR
18	c6	123	ARG
18	c6	137	ARG
18	c6	143	ARG
19	c7	3	ARG
19	c7	8	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	46	LEU
19	c7	49	LYS
19	c7	60	ARG
19	c7	62	GLN
19	c7	63	LYS
19	c7	69	ILE
19	c7	85	VAL
19	c7	88	VAL
19	c7	110	VAL

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Mol	Chain	Res	Type
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	10	SER
20	c8	13	HIS
20	c8	15	LEU
20	c8	25	ASN
20	c8	26	ILE
20	c8	28	ILE
20	c8	33	THR
20	c8	38	VAL
20	c8	40	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	66	LEU
20	c8	68	ARG
20	c8	116	LEU
20	c8	119	ILE
20	c8	120	ARG
20	c8	133	VAL
20	c8	138	THR
20	c8	143	ARG
20	c8	144	ARG
20	c8	145	ARG
21	c9	6	VAL
21	c9	20	SER
21	c9	27	LYS
21	c9	28	LEU
21	c9	34	VAL
21	c9	36	ILE
21	c9	37	VAL
21	c9	57	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
21	c9	84	LYS
21	c9	86	ARG
21	c9	88	VAL
21	c9	111	ILE
21	c9	123	ARG

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Mol	Chain	Res	Type
21	c9	132	LEU
21	c9	133	ASP
21	c9	139	THR
21	c9	140	LEU
21	c9	142	GLU
21	c9	143	ASP
22	d0	23	ARG
22	d0	27	THR
22	d0	30	LYS
22	d0	31	VAL
22	d0	34	LEU
22	d0	44	ASN
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	70	THR
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	113	ASP
22	d0	115	GLU
22	d0	116	VAL
23	d1	2	GLU
23	d1	5	LYS
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	15	ARG
23	d1	18	SER
23	d1	32	VAL
23	d1	34	ILE
23	d1	38	LYS
23	d1	49	GLU

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Mol	Chain	Res	Type
23	d1	52	THR
23	d1	68	SER
23	d1	69	LEU
23	d1	78	LEU
23	d1	81	ASN
23	d1	86	SER
23	d1	87	ARG
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	31	SER
24	d2	65	LEU
24	d2	74	VAL
24	d2	81	VAL
24	d2	88	LYS
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	105	THR
24	d2	119	LYS
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	19	ARG
25	d3	23	ARG
25	d3	40	SER
25	d3	72	VAL
25	d3	73	ARG
25	d3	83	VAL
25	d3	84	THR
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	121	ARG
25	d3	131	SER
26	d4	10	ARG
26	d4	13	ILE
26	d4	21	LYS

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Mol	Chain	Res	Type
26	d4	26	ASP
26	d4	34	ASN
26	d4	36	SER
26	d4	43	LYS
26	d4	44	LEU
26	d4	47	VAL
26	d4	49	LYS
26	d4	55	VAL
26	d4	62	THR
26	d4	77	ASN
26	d4	78	SER
26	d4	83	LYS
26	d4	88	THR
26	d4	105	ARG
26	d4	128	LYS
27	d5	42	LEU
27	d5	43	ASP
27	d5	46	LYS
27	d5	51	LEU
27	d5	53	GLU
27	d5	57	TYR
27	d5	60	VAL
27	d5	81	ARG
27	d5	88	ILE
27	d5	93	SER
28	d6	10	ARG
28	d6	11	ASN
28	d6	24	VAL
28	d6	44	ILE
28	d6	46	GLU
28	d6	53	LEU
28	d6	67	THR
28	d6	82	ARG
28	d6	85	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	8	LEU
29	d7	17	ARG
29	d7	41	LEU
29	d7	43	ILE
29	d7	44	THR
29	d7	52	THR

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Mol	Chain	Res	Type
29	d7	61	THR
29	d7	72	LYS
29	d7	81	ARG
30	d8	5	THR
30	d8	7	VAL
30	d8	16	LEU
30	d8	22	ARG
30	d8	32	PHE
30	d8	33	LEU
30	d8	40	ILE
30	d8	42	ARG
30	d8	52	ASP
30	d8	54	LEU
30	d8	58	GLU
30	d8	62	GLU
31	d9	4	GLU
31	d9	10	HIS
31	d9	19	ARG
31	d9	21	CYS
31	d9	26	SER
31	d9	30	LEU
31	d9	32	ARG
31	d9	36	LEU
31	d9	38	ILE
31	d9	54	LYS
80	e0	13	LYS
80	e0	22	GLU
80	e0	23	LYS
80	e0	26	LYS
80	e0	29	LYS
80	e0	41	THR
80	e0	42	ARG
80	e0	44	PHE
80	e0	47	VAL
80	e0	49	LEU
80	e0	55	ARG
33	e1	80	ARG
33	e1	84	VAL
33	e1	87	THR
33	e1	90	LYS
33	e1	96	LYS
33	e1	97	LYS

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Mol	Chain	Res	Type
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	107	LYS
33	e1	113	LYS
33	e1	120	GLU
33	e1	140	TYR
33	e1	144	CYS
33	e1	151	ASN
34	sR	23	LEU
34	sR	25	THR
34	sR	29	GLN
34	sR	52	GLN
34	sR	58	VAL
34	sR	59	ARG
34	sR	65	SER
34	sR	76	ASP
34	sR	96	THR
34	sR	98	GLU
34	sR	102	ARG
34	sR	106	HIS
34	sR	108	SER
34	sR	145	LEU
34	sR	168	THR
34	sR	176	LYS
34	sR	199	ILE
34	sR	203	THR
34	sR	228	LYS
34	sR	232	TYR
34	sR	275	ARG
34	sR	277	GLU
34	sR	286	GLU
34	sR	297	ASP
34	sR	309	VAL
34	sR	310	ILE
34	sR	312	VAL
81	sM	23	LYS
81	sM	33	LYS
81	sM	43	ASP
81	sM	45	SER
81	sM	51	ARG
81	sM	53	ARG

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Mol	Chain	Res	Type
81	sM	55	SER
81	sM	61	ILE
81	sM	68	ARG
81	sM	74	LYS
81	sM	75	ASP
81	sM	77	THR
81	sM	78	ASP
81	sM	82	THR
39	l2	15	ILE
39	l2	23	ARG
39	l2	32	LEU
39	l2	41	ILE
39	l2	44	ILE
39	l2	45	VAL
39	l2	48	ILE
39	l2	49	VAL
39	l2	52	SER
39	l2	61	VAL
39	l2	62	VAL
39	l2	64	ARG
39	l2	71	LEU
39	l2	74	GLU
39	l2	82	VAL
39	l2	84	THR
39	l2	101	VAL
39	l2	116	VAL
39	l2	128	ARG
39	l2	134	VAL
39	l2	137	ILE
39	l2	142	ASP
39	l2	147	ARG
39	l2	152	SER
39	l2	155	LYS
39	l2	157	VAL
39	l2	158	ILE
39	l2	165	VAL
39	l2	169	ILE
39	l2	179	LEU
39	l2	181	LYS
39	l2	188	LYS
39	l2	190	ARG
39	l2	193	ARG

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Mol	Chain	Res	Type
39	12	200	ARG
39	12	202	VAL
39	12	227	ARG
39	12	230	VAL
39	12	243	THR
39	12	246	LEU
40	13	3	HIS
40	13	10	ARG
40	13	17	LEU
40	13	20	LYS
40	13	24	SER
40	13	30	LYS
40	13	34	LYS
40	13	37	ARG
40	13	43	LEU
40	13	44	THR
40	13	47	LEU
40	13	50	LYS
40	13	55	THR
40	13	56	ILE
40	13	69	LYS
40	13	73	VAL
40	13	77	THR
40	13	79	VAL
40	13	84	VAL
40	13	85	VAL
40	13	103	THR
40	13	114	VAL
40	13	116	ARG
40	13	134	SER
40	13	139	GLN
40	13	145	GLU
40	13	146	ARG
40	13	148	LEU
40	13	150	ARG
40	13	169	THR
40	13	178	LEU
40	13	183	LEU
40	13	184	ASN
40	13	188	ILE
40	13	192	VAL
40	13	196	ARG

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Mol	Chain	Res	Type
40	l3	201	LYS
40	l3	202	THR
40	l3	205	VAL
40	l3	211	GLN
40	l3	221	THR
40	l3	222	LYS
40	l3	229	VAL
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	242	THR
40	l3	249	VAL
40	l3	252	ILE
40	l3	264	VAL
40	l3	266	ARG
40	l3	274	SER
40	l3	284	ARG
40	l3	287	LYS
40	l3	296	THR
40	l3	304	THR
40	l3	308	MET
40	l3	319	ASN
40	l3	322	ILE
40	l3	324	VAL
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	340	LYS
40	l3	341	SER
40	l3	346	THR
40	l3	347	SER
40	l3	348	ARG
40	l3	361	THR
41	l4	2	SER
41	l4	3	ARG
41	l4	11	LEU
41	l4	18	ASN
41	l4	22	LEU
41	l4	25	VAL
41	l4	47	ARG
41	l4	48	GLN
41	l4	60	THR

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Mol	Chain	Res	Type
41	14	71	VAL
41	14	82	THR
41	14	93	MET
41	14	99	MET
41	14	112	LYS
41	14	120	TYR
41	14	136	LEU
41	14	144	LYS
41	14	145	ILE
41	14	148	ILE
41	14	150	LEU
41	14	156	LEU
41	14	158	SER
41	14	170	LYS
41	14	172	VAL
41	14	177	ASP
41	14	179	LEU
41	14	182	LEU
41	14	185	LYS
41	14	186	LYS
41	14	187	LEU
41	14	191	LYS
41	14	194	TYR
41	14	203	ARG
41	14	206	LEU
41	14	211	GLU
41	14	215	ILE
41	14	217	LYS
41	14	220	ARG
41	14	222	VAL
41	14	230	VAL
41	14	246	ARG
41	14	252	GLU
41	14	265	GLU
41	14	266	THR
41	14	297	SER
41	14	301	PRO
41	14	306	THR
41	14	307	GLN
41	14	313	LEU
41	14	319	LYS
41	14	327	LEU

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Mol	Chain	Res	Type
41	14	338	LYS
41	14	339	LEU
41	14	342	LYS
41	14	345	GLU
41	14	347	THR
41	14	356	THR
41	14	358	THR
41	14	359	LEU
42	15	4	GLN
42	15	5	LYS
42	15	15	ARG
42	15	34	LYS
42	15	35	ARG
42	15	41	LYS
42	15	51	LEU
42	15	68	THR
42	15	70	THR
42	15	73	VAL
42	15	75	LEU
42	15	89	THR
42	15	93	THR
42	15	110	LEU
42	15	112	LYS
42	15	115	LEU
42	15	118	THR
42	15	120	LYS
42	15	124	GLU
42	15	128	GLU
42	15	133	GLU
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	152	ARG
42	15	155	THR
42	15	158	ARG
42	15	177	GLU
42	15	185	PHE
42	15	187	THR
42	15	194	LEU
42	15	205	SER
42	15	211	LEU
42	15	218	ARG

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Mol	Chain	Res	Type
42	15	227	LEU
42	15	236	LEU
42	15	242	SER
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	260	PHE
42	15	268	GLU
42	15	269	SER
42	15	273	ARG
42	15	276	LYS
42	15	279	LYS
42	15	282	ARG
43	16	5	LYS
43	16	8	LYS
43	16	15	VAL
43	16	20	LYS
43	16	21	THR
43	16	50	LYS
43	16	64	LEU
43	16	65	ILE
43	16	78	ARG
43	16	79	VAL
43	16	89	THR
43	16	98	VAL
43	16	99	GLU
43	16	108	LYS
43	16	109	GLU
43	16	130	ILE
43	16	131	LYS
43	16	133	GLU
43	16	152	THR
43	16	155	LEU
43	16	160	SER
43	16	162	SER
43	16	171	PRO
44	17	22	THR
44	17	26	VAL
44	17	39	GLU
44	17	40	LYS
44	17	45	LEU
44	17	54	GLU

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Mol	Chain	Res	Type
44	17	60	ARG
44	17	82	LYS
44	17	83	LEU
44	17	88	ARG
44	17	100	ARG
44	17	121	LYS
44	17	124	LEU
44	17	130	ILE
44	17	157	ASN
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	175	LYS
44	17	179	LEU
44	17	181	ILE
44	17	184	LEU
44	17	196	LYS
44	17	219	LYS
44	17	229	PHE
44	17	234	GLU
44	17	239	LEU
45	18	26	LEU
45	18	41	GLN
45	18	65	LEU
45	18	68	ARG
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	81	THR
45	18	90	THR
45	18	95	ASN
45	18	98	ARG
45	18	109	LEU
45	18	136	LEU
45	18	149	LYS
45	18	150	LEU
45	18	153	ILE
45	18	160	ILE
45	18	164	VAL
45	18	169	LEU
45	18	183	LYS
45	18	185	ARG

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Mol	Chain	Res	Type
45	18	191	ASN
45	18	208	GLU
45	18	213	LYS
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	5	GLN
46	19	6	THR
46	19	18	VAL
46	19	22	SER
46	19	33	THR
46	19	39	LYS
46	19	43	VAL
46	19	44	THR
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	82	VAL
46	19	91	ARG
46	19	92	TYR
46	19	105	GLU
46	19	106	LYS
46	19	107	ASP
46	19	129	ARG
46	19	132	VAL
46	19	133	THR
46	19	138	THR
46	19	143	GLU
46	19	144	ILE
46	19	151	VAL
46	19	157	ASN
46	19	161	LEU
46	19	162	GLN
46	19	166	ARG
46	19	176	LEU
46	19	179	ILE

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Mol	Chain	Res	Type
46	l9	191	LEU
47	m0	3	ARG
47	m0	24	ARG
47	m0	26	VAL
47	m0	35	ASP
47	m0	36	LEU
47	m0	42	THR
47	m0	44	ASP
47	m0	52	LEU
47	m0	58	GLU
47	m0	60	LEU
47	m0	63	GLU
47	m0	71	CYS
47	m0	74	LYS
47	m0	76	MET
47	m0	77	THR
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	129	VAL
47	m0	139	ARG
47	m0	143	SER
47	m0	144	ASN
47	m0	162	GLN
47	m0	163	GLN
47	m0	167	LEU
47	m0	169	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	178	ARG
47	m0	197	VAL
47	m0	200	LEU
47	m0	205	SER
47	m0	206	LEU
47	m0	208	ASN
47	m0	211	ARG
47	m0	212	GLU
47	m0	217	PHE
48	m1	10	ARG
48	m1	13	LYS
48	m1	23	VAL
48	m1	31	THR

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Mol	Chain	Res	Type
48	m1	35	LYS
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	56	THR
48	m1	61	ARG
48	m1	71	VAL
48	m1	80	LEU
48	m1	94	ARG
48	m1	101	ASN
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	115	LYS
48	m1	129	VAL
48	m1	137	ARG
48	m1	140	ARG
48	m1	153	LYS
48	m1	158	ASP
48	m1	159	THR
48	m1	161	SER
49	m3	58	VAL
49	m3	59	ARG
49	m3	63	VAL
49	m3	67	ARG
49	m3	69	VAL
49	m3	73	ARG
49	m3	76	THR
49	m3	85	LEU
49	m3	100	ARG
49	m3	103	ASN
49	m3	107	GLU
49	m3	114	GLN
49	m3	118	GLU
49	m3	121	SER
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR
49	m3	157	ARG
49	m3	164	GLU

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Mol	Chain	Res	Type
49	m3	165	SER
49	m3	168	ARG
49	m3	194	GLU
50	m4	2	SER
50	m4	3	THR
50	m4	4	ASP
50	m4	15	VAL
50	m4	20	VAL
50	m4	24	LYS
50	m4	53	VAL
50	m4	55	ARG
50	m4	62	GLN
50	m4	64	VAL
50	m4	66	THR
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	107	GLU
50	m4	113	THR
50	m4	123	LEU
50	m4	124	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	8	GLU
51	m5	10	LEU
51	m5	15	GLN
51	m5	22	LEU
51	m5	24	ARG
51	m5	50	ARG
51	m5	66	VAL
51	m5	67	ARG
51	m5	68	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	83	LYS
51	m5	85	THR
51	m5	92	LEU
51	m5	97	SER
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL

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Mol	Chain	Res	Type
51	m5	114	ARG
51	m5	138	GLN
51	m5	153	ASP
51	m5	155	VAL
51	m5	171	SER
51	m5	176	LYS
51	m5	188	ARG
52	m6	25	LYS
52	m6	41	LEU
52	m6	59	ARG
52	m6	60	LYS
52	m6	66	LYS
52	m6	67	THR
52	m6	68	ARG
52	m6	74	ARG
52	m6	78	ARG
52	m6	79	ILE
52	m6	84	LEU
52	m6	85	ARG
52	m6	106	GLU
52	m6	108	ILE
52	m6	110	PRO
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	128	ARG
52	m6	152	VAL
52	m6	160	ARG
52	m6	166	GLU
52	m6	170	LYS
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	190	VAL
52	m6	197	LEU
53	m7	9	THR
53	m7	24	VAL
53	m7	29	THR
53	m7	32	THR
53	m7	41	LEU
53	m7	52	LEU
53	m7	56	ARG

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Mol	Chain	Res	Type
53	m7	79	THR
53	m7	80	LYS
53	m7	86	LYS
53	m7	94	LEU
53	m7	107	LEU
53	m7	114	VAL
53	m7	118	GLN
53	m7	119	VAL
53	m7	120	ASN
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	138	LYS
53	m7	144	SER
53	m7	155	GLU
54	m8	3	ILE
54	m8	7	SER
54	m8	12	ARG
54	m8	17	THR
54	m8	20	LYS
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	41	ASP
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	66	ARG
54	m8	69	ARG
54	m8	80	THR
54	m8	86	THR
54	m8	93	ILE
54	m8	100	THR
54	m8	113	LYS
54	m8	127	LEU
54	m8	135	GLN
54	m8	138	LEU
54	m8	147	ARG
54	m8	150	VAL
54	m8	159	LYS

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Mol	Chain	Res	Type
54	m8	161	LYS
54	m8	165	ILE
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	30	SER
55	m9	36	ASN
55	m9	43	LYS
55	m9	49	THR
55	m9	52	LYS
55	m9	55	VAL
55	m9	56	THR
55	m9	63	THR
55	m9	71	ARG
55	m9	74	ARG
55	m9	76	SER
55	m9	88	ARG
55	m9	91	SER
55	m9	99	LEU
55	m9	116	ASP
55	m9	117	LYS
55	m9	126	GLU
55	m9	138	LEU
55	m9	152	GLU
55	m9	153	LYS
55	m9	162	ARG
55	m9	164	LEU
55	m9	167	ARG
55	m9	170	ARG
55	m9	173	ARG
55	m9	180	LYS
56	n0	1	MET
56	n0	13	ARG
56	n0	17	GLU
56	n0	23	LYS

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Mol	Chain	Res	Type
56	n0	32	SER
56	n0	50	LYS
56	n0	51	VAL
56	n0	52	LYS
56	n0	53	LYS
56	n0	58	ILE
56	n0	62	ASN
56	n0	70	THR
56	n0	71	LYS
56	n0	73	LYS
56	n0	87	THR
56	n0	92	LYS
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	105	THR
56	n0	117	ARG
56	n0	130	GLU
56	n0	132	THR
56	n0	136	LYS
56	n0	137	ARG
56	n0	142	GLN
56	n0	148	LEU
56	n0	157	GLN
56	n0	160	THR
56	n0	162	THR
56	n0	167	ARG
56	n0	172	TYR
57	n1	12	ARG
57	n1	17	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	35	LYS
57	n1	36	VAL
57	n1	55	LYS
57	n1	68	THR
57	n1	72	VAL
57	n1	80	VAL
57	n1	83	ARG
57	n1	86	GLU
57	n1	88	ARG

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Mol	Chain	Res	Type
57	n1	89	LEU
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	122	GLN
57	n1	126	VAL
57	n1	127	GLN
57	n1	130	ARG
57	n1	135	PRO
57	n1	139	ARG
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	160	ILE
58	n2	16	THR
58	n2	27	VAL
58	n2	37	LEU
58	n2	43	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	63	VAL
58	n2	68	THR
58	n2	75	TYR
58	n2	90	ARG
58	n2	96	VAL
58	n2	100	THR
59	n3	7	GLN
59	n3	13	ILE
59	n3	14	SER
59	n3	17	LEU
59	n3	42	SER
59	n3	70	ARG
59	n3	73	VAL
59	n3	88	ARG
59	n3	115	THR
59	n3	135	VAL
60	n4	1	MET
60	n4	5	ILE
60	n4	19	THR
60	n4	26	SER
60	n4	39	LEU

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Mol	Chain	Res	Type
60	n4	43	ARG
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	105	ARG
60	n4	107	GLU
60	n4	126	GLU
60	n4	127	LYS
60	n4	134	GLN
60	n4	135	SER
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	37	THR
61	n5	39	LYS
61	n5	40	LEU
61	n5	45	LYS
61	n5	56	ARG
61	n5	63	ILE
61	n5	71	THR
61	n5	74	LYS
61	n5	86	VAL
61	n5	105	VAL
61	n5	108	LEU
61	n5	109	LYS
61	n5	115	ARG
61	n5	125	ARG
61	n5	127	THR
61	n5	135	ILE
61	n5	137	ASN
61	n5	142	ILE
62	n6	9	SER
62	n6	11	ASP
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	17	LYS
62	n6	37	LYS
62	n6	39	LEU

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Mol	Chain	Res	Type
62	n6	40	ARG
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	57	LEU
62	n6	62	SER
62	n6	66	GLN
62	n6	70	ILE
62	n6	74	TYR
62	n6	76	LEU
62	n6	80	VAL
62	n6	83	ASP
62	n6	89	LYS
62	n6	94	SER
62	n6	95	VAL
62	n6	105	VAL
62	n6	108	LYS
62	n6	120	GLN
62	n6	127	GLU
63	n7	5	LEU
63	n7	14	VAL
63	n7	15	ARG
63	n7	17	ARG
63	n7	24	VAL
63	n7	34	LYS
63	n7	46	ILE
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	73	LYS
63	n7	75	VAL
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	98	THR
63	n7	100	THR
63	n7	103	GLN
63	n7	121	ARG
63	n7	127	ASN
63	n7	134	LEU
63	n7	135	ARG
64	n8	3	SER

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Mol	Chain	Res	Type
64	n8	4	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	24	LYS
64	n8	26	ARG
64	n8	42	ARG
64	n8	46	ASP
64	n8	47	LYS
64	n8	56	VAL
64	n8	60	TYR
64	n8	78	LEU
64	n8	82	ILE
64	n8	85	ASP
64	n8	87	ARG
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	115	LYS
64	n8	123	VAL
64	n8	128	ARG
64	n8	132	LYS
64	n8	133	LEU
64	n8	139	ARG
65	n9	14	ARG
65	n9	21	ILE
65	n9	22	LYS
65	n9	23	LYS
65	n9	26	THR
65	n9	33	LYS
65	n9	38	LYS
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	9	SER
66	o0	10	ILE
66	o0	18	ILE
66	o0	19	LYS
66	o0	32	LYS
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU

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Mol	Chain	Res	Type
66	o0	61	MET
66	o0	68	TYR
66	o0	86	ARG
66	o0	99	ASP
66	o0	103	THR
67	o1	8	VAL
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	28	ARG
67	o1	31	ARG
67	o1	34	LYS
67	o1	36	ILE
67	o1	44	MET
67	o1	46	THR
67	o1	64	VAL
67	o1	76	SER
67	o1	84	ASP
67	o1	98	VAL
67	o1	100	SER
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
68	o2	3	SER
68	o2	4	LEU
68	o2	6	HIS
68	o2	16	LYS
68	o2	18	LYS
68	o2	19	ARG
68	o2	24	ARG
68	o2	27	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	41	VAL
68	o2	51	SER
68	o2	54	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU

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Mol	Chain	Res	Type
68	o2	86	THR
68	o2	89	THR
68	o2	95	GLU
68	o2	101	SER
68	o2	109	LEU
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	10	LYS
69	o3	20	LYS
69	o3	28	SER
69	o3	31	LYS
69	o3	33	GLU
69	o3	49	ILE
69	o3	70	LYS
69	o3	74	THR
69	o3	84	THR
69	o3	98	VAL
69	o3	105	SER
69	o3	107	ILE
70	o4	5	VAL
70	o4	20	ILE
70	o4	24	LYS
70	o4	25	THR
70	o4	29	ILE
70	o4	30	LEU
70	o4	49	SER
70	o4	58	ARG
70	o4	64	THR
70	o4	65	VAL
70	o4	66	SER
70	o4	68	THR
70	o4	71	THR
70	o4	79	SER
70	o4	86	LYS
70	o4	87	GLU
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
70	o4	105	VAL
71	o5	11	THR
71	o5	15	GLU

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Mol	Chain	Res	Type
71	o5	20	GLN
71	o5	27	GLU
71	o5	28	LEU
71	o5	37	SER
71	o5	45	LYS
71	o5	47	VAL
71	o5	48	ARG
71	o5	62	GLN
71	o5	68	GLN
71	o5	69	LEU
71	o5	73	LYS
71	o5	80	LEU
71	o5	84	LYS
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	12	ASN
72	o6	21	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	68	ARG
72	o6	75	LYS
72	o6	76	ARG
72	o6	79	SER

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Mol	Chain	Res	Type
72	o6	88	GLU
72	o6	94	ILE
72	o6	98	ARG
73	o7	3	LYS
73	o7	17	THR
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	58	THR
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	71	SER
73	o7	80	THR
74	o8	5	ILE
74	o8	12	LEU
74	o8	16	ARG
74	o8	17	ARG
74	o8	24	THR
74	o8	41	THR
74	o8	46	ARG
74	o8	50	SER
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	72	THR
74	o8	78	LEU
75	o9	4	GLN
75	o9	11	GLN
75	o9	15	LYS
75	o9	17	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	29	LEU
75	o9	48	LYS
75	o9	51	ILE
76	q0	78	ILE
76	q0	79	GLU
76	q0	80	PRO
76	q0	83	LYS

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Mol	Chain	Res	Type
76	q0	85	LEU
76	q0	91	CYS
76	q0	97	ARG
76	q0	106	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	14	LYS
77	q1	16	LYS
77	q1	19	LYS
77	q1	21	ARG
77	q1	23	ARG
77	q1	24	SER
78	q2	3	ASN
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	35	LEU
78	q2	61	LYS
78	q2	66	LYS
78	q2	71	ARG
78	q2	78	LYS
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	89	LYS
78	q2	91	PHE
78	q2	93	LEU
78	q2	97	LYS
78	q2	105	GLN
79	q3	20	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	42	CYS
79	q3	54	ILE
79	q3	56	THR
79	q3	70	THR
79	q3	72	SER

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Mol	Chain	Res	Type
83	p0	4	ILE
83	p0	5	ARG
83	p0	7	LYS
83	p0	10	GLU
83	p0	14	LYS
83	p0	15	LEU
83	p0	25	LEU
83	p0	39	HIS
83	p0	42	ARG
83	p0	43	LYS
83	p0	44	GLU
83	p0	48	ARG
83	p0	51	VAL
83	p0	52	LEU
83	p0	55	LYS
83	p0	67	LEU
83	p0	70	LEU
83	p0	74	GLU
83	p0	76	LEU
83	p0	80	VAL
83	p0	81	LYS
83	p0	84	VAL
83	p0	93	LEU
83	p0	97	LYS
83	p0	104	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (51) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	79	HIS
4	S2	201	ASN
5	S3	165	ASN
6	S4	142	HIS
6	S4	231	GLN
7	S5	128	ASN
7	S5	224	ASN
9	S7	74	GLN
9	S7	89	HIS
12	C0	58	GLN
12	C0	62	GLN
13	C1	37	ASN
18	C6	83	GLN

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Mol	Chain	Res	Type
20	C8	75	ASN
20	C8	78	HIS
23	D1	74	GLN
27	D5	95	HIS
34	SR	159	ASN
39	L2	8	GLN
39	L2	83	HIS
39	L2	209	HIS
39	L2	218	HIS
40	L3	256	HIS
42	L5	40	HIS
42	L5	90	HIS
42	L5	264	GLN
48	M1	109	HIS
69	O3	106	ASN
74	O8	32	ASN
78	Q2	23	HIS
3	s1	209	ASN
6	s4	36	HIS
9	s7	71	HIS
11	s9	110	GLN
11	s9	124	HIS
11	s9	142	ASN
12	c0	32	HIS
20	c8	8	GLN
21	c9	64	HIS
22	d0	98	GLN
26	d4	22	GLN
27	d5	37	GLN
39	l2	83	HIS
42	l5	264	GLN
44	l7	80	GLN
49	m3	162	ASN
56	n0	138	GLN
59	n3	33	ASN
63	n7	57	HIS
64	n8	25	HIS
64	n8	44	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	451 (25%)	62 (3%)
1	6	1793/1800 (99%)	468 (26%)	56 (3%)
36	1	3145/3396 (92%)	662 (21%)	85 (2%)
36	5	3145/3396 (92%)	673 (21%)	84 (2%)
37	3	120/121 (99%)	16 (13%)	3 (2%)
37	7	120/121 (99%)	21 (17%)	0
38	4	157/158 (99%)	39 (24%)	3 (1%)
38	8	157/158 (99%)	36 (22%)	3 (1%)
All	All	10384/10950 (94%)	2366 (22%)	296 (2%)

All (2366) 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	45	U
1	2	47	A
1	2	50	C
1	2	57	G
1	2	60	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	104	A
1	2	114	C
1	2	127	G
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
1	2	137	U

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Mol	Chain	Res	Type
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	166	C
1	2	167	U
1	2	169	A
1	2	170	U
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	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

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Mol	Chain	Res	Type
1	2	241	U
1	2	242	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	265	A
1	2	266	A
1	2	267	U
1	2	271	A
1	2	272	U
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	308	C
1	2	314	C
1	2	316	A
1	2	321	C
1	2	322	G
1	2	325	G
1	2	337	G
1	2	338	C
1	2	341	A
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	400	A
1	2	401	A
1	2	402	C
1	2	404	G
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A

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Mol	Chain	Res	Type
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U
1	2	444	C
1	2	445	A
1	2	448	C
1	2	454	U
1	2	468	A
1	2	484	C
1	2	485	A
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	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

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Mol	Chain	Res	Type
1	2	544	A
1	2	546	U
1	2	548	G
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	579	A
1	2	580	A
1	2	582	U
1	2	585	A
1	2	594	A
1	2	595	G
1	2	619	A
1	2	620	A
1	2	622	A
1	2	623	A
1	2	624	G
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	695	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

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Mol	Chain	Res	Type
1	2	705	U
1	2	707	A
1	2	709	C
1	2	710	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	743	U
1	2	745	U
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

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Mol	Chain	Res	Type
1	2	789	A
1	2	793	A
1	2	794	U
1	2	795	U
1	2	812	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	840	U
1	2	846	G
1	2	848	C
1	2	854	U
1	2	856	A
1	2	862	A
1	2	863	A
1	2	864	U
1	2	886	U
1	2	896	U
1	2	898	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	960	U
1	2	966	A

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Mol	Chain	Res	Type
1	2	971	A
1	2	992	A
1	2	993	A
1	2	995	A
1	2	997	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	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1064	G
1	2	1074	G
1	2	1080	U
1	2	1082	C
1	2	1086	A
1	2	1087	A
1	2	1091	A
1	2	1092	A
1	2	1093	A
1	2	1096	C
1	2	1097	U
1	2	1098	U
1	2	1100	G
1	2	1109	G
1	2	1111	G
1	2	1138	A
1	2	1150	G
1	2	1151	A
1	2	1152	A
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1167	G

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Mol	Chain	Res	Type
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	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1286	U
1	2	1292	G
1	2	1310	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	1341	A
1	2	1344	A
1	2	1345	A
1	2	1346	A
1	2	1349	G
1	2	1354	G
1	2	1355	C
1	2	1361	U
1	2	1362	U
1	2	1363	U

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Mol	Chain	Res	Type
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1379	C
1	2	1383	G
1	2	1388	A
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	1415	U
1	2	1427	A
1	2	1428	G
1	2	1435	G
1	2	1446	A
1	2	1447	C
1	2	1448	G
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1462	G
1	2	1471	A
1	2	1473	U
1	2	1474	G
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
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1535	U

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Mol	Chain	Res	Type
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1548	G
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1583	A
1	2	1584	G
1	2	1591	C
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1626	U
1	2	1627	U
1	2	1631	A
1	2	1635	A
1	2	1638	G
1	2	1652	C
1	2	1657	U
1	2	1658	G
1	2	1683	C
1	2	1684	U
1	2	1719	A
1	2	1729	C
1	2	1756	A
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1768	G
1	2	1769	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U

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Mol	Chain	Res	Type
1	2	1796	C
36	1	14	U
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	73	C
36	1	74	G
36	1	75	G
36	1	76	G
36	1	83	U
36	1	85	A
36	1	92	G
36	1	93	C
36	1	94	G
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	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	210	U
36	1	218	G
36	1	219	A

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Mol	Chain	Res	Type
36	1	224	C
36	1	235	A
36	1	240	U
36	1	241	G
36	1	243	G
36	1	245	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	265	A
36	1	269	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	315	C
36	1	323	A
36	1	329	U
36	1	343	U
36	1	349	A
36	1	350	C
36	1	375	A
36	1	376	G
36	1	395	A
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	410	U
36	1	417	A
36	1	421	G
36	1	422	A
36	1	440	A
36	1	495	G
36	1	520	U
36	1	521	A
36	1	535	G
36	1	537	A
36	1	544	C
36	1	546	C

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Mol	Chain	Res	Type
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	556	U
36	1	557	A
36	1	559	A
36	1	560	G
36	1	573	C
36	1	578	A
36	1	579	G
36	1	592	A
36	1	604	G
36	1	608	A
36	1	609	G
36	1	611	A
36	1	620	U
36	1	621	A
36	1	622	A
36	1	636	C
36	1	639	G
36	1	647	A
36	1	649	A
36	1	656	A
36	1	658	G
36	1	660	A
36	1	661	G
36	1	677	A
36	1	681	U
36	1	691	A
36	1	705	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	764	U
36	1	766	U
36	1	767	U
36	1	776	U
36	1	777	U

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Mol	Chain	Res	Type
36	1	780	A
36	1	781	G
36	1	785	G
36	1	786	A
36	1	804	C
36	1	806	A
36	1	817	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	875	G
36	1	879	U
36	1	890	C
36	1	895	A
36	1	896	A
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	923	C
36	1	924	G
36	1	937	G
36	1	938	C
36	1	943	U
36	1	944	C
36	1	959	C
36	1	960	U
36	1	974	G
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	991	G
36	1	993	G
36	1	994	G
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G
36	1	1013	G

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Mol	Chain	Res	Type
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	1047	A
36	1	1049	C
36	1	1052	U
36	1	1063	G
36	1	1064	A
36	1	1065	A
36	1	1071	U
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1117	G
36	1	1128	U
36	1	1131	G
36	1	1153	A
36	1	1159	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1190	A
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1197	A

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Mol	Chain	Res	Type
36	1	1201	C
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1218	U
36	1	1222	G
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1242	G
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1258	U
36	1	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	1285	G
36	1	1287	A
36	1	1306	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1329	U
36	1	1330	A

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Mol	Chain	Res	Type
36	1	1331	U
36	1	1333	C
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1354	G
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1368	U
36	1	1386	A
36	1	1399	A
36	1	1400	G
36	1	1418	A
36	1	1419	A
36	1	1429	G
36	1	1434	G
36	1	1437	C
36	1	1440	G
36	1	1446	A
36	1	1448	U
36	1	1450	G
36	1	1454	A
36	1	1455	U
36	1	1468	A
36	1	1481	A
36	1	1482	A
36	1	1503	A
36	1	1508	C
36	1	1526	U
36	1	1527	C
36	1	1528	G
36	1	1529	A
36	1	1533	U
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1560	G
36	1	1561	G

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Mol	Chain	Res	Type
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
36	1	1572	U
36	1	1575	A
36	1	1576	G
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	1607	U
36	1	1620	U
36	1	1629	U
36	1	1639	C
36	1	1642	A
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1683	A
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1735	G
36	1	1736	G
36	1	1741	A
36	1	1742	U
36	1	1745	C
36	1	1750	A
36	1	1751	G
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1765	U
36	1	1766	G

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Mol	Chain	Res	Type
36	1	1767	C
36	1	1770	G
36	1	1780	G
36	1	1781	C
36	1	1783	U
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	1835	A
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	1866	C
36	1	1871	U
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1901	A
36	1	1906	G
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2101	C
36	1	2102	U
36	1	2106	A
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2116	G
36	1	2121	G

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Mol	Chain	Res	Type
36	1	2122	G
36	1	2131	A
36	1	2133	U
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2164	A
36	1	2169	G
36	1	2170	U
36	1	2187	G
36	1	2188	A
36	1	2192	C
36	1	2193	U
36	1	2194	G
36	1	2198	A
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	2239	G
36	1	2244	A
36	1	2245	C
36	1	2249	G
36	1	2250	G
36	1	2255	A
36	1	2256	A
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2298	U
36	1	2301	U
36	1	2307	G
36	1	2309	A
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G

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Mol	Chain	Res	Type
36	1	2319	U
36	1	2330	C
36	1	2334	U
36	1	2336	U
36	1	2362	C
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2393	G
36	1	2394	G
36	1	2397	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2424	A
36	1	2435	G
36	1	2437	G
36	1	2443	A
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2513	U
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2525	G
36	1	2526	C
36	1	2532	U
36	1	2533	G
36	1	2534	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U

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Mol	Chain	Res	Type
36	1	2542	U
36	1	2543	U
36	1	2544	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	2567	C
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	2581	U
36	1	2582	C
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	2613	U
36	1	2614	G
36	1	2619	G
36	1	2626	A
36	1	2629	U
36	1	2630	C
36	1	2637	A
36	1	2652	U
36	1	2654	C
36	1	2656	A
36	1	2672	G
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2691	A
36	1	2694	A

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Mol	Chain	Res	Type
36	1	2696	A
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2752	U
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2787	G
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2810	C
36	1	2816	G
36	1	2817	A
36	1	2818	U
36	1	2822	U
36	1	2825	C
36	1	2829	U
36	1	2830	G
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2849	C
36	1	2853	A
36	1	2860	U
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2875	U
36	1	2876	C
36	1	2882	U
36	1	2887	A
36	1	2889	C
36	1	2898	G

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Mol	Chain	Res	Type
36	1	2899	C
36	1	2923	U
36	1	2927	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2955	U
36	1	2971	A
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3012	A
36	1	3025	C
36	1	3030	G
36	1	3040	A
36	1	3055	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3128	G
36	1	3130	A
36	1	3131	U
36	1	3136	G
36	1	3139	A
36	1	3141	A
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3153	U
36	1	3154	C

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Mol	Chain	Res	Type
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	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3180	A
36	1	3181	C
36	1	3187	A
36	1	3196	U
36	1	3198	U
36	1	3207	U
36	1	3208	G
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	3242	G
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3270	U
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G

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Mol	Chain	Res	Type
36	1	3289	G
36	1	3293	U
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	3330	A
36	1	3335	A
36	1	3336	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3350	C
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
36	1	3396	U
37	3	5	G
37	3	13	A
37	3	14	U
37	3	21	G
37	3	22	A
37	3	42	A
37	3	53	U
37	3	54	U
37	3	65	G

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Mol	Chain	Res	Type
37	3	74	C
37	3	76	A
37	3	91	G
37	3	102	A
37	3	110	G
37	3	112	G
37	3	121	U
38	4	2	A
38	4	11	C
38	4	21	C
38	4	22	U
38	4	26	U
38	4	34	U
38	4	35	C
38	4	43	A
38	4	48	A
38	4	52	A
38	4	53	A
38	4	59	A
38	4	62	C
38	4	63	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	97	A
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	142	C

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Mol	Chain	Res	Type
38	4	148	G
38	4	152	G
38	4	155	A
38	4	158	U
1	6	2	A
1	6	4	C
1	6	13	C
1	6	17	C
1	6	24	U
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	68	A
1	6	69	G
1	6	71	A
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	100	A
1	6	104	A
1	6	114	C
1	6	116	U
1	6	127	G
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	143	G
1	6	144	U
1	6	145	A
1	6	146	U
1	6	158	U
1	6	159	U
1	6	166	C
1	6	177	U

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Mol	Chain	Res	Type
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	195	G
1	6	198	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	229	U
1	6	230	C
1	6	232	U
1	6	233	C
1	6	235	G
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	261	U
1	6	265	A
1	6	271	A
1	6	272	U
1	6	273	G
1	6	276	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	287	G
1	6	299	A
1	6	301	A

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Mol	Chain	Res	Type
1	6	308	C
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	333	A
1	6	335	U
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	393	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
1	6	426	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	454	U
1	6	468	A
1	6	470	A
1	6	477	A
1	6	480	G
1	6	484	C
1	6	485	A
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C

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Mol	Chain	Res	Type
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	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	515	A
1	6	519	C
1	6	527	A
1	6	534	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
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	564	G
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A

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Mol	Chain	Res	Type
1	6	580	A
1	6	582	U
1	6	585	A
1	6	594	A
1	6	595	G
1	6	609	U
1	6	610	G
1	6	617	U
1	6	619	A
1	6	620	A
1	6	621	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	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
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	691	C
1	6	696	C
1	6	698	U
1	6	710	U

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Mol	Chain	Res	Type
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	726	C
1	6	730	G
1	6	742	U
1	6	743	U
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	767	U
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	787	G
1	6	789	A
1	6	790	U
1	6	792	U
1	6	793	A
1	6	794	U
1	6	795	U
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	823	G
1	6	825	U
1	6	826	U
1	6	829	A
1	6	830	U

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Mol	Chain	Res	Type
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	876	G
1	6	898	A
1	6	906	A
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	944	A
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A
1	6	971	A
1	6	983	A
1	6	989	U
1	6	991	G
1	6	992	A
1	6	993	A
1	6	997	G
1	6	998	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1020	A
1	6	1021	C
1	6	1025	A
1	6	1026	A
1	6	1028	C
1	6	1031	U
1	6	1039	A
1	6	1040	G
1	6	1052	U

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Mol	Chain	Res	Type
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1063	U
1	6	1066	C
1	6	1071	U
1	6	1074	G
1	6	1082	C
1	6	1091	A
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1101	G
1	6	1109	G
1	6	1137	A
1	6	1138	A
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1162	C
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	1207	C
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1219	A
1	6	1220	C
1	6	1221	A
1	6	1226	A

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Mol	Chain	Res	Type
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	1259	U
1	6	1262	U
1	6	1286	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1327	C
1	6	1337	A
1	6	1338	C
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1354	G
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1388	A
1	6	1390	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G

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Mol	Chain	Res	Type
1	6	1412	G
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1431	C
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1454	G
1	6	1457	C
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1469	A
1	6	1471	A
1	6	1481	C
1	6	1482	C
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1555	A
1	6	1557	U

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Mol	Chain	Res	Type
1	6	1559	A
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1576	A
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1615	C
1	6	1616	G
1	6	1619	C
1	6	1621	U
1	6	1622	G
1	6	1634	C
1	6	1637	C
1	6	1657	U
1	6	1658	G
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1710	U
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1727	G
1	6	1731	A
1	6	1736	G
1	6	1742	U
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

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Mol	Chain	Res	Type
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	14	U
36	5	15	C
36	5	26	A
36	5	33	G
36	5	38	U
36	5	40	A
36	5	49	A
36	5	60	A
36	5	65	A
36	5	66	A
36	5	73	C
36	5	76	G
36	5	83	U
36	5	88	A
36	5	92	G
36	5	93	C
36	5	97	U
36	5	99	A
36	5	109	A
36	5	110	G
36	5	113	C
36	5	116	A
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	142	C
36	5	150	A
36	5	152	U
36	5	156	G

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Mol	Chain	Res	Type
36	5	157	A
36	5	160	G
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	178	U
36	5	180	C
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	218	G
36	5	219	A
36	5	221	A
36	5	224	C
36	5	231	G
36	5	234	G
36	5	235	A
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	244	G
36	5	246	U
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	259	C
36	5	269	G
36	5	284	A
36	5	286	U
36	5	295	A

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Mol	Chain	Res	Type
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	395	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	417	A
36	5	421	G
36	5	422	A
36	5	425	G
36	5	436	A
36	5	439	C
36	5	441	U
36	5	442	G
36	5	443	G
36	5	492	U
36	5	495	G
36	5	503	C
36	5	521	A
36	5	531	G
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	578	A
36	5	579	G
36	5	592	A
36	5	600	G

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Mol	Chain	Res	Type
36	5	604	G
36	5	608	A
36	5	609	G
36	5	610	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	660	A
36	5	677	A
36	5	681	U
36	5	683	U
36	5	689	U
36	5	705	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	725	G
36	5	727	G
36	5	735	A
36	5	736	A
36	5	758	C
36	5	765	C
36	5	766	U
36	5	767	U
36	5	768	C
36	5	776	U
36	5	777	U
36	5	778	U
36	5	780	A
36	5	781	G
36	5	785	G
36	5	786	A
36	5	796	U
36	5	806	A
36	5	816	A
36	5	817	A
36	5	830	A
36	5	851	C
36	5	861	C

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Mol	Chain	Res	Type
36	5	874	U
36	5	879	U
36	5	881	C
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	946	U
36	5	959	C
36	5	960	U
36	5	963	G
36	5	979	U
36	5	993	G
36	5	994	G
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

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Mol	Chain	Res	Type
36	5	1047	A
36	5	1049	C
36	5	1052	U
36	5	1064	A
36	5	1065	A
36	5	1066	G
36	5	1072	G
36	5	1081	U
36	5	1082	U
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	1116	G
36	5	1117	G
36	5	1121	U
36	5	1129	A
36	5	1131	G
36	5	1153	A
36	5	1159	A
36	5	1160	C
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	1197	A
36	5	1201	C
36	5	1209	G
36	5	1213	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

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Mol	Chain	Res	Type
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1254	C
36	5	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1312	C
36	5	1313	G
36	5	1321	G
36	5	1330	A
36	5	1331	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1354	G
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1366	A
36	5	1380	G
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1399	A
36	5	1400	G
36	5	1419	A
36	5	1424	C
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1435	A
36	5	1437	C

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Mol	Chain	Res	Type
36	5	1446	A
36	5	1450	G
36	5	1460	A
36	5	1465	A
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1495	U
36	5	1500	G
36	5	1502	C
36	5	1503	A
36	5	1508	C
36	5	1519	G
36	5	1522	U
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1541	G
36	5	1553	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1564	U
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	1582	C

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Mol	Chain	Res	Type
36	5	1583	A
36	5	1589	A
36	5	1593	A
36	5	1605	A
36	5	1607	U
36	5	1608	C
36	5	1620	U
36	5	1629	U
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1658	G
36	5	1683	A
36	5	1685	C
36	5	1687	U
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1756	C
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1769	G
36	5	1770	G
36	5	1780	G
36	5	1796	G
36	5	1797	A
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U

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Mol	Chain	Res	Type
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	1847	A
36	5	1849	C
36	5	1850	A
36	5	1876	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1906	G
36	5	1918	C
36	5	1932	A
36	5	1935	G
36	5	1953	G
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2139	A
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2170	U
36	5	2176	U
36	5	2186	U
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	2213	A
36	5	2222	A

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Mol	Chain	Res	Type
36	5	2223	A
36	5	2225	U
36	5	2228	A
36	5	2229	A
36	5	2244	A
36	5	2250	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2269	U
36	5	2270	A
36	5	2273	G
36	5	2279	A
36	5	2281	A
36	5	2288	G
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2334	U
36	5	2336	U
36	5	2361	A
36	5	2366	C
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2392	C
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2411	U
36	5	2418	G
36	5	2437	G
36	5	2439	A
36	5	2440	G

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Mol	Chain	Res	Type
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2510	U
36	5	2511	A
36	5	2512	C
36	5	2514	U
36	5	2515	A
36	5	2522	G
36	5	2523	A
36	5	2526	C
36	5	2529	A
36	5	2530	G
36	5	2531	C
36	5	2532	U
36	5	2534	G
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	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
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	2593	A
36	5	2594	C
36	5	2599	U
36	5	2606	G

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Mol	Chain	Res	Type
36	5	2607	G
36	5	2610	G
36	5	2614	G
36	5	2615	G
36	5	2618	G
36	5	2628	A
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2667	A
36	5	2674	A
36	5	2677	G
36	5	2681	U
36	5	2682	C
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	2700	G
36	5	2705	A
36	5	2714	G
36	5	2719	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	2781	U
36	5	2796	G
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2814	G

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Mol	Chain	Res	Type
36	5	2816	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2821	C
36	5	2829	U
36	5	2837	A
36	5	2838	A
36	5	2843	U
36	5	2845	A
36	5	2853	A
36	5	2871	G
36	5	2872	A
36	5	2876	C
36	5	2887	A
36	5	2889	C
36	5	2899	C
36	5	2904	U
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2947	G
36	5	2954	U
36	5	2955	U
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2983	C
36	5	2990	G
36	5	2992	U
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	3069	G
36	5	3078	U
36	5	3079	U

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Mol	Chain	Res	Type
36	5	3080	G
36	5	3081	C
36	5	3086	A
36	5	3092	C
36	5	3102	G
36	5	3119	U
36	5	3123	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3150	A
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3159	C
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3184	A
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3198	U
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	3238	G

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Mol	Chain	Res	Type
36	5	3239	G
36	5	3243	A
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3260	G
36	5	3263	G
36	5	3270	U
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3281	U
36	5	3282	U
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3307	A
36	5	3313	U
36	5	3317	U
36	5	3319	U
36	5	3325	G
36	5	3330	A
36	5	3332	U
36	5	3333	G
36	5	3335	A
36	5	3336	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

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Mol	Chain	Res	Type
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3378	C
36	5	3382	U
36	5	3383	G
36	5	3389	U
36	5	3390	G
36	5	3393	U
36	5	3394	U
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	27	A
37	7	33	U
37	7	38	U
37	7	42	A
37	7	54	U
37	7	55	A
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	84	A
37	7	91	G
37	7	93	C
37	7	101	G
37	7	102	A
37	7	103	A
37	7	110	G
37	7	112	G
38	8	21	C
38	8	34	U
38	8	35	C
38	8	48	A
38	8	49	G
38	8	52	A
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G

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Mol	Chain	Res	Type
38	8	79	A
38	8	80	A
38	8	81	U
38	8	83	C
38	8	84	C
38	8	85	G
38	8	86	U
38	8	87	G
38	8	90	U
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	111	A
38	8	113	U
38	8	125	U
38	8	126	A
38	8	127	U
38	8	138	A
38	8	152	G
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

All (296) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	68	A
1	2	73	U
1	2	74	U
1	2	103	A
1	2	114	C
1	2	126	A
1	2	130	C
1	2	131	C
1	2	139	C
1	2	158	U

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Mol	Chain	Res	Type
1	2	187	G
1	2	217	A
1	2	218	A
1	2	232	U
1	2	240	U
1	2	260	U
1	2	278	U
1	2	280	U
1	2	313	U
1	2	400	A
1	2	417	A
1	2	468	A
1	2	484	C
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	512	A
1	2	558	U
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	781	U
1	2	782	U
1	2	794	U
1	2	811	A
1	2	829	A
1	2	913	G
1	2	1058	U
1	2	1081	A
1	2	1150	G
1	2	1157	A
1	2	1196	A
1	2	1207	C
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1339	C
1	2	1344	A

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Mol	Chain	Res	Type
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1568	C
1	2	1573	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	43	A
36	1	65	A
36	1	99	A
36	1	109	A
36	1	223	U
36	1	239	G
36	1	282	G
36	1	397	A
36	1	398	A
36	1	547	G
36	1	588	G
36	1	594	U
36	1	619	A
36	1	647	A
36	1	715	A
36	1	763	G
36	1	816	A
36	1	873	C
36	1	896	A
36	1	916	G
36	1	979	U
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1317	A
36	1	1329	U
36	1	1352	A
36	1	1355	A

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Mol	Chain	Res	Type
36	1	1481	A
36	1	1507	G
36	1	1554	U
36	1	1562	C
36	1	1582	C
36	1	1716	U
36	1	1724	U
36	1	1751	G
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	1842	A
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2227	C
36	1	2249	G
36	1	2281	A
36	1	2372	A
36	1	2373	A
36	1	2418	G
36	1	2513	U
36	1	2522	G
36	1	2525	G
36	1	2537	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2656	A
36	1	2704	A
36	1	2728	G
36	1	2772	C
36	1	2801	A
36	1	2818	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3139	A
36	1	3157	U
36	1	3195	U
36	1	3217	C

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Mol	Chain	Res	Type
36	1	3218	A
36	1	3228	C
36	1	3269	U
36	1	3275	U
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
37	3	13	A
37	3	49	G
37	3	52	G
38	4	85	G
38	4	111	A
38	4	125	U
1	6	25	C
1	6	103	A
1	6	114	C
1	6	136	C
1	6	139	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	217	A
1	6	240	U
1	6	249	U
1	6	272	U
1	6	277	U
1	6	352	A
1	6	400	A
1	6	417	A
1	6	512	A
1	6	514	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	555	A
1	6	557	G
1	6	558	U
1	6	651	G
1	6	667	U
1	6	678	A

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Mol	Chain	Res	Type
1	6	697	C
1	6	717	C
1	6	755	A
1	6	829	A
1	6	834	G
1	6	1051	G
1	6	1058	U
1	6	1081	A
1	6	1097	U
1	6	1137	A
1	6	1207	C
1	6	1227	A
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1535	U
1	6	1568	C
1	6	1572	G
1	6	1573	A
1	6	1584	G
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1696	G
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	65	A
36	5	93	C
36	5	151	A
36	5	223	U
36	5	238	A
36	5	397	A
36	5	588	G
36	5	647	A
36	5	715	A
36	5	735	A
36	5	765	C
36	5	896	A

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Mol	Chain	Res	Type
36	5	916	G
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1181	U
36	5	1236	G
36	5	1238	C
36	5	1241	U
36	5	1307	G
36	5	1329	U
36	5	1352	A
36	5	1355	A
36	5	1370	G
36	5	1392	G
36	5	1434	G
36	5	1481	A
36	5	1507	G
36	5	1514	G
36	5	1560	G
36	5	1574	C
36	5	1580	A
36	5	1607	U
36	5	1716	U
36	5	1751	G
36	5	1816	A
36	5	1819	U
36	5	1841	A
36	5	1846	C
36	5	1879	A
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2257	C
36	5	2281	A
36	5	2372	A
36	5	2440	G
36	5	2507	C

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Mol	Chain	Res	Type
36	5	2513	U
36	5	2522	G
36	5	2531	C
36	5	2539	C
36	5	2593	A
36	5	2682	C
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2818	U
36	5	2887	A
36	5	2971	A
36	5	3049	A
36	5	3056	U
36	5	3078	U
36	5	3154	C
36	5	3195	U
36	5	3207	U
36	5	3218	A
36	5	3228	C
36	5	3242	G
36	5	3259	U
36	5	3269	U
36	5	3275	U
36	5	3289	G
36	5	3303	G
36	5	3340	G
36	5	3341	U
36	5	3357	U
38	8	59	A
38	8	111	A
38	8	126	A

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 2563 ligands modelled in this entry, 1428 are monoatomic - leaving 1135 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	$\# Z > 2$
87	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3901	-	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
87	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3944	-	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
87	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3987	-	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
87	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4030	-	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
87	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4073	-	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
87	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4116	-	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
87	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4159	-	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
87	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4202	-	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
87	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
89	3KD	1	4218	-	24,25,25	0.76	0	29,39,39	1.19	3 (10%)
87	OHX	2	2021	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2022	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2047	-	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
87	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2090	-	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
87	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2133	-	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
87	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2176	-	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
87	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3915	-	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
87	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3958	-	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
87	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4001	-	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
87	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4044	-	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
87	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4087	-	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
87	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4130	-	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
87	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4173	-	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
87	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4216	-	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
87	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
89	3KD	5	4254	-	24,25,25	1.00	2 (8%)	29,39,39	1.16	2 (6%)
87	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	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
87	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	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
87	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	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
87	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2183	-	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
87	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	222	-	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
87	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	D3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M7	208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O7	104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l4	402	-	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
87	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o7	503	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s4	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	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
87	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3877	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3919	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3961	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4003	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4045	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4087	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4129	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4171	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4213	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4214	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4215	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4216	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4217	-	-	0/0/0/0	0/0/0/0
89	3KD	1	4218	-	-	0/0/43/43	0/5/5/5
87	OHX	2	2021	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2022	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2057	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2099	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2141	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
87	OHX	3	215	-	-	0/0/0/0	0/0/0/0
87	OHX	3	216	-	-	0/0/0/0	0/0/0/0
87	OHX	3	217	-	-	0/0/0/0	0/0/0/0
87	OHX	3	218	-	-	0/0/0/0	0/0/0/0
87	OHX	3	219	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	3	220	-	-	0/0/0/0	0/0/0/0
87	OHX	3	221	-	-	0/0/0/0	0/0/0/0
87	OHX	3	222	-	-	0/0/0/0	0/0/0/0
87	OHX	3	223	-	-	0/0/0/0	0/0/0/0
87	OHX	3	224	-	-	0/0/0/0	0/0/0/0
87	OHX	3	225	-	-	0/0/0/0	0/0/0/0
87	OHX	3	226	-	-	0/0/0/0	0/0/0/0
87	OHX	4	221	-	-	0/0/0/0	0/0/0/0
87	OHX	4	222	-	-	0/0/0/0	0/0/0/0
87	OHX	4	223	-	-	0/0/0/0	0/0/0/0
87	OHX	4	224	-	-	0/0/0/0	0/0/0/0
87	OHX	4	225	-	-	0/0/0/0	0/0/0/0
87	OHX	4	226	-	-	0/0/0/0	0/0/0/0
87	OHX	4	227	-	-	0/0/0/0	0/0/0/0
87	OHX	4	228	-	-	0/0/0/0	0/0/0/0
87	OHX	4	229	-	-	0/0/0/0	0/0/0/0
87	OHX	4	230	-	-	0/0/0/0	0/0/0/0
87	OHX	4	231	-	-	0/0/0/0	0/0/0/0
87	OHX	4	232	-	-	0/0/0/0	0/0/0/0
87	OHX	4	233	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3900	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3921	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3963	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4005	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4047	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4089	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4131	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4173	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4215	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
89	3KD	5	4254	-	-	0/0/43/43	0/5/5/5
87	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2052	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2094	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2136	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2178	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2205	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2206	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2207	-	-	0/0/0/0	0/0/0/0
87	OHX	7	217	-	-	0/0/0/0	0/0/0/0
87	OHX	7	218	-	-	0/0/0/0	0/0/0/0
87	OHX	7	219	-	-	0/0/0/0	0/0/0/0
87	OHX	7	220	-	-	0/0/0/0	0/0/0/0
87	OHX	7	221	-	-	0/0/0/0	0/0/0/0
87	OHX	7	222	-	-	0/0/0/0	0/0/0/0
87	OHX	7	223	-	-	0/0/0/0	0/0/0/0
87	OHX	7	224	-	-	0/0/0/0	0/0/0/0
87	OHX	7	225	-	-	0/0/0/0	0/0/0/0
87	OHX	7	226	-	-	0/0/0/0	0/0/0/0
87	OHX	7	227	-	-	0/0/0/0	0/0/0/0
87	OHX	8	215	-	-	0/0/0/0	0/0/0/0
87	OHX	8	216	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	8	217	-	-	0/0/0/0	0/0/0/0
87	OHX	8	218	-	-	0/0/0/0	0/0/0/0
87	OHX	8	219	-	-	0/0/0/0	0/0/0/0
87	OHX	8	220	-	-	0/0/0/0	0/0/0/0
87	OHX	8	221	-	-	0/0/0/0	0/0/0/0
87	OHX	8	222	-	-	0/0/0/0	0/0/0/0
87	OHX	8	223	-	-	0/0/0/0	0/0/0/0
87	OHX	8	224	-	-	0/0/0/0	0/0/0/0
87	OHX	8	225	-	-	0/0/0/0	0/0/0/0
87	OHX	8	226	-	-	0/0/0/0	0/0/0/0
87	OHX	8	227	-	-	0/0/0/0	0/0/0/0
87	OHX	8	228	-	-	0/0/0/0	0/0/0/0
87	OHX	8	229	-	-	0/0/0/0	0/0/0/0
87	OHX	8	230	-	-	0/0/0/0	0/0/0/0
87	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
87	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
87	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	D3	202	-	-	0/0/0/0	0/0/0/0
87	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	403	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
87	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
87	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
87	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
87	OHX	M6	202	-	-	0/0/0/0	0/0/0/0
87	OHX	M7	207	-	-	0/0/0/0	0/0/0/0
87	OHX	M7	208	-	-	0/0/0/0	0/0/0/0
87	OHX	M8	202	-	-	0/0/0/0	0/0/0/0
87	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
87	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
87	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
87	OHX	O2	201	-	-	0/0/0/0	0/0/0/0
87	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
87	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
87	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
87	OHX	O9	101	-	-	0/0/0/0	0/0/0/0
87	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
87	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
87	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
87	OHX	c1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	c3	201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
87	OHX	c8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
87	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	l3	403	-	-	0/0/0/0	0/0/0/0
87	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
87	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
87	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
87	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
87	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
87	OHX	m5	304	-	-	0/0/0/0	0/0/0/0
87	OHX	m6	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
87	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	m9	201	-	-	0/0/0/0	0/0/0/0
87	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
87	OHX	n6	202	-	-	0/0/0/0	0/0/0/0
87	OHX	n9	101	-	-	0/0/0/0	0/0/0/0
87	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
87	OHX	o3	203	-	-	0/0/0/0	0/0/0/0
87	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
87	OHX	o7	503	-	-	0/0/0/0	0/0/0/0
87	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
87	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
87	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
87	OHX	s4	302	-	-	0/0/0/0	0/0/0/0
87	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
87	OHX	s9	201	-	-	0/0/0/0	0/0/0/0
87	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
89	5	4254	3KD	C8-C9	-2.16	1.47	1.51
89	5	4254	3KD	C13-C12	3.02	1.54	1.50

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
89	5	4254	3KD	O-C14-C9	-3.43	101.86	109.72
89	1	4218	3KD	O-C14-C9	-2.92	103.05	109.72
89	1	4218	3KD	C1-N-C10	-2.27	103.64	107.15
89	5	4254	3KD	C2-N-C1	2.31	117.37	112.95
89	1	4218	3KD	C2-N-C1	2.96	118.61	112.95

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

521 monomers are involved in 844 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3871	OHX	1	0
87	1	3873	OHX	1	0
87	1	3877	OHX	1	0
87	1	3878	OHX	1	0
87	1	3880	OHX	1	0
87	1	3881	OHX	1	0
87	1	3882	OHX	1	0
87	1	3884	OHX	1	0
87	1	3886	OHX	1	0
87	1	3887	OHX	2	0
87	1	3889	OHX	3	0
87	1	3890	OHX	2	0
87	1	3891	OHX	1	0
87	1	3892	OHX	2	0
87	1	3894	OHX	1	0
87	1	3896	OHX	1	0
87	1	3897	OHX	1	0
87	1	3898	OHX	1	0
87	1	3899	OHX	1	0
87	1	3904	OHX	1	0
87	1	3905	OHX	1	0
87	1	3906	OHX	2	0
87	1	3912	OHX	1	0
87	1	3913	OHX	2	0
87	1	3915	OHX	1	0
87	1	3918	OHX	1	0
87	1	3920	OHX	1	0
87	1	3926	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3931	OHX	1	0
87	1	3933	OHX	2	0
87	1	3937	OHX	2	0
87	1	3939	OHX	2	0
87	1	3940	OHX	1	0
87	1	3945	OHX	7	0
87	1	3947	OHX	2	0
87	1	3949	OHX	1	0
87	1	3953	OHX	1	0
87	1	3954	OHX	1	0
87	1	3957	OHX	2	0
87	1	3959	OHX	1	0
87	1	3960	OHX	1	0
87	1	3963	OHX	2	0
87	1	3964	OHX	7	0
87	1	3966	OHX	5	0
87	1	3968	OHX	1	0
87	1	3970	OHX	1	0
87	1	3972	OHX	1	0
87	1	3973	OHX	1	0
87	1	3975	OHX	1	0
87	1	3978	OHX	6	0
87	1	3979	OHX	1	0
87	1	3981	OHX	1	0
87	1	3982	OHX	1	0
87	1	3983	OHX	2	0
87	1	3984	OHX	1	0
87	1	3986	OHX	1	0
87	1	3987	OHX	1	0
87	1	3988	OHX	1	0
87	1	3989	OHX	2	0
87	1	3992	OHX	1	0
87	1	3993	OHX	1	0
87	1	3998	OHX	1	0
87	1	4002	OHX	1	0
87	1	4003	OHX	1	0
87	1	4007	OHX	1	0
87	1	4008	OHX	1	0
87	1	4009	OHX	6	0
87	1	4012	OHX	2	0
87	1	4014	OHX	1	0
87	1	4019	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4021	OHX	1	0
87	1	4023	OHX	1	0
87	1	4025	OHX	3	0
87	1	4029	OHX	2	0
87	1	4033	OHX	2	0
87	1	4034	OHX	4	0
87	1	4035	OHX	1	0
87	1	4037	OHX	7	0
87	1	4039	OHX	1	0
87	1	4042	OHX	4	0
87	1	4043	OHX	2	0
87	1	4044	OHX	1	0
87	1	4045	OHX	3	0
87	1	4047	OHX	1	0
87	1	4048	OHX	5	0
87	1	4049	OHX	7	0
87	1	4050	OHX	2	0
87	1	4052	OHX	2	0
87	1	4055	OHX	2	0
87	1	4057	OHX	1	0
87	1	4060	OHX	6	0
87	1	4061	OHX	5	0
87	1	4062	OHX	3	0
87	1	4066	OHX	2	0
87	1	4067	OHX	1	0
87	1	4068	OHX	1	0
87	1	4070	OHX	1	0
87	1	4071	OHX	1	0
87	1	4072	OHX	1	0
87	1	4075	OHX	1	0
87	1	4080	OHX	1	0
87	1	4081	OHX	1	0
87	1	4085	OHX	4	0
87	1	4089	OHX	7	0
87	1	4090	OHX	1	0
87	1	4092	OHX	1	0
87	1	4093	OHX	2	0
87	1	4095	OHX	2	0
87	1	4096	OHX	1	0
87	1	4099	OHX	1	0
87	1	4100	OHX	1	0
87	1	4101	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4103	OHX	1	0
87	1	4104	OHX	1	0
87	1	4112	OHX	1	0
87	1	4114	OHX	1	0
87	1	4119	OHX	1	0
87	1	4123	OHX	2	0
87	1	4124	OHX	2	0
87	1	4127	OHX	2	0
87	1	4130	OHX	1	0
87	1	4136	OHX	1	0
87	1	4137	OHX	4	0
87	1	4138	OHX	2	0
87	1	4140	OHX	3	0
87	1	4144	OHX	3	0
87	1	4145	OHX	5	0
87	1	4146	OHX	1	0
87	1	4148	OHX	2	0
87	1	4149	OHX	1	0
87	1	4151	OHX	5	0
87	1	4152	OHX	1	0
87	1	4154	OHX	1	0
87	1	4155	OHX	4	0
87	1	4159	OHX	5	0
87	1	4160	OHX	2	0
87	1	4161	OHX	7	0
87	1	4163	OHX	1	0
87	1	4165	OHX	1	0
87	1	4168	OHX	6	0
87	1	4169	OHX	2	0
87	1	4170	OHX	1	0
87	1	4172	OHX	3	0
87	1	4173	OHX	3	0
87	1	4177	OHX	8	0
87	1	4179	OHX	2	0
87	1	4184	OHX	1	0
87	1	4185	OHX	1	0
87	1	4186	OHX	5	0
87	1	4188	OHX	1	0
87	1	4193	OHX	2	0
87	1	4196	OHX	1	0
87	1	4198	OHX	1	0
87	1	4200	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4201	OHX	1	0
87	1	4202	OHX	1	0
87	1	4203	OHX	6	0
87	1	4204	OHX	1	0
87	1	4206	OHX	1	0
87	1	4208	OHX	2	0
87	1	4209	OHX	1	0
87	1	4210	OHX	1	0
87	1	4212	OHX	1	0
87	1	4214	OHX	1	0
87	2	2021	OHX	1	0
87	2	2024	OHX	1	0
87	2	2029	OHX	8	0
87	2	2030	OHX	1	0
87	2	2031	OHX	2	0
87	2	2032	OHX	1	0
87	2	2033	OHX	1	0
87	2	2034	OHX	3	0
87	2	2036	OHX	1	0
87	2	2037	OHX	2	0
87	2	2040	OHX	1	0
87	2	2042	OHX	7	0
87	2	2045	OHX	1	0
87	2	2046	OHX	1	0
87	2	2049	OHX	1	0
87	2	2051	OHX	1	0
87	2	2052	OHX	1	0
87	2	2055	OHX	1	0
87	2	2056	OHX	2	0
87	2	2060	OHX	1	0
87	2	2062	OHX	1	0
87	2	2063	OHX	1	0
87	2	2068	OHX	2	0
87	2	2071	OHX	1	0
87	2	2072	OHX	1	0
87	2	2073	OHX	2	0
87	2	2074	OHX	1	0
87	2	2076	OHX	2	0
87	2	2080	OHX	1	0
87	2	2081	OHX	4	0
87	2	2082	OHX	2	0
87	2	2083	OHX	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	2	2084	OHX	2	0
87	2	2087	OHX	3	0
87	2	2088	OHX	6	0
87	2	2090	OHX	2	0
87	2	2091	OHX	1	0
87	2	2094	OHX	2	0
87	2	2097	OHX	7	0
87	2	2098	OHX	1	0
87	2	2102	OHX	2	0
87	2	2103	OHX	1	0
87	2	2104	OHX	2	0
87	2	2106	OHX	1	0
87	2	2107	OHX	1	0
87	2	2108	OHX	1	0
87	2	2109	OHX	4	0
87	2	2113	OHX	2	0
87	2	2115	OHX	1	0
87	2	2119	OHX	3	0
87	2	2121	OHX	1	0
87	2	2123	OHX	1	0
87	2	2124	OHX	1	0
87	2	2125	OHX	1	0
87	2	2127	OHX	1	0
87	2	2129	OHX	9	0
87	2	2130	OHX	1	0
87	2	2134	OHX	2	0
87	2	2136	OHX	1	0
87	2	2138	OHX	1	0
87	2	2139	OHX	1	0
87	2	2141	OHX	1	0
87	2	2143	OHX	2	0
87	2	2144	OHX	6	0
87	2	2146	OHX	1	0
87	2	2147	OHX	1	0
87	2	2150	OHX	1	0
87	2	2152	OHX	1	0
87	2	2153	OHX	1	0
87	2	2154	OHX	1	0
87	2	2155	OHX	3	0
87	2	2157	OHX	1	0
87	2	2158	OHX	1	0
87	2	2160	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	2	2163	OHX	1	0
87	2	2164	OHX	1	0
87	2	2165	OHX	1	0
87	2	2171	OHX	1	0
87	2	2172	OHX	1	0
87	3	216	OHX	1	0
87	3	218	OHX	2	0
87	3	221	OHX	1	0
87	3	223	OHX	1	0
87	3	226	OHX	1	0
87	4	221	OHX	1	0
87	4	222	OHX	1	0
87	4	223	OHX	1	0
87	4	225	OHX	1	0
87	4	229	OHX	2	0
87	5	3900	OHX	1	0
87	5	3906	OHX	1	0
87	5	3908	OHX	3	0
87	5	3912	OHX	2	0
87	5	3914	OHX	1	0
87	5	3917	OHX	1	0
87	5	3918	OHX	2	0
87	5	3919	OHX	2	0
87	5	3924	OHX	1	0
87	5	3926	OHX	2	0
87	5	3934	OHX	1	0
87	5	3940	OHX	1	0
87	5	3941	OHX	1	0
87	5	3942	OHX	1	0
87	5	3943	OHX	7	0
87	5	3948	OHX	1	0
87	5	3949	OHX	1	0
87	5	3954	OHX	1	0
87	5	3955	OHX	2	0
87	5	3956	OHX	1	0
87	5	3957	OHX	2	0
87	5	3958	OHX	2	0
87	5	3959	OHX	1	0
87	5	3960	OHX	1	0
87	5	3961	OHX	1	0
87	5	3963	OHX	4	0
87	5	3964	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	3967	OHX	1	0
87	5	3970	OHX	1	0
87	5	3973	OHX	3	0
87	5	3974	OHX	7	0
87	5	3976	OHX	1	0
87	5	3977	OHX	1	0
87	5	3979	OHX	8	0
87	5	3983	OHX	1	0
87	5	3984	OHX	1	0
87	5	3985	OHX	1	0
87	5	3987	OHX	1	0
87	5	3990	OHX	1	0
87	5	3992	OHX	3	0
87	5	4000	OHX	1	0
87	5	4002	OHX	8	0
87	5	4003	OHX	5	0
87	5	4004	OHX	1	0
87	5	4007	OHX	1	0
87	5	4011	OHX	6	0
87	5	4013	OHX	2	0
87	5	4014	OHX	1	0
87	5	4015	OHX	1	0
87	5	4016	OHX	1	0
87	5	4021	OHX	8	0
87	5	4023	OHX	1	0
87	5	4024	OHX	4	0
87	5	4025	OHX	2	0
87	5	4027	OHX	1	0
87	5	4028	OHX	1	0
87	5	4030	OHX	1	0
87	5	4031	OHX	1	0
87	5	4032	OHX	1	0
87	5	4035	OHX	1	0
87	5	4040	OHX	2	0
87	5	4042	OHX	2	0
87	5	4047	OHX	1	0
87	5	4050	OHX	1	0
87	5	4052	OHX	1	0
87	5	4056	OHX	6	0
87	5	4057	OHX	1	0
87	5	4060	OHX	1	0
87	5	4062	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4066	OHX	3	0
87	5	4067	OHX	7	0
87	5	4068	OHX	1	0
87	5	4069	OHX	1	0
87	5	4073	OHX	1	0
87	5	4075	OHX	3	0
87	5	4077	OHX	3	0
87	5	4078	OHX	1	0
87	5	4079	OHX	1	0
87	5	4080	OHX	1	0
87	5	4081	OHX	1	0
87	5	4089	OHX	1	0
87	5	4090	OHX	1	0
87	5	4091	OHX	6	0
87	5	4092	OHX	4	0
87	5	4093	OHX	1	0
87	5	4094	OHX	2	0
87	5	4095	OHX	2	0
87	5	4096	OHX	6	0
87	5	4098	OHX	1	0
87	5	4099	OHX	1	0
87	5	4101	OHX	1	0
87	5	4104	OHX	4	0
87	5	4107	OHX	1	0
87	5	4108	OHX	1	0
87	5	4110	OHX	1	0
87	5	4111	OHX	2	0
87	5	4112	OHX	1	0
87	5	4115	OHX	1	0
87	5	4118	OHX	1	0
87	5	4120	OHX	1	0
87	5	4121	OHX	1	0
87	5	4127	OHX	1	0
87	5	4132	OHX	1	0
87	5	4134	OHX	1	0
87	5	4135	OHX	1	0
87	5	4138	OHX	3	0
87	5	4139	OHX	2	0
87	5	4141	OHX	1	0
87	5	4143	OHX	2	0
87	5	4144	OHX	6	0
87	5	4145	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4148	OHX	1	0
87	5	4154	OHX	1	0
87	5	4158	OHX	1	0
87	5	4160	OHX	3	0
87	5	4163	OHX	3	0
87	5	4164	OHX	1	0
87	5	4167	OHX	1	0
87	5	4169	OHX	1	0
87	5	4174	OHX	2	0
87	5	4175	OHX	1	0
87	5	4180	OHX	2	0
87	5	4182	OHX	1	0
87	5	4183	OHX	2	0
87	5	4185	OHX	1	0
87	5	4186	OHX	1	0
87	5	4187	OHX	1	0
87	5	4188	OHX	1	0
87	5	4189	OHX	2	0
87	5	4191	OHX	5	0
87	5	4192	OHX	1	0
87	5	4193	OHX	5	0
87	5	4194	OHX	1	0
87	5	4195	OHX	1	0
87	5	4196	OHX	1	0
87	5	4197	OHX	1	0
87	5	4199	OHX	1	0
87	5	4200	OHX	10	0
87	5	4201	OHX	7	0
87	5	4202	OHX	7	0
87	5	4203	OHX	1	0
87	5	4208	OHX	1	0
87	5	4209	OHX	1	0
87	5	4210	OHX	1	0
87	5	4212	OHX	1	0
87	5	4215	OHX	5	0
87	5	4218	OHX	9	0
87	5	4220	OHX	1	0
87	5	4225	OHX	6	0
87	5	4227	OHX	1	0
87	5	4228	OHX	1	0
87	5	4229	OHX	1	0
87	5	4230	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4233	OHX	1	0
87	5	4235	OHX	6	0
87	5	4237	OHX	6	0
87	5	4241	OHX	1	0
87	5	4244	OHX	9	0
87	5	4245	OHX	1	0
87	5	4250	OHX	1	0
89	5	4254	3KD	1	0
87	6	2050	OHX	1	0
87	6	2053	OHX	1	0
87	6	2058	OHX	1	0
87	6	2059	OHX	1	0
87	6	2063	OHX	6	0
87	6	2064	OHX	1	0
87	6	2065	OHX	1	0
87	6	2069	OHX	1	0
87	6	2070	OHX	1	0
87	6	2072	OHX	1	0
87	6	2074	OHX	1	0
87	6	2075	OHX	1	0
87	6	2077	OHX	1	0
87	6	2078	OHX	1	0
87	6	2079	OHX	1	0
87	6	2086	OHX	1	0
87	6	2087	OHX	2	0
87	6	2088	OHX	1	0
87	6	2089	OHX	1	0
87	6	2090	OHX	1	0
87	6	2092	OHX	1	0
87	6	2094	OHX	1	0
87	6	2096	OHX	1	0
87	6	2097	OHX	1	0
87	6	2100	OHX	1	0
87	6	2101	OHX	1	0
87	6	2102	OHX	1	0
87	6	2104	OHX	3	0
87	6	2106	OHX	3	0
87	6	2107	OHX	1	0
87	6	2109	OHX	1	0
87	6	2110	OHX	1	0
87	6	2111	OHX	1	0
87	6	2115	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2116	OHX	1	0
87	6	2118	OHX	1	0
87	6	2121	OHX	2	0
87	6	2123	OHX	1	0
87	6	2124	OHX	10	0
87	6	2125	OHX	1	0
87	6	2127	OHX	2	0
87	6	2128	OHX	1	0
87	6	2129	OHX	2	0
87	6	2131	OHX	1	0
87	6	2133	OHX	2	0
87	6	2134	OHX	1	0
87	6	2139	OHX	1	0
87	6	2140	OHX	3	0
87	6	2141	OHX	1	0
87	6	2146	OHX	1	0
87	6	2149	OHX	1	0
87	6	2150	OHX	7	0
87	6	2151	OHX	1	0
87	6	2152	OHX	1	0
87	6	2153	OHX	1	0
87	6	2154	OHX	1	0
87	6	2157	OHX	2	0
87	6	2158	OHX	1	0
87	6	2162	OHX	4	0
87	6	2163	OHX	1	0
87	6	2164	OHX	1	0
87	6	2165	OHX	1	0
87	6	2174	OHX	8	0
87	6	2178	OHX	1	0
87	6	2179	OHX	1	0
87	6	2181	OHX	1	0
87	6	2182	OHX	1	0
87	6	2185	OHX	1	0
87	6	2186	OHX	1	0
87	6	2187	OHX	2	0
87	6	2191	OHX	2	0
87	6	2192	OHX	4	0
87	6	2195	OHX	1	0
87	6	2196	OHX	1	0
87	6	2197	OHX	1	0
87	6	2202	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2205	OHX	1	0
87	6	2207	OHX	1	0
87	7	218	OHX	1	0
87	7	220	OHX	3	0
87	7	222	OHX	1	0
87	7	226	OHX	1	0
87	8	215	OHX	1	0
87	8	217	OHX	7	0
87	8	220	OHX	1	0
87	8	221	OHX	1	0
87	8	222	OHX	1	0
87	8	223	OHX	1	0
87	8	225	OHX	8	0
87	8	226	OHX	1	0
87	8	227	OHX	1	0
87	C3	201	OHX	2	0
87	C5	201	OHX	4	0
87	D9	102	OHX	1	0
87	L3	403	OHX	1	0
87	L3	404	OHX	2	0
87	L4	403	OHX	3	0
87	M5	302	OHX	1	0
87	M7	207	OHX	2	0
87	M7	208	OHX	1	0
87	M9	202	OHX	1	0
87	O2	201	OHX	1	0
87	O3	201	OHX	1	0
87	O7	103	OHX	6	0
87	O7	104	OHX	1	0
87	O9	101	OHX	3	0
87	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 [i](#)

6.1 Protein, DNA and RNA chains [i](#)

EDS failed to run properly - this section will therefore be empty.

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

EDS failed to run properly - this section will therefore be empty.

6.3 Carbohydrates [i](#)

EDS failed to run properly - this section will therefore be empty.

6.4 Ligands [i](#)

EDS failed to run properly - this section will therefore be empty.

6.5 Other polymers [i](#)

EDS failed to run properly - this section will therefore be empty.