



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:55 PM GMT

PDB ID : 4U6F  
Title : Crystal structure of T-2 toxin bound to the yeast 80S ribosome  
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.  
Deposited on : 2014-07-28  
Resolution : 3.10 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.7 (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

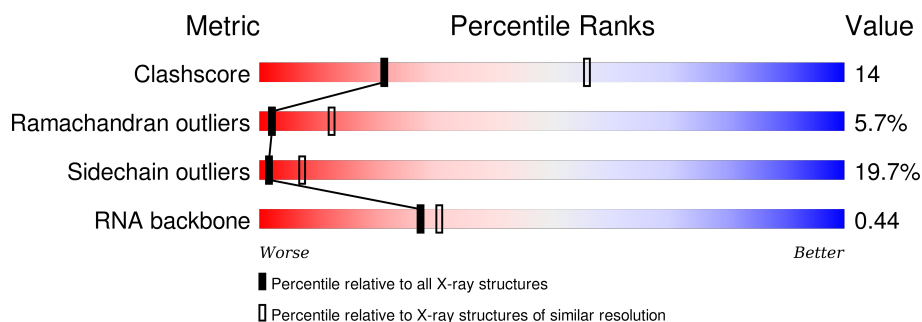
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.10 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1222 (3.14-3.06)
Ramachandran outliers	100387	1174 (3.14-3.06)
Sidechain outliers	100360	1174 (3.14-3.06)
RNA backbone	2183	1010 (3.52-2.68)

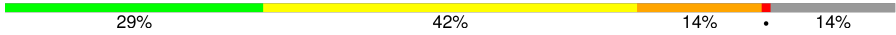



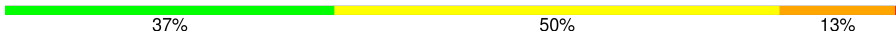

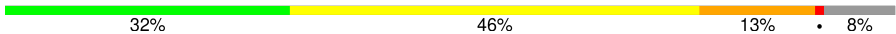

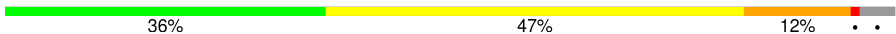

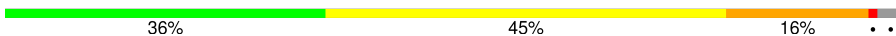

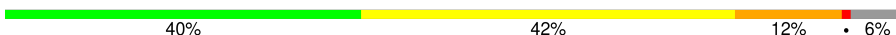



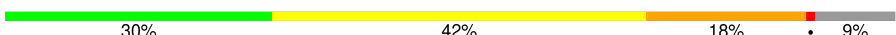



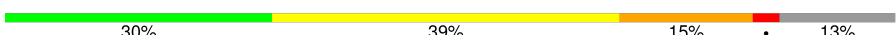




The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Note EDS failed to run properly.

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


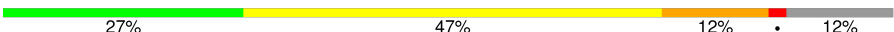



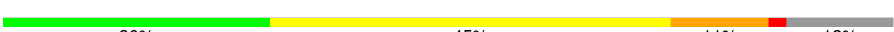






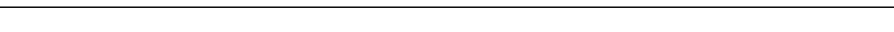

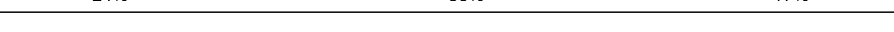

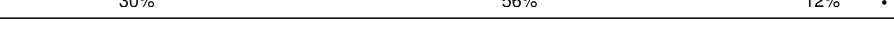







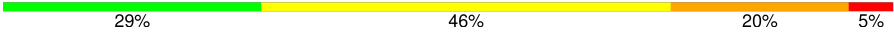
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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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

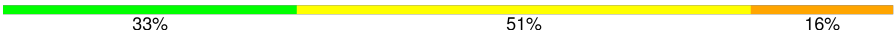



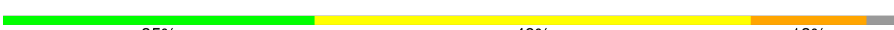





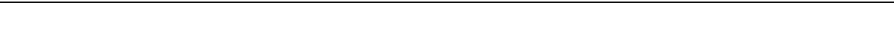

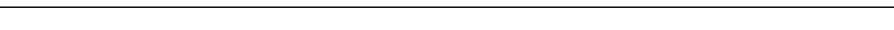
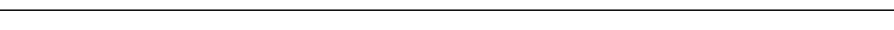

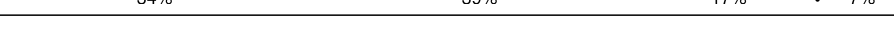








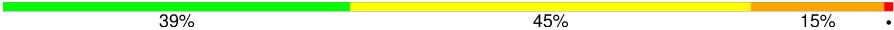
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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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







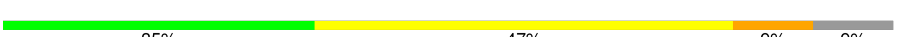

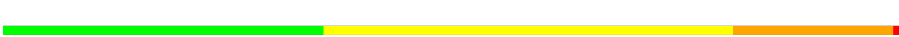

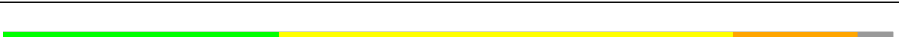


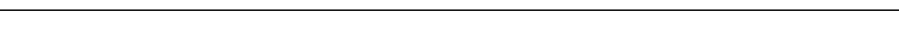
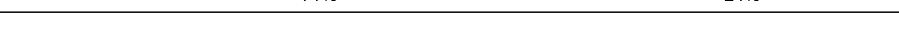
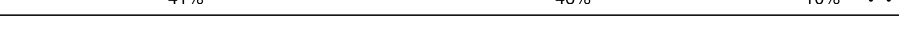



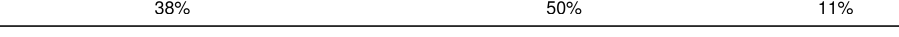





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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253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






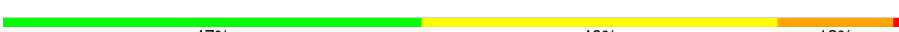






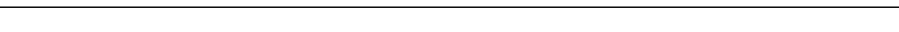

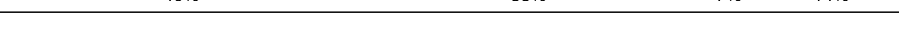

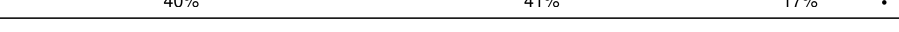







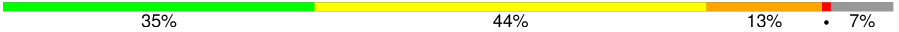
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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5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

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


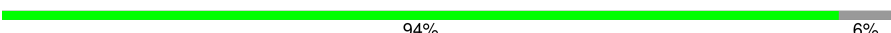
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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	120	
70	o4	120	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1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

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

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	1	3952	-	-	X	-
86	OHX	1	3966	-	-	X	-
86	OHX	1	3997	-	-	X	-
86	OHX	1	4026	-	-	X	-
86	OHX	1	4039	-	-	X	-
86	OHX	1	4050	-	-	X	-
86	OHX	1	4133	-	-	X	-
86	OHX	1	4151	-	-	X	-
86	OHX	1	4167	-	-	X	-
86	OHX	1	4176	-	-	X	-
86	OHX	1	4192	-	-	X	-
86	OHX	2	2034	-	-	X	-
86	OHX	2	2047	-	-	X	-
86	OHX	2	2093	-	-	X	-
86	OHX	2	2101	-	-	X	-
86	OHX	2	2134	-	-	X	-
86	OHX	2	2149	-	-	X	-
86	OHX	2	2160	-	-	X	-
86	OHX	5	3945	-	-	X	-
86	OHX	5	3964	-	-	X	-
86	OHX	5	3980	-	-	X	-
86	OHX	5	4004	-	-	X	-
86	OHX	5	4005	-	-	X	-
86	OHX	5	4014	-	-	X	-
86	OHX	5	4024	-	-	X	-
86	OHX	5	4059	-	-	X	-
86	OHX	5	4093	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4201	-	-	X	-
86	OHX	5	4202	-	-	X	-
86	OHX	5	4203	-	-	X	-
86	OHX	5	4220	-	-	X	-
86	OHX	5	4237	-	-	X	-
86	OHX	5	4246	-	-	X	-
86	OHX	6	2060	-	-	X	-
86	OHX	6	2121	-	-	X	-
86	OHX	6	2149	-	-	X	-
86	OHX	6	2173	-	-	X	-
86	OHX	8	215	-	-	X	-
86	OHX	8	223	-	-	X	-
86	OHX	O1	201	-	-	X	-
86	OHX	O7	103	-	-	X	-
88	ZBA	1	4206	X	-	-	-

## 2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411881 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	1781	Total	C	N	O	P	0	0	0
			37948	16965	6715	12487	1781			
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	S	0	0	0
			1481	951	265	265				
9	s7	186	Total	C	N	O	S	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 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	89	ALA	GLY	conflict	UNP Q08745
C0	98	SER	THR	conflict	UNP Q08745
c0	89	ALA	GLY	conflict	UNP Q08745
c0	98	SER	THR	conflict	UNP Q08745

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O		0	0	0
			1104	652	221	231				
35	sM	104	Total	C	N	O		0	0	0
			680	403	140	137				

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

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
40	13	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	14	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	15	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	16	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	17	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	18	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	19	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	4	Total	Mg	0	0
			4	4		
85	n8	3	Total	Mg	0	0
			3	3		
85	o1	1	Total	Mg	0	0
			1	1		
85	N5	1	Total	Mg	0	0
			1	1		
85	6	147	Total	Mg	0	0
			147	147		
85	sM	2	Total	Mg	0	0
			2	2		
85	O4	1	Total	Mg	0	0
			1	1		
85	m5	5	Total	Mg	0	0
			5	5		
85	l3	3	Total	Mg	0	0
			3	3		
85	M1	1	Total	Mg	0	0
			1	1		
85	n0	1	Total	Mg	0	0
			1	1		
85	d6	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	2	126	Total 126	Mg 126	0	0
85	O3	1	Total 1	Mg 1	0	0
85	L4	2	Total 2	Mg 2	0	0
85	l7	1	Total 1	Mg 1	0	0
85	M5	2	Total 2	Mg 2	0	0
85	l4	1	Total 1	Mg 1	0	0
85	o0	1	Total 1	Mg 1	0	0
85	S2	1	Total 1	Mg 1	0	0
85	L8	1	Total 1	Mg 1	0	0
85	o4	1	Total 1	Mg 1	0	0
85	M9	1	Total 1	Mg 1	0	0
85	q0	1	Total 1	Mg 1	0	0
85	SM	1	Total 1	Mg 1	0	0
85	c8	2	Total 2	Mg 2	0	0
85	M0	2	Total 2	Mg 2	0	0
85	c1	2	Total 2	Mg 2	0	0
85	5	504	Total 504	Mg 504	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	1	Total 1	Mg 1	0	0
85	Q2	1	Total 1	Mg 1	0	0
85	M4	1	Total 1	Mg 1	0	0

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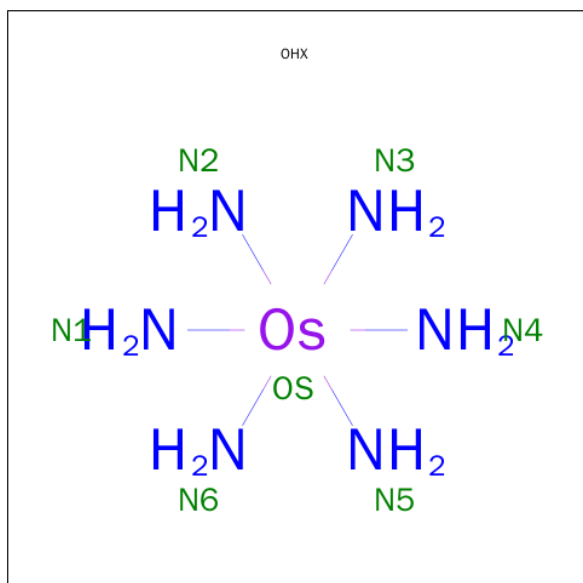
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	n9	1	Total 1	Mg 1	0	0
85	1	465	Total 465	Mg 465	0	0
85	n6	2	Total 2	Mg 2	0	0
85	S8	1	Total 1	Mg 1	0	0
85	l2	1	Total 1	Mg 1	0	0
85	d3	1	Total 1	Mg 1	0	0
85	q3	2	Total 2	Mg 2	0	0
85	o3	1	Total 1	Mg 1	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	3	Total 3	Mg 3	0	0
85	N8	6	Total 6	Mg 6	0	0
85	4	22	Total 22	Mg 22	0	0
85	L2	2	Total 2	Mg 2	0	0
85	m1	2	Total 2	Mg 2	0	0
85	l5	2	Total 2	Mg 2	0	0
85	m7	4	Total 4	Mg 4	0	0
85	M7	5	Total 5	Mg 5	0	0
85	L6	2	Total 2	Mg 2	0	0
85	s1	1	Total 1	Mg 1	0	0
85	m6	2	Total 2	Mg 2	0	0
85	s8	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	c7	2	Total	Mg	0	0
			2	2		
85	7	17	Total	Mg	0	0
			17	17		
85	n3	2	Total	Mg	0	0
			2	2		
85	L3	3	Total	Mg	0	0
			3	3		
85	d4	1	Total	Mg	0	0
			1	1		
85	N6	1	Total	Mg	0	0
			1	1		
85	8	12	Total	Mg	0	0
			12	12		
85	M6	1	Total	Mg	0	0
			1	1		
85	N0	2	Total	Mg	0	0
			2	2		
85	3	14	Total	Mg	0	0
			14	14		

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



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

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	S8	1	Total	N	Os	0	0
			7	6	1		
86	S9	1	Total	N	Os	0	0
			7	6	1		
86	C1	1	Total	N	Os	0	0
			7	6	1		
86	C3	1	Total	N	Os	0	0
			7	6	1		
86	C5	1	Total	N	Os	0	0
			7	6	1		
86	C8	1	Total	N	Os	0	0
			7	6	1		
86	D9	1	Total	N	Os	0	0
			7	6	1		
86	SR	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L4	1	Total	N	Os	0	0
			7	6	1		
86	M0	1	Total	N	Os	0	0
			7	6	1		
86	M5	1	Total	N	Os	0	0
			7	6	1		
86	M6	1	Total	N	Os	0	0
			7	6	1		
86	M7	1	Total	N	Os	0	0
			7	6	1		
86	M7	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	M9	1	Total	N	Os	0	0
			7	6	1		
86	N1	1	Total	N	Os	0	0
			7	6	1		
86	N9	1	Total	N	Os	0	0
			7	6	1		
86	O1	1	Total	N	Os	0	0
			7	6	1		
86	O2	1	Total	N	Os	0	0
			7	6	1		
86	O3	1	Total	N	Os	0	0
			7	6	1		
86	O7	1	Total	N	Os	0	0
			7	6	1		
86	O7	1	Total	N	Os	0	0
			7	6	1		
86	Q2	1	Total	N	Os	0	0
			7	6	1		
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		
86	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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86	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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86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
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86	s4	1	Total 7	N 6	Os 1	0	0
86	s8	1	Total 7	N 6	Os 1	0	0
86	c3	1	Total 7	N 6	Os 1	0	0
86	c5	1	Total 7	N 6	Os 1	0	0
86	c8	1	Total 7	N 6	Os 1	0	0
86	d9	1	Total 7	N 6	Os 1	0	0
86	sR	1	Total 7	N 6	Os 1	0	0
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86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0
86	5	1	Total 7	N 6	Os 1	0	0

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

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

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	7	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
			7	6	1		
86	14	1	Total	N	Os	0	0
			7	6	1		
86	14	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l9	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m1	1	Total	N	Os	0	0
			7	6	1		
86	m4	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		
86	m7	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n5	1	Total	N	Os	0	0
			7	6	1		
86	n9	1	Total	N	Os	0	0
			7	6	1		
86	o2	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 87 is ZINC ION (three-letter code: ZN) (formula: Zn).

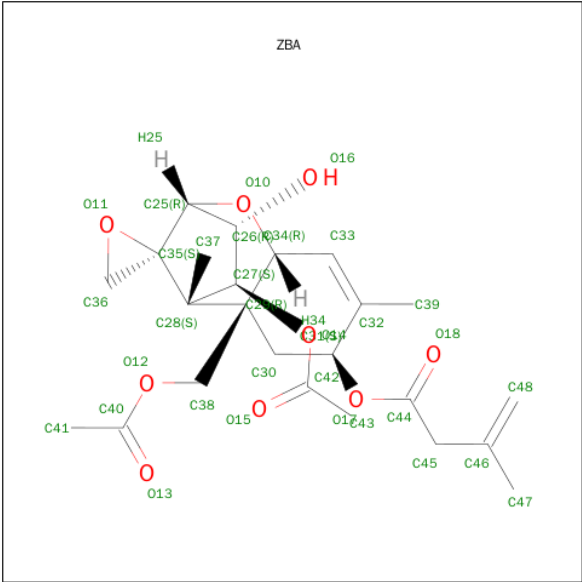
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q0	1	Total	Zn	0	0
			1	1		
87	D6	1	Total	Zn	0	0
			1	1		

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

- Molecule 88 is 12,13-Epoxytrichothec-9-ene-3,4,8,15-tetrol-4,15-diacetate-8-isovalerate (three-letter code: ZBA) (formula: C<sub>24</sub>H<sub>32</sub>O<sub>9</sub>).



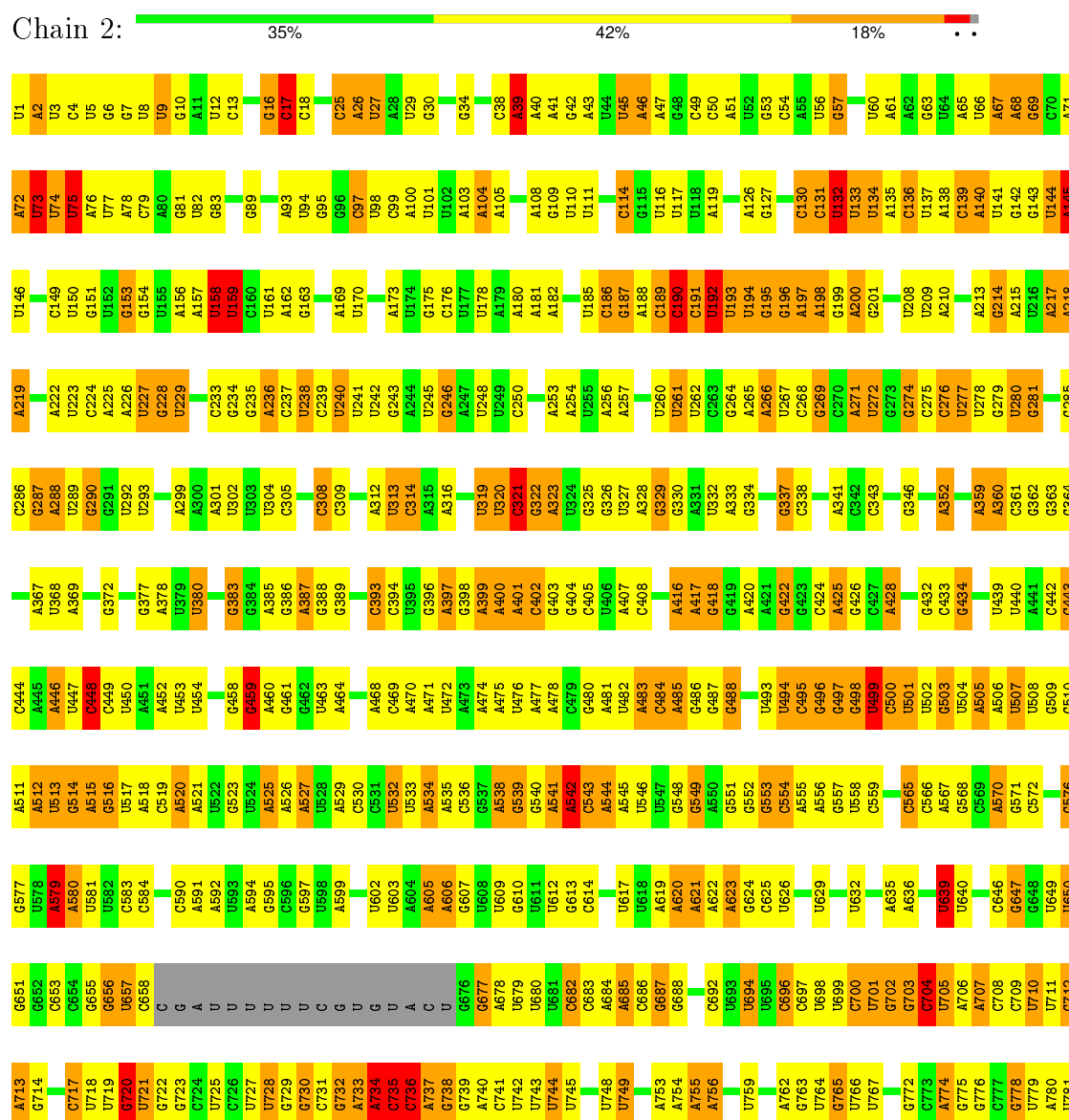
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	C	O	0	0
			33	24	9		
88	5	1	Total	C	O	0	0
			33	24	9		

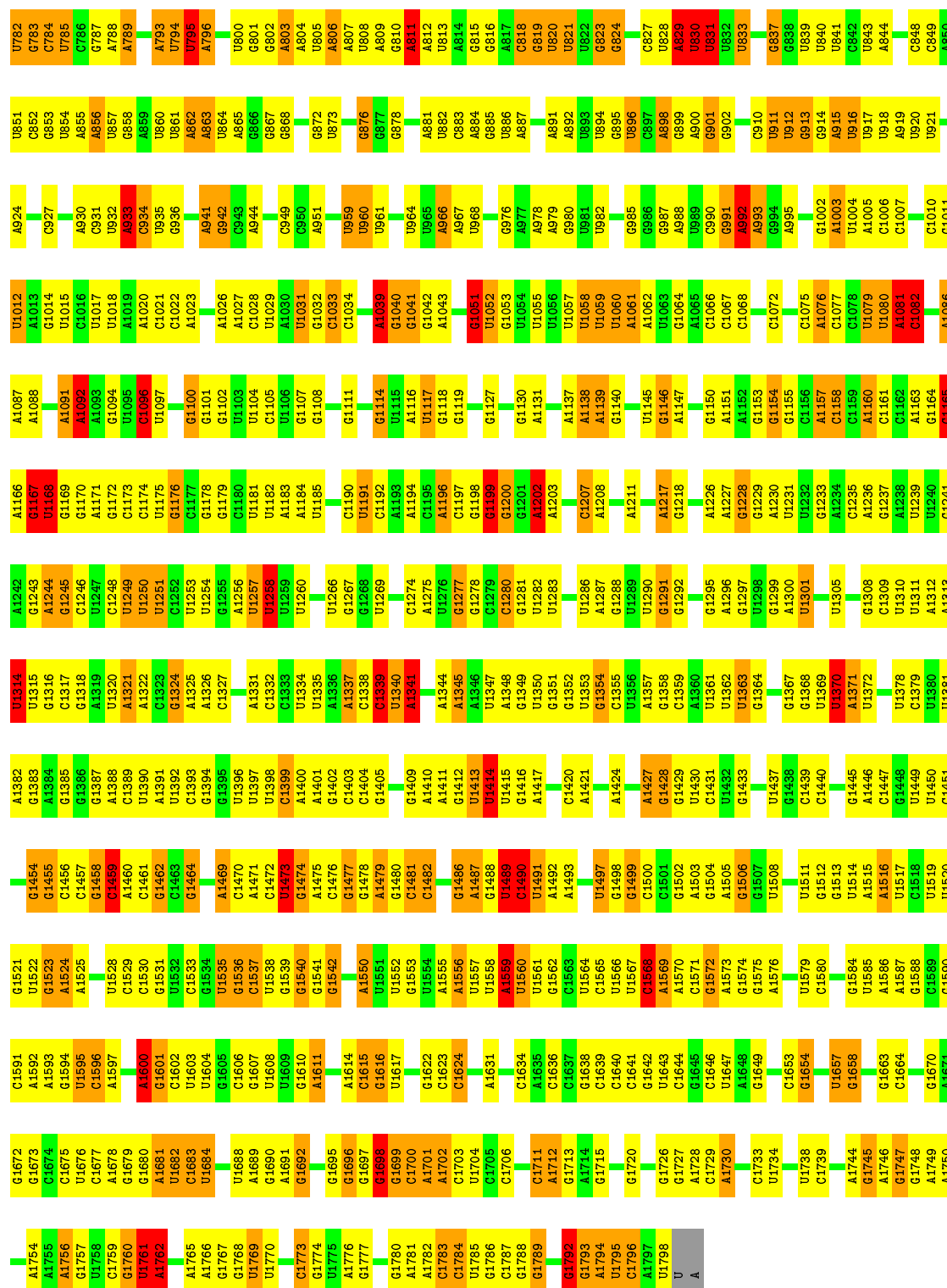
### 3 Residue-property plots

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

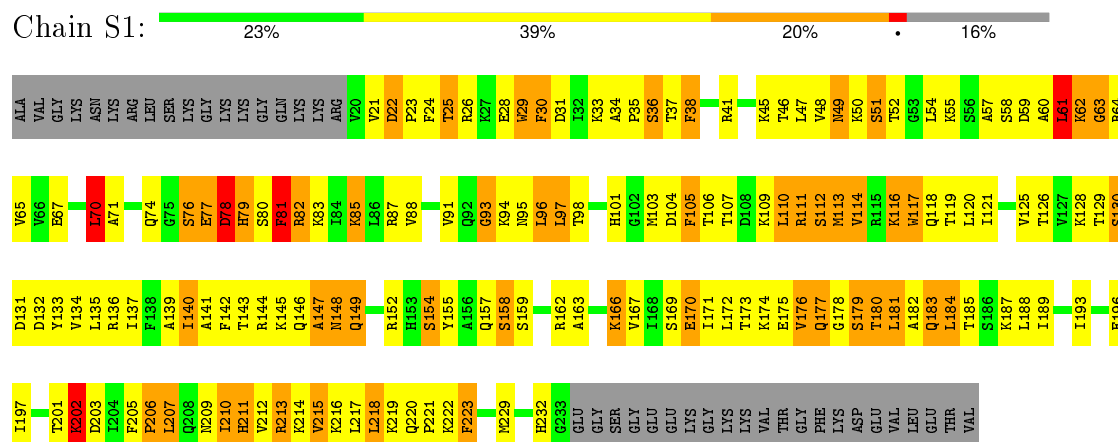




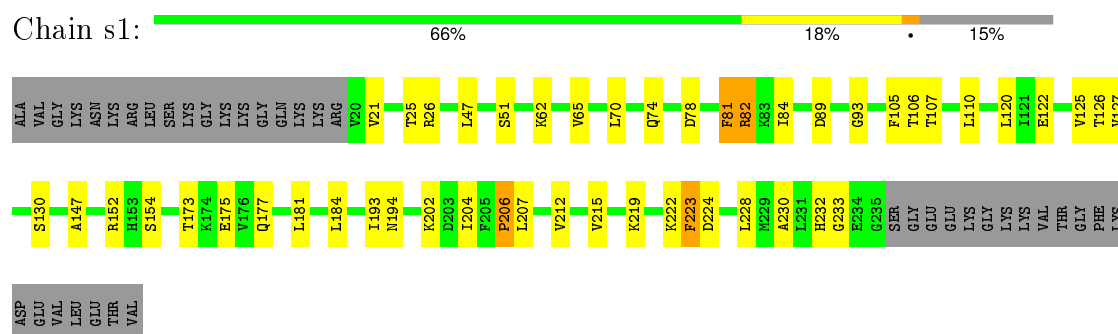
A1236	C1158	G1082	C1010	G936	G866	G802	U727	A661	G586	A511	U439	A359	G291	A220	C149	A76
G1237	C1159	G1083	G1011	C937	G867	A803	U728	U662	A591	A512	C444	A360	U292	A221	U160	U77
A1238	A1160	G1084	U1015	G938	G868	A804	G730	U665	A592	G514	A445	G362	A295	A222	G151	C79
U1239	C1161	G1085	U1016	A941	G872	A806	A733	U666	U593	G515	A446	G363	U296	C224	G153	
G1241	G1164	A1091	U1017	G942	U873	A807	A734	U667	A594	G516	U447	G364	U297	A225	G154	A85
A1242	A1165	A1092	U1018	C943	U874	U808	A737	U668	G595	U517	C448		C298	A226	U155	A86
G1243	A1166	A1093	A1019	A944	G877	A809	A737	U669	G596	A518			A299	U227		
A1244	G1167	C1096	A1020	U947	C880	A811	G738	U670	G597	C519	A452	A369	A300	U228	U158	G89
G1245	G1168	U1097	C1021	U948	G881	A812	G739	U671	U600	A520	U453	A371	A301	U229	U159	C90
C1246	A1171	U1098	C1022	U949	A813	A813	A740	A673	A601	A521	U454	G372	G302	U230	C160	G91
U1247	G1172	U1099	A1023	C949	U814	A814	C741	G674	A602	U522	C455	G373	U304	U231	U161	A92
C1248	C1173	G1100	U1024	C950	A884	G815	U742	U675	U603	U523	G459	U374	C305	U232	A162	A93
U1249	G1174	G1101	A1025	A951	G885	G816	U743	U676	A604	U524	A460	C381	U306	C233	G163	U94
U1250	U1175	A1102	G1033	U952	U886	G816	U744	U677	A604	A525	G461	C382	G307	G234	A164	G95
	G1176	U1103	A1027	G953	A887	A817	U745	U678	A604	A526		C383	C308	G235	G165	G96
U1253	U1253	C1028	G818	G954	U888	C818	U746	G679	U609	A527	A464	G383	C309	A236	C166	
U1254	G1179	A955	G819	A955	U679	G819	G751	A678	G610	C536		G386	C310	U240	U167	A100
G1255	G1180	C956	U820	U965	U680	U820	A752	U681	U611	G537	A468	A387	U312	U241	A168	U101
A1256	U1181	A892	U821	G957	U881	U821	A753	U682	U612		A469		U313	U242	A169	U102
U1257	U1182	U958	U822	G958	C882	U822	A754	U683	G613	A538	A470		U314	G246	U170	
U1258	A1183	G895	G823	U959	C883	C614	A755	U684	C614	G539	A471	G390	C314	G247	G175	A103
U1259	U1259	U896	G824	U960	A684	A615	A756	A684	A615	G540	U472	A391	A315	A247	C176	A104
U1260	U1185	C897	U825	U961	A685	G616	U759	U685	G616	A542	U473	G392	A316	U248	U177	A105
G1261	A1039	C898	U826	C962	C886	U617		U686	U617	A543	A474	C393	C317	U249	U178	A108
U1262	G1040	A963	C827	A963	G887	C827	A762	C896	U618	C543		U395	U318	C250	A179	
G1263	G1041	U964	U828	U964	C691	U828	A763	C691	A619	A544	U475	U396	U319	U252		U111
G1264	G1042	U965	A829	U965	C692	A829	A764	C692	A620	A545	U476	G396	U320	U253		A112
	A966	A966	U903	A966	C693	U903	A765	C693	A621	A546	U477	A397	C321	A256	U183	U113
G1268	C1045	A970	U904	A970	C694	U904	A766	U694	A622	U547	A478	G398	G322	A257	C184	C114
U1269	G1046	A971	A905	A971	U694	U905	U767	U695	A623	G548	C479	A399	A323		U185	
G1270	G1047	G972	U906	G972	U695	U906	U768	C896	G624	G549	G480	A400	U327	U260	C186	U117
G1271	G1051	A973	U907	A973	C696	U907	A769	C697	C625	A550		A401	U328	U261	G187	U118
U1272	G1052	U908	U908	U908	C697	U908	A770	U698	U626	A551	C484	C402	A328	U262	A189	A119
A1203	G1053	C910	G837	G837	U699	G837	A771	U699	G628	A556	A485	G403	G329	C263	C189	U120
U1204	U1054	U911	G838	G838	C700	G838	G772	C700	U629	G557	G487	G404	A331	G264	C190	U121
C1205	U1055	U912	U939	U939	U701	U939	G773	U701	A630	U558	G488	A407	U332	A265	C191	U122
U1206	U1056	G913	U940	U940	U705	U940	A774	U705	G631	C559	C489	C408	A333	A266	U192	G123
C1207	U1057	G914		G980	U706		G775	A706	U632	U560	C490		G334	U267	U193	A124
U1208	U1058	A915	U843	A915	A707	U843	G776	A707	U633	G561	C491	C411	U335	C268	G195	
C1209	U1059	U916	G845	A916	G709	G845	G777	G709	A635	G562	A492	A412	U336		C196	U129
	U1060	U917	G846	U917	U710	G846	G778	U710	A636	U563	U493	U413	G337	A271	A197	C130
G1213	C1066	A919	A847	A919	U711	A847	U779	U711	C637	G564	U494	C414	C338	U272	A198	G181
	C1067	U920	C848	U920	U712	C848	U781	U712	U638	C565	C495	C415	C339	G273	G199	U132
G1294	G1068	U921	C849	C990	G713	C849	U782	A713	U639	C566	G496	A416	U340	G274	A200	
A1219	A1069	G922	A850	A922	U714	A850	G783	U714	U640	A567	G497	A417	A341	C275		U
G1220	G1070	A923		A923	U715		G783	U715	G498	G568	G498	G418	C342	C276		A
U1298	U1071	A924	A855	A924	U716	A855	G787	U716	G647	C569	U499	G419	C343	U277	A206	G136
G1299	C1072	G925	A856	G925	U717	A856	A788	C717	G648	A570	C500	A420	U348	U278	U207	C137
A1300	G1073	A926	U857	A926	U718	U857	A789	U718	U501	G571	U501	A421	U349	U279	U208	A138
A1226	G1074	C927	G858	C927	U719	G858	U790	U719	U502	G574	U502	C424	U350	U280	U209	C139
A1227	C1075	A929	A859	A929	G720	A859	U791	G720	G503		G503	C424	C351	G281	A210	A140
G1228	A1076	C931	U860	U860	G721	U860	A793	G721	U504	U578	U504	A425	C352	C282	A213	U141
G1229	G1149	C931	A861	A861	G722	A861	U794	G722	A505	A579	A505	G426	A353	U283	G214	G142
A1230	C1077	C932	A862	C932	U723	A862	U795	G723	U506	A580	U506	C427	C354	G284	A215	G143
C1309	C1078	A933	A863	A933	U724	A863	U796	U724	U507		U507	C433		G285	U216	U144
U1310	U1004	C934	U864	C934	U725	U864	U800	U725	U508	C584	U508	C434	G357	C286	A217	A145
U1311	A1005	U935	U865	U935	U726	U865	G801	C726	G660	A585	G510		U358		A218	U146
A1312	A1081		A865			A865									A219	



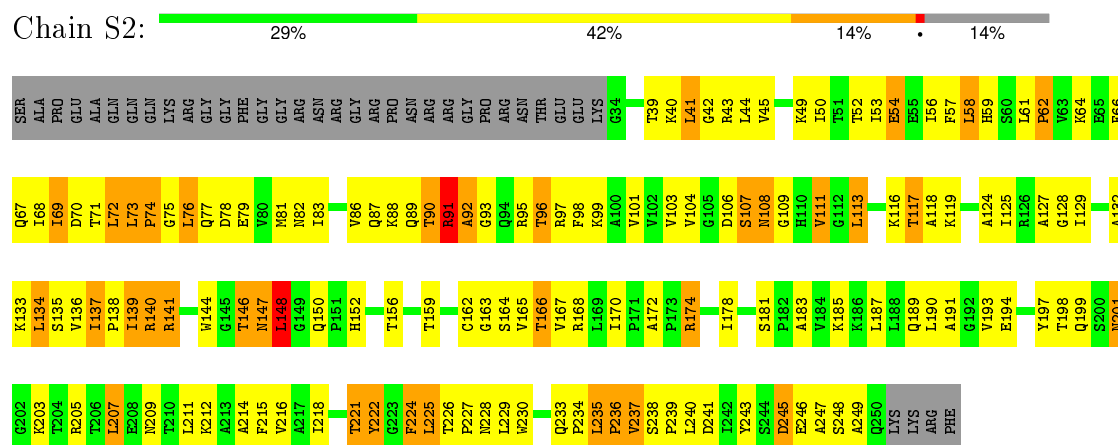
- Molecule 3: 40S ribosomal protein S1-A



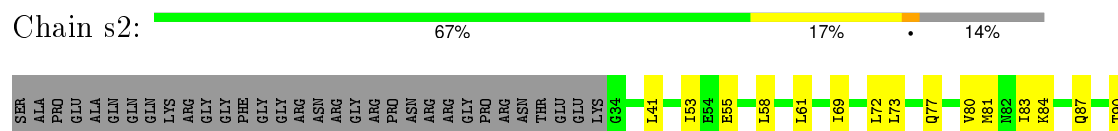
- Molecule 3: 40S ribosomal protein S1-A

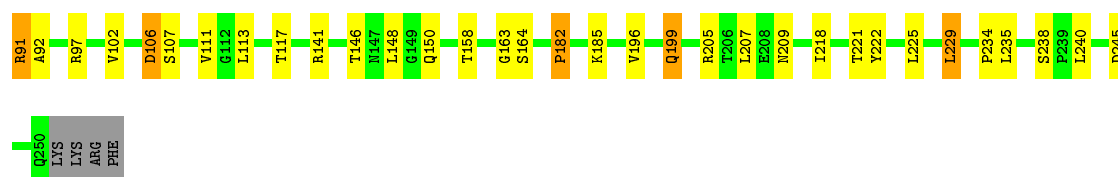


- Molecule 4: 40S ribosomal protein S2



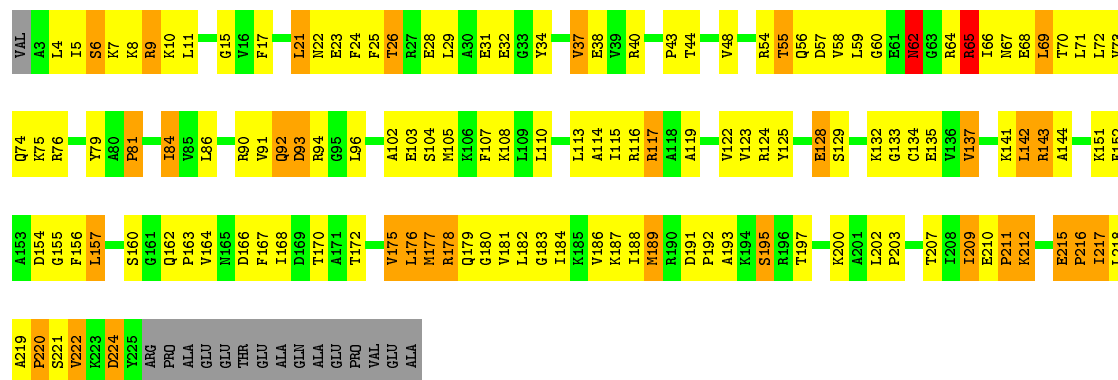
- Molecule 4: 40S ribosomal protein S2





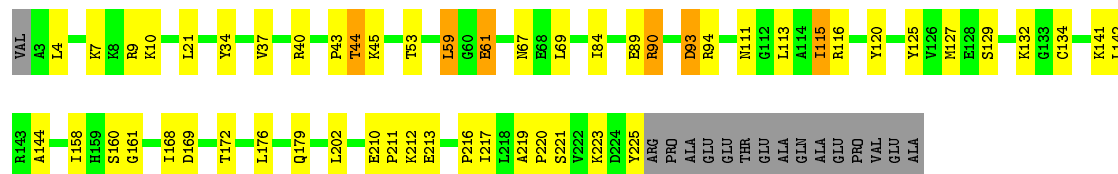
• Molecule 5: 40S ribosomal protein S3

Chain S3: 36% 43% 13% 7%



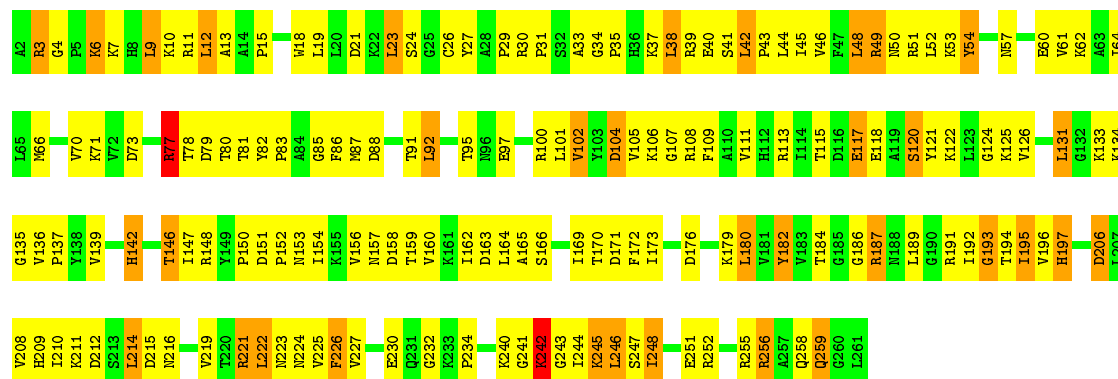
• Molecule 5: 40S ribosomal protein S3

Chain s3: 71% 20% 7%



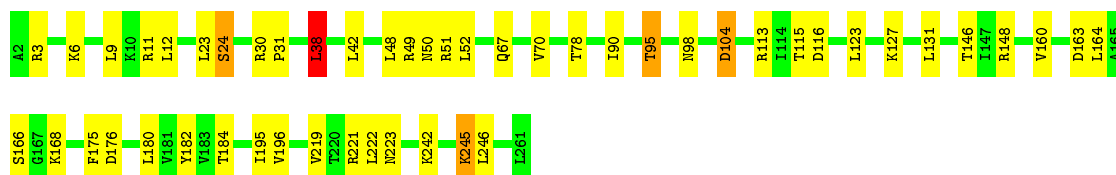
• Molecule 6: 40S ribosomal protein S4-A

Chain S4: 37% 50% 13%



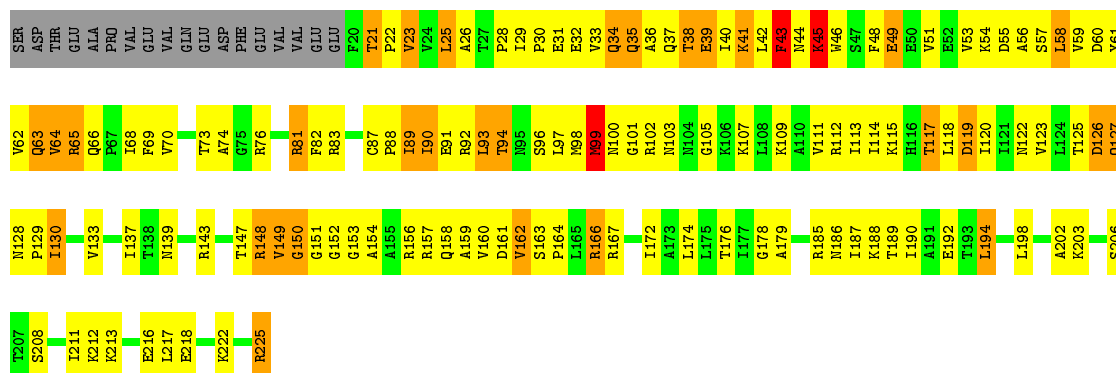
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 81% 17% 2%



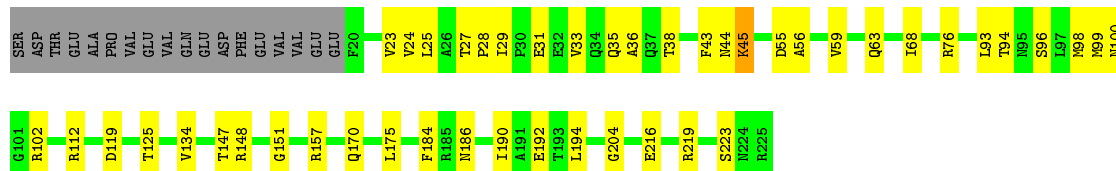
• Molecule 7: 40S ribosomal protein S5

Chain S5: 32% 46% 13% 8%



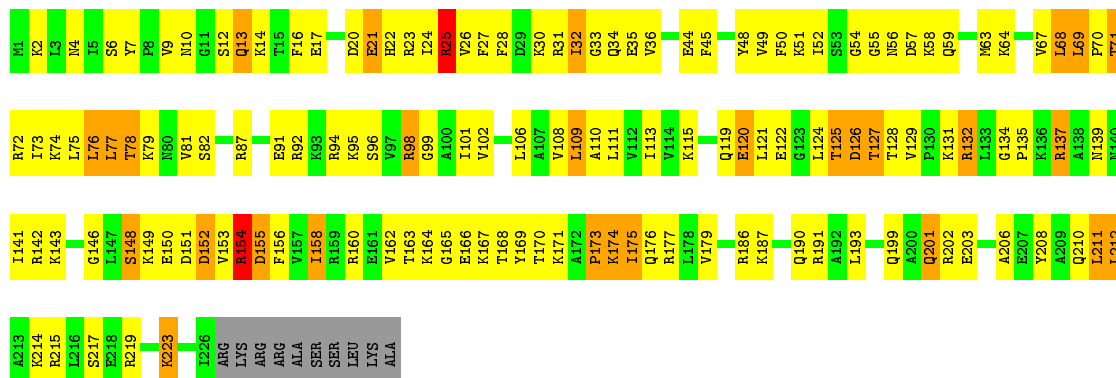
• Molecule 7: 40S ribosomal protein S5

Chain s5: 71% 20% 8%



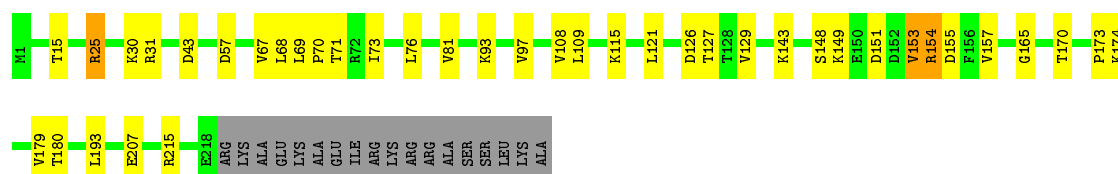
• Molecule 8: 40S ribosomal protein S6-A

Chain S6: 36% 47% 12%



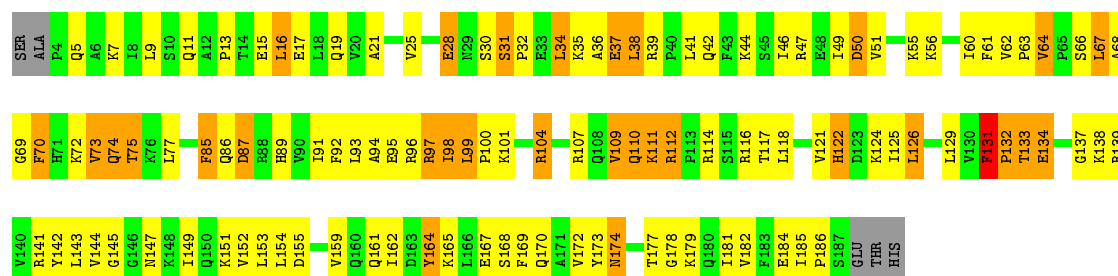
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 75% 16% 8%



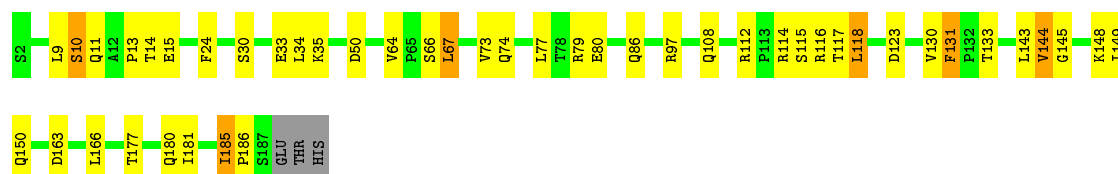
- Molecule 9: 40S ribosomal protein S7-A

Chain S7: 36% 45% 16% ..



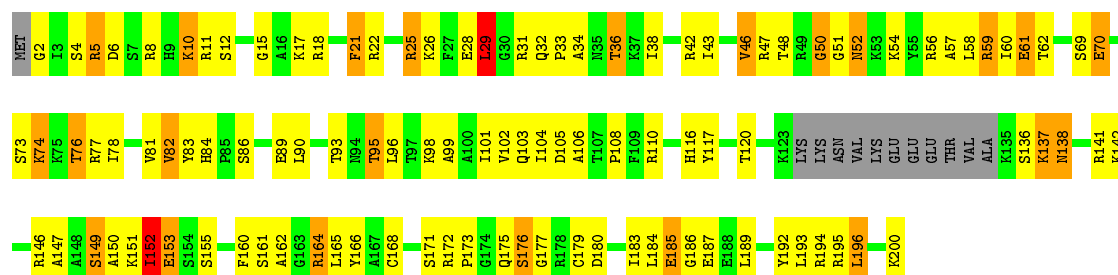
- Molecule 9: 40S ribosomal protein S7-A

Chain s7: 74% 21% ..



- Molecule 10: 40S ribosomal protein S8-A

Chain S8: 40% 42% 12% 6%



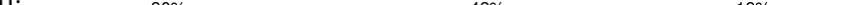
- Molecule 10: 40S ribosomal protein S8-A

Chain s8: 80% 14% 6%



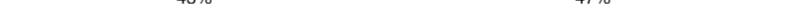
Chain S9: 

[illegible]

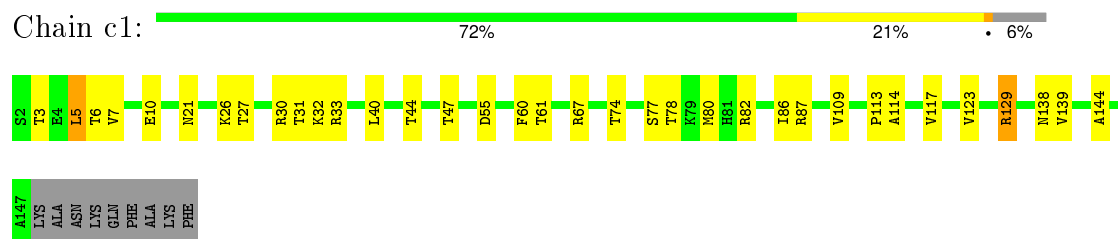
Chain C0: 

M1	L11	F27	M28	A30	H32	E34	I35	D36	T37	K38	H39	L40	Y41	V42	L43	K44	A45	Q47	S48	I49	T50	S51	K52	G53	Y54	V55	K56	S60	Y63	Y64	Y65	
V66	T67	L68	T69	E70	E71	G72	V73	L76	R77	E78	T79	L80	N81	L82	R87	R88	A89	I96	PRO	SER	GLN	ARG	PRO	PRO	GLN	ARG	ARG	TYR				

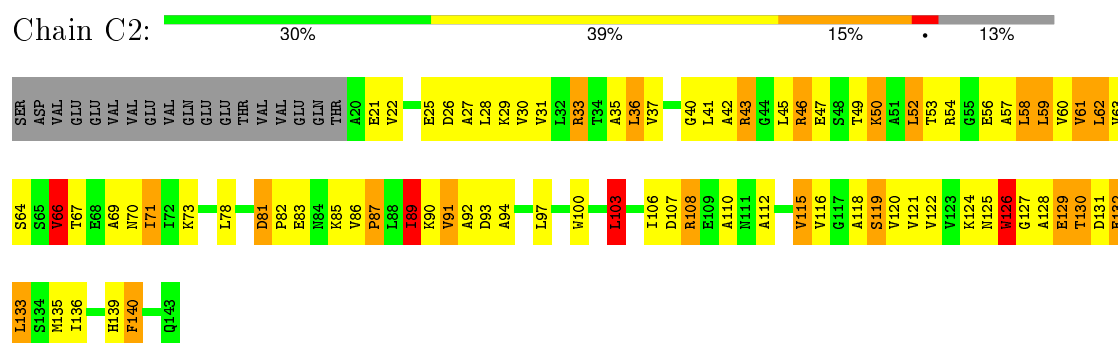
Chain c0: 

Chain C1: 

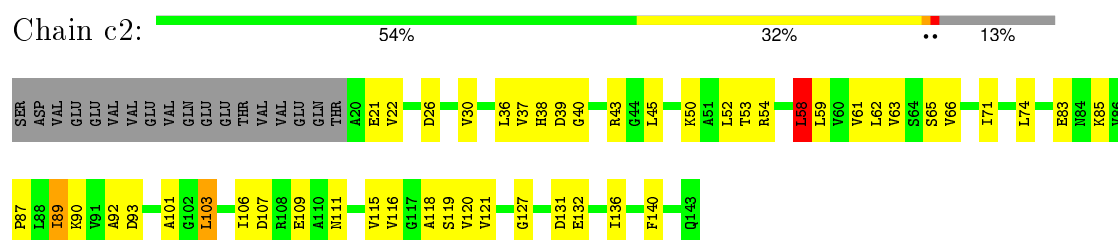
- Molecule 13: 40S ribosomal protein S11-A



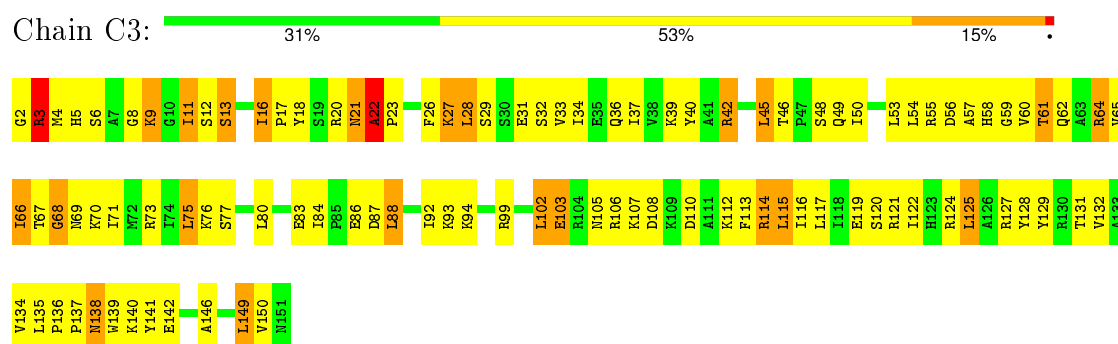
- Molecule 14: 40S ribosomal protein S12



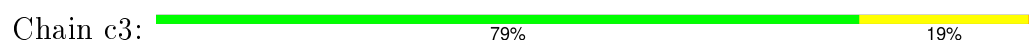
- Molecule 14: 40S ribosomal protein S12

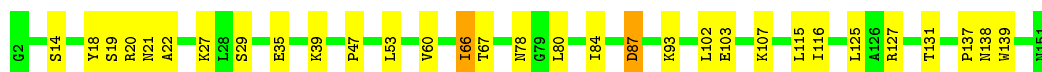


- Molecule 15: 40S ribosomal protein S13



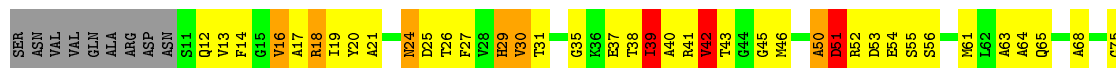
- Molecule 15: 40S ribosomal protein S13





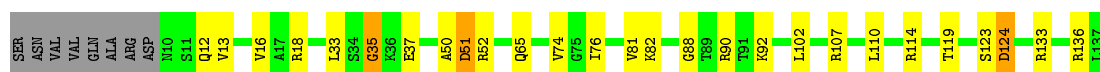
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 35% 45% 9% 5% 7%



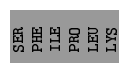
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 74% 18% 6%



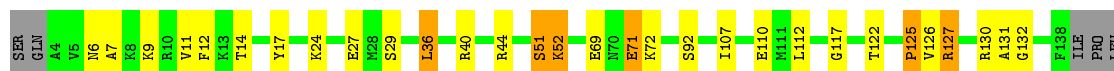
- Molecule 17: 40S ribosomal protein S15

Chain C5: 27% 47% 12% 12%



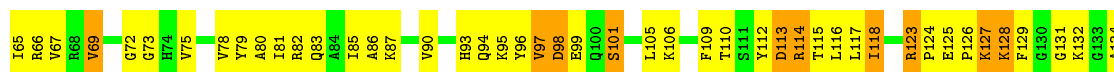
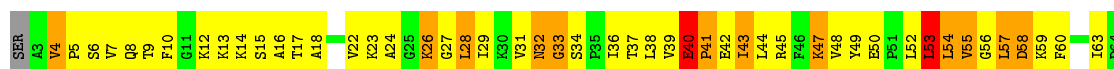
- Molecule 17: 40S ribosomal protein S15

Chain c5: 74% 17%



- Molecule 18: 40S ribosomal protein S16-A

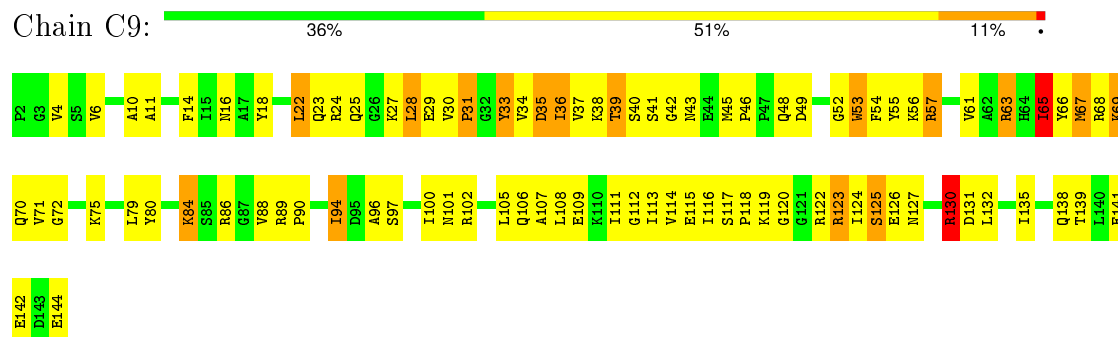
Chain C6: 27% 54% 16%



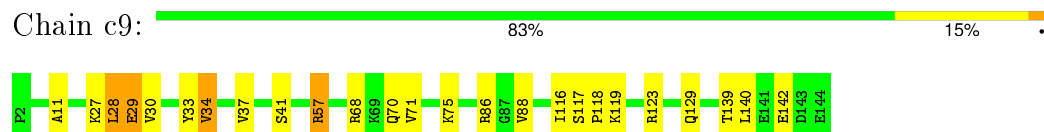


A146

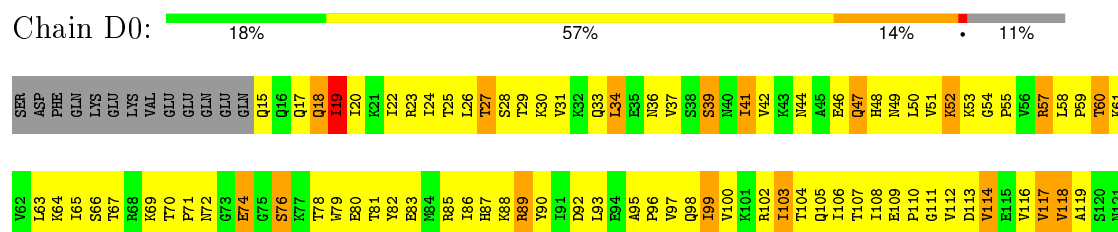
- Molecule 21: 40S ribosomal protein S19-A



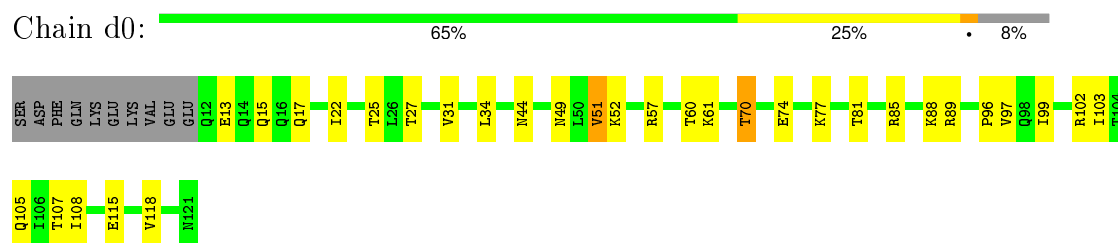
- Molecule 21: 40S ribosomal protein S19-A



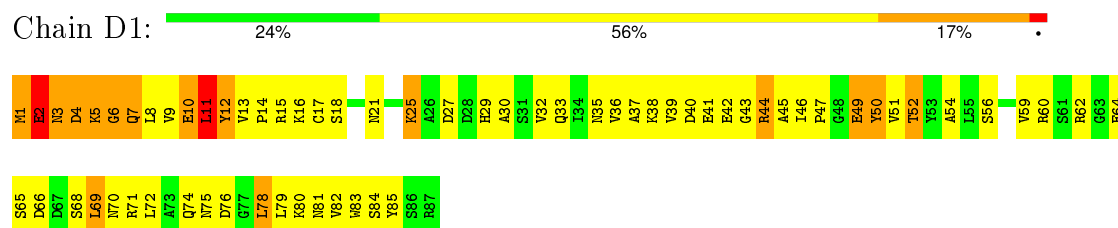
- Molecule 22: 40S ribosomal protein S20



- Molecule 22: 40S ribosomal protein S20

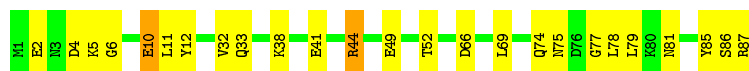


- Molecule 23: 40S ribosomal protein S21-A



- Molecule 23: 40S ribosomal protein S21-A

Chain d1: 




- Molecule 24: 40S ribosomal protein S22-A

Chain D2: 



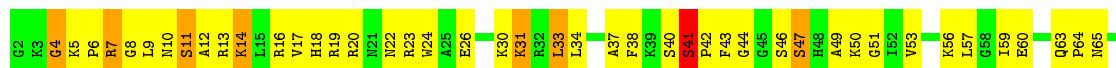
- Molecule 24: 40S ribosomal protein S22-A

Chain d2: 




- Molecule 25: 40S ribosomal protein S23-A

Chain D3: 



- Molecule 25: 40S ribosomal protein S23-A

Chain d3: 



- Molecule 26: 40S ribosomal protein S24-A

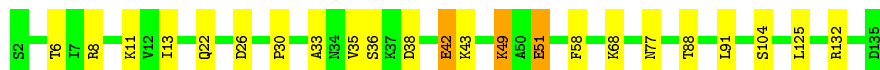
Chain D4: 





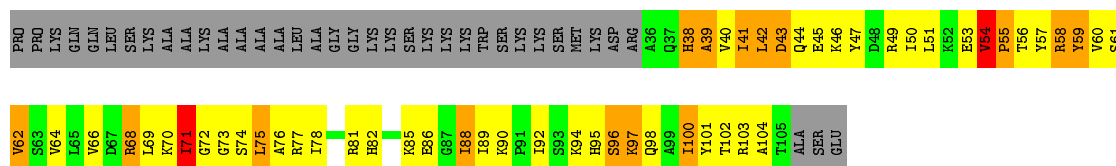
- Molecule 26: 40S ribosomal protein S24-A

Chain d4: 83% 15% .



- Molecule 27: 40S ribosomal protein S25-A

Chain D5: 15% 35% 14% . 35%



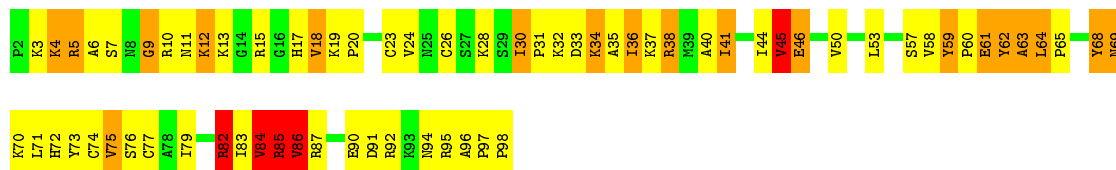
- Molecule 27: 40S ribosomal protein S25-A

Chain d5: 51% 13% 36%



- Molecule 28: 40S ribosomal protein S26-B

Chain D6: 29% 46% 20% 5%



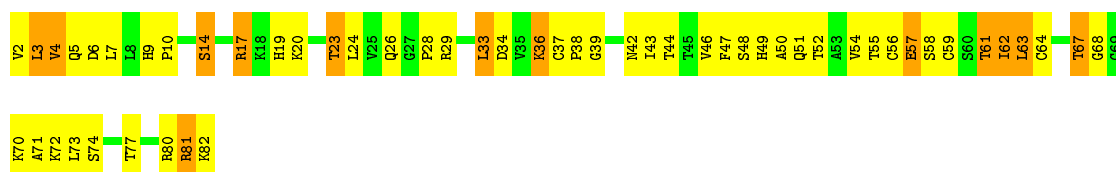
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 82% 16% .



- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 33% 51% 16%



- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 69% 28% .



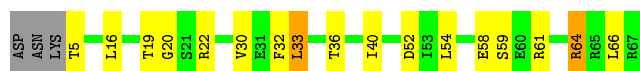
- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 30% 50% 15% 5%



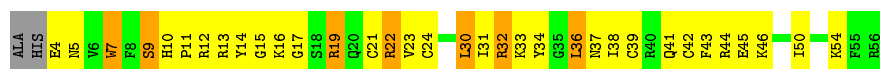
- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 70% 23% . 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 35% 49% 13% .



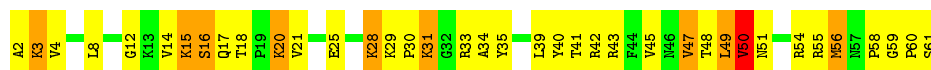
- Molecule 31: 40S ribosomal protein S29-A

Chain d9: 75% 22% .



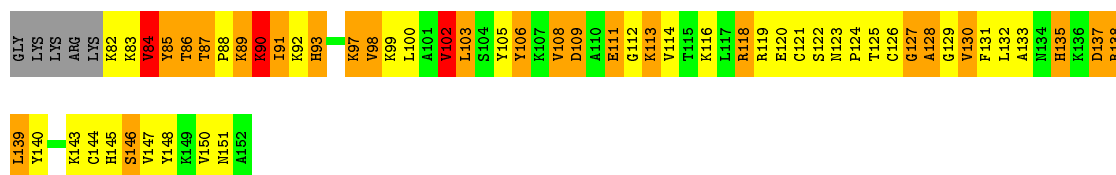
- Molecule 32: 40S ribosomal protein S30-A

Chain E0: 37% 47% 15% .



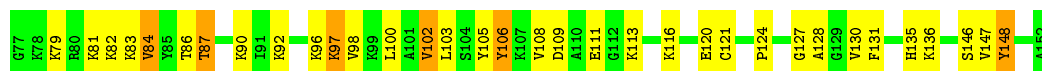
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 20% 39% 30% . 7%



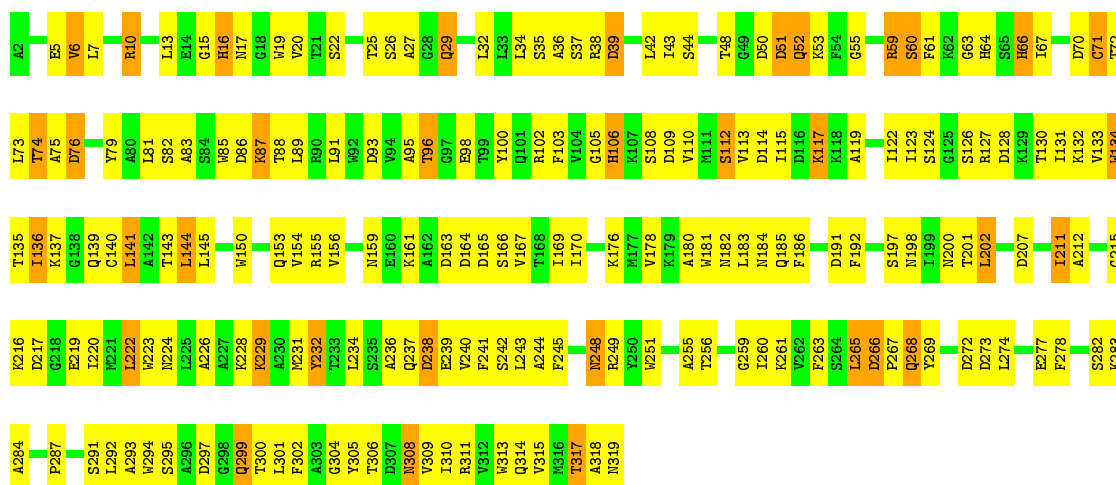
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1: 55% 37% 8%



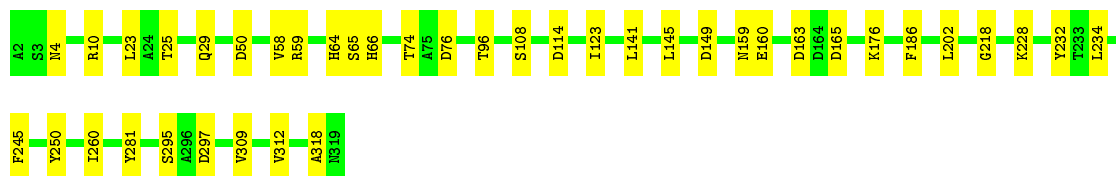
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR: 38% 51% 11%



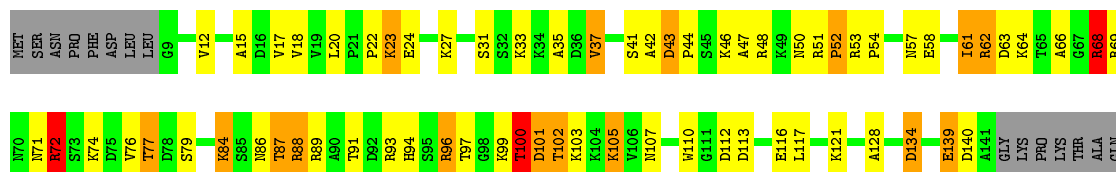
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

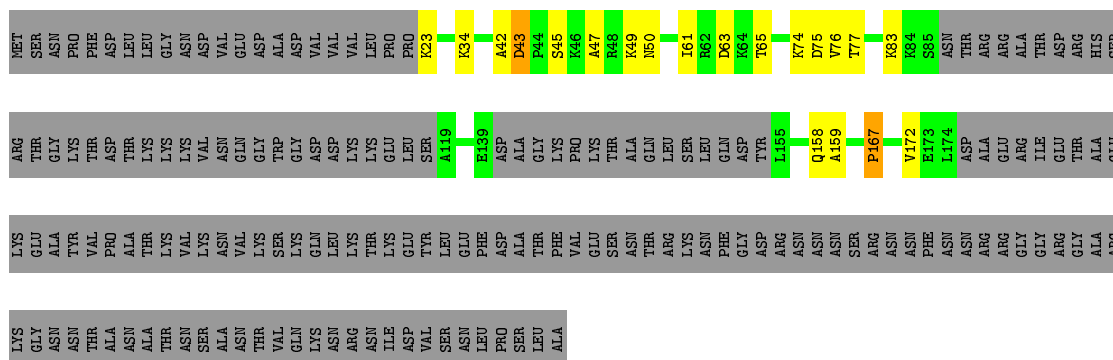
Chain sR: 87% 13%



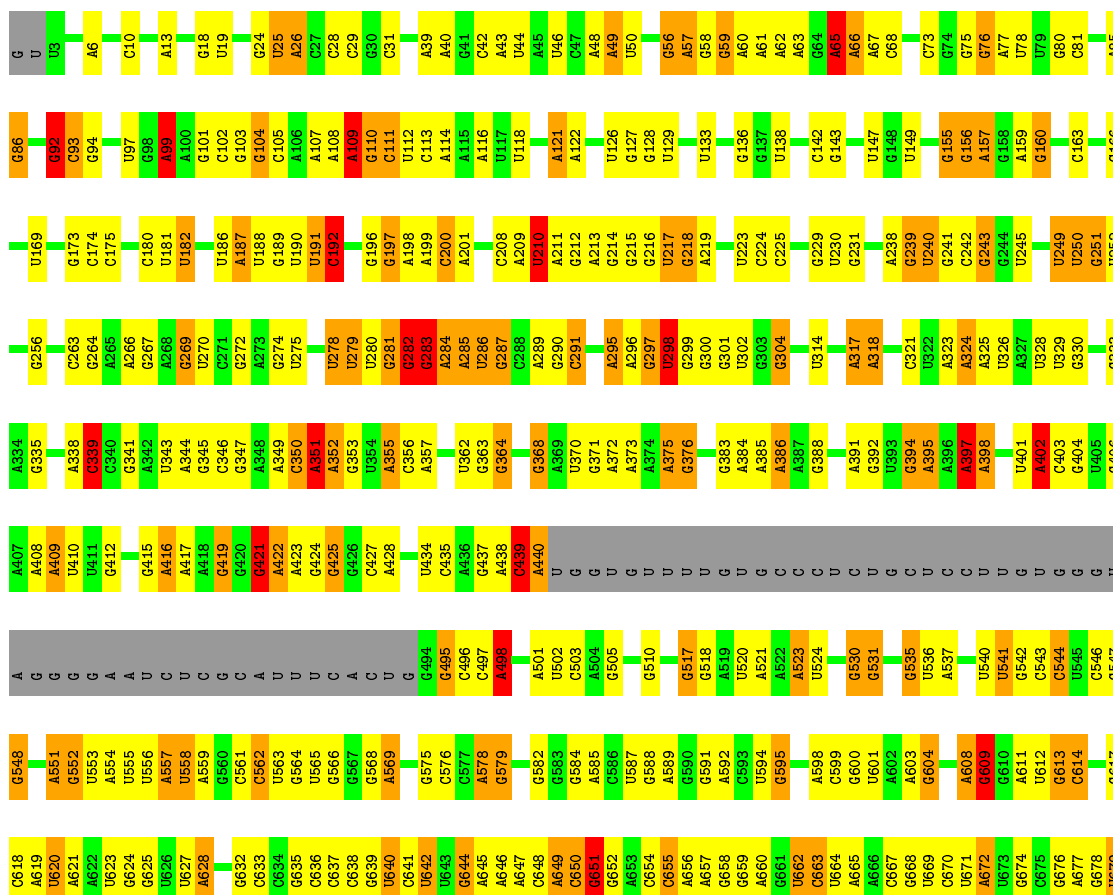
- Molecule 35: Suppressor protein STM1

Chain SM: 29% 22% 6% 42%



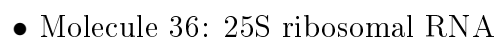


Chain 1:  35% 38% 16% 7%



G1766	U1681	C1385	U1455	C1316	G1246	C1176	U1110	G1029	G953	C893	C818	C749	G680	
C1767	U1682	A1386	A1456	A1317	U1247	G1177	U1111	A1030	U954	G894	U819	G750	U681	
G1770	A1683	G1387	U1457	G1318	C1248	A1178	A1112	A1033	U955	A895	A820	A751	U682	
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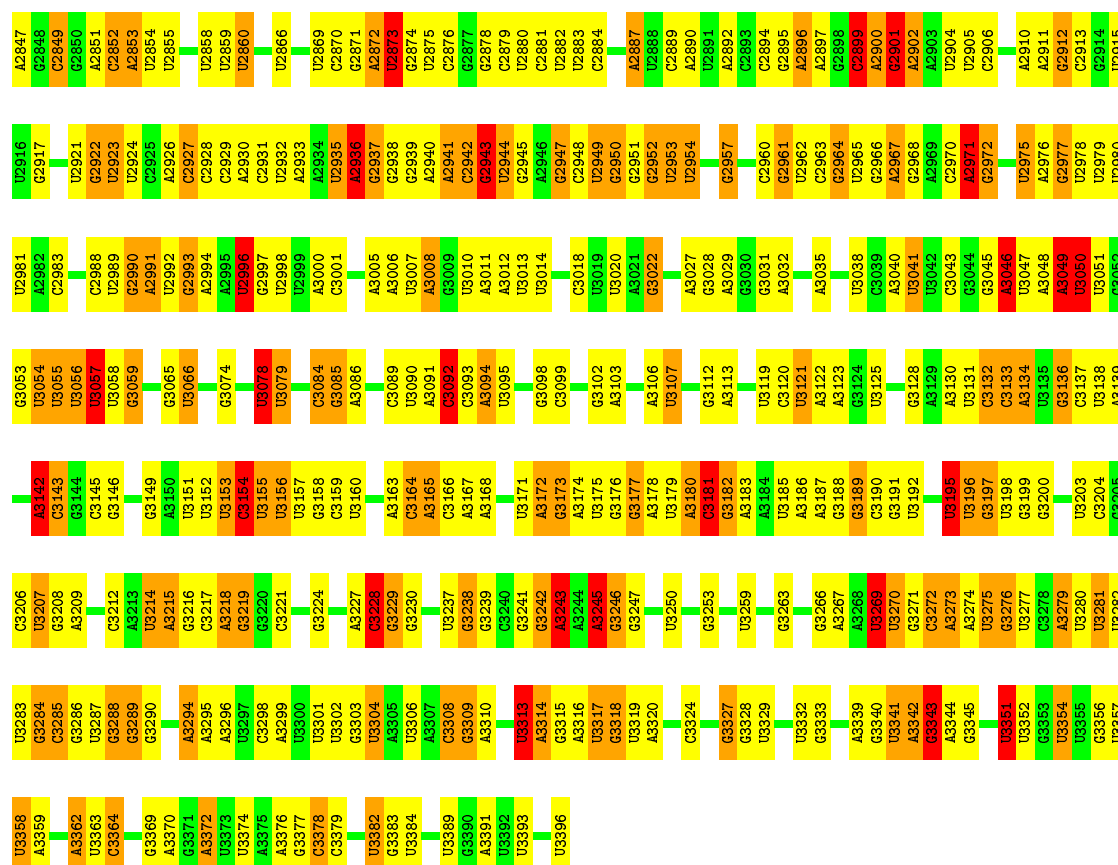
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	U2816						U						



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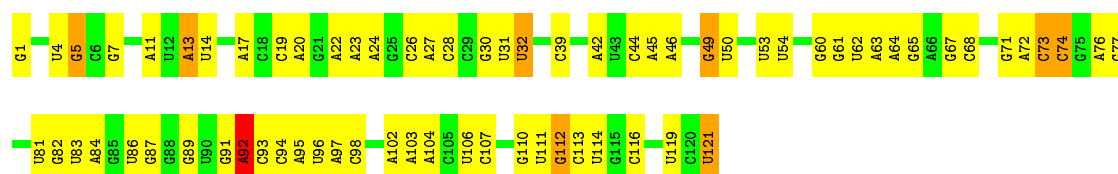






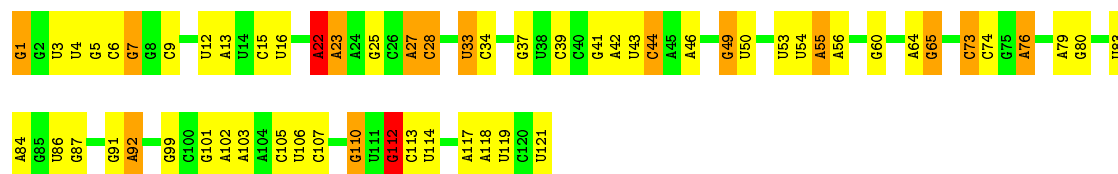
• Molecule 37: 5S ribosomal RNA

Chain 3: 42% 50% 7%



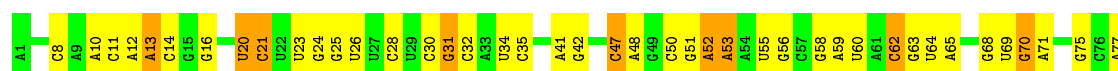
• Molecule 37: 5S ribosomal RNA

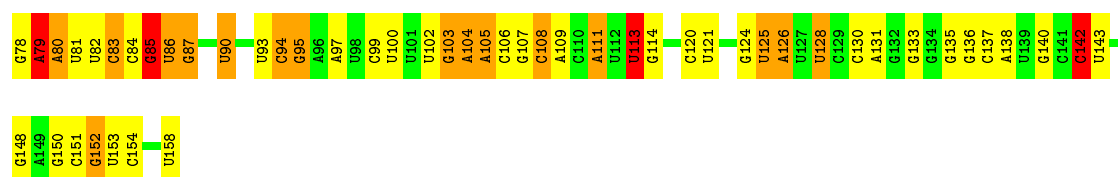
Chain 7: 50% 36% 12%



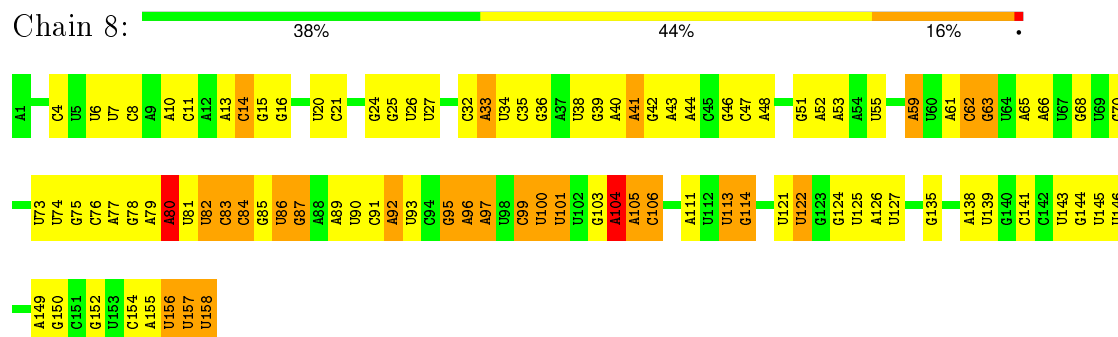
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 41% 41% 16%

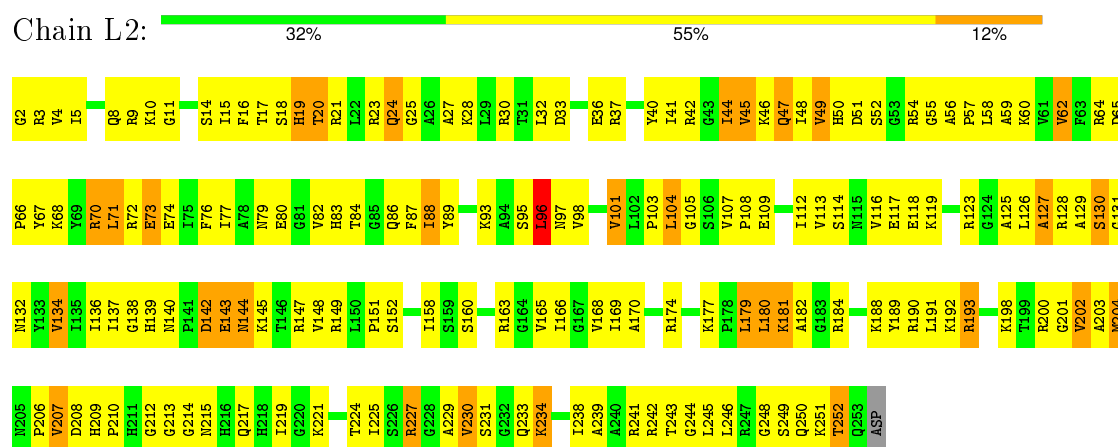




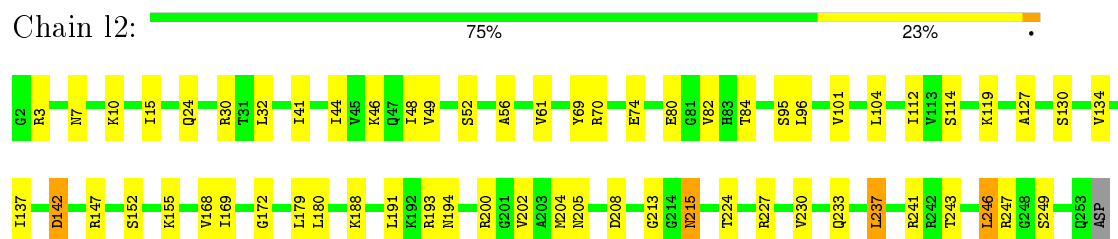
• Molecule 38: 5.8S ribosomal RNA



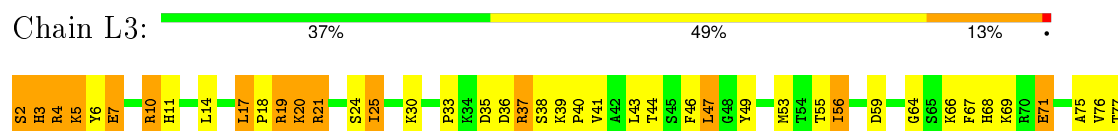
• Molecule 39: 60S ribosomal protein L2-A

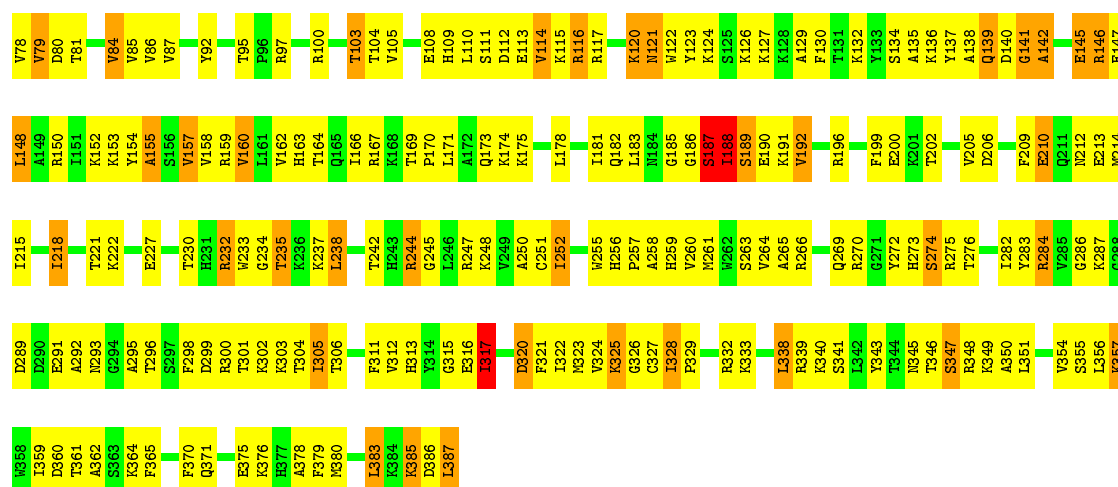


• Molecule 39: 60S ribosomal protein L2-A

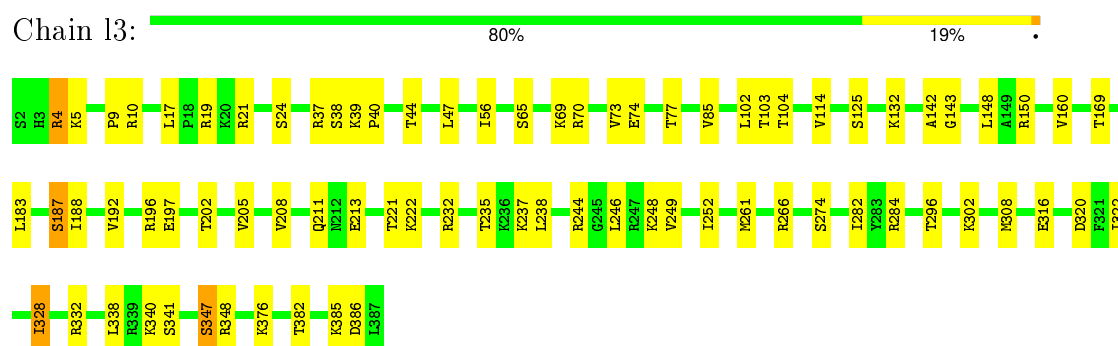


• Molecule 40: 60S ribosomal protein L3

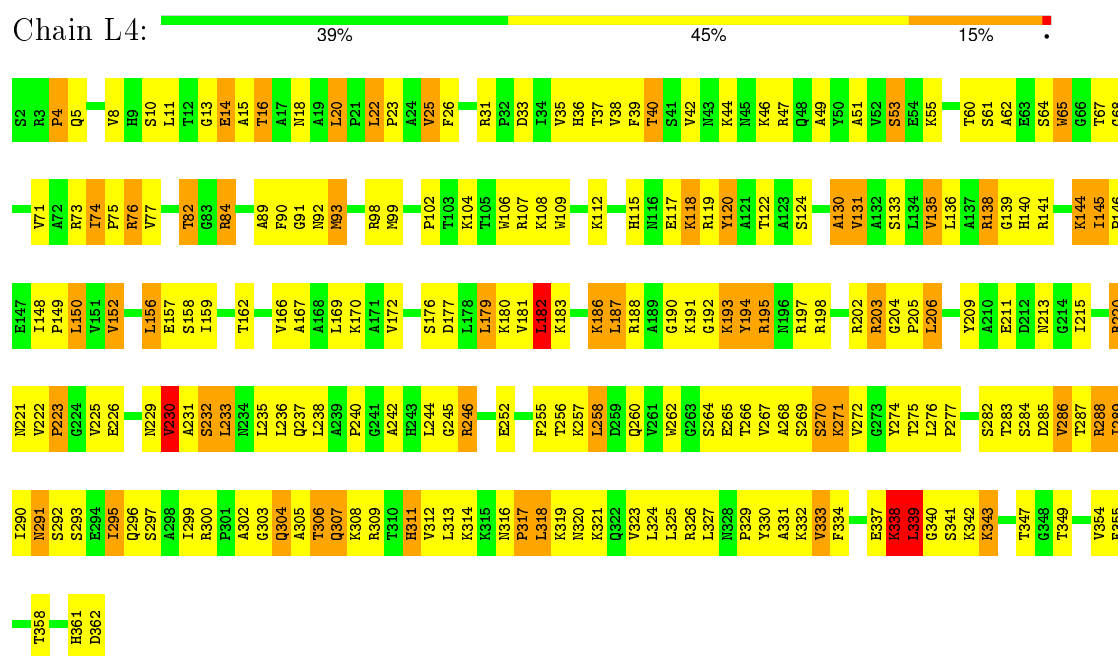




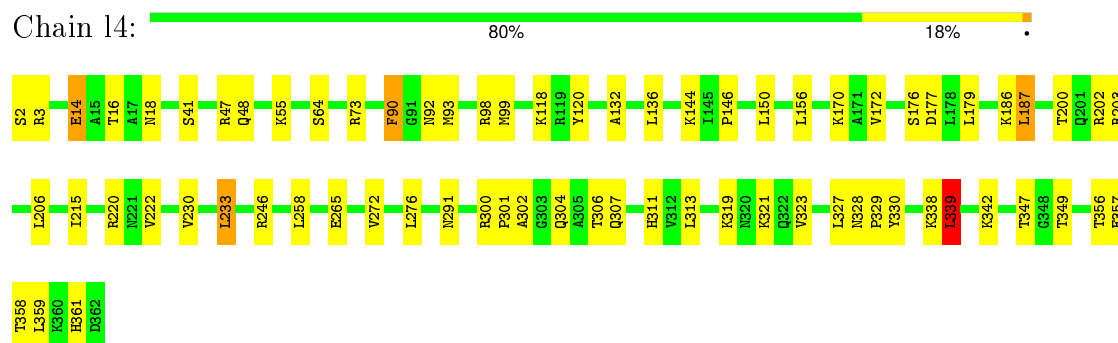
• Molecule 40: 60S ribosomal protein L3



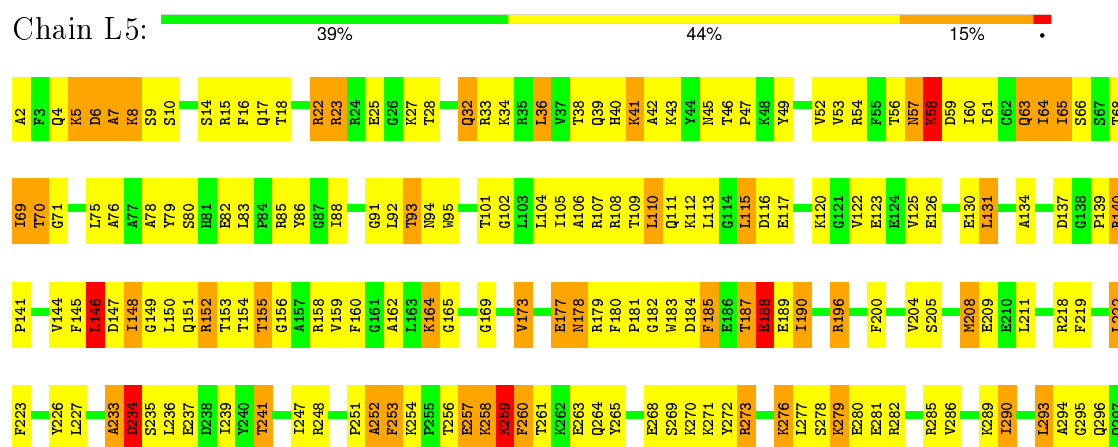
• Molecule 41: 60S ribosomal protein L4-A



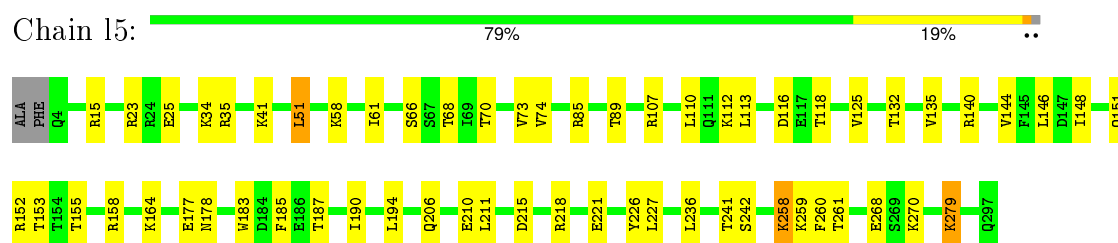
• Molecule 41: 60S ribosomal protein L4-A

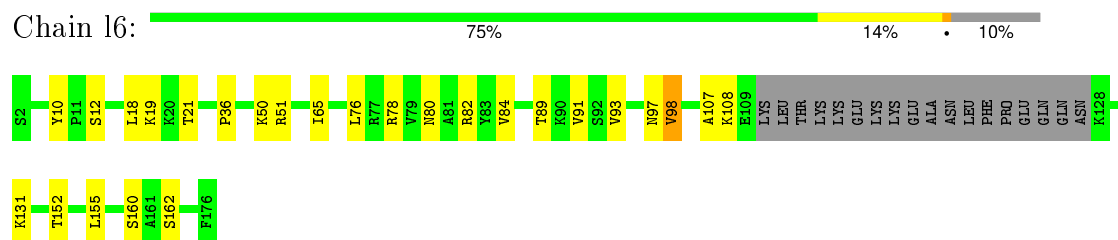


• Molecule 42: 60S ribosomal protein L5

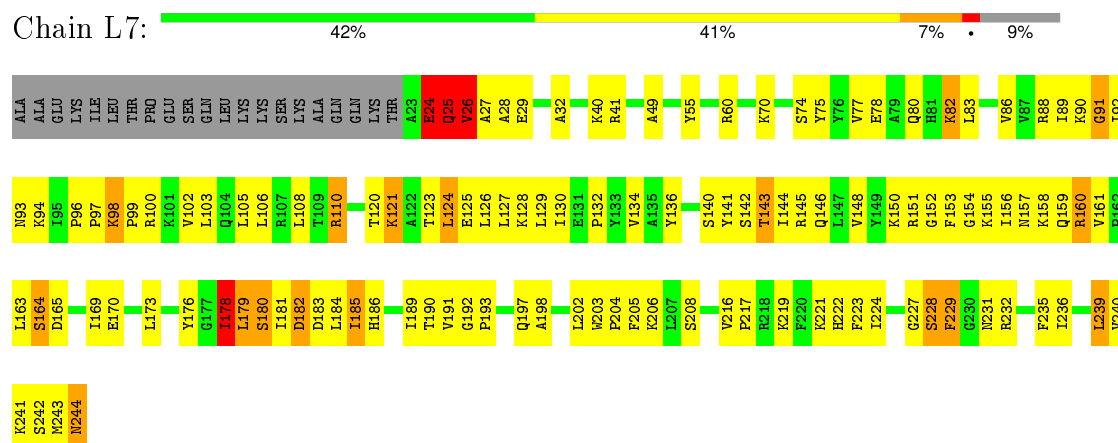


• Molecule 42: 60S ribosomal protein L5

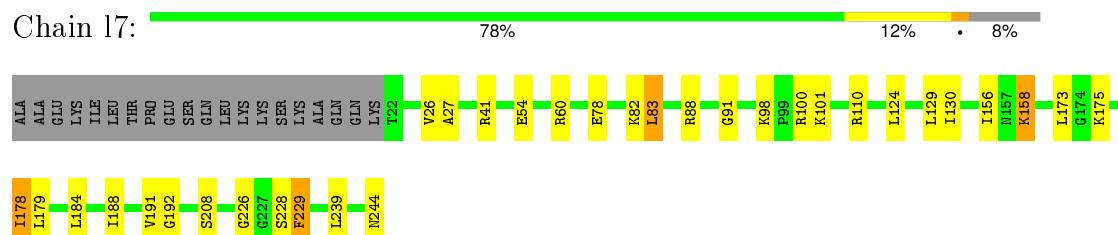




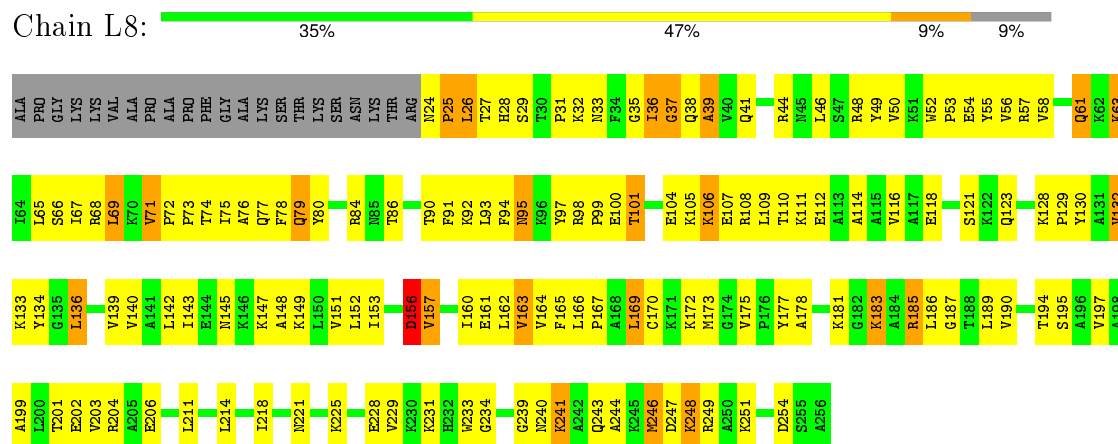
- Molecule 44: 60S ribosomal protein L7-A



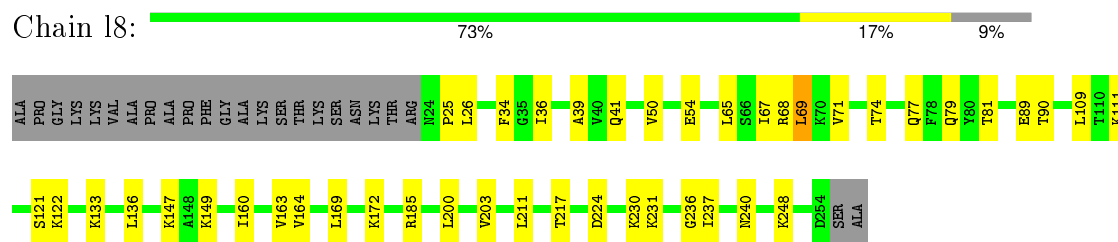
- Molecule 44: 60S ribosomal protein L7-A



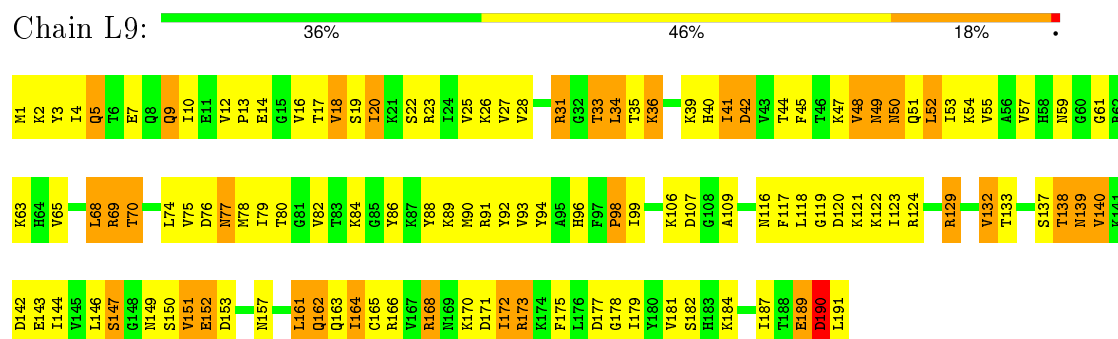
- Molecule 45: 60S ribosomal protein L8-A



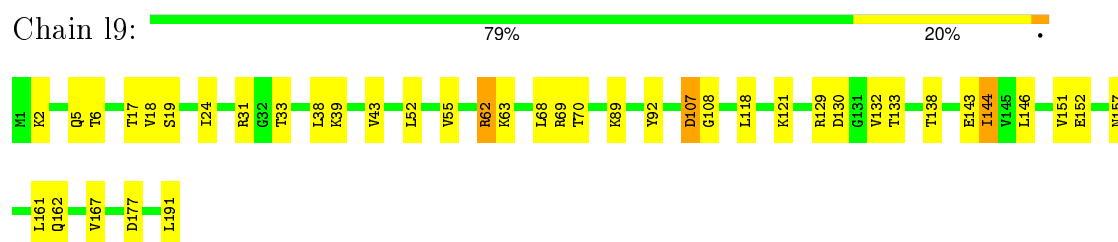
- Molecule 45: 60S ribosomal protein L8-A



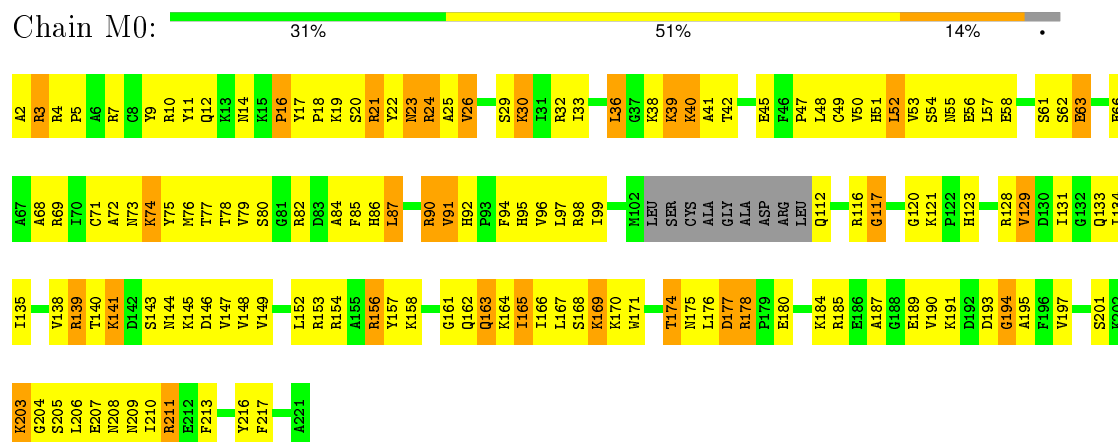
- Molecule 46: 60S ribosomal protein L9-A



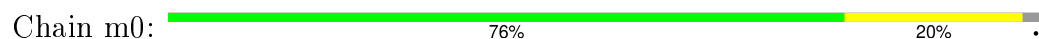
- Molecule 46: 60S ribosomal protein L9-A

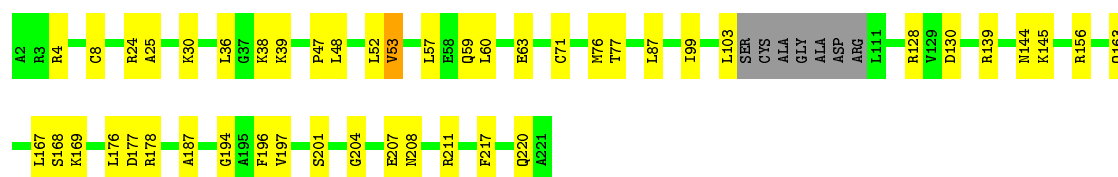


- Molecule 47: 60S ribosomal protein L10



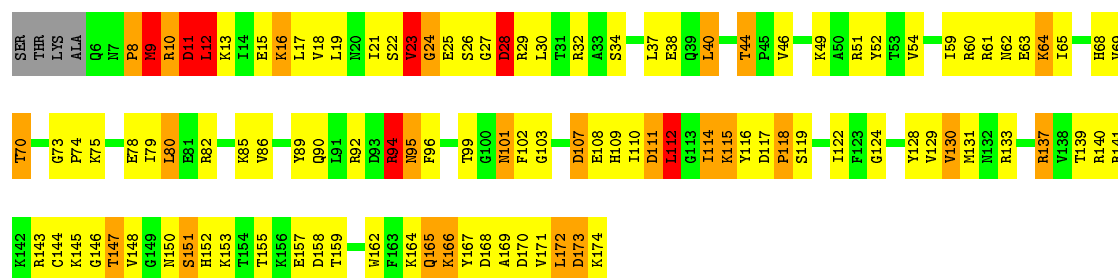
- Molecule 47: 60S ribosomal protein L10





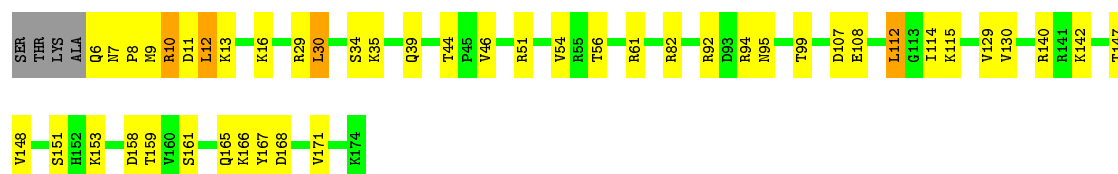
• Molecule 48: 60S ribosomal protein L11-B

Chain M1: 34% 46% 14%



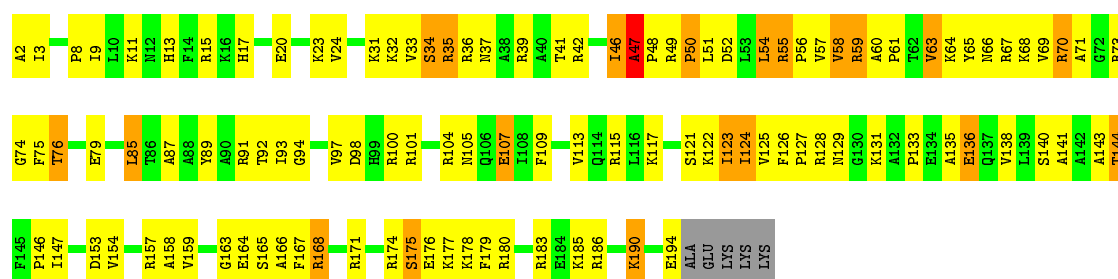
• Molecule 48: 60S ribosomal protein L11-B

Chain m1: 71% 24%



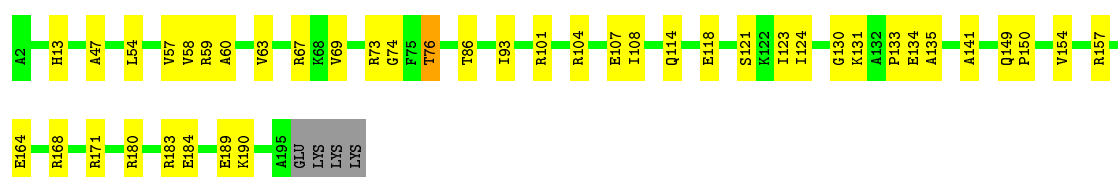
• Molecule 49: 60S ribosomal protein L13-A

Chain M3: 41% 46% 10%

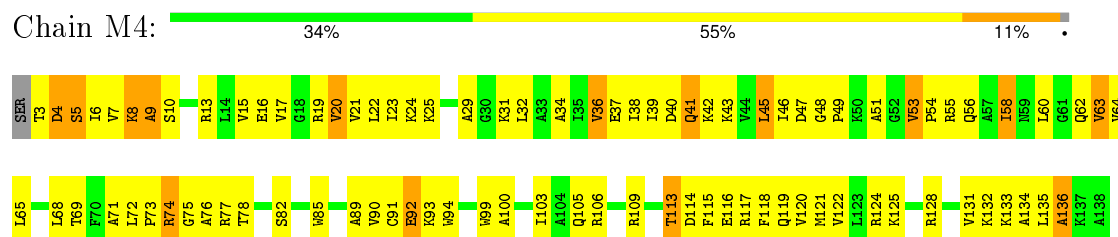


• Molecule 49: 60S ribosomal protein L13-A

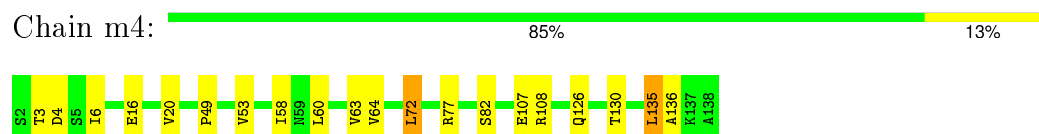
Chain m3: 77% 21%



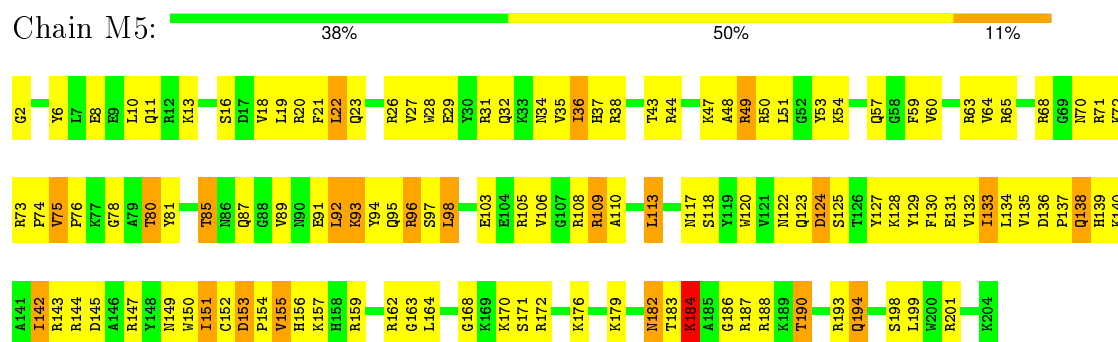
- Molecule 50: 60S ribosomal protein L14-A



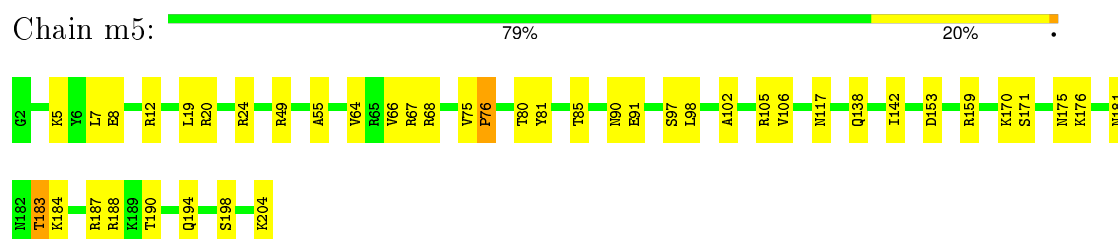
- Molecule 50: 60S ribosomal protein L14-A



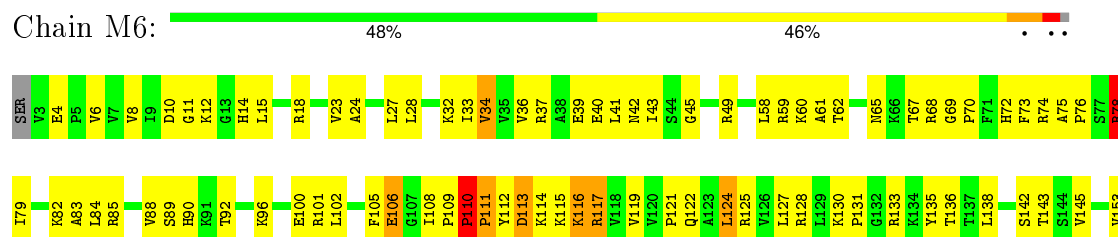
- Molecule 51: 60S ribosomal protein L15-A

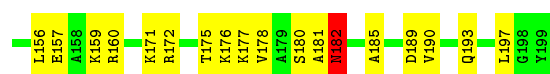


- Molecule 51: 60S ribosomal protein L15-A



- Molecule 52: 60S ribosomal protein L16-A





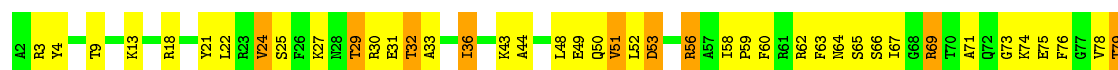
• Molecule 52: 60S ribosomal protein L16-A

Chain m6: 83% 16% ..



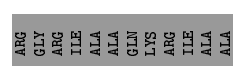
• Molecule 53: 60S ribosomal protein L17-A

Chain M7: 50% 39% 11%



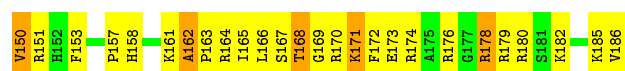
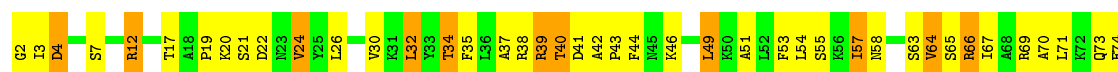
• Molecule 53: 60S ribosomal protein L17-A

Chain m7: 72% 13% 15%

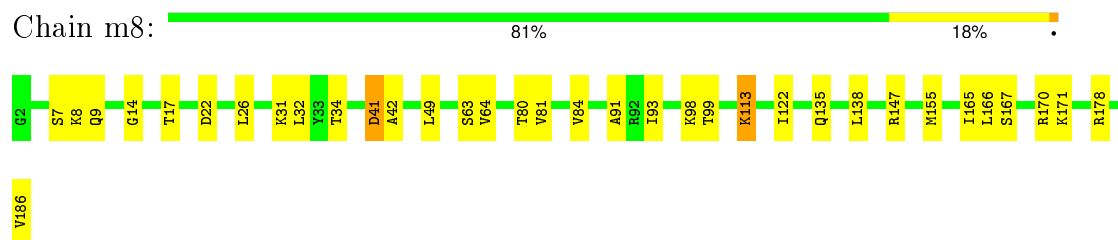


• Molecule 54: 60S ribosomal protein L18-A

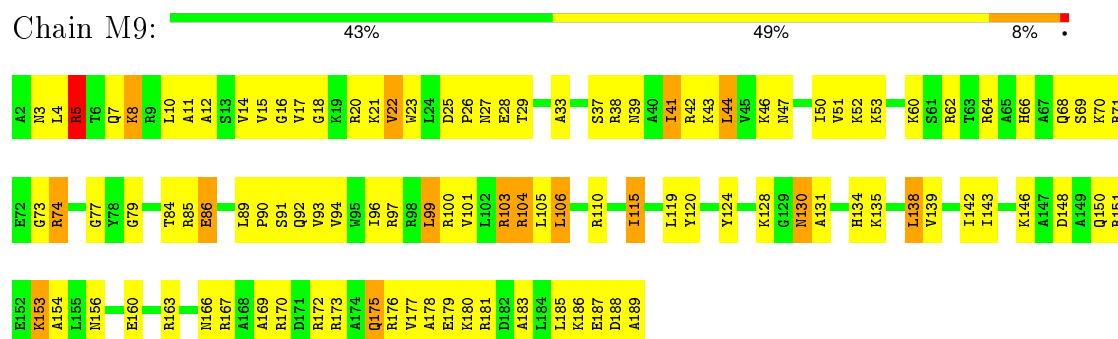
Chain M8: 41% 45% 13%



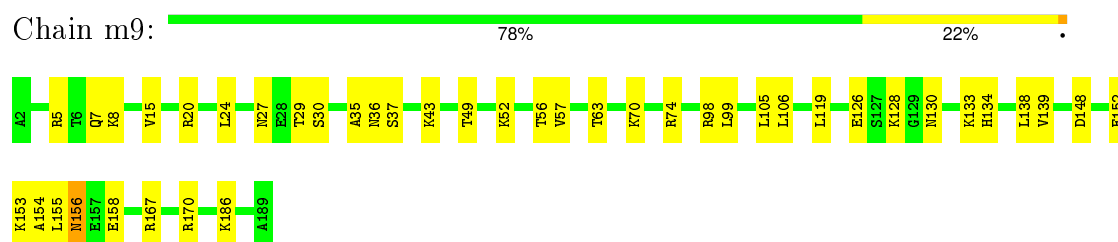
• Molecule 54: 60S ribosomal protein L18-A



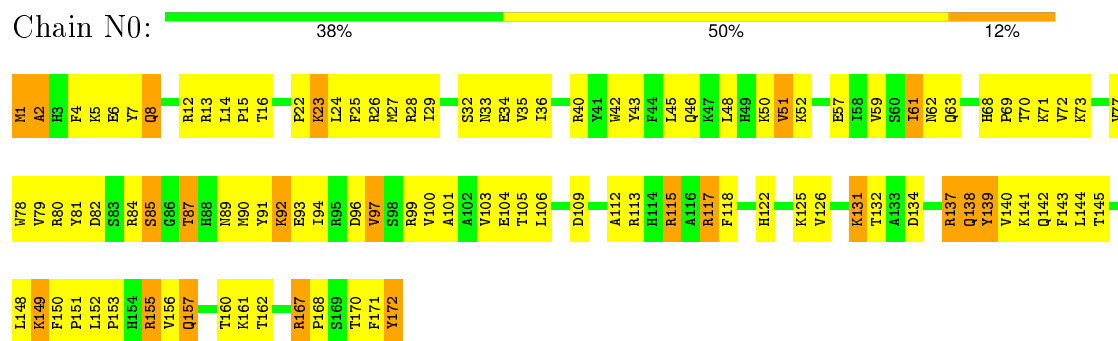
- Molecule 55: 60S ribosomal protein L19-A



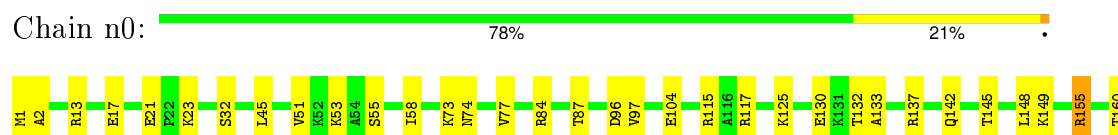
- Molecule 55: 60S ribosomal protein L19-A



- Molecule 56: 60S ribosomal protein L20-A



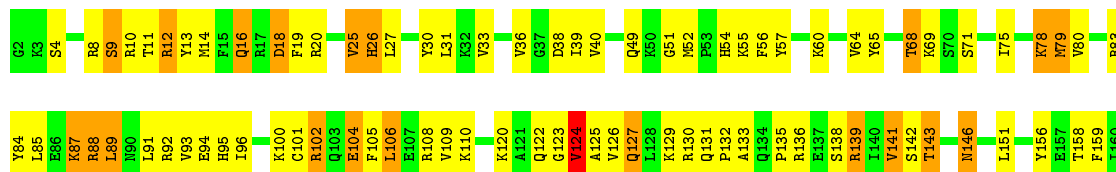
- Molecule 56: 60S ribosomal protein L20-A





- Molecule 57: 60S ribosomal protein L21-A

Chain N1: 47% 40% 13%



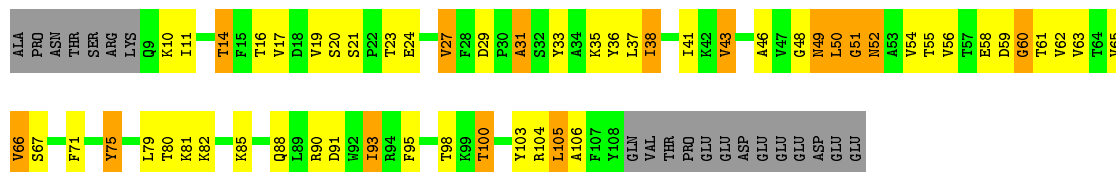
- Molecule 57: 60S ribosomal protein L21-A

Chain n1: 82% 17%



- Molecule 58: 60S ribosomal protein L22-A

Chain N2: 37% 34% 13% 17%



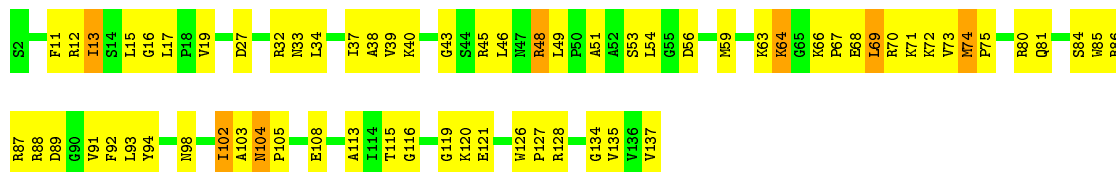
- Molecule 58: 60S ribosomal protein L22-A

Chain n2: 66% 14% 18%

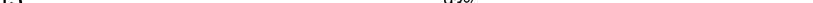


- Molecule 59: 60S ribosomal protein L23-A

Chain N3: 51% 44% 5%



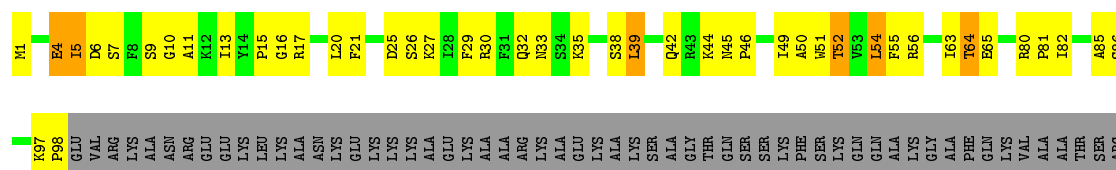
- Molecule 59: 60S ribosomal protein L23-A

Chain n3:  93% 7%

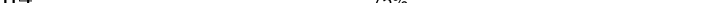


- Molecule 60: 60S ribosomal protein L24-A

Chain N4:  34% 25% . 37%



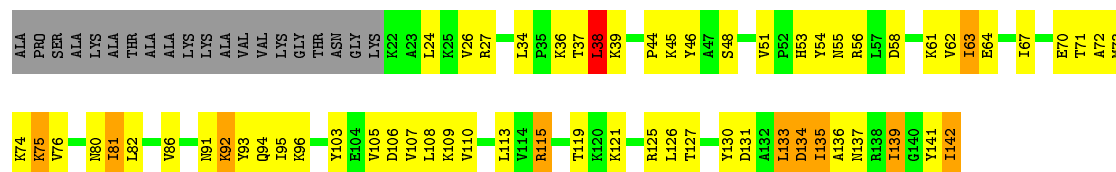
- Molecule 60: 60S ribosomal protein L24-A

Chain n4:  75% 12% • 13%



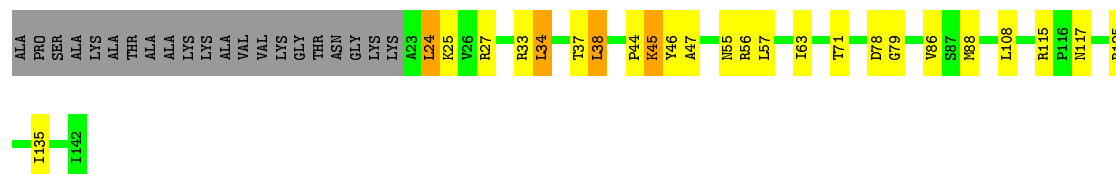
- Molecule 61: 60S ribosomal protein L25

Chain N5: 



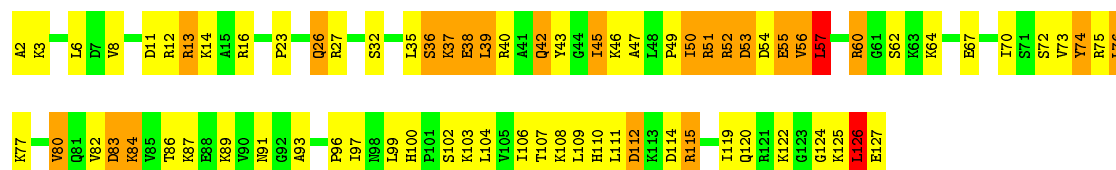
- Molecule 61: 60S ribosomal protein L25

Chain n5:  67% 15% • 15%

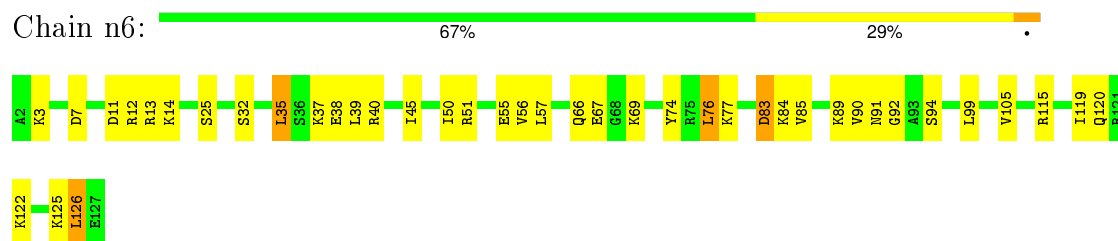


- Molecule 62: 60S ribosomal protein L26-A

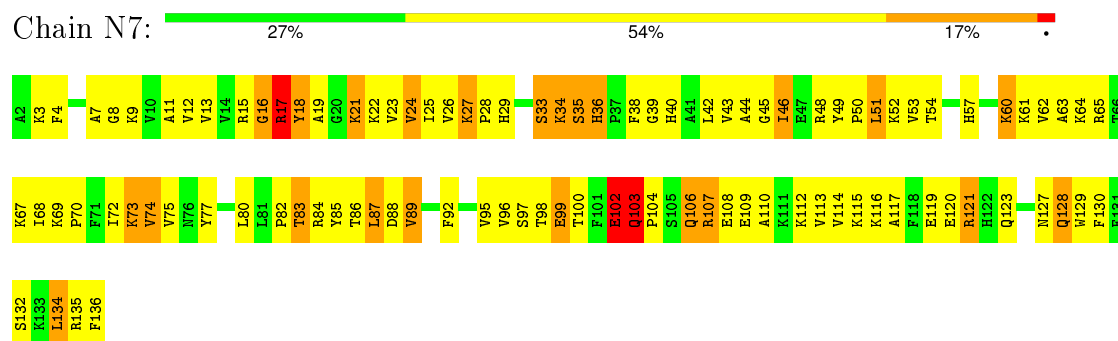
Chain N6: 



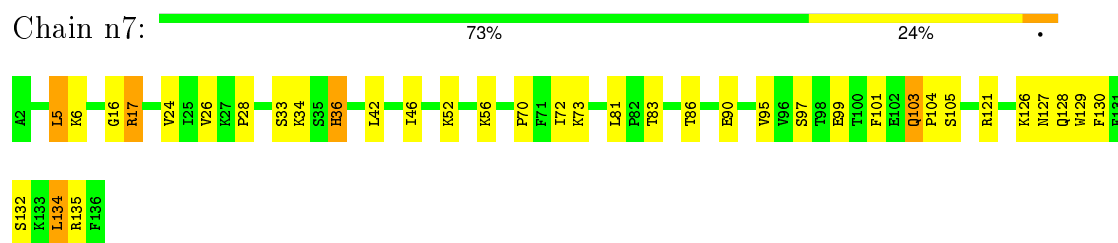
- Molecule 62: 60S ribosomal protein L26-A



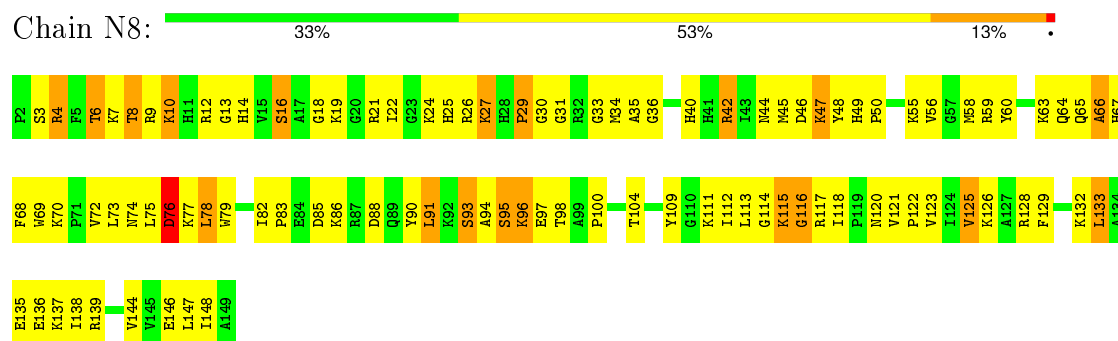
- Molecule 63: 60S ribosomal protein L27-A



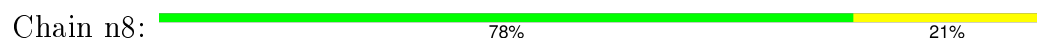
- Molecule 63: 60S ribosomal protein L27-A

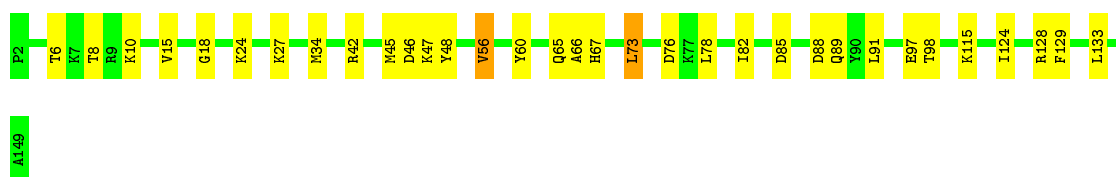


- Molecule 64: 60S ribosomal protein L28



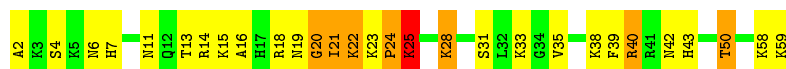
- Molecule 64: 60S ribosomal protein L28





- Molecule 65: 60S ribosomal protein L29

Chain N9: 50% 36% 12% .



- Molecule 65: 60S ribosomal protein L29

Chain n9: 74% 22% . .



- Molecule 66: 60S ribosomal protein L30

Chain O0: 35% 44% 13% . 7%



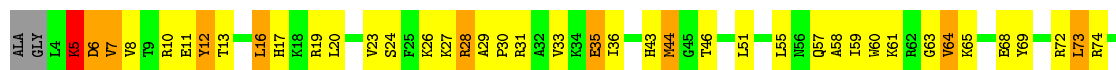
- Molecule 66: 60S ribosomal protein L30

Chain o0: 76% 20% .



- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 41% 44% 10% . .

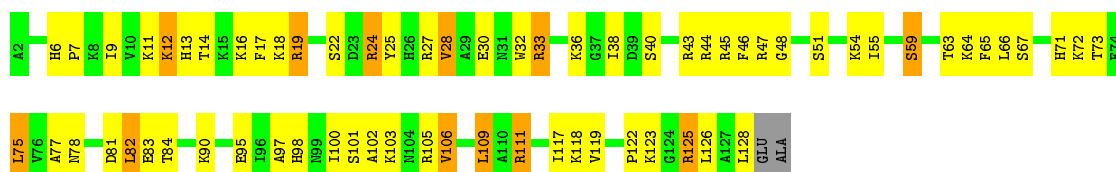


- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 68% 27% . . .

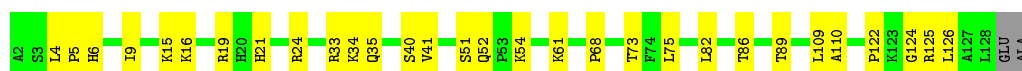
- Molecule 68: 60S ribosomal protein L32

Chain O2:  47% 43% 9%



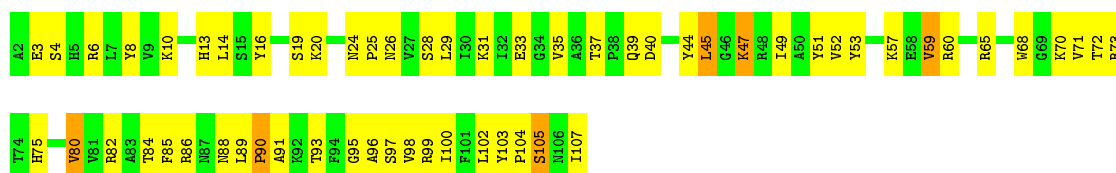
- Molecule 68: 60S ribosomal protein L32

Chain o2:  75% 23%

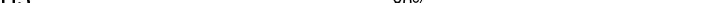


- Molecule 69: 60S ribosomal protein L33-A

Chain 03:  44% 50% 6%

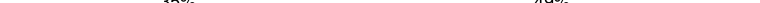


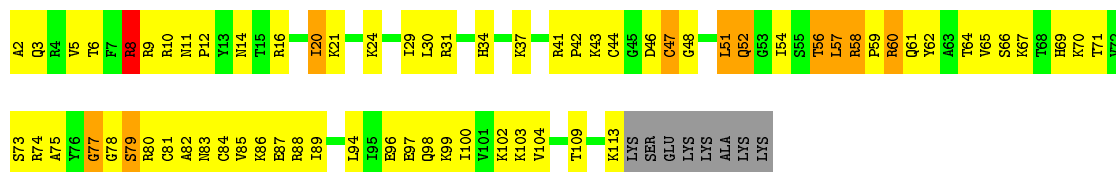
- Molecule 69: 60S ribosomal protein L33-A

Chain o3:  80% 18%




- Molecule 70: 60S ribosomal protein L34-A

Chain O4:  35% 49% 8% • 7%



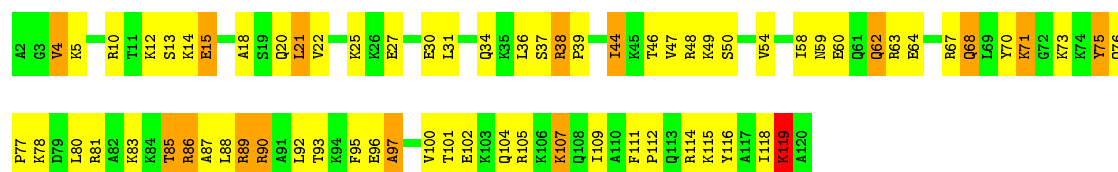
- Molecule 70: 60S ribosomal protein L34-A

Chain o4: 




- Molecule 71: 60S ribosomal protein L35-A

Chain O5: 



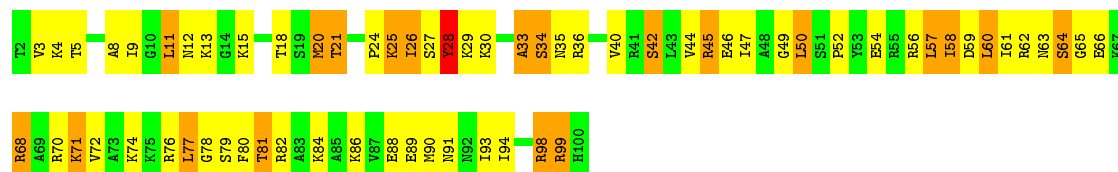
- Molecule 71: 60S ribosomal protein L35-A

Chain o5: 



- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 



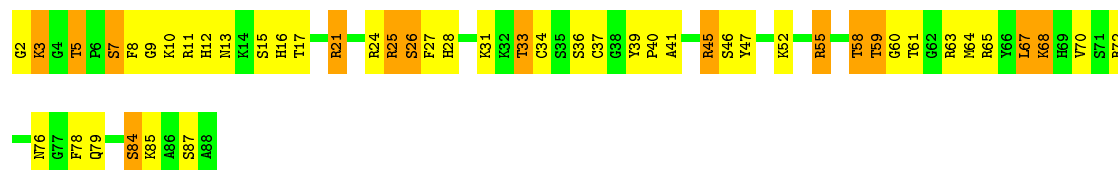
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 




- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 



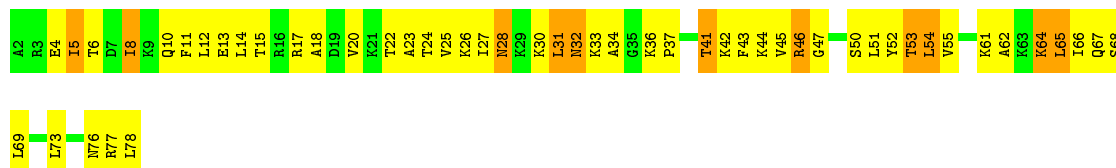
- Molecule 73: 60S ribosomal protein L37-A

Chain o7:  85% 14%



- Molecule 74: 60S ribosomal protein L38

Chain O8:  32% 53% 14%



- Molecule 74: 60S ribosomal protein L38

Chain o8:  70% 30%




- Molecule 75: 60S ribosomal protein L39

Chain O9:  40% 52% 8%



- Molecule 75: 60S ribosomal protein L39

Chain o9:  82% 18%




- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  60% 27% 12%

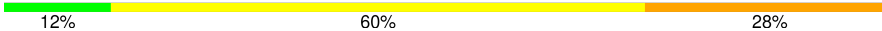


- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  83% 15%



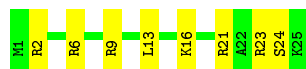
- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  12% 60% 28%



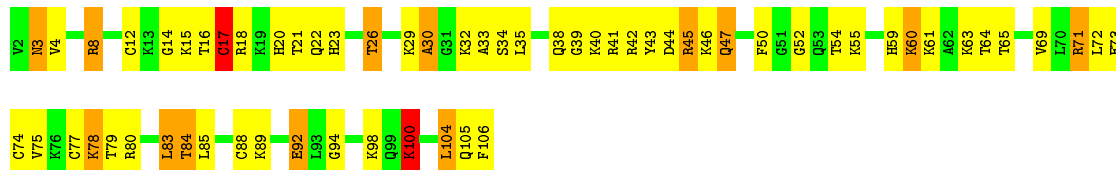
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:  68% 32%




- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  41% 45% 12%



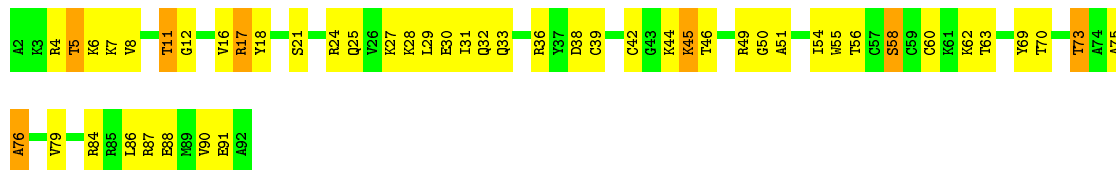
- Molecule 78: 60S ribosomal protein L42-A

Chain q2:  80% 18%




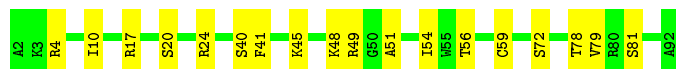
- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:  46% 46% 8%



- Molecule 79: 60S ribosomal protein L43-A

Chain q3:  80% 20%



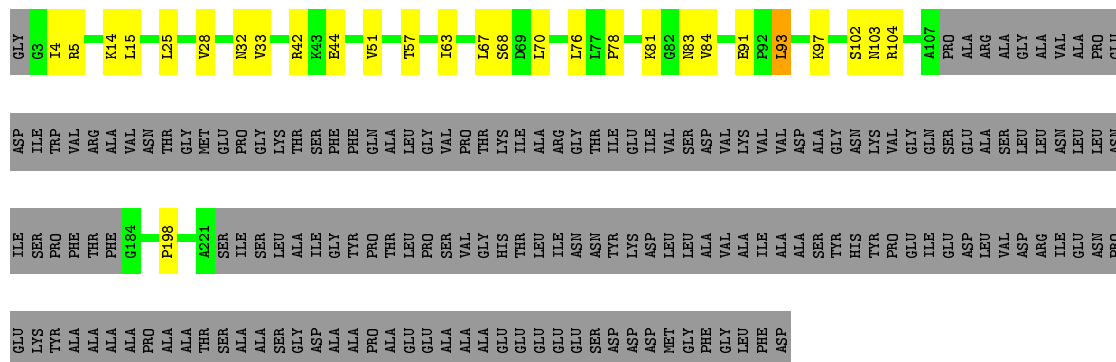
- Molecule 80: 40S ribosomal protein S30-A

Chain e0:  71% 27%



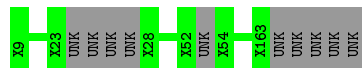
- Molecule 81: 60S acidic ribosomal protein P0

Chain p0: 37% 9% 54%



- Molecule 82: unknown protein chain m2

Chain m2: 94% 6%



- Molecule 83: unknown protein chain p1

Chain p1: 100%

There are no outlier residues recorded for this chain.

- Molecule 84: unknown protein chain p2

Chain p2: 100%

There are no outlier residues recorded for this chain.

## 4 Data and refinement statistics

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

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	436.64Å 287.69Å 304.39Å 90.00° 98.98° 90.00°	Depositor
Resolution (Å)	300.66 – 3.10	Depositor
% Data completeness (in resolution range)	98.7 (300.66-3.10)	Depositor
$R_{merge}$	0.40	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.33 (at 3.07Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, $R_{free}$	0.198 , 0.247	Depositor
Wilson B-factor (Å <sup>2</sup> )	71.8	Xtriage
Anisotropy	0.204	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.29$	Xtriage
Outliers	1 of 1321093 reflections (0.000%)	Xtriage
Total number of atoms	411881	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	68.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.71% of the height of the origin peak. No significant pseudotranslation is detected.*

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

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 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: ZN, OHX, MG, ZBA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	2	0.68	3/42442 (0.0%)	1.27	308/66130 (0.5%)
1	6	0.78	10/42765 (0.0%)	1.34	367/66634 (0.6%)
2	S0	0.43	0/1617	0.65	0/2215
2	s0	0.49	0/1623	0.71	0/2222
3	S1	0.38	0/1735	0.65	1/2335 (0.0%)
3	s1	0.49	0/1748	0.69	0/2352
4	S2	0.48	0/1665	0.68	0/2263
4	s2	0.51	0/1665	0.73	1/2263 (0.0%)
5	S3	0.45	0/1759	0.64	0/2368
5	s3	0.47	0/1759	0.62	0/2368
6	S4	0.47	0/2109	0.69	1/2839 (0.0%)
6	s4	0.50	0/2109	0.71	1/2839 (0.0%)
7	S5	0.40	0/1629	0.61	0/2202
7	s5	0.45	0/1629	0.65	0/2202
8	S6	0.45	0/1823	0.64	1/2439 (0.0%)
8	s6	0.49	0/1779	0.68	0/2379
9	S7	0.39	0/1506	0.64	0/2028
9	s7	0.45	0/1516	0.71	2/2043 (0.1%)
10	S8	0.52	0/1514	0.70	1/2021 (0.0%)
10	s8	0.56	0/1514	0.76	2/2021 (0.1%)
11	S9	0.44	0/1519	0.64	0/2035
11	s9	0.53	0/1519	0.74	0/2035
12	C0	0.45	0/790	0.73	3/1069 (0.3%)
12	c0	0.39	0/777	0.65	3/1049 (0.3%)
13	C1	0.52	0/1240	0.68	0/1675
13	c1	0.57	0/1194	0.75	2/1610 (0.1%)
14	C2	0.37	0/900	0.66	1/1224 (0.1%)
14	c2	0.30	0/900	0.61	1/1224 (0.1%)
15	C3	0.48	0/1215	0.68	2/1638 (0.1%)
15	c3	0.57	0/1215	0.73	0/1638
16	C4	0.37	0/901	0.66	0/1217
16	c4	0.47	0/960	0.73	1/1290 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	C5	0.47	0/998	0.69	0/1341
17	c5	0.45	0/1060	0.68	1/1426 (0.1%)
18	C6	0.46	0/1125	0.72	3/1510 (0.2%)
18	c6	0.49	0/1131	0.70	0/1518
19	C7	0.45	0/935	0.66	0/1254
19	c7	0.47	0/914	0.67	0/1224
20	C8	0.47	0/1211	0.64	0/1628
20	c8	0.51	0/1211	0.69	1/1628 (0.1%)
21	C9	0.45	0/1130	0.62	0/1517
21	c9	0.49	0/1130	0.67	1/1517 (0.1%)
22	D0	0.41	0/865	0.67	0/1169
22	d0	0.44	0/892	0.66	0/1205
23	D1	0.45	0/693	0.65	0/935
23	d1	0.53	0/693	0.73	0/935
24	D2	0.49	0/1038	0.72	2/1395 (0.1%)
24	d2	0.58	0/1038	0.74	0/1395
25	D3	0.61	0/1139	0.77	1/1518 (0.1%)
25	d3	0.63	0/1139	0.77	1/1518 (0.1%)
26	D4	0.43	0/1087	0.61	0/1449
26	d4	0.47	0/1087	0.68	0/1449
27	D5	0.40	0/571	0.72	0/768
27	d5	0.40	0/566	0.65	0/761
28	D6	0.44	0/782	0.66	0/1047
28	d6	0.56	0/782	0.69	0/1047
29	D7	0.43	0/620	0.65	0/838
29	d7	0.49	0/620	0.70	0/838
30	D8	0.37	0/499	0.58	0/670
30	d8	0.42	0/499	0.65	0/670
31	D9	0.55	0/452	0.69	1/600 (0.2%)
31	d9	0.54	0/452	0.75	0/600
32	E0	0.43	0/483	0.61	0/643
33	E1	0.43	0/577	0.78	0/770
33	e1	0.42	0/619	0.75	0/822
34	SR	0.39	0/2494	0.59	0/3393
34	sR	0.39	0/2495	0.58	0/3395
35	SM	0.47	0/1113	0.68	2/1502 (0.1%)
35	sM	0.47	0/683	0.66	1/923 (0.1%)
36	1	1.00	50/75394 (0.1%)	1.56	1409/117545 (1.2%)
36	5	1.02	57/75414 (0.1%)	1.57	1376/117575 (1.2%)
37	3	0.82	0/2883	1.31	19/4491 (0.4%)
37	7	0.99	2/2883 (0.1%)	1.51	45/4491 (1.0%)
38	4	0.94	1/3746 (0.0%)	1.48	50/5832 (0.9%)
38	8	0.90	0/3746	1.44	40/5832 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	L2	0.64	0/1948	0.85	1/2617 (0.0%)
39	l2	0.70	0/1946	0.88	4/2614 (0.2%)
40	L3	0.69	0/3146	0.81	0/4228
40	l3	0.76	0/3146	0.83	2/4228 (0.0%)
41	L4	0.73	1/2800 (0.0%)	0.88	8/3790 (0.2%)
41	l4	0.68	0/2800	0.81	2/3790 (0.1%)
42	L5	0.53	0/2425	0.66	1/3271 (0.0%)
42	l5	0.67	0/2408	0.75	1/3248 (0.0%)
43	L6	0.68	0/1260	0.79	0/1694
43	l6	0.70	0/1269	0.80	0/1705
44	L7	0.73	0/1821	0.84	0/2451
44	l7	0.77	0/1828	0.84	3/2461 (0.1%)
45	L8	0.51	0/1836	0.65	0/2481
45	l8	0.52	0/1795	0.67	2/2429 (0.1%)
46	L9	0.61	1/1539 (0.1%)	0.75	0/2073
46	l9	0.66	0/1539	0.77	0/2073
47	M0	0.63	0/1741	0.75	0/2335
47	m0	0.67	1/1758 (0.1%)	0.75	0/2358
48	M1	0.51	0/1374	0.72	1/1842 (0.1%)
48	m1	0.62	0/1374	0.80	3/1842 (0.2%)
49	M3	0.71	0/1568	0.81	2/2106 (0.1%)
49	m3	0.60	0/1573	0.82	0/2113
50	M4	0.68	0/1068	0.78	0/1438
50	m4	0.71	0/1074	0.79	2/1446 (0.1%)
51	M5	0.71	1/1757 (0.1%)	0.76	1/2354 (0.0%)
51	m5	0.63	0/1757	0.76	0/2354
52	M6	0.43	0/1585	0.60	1/2128 (0.0%)
52	m6	0.50	0/1585	0.64	0/2128
53	M7	0.72	0/1443	0.82	0/1944
53	m7	0.85	0/1250	0.86	1/1683 (0.1%)
54	M8	0.69	0/1465	0.86	2/1965 (0.1%)
54	m8	0.66	0/1465	0.86	0/1965
55	M9	0.58	0/1538	0.69	0/2050
55	m9	0.60	0/1538	0.71	0/2050
56	N0	0.69	0/1481	0.79	0/1990
56	n0	0.75	0/1481	0.85	1/1990 (0.1%)
57	N1	0.66	0/1300	0.75	0/1743
57	n1	0.78	2/1300 (0.2%)	0.80	0/1743
58	N2	0.43	0/812	0.61	0/1099
58	n2	0.46	0/794	0.65	0/1076
59	N3	0.68	0/1018	0.77	0/1369
59	n3	0.77	0/1018	0.82	0/1369
60	N4	0.51	0/712	0.67	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
60	n4	0.61	0/1052	0.73	0/1398
61	N5	0.57	0/979	0.72	1/1321 (0.1%)
61	n5	0.57	0/974	0.74	1/1314 (0.1%)
62	N6	0.64	0/1004	0.83	2/1341 (0.1%)
62	n6	0.60	0/1004	0.80	2/1341 (0.1%)
63	N7	0.49	0/1118	0.68	0/1497
63	n7	0.47	0/1118	0.65	0/1497
64	N8	0.68	0/1204	0.81	1/1612 (0.1%)
64	n8	0.72	0/1204	0.85	1/1612 (0.1%)
65	N9	0.63	0/473	0.75	0/629
65	n9	0.70	0/473	0.90	2/629 (0.3%)
66	O0	0.50	0/751	0.65	0/1008
66	o0	0.52	0/775	0.68	0/1040
67	O1	0.61	0/890	0.75	0/1196
67	o1	0.65	0/897	0.84	2/1205 (0.2%)
68	O2	0.78	0/1041	0.85	0/1394
68	o2	0.75	0/1041	0.84	0/1394
69	O3	0.86	0/868	0.84	0/1168
69	o3	0.85	0/868	0.82	0/1168
70	O4	0.58	1/890 (0.1%)	0.81	3/1189 (0.3%)
70	o4	0.55	0/890	0.74	0/1189
71	O5	0.63	0/978	0.76	0/1301
71	o5	0.52	0/974	0.67	0/1297
72	O6	0.60	0/778	0.75	0/1034
72	o6	0.55	0/777	0.73	0/1033
73	O7	0.70	0/696	0.91	3/923 (0.3%)
73	o7	0.70	0/696	0.85	1/923 (0.1%)
74	O8	0.49	0/618	0.59	0/826
74	o8	0.44	0/614	0.63	0/822
75	O9	0.70	0/443	0.82	0/588
75	o9	0.61	0/443	0.81	0/588
76	Q0	0.61	0/423	0.79	2/562 (0.4%)
76	q0	0.75	0/423	0.83	0/562
77	Q1	0.60	0/234	0.98	1/300 (0.3%)
77	q1	0.63	0/234	0.87	0/300
78	Q2	0.79	1/860 (0.1%)	0.86	2/1136 (0.2%)
78	q2	0.73	1/860 (0.1%)	0.81	2/1136 (0.2%)
79	Q3	0.65	0/701	0.80	1/934 (0.1%)
79	q3	0.68	0/701	0.83	1/934 (0.1%)
80	e0	0.43	0/499	0.72	0/665
81	p0	0.44	0/1091	0.57	0/1472
All	All	0.80	132/430817 (0.0%)	1.24	3717/632520 (0.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
7	S5	0	1
7	s5	0	2
9	S7	0	1
16	C4	0	2
16	c4	0	1
17	C5	0	1
17	c5	0	1
19	C7	0	1
20	c8	0	1
22	d0	0	1
27	D5	0	3
33	E1	0	2
33	e1	0	1
39	L2	0	1
39	l2	0	1
42	L5	0	1
42	l5	0	1
43	L6	0	2
43	l6	0	1
44	l7	0	2
49	m3	0	1
52	M6	0	1
52	m6	0	1
54	m8	0	1
56	n0	0	2
57	N1	0	1
63	n7	0	1
64	n8	0	2
65	N9	0	2
65	n9	0	2
67	O1	0	1
67	o1	0	2
68	o2	0	1
All	All	0	45

All (132) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	11.18	2.01	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1152	G	N9-C8	9.45	1.44	1.37
36	5	1152	G	N9-C4	-9.34	1.30	1.38
78	q2	17	CYS	CB-SG	9.32	1.98	1.82
36	1	2714	G	N9-C4	-7.82	1.31	1.38
1	2	1749	A	N9-C4	-7.72	1.33	1.37
36	5	2401	A	N9-C4	7.67	1.42	1.37
36	1	2419	A	N9-C4	-7.14	1.33	1.37
36	5	960	U	N1-C2	7.12	1.45	1.38
36	1	2401	A	N7-C5	6.67	1.43	1.39
36	5	3008	A	N3-C4	-6.62	1.30	1.34
36	5	2138	A	N9-C4	-6.47	1.33	1.37
36	1	2401	A	C6-N1	6.44	1.40	1.35
57	n1	104	GLU	CB-CG	6.32	1.64	1.52
36	5	3209	A	C5-C4	6.31	1.43	1.38
36	5	2138	A	N3-C4	-6.26	1.31	1.34
36	1	2640	A	C6-N1	-6.20	1.31	1.35
36	1	39	A	C5-C6	-6.15	1.35	1.41
36	1	943	U	C2-N3	-6.13	1.33	1.37
36	5	3008	A	N9-C4	-6.07	1.34	1.37
36	1	2138	A	N3-C4	-6.02	1.31	1.34
36	5	2358	A	N9-C4	-6.01	1.34	1.37
36	5	1152	G	C8-N7	6.00	1.34	1.30
36	1	2384	A	C5-C6	-5.97	1.35	1.41
36	1	1116	G	N7-C5	-5.96	1.35	1.39
36	5	2375	G	C6-N1	-5.94	1.35	1.39
36	1	2983	C	N3-C4	-5.92	1.29	1.33
36	5	953	G	N7-C5	-5.92	1.35	1.39
37	7	92	A	C5-C6	-5.92	1.35	1.41
36	5	3032	A	N7-C5	-5.91	1.35	1.39
36	5	2954	U	N1-C2	5.86	1.43	1.38
36	1	651	G	N1-C2	-5.85	1.33	1.37
36	5	1199	C	N1-C6	-5.85	1.33	1.37
36	5	2704	A	N9-C4	-5.85	1.34	1.37
36	1	92	G	N1-C2	-5.81	1.33	1.37
36	1	2874	G	N3-C4	-5.80	1.31	1.35
36	5	2243	A	N3-C4	-5.79	1.31	1.34
36	5	2978	U	N1-C2	5.79	1.43	1.38
1	6	337	G	C2-N3	5.78	1.37	1.32
1	6	1537	C	N1-C6	5.78	1.40	1.37
36	5	953	G	C5-C4	-5.77	1.34	1.38
36	1	1304	A	N9-C4	-5.75	1.34	1.37
36	1	2188	A	N9-C4	-5.73	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2811	A	N7-C5	-5.73	1.35	1.39
36	1	639	G	C5-C6	-5.70	1.36	1.42
37	7	92	A	C5-C4	-5.69	1.34	1.38
47	m0	8	CYS	CB-SG	-5.69	1.72	1.81
36	5	2726	C	N3-C4	-5.63	1.30	1.33
36	1	655	C	N1-C6	-5.59	1.33	1.37
36	5	3209	A	N9-C4	5.59	1.41	1.37
36	1	338	A	N7-C5	-5.57	1.35	1.39
36	1	651	G	C6-N1	-5.56	1.35	1.39
36	5	2954	U	C2-N3	5.53	1.41	1.37
1	6	1653	C	N1-C6	-5.53	1.33	1.37
1	6	1030	A	N9-C4	-5.53	1.34	1.37
36	5	2385	G	N9-C4	-5.52	1.33	1.38
36	1	2409	G	N7-C5	-5.51	1.35	1.39
70	O4	47	CYS	CB-SG	-5.51	1.72	1.81
36	1	925	A	N3-C4	-5.50	1.31	1.34
36	5	1847	A	N9-C4	-5.49	1.34	1.37
51	M5	152	CYS	CB-SG	-5.49	1.72	1.81
36	5	45	A	N9-C4	-5.47	1.34	1.37
36	1	1133	A	C5-C4	-5.46	1.34	1.38
1	6	1537	C	C2-N3	5.45	1.40	1.35
36	5	1149	G	N9-C8	-5.43	1.34	1.37
36	1	2355	G	N7-C5	-5.42	1.35	1.39
36	5	2356	A	N3-C4	-5.42	1.31	1.34
41	L4	65	TRP	CB-CG	-5.40	1.40	1.50
36	5	2626	A	N3-C4	-5.39	1.31	1.34
1	6	1765	A	N9-C4	-5.38	1.34	1.37
57	n1	104	GLU	CG-CD	5.38	1.60	1.51
1	6	623	A	N9-C4	-5.35	1.34	1.37
36	5	1152	G	N1-C2	5.35	1.42	1.37
36	1	1158	A	N7-C5	-5.35	1.36	1.39
38	4	28	C	N1-C6	-5.35	1.33	1.37
1	6	1537	C	C5-C6	5.35	1.38	1.34
36	1	29	C	N1-C6	-5.34	1.33	1.37
36	1	1192	C	N1-C2	5.33	1.45	1.40
36	5	2811	A	N9-C4	-5.33	1.34	1.37
36	1	355	A	N9-C4	-5.33	1.34	1.37
36	1	1114	U	C2-N3	-5.31	1.34	1.37
1	2	1469	A	N9-C4	-5.30	1.34	1.37
36	5	1156	C	N3-C4	-5.29	1.30	1.33
36	1	1149	G	N3-C4	-5.28	1.31	1.35
36	5	2364	G	N3-C4	-5.27	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1299	G	C6-N1	-5.27	1.35	1.39
36	5	2991	A	N3-C4	-5.26	1.31	1.34
36	5	866	A	N9-C4	-5.25	1.34	1.37
36	1	2379	U	N1-C2	-5.25	1.33	1.38
36	5	1115	G	N1-C2	-5.25	1.33	1.37
36	5	3374	U	C2-N3	-5.24	1.34	1.37
36	1	2401	A	N3-C4	5.23	1.38	1.34
36	1	888	A	N7-C5	-5.23	1.36	1.39
36	1	3273	A	N3-C4	-5.22	1.31	1.34
36	5	1902	G	N7-C5	-5.22	1.36	1.39
36	5	3362	A	N7-C5	-5.22	1.36	1.39
36	1	1910	A	N9-C4	-5.21	1.34	1.37
36	5	2922	G	N7-C5	-5.20	1.36	1.39
36	1	2836	C	N3-C4	-5.19	1.30	1.33
36	1	867	G	N3-C4	-5.18	1.31	1.35
36	1	61	A	N3-C4	-5.18	1.31	1.34
36	1	1164	G	C6-N1	-5.16	1.35	1.39
36	5	2320	A	N9-C4	-5.16	1.34	1.37
36	1	912	G	C5-C4	-5.16	1.34	1.38
36	5	1309	U	N1-C2	-5.16	1.33	1.38
36	5	3092	C	N1-C6	-5.15	1.34	1.37
36	5	659	G	N7-C5	-5.15	1.36	1.39
36	5	645	A	C5-C6	5.14	1.45	1.41
36	1	1116	G	C5-C4	-5.14	1.34	1.38
1	2	1131	A	N9-C4	-5.13	1.34	1.37
36	1	913	A	N7-C5	-5.13	1.36	1.39
36	1	2147	A	N9-C4	-5.13	1.34	1.37
36	5	1663	C	N1-C6	-5.11	1.34	1.37
36	1	2877	G	C6-N1	-5.10	1.35	1.39
36	5	2917	G	C8-N7	-5.08	1.27	1.30
36	5	3132	C	N1-C6	-5.08	1.34	1.37
36	1	2398	A	C5-C4	-5.07	1.35	1.38
36	5	2814	G	C5-C4	-5.07	1.34	1.38
46	L9	165	CYS	CB-SG	-5.07	1.73	1.81
36	5	895	A	N9-C4	-5.07	1.34	1.37
36	5	2362	C	N1-C6	-5.07	1.34	1.37
1	6	1119	G	N7-C5	-5.07	1.36	1.39
36	1	1142	G	C5-C4	-5.05	1.34	1.38
36	5	1381	A	N9-C4	-5.05	1.34	1.37
36	5	1449	A	N7-C5	-5.05	1.36	1.39
36	1	1151	U	N1-C2	-5.03	1.34	1.38
36	1	2172	A	N9-C4	-5.03	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1326	A	N9-C4	5.02	1.40	1.37
36	1	1602	A	N3-C4	-5.02	1.31	1.34
36	5	1902	G	C8-N7	-5.02	1.27	1.30
36	5	521	A	N9-C4	-5.01	1.34	1.37
36	1	1313	G	N7-C5	-5.00	1.36	1.39

All (3717) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	22.88	140.04	128.60
36	5	1152	G	N3-C4-N9	-22.22	112.67	126.00
36	5	1152	G	C2-N3-C4	-17.60	103.10	111.90
1	6	1537	C	C6-N1-C2	-15.90	113.94	120.30
36	1	2714	G	N3-C4-C5	14.64	135.92	128.60
36	1	2714	G	N3-C4-N9	-13.69	117.79	126.00
36	1	1495	U	C5-C6-N1	-13.64	115.88	122.70
36	5	1152	G	C8-N9-C1'	13.39	144.41	127.00
36	1	2869	U	O5'-P-OP1	-13.22	93.80	105.70
36	1	1368	U	O5'-P-OP1	-13.13	93.88	105.70
36	1	2621	G	C5-C6-O6	-13.06	120.77	128.60
36	5	1152	G	N3-C2-N2	-12.89	110.88	119.90
36	1	2384	A	N1-C6-N6	12.79	126.27	118.60
36	1	960	U	C6-N1-C2	12.73	128.64	121.00
36	1	1308	A	O5'-P-OP2	-12.63	94.33	105.70
36	1	639	G	N1-C6-O6	12.43	127.36	119.90
36	1	960	U	N3-C4-C5	12.13	121.88	114.60
36	5	1152	G	C4-N9-C1'	-12.11	110.76	126.50
1	2	1200	G	N1-C6-O6	12.11	127.16	119.90
36	1	2884	C	N3-C4-C5	12.09	126.74	121.90
36	5	1902	G	N1-C6-O6	11.81	126.98	119.90
36	5	1437	C	C6-N1-C2	-11.64	115.64	120.30
36	1	608	A	N1-C6-N6	11.59	125.55	118.60
36	5	1152	G	C5-N7-C8	-11.57	98.52	104.30
36	1	1308	A	C8-N9-C4	-11.42	101.23	105.80
36	5	1116	G	N3-C4-C5	-11.42	122.89	128.60
36	1	2403	G	O5'-P-OP2	-11.33	95.50	105.70
36	5	2819	A	O5'-P-OP2	-11.30	95.53	105.70
36	5	2704	A	O5'-P-OP1	-11.23	95.59	105.70
36	1	1149	G	N1-C6-O6	11.16	126.59	119.90
36	5	2730	G	N1-C6-O6	11.12	126.57	119.90
1	2	553	G	N1-C6-O6	11.09	126.55	119.90
36	5	1902	G	C6-C5-N7	-11.02	123.79	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1381	A	O5'-P-OP2	11.01	123.91	110.70
36	1	406	G	O4'-C1'-N9	10.95	116.96	108.20
36	1	3278	C	N1-C2-O2	10.94	125.47	118.90
36	5	3245	A	C2-N3-C4	-10.92	105.14	110.60
36	5	2928	C	C6-N1-C2	-10.90	115.94	120.30
36	1	2617	U	C5-C4-O4	10.88	132.43	125.90
1	6	1537	C	N3-C4-C5	-10.88	117.55	121.90
36	5	716	A	O5'-P-OP1	-10.85	95.94	105.70
36	1	2714	G	C2-N3-C4	-10.77	106.51	111.90
36	5	2992	U	O5'-P-OP2	-10.73	96.04	105.70
36	1	2815	G	C8-N9-C4	10.70	110.68	106.40
36	1	3306	U	C5-C4-O4	10.70	132.32	125.90
36	5	2333	C	C6-N1-C2	10.64	124.56	120.30
36	5	2873	U	C2-N3-C4	-10.61	120.64	127.00
36	1	2871	G	O5'-P-OP2	-10.60	96.16	105.70
36	1	1192	C	N1-C2-O2	10.56	125.24	118.90
36	1	639	G	C5-C6-O6	-10.55	122.27	128.60
1	6	144	U	N3-C2-O2	-10.43	114.90	122.20
1	2	453	U	N3-C2-O2	-10.41	114.91	122.20
36	5	2728	G	N9-C4-C5	10.41	109.56	105.40
36	1	2945	G	O5'-P-OP2	-10.40	96.34	105.70
1	2	542	A	O4'-C1'-N9	10.39	116.51	108.20
36	1	1846	C	O5'-P-OP1	-10.21	96.52	105.70
36	1	794	U	O5'-P-OP2	-10.15	96.56	105.70
36	1	3217	C	C2-N1-C1'	10.15	129.97	118.80
36	5	939	U	O5'-P-OP2	-10.12	96.59	105.70
36	5	2873	U	N1-C2-O2	-10.12	115.72	122.80
36	1	3143	C	C6-N1-C2	10.10	124.34	120.30
36	5	1902	G	C5-C6-O6	-10.06	122.56	128.60
36	1	2404	A	C2-N3-C4	-10.05	105.58	110.60
36	5	2858	U	N3-C2-O2	-9.95	115.23	122.20
36	1	776	U	C4-C5-C6	9.94	125.67	119.70
36	5	2913	C	N1-C2-O2	-9.90	112.96	118.90
36	1	517	G	C8-N9-C4	-9.89	102.44	106.40
1	6	163	G	N3-C4-N9	-9.86	120.08	126.00
36	1	2827	U	N3-C4-O4	-9.82	112.53	119.40
36	5	1907	C	N1-C2-O2	-9.80	113.02	118.90
36	1	372	A	O5'-P-OP2	-9.79	96.89	105.70
36	1	1489	A	N1-C6-N6	9.79	124.47	118.60
1	2	1039	A	O4'-C1'-N9	9.78	116.02	108.20
36	1	3362	A	C2-N3-C4	-9.77	105.72	110.60
36	1	2621	G	N1-C6-O6	9.73	125.74	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2846	U	N3-C2-O2	-9.72	115.40	122.20
36	5	2730	G	C5-C6-O6	-9.71	122.77	128.60
36	5	437	G	C8-N9-C4	-9.70	102.52	106.40
36	5	1205	A	O5'-P-OP2	-9.62	97.04	105.70
36	5	2726	C	C5-C4-N4	9.62	126.94	120.20
36	5	2393	G	O5'-P-OP2	-9.61	97.05	105.70
36	5	1897	G	C4-C5-N7	9.60	114.64	110.80
36	1	979	U	C6-N1-C2	-9.54	115.28	121.00
36	5	2698	G	C8-N9-C4	9.53	110.21	106.40
36	1	3306	U	N3-C2-O2	-9.50	115.55	122.20
36	5	398	A	O5'-P-OP2	-9.50	97.15	105.70
36	1	640	U	N3-C4-O4	9.48	126.04	119.40
36	1	2121	G	N1-C6-O6	-9.45	114.23	119.90
36	1	2384	A	C6-C5-N7	-9.43	125.70	132.30
1	6	639	U	N3-C2-O2	-9.43	115.60	122.20
37	7	73	C	C6-N1-C2	-9.41	116.53	120.30
36	1	645	A	N1-C6-N6	-9.39	112.96	118.60
36	5	2150	G	C8-N9-C4	-9.38	102.65	106.40
36	1	435	C	C6-N1-C2	9.38	124.05	120.30
36	1	1158	A	N1-C6-N6	9.35	124.21	118.60
36	1	201	A	O5'-P-OP2	-9.31	97.32	105.70
36	1	2958	A	N1-C6-N6	-9.31	113.02	118.60
36	1	2869	U	O5'-P-OP2	9.29	121.85	110.70
36	5	2572	C	N1-C2-O2	9.29	124.47	118.90
1	2	639	U	N3-C2-O2	-9.24	115.73	122.20
36	5	835	G	C5-C6-O6	-9.24	123.06	128.60
36	5	655	C	N1-C2-O2	-9.21	113.37	118.90
36	1	2393	G	C5-C6-O6	-9.19	123.09	128.60
36	5	3154	C	N1-C2-O2	9.18	124.41	118.90
1	6	1535	U	N3-C2-O2	-9.18	115.78	122.20
36	5	3046	A	O5'-P-OP2	-9.17	97.45	105.70
36	1	86	G	O5'-P-OP2	-9.15	97.46	105.70
36	5	2393	G	N1-C6-O6	9.15	125.39	119.90
36	5	406	G	O4'-C1'-N9	9.13	115.50	108.20
1	6	1473	U	N3-C2-O2	-9.12	115.81	122.20
36	1	3362	A	C5-N7-C8	-9.12	99.34	103.90
36	5	922	U	C5-C6-N1	-9.11	118.14	122.70
36	1	1216	C	C6-N1-C2	-9.09	116.67	120.30
36	5	1876	U	C5-C6-N1	9.09	127.25	122.70
36	1	1443	G	C8-N9-C4	-9.08	102.77	106.40
36	1	1434	G	N7-C8-N9	9.07	117.63	113.10
36	5	1591	G	O5'-P-OP1	-9.07	97.54	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3278	C	N3-C2-O2	-9.03	115.58	121.90
36	1	895	A	C5-N7-C8	-9.02	99.39	103.90
36	5	2283	G	O5'-P-OP2	-9.01	97.59	105.70
36	1	640	U	C5-C4-O4	-9.00	120.50	125.90
36	5	857	G	N1-C6-O6	9.00	125.30	119.90
36	5	2159	U	N3-C2-O2	-8.99	115.91	122.20
36	1	2617	U	N1-C2-N3	8.98	120.29	114.90
36	5	3143	C	C6-N1-C2	8.98	123.89	120.30
1	6	57	G	O5'-P-OP2	-8.97	97.62	105.70
36	1	960	U	C5-C6-N1	-8.97	118.22	122.70
36	1	2797	C	O5'-P-OP1	-8.97	97.63	105.70
1	2	554	C	N1-C2-O2	8.95	124.27	118.90
36	5	3327	G	N1-C6-O6	8.94	125.27	119.90
36	1	2978	U	O4'-C1'-N1	8.93	115.34	108.20
36	5	3209	A	O4'-C1'-N9	8.92	115.33	108.20
36	5	2393	G	C5-C6-O6	-8.91	123.25	128.60
36	1	1495	U	C2-N1-C1'	-8.89	107.03	117.70
36	5	2512	C	C5-C6-N1	8.88	125.44	121.00
36	1	2838	A	O5'-P-OP2	-8.88	97.71	105.70
36	5	2372	A	C8-N9-C4	-8.86	102.25	105.80
36	1	1192	C	C2-N1-C1'	8.85	128.54	118.80
36	1	2351	U	N3-C2-O2	-8.80	116.04	122.20
36	1	2726	C	N3-C2-O2	-8.80	115.74	121.90
1	6	1773	C	N3-C4-C5	-8.78	118.39	121.90
36	1	648	C	C2-N1-C1'	8.77	128.44	118.80
36	5	3245	A	C5-C6-N1	-8.77	113.32	117.70
36	5	2728	G	C8-N9-C4	-8.77	102.89	106.40
36	5	2333	C	N3-C2-O2	8.76	128.03	121.90
36	5	682	U	N3-C4-O4	-8.76	113.27	119.40
36	1	2827	U	C5-C4-O4	8.74	131.14	125.90
1	2	1280	C	N3-C4-C5	-8.73	118.41	121.90
36	5	2646	C	C6-N1-C2	8.73	123.79	120.30
36	1	652	G	O5'-P-OP2	-8.73	97.84	105.70
36	1	2350	C	C5-C6-N1	-8.72	116.64	121.00
36	5	1897	G	N1-C6-O6	8.72	125.13	119.90
36	5	3306	U	C5-C4-O4	-8.71	120.67	125.90
36	1	2314	U	N1-C2-N3	-8.69	109.69	114.90
36	5	1307	G	P-O3'-C3'	8.68	130.12	119.70
1	2	553	G	C5-C6-O6	-8.68	123.39	128.60
36	5	1392	G	C8-N9-C4	8.67	109.87	106.40
36	1	2314	U	C5-C4-O4	-8.66	120.70	125.90
36	5	776	U	C4-C5-C6	8.63	124.88	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1189	C	N1-C2-O2	-8.62	113.73	118.90
1	2	1761	U	C5-C4-O4	8.62	131.07	125.90
36	5	1885	U	C6-N1-C2	8.61	126.17	121.00
36	5	2962	U	O5'-P-OP1	-8.61	97.95	105.70
36	1	1556	C	C6-N1-C2	-8.59	116.86	120.30
36	1	2983	C	C5-C4-N4	8.59	126.21	120.20
36	5	1006	A	O5'-P-OP2	-8.55	98.00	105.70
1	6	1028	C	C6-N1-C2	8.54	123.72	120.30
36	1	2619	G	O5'-P-OP1	-8.53	98.02	105.70
38	4	99	C	C6-N1-C2	8.51	123.70	120.30
36	5	2320	A	C2-N3-C4	-8.51	106.34	110.60
36	1	917	A	O5'-P-OP2	-8.51	98.04	105.70
36	5	2341	A	C8-N9-C4	8.49	109.19	105.80
36	5	2943	G	N9-C4-C5	-8.47	102.01	105.40
36	1	1434	G	C8-N9-C4	-8.47	103.01	106.40
36	1	645	A	C5-C6-N1	8.46	121.93	117.70
36	5	881	C	C5-C6-N1	8.46	125.23	121.00
1	2	75	U	N1-C2-O2	8.45	128.72	122.80
36	1	1365	G	N1-C2-N2	-8.44	108.60	116.20
38	8	33	A	N1-C6-N6	8.44	123.66	118.60
41	14	187	LEU	CA-CB-CG	8.44	134.71	115.30
36	1	1902	G	N9-C4-C5	-8.42	102.03	105.40
36	5	1193	A	N1-C6-N6	8.42	123.65	118.60
36	1	2572	C	N1-C2-O2	8.42	123.95	118.90
36	1	2855	U	C5-C6-N1	-8.41	118.50	122.70
36	1	295	A	C8-N9-C4	-8.40	102.44	105.80
36	1	1158	A	C5-C6-N6	-8.40	116.98	123.70
36	1	2169	G	N1-C6-O6	-8.40	114.86	119.90
36	5	2726	C	N3-C2-O2	-8.39	116.02	121.90
1	6	453	U	N3-C2-O2	-8.39	116.33	122.20
36	5	2866	U	N3-C2-O2	-8.39	116.33	122.20
36	1	718	G	C4-C5-N7	8.37	114.15	110.80
36	1	1854	C	O5'-P-OP2	-8.36	98.17	105.70
36	1	3362	A	N7-C8-N9	8.36	117.98	113.80
36	5	3362	A	N7-C8-N9	8.36	117.98	113.80
36	5	2354	C	N1-C2-O2	-8.36	113.89	118.90
36	1	2572	C	C2-N1-C1'	8.35	127.99	118.80
36	5	2873	U	C5-C6-N1	-8.35	118.53	122.70
36	5	682	U	C2-N1-C1'	-8.34	107.69	117.70
36	5	2873	U	N1-C2-N3	8.34	119.90	114.90
1	6	337	G	C6-C5-N7	-8.34	125.40	130.40
36	5	1897	G	C5-C6-O6	-8.34	123.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	25	U	N3-C4-C5	-8.33	109.60	114.60
36	5	2297	U	O5'-P-OP2	-8.33	98.20	105.70
36	5	2215	A	C8-N9-C4	8.33	109.13	105.80
36	1	608	A	C6-C5-N7	-8.32	126.47	132.30
36	5	2375	G	N1-C6-O6	-8.32	114.91	119.90
36	1	1212	A	O5'-P-OP2	-8.31	98.22	105.70
36	5	2726	C	C6-N1-C2	-8.31	116.97	120.30
10	s8	29	LEU	CA-CB-CG	8.31	134.42	115.30
36	5	2699	G	C5-C6-O6	-8.30	123.62	128.60
36	1	1902	G	C4-C5-N7	8.30	114.12	110.80
1	2	323	A	O5'-P-OP2	-8.29	98.24	105.70
36	1	2860	U	N3-C2-O2	8.28	127.99	122.20
36	1	938	C	N1-C2-O2	-8.27	113.94	118.90
36	1	1216	C	C5-C6-N1	8.27	125.13	121.00
38	8	24	G	N1-C6-O6	-8.26	114.94	119.90
36	1	3306	U	N3-C4-O4	-8.26	113.62	119.40
1	6	453	U	C2-N1-C1'	8.26	127.61	117.70
36	5	2385	G	C8-N9-C4	8.26	109.70	106.40
1	6	1731	A	N1-C6-N6	-8.26	113.64	118.60
1	6	1765	A	C8-N9-C4	8.26	109.10	105.80
36	5	518	G	C5-C6-O6	-8.25	123.65	128.60
36	1	3212	C	C6-N1-C2	8.25	123.60	120.30
36	1	2384	A	C5-C6-N6	-8.24	117.11	123.70
36	5	1208	U	N3-C2-O2	-8.24	116.44	122.20
36	1	1495	U	C4-C5-C6	8.23	124.64	119.70
36	1	2846	U	C5-C4-O4	8.23	130.84	125.90
36	1	2200	U	C6-N1-C2	-8.21	116.07	121.00
36	1	939	U	N1-C2-O2	-8.21	117.05	122.80
36	1	3183	A	N1-C6-N6	8.20	123.52	118.60
36	1	3134	A	C8-N9-C4	8.19	109.08	105.80
36	1	979	U	N1-C2-N3	8.18	119.81	114.90
36	5	1902	G	C4-C5-C6	8.18	123.71	118.80
1	6	337	G	N3-C4-N9	8.16	130.90	126.00
36	1	608	A	C5-C6-N6	-8.16	117.17	123.70
36	1	1192	C	N3-C2-O2	-8.16	116.19	121.90
36	1	1433	A	O5'-P-OP1	-8.16	98.36	105.70
36	5	2978	U	N3-C2-O2	-8.16	116.49	122.20
36	5	867	G	O5'-P-OP1	-8.15	98.36	105.70
36	5	894	G	N9-C4-C5	-8.15	102.14	105.40
36	1	2352	A	N1-C6-N6	8.14	123.49	118.60
1	2	1773	C	N3-C4-C5	-8.14	118.64	121.90
36	5	2159	U	N1-C2-O2	8.14	128.50	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3107	U	O5'-P-OP2	-8.13	98.38	105.70
36	1	968	G	N3-C4-C5	-8.13	124.53	128.60
36	1	2377	G	N1-C2-N2	-8.13	108.88	116.20
36	1	1377	G	C4-C5-N7	8.13	114.05	110.80
36	1	2617	U	N3-C2-O2	-8.13	116.51	122.20
36	5	1868	G	N9-C4-C5	-8.12	102.15	105.40
1	2	1749	A	C2-N3-C4	-8.12	106.54	110.60
36	1	2827	U	C5-C6-N1	-8.11	118.65	122.70
36	1	2314	U	C5-C6-N1	8.09	126.75	122.70
36	1	2996	U	N1-C2-O2	8.09	128.47	122.80
1	2	1200	G	C6-C5-N7	-8.09	125.55	130.40
1	2	402	C	C6-N1-C2	8.09	123.54	120.30
36	1	1116	G	O5'-P-OP1	-8.09	98.42	105.70
1	2	1773	C	C6-N1-C2	-8.08	117.07	120.30
36	5	2403	G	C5-C6-O6	-8.07	123.75	128.60
1	6	1641	C	N1-C2-O2	-8.07	114.06	118.90
36	1	2374	C	C6-N1-C2	-8.07	117.07	120.30
1	6	543	C	C6-N1-C2	-8.06	117.08	120.30
36	1	2200	U	N3-C4-C5	-8.06	109.77	114.60
36	5	2572	C	C2-N1-C1'	8.06	127.66	118.80
78	q2	17	CYS	CA-CB-SG	8.06	128.50	114.00
36	5	1592	G	C5-C6-N1	-8.06	107.47	111.50
36	1	1437	C	O5'-P-OP1	-8.05	98.45	105.70
36	5	2943	G	C4-C5-N7	8.05	114.02	110.80
1	6	1537	C	C6-N1-C1'	8.05	130.46	120.80
1	6	1103	U	C5-C4-O4	8.04	130.73	125.90
36	1	3134	A	N9-C4-C5	-8.04	102.58	105.80
36	1	3217	C	N1-C2-O2	8.04	123.72	118.90
36	5	2512	C	C6-N1-C2	-8.04	117.09	120.30
36	1	2899	C	N3-C2-O2	-8.03	116.28	121.90
36	5	1193	A	C6-C5-N7	-8.02	126.69	132.30
1	2	73	U	O4'-C1'-N1	8.02	114.61	108.20
36	1	2944	U	O5'-P-OP1	-8.02	98.48	105.70
36	5	1452	A	N1-C6-N6	8.02	123.41	118.60
1	2	1762	A	C8-N9-C4	8.01	109.00	105.80
36	1	1495	U	N1-C2-O2	-8.01	117.19	122.80
1	6	337	G	C4-N9-C1'	8.01	136.91	126.50
36	1	908	G	O4'-C1'-N9	-8.00	101.80	108.20
36	1	2401	A	C8-N9-C4	8.00	109.00	105.80
36	5	2644	C	C6-N1-C2	8.00	123.50	120.30
36	5	1902	G	N3-C4-N9	8.00	130.80	126.00
36	5	2683	U	C5-C6-N1	8.00	126.70	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2819	A	N1-C6-N6	-8.00	113.80	118.60
36	1	960	U	C2-N3-C4	-8.00	122.20	127.00
36	1	1838	G	N1-C6-O6	7.99	124.70	119.90
36	5	877	C	N3-C4-C5	7.96	125.08	121.90
36	5	1152	G	N1-C6-O6	7.95	124.67	119.90
36	1	960	U	C2-N1-C1'	-7.94	108.17	117.70
1	6	194	U	C2-N1-C1'	7.93	127.21	117.70
36	5	340	C	C6-N1-C2	7.92	123.47	120.30
36	5	3050	U	C5-C4-O4	7.92	130.65	125.90
36	5	2899	C	C6-N1-C2	-7.91	117.14	120.30
38	8	80	A	C8-N9-C4	-7.91	102.64	105.80
36	5	2912	G	O5'-P-OP1	-7.90	98.59	105.70
36	1	1495	U	C2-N3-C4	-7.89	122.26	127.00
36	5	2199	G	C4-C5-N7	7.89	113.96	110.80
36	1	884	A	N1-C6-N6	7.89	123.33	118.60
36	1	2621	G	N3-C2-N2	-7.89	114.38	119.90
1	2	966	A	C8-N9-C4	7.89	108.95	105.80
1	2	145	A	C8-N9-C4	-7.88	102.65	105.80
36	1	864	G	N9-C4-C5	7.87	108.55	105.40
36	1	2956	A	O5'-P-OP1	-7.86	98.63	105.70
37	7	92	A	N9-C4-C5	-7.86	102.66	105.80
36	5	942	U	N3-C4-O4	7.85	124.89	119.40
36	1	2899	C	C2-N1-C1'	7.84	127.43	118.80
48	m1	112	LEU	CA-CB-CG	7.83	133.32	115.30
1	6	163	G	C8-N9-C4	-7.82	103.27	106.40
36	5	1435	A	P-O3'-C3'	7.82	129.09	119.70
36	5	669	U	C5-C6-N1	-7.81	118.79	122.70
36	5	2283	G	N1-C6-O6	7.81	124.59	119.90
36	1	2984	C	C5-C4-N4	7.81	125.67	120.20
36	5	3123	A	C8-N9-C4	7.81	108.92	105.80
36	1	895	A	N7-C8-N9	7.80	117.70	113.80
12	C0	88	PRO	N-CA-CB	7.80	112.66	103.30
36	1	893	C	N1-C2-O2	7.80	123.58	118.90
36	1	1336	U	O5'-P-OP2	-7.80	98.68	105.70
36	5	429	U	O5'-P-OP2	-7.80	98.68	105.70
36	1	1662	G	C6-C5-N7	-7.79	125.72	130.40
36	5	2375	G	C5-C6-O6	7.78	133.27	128.60
1	2	1560	U	N3-C2-O2	-7.78	116.76	122.20
1	2	639	U	N1-C2-O2	7.77	128.24	122.80
36	5	2943	G	C6-C5-N7	-7.76	125.74	130.40
38	4	94	C	C6-N1-C2	7.76	123.40	120.30
36	1	1148	G	C8-N9-C4	7.75	109.50	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	13	A	N1-C6-N6	7.75	123.25	118.60
36	1	2953	U	N1-C2-O2	-7.75	117.37	122.80
36	1	646	A	O5'-P-OP2	-7.74	98.73	105.70
36	1	2983	C	C5-C6-N1	-7.74	117.13	121.00
36	5	2572	C	N3-C2-O2	-7.73	116.49	121.90
36	5	1796	G	N1-C6-O6	-7.73	115.26	119.90
36	1	584	G	N1-C6-O6	-7.73	115.26	119.90
1	6	1700	C	C2-N1-C1'	7.73	127.30	118.80
36	1	1489	A	N9-C4-C5	-7.72	102.71	105.80
36	1	3024	A	O5'-P-OP1	-7.72	98.75	105.70
38	4	32	C	O5'-P-OP2	-7.70	98.77	105.70
1	2	810	G	C6-C5-N7	-7.70	125.78	130.40
36	1	2384	A	N9-C4-C5	-7.70	102.72	105.80
36	1	789	A	N1-C6-N6	-7.69	113.98	118.60
1	6	1596	C	N3-C2-O2	-7.69	116.52	121.90
36	1	776	U	N1-C2-N3	7.69	119.51	114.90
36	5	211	A	O5'-P-OP1	-7.68	98.79	105.70
36	1	2550	U	C6-N1-C2	-7.68	116.39	121.00
1	6	647	G	N3-C4-N9	-7.68	121.39	126.00
36	5	3362	A	C8-N9-C4	-7.68	102.73	105.80
1	2	1761	U	N3-C2-O2	-7.67	116.83	122.20
36	1	645	A	C6-N1-C2	-7.66	114.00	118.60
36	5	1152	G	C4-C5-N7	7.66	113.86	110.80
1	2	554	C	C2-N1-C1'	7.65	127.22	118.80
1	2	553	G	C6-C5-N7	-7.65	125.81	130.40
36	1	59	G	N1-C6-O6	7.64	124.49	119.90
36	1	933	A	C4-C5-C6	7.64	120.82	117.00
36	1	3057	U	C5-C4-O4	7.64	130.49	125.90
36	5	776	U	C5-C6-N1	-7.64	118.88	122.70
36	5	2294	U	O5'-P-OP1	-7.64	98.82	105.70
36	5	3154	C	C2-N1-C1'	7.64	127.21	118.80
36	5	2637	A	C8-N9-C4	7.64	108.86	105.80
1	2	453	U	C2-N1-C1'	7.64	126.87	117.70
1	2	448	C	C6-N1-C2	-7.64	117.25	120.30
36	1	2366	C	O5'-P-OP2	-7.63	98.83	105.70
36	5	2231	C	C2-N1-C1'	7.63	127.20	118.80
36	1	1308	A	N7-C8-N9	7.63	117.61	113.80
36	5	1129	A	O5'-P-OP2	-7.63	98.83	105.70
36	1	2887	A	N1-C6-N6	7.63	123.18	118.60
36	1	2983	C	N3-C4-N4	-7.62	112.66	118.00
36	1	3217	C	N3-C2-O2	-7.62	116.56	121.90
36	5	838	G	C5-C6-O6	7.62	133.17	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2899	C	N3-C2-O2	-7.61	116.58	121.90
36	1	682	U	C2-N1-C1'	-7.60	108.58	117.70
1	6	102	U	O5'-P-OP1	-7.60	98.86	105.70
36	1	843	A	C2-N3-C4	-7.59	106.80	110.60
36	5	2392	C	N3-C4-C5	7.59	124.94	121.90
38	4	125	U	C2-N1-C1'	7.59	126.81	117.70
1	6	337	G	N3-C2-N2	7.59	125.21	119.90
36	5	3362	A	C5-N7-C8	-7.59	100.11	103.90
36	1	3344	A	N7-C8-N9	7.59	117.59	113.80
36	5	2880	U	N3-C2-O2	-7.58	116.89	122.20
36	1	3022	G	O4'-C1'-N9	7.58	114.26	108.20
36	5	3092	C	N3-C2-O2	-7.58	116.59	121.90
36	1	2194	G	C6-C5-N7	-7.57	125.86	130.40
36	5	1420	C	C5-C6-N1	-7.57	117.21	121.00
36	1	42	C	C6-N1-C2	-7.57	117.27	120.30
36	1	2869	U	C2-N1-C1'	7.57	126.78	117.70
36	1	969	C	N1-C2-O2	-7.56	114.36	118.90
36	5	2231	C	O4'-C1'-N1	7.56	114.25	108.20
36	1	517	G	N7-C8-N9	7.56	116.88	113.10
1	6	337	G	C8-N9-C1'	-7.56	117.17	127.00
36	1	3217	C	C6-N1-C1'	-7.56	111.73	120.80
36	5	1193	A	C4-C5-C6	7.55	120.78	117.00
36	5	2880	U	N1-C2-O2	7.55	128.09	122.80
36	1	2237	C	C6-N1-C2	7.55	123.32	120.30
36	1	1495	U	N1-C2-N3	7.55	119.43	114.90
44	17	229	PHE	CB-CG-CD1	7.55	126.08	120.80
36	5	1152	G	C4-C5-C6	-7.54	114.28	118.80
10	S8	29	LEU	CA-CB-CG	7.54	132.63	115.30
36	5	2145	A	C6-N1-C2	-7.53	114.08	118.60
38	8	33	A	C8-N9-C4	7.53	108.81	105.80
36	1	39	A	N1-C6-N6	7.52	123.11	118.60
36	1	1409	G	N1-C6-O6	-7.52	115.39	119.90
36	1	1437	C	C2-N1-C1'	7.52	127.07	118.80
36	1	946	U	O5'-P-OP2	-7.52	98.94	105.70
37	7	53	U	O5'-P-OP2	-7.51	98.94	105.70
36	5	1380	G	C8-N9-C4	7.51	109.40	106.40
36	1	417	A	N1-C6-N6	7.51	123.11	118.60
38	8	44	A	C8-N9-C4	7.51	108.80	105.80
36	5	2699	G	N1-C6-O6	7.50	124.40	119.90
36	1	895	A	C4-C5-N7	7.50	114.45	110.70
36	1	2403	G	N3-C4-N9	7.49	130.50	126.00
36	5	922	U	C5-C4-O4	7.49	130.40	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2384	A	C4-C5-N7	7.49	114.45	110.70
36	1	1484	U	P-O3'-C3'	7.49	128.69	119.70
36	5	1841	A	N1-C6-N6	7.49	123.09	118.60
36	1	672	A	N1-C6-N6	7.49	123.09	118.60
36	5	3245	A	C6-C5-N7	-7.48	127.06	132.30
36	1	2796	G	C2-N3-C4	-7.48	108.16	111.90
1	2	1280	C	N1-C2-O2	-7.47	114.42	118.90
36	1	2550	U	C5-C4-O4	7.46	130.38	125.90
36	1	2628	A	N1-C2-N3	7.46	133.03	129.30
1	6	1019	A	C8-N9-C4	7.46	108.78	105.80
36	5	2953	U	N1-C2-O2	-7.45	117.58	122.80
36	5	2608	G	C8-N9-C4	7.45	109.38	106.40
36	1	296	A	O5'-P-OP1	-7.45	98.99	105.70
36	5	981	U	C5-C6-N1	7.45	126.43	122.70
36	5	2634	U	C2-N3-C4	-7.45	122.53	127.00
36	1	908	G	C5-C6-O6	-7.45	124.13	128.60
1	6	1596	C	C5-C4-N4	7.44	125.41	120.20
1	6	163	G	C2-N3-C4	-7.44	108.18	111.90
36	5	1856	C	O5'-P-OP1	-7.43	99.01	105.70
36	5	2870	C	N3-C4-N4	-7.43	112.80	118.00
1	2	728	U	C2-N1-C1'	7.42	126.61	117.70
36	5	2816	G	N9-C4-C5	-7.41	102.44	105.40
36	5	2354	C	N3-C2-O2	7.41	127.08	121.90
36	5	2866	U	N1-C2-O2	7.40	127.98	122.80
38	4	125	U	N1-C2-O2	7.40	127.98	122.80
1	2	359	A	C8-N9-C4	7.39	108.76	105.80
36	1	2404	A	N1-C6-N6	7.39	123.04	118.60
36	1	2831	G	N1-C6-O6	7.39	124.34	119.90
36	5	1160	C	N1-C2-O2	-7.39	114.46	118.90
36	5	2278	C	C5-C6-N1	7.39	124.70	121.00
36	1	2355	G	C5-C6-O6	-7.39	124.17	128.60
36	1	2816	G	C5-C6-O6	-7.39	124.17	128.60
36	5	939	U	O5'-P-OP1	7.39	119.56	110.70
36	1	702	C	C6-N1-C2	-7.38	117.35	120.30
37	3	82	G	C8-N9-C4	-7.38	103.45	106.40
36	5	3245	A	N1-C6-N6	7.37	123.02	118.60
36	1	1662	G	C5-C6-O6	-7.37	124.18	128.60
37	3	82	G	N9-C4-C5	7.37	108.35	105.40
36	5	2317	A	O5'-P-OP1	-7.37	99.06	105.70
36	1	2879	C	N1-C2-O2	-7.37	114.48	118.90
36	5	1513	G	C8-N9-C4	-7.37	103.45	106.40
1	2	364	G	N3-C4-N9	7.37	130.42	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	992	A	C2-N3-C4	-7.36	106.92	110.60
36	1	917	A	O5'-P-OP1	7.36	119.54	110.70
36	1	2360	C	C5-C6-N1	-7.36	117.32	121.00
36	5	1897	G	C5-N7-C8	-7.36	100.62	104.30
36	1	65	A	P-O3'-C3'	7.34	128.51	119.70
37	3	5	G	N3-C4-N9	-7.34	121.60	126.00
36	1	1450	G	O5'-P-OP1	-7.33	99.10	105.70
36	5	2144	A	O4'-C1'-N9	7.33	114.06	108.20
36	5	514	G	C5-C6-O6	-7.33	124.20	128.60
36	1	2634	U	C2-N3-C4	-7.32	122.61	127.00
36	5	3245	A	N7-C8-N9	7.32	117.46	113.80
1	2	554	C	C2-N3-C4	7.32	123.56	119.90
1	6	1634	C	C2-N1-C1'	7.31	126.84	118.80
20	c8	116	LEU	CA-CB-CG	7.31	132.12	115.30
36	5	3327	G	C5-C6-O6	-7.31	124.21	128.60
36	5	1868	G	C6-C5-N7	-7.31	126.02	130.40
36	1	1308	A	O5'-P-OP1	7.31	119.47	110.70
36	1	1113	G	N1-C6-O6	7.30	124.28	119.90
36	5	1441	G	C5-C6-N1	7.30	115.15	111.50
1	2	75	U	N3-C2-O2	-7.30	117.09	122.20
36	5	1704	A	C8-N9-C4	7.30	108.72	105.80
36	5	2639	G	C4-N9-C1'	7.30	135.99	126.50
48	M1	112	LEU	CA-CB-CG	7.29	132.08	115.30
36	5	776	U	N1-C2-N3	7.29	119.28	114.90
36	1	2355	G	N1-C6-O6	7.29	124.27	119.90
36	5	922	U	N3-C2-O2	-7.29	117.10	122.20
36	1	1365	G	N7-C8-N9	7.28	116.74	113.10
36	5	1116	G	N9-C4-C5	7.28	108.31	105.40
36	5	2621	G	N3-C2-N2	-7.28	114.80	119.90
1	2	1200	G	C5-C6-O6	-7.28	124.23	128.60
36	5	514	G	N1-C6-O6	7.28	124.27	119.90
36	5	2830	G	N1-C2-N3	7.28	128.27	123.90
36	1	1646	G	N1-C6-O6	7.28	124.27	119.90
36	5	894	G	C4-C5-N7	7.27	113.71	110.80
36	1	285	A	C8-N9-C4	7.27	108.71	105.80
38	8	33	A	C5-C6-N6	-7.27	117.88	123.70
15	C3	22	ALA	C-N-CD	-7.27	104.61	120.60
36	1	2617	U	N3-C4-O4	-7.27	114.31	119.40
1	6	1596	C	C6-N1-C2	-7.27	117.39	120.30
1	2	1611	A	N1-C2-N3	7.26	132.93	129.30
36	5	932	U	C6-N1-C2	7.25	125.35	121.00
1	6	1787	C	O5'-P-OP1	-7.25	99.17	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1222	G	P-O3'-C3'	7.25	128.40	119.70
36	1	645	A	N3-C4-C5	-7.25	121.73	126.80
36	1	2836	C	C4-C5-C6	7.24	121.02	117.40
36	5	437	G	N9-C4-C5	7.24	108.30	105.40
36	1	3207	U	C2-N1-C1'	-7.24	109.01	117.70
1	2	75	U	C2-N1-C1'	7.24	126.38	117.70
36	1	3057	U	N3-C4-O4	-7.24	114.33	119.40
36	1	1306	G	C5-C6-O6	-7.24	124.26	128.60
1	6	1025	A	N9-C4-C5	-7.24	102.91	105.80
36	5	838	G	N1-C6-O6	-7.23	115.56	119.90
36	5	2385	G	N3-C4-C5	7.23	132.22	128.60
36	5	2816	G	C5-C6-O6	-7.23	124.26	128.60
36	5	857	G	C6-C5-N7	-7.23	126.06	130.40
36	1	1433	A	C5-C6-N6	-7.22	117.92	123.70
36	1	3362	A	O4'-C1'-N9	7.22	113.98	108.20
36	5	2762	A	O5'-P-OP2	-7.22	99.20	105.70
36	1	1306	G	N1-C6-O6	7.22	124.23	119.90
37	7	49	G	N1-C6-O6	7.22	124.23	119.90
36	5	1116	G	C4-C5-N7	-7.22	107.91	110.80
36	1	1897	G	N1-C6-O6	7.21	124.22	119.90
1	6	1280	C	C6-N1-C2	-7.20	117.42	120.30
1	2	810	G	N1-C6-O6	7.20	124.22	119.90
36	1	2819	A	O5'-P-OP2	-7.20	99.22	105.70
36	1	2404	A	C5-C6-N1	-7.20	114.10	117.70
36	1	1377	G	C5-C6-O6	-7.19	124.28	128.60
36	5	1412	G	C8-N9-C4	-7.19	103.52	106.40
36	1	639	G	C6-C5-N7	-7.19	126.09	130.40
36	1	404	G	O5'-P-OP2	-7.18	99.23	105.70
36	1	650	C	N1-C2-O2	-7.18	114.59	118.90
36	5	1452	A	N9-C4-C5	-7.18	102.93	105.80
36	5	2994	A	N1-C6-N6	7.18	122.91	118.60
36	1	1437	C	C6-N1-C2	-7.18	117.43	120.30
36	1	651	G	N3-C4-N9	7.17	130.30	126.00
36	1	1891	A	C2-N3-C4	-7.17	107.01	110.60
36	1	2101	C	P-O3'-C3'	7.17	128.30	119.70
36	5	2879	C	C6-N1-C2	7.17	123.17	120.30
36	5	650	C	C2-N3-C4	-7.16	116.32	119.90
1	6	1596	C	N3-C4-N4	-7.16	112.99	118.00
36	1	1680	G	O5'-P-OP1	-7.14	99.27	105.70
36	5	3245	A	N1-C2-N3	7.14	132.87	129.30
1	2	1600	A	C5-C6-N1	-7.14	114.13	117.70
36	5	1116	G	C6-N1-C2	-7.14	120.82	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2698	G	N7-C8-N9	-7.13	109.53	113.10
36	1	1151	U	N1-C2-O2	-7.13	117.81	122.80
36	1	1151	U	N3-C4-O4	7.13	124.39	119.40
36	1	895	A	C6-C5-N7	-7.12	127.31	132.30
36	1	2945	G	O5'-P-OP1	7.12	119.25	110.70
36	5	3362	A	C6-C5-N7	-7.12	127.31	132.30
36	5	2858	U	N1-C2-N3	7.12	119.17	114.90
36	1	835	G	O4'-C1'-N9	7.12	113.89	108.20
36	5	2939	G	O5'-P-OP1	-7.12	99.30	105.70
36	5	2360	C	C4-C5-C6	7.11	120.96	117.40
1	2	1280	C	N3-C4-N4	7.11	122.98	118.00
36	1	1279	C	C6-N1-C2	-7.11	117.46	120.30
36	1	2814	G	C5-C6-O6	-7.11	124.33	128.60
36	5	2327	U	C5-C6-N1	-7.11	119.15	122.70
36	5	73	C	C5-C4-N4	-7.10	115.23	120.20
36	1	857	G	N1-C6-O6	7.10	124.16	119.90
36	5	2726	C	N1-C2-N3	7.10	124.17	119.20
36	1	1164	G	C5-C6-O6	7.10	132.86	128.60
36	1	39	A	C4-C5-N7	7.09	114.25	110.70
36	5	283	G	C6-C5-N7	-7.09	126.14	130.40
36	5	2709	C	N3-C4-C5	7.09	124.74	121.90
36	5	2805	G	N3-C4-N9	7.09	130.26	126.00
36	1	1119	C	C5-C6-N1	-7.09	117.46	121.00
36	1	2833	A	C8-N9-C4	7.08	108.63	105.80
36	1	2996	U	C2-N1-C1'	7.08	126.20	117.70
1	2	287	G	O4'-C1'-N9	7.08	113.87	108.20
36	1	2360	C	C4-C5-C6	7.08	120.94	117.40
1	6	1121	C	C6-N1-C2	7.07	123.13	120.30
36	5	346	C	N1-C2-O2	7.07	123.14	118.90
1	6	1117	U	N1-C2-O2	-7.06	117.86	122.80
36	5	2331	C	N3-C4-C5	-7.06	119.08	121.90
1	6	1640	C	C5-C6-N1	7.05	124.53	121.00
36	5	2929	C	C2-N3-C4	-7.05	116.37	119.90
36	1	1151	U	N3-C4-C5	-7.05	110.37	114.60
36	1	2899	C	C6-N1-C1'	-7.05	112.34	120.80
36	1	3344	A	O4'-C1'-N9	7.05	113.84	108.20
36	5	1605	A	O4'-C1'-N9	7.05	113.84	108.20
36	5	2804	A	O5'-P-OP1	-7.05	99.35	105.70
36	5	780	A	N1-C6-N6	7.05	122.83	118.60
36	5	890	C	O5'-P-OP2	-7.05	99.36	105.70
36	5	894	G	N3-C2-N2	7.05	124.83	119.90
1	2	831	U	C5-C6-N1	7.04	126.22	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3119	U	N3-C2-O2	-7.04	117.27	122.20
1	6	163	G	N9-C4-C5	7.04	108.22	105.40
1	2	453	U	N1-C2-O2	7.04	127.73	122.80
36	1	2418	G	OP1-P-O3'	7.04	120.68	105.20
36	5	1938	U	C6-N1-C2	7.04	125.22	121.00
36	1	1396	C	C6-N1-C2	7.03	123.11	120.30
36	1	776	U	C5-C6-N1	-7.03	119.19	122.70
1	2	1455	G	C5-C6-N1	-7.03	107.99	111.50
1	6	1700	C	N1-C2-O2	7.03	123.11	118.90
36	5	1004	U	N3-C2-O2	-7.03	117.28	122.20
36	5	1513	G	N3-C4-C5	-7.01	125.09	128.60
38	8	20	U	O5'-P-OP2	-7.01	99.39	105.70
1	2	1473	U	N3-C2-O2	-7.01	117.30	122.20
36	1	2892	A	N1-C6-N6	-7.01	114.40	118.60
36	5	1200	A	N1-C6-N6	7.00	122.80	118.60
36	1	1481	A	O5'-P-OP1	7.00	119.10	110.70
36	1	3244	A	N1-C6-N6	7.00	122.80	118.60
36	1	1793	C	C5-C6-N1	-7.00	117.50	121.00
36	5	283	G	C4-C5-N7	7.00	113.60	110.80
36	5	949	C	C4-C5-C6	7.00	120.90	117.40
1	2	1241	G	O4'-C1'-N9	6.99	113.80	108.20
36	1	517	G	C4-N9-C1'	6.99	135.59	126.50
36	1	1157	G	N9-C4-C5	6.99	108.20	105.40
1	6	387	A	N1-C6-N6	-6.99	114.41	118.60
36	5	1858	A	O4'-C1'-N9	6.99	113.79	108.20
36	1	2347	U	O5'-P-OP2	-6.99	99.41	105.70
1	6	755	A	O4'-C1'-N9	6.99	113.79	108.20
36	5	3245	A	C5-N7-C8	-6.99	100.41	103.90
36	5	2273	G	C5-C6-N1	6.98	114.99	111.50
36	5	2980	U	O5'-P-OP1	6.98	119.08	110.70
36	5	1484	U	C6-N1-C2	6.98	125.19	121.00
36	1	576	C	C6-N1-C2	6.98	123.09	120.30
1	6	617	U	C2-N1-C1'	6.98	126.07	117.70
36	5	940	G	C5-C6-O6	-6.98	124.41	128.60
36	1	942	U	N3-C4-O4	6.98	124.28	119.40
36	1	339	C	N1-C2-N3	6.97	124.08	119.20
36	1	789	A	C5-C6-N6	6.97	129.28	123.70
36	5	1507	G	O5'-P-OP1	-6.97	99.42	105.70
1	6	144	U	O4'-C1'-N1	6.97	113.78	108.20
1	6	1535	U	N1-C2-O2	6.97	127.68	122.80
36	1	1048	A	N1-C6-N6	-6.97	114.42	118.60
36	1	1683	A	N1-C6-N6	6.97	122.78	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2140	U	C5-C4-O4	6.97	130.08	125.90
1	6	558	U	N1-C2-O2	6.97	127.68	122.80
1	6	1634	C	N1-C2-O2	6.96	123.08	118.90
36	5	2913	C	N3-C4-C5	-6.96	119.11	121.90
36	1	2400	G	C5-C6-O6	-6.96	124.42	128.60
1	6	794	U	C2-N1-C1'	6.96	126.05	117.70
36	1	1332	A	O5'-P-OP1	-6.95	99.44	105.70
36	5	2353	G	N1-C6-O6	6.95	124.07	119.90
36	1	713	U	C5-C6-N1	-6.95	119.23	122.70
40	13	4	ARG	NE-CZ-NH1	6.95	123.77	120.30
36	5	1305	U	O5'-P-OP1	-6.95	99.45	105.70
36	1	116	A	O4'-C1'-N9	6.94	113.75	108.20
36	1	1306	G	C8-N9-C4	6.94	109.18	106.40
36	1	3181	C	N3-C4-N4	-6.94	113.14	118.00
1	6	337	G	C4-C5-N7	6.94	113.58	110.80
36	5	1472	U	C5-C4-O4	-6.93	121.74	125.90
36	1	2621	G	N1-C2-N2	6.93	122.44	116.20
36	1	1820	U	P-O3'-C3'	6.93	128.01	119.70
36	1	1158	A	C6-C5-N7	-6.92	127.45	132.30
36	1	2393	G	N1-C6-O6	6.92	124.06	119.90
36	1	351	A	N1-C6-N6	-6.92	114.45	118.60
36	1	1082	U	C6-N1-C2	-6.92	116.85	121.00
36	5	859	G	O5'-P-OP1	-6.92	99.47	105.70
36	5	2295	A	O5'-P-OP2	-6.92	99.48	105.70
1	2	1314	U	N3-C2-O2	-6.91	117.36	122.20
36	5	821	U	N1-C2-O2	-6.91	117.96	122.80
36	5	2639	G	C8-N9-C1'	-6.91	118.02	127.00
36	5	3364	C	C6-N1-C2	-6.91	117.54	120.30
1	2	1092	A	N1-C6-N6	6.91	122.74	118.60
1	6	1641	C	N3-C2-O2	6.91	126.73	121.90
36	5	2339	C	O4'-C1'-N1	-6.91	102.68	108.20
1	6	136	C	C2-N1-C1'	6.90	126.39	118.80
1	6	543	C	C5-C6-N1	6.90	124.45	121.00
36	5	662	U	O5'-P-OP1	-6.90	99.49	105.70
36	1	2403	G	N9-C4-C5	-6.90	102.64	105.40
36	5	1928	G	C5-C6-O6	-6.90	124.46	128.60
36	1	2772	C	C2-N1-C1'	6.90	126.39	118.80
37	7	27	A	N1-C6-N6	-6.90	114.46	118.60
36	5	2199	G	C5-N7-C8	-6.90	100.85	104.30
36	1	2816	G	N1-C6-O6	6.90	124.04	119.90
1	6	1478	G	C4-N9-C1'	6.90	135.47	126.50
36	1	339	C	C6-N1-C2	-6.89	117.54	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1307	G	P-O3'-C3'	6.89	127.97	119.70
36	1	2408	U	O5'-P-OP1	-6.89	99.50	105.70
36	5	2385	G	C2-N3-C4	-6.89	108.45	111.90
36	1	2279	A	N1-C6-N6	6.89	122.73	118.60
36	5	926	A	C2-N3-C4	-6.89	107.16	110.60
36	1	613	G	C5-C6-O6	-6.89	124.47	128.60
1	2	1131	A	O5'-P-OP1	-6.88	99.51	105.70
36	5	1902	G	N9-C4-C5	-6.88	102.65	105.40
36	5	1833	G	N1-C6-O6	-6.88	115.77	119.90
36	5	1500	G	C8-N9-C4	6.88	109.15	106.40
36	1	587	U	N3-C4-C5	6.88	118.73	114.60
36	5	1117	G	O5'-P-OP1	-6.88	99.51	105.70
1	6	1300	A	O5'-P-OP1	-6.88	99.51	105.70
36	1	2846	U	N3-C4-O4	-6.87	114.59	119.40
36	5	1309	U	N1-C2-O2	-6.87	117.99	122.80
36	1	285	A	N1-C6-N6	6.87	122.72	118.60
36	1	895	A	N1-C6-N6	6.87	122.72	118.60
1	2	380	U	N3-C2-O2	-6.87	117.39	122.20
1	2	1274	C	N3-C4-N4	-6.87	113.19	118.00
36	1	2606	G	C6-C5-N7	-6.87	126.28	130.40
36	5	587	U	C6-N1-C2	6.87	125.12	121.00
1	2	1486	G	C5-N7-C8	-6.86	100.87	104.30
36	5	2406	C	N1-C2-O2	-6.86	114.78	118.90
37	7	27	A	N9-C4-C5	6.85	108.54	105.80
36	1	1313	G	C5-C6-O6	-6.85	124.49	128.60
1	6	1299	G	N3-C4-C5	-6.85	125.17	128.60
36	1	1113	G	C5-C6-N1	-6.85	108.08	111.50
36	1	1476	G	N1-C6-O6	-6.85	115.79	119.90
36	5	1788	C	C6-N1-C2	-6.84	117.56	120.30
36	5	1391	C	N1-C2-O2	-6.84	114.80	118.90
36	5	1803	C	C6-N1-C2	6.84	123.04	120.30
36	1	1334	U	N1-C2-N3	6.84	119.00	114.90
36	5	2808	A	C8-N9-C4	6.84	108.53	105.80
1	6	805	U	O5'-P-OP1	-6.84	99.55	105.70
1	6	1560	U	N3-C2-O2	-6.84	117.42	122.20
1	6	400	A	O5'-P-OP2	-6.83	99.55	105.70
36	5	1494	U	C2-N1-C1'	-6.83	109.50	117.70
36	5	914	A	N1-C6-N6	6.83	122.70	118.60
1	2	352	A	C8-N9-C4	6.83	108.53	105.80
36	1	142	C	C6-N1-C2	-6.83	117.57	120.30
36	5	636	C	C6-N1-C2	6.83	123.03	120.30
36	5	1124	U	N3-C4-C5	6.83	118.70	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2836	C	N3-C2-O2	-6.83	117.12	121.90
1	2	1399	C	C5-C6-N1	6.82	124.41	121.00
36	5	2993	G	C4-C5-N7	6.82	113.53	110.80
36	5	3137	C	O5'-P-OP2	-6.82	99.56	105.70
36	1	339	C	N3-C2-O2	-6.82	117.13	121.90
36	1	2784	G	N3-C4-N9	6.82	130.09	126.00
1	2	190	C	O4'-C1'-N1	6.81	113.65	108.20
36	1	810	A	N1-C6-N6	-6.81	114.51	118.60
36	1	1846	C	N3-C4-C5	-6.81	119.17	121.90
1	6	1751	C	C6-N1-C2	6.81	123.03	120.30
37	7	92	A	C8-N9-C4	6.81	108.52	105.80
36	5	648	C	O5'-P-OP1	-6.81	99.57	105.70
36	1	1836	C	N1-C2-O2	6.80	122.98	118.90
1	6	1479	A	N1-C6-N6	6.80	122.68	118.60
36	5	1850	A	C5-C6-N1	-6.80	114.30	117.70
1	6	17	C	C6-N1-C2	-6.80	117.58	120.30
36	5	2403	G	O5'-P-OP2	-6.80	99.58	105.70
37	7	92	A	C5-C6-N6	-6.80	118.26	123.70
36	1	651	G	N3-C4-C5	-6.80	125.20	128.60
36	5	947	G	N3-C4-C5	-6.80	125.20	128.60
35	SM	167	PRO	N-CA-CB	6.80	111.45	103.30
36	5	1000	C	C6-N1-C2	6.80	123.02	120.30
36	5	3121	U	C5-C4-O4	6.80	129.98	125.90
36	5	2943	G	N1-C6-O6	6.79	123.98	119.90
36	1	2692	A	N1-C6-N6	6.79	122.67	118.60
38	8	100	U	C5-C4-O4	-6.79	121.83	125.90
36	1	49	A	N1-C6-N6	6.78	122.67	118.60
36	5	890	C	N3-C2-O2	-6.78	117.15	121.90
38	4	53	A	C5-C6-N1	6.78	121.09	117.70
31	D9	36	LEU	CA-CB-CG	6.78	130.89	115.30
36	1	1835	A	O5'-P-OP1	-6.78	99.60	105.70
36	5	661	G	O5'-P-OP1	-6.78	99.60	105.70
36	1	2144	A	C5-C6-N6	-6.78	118.28	123.70
36	5	655	C	C6-N1-C2	-6.78	117.59	120.30
36	1	225	C	C5-C4-N4	-6.77	115.46	120.20
36	1	843	A	N1-C6-N6	6.77	122.66	118.60
36	1	2808	A	N1-C6-N6	6.77	122.66	118.60
36	1	585	A	C8-N9-C4	6.77	108.51	105.80
1	6	1473	U	C2-N1-C1'	6.77	125.82	117.70
36	5	2116	G	N1-C6-O6	6.77	123.96	119.90
1	2	132	U	P-O3'-C3'	6.77	127.82	119.70
36	1	2923	U	O5'-P-OP1	-6.76	99.61	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1452	A	C2-N3-C4	-6.76	107.22	110.60
36	1	3278	C	C2-N1-C1'	6.76	126.24	118.80
36	5	343	U	N1-C2-O2	-6.76	118.07	122.80
1	6	1481	C	C6-N1-C2	-6.76	117.60	120.30
36	5	2550	U	C5-C4-O4	6.76	129.96	125.90
1	2	736	C	C2-N1-C1'	6.76	126.23	118.80
1	2	1082	C	C6-N1-C2	-6.76	117.60	120.30
36	5	1384	U	N3-C4-C5	-6.76	110.55	114.60
36	5	2954	U	C2-N1-C1'	6.75	125.81	117.70
36	1	1906	G	C5-C6-O6	-6.75	124.55	128.60
1	6	30	G	N3-C2-N2	-6.75	115.17	119.90
1	2	830	U	N3-C2-O2	-6.75	117.48	122.20
37	7	87	G	C5-C6-O6	-6.75	124.55	128.60
36	5	365	A	N1-C6-N6	6.75	122.65	118.60
36	5	3154	C	N3-C2-O2	-6.75	117.18	121.90
1	6	1481	C	N3-C2-O2	-6.74	117.18	121.90
36	5	894	G	N1-C2-N2	-6.74	110.13	116.20
36	5	2870	C	C2-N1-C1'	-6.74	111.39	118.80
36	5	217	U	OP1-P-O3'	6.73	120.02	105.20
36	1	103	G	N1-C6-O6	-6.73	115.86	119.90
36	5	1876	U	C6-N1-C2	-6.73	116.96	121.00
36	1	218	G	O5'-P-OP2	-6.73	99.64	105.70
36	1	2878	G	N9-C4-C5	-6.73	102.71	105.40
36	1	2169	G	C6-C5-N7	6.72	134.44	130.40
36	1	3275	U	C5-C6-N1	6.72	126.06	122.70
36	1	913	A	C4-C5-C6	6.72	120.36	117.00
36	1	1606	U	N1-C2-O2	-6.72	118.09	122.80
36	1	39	A	C2-N3-C4	-6.72	107.24	110.60
36	5	1902	G	C8-N9-C1'	-6.72	118.26	127.00
1	2	1568	C	P-O3'-C3'	6.72	127.76	119.70
36	5	1796	G	C5-C6-O6	6.72	132.63	128.60
36	1	343	U	N1-C2-N3	6.71	118.93	114.90
36	1	1842	A	N1-C6-N6	-6.71	114.57	118.60
36	1	2242	A	N1-C2-N3	6.71	132.66	129.30
52	M6	78	ARG	NE-CZ-NH1	6.71	123.66	120.30
37	7	73	C	C5-C6-N1	6.71	124.36	121.00
36	1	2714	G	C8-N9-C1'	6.71	135.72	127.00
25	d3	16	ARG	NE-CZ-NH2	-6.71	116.94	120.30
36	5	1161	G	N1-C6-O6	-6.71	115.87	119.90
36	1	885	U	N3-C2-O2	-6.71	117.50	122.20
36	1	868	C	C6-N1-C2	6.71	122.98	120.30
38	8	104	A	C8-N9-C4	6.71	108.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2836	C	C5-C4-N4	6.71	124.89	120.20
38	4	113	U	C5-C4-O4	6.71	129.92	125.90
36	5	2728	G	C4-C5-N7	-6.71	108.12	110.80
36	1	2307	G	C4-C5-N7	-6.70	108.12	110.80
36	5	3133	C	N1-C2-O2	-6.70	114.88	118.90
36	1	805	G	C5-C6-O6	-6.70	124.58	128.60
36	5	776	U	N3-C2-O2	-6.70	117.51	122.20
41	14	339	LEU	CA-CB-CG	6.70	130.71	115.30
36	5	922	U	C4-C5-C6	6.70	123.72	119.70
36	1	1367	G	C6-C5-N7	-6.70	126.38	130.40
36	1	2195	C	O5'-P-OP2	-6.70	99.67	105.70
36	5	835	G	C4-C5-N7	6.70	113.48	110.80
36	1	1202	A	O5'-P-OP2	-6.69	99.68	105.70
36	1	1607	U	O5'-P-OP2	-6.69	99.68	105.70
36	1	1675	G	N1-C6-O6	-6.69	115.89	119.90
36	1	1049	C	O5'-P-OP2	-6.69	99.68	105.70
36	1	1157	G	C4-C5-N7	-6.69	108.12	110.80
36	1	2513	U	O4'-C1'-N1	6.69	113.55	108.20
36	5	1834	U	C6-N1-C2	-6.69	116.99	121.00
36	1	922	U	N1-C2-O2	6.68	127.48	122.80
36	1	1662	G	N1-C6-O6	6.68	123.91	119.90
36	1	1891	A	C8-N9-C4	6.68	108.47	105.80
1	6	1028	C	C5-C6-N1	-6.68	117.66	121.00
36	1	746	A	N1-C6-N6	6.68	122.61	118.60
36	1	1848	G	C5-C6-O6	-6.68	124.59	128.60
36	1	2409	G	C6-C5-N7	-6.68	126.39	130.40
36	1	718	G	C5-N7-C8	-6.68	100.96	104.30
36	1	2714	G	C4-N9-C1'	-6.67	117.83	126.50
36	1	1316	C	C4-C5-C6	6.66	120.73	117.40
36	5	43	A	C8-N9-C4	6.66	108.47	105.80
36	5	2957	G	O5'-P-OP1	-6.66	99.70	105.70
37	3	95	A	N1-C6-N6	6.66	122.60	118.60
36	1	895	A	C2-N3-C4	-6.66	107.27	110.60
37	3	92	A	N1-C6-N6	6.66	122.60	118.60
36	1	1396	C	N1-C2-N3	-6.66	114.54	119.20
36	1	2176	U	N3-C2-O2	-6.66	117.54	122.20
36	5	2282	U	O5'-P-OP1	-6.66	99.71	105.70
36	1	1365	G	C8-N9-C4	-6.65	103.74	106.40
36	5	645	A	C6-N1-C2	-6.65	114.61	118.60
1	6	1121	C	O5'-P-OP2	-6.65	99.71	105.70
36	5	76	G	C8-N9-C4	6.65	109.06	106.40
36	5	873	C	P-O3'-C3'	6.65	127.68	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	651	G	N3-C2-N2	6.64	124.55	119.90
36	1	92	G	C5-C6-N1	6.64	114.82	111.50
1	6	1614	A	C5-N7-C8	-6.64	100.58	103.90
36	1	2661	G	O5'-P-OP1	-6.64	99.72	105.70
36	1	1150	A	O5'-P-OP2	-6.64	99.73	105.70
36	5	2931	C	N1-C2-O2	-6.64	114.92	118.90
17	c5	36	LEU	CA-CB-CG	6.63	130.56	115.30
36	1	996	A	N1-C6-N6	-6.63	114.62	118.60
36	1	2379	U	N1-C2-O2	-6.63	118.16	122.80
36	5	2166	A	C8-N9-C4	6.63	108.45	105.80
1	2	1082	C	N3-C2-O2	-6.63	117.26	121.90
36	1	1428	A	N1-C6-N6	6.63	122.58	118.60
36	1	979	U	O4'-C1'-N1	6.62	113.50	108.20
36	1	981	U	C5-C6-N1	6.62	126.01	122.70
36	5	2350	C	OP1-P-OP2	-6.62	109.66	119.60
36	1	2836	C	C5-C6-N1	-6.62	117.69	121.00
36	1	1363	A	O5'-P-OP2	-6.62	99.74	105.70
36	1	960	U	N3-C4-O4	-6.62	114.77	119.40
36	1	701	G	N1-C6-O6	6.62	123.87	119.90
36	1	718	G	C6-C5-N7	-6.62	126.43	130.40
1	2	1487	A	O5'-P-OP1	-6.61	99.75	105.70
36	1	2846	U	N1-C2-O2	6.61	127.43	122.80
36	5	1868	G	C4-C5-N7	6.61	113.44	110.80
36	5	2116	G	C6-C5-N7	-6.61	126.43	130.40
37	7	117	A	C2-N3-C4	-6.61	107.30	110.60
36	1	1366	A	O5'-P-OP2	-6.61	99.75	105.70
36	5	2371	G	N3-C2-N2	6.61	124.53	119.90
38	8	33	A	N9-C4-C5	-6.61	103.16	105.80
70	O4	8	ARG	NE-CZ-NH1	6.61	123.60	120.30
1	2	1596	C	N3-C2-O2	-6.60	117.28	121.90
36	1	3311	C	O5'-P-OP1	-6.60	99.76	105.70
38	8	8	C	C6-N1-C2	-6.60	117.66	120.30
1	6	364	G	C8-N9-C4	6.60	109.04	106.40
36	5	437	G	N7-C8-N9	6.60	116.40	113.10
64	n8	73	LEU	CA-CB-CG	6.60	130.48	115.30
1	6	453	U	C6-N1-C2	-6.60	117.04	121.00
1	6	453	U	N1-C2-O2	6.60	127.42	122.80
36	5	2870	C	C6-N1-C1'	6.60	128.72	120.80
36	5	2162	U	C5-C6-N1	-6.59	119.40	122.70
36	5	2372	A	N3-C4-C5	-6.59	122.19	126.80
36	1	815	G	C4-C5-N7	6.59	113.44	110.80
1	6	1654	G	C4-C5-N7	6.59	113.43	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2353	G	C5-C6-O6	-6.58	124.65	128.60
1	6	382	C	C2-N3-C4	-6.58	116.61	119.90
54	M8	178	ARG	NE-CZ-NH1	-6.58	117.01	120.30
36	1	1450	G	C5-C6-O6	-6.58	124.65	128.60
36	1	2377	G	N3-C2-N2	6.58	124.51	119.90
36	1	3277	U	N3-C2-O2	-6.58	117.59	122.20
1	6	647	G	N3-C2-N2	-6.58	115.30	119.90
36	5	2932	U	N3-C2-O2	-6.58	117.60	122.20
36	1	1008	U	C5-C4-O4	6.58	129.85	125.90
36	1	2881	C	C6-N1-C2	6.58	122.93	120.30
36	1	3212	C	C5-C6-N1	-6.58	117.71	121.00
36	1	283	G	C4-C5-N7	6.57	113.43	110.80
36	5	546	C	N1-C2-O2	6.57	122.84	118.90
1	2	1490	C	C6-N1-C2	-6.57	117.67	120.30
36	5	622	A	N1-C6-N6	6.57	122.54	118.60
36	1	648	C	C6-N1-C1'	-6.56	112.92	120.80
1	2	1600	A	C2-N3-C4	-6.56	107.32	110.60
36	1	1164	G	N1-C6-O6	-6.56	115.96	119.90
36	5	883	A	C8-N9-C4	6.56	108.42	105.80
36	5	2978	U	O4'-C1'-N1	6.56	113.45	108.20
77	Q1	13	LEU	CA-CB-CG	6.56	130.39	115.30
36	5	669	U	N1-C2-N3	6.56	118.84	114.90
36	1	2617	U	C5-C6-N1	-6.56	119.42	122.70
36	5	2358	A	C8-N9-C4	6.56	108.42	105.80
36	1	2983	C	C4-C5-C6	6.55	120.68	117.40
36	5	1124	U	C4-C5-C6	-6.55	115.77	119.70
36	5	2815	G	C8-N9-C4	6.55	109.02	106.40
37	7	92	A	N1-C2-N3	-6.55	126.02	129.30
36	1	397	A	N1-C6-N6	-6.55	114.67	118.60
1	6	364	G	N3-C4-N9	6.55	129.93	126.00
36	1	2724	U	N3-C2-O2	-6.55	117.61	122.20
36	1	2943	G	C4-C5-N7	6.55	113.42	110.80
36	5	340	C	C5-C6-N1	-6.55	117.72	121.00
36	1	1447	G	N1-C6-O6	-6.55	115.97	119.90
36	5	717	C	N1-C2-O2	-6.55	114.97	118.90
37	7	92	A	N1-C6-N6	6.55	122.53	118.60
36	1	1192	C	C6-N1-C2	-6.55	117.68	120.30
36	5	2980	U	N1-C2-N3	6.54	118.83	114.90
36	1	1595	U	N3-C2-O2	6.54	126.78	122.20
36	5	682	U	O5'-P-OP1	-6.54	99.81	105.70
36	5	412	G	N3-C4-C5	-6.54	125.33	128.60
36	1	803	C	O5'-P-OP1	6.54	118.55	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	13	A	O5'-P-OP1	-6.54	99.81	105.70
1	2	1339	C	P-O3'-C3'	6.54	127.54	119.70
36	1	1148	G	N9-C4-C5	-6.53	102.79	105.40
36	5	1152	G	N1-C2-N2	6.53	122.08	116.20
37	7	87	G	N1-C6-O6	6.53	123.82	119.90
36	1	2400	G	N1-C6-O6	6.53	123.82	119.90
36	1	2946	A	N1-C6-N6	6.53	122.52	118.60
36	5	395	A	N1-C6-N6	6.52	122.51	118.60
36	5	644	G	N9-C4-C5	6.52	108.01	105.40
36	1	1906	G	N1-C6-O6	6.52	123.81	119.90
36	5	217	U	C5-C6-N1	-6.52	119.44	122.70
36	5	1895	A	N1-C6-N6	-6.52	114.69	118.60
36	5	3098	G	N3-C4-C5	-6.52	125.34	128.60
56	n0	155	ARG	NE-CZ-NH2	6.52	123.56	120.30
37	7	83	U	O5'-P-OP2	-6.51	99.84	105.70
42	L5	146	LEU	CA-CB-CG	6.51	130.27	115.30
1	6	334	G	C5-C6-N1	6.51	114.75	111.50
36	1	1150	A	N1-C6-N6	-6.51	114.69	118.60
36	5	2142	A	OP1-P-O3'	6.51	119.52	105.20
1	6	647	G	N3-C4-C5	6.51	131.85	128.60
36	5	346	C	N3-C2-O2	-6.51	117.35	121.90
36	5	1004	U	N1-C2-O2	6.51	127.36	122.80
36	1	3362	A	C6-C5-N7	-6.50	127.75	132.30
36	1	2377	G	C2-N3-C4	-6.50	108.65	111.90
1	6	144	U	C6-N1-C2	-6.50	117.10	121.00
36	5	2719	U	C2-N1-C1'	-6.50	109.89	117.70
36	1	933	A	N1-C2-N3	6.50	132.55	129.30
36	1	2550	U	N3-C2-O2	-6.50	117.65	122.20
36	5	1938	U	C5-C6-N1	-6.50	119.45	122.70
1	2	1280	C	C6-N1-C2	-6.50	117.70	120.30
36	1	3097	C	O5'-P-OP2	-6.50	99.86	105.70
36	5	1113	G	C2-N3-C4	-6.50	108.65	111.90
36	5	682	U	C5-C4-O4	6.49	129.80	125.90
36	5	923	C	N3-C2-O2	-6.49	117.36	121.90
36	5	1716	U	P-O3'-C3'	6.49	127.49	119.70
36	5	2372	A	P-O3'-C3'	6.49	127.49	119.70
36	1	2257	C	C2-N1-C1'	6.49	125.94	118.80
36	5	2944	U	N3-C2-O2	-6.49	117.66	122.20
36	5	3181	C	C5-C6-N1	6.49	124.24	121.00
36	5	2639	G	C4-C5-C6	6.49	122.69	118.80
36	5	3136	G	N1-C2-N3	6.49	127.79	123.90
36	1	948	C	C4-C5-C6	6.48	120.64	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1662	G	C4-C5-N7	6.48	113.39	110.80
1	6	56	U	C5-C6-N1	-6.48	119.46	122.70
1	2	728	U	N1-C2-O2	6.48	127.34	122.80
1	6	1634	C	C6-N1-C2	-6.48	117.71	120.30
36	1	111	C	C6-N1-C2	6.48	122.89	120.30
36	1	1396	C	C5-C4-N4	-6.48	115.67	120.20
36	1	3362	A	N1-C6-N6	6.48	122.49	118.60
38	4	23	U	N1-C2-O2	-6.48	118.27	122.80
36	1	2172	A	C8-N9-C4	6.48	108.39	105.80
36	1	2617	U	C4-C5-C6	6.47	123.58	119.70
36	1	644	G	C2-N3-C4	-6.47	108.66	111.90
36	1	2948	C	N3-C4-C5	6.47	124.49	121.90
38	4	113	U	C5-C6-N1	-6.47	119.46	122.70
36	5	421	G	C4-N9-C1'	6.47	134.91	126.50
36	1	1365	G	C6-C5-N7	-6.47	126.52	130.40
36	1	1269	U	C2-N1-C1'	6.46	125.46	117.70
36	1	2719	U	N1-C2-O2	-6.46	118.28	122.80
36	1	2417	U	N1-C2-N3	6.46	118.78	114.90
36	5	960	U	N3-C2-O2	-6.46	117.68	122.20
36	5	1081	U	C2-N1-C1'	6.46	125.46	117.70
36	5	1428	A	C8-N9-C4	6.46	108.38	105.80
36	1	730	C	N3-C4-C5	6.46	124.48	121.90
36	1	1481	A	N1-C6-N6	6.46	122.47	118.60
1	6	119	A	C2-N3-C4	-6.46	107.37	110.60
36	5	2943	G	C5-C6-O6	-6.46	124.73	128.60
36	5	3382	U	C2-N1-C1'	6.46	125.44	117.70
36	1	908	G	N1-C6-O6	6.45	123.77	119.90
36	1	1047	A	O5'-P-OP2	-6.45	99.90	105.70
36	5	1907	C	N1-C2-N3	6.44	123.71	119.20
36	1	1365	G	N3-C2-N2	6.44	124.41	119.90
36	5	669	U	C2-N3-C4	-6.44	123.14	127.00
36	5	2816	G	C4-C5-N7	6.44	113.38	110.80
36	1	2984	C	N1-C2-N3	6.44	123.71	119.20
36	1	3175	U	O5'-P-OP2	-6.44	99.90	105.70
36	5	2215	A	N9-C4-C5	-6.44	103.22	105.80
36	5	2689	A	C4-C5-C6	6.44	120.22	117.00
37	7	27	A	C8-N9-C4	-6.44	103.22	105.80
36	1	1367	G	N1-C6-O6	6.44	123.76	119.90
36	5	1620	U	N3-C2-O2	-6.44	117.69	122.20
36	1	3181	C	N3-C2-O2	-6.44	117.39	121.90
36	5	3181	C	C6-N1-C2	-6.44	117.72	120.30
1	2	328	A	N1-C6-N6	6.43	122.46	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	628	A	C8-N9-C4	6.43	108.37	105.80
36	5	2833	A	N1-C2-N3	6.43	132.52	129.30
36	5	2884	C	N1-C2-O2	-6.43	115.04	118.90
36	5	1139	G	C5-C6-O6	6.43	132.46	128.60
36	5	3327	G	C6-C5-N7	-6.43	126.54	130.40
36	1	2984	C	N3-C4-N4	-6.42	113.50	118.00
36	5	1303	A	N1-C6-N6	6.42	122.45	118.60
36	5	3022	G	O4'-C1'-N9	6.42	113.34	108.20
36	5	2305	G	C8-N9-C4	-6.42	103.83	106.40
36	5	1322	U	C5-C4-O4	-6.42	122.05	125.90
36	1	939	U	C2-N3-C4	-6.42	123.15	127.00
35	sM	167	PRO	N-CA-CB	6.42	111.00	103.30
36	5	2704	A	OP1-P-OP2	6.41	129.22	119.60
38	8	104	A	C2-N3-C4	-6.41	107.39	110.60
36	1	282	G	N1-C6-O6	-6.41	116.05	119.90
36	1	1931	U	C2-N1-C1'	-6.41	110.00	117.70
36	1	3275	U	OP1-P-O3'	6.41	119.31	105.20
36	5	3207	U	N1-C2-O2	-6.41	118.31	122.80
36	5	2830	G	C6-N1-C2	-6.41	121.25	125.10
36	5	2145	A	C5-C6-N1	6.41	120.90	117.70
36	5	2383	C	N1-C2-O2	-6.41	115.06	118.90
36	5	2873	U	C4-C5-C6	6.41	123.54	119.70
36	1	295	A	N7-C8-N9	6.41	117.00	113.80
36	5	1863	G	C5-C6-N1	6.41	114.70	111.50
36	1	1180	A	O4'-C1'-N9	-6.40	103.08	108.20
36	5	2880	U	C5-C4-O4	6.40	129.74	125.90
36	1	608	A	N9-C4-C5	-6.40	103.24	105.80
36	5	2726	C	N3-C4-N4	-6.40	113.52	118.00
1	6	639	U	N1-C2-O2	6.40	127.28	122.80
1	2	1560	U	C5-C4-O4	6.40	129.74	125.90
36	1	2758	A	N1-C2-N3	-6.40	126.10	129.30
36	5	873	C	OP2-P-O3'	6.40	119.28	105.20
36	1	286	U	N3-C2-O2	-6.40	117.72	122.20
36	5	1904	C	C6-N1-C2	-6.40	117.74	120.30
36	1	2646	C	C5-C6-N1	-6.39	117.80	121.00
36	5	842	G	C5-C6-O6	-6.39	124.76	128.60
36	5	3351	U	N3-C2-O2	-6.39	117.72	122.20
1	6	630	A	C2-N3-C4	-6.39	107.40	110.60
36	5	2830	G	N3-C4-N9	6.39	129.84	126.00
36	5	2371	G	N1-C2-N2	-6.39	110.45	116.20
36	1	1146	C	N1-C2-O2	6.39	122.73	118.90
36	1	2827	U	N3-C2-O2	-6.39	117.73	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	5	G	N3-C4-C5	6.39	131.79	128.60
36	1	2599	U	C6-N1-C2	-6.39	117.17	121.00
36	1	1489	A	C5-C6-N6	-6.38	118.59	123.70
36	1	2836	C	N3-C4-N4	-6.38	113.53	118.00
36	5	2819	A	N9-C4-C5	6.38	108.35	105.80
36	1	1838	G	C6-C5-N7	-6.38	126.57	130.40
36	1	3362	A	N1-C2-N3	6.38	132.49	129.30
64	N8	116	GLY	N-CA-C	6.38	129.05	113.10
1	6	316	A	C8-N9-C4	6.38	108.35	105.80
36	5	2392	C	C6-N1-C2	6.38	122.85	120.30
36	5	650	C	C5-C6-N1	-6.38	117.81	121.00
36	5	1536	G	N3-C2-N2	-6.38	115.44	119.90
36	5	2772	C	P-O3'-C3'	6.38	127.35	119.70
36	5	894	G	N3-C4-N9	6.37	129.82	126.00
36	5	2931	C	N3-C2-O2	6.37	126.36	121.90
36	5	3306	U	N3-C4-C5	6.37	118.42	114.60
36	1	192	C	C6-N1-C2	-6.37	117.75	120.30
36	1	2314	U	C6-N1-C1'	-6.37	112.28	121.20
37	3	53	U	N1-C2-O2	-6.37	118.34	122.80
36	5	1476	G	C8-N9-C4	6.37	108.95	106.40
36	5	2372	A	OP2-P-O3'	6.37	119.21	105.20
36	1	1406	A	N1-C6-N6	6.37	122.42	118.60
36	5	1440	G	N3-C4-N9	-6.37	122.18	126.00
36	5	2290	C	C6-N1-C2	6.37	122.85	120.30
36	1	2314	U	C4-C5-C6	-6.37	115.88	119.70
36	5	1592	G	C6-N1-C2	6.37	128.92	125.10
36	1	1902	G	C5-C6-O6	-6.37	124.78	128.60
1	6	1640	C	N1-C2-O2	6.37	122.72	118.90
36	1	1307	G	C2'-C3'-O3'	6.36	123.88	113.70
36	5	1889	G	N3-C4-N9	6.36	129.82	126.00
38	4	32	C	C2-N1-C1'	-6.36	111.81	118.80
36	5	1392	G	N9-C4-C5	-6.36	102.86	105.40
1	6	558	U	C2-N1-C1'	6.36	125.33	117.70
36	5	642	U	N3-C2-O2	-6.36	117.75	122.20
36	5	1160	C	C2-N1-C1'	-6.35	111.81	118.80
1	2	448	C	N3-C4-C5	-6.35	119.36	121.90
1	2	507	U	N3-C2-O2	-6.35	117.76	122.20
36	1	1848	G	N1-C6-O6	6.35	123.71	119.90
36	1	2281	A	O5'-P-OP2	-6.35	99.99	105.70
36	1	2996	U	C6-N1-C1'	-6.35	112.32	121.20
36	5	2931	C	N3-C4-N4	6.35	122.44	118.00
36	1	648	C	N1-C2-O2	6.34	122.71	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	337	G	N9-C4-C5	-6.34	102.86	105.40
36	1	2403	G	O5'-P-OP1	6.34	118.31	110.70
36	1	1157	G	O5'-P-OP2	-6.34	99.99	105.70
36	1	2948	C	N3-C4-N4	-6.34	113.56	118.00
1	6	1025	A	C8-N9-C4	6.34	108.34	105.80
36	5	1190	A	C8-N9-C4	-6.34	103.26	105.80
36	5	1370	G	N1-C6-O6	-6.34	116.10	119.90
36	5	2169	G	N1-C6-O6	-6.34	116.10	119.90
36	1	1453	A	C8-N9-C4	-6.34	103.27	105.80
36	1	2283	G	N1-C6-O6	6.34	123.70	119.90
1	6	1640	C	C2-N1-C1'	6.34	125.77	118.80
36	5	2639	G	N3-C4-C5	-6.33	125.43	128.60
36	5	3208	G	C6-C5-N7	-6.33	126.60	130.40
36	1	2927	C	N1-C2-O2	-6.33	115.10	118.90
1	2	440	U	N3-C4-O4	-6.33	114.97	119.40
1	2	1679	G	N1-C6-O6	-6.33	116.10	119.90
36	1	2899	C	N1-C2-O2	6.33	122.70	118.90
36	5	2199	G	C5-C6-O6	-6.33	124.80	128.60
36	5	2601	A	N1-C6-N6	-6.33	114.80	118.60
36	5	963	G	O5'-P-OP2	-6.33	100.01	105.70
36	1	974	G	C5-C6-O6	-6.32	124.81	128.60
41	L4	76	ARG	NE-CZ-NH1	-6.32	117.14	120.30
36	1	584	G	C5-C6-O6	6.32	132.39	128.60
36	5	41	G	OP2-P-O3'	6.32	119.10	105.20
1	2	39	A	O4'-C1'-N9	6.32	113.25	108.20
36	1	644	G	N1-C2-N2	-6.32	110.51	116.20
36	1	785	G	N3-C4-C5	-6.32	125.44	128.60
36	1	1305	U	C5-C4-O4	6.32	129.69	125.90
36	1	1396	C	N3-C2-O2	6.32	126.32	121.90
36	5	2775	U	C5-C4-O4	6.32	129.69	125.90
37	7	92	A	C4-C5-N7	6.32	113.86	110.70
1	2	1761	U	C6-N1-C2	-6.32	117.21	121.00
1	6	1039	A	O4'-C1'-N9	6.32	113.25	108.20
36	1	608	A	C4-C5-C6	6.31	120.16	117.00
36	1	2679	A	C2-N3-C4	-6.31	107.44	110.60
36	1	2984	C	C6-N1-C2	-6.31	117.77	120.30
36	1	49	A	C2-N3-C4	-6.31	107.44	110.60
36	5	1437	C	C2-N1-C1'	6.31	125.74	118.80
38	4	21	C	C6-N1-C2	6.31	122.82	120.30
36	5	838	G	N3-C4-N9	-6.31	122.22	126.00
1	2	1414	U	N1-C2-O2	6.30	127.21	122.80
36	1	2351	U	N1-C2-O2	6.30	127.21	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2694	A	O5'-P-OP2	-6.30	100.03	105.70
36	1	3244	A	O4'-C1'-N9	-6.30	103.16	108.20
36	5	866	A	C8-N9-C4	6.30	108.32	105.80
36	5	2320	A	C5-C6-N1	-6.30	114.55	117.70
36	1	645	A	C2-N3-C4	6.30	113.75	110.60
36	1	3362	A	C4-C5-N7	6.30	113.85	110.70
36	5	948	C	C6-N1-C2	6.30	122.82	120.30
36	5	3206	C	C6-N1-C1'	6.30	128.36	120.80
50	m4	72	LEU	CA-CB-CG	6.30	129.78	115.30
36	1	936	A	N1-C6-N6	6.30	122.38	118.60
36	1	1316	C	N1-C2-N3	6.30	123.61	119.20
36	5	1314	C	N3-C4-C5	6.30	124.42	121.90
36	5	2917	G	C6-N1-C2	-6.30	121.32	125.10
36	5	518	G	C6-C5-N7	-6.29	126.62	130.40
36	1	864	G	N1-C6-O6	-6.29	116.12	119.90
36	5	2319	U	N1-C2-O2	6.29	127.20	122.80
1	6	1484	G	O5'-P-OP1	-6.29	100.04	105.70
1	2	1096	C	C2-N1-C1'	6.29	125.72	118.80
36	5	218	G	O5'-P-OP1	-6.29	100.04	105.70
36	5	1869	C	N3-C4-C5	6.29	124.42	121.90
36	5	1928	G	N1-C6-O6	6.29	123.67	119.90
1	2	831	U	C6-N1-C2	-6.29	117.23	121.00
36	5	348	A	N1-C6-N6	6.28	122.37	118.60
36	5	3372	A	N1-C6-N6	-6.28	114.83	118.60
1	2	810	G	C4-N9-C1'	6.28	134.67	126.50
1	2	985	G	N3-C4-N9	6.28	129.77	126.00
36	5	794	U	O5'-P-OP2	-6.28	100.05	105.70
36	5	919	U	O5'-P-OP1	6.28	118.23	110.70
36	1	2200	U	N3-C4-O4	6.28	123.79	119.40
36	1	2758	A	C2-N3-C4	6.28	113.74	110.60
1	6	1473	U	C6-N1-C2	-6.28	117.23	121.00
36	5	3362	A	N1-C6-N6	6.28	122.37	118.60
1	6	1340	U	N1-C2-O2	6.28	127.19	122.80
36	5	901	G	C6-C5-N7	-6.28	126.64	130.40
36	1	613	G	N1-C6-O6	6.27	123.66	119.90
36	5	880	G	O4'-C1'-N9	6.27	113.22	108.20
36	1	2860	U	N1-C2-O2	-6.27	118.41	122.80
36	5	943	U	N1-C2-O2	-6.27	118.41	122.80
1	2	934	C	C2-N1-C1'	6.27	125.70	118.80
36	5	3362	A	O4'-C1'-N9	6.27	113.22	108.20
45	18	69	LEU	CA-CB-CG	6.27	129.72	115.30
36	1	1492	G	C5-N7-C8	6.27	107.43	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1420	C	C6-N1-C2	6.27	122.81	120.30
36	5	767	U	O4'-C1'-N1	6.27	113.21	108.20
36	1	2429	G	N1-C6-O6	-6.26	116.14	119.90
36	1	2129	U	N3-C2-O2	6.26	126.58	122.20
1	6	687	G	N3-C4-N9	-6.26	122.24	126.00
36	1	1103	A	P-O3'-C3'	6.26	127.21	119.70
36	1	1177	G	N3-C2-N2	-6.26	115.52	119.90
36	1	1298	C	O5'-P-OP1	-6.26	100.07	105.70
36	5	1481	A	P-O3'-C3'	6.26	127.21	119.70
36	5	2118	C	N1-C2-O2	6.26	122.65	118.90
36	1	2810	C	C5-C6-N1	-6.25	117.87	121.00
36	1	919	U	O5'-P-OP2	-6.25	100.07	105.70
36	1	1367	G	N3-C4-N9	6.25	129.75	126.00
36	5	216	G	N1-C6-O6	6.25	123.65	119.90
36	5	683	U	N1-C2-O2	-6.25	118.42	122.80
36	5	2937	G	C8-N9-C4	6.25	108.90	106.40
36	1	352	A	N1-C6-N6	6.25	122.35	118.60
36	1	1157	G	C5-C6-O6	6.25	132.35	128.60
36	5	857	G	C5-C6-N1	-6.25	108.37	111.50
36	5	2917	G	N3-C4-N9	6.25	129.75	126.00
36	5	3218	A	C5-N7-C8	-6.25	100.78	103.90
36	1	498	A	N1-C6-N6	-6.25	114.85	118.60
38	4	94	C	N3-C4-C5	6.25	124.40	121.90
36	1	1911	A	C5-C6-N1	6.24	120.82	117.70
70	O4	8	ARG	NE-CZ-NH2	-6.24	117.18	120.30
36	5	835	G	N9-C4-C5	-6.24	102.90	105.40
36	1	2572	C	C6-N1-C1'	-6.24	113.31	120.80
1	6	1280	C	N3-C4-C5	-6.24	119.40	121.90
36	5	2816	G	C8-N9-C4	6.24	108.90	106.40
1	2	581	U	C2-N1-C1'	6.24	125.19	117.70
36	1	2339	C	O4'-C1'-N1	-6.24	103.21	108.20
36	1	2352	A	C5-C6-N6	-6.24	118.71	123.70
36	1	3135	U	C5-C6-N1	-6.24	119.58	122.70
1	6	1478	G	C6-C5-N7	-6.24	126.66	130.40
36	1	3344	A	C8-N9-C4	-6.24	103.31	105.80
1	6	114	C	N1-C2-O2	6.24	122.64	118.90
36	5	384	A	C8-N9-C4	6.24	108.30	105.80
36	5	2213	A	N7-C8-N9	-6.24	110.68	113.80
1	2	158	U	P-O3'-C3'	6.23	127.18	119.70
36	1	2887	A	O5'-P-OP2	-6.23	100.09	105.70
36	5	2696	A	C6-N1-C2	6.23	122.34	118.60
36	1	1381	A	N1-C6-N6	6.23	122.34	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	104	A	O4'-C1'-N9	6.23	113.19	108.20
36	1	28	C	C5-C4-N4	-6.23	115.84	120.20
36	1	808	A	N1-C6-N6	-6.23	114.86	118.60
36	1	3101	G	C8-N9-C4	6.23	108.89	106.40
1	6	408	C	C6-N1-C2	-6.23	117.81	120.30
36	5	370	U	N3-C2-O2	-6.23	117.84	122.20
36	1	1595	U	C6-N1-C2	6.23	124.74	121.00
36	5	437	G	N3-C2-N2	-6.23	115.54	119.90
1	6	609	U	C5-C6-N1	-6.23	119.59	122.70
36	5	1151	U	N3-C4-O4	6.23	123.76	119.40
36	1	3228	C	C6-N1-C2	-6.23	117.81	120.30
36	5	581	U	C5-C6-N1	6.22	125.81	122.70
36	5	1085	A	N1-C6-N6	6.22	122.33	118.60
1	2	1481	C	C6-N1-C2	-6.22	117.81	120.30
1	6	600	U	O5'-P-OP2	-6.22	100.10	105.70
36	1	651	G	N1-C2-N2	-6.22	110.60	116.20
36	5	1495	U	C5-C6-N1	6.22	125.81	122.70
36	5	2761	G	N1-C6-O6	-6.22	116.17	119.90
36	1	283	G	C5-C6-O6	-6.22	124.87	128.60
36	1	1152	G	C6-C5-N7	-6.22	126.67	130.40
36	5	901	G	N3-C4-C5	-6.22	125.49	128.60
36	1	2719	U	N1-C2-N3	6.22	118.63	114.90
36	5	1170	A	N1-C6-N6	6.22	122.33	118.60
36	5	1193	A	N7-C8-N9	6.22	116.91	113.80
36	1	2314	U	C2-N1-C1'	6.22	125.16	117.70
36	5	2531	C	N1-C2-O2	6.21	122.63	118.90
36	5	2913	C	C4-C5-C6	6.21	120.51	117.40
1	2	1269	U	C2-N1-C1'	6.21	125.16	117.70
36	1	3382	U	C2-N1-C1'	6.21	125.16	117.70
1	6	609	U	N3-C4-O4	-6.21	115.05	119.40
36	1	587	U	C5-C4-O4	-6.21	122.17	125.90
36	1	2279	A	C5-C6-N6	-6.21	118.73	123.70
36	5	2235	C	C6-N1-C2	6.21	122.78	120.30
36	5	2777	G	C5-C6-O6	6.21	132.33	128.60
36	1	197	G	C2-N3-C4	-6.21	108.80	111.90
1	2	1611	A	C8-N9-C4	-6.21	103.32	105.80
36	1	790	U	N3-C2-O2	-6.21	117.86	122.20
36	1	350	C	N3-C2-O2	-6.21	117.56	121.90
1	2	765	G	O4'-C1'-N9	-6.20	103.24	108.20
1	2	1730	A	C8-N9-C4	6.20	108.28	105.80
36	1	651	G	N1-C6-O6	-6.20	116.18	119.90
36	5	2608	G	OP2-P-O3'	6.20	118.84	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	33	U	N3-C2-O2	-6.20	117.86	122.20
36	5	2607	G	N7-C8-N9	6.20	116.20	113.10
36	1	1835	A	C2-N3-C4	-6.20	107.50	110.60
1	6	1192	C	N1-C2-O2	6.20	122.62	118.90
1	6	1782	A	C8-N9-C4	-6.20	103.32	105.80
36	5	73	C	C6-N1-C2	6.20	122.78	120.30
36	5	877	C	C5-C4-N4	-6.20	115.86	120.20
36	1	2640	A	N1-C2-N3	6.20	132.40	129.30
1	6	1072	C	C6-N1-C2	-6.20	117.82	120.30
1	2	570	A	N1-C6-N6	6.19	122.32	118.60
36	1	2981	U	N3-C2-O2	-6.19	117.86	122.20
36	5	3269	U	P-O3'-C3'	6.19	127.13	119.70
1	2	507	U	C2-N1-C1'	6.19	125.13	117.70
1	6	163	G	N3-C4-C5	6.19	131.70	128.60
36	5	1161	G	C6-C5-N7	6.19	134.12	130.40
36	5	1304	A	C2-N3-C4	6.19	113.70	110.60
36	5	2191	U	N3-C2-O2	-6.19	117.86	122.20
1	2	1611	A	N7-C8-N9	6.19	116.90	113.80
36	1	2121	G	N3-C4-C5	-6.19	125.50	128.60
36	5	1116	G	C2-N3-C4	6.19	115.00	111.90
36	5	1342	C	C5-C6-N1	-6.19	117.90	121.00
36	5	1452	A	C4-C5-N7	6.19	113.80	110.70
36	1	1331	U	C5-C6-N1	-6.19	119.61	122.70
1	6	353	A	C2-N3-C4	6.19	113.69	110.60
1	6	542	A	O4'-C1'-N9	6.19	113.15	108.20
36	1	2649	A	C5-C6-N1	6.18	120.79	117.70
36	5	1326	A	O5'-P-OP2	-6.18	100.14	105.70
36	5	2604	U	C5-C4-O4	6.18	129.61	125.90
50	m4	77	ARG	NE-CZ-NH1	-6.18	117.21	120.30
38	8	86	U	C5-C6-N1	6.18	125.79	122.70
36	1	1385	C	C6-N1-C2	6.18	122.77	120.30
1	6	1119	G	N1-C2-N2	-6.18	110.64	116.20
1	2	1749	A	N3-C4-C5	6.18	131.12	126.80
36	1	3079	U	N1-C2-O2	-6.18	118.48	122.80
36	5	941	G	C8-N9-C4	-6.17	103.93	106.40
1	2	736	C	C5-C6-N1	6.17	124.09	121.00
36	1	682	U	C6-N1-C1'	6.17	129.84	121.20
1	6	1600	A	C2-N3-C4	-6.17	107.52	110.60
36	5	2700	G	C4-C5-N7	6.17	113.27	110.80
1	2	810	G	C4-C5-N7	6.17	113.27	110.80
36	1	770	G	O4'-C1'-N9	6.17	113.13	108.20
36	5	857	G	C4-C5-C6	6.17	122.50	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	39	A	N3-C4-C5	6.16	131.11	126.80
36	1	2658	G	C8-N9-C4	6.16	108.86	106.40
1	6	158	U	P-O3'-C3'	6.16	127.10	119.70
36	5	2135	U	N3-C4-C5	6.16	118.30	114.60
36	5	2283	G	C5-C6-O6	-6.16	124.90	128.60
36	5	3093	C	C2-N3-C4	-6.16	116.82	119.90
36	1	1113	G	N7-C8-N9	6.16	116.18	113.10
1	2	402	C	C2-N1-C1'	-6.16	112.02	118.80
36	1	1113	G	N3-C2-N2	-6.16	115.59	119.90
36	1	2884	C	C6-N1-C2	6.16	122.77	120.30
36	5	2887	A	C4-C5-C6	6.16	120.08	117.00
36	1	2914	G	O5'-P-OP2	-6.16	100.16	105.70
36	5	914	A	N9-C4-C5	-6.16	103.34	105.80
36	1	1152	G	C5-C6-O6	-6.16	124.91	128.60
54	M8	174	ARG	NE-CZ-NH1	-6.16	117.22	120.30
1	2	864	U	N3-C2-O2	-6.15	117.89	122.20
1	2	1305	U	C5-C4-O4	6.15	129.59	125.90
36	5	2185	G	N3-C2-N2	-6.15	115.59	119.90
36	5	2874	G	C5-C6-O6	6.15	132.29	128.60
36	1	2943	G	C5-C6-O6	-6.15	124.91	128.60
36	1	3207	U	C5-C6-N1	-6.15	119.62	122.70
36	5	205	C	O5'-P-OP1	-6.15	100.17	105.70
36	5	2953	U	N3-C4-C5	-6.15	110.91	114.60
1	2	507	U	N1-C2-O2	6.15	127.11	122.80
36	5	2625	C	N3-C4-C5	6.15	124.36	121.90
36	5	1124	U	C5-C4-O4	-6.15	122.21	125.90
36	1	2404	A	O5'-P-OP2	-6.14	100.17	105.70
36	1	2945	G	C5-C6-O6	-6.14	124.91	128.60
1	2	728	U	N3-C2-O2	-6.14	117.90	122.20
36	1	2815	G	N7-C8-N9	-6.14	110.03	113.10
36	5	2718	U	N3-C2-O2	-6.14	117.90	122.20
36	1	2194	G	N1-C6-O6	6.14	123.58	119.90
36	5	2191	U	C5-C4-O4	6.14	129.58	125.90
1	6	933	A	N1-C6-N6	-6.13	114.92	118.60
36	5	2917	G	N3-C4-C5	-6.13	125.53	128.60
10	s8	29	LEU	CB-CG-CD2	6.13	121.43	111.00
36	1	1433	A	O4'-C1'-N9	-6.13	103.30	108.20
36	1	2606	G	N1-C2-N2	-6.13	110.68	116.20
36	1	2755	C	O5'-P-OP1	-6.13	100.18	105.70
36	5	3142	A	O5'-P-OP1	-6.13	100.18	105.70
1	2	158	U	C2-N1-C1'	6.13	125.05	117.70
36	5	630	A	N1-C2-N3	6.13	132.37	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1452	A	C5-C6-N6	-6.13	118.80	123.70
36	1	2284	C	C6-N1-C2	-6.13	117.85	120.30
36	1	3369	G	C5-C6-O6	-6.13	124.92	128.60
36	1	1307	G	N1-C6-O6	-6.12	116.22	119.90
36	1	1517	G	C8-N9-C4	6.12	108.85	106.40
36	1	1381	A	O5'-P-OP1	-6.12	100.19	105.70
1	2	554	C	C5-C6-N1	6.12	124.06	121.00
36	1	2725	U	C5-C6-N1	-6.12	119.64	122.70
36	5	222	A	O5'-P-OP2	-6.12	100.19	105.70
36	5	931	C	N3-C4-C5	6.12	124.35	121.90
1	2	49	C	C6-N1-C2	-6.12	117.85	120.30
36	5	986	U	N1-C2-O2	6.12	127.08	122.80
36	5	2699	G	N1-C2-N2	6.12	121.71	116.20
36	1	794	U	N1-C2-O2	-6.12	118.52	122.80
36	1	2821	C	O5'-P-OP1	-6.12	100.19	105.70
9	s7	131	PHE	C-N-CD	6.12	141.25	128.40
36	5	637	C	N1-C2-O2	-6.12	115.23	118.90
36	1	651	G	C8-N9-C1'	-6.12	119.05	127.00
36	1	3143	C	N3-C2-O2	6.12	126.18	121.90
36	5	2190	U	N1-C2-N3	6.12	118.57	114.90
36	1	642	U	C5-C6-N1	-6.12	119.64	122.70
36	1	2200	U	C5-C6-N1	6.12	125.76	122.70
36	1	2337	C	C6-N1-C2	-6.12	117.85	120.30
36	5	2950	G	C4-C5-N7	6.12	113.25	110.80
36	1	1149	G	C5-C6-N1	-6.11	108.44	111.50
1	2	685	A	P-O3'-C3'	6.11	127.03	119.70
36	1	2760	C	N1-C2-O2	-6.11	115.23	118.90
1	6	194	U	N1-C2-O2	6.11	127.08	122.80
36	1	3208	G	N3-C4-N9	-6.11	122.33	126.00
36	5	890	C	N1-C2-O2	6.11	122.57	118.90
38	8	44	A	N9-C4-C5	-6.11	103.36	105.80
36	1	3228	C	C2-N1-C1'	6.11	125.52	118.80
37	7	12	U	C5-C4-O4	-6.11	122.23	125.90
1	2	378	A	N1-C6-N6	6.11	122.26	118.60
1	6	90	C	N3-C2-O2	-6.11	117.63	121.90
36	5	2792	A	C8-N9-C4	-6.11	103.36	105.80
36	5	2372	A	N9-C4-C5	6.10	108.24	105.80
36	1	584	G	N9-C4-C5	6.10	107.84	105.40
36	1	941	G	C8-N9-C4	-6.10	103.96	106.40
36	1	2831	G	C6-C5-N7	-6.10	126.74	130.40
1	6	601	A	N1-C6-N6	-6.10	114.94	118.60
36	5	2211	U	C5-C4-O4	6.10	129.56	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1114	U	N3-C4-O4	-6.10	115.13	119.40
36	1	1335	C	N1-C2-O2	6.10	122.56	118.90
36	1	2399	A	C5-C6-N6	-6.10	118.82	123.70
36	5	3309	G	N1-C6-O6	-6.10	116.24	119.90
36	5	1439	U	O5'-P-OP2	6.10	118.02	110.70
36	5	1561	G	O4'-C1'-N9	6.09	113.08	108.20
36	5	1931	U	N3-C4-O4	-6.09	115.14	119.40
36	5	2512	C	C2-N1-C1'	6.09	125.50	118.80
36	1	647	A	C8-N9-C4	6.09	108.24	105.80
1	6	89	G	N1-C6-O6	6.09	123.55	119.90
1	6	139	C	P-O3'-C3'	6.09	127.01	119.70
36	5	3125	U	N3-C4-O4	-6.09	115.14	119.40
37	7	13	A	C5-C6-N1	6.09	120.75	117.70
36	1	48	A	N1-C2-N3	6.09	132.34	129.30
36	5	846	A	O5'-P-OP2	-6.09	100.22	105.70
36	5	3245	A	C4-C5-C6	6.09	120.05	117.00
36	1	937	G	O5'-P-OP2	-6.09	100.22	105.70
36	5	2833	A	C6-N1-C2	-6.09	114.95	118.60
36	1	901	G	N1-C6-O6	6.09	123.55	119.90
36	1	1149	G	C5-C6-O6	-6.09	124.95	128.60
36	1	2550	U	N1-C2-N3	6.09	118.55	114.90
1	6	1079	U	N3-C2-O2	-6.09	117.94	122.20
36	5	1719	G	N9-C4-C5	-6.09	102.97	105.40
36	5	1897	G	N3-C4-C5	6.09	131.64	128.60
36	1	925	A	O5'-P-OP1	-6.08	100.22	105.70
36	1	339	C	C5-C4-N4	6.08	124.46	120.20
36	1	986	U	C6-N1-C2	-6.08	117.35	121.00
1	6	1414	U	N3-C4-O4	-6.08	115.14	119.40
36	5	1480	G	O4'-C1'-N9	6.08	113.07	108.20
36	5	942	U	N1-C2-O2	-6.08	118.54	122.80
39	12	237	LEU	CA-CB-CG	-6.08	101.31	115.30
36	1	530	G	N1-C6-O6	-6.08	116.25	119.90
36	5	3215	A	C2-N3-C4	-6.08	107.56	110.60
37	3	84	A	OP1-P-O3'	6.08	118.57	105.20
1	6	988	A	O5'-P-OP2	-6.08	100.23	105.70
36	1	2641	U	C6-N1-C2	6.07	124.64	121.00
36	1	2641	U	C5-C6-N1	-6.07	119.66	122.70
36	1	1001	G	N1-C6-O6	6.07	123.54	119.90
36	1	282	G	C2'-C3'-O3'	6.07	123.41	113.70
36	1	3244	A	C5-C6-N6	-6.07	118.84	123.70
36	1	2599	U	N3-C2-O2	-6.07	117.95	122.20
41	L4	139	GLY	N-CA-C	-6.07	97.93	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	n9	23	LYS	C-N-CD	6.07	141.14	128.40
1	2	810	G	C8-N9-C1'	-6.07	119.11	127.00
36	5	1192	C	C5-C4-N4	-6.07	115.95	120.20
36	5	1305	U	C5-C4-O4	-6.07	122.26	125.90
1	2	811	A	C8-N9-C4	-6.06	103.38	105.80
1	6	1	U	N3-C2-O2	-6.06	117.96	122.20
36	5	211	A	N1-C6-N6	-6.06	114.96	118.60
36	5	327	A	C8-N9-C4	6.06	108.22	105.80
36	5	2765	C	C5-C6-N1	6.06	124.03	121.00
36	5	2952	G	N3-C2-N2	6.06	124.14	119.90
36	1	1177	G	C5-C6-O6	-6.06	124.96	128.60
36	1	1480	G	N3-C4-C5	6.06	131.63	128.60
36	1	1556	C	C2-N1-C1'	6.06	125.47	118.80
1	6	512	A	N1-C6-N6	6.06	122.24	118.60
36	5	922	U	N3-C4-O4	-6.06	115.16	119.40
36	5	2257	C	C6-N1-C2	-6.06	117.88	120.30
36	1	2945	G	N1-C6-O6	6.06	123.54	119.90
36	5	1171	G	N1-C2-N2	-6.06	110.75	116.20
1	2	393	C	C6-N1-C2	6.06	122.72	120.30
36	1	1489	A	C8-N9-C4	6.06	108.22	105.80
36	1	291	C	OP2-P-O3'	6.06	118.52	105.20
36	1	2273	G	C8-N9-C4	6.06	108.82	106.40
1	6	1796	C	C5-C6-N1	-6.05	117.97	121.00
36	5	1116	G	C8-N9-C4	-6.05	103.98	106.40
36	5	1695	U	N3-C2-O2	-6.05	117.96	122.20
36	5	1879	A	N1-C6-N6	6.05	122.23	118.60
36	5	2917	G	O5'-P-OP2	-6.05	100.25	105.70
36	1	439	C	N1-C2-O2	6.05	122.53	118.90
44	17	83	LEU	CA-CB-CG	6.05	129.22	115.30
36	5	661	G	C6-C5-N7	-6.05	126.77	130.40
36	5	2133	U	N3-C4-O4	-6.05	115.16	119.40
36	1	304	G	N9-C4-C5	6.05	107.82	105.40
36	5	1099	A	N1-C6-N6	6.05	122.23	118.60
36	5	2371	G	C8-N9-C4	6.05	108.82	106.40
36	5	2993	G	C5-C6-O6	-6.05	124.97	128.60
36	1	343	U	N1-C2-O2	-6.05	118.57	122.80
36	1	1313	G	C4-C5-N7	6.05	113.22	110.80
36	1	1919	G	C5-C6-O6	6.05	132.23	128.60
36	5	518	G	N1-C6-O6	6.05	123.53	119.90
38	8	100	U	C2-N1-C1'	6.05	124.96	117.70
36	5	2728	G	O4'-C1'-N9	6.04	113.04	108.20
36	1	298	U	N3-C2-O2	-6.04	117.97	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	48	G	C8-N9-C4	6.04	108.82	106.40
36	5	506	U	O5'-P-OP2	-6.04	100.26	105.70
36	5	649	A	C8-N9-C4	-6.04	103.38	105.80
36	1	1881	A	C8-N9-C4	6.04	108.22	105.80
36	5	419	G	O5'-P-OP2	-6.04	100.27	105.70
18	C6	40	GLU	C-N-CD	-6.04	107.32	120.60
1	2	73	U	OP1-P-O3'	6.04	118.48	105.20
1	2	132	U	OP2-P-O3'	6.04	118.48	105.20
36	1	650	C	C2-N3-C4	-6.04	116.88	119.90
36	5	715	A	P-O3'-C3'	6.04	126.94	119.70
36	5	1606	U	O4'-C1'-N1	6.04	113.03	108.20
48	m1	30	LEU	CA-CB-CG	6.04	129.18	115.30
1	6	630	A	O5'-P-OP2	-6.03	100.27	105.70
36	1	1349	G	N3-C4-C5	-6.03	125.58	128.60
1	6	965	U	N1-C2-O2	6.03	127.02	122.80
36	5	31	C	N1-C2-O2	6.03	122.52	118.90
36	5	954	U	C6-N1-C2	-6.03	117.38	121.00
36	5	2792	A	N1-C6-N6	6.03	122.22	118.60
36	5	425	G	N9-C4-C5	-6.03	102.99	105.40
36	5	874	U	O5'-P-OP1	-6.03	100.28	105.70
36	5	1499	C	C2-N1-C1'	-6.03	112.17	118.80
38	8	80	A	N7-C8-N9	6.03	116.81	113.80
36	5	2607	G	C8-N9-C4	-6.03	103.99	106.40
36	5	2931	C	C5-C4-N4	-6.03	115.98	120.20
36	1	2257	C	C6-N1-C2	-6.02	117.89	120.30
36	1	3023	U	O5'-P-OP1	-6.02	100.28	105.70
1	6	354	C	N3-C4-C5	6.02	124.31	121.90
1	2	1486	G	N7-C8-N9	6.02	116.11	113.10
36	1	44	U	C6-N1-C2	6.02	124.61	121.00
36	1	2114	C	O5'-P-OP2	-6.02	100.28	105.70
36	1	2377	G	N9-C4-C5	-6.02	102.99	105.40
1	6	639	U	C2-N1-C1'	6.02	124.92	117.70
36	5	912	G	C5-C6-O6	6.02	132.21	128.60
36	5	3309	G	N3-C4-C5	-6.02	125.59	128.60
38	4	20	U	C5-C6-N1	-6.02	119.69	122.70
1	6	75	U	C2-N1-C1'	6.02	124.92	117.70
1	6	1478	G	C8-N9-C1'	-6.02	119.17	127.00
36	5	659	G	C5-C6-O6	-6.02	124.99	128.60
36	5	1300	G	C5-C6-O6	-6.02	124.99	128.60
36	1	317	A	C2-N3-C4	-6.02	107.59	110.60
36	1	867	G	C5-C6-O6	6.02	132.21	128.60
36	1	1435	A	OP1-P-OP2	-6.02	110.58	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2860	U	C6-N1-C2	6.02	124.61	121.00
36	1	416	A	C8-N9-C4	6.01	108.21	105.80
36	5	2393	G	C6-C5-N7	-6.01	126.79	130.40
36	5	3215	A	N1-C6-N6	6.01	122.21	118.60
36	1	2370	G	N1-C2-N3	6.01	127.51	123.90
36	1	189	G	C5-C6-O6	-6.01	124.99	128.60
36	1	1795	U	C5-C4-O4	-6.01	122.29	125.90
36	5	2812	C	N3-C4-C5	6.01	124.30	121.90
79	Q3	17	ARG	NE-CZ-NH1	-6.01	117.30	120.30
1	6	1474	G	N3-C4-C5	-6.01	125.59	128.60
36	5	92	G	N3-C4-N9	6.01	129.61	126.00
36	5	3197	G	N3-C4-N9	-6.01	122.39	126.00
36	1	109	A	OP1-P-O3'	6.01	118.42	105.20
36	5	515	C	N1-C2-O2	-6.00	115.30	118.90
36	5	715	A	O4'-C1'-N9	6.00	113.00	108.20
1	6	1180	C	C6-N1-C2	-6.00	117.90	120.30
36	5	1704	A	C2-N3-C4	-6.00	107.60	110.60
36	1	894	G	N9-C4-C5	6.00	107.80	105.40
36	1	1340	G	OP1-P-OP2	6.00	128.60	119.60
36	5	2411	U	N3-C4-O4	-6.00	115.20	119.40
1	2	1698	G	P-O3'-C3'	6.00	126.90	119.70
73	O7	21	ARG	NE-CZ-NH2	-6.00	117.30	120.30
36	1	2796	G	N1-C2-N3	6.00	127.50	123.90
1	2	334	G	C4-N9-C1'	-5.99	118.71	126.50
36	1	3344	A	C5-N7-C8	-5.99	100.90	103.90
36	5	1719	G	N1-C6-O6	5.99	123.50	119.90
36	5	2764	C	C6-N1-C2	5.99	122.70	120.30
37	7	13	A	C2-N3-C4	5.99	113.60	110.60
36	1	2572	C	N3-C2-O2	-5.99	117.71	121.90
1	6	1072	C	C5-C6-N1	5.99	124.00	121.00
36	5	1049	C	C6-N1-C2	-5.99	117.91	120.30
36	5	1176	C	C4-C5-C6	5.99	120.39	117.40
36	5	1179	A	OP1-P-O3'	5.99	118.38	105.20
36	5	1878	G	C4-N9-C1'	5.99	134.28	126.50
36	5	2129	U	C5-C4-O4	5.99	129.49	125.90
38	4	50	C	C6-N1-C2	-5.99	117.91	120.30
36	1	3195	U	O4'-C1'-N1	5.98	112.99	108.20
70	O4	51	LEU	CA-CB-CG	5.98	129.06	115.30
1	2	1258	U	N3-C2-O2	-5.98	118.01	122.20
36	5	1456	A	OP2-P-O3'	-5.98	92.04	105.20
36	1	321	C	N1-C2-O2	5.98	122.49	118.90
36	5	2929	C	C5-C6-N1	-5.98	118.01	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	350	U	N1-C2-N3	5.98	118.49	114.90
36	1	1160	C	N3-C4-C5	-5.98	119.51	121.90
36	1	2634	U	C5-C6-N1	-5.98	119.71	122.70
36	1	1879	A	O4'-C1'-N9	5.97	112.98	108.20
38	4	65	A	C2-N3-C4	-5.97	107.61	110.60
1	6	542	A	P-O3'-C3'	5.97	126.87	119.70
1	6	977	A	N1-C6-N6	5.97	122.18	118.60
37	7	28	C	C6-N1-C2	5.97	122.69	120.30
36	1	701	G	N3-C2-N2	-5.97	115.72	119.90
36	1	859	G	N9-C4-C5	-5.97	103.01	105.40
36	1	1349	G	N3-C4-N9	5.97	129.58	126.00
36	1	2706	G	N3-C4-N9	5.97	129.58	126.00
36	5	818	C	N1-C2-O2	-5.97	115.32	118.90
36	5	2608	G	N7-C8-N9	-5.97	110.12	113.10
79	q3	17	ARG	NE-CZ-NH1	-5.97	117.32	120.30
36	1	1331	U	C2-N3-C4	-5.97	123.42	127.00
36	5	914	A	C5-C6-N6	-5.97	118.92	123.70
36	1	2872	A	C6-N1-C2	-5.97	115.02	118.60
1	6	163	G	N7-C8-N9	5.97	116.08	113.10
1	2	1489	U	N3-C2-O2	-5.96	118.03	122.20
36	1	1891	A	O5'-P-OP2	-5.96	100.33	105.70
1	6	1456	C	C4-C5-C6	5.96	120.38	117.40
36	5	3318	G	N1-C6-O6	-5.96	116.32	119.90
61	n5	34	LEU	CA-CB-CG	5.96	129.02	115.30
36	1	1923	C	C6-N1-C2	5.96	122.69	120.30
1	2	1051	G	P-O3'-C3'	5.96	126.85	119.70
1	2	1291	G	C5-N7-C8	-5.96	101.32	104.30
36	1	1747	G	N1-C6-O6	5.96	123.48	119.90
36	1	2265	C	C6-N1-C2	-5.96	117.92	120.30
36	5	88	A	C2-N3-C4	-5.96	107.62	110.60
1	6	593	U	C6-N1-C2	-5.96	117.42	121.00
36	5	2980	U	O5'-P-OP2	-5.96	100.34	105.70
36	1	2373	A	C8-N9-C4	-5.96	103.42	105.80
36	5	2913	C	N1-C2-N3	5.96	123.37	119.20
1	2	554	C	N3-C4-C5	-5.96	119.52	121.90
36	1	2379	U	C5-C6-N1	5.96	125.68	122.70
1	6	1218	G	C4-N9-C1'	-5.96	118.76	126.50
36	5	2892	A	O5'-P-OP2	-5.96	100.34	105.70
36	1	517	G	N3-C4-C5	-5.95	125.62	128.60
36	1	1160	C	O5'-P-OP1	-5.95	100.34	105.70
1	6	144	U	N1-C2-N3	5.95	118.47	114.90
36	1	2129	U	N1-C2-O2	-5.95	118.64	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2321	A	C8-N9-C4	5.95	108.18	105.80
36	1	1152	G	N1-C6-O6	5.95	123.47	119.90
36	1	1361	U	O5'-P-OP1	-5.95	100.34	105.70
36	1	2393	G	O5'-P-OP2	-5.95	100.35	105.70
36	1	2410	U	C5-C4-O4	-5.95	122.33	125.90
1	2	961	U	C6-N1-C2	-5.95	117.43	121.00
36	1	864	G	C5-C6-O6	5.95	132.17	128.60
36	1	1447	G	C5-C6-N1	5.95	114.47	111.50
1	6	1614	A	C4-C5-N7	5.95	113.67	110.70
36	5	271	C	N3-C2-O2	-5.95	117.74	121.90
36	5	888	A	OP2-P-O3'	5.95	118.28	105.20
36	5	2403	G	C2-N3-C4	5.95	114.87	111.90
38	8	32	C	C6-N1-C2	5.95	122.68	120.30
36	5	3266	G	C8-N9-C4	-5.94	104.02	106.40
36	1	1445	U	N1-C2-O2	-5.94	118.64	122.80
36	1	2948	C	C6-N1-C2	5.94	122.68	120.30
36	1	28	C	C6-N1-C2	5.94	122.68	120.30
36	1	1798	A	C2-N3-C4	-5.94	107.63	110.60
36	1	2163	C	C5-C6-N1	-5.94	118.03	121.00
36	1	3382	U	N1-C2-O2	5.94	126.96	122.80
36	5	342	A	C5-N7-C8	-5.94	100.93	103.90
36	5	1336	U	O5'-P-OP2	-5.94	100.35	105.70
36	5	1910	A	N9-C4-C5	-5.94	103.42	105.80
36	5	2831	G	N1-C6-O6	-5.94	116.34	119.90
36	1	192	C	N3-C2-O2	-5.94	117.74	121.90
36	1	3181	C	C5-C4-N4	5.94	124.36	120.20
36	1	25	U	C6-N1-C2	-5.94	117.44	121.00
36	1	986	U	N3-C2-O2	-5.94	118.04	122.20
36	1	1556	C	N3-C2-O2	-5.94	117.74	121.90
36	5	1858	A	C8-N9-C4	-5.94	103.42	105.80
36	5	2371	G	N9-C4-C5	-5.94	103.03	105.40
12	c0	83	PRO	N-CA-CB	5.94	110.42	103.30
36	5	2634	U	N1-C2-N3	5.93	118.46	114.90
36	5	2849	C	OP1-P-OP2	5.93	128.50	119.60
36	1	2958	A	C5-C6-N6	5.93	128.45	123.70
36	5	3309	G	C5-C6-O6	5.93	132.16	128.60
36	5	2403	G	N3-C4-N9	5.93	129.56	126.00
36	1	1306	G	N9-C4-C5	-5.93	103.03	105.40
36	5	918	C	C6-N1-C2	5.93	122.67	120.30
36	5	3218	A	N1-C6-N6	5.93	122.16	118.60
36	1	1406	A	C5-C6-N6	-5.92	118.96	123.70
36	1	1897	G	C5-C6-N1	-5.92	108.54	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1325	U	C5-C4-O4	5.92	129.45	125.90
36	5	2797	C	N3-C4-C5	-5.92	119.53	121.90
36	1	714	G	OP2-P-O3'	5.92	118.23	105.20
36	5	221	A	C8-N9-C4	5.92	108.17	105.80
36	5	2805	G	C5-C6-O6	-5.92	125.05	128.60
36	1	1902	G	C6-C5-N7	-5.92	126.85	130.40
36	1	3119	U	N1-C2-O2	5.92	126.94	122.80
1	6	638	U	N1-C2-O2	5.92	126.94	122.80
36	5	1868	G	N1-C6-O6	5.92	123.45	119.90
53	m7	135	ARG	NE-CZ-NH2	-5.92	117.34	120.30
1	6	477	A	N1-C6-N6	5.92	122.15	118.60
36	5	688	G	N1-C6-O6	5.92	123.45	119.90
36	5	2134	G	N3-C4-C5	-5.92	125.64	128.60
36	5	2179	C	C6-N1-C2	5.92	122.67	120.30
36	5	2935	U	O5'-P-OP2	-5.92	100.37	105.70
1	6	407	A	OP2-P-O3'	5.92	118.22	105.20
36	5	1152	G	C5-C6-O6	-5.92	125.05	128.60
36	5	2728	G	N3-C2-N2	-5.92	115.76	119.90
1	2	1114	G	O4'-C1'-N9	5.92	112.93	108.20
36	5	2187	G	N3-C4-N9	5.92	129.55	126.00
36	5	2869	U	N3-C4-O4	-5.92	115.26	119.40
36	5	406	G	N1-C6-O6	-5.91	116.35	119.90
36	5	644	G	C4-C5-N7	-5.91	108.43	110.80
36	5	682	U	C5-C6-N1	-5.91	119.74	122.70
36	5	3040	A	C8-N9-C4	5.91	108.17	105.80
36	1	1724	U	O4'-C1'-N1	5.91	112.93	108.20
36	1	582	G	N9-C4-C5	5.91	107.76	105.40
36	1	788	C	C5-C6-N1	-5.91	118.05	121.00
36	1	1316	C	N3-C4-C5	-5.91	119.54	121.90
36	1	2349	U	N3-C2-O2	-5.91	118.06	122.20
36	5	2696	A	C5-C6-N1	-5.91	114.75	117.70
36	1	49	A	C8-N9-C4	5.91	108.16	105.80
36	1	2895	G	N1-C6-O6	-5.91	116.36	119.90
36	1	2944	U	C5-C4-O4	-5.91	122.36	125.90
36	5	2964	G	C8-N9-C4	5.91	108.76	106.40
36	1	1308	A	N9-C4-C5	5.90	108.16	105.80
36	1	2914	G	N1-C6-O6	-5.90	116.36	119.90
36	1	3368	U	C2-N1-C1'	-5.90	110.62	117.70
36	5	2811	A	C2-N3-C4	-5.90	107.65	110.60
36	1	97	U	N1-C2-O2	-5.90	118.67	122.80
36	1	946	U	OP1-P-OP2	5.90	128.45	119.60
38	4	103	G	N1-C6-O6	-5.90	116.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1277	G	N3-C4-N9	-5.90	122.46	126.00
1	6	151	G	N3-C2-N2	-5.90	115.77	119.90
36	5	2640	A	OP1-P-OP2	-5.90	110.75	119.60
36	1	1365	G	N3-C4-C5	-5.90	125.65	128.60
36	5	1719	G	C5-C6-O6	-5.90	125.06	128.60
36	1	704	U	C4-C5-C6	5.90	123.24	119.70
36	1	933	A	C6-C5-N7	-5.89	128.17	132.30
36	1	2929	C	C2-N3-C4	-5.89	116.95	119.90
36	1	3375	A	N1-C2-N3	5.89	132.25	129.30
1	6	1097	U	P-O3'-C3'	5.89	126.77	119.70
36	5	1370	G	N3-C4-C5	-5.89	125.65	128.60
36	1	2323	G	N3-C4-N9	5.89	129.53	126.00
1	6	1000	C	N3-C2-O2	-5.89	117.78	121.90
36	1	676	G	C6-C5-N7	-5.89	126.86	130.40
36	1	2249	G	P-O3'-C3'	5.89	126.77	119.70
13	c1	5	LEU	CA-CB-CG	5.89	128.85	115.30
36	5	1907	C	C6-N1-C2	-5.89	117.94	120.30
36	5	2627	C	C2-N3-C4	-5.89	116.95	119.90
36	5	2726	C	N3-C4-C5	-5.89	119.54	121.90
1	2	1196	A	P-O3'-C3'	5.89	126.77	119.70
36	1	66	A	O5'-P-OP1	-5.89	100.40	105.70
36	5	3188	G	N1-C6-O6	-5.89	116.37	119.90
36	5	3343	G	N3-C4-N9	5.89	129.53	126.00
36	1	189	G	C6-C5-N7	-5.88	126.87	130.40
36	1	2138	A	N1-C6-N6	5.88	122.13	118.60
36	1	718	G	N7-C8-N9	5.88	116.04	113.10
1	6	1473	U	C5-C4-O4	5.88	129.43	125.90
1	2	1022	C	N3-C4-C5	5.88	124.25	121.90
1	6	1537	C	N1-C2-O2	-5.88	115.37	118.90
36	5	2777	G	C4-C5-N7	-5.88	108.45	110.80
36	1	3180	A	C2-N3-C4	-5.88	107.66	110.60
36	5	656	A	N1-C6-N6	5.88	122.13	118.60
36	1	2312	A	N1-C6-N6	-5.88	115.07	118.60
36	1	2374	C	N1-C2-N3	5.88	123.31	119.20
1	6	1640	C	C5-C4-N4	-5.88	116.09	120.20
36	5	146	U	C5-C6-N1	-5.88	119.76	122.70
36	5	2851	A	C2-N3-C4	-5.88	107.66	110.60
36	5	116	A	O4'-C1'-N9	5.88	112.90	108.20
36	5	2710	C	N1-C2-O2	-5.88	115.38	118.90
14	C2	103	LEU	CA-CB-CG	5.87	128.81	115.30
36	1	2395	G	O5'-P-OP2	-5.87	100.42	105.70
1	6	396	G	C8-N9-C4	-5.87	104.05	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2319	U	N3-C2-O2	-5.87	118.09	122.20
36	1	386	A	N1-C6-N6	5.87	122.12	118.60
36	1	2763	U	C6-N1-C2	5.87	124.52	121.00
1	2	1486	G	C6-C5-N7	-5.87	126.88	130.40
36	5	1056	U	C5-C6-N1	5.87	125.63	122.70
36	5	2150	G	N7-C8-N9	5.87	116.03	113.10
1	2	159	U	C2-N1-C1'	-5.87	110.66	117.70
1	6	1657	U	N1-C2-O2	5.87	126.91	122.80
36	1	212	G	N3-C4-N9	5.87	129.52	126.00
36	1	318	A	O5'-P-OP1	-5.87	100.42	105.70
36	5	3243	A	O4'-C1'-N9	-5.87	103.51	108.20
36	1	1481	A	C5-N7-C8	-5.86	100.97	103.90
36	5	838	G	C6-C5-N7	5.86	133.92	130.40
36	5	1900	A	C5-C6-N1	5.86	120.63	117.70
36	1	210	U	C5-C4-O4	-5.86	122.38	125.90
36	5	297	G	O4'-C1'-N9	5.86	112.89	108.20
36	5	3056	U	N3-C2-O2	5.86	126.30	122.20
36	5	3329	U	C5-C4-O4	5.86	129.42	125.90
1	6	864	U	N3-C2-O2	-5.86	118.10	122.20
36	1	1495	U	C6-N1-C1'	5.86	129.40	121.20
36	1	2403	G	C6-C5-N7	-5.86	126.89	130.40
1	6	47	A	O5'-P-OP1	-5.86	100.43	105.70
36	5	2730	G	C4-C5-N7	5.86	113.14	110.80
36	1	78	U	C4-C5-C6	5.86	123.21	119.70
38	4	60	U	N1-C2-N3	5.86	118.41	114.90
36	1	1113	G	C8-N9-C4	-5.85	104.06	106.40
36	1	3306	U	N1-C2-O2	5.85	126.90	122.80
36	5	1316	C	N1-C2-O2	-5.85	115.39	118.90
36	5	1637	A	N1-C6-N6	-5.85	115.09	118.60
36	1	1192	C	C6-N1-C1'	-5.85	113.78	120.80
36	5	934	G	C4-N9-C1'	5.85	134.11	126.50
36	5	1149	G	N3-C2-N2	-5.85	115.80	119.90
36	5	2409	G	O5'-P-OP2	-5.85	100.43	105.70
36	5	1113	G	C5-C6-N1	-5.85	108.58	111.50
37	7	83	U	C5-C6-N1	-5.85	119.77	122.70
1	6	1137	A	C8-N9-C4	5.85	108.14	105.80
36	5	953	G	C5-C6-O6	-5.85	125.09	128.60
36	5	2368	A	C2-N3-C4	5.85	113.53	110.60
1	6	1175	U	N3-C2-O2	-5.85	118.11	122.20
1	2	42	G	C8-N9-C4	5.85	108.74	106.40
18	C6	53	LEU	CA-CB-CG	-5.85	101.85	115.30
36	1	2379	U	C6-N1-C2	-5.85	117.49	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1761	U	N1-C2-N3	5.84	118.41	114.90
37	3	116	C	C6-N1-C2	-5.84	117.96	120.30
36	5	283	G	O4'-C1'-N9	-5.84	103.53	108.20
36	1	608	A	N3-C4-N9	5.84	132.07	127.40
36	1	1127	G	C5-C6-N1	5.84	114.42	111.50
36	1	1182	A	O5'-P-OP1	-5.84	100.44	105.70
36	1	2887	A	C6-C5-N7	-5.84	128.21	132.30
36	5	92	G	N3-C4-C5	-5.84	125.68	128.60
1	6	609	U	N3-C2-O2	-5.84	118.11	122.20
38	8	42	G	C5-C6-O6	5.84	132.10	128.60
1	2	334	G	N3-C4-C5	5.84	131.52	128.60
36	5	666	A	O5'-P-OP1	-5.84	100.45	105.70
36	5	3154	C	C6-N1-C2	-5.84	117.97	120.30
36	1	1849	C	N1-C2-O2	-5.84	115.40	118.90
36	1	155	G	N3-C4-C5	-5.83	125.68	128.60
36	1	701	G	C5-C6-O6	-5.83	125.10	128.60
36	1	2359	C	N3-C4-C5	5.83	124.23	121.90
36	1	2808	A	O4'-C1'-N9	-5.83	103.53	108.20
36	1	2887	A	C5-C6-N6	-5.83	119.03	123.70
1	6	1072	C	N3-C4-N4	5.83	122.08	118.00
36	1	1146	C	N3-C2-O2	-5.83	117.82	121.90
36	1	1716	U	P-O3'-C3'	5.83	126.70	119.70
38	4	90	U	C5-C6-N1	-5.83	119.78	122.70
1	6	1340	U	N3-C2-O2	-5.83	118.12	122.20
36	5	116	A	O5'-P-OP1	-5.83	100.45	105.70
36	5	1292	C	N3-C4-C5	5.83	124.23	121.90
36	5	1428	A	C4-C5-C6	-5.83	114.09	117.00
36	5	2830	G	C8-N9-C1'	-5.83	119.42	127.00
36	1	2413	A	C4-C5-C6	-5.83	114.09	117.00
1	2	1082	C	N1-C2-O2	5.83	122.39	118.90
1	2	1327	C	C6-N1-C2	-5.83	117.97	120.30
36	1	229	G	N3-C2-N2	-5.83	115.82	119.90
36	5	2187	G	C6-C5-N7	-5.82	126.91	130.40
36	1	1307	G	C5-C6-O6	5.82	132.09	128.60
36	5	986	U	N3-C4-O4	-5.82	115.33	119.40
1	2	549	G	O5'-P-OP1	-5.82	100.46	105.70
36	1	745	C	N1-C2-O2	-5.82	115.41	118.90
36	1	1581	C	N1-C2-O2	5.82	122.39	118.90
36	1	3115	C	N1-C2-O2	-5.82	115.41	118.90
1	6	1414	U	C5-C4-O4	5.82	129.39	125.90
36	5	1308	A	OP1-P-OP2	-5.82	110.87	119.60
36	1	85	A	C2-N3-C4	-5.82	107.69	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3228	C	N1-C2-O2	5.82	122.39	118.90
36	5	150	A	C5-C6-N6	-5.82	119.05	123.70
36	5	881	C	C4-C5-C6	-5.82	114.49	117.40
36	1	638	C	N3-C2-O2	-5.82	117.83	121.90
38	4	125	U	N3-C2-O2	-5.82	118.13	122.20
1	6	1	U	C6-N1-C2	-5.81	117.51	121.00
36	1	684	G	C4-C5-N7	5.81	113.12	110.80
36	1	1834	U	C4-C5-C6	5.81	123.19	119.70
36	5	834	U	N3-C4-C5	5.81	118.09	114.60
36	5	835	G	C8-N9-C4	5.81	108.72	106.40
36	5	1556	C	C6-N1-C2	-5.81	117.97	120.30
36	5	2875	U	C5-C6-N1	-5.81	119.79	122.70
36	1	421	G	N3-C4-N9	5.81	129.49	126.00
36	1	3036	G	N3-C4-C5	-5.81	125.69	128.60
36	5	1405	U	C5-C6-N1	-5.81	119.80	122.70
36	5	2415	C	N3-C4-C5	5.81	124.22	121.90
36	1	1269	U	N1-C2-O2	5.81	126.87	122.80
36	1	1646	G	C4-C5-N7	5.81	113.12	110.80
37	3	81	U	C5-C4-O4	-5.81	122.42	125.90
36	5	3206	C	C2-N1-C1'	-5.81	112.41	118.80
1	2	1022	C	C6-N1-C2	5.81	122.62	120.30
12	c0	97	PRO	N-CA-CB	5.81	110.27	103.30
1	2	933	A	C8-N9-C4	-5.80	103.48	105.80
36	1	2298	U	O4'-C1'-N1	5.80	112.84	108.20
1	6	387	A	C4-C5-N7	-5.80	107.80	110.70
36	1	2399	A	N1-C6-N6	5.80	122.08	118.60
36	5	620	U	N1-C2-O2	5.80	126.86	122.80
36	5	2350	C	O5'-P-OP1	5.80	117.66	110.70
36	1	2938	G	OP1-P-OP2	5.80	128.30	119.60
1	6	359	A	N3-C4-C5	5.80	130.86	126.80
36	5	659	G	N1-C6-O6	5.80	123.38	119.90
36	5	1488	G	N1-C6-O6	-5.80	116.42	119.90
36	5	1332	A	N1-C2-N3	5.80	132.20	129.30
36	1	1334	U	C6-N1-C2	-5.80	117.52	121.00
36	1	1475	A	C8-N9-C4	5.80	108.12	105.80
36	5	645	A	N1-C2-N3	5.80	132.20	129.30
1	2	1486	G	C4-C5-N7	5.79	113.12	110.80
36	1	893	C	N3-C2-O2	-5.79	117.84	121.90
1	2	647	G	N3-C4-N9	-5.79	122.52	126.00
36	1	2811	A	N1-C6-N6	-5.79	115.12	118.60
1	2	1200	G	C5-C6-N1	-5.79	108.61	111.50
36	1	50	U	C5-C4-O4	5.79	129.38	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	53	A	C2-N3-C4	5.79	113.50	110.60
36	1	2942	C	N3-C4-C5	5.79	124.22	121.90
1	2	1241	G	N7-C8-N9	5.79	115.99	113.10
36	1	111	C	N3-C4-C5	5.79	124.22	121.90
36	1	2385	G	N3-C4-C5	5.79	131.49	128.60
36	5	1161	G	C5-C6-N1	5.79	114.39	111.50
36	5	1445	U	N1-C2-O2	-5.79	118.75	122.80
1	2	1459	C	O5'-P-OP2	-5.79	100.49	105.70
1	2	1389	C	N1-C2-O2	5.79	122.37	118.90
36	1	2313	A	O5'-P-OP1	-5.79	100.49	105.70
36	5	1159	A	OP2-P-O3'	5.79	117.93	105.20
36	5	1367	G	OP1-P-O3'	5.79	117.93	105.20
36	1	1163	A	N1-C2-N3	5.78	132.19	129.30
36	1	2333	C	O5'-P-OP1	-5.78	100.50	105.70
36	5	41	G	OP1-P-O3'	-5.78	92.48	105.20
36	5	1837	U	C5-C4-O4	-5.78	122.43	125.90
36	1	25	U	N3-C4-O4	5.78	123.45	119.40
36	1	1400	G	N3-C4-N9	5.78	129.47	126.00
36	5	2406	C	N3-C2-O2	5.78	125.95	121.90
36	1	784	A	C8-N9-C4	-5.78	103.49	105.80
36	1	518	G	O4'-C1'-N9	5.78	112.82	108.20
1	6	394	C	C6-N1-C2	-5.78	117.99	120.30
1	6	1765	A	O5'-P-OP1	-5.78	100.50	105.70
36	5	1116	G	N1-C2-N3	5.78	127.37	123.90
36	5	1169	A	C4-C5-C6	5.78	119.89	117.00
1	6	59	C	N1-C2-O2	5.78	122.36	118.90
36	5	2292	U	N1-C2-O2	5.77	126.84	122.80
36	1	402	A	N7-C8-N9	-5.77	110.91	113.80
36	1	902	G	C8-N9-C4	-5.77	104.09	106.40
36	1	1450	G	C4-C5-N7	5.77	113.11	110.80
36	1	2883	U	O5'-P-OP2	-5.77	100.51	105.70
36	1	2884	C	O5'-P-OP1	-5.77	100.51	105.70
36	5	1450	G	C5-C6-O6	-5.77	125.14	128.60
36	1	1589	A	C6-N1-C2	-5.77	115.14	118.60
36	5	910	G	C5-C6-N1	5.77	114.39	111.50
36	1	99	A	C8-N9-C4	-5.77	103.49	105.80
36	1	942	U	C4-C5-C6	5.77	123.16	119.70
36	1	1476	G	C5-C6-O6	5.77	132.06	128.60
36	5	2991	A	C8-N9-C4	-5.77	103.49	105.80
36	1	1160	C	C2-N3-C4	5.76	122.78	119.90
36	5	3377	G	C5-C6-O6	-5.76	125.14	128.60
36	1	949	C	N1-C2-O2	-5.76	115.44	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2165	G	C5-C6-O6	-5.76	125.14	128.60
36	1	3369	G	C4-C5-N7	5.76	113.11	110.80
36	5	1456	A	OP1-P-O3'	5.76	117.88	105.20
36	1	3266	G	N9-C4-C5	5.76	107.70	105.40
45	18	236	GLY	N-CA-C	-5.76	98.70	113.10
36	1	1128	U	N1-C2-N3	5.76	118.36	114.90
36	1	1365	G	N3-C4-N9	5.76	129.46	126.00
36	1	3319	U	P-O3'-C3'	5.76	126.61	119.70
38	4	55	U	N3-C2-O2	-5.76	118.17	122.20
1	6	1421	A	C8-N9-C4	5.76	108.10	105.80
36	5	2377	G	C4-C5-N7	-5.76	108.50	110.80
36	5	2805	G	N3-C4-C5	-5.76	125.72	128.60
36	5	197	G	C5-C6-O6	-5.75	125.15	128.60
36	1	979	U	N3-C2-O2	-5.75	118.17	122.20
1	6	335	U	N3-C2-O2	-5.75	118.17	122.20
36	5	329	U	C6-N1-C2	5.75	124.45	121.00
36	5	669	U	C4-C5-C6	5.75	123.15	119.70
36	1	2393	G	N3-C2-N2	-5.75	115.88	119.90
36	5	1589	A	C5-C6-N6	-5.75	119.10	123.70
36	5	2767	U	N3-C4-O4	-5.75	115.38	119.40
37	7	112	G	O5'-P-OP2	-5.75	100.53	105.70
24	D2	65	LEU	CA-CB-CG	5.75	128.52	115.30
36	1	2726	C	N1-C2-N3	5.75	123.22	119.20
36	5	1372	C	C6-N1-C2	5.75	122.60	120.30
1	2	571	G	C4-C5-N7	-5.75	108.50	110.80
36	5	3098	G	N3-C4-N9	5.75	129.45	126.00
1	2	378	A	C5-C6-N6	-5.74	119.11	123.70
1	2	1198	G	C8-N9-C4	-5.74	104.10	106.40
36	1	1142	G	C5-C6-O6	-5.74	125.15	128.60
36	1	2830	G	N3-C2-N2	-5.74	115.88	119.90
1	6	400	A	N1-C6-N6	5.74	122.05	118.60
37	7	25	G	O5'-P-OP2	-5.74	100.53	105.70
36	1	2114	C	OP1-P-OP2	5.74	128.21	119.60
36	1	2823	G	C5-N7-C8	5.74	107.17	104.30
36	1	1458	U	O5'-P-OP2	-5.74	100.53	105.70
36	5	114	A	N1-C6-N6	5.74	122.04	118.60
36	5	835	G	N1-C6-O6	5.74	123.34	119.90
36	5	1181	U	C5-C6-N1	-5.74	119.83	122.70
36	5	1534	A	N3-C4-C5	-5.74	122.78	126.80
36	5	3306	U	O5'-P-OP2	-5.74	100.53	105.70
1	2	16	G	N3-C4-N9	5.74	129.44	126.00
36	1	810	A	C8-N9-C4	-5.74	103.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1326	A	C8-N9-C4	5.74	108.09	105.80
1	6	194	U	C5-C6-N1	5.74	125.57	122.70
36	5	283	G	C8-N9-C1'	-5.74	119.54	127.00
36	5	2981	U	C2-N1-C1'	5.74	124.59	117.70
36	5	3151	U	C6-N1-C2	5.74	124.44	121.00
1	6	272	U	P-O3'-C3'	5.74	126.58	119.70
36	5	2938	G	C5-C6-N1	5.74	114.37	111.50
1	2	443	C	C6-N1-C2	-5.74	118.01	120.30
36	1	142	C	C5-C6-N1	5.74	123.87	121.00
36	1	819	U	OP2-P-O3'	5.74	117.82	105.20
1	6	75	U	N1-C2-O2	5.74	126.81	122.80
36	5	2818	U	C5'-C4'-O4'	-5.74	102.22	109.10
1	6	1058	U	P-O3'-C3'	5.73	126.58	119.70
36	5	651	G	N1-C6-O6	-5.73	116.46	119.90
36	5	934	G	C8-N9-C1'	-5.73	119.55	127.00
36	5	2340	U	O5'-P-OP1	-5.73	100.54	105.70
1	2	966	A	N7-C8-N9	-5.73	110.93	113.80
36	1	1592	G	N3-C4-C5	-5.73	125.73	128.60
36	5	313	A	C8-N9-C4	-5.73	103.51	105.80
36	5	2932	U	C5-C6-N1	-5.73	119.83	122.70
37	7	49	G	C5-C6-O6	-5.73	125.16	128.60
1	6	696	C	C2-N1-C1'	-5.73	112.50	118.80
36	5	1178	G	C5-C6-O6	-5.73	125.16	128.60
36	1	1481	A	C4-C5-N7	5.73	113.56	110.70
1	2	704	C	N1-C2-O2	5.73	122.34	118.90
36	1	949	C	C4-C5-C6	5.73	120.26	117.40
36	1	1116	G	N3-C4-C5	-5.73	125.74	128.60
36	5	2703	A	O5'-P-OP2	-5.73	100.55	105.70
38	8	55	U	C6-N1-C2	-5.73	117.56	121.00
36	1	867	G	C4-C5-N7	-5.72	108.51	110.80
36	1	1919	G	N1-C6-O6	-5.72	116.47	119.90
36	5	1392	G	N7-C8-N9	-5.72	110.24	113.10
36	5	1437	C	N3-C2-O2	-5.72	117.89	121.90
36	1	2616	C	O5'-P-OP1	-5.72	100.55	105.70
1	6	1634	C	C5-C6-N1	5.72	123.86	121.00
36	5	807	A	C8-N9-C4	-5.72	103.51	105.80
36	5	878	G	C4-C5-N7	5.72	113.09	110.80
36	5	1375	G	C2-N3-C4	5.72	114.76	111.90
36	1	1492	G	C4-C5-N7	-5.72	108.51	110.80
1	2	571	G	N3-C4-N9	-5.72	122.57	126.00
21	c9	57	ARG	NE-CZ-NH1	5.72	123.16	120.30
36	5	518	G	C4-C5-N7	5.72	113.09	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	24	G	C8-N9-C4	5.72	108.69	106.40
36	5	2994	A	C6-C5-N7	-5.72	128.30	132.30
36	1	2401	A	C4-N9-C1'	-5.72	116.01	126.30
36	1	2878	G	C8-N9-C4	5.72	108.69	106.40
1	6	610	G	C8-N9-C1'	-5.72	119.57	127.00
36	5	428	A	N1-C6-N6	5.72	122.03	118.60
36	5	1592	G	C8-N9-C4	-5.72	104.11	106.40
1	2	1246	C	N3-C2-O2	-5.71	117.90	121.90
37	7	50	U	C5-C6-N1	5.71	125.56	122.70
36	5	1725	C	C5'-C4'-O4'	5.71	115.95	109.10
36	5	1902	G	C4-N9-C1'	5.71	133.93	126.50
36	5	844	G	C8-N9-C4	5.71	108.69	106.40
36	5	1155	C	C2-N1-C1'	5.71	125.08	118.80
36	5	1724	U	O4'-C1'-N1	5.71	112.77	108.20
36	5	2385	G	N1-C6-O6	5.71	123.33	119.90
62	N6	57	LEU	CA-CB-CG	5.71	128.43	115.30
36	1	676	G	N1-C6-O6	5.71	123.33	119.90
36	1	1152	G	O4'-C1'-N9	5.71	112.77	108.20
36	1	2384	A	C4-C5-C6	5.71	119.86	117.00
36	5	1797	A	O5'-P-OP1	-5.71	100.56	105.70
36	5	2632	G	O5'-P-OP1	-5.71	100.56	105.70
36	5	3092	C	N1-C2-O2	5.71	122.33	118.90
36	1	1136	A	C8-N9-C4	-5.71	103.52	105.80
36	1	2885	C	C5-C6-N1	-5.71	118.15	121.00
1	6	1770	U	N1-C2-O2	5.71	126.79	122.80
36	5	648	C	C5-C4-N4	-5.71	116.21	120.20
36	5	806	A	O5'-P-OP1	-5.71	100.56	105.70
36	5	1421	G	C8-N9-C4	5.71	108.68	106.40
36	5	1200	A	C5-C6-N6	-5.71	119.14	123.70
36	1	1469	C	OP1-P-OP2	5.70	128.15	119.60
36	1	3204	C	C6-N1-C2	-5.70	118.02	120.30
36	5	1193	A	C4-N9-C1'	5.70	136.57	126.30
36	5	1837	U	N3-C4-O4	5.70	123.39	119.40
1	2	1081	A	O4'-C1'-N9	5.70	112.76	108.20
36	5	546	C	N3-C2-O2	-5.70	117.91	121.90
36	5	926	A	N1-C6-N6	5.70	122.02	118.60
36	5	559	A	C8-N9-C4	-5.70	103.52	105.80
36	5	2878	G	OP1-P-OP2	-5.70	111.05	119.60
36	1	918	C	N1-C2-O2	-5.70	115.48	118.90
36	1	1366	A	C8-N9-C4	-5.70	103.52	105.80
36	1	1140	G	C5-C6-O6	5.69	132.02	128.60
36	1	1433	A	N1-C6-N6	5.69	122.02	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	625	C	C5-C4-N4	-5.69	116.21	120.20
36	5	847	A	C8-N9-C4	5.69	108.08	105.80
36	5	3018	C	O5'-P-OP2	-5.69	100.58	105.70
37	7	44	C	N3-C4-C5	-5.69	119.62	121.90
1	2	1033	C	C5-C6-N1	-5.69	118.15	121.00
36	1	1142	G	C5-C6-N1	5.69	114.35	111.50
38	4	21	C	C2-N1-C1'	-5.69	112.54	118.80
36	5	1855	U	N1-C2-N3	5.69	118.32	114.90
38	8	139	U	N3-C2-O2	-5.69	118.22	122.20
1	2	192	U	C2-N1-C1'	5.69	124.53	117.70
36	1	908	G	C4-N9-C1'	5.69	133.90	126.50
36	1	2983	C	N1-C2-N3	5.69	123.18	119.20
36	5	1381	A	C2-N3-C4	-5.69	107.75	110.60
36	5	3218	A	C4-C5-N7	5.69	113.55	110.70
36	1	1442	U	C5-C4-O4	-5.69	122.49	125.90
1	6	130	C	N1-C2-O2	5.69	122.31	118.90
1	6	1145	U	N1-C2-O2	-5.69	118.82	122.80
36	5	878	G	N3-C2-N2	5.69	123.88	119.90
36	5	2231	C	C6-N1-C1'	-5.69	113.98	120.80
36	5	3197	G	N3-C4-C5	5.69	131.44	128.60
36	1	938	C	N1-C2-N3	5.69	123.18	119.20
38	4	79	A	C8-N9-C4	-5.69	103.53	105.80
36	5	2292	U	N3-C2-O2	-5.69	118.22	122.20
36	5	2403	G	O5'-P-OP1	5.69	117.52	110.70
67	o1	90	PHE	CB-CA-C	-5.69	99.03	110.40
36	1	3219	G	O5'-P-OP1	-5.68	100.58	105.70
1	6	402	C	O5'-P-OP2	-5.68	100.58	105.70
36	5	721	G	C5-C6-O6	-5.68	125.19	128.60
36	5	2182	A	OP1-P-O3'	5.68	117.71	105.20
1	2	1291	G	N7-C8-N9	5.68	115.94	113.10
36	5	658	G	C6-C5-N7	-5.68	126.99	130.40
36	5	3093	C	N1-C2-O2	-5.68	115.49	118.90
36	1	639	G	C4-C5-N7	5.68	113.07	110.80
36	1	2798	C	N3-C4-C5	-5.68	119.63	121.90
36	5	1214	U	C6-N1-C2	-5.68	117.59	121.00
1	2	1389	C	C2-N1-C1'	5.68	125.05	118.80
1	2	1784	C	N3-C2-O2	-5.68	117.92	121.90
36	1	1606	U	C2-N1-C1'	-5.68	110.89	117.70
36	1	2679	A	O4'-C1'-N9	5.68	112.74	108.20
36	5	3142	A	N1-C6-N6	5.68	122.01	118.60
36	1	3022	G	C8-N9-C4	-5.68	104.13	106.40
36	1	1103	A	O5'-P-OP2	5.68	117.51	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2169	G	C5-C6-N1	5.68	114.34	111.50
36	5	75	G	N3-C4-C5	-5.68	125.76	128.60
36	5	1903	U	C5-C6-N1	5.68	125.54	122.70
36	5	2392	C	C5-C6-N1	-5.68	118.16	121.00
1	2	459	G	N1-C6-O6	5.67	123.31	119.90
36	1	1149	G	N3-C2-N2	-5.67	115.93	119.90
36	5	581	U	C5-C4-O4	-5.67	122.50	125.90
36	5	3103	A	C5-C6-N1	5.67	120.54	117.70
1	2	1745	G	C5-C6-N1	5.67	114.34	111.50
36	1	2628	A	O5'-P-OP2	-5.67	100.59	105.70
36	1	1405	U	C6-N1-C2	5.67	124.40	121.00
1	6	343	C	N1-C2-O2	-5.67	115.50	118.90
36	5	1494	U	N3-C4-O4	-5.67	115.43	119.40
36	5	3018	C	C6-N1-C2	-5.67	118.03	120.30
36	5	1868	G	N3-C4-N9	5.67	129.40	126.00
1	2	1762	A	N7-C8-N9	-5.67	110.97	113.80
36	1	347	G	C4-C5-N7	5.67	113.07	110.80
36	1	810	A	C5-C6-N1	5.67	120.53	117.70
36	1	888	A	N1-C6-N6	5.67	122.00	118.60
78	Q2	42	ARG	NE-CZ-NH1	5.67	123.13	120.30
36	5	2637	A	N9-C4-C5	-5.67	103.53	105.80
36	5	2796	G	N1-C6-O6	-5.67	116.50	119.90
36	1	1379	G	N1-C6-O6	-5.67	116.50	119.90
36	1	2163	C	C4-C5-C6	5.67	120.23	117.40
6	s4	38	LEU	CA-CB-CG	5.67	128.33	115.30
36	5	2409	G	C2-N3-C4	5.67	114.73	111.90
36	5	807	A	N7-C8-N9	5.67	116.63	113.80
36	1	1902	G	N1-C6-O6	5.66	123.30	119.90
36	5	1108	U	C5-C4-O4	5.66	129.30	125.90
36	5	2901	G	C8-N9-C4	-5.66	104.14	106.40
36	5	2584	G	C4-N9-C1'	5.66	133.86	126.50
1	2	1202	A	N1-C6-N6	-5.66	115.20	118.60
36	1	633	C	C4-C5-C6	5.66	120.23	117.40
36	1	1124	U	N3-C4-C5	5.66	118.00	114.60
36	1	1481	A	C6-C5-N7	-5.66	128.34	132.30
36	5	2792	A	C6-C5-N7	-5.66	128.34	132.30
1	2	730	G	C4-N9-C1'	5.66	133.85	126.50
36	5	856	G	N9-C4-C5	-5.66	103.14	105.40
36	5	1117	G	C5-C6-N1	5.66	114.33	111.50
36	5	3195	U	P-O3'-C3'	5.66	126.49	119.70
36	5	890	C	O5'-P-OP1	5.66	117.49	110.70
1	2	321	C	C6-N1-C2	-5.66	118.04	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1280	C	C4-C5-C6	5.66	120.23	117.40
36	1	409	A	O5'-P-OP2	-5.66	100.61	105.70
1	6	1537	C	O4'-C1'-N1	5.66	112.72	108.20
36	5	3218	A	P-O3'-C3'	5.66	126.49	119.70
36	1	1128	U	C5-C6-N1	-5.65	119.87	122.70
36	1	2142	A	C6-N1-C2	-5.65	115.21	118.60
36	5	2364	G	C5-C6-O6	5.65	131.99	128.60
36	1	3208	G	N9-C4-C5	5.65	107.66	105.40
36	5	2341	A	N7-C8-N9	-5.65	110.97	113.80
36	5	2964	G	N7-C8-N9	-5.65	110.27	113.10
36	1	503	C	N3-C4-N4	-5.65	114.05	118.00
1	6	1113	A	C2-N3-C4	-5.65	107.77	110.60
36	1	2718	U	N1-C2-N3	5.65	118.29	114.90
36	1	1368	U	OP2-P-O3'	5.65	117.62	105.20
36	1	1858	A	O5'-P-OP2	-5.65	100.62	105.70
36	5	1198	C	N3-C2-O2	-5.65	117.95	121.90
1	6	938	G	N1-C6-O6	5.65	123.29	119.90
36	5	871	U	N1-C2-N3	5.65	118.29	114.90
1	2	1200	G	C4-C5-C6	5.64	122.19	118.80
8	S6	76	LEU	CA-CB-CG	5.64	128.28	115.30
38	4	12	A	N1-C2-N3	-5.64	126.48	129.30
36	5	2930	A	N1-C6-N6	-5.64	115.21	118.60
36	1	2973	G	O5'-P-OP1	-5.64	100.62	105.70
36	5	1475	A	N1-C2-N3	5.64	132.12	129.30
36	1	2281	A	C2-N3-C4	-5.64	107.78	110.60
1	2	396	G	N9-C1'-C2'	-5.64	105.80	112.00
36	1	716	A	O5'-P-OP1	-5.64	100.62	105.70
36	5	1889	G	C2-N3-C4	5.64	114.72	111.90
36	5	3121	U	N3-C4-O4	-5.64	115.45	119.40
1	2	1007	C	C6-N1-C2	5.64	122.56	120.30
36	1	575	G	C5-C6-N1	5.64	114.32	111.50
36	1	2398	A	C8-N9-C4	5.64	108.06	105.80
1	2	1458	G	C4-N9-C1'	5.64	133.83	126.50
1	6	1700	C	N3-C2-O2	-5.64	117.95	121.90
36	5	2572	C	C6-N1-C2	-5.64	118.05	120.30
36	5	1081	U	C5-C6-N1	5.63	125.52	122.70
36	5	2639	G	C6-C5-N7	-5.63	127.02	130.40
36	5	2981	U	N3-C2-O2	-5.63	118.26	122.20
36	1	582	G	N3-C4-N9	-5.63	122.62	126.00
36	1	1122	U	N3-C4-C5	5.63	117.98	114.60
36	5	1342	C	C4-C5-C6	5.63	120.22	117.40
36	1	2315	G	C5-C6-O6	5.63	131.98	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1940	G	N3-C4-N9	5.63	129.38	126.00
37	7	73	C	N1-C2-O2	5.63	122.28	118.90
39	12	246	LEU	CA-CB-CG	5.63	128.25	115.30
48	m1	12	LEU	CA-CB-CG	5.63	128.25	115.30
1	2	1479	A	N1-C6-N6	5.63	121.98	118.60
36	1	873	C	P-O3'-C3'	5.63	126.46	119.70
1	6	351	C	N3-C4-N4	5.63	121.94	118.00
36	5	412	G	C8-N9-C4	-5.63	104.15	106.40
36	1	29	C	N3-C4-N4	5.63	121.94	118.00
36	1	663	C	C5-C4-N4	-5.63	116.26	120.20
1	6	961	U	C6-N1-C2	-5.63	117.62	121.00
36	5	1208	U	N1-C2-O2	5.63	126.74	122.80
36	1	44	U	C5-C6-N1	-5.63	119.89	122.70
36	1	267	G	N1-C6-O6	5.63	123.28	119.90
36	1	939	U	N1-C2-N3	5.63	118.28	114.90
1	6	92	A	C8-N9-C4	5.63	108.05	105.80
36	5	365	A	C5-C6-N6	-5.63	119.20	123.70
36	5	1889	G	C5-C6-O6	-5.63	125.22	128.60
36	5	3382	U	N1-C2-O2	5.63	126.74	122.80
36	1	225	C	N3-C4-N4	5.62	121.94	118.00
36	1	3263	G	C8-N9-C4	5.62	108.65	106.40
36	1	788	C	C6-N1-C2	5.62	122.55	120.30
36	1	2724	U	N1-C2-O2	5.62	126.74	122.80
36	5	2881	C	O5'-P-OP2	-5.62	100.64	105.70
38	8	100	U	N3-C4-O4	5.62	123.34	119.40
36	5	580	C	C6-N1-C2	-5.62	118.05	120.30
36	5	1474	A	N1-C6-N6	-5.62	115.23	118.60
36	5	2213	A	C8-N9-C4	5.62	108.05	105.80
36	1	1328	C	O5'-P-OP1	-5.62	100.64	105.70
36	1	2350	C	C2-N3-C4	-5.62	117.09	119.90
36	5	2207	A	O4'-C1'-N9	5.62	112.70	108.20
36	1	632	G	C8-N9-C4	5.62	108.65	106.40
36	1	695	C	N3-C4-C5	5.62	124.15	121.90
36	1	1820	U	OP2-P-O3'	5.62	117.56	105.20
61	N5	38	LEU	CA-CB-CG	5.62	128.22	115.30
36	5	1306	G	OP2-P-O3'	5.62	117.56	105.20
1	2	720	G	OP1-P-O3'	5.62	117.56	105.20
1	2	1081	A	P-O3'-C3'	5.62	126.44	119.70
36	1	1606	U	N3-C2-O2	5.62	126.13	122.20
36	5	1304	A	C5-C6-N1	5.62	120.51	117.70
36	5	3301	U	C6-N1-C2	5.62	124.37	121.00
1	2	1168	U	OP1-P-O3'	5.61	117.55	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2679	A	N1-C6-N6	5.61	121.97	118.60
36	5	2816	G	N1-C6-O6	5.61	123.27	119.90
36	1	2121	G	N1-C2-N2	-5.61	111.15	116.20
36	1	2805	G	C4-C5-N7	5.61	113.04	110.80
41	L4	327	LEU	CA-CB-CG	5.61	128.20	115.30
36	5	770	G	O4'-C1'-N9	5.61	112.69	108.20
36	5	2129	U	C6-N1-C2	-5.61	117.63	121.00
36	5	2211	U	N3-C2-O2	-5.61	118.27	122.20
37	7	13	A	N1-C6-N6	-5.61	115.23	118.60
36	1	56	G	O5'-P-OP1	-5.61	100.65	105.70
1	2	352	A	N7-C8-N9	-5.61	111.00	113.80
36	1	97	U	C5-C6-N1	-5.61	119.90	122.70
36	1	637	C	C5-C6-N1	-5.61	118.20	121.00
36	1	1158	A	C4-C5-C6	5.61	119.80	117.00
36	1	3120	C	N3-C2-O2	-5.61	117.97	121.90
36	1	351	A	C5-C6-N6	5.61	128.18	123.70
36	1	1128	U	N3-C2-O2	-5.61	118.28	122.20
36	1	1507	G	C4-C5-C6	5.61	122.16	118.80
36	1	2634	U	N3-C4-C5	5.61	117.96	114.60
36	5	1496	C	C2-N1-C1'	5.61	124.97	118.80
36	1	1336	U	O5'-P-OP1	5.60	117.42	110.70
36	5	940	G	N1-C2-N2	5.60	121.24	116.20
36	1	3055	U	N3-C4-C5	5.60	117.96	114.60
36	5	1364	C	OP2-P-O3'	5.60	117.53	105.20
36	5	2772	C	OP2-P-O3'	5.60	117.53	105.20
36	5	1160	C	C6-N1-C1'	5.60	127.52	120.80
36	1	1168	U	O5'-P-OP2	-5.60	100.66	105.70
36	1	3246	G	C6-C5-N7	-5.60	127.04	130.40
36	5	2176	U	C2-N3-C4	-5.60	123.64	127.00
36	5	2617	U	N3-C4-C5	-5.60	111.24	114.60
36	5	3182	G	O5'-P-OP2	5.60	117.42	110.70
1	2	402	C	C5-C6-N1	-5.60	118.20	121.00
1	2	571	G	N9-C4-C5	5.60	107.64	105.40
36	1	1077	U	C2-N3-C4	-5.60	123.64	127.00
1	6	748	U	N1-C2-O2	5.60	126.72	122.80
36	5	2937	G	N9-C4-C5	-5.60	103.16	105.40
1	2	428	A	O4'-C1'-N9	5.59	112.68	108.20
36	1	847	A	N1-C6-N6	5.59	121.96	118.60
1	6	1045	C	C6-N1-C2	-5.59	118.06	120.30
36	5	2819	A	C4-C5-N7	-5.59	107.90	110.70
39	12	3	ARG	NE-CZ-NH1	-5.59	117.50	120.30
1	2	499	U	P-O3'-C3'	5.59	126.41	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	13	A	C6-C5-N7	-5.59	128.38	132.30
1	6	978	A	N9-C4-C5	5.59	108.04	105.80
36	5	1103	A	C8-N9-C4	-5.59	103.56	105.80
36	5	1441	G	O5'-P-OP2	-5.59	100.67	105.70
36	5	1879	A	C6-C5-N7	-5.59	128.39	132.30
36	1	517	G	C6-C5-N7	-5.59	127.05	130.40
36	1	3081	C	N3-C2-O2	-5.59	117.99	121.90
1	6	1489	U	N3-C2-O2	-5.59	118.29	122.20
36	5	2699	G	C8-N9-C4	5.59	108.64	106.40
36	5	2949	U	N3-C2-O2	-5.59	118.29	122.20
1	6	555	A	P-O3'-C3'	5.59	126.40	119.70
36	5	3103	A	C6-N1-C2	-5.59	115.25	118.60
37	7	87	G	N3-C2-N2	-5.59	115.99	119.90
36	1	562	C	C6-N1-C2	-5.58	118.07	120.30
36	1	2144	A	C5-C6-N1	5.58	120.49	117.70
36	1	1292	C	C6-N1-C2	5.58	122.53	120.30
36	1	3308	C	N1-C2-O2	-5.58	115.55	118.90
36	5	640	U	N1-C2-O2	-5.58	118.89	122.80
36	5	2358	A	O5'-P-OP2	-5.58	100.67	105.70
1	2	734	A	P-O3'-C3'	5.58	126.40	119.70
36	1	92	G	N3-C4-N9	5.58	129.35	126.00
36	1	908	G	C8-N9-C1'	-5.58	119.75	127.00
36	1	3337	G	N1-C6-O6	-5.58	116.55	119.90
36	5	526	C	N3-C4-C5	5.58	124.13	121.90
36	5	2735	U	N3-C2-O2	-5.58	118.29	122.20
36	1	716	A	C4-C5-N7	5.58	113.49	110.70
1	6	396	G	N7-C8-N9	5.58	115.89	113.10
36	5	365	A	C4-C5-N7	5.58	113.49	110.70
36	1	650	C	C5-C6-N1	-5.58	118.21	121.00
36	1	1204	A	N1-C6-N6	5.58	121.95	118.60
36	5	1317	A	C5-C6-N6	-5.58	119.24	123.70
36	5	3197	G	N3-C2-N2	-5.58	116.00	119.90
37	7	1	G	C8-N9-C4	-5.58	104.17	106.40
36	1	965	A	OP1-P-O3'	5.58	117.47	105.20
36	1	2163	C	C2-N1-C1'	-5.58	112.67	118.80
36	1	2818	U	OP2-P-O3'	5.58	117.47	105.20
1	6	1310	U	N1-C2-O2	5.58	126.70	122.80
36	5	404	G	N1-C2-N3	5.58	127.25	123.90
36	5	3272	C	O5'-P-OP1	-5.58	100.68	105.70
36	1	2662	G	C4-C5-N7	5.57	113.03	110.80
1	6	297	U	N3-C4-O4	5.57	123.30	119.40
1	2	1759	C	N1-C2-O2	5.57	122.24	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	702	C	C6-N1-C2	-5.57	118.07	120.30
36	1	922	U	N3-C2-O2	-5.57	118.30	122.20
1	6	1631	A	N1-C6-N6	-5.57	115.26	118.60
36	5	2899	C	N1-C2-N3	5.57	123.10	119.20
36	1	2879	C	N3-C2-O2	5.57	125.80	121.90
36	1	922	U	C2-N1-C1'	5.57	124.38	117.70
1	2	863	A	N1-C6-N6	5.57	121.94	118.60
36	1	1128	U	C2-N3-C4	-5.57	123.66	127.00
36	1	1443	G	N7-C8-N9	5.57	115.88	113.10
36	1	2391	G	N3-C2-N2	-5.57	116.00	119.90
36	1	2984	C	N3-C2-O2	-5.57	118.00	121.90
36	5	938	C	N3-C4-C5	5.57	124.13	121.90
36	5	2704	A	C2-N3-C4	-5.56	107.82	110.60
36	5	2992	U	N1-C2-N3	-5.56	111.56	114.90
36	5	1449	A	C4-C5-C6	5.56	119.78	117.00
36	1	3112	G	C5-C6-O6	-5.56	125.26	128.60
1	2	553	G	C4-C5-N7	5.56	113.02	110.80
1	2	704	C	O4'-C1'-N1	5.56	112.65	108.20
1	2	1249	U	N3-C2-O2	-5.56	118.31	122.20
1	2	1654	G	N3-C4-N9	5.56	129.34	126.00
15	C3	22	ALA	C-N-CA	5.56	145.35	122.00
36	1	663	C	OP2-P-O3'	5.56	117.43	105.20
36	5	3313	U	N3-C2-O2	-5.56	118.31	122.20
38	8	36	G	N1-C6-O6	-5.56	116.56	119.90
36	1	1588	A	N1-C6-N6	-5.56	115.27	118.60
36	1	2434	U	C5-C4-O4	5.56	129.23	125.90
36	1	2935	U	N3-C4-C5	-5.56	111.27	114.60
36	5	940	G	C2-N3-C4	5.56	114.68	111.90
78	q2	93	LEU	CA-CB-CG	5.56	128.08	115.30
36	5	515	C	C4-C5-C6	5.56	120.18	117.40
36	5	2963	C	O5'-P-OP2	-5.56	100.70	105.70
36	5	3221	C	N3-C4-C5	-5.56	119.68	121.90
36	5	1389	G	N1-C6-O6	5.55	123.23	119.90
36	5	1847	A	OP2-P-O3'	5.55	117.42	105.20
1	6	973	A	C4-C5-C6	5.55	119.78	117.00
36	5	1056	U	C6-N1-C2	-5.55	117.67	121.00
36	5	2549	G	C6-C5-N7	-5.55	127.07	130.40
1	2	1473	U	N1-C2-O2	5.55	126.69	122.80
36	1	873	C	N1-C2-O2	-5.55	115.57	118.90
1	6	1072	C	C2-N1-C1'	5.55	124.91	118.80
36	1	357	A	O5'-P-OP2	-5.55	100.71	105.70
36	5	1484	U	C5-C6-N1	-5.55	119.92	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1541	G	N7-C8-N9	5.55	115.87	113.10
1	2	941	A	N1-C6-N6	5.55	121.93	118.60
36	1	2350	C	C4-C5-C6	5.54	120.17	117.40
36	5	620	U	C2-N1-C1'	5.54	124.35	117.70
36	1	587	U	C2-N3-C4	-5.54	123.67	127.00
36	1	3243	A	C8-N9-C4	5.54	108.02	105.80
1	6	625	C	N3-C2-O2	5.54	125.78	121.90
36	5	2145	A	N3-C4-C5	-5.54	122.92	126.80
36	5	3378	C	N3-C4-C5	5.54	124.12	121.90
38	8	42	G	C8-N9-C4	5.54	108.62	106.40
38	8	99	C	C6-N1-C2	5.54	122.52	120.30
1	2	1081	A	OP1-P-O3'	5.54	117.39	105.20
36	1	1846	C	C4-C5-C6	5.54	120.17	117.40
36	1	2257	C	O4'-C1'-N1	5.54	112.63	108.20
36	1	2975	U	N1-C2-O2	5.54	126.68	122.80
36	1	864	G	C4-C5-N7	-5.54	108.58	110.80
36	5	1127	G	O5'-P-OP2	-5.54	100.71	105.70
36	1	2404	A	N1-C2-N3	5.54	132.07	129.30
37	3	87	G	O5'-P-OP2	-5.54	100.72	105.70
36	5	3212	C	N1-C2-O2	-5.54	115.58	118.90
36	5	747	A	O5'-P-OP2	-5.54	100.72	105.70
36	5	2434	U	C5-C4-O4	5.54	129.22	125.90
1	2	1654	G	N3-C4-C5	-5.53	125.83	128.60
36	1	2884	C	C4-C5-C6	-5.53	114.63	117.40
36	1	3178	A	C5-C6-N1	-5.53	114.93	117.70
1	6	558	U	C5-C6-N1	5.53	125.47	122.70
1	6	1700	C	C6-N1-C1'	-5.53	114.16	120.80
36	5	61	A	C8-N9-C4	-5.53	103.59	105.80
1	2	720	G	P-O3'-C3'	5.53	126.34	119.70
36	1	189	G	C4-C5-N7	5.53	113.01	110.80
36	1	703	G	N3-C4-N9	-5.53	122.68	126.00
36	1	927	C	O5'-P-OP1	-5.53	100.72	105.70
36	1	2944	U	OP1-P-O3'	5.53	117.37	105.20
1	2	110	U	C5-C6-N1	5.53	125.46	122.70
36	1	362	U	C6-N1-C2	5.53	124.32	121.00
36	1	1133	A	C5-C6-N1	5.53	120.46	117.70
36	5	820	A	O5'-P-OP1	-5.53	100.72	105.70
36	5	1200	A	C4-C5-C6	5.53	119.76	117.00
36	1	942	U	OP1-P-OP2	-5.53	111.31	119.60
1	6	1200	G	C4-N9-C1'	-5.53	119.32	126.50
36	5	865	U	N1-C2-O2	-5.53	118.93	122.80
36	5	1155	C	C6-N1-C1'	-5.53	114.17	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2993	G	C5-C6-N1	5.52	114.26	111.50
1	2	453	U	C6-N1-C2	-5.52	117.69	121.00
36	1	711	A	N1-C6-N6	-5.52	115.29	118.60
36	5	421	G	N3-C4-C5	-5.52	125.84	128.60
36	5	751	A	O5'-P-OP2	-5.52	100.73	105.70
36	5	805	G	N1-C6-O6	-5.52	116.59	119.90
36	1	102	C	N3-C4-C5	-5.52	119.69	121.90
36	5	2242	A	N1-C6-N6	-5.52	115.29	118.60
1	6	1768	G	C5-C6-O6	5.52	131.91	128.60
36	5	2625	C	C2-N3-C4	-5.52	117.14	119.90
36	1	812	G	C4-C5-N7	-5.52	108.59	110.80
36	1	2297	U	N3-C2-O2	-5.52	118.34	122.20
36	5	87	U	C6-N1-C2	-5.52	117.69	121.00
36	5	2524	A	O4'-C1'-N9	5.52	112.61	108.20
1	6	696	C	O4'-C1'-N1	5.51	112.61	108.20
36	5	636	C	O5'-P-OP2	-5.51	100.74	105.70
36	5	646	A	C5-C6-N6	5.51	128.11	123.70
36	5	1158	A	C8-N9-C4	5.51	108.01	105.80
36	5	1795	U	C2-N1-C1'	5.51	124.32	117.70
36	5	2373	A	O5'-P-OP2	5.51	117.32	110.70
36	5	2653	C	C6-N1-C2	-5.51	118.09	120.30
36	5	2870	C	O4'-C1'-N1	5.51	112.61	108.20
36	5	3154	C	C5-C6-N1	5.51	123.76	121.00
36	5	2823	G	N9-C4-C5	5.51	107.61	105.40
36	5	1316	C	O5'-P-OP2	-5.51	100.74	105.70
36	5	3094	A	C8-N9-C4	5.51	108.00	105.80
36	1	279	U	N1-C2-O2	5.51	126.66	122.80
36	1	1581	C	N3-C2-O2	-5.51	118.04	121.90
36	5	2572	C	C6-N1-C1'	-5.51	114.19	120.80
24	D2	93	LEU	CA-CB-CG	5.51	127.97	115.30
36	1	2138	A	C5-C6-N1	-5.51	114.95	117.70
36	5	800	G	O4'-C1'-N9	-5.51	103.80	108.20
36	1	2640	A	C6-N1-C2	-5.50	115.30	118.60
36	5	2245	C	C6-N1-C2	-5.50	118.10	120.30
1	2	453	U	C5-C4-O4	5.50	129.20	125.90
1	2	1745	G	C6-N1-C2	-5.50	121.80	125.10
36	5	2849	C	N3-C2-O2	5.50	125.75	121.90
36	1	2388	U	C5-C4-O4	-5.50	122.60	125.90
36	5	2950	G	C5-N7-C8	-5.50	101.55	104.30
36	5	2971	A	C2-N3-C4	5.50	113.35	110.60
36	5	3215	A	C5-C6-N1	-5.50	114.95	117.70
37	7	33	U	C2-N1-C1'	5.50	124.30	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	402	C	N3-C4-N4	5.50	121.85	118.00
36	5	3382	U	N3-C2-O2	-5.50	118.35	122.20
36	1	885	U	C5-C6-N1	-5.50	119.95	122.70
1	6	787	G	N3-C4-N9	5.50	129.30	126.00
1	6	1640	C	C6-N1-C1'	-5.50	114.20	120.80
1	2	1190	C	C6-N1-C2	5.50	122.50	120.30
1	2	1595	U	C5-C6-N1	-5.50	119.95	122.70
1	2	1773	C	N3-C4-N4	5.50	121.85	118.00
38	4	16	G	N7-C8-N9	-5.50	110.35	113.10
36	5	639	G	N3-C2-N2	-5.50	116.05	119.90
36	5	2996	U	N1-C2-O2	5.50	126.65	122.80
1	2	402	C	N1-C2-O2	-5.49	115.60	118.90
36	1	287	G	C8-N9-C4	5.49	108.60	106.40
36	1	779	G	C8-N9-C4	5.49	108.60	106.40
62	N6	126	LEU	CA-CB-CG	5.49	127.93	115.30
36	1	931	C	N3-C4-C5	5.49	124.10	121.90
36	1	1152	G	C4-N9-C1'	5.49	133.64	126.50
1	6	363	G	C5-C6-O6	-5.49	125.31	128.60
36	5	198	A	C8-N9-C4	5.49	108.00	105.80
1	6	351	C	C2-N1-C1'	5.49	124.84	118.80
1	6	381	C	N3-C4-C5	5.49	124.10	121.90
36	1	1269	U	N3-C2-O2	-5.49	118.36	122.20
25	D3	33	LEU	CA-CB-CG	-5.49	102.68	115.30
36	5	2639	G	C6-N1-C2	-5.49	121.81	125.10
1	6	350	U	N1-C2-O2	-5.48	118.96	122.80
36	1	1477	A	C8-N9-C4	-5.48	103.61	105.80
38	4	14	C	N3-C4-C5	5.48	124.09	121.90
1	2	1202	A	C2-N3-C4	5.48	113.34	110.60
36	1	1532	C	N3-C4-C5	5.48	124.09	121.90
1	6	1628	U	N3-C2-O2	-5.48	118.36	122.20
36	5	868	C	C6-N1-C2	5.48	122.49	120.30
36	5	2392	C	C2-N3-C4	-5.48	117.16	119.90
1	6	1145	U	N3-C4-O4	5.48	123.24	119.40
1	6	1740	A	C8-N9-C4	5.48	107.99	105.80
1	6	1765	A	N7-C8-N9	-5.48	111.06	113.80
1	6	1768	G	C4-C5-N7	-5.48	108.61	110.80
36	5	372	A	N1-C6-N6	5.48	121.89	118.60
36	5	842	G	N1-C6-O6	5.48	123.19	119.90
36	5	2341	A	O5'-P-OP2	-5.48	100.77	105.70
36	5	2950	G	O4'-C1'-N9	5.48	112.58	108.20
36	1	895	A	C8-N9-C4	-5.47	103.61	105.80
36	1	1127	G	C5-C6-O6	-5.47	125.32	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	650	C	N1-C2-O2	-5.47	115.61	118.90
36	5	2189	U	C6-N1-C2	5.47	124.28	121.00
36	5	2699	G	N3-C2-N2	-5.47	116.07	119.90
1	2	1497	U	C2-N1-C1'	5.47	124.27	117.70
36	5	2917	G	C8-N9-C1'	-5.47	119.89	127.00
36	5	2673	A	C8-N9-C4	5.47	107.99	105.80
36	1	67	A	O5'-P-OP1	-5.47	100.78	105.70
36	1	343	U	OP2-P-O3'	5.47	117.23	105.20
36	1	709	A	O5'-P-OP1	5.47	117.26	110.70
36	1	2184	U	C5-C4-O4	-5.47	122.62	125.90
36	1	2632	G	C5-C6-N1	5.47	114.23	111.50
36	5	2216	G	C8-N9-C4	5.47	108.59	106.40
36	5	2278	C	C6-N1-C2	-5.47	118.11	120.30
36	1	3303	G	O4'-C1'-N9	5.47	112.58	108.20
36	5	2818	U	C5-C4-O4	-5.47	122.62	125.90
1	6	858	G	O4'-C1'-N9	5.47	112.57	108.20
36	5	125	C	N3-C4-N4	-5.47	114.17	118.00
36	5	2290	C	C5-C6-N1	-5.47	118.27	121.00
36	5	2388	U	N3-C2-O2	5.47	126.03	122.20
1	2	985	G	N3-C4-C5	-5.46	125.87	128.60
36	1	357	A	C8-N9-C4	5.46	107.99	105.80
73	O7	5	THR	C-N-CD	5.46	139.88	128.40
1	6	1414	U	N3-C2-O2	-5.46	118.38	122.20
36	5	2913	C	C6-N1-C2	-5.46	118.11	120.30
36	5	639	G	C5-C6-O6	-5.46	125.32	128.60
36	5	833	G	C8-N9-C4	5.46	108.58	106.40
1	6	957	G	N1-C6-O6	5.46	123.18	119.90
36	5	2593	A	P-O3'-C3'	5.46	126.25	119.70
36	1	283	G	O4'-C1'-N9	-5.46	103.83	108.20
1	2	1749	A	C8-N9-C4	5.46	107.98	105.80
36	5	399	A	O5'-P-OP1	-5.46	100.79	105.70
36	5	2800	G	N3-C2-N2	-5.46	116.08	119.90
36	5	2964	G	N1-C6-O6	-5.46	116.63	119.90
1	2	17	C	C6-N1-C2	-5.46	118.12	120.30
1	6	696	C	C6-N1-C1'	5.46	127.35	120.80
38	8	101	U	C6-N1-C2	-5.46	117.73	121.00
36	1	2726	C	N3-C4-N4	-5.45	114.18	118.00
36	1	3209	A	O5'-P-OP1	-5.45	100.79	105.70
38	4	30	C	N3-C4-C5	5.45	124.08	121.90
36	5	2884	C	C5-C4-N4	-5.45	116.38	120.20
36	5	3050	U	C4-C5-C6	5.45	122.97	119.70
36	5	1534	A	C5-N7-C8	5.45	106.63	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	978	G	N3-C4-C5	5.45	131.32	128.60
36	1	1550	C	N1-C2-O2	-5.45	115.63	118.90
36	1	2417	U	N1-C2-O2	-5.45	118.98	122.80
38	4	25	G	C4-C5-N7	-5.45	108.62	110.80
1	6	1475	A	C8-N9-C4	5.45	107.98	105.80
36	5	2806	U	C5-C6-N1	-5.45	119.97	122.70
1	2	829	A	P-O3'-C3'	5.45	126.24	119.70
36	1	3091	A	C5-N7-C8	-5.45	101.18	103.90
1	6	136	C	C6-N1-C1'	-5.45	114.26	120.80
36	5	1139	G	N1-C6-O6	-5.45	116.63	119.90
36	1	1587	A	N1-C6-N6	-5.45	115.33	118.60
36	5	1437	C	C5-C6-N1	5.45	123.72	121.00
36	5	3078	U	N3-C2-O2	-5.45	118.39	122.20
1	2	810	G	N9-C4-C5	-5.45	103.22	105.40
1	2	1324	G	N9-C4-C5	5.45	107.58	105.40
36	1	46	U	C5-C6-N1	-5.45	119.98	122.70
36	1	1329	U	N1-C1'-C2'	-5.45	106.01	112.00
36	1	2920	U	C6-N1-C2	5.45	124.27	121.00
36	1	3305	A	O5'-P-OP2	-5.45	100.80	105.70
1	6	433	C	C5-C4-N4	-5.45	116.39	120.20
36	5	864	G	N7-C8-N9	-5.45	110.38	113.10
36	5	1186	G	C4-C5-N7	5.45	112.98	110.80
36	5	2272	G	O4'-C1'-N9	5.45	112.56	108.20
36	5	2975	U	C4-C5-C6	-5.45	116.43	119.70
36	5	901	G	C4-N9-C1'	5.44	133.58	126.50
1	2	89	G	C8-N9-C4	5.44	108.58	106.40
1	2	380	U	N1-C2-O2	5.44	126.61	122.80
36	1	1683	A	C5-C6-N6	-5.44	119.35	123.70
36	5	1928	G	C4-C5-N7	5.44	112.98	110.80
36	5	3362	A	C4-C5-N7	5.44	113.42	110.70
36	1	730	C	C2-N3-C4	-5.44	117.18	119.90
36	1	1845	G	OP2-P-O3'	5.44	117.17	105.20
36	1	2121	G	C5-C6-N1	5.44	114.22	111.50
36	1	2950	G	O4'-C1'-N9	5.44	112.55	108.20
36	1	3207	U	C6-N1-C1'	5.44	128.82	121.20
1	6	1146	G	C6-C5-N7	-5.44	127.14	130.40
1	6	1768	G	C6-C5-N7	5.44	133.66	130.40
36	5	1850	A	C6-N1-C2	5.44	121.86	118.60
1	2	73	U	P-O3'-C3'	5.44	126.23	119.70
1	6	111	U	C2-N1-C1'	5.44	124.23	117.70
1	6	971	A	C8-N9-C4	-5.44	103.62	105.80
1	6	1535	U	C2-N1-C1'	5.44	124.22	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	953	G	N1-C6-O6	5.44	123.16	119.90
36	5	1367	G	C4-C5-C6	5.44	122.06	118.80
36	5	1404	G	C8-N9-C4	5.44	108.58	106.40
36	5	1440	G	C4-C5-N7	-5.44	108.62	110.80
36	5	3040	A	OP1-P-OP2	-5.44	111.44	119.60
36	1	2145	A	OP2-P-O3'	5.43	117.16	105.20
1	6	1652	C	C2-N3-C4	-5.43	117.18	119.90
36	5	2377	G	C5-N7-C8	5.43	107.02	104.30
36	1	1313	G	C6-C5-N7	-5.43	127.14	130.40
36	5	923	C	N1-C2-O2	5.43	122.16	118.90
36	5	2139	A	N1-C6-N6	-5.43	115.34	118.60
36	5	3057	U	C2-N1-C1'	5.43	124.22	117.70
36	1	364	G	C5-C6-O6	-5.43	125.34	128.60
36	1	1588	A	C6-C5-N7	5.43	136.10	132.30
36	1	2418	G	C2-N3-C4	5.43	114.61	111.90
38	4	113	U	C2-N1-C1'	-5.43	111.18	117.70
1	6	275	C	C2-N1-C1'	5.43	124.77	118.80
1	6	1749	A	C2-N3-C4	-5.43	107.89	110.60
36	5	226	C	N1-C2-O2	5.43	122.16	118.90
36	5	661	G	C4-C5-N7	5.43	112.97	110.80
36	5	1433	A	O4'-C1'-N9	-5.43	103.86	108.20
36	5	2333	C	C5-C4-N4	-5.43	116.40	120.20
36	1	2284	C	N3-C2-O2	-5.43	118.10	121.90
36	5	391	A	C8-N9-C4	5.43	107.97	105.80
1	2	1595	U	N1-C2-O2	-5.43	119.00	122.80
36	1	1094	U	C5-C6-N1	5.43	125.41	122.70
36	5	2687	G	N1-C6-O6	5.43	123.16	119.90
36	5	2957	G	C8-N9-C4	5.43	108.57	106.40
1	2	1462	G	N1-C6-O6	5.42	123.16	119.90
36	1	1695	U	C5-C6-N1	-5.42	119.99	122.70
1	6	558	U	N3-C2-O2	-5.42	118.40	122.20
36	5	87	U	C5-C6-N1	5.42	125.41	122.70
36	5	112	U	O4'-C1'-N1	5.42	112.54	108.20
36	5	365	A	N9-C4-C5	-5.42	103.63	105.80
36	5	411	U	N1-C2-N3	5.42	118.16	114.90
36	5	2531	C	C2-N1-C1'	5.42	124.77	118.80
36	5	2980	U	N3-C2-O2	-5.42	118.40	122.20
36	1	716	A	N1-C6-N6	5.42	121.85	118.60
36	1	1186	G	N3-C4-N9	5.42	129.25	126.00
36	1	2187	G	C6-C5-N7	-5.42	127.15	130.40
1	6	541	A	OP1-P-O3'	5.42	117.13	105.20
36	5	1369	A	N1-C6-N6	5.42	121.85	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1620	C	C6-N1-C2	-5.42	118.13	120.30
36	5	3146	G	N1-C2-N2	-5.42	111.32	116.20
1	2	320	U	C5-C6-N1	5.42	125.41	122.70
36	1	1834	U	N3-C4-C5	-5.42	111.35	114.60
1	6	1671	A	C8-N9-C4	5.42	107.97	105.80
36	5	559	A	C4-C5-C6	5.42	119.71	117.00
1	2	542	A	C4-N9-C1'	5.42	136.05	126.30
36	5	1336	U	O5'-P-OP1	5.42	117.20	110.70
36	5	2279	A	O4'-C1'-N9	5.42	112.53	108.20
36	5	2333	C	N1-C2-N3	-5.42	115.41	119.20
36	5	2706	G	C8-N9-C4	-5.42	104.23	106.40
1	6	1019	A	N7-C8-N9	-5.42	111.09	113.80
36	5	1879	A	C4-C5-N7	5.42	113.41	110.70
1	2	830	U	N1-C2-O2	5.41	126.59	122.80
36	5	271	C	N1-C2-O2	5.41	122.15	118.90
1	2	1456	C	N3-C2-O2	-5.41	118.11	121.90
38	4	16	G	C8-N9-C4	5.41	108.56	106.40
36	1	713	U	N1-C2-N3	5.41	118.15	114.90
37	3	83	U	N3-C4-C5	5.41	117.85	114.60
36	5	666	A	C8-N9-C4	5.41	107.96	105.80
36	1	343	U	C4-C5-C6	5.41	122.94	119.70
1	6	1218	G	C8-N9-C1'	5.41	134.03	127.00
36	5	2961	G	C8-N9-C4	-5.41	104.24	106.40
36	5	3049	A	N1-C6-N6	5.41	121.84	118.60
36	5	357	A	N1-C2-N3	5.41	132.00	129.30
37	7	37	G	N9-C4-C5	-5.41	103.24	105.40
36	1	1388	U	O5'-P-OP1	-5.41	100.83	105.70
36	1	3036	G	C8-N9-C4	-5.41	104.24	106.40
1	6	1129	U	C5-C4-O4	5.41	129.14	125.90
36	5	283	G	N9-C4-C5	-5.41	103.24	105.40
1	2	378	A	C4-C5-N7	5.40	113.40	110.70
36	1	2815	G	N9-C4-C5	-5.40	103.24	105.40
36	5	2139	A	N9-C4-C5	5.40	107.96	105.80
36	1	819	U	C6-N1-C2	5.40	124.24	121.00
36	1	1547	G	N1-C6-O6	-5.40	116.66	119.90
38	4	102	U	N1-C2-N3	5.40	118.14	114.90
36	5	2858	U	C6-N1-C2	-5.40	117.76	121.00
36	1	368	G	N1-C2-N2	-5.40	111.34	116.20
36	1	1113	G	C5-N7-C8	-5.40	101.60	104.30
36	1	1149	G	N3-C4-C5	5.40	131.30	128.60
73	O7	21	ARG	NE-CZ-NH1	5.40	123.00	120.30
1	6	1399	C	C5-C6-N1	5.40	123.70	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2376	G	OP1-P-OP2	5.40	127.70	119.60
37	7	110	G	C8-N9-C4	5.40	108.56	106.40
36	5	2726	C	C4-C5-C6	5.40	120.10	117.40
36	5	659	G	C4-C5-N7	5.40	112.96	110.80
1	2	1486	G	N1-C6-O6	5.39	123.14	119.90
36	1	282	G	P-O3'-C3'	5.39	126.17	119.70
36	1	425	G	N1-C2-N2	-5.39	111.34	116.20
36	5	1620	U	N1-C2-O2	5.39	126.58	122.80
36	5	2129	U	N3-C2-O2	-5.39	118.42	122.20
36	5	2900	A	OP2-P-O3'	5.39	117.07	105.20
1	2	1041	G	C8-N9-C4	-5.39	104.24	106.40
1	6	306	U	C5-C6-N1	-5.39	120.00	122.70
1	6	364	G	N7-C8-N9	-5.39	110.40	113.10
36	5	2746	A	N1-C6-N6	-5.39	115.36	118.60
38	4	31	G	C8-N9-C4	5.39	108.56	106.40
1	6	956	C	C6-N1-C2	5.39	122.46	120.30
36	1	224	C	N3-C4-C5	-5.39	119.74	121.90
1	6	317	C	C5-C6-N1	-5.39	118.31	121.00
36	5	375	A	OP1-P-O3'	5.39	117.06	105.20
36	5	1496	C	N1-C2-O2	5.39	122.13	118.90
36	1	1186	G	N9-C4-C5	-5.39	103.25	105.40
36	1	1367	G	N9-C4-C5	-5.39	103.25	105.40
36	5	425	G	C8-N9-C4	5.39	108.56	106.40
1	2	139	C	P-O3'-C3'	5.39	126.16	119.70
36	5	2257	C	C5-C6-N1	5.39	123.69	121.00
36	1	785	G	C4-C5-N7	-5.38	108.65	110.80
1	6	114	C	C2-N1-C1'	5.38	124.72	118.80
36	5	3287	U	N1-C2-O2	5.38	126.57	122.80
37	7	6	C	N3-C2-O2	-5.38	118.13	121.90
1	2	1244	A	P-O3'-C3'	5.38	126.16	119.70
36	5	3339	A	N1-C6-N6	5.38	121.83	118.60
1	2	864	U	N1-C2-O2	5.38	126.57	122.80
36	1	2132	C	O5'-P-OP2	-5.38	100.86	105.70
36	1	2852	C	N3-C4-C5	5.38	124.05	121.90
36	5	929	A	O5'-P-OP1	5.38	117.16	110.70
36	5	1000	C	N3-C4-C5	5.38	124.05	121.90
36	5	1370	G	C5-C6-N1	5.38	114.19	111.50
38	4	64	U	N3-C2-O2	-5.38	118.43	122.20
36	1	718	G	C4-N9-C1'	5.38	133.49	126.50
1	6	144	U	N1-C2-O2	5.38	126.56	122.80
36	5	1774	C	N3-C4-C5	5.38	124.05	121.90
44	17	229	PHE	CB-CG-CD2	-5.38	117.03	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	266	A	C8-N9-C4	5.38	107.95	105.80
1	2	1291	G	C8-N9-C4	-5.38	104.25	106.40
36	1	2184	U	O5'-P-OP2	-5.38	100.86	105.70
36	1	2855	U	C2-N3-C4	-5.38	123.78	127.00
36	5	334	A	N7-C8-N9	-5.38	111.11	113.80
36	5	1924	U	C6-N1-C2	5.38	124.23	121.00
36	5	3066	U	C6-N1-C2	5.38	124.23	121.00
1	2	43	A	N1-C2-N3	5.37	131.99	129.30
1	2	554	C	C6-N1-C1'	-5.37	114.35	120.80
36	5	349	A	OP2-P-O3'	5.37	117.02	105.20
36	5	2403	G	N3-C4-C5	-5.37	125.91	128.60
36	5	3214	U	N3-C2-O2	-5.37	118.44	122.20
36	1	102	C	C6-N1-C2	-5.37	118.15	120.30
36	1	392	G	C8-N9-C4	5.37	108.55	106.40
36	1	743	C	C2-N1-C1'	-5.37	112.89	118.80
36	1	1100	U	C6-N1-C2	5.37	124.22	121.00
36	1	1475	A	N7-C8-N9	-5.37	111.11	113.80
36	1	2979	U	C2-N3-C4	-5.37	123.78	127.00
36	5	3057	U	N1-C2-N3	-5.37	111.68	114.90
36	1	641	C	O4'-C1'-N1	5.37	112.50	108.20
36	1	1365	G	C4-N9-C1'	5.37	133.48	126.50
36	5	1897	G	C6-C5-N7	-5.37	127.18	130.40
36	5	3309	G	C8-N9-C4	-5.37	104.25	106.40
36	1	2620	G	C8-N9-C4	5.37	108.55	106.40
36	5	519	A	N1-C6-N6	5.37	121.82	118.60
36	5	2417	U	OP2-P-O3'	5.37	117.01	105.20
36	5	3121	U	C2-N1-C1'	-5.37	111.26	117.70
38	8	84	C	C6-N1-C2	-5.37	118.15	120.30
36	5	2927	C	OP2-P-O3'	5.37	117.01	105.20
36	1	1815	U	P-O3'-C3'	5.37	126.14	119.70
36	5	304	G	N3-C2-N2	-5.37	116.14	119.90
36	5	1704	A	N3-C4-C5	5.37	130.56	126.80
36	5	2910	A	OP2-P-O3'	5.37	117.00	105.20
37	3	103	A	N1-C6-N6	5.36	121.82	118.60
36	5	916	G	OP1-P-O3'	5.36	117.00	105.20
36	5	1592	G	N7-C8-N9	5.36	115.78	113.10
36	1	402	A	C8-N9-C4	5.36	107.94	105.80
36	1	2875	U	O5'-P-OP1	-5.36	100.87	105.70
1	6	387	A	C2-N3-C4	5.36	113.28	110.60
36	5	834	U	C6-N1-C2	5.36	124.22	121.00
36	5	2906	C	N1-C2-O2	-5.36	115.68	118.90
36	5	1180	A	N9-C4-C5	5.36	107.94	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3181	C	C2-N1-C1'	5.36	124.70	118.80
36	1	1110	U	C5-C4-O4	-5.36	122.69	125.90
36	1	1604	G	C2-N3-C4	5.36	114.58	111.90
36	1	2293	C	N1-C2-O2	5.36	122.12	118.90
36	1	281	G	C5-C6-O6	-5.36	125.39	128.60
38	4	31	G	C5-C6-O6	-5.36	125.39	128.60
36	5	2704	A	N3-C4-C5	5.36	130.55	126.80
62	n6	35	LEU	CA-CB-CG	5.36	127.62	115.30
36	1	297	G	O4'-C1'-N9	5.36	112.48	108.20
9	s7	118	LEU	CA-CB-CG	5.36	127.62	115.30
36	5	1588	A	O5'-P-OP1	-5.36	100.88	105.70
36	5	2855	U	N3-C4-C5	5.36	117.81	114.60
36	1	2632	G	N3-C4-N9	5.35	129.21	126.00
36	5	2248	C	OP1-P-O3'	5.35	116.98	105.20
36	1	25	U	C4-C5-C6	5.35	122.91	119.70
36	1	1396	C	N3-C4-C5	5.35	124.04	121.90
38	4	142	C	C6-N1-C2	-5.35	118.16	120.30
36	5	1108	U	N1-C2-N3	5.35	118.11	114.90
36	5	3138	U	O5'-P-OP1	5.35	117.12	110.70
36	1	1001	G	C6-C5-N7	-5.35	127.19	130.40
1	6	194	U	N3-C2-O2	-5.35	118.45	122.20
36	5	55	G	OP2-P-O3'	5.35	116.97	105.20
36	5	3189	G	N3-C2-N2	-5.35	116.15	119.90
36	1	104	G	C5-C6-O6	-5.35	125.39	128.60
36	1	1445	U	C2-N1-C1'	-5.35	111.28	117.70
36	1	2357	A	C5-C6-N6	-5.35	119.42	123.70
1	6	363	G	N1-C6-O6	5.35	123.11	119.90
36	5	2906	C	N3-C2-O2	5.35	125.64	121.90
36	1	2607	G	N1-C6-O6	5.35	123.11	119.90
1	6	1583	A	C8-N9-C4	5.35	107.94	105.80
36	5	1150	A	C4-C5-N7	5.35	113.37	110.70
36	5	1749	A	N9-C4-C5	-5.35	103.66	105.80
36	5	1830	G	O5'-P-OP2	-5.35	100.89	105.70
36	5	1885	U	C5-C6-N1	-5.35	120.03	122.70
36	5	2778	G	C5-C6-O6	-5.35	125.39	128.60
36	1	1365	G	C4-C5-N7	5.35	112.94	110.80
38	4	113	U	N1-C2-N3	5.35	118.11	114.90
1	6	187	G	P-O3'-C3'	5.35	126.11	119.70
1	2	1761	U	P-O3'-C3'	5.34	126.11	119.70
36	1	2726	C	C5-C4-N4	5.34	123.94	120.20
36	1	2818	U	P-O3'-C3'	5.34	126.11	119.70
36	1	2869	U	N3-C2-O2	-5.34	118.46	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	c1	82	ARG	NE-CZ-NH1	-5.34	117.63	120.30
36	5	640	U	N3-C2-O2	5.34	125.94	122.20
36	5	2215	A	N1-C6-N6	5.34	121.81	118.60
36	5	994	G	N3-C4-N9	5.34	129.21	126.00
36	5	2733	A	N1-C6-N6	5.34	121.81	118.60
38	8	104	A	N3-C4-C5	5.34	130.54	126.80
36	5	994	G	N3-C2-N2	5.34	123.64	119.90
1	2	571	G	C6-C5-N7	5.34	133.60	130.40
36	1	682	U	N3-C4-O4	-5.34	115.66	119.40
36	1	3223	A	N1-C6-N6	-5.34	115.40	118.60
36	5	539	C	C6-N1-C2	-5.34	118.17	120.30
36	5	1476	G	C5-C6-O6	5.34	131.80	128.60
36	5	2305	G	N7-C8-N9	5.34	115.77	113.10
36	1	608	A	C4-C5-N7	5.34	113.37	110.70
36	1	1421	G	O5'-P-OP2	-5.34	100.90	105.70
1	6	1654	G	C5-C6-O6	-5.34	125.40	128.60
36	5	266	A	P-O3'-C3'	5.34	126.10	119.70
36	5	2549	G	C4-N9-C1'	5.34	133.44	126.50
36	5	2683	U	C6-N1-C2	-5.34	117.80	121.00
36	5	3343	G	C6-C5-N7	-5.34	127.20	130.40
36	1	972	A	C8-N9-C4	5.33	107.93	105.80
36	1	905	U	O5'-P-OP2	-5.33	100.90	105.70
36	1	960	U	N1-C2-N3	-5.33	111.70	114.90
36	1	1137	C	N1-C2-O2	-5.33	115.70	118.90
36	1	1192	C	C5-C6-N1	5.33	123.67	121.00
36	1	1837	U	C5-C4-O4	-5.33	122.70	125.90
1	6	1173	C	C6-N1-C2	-5.33	118.17	120.30
36	5	1152	G	N7-C8-N9	5.33	115.77	113.10
36	5	1747	G	C8-N9-C4	5.33	108.53	106.40
36	5	2433	U	C5-C6-N1	-5.33	120.03	122.70
36	1	1081	U	C5-C6-N1	5.33	125.37	122.70
36	1	2606	G	N3-C2-N2	5.33	123.63	119.90
36	1	3278	C	C6-N1-C2	-5.33	118.17	120.30
1	6	322	G	N1-C6-O6	5.33	123.10	119.90
1	6	978	A	N1-C6-N6	-5.33	115.40	118.60
1	6	1776	A	OP2-P-O3'	5.33	116.93	105.20
36	5	650	C	C6-N1-C2	5.33	122.43	120.30
1	6	542	A	C8-N9-C4	-5.33	103.67	105.80
36	5	721	G	C4-C5-N7	5.33	112.93	110.80
1	2	1611	A	O4'-C1'-N9	5.33	112.46	108.20
36	1	2315	G	C5-C6-N1	-5.33	108.83	111.50
36	5	1848	G	OP2-P-O3'	5.33	116.92	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2305	G	C6-C5-N7	-5.33	127.20	130.40
36	5	2728	G	N1-C6-O6	-5.33	116.70	119.90
36	5	2734	A	C8-N9-C4	5.33	107.93	105.80
36	1	384	A	C8-N9-C4	5.33	107.93	105.80
36	1	969	C	C5-C6-N1	-5.33	118.34	121.00
36	1	2388	U	C6-N1-C2	5.33	124.20	121.00
36	1	2427	U	N3-C4-O4	-5.33	115.67	119.40
36	1	3373	U	C6-N1-C2	5.33	124.19	121.00
36	5	1138	U	C2-N3-C4	-5.33	123.81	127.00
36	5	2761	G	C4-C5-N7	-5.33	108.67	110.80
36	5	2887	A	N3-C4-C5	-5.33	123.07	126.80
36	1	2870	C	C2-N1-C1'	-5.32	112.94	118.80
36	1	3149	G	C5-C6-N1	-5.32	108.84	111.50
1	6	90	C	N1-C2-O2	5.32	122.09	118.90
1	6	321	C	N3-C2-O2	-5.32	118.17	121.90
36	5	43	A	O5'-P-OP2	-5.32	100.91	105.70
36	5	1917	C	C4-C5-C6	5.32	120.06	117.40
1	2	329	G	N1-C2-N3	5.32	127.09	123.90
36	1	961	C	N1-C2-O2	-5.32	115.71	118.90
36	1	2946	A	C6-C5-N7	-5.32	128.57	132.30
51	M5	93	LYS	N-CA-C	5.32	125.37	111.00
36	5	951	A	C2-N3-C4	-5.32	107.94	110.60
36	5	1348	U	C6-N1-C2	-5.32	117.81	121.00
36	5	2291	A	OP1-P-O3'	5.32	116.91	105.20
38	8	100	U	C6-N1-C1'	-5.32	113.75	121.20
1	2	383	G	C8-N9-C4	-5.32	104.27	106.40
36	5	2615	G	C4-C5-N7	5.32	112.93	110.80
38	8	36	G	C5-C6-N1	5.32	114.16	111.50
1	2	1503	A	N1-C6-N6	5.32	121.79	118.60
36	1	2636	A	C8-N9-C4	-5.32	103.67	105.80
36	5	1420	C	C4-C5-C6	5.32	120.06	117.40
1	2	1108	G	O4'-C1'-N9	5.32	112.45	108.20
36	1	39	A	N9-C4-C5	-5.32	103.67	105.80
36	1	1124	U	C4-C5-C6	-5.32	116.51	119.70
36	1	2953	U	N3-C2-O2	5.32	125.92	122.20
36	1	3060	C	C6-N1-C2	5.32	122.43	120.30
14	c2	58	LEU	CA-CB-CG	5.32	127.53	115.30
36	5	354	U	C2-N1-C1'	5.32	124.08	117.70
36	5	3120	C	C5-C6-N1	5.32	123.66	121.00
36	1	659	G	N3-C4-N9	5.32	129.19	126.00
36	1	884	A	C5-C6-N6	-5.32	119.45	123.70
36	5	3040	A	N7-C8-N9	-5.32	111.14	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	M3	47	ALA	C-N-CD	5.31	139.56	128.40
1	2	428	A	C8-N9-C4	-5.31	103.67	105.80
12	C0	49	LEU	CA-CB-CG	5.31	127.52	115.30
36	1	609	G	C2-N3-C4	5.31	114.56	111.90
36	1	1480	G	C4-C5-N7	5.31	112.92	110.80
36	1	3269	U	P-O3'-C3'	5.31	126.08	119.70
36	5	658	G	C5-C6-O6	-5.31	125.41	128.60
36	5	2369	G	C5-C6-N1	5.31	114.16	111.50
36	1	1305	U	C2-N3-C4	5.31	130.19	127.00
1	6	1537	C	C5-C6-N1	5.31	123.66	121.00
1	2	934	C	C6-N1-C1'	-5.31	114.43	120.80
1	6	944	A	C2-N3-C4	-5.31	107.94	110.60
36	1	388	G	C8-N9-C4	-5.31	104.28	106.40
36	1	1655	G	O5'-P-OP1	-5.31	100.92	105.70
1	2	343	C	N3-C2-O2	-5.30	118.19	121.90
36	1	2323	G	C4-C5-N7	5.30	112.92	110.80
36	1	2852	C	C5-C4-N4	-5.30	116.49	120.20
1	6	542	A	N7-C8-N9	5.30	116.45	113.80
36	5	534	U	O5'-P-OP2	-5.30	100.93	105.70
36	5	1049	C	C5-C6-N1	5.30	123.65	121.00
36	5	3145	C	C6-N1-C2	5.30	122.42	120.30
37	7	105	C	C6-N1-C2	-5.30	118.18	120.30
1	2	599	A	N1-C6-N6	-5.30	115.42	118.60
37	7	110	G	O5'-P-OP2	-5.30	100.93	105.70
36	1	182	U	C2-N1-C1'	-5.30	111.34	117.70
36	5	1898	G	O4'-C1'-N9	5.30	112.44	108.20
1	2	1572	G	C4-C5-N7	5.30	112.92	110.80
36	1	2387	A	C8-N9-C4	5.30	107.92	105.80
36	1	2645	G	C8-N9-C4	5.30	108.52	106.40
36	1	2683	U	N3-C2-O2	5.30	125.91	122.20
36	1	3375	A	N9-C4-C5	5.30	107.92	105.80
36	5	2385	G	N9-C4-C5	-5.30	103.28	105.40
36	1	2715	A	O5'-P-OP1	-5.30	100.93	105.70
36	5	384	A	N7-C8-N9	-5.30	111.15	113.80
36	5	2730	G	N3-C2-N2	-5.30	116.19	119.90
36	1	2295	A	C8-N9-C4	-5.29	103.68	105.80
1	6	610	G	C4-N9-C1'	5.29	133.38	126.50
36	5	669	U	N1-C2-O2	-5.29	119.09	122.80
1	2	499	U	C2-N1-C1'	5.29	124.05	117.70
36	1	2811	A	C6-N1-C2	-5.29	115.42	118.60
36	5	283	G	C4-N9-C1'	5.29	133.38	126.50
36	5	2943	G	N3-C4-N9	5.29	129.18	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1193	A	C4-C5-N7	5.29	113.35	110.70
78	Q2	17	CYS	CA-CB-SG	5.29	123.52	114.00
1	6	136	C	N1-C2-O2	5.29	122.07	118.90
1	6	1085	G	N1-C6-O6	-5.29	116.72	119.90
1	6	1423	U	C5-C6-N1	-5.29	120.05	122.70
36	5	73	C	N3-C4-N4	5.29	121.70	118.00
36	5	901	G	N3-C4-N9	5.29	129.17	126.00
36	5	2193	U	N1-C2-O2	-5.29	119.10	122.80
36	1	780	A	N1-C2-N3	5.29	131.94	129.30
1	6	1128	C	N3-C4-C5	-5.29	119.78	121.90
36	1	584	G	C4-C5-N7	-5.29	108.68	110.80
36	1	1906	G	C6-C5-N7	-5.29	127.23	130.40
38	4	125	U	C5-C6-N1	5.29	125.34	122.70
36	5	1284	C	C5-C6-N1	5.29	123.64	121.00
1	2	1339	C	C3'-C2'-C1'	5.29	105.73	101.50
36	1	3057	U	N1-C2-N3	5.29	118.07	114.90
1	6	1060	U	N3-C2-O2	-5.29	118.50	122.20
1	6	1102	G	N1-C6-O6	5.29	123.07	119.90
36	5	1534	A	C2-N3-C4	5.29	113.24	110.60
1	2	428	A	N9-C4-C5	5.29	107.91	105.80
36	1	2662	G	N9-C4-C5	-5.29	103.29	105.40
1	6	160	C	N1-C2-O2	5.29	122.07	118.90
36	1	1307	G	C5'-C4'-C3'	-5.28	107.55	116.00
36	1	2165	G	C4-C5-N7	5.28	112.91	110.80
36	1	2395	G	C6-N1-C2	-5.28	121.93	125.10
36	1	3058	U	C2-N1-C1'	5.28	124.04	117.70
1	6	1768	G	N3-C4-N9	-5.28	122.83	126.00
36	5	1103	A	N7-C8-N9	5.28	116.44	113.80
37	7	34	C	C6-N1-C2	-5.28	118.19	120.30
1	2	1458	G	C8-N9-C1'	-5.28	120.13	127.00
36	5	2278	C	C4-C5-C6	-5.28	114.76	117.40
1	2	576	G	C5-C6-O6	-5.28	125.43	128.60
36	1	2855	U	N3-C4-O4	-5.28	115.70	119.40
36	1	3034	C	N1-C2-O2	5.28	122.07	118.90
36	1	1507	G	C6-C5-N7	-5.28	127.23	130.40
36	1	1881	A	N7-C8-N9	-5.28	111.16	113.80
1	6	1058	U	OP1-P-O3'	5.28	116.81	105.20
36	1	628	A	N1-C6-N6	5.28	121.77	118.60
36	1	637	C	C4-C5-C6	5.28	120.04	117.40
36	1	642	U	N3-C2-O2	-5.28	118.50	122.20
36	1	857	G	C5-C6-N1	-5.28	108.86	111.50
36	5	1149	G	C5-C6-O6	-5.28	125.43	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2273	G	C8-N9-C1'	5.28	133.86	127.00
36	5	346	C	C2-N1-C1'	5.28	124.60	118.80
36	5	2410	U	N1-C2-O2	-5.28	119.11	122.80
36	1	651	G	O5'-P-OP2	-5.27	100.95	105.70
36	1	3029	A	C8-N9-C4	-5.27	103.69	105.80
36	5	3173	G	N9-C4-C5	-5.27	103.29	105.40
36	1	1366	A	N1-C6-N6	-5.27	115.44	118.60
36	1	3004	C	N3-C2-O2	-5.27	118.21	121.90
36	5	2260	U	N3-C2-O2	-5.27	118.51	122.20
36	5	3228	C	P-O3'-C3'	5.27	126.03	119.70
36	1	2121	G	N3-C2-N2	5.27	123.59	119.90
1	6	353	A	N1-C6-N6	-5.27	115.44	118.60
1	6	858	G	N7-C8-N9	5.27	115.73	113.10
36	5	1520	G	C2-N3-C4	5.27	114.53	111.90
36	5	2159	U	C5-C4-O4	5.27	129.06	125.90
38	8	4	C	C6-N1-C2	-5.27	118.19	120.30
37	3	95	A	C6-C5-N7	-5.27	128.61	132.30
36	5	2133	U	C5-C6-N1	-5.27	120.07	122.70
36	5	2693	C	C2-N3-C4	-5.27	117.27	119.90
36	5	2890	A	N1-C6-N6	5.27	121.76	118.60
1	2	570	A	C5-C6-N6	-5.27	119.49	123.70
36	1	2335	G	C5-N7-C8	5.27	106.93	104.30
1	6	973	A	O5'-P-OP2	-5.27	100.96	105.70
36	5	1929	G	C8-N9-C4	5.27	108.51	106.40
36	5	2819	A	C5-C6-N6	5.27	127.91	123.70
36	1	784	A	O4'-C1'-N9	5.26	112.41	108.20
1	6	542	A	C4-N9-C1'	5.26	135.78	126.30
36	5	1391	C	N3-C2-O2	5.26	125.58	121.90
36	5	1407	A	C2-N3-C4	-5.26	107.97	110.60
36	5	2952	G	N3-C4-N9	5.26	129.16	126.00
36	5	2993	G	N9-C4-C5	-5.26	103.29	105.40
36	1	699	A	C2-N3-C4	-5.26	107.97	110.60
36	5	941	G	N1-C6-O6	-5.26	116.74	119.90
36	1	498	A	C5-C6-N6	5.26	127.91	123.70
36	1	1796	G	N3-C4-C5	-5.26	125.97	128.60
36	1	2916	U	N3-C4-O4	5.26	123.08	119.40
41	L4	182	LEU	CA-CB-CG	5.26	127.40	115.30
36	5	327	A	N7-C8-N9	-5.26	111.17	113.80
36	5	674	G	C8-N9-C4	-5.26	104.30	106.40
36	5	682	U	C6-N1-C1'	5.26	128.56	121.20
36	5	2639	G	N3-C4-N9	5.26	129.16	126.00
36	1	644	G	N1-C2-N3	5.26	127.06	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1532	C	C6-N1-C2	5.26	122.40	120.30
36	1	1794	G	N3-C2-N2	-5.26	116.22	119.90
36	1	2429	G	C4-C5-N7	-5.26	108.70	110.80
36	1	2823	G	N7-C8-N9	-5.26	110.47	113.10
36	1	908	G	N3-C2-N2	-5.26	116.22	119.90
36	1	2620	G	C5-C6-N1	5.26	114.13	111.50
36	1	1452	A	OP1-P-O3'	5.26	116.77	105.20
36	1	2390	A	N1-C6-N6	5.26	121.75	118.60
36	5	1858	A	N7-C8-N9	5.26	116.43	113.80
36	5	2345	A	N1-C2-N3	5.26	131.93	129.30
36	1	2887	A	C4-C5-N7	5.25	113.33	110.70
36	5	75	G	N3-C4-N9	5.25	129.15	126.00
36	5	2719	U	O5'-P-OP2	-5.25	100.97	105.70
42	15	51	LEU	CA-CB-CG	5.25	127.38	115.30
36	1	1103	A	N9-C4-C5	-5.25	103.70	105.80
36	1	1136	A	C6-C5-N7	-5.25	128.62	132.30
36	1	2175	U	N1-C2-O2	-5.25	119.12	122.80
36	1	2945	G	N9-C4-C5	-5.25	103.30	105.40
36	1	3091	A	N1-C6-N6	5.25	121.75	118.60
1	6	17	C	N3-C2-O2	-5.25	118.22	121.90
36	1	1440	G	C5-C6-O6	5.25	131.75	128.60
36	5	1725	C	C5-C6-N1	-5.25	118.38	121.00
36	1	341	G	C4-C5-N7	5.25	112.90	110.80
36	1	785	G	C2-N3-C4	5.25	114.53	111.90
36	1	1379	G	C5-C6-O6	5.25	131.75	128.60
36	5	315	C	N3-C4-C5	5.25	124.00	121.90
36	5	421	G	N1-C2-N3	5.25	127.05	123.90
36	5	421	G	C8-N9-C1'	-5.25	120.18	127.00
36	5	1440	G	N9-C4-C5	5.25	107.50	105.40
36	5	2176	U	O5'-P-OP2	5.25	117.00	110.70
36	1	42	C	C5-C6-N1	5.25	123.62	121.00
36	1	894	G	N3-C2-N2	-5.25	116.23	119.90
1	6	1537	C	C4-C5-C6	5.25	120.02	117.40
36	5	642	U	O5'-P-OP2	-5.25	100.98	105.70
36	1	2137	U	N3-C2-O2	-5.25	118.53	122.20
1	6	1200	G	C8-N9-C1'	5.25	133.82	127.00
1	2	1600	A	OP1-P-O3'	5.24	116.74	105.20
35	SM	134	ASP	CB-CG-OD2	5.24	123.02	118.30
36	1	2198	A	C6-N1-C2	-5.24	115.45	118.60
36	1	2945	G	C8-N9-C4	5.24	108.50	106.40
4	s2	229	LEU	CA-CB-CG	5.24	127.36	115.30
36	5	819	U	OP2-P-O3'	5.24	116.73	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	879	U	O5'-P-OP1	-5.24	100.98	105.70
36	5	919	U	O5'-P-OP2	-5.24	100.98	105.70
36	5	2663	G	C8-N9-C4	5.24	108.50	106.40
36	5	2808	A	N9-C4-C5	-5.24	103.70	105.80
36	5	2812	C	C2-N3-C4	-5.24	117.28	119.90
36	1	1399	A	C2-N3-C4	-5.24	107.98	110.60
1	6	1073	G	C8-N9-C4	5.24	108.50	106.40
36	5	1478	C	N1-C2-O2	-5.24	115.75	118.90
1	2	1414	U	N3-C2-O2	-5.24	118.53	122.20
36	1	936	A	OP2-P-O3'	5.24	116.73	105.20
36	1	1547	G	C5-C6-O6	5.24	131.74	128.60
36	1	2413	A	C8-N9-C4	5.24	107.90	105.80
36	1	2606	G	N3-C4-N9	5.24	129.14	126.00
36	5	954	U	C5-C6-N1	5.24	125.32	122.70
36	1	2815	G	C5-C6-N1	-5.24	108.88	111.50
76	Q0	103	LEU	CA-CB-CG	-5.24	103.25	115.30
36	1	2627	C	OP2-P-O3'	5.24	116.72	105.20
1	2	985	G	C2-N3-C4	5.24	114.52	111.90
36	5	355	A	N9-C4-C5	5.24	107.89	105.80
36	5	1847	A	N3-C4-N9	-5.24	123.21	127.40
36	5	2130	G	N3-C2-N2	5.24	123.56	119.90
36	5	2902	A	C5-C6-N6	-5.24	119.51	123.70
1	6	1593	A	N1-C6-N6	5.23	121.74	118.60
36	1	3207	U	O4'-C1'-N1	5.23	112.39	108.20
36	5	1452	A	C2-N3-C4	-5.23	107.98	110.60
1	2	1092	A	N9-C4-C5	-5.23	103.71	105.80
1	2	1559	A	O4'-C1'-N9	5.23	112.39	108.20
36	1	1150	A	C5-C6-N6	5.23	127.89	123.70
36	1	2198	A	C8-N9-C4	5.23	107.89	105.80
36	1	2323	G	N9-C4-C5	-5.23	103.31	105.40
36	5	1150	A	C5-C6-N6	-5.23	119.52	123.70
1	2	1462	G	N9-C4-C5	-5.23	103.31	105.40
36	1	1838	G	C5-C6-O6	-5.23	125.46	128.60
36	1	2424	A	C2-N3-C4	5.23	113.22	110.60
1	2	576	G	N1-C6-O6	5.23	123.04	119.90
1	2	1773	C	C5-C6-N1	5.23	123.61	121.00
36	1	869	G	C6-C5-N7	-5.23	127.26	130.40
36	1	2376	G	OP1-P-OP2	5.23	127.44	119.60
36	5	914	A	O5'-P-OP1	-5.23	100.99	105.70
36	5	938	C	C5-C4-N4	-5.23	116.54	120.20
36	1	2279	A	N9-C4-C5	-5.23	103.71	105.80
36	1	3024	A	N9-C4-C5	-5.23	103.71	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	335	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2425	G	N3-C4-N9	5.22	129.13	126.00
36	1	2631	U	N3-C4-O4	-5.22	115.74	119.40
36	5	221	A	C2-N3-C4	-5.22	107.99	110.60
36	5	1355	A	P-O3'-C3'	5.22	125.97	119.70
36	5	2186	U	N1-C2-O2	5.22	126.46	122.80
36	1	2396	G	C6-C5-N7	-5.22	127.27	130.40
36	5	394	G	C5-C6-O6	5.22	131.73	128.60
36	5	2816	G	C2-N3-C4	-5.22	109.29	111.90
1	6	1697	G	N3-C4-C5	-5.22	125.99	128.60
36	1	156	G	N3-C4-N9	5.22	129.13	126.00
36	1	609	G	N3-C2-N2	-5.22	116.25	119.90
36	1	2360	C	C2-N3-C4	-5.22	117.29	119.90
36	5	894	G	C6-C5-N7	-5.22	127.27	130.40
36	5	2550	U	C6-N1-C2	-5.22	117.87	121.00
36	1	3369	G	N1-C6-O6	5.22	123.03	119.90
37	3	98	C	N1-C2-O2	-5.22	115.77	118.90
1	2	9	U	O5'-P-OP1	-5.22	101.00	105.70
36	1	304	G	C6-C5-N7	5.22	133.53	130.40
36	1	1168	U	O5'-P-OP1	5.22	116.96	110.70
36	1	1435	A	C5-N7-C8	-5.22	101.29	103.90
36	1	3001	C	N3-C4-C5	5.22	123.99	121.90
1	6	38	C	C6-N1-C2	5.22	122.39	120.30
36	5	708	G	C4-C5-N7	5.22	112.89	110.80
36	5	1151	U	O5'-P-OP1	-5.22	101.00	105.70
36	5	1841	A	C5-C6-N6	-5.22	119.53	123.70
36	5	2150	G	N3-C4-C5	-5.22	125.99	128.60
36	5	3180	A	C8-N9-C4	5.22	107.89	105.80
36	5	3310	A	N1-C2-N3	5.22	131.91	129.30
1	2	779	U	O4'-C1'-N1	5.21	112.37	108.20
36	1	684	G	C6-C5-N7	-5.21	127.27	130.40
41	L4	230	VAL	CB-CA-C	-5.21	101.49	111.40
1	6	401	A	O5'-P-OP1	-5.21	101.01	105.70
1	6	1041	G	C4-C5-N7	-5.21	108.71	110.80
1	6	1399	C	C6-N1-C2	-5.21	118.21	120.30
12	c0	88	PRO	N-CA-CB	5.21	109.56	103.30
36	5	1770	G	C4-N9-C1'	5.21	133.28	126.50
36	1	780	A	C4-C5-C6	5.21	119.61	117.00
36	1	2261	G	N3-C4-N9	5.21	129.13	126.00
36	1	2855	U	C6-N1-C2	5.21	124.13	121.00
36	5	2308	C	N1-C2-O2	-5.21	115.77	118.90
36	1	777	U	O5'-P-OP2	-5.21	101.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1191	U	O5'-P-OP1	-5.21	101.01	105.70
36	1	1431	G	N3-C2-N2	5.21	123.55	119.90
36	1	1885	U	N3-C2-O2	5.21	125.85	122.20
36	1	2356	A	N1-C6-N6	5.21	121.73	118.60
36	1	2723	U	N1-C2-O2	-5.21	119.15	122.80
36	1	2805	G	N9-C4-C5	-5.21	103.32	105.40
36	1	2893	C	C2-N3-C4	-5.21	117.29	119.90
36	5	1292	C	C2-N3-C4	-5.21	117.29	119.90
36	1	938	C	C2-N3-C4	-5.21	117.30	119.90
36	5	3351	U	C2-N1-C1'	5.21	123.95	117.70
36	1	1294	A	O4'-C1'-N9	5.21	112.37	108.20
36	1	2434	U	C5-C6-N1	-5.21	120.10	122.70
38	4	85	G	C8-N9-C4	-5.21	104.32	106.40
1	2	831	U	C2-N1-C1'	5.21	123.95	117.70
1	2	1241	G	C8-N9-C4	-5.21	104.32	106.40
36	1	2370	G	C2-N3-C4	-5.21	109.30	111.90
36	1	2958	A	C6-C5-N7	5.21	135.94	132.30
49	M3	85	LEU	CA-CB-CG	5.21	127.28	115.30
36	5	1440	G	C5-C6-O6	5.21	131.72	128.60
36	5	2136	C	OP2-P-O3'	5.21	116.66	105.20
36	5	2607	G	C5-N7-C8	-5.21	101.70	104.30
36	5	2818	U	O5'-P-OP1	-5.21	101.01	105.70
36	1	1149	G	C6-C5-N7	-5.21	127.28	130.40
36	1	3268	A	O4'-C1'-N9	-5.21	104.04	108.20
1	6	103	A	P-O3'-C3'	5.21	125.95	119.70
36	5	48	A	C8-N9-C4	-5.21	103.72	105.80
36	5	1339	C	O5'-P-OP1	-5.21	101.02	105.70
36	5	1370	G	N3-C4-N9	5.21	129.12	126.00
36	5	3308	C	OP2-P-O3'	5.21	116.65	105.20
36	1	395	A	O5'-P-OP2	-5.20	101.02	105.70
36	1	854	G	C8-N9-C4	5.20	108.48	106.40
36	1	2223	A	N1-C6-N6	5.20	121.72	118.60
36	5	760	G	N9-C4-C5	-5.20	103.32	105.40
36	5	881	C	C2-N3-C4	5.20	122.50	119.90
36	5	1152	G	N1-C2-N3	5.20	127.02	123.90
36	5	1197	A	C8-N9-C4	5.20	107.88	105.80
36	5	1500	G	N7-C8-N9	-5.20	110.50	113.10
37	7	37	G	N3-C4-N9	5.20	129.12	126.00
36	1	2307	G	N1-C6-O6	-5.20	116.78	119.90
36	5	35	A	N1-C6-N6	5.20	121.72	118.60
36	5	1889	G	N9-C4-C5	-5.20	103.32	105.40
73	o7	67	LEU	CA-CB-CG	5.20	127.27	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	42	G	N7-C8-N9	-5.20	110.50	113.10
1	2	605	A	N1-C6-N6	5.20	121.72	118.60
36	1	614	C	C6-N1-C2	5.20	122.38	120.30
1	2	321	C	N1-C2-O2	5.20	122.02	118.90
1	2	1560	U	N1-C2-N3	5.20	118.02	114.90
1	2	1745	G	N3-C4-N9	5.20	129.12	126.00
36	1	1431	G	N1-C6-O6	-5.20	116.78	119.90
36	1	2877	G	N1-C6-O6	-5.20	116.78	119.90
37	3	95	A	C4-C5-N7	5.20	113.30	110.70
36	5	1841	A	N9-C4-C5	-5.20	103.72	105.80
36	5	2967	A	C2-N3-C4	-5.20	108.00	110.60
1	6	371	G	N3-C4-N9	5.20	129.12	126.00
36	1	867	G	N1-C2-N3	5.20	127.02	123.90
36	1	1206	G	C5-C6-O6	5.20	131.72	128.60
36	1	1317	A	N1-C2-N3	-5.20	126.70	129.30
36	1	1388	U	OP1-P-OP2	5.20	127.39	119.60
1	6	1310	U	N3-C2-O2	-5.20	118.56	122.20
1	6	1573	A	P-O3'-C3'	5.20	125.94	119.70
36	1	1365	G	C5-N7-C8	-5.19	101.70	104.30
36	1	1434	G	C5-N7-C8	-5.19	101.70	104.30
36	1	3270	U	C2-N1-C1'	-5.19	111.47	117.70
36	1	78	U	N1-C2-N3	5.19	118.02	114.90
36	5	2187	G	N3-C2-N2	5.19	123.53	119.90
36	5	2887	A	N1-C6-N6	5.19	121.72	118.60
36	5	3206	C	OP1-P-OP2	5.19	127.39	119.60
37	7	84	A	OP1-P-O3'	5.19	116.63	105.20
38	8	92	A	N1-C6-N6	5.19	121.72	118.60
40	13	328	ILE	CG1-CB-CG2	-5.19	99.97	111.40
1	2	97	C	N3-C4-C5	5.19	123.98	121.90
1	2	696	C	C6-N1-C2	-5.19	118.22	120.30
36	1	10	C	C6-N1-C2	5.19	122.38	120.30
36	5	583	G	C5-C6-O6	5.19	131.71	128.60
36	5	1130	A	C2-N3-C4	5.19	113.19	110.60
1	2	1027	A	N1-C6-N6	5.19	121.71	118.60
1	2	1560	U	C6-N1-C2	-5.19	117.89	121.00
36	1	853	G	C8-N9-C4	5.19	108.47	106.40
36	1	3382	U	C5-C6-N1	5.19	125.29	122.70
36	5	514	G	C6-C5-N7	-5.19	127.29	130.40
36	5	1116	G	C4-N9-C1'	5.19	133.25	126.50
36	5	2632	G	C8-N9-C4	5.19	108.47	106.40
36	5	3207	U	C2-N1-C1'	-5.19	111.47	117.70
36	1	2301	U	N3-C2-O2	-5.19	118.57	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2144	A	C6-N1-C2	-5.18	115.49	118.60
36	5	2629	U	O5'-P-OP2	-5.18	101.03	105.70
36	5	3005	A	OP1-P-OP2	5.18	127.38	119.60
1	2	1556	A	O5'-P-OP1	-5.18	101.04	105.70
1	2	1792	G	C8-N9-C1'	-5.18	120.26	127.00
36	1	649	A	OP1-P-OP2	-5.18	111.83	119.60
1	6	382	C	N3-C4-C5	5.18	123.97	121.90
1	6	864	U	C5-C4-O4	5.18	129.01	125.90
36	5	2588	U	C6-N1-C2	-5.18	117.89	121.00
36	5	2767	U	C5-C4-O4	5.18	129.01	125.90
36	5	3120	C	N1-C2-O2	5.18	122.01	118.90
37	7	41	G	C8-N9-C4	5.18	108.47	106.40
38	8	114	G	O5'-P-OP1	-5.18	101.04	105.70
1	2	1199	G	C8-N9-C1'	-5.18	120.27	127.00
36	1	2809	C	N3-C2-O2	-5.18	118.27	121.90
1	6	565	C	C2-N3-C4	-5.18	117.31	119.90
36	1	1316	C	C6-N1-C2	-5.18	118.23	120.30
36	5	369	A	N7-C8-N9	5.18	116.39	113.80
36	5	2754	G	C8-N9-C4	5.18	108.47	106.40
1	2	734	A	OP1-P-O3'	5.18	116.59	105.20
36	1	363	G	C5-C6-O6	-5.18	125.49	128.60
36	1	2130	G	N1-C6-O6	-5.18	116.79	119.90
36	5	1359	C	C6-N1-C2	5.18	122.37	120.30
1	2	579	A	N1-C2-N3	5.17	131.89	129.30
36	1	785	G	N1-C6-O6	-5.17	116.80	119.90
36	1	1362	G	OP2-P-O3'	5.17	116.58	105.20
36	5	2584	G	OP2-P-O3'	5.17	116.59	105.20
36	1	496	C	O5'-P-OP1	-5.17	101.04	105.70
36	5	2158	A	C6-N1-C2	-5.17	115.50	118.60
36	5	3146	G	N3-C2-N2	5.17	123.52	119.90
36	1	1901	A	C5-C6-N1	5.17	120.29	117.70
36	1	1931	U	C6-N1-C2	5.17	124.10	121.00
36	1	2374	C	C4-C5-C6	5.17	119.99	117.40
1	6	339	C	N1-C2-O2	-5.17	115.80	118.90
36	5	2798	C	C6-N1-C2	5.17	122.37	120.30
36	5	276	U	OP1-P-O3'	5.17	116.57	105.20
1	6	364	G	C8-N9-C1'	-5.17	120.28	127.00
36	5	2362	C	C5-C4-N4	-5.17	116.58	120.20
36	5	2372	A	C4-C5-C6	5.17	119.58	117.00
36	1	3057	U	N3-C2-O2	-5.17	118.58	122.20
36	1	3266	G	C8-N9-C4	-5.17	104.33	106.40
36	5	838	G	N9-C4-C5	5.17	107.47	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1660	C	C6-N1-C2	-5.17	118.23	120.30
36	5	1834	U	N3-C4-C5	-5.17	111.50	114.60
36	5	2933	A	OP1-P-OP2	5.17	127.35	119.60
36	5	3008	A	N1-C2-N3	5.17	131.88	129.30
37	7	118	A	OP2-P-O3'	5.17	116.56	105.20
36	1	1481	A	N9-C4-C5	-5.17	103.73	105.80
36	1	3164	C	O4'-C1'-N1	5.17	112.33	108.20
36	5	820	A	C6-C5-N7	-5.17	128.69	132.30
36	5	895	A	C2-N3-C4	-5.17	108.02	110.60
36	5	938	C	OP1-P-O3'	5.17	116.56	105.20
1	2	749	U	C6-N1-C2	-5.16	117.90	121.00
36	1	364	G	N3-C4-C5	5.16	131.18	128.60
36	1	394	G	C5-C6-O6	5.16	131.70	128.60
36	1	1442	U	N3-C4-O4	5.16	123.02	119.40
36	1	3382	U	N3-C2-O2	-5.16	118.59	122.20
1	6	957	G	N3-C2-N2	-5.16	116.28	119.90
36	5	1524	A	C2-N3-C4	-5.16	108.02	110.60
36	5	2282	U	OP2-P-O3'	5.16	116.56	105.20
1	6	1663	G	O5'-P-OP1	5.16	116.89	110.70
1	2	75	U	C6-N1-C1'	-5.16	113.98	121.20
6	S4	193	GLY	N-CA-C	5.16	126.00	113.10
36	1	963	G	N1-C6-O6	5.16	123.00	119.90
36	1	1415	U	N1-C2-N3	5.16	118.00	114.90
36	1	2130	G	N3-C4-C5	-5.16	126.02	128.60
36	1	3024	A	N1-C6-N6	5.16	121.70	118.60
36	5	1115	G	C4-N9-C1'	5.16	133.21	126.50
36	5	1444	G	N3-C2-N2	-5.16	116.29	119.90
36	5	1847	A	C4-C5-C6	-5.16	114.42	117.00
38	8	96	A	C8-N9-C4	5.16	107.86	105.80
1	2	795	U	C4-C5-C6	5.16	122.80	119.70
36	1	394	G	N1-C6-O6	-5.16	116.81	119.90
36	1	1377	G	N3-C4-N9	5.16	129.09	126.00
36	5	968	G	O5'-P-OP1	-5.16	101.06	105.70
36	5	1452	A	C8-N9-C4	5.16	107.86	105.80
36	5	97	U	N3-C2-O2	5.16	125.81	122.20
36	5	2765	C	N3-C4-N4	5.16	121.61	118.00
36	5	3055	U	O5'-P-OP2	-5.16	101.06	105.70
36	1	948	C	N3-C4-C5	-5.16	119.84	121.90
36	1	1000	C	C2-N1-C1'	5.16	124.47	118.80
36	5	1794	G	C2-N3-C4	-5.16	109.32	111.90
36	5	83	U	N1-C2-O2	5.15	126.41	122.80
36	5	1284	C	C6-N1-C2	-5.15	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2134	G	C5-C6-N1	5.15	114.08	111.50
36	5	1749	A	N1-C6-N6	5.15	121.69	118.60
36	5	3058	U	C2-N1-C1'	5.15	123.88	117.70
36	1	376	G	C5-C6-N1	-5.15	108.92	111.50
36	1	1002	A	C8-N9-C4	5.15	107.86	105.80
36	1	2401	A	N9-C4-C5	-5.15	103.74	105.80
36	1	2812	C	C6-N1-C2	5.15	122.36	120.30
38	4	20	U	C2-N3-C4	-5.15	123.91	127.00
38	8	26	U	O5'-P-OP2	-5.15	101.06	105.70
1	2	1768	G	C4-C5-N7	-5.15	108.74	110.80
36	1	1521	G	C2-N3-C4	-5.15	109.33	111.90
1	6	794	U	N1-C2-O2	5.15	126.40	122.80
36	5	1083	G	OP1-P-OP2	5.15	127.32	119.60
36	5	403	C	OP1-P-OP2	5.15	127.32	119.60
36	5	996	A	C8-N9-C4	-5.15	103.74	105.80
36	5	2298	U	O5'-P-OP1	-5.15	101.07	105.70
36	5	3066	U	C5-C6-N1	-5.15	120.13	122.70
76	Q0	106	ARG	NE-CZ-NH2	-5.15	117.73	120.30
1	6	163	G	C5-N7-C8	-5.15	101.73	104.30
36	5	658	G	N1-C6-O6	5.15	122.99	119.90
36	5	1847	A	N1-C6-N6	-5.15	115.51	118.60
36	5	918	C	C5-C4-N4	-5.14	116.60	120.20
36	5	1186	G	C5-N7-C8	-5.14	101.73	104.30
1	2	1167	G	C5-C6-O6	-5.14	125.52	128.60
36	1	913	A	C8-N9-C4	-5.14	103.74	105.80
36	1	1352	A	P-O3'-C3'	5.14	125.87	119.70
36	1	1365	G	N1-C2-N3	5.14	126.99	123.90
36	1	2609	A	C8-N9-C4	5.14	107.86	105.80
1	6	1792	G	C4-C5-N7	5.14	112.86	110.80
36	5	197	G	C4-C5-N7	5.14	112.86	110.80
36	5	1126	G	C5-C6-N1	-5.14	108.93	111.50
36	5	1724	U	N1-C2-O2	-5.14	119.20	122.80
36	5	2953	U	N3-C4-O4	5.14	123.00	119.40
36	1	802	C	C6-N1-C2	-5.14	118.24	120.30
36	1	1377	G	C6-C5-N7	-5.14	127.31	130.40
36	5	840	C	C4-C5-C6	5.14	119.97	117.40
36	5	3134	A	C6-N1-C2	-5.14	115.52	118.60
1	2	1324	G	N3-C4-N9	-5.14	122.92	126.00
36	1	103	G	N3-C4-C5	-5.14	126.03	128.60
36	1	1891	A	N3-C4-C5	5.14	130.40	126.80
36	1	2374	C	N3-C2-O2	-5.14	118.30	121.90
36	1	2814	G	N1-C6-O6	5.14	122.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3302	U	C6-N1-C2	5.14	124.08	121.00
38	4	8	C	C6-N1-C2	5.14	122.36	120.30
1	6	1740	A	N1-C6-N6	-5.14	115.52	118.60
36	5	636	C	N1-C2-O2	5.14	121.98	118.90
36	5	716	A	N1-C6-N6	5.14	121.68	118.60
36	5	874	U	C5-C6-N1	-5.14	120.13	122.70
36	1	2554	A	P-O3'-C3'	5.14	125.87	119.70
36	5	1847	A	N3-C4-C5	5.14	130.40	126.80
36	5	2932	U	N1-C2-O2	5.14	126.40	122.80
38	8	14	C	O5'-P-OP2	-5.14	101.08	105.70
36	1	324	A	C8-N9-C4	-5.14	103.75	105.80
36	1	2414	G	C4-C5-C6	5.14	121.88	118.80
36	1	2869	U	C6-N1-C1'	-5.14	114.01	121.20
1	6	371	G	C6-C5-N7	-5.14	127.32	130.40
36	5	1495	U	C2-N1-C1'	5.14	123.86	117.70
36	5	1656	A	C8-N9-C4	5.14	107.85	105.80
36	5	3125	U	C5-C6-N1	-5.14	120.13	122.70
1	2	551	G	C5-N7-C8	-5.13	101.73	104.30
1	6	1634	C	N3-C2-O2	-5.13	118.31	121.90
36	5	939	U	C6-N1-C2	5.13	124.08	121.00
36	5	985	U	C5-C6-N1	-5.13	120.13	122.70
36	5	1440	G	C6-C5-N7	5.13	133.48	130.40
36	5	1552	G	C5-C6-O6	-5.13	125.52	128.60
36	5	2368	A	C5-C6-N1	5.13	120.27	117.70
36	1	1489	A	C4-C5-N7	5.13	113.27	110.70
36	1	2187	G	C4-C5-C6	5.13	121.88	118.80
1	6	1481	C	N1-C1'-C2'	-5.13	106.35	112.00
36	5	2257	C	P-O3'-C3'	5.13	125.86	119.70
36	1	1928	G	C5-C6-O6	-5.13	125.52	128.60
1	6	1077	C	O5'-P-OP1	-5.13	101.08	105.70
1	6	1575	G	N1-C6-O6	-5.13	116.82	119.90
36	5	3143	C	N3-C4-C5	5.13	123.95	121.90
38	8	25	G	O5'-P-OP2	-5.13	101.08	105.70
36	1	908	G	N1-C2-N2	5.13	120.82	116.20
36	1	2169	G	C2-N3-C4	5.13	114.47	111.90
36	5	57	A	N1-C6-N6	5.13	121.68	118.60
1	2	360	A	C8-N9-C4	5.13	107.85	105.80
36	1	2646	C	C2-N3-C4	-5.13	117.33	119.90
36	1	3183	A	C5-C6-N6	-5.13	119.60	123.70
41	L4	339	LEU	CA-CB-CG	5.13	127.10	115.30
36	5	2614	G	N1-C2-N3	5.13	126.98	123.90
38	8	44	A	N1-C6-N6	5.13	121.68	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	155	G	N3-C4-N9	5.13	129.08	126.00
36	1	1907	C	O5'-P-OP2	-5.13	101.08	105.70
36	1	3256	G	C5-C6-O6	-5.13	125.52	128.60
1	6	1171	A	C8-N9-C4	-5.13	103.75	105.80
36	5	45	A	O5'-P-OP2	-5.13	101.08	105.70
36	5	1868	G	C8-N9-C1'	-5.13	120.34	127.00
36	5	1297	C	C4-C5-C6	5.12	119.96	117.40
36	5	2709	C	C5-C4-N4	-5.12	116.61	120.20
1	2	95	G	C4-C5-N7	-5.12	108.75	110.80
1	2	687	G	N3-C2-N2	-5.12	116.31	119.90
36	1	1210	U	C5-C6-N1	-5.12	120.14	122.70
36	1	1655	G	C8-N9-C4	-5.12	104.35	106.40
1	2	1023	A	N1-C6-N6	5.12	121.67	118.60
36	1	2261	G	N3-C4-C5	-5.12	126.04	128.60
36	5	1177	G	OP1-P-OP2	-5.12	111.92	119.60
36	5	1367	G	C5-C6-N1	-5.12	108.94	111.50
36	5	2364	G	C4-C5-N7	-5.12	108.75	110.80
1	6	85	A	C8-N9-C4	-5.12	103.75	105.80
1	6	615	A	N1-C2-N3	5.12	131.86	129.30
36	5	267	G	O5'-P-OP1	-5.12	101.09	105.70
36	5	1151	U	N3-C4-C5	-5.12	111.53	114.60
36	1	1589	A	O4'-C1'-N9	-5.12	104.11	108.20
36	1	2404	A	N3-C4-C5	5.12	130.38	126.80
36	5	2656	A	C8-N9-C4	-5.12	103.75	105.80
36	5	3049	A	N9-C4-C5	-5.12	103.75	105.80
36	1	314	U	C6-N1-C2	-5.12	117.93	121.00
36	1	1122	U	C2-N3-C4	-5.12	123.93	127.00
36	1	2537	U	P-O3'-C3'	5.12	125.84	119.70
36	1	2977	G	O5'-P-OP1	-5.12	101.10	105.70
36	1	2991	A	C8-N9-C4	5.12	107.85	105.80
1	6	942	G	C4-C5-N7	5.12	112.85	110.80
36	5	24	G	N3-C4-C5	5.12	131.16	128.60
36	5	3091	A	N1-C2-N3	5.12	131.86	129.30
62	n6	76	LEU	CA-CB-CG	5.12	127.06	115.30
36	1	56	G	O5'-P-OP2	5.11	116.84	110.70
36	1	635	G	C8-N9-C4	5.11	108.44	106.40
36	1	1604	G	N3-C4-C5	-5.11	126.04	128.60
36	1	2165	G	C6-C5-N7	-5.11	127.33	130.40
36	1	3204	C	N3-C2-O2	-5.11	118.32	121.90
41	L4	84	ARG	NE-CZ-NH1	-5.11	117.74	120.30
36	5	414	U	C2-N3-C4	-5.11	123.93	127.00
36	1	1129	A	C5-C6-N6	-5.11	119.61	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1649	G	N1-C2-N2	-5.11	111.60	116.20
36	5	2191	U	C6-N1-C2	-5.11	117.93	121.00
36	5	1511	U	C5-C6-N1	-5.11	120.15	122.70
36	5	2118	C	N3-C2-O2	-5.11	118.32	121.90
36	5	3107	U	C5-C6-N1	-5.11	120.14	122.70
1	2	1370	U	P-O3'-C3'	5.11	125.83	119.70
1	2	1454	G	O5'-P-OP2	-5.11	101.10	105.70
36	1	285	A	N9-C4-C5	-5.11	103.76	105.80
36	1	1531	C	O5'-P-OP2	5.11	116.83	110.70
36	1	2834	G	N9-C4-C5	-5.11	103.36	105.40
36	1	3269	U	C6-N1-C2	-5.11	117.94	121.00
1	6	1784	C	N1-C2-O2	5.11	121.96	118.90
36	5	1375	G	C8-N9-C4	-5.11	104.36	106.40
36	5	3200	G	N1-C6-O6	5.11	122.96	119.90
39	12	208	ASP	CB-CG-OD2	-5.11	113.70	118.30
36	1	2756	C	N3-C4-N4	5.11	121.57	118.00
1	2	749	U	C2-N1-C1'	5.10	123.83	117.70
36	5	2433	U	C6-N1-C2	5.10	124.06	121.00
36	5	639	G	N1-C6-O6	5.10	122.96	119.90
36	5	867	G	O5'-P-OP2	5.10	116.82	110.70
36	5	2129	U	N3-C4-O4	-5.10	115.83	119.40
36	1	333	G	C8-N9-C4	5.10	108.44	106.40
38	4	47	C	C5-C6-N1	-5.10	118.45	121.00
36	5	3085	G	OP1-P-O3'	5.10	116.42	105.20
36	5	3207	U	C6-N1-C1'	5.10	128.34	121.20
38	4	21	C	N3-C2-O2	5.10	125.47	121.90
1	6	994	G	C8-N9-C4	-5.10	104.36	106.40
36	5	498	A	O5'-P-OP2	-5.10	101.11	105.70
36	5	1144	U	N3-C2-O2	-5.10	118.63	122.20
36	5	1781	C	O5'-P-OP2	-5.10	101.11	105.70
36	1	1409	G	C5-C6-N1	5.10	114.05	111.50
36	1	1520	G	N7-C8-N9	-5.10	110.55	113.10
36	1	2351	U	C6-N1-C2	-5.10	117.94	121.00
1	6	1024	U	O5'-P-OP1	-5.10	101.11	105.70
36	5	1910	A	C4-C5-N7	5.10	113.25	110.70
36	5	2884	C	N3-C2-O2	5.10	125.47	121.90
36	5	3092	C	C2-N3-C4	-5.10	117.35	119.90
1	2	501	U	OP1-P-O3'	5.10	116.41	105.20
36	1	787	G	C4-C5-N7	-5.10	108.76	110.80
36	1	972	A	N7-C8-N9	-5.10	111.25	113.80
16	c4	35	GLY	N-CA-C	5.10	125.84	113.10
36	1	640	U	N1-C2-O2	-5.09	119.23	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	893	C	C6-N1-C2	-5.09	118.26	120.30
36	1	1395	G	C8-N9-C4	5.09	108.44	106.40
36	1	1620	U	N1-C2-O2	5.09	126.37	122.80
36	1	3079	U	N3-C2-O2	5.09	125.77	122.20
38	4	125	U	C6-N1-C1'	-5.09	114.07	121.20
1	6	787	G	N3-C4-C5	-5.09	126.05	128.60
1	6	961	U	N3-C4-C5	-5.09	111.54	114.60
36	5	878	G	C6-C5-N7	-5.09	127.34	130.40
36	5	1452	A	O5'-P-OP1	-5.09	101.11	105.70
36	5	1620	U	C2-N1-C1'	5.09	123.81	117.70
36	5	2620	G	C2-N3-C4	5.09	114.45	111.90
36	5	3054	U	O5'-P-OP2	-5.09	101.11	105.70
36	5	220	G	OP1-P-O3'	5.09	116.40	105.20
36	5	822	G	O5'-P-OP1	-5.09	101.12	105.70
36	5	1928	G	C6-C5-N7	-5.09	127.34	130.40
36	5	2797	C	C6-N1-C2	-5.09	118.26	120.30
18	C6	28	LEU	CA-CB-CG	5.09	127.01	115.30
36	1	282	G	C8-N9-C4	-5.09	104.36	106.40
36	1	638	C	N1-C2-O2	5.09	121.95	118.90
36	1	1416	C	N3-C4-N4	-5.09	114.44	118.00
1	6	144	U	C2-N1-C1'	5.09	123.81	117.70
36	5	1181	U	C2-N3-C4	-5.09	123.95	127.00
36	5	2514	U	C5-C6-N1	5.09	125.25	122.70
36	1	217	U	OP1-P-O3'	5.09	116.39	105.20
36	1	903	U	N3-C2-O2	-5.09	118.64	122.20
1	6	453	U	C5-C4-O4	5.09	128.95	125.90
1	6	795	U	N3-C2-O2	-5.09	118.64	122.20
36	5	101	G	O4'-C1'-N9	5.09	112.27	108.20
1	2	159	U	C5-C6-N1	-5.09	120.16	122.70
1	2	1514	U	N3-C2-O2	-5.09	118.64	122.20
36	1	662	U	C6-N1-C2	-5.09	117.95	121.00
36	1	803	C	OP2-P-O3'	5.09	116.39	105.20
36	1	1825	G	N1-C6-O6	5.09	122.95	119.90
1	6	113	U	P-O3'-C3'	5.09	125.81	119.70
1	6	489	C	C2-N1-C1'	5.09	124.40	118.80
36	5	517	G	N3-C4-C5	-5.09	126.06	128.60
36	5	836	A	C8-N9-C4	5.09	107.83	105.80
36	1	635	G	O5'-P-OP1	-5.09	101.12	105.70
36	1	662	U	N3-C4-C5	-5.09	111.55	114.60
1	6	1478	G	C4-C5-C6	5.09	121.85	118.80
36	5	2599	U	C4-C5-C6	5.09	122.75	119.70
1	2	934	C	C5-C6-N1	5.08	123.54	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	187	A	C4-C5-C6	5.08	119.54	117.00
36	1	1046	A	N1-C6-N6	5.08	121.65	118.60
36	1	2297	U	P-O3'-C3'	5.08	125.80	119.70
36	5	110	G	N1-C6-O6	-5.08	116.85	119.90
36	5	1876	U	C5-C4-O4	-5.08	122.85	125.90
1	2	388	G	C5-C6-O6	-5.08	125.55	128.60
1	2	1341	A	C4-C5-C6	5.08	119.54	117.00
36	1	939	U	C5-C6-N1	-5.08	120.16	122.70
36	1	1592	G	C5-C6-O6	5.08	131.65	128.60
37	3	83	U	C6-N1-C2	5.08	124.05	121.00
1	6	383	G	C8-N9-C4	-5.08	104.37	106.40
36	5	780	A	C5-C6-N6	-5.08	119.63	123.70
36	5	1493	G	N3-C4-C5	5.08	131.14	128.60
36	5	2651	G	N3-C4-N9	-5.08	122.95	126.00
37	7	22	A	C4-N9-C1'	5.08	135.45	126.30
3	S1	70	LEU	CA-CB-CG	5.08	126.99	115.30
36	1	510	G	N3-C2-N2	-5.08	116.34	119.90
36	1	1342	C	N3-C4-C5	5.08	123.93	121.90
36	1	1927	G	C5-C6-O6	5.08	131.65	128.60
1	6	11	A	N1-C6-N6	-5.08	115.55	118.60
36	5	1193	A	C8-N9-C4	-5.08	103.77	105.80
36	1	2215	A	C8-N9-C4	5.08	107.83	105.80
36	1	3218	A	C3'-C2'-C1'	5.08	105.56	101.50
1	2	1503	A	O4'-C1'-N9	5.08	112.26	108.20
36	1	278	U	N1-C2-O2	-5.08	119.25	122.80
36	1	810	A	N7-C8-N9	5.08	116.34	113.80
36	1	2917	G	C5-C6-N1	5.08	114.04	111.50
36	5	2514	U	C6-N1-C2	-5.08	117.95	121.00
36	5	2940	A	N1-C6-N6	5.08	121.65	118.60
1	2	1200	G	N3-C2-N2	-5.08	116.35	119.90
36	1	1082	U	N3-C2-O2	-5.08	118.65	122.20
1	6	119	A	C5-C6-N1	-5.08	115.16	117.70
1	6	1614	A	O4'-C1'-N9	5.08	112.26	108.20
36	5	277	G	N9-C4-C5	5.08	107.43	105.40
36	5	1080	A	C8-N9-C4	5.08	107.83	105.80
36	5	3099	C	N1-C2-O2	-5.08	115.85	118.90
1	2	1572	G	N1-C6-O6	5.08	122.95	119.90
36	1	1410	U	O5'-P-OP1	-5.08	101.13	105.70
1	6	800	U	C5-C4-O4	5.08	128.94	125.90
1	6	911	U	N3-C2-O2	-5.08	118.65	122.20
1	6	1118	G	C2-N3-C4	-5.08	109.36	111.90
36	5	102	C	N3-C4-C5	-5.08	119.87	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	159	U	N3-C2-O2	5.07	125.75	122.20
36	1	907	G	O4'-C1'-N9	5.07	112.26	108.20
36	1	2868	U	N3-C2-O2	-5.07	118.65	122.20
36	1	3270	U	C5-C4-O4	5.07	128.94	125.90
36	5	98	G	C8-N9-C4	5.07	108.43	106.40
36	5	778	U	OP1-P-O3'	5.07	116.36	105.20
36	1	109	A	N1-C6-N6	-5.07	115.56	118.60
36	1	278	U	N3-C4-O4	5.07	122.95	119.40
36	1	576	C	N3-C4-C5	5.07	123.93	121.90
36	1	2354	C	C5-C4-N4	5.07	123.75	120.20
36	1	2651	G	C4-C5-N7	-5.07	108.77	110.80
36	1	3120	C	N1-C2-O2	5.07	121.94	118.90
1	6	858	G	C4-C5-N7	5.07	112.83	110.80
36	5	954	U	N3-C2-O2	-5.07	118.65	122.20
36	5	1149	G	N1-C2-N2	5.07	120.76	116.20
36	5	1910	A	C8-N9-C4	5.07	107.83	105.80
36	5	2966	G	C5-C6-O6	-5.07	125.56	128.60
36	1	648	C	N3-C2-O2	-5.07	118.35	121.90
36	1	651	G	C4-N9-C1'	5.07	133.09	126.50
36	1	859	G	C2-N3-C4	-5.07	109.37	111.90
36	1	2404	A	C6-C5-N7	-5.07	128.75	132.30
36	1	2405	C	O5'-P-OP1	-5.07	101.14	105.70
36	5	343	U	N1-C2-N3	5.07	117.94	114.90
36	5	800	G	C8-N9-C4	5.07	108.43	106.40
1	2	1762	A	N9-C4-C5	-5.07	103.77	105.80
36	5	526	C	C6-N1-C2	5.07	122.33	120.30
36	5	2393	G	C4-C5-N7	5.07	112.83	110.80
36	1	2728	G	C8-N9-C4	-5.06	104.37	106.40
1	2	571	G	C8-N9-C1'	5.06	133.58	127.00
36	1	851	C	C6-N1-C2	-5.06	118.28	120.30
36	1	924	G	C4-C5-N7	5.06	112.83	110.80
36	1	1112	A	C6-N1-C2	-5.06	115.56	118.60
36	1	1929	G	N9-C4-C5	-5.06	103.38	105.40
36	1	2805	G	C5-C6-O6	-5.06	125.56	128.60
1	6	603	U	N1-C2-O2	-5.06	119.26	122.80
36	5	901	G	C4-C5-C6	5.06	121.84	118.80
36	5	3057	U	C6-N1-C1'	-5.06	114.11	121.20
1	2	1269	U	C6-N1-C1'	-5.06	114.12	121.20
36	1	667	C	N1-C2-O2	5.06	121.94	118.90
36	1	2401	A	C4-C5-C6	-5.06	114.47	117.00
38	4	56	G	C8-N9-C4	5.06	108.42	106.40
1	6	1025	A	N1-C6-N6	5.06	121.64	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	93	C	N1-C2-O2	-5.06	115.86	118.90
36	5	805	G	N7-C8-N9	-5.06	110.57	113.10
36	5	885	U	N1-C2-O2	-5.06	119.26	122.80
36	5	1443	G	C5-C6-O6	5.06	131.64	128.60
36	5	1929	G	C5-C6-O6	-5.06	125.56	128.60
36	5	2335	G	OP2-P-O3'	5.06	116.33	105.20
1	2	571	G	C4-N9-C1'	-5.06	119.92	126.50
36	1	2104	A	C8-N9-C4	5.06	107.82	105.80
36	1	3190	C	N3-C4-C5	5.06	123.92	121.90
36	1	3270	U	N3-C4-O4	-5.06	115.86	119.40
1	6	45	U	O4'-C1'-N1	5.06	112.25	108.20
1	6	1103	U	N3-C4-O4	-5.06	115.86	119.40
36	5	1236	G	N1-C6-O6	5.06	122.93	119.90
36	1	2726	C	C2-N3-C4	-5.06	117.37	119.90
36	1	347	G	N7-C8-N9	5.05	115.63	113.10
36	1	743	C	N1-C2-O2	-5.05	115.87	118.90
36	1	2941	A	N1-C6-N6	5.05	121.63	118.60
38	4	100	U	C2-N1-C1'	5.05	123.77	117.70
1	6	1473	U	N1-C2-O2	5.05	126.34	122.80
36	5	1239	C	C2-N1-C1'	5.05	124.36	118.80
36	5	1775	G	N3-C4-N9	5.05	129.03	126.00
36	5	2852	C	C2-N3-C4	-5.05	117.37	119.90
36	5	3306	U	C6-N1-C2	5.05	124.03	121.00
1	2	1792	G	C4-N9-C1'	5.05	133.07	126.50
1	6	387	A	C5-N7-C8	5.05	106.43	103.90
36	5	224	C	N1-C2-O2	5.05	121.93	118.90
36	5	1493	G	O4'-C1'-N9	5.05	112.24	108.20
36	1	857	G	C6-C5-N7	-5.05	127.37	130.40
36	1	963	G	O5'-P-OP1	5.05	116.76	110.70
1	6	1361	U	C2-N1-C1'	5.05	123.76	117.70
36	5	719	U	N1-C2-O2	5.05	126.34	122.80
36	1	214	G	N1-C6-O6	5.05	122.93	119.90
36	1	2131	A	OP1-P-O3'	5.05	116.31	105.20
1	6	1568	C	P-O3'-C3'	5.05	125.76	119.70
36	5	810	A	C2-N3-C4	5.05	113.12	110.60
36	5	1303	A	OP1-P-OP2	5.05	127.17	119.60
36	5	2321	A	C4-C5-N7	5.05	113.22	110.70
36	1	1884	A	C2-N3-C4	-5.05	108.08	110.60
36	1	3143	C	C5-C6-N1	-5.05	118.48	121.00
1	6	1109	G	C5-C6-O6	-5.05	125.57	128.60
36	1	780	A	C6-N1-C2	-5.05	115.57	118.60
36	1	3050	U	C5-C4-O4	5.05	128.93	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3361	G	N3-C4-N9	5.05	129.03	126.00
36	5	2936	A	N1-C6-N6	5.05	121.63	118.60
1	2	1327	C	C5-C6-N1	5.04	123.52	121.00
36	1	968	G	C8-N9-C4	-5.04	104.38	106.40
36	1	1589	A	N1-C2-N3	5.04	131.82	129.30
1	6	114	C	N3-C2-O2	-5.04	118.37	121.90
1	2	1165	G	C4-C5-N7	5.04	112.82	110.80
36	1	1548	C	C2-N3-C4	-5.04	117.38	119.90
36	1	1901	A	N1-C6-N6	-5.04	115.57	118.60
36	1	2911	A	C2-N3-C4	-5.04	108.08	110.60
38	4	48	A	C6-N1-C2	-5.04	115.57	118.60
1	6	1046	G	C8-N9-C4	5.04	108.42	106.40
36	1	416	A	N7-C8-N9	-5.04	111.28	113.80
36	1	635	G	C6-N1-C2	-5.04	122.08	125.10
36	1	672	A	C8-N9-C4	5.04	107.82	105.80
1	6	359	A	C8-N9-C4	5.04	107.82	105.80
36	5	2944	U	N1-C2-O2	5.04	126.33	122.80
36	5	3057	U	N1-C2-O2	5.04	126.33	122.80
38	8	139	U	C5-C4-O4	5.04	128.93	125.90
36	1	1136	A	N7-C8-N9	5.04	116.32	113.80
36	1	2602	G	C4-C5-N7	-5.04	108.78	110.80
36	5	642	U	N1-C2-O2	5.04	126.33	122.80
36	5	652	G	C5-C6-N1	-5.04	108.98	111.50
36	5	1193	A	C5-C6-N6	-5.04	119.67	123.70
36	5	3195	U	OP1-P-O3'	5.04	116.29	105.20
36	1	114	A	O5'-P-OP1	-5.04	101.17	105.70
36	1	1340	G	C4-C5-N7	5.04	112.82	110.80
36	1	1435	A	O5'-P-OP2	5.04	116.75	110.70
36	1	1912	U	N3-C2-O2	-5.04	118.67	122.20
36	1	2376	G	C8-N9-C4	-5.04	104.39	106.40
36	1	2644	C	N1-C2-O2	5.04	121.92	118.90
36	5	48	A	N1-C6-N6	-5.04	115.58	118.60
36	5	659	G	N9-C4-C5	-5.04	103.39	105.40
36	5	2870	C	N3-C4-C5	5.04	123.92	121.90
36	5	3370	A	C2-N3-C4	5.04	113.12	110.60
36	1	763	G	P-O3'-C3'	5.04	125.75	119.70
36	5	3107	U	C2-N3-C4	-5.04	123.98	127.00
1	6	756	A	N7-C8-N9	5.04	116.32	113.80
1	6	1782	A	N9-C4-C5	5.04	107.81	105.80
36	5	1608	C	N1-C2-O2	5.04	121.92	118.90
36	5	3306	U	N1-C2-N3	-5.04	111.88	114.90
36	1	48	A	N1-C6-N6	-5.03	115.58	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1855	U	N3-C2-O2	-5.03	118.68	122.20
1	6	402	C	C5-C4-N4	-5.03	116.68	120.20
1	6	558	U	P-O3'-C3'	5.03	125.74	119.70
1	6	1025	A	O5'-P-OP1	-5.03	101.17	105.70
1	6	1113	A	N1-C2-N3	5.03	131.82	129.30
36	5	857	G	C2-N3-C4	-5.03	109.38	111.90
36	5	2339	C	C2-N1-C1'	5.03	124.34	118.80
1	2	803	A	N1-C6-N6	-5.03	115.58	118.60
36	1	215	G	N1-C6-O6	5.03	122.92	119.90
36	1	1837	U	N3-C4-O4	5.03	122.92	119.40
36	1	3362	A	C8-N9-C4	-5.03	103.79	105.80
1	2	901	G	C4-N9-C1'	5.03	133.04	126.50
36	1	808	A	C6-N1-C2	-5.03	115.58	118.60
36	1	2977	G	C5-C6-N1	5.03	114.02	111.50
36	1	3023	U	N3-C2-O2	-5.03	118.68	122.20
1	6	354	C	C4-C5-C6	-5.03	114.89	117.40
1	6	546	U	C5-C6-N1	-5.03	120.19	122.70
36	5	69	C	N3-C4-C5	-5.03	119.89	121.90
36	5	931	C	C2-N3-C4	-5.03	117.39	119.90
36	5	2366	C	C2-N3-C4	5.03	122.42	119.90
1	2	1131	A	C8-N9-C4	5.03	107.81	105.80
36	1	1370	G	C6-C5-N7	-5.03	127.38	130.40
36	5	1879	A	N9-C4-C5	-5.03	103.79	105.80
1	2	388	G	N1-C6-O6	5.03	122.92	119.90
36	1	201	A	N1-C2-N3	5.03	131.81	129.30
36	1	753	C	N3-C4-N4	5.03	121.52	118.00
36	1	1126	G	C5-C6-N1	-5.03	108.99	111.50
36	1	1141	C	N3-C4-C5	-5.03	119.89	121.90
1	6	18	C	N3-C4-C5	-5.03	119.89	121.90
36	5	2427	U	N1-C2-O2	-5.03	119.28	122.80
36	1	678	G	N3-C2-N2	-5.03	116.38	119.90
36	1	2611	U	N3-C4-C5	5.03	117.61	114.60
1	6	542	A	C6-C5-N7	-5.03	128.78	132.30
36	5	42	C	N1-C2-O2	5.03	121.92	118.90
36	5	330	G	O5'-P-OP2	-5.03	101.18	105.70
65	n9	20	GLY	N-CA-C	5.03	125.66	113.10
36	1	2794	G	O4'-C1'-N9	5.02	112.22	108.20
36	5	803	C	C5-C4-N4	-5.02	116.68	120.20
36	1	2412	G	N1-C6-O6	5.02	122.91	119.90
1	6	313	U	C2-N1-C1'	-5.02	111.67	117.70
1	6	787	G	C4-N9-C1'	5.02	133.03	126.50
1	6	1439	C	C5-C6-N1	5.02	123.51	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	755	A	C3'-C2'-C1'	5.02	105.52	101.50
1	2	497	G	P-O3'-C3'	5.02	125.72	119.70
1	2	542	A	C8-N9-C1'	-5.02	118.66	127.70
1	2	1600	A	P-O3'-C3'	5.02	125.72	119.70
12	C0	63	TYR	N-CA-C	5.02	124.56	111.00
36	1	637	C	C2-N3-C4	-5.02	117.39	119.90
36	1	1377	G	C5-N7-C8	-5.02	101.79	104.30
36	1	2513	U	P-O3'-C3'	5.02	125.72	119.70
37	3	53	U	N3-C2-O2	5.02	125.71	122.20
1	6	1333	C	N3-C4-C5	5.02	123.91	121.90
36	5	1155	C	N3-C4-C5	5.02	123.91	121.90
36	5	1156	C	N1-C2-N3	5.02	122.71	119.20
36	5	1850	A	C5-C6-N6	5.02	127.72	123.70
36	1	968	G	N3-C4-N9	5.02	129.01	126.00
1	6	417	A	C3'-C2'-C1'	5.02	105.52	101.50
36	5	984	G	C6-C5-N7	-5.02	127.39	130.40
36	5	2730	G	N3-C4-C5	5.02	131.11	128.60
36	5	3041	U	N1-C2-N3	-5.02	111.89	114.90
36	1	2765	C	N1-C2-O2	5.02	121.91	118.90
36	5	1101	G	C8-N9-C4	5.02	108.41	106.40
1	2	422	G	C6-C5-N7	-5.01	127.39	130.40
36	1	282	G	N3-C4-C5	-5.01	126.09	128.60
36	1	1851	G	C8-N9-C4	-5.01	104.39	106.40
36	5	2294	U	C2-N3-C4	-5.01	123.99	127.00
36	5	3066	U	N3-C4-C5	5.01	117.61	114.60
36	1	867	G	C5-C6-N1	-5.01	108.99	111.50
36	1	2130	G	N1-C2-N2	-5.01	111.69	116.20
36	1	645	A	C4-C5-N7	-5.01	108.19	110.70
36	1	815	G	N1-C6-O6	5.01	122.91	119.90
1	6	86	A	N1-C6-N6	5.01	121.61	118.60
36	5	106	A	N1-C6-N6	-5.01	115.59	118.60
36	5	1380	G	N9-C4-C5	-5.01	103.39	105.40
1	2	1012	U	O5'-P-OP1	-5.01	101.19	105.70
36	1	57	A	C2-N3-C4	-5.01	108.09	110.60
36	1	746	A	C5-C6-N6	-5.01	119.69	123.70
37	3	53	U	C2-N1-C1'	-5.01	111.69	117.70
36	5	2649	A	N1-C6-N6	-5.01	115.59	118.60
38	8	51	G	C4-N9-C1'	5.01	133.01	126.50
36	5	1870	C	C6-N1-C2	-5.01	118.30	120.30
36	1	1340	G	N3-C4-N9	5.01	129.00	126.00
36	1	2718	U	C2-N3-C4	-5.01	124.00	127.00
36	1	2852	C	C6-N1-C1'	-5.01	114.79	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	648	G	C4-N9-C1'	5.01	133.01	126.50
1	6	1280	C	N1-C2-O2	-5.01	115.90	118.90
36	5	376	G	C5-C6-N1	5.01	114.00	111.50
36	5	1333	C	C6-N1-C2	-5.01	118.30	120.30
36	5	2179	C	OP1-P-OP2	5.01	127.11	119.60
36	5	2411	U	C5-C6-N1	-5.01	120.20	122.70
1	2	735	C	OP1-P-OP2	-5.00	112.09	119.60
36	1	1537	A	N1-C6-N6	5.00	121.60	118.60
36	1	1838	G	N9-C4-C5	-5.00	103.40	105.40
36	1	859	G	C6-C5-N7	-5.00	127.40	130.40
36	1	3119	U	N3-C4-O4	-5.00	115.90	119.40
36	1	3217	C	C6-N1-C2	-5.00	118.30	120.30
38	4	70	G	N9-C4-C5	-5.00	103.40	105.40
41	L4	206	LEU	CA-CB-CG	5.00	126.81	115.30
1	6	1620	C	C5-C6-N1	5.00	123.50	121.00
36	5	1149	G	N9-C1'-C2'	-5.00	106.50	112.00
36	5	2849	C	C2-N3-C4	5.00	122.40	119.90
36	5	3011	A	C5-C6-N1	5.00	120.20	117.70
36	5	3172	A	N1-C2-N3	5.00	131.80	129.30
67	o1	90	PHE	CB-CG-CD1	-5.00	117.30	120.80
36	1	517	G	C4-C5-C6	5.00	121.80	118.80
36	1	1163	A	C2-N3-C4	-5.00	108.10	110.60
36	1	1646	G	C5-C6-O6	-5.00	125.60	128.60
36	1	1891	A	O5'-P-OP1	5.00	116.70	110.70
39	L2	96	LEU	CA-CB-CG	5.00	126.81	115.30
36	5	984	G	O5'-P-OP1	-5.00	101.20	105.70
36	5	2145	A	N3-C4-N9	5.00	131.40	127.40
36	5	2710	C	N3-C4-C5	-5.00	119.90	121.90
37	7	22	A	C4-C5-C6	5.00	119.50	117.00
38	8	104	A	N9-C4-C5	-5.00	103.80	105.80

There are no chirality outliers.

All (45) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
17	C5	99	GLY	Peptide
19	C7	85	VAL	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide

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Mol	Chain	Res	Type	Group
33	E1	105	TYR	Peptide
33	E1	146	SER	Peptide
39	L2	19	HIS	Peptide
42	L5	57	ASN	Peptide
43	L6	51	ARG	Peptide
43	L6	89	THR	Peptide
52	M6	110	PRO	Peptide
57	N1	16	GLN	Peptide
65	N9	19	ASN	Peptide
65	N9	20	GLY	Peptide
67	O1	5	LYS	Peptide
7	S5	99	MET	Peptide
9	S7	131	PHE	Peptide
16	c4	124	ASP	Peptide
17	c5	52	LYS	Peptide
20	c8	80	LYS	Peptide
22	d0	70	THR	Peptide
33	e1	146	SER	Peptide
39	l2	237	LEU	Peptide
42	l5	270	LYS	Peptide
43	l6	51	ARG	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
49	m3	74	GLY	Peptide
52	m6	110	PRO	Peptide
54	m8	14	GLY	Peptide
56	n0	133	ALA	Peptide
56	n0	170	THR	Peptide
63	n7	101	PHE	Peptide
64	n8	18	GLY	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
65	n9	23	LYS	Peptide
67	o1	6	ASP	Peptide
67	o1	90	PHE	Peptide
68	o2	15	LYS	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide

## 5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37948	0	19093	903	0
1	6	38238	0	19240	868	0
2	S0	1577	0	1567	161	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	170	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	123	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	131	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	147	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	146	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	139	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	108	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	125	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	132	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	63	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	84	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	61	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	98	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	89	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	112	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	76	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	c7	906	0	909	0	0
20	C8	1192	0	1222	107	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	94	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	88	0
22	d0	882	0	939	0	0
23	D1	684	0	672	76	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	97	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	90	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	76	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	57	0
27	d5	558	0	598	0	0
28	D6	769	0	814	86	0
28	d6	769	0	814	0	0
29	D7	610	0	630	48	0
29	d7	610	0	631	0	0
30	D8	497	0	535	50	0
30	d8	497	0	535	0	0
31	D9	442	0	428	38	0
31	d9	442	0	428	0	0
32	E0	475	0	525	36	0
33	E1	566	0	601	64	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	164	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	61	0
35	sM	680	0	607	0	0
36	1	67355	0	33845	1175	0
36	5	67376	0	33857	1235	0
37	3	2579	0	1304	53	0
37	7	2579	0	1303	40	0
38	4	3353	0	1695	52	0
38	8	3353	0	1695	63	0
39	L2	1914	0	1981	165	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	255	0
40	l3	3075	0	3142	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	L4	2748	0	2859	192	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	203	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	87	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	125	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	121	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	132	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	135	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	102	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	127	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	82	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	128	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	104	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	87	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	104	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	106	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	105	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	96	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	44	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	63	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	32	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	52	0
61	n5	959	0	1023	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	N6	993	0	1081	76	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	98	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	113	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	32	0
65	n9	462	0	491	0	0
66	O0	743	0	797	64	0
66	o0	767	0	816	0	0
67	O1	876	0	912	53	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	61	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	57	0
69	o3	850	0	879	0	0
70	O4	880	0	945	81	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	68	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	58	0
72	o6	770	0	846	0	0
73	O7	681	0	683	46	0
73	o7	681	0	683	0	0
74	O8	612	0	682	41	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	21	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	38	0
77	q1	233	0	284	0	0
78	Q2	847	0	914	53	0
78	q2	847	0	914	0	0
79	Q3	694	0	734	52	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	p0	1076	0	1040	0	0
82	m2	750	0	175	0	0
83	p1	235	0	51	0	0
84	p2	230	0	51	0	0
85	1	465	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	2	126	0	0	0	0
85	3	14	0	0	0	0
85	4	22	0	0	0	0
85	5	504	0	0	0	0
85	6	147	0	0	0	0
85	7	17	0	0	0	0
85	8	12	0	0	0	0
85	L2	2	0	0	0	0
85	L3	3	0	0	0	0
85	L4	2	0	0	0	0
85	L5	1	0	0	0	0
85	L6	2	0	0	0	0
85	L7	4	0	0	0	0
85	L8	1	0	0	0	0
85	M0	2	0	0	0	0
85	M1	1	0	0	0	0
85	M3	3	0	0	0	0
85	M4	1	0	0	0	0
85	M5	2	0	0	0	0
85	M6	1	0	0	0	0
85	M7	5	0	0	0	0
85	M9	1	0	0	0	0
85	N0	2	0	0	0	0
85	N3	3	0	0	0	0
85	N5	1	0	0	0	0
85	N6	1	0	0	0	0
85	N8	6	0	0	0	0
85	O3	1	0	0	0	0
85	O4	1	0	0	0	0
85	O7	1	0	0	0	0
85	Q2	1	0	0	0	0
85	S2	1	0	0	0	0
85	S8	1	0	0	0	0
85	SM	1	0	0	0	0
85	c1	2	0	0	0	0
85	c7	2	0	0	0	0
85	c8	2	0	0	0	0
85	d3	1	0	0	0	0
85	d4	1	0	0	0	0
85	d6	1	0	0	0	0
85	l2	1	0	0	0	0
85	l3	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	l4	1	0	0	0	0
85	l5	2	0	0	0	0
85	l7	1	0	0	0	0
85	m1	2	0	0	0	0
85	m5	5	0	0	0	0
85	m6	2	0	0	0	0
85	m7	4	0	0	0	0
85	n0	1	0	0	0	0
85	n3	2	0	0	0	0
85	n6	2	0	0	0	0
85	n8	3	0	0	0	0
85	n9	1	0	0	0	0
85	o0	1	0	0	0	0
85	o1	1	0	0	0	0
85	o3	1	0	0	0	0
85	o4	1	0	0	0	0
85	q0	1	0	0	0	0
85	q3	2	0	0	0	0
85	s1	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2422	0	0	167	0
86	2	1099	0	0	92	0
86	3	84	0	0	2	0
86	4	105	0	0	7	0
86	5	2478	0	0	207	0
86	6	1134	0	0	91	0
86	7	91	0	0	3	0
86	8	112	0	0	16	0
86	C1	7	0	0	1	0
86	C3	7	0	0	0	0
86	C5	7	0	0	2	0
86	C8	7	0	0	1	0
86	D9	7	0	0	0	0
86	L3	21	0	0	4	0
86	L4	7	0	0	1	0
86	M0	7	0	0	0	0
86	M5	7	0	0	1	0
86	M6	7	0	0	0	0
86	M7	14	0	0	2	0
86	M8	7	0	0	0	0
86	M9	7	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	N1	7	0	0	1	0
86	N9	7	0	0	0	0
86	O1	7	0	0	6	0
86	O2	7	0	0	1	0
86	O3	7	0	0	2	0
86	O7	14	0	0	4	0
86	Q2	7	0	0	1	0
86	S8	7	0	0	0	0
86	S9	7	0	0	1	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	14	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	7	0	0	0	0
86	m7	7	0	0	0	0
86	n3	7	0	0	0	0
86	n5	7	0	0	0	0
86	n9	7	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0
86	o7	7	0	0	0	0
86	q2	7	0	0	0	0
86	s1	7	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	sR	7	0	0	0	0
87	D6	1	0	0	0	0
87	D7	1	0	0	0	0
87	D9	1	0	0	0	0
87	E1	1	0	0	0	0
87	O7	1	0	0	0	0
87	Q0	1	0	0	0	0
87	Q2	1	0	0	0	0
87	Q3	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e1	1	0	0	0	0
87	o7	1	0	0	0	0
87	q0	1	0	0	0	0
87	q2	1	0	0	0	0
87	q3	1	0	0	0	0
88	1	33	0	32	2	0
88	5	33	0	32	3	0
All	All	411881	0	297678	9763	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 (9763) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.40	1.01
36:5:3274:A:H3'	36:5:3275:U:H5''	1.43	0.99
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.45	0.99
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.31	0.98
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.29	0.96
70:O4:8:ARG:HH11	70:O4:8:ARG:HG2	1.27	0.96
1:6:1588:G:H1	1:6:1608:U:H3	1.13	0.96
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.84	0.95
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.72	0.95
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB3	2.63	0.95
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.21	0.94
1:2:1585:U:H3	1:2:1611:A:H2	1.09	0.94
42:L5:68:THR:HG22	42:L5:70:THR:H	1.34	0.93
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.02	0.93
1:2:991:G:OP2	86:2:2134:OHX:N1	2.02	0.93
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.00	0.93
1:2:1339:C:O2'	1:2:1341:A:N7	2.02	0.92
36:1:1230:G:H1	36:1:1279:C:H42	1.14	0.92
1:2:647:G:H1	1:2:687:G:H22	1.18	0.92
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.02	0.92
41:L4:329:PRO:O	41:L4:331:ALA:N	3.47	0.91
36:1:830:A:N7	36:1:864:G:N2	2.19	0.91
41:L4:317:PRO:O	41:L4:319:LYS:N	2.04	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:50:ALA:O	16:C4:52:ARG:N	2.24	0.90
1:6:1011:G:OP2	86:6:2121:OHX:N3	2.03	0.90
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	3.58	0.90
41:L4:193:LYS:NZ	38:8:21:C:OP1	109.41	0.90
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.05	0.90
17:C5:43:ARG:NH2	1:6:1552:U:OP2	404.25	0.90
1:6:122:U:N3	1:6:295:A:N1	2.19	0.90
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	1.52	0.90
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.54	0.90
40:L3:81:THR:HG22	40:L3:321:PHE:HA	4.52	0.89
43:L6:78:ARG:NH1	36:5:3272:C:OP2	247.25	0.89
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.84	0.89
48:M1:92:ARG:HH12	48:M1:94:ARG:HH11	4.75	0.89
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.36	0.89
36:1:3346:U:H3	36:1:3359:A:H61	1.16	0.89
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.06	0.89
53:M7:25:SER:O	53:M7:29:THR:HG23	1.72	0.89
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.01	0.89
1:2:992:A:H2	1:2:1012:U:H3	1.18	0.88
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	1.55	0.88
36:5:343:U:OP2	86:5:3927:OHX:N3	2.05	0.88
36:1:1374:G:O6	64:N8:10:LYS:NZ	2.06	0.88
40:L3:296:THR:HG22	40:L3:299:ASP:H	2.78	0.88
36:5:3343:G:H21	36:5:3362:A:H2	1.19	0.88
59:N3:74:MET:HG3	59:N3:102:ILE:HD13	1.56	0.87
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	2.50	0.87
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	3.57	0.87
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.06	0.87
36:1:2836:C:H5	36:1:2852:C:H42	1.19	0.87
72:O6:28:TYR:O	86:5:4192:OHX:N2	104.37	0.87
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.54	0.87
36:1:3343:G:H21	36:1:3362:A:H2	1.22	0.87
38:4:70:G:O6	86:O7:103:OHX:N4	2.08	0.87
1:2:142:G:H22	1:2:173:A:H2	1.23	0.87
36:5:2371:G:O6	86:5:3911:OHX:N6	2.08	0.86
11:S9:126:ARG:NH1	1:6:475:A:OP2	424.82	0.86
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.99	0.86
56:N0:155:ARG:HH21	56:N0:155:ARG:HG2	4.46	0.86
40:L3:346:THR:O	40:L3:348:ARG:N	2.57	0.86
42:L5:107:ARG:HD3	42:L5:248:ARG:HG2	3.06	0.86
42:L5:270:LYS:HG3	42:L5:273:ARG:HB2	5.18	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1010:C:OP2	86:6:2173:OHX:N3	2.09	0.86
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.41	0.86
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.40	0.86
1:2:1010:C:OP2	86:2:2134:OHX:N6	2.09	0.86
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.62	0.86
17:C5:17:TYR:HB2	17:C5:25:LEU:HD11	1.58	0.86
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.09	0.85
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	2.64	0.85
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.40	0.85
36:5:1231:A:H5''	36:5:1232:C:H5'	1.55	0.85
42:L5:265:TYR:OH	37:7:121:U:OP2	313.35	0.85
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.68	0.85
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.58	0.85
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.09	0.85
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.09	0.85
1:2:885:G:H21	16:C4:123:SER:HB2	1.42	0.85
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.45	0.85
7:S5:73:THR:HG23	18:C6:114:ARG:HD3	1.59	0.85
11:S9:140:ILE:HG13	26:D4:65:GLY:HA3	2.85	0.84
1:6:755:A:O2'	1:6:756:A:O4'	1.94	0.84
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.93	0.84
36:5:2273:G:O6	86:5:4201:OHX:N5	2.11	0.84
36:1:1844:C:H2'	36:1:1845:G:H5''	1.58	0.84
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.35	0.84
27:D5:56:THR:H	27:D5:103:ARG:HH11	1.26	0.84
64:N8:21:ARG:NH2	36:5:640:U:OP1	182.29	0.84
36:1:2443:A:N6	36:1:2504:U:O4	2.11	0.84
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.11	0.84
64:N8:29:PRO:O	64:N8:31:GLY:N	2.10	0.84
9:S7:98:ILE:HG12	9:S7:121:VAL:HG21	1.59	0.84
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.09	0.83
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.43	0.83
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.12	0.83
38:4:79:A:H2'	38:4:80:A:H1'	1.59	0.83
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.58	0.83
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.45	0.83
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.59	0.83
36:1:1898:G:OP2	86:1:3925:OHX:N4	2.10	0.83
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.24	0.83
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.19	0.83
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.85	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1555:U:O4	36:5:1557:A:N6	2.12	0.83
36:5:1565:G:N1	36:5:1574:C:N3	2.27	0.83
78:Q2:38:GLN:NE2	78:Q2:38:GLN:O	2.85	0.83
20:C8:83:ALA:O	20:C8:89:GLN:NE2	3.21	0.82
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.61	0.82
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.12	0.82
36:1:979:U:H1'	36:1:980:A:C8	2.14	0.82
32:E0:18:THR:HG21	1:6:584:C:H1'	390.13	0.82
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.89	0.82
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.13	0.82
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.60	0.82
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.86	0.82
49:M3:15:ARG:NH2	36:5:96:G:OP1	154.27	0.82
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.43	0.82
36:1:356:C:OP2	86:1:4136:OHX:N1	2.13	0.82
36:1:368:G:OP1	86:1:3878:OHX:N1	2.13	0.82
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.78	0.82
3:S1:128:LYS:HE2	3:S1:132:ASP:HB3	1.61	0.81
36:5:2233:A:OP2	86:5:3964:OHX:N5	2.12	0.81
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	1.61	0.81
50:M4:132:LYS:HD3	36:5:3230:G:H4'	287.27	0.81
1:2:1202:A:OP1	86:2:2113:OHX:N1	2.13	0.81
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.62	0.81
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.13	0.81
36:1:1015:U:O2'	36:1:1017:C:OP2	1.98	0.81
7:S5:29:ILE:HG22	7:S5:34:GLN:HG2	1.62	0.81
38:8:16:G:O6	86:8:214:OHX:N6	2.13	0.81
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.44	0.81
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.14	0.81
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.39	0.81
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	1.60	0.81
36:1:2248:C:OP2	86:1:3876:OHX:N3	2.14	0.81
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.61	0.81
22:D0:71:PRO:O	22:D0:72:ASN:ND2	6.10	0.81
20:C8:49:LYS:NZ	20:C8:79:TYR:O	2.13	0.81
1:6:67:A:O2'	1:6:69:G:OP1	1.98	0.81
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.63	0.81
1:2:514:G:H1	1:2:543:C:H5	1.26	0.81
40:L3:221:THR:HB	40:L3:273:HIS:H	2.08	0.81
24:D2:2:THR:N	1:6:1034:C:HO2'	338.66	0.81
1:2:794:U:O2'	1:2:795:U:O2	1.97	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.14	0.81
36:1:2208:A:N1	86:1:4038:OHX:N2	2.27	0.81
42:L5:22:ARG:HA	42:L5:25:GLU:HG3	3.67	0.81
1:2:542:A:O2'	1:2:543:C:O5'	1.99	0.81
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.61	0.81
1:2:701:U:O4	1:2:737:A:N6	2.14	0.81
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.14	0.80
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.99	0.80
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.45	0.80
1:6:1385:G:N7	86:6:2122:OHX:N6	2.28	0.80
66:O0:13:LYS:HD3	66:O0:100:ILE:HG22	3.58	0.80
1:2:1588:G:H1	1:2:1608:U:H3	1.27	0.80
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.15	0.80
1:2:895:G:H1	1:2:917:U:H3	1.30	0.80
36:5:1025:A:H3'	36:5:1026:A:H4'	1.62	0.80
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	1.94	0.80
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.62	0.80
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.64	0.80
36:1:2101:C:O2'	36:1:2102:U:O5'	1.99	0.80
1:6:754:A:N6	1:6:793:A:N7	2.30	0.80
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.15	0.80
64:N8:27:LYS:NZ	36:5:801:A:OP1	154.66	0.80
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.15	0.80
18:C6:58:ASP:O	18:C6:60:PHE:N	2.12	0.79
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.15	0.79
1:2:702:G:O6	1:2:736:C:N4	2.13	0.79
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.15	0.79
36:1:3289:G:N7	86:1:4125:OHX:N4	2.30	0.79
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.64	0.79
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.64	0.79
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.15	0.79
28:D6:26:CYS:HB3	28:D6:77:CYS:SG	2.22	0.79
1:6:826:U:O4	86:6:2066:OHX:N3	2.16	0.79
71:O5:81:ARG:NH2	36:5:18:G:OP1	76.95	0.79
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.64	0.79
1:2:1595:U:H3	1:2:1600:A:H2	1.29	0.79
57:N1:135:PRO:O	57:N1:136:ARG:HB2	4.62	0.79
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.90	0.79
1:2:1034:C:HO2'	24:D2:2:THR:N	1.81	0.79
3:S1:51:SER:HA	3:S1:57:ALA:H	1.47	0.79
46:L9:70:THR:HG21	36:5:3122:A:N1	324.84	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.16	0.79
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.43	0.79
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.53	0.79
1:2:1561:U:H2'	1:2:1562:G:H8	1.46	0.79
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	1.90	0.79
36:5:2836:C:H5	36:5:2852:C:H42	1.28	0.79
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.63	0.79
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.68	0.79
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.63	0.79
36:5:1235:U:H4'	36:5:1236:G:H5'	1.63	0.78
39:L2:224:THR:HG21	36:5:2201:G:H21	222.90	0.78
26:D4:122:GLY:HA2	26:D4:125:LEU:HB3	3.51	0.78
54:M8:30:VAL:O	54:M8:34:THR:HG22	3.08	0.78
21:C9:52:GLY:O	21:C9:54:PHE:N	2.14	0.78
39:L2:181:LYS:NZ	36:5:860:G:O4'	210.50	0.78
2:S0:52:LYS:NZ	23:D1:82:VAL:O	2.24	0.78
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.70	0.78
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.28	0.78
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.65	0.78
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.48	0.78
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.17	0.78
10:S8:36:THR:HB	10:S8:57:ALA:O	1.83	0.78
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.16	0.78
36:1:2123:G:N7	86:1:4193:OHX:N2	2.31	0.78
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.16	0.78
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.09	0.78
66:O0:53:LYS:HZ1	36:5:2552:C:H5	242.90	0.78
49:M3:8:PRO:HD3	54:M8:164:ARG:HB3	2.57	0.78
86:1:3952:OHX:N6	44:L7:217:PRO:O	2.16	0.78
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.66	0.78
1:2:1682:U:O4	1:2:1720:G:N2	2.17	0.78
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	3.63	0.78
1:2:399:A:N3	6:S4:3:ARG:NH1	2.32	0.78
42:L5:236:LEU:HD12	42:L5:239:ILE:HD12	1.65	0.78
40:L3:7:GLU:HG2	36:5:2915:U:C5	257.68	0.78
56:N0:170:THR:HG1	36:5:3185:U:HO2'	306.45	0.78
63:N7:51:LEU:HB2	63:N7:65:ARG:HH11	1.48	0.78
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.64	0.78
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.64	0.77
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.50	0.77
1:6:1042:G:N2	1:6:1077:C:O2	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1595:U:H3	1:6:1600:A:H2	1.32	0.77
1:6:1288:G:N2	1:6:1327:C:O2	2.16	0.77
19:C7:8:THR:HG21	1:6:1330:G:H21	420.04	0.77
1:6:471:A:OP2	86:6:2103:OHX:N5	2.17	0.77
36:5:1493:G:OP2	36:5:1493:G:N2	2.15	0.77
10:S8:141:ARG:NH2	1:6:196:G:N7	280.40	0.77
11:S9:159:ALA:HB3	11:S9:162:SER:HB3	4.64	0.77
1:6:1280:C:H2'	1:6:1281:G:H8	1.47	0.77
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.18	0.77
51:M5:37:HIS:HE1	51:M5:63:ARG:HH11	1.30	0.77
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	1.83	0.77
49:M3:48:PRO:HD2	71:O5:115:LYS:HD2	2.25	0.77
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.57	0.77
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	1.66	0.77
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.66	0.77
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	4.89	0.77
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.32	0.77
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.66	0.77
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.47	0.77
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.90	0.77
36:5:23:A:OP1	86:5:3909:OHX:N4	2.18	0.77
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.67	0.77
46:L9:49:ASN:O	46:L9:51:GLN:N	2.14	0.77
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.42	0.77
8:S6:87:ARG:NH1	1:6:159:U:O2'	321.40	0.77
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.67	0.77
7:S5:57:SER:O	7:S5:59:VAL:N	2.17	0.77
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.27	0.77
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.67	0.77
36:5:410:U:O4	86:5:4104:OHX:N1	2.18	0.77
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.71	0.77
1:2:138:A:OP2	1:2:1706:C:O2'	2.03	0.77
36:5:2314:U:O4	86:5:3980:OHX:N5	2.18	0.77
36:5:2438:A:N6	36:5:2509:U:O4	2.18	0.77
4:S2:139:ILE:HG22	4:S2:141:ARG:HD2	1.67	0.77
21:C9:127:ASN:OD1	21:C9:130:ARG:NH1	8.20	0.77
16:C4:38:THR:HG21	1:6:895:G:H21	263.96	0.76
42:L5:261:THR:H	42:L5:264:GLN:HG3	2.39	0.76
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.18	0.76
36:1:2940:A:N7	40:L3:2:SER:N	2.34	0.76
1:2:1236:A:H1'	33:E1:138:ARG:HH12	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	3.74	0.76
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.18	0.76
44:L7:217:PRO:O	86:5:4005:OHX:N3	260.23	0.76
67:O1:24:SER:HB2	67:O1:27:LYS:HD2	4.18	0.76
36:5:3153:U:H4'	36:5:3154:C:H5'	1.68	0.76
58:N2:49:ASN:O	58:N2:51:GLY:N	2.41	0.76
8:S6:174:LYS:HG3	1:6:79:C:H1'	342.53	0.76
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.65	0.76
36:1:612:U:H2'	36:1:613:G:H8	1.50	0.76
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.51	0.76
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.66	0.76
17:C5:129:GLY:HA3	35:SM:74:LYS:HG2	2.51	0.76
25:D3:56:LYS:HZ1	25:D3:97:ASP:H	1.34	0.76
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.66	0.76
73:O7:46:SER:OG	86:5:3909:OHX:N2	111.06	0.76
36:5:3241:G:H2'	36:5:3245:A:C8	2.21	0.76
36:1:1654:A:H2'	36:1:1655:G:H5''	1.68	0.76
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.50	0.76
36:5:2310:U:OP1	86:5:4201:OHX:N2	2.18	0.76
36:1:3353:G:O2'	36:1:3356:G:OP2	2.02	0.76
56:N0:77:VAL:HG22	56:N0:126:VAL:HG22	1.68	0.76
78:Q2:17:CYS:HB2	78:Q2:77:CYS:SG	2.86	0.76
66:O0:13:LYS:NZ	66:O0:99:ASP:OD1	2.24	0.76
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	2.19	0.76
8:S6:153:VAL:O	8:S6:155:ASP:N	2.19	0.76
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.69	0.76
13:C1:95:PRO:O	13:C1:98:ASN:N	2.16	0.75
16:C4:19:ILE:HB	16:C4:83:ILE:HG13	1.66	0.75
1:6:1650:U:H2'	1:6:1651:A:C8	2.20	0.75
47:M0:63:GLU:HB2	36:5:2853:A:H5'	297.16	0.75
27:D5:46:LYS:HG2	27:D5:70:LYS:HE3	1.68	0.75
8:S6:139:ASN:OD1	8:S6:142:ARG:NH1	2.19	0.75
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.00	0.75
33:E1:87:THR:O	1:6:1445:G:N1	378.28	0.75
36:1:439:C:H3'	36:1:440:A:C8	2.22	0.75
11:S9:133:HIS:NE2	1:6:513:U:OP1	447.19	0.75
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.18	0.75
48:M1:94:ARG:O	48:M1:96:PHE:N	2.47	0.75
1:2:700:C:H42	1:2:738:G:H1	1.34	0.75
1:2:1745:G:O6	86:2:2089:OHX:N6	2.19	0.75
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.70	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:127:ARG:NH2	1:6:629:U:OP1	308.13	0.75
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.68	0.75
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.18	0.75
53:M7:62:ARG:O	86:M7:206:OHX:N1	2.20	0.75
36:1:2818:U:H6	36:1:2818:U:H5'	1.49	0.75
1:2:900:A:OP1	16:C4:43:THR:OG1	2.04	0.75
36:5:2818:U:H6	36:5:2818:U:H5'	1.51	0.75
1:6:1239:U:O4	86:6:2097:OHX:N1	2.19	0.75
21:C9:25:GLN:HE21	21:C9:27:LYS:HB2	1.52	0.75
18:C6:128:LYS:HE3	1:6:1417:A:O3'	395.00	0.75
36:1:1565:G:N2	36:1:1574:C:N3	2.35	0.75
40:L3:296:THR:HG23	40:L3:298:PHE:H	3.01	0.75
1:6:880:C:OP2	86:6:2109:OHX:N2	2.18	0.75
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.49	0.75
73:O7:72:ARG:NH1	38:8:95:G:OP2	52.30	0.75
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.20	0.75
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.20	0.75
53:M7:62:ARG:NH1	36:5:412:G:OP1	159.81	0.74
46:L9:36:LYS:NZ	46:L9:152:GLU:OE1	2.86	0.74
1:2:1681:A:H2'	1:2:1682:U:H5'	1.68	0.74
36:1:900:G:H1'	36:1:1589:A:N6	2.01	0.74
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.63	0.74
36:5:2402:A:OP2	86:5:4112:OHX:N3	2.20	0.74
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.69	0.74
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	2.37	0.74
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.86	0.74
36:1:1814:A:H4'	36:1:1815:U:H5'	1.68	0.74
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.36	0.74
1:2:1533:C:H4'	1:2:1539:G:N1	2.02	0.74
28:D6:10:ARG:HD3	28:D6:34:LYS:HG2	1.69	0.74
33:E1:126:CYS:O	33:E1:128:ALA:N	2.21	0.74
34:SR:123:ILE:HD12	34:SR:154:VAL:HG23	2.32	0.74
29:D7:28:PRO:HB3	1:6:959:U:H5''	352.31	0.74
36:5:510:G:O6	86:5:4027:OHX:N2	2.20	0.74
9:S7:170:GLN:HE21	9:S7:182:VAL:HA	1.50	0.74
40:L3:120:LYS:NZ	36:5:3001:C:OP1	206.13	0.74
13:C1:95:PRO:O	13:C1:97:TYR:N	2.21	0.74
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.19	0.74
36:5:1070:U:O4	86:5:4113:OHX:N6	2.21	0.74
7:S5:185:ARG:NH1	1:6:1471:A:OP1	334.35	0.74
36:1:3068:U:OP2	55:M9:62:ARG:NH1	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:10:ASN:HB3	8:S6:128:THR:HA	1.94	0.74
3:S1:62:LYS:O	3:S1:64:ARG:N	2.19	0.74
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.92	0.74
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.70	0.74
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.69	0.74
36:5:2705:A:OP2	86:5:3902:OHX:N2	2.20	0.74
1:2:732:G:O6	86:2:2132:OHX:N5	2.21	0.74
36:5:1236:G:N2	36:5:1244:A:OP1	2.21	0.74
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	7.27	0.74
67:O1:13:THR:HG22	67:O1:72:ARG:HD3	1.69	0.74
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.67	0.74
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.36	0.73
9:S7:118:LEU:N	1:6:639:U:OP1	366.99	0.73
36:1:3122:A:N1	46:L9:70:THR:HG21	2.03	0.73
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.53	0.73
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.21	0.73
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	1.70	0.73
14:C2:46:ARG:NH2	1:6:1253:U:OP2	454.44	0.73
36:5:776:U:H5	36:5:2719:U:O2	1.69	0.73
3:S1:22:ASP:O	3:S1:25:THR:OG1	2.76	0.73
78:Q2:63:LYS:NZ	36:5:2761:G:N7	212.11	0.73
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.91	0.73
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.69	0.73
36:5:1246:G:O2'	36:5:1264:G:OP2	2.06	0.73
38:4:107:G:OP2	86:4:233:OHX:N2	2.20	0.73
63:N7:67:LYS:NZ	36:5:1630:U:OP1	197.16	0.73
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.23	0.73
36:1:745:C:H5''	54:M8:145:ASN:HD22	1.53	0.73
22:D0:36:ASN:HA	22:D0:39:SER:HB3	4.28	0.73
9:S7:66:SER:O	9:S7:68:ALA:N	2.88	0.73
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.21	0.73
36:1:1947:G:H1	36:1:2101:C:H42	1.37	0.73
56:N0:50:LYS:NZ	37:7:76:A:O2'	302.88	0.73
25:D3:64:PRO:O	86:6:2161:OHX:N2	361.33	0.73
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.21	0.73
42:L5:58:LYS:HG3	42:L5:93:THR:HG21	1.70	0.73
70:O4:3:GLN:NE2	70:O4:30:LEU:H	3.62	0.73
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	3.02	0.73
36:1:2273:G:O6	86:1:4133:OHX:N5	2.21	0.73
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.70	0.73
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.30	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:129:ALA:O	39:L2:132:ASN:ND2	4.95	0.73
36:1:3139:A:OP1	40:L3:274:SER:OG	2.02	0.73
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.20	0.73
1:2:325:G:H4'	13:C1:83:THR:HG21	1.70	0.73
36:5:272:G:OP2	86:5:4078:OHX:N6	2.21	0.73
36:5:2236:G:OP1	86:5:4252:OHX:N3	2.22	0.73
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.54	0.73
36:1:1596:C:H2'	36:1:1597:C:C6	2.23	0.73
41:L4:269:SER:O	41:L4:271:LYS:N	2.22	0.73
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.53	0.73
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.32	0.73
36:5:2211:U:O4	86:5:3964:OHX:N4	2.22	0.73
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.21	0.73
36:5:1819:U:O4	86:5:4054:OHX:N5	2.21	0.73
36:1:77:A:OP2	49:M3:73:ARG:NH2	2.22	0.73
36:1:2687:G:OP1	42:L5:8:LYS:NZ	2.22	0.73
27:D5:77:ARG:NH2	1:6:1534:G:N7	351.03	0.72
47:M0:21:ARG:NH1	47:M0:22:TYR:OH	2.22	0.72
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.70	0.72
9:S7:131:PHE:O	9:S7:133:THR:N	2.21	0.72
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.29	0.72
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.69	0.72
36:1:1819:U:O4	86:1:4035:OHX:N4	2.22	0.72
1:2:1542:G:N2	1:2:1568:C:H1'	2.03	0.72
8:S6:13:GLN:OE1	1:6:151:G:N2	311.64	0.72
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.69	0.72
1:2:1585:U:N3	1:2:1611:A:H2	1.85	0.72
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.71	0.72
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.72	0.72
42:L5:110:LEU:HA	42:L5:113:LEU:HB2	3.03	0.72
36:5:2207:A:H62	36:5:2236:G:H1	1.37	0.72
1:6:1057:U:O2'	1:6:1059:U:OP1	2.07	0.72
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.23	0.72
43:L6:2:SER:N	36:5:1385:C:O2	135.26	0.72
20:C8:120:ARG:NH2	35:SM:58:GLU:OE2	3.03	0.72
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.62	0.72
36:5:2975:U:OP1	86:5:4092:OHX:N3	2.23	0.72
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	1.90	0.72
36:1:1409:G:N7	86:1:4060:OHX:N3	2.37	0.72
4:S2:230:TRP:CE2	24:D2:68:ARG:HD2	3.04	0.72
36:1:709:A:OP1	54:M8:179:ARG:NH2	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:953:G:OP1	65:N9:15:LYS:NZ	2.19	0.72
36:1:776:U:H5	36:1:2719:U:O2	1.71	0.72
66:O0:98:SER:OG	66:O0:99:ASP:N	2.46	0.72
2:S0:185:ARG:HB2	23:D1:45:ALA:H	1.55	0.72
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	5.05	0.72
1:2:1506:G:O6	86:2:2149:OHX:N6	2.23	0.72
20:C8:12:GLN:NE2	20:C8:14:ILE:O	3.42	0.72
37:7:91:G:H2'	37:7:92:A:H8	1.55	0.72
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.15	0.72
7:S5:56:ALA:O	7:S5:58:LEU:N	3.72	0.72
36:1:3155:U:H3'	36:1:3156:U:H4'	1.72	0.72
34:SR:169:ILE:HG13	34:SR:181:TRP:HB2	1.72	0.72
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.70	0.72
36:1:1740:U:H1'	36:1:1741:A:H2	1.55	0.72
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	1.90	0.71
46:L9:9:GLN:HG2	46:L9:54:LYS:HG2	3.97	0.71
1:2:1542:G:H22	1:2:1568:C:H1'	1.55	0.71
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.71	0.71
36:1:300:G:O6	86:1:4145:OHX:N1	2.23	0.71
72:O6:86:LYS:HD2	72:O6:90:MET:HE1	4.25	0.71
72:O6:63:ASN:O	72:O6:65:GLY:N	4.86	0.71
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	4.18	0.71
1:2:326:G:OP1	13:C1:57:LYS:NZ	2.23	0.71
21:C9:118:PRO:O	21:C9:120:GLY:N	2.88	0.71
36:1:1243:G:N2	36:1:1244:A:N7	2.37	0.71
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	1.72	0.71
86:1:4074:OHX:N1	72:O6:28:TYR:O	2.22	0.71
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.27	0.71
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.71	0.71
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.72	0.71
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.24	0.71
1:6:1699:G:N1	1:6:1701:A:H5''	2.06	0.71
36:1:3165:A:H61	36:1:3285:C:H42	1.37	0.71
63:N7:102:GLU:OE1	63:N7:103:GLN:NE2	5.99	0.71
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.98	0.71
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	1.73	0.71
31:D9:32:ARG:HG2	31:D9:32:ARG:HH11	1.88	0.71
1:2:176:C:OP1	86:2:2076:OHX:N3	2.24	0.71
1:6:491:C:H42	1:6:497:G:H21	1.36	0.71
26:D4:14:SER:HA	26:D4:21:LYS:HG3	1.72	0.71
42:L5:23:ARG:NH2	36:5:2703:A:OP2	283.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:110:PRO:O	52:M6:112:TYR:N	2.91	0.71
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.23	0.71
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	6.14	0.71
61:N5:58:ASP:OD1	71:O5:25:LYS:NZ	2.22	0.71
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.24	0.71
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	5.95	0.71
34:SR:161:LYS:HB3	34:SR:164:ASP:HB3	1.72	0.71
1:2:827:C:H2'	1:2:828:U:H6	1.55	0.71
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.70	0.71
3:S1:144:ARG:HB3	3:S1:206:PRO:HB3	1.71	0.71
1:2:656:G:O2'	1:2:657:U:O4'	2.08	0.71
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.92	0.71
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.80	0.71
39:L2:57:PRO:HD2	39:L2:170:ALA:HB3	1.73	0.71
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	2.73	0.71
46:L9:70:THR:HB	36:5:3112:G:O2'	329.86	0.71
1:6:230:C:H42	1:6:235:G:H1	1.39	0.71
1:2:868:G:H1	1:2:960:U:H3	1.39	0.71
36:1:2808:A:O2'	36:1:2969:A:OP1	2.09	0.71
36:5:1772:U:H5''	36:5:1773:C:H5'	1.72	0.71
62:N6:35:LEU:HD12	62:N6:39:LEU:HB3	3.60	0.71
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.79	0.71
39:L2:193:ARG:NH2	36:5:2181:C:OP1	198.03	0.71
36:5:2568:C:N4	36:5:2574:G:O6	2.23	0.71
71:O5:83:LYS:HA	38:8:38:U:H5	65.61	0.71
36:5:1878:G:OP1	86:5:3959:OHX:N5	2.23	0.71
36:1:1420:C:OP2	41:L4:193:LYS:NZ	2.23	0.71
36:1:1940:G:H21	36:1:3362:A:H8	1.36	0.71
1:2:542:A:N1	32:E0:28:LYS:NZ	2.32	0.71
51:M5:149:ASN:OD1	86:M5:303:OHX:N2	2.24	0.71
36:5:1249:G:H2'	36:5:1250:G:H8	1.56	0.71
38:4:87:G:OP2	71:O5:5:LYS:NZ	2.24	0.71
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.41	0.71
36:1:1734:G:N7	86:1:3909:OHX:N5	2.39	0.71
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.71	0.70
36:1:419:G:N7	86:4:224:OHX:N6	2.39	0.70
20:C8:25:ASN:HB2	27:D5:40:VAL:HG11	1.73	0.70
1:6:914:G:H8	1:6:914:G:OP2	1.74	0.70
1:2:237:C:H5''	1:2:238:U:H5'	1.73	0.70
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.73	0.70
1:6:991:G:OP2	86:6:2173:OHX:N2	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:97:LYS:NZ	1:6:1253:U:O4	440.63	0.70
36:5:2897:A:H2'	36:5:2899:C:H5'	1.72	0.70
1:2:820:U:H2'	1:2:821:U:H4'	1.73	0.70
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.35	0.70
1:6:1025:A:HO2'	1:6:1773:C:HO2'	1.39	0.70
36:1:1238:C:N4	36:1:1245:A:OP2	2.24	0.70
29:D7:34:ASP:HB3	29:D7:43:ILE:HD12	1.73	0.70
36:1:618:C:H5'	53:M7:169:THR:HG22	1.73	0.70
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	2.22	0.70
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.98	0.70
49:M3:75:PHE:O	49:M3:79:GLU:HB2	1.92	0.70
36:1:1095:U:H4'	36:1:1096:U:H5''	1.71	0.70
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.89	0.70
40:L3:183:LEU:O	40:L3:191:LYS:NZ	2.24	0.70
1:2:1203:A:OP2	86:2:2113:OHX:N5	2.24	0.70
36:5:2128:C:OP1	86:5:4093:OHX:N3	2.24	0.70
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.24	0.70
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.26	0.70
36:5:3065:G:O6	86:5:4107:OHX:N6	2.24	0.70
36:1:2233:A:OP2	86:1:4038:OHX:N5	2.25	0.70
3:S1:144:ARG:NH2	3:S1:207:LEU:O	3.95	0.70
1:2:565:C:O2	86:2:2042:OHX:N5	2.24	0.70
34:SR:267:PRO:HD2	34:SR:269:TYR:HE1	2.96	0.70
1:6:1202:A:OP1	86:6:2131:OHX:N2	2.24	0.70
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.73	0.70
36:1:299:G:N7	86:1:4074:OHX:N2	2.39	0.70
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.72	0.70
36:1:1233:G:H1	36:1:1255:C:H42	1.37	0.70
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	4.76	0.70
45:L8:86:THR:O	45:L8:90:THR:OG1	3.46	0.70
54:M8:64:VAL:HG11	54:M8:113:LYS:HD2	1.73	0.70
1:2:623:A:OP1	86:2:2160:OHX:N1	2.25	0.70
1:2:1445:G:N2	33:E1:90:LYS:O	2.23	0.70
1:2:320:U:H3'	1:2:321:C:H5''	1.74	0.70
53:M7:67:ILE:HD11	36:5:1447:G:H3'	165.52	0.70
36:1:2794:G:N7	86:1:3928:OHX:N2	2.39	0.70
1:6:1395:G:O6	86:6:2089:OHX:N3	2.25	0.70
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.56	0.70
71:O5:89:ARG:HD3	38:8:38:U:C4	67.52	0.70
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.73	0.70
5:S3:60:GLY:HA3	5:S3:65:ARG:HB3	4.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:77:THR:HG1	35:SM:79:SER:HG	1.37	0.70
46:L9:50:ASN:ND2	50:M4:4:ASP:OD1	6.67	0.70
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.57	0.70
1:2:1720:G:O6	86:2:2085:OHX:N5	2.24	0.70
3:S1:112:SER:O	3:S1:114:VAL:N	2.25	0.70
1:6:1533:C:H4'	1:6:1539:G:N1	2.07	0.70
69:O3:86:ARG:HH12	36:5:498:A:H5'	216.04	0.70
36:5:2580:A:O2'	86:5:4132:OHX:N1	2.24	0.70
1:6:1359:C:N4	1:6:1364:G:O6	2.20	0.70
66:O0:103:THR:OG1	66:O0:104:LEU:N	2.22	0.70
69:O3:65:ARG:NH1	36:5:431:U:OP1	208.97	0.70
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.29	0.70
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	1.74	0.70
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.69	0.70
1:2:732:G:O2'	1:2:733:A:O4'	2.09	0.70
1:2:144:U:HO2'	1:2:145:A:H8	1.40	0.70
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.48	0.70
36:5:419:G:N7	86:8:213:OHX:N3	2.40	0.70
39:L2:241:ARG:HG2	36:5:2155:G:OP1	221.27	0.70
54:M8:81:VAL:HG13	54:M8:101:VAL:HG13	1.74	0.70
36:5:739:G:O6	86:5:3968:OHX:N6	2.25	0.70
55:M9:130:ASN:ND2	55:M9:130:ASN:O	5.95	0.70
49:M3:59:ARG:NH1	49:M3:66:ASN:O	2.75	0.70
36:1:3134:A:OP1	86:1:3895:OHX:N4	2.25	0.70
7:S5:187:ILE:H	7:S5:187:ILE:HD12	1.95	0.70
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.73	0.70
36:1:2588:U:OP1	45:L8:48:ARG:NH2	2.22	0.70
71:O5:38:ARG:HG3	71:O5:39:PRO:HD2	2.22	0.70
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.25	0.69
40:L3:3:HIS:O	40:L3:5:LYS:N	2.24	0.69
36:5:1898:G:OP2	86:5:3948:OHX:N5	2.24	0.69
36:1:3087:A:OP1	86:1:4176:OHX:N5	2.25	0.69
36:1:1854:C:OP2	86:1:4027:OHX:N5	2.24	0.69
36:1:1798:A:H2'	36:1:1799:A:C8	2.27	0.69
2:S0:110:TYR:O	2:S0:112:THR:N	2.75	0.69
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.48	0.69
78:Q2:100:LYS:HE3	78:Q2:100:LYS:H	1.55	0.69
1:2:829:A:O2'	1:2:830:U:OP2	2.09	0.69
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.75	0.69
36:1:1108:U:H2'	36:1:1109:U:H6	1.57	0.69
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.48	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:32:HIS:CD2	12:C0:35:ILE:HB	2.27	0.69
36:1:2513:U:HO2'	36:1:2592:G:H1	1.37	0.69
4:S2:71:THR:OG1	4:S2:72:LEU:N	2.24	0.69
42:L5:134:ALA:HB2	42:L5:141:PRO:HD3	2.92	0.69
15:C3:93:LYS:HZ2	15:C3:150:VAL:HG13	4.72	0.69
22:D0:22:ILE:N	22:D0:93:LEU:O	2.25	0.69
1:6:822:U:H2'	1:6:823:G:H5''	1.73	0.69
7:S5:43:PHE:N	7:S5:46:TRP:O	3.09	0.69
39:L2:103:PRO:O	39:L2:105:GLY:N	3.02	0.69
1:2:104:A:OP2	1:2:308:C:N4	2.23	0.69
5:S3:163:PRO:HA	5:S3:166:ASP:HB2	1.74	0.69
36:5:2123:G:N7	86:5:4101:OHX:N1	2.41	0.69
36:1:837:A:OP1	79:Q3:5:THR:OG1	2.08	0.69
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.75	0.69
27:D5:56:THR:H	27:D5:103:ARG:NH1	1.91	0.69
36:1:1171:G:O6	86:1:3952:OHX:N2	2.25	0.69
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.26	0.69
38:4:71:A:O2'	62:N6:52:ARG:NH2	2.25	0.69
15:C3:140:LYS:NZ	36:5:845:G:O6	282.10	0.69
38:4:24:G:OP2	62:N6:13:ARG:HD3	1.93	0.69
15:C3:64:ARG:HG2	15:C3:68:GLY:HA2	1.75	0.69
1:2:1067:C:H2'	1:2:1068:C:H6	1.57	0.69
36:1:3047:U:O2'	40:L3:53:MET:HE1	1.92	0.69
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	4.14	0.69
46:L9:88:TYR:HE2	46:L9:184:LYS:HE2	1.57	0.69
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.93	0.69
36:1:3309:G:O6	40:L3:21:ARG:NH2	2.26	0.69
28:D6:95:ARG:HG2	1:6:1797:A:H5'	343.76	0.69
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.75	0.69
51:M5:179:LYS:NZ	36:5:287:G:OP1	128.16	0.69
64:N8:77:LYS:O	64:N8:79:TRP:N	2.58	0.69
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.93	0.69
36:1:1235:U:H4'	36:1:1236:G:H5'	1.74	0.69
36:5:1470:U:OP1	86:5:3959:OHX:N6	2.25	0.69
36:5:240:U:HO2'	36:5:241:G:H8	1.40	0.69
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.25	0.69
79:Q3:39:CYS:HB3	79:Q3:42:CYS:HB3	4.84	0.69
36:1:2548:C:OP1	39:L2:93:LYS:NZ	2.26	0.69
27:D5:81:ARG:HB2	27:D5:81:ARG:HH11	4.48	0.69
1:6:833:U:O4	86:6:2101:OHX:N2	2.26	0.69
36:5:3299:A:H61	36:5:3315:G:H1	1.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	4.93	0.69
36:1:3259:U:H6	36:1:3259:U:H5'	1.58	0.69
46:L9:22:SER:OG	46:L9:39:LYS:NZ	3.05	0.69
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.88	0.69
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.27	0.69
77:Q1:6:ARG:NH1	1:6:1114:G:OP1	310.08	0.69
52:M6:72:HIS:O	52:M6:74:ARG:NH1	2.25	0.69
36:1:2108:C:H1'	36:1:3344:A:C8	2.28	0.69
4:S2:218:ILE:O	4:S2:221:THR:OG1	3.77	0.69
48:M1:11:ASP:O	48:M1:12:LEU:HB2	1.92	0.69
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.58	0.69
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	2.33	0.69
1:2:452:A:OP2	86:2:2041:OHX:N5	2.25	0.69
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.45	0.68
22:D0:24:ILE:HG12	22:D0:116:VAL:HG22	1.74	0.68
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.74	0.68
11:S9:29:LYS:O	11:S9:33:GLU:HG2	3.86	0.68
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.24	0.68
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.24	0.68
29:D7:50:ALA:O	29:D7:52:THR:N	2.25	0.68
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.58	0.68
40:L3:169:THR:HG21	40:L3:171:LEU:HD12	2.05	0.68
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.25	0.68
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	2.32	0.68
1:2:734:A:H5''	1:2:735:C:OP1	1.93	0.68
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.40	0.68
33:E1:121:CYS:HB3	33:E1:130:VAL:HG11	5.28	0.68
36:1:2528:G:N7	86:1:4178:OHX:N3	2.40	0.68
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.58	0.68
20:C8:143:ARG:NH2	1:6:1462:G:N7	339.38	0.68
35:SM:51:ARG:HB2	35:SM:52:PRO:HD2	1.73	0.68
1:6:25:C:O2	86:6:2108:OHX:N6	2.27	0.68
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	2.24	0.68
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.74	0.68
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.75	0.68
49:M3:123:ILE:HG22	71:O5:118:ILE:HG23	3.55	0.68
34:SR:25:THR:OG1	34:SR:26:SER:N	3.38	0.68
30:D8:36:THR:OG1	30:D8:37:SER:N	2.22	0.68
40:L3:77:THR:HG21	40:L3:328:ILE:HG22	4.15	0.68
79:Q3:39:CYS:CB	79:Q3:42:CYS:HB3	5.33	0.68
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.50	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1213:G:O2'	1:6:1244:A:N6	2.26	0.68
36:5:2895:G:H2'	36:5:2896:A:H5''	1.76	0.68
40:L3:171:LEU:O	86:L3:405:OHX:N6	2.26	0.68
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.36	0.68
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.75	0.68
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.75	0.68
1:2:66:U:C5	8:S6:173:PRO:HG3	2.28	0.68
36:1:2094:C:H2'	36:1:2095:G:H8	1.58	0.68
36:1:13:A:OP2	86:1:4196:OHX:N5	2.26	0.68
36:5:2709:C:H2'	36:5:2710:C:H6	1.59	0.68
1:2:1559:A:H5''	20:C8:135:GLY:HA3	1.76	0.68
8:S6:64:LYS:NZ	8:S6:82:SER:O	3.27	0.68
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.79	0.68
36:1:662:U:OP1	64:N8:8:THR:HG21	1.94	0.68
36:5:1513:G:O2'	36:5:1514:G:H5'	1.94	0.68
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.25	0.68
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.76	0.68
64:N8:96:LYS:O	64:N8:98:THR:N	2.24	0.68
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	1.75	0.68
36:1:1938:U:O4	86:1:3908:OHX:N2	2.27	0.68
1:2:1170:G:H1	1:2:1469:A:H61	1.41	0.68
5:S3:7:LYS:HE3	22:D0:27:THR:HG21	2.52	0.68
48:M1:171:VAL:HG13	48:M1:172:LEU:H	1.57	0.68
1:2:1291:G:H8	1:2:1291:G:O5'	1.76	0.68
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	1.74	0.68
36:5:1110:U:H2'	36:5:1111:U:C6	2.28	0.68
36:1:1878:G:OP1	86:1:3921:OHX:N4	2.27	0.68
36:1:2771:U:O2'	36:1:2772:C:O4'	2.10	0.68
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.25	0.68
36:5:2169:G:O6	86:5:3956:OHX:N5	2.26	0.68
1:6:1564:U:H2'	1:6:1565:C:C6	2.29	0.68
62:N6:112:ASP:HB3	62:N6:115:ARG:HB2	4.99	0.68
49:M3:165:SER:O	49:M3:167:PHE:N	2.27	0.68
47:M0:154:ARG:NH1	36:5:2838:A:OP1	327.23	0.68
36:5:1804:A:H2'	36:5:1805:C:C6	2.28	0.68
36:1:2677:G:H2'	36:1:2679:A:H2	1.58	0.68
86:1:3963:OHX:N1	38:4:31:G:OP2	2.25	0.68
1:6:489:C:O2'	1:6:490:C:O4'	2.12	0.68
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.59	0.68
1:2:1228:G:H1	14:C2:67:THR:HB	1.59	0.68
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2616:C:C2'	36:1:2617:U:H5'	2.24	0.68
1:6:1670:G:N7	86:6:2193:OHX:N4	2.41	0.68
1:2:1039:A:O2'	1:2:1040:G:OP2	2.12	0.68
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	2.39	0.68
79:Q3:46:THR:HB	79:Q3:58:SER:HB3	2.96	0.68
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.85	0.68
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.76	0.68
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.49	0.68
36:5:158:G:N2	36:5:264:G:H1'	2.09	0.68
41:L4:93:MET:HE3	41:L4:93:MET:H	1.59	0.68
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.27	0.68
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.25	0.68
2:S0:61:ALA:HA	2:S0:181:VAL:HG12	2.03	0.68
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.27	0.67
36:1:3174:A:H2'	36:1:3175:U:H5'	1.75	0.67
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.75	0.67
5:S3:157:LEU:HD22	5:S3:187:LYS:HD3	1.74	0.67
4:S2:237:VAL:O	4:S2:238:SER:HB3	4.68	0.67
8:S6:7:TYR:HB2	8:S6:113:ILE:HD12	2.11	0.67
44:L7:232:ARG:HG3	44:L7:235:PHE:HB2	3.01	0.67
1:6:1160:A:H2'	1:6:1161:C:C6	2.29	0.67
51:M5:183:THR:OG1	51:M5:183:THR:O	2.80	0.67
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	3.99	0.67
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	1.77	0.67
8:S6:7:TYR:HB3	8:S6:12:SER:HB2	1.75	0.67
68:O2:105:ARG:NH2	36:5:1412:G:OP1	147.34	0.67
56:N0:77:VAL:HG13	56:N0:126:VAL:HG22	3.48	0.67
25:D3:130:VAL:O	25:D3:131:SER:HB3	1.94	0.67
1:6:1699:G:H22	1:6:1701:A:H3'	1.59	0.67
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.28	0.67
1:2:740:A:H2'	1:2:741:C:H5''	1.75	0.67
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.85	0.67
78:Q2:77:CYS:SG	78:Q2:79:THR:HG22	2.35	0.67
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.27	0.67
79:Q3:4:ARG:NH2	36:5:838:G:O6	237.22	0.67
66:O0:9:SER:OG	66:O0:10:ILE:N	2.57	0.67
1:2:1783:C:H2'	1:2:1784:C:H6	1.57	0.67
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.27	0.67
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.22	0.67
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.88	0.67
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	9.62	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.75	0.67
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.26	0.67
10:S8:50:GLY:HA2	1:6:397:A:O3'	315.37	0.67
42:L5:177:GLU:O	42:L5:179:ARG:N	2.27	0.67
36:1:2705:A:OP2	86:1:3864:OHX:N1	2.28	0.67
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	4.39	0.67
41:L4:145:ILE:O	86:L4:403:OHX:N5	2.27	0.67
78:Q2:17:CYS:CB	78:Q2:77:CYS:SG	3.09	0.67
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.77	0.67
1:2:1600:A:H4'	1:2:1601:G:OP1	1.92	0.67
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	6.59	0.67
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.24	0.67
55:M9:128:LYS:NZ	36:5:1721:U:O4	232.69	0.67
30:D8:31:GLU:O	30:D8:33:LEU:N	3.39	0.67
39:L2:137:ILE:HG12	39:L2:147:ARG:HG3	4.53	0.67
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	6.72	0.67
45:L8:90:THR:HA	45:L8:214:LEU:HD21	2.08	0.67
5:S3:133:GLY:HA3	5:S3:156:PHE:H	2.78	0.67
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.76	0.67
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.69	0.67
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	1.76	0.67
36:5:2872:A:H1'	88:5:4256:ZBA:O15	1.94	0.67
46:L9:77:ASN:HA	46:L9:80:THR:HG22	4.48	0.67
62:N6:91:ASN:O	62:N6:93:ALA:N	3.11	0.67
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.17	0.67
53:M7:64:ASN:O	53:M7:80:LYS:NZ	2.20	0.67
36:5:980:A:H2'	36:5:981:U:C2	2.30	0.67
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.10	0.67
42:L5:34:LYS:O	42:L5:38:THR:HG23	1.94	0.67
51:M5:36:ILE:HG21	51:M5:109:ARG:HG2	1.76	0.67
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.56	0.67
36:1:1222:G:O2'	36:1:1285:G:N1	2.27	0.67
36:5:2255:A:H5'	36:5:2261:G:H22	1.59	0.67
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	2.62	0.67
12:C0:44:LYS:HA	12:C0:47:GLN:HB3	2.31	0.67
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.25	0.67
48:M1:137:ARG:NH1	37:7:28:C:OP1	301.77	0.67
2:S0:184:LEU:O	2:S0:186:GLY:N	3.03	0.67
55:M9:29:THR:O	55:M9:33:ALA:N	3.37	0.67
77:Q1:1:MET:HB2	1:6:1783:C:OP2	310.35	0.67
49:M3:58:VAL:HG13	36:5:75:G:H5''	88.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:976:G:O6	86:6:2080:OHX:N6	2.28	0.67
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.28	0.67
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.29	0.67
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.65	0.67
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	5.07	0.67
13:C1:4:GLU:HG2	13:C1:5:LEU:HG	1.77	0.67
33:E1:82:LYS:O	33:E1:84:VAL:N	4.92	0.67
39:L2:213:GLY:HA2	36:5:2967:A:H5''	205.82	0.67
1:6:987:G:O6	86:6:2120:OHX:N4	2.28	0.67
1:6:1665:U:O4	86:6:2124:OHX:N6	2.28	0.67
36:5:1806:A:OP2	86:5:4028:OHX:N5	2.28	0.67
1:2:1127:G:OP1	77:Q1:11:ARG:NH2	2.27	0.66
36:1:2296:A:OP1	86:1:4142:OHX:N2	2.28	0.66
36:5:1875:G:H2'	36:5:1876:U:H5''	1.77	0.66
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.27	0.66
36:5:1597:C:H2'	36:5:1598:G:C8	2.31	0.66
1:2:542:A:HO2'	1:2:543:C:P	2.18	0.66
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.52	0.66
36:1:1786:G:H2'	36:1:1787:A:C8	2.31	0.66
37:7:91:G:H2'	37:7:92:A:C8	2.30	0.66
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.28	0.66
36:1:3187:A:H5''	50:M4:8:LYS:HE2	1.76	0.66
16:C4:136:ARG:HD2	1:6:1769:U:O2	303.55	0.66
36:5:1586:G:OP1	86:5:3994:OHX:N3	2.28	0.66
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.24	0.66
19:C7:105:GLN:HA	19:C7:108:ASP:HB2	2.27	0.66
36:5:2103:U:H2'	36:5:2104:A:C8	2.30	0.66
25:D3:46:SER:OG	25:D3:78:LYS:NZ	2.96	0.66
36:5:186:U:OP2	86:5:3912:OHX:N4	2.28	0.66
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.76	0.66
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	2.18	0.66
41:L4:233:LEU:HD13	41:L4:238:LEU:HD11	2.36	0.66
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.16	0.66
36:5:2406:C:H2'	36:5:2407:C:C6	2.30	0.66
1:6:486:G:O6	1:6:488:G:N2	2.28	0.66
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.86	0.66
8:S6:134:GLY:HA3	8:S6:158:ILE:HG13	5.39	0.66
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.38	0.66
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.88	0.66
15:C3:119:GLU:HA	15:C3:122:ILE:HD12	1.78	0.66
45:L8:108:ARG:HA	45:L8:111:LYS:HD2	2.67	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.78	0.66
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.30	0.66
2:S0:26:ALA:H	2:S0:149:LEU:HD12	1.61	0.66
17:C5:22:LEU:HD13	17:C5:26:LEU:HD21	1.76	0.66
1:6:895:G:H1	1:6:917:U:H3	1.42	0.66
36:5:2103:U:H2'	36:5:2104:A:H8	1.60	0.66
67:O1:82:GLU:O	67:O1:84:ASP:N	2.29	0.66
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.49	0.66
36:5:990:U:O4	86:5:4187:OHX:N6	2.28	0.66
73:O7:64:MET:HB2	73:O7:68:LYS:HB3	5.15	0.66
36:1:2631:U:OP2	57:N1:4:SER:OG	2.13	0.66
47:M0:207:GLU:HB3	47:M0:211:ARG:HH12	6.60	0.66
32:E0:59:GLY:O	32:E0:61:SER:N	3.90	0.66
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.60	0.66
36:1:3358:U:H2'	36:1:3359:A:O4'	1.96	0.66
20:C8:84:TRP:HA	20:C8:89:GLN:HE22	2.82	0.66
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.18	0.66
56:N0:170:THR:OG1	36:5:3185:U:O2'	305.08	0.66
28:D6:5:ARG:NH2	1:6:1793:G:O2'	335.33	0.66
1:6:151:G:H22	1:6:163:G:N2	1.92	0.66
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	1.83	0.66
36:1:2924:U:O4	86:1:4011:OHX:N1	2.29	0.66
26:D4:38:ASP:OD2	26:D4:52:LYS:NZ	2.89	0.66
36:1:409:A:OP2	86:1:4050:OHX:N5	2.27	0.66
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.96	0.66
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.33	0.66
69:O3:49:ILE:HD11	69:O3:71:VAL:HG23	1.76	0.66
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.95	0.66
36:1:3344:A:H2	36:1:3361:G:H21	1.41	0.66
1:6:1280:C:H2'	1:6:1281:G:C8	2.30	0.66
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.27	0.66
36:1:2120:A:OP2	86:1:4002:OHX:N2	2.29	0.66
10:S8:146:ARG:NH2	1:6:186:C:OP1	276.51	0.66
41:L4:265:GLU:OE1	41:L4:265:GLU:N	2.28	0.66
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.69	0.66
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.81	0.66
15:C3:16:ILE:HD12	15:C3:17:PRO:HD2	5.02	0.66
36:1:2947:G:H4'	36:1:2947:G:OP2	1.96	0.66
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.47	0.66
86:1:3952:OHX:N3	44:L7:217:PRO:O	2.29	0.66
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:29:LEU:HD22	5:S3:58:VAL:HG22	3.13	0.66
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.55	0.66
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.77	0.66
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.27	0.66
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.62	0.66
1:6:407:A:H2'	1:6:408:C:C6	2.31	0.66
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.77	0.66
62:N6:114:ASP:OD1	86:8:223:OHX:N2	22.12	0.66
36:5:1716:U:H5'	36:5:1716:U:H6	1.61	0.66
10:S8:176:SER:HB3	1:6:208:U:H4'	286.93	0.66
1:6:542:A:H2'	1:6:542:A:OP1	1.96	0.65
49:M3:56:PRO:HG3	49:M3:74:GLY:O	1.96	0.65
1:6:868:G:H1	1:6:960:U:H3	1.44	0.65
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.28	0.65
1:2:114:C:H5'	1:2:114:C:H6	1.60	0.65
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.82	0.65
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.61	0.65
47:M0:66:GLU:CD	47:M0:69:ARG:HH21	1.99	0.65
36:1:2989:U:O2'	40:L3:232:ARG:NH2	2.29	0.65
15:C3:67:THR:O	15:C3:69:ASN:N	2.26	0.65
36:1:2592:G:H4'	36:1:2594:C:C2	2.32	0.65
6:S4:37:LYS:HG2	1:6:297:U:H5''	351.73	0.65
36:5:255:A:H2'	36:5:256:G:H8	1.62	0.65
1:2:867:G:O6	86:2:2035:OHX:N2	2.29	0.65
36:1:924:G:OP1	86:1:4138:OHX:N5	2.29	0.65
36:1:425:G:O6	86:1:3869:OHX:N6	2.29	0.65
36:5:3341:U:H5''	36:5:3342:A:OP2	1.96	0.65
36:5:368:G:OP1	86:5:3927:OHX:N4	2.29	0.65
8:S6:187:LYS:NZ	1:6:140:A:OP2	323.70	0.65
62:N6:50:ILE:HD13	62:N6:51:ARG:N	2.65	0.65
36:1:2616:C:H2'	36:1:2617:U:H5'	1.78	0.65
76:Q0:77:ILE:HD12	76:Q0:78:ILE:H	3.89	0.65
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.65	0.65
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.30	0.65
25:D3:141:GLU:OE1	25:D3:144:ARG:NH1	13.72	0.65
36:5:955:U:H2'	36:5:956:U:C6	2.31	0.65
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.47	0.65
36:1:1308:A:C8	36:1:1308:A:OP2	2.50	0.65
47:M0:17:TYR:H	47:M0:95:HIS:CD2	2.15	0.65
1:2:197:A:H61	10:S8:138:ASN:ND2	1.93	0.65
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:54:HIS:CD2	36:5:2724:U:H4'	229.36	0.65
1:6:1166:A:H2'	1:6:1167:G:O4'	1.96	0.65
1:2:782:U:H4'	1:2:783:G:OP2	1.96	0.65
53:M7:172:GLN:OE1	69:O3:60:ARG:NH1	2.30	0.65
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.25	0.65
1:2:1355:C:O2	1:2:1368:G:N2	2.27	0.65
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.31	0.65
36:1:73:C:C2	49:M3:59:ARG:HD3	2.31	0.65
36:1:75:G:H5''	49:M3:58:VAL:HG13	1.78	0.65
36:5:255:A:H2'	36:5:256:G:C8	2.32	0.65
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.31	0.65
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.16	0.65
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.46	0.65
36:1:562:C:H2'	36:1:563:U:H6	1.59	0.65
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.62	0.65
26:D4:34:ASN:ND2	1:6:521:A:N3	427.44	0.65
1:2:702:G:O6	1:2:737:A:N6	2.29	0.65
2:S0:188:LEU:HD12	2:S0:189:VAL:HG12	1.78	0.65
1:2:197:A:H61	10:S8:138:ASN:HD22	1.45	0.65
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.60	0.65
36:1:1117:G:OP1	65:N9:4:SER:HB2	1.97	0.65
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	4.06	0.65
1:2:17:C:H2'	1:2:18:C:C6	2.32	0.65
1:2:936:G:N7	28:D6:15:ARG:NH1	2.43	0.65
1:6:1727:G:H2'	1:6:1728:A:C8	2.32	0.65
36:5:2953:U:H2'	36:5:2954:U:H2'	1.78	0.65
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.89	0.65
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.78	0.65
28:D6:26:CYS:HB2	28:D6:28:LYS:H	3.90	0.65
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	6.04	0.65
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.79	0.65
36:5:979:U:H1'	36:5:980:A:C4	2.32	0.65
64:N8:125:VAL:HG21	64:N8:138:ILE:HD13	1.77	0.65
1:2:301:A:OP2	86:2:2067:OHX:N2	2.29	0.65
21:C9:28:LEU:HD12	21:C9:29:GLU:H	1.62	0.65
8:S6:163:THR:HA	8:S6:168:THR:HA	1.79	0.65
36:5:314:U:O4	86:5:4194:OHX:N5	2.30	0.65
42:L5:289:LYS:HD2	47:M0:206:LEU:HD23	1.77	0.65
70:O4:56:THR:HA	70:O4:62:TYR:OH	1.97	0.65
36:5:1066:G:OP1	86:5:4231:OHX:N2	2.29	0.65
39:L2:36:GLU:OE1	39:L2:163:ARG:NH1	3.19	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:126:U:OP1	51:M5:144:ARG:NH1	2.27	0.65
36:1:2534:G:H2'	36:1:2535:A:H8	1.62	0.65
79:Q3:73:THR:HB	79:Q3:76:ALA:HB3	2.46	0.65
58:N2:38:ILE:HD12	58:N2:56:VAL:HB	1.77	0.65
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.24	0.65
36:1:999:G:N3	36:1:1002:A:N6	2.44	0.65
36:1:1752:A:OP2	86:1:4041:OHX:N3	2.30	0.65
8:S6:177:ARG:NH2	1:6:143:G:N7	311.91	0.65
36:5:2573:G:N7	86:5:4197:OHX:N6	2.45	0.65
46:L9:22:SER:OG	46:L9:23:ARG:N	2.30	0.65
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.30	0.65
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.15	0.65
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.29	0.65
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.78	0.65
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.30	0.65
39:L2:23:ARG:O	39:L2:25:GLY:N	2.29	0.65
49:M3:180:ARG:HD2	72:O6:11:LEU:HD21	1.78	0.65
38:8:79:A:H3'	38:8:80:A:C8	2.32	0.65
36:1:2642:A:O2'	65:N9:6:ASN:ND2	2.29	0.65
1:6:454:U:H5''	1:6:455:C:H5	1.62	0.65
72:O6:81:THR:HA	72:O6:84:LYS:HE3	5.25	0.65
36:5:3358:U:H2'	36:5:3359:A:H8	1.62	0.65
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	2.26	0.65
1:6:990:C:OP2	86:6:2121:OHX:N2	2.30	0.64
36:1:562:C:H2'	36:1:563:U:C6	2.33	0.64
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.16	0.64
2:S0:62:ARG:HH12	23:D1:78:LEU:HD12	4.51	0.64
41:L4:36:HIS:O	41:L4:40:THR:HG23	1.97	0.64
9:S7:173:TYR:CD1	9:S7:181:ILE:HD11	4.67	0.64
42:L5:150:LEU:HD12	48:M1:143:ARG:HG3	1.93	0.64
66:O0:95:ALA:HB2	66:O0:101:LEU:HD23	2.84	0.64
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.30	0.64
36:1:1815:U:O2'	36:1:1816:A:OP2	2.15	0.64
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.31	0.64
10:S8:11:ARG:NH1	10:S8:15:GLY:O	3.02	0.64
29:D7:37:CYS:O	29:D7:39:GLY:N	2.32	0.64
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.31	0.64
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	3.66	0.64
57:N1:40:VAL:HB	57:N1:96:ILE:HD12	3.31	0.64
40:L3:171:LEU:HD21	40:L3:333:LYS:HG2	1.78	0.64
1:2:993:A:OP1	1:2:1777:G:N2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:296:THR:HG21	40:L3:357:LYS:O	2.19	0.64
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.78	0.64
29:D7:49:HIS:CE1	29:D7:70:LYS:HG2	2.54	0.64
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	2.22	0.64
1:6:1150:G:O6	86:6:2115:OHX:N5	2.30	0.64
36:1:223:U:O4	86:1:4190:OHX:N5	2.30	0.64
36:1:2948:C:O2'	40:L3:242:THR:HG22	1.96	0.64
40:L3:166:ILE:O	40:L3:169:THR:HG22	3.18	0.64
36:5:3242:G:H5'	36:5:3245:A:H8	1.62	0.64
13:C1:80:MET:HB2	13:C1:83:THR:HG23	1.78	0.64
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.65	0.64
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	6.43	0.64
1:6:1017:U:H2'	1:6:1018:U:C6	2.32	0.64
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.73	0.64
1:2:25:C:O2	86:2:2087:OHX:N1	2.30	0.64
36:5:2248:C:OP2	86:5:3980:OHX:N6	2.31	0.64
2:S0:185:ARG:HG3	23:D1:47:PRO:HD3	1.80	0.64
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.09	0.64
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.31	0.64
36:1:612:U:H2'	36:1:613:G:C8	2.31	0.64
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	3.07	0.64
16:C4:81:VAL:HG22	16:C4:115:ILE:HG23	3.65	0.64
1:6:1714:A:H2'	1:6:1715:G:O4'	1.97	0.64
36:1:600:G:N7	86:1:4090:OHX:N1	2.46	0.64
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	1.77	0.64
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.26	0.64
40:L3:2:SER:O	40:L3:3:HIS:HB3	1.98	0.64
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.30	0.64
37:3:28:C:OP2	42:L5:57:ASN:ND2	2.23	0.64
34:SR:19:TRP:HB2	34:SR:38:ARG:HD2	3.46	0.64
1:2:623:A:OP1	86:2:2160:OHX:N2	2.31	0.64
36:1:1688:U:H2'	36:1:1689:U:C6	2.32	0.64
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.80	0.64
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.79	0.64
1:2:61:A:H8	1:2:269:G:HO2'	1.40	0.64
37:3:112:G:OP2	86:3:220:OHX:N1	2.31	0.64
3:S1:157:GLN:O	3:S1:159:SER:N	2.31	0.64
36:5:129:U:H2'	36:5:130:A:C8	2.33	0.64
47:M0:3:ARG:NH2	36:5:2854:U:OP2	291.06	0.64
1:6:1595:U:N3	1:6:1600:A:H2	1.95	0.64
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	291.57	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	1.78	0.64
86:5:3945:OHX:N5	86:5:4237:OHX:N6	2.45	0.64
19:C7:27:ASP:O	19:C7:31:ASN:ND2	4.06	0.64
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.50	0.64
1:2:780:A:H8	26:D4:8:ARG:HB3	1.63	0.64
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.30	0.64
1:2:214:G:O2'	1:2:243:G:O6	2.16	0.64
36:5:3295:A:H2'	36:5:3296:A:C8	2.32	0.64
72:O6:25:LYS:HB3	36:5:156:G:OP2	87.53	0.64
65:N9:24:PRO:O	65:N9:25:LYS:HB2	1.96	0.64
1:2:1796:C:H5	28:D6:6:ALA:H	1.45	0.64
1:2:1597:A:OP1	31:D9:19:ARG:NH2	2.31	0.64
49:M3:163:GLY:HA2	64:N8:139:ARG:HH12	3.52	0.64
1:6:454:U:H5''	1:6:455:C:C5	2.33	0.64
70:O4:46:ASP:OD2	70:O4:88:ARG:NH2	2.56	0.64
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	2.04	0.64
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.24	0.64
1:6:1508:U:O4	86:6:2054:OHX:N4	2.31	0.64
36:5:1345:G:N7	86:5:4070:OHX:N5	2.46	0.64
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.62	0.64
1:2:1592:A:H2'	1:2:1593:A:H8	1.63	0.64
39:L2:116:VAL:HG22	39:L2:126:LEU:HB2	1.78	0.64
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.80	0.64
45:L8:27:THR:O	45:L8:28:HIS:ND1	2.67	0.64
63:N7:3:LYS:HD3	66:O0:36:GLN:HA	2.92	0.64
50:M4:36:VAL:HB	50:M4:45:LEU:HD23	1.80	0.64
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.30	0.64
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.79	0.64
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.78	0.64
71:O5:83:LYS:HA	38:8:38:U:C5	66.46	0.64
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.95	0.64
36:1:2894:C:OP1	46:L9:168:ARG:NH2	2.31	0.64
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.32	0.64
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.80	0.64
2:S0:79:ARG:NH1	2:S0:164:ASN:O	3.29	0.64
37:7:3:U:H2'	37:7:4:U:C6	2.33	0.64
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.62	0.64
28:D6:84:VAL:O	28:D6:86:VAL:N	2.27	0.64
1:2:1564:U:H2'	1:2:1565:C:C6	2.33	0.64
36:1:2573:G:O6	86:1:3991:OHX:N3	2.31	0.64
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.26	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:18:VAL:HG22	48:M1:70:THR:HB	1.78	0.64
36:5:3035:A:OP2	86:5:4055:OHX:N5	2.31	0.64
36:5:2425:G:H2'	36:5:2426:U:O4'	1.98	0.64
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.95	0.64
40:L3:139:GLN:O	40:L3:141:GLY:N	2.31	0.64
36:1:1637:A:N3	36:1:1709:C:O2'	2.30	0.64
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.30	0.64
1:2:1370:U:O4	86:2:2123:OHX:N1	2.31	0.64
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.24	0.63
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.62	0.63
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.19	0.63
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	4.00	0.63
56:N0:23:LYS:O	57:N1:146:ASN:ND2	2.28	0.63
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.80	0.63
45:L8:221:ASN:HA	45:L8:225:LYS:HE3	2.56	0.63
20:C8:145:ARG:HD3	35:SM:68:ARG:NE	4.23	0.63
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.97	0.63
66:O0:24:THR:HG22	66:O0:91:SER:HB3	1.79	0.63
20:C8:135:GLY:HA3	1:6:1559:A:H5''	366.81	0.63
41:L4:326:ARG:O	44:L7:41:ARG:NH2	4.12	0.63
36:1:1481:A:N1	70:O4:2:ALA:HA	2.13	0.63
1:2:9:U:O4	86:2:2158:OHX:N6	2.31	0.63
30:D8:19:THR:OG1	30:D8:27:GLN:NE2	2.31	0.63
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.79	0.63
54:M8:40:THR:OG1	54:M8:40:THR:O	2.17	0.63
36:1:1466:G:O6	86:1:3873:OHX:N4	2.32	0.63
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.16	0.63
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.98	0.63
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.32	0.63
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	1.81	0.63
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.64	0.63
36:1:353:G:N7	73:O7:55:ARG:HD3	2.14	0.63
36:1:1580:A:OP1	39:L2:68:LYS:NZ	2.31	0.63
36:5:2444:C:H42	36:5:2503:G:H1	1.45	0.63
7:S5:35:GLN:O	7:S5:37:GLN:N	3.33	0.63
22:D0:72:ASN:HD21	1:6:1429:G:H21	386.01	0.63
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	2.27	0.63
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.53	0.63
36:1:2897:A:H2'	36:1:2899:C:H5''	1.80	0.63
26:D4:29:HIS:O	26:D4:31:ASN:N	3.55	0.63
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:31:VAL:O	18:C6:33:GLY:N	2.32	0.63
1:2:1487:A:H2'	1:2:1488:G:C8	2.33	0.63
49:M3:35:ARG:NH1	36:5:685:G:OP1	81.96	0.63
17:C5:85:ILE:HG22	17:C5:112:LEU:HA	1.80	0.63
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	2.37	0.63
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	2.94	0.63
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.81	0.63
63:N7:51:LEU:HB2	63:N7:65:ARG:NH1	2.12	0.63
9:S7:131:PHE:HB3	9:S7:132:PRO:HD3	1.81	0.63
36:5:1239:C:H3'	36:5:1240:A:H8	1.64	0.63
36:1:2679:A:HO2'	48:M1:52:TYR:HH	1.47	0.63
7:S5:97:LEU:O	7:S5:99:MET:N	2.52	0.63
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.78	0.63
36:5:300:G:O6	86:5:4194:OHX:N2	2.31	0.63
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.88	0.63
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	7.63	0.63
11:S9:167:ALA:O	11:S9:168:ARG:HB2	1.98	0.63
1:2:992:A:H2'	1:2:993:A:H5'	1.79	0.63
44:L7:180:SER:H	44:L7:183:ASP:HB2	1.63	0.63
25:D3:56:LYS:NZ	25:D3:97:ASP:H	1.96	0.63
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.31	0.63
36:5:1239:C:H42	36:5:1249:G:H1	1.46	0.63
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.62	0.63
39:L2:62:VAL:HA	39:L2:73:GLU:HA	2.20	0.63
39:L2:59:ALA:N	39:L2:76:PHE:O	2.30	0.63
36:5:1299:U:H2'	36:5:1300:G:C8	2.34	0.63
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	1.99	0.63
1:2:901:G:N2	16:C4:54:GLU:OE1	2.32	0.63
1:2:1738:U:H2'	1:2:1739:C:C6	2.34	0.63
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.14	0.63
1:6:639:U:H1'	1:6:640:U:C5	2.33	0.63
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.55	0.63
1:6:235:G:H2'	1:6:236:A:H8	1.64	0.63
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.81	0.63
62:N6:120:GLN:HE22	62:N6:126:LEU:HA	8.25	0.63
5:S3:142:LEU:O	5:S3:144:ALA:N	2.30	0.63
36:1:422:A:C2	36:1:2363:A:H4'	2.33	0.63
34:SR:240:VAL:HG22	34:SR:256:THR:HG22	1.87	0.63
36:1:2407:C:H2'	36:1:2408:U:H6	1.63	0.63
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	1.80	0.63
36:5:1597:C:H2'	36:5:1598:G:H8	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.29	0.63
7:S5:42:LEU:HB2	7:S5:46:TRP:O	1.98	0.63
34:SR:44:SER:OG	34:SR:59:ARG:HB2	1.99	0.63
5:S3:132:LYS:HE2	5:S3:192:PRO:HD2	3.95	0.63
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.61	0.63
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.47	0.63
51:M5:190:THR:O	51:M5:194:GLN:HG2	1.99	0.63
1:2:142:G:N2	1:2:173:A:H2	1.95	0.63
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	1.80	0.63
42:L5:40:HIS:CD2	57:N1:69:LYS:HA	2.56	0.63
1:6:913:G:H3'	1:6:914:G:H5'	1.79	0.63
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.80	0.63
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.80	0.63
1:2:1592:A:H2'	1:2:1593:A:C8	2.33	0.63
73:O7:52:LYS:HA	73:O7:55:ARG:HD2	1.81	0.63
36:1:121:A:C6	45:L8:129:PRO:HG3	2.34	0.63
79:Q3:36:ARG:NH2	79:Q3:45:LYS:O	2.32	0.63
37:7:86:U:O2	86:7:220:OHX:N4	2.32	0.63
1:2:591:A:H2'	1:2:592:A:C8	2.34	0.63
1:2:312:A:H4'	1:2:313:U:H5''	1.80	0.63
3:S1:154:SER:OG	3:S1:154:SER:O	2.17	0.63
17:C5:29:SER:HB2	17:C5:31:GLU:HB3	5.76	0.63
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.80	0.63
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	3.78	0.62
67:O1:19:ARG:NH1	36:5:3324:C:OP1	174.62	0.62
47:M0:17:TYR:H	47:M0:95:HIS:HD2	1.46	0.62
1:2:190:C:H42	1:2:195:G:H1	1.45	0.62
36:5:437:G:H22	36:5:622:A:H61	1.47	0.62
36:5:847:A:H2'	36:5:848:A:C8	2.34	0.62
40:L3:230:THR:HA	40:L3:235:THR:HG22	1.81	0.62
1:6:915:A:OP1	86:6:2071:OHX:N6	2.32	0.62
14:C2:119:SER:OG	1:6:1228:G:OP1	465.18	0.62
36:1:3376:A:OP2	86:1:3900:OHX:N5	2.31	0.62
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.30	0.62
36:5:1717:U:H2'	36:5:1718:G:C8	2.34	0.62
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	3.30	0.62
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.22	0.62
36:1:743:C:N3	54:M8:141:ARG:NH1	2.48	0.62
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	2.99	0.62
32:E0:17:GLN:OE1	1:6:563:U:H4'	383.35	0.62
37:3:4:U:H2'	37:3:5:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1429:G:C5	41:L4:99:MET:HE1	2.34	0.62
1:2:827:C:H2'	1:2:828:U:C6	2.34	0.62
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.29	0.62
51:M5:125:SER:HB3	36:5:2433:U:H1'	161.46	0.62
76:Q0:102:ARG:NE	36:5:2896:A:OP1	321.53	0.62
26:D4:10:ARG:HB2	26:D4:24:VAL:HB	2.60	0.62
16:C4:54:GLU:OE2	1:6:901:G:N2	281.20	0.62
42:L5:158:ARG:HB2	37:7:46:A:OP1	279.64	0.62
36:5:1560:G:O2'	36:5:1561:G:OP1	2.17	0.62
59:N3:94:TYR:CE2	60:N4:21:PHE:HB2	2.71	0.62
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	1.99	0.62
1:6:301:A:OP2	86:6:2093:OHX:N1	2.32	0.62
1:2:66:U:H5'	8:S6:173:PRO:HA	1.80	0.62
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	1.85	0.62
36:1:2307:G:O2'	36:1:2310:U:OP2	2.17	0.62
56:N0:115:ARG:NH2	36:5:1320:C:O2	289.32	0.62
1:2:1760:G:H2'	1:2:1761:U:H5'	1.82	0.62
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.30	0.62
51:M5:91:GLU:OE2	86:5:3924:OHX:N4	165.38	0.62
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.34	0.62
53:M7:178:ALA:HA	53:M7:181:ARG:HH21	1.64	0.62
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.29	0.62
2:S0:70:PRO:O	2:S0:95:ALA:N	2.33	0.62
36:5:2261:G:O2'	36:5:2263:C:N4	2.31	0.62
71:O5:86:ARG:O	71:O5:90:ARG:HG2	1.99	0.62
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.00	0.62
40:L3:47:LEU:HD23	40:L3:164:THR:HG23	2.32	0.62
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.50	0.62
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.81	0.62
36:5:1794:G:O2'	36:5:1795:U:H5'	1.99	0.62
1:2:10:G:H1'	4:S2:89:GLN:HE22	1.64	0.62
1:6:705:U:HO2'	1:6:706:A:H8	1.47	0.62
36:1:3013:U:H2'	36:1:3014:U:C6	2.35	0.62
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.23	0.62
36:1:1495:U:H5	36:1:1835:A:N1	1.97	0.62
36:5:2309:A:H4'	86:5:4201:OHX:N4	2.14	0.62
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	5.32	0.62
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.99	0.62
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.80	0.62
36:1:1245:A:H3'	36:1:1246:G:H5''	1.80	0.62
57:N1:11:THR:HG22	57:N1:14:MET:HE1	4.04	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:437:G:H2'	36:1:438:A:O4'	1.98	0.62
35:SM:99:LYS:O	35:SM:100:THR:HB	2.00	0.62
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.33	0.62
36:1:2767:U:OP2	86:1:4127:OHX:N2	2.33	0.62
36:1:2371:G:O6	86:1:3867:OHX:N3	2.33	0.62
48:M1:73:GLY:O	48:M1:75:LYS:N	2.33	0.62
27:D5:85:LYS:HG3	27:D5:86:GLU:H	2.48	0.62
42:L5:85:ARG:NH1	42:L5:86:TYR:OH	2.28	0.62
40:L3:296:THR:HB	40:L3:299:ASP:H	1.63	0.62
9:S7:109:VAL:HG13	9:S7:110:GLN:HB2	6.72	0.62
6:S4:137:PRO:HB2	6:S4:150:PRO:HD2	3.00	0.62
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.29	0.62
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.65	0.62
39:L2:80:GLU:N	39:L2:168:VAL:O	2.33	0.62
16:C4:12:GLN:HB3	16:C4:77:THR:HG1	1.64	0.62
36:5:2537:U:O2'	36:5:2538:U:O5'	2.15	0.62
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.31	0.62
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	2.34	0.62
1:2:1761:U:O2'	1:2:1762:A:OP2	2.16	0.62
6:S4:191:ARG:HD3	6:S4:245:LYS:HB3	2.49	0.62
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	2.91	0.62
44:L7:239:LEU:O	44:L7:242:SER:OG	2.14	0.62
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.84	0.62
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.27	0.62
8:S6:148:SER:O	8:S6:151:ASP:HB2	4.09	0.62
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.81	0.62
36:1:1615:C:OP1	86:1:4174:OHX:N3	2.33	0.62
36:5:2970:C:H4'	36:5:2971:A:N1	2.14	0.62
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.31	0.62
60:N4:13:ILE:HG12	60:N4:32:GLN:HB2	3.28	0.62
18:C6:109:PHE:O	18:C6:112:TYR:N	3.14	0.62
36:1:1307:G:OP2	52:M6:59:ARG:NH1	2.33	0.62
48:M1:143:ARG:NH2	37:7:5:G:OP1	292.16	0.62
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.33	0.62
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.23	0.62
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	1.80	0.62
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.15	0.62
36:5:119:U:H4'	36:5:120:G:H3'	1.80	0.62
26:D4:92:VAL:HG21	26:D4:99:LYS:HE3	1.82	0.62
41:L4:138:ARG:HG3	41:L4:244:LEU:O	1.99	0.62
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.33	0.62
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.81	0.62
72:O6:82:ARG:NH2	36:5:271:C:O2	131.39	0.62
48:M1:23:VAL:O	48:M1:25:GLU:N	2.32	0.62
1:2:5:U:H2'	1:2:6:G:H8	1.63	0.62
7:S5:166:ARG:HD3	30:D8:45:LYS:HG2	1.80	0.62
38:8:77:A:H2'	38:8:78:G:O4'	2.00	0.62
54:M8:66:ARG:NH2	36:5:744:A:OP1	167.49	0.62
1:2:1754:A:O2'	86:2:2061:OHX:N5	2.33	0.62
75:O9:45:ARG:NH2	36:5:1841:A:N3	128.80	0.62
1:2:1280:C:H2'	1:2:1281:G:C8	2.35	0.62
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.30	0.62
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	3.55	0.62
1:2:158:U:O2'	1:2:159:U:H3'	2.00	0.62
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.01	0.62
1:2:1291:G:N2	1:2:1324:G:H22	1.96	0.62
53:M7:108:ASP:N	53:M7:152:GLU:OE2	3.01	0.62
1:2:1677:C:OP1	10:S8:42:ARG:NH1	2.33	0.62
50:M4:131:VAL:HG13	52:M6:181:ALA:HB1	1.80	0.62
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.82	0.62
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.81	0.62
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.95	0.62
6:S4:52:LEU:HB3	6:S4:54:TYR:HD2	2.38	0.62
38:4:68:G:OP2	86:O7:103:OHX:N6	2.32	0.61
1:2:514:G:O2'	1:2:515:A:H5'	2.00	0.61
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.59	0.61
36:1:978:G:O2'	36:1:979:U:O2	2.18	0.61
66:O0:38:LYS:HB3	66:O0:93:LEU:HD23	1.81	0.61
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.81	0.61
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.82	0.61
21:C9:112:GLY:O	21:C9:125:SER:OG	4.00	0.61
1:2:7:G:O6	4:S2:205:ARG:NH2	2.32	0.61
40:L3:92:TYR:HB2	40:L3:157:VAL:HG13	1.81	0.61
36:1:3346:U:H3	36:1:3359:A:N6	1.95	0.61
63:N7:35:SER:O	63:N7:36:HIS:ND1	5.32	0.61
19:C7:105:GLN:O	19:C7:109:LEU:N	2.53	0.61
86:5:3945:OHX:N5	86:5:4237:OHX:N3	2.47	0.61
36:1:118:U:O2	36:1:121:A:H5'	2.00	0.61
31:D9:24:CYS:HB2	1:6:1434:U:H4'	410.93	0.61
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.83	0.61
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2298:U:O4	36:1:2923:U:H5	1.82	0.61
1:2:1409:G:N2	1:2:1411:A:H3'	2.15	0.61
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.66	0.61
36:5:2996:U:OP1	36:5:2996:U:H4'	2.01	0.61
1:2:38:C:H2'	1:2:39:A:H5'	1.82	0.61
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.43	0.61
36:1:1024:G:N7	86:1:4160:OHX:N6	2.47	0.61
44:L7:228:SER:HA	44:L7:232:ARG:HH22	3.66	0.61
1:2:959:U:C6	15:C3:61:THR:HB	2.35	0.61
49:M3:59:ARG:NH1	36:5:73:C:N3	95.39	0.61
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.34	0.61
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.18	0.61
1:2:471:A:OP2	86:2:2079:OHX:N4	2.32	0.61
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	1.82	0.61
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	2.18	0.61
1:6:1679:G:O6	86:6:2192:OHX:N3	2.34	0.61
1:6:770:A:OP2	86:6:2139:OHX:N3	2.34	0.61
36:1:2299:A:OP1	86:1:3940:OHX:N1	2.34	0.61
47:M0:156:ARG:NH1	47:M0:163:GLN:O	2.33	0.61
36:5:1661:G:H2'	36:5:1662:G:C8	2.35	0.61
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.65	0.61
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.16	0.61
52:M6:62:THR:HA	36:5:1306:G:C6	233.61	0.61
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.65	0.61
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.36	0.61
36:5:1170:A:OP2	86:5:4005:OHX:N4	2.34	0.61
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.33	0.61
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	1.82	0.61
1:2:649:U:O2'	1:2:650:U:O5'	2.18	0.61
36:1:2356:A:H61	36:1:2983:C:H5	1.47	0.61
36:1:2662:G:H2'	36:1:2663:G:H8	1.66	0.61
64:N8:133:LEU:HD13	64:N8:137:LYS:HE3	1.81	0.61
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	1.82	0.61
1:6:737:A:H2'	1:6:738:G:C8	2.34	0.61
1:2:520:A:H2'	1:2:521:A:C8	2.35	0.61
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.00	0.61
1:2:1564:U:H2'	1:2:1565:C:H6	1.65	0.61
44:L7:157:ASN:O	44:L7:159:GLN:N	3.37	0.61
1:6:1160:A:H2'	1:6:1161:C:H6	1.64	0.61
26:D4:33:ALA:O	26:D4:34:ASN:ND2	2.33	0.61
10:S8:62:THR:HG22	10:S8:77:ARG:HA	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:38:C:C2'	1:2:39:A:H5'	2.30	0.61
55:M9:176:ARG:NE	55:M9:179:GLU:OE2	2.32	0.61
38:4:62:C:O2	86:4:228:OHX:N5	2.33	0.61
54:M8:2:GLY:C	54:M8:3:ILE:HD13	5.27	0.61
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.34	0.61
40:L3:112:ASP:O	40:L3:116:ARG:HG2	4.91	0.61
36:5:1635:G:N2	36:5:1638:A:OP2	2.32	0.61
55:M9:27:ASN:O	86:M9:202:OHX:N6	2.33	0.61
36:1:3022:G:N2	36:1:3023:U:O4	2.25	0.61
12:C0:87:VAL:O	12:C0:89:ALA:N	4.86	0.61
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.32	0.61
2:S0:119:ARG:NH1	4:S2:241:ASP:OD2	2.33	0.61
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.64	0.61
3:S1:28:GLU:HB3	3:S1:48:VAL:HB	1.81	0.61
47:M0:176:LEU:HB3	47:M0:180:GLU:HG3	2.50	0.61
64:N8:95:SER:OG	64:N8:96:LYS:O	2.17	0.61
5:S3:168:ILE:HD13	5:S3:187:LYS:HE3	1.81	0.61
41:L4:232:SER:OG	41:L4:233:LEU:N	2.30	0.61
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	1.81	0.61
41:L4:64:SER:HB2	41:L4:73:ARG:O	3.06	0.61
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.15	0.61
1:2:1061:A:H2'	1:2:1062:A:H5'	1.82	0.61
36:1:3227:A:H2'	36:1:3228:C:H5'	1.82	0.61
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.48	0.61
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.65	0.61
51:M5:37:HIS:CE1	51:M5:63:ARG:HH11	2.17	0.61
34:SR:106:HIS:CE1	34:SR:132:LYS:HD2	3.46	0.61
36:5:3066:U:O4	86:5:4107:OHX:N4	2.34	0.61
36:5:2964:G:N7	86:5:3985:OHX:N6	2.48	0.61
36:1:1134:G:O2'	36:1:2642:A:N3	2.30	0.61
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.87	0.61
38:8:100:U:OP2	86:8:216:OHX:N2	2.34	0.61
73:O7:2:GLY:N	36:5:2138:A:HO2'	172.89	0.61
45:L8:95:ASN:OD1	45:L8:98:ARG:NH2	2.34	0.61
1:2:915:A:OP1	86:2:2097:OHX:N3	2.34	0.61
1:6:1542:G:N2	1:6:1568:C:H1'	2.15	0.61
1:2:1748:G:O6	86:2:2107:OHX:N4	2.33	0.61
40:L3:24:SER:OG	40:L3:25:ILE:N	2.31	0.61
36:1:2108:C:H1'	36:1:3344:A:H8	1.65	0.61
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.66	0.61
56:N0:167:ARG:HG3	56:N0:168:PRO:HD2	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.01	0.61
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.16	0.61
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.33	0.61
47:M0:194:GLY:HA3	36:5:1010:G:N3	336.41	0.61
1:2:116:U:H2'	1:2:117:U:C6	2.35	0.61
75:O9:20:ASN:ND2	75:O9:42:ARG:O	4.14	0.61
36:1:799:G:O6	86:1:3975:OHX:N5	2.34	0.61
5:S3:31:GLU:O	5:S3:54:ARG:NH2	4.85	0.61
38:4:77:A:OP2	86:4:226:OHX:N2	2.34	0.61
36:5:1934:G:O6	86:5:3918:OHX:N2	2.33	0.61
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.83	0.61
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.83	0.61
61:N5:67:ILE:HD13	61:N5:121:LYS:HG3	3.11	0.61
21:C9:28:LEU:HD13	21:C9:30:VAL:HG22	1.83	0.61
1:2:780:A:C8	26:D4:8:ARG:HB3	2.36	0.61
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.92	0.61
5:S3:175:VAL:HG13	5:S3:182:LEU:HB2	1.83	0.61
10:S8:62:THR:HA	10:S8:76:THR:O	2.84	0.61
13:C1:3:THR:HG1	13:C1:82:ARG:HE	1.47	0.61
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.83	0.61
41:L4:338:LYS:O	41:L4:340:GLY:N	2.33	0.61
36:1:364:G:OP1	41:L4:60:THR:HG22	2.01	0.61
36:5:2977:G:OP1	86:5:4155:OHX:N4	2.34	0.61
44:L7:55:TYR:CE2	44:L7:141:TYR:HE2	2.63	0.61
11:S9:143:ILE:HG12	1:6:768:C:C2	419.84	0.61
1:2:539:G:OP2	1:2:539:G:H8	1.84	0.61
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	1.89	0.61
1:2:702:G:O2'	1:2:703:G:O4'	2.18	0.61
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.01	0.61
57:N1:25:VAL:HG22	57:N1:30:TYR:HE2	2.29	0.61
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.34	0.61
26:D4:10:ARG:HD2	1:6:778:G:O6	429.69	0.61
12:C0:56:LYS:HG3	12:C0:67:THR:HB	1.83	0.61
47:M0:193:ASP:O	47:M0:195:ALA:N	3.72	0.61
8:S6:31:ARG:HD2	8:S6:34:GLN:NE2	2.15	0.61
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.16	0.61
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.15	0.61
36:5:528:U:H2'	36:5:529:A:C8	2.36	0.61
43:L6:18:LEU:HD12	43:L6:18:LEU:H	4.09	0.61
5:S3:24:PHE:HZ	5:S3:72:LEU:HD13	1.66	0.61
1:6:1071:U:H2'	1:6:1072:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.01	0.61
26:D4:111:LYS:NZ	26:D4:115:ASP:OD2	7.45	0.61
50:M4:21:VAL:HG12	50:M4:65:LEU:HD23	1.82	0.61
1:6:578:U:H4'	1:6:579:A:H5'	1.81	0.61
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.83	0.61
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	4.91	0.60
18:C6:126:PRO:O	18:C6:128:LYS:NZ	2.28	0.60
36:1:1064:A:H4'	36:1:1065:A:O5'	2.00	0.60
36:1:2303:A:OP2	77:Q1:23:ARG:NH2	2.34	0.60
45:L8:33:ASN:ND2	36:5:2549:G:N3	215.75	0.60
52:M6:15:LEU:HB2	52:M6:18:ARG:HG3	4.31	0.60
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.09	0.60
3:S1:146:GLN:H	3:S1:149:GLN:NE2	1.99	0.60
36:1:2175:U:C4	39:L2:20:THR:HG23	2.35	0.60
34:SR:234:LEU:HD12	34:SR:234:LEU:H	2.63	0.60
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.33	0.60
1:2:1358:G:H2'	1:2:1359:C:C6	2.36	0.60
73:O7:87:SER:O	86:O7:103:OHX:N3	2.34	0.60
1:6:1041:G:OP1	86:6:2177:OHX:N4	2.34	0.60
7:S5:113:ILE:O	7:S5:117:THR:OG1	2.19	0.60
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	2.07	0.60
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	1.83	0.60
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.01	0.60
37:3:17:A:OP1	42:L5:2:ALA:N	2.34	0.60
36:1:917:A:OP2	86:1:4138:OHX:N2	2.35	0.60
36:1:2712:U:H2'	36:1:2713:U:C6	2.35	0.60
44:L7:55:TYR:HE2	44:L7:141:TYR:HE2	2.19	0.60
36:1:391:A:OP2	86:1:4141:OHX:N1	2.34	0.60
36:1:956:U:OP1	86:1:4119:OHX:N1	2.34	0.60
36:5:1534:A:OP1	86:5:3925:OHX:N1	2.34	0.60
34:SR:295:SER:HB2	34:SR:300:THR:HB	1.83	0.60
36:5:1734:G:O6	86:5:3971:OHX:N5	2.34	0.60
36:1:718:G:C2	36:1:721:G:H1'	2.36	0.60
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.74	0.60
55:M9:167:ARG:HH11	55:M9:167:ARG:HB3	3.80	0.60
40:L3:186:GLY:O	40:L3:190:GLU:HB2	2.26	0.60
36:5:1232:C:H2'	36:5:1233:G:H8	1.66	0.60
1:6:755:A:H2'	1:6:756:A:H8	1.67	0.60
42:L5:33:ARG:NH2	37:7:7:G:O3'	271.16	0.60
36:1:2854:U:P	47:M0:3:ARG:HH22	2.23	0.60
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.81	0.60
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.83	0.60
1:6:151:G:N2	1:6:163:G:N2	2.48	0.60
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.81	0.60
36:5:1952:G:H1	36:5:2094:C:H42	1.47	0.60
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.50	0.60
86:5:4024:OHX:N5	86:5:4220:OHX:N2	2.50	0.60
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.84	0.60
36:1:412:G:O2'	53:M7:119:VAL:O	2.15	0.60
26:D4:122:GLY:O	26:D4:126:ALA:N	3.32	0.60
1:6:158:U:O2'	1:6:159:U:H3'	2.01	0.60
1:2:629:U:OP1	15:C3:127:ARG:NH2	2.34	0.60
36:1:2899:C:C5	46:L9:171:ASP:HA	2.35	0.60
36:5:2180:G:H2'	36:5:2181:C:C6	2.37	0.60
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.66	0.60
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	5.09	0.60
41:L4:337:GLU:O	41:L4:339:LEU:N	2.34	0.60
10:S8:10:LYS:HE3	1:6:339:C:OP2	285.71	0.60
36:5:358:G:N2	36:5:361:A:OP2	2.32	0.60
1:2:105:A:OP1	10:S8:18:ARG:NH1	2.33	0.60
59:N3:54:LEU:HD11	59:N3:119:GLY:HA3	1.83	0.60
28:D6:58:VAL:HG22	28:D6:59:TYR:H	2.35	0.60
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.82	0.60
36:1:3224:G:O6	86:1:3887:OHX:N4	2.34	0.60
1:6:220:A:H3'	1:6:832:U:H1'	1.84	0.60
55:M9:18:GLY:HA3	36:5:1874:A:H5''	136.42	0.60
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	1.82	0.60
1:2:796:A:OP2	86:2:2060:OHX:N6	2.34	0.60
1:6:1698:G:N2	1:6:1699:G:N7	2.49	0.60
79:Q3:73:THR:HB	79:Q3:76:ALA:CB	3.00	0.60
86:5:3945:OHX:N2	86:5:4237:OHX:N4	2.48	0.60
8:S6:148:SER:O	8:S6:150:GLU:N	2.34	0.60
40:L3:257:PRO:HG2	40:L3:261:MET:HE3	1.83	0.60
52:M6:78:ARG:HH11	52:M6:78:ARG:CG	2.14	0.60
17:C5:104:GLN:NE2	36:1:1025:A:N3	2.50	0.60
36:1:3060:C:OP1	86:1:4033:OHX:N4	2.34	0.60
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.83	0.60
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.22	0.60
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.77	0.60
5:S3:107:PHE:HA	5:S3:110:LEU:HB2	2.48	0.60
36:5:1597:C:H5'	36:5:1696:A:H1'	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1278:A:O2'	36:1:1279:C:O5'	2.18	0.60
36:1:1635:G:N2	36:1:1638:A:OP2	2.34	0.60
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.82	0.60
52:M6:65:ASN:ND2	36:5:2988:C:OP1	220.79	0.60
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.02	0.60
10:S8:43:ILE:HG13	10:S8:57:ALA:HA	2.94	0.60
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.84	0.60
16:C4:114:ARG:HE	28:D6:62:TYR:HE1	1.49	0.60
21:C9:119:LYS:NZ	1:6:1369:U:OP1	442.29	0.60
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.84	0.60
36:1:1579:C:H2'	36:1:1580:A:C8	2.37	0.60
24:D2:86:ILE:HD12	24:D2:87:GLU:HG3	1.82	0.60
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.87	0.60
1:6:624:G:H2'	1:6:625:C:C6	2.36	0.60
55:M9:84:THR:HG22	36:5:1915:A:H5''	218.62	0.60
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.19	0.60
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.50	0.60
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.65	0.60
8:S6:153:VAL:O	8:S6:156:PHE:N	2.30	0.60
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.65	0.60
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.56	0.60
42:L5:211:LEU:HD13	42:L5:219:PHE:HA	3.04	0.60
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	2.44	0.60
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CE1	4.19	0.60
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.80	0.60
1:6:1535:U:H1'	1:6:1536:G:C2	2.36	0.60
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.29	0.60
36:5:2775:U:H2'	36:5:2776:C:H6	1.66	0.60
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.58	0.60
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.84	0.60
10:S8:56:ARG:HH22	1:6:332:U:P	288.25	0.60
36:1:3346:U:H2'	36:1:3347:A:C8	2.37	0.60
7:S5:57:SER:HA	30:D8:53:ILE:HD13	1.83	0.60
36:5:1877:U:OP2	86:5:3959:OHX:N1	2.33	0.60
34:SR:260:ILE:HG13	34:SR:274:LEU:HB2	2.86	0.60
14:C2:97:LEU:HD12	14:C2:118:ALA:HB3	2.93	0.60
36:1:2407:C:H2'	36:1:2408:U:C6	2.37	0.60
42:L5:151:GLN:OE1	42:L5:152:ARG:N	2.35	0.60
18:C6:4:VAL:HG12	18:C6:5:PRO:HD2	1.83	0.60
2:S0:195:TRP:NE1	2:S0:197:ILE:HD13	2.40	0.60
7:S5:189:THR:OG1	27:D5:98:GLN:OE1	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:13:HIS:O	69:O3:95:GLY:N	2.33	0.60
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.01	0.60
6:S4:21:ASP:OD1	6:S4:24:SER:OG	2.19	0.60
1:6:1268:G:H1'	1:6:1448:G:H5''	1.84	0.60
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.61	0.60
9:S7:16:LEU:HD22	9:S7:46:ILE:HG21	1.84	0.60
1:2:912:U:H4'	1:2:913:G:O5'	2.02	0.60
36:1:2163:C:O2'	39:L2:11:GLY:HA3	2.01	0.60
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.36	0.60
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.82	0.60
8:S6:72:ARG:HG2	8:S6:98:ARG:HA	1.83	0.60
43:L6:40:LEU:HB3	43:L6:84:VAL:CG1	3.71	0.60
86:2:2042:OHX:N1	25:D3:64:PRO:O	2.34	0.60
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	2.95	0.60
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.91	0.60
6:S4:100:ARG:O	6:S4:102:VAL:HG12	2.39	0.60
1:2:872:G:O6	86:2:2129:OHX:N3	2.34	0.60
1:2:933:A:O5'	3:S1:116:LYS:NZ	2.31	0.60
26:D4:19:ALA:HB1	26:D4:81:GLU:OE2	4.06	0.60
1:6:1660:A:H2'	1:6:1661:U:C6	2.36	0.60
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	2.04	0.60
2:S0:29:VAL:HG22	2:S0:46:HIS:CE1	8.57	0.60
1:2:280:U:O2'	1:2:281:G:OP2	2.17	0.60
3:S1:128:LYS:HG3	3:S1:134:VAL:HG22	1.82	0.60
37:3:5:G:OP2	42:L5:27:LYS:NZ	2.31	0.60
62:N6:91:ASN:O	62:N6:91:ASN:ND2	4.62	0.60
17:C5:44:ARG:NH2	17:C5:82:ASN:O	3.08	0.60
36:5:2258:U:OP2	86:5:3951:OHX:N4	2.35	0.60
36:5:273:A:N7	86:5:4069:OHX:N3	2.50	0.60
36:5:1815:U:O2'	36:5:1816:A:OP2	2.20	0.60
1:6:906:A:H2'	1:6:907:A:C8	2.37	0.60
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.02	0.60
36:1:3043:C:P	59:N3:48:ARG:HH22	2.24	0.60
34:SR:144:LEU:HD21	34:SR:186:PHE:HB3	3.99	0.60
36:1:2218:G:H2'	36:1:2219:A:H8	1.65	0.60
36:5:3192:U:O4	86:5:4146:OHX:N6	2.34	0.60
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.01	0.60
1:6:263:C:H4'	1:6:292:U:H5'	1.83	0.60
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.46	0.59
47:M0:177:ASP:OD1	47:M0:177:ASP:N	2.29	0.59
20:C8:134:ARG:NH1	1:6:1559:A:N1	363.97	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:18:ARG:NH1	36:5:1315:U:OP1	278.47	0.59
53:M7:112:LEU:HA	53:M7:151:THR:O	2.39	0.59
86:5:4024:OHX:N5	86:5:4220:OHX:N1	2.50	0.59
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	3.54	0.59
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.20	0.59
37:3:71:G:H2'	37:3:72:A:C8	2.36	0.59
2:S0:75:ALA:HB1	2:S0:86:VAL:HG12	1.83	0.59
36:5:1192:C:N4	36:5:1301:A:O2'	2.25	0.59
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.05	0.59
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.88	0.59
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	1.82	0.59
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	1.82	0.59
48:M1:92:ARG:HH12	48:M1:94:ARG:HD2	4.58	0.59
36:5:299:G:N7	86:5:4192:OHX:N1	2.50	0.59
43:L6:64:LEU:HD11	43:L6:76:LEU:HD23	3.49	0.59
42:L5:261:THR:N	42:L5:264:GLN:HG3	3.10	0.59
25:D3:126:LYS:HA	25:D3:131:SER:HA	1.85	0.59
49:M3:166:ALA:N	64:N8:135:GLU:OE1	4.08	0.59
1:6:886:U:H2'	1:6:887:A:H8	1.66	0.59
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.83	0.59
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.83	0.59
1:2:1041:G:H2'	1:2:1042:G:C8	2.36	0.59
38:4:103:G:O6	86:4:225:OHX:N4	2.35	0.59
36:1:249:U:O2	36:1:250:U:N3	2.30	0.59
22:D0:87:HIS:ND1	1:6:1383:G:OP1	442.51	0.59
51:M5:68:ARG:HG3	36:5:291:C:OP1	145.03	0.59
36:1:2836:C:H5	36:1:2852:C:N4	1.95	0.59
17:C5:18:ARG:HD3	20:C8:90:ASN:HD21	2.72	0.59
37:7:3:U:H2'	37:7:4:U:H6	1.66	0.59
36:5:1024:G:N7	36:5:1027:A:N6	2.50	0.59
36:5:3241:G:H2'	36:5:3245:A:H8	1.65	0.59
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.45	0.59
1:2:851:U:H2'	1:2:852:C:C6	2.37	0.59
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.34	0.59
36:1:1721:U:O4	55:M9:128:LYS:NZ	2.36	0.59
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.03	0.59
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.35	0.59
38:4:136:G:OP1	61:N5:48:SER:OG	2.15	0.59
36:1:2662:G:H2'	36:1:2663:G:C8	2.37	0.59
40:L3:129:ALA:O	36:5:3149:G:O2'	213.86	0.59
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:89:TRP:O	24:D2:93:LEU:HB2	5.34	0.59
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	4.84	0.59
36:1:2112:U:O2'	86:1:3953:OHX:N1	2.36	0.59
13:C1:37:ASN:N	13:C1:37:ASN:OD1	2.35	0.59
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.02	0.59
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.33	0.59
24:D2:66:ASN:OD1	24:D2:68:ARG:HG3	2.01	0.59
39:L2:51:ASP:HB2	39:L2:58:LEU:HG	1.84	0.59
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.85	0.59
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.84	0.59
52:M6:32:LYS:HG2	52:M6:101:ARG:HB3	1.84	0.59
36:1:272:G:OP2	86:1:4024:OHX:N3	2.34	0.59
1:2:855:A:C2	1:2:857:U:H1'	2.37	0.59
8:S6:175:ILE:HG12	1:6:78:A:H1'	339.03	0.59
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.38	0.59
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.75	0.59
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.35	0.59
36:1:2572:C:O2'	36:1:2573:G:O4'	2.19	0.59
1:2:1762:A:H1'	1:2:1783:C:H5'	1.84	0.59
38:8:104:A:H3'	38:8:105:A:H5''	1.84	0.59
1:6:831:U:O2'	1:6:832:U:H5'	2.02	0.59
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	1.84	0.59
86:2:2039:OHX:N2	10:S8:17:LYS:O	2.35	0.59
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.27	0.59
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.83	0.59
51:M5:106:VAL:HG11	51:M5:132:VAL:HG21	3.24	0.59
36:1:1724:U:H1'	36:1:1725:C:C6	2.37	0.59
1:6:383:G:N7	86:6:2151:OHX:N5	2.49	0.59
21:C9:115:GLU:OE1	21:C9:123:ARG:NH1	4.41	0.59
1:6:140:A:N6	1:6:281:G:OP1	2.35	0.59
52:M6:8:VAL:HG22	52:M6:34:VAL:HG22	3.49	0.59
1:2:1248:C:H2'	1:2:1249:U:C6	2.37	0.59
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.80	0.59
62:N6:52:ARG:O	62:N6:54:ASP:N	2.36	0.59
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.81	0.59
1:2:499:U:O2'	1:2:500:C:H5''	2.03	0.59
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.84	0.59
36:1:2922:G:H5''	36:1:2923:U:OP2	2.03	0.59
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.84	0.59
1:6:592:A:O2'	1:6:596:C:OP1	2.21	0.59
36:5:2734:A:OP1	86:5:4050:OHX:N6	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3095:U:H2'	36:1:3096:C:H6	1.68	0.59
61:N5:76:VAL:HG22	61:N5:81:ILE:O	2.02	0.59
36:1:138:U:O4	86:1:3884:OHX:N3	2.35	0.59
1:2:1191:U:H4'	18:C6:143:ARG:HB3	1.84	0.59
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.03	0.59
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.03	0.59
36:1:3343:G:H2'	36:1:3361:G:N2	2.18	0.59
45:L8:161:GLU:N	45:L8:161:GLU:OE2	2.71	0.59
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	3.28	0.59
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.35	0.59
1:2:916:U:O2	16:C4:41:ARG:NH2	2.35	0.59
1:2:523:G:H5''	26:D4:59:GLY:O	2.02	0.59
36:1:1688:U:H2'	36:1:1689:U:H6	1.68	0.59
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.33	0.59
36:5:1831:U:O2'	38:8:114:G:OP1	2.16	0.59
63:N7:60:LYS:HG3	63:N7:63:ALA:HB3	1.83	0.59
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.85	0.59
34:SR:299:GLN:HG2	34:SR:315:VAL:HB	5.17	0.59
36:5:1387:G:OP1	86:5:4203:OHX:N3	2.36	0.59
51:M5:110:ALA:HB1	51:M5:113:LEU:HD22	1.85	0.59
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.35	0.59
13:C1:102:LYS:O	25:D3:13:ARG:NH1	3.30	0.59
17:C5:25:LEU:HA	17:C5:28:MET:HE2	2.30	0.59
74:O8:32:ASN:O	74:O8:34:ALA:N	2.36	0.59
66:O0:30:THR:O	66:O0:34:LEU:N	2.82	0.59
36:1:1564:U:H2'	36:1:1565:G:C8	2.38	0.59
20:C8:12:GLN:NE2	20:C8:13:HIS:O	5.25	0.59
36:5:1249:G:H2'	36:5:1250:G:C8	2.37	0.59
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.60	0.59
25:D3:44:GLY:H	25:D3:78:LYS:NZ	2.37	0.59
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.37	0.59
1:2:932:U:OP2	3:S1:155:TYR:OH	2.19	0.59
1:2:482:U:H2'	1:2:483:A:H8	1.68	0.59
36:1:3006:A:H2'	36:1:3007:U:O4'	2.01	0.59
52:M6:159:LYS:NZ	36:5:3243:A:OP1	268.38	0.59
68:O2:24:ARG:HG2	68:O2:25:TYR:CE1	2.60	0.59
2:S0:140:ASN:ND2	23:D1:29:HIS:HA	2.18	0.59
36:5:2440:G:O2'	36:5:2441:A:OP1	2.19	0.59
36:5:2818:U:C6	36:5:2818:U:H5'	2.36	0.59
34:SR:291:SER:O	34:SR:304:GLY:N	2.29	0.59
36:5:2533:G:N2	36:5:2546:C:O2	2.29	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1294:G:O6	86:6:2069:OHX:N5	2.35	0.59
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	1.67	0.59
1:2:1649:G:N7	86:2:2054:OHX:N1	2.51	0.59
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.93	0.59
1:2:579:A:H2	5:S3:143:ARG:HG3	1.67	0.59
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.37	0.59
36:1:595:G:N1	36:1:609:G:H5"	2.17	0.59
36:5:1919:G:N7	86:5:4076:OHX:N4	2.51	0.59
36:5:2960:C:H2'	36:5:2961:G:C8	2.38	0.59
63:N7:97:SER:OG	63:N7:98:THR:N	3.19	0.59
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.07	0.59
36:5:2311:G:OP2	86:5:4201:OHX:N1	2.36	0.59
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.36	0.59
23:D1:60:ARG:HA	23:D1:65:SER:HB2	1.85	0.59
4:S2:214:ALA:O	4:S2:218:ILE:HG13	2.02	0.59
36:5:1877:U:H5"	36:5:1878:G:H5'	1.84	0.59
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.18	0.59
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.51	0.59
16:C4:91:THR:O	16:C4:93:THR:N	2.33	0.59
86:5:4024:OHX:N6	86:5:4220:OHX:N2	2.50	0.59
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.85	0.59
36:1:249:U:H1'	36:1:250:U:O2	2.03	0.59
39:L2:230:VAL:HG21	36:5:2424:A:N1	183.70	0.59
73:O7:28:HIS:CD2	73:O7:31:LYS:HE3	3.36	0.59
37:7:80:G:OP2	86:7:228:OHX:N3	2.36	0.59
67:O1:17:HIS:CG	67:O1:69:TYR:HD1	2.21	0.59
36:5:2516:U:O2	36:5:2594:C:N4	2.36	0.59
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	2.50	0.59
9:S7:164:TYR:CE1	9:S7:165:LYS:HG3	3.50	0.59
40:L3:49:TYR:O	40:L3:80:ASP:N	2.65	0.59
27:D5:88:ILE:HG22	27:D5:89:ILE:HG23	2.43	0.59
36:1:655:C:H2'	36:1:656:A:C8	2.38	0.59
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.03	0.59
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.54	0.58
1:2:1482:C:O2'	18:C6:72:GLY:O	2.20	0.58
3:S1:125:VAL:HG21	3:S1:173:THR:HG22	1.85	0.58
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.68	0.58
39:L2:224:THR:HG23	36:5:2202:C:O4'	219.34	0.58
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.85	0.58
1:6:1696:G:H2'	1:6:1698:G:O6	2.02	0.58
36:5:3197:G:H2'	36:5:3198:U:H5"	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1363:A:OP2	86:1:4039:OHX:N6	2.36	0.58
1:2:1783:C:H2'	1:2:1784:C:C6	2.37	0.58
36:1:1375:A:OP2	62:N6:89:LYS:NZ	2.34	0.58
36:1:410:U:O4	86:1:4050:OHX:N5	2.36	0.58
86:5:3945:OHX:N1	86:5:4237:OHX:N4	2.50	0.58
1:2:1410:A:H2'	1:2:1411:A:O4'	2.03	0.58
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.37	0.58
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.85	0.58
36:1:696:C:OP1	41:L4:272:VAL:HG23	2.03	0.58
36:1:699:A:OP1	49:M3:68:LYS:NZ	2.36	0.58
36:5:1096:U:H4'	36:5:1097:G:O5'	2.03	0.58
43:L6:169:ASP:HB3	43:L6:174:LEU:HD11	1.85	0.58
36:1:829:U:H3	36:1:895:A:H62	1.51	0.58
2:S0:78:SER:OG	2:S0:129:ASP:OD1	2.43	0.58
36:1:263:C:H2'	36:1:264:G:O4'	2.03	0.58
1:6:1765:A:OP1	86:6:2127:OHX:N2	2.36	0.58
41:L4:283:THR:HG21	41:L4:288:ARG:NH2	7.36	0.58
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.30	0.58
21:C9:84:LYS:HD2	21:C9:94:ILE:HG13	4.77	0.58
71:O5:47:VAL:HA	71:O5:50:SER:HB2	2.69	0.58
1:2:1680:G:O6	86:2:2112:OHX:N5	2.36	0.58
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.67	0.58
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.84	0.58
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.84	0.58
51:M5:57:GLN:HB3	51:M5:139:HIS:HE2	2.18	0.58
36:1:2775:U:H2'	36:1:2776:C:C6	2.38	0.58
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.84	0.58
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.02	0.58
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.68	0.58
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.36	0.58
53:M7:27:LYS:HD3	53:M7:63:PHE:CG	2.63	0.58
36:5:3358:U:H2'	36:5:3359:A:C8	2.38	0.58
86:5:3945:OHX:N2	86:5:4237:OHX:N6	2.51	0.58
1:2:1738:U:O4	86:2:2044:OHX:N4	2.35	0.58
1:2:1689:A:H2'	1:2:1690:G:H8	1.67	0.58
6:S4:102:VAL:HG23	6:S4:182:TYR:CE1	2.38	0.58
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.03	0.58
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	4.28	0.58
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.03	0.58
48:M1:150:ASN:O	48:M1:152:HIS:N	2.35	0.58
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.26	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1564:U:H2'	36:5:1565:G:C8	2.39	0.58
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.19	0.58
36:1:1064:A:H5''	36:1:1066:G:O4'	2.03	0.58
41:L4:222:VAL:HG22	41:L4:225:VAL:HB	1.85	0.58
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.85	0.58
1:6:972:G:O2'	36:5:847:A:N1	2.36	0.58
36:5:2709:C:H2'	36:5:2710:C:C6	2.38	0.58
36:5:1716:U:H5'	36:5:1716:U:C6	2.38	0.58
36:1:3151:U:H4'	36:1:3294:A:H1'	1.85	0.58
48:M1:21:ILE:HG22	48:M1:23:VAL:HG22	1.86	0.58
45:L8:54:GLU:HG2	45:L8:57:ARG:HH21	1.68	0.58
1:2:1670:G:N7	86:2:2125:OHX:N5	2.51	0.58
1:2:1477:G:H2'	1:2:1478:G:H8	1.68	0.58
35:SM:41:SER:O	35:SM:43:ASP:N	2.34	0.58
9:S7:99:LEU:HD23	9:S7:100:PRO:HD2	1.86	0.58
1:2:698:U:O4	86:2:2099:OHX:N3	2.37	0.58
36:1:535:G:O6	86:1:4054:OHX:N3	2.37	0.58
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.69	0.58
8:S6:27:PHE:HD1	8:S6:52:ILE:HD11	1.68	0.58
36:5:3166:C:H42	36:5:3284:G:H1	1.50	0.58
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.24	0.58
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.03	0.58
34:SR:161:LYS:HG3	34:SR:161:LYS:O	2.03	0.58
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.38	0.58
36:1:1103:A:H4'	36:1:1103:A:OP2	2.03	0.58
1:2:778:G:H22	26:D4:10:ARG:HH22	1.51	0.58
67:O1:80:ASN:HA	67:O1:90:PHE:CE2	5.60	0.58
42:L5:233:ALA:O	42:L5:235:SER:N	2.37	0.58
25:D3:8:GLY:O	25:D3:11:SER:HB3	3.91	0.58
34:SR:115:ILE:HG12	34:SR:119:ALA:HA	2.75	0.58
1:2:417:A:H4'	1:2:418:G:O5'	2.03	0.58
1:2:420:A:OP1	8:S6:96:SER:OG	2.17	0.58
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.93	0.58
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.20	0.58
3:S1:76:SER:OG	3:S1:78:ASP:OD1	2.21	0.58
36:1:1094:U:O2'	36:1:1095:U:O5'	2.17	0.58
42:L5:113:LEU:HB3	42:L5:115:LEU:HD23	2.50	0.58
40:L3:247:ARG:HD3	36:5:1888:U:OP1	211.16	0.58
3:S1:33:LYS:HB3	3:S1:232:HIS:HE1	8.33	0.58
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.03	0.58
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	1.89	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:55:ARG:NH1	36:5:353:G:O6	113.35	0.58
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.84	0.58
15:C3:73:ARG:O	15:C3:77:SER:OG	2.18	0.58
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.28	0.58
1:6:700:C:H2'	1:6:701:U:C6	2.39	0.58
36:5:1724:U:H1'	36:5:1725:C:C6	2.39	0.58
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.85	0.58
52:M6:28:LEU:HD21	52:M6:88:VAL:HG13	1.85	0.58
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	3.31	0.58
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.97	0.58
36:5:3242:G:N2	36:5:3245:A:H5''	2.19	0.58
41:L4:93:MET:HB2	36:5:658:G:N2	146.03	0.58
1:2:397:A:O3'	10:S8:50:GLY:HA2	2.03	0.58
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.39	0.58
36:1:3274:A:O2'	53:M7:171:ARG:NH1	2.37	0.58
10:S8:42:ARG:NH1	1:6:1677:C:OP1	263.67	0.58
42:L5:152:ARG:HD3	36:5:2663:G:H5'	275.55	0.58
69:O3:13:HIS:NE2	69:O3:28:SER:OG	2.94	0.58
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.37	0.58
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	1.86	0.58
39:L2:140:ASN:OD1	39:L2:142:ASP:HB3	5.11	0.58
43:L6:56:LYS:HD2	43:L6:98:VAL:HG13	1.85	0.58
1:6:1603:U:H2'	1:6:1604:U:H6	1.69	0.58
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.99	0.58
6:S4:18:TRP:O	6:S4:51:ARG:NH1	2.81	0.58
36:5:900:G:H1'	36:5:1589:A:N6	2.18	0.58
46:L9:99:ILE:HG21	46:L9:179:ILE:HD11	2.72	0.58
36:5:1251:A:H2'	36:5:1252:A:O4'	2.04	0.58
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	7.26	0.58
36:1:242:C:HO2'	36:1:243:G:H8	1.52	0.58
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	2.03	0.58
22:D0:30:LYS:HD2	22:D0:111:GLY:HA3	3.16	0.58
36:5:3094:A:H2'	36:5:3095:U:C6	2.39	0.58
34:SR:29:GLN:HG3	34:SR:32:LEU:HB3	1.86	0.58
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.84	0.58
57:N1:68:THR:HG22	57:N1:71:SER:H	1.69	0.58
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.84	0.58
1:6:193:U:C2	1:6:195:G:H1'	2.39	0.58
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.28	0.58
36:5:3242:G:H21	36:5:3245:A:H5''	1.69	0.58
24:D2:23:ARG:HH11	24:D2:66:ASN:HA	2.94	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:159:ASN:O	34:SR:161:LYS:N	3.59	0.58
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.46	0.58
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.48	0.58
86:5:4024:OHX:N3	86:5:4220:OHX:N1	2.51	0.58
24:D2:106:THR:C	24:D2:108:ALA:H	2.92	0.58
1:2:329:G:H5''	10:S8:98:LYS:HB3	1.85	0.58
1:2:1490:C:H4'	1:2:1491:U:OP1	2.03	0.58
15:C3:87:ASP:HB3	15:C3:125:LEU:HD11	4.98	0.58
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.37	0.58
1:2:1114:G:O2'	1:2:1130:G:O6	2.15	0.58
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.28	0.58
24:D2:32:LYS:HG3	1:6:637:C:OP1	364.48	0.58
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.69	0.58
33:E1:122:SER:O	33:E1:122:SER:OG	2.87	0.58
36:1:2209:U:O2'	36:1:2210:G:OP1	2.15	0.58
59:N3:66:LYS:HB3	59:N3:68:GLU:OE1	2.02	0.58
40:L3:81:THR:HG22	40:L3:321:PHE:CA	5.21	0.58
40:L3:345:ASN:OD1	40:L3:346:THR:N	2.90	0.58
1:6:333:A:C6	1:6:334:G:C6	2.91	0.58
36:1:3121:U:H1'	36:1:3122:A:H5''	1.86	0.58
27:D5:43:ASP:O	27:D5:46:LYS:N	2.23	0.58
36:1:2796:G:N7	78:Q2:63:LYS:NZ	2.50	0.58
1:6:833:U:O4	86:6:2101:OHX:N5	2.37	0.58
1:6:1458:G:H5''	1:6:1459:C:OP2	2.03	0.58
1:2:269:G:N2	1:2:286:C:O2	2.29	0.58
1:6:1542:G:H22	1:6:1568:C:H1'	1.69	0.58
17:C5:126:VAL:HG22	17:C5:127:ARG:H	2.83	0.58
51:M5:68:ARG:HG2	51:M5:68:ARG:HH11	1.69	0.58
1:2:56:U:H4'	1:2:57:G:H5'	1.86	0.58
51:M5:49:ARG:NH2	36:5:115:A:OP1	101.36	0.58
28:D6:7:SER:O	28:D6:9:GLY:N	3.07	0.58
4:S2:235:LEU:HD11	23:D1:54:ALA:HB2	1.86	0.58
13:C1:96:LYS:NZ	1:6:374:U:OP1	347.93	0.58
1:6:1000:C:N4	1:6:1003:A:OP2	2.33	0.58
36:5:1152:G:N2	36:5:1200:A:H61	2.01	0.58
54:M8:165:ILE:HD11	54:M8:172:PHE:HB3	1.86	0.58
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.80	0.58
1:6:453:U:O4	86:6:2062:OHX:N4	2.36	0.58
42:L5:294:ALA:O	42:L5:296:GLN:N	2.35	0.58
1:6:190:C:N4	1:6:196:G:O6	2.36	0.58
30:D8:26:THR:HB	30:D8:44:VAL:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:16:LYS:HE3	48:M1:130:VAL:HG11	3.49	0.58
35:SM:58:GLU:OE1	35:SM:62:ARG:NH1	4.55	0.58
1:6:1218:G:O4'	1:6:1444:A:N6	2.37	0.58
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.37	0.58
1:2:1297:G:N2	1:2:1300:A:OP2	2.33	0.58
25:D3:70:LYS:HB3	25:D3:93:LEU:HD13	3.10	0.58
61:N5:86:VAL:HG11	61:N5:95:ILE:HD11	2.90	0.58
36:1:2827:U:O4	86:1:3862:OHX:N4	2.36	0.58
37:3:86:U:O2	86:3:217:OHX:N5	2.36	0.58
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.86	0.58
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.04	0.58
32:E0:48:THR:OG1	32:E0:49:LEU:N	2.85	0.58
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.85	0.57
2:S0:186:GLY:O	2:S0:188:LEU:N	2.37	0.57
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.34	0.57
1:2:1542:G:N2	1:2:1569:A:OP2	2.36	0.57
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.38	0.57
86:5:3945:OHX:N1	86:5:4237:OHX:N3	2.52	0.57
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.04	0.57
55:M9:160:GLU:HA	55:M9:163:ARG:HB2	1.86	0.57
1:2:1756:A:H2'	1:2:1757:G:H8	1.68	0.57
52:M6:121:PRO:HD2	56:N0:162:THR:O	2.31	0.57
36:5:2569:A:H4'	36:5:2570:U:H5'	1.86	0.57
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.69	0.57
35:SM:46:LYS:HA	36:5:1018:G:H4'	324.87	0.57
40:L3:59:ASP:OD1	40:L3:71:GLU:HG2	3.14	0.57
1:6:660:G:H2'	1:6:661:A:H4'	1.84	0.57
36:1:3078:U:H4'	36:1:3079:U:O5'	2.03	0.57
15:C3:13:SER:O	29:D7:20:LYS:NZ	3.19	0.57
1:6:1526:A:N1	1:6:1608:U:O2'	2.29	0.57
1:2:1368:G:OP1	21:C9:69:LYS:NZ	2.37	0.57
72:O6:25:LYS:O	72:O6:28:TYR:HB2	2.04	0.57
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.40	0.57
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.24	0.57
36:5:856:G:OP1	36:5:1722:U:O2'	2.16	0.57
8:S6:13:GLN:CD	1:6:151:G:H21	311.98	0.57
36:5:1238:C:O2'	36:5:1239:C:OP1	2.21	0.57
36:1:608:A:N6	43:L6:22:ARG:HD3	2.18	0.57
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	3.17	0.57
17:C5:108:ARG:NH2	20:C8:119:ILE:HD12	5.70	0.57
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.66	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:111:ARG:HB3	28:D6:68:TYR:HD2	1.69	0.57
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.39	0.57
1:2:377:G:O6	86:2:2081:OHX:N5	2.37	0.57
36:1:2971:A:N3	36:1:2971:A:H3'	2.19	0.57
47:M0:47:PRO:HB3	47:M0:171:TRP:CE2	2.55	0.57
36:5:549:U:H2'	36:5:550:A:C8	2.40	0.57
36:1:1934:G:N7	86:1:3879:OHX:N2	2.52	0.57
58:N2:59:ASP:HB3	58:N2:62:VAL:HB	1.86	0.57
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.35	0.57
37:3:19:C:H2'	37:3:20:A:H8	1.68	0.57
36:5:1696:A:OP2	86:5:4188:OHX:N6	2.37	0.57
36:5:2211:U:H5	36:5:2234:G:O6	1.87	0.57
36:1:439:C:H3'	36:1:440:A:H8	1.67	0.57
23:D1:59:VAL:HG13	23:D1:64:GLU:HB2	1.86	0.57
13:C1:5:LEU:HD13	13:C1:5:LEU:H	5.30	0.57
1:6:500:C:O2'	1:6:501:U:O4'	2.21	0.57
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.97	0.57
36:1:211:A:OP1	41:L4:220:ARG:NH1	2.37	0.57
1:6:427:C:O2'	1:6:459:G:N3	2.29	0.57
36:5:3317:U:O2'	86:5:4142:OHX:N6	2.37	0.57
36:1:289:A:H2	51:M5:93:LYS:HD2	1.67	0.57
1:2:209:U:H2'	1:2:210:A:C8	2.38	0.57
17:C5:63:ALA:HA	17:C5:66:ALA:HB3	2.55	0.57
30:D8:15:VAL:HA	30:D8:28:VAL:HG23	2.53	0.57
1:2:218:A:O2'	1:2:219:A:OP1	2.13	0.57
4:S2:78:ASP:HB3	4:S2:104:VAL:HG12	2.60	0.57
36:1:1346:G:H1'	41:L4:307:GLN:HE22	1.69	0.57
39:L2:109:GLU:OE1	39:L2:138:GLY:HA2	2.05	0.57
1:6:845:G:H2'	1:6:846:G:H8	1.68	0.57
1:2:1175:U:H2'	1:2:1176:G:C8	2.39	0.57
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.61	0.57
40:L3:153:LYS:HD3	40:L3:154:TYR:CZ	2.40	0.57
64:N8:10:LYS:HE3	36:5:1375:G:O6	159.71	0.57
36:5:913:A:H2	36:5:2134:G:N3	2.02	0.57
47:M0:73:ASN:O	47:M0:77:THR:OG1	2.92	0.57
8:S6:160:ARG:HH12	1:6:68:A:H5'	347.47	0.57
52:M6:62:THR:H	52:M6:69:GLY:HA3	2.76	0.57
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.63	0.57
51:M5:37:HIS:CE1	51:M5:63:ARG:HB3	2.39	0.57
1:6:947:U:H2'	1:6:948:G:H8	1.68	0.57
42:L5:155:THR:HG22	42:L5:179:ARG:HH11	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:33:ASN:O	45:L8:35:GLY:N	3.91	0.57
1:2:577:G:C5	35:SM:99:LYS:HD3	2.39	0.57
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.17	0.57
26:D4:90:ARG:O	26:D4:93:ARG:N	2.67	0.57
43:L6:169:ASP:OD1	43:L6:174:LEU:HD11	3.33	0.57
37:3:19:C:H2'	37:3:20:A:C8	2.40	0.57
38:4:133:G:O6	86:4:229:OHX:N5	2.37	0.57
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.38	0.57
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.40	0.57
36:1:2636:A:H5''	36:1:2637:A:H5'	1.86	0.57
36:1:1895:A:O2'	36:1:3053:G:H4'	2.04	0.57
1:2:1158:C:OP2	86:2:2175:OHX:N5	2.38	0.57
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.39	0.57
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	1.86	0.57
8:S6:33:GLY:HA2	8:S6:51:LYS:HE2	1.86	0.57
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.93	0.57
36:1:3346:U:H2'	36:1:3347:A:H8	1.68	0.57
86:5:3980:OHX:N4	86:5:4201:OHX:N3	2.53	0.57
1:2:1482:C:OP2	1:2:1521:G:N2	2.35	0.57
8:S6:87:ARG:NH2	1:6:161:U:OP2	315.32	0.57
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.32	0.57
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.22	0.57
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.16	0.57
20:C8:41:ARG:HD3	1:6:1565:C:OP1	369.68	0.57
1:2:17:C:O2'	1:2:1137:A:N1	2.32	0.57
45:L8:170:CYS:HB3	45:L8:175:VAL:O	2.04	0.57
36:1:679:U:O4	86:1:3967:OHX:N1	2.38	0.57
1:2:1437:U:H5'	5:S3:176:LEU:HD23	1.84	0.57
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.86	0.57
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.87	0.57
1:6:1490:C:H4'	1:6:1491:U:OP1	2.03	0.57
74:O8:27:ILE:HB	74:O8:78:LEU:HD11	2.26	0.57
5:S3:134:CYS:SG	5:S3:135:GLU:N	2.79	0.57
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.78	0.57
36:1:929:A:H2'	36:1:930:U:C6	2.39	0.57
1:2:459:G:OP2	26:D4:105:ARG:NH1	2.36	0.57
44:L7:217:PRO:O	86:5:4005:OHX:N6	259.63	0.57
63:N7:84:ARG:NH1	63:N7:85:TYR:OH	2.38	0.57
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.85	0.57
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.05	0.57
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:26:C:H5''	42:L5:56:THR:HB	1.85	0.57
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.85	0.57
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	3.34	0.57
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.04	0.57
36:5:2945:G:O2'	36:5:2948:C:OP2	2.23	0.57
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.43	0.57
1:6:1133:A:H2'	1:6:1134:C:O4'	2.04	0.57
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.87	0.57
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.03	0.57
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.04	0.57
24:D2:81:VAL:O	24:D2:122:SER:OG	3.15	0.57
11:S9:8:TYR:O	86:6:2180:OHX:N4	384.45	0.57
36:1:1047:A:N3	36:1:2633:U:O2'	2.36	0.57
36:1:339:C:OP1	36:1:1380:G:O2'	2.22	0.57
6:S4:179:LYS:N	6:S4:194:THR:O	2.38	0.57
8:S6:30:LYS:O	8:S6:102:VAL:HG23	2.70	0.57
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.17	0.57
20:C8:27:LYS:O	20:C8:31:ALA:N	2.70	0.57
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.68	0.57
1:2:818:C:N4	1:2:819:G:O6	2.33	0.57
5:S3:65:ARG:HA	5:S3:68:GLU:HG3	1.87	0.57
36:1:3087:A:P	86:1:4176:OHX:N5	2.78	0.57
36:1:1108:U:H2'	36:1:1109:U:C6	2.38	0.57
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	2.13	0.57
78:Q2:46:LYS:HD3	78:Q2:54:THR:OG1	2.05	0.57
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.20	0.57
15:C3:119:GLU:HG2	15:C3:141:TYR:CE2	3.91	0.57
1:6:407:A:H2'	1:6:408:C:H6	1.67	0.57
55:M9:166:ASN:OD1	55:M9:170:ARG:NH1	6.33	0.57
1:2:405:C:O2'	8:S6:92:ARG:O	2.20	0.57
36:5:181:U:H1'	36:5:236:G:H22	1.70	0.57
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.45	0.57
1:2:494:U:O2'	1:2:495:C:O5'	2.22	0.57
8:S6:95:LYS:NZ	1:6:160:C:O3'	308.53	0.57
36:5:2112:U:O2	86:5:3978:OHX:N1	2.37	0.57
36:5:1752:A:OP2	86:5:4084:OHX:N3	2.38	0.57
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.49	0.57
41:L4:229:ASN:O	41:L4:231:ALA:N	2.38	0.57
36:5:3274:A:H3'	36:5:3275:U:C5'	2.28	0.57
48:M1:137:ARG:HG2	37:7:28:C:H5''	307.99	0.57
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	2.74	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:157:ASP:OD2	23:D1:65:SER:OG	2.56	0.57
3:S1:79:HIS:CD2	3:S1:82:ARG:HE	2.23	0.57
36:1:1564:U:H2'	36:1:1565:G:H8	1.68	0.57
1:2:1253:U:H5''	33:E1:130:VAL:HB	1.87	0.57
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.47	0.57
36:1:2676:A:H4'	36:1:2677:G:O5'	2.04	0.57
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.86	0.57
1:2:856:A:H62	9:S7:97:ARG:H	1.53	0.57
27:D5:82:HIS:O	27:D5:85:LYS:N	3.58	0.57
74:O8:24:THR:HG22	74:O8:76:ASN:HB3	1.87	0.57
36:5:604:G:N7	86:5:4170:OHX:N2	2.52	0.57
15:C3:94:LYS:NZ	1:6:953:G:OP2	304.67	0.57
1:6:357:G:OP2	86:6:2075:OHX:N6	2.37	0.57
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.29	0.57
39:L2:221:LYS:NZ	36:5:2965:U:O2	213.04	0.57
49:M3:42:ARG:O	49:M3:46:ILE:HG12	4.12	0.57
44:L7:180:SER:HB2	44:L7:183:ASP:H	1.69	0.57
36:5:2249:G:OP1	86:5:4201:OHX:N6	2.37	0.57
86:5:3980:OHX:N2	86:5:4201:OHX:N1	2.53	0.57
10:S8:43:ILE:HG12	10:S8:57:ALA:HA	1.85	0.57
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.53	0.57
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.61	0.57
24:D2:23:ARG:HG3	24:D2:65:LEU:O	4.89	0.57
6:S4:191:ARG:NH1	6:S4:245:LYS:HD3	2.20	0.57
7:S5:162:VAL:HB	30:D8:45:LYS:HB3	1.86	0.57
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.87	0.57
6:S4:197:HIS:O	6:S4:209:HIS:N	2.99	0.57
46:L9:61:GLY:O	46:L9:65:VAL:HG23	2.05	0.57
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.86	0.57
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	2.39	0.57
1:2:108:A:H2'	1:2:109:G:C8	2.39	0.57
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	3.72	0.57
41:L4:293:SER:HA	41:L4:296:GLN:HB2	3.71	0.57
36:1:735:A:H2'	36:1:736:A:C8	2.40	0.57
51:M5:47:LYS:HE3	51:M5:51:LEU:HD11	2.32	0.57
60:N4:63:ILE:O	60:N4:65:GLU:N	2.55	0.57
72:O6:25:LYS:HG3	72:O6:28:TYR:CD2	2.40	0.57
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.38	0.57
7:S5:163:SER:OG	30:D8:47:PRO:O	2.93	0.57
36:1:624:G:OP2	86:1:4126:OHX:N3	2.38	0.57
5:S3:177:MET:HE1	5:S3:178:ARG:HH12	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.39	0.57
67:O1:88:PRO:HG2	67:O1:89:LEU:HD13	1.94	0.57
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.05	0.57
14:C2:125:ASN:ND2	35:SM:168:GLU:H	6.56	0.57
9:S7:69:GLY:HA2	9:S7:72:LYS:HD2	1.85	0.57
36:1:402:A:C6	53:M7:21:TYR:CE2	2.92	0.57
41:L4:264:SER:OG	41:L4:267:VAL:N	3.08	0.57
33:E1:146:SER:HB3	1:6:1235:C:H5'	434.62	0.57
36:5:3237:U:H2'	36:5:3238:G:O4'	2.04	0.57
1:2:186:C:H3'	1:2:187:G:H8	1.70	0.57
48:M1:155:THR:O	48:M1:159:THR:HG23	5.57	0.57
63:N7:22:LYS:HE3	63:N7:134:LEU:HB2	1.87	0.57
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.38	0.56
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.38	0.56
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.05	0.56
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.03	0.56
1:2:1338:C:H1'	1:2:1410:A:C4	2.40	0.56
8:S6:199:GLN:O	8:S6:203:GLU:HG2	2.67	0.56
25:D3:50:LYS:HG2	25:D3:77:ILE:HD12	4.30	0.56
3:S1:36:SER:O	3:S1:38:PHE:N	2.38	0.56
36:1:1443:G:O6	86:1:3971:OHX:N3	2.37	0.56
35:SM:23:LYS:H	35:SM:23:LYS:HD2	1.68	0.56
1:2:223:U:H2'	1:2:224:C:C6	2.40	0.56
51:M5:108:ARG:NH2	36:5:1547:G:OP1	125.76	0.56
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.43	0.56
48:M1:92:ARG:NH1	48:M1:94:ARG:HH11	4.87	0.56
3:S1:103:MET:HE1	3:S1:212:VAL:HG22	3.12	0.56
36:1:1170:A:H2'	36:1:1171:G:O4'	2.05	0.56
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.87	0.56
23:D1:3:ASN:HB3	23:D1:7:GLN:O	2.04	0.56
1:6:521:A:H2'	1:6:522:U:O4'	2.04	0.56
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.06	0.56
7:S5:61:TYR:HE2	7:S5:164:PRO:HG2	2.99	0.56
1:2:918:U:H2'	1:2:919:A:C8	2.40	0.56
11:S9:142:ASN:HD22	11:S9:143:ILE:HD12	6.74	0.56
39:L2:179:LEU:O	39:L2:184:ARG:HG3	2.05	0.56
36:1:3238:G:N7	86:1:3962:OHX:N4	2.53	0.56
26:D4:3:ASP:O	26:D4:5:VAL:N	2.31	0.56
61:N5:137:ASN:HB3	61:N5:142:ILE:HG13	2.10	0.56
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.74	0.56
73:O7:58:THR:O	73:O7:61:THR:HG23	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2711:C:H4'	86:5:4239:OHX:N1	2.20	0.56
38:8:154:C:H2'	38:8:155:A:O4'	2.05	0.56
1:6:729:G:O2'	1:6:730:G:O5'	2.21	0.56
45:L8:186:LEU:O	45:L8:189:LEU:HB3	4.59	0.56
68:O2:55:ILE:HB	36:5:947:G:H5'	188.80	0.56
41:L4:39:PHE:CE1	41:L4:236:LEU:HD23	3.20	0.56
43:L6:50:LYS:HG2	43:L6:74:VAL:HG21	2.23	0.56
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	4.00	0.56
39:L2:207:VAL:HG21	36:5:916:G:C6	187.23	0.56
17:C5:28:MET:HE1	17:C5:33:PHE:HB2	1.87	0.56
38:4:78:G:H2'	38:4:79:A:C8	2.40	0.56
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.38	0.56
1:2:1595:U:N3	1:2:1600:A:H2	2.02	0.56
1:6:191:C:O2'	1:6:192:U:O5'	2.19	0.56
75:O9:2:ALA:N	36:5:1493:G:O6	122.76	0.56
36:1:2402:A:OP2	86:1:4082:OHX:N6	2.37	0.56
67:O1:72:ARG:HD3	67:O1:104:LEU:HD13	3.36	0.56
77:Q1:7:LYS:O	77:Q1:11:ARG:HB2	2.05	0.56
40:L3:53:MET:HG3	40:L3:77:THR:HB	5.01	0.56
1:6:485:A:H61	1:6:502:U:H3	1.52	0.56
15:C3:115:LEU:O	15:C3:119:GLU:HG3	2.04	0.56
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.40	0.56
49:M3:175:SER:O	49:M3:178:LYS:N	2.39	0.56
1:6:777:C:H2'	1:6:778:G:C8	2.41	0.56
1:6:777:C:H2'	1:6:778:G:H8	1.70	0.56
36:1:2522:G:O6	39:L2:70:ARG:NH2	2.37	0.56
36:1:438:A:O2'	36:1:495:G:H4'	2.04	0.56
11:S9:142:ASN:HD22	11:S9:142:ASN:C	4.02	0.56
36:1:1334:U:H5''	44:L7:206:LYS:HB3	1.86	0.56
40:L3:360:ASP:OD1	40:L3:361:THR:N	3.58	0.56
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.38	0.56
71:O5:14:LYS:NZ	71:O5:62:GLN:OE1	6.31	0.56
6:S4:176:ASP:HB2	6:S4:179:LYS:HZ3	1.70	0.56
36:5:603:A:C5	36:5:604:G:H1'	2.40	0.56
36:5:172:G:O6	86:5:4081:OHX:N4	2.38	0.56
36:5:1157:G:H2'	36:5:1158:A:O4'	2.05	0.56
36:1:1770:G:H5'	36:1:1771:C:OP2	2.05	0.56
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.05	0.56
6:S4:248:ILE:HA	6:S4:251:GLU:HB2	2.58	0.56
36:5:1223:A:OP2	36:5:1285:G:N2	2.36	0.56
36:1:1716:U:O2'	36:1:1717:U:H4'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:52:ASP:OD1	30:D8:52:ASP:N	2.37	0.56
36:1:1228:C:H2'	36:1:1229:G:H8	1.69	0.56
22:D0:46:GLU:HG2	22:D0:52:LYS:HZ3	1.70	0.56
1:2:422:G:OP1	86:2:2045:OHX:N6	2.37	0.56
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.55	0.56
24:D2:35:ILE:O	24:D2:38:LEU:N	2.90	0.56
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.71	0.56
43:L6:8:LYS:O	36:5:1353:U:O2'	165.84	0.56
36:5:69:C:H2'	36:5:70:A:O4'	2.05	0.56
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	4.73	0.56
19:C7:5:ARG:NH1	1:6:1402:G:OP2	409.98	0.56
1:6:546:U:H2'	1:6:547:U:C6	2.41	0.56
59:N3:93:LEU:H	59:N3:93:LEU:HD23	2.00	0.56
45:L8:157:VAL:H	45:L8:183:LYS:NZ	2.03	0.56
1:2:1199:G:O6	22:D0:67:THR:HG23	2.05	0.56
1:2:687:G:H5'	24:D2:119:LYS:HD3	1.88	0.56
1:2:1776:A:H2'	1:2:1777:G:C8	2.41	0.56
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.72	0.56
74:O8:15:THR:HG22	74:O8:45:VAL:HG11	1.87	0.56
24:D2:30:SER:O	24:D2:31:SER:HB3	2.20	0.56
45:L8:36:ILE:O	45:L8:38:GLN:N	2.39	0.56
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	2.11	0.56
34:SR:130:THR:HG22	34:SR:145:LEU:HB3	5.05	0.56
1:6:1535:U:O2'	1:6:1536:G:O5'	2.23	0.56
62:N6:82:VAL:O	62:N6:84:LYS:N	3.00	0.56
71:O5:31:LEU:HD23	71:O5:44:ILE:HA	1.87	0.56
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.35	0.56
43:L6:129:GLU:HG2	43:L6:130:ILE:N	3.82	0.56
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.00	0.56
69:O3:39:GLN:N	69:O3:39:GLN:OE1	2.80	0.56
11:S9:11:THR:O	11:S9:44:ARG:HG3	2.05	0.56
17:C5:102:PHE:HZ	1:6:1241:G:H5''	386.21	0.56
16:C4:132:ARG:NH2	1:6:1789:G:OP2	302.39	0.56
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.06	0.56
55:M9:154:ALA:O	55:M9:156:ASN:N	3.71	0.56
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.86	0.56
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.71	0.56
36:5:2683:U:OP1	36:5:2683:U:H4'	2.04	0.56
36:1:3066:U:H2'	36:1:3067:C:C6	2.40	0.56
1:2:1449:U:H2'	1:2:1450:U:C6	2.40	0.56
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:43:ARG:NH1	1:6:1553:G:N7	401.87	0.56
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.96	0.56
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.87	0.56
74:O8:17:ARG:NH2	36:5:1824:U:O3'	139.05	0.56
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.06	0.56
3:S1:129:THR:HG22	3:S1:176:VAL:HG12	1.88	0.56
36:5:1235:U:C4'	36:5:1236:G:H5'	2.34	0.56
19:C7:44:LYS:O	19:C7:48:ASN:ND2	2.38	0.56
13:C1:84:ILE:HG13	13:C1:109:VAL:HG13	1.87	0.56
1:6:1058:U:H4'	1:6:1059:U:OP1	2.05	0.56
1:6:1699:G:H22	1:6:1702:A:H5''	1.69	0.56
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.39	0.56
1:2:301:A:H2'	1:2:302:U:O4'	2.06	0.56
1:2:778:G:H22	26:D4:10:ARG:NH2	2.04	0.56
12:C0:15:LEU:HD22	12:C0:46:LEU:HD11	1.88	0.56
36:5:2971:A:H3'	36:5:2971:A:N3	2.21	0.56
47:M0:52:LEU:HD22	47:M0:163:GLN:HB2	1.88	0.56
4:S2:58:LEU:HA	23:D1:12:TYR:HE1	1.70	0.56
15:C3:49:GLN:O	15:C3:53:LEU:HB2	2.06	0.56
52:M6:176:LYS:O	52:M6:180:SER:N	3.01	0.56
36:1:2798:C:H5''	36:1:2799:A:OP1	2.05	0.56
1:6:1140:G:OP2	86:6:2072:OHX:N3	2.38	0.56
54:M8:170:ARG:O	54:M8:171:LYS:HB2	3.98	0.56
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.40	0.56
36:5:2676:A:H4'	36:5:2677:G:O5'	2.06	0.56
1:6:363:G:OP1	86:6:2112:OHX:N1	2.38	0.56
36:5:2322:C:OP1	86:5:4162:OHX:N6	2.39	0.56
66:O0:63:SER:HG	66:O0:65:THR:HG1	2.07	0.56
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.87	0.56
36:1:783:A:OP2	86:1:4098:OHX:N3	2.38	0.56
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	2.65	0.56
1:6:1482:C:OP2	1:6:1521:G:N2	2.38	0.56
46:L9:49:ASN:HD21	46:L9:52:LEU:HB2	1.70	0.56
20:C8:33:THR:HA	20:C8:38:VAL:HG23	1.86	0.56
28:D6:10:ARG:NE	1:6:1795:U:O2	328.80	0.56
36:1:2310:U:OP1	86:1:4133:OHX:N1	2.39	0.56
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.43	0.56
2:S0:38:PHE:CD1	2:S0:39:ASN:HB2	3.44	0.56
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.41	0.56
36:1:627:U:H2'	36:1:628:A:C8	2.40	0.56
21:C9:139:THR:O	21:C9:142:GLU:HG3	5.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:694:U:H3'	1:6:695:U:O2	2.05	0.56
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.06	0.56
36:1:1033:U:H2'	36:1:1034:U:C6	2.40	0.56
47:M0:75:TYR:CZ	47:M0:79:VAL:HG21	2.71	0.56
36:1:818:C:N3	36:1:920:A:H5'	2.20	0.56
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.35	0.56
1:6:1297:G:N2	1:6:1300:A:OP2	2.34	0.56
25:D3:10:ASN:O	1:6:632:U:H5''	333.90	0.56
27:D5:56:THR:N	27:D5:103:ARG:HH11	2.00	0.56
36:5:153:U:HO2'	36:5:158:G:HO2'	1.52	0.56
36:5:2872:A:H4'	36:5:2873:U:OP1	2.06	0.56
1:6:488:G:N2	1:6:499:U:H3	2.03	0.56
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.29	0.56
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.38	0.56
86:5:4024:OHX:N6	86:5:4220:OHX:N4	2.54	0.56
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.86	0.56
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	3.19	0.56
15:C3:12:SER:O	15:C3:13:SER:HB3	2.06	0.56
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.54	0.56
36:5:668:G:OP1	86:5:4143:OHX:N1	2.39	0.56
1:2:848:C:H2'	1:2:849:C:C6	2.41	0.56
40:L3:227:GLU:HG3	40:L3:270:ARG:HB3	4.33	0.56
1:2:811:A:C2	1:2:858:G:H1'	2.41	0.56
36:5:1355:A:H1'	36:5:1356:U:OP2	2.05	0.56
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	2.25	0.56
11:S9:62:ARG:CZ	11:S9:68:LYS:HD3	3.69	0.56
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.41	0.56
36:5:279:U:H2'	36:5:280:U:H6	1.71	0.56
36:1:1581:C:C2	36:1:1582:C:H5'	2.41	0.56
71:O5:12:LYS:NZ	71:O5:20:GLN:OE1	2.67	0.56
36:1:2681:U:OP2	48:M1:51:ARG:NH2	2.39	0.56
52:M6:157:GLU:OE1	52:M6:160:ARG:NH1	2.47	0.56
37:3:4:U:H2'	37:3:5:G:H8	1.70	0.56
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.33	0.56
33:E1:97:LYS:HD2	33:E1:98:VAL:HG23	7.92	0.56
44:L7:103:LEU:HG	44:L7:130:ILE:HD11	5.94	0.56
1:6:1637:C:OP2	86:6:2115:OHX:N4	2.39	0.56
36:5:1581:C:P	36:5:2522:G:H21	2.29	0.56
36:1:2768:U:H2'	36:1:2769:A:C8	2.39	0.56
41:L4:203:ARG:NH2	41:L4:240:PRO:HB3	3.25	0.56
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:150:ASN:C	48:M1:152:HIS:H	2.09	0.56
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.87	0.56
36:5:325:A:H5'	36:5:326:U:OP2	2.06	0.56
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	1.88	0.56
39:L2:40:TYR:O	36:5:2550:U:H5	212.32	0.56
1:2:1765:A:OP2	86:2:2095:OHX:N5	2.39	0.56
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.65	0.56
1:2:1031:U:H4'	1:2:1032:G:OP2	2.05	0.56
1:6:341:A:H2'	1:6:342:C:C6	2.40	0.56
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.88	0.56
17:C5:40:ARG:NH2	1:6:1552:U:O4	393.72	0.56
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.91	0.56
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.65	0.56
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	294.24	0.56
36:1:3049:A:OP2	86:1:4176:OHX:N1	2.39	0.56
62:N6:89:LYS:NZ	36:5:375:A:OP2	74.25	0.56
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.90	0.56
36:5:1506:A:H1'	36:5:1848:G:O6	2.05	0.56
1:6:1603:U:H2'	1:6:1604:U:C6	2.41	0.56
74:O8:69:LEU:HD12	74:O8:73:LEU:HD22	1.88	0.56
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	1.87	0.56
36:1:3148:U:O4	86:1:4103:OHX:N2	2.38	0.56
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.06	0.56
41:L4:162:THR:O	41:L4:166:VAL:HG23	2.05	0.56
1:6:1487:A:H61	1:6:1519:U:H3	1.52	0.56
30:D8:32:PHE:O	30:D8:34:GLU:N	3.87	0.56
36:5:566:G:N7	86:5:4133:OHX:N5	2.53	0.56
55:M9:143:ILE:HD11	36:5:2093:A:H2	246.36	0.56
1:6:1392:U:H2'	1:6:1393:C:C6	2.40	0.56
36:1:191:U:H2'	36:1:192:C:H6	1.71	0.56
13:C1:101:GLU:OE1	13:C1:103:ARG:NH2	2.99	0.56
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	1.70	0.56
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.70	0.56
1:6:1700:C:O2'	1:6:1701:A:OP1	2.22	0.56
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.81	0.56
36:1:2112:U:H4'	36:1:2113:A:H5'	1.87	0.56
52:M6:6:VAL:HG22	52:M6:32:LYS:HB3	2.50	0.56
36:1:3094:A:H2'	36:1:3095:U:C6	2.41	0.56
38:8:6:U:H2'	38:8:7:U:H6	1.71	0.56
1:6:1695:G:H21	1:6:1706:C:H41	1.54	0.56
1:6:149:C:H42	1:6:165:G:H1	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:543:C:H42	36:5:548:G:H1	1.54	0.56
36:5:3057:U:O2'	36:5:3059:G:OP1	2.24	0.56
36:1:1916:U:H2'	36:1:1917:C:C6	2.40	0.56
36:1:1917:C:P	55:M9:85:ARG:HH12	2.29	0.56
1:2:1789:G:H8	1:2:1789:G:H5''	1.71	0.56
78:Q2:41:ARG:NH1	36:5:284:A:OP2	157.49	0.56
1:6:199:G:HO2'	1:6:200:A:H8	1.53	0.56
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.72	0.55
70:O4:74:ARG:HG2	70:O4:75:ALA:H	1.71	0.55
36:5:155:G:H5''	36:5:156:G:C8	2.41	0.55
38:4:69:U:OP2	86:O7:103:OHX:N3	2.39	0.55
1:2:704:C:OP2	1:2:704:C:H3'	2.06	0.55
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	2.66	0.55
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	3.45	0.55
26:D4:57:VAL:HG13	26:D4:60:PHE:HE2	1.70	0.55
36:1:3197:G:H2'	36:1:3198:U:H5''	1.87	0.55
1:2:227:U:O2'	1:2:228:G:H5''	2.06	0.55
77:Q1:7:LYS:HE2	77:Q1:11:ARG:NH1	2.59	0.55
1:6:1244:A:H3'	1:6:1244:A:N3	2.20	0.55
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.88	0.55
42:L5:152:ARG:HD3	36:5:2663:G:C5'	276.07	0.55
10:S8:185:GLU:O	10:S8:187:GLU:N	2.39	0.55
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	4.25	0.55
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.06	0.55
7:S5:208:SER:HB3	7:S5:211:ILE:HB	4.01	0.55
41:L4:10:SER:OG	41:L4:13:GLY:O	2.20	0.55
2:S0:56:LYS:HD2	2:S0:158:VAL:HG23	1.88	0.55
35:SM:48:ARG:HA	36:5:1019:G:OP1	334.03	0.55
7:S5:96:SER:HB2	7:S5:176:THR:HG21	2.84	0.55
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.41	0.55
36:5:3160:U:OP1	86:5:4185:OHX:N1	2.39	0.55
78:Q2:65:THR:OG1	36:5:2652:U:OP1	224.18	0.55
1:2:687:G:OP1	24:D2:118:ARG:NH1	2.39	0.55
1:6:647:G:H22	1:6:687:G:N2	2.03	0.55
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.39	0.55
3:S1:130:SER:OG	3:S1:131:ASP:N	2.55	0.55
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.38	0.55
41:L4:141:ARG:NH1	36:5:1385:C:OP1	127.41	0.55
36:1:1240:A:H61	36:1:1244:A:H5''	1.71	0.55
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.38	0.55
36:1:1285:G:O2'	36:1:1286:A:OP2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.54	0.55
54:M8:165:ILE:HG21	54:M8:168:THR:HG22	5.07	0.55
36:1:402:A:OP1	75:O9:36:ARG:NH2	2.39	0.55
74:O8:23:ALA:HB3	74:O8:73:LEU:HD21	1.89	0.55
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.87	0.55
36:1:2747:A:H2'	36:1:2748:A:C8	2.40	0.55
36:5:982:C:H42	36:5:1101:G:H1	1.53	0.55
36:1:25:U:O4	86:1:3865:OHX:N4	2.39	0.55
28:D6:24:VAL:HG12	28:D6:72:HIS:O	2.07	0.55
15:C3:20:ARG:NE	1:6:862:A:OP1	357.05	0.55
1:2:119:A:N1	6:S4:7:LYS:NZ	2.53	0.55
62:N6:12:ARG:HD3	36:5:215:G:H5''	87.77	0.55
46:L9:117:PHE:HE1	46:L9:178:GLY:HA2	1.70	0.55
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.07	0.55
46:L9:147:SER:HB3	46:L9:187:ILE:HD11	1.88	0.55
36:5:1414:G:O6	86:5:4149:OHX:N1	2.39	0.55
40:L3:81:THR:HG23	40:L3:81:THR:O	3.53	0.55
1:2:795:U:C5	1:2:796:A:C8	2.93	0.55
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.88	0.55
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.93	0.55
7:S5:64:VAL:HG22	7:S5:89:ILE:HD11	1.88	0.55
1:6:947:U:H2'	1:6:948:G:C8	2.42	0.55
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.37	0.55
36:5:2897:A:H2'	36:5:2899:C:C5'	2.36	0.55
1:2:1508:U:O4	86:2:2034:OHX:N5	2.39	0.55
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.99	0.55
36:1:2573:G:OP1	63:N7:61:LYS:NZ	2.27	0.55
57:N1:101:CYS:HB3	36:5:990:U:O4'	253.41	0.55
50:M4:31:LYS:HB3	50:M4:51:ALA:HB1	3.58	0.55
60:N4:49:ILE:O	60:N4:52:THR:OG1	2.22	0.55
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.39	0.55
36:5:2440:G:H2'	36:5:2441:A:C8	2.40	0.55
61:N5:51:VAL:HG21	71:O5:62:GLN:HB3	2.27	0.55
45:L8:54:GLU:O	45:L8:58:VAL:HG23	3.31	0.55
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	2.77	0.55
36:1:3351:U:O2'	36:1:3352:U:OP1	2.21	0.55
36:5:2810:C:OP1	86:5:4083:OHX:N3	2.39	0.55
13:C1:59:PRO:HG2	13:C1:60:PHE:CE2	2.41	0.55
8:S6:164:LYS:NZ	1:6:71:A:OP2	373.19	0.55
1:2:1266:U:H2'	1:2:1267:G:C8	2.41	0.55
44:L7:24:GLU:O	44:L7:26:VAL:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:812:G:N7	86:1:3978:OHX:N1	2.54	0.55
36:1:1216:C:H6	36:1:1216:C:H5''	1.72	0.55
36:5:595:G:N1	36:5:609:G:H5''	2.20	0.55
36:1:2973:G:N7	86:1:4092:OHX:N2	2.54	0.55
1:6:73:U:H2'	1:6:74:U:C6	2.42	0.55
42:L5:226:TYR:CE1	42:L5:236:LEU:HD11	5.29	0.55
36:5:409:A:OP2	86:5:4104:OHX:N3	2.40	0.55
72:O6:79:SER:HB3	72:O6:82:ARG:HG3	1.87	0.55
21:C9:39:THR:HA	21:C9:100:ILE:HD12	4.87	0.55
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.69	0.55
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.87	0.55
57:N1:14:MET:CE	57:N1:55:LYS:HB2	3.20	0.55
52:M6:78:ARG:HG3	52:M6:78:ARG:HH11	1.72	0.55
36:1:3095:U:H2'	36:1:3096:C:C6	2.41	0.55
71:O5:31:LEU:HD22	71:O5:47:VAL:HG11	1.87	0.55
10:S8:58:LEU:HD21	1:6:1676:U:H5''	271.74	0.55
24:D2:26:LEU:HD21	24:D2:60:LYS:HD3	1.89	0.55
1:6:9:U:O4	86:6:2148:OHX:N3	2.39	0.55
36:1:789:A:H2'	36:1:790:U:C6	2.41	0.55
34:SR:309:VAL:HG23	34:SR:311:ARG:HH12	2.68	0.55
21:C9:22:LEU:HB3	21:C9:55:TYR:HD1	1.72	0.55
31:D9:15:GLY:O	31:D9:17:GLY:N	3.44	0.55
51:M5:11:GLN:HG2	51:M5:44:ARG:NH2	2.21	0.55
35:SM:76:VAL:HG11	1:6:1461:C:H1'	329.04	0.55
1:2:181:A:H2'	1:2:182:A:C8	2.41	0.55
7:S5:69:PHE:CD2	18:C6:50:GLU:HG3	2.41	0.55
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.87	0.55
3:S1:176:VAL:O	3:S1:178:GLY:N	2.40	0.55
1:2:196:G:O2'	1:2:197:A:OP2	2.23	0.55
10:S8:137:LYS:NZ	1:6:192:U:O4	265.64	0.55
1:6:197:A:H2'	1:6:198:A:C8	2.42	0.55
3:S1:121:ILE:HB	3:S1:141:ALA:O	2.07	0.55
49:M3:59:ARG:HD3	36:5:73:C:O2	93.13	0.55
20:C8:126:ARG:NH1	1:6:1459:C:OP1	351.96	0.55
45:L8:36:ILE:O	45:L8:38:GLN:HG2	2.06	0.55
36:1:3294:A:H2'	36:1:3295:A:O4'	2.07	0.55
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.06	0.55
1:6:578:U:O2	86:6:2156:OHX:N3	2.39	0.55
36:1:2175:U:O4	39:L2:20:THR:HG23	2.06	0.55
55:M9:86:GLU:OE2	55:M9:91:SER:OG	2.24	0.55
67:O1:44:MET:C	67:O1:46:THR:H	2.10	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:192:GLY:O	41:L4:195:ARG:N	2.80	0.55
36:1:818:C:C2	36:1:920:A:H5'	2.40	0.55
36:1:2206:G:H1	36:1:2237:C:H42	1.53	0.55
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.81	0.55
36:1:230:U:H2'	36:1:231:G:O4'	2.07	0.55
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.07	0.55
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.88	0.55
36:5:756:U:H2'	36:5:757:C:H6	1.72	0.55
36:1:2103:U:H2'	36:1:2104:A:C8	2.42	0.55
1:6:1640:C:O5'	1:6:1640:C:H6	1.89	0.55
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.07	0.55
36:5:1557:A:N7	36:5:1559:A:N6	2.54	0.55
1:2:1561:U:H2'	1:2:1562:G:C8	2.36	0.55
68:O2:103:LYS:O	68:O2:106:VAL:HG22	4.17	0.55
3:S1:113:MET:HE3	3:S1:211:HIS:NE2	3.84	0.55
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.15	0.55
8:S6:132:ARG:HD2	1:6:150:U:H1'	326.63	0.55
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.89	0.55
44:L7:96:PRO:O	44:L7:100:ARG:HB2	2.74	0.55
37:3:63:A:OP1	42:L5:285:ARG:HD3	2.07	0.55
2:S0:4:PRO:HD3	2:S0:62:ARG:HH22	1.71	0.55
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.71	0.55
55:M9:15:VAL:HG12	55:M9:52:LYS:HE3	2.98	0.55
1:6:759:U:OP1	86:6:2180:OHX:N2	2.40	0.55
36:5:595:G:H1	36:5:609:G:H5''	1.72	0.55
1:6:1688:U:H2'	1:6:1689:A:C8	2.41	0.55
1:2:74:U:O2'	1:2:75:U:OP2	2.25	0.55
30:D8:65:ARG:HD3	30:D8:67:ARG:CZ	2.37	0.55
5:S3:141:LYS:HE3	5:S3:179:GLN:HG3	1.89	0.55
34:SR:282:SER:N	1:6:1394:G:OP1	417.72	0.55
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.22	0.55
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.40	0.55
40:L3:347:SER:HB3	40:L3:350:ALA:N	2.42	0.55
36:1:1170:A:OP2	86:1:3952:OHX:N5	2.39	0.55
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.52	0.55
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.07	0.55
36:5:1876:U:H6	36:5:1876:U:C5'	2.19	0.55
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.98	0.55
6:S4:241:GLY:O	6:S4:243:GLY:N	2.40	0.55
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.40	0.55
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:164:LYS:O	8:S6:166:GLU:N	2.40	0.55
36:1:668:G:OP1	86:1:4114:OHX:N2	2.39	0.55
36:1:2438:A:H2'	36:1:2439:A:C8	2.42	0.55
36:1:2255:A:H5'	36:1:2261:G:H22	1.71	0.55
51:M5:153:ASP:HB3	51:M5:155:VAL:HG23	1.87	0.55
14:C2:33:ARG:HA	14:C2:36:LEU:HD12	1.88	0.55
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.89	0.55
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.99	0.55
41:L4:276:LEU:HD12	41:L4:276:LEU:H	3.94	0.55
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.70	0.55
36:1:544:C:H1'	36:1:548:G:H22	1.71	0.55
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	1.89	0.55
18:C6:13:LYS:HG2	18:C6:79:TYR:HB2	4.21	0.55
42:L5:265:TYR:HE1	37:7:121:U:H5''	316.66	0.55
36:1:980:A:H2'	36:1:981:U:C2	2.42	0.55
1:6:196:G:N3	1:6:197:A:H1'	2.20	0.55
11:S9:135:ALA:HB2	11:S9:159:ALA:HB2	1.89	0.55
3:S1:29:TRP:CD1	3:S1:47:LEU:HG	2.42	0.55
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.52	0.55
34:SR:133:VAL:HG12	34:SR:141:LEU:HD12	2.77	0.55
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.55	0.55
36:1:847:A:H2'	36:1:848:A:C8	2.42	0.55
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.40	0.55
3:S1:229:MET:O	3:S1:232:HIS:N	4.06	0.55
36:1:619:A:H5''	36:1:620:U:OP1	2.07	0.55
45:L8:241:LYS:HD3	36:5:2586:G:C8	183.99	0.55
36:1:2681:U:H5'	48:M1:65:ILE:HD11	1.87	0.55
4:S2:83:ILE:HD12	35:SM:117:LEU:HD12	1.88	0.55
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	4.14	0.55
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.27	0.55
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.26	0.55
4:S2:132:ALA:O	4:S2:135:SER:OG	2.50	0.55
66:O0:74:ASN:OD1	66:O0:74:ASN:N	2.39	0.55
5:S3:210:GLU:HG3	5:S3:211:PRO:HD2	3.22	0.55
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.40	0.55
47:M0:10:ARG:NH2	47:M0:161:GLY:HA2	2.22	0.55
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.33	0.55
1:2:703:G:H2'	1:2:704:C:H5'	1.88	0.55
30:D8:44:VAL:HG12	30:D8:54:LEU:HD21	1.89	0.55
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.37	0.55
36:1:612:U:OP1	43:L6:21:THR:HB	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1765:U:H4'	36:5:1765:U:OP1	2.05	0.55
36:5:622:A:H2'	36:5:623:U:O4'	2.05	0.55
72:O6:62:ARG:O	72:O6:63:ASN:ND2	5.41	0.55
12:C0:32:HIS:HD2	12:C0:35:ILE:HB	1.71	0.55
77:Q1:6:ARG:NH2	1:6:1114:G:OP2	314.23	0.55
30:D8:58:GLU:O	30:D8:60:GLU:N	3.13	0.55
30:D8:60:GLU:O	30:D8:62:GLU:N	5.01	0.55
70:O4:61:GLN:O	70:O4:64:THR:OG1	2.80	0.55
17:C5:108:ARG:HD2	17:C5:110:GLU:OE1	2.07	0.55
1:2:649:U:O2'	1:2:650:U:O4'	2.24	0.55
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.34	0.55
18:C6:95:LYS:HG2	18:C6:96:TYR:CE1	4.51	0.55
52:M6:88:VAL:O	52:M6:90:HIS:N	2.40	0.55
36:5:142:C:H2'	36:5:143:G:O4'	2.07	0.55
1:2:45:U:O2'	1:2:46:A:H2'	2.06	0.55
6:S4:146:THR:HG21	1:6:123:G:H21	341.96	0.55
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.33	0.55
1:2:1117:U:H2'	1:2:1118:G:C8	2.42	0.55
1:6:1159:C:N3	86:6:2138:OHX:N5	2.53	0.55
55:M9:4:LEU:HD22	55:M9:7:GLN:HG3	4.62	0.55
63:N7:64:LYS:HD2	36:5:1812:G:O6	185.21	0.55
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.51	0.55
1:6:1175:U:H2'	1:6:1176:G:C8	2.42	0.55
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.07	0.55
8:S6:24:ILE:O	8:S6:26:VAL:N	2.48	0.55
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.80	0.55
1:2:1217:A:H5'	1:2:1217:A:H8	1.70	0.55
1:2:1428:G:H5'	1:2:1428:G:H8	1.72	0.55
5:S3:217:ILE:HG22	5:S3:219:ALA:H	3.77	0.55
42:L5:260:PHE:HE2	37:7:121:U:H5'	321.80	0.55
1:6:755:A:H2'	1:6:756:A:C8	2.41	0.55
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.34	0.55
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.20	0.55
58:N2:43:VAL:HG23	58:N2:46:ALA:O	2.07	0.55
5:S3:58:VAL:O	5:S3:60:GLY:N	3.98	0.55
36:1:1362:G:H2'	36:1:1363:A:C8	2.42	0.55
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.89	0.55
41:L4:93:MET:CE	41:L4:93:MET:H	2.20	0.55
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	1.95	0.55
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.33	0.55
11:S9:142:ASN:ND2	11:S9:143:ILE:HD12	6.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:292:ALA:HA	40:L3:303:LYS:O	2.07	0.55
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.06	0.55
1:2:1531:G:N2	21:C9:48:GLN:HE22	2.05	0.55
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	2.57	0.55
54:M8:38:ARG:NH2	36:5:1348:U:OP2	188.78	0.55
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.22	0.55
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.50	0.55
1:2:927:C:H1'	16:C4:125:SER:HB2	1.89	0.55
44:L7:70:LYS:NZ	36:5:519:A:OP2	314.15	0.55
36:1:3365:U:H2'	36:1:3366:G:C8	2.42	0.55
37:7:112:G:OP2	86:7:222:OHX:N2	2.40	0.55
39:L2:136:ILE:HA	39:L2:148:VAL:HG12	1.89	0.55
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.21	0.55
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.77	0.55
59:N3:27:ASP:HA	59:N3:113:ALA:O	2.25	0.55
42:L5:107:ARG:NH1	42:L5:169:GLY:O	2.39	0.54
1:6:542:A:C8	1:6:543:C:H5'	2.42	0.54
63:N7:33:SER:HB3	63:N7:36:HIS:O	2.06	0.54
1:2:190:C:N4	1:2:196:G:C6	2.76	0.54
27:D5:43:ASP:O	27:D5:45:GLU:N	2.40	0.54
36:5:1069:C:H2'	36:5:1070:U:H6	1.71	0.54
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.41	0.54
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	2.76	0.54
2:S0:57:LEU:HD21	2:S0:177:LEU:HG	2.29	0.54
63:N7:46:ILE:HG12	63:N7:49:TYR:CD1	2.60	0.54
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	2.80	0.54
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.26	0.54
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.88	0.54
59:N3:53:SER:O	59:N3:56:ASP:HB2	2.07	0.54
36:1:1874:A:OP2	55:M9:21:LYS:HE2	2.06	0.54
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.41	0.54
15:C3:94:LYS:HZ3	1:6:953:G:P	304.33	0.54
42:L5:204:VAL:O	42:L5:208:MET:HG3	4.11	0.54
36:1:1110:U:H2'	36:1:1111:U:C6	2.42	0.54
1:2:1728:A:H1'	10:S8:32:GLN:NE2	2.22	0.54
75:O9:11:GLN:O	75:O9:14:ALA:N	2.40	0.54
36:5:2560:C:O2	86:5:4035:OHX:N2	2.40	0.54
36:5:2518:C:H2'	36:5:2519:A:C8	2.42	0.54
36:1:1194:G:OP1	86:1:3957:OHX:N1	2.40	0.54
18:C6:114:ARG:O	18:C6:115:THR:HB	3.86	0.54
17:C5:20:VAL:HG21	17:C5:36:LEU:HD21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:51:ARG:NH2	43:L6:162:SER:O	2.40	0.54
7:S5:194:LEU:O	7:S5:198:LEU:HG	2.07	0.54
3:S1:70:LEU:O	3:S1:74:GLN:N	2.40	0.54
4:S2:73:LEU:HG	4:S2:76:LEU:HD13	1.90	0.54
42:L5:108:ARG:HA	42:L5:251:PRO:HB2	2.84	0.54
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.67	0.54
1:6:74:U:H3'	1:6:75:U:H3'	1.88	0.54
34:SR:305:TYR:CE2	34:SR:311:ARG:HB2	2.42	0.54
36:5:973:A:H2'	36:5:974:G:O4'	2.07	0.54
36:5:701:G:H2'	36:5:702:C:C6	2.42	0.54
16:C4:61:MET:O	16:C4:65:GLN:N	2.34	0.54
1:6:515:A:OP2	86:6:2102:OHX:N6	2.40	0.54
46:L9:116:ASN:O	46:L9:119:GLY:N	2.36	0.54
45:L8:228:GLU:OE2	45:L8:231:LYS:NZ	3.38	0.54
37:3:67:G:H2'	37:3:68:C:O4'	2.06	0.54
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.08	0.54
36:5:201:A:OP2	86:5:3990:OHX:N1	2.39	0.54
36:5:94:G:H2'	36:5:95:A:C8	2.42	0.54
47:M0:177:ASP:OD2	47:M0:177:ASP:N	3.66	0.54
1:6:1388:A:H4'	1:6:1389:C:O5'	2.07	0.54
3:S1:77:GLU:O	3:S1:79:HIS:N	2.37	0.54
7:S5:94:THR:CG2	7:S5:114:ILE:HG13	2.66	0.54
70:O4:3:GLN:HE22	70:O4:30:LEU:H	3.68	0.54
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.91	0.54
1:6:486:G:H22	1:6:501:U:H3	1.54	0.54
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	3.53	0.54
36:1:1834:U:H3'	36:1:1835:A:H5'	1.89	0.54
36:5:1915:A:H2'	36:5:1916:U:C6	2.43	0.54
22:D0:28:SER:OG	22:D0:111:GLY:O	2.86	0.54
58:N2:59:ASP:OD1	58:N2:60:GLY:N	4.78	0.54
34:SR:127:ARG:HG2	34:SR:150:TRP:CD1	2.42	0.54
6:S4:163:ASP:OD1	6:S4:164:LEU:N	4.66	0.54
15:C3:3:ARG:HG2	15:C3:6:SER:OG	2.07	0.54
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	1.89	0.54
36:5:1072:G:H2'	36:5:1073:U:H6	1.73	0.54
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.41	0.54
37:3:73:C:H5"	37:3:74:C:OP1	2.07	0.54
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.17	0.54
36:1:1790:G:O6	86:1:4163:OHX:N4	2.40	0.54
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.72	0.54
11:S9:108:ARG:HB3	11:S9:110:GLN:HB3	2.74	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:87:LEU:HA	47:M0:138:VAL:HG22	2.72	0.54
53:M7:31:GLU:CG	53:M7:60:PHE:HA	3.54	0.54
8:S6:141:ILE:HD13	8:S6:153:VAL:HG11	1.88	0.54
36:5:2400:G:H5''	36:5:2401:A:OP2	2.07	0.54
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	3.72	0.54
34:SR:164:ASP:O	34:SR:166:SER:N	2.70	0.54
36:1:2677:G:H2'	36:1:2679:A:C2	2.41	0.54
36:1:3174:A:OP1	69:O3:97:SER:OG	2.24	0.54
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.88	0.54
51:M5:140:LYS:HE2	51:M5:143:ARG:HD3	1.89	0.54
17:C5:89:MET:O	17:C5:107:ILE:HG13	3.74	0.54
36:5:3228:C:H4'	36:5:3229:G:O5'	2.06	0.54
36:1:1791:C:H2'	36:1:1792:C:C6	2.42	0.54
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.88	0.54
1:6:217:A:C8	1:6:218:A:C8	2.96	0.54
1:2:1041:G:OP1	86:2:2152:OHX:N5	2.41	0.54
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.33	0.54
45:L8:157:VAL:H	45:L8:183:LYS:HZ1	1.54	0.54
48:M1:51:ARG:HG2	48:M1:51:ARG:HH11	5.54	0.54
56:N0:1:MET:HE1	56:N0:32:SER:N	2.22	0.54
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.07	0.54
6:S4:92:LEU:O	6:S4:95:THR:HG22	6.50	0.54
36:1:1029:G:H2'	36:1:1030:A:C8	2.41	0.54
2:S0:147:THR:O	2:S0:161:PRO:HA	2.44	0.54
40:L3:135:ALA:O	40:L3:137:TYR:N	2.41	0.54
2:S0:120:LEU:HD12	2:S0:121:VAL:H	2.35	0.54
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.72	0.54
39:L2:28:LYS:HB3	39:L2:123:ARG:HB3	2.85	0.54
4:S2:66:PHE:HB3	4:S2:134:LEU:HD21	2.66	0.54
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.41	0.54
26:D4:49:LYS:N	26:D4:49:LYS:HD3	2.88	0.54
13:C1:90:TYR:CE1	13:C1:103:ARG:HB2	2.42	0.54
1:2:542:A:H5''	1:2:544:A:C8	2.42	0.54
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.47	0.54
49:M3:54:LEU:HD13	49:M3:75:PHE:CZ	2.43	0.54
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.08	0.54
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.39	0.54
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.24	0.54
2:S0:57:LEU:HD23	2:S0:160:ILE:HD13	2.83	0.54
36:5:1876:U:H6	36:5:1876:U:H5''	1.72	0.54
1:2:778:G:H3'	1:2:780:A:H2	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.90	0.54
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.86	0.54
13:C1:133:LYS:HB2	1:6:337:G:H3'	290.79	0.54
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.06	0.54
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.43	0.54
36:5:2279:A:O5'	36:5:2280:A:H5'	2.07	0.54
36:5:3054:U:OP2	86:5:3908:OHX:N6	2.40	0.54
36:1:3180:A:OP1	52:M6:171:LYS:NZ	2.39	0.54
71:O5:95:PHE:CG	36:5:136:G:H5'	61.53	0.54
1:2:647:G:H22	1:2:687:G:N2	2.04	0.54
36:1:916:G:N1	39:L2:207:VAL:HG11	2.22	0.54
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.71	0.54
5:S3:10:LYS:HG3	5:S3:11:LEU:HD23	1.90	0.54
28:D6:79:ILE:HD12	1:6:1794:A:H1'	330.24	0.54
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.08	0.54
44:L7:229:PHE:CD1	44:L7:229:PHE:C	2.99	0.54
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.88	0.54
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.11	0.54
10:S8:51:GLY:H	1:6:397:A:H5''	313.87	0.54
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.23	0.54
1:6:886:U:H2'	1:6:887:A:C8	2.42	0.54
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.36	0.54
26:D4:88:THR:O	26:D4:92:VAL:HG13	5.58	0.54
1:6:624:G:H2'	1:6:625:C:H6	1.72	0.54
43:L6:98:VAL:HA	43:L6:101:PHE:HD2	1.73	0.54
1:6:341:A:H2'	1:6:342:C:H6	1.73	0.54
51:M5:120:TRP:CE3	36:5:269:G:H5'	132.83	0.54
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.92	0.54
36:5:1486:G:O6	86:5:4085:OHX:N4	2.39	0.54
33:E1:133:ALA:HB3	33:E1:140:TYR:HB3	2.85	0.54
43:L6:167:ASN:ND2	36:5:3177:G:N7	266.21	0.54
36:1:1237:G:N3	36:1:1237:G:H2'	2.23	0.54
36:5:964:G:OP2	36:5:1115:G:N2	2.33	0.54
86:1:3997:OHX:N3	86:1:4167:OHX:N5	2.56	0.54
86:1:3997:OHX:N6	86:1:4167:OHX:N1	2.55	0.54
13:C1:92:HIS:HB2	13:C1:103:ARG:HD2	2.42	0.54
40:L3:4:ARG:CG	40:L3:4:ARG:HH11	2.63	0.54
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.88	0.54
1:2:1760:G:C2'	1:2:1761:U:H5'	2.38	0.54
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.08	0.54
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.72	0.54
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.89	0.54
14:C2:70:ASN:HD22	14:C2:73:LYS:HE2	1.71	0.54
44:L7:60:ARG:NH2	36:5:516:A:O3'	304.39	0.54
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.40	0.54
5:S3:25:PHE:O	5:S3:28:GLU:N	2.41	0.54
35:SM:33:LYS:HD2	36:5:2667:A:H5''	286.58	0.54
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.89	0.54
41:L4:304:GLN:O	41:L4:306:THR:N	2.61	0.54
39:L2:71:LEU:HD22	36:5:1651:U:H5''	188.47	0.54
36:5:7:C:H2'	36:5:8:C:H6	1.73	0.54
68:O2:9:ILE:HG23	68:O2:63:THR:HB	3.06	0.54
47:M0:19:LYS:HG3	47:M0:26:VAL:HG22	4.36	0.54
67:O1:79:ARG:H	67:O1:79:ARG:NE	2.06	0.54
36:5:561:C:H2'	36:5:562:C:C6	2.43	0.54
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.04	0.54
9:S7:126:LEU:HD21	9:S7:152:VAL:HG21	4.22	0.54
1:2:705:U:H2'	1:2:706:A:C8	2.42	0.54
66:O0:53:LYS:O	66:O0:57:GLU:HG3	2.66	0.54
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.08	0.54
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.07	0.54
36:5:3227:A:H2'	36:5:3228:C:H5'	1.90	0.54
52:M6:177:LYS:O	52:M6:181:ALA:N	2.54	0.54
20:C8:36:LYS:NZ	1:6:1568:C:OP2	337.93	0.54
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.40	0.54
36:5:549:U:H2'	36:5:550:A:H8	1.72	0.54
36:1:1260:A:H1'	36:1:1280:C:H1'	1.89	0.54
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.72	0.54
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.70	0.54
36:5:2841:G:OP2	86:5:4140:OHX:N1	2.41	0.54
36:5:2664:C:H2'	36:5:2665:U:C6	2.42	0.54
1:6:256:A:H2'	1:6:257:A:O4'	2.08	0.54
1:6:902:G:H2'	1:6:903:U:C6	2.43	0.54
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.40	0.54
36:1:2683:U:H2'	36:1:2684:C:C6	2.43	0.54
36:1:2787:G:OP2	86:1:3945:OHX:N3	2.41	0.54
18:C6:109:PHE:O	18:C6:113:ASP:N	2.56	0.54
2:S0:182:LEU:C	2:S0:184:LEU:H	2.11	0.54
7:S5:57:SER:HB3	30:D8:53:ILE:HB	1.90	0.54
3:S1:120:LEU:HD23	3:S1:142:PHE:CE1	4.73	0.54
8:S6:176:GLN:HG2	1:6:169:A:C5'	328.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.71	0.54
28:D6:5:ARG:NH1	1:6:1796:C:OP2	341.06	0.54
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.07	0.54
62:N6:38:GLU:HG3	62:N6:39:LEU:N	2.22	0.54
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.64	0.54
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.90	0.54
50:M4:77:ARG:NH2	36:5:524:U:OP1	341.23	0.54
50:M4:100:ALA:HA	50:M4:103:ILE:HD12	3.17	0.54
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.08	0.54
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	1.73	0.54
36:1:2218:G:H2'	36:1:2219:A:C8	2.43	0.54
67:O1:44:MET:HB3	67:O1:77:ARG:HD3	2.58	0.54
16:C4:85:ALA:N	16:C4:119:THR:HG22	2.23	0.54
1:2:1235:C:H5'	33:E1:146:SER:HB2	1.90	0.54
42:L5:188:GLU:OE1	86:5:4239:OHX:N3	244.16	0.54
1:6:862:A:C2	1:6:963:A:C4	2.95	0.54
1:2:1275:A:N3	5:S3:141:LYS:NZ	2.41	0.54
58:N2:33:TYR:HE2	58:N2:63:VAL:HG21	1.73	0.54
36:5:879:U:O2	36:5:2357:A:H1'	2.08	0.54
55:M9:69:SER:O	55:M9:74:ARG:HB2	2.27	0.54
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	2.41	0.54
10:S8:33:PRO:HA	1:6:331:A:H5'	277.37	0.54
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.62	0.54
37:3:60:G:H2'	37:3:61:G:C8	2.43	0.54
36:5:1204:A:H2'	36:5:1205:A:H5'	1.89	0.54
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.08	0.54
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.91	0.54
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.90	0.54
51:M5:21:PHE:HD2	51:M5:22:LEU:HD12	2.34	0.54
46:L9:44:THR:HG23	36:5:3186:A:H1'	324.59	0.54
36:1:3163:A:H2'	36:1:3164:C:H5'	1.90	0.54
42:L5:259:LYS:O	42:L5:265:TYR:OH	2.19	0.54
20:C8:83:ALA:C	20:C8:85:PHE:H	2.12	0.54
70:O4:98:GLN:O	70:O4:102:LYS:HD3	2.08	0.54
3:S1:144:ARG:HB3	3:S1:206:PRO:CB	2.37	0.54
3:S1:78:ASP:O	3:S1:79:HIS:ND1	2.41	0.54
58:N2:54:VAL:HG12	58:N2:67:SER:HA	1.88	0.54
20:C8:6:GLN:O	27:D5:42:LEU:HD11	2.08	0.54
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	2.08	0.54
4:S2:74:PRO:O	4:S2:76:LEU:N	2.39	0.54
10:S8:8:ARG:HD3	10:S8:21:PHE:HD1	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:246:LEU:HD13	6:S4:251:GLU:HG2	1.89	0.54
36:5:797:U:O2'	36:5:798:G:H5'	2.08	0.54
52:M6:182:ASN:O	52:M6:185:ALA:N	5.24	0.54
36:5:2732:G:OP2	86:5:4222:OHX:N1	2.41	0.54
41:L4:16:THR:HG23	41:L4:18:ASN:N	2.91	0.54
1:2:1165:G:O6	1:2:1166:A:N6	2.41	0.54
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.60	0.54
53:M7:127:ARG:NH2	36:5:1508:C:OP1	138.44	0.54
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.68	0.54
36:5:2372:A:H5''	36:5:2373:A:H5'	1.89	0.54
1:6:909:U:H2'	1:6:910:C:H6	1.73	0.54
51:M5:184:LYS:H	51:M5:186:GLY:H	1.55	0.54
1:6:924:A:H2'	1:6:925:G:C8	2.43	0.54
67:O1:57:GLN:HG2	36:5:1475:A:H4'	147.45	0.54
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.21	0.54
47:M0:157:TYR:CD1	36:5:2836:C:H4'	312.34	0.53
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.90	0.53
5:S3:64:ARG:NH1	5:S3:68:GLU:OE1	4.45	0.53
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	6.67	0.53
1:2:789:A:OP1	6:S4:108:ARG:NH2	2.40	0.53
3:S1:34:ALA:N	3:S1:41:ARG:O	2.31	0.53
44:L7:125:GLU:HA	44:L7:128:LYS:HG3	1.90	0.53
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.90	0.53
1:6:1171:A:H2'	1:6:1172:G:C8	2.43	0.53
40:L3:109:HIS:HB2	40:L3:200:GLU:CD	2.29	0.53
39:L2:202:VAL:HG13	39:L2:217:GLN:HB3	2.22	0.53
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.37	0.53
36:5:789:A:H2'	36:5:790:U:C6	2.43	0.53
36:5:1378:U:OP1	86:5:4031:OHX:N3	2.42	0.53
76:Q0:93:LYS:HA	76:Q0:105:PRO:HB3	1.90	0.53
48:M1:94:ARG:C	48:M1:96:PHE:H	2.11	0.53
18:C6:113:ASP:CG	18:C6:114:ARG:H	2.12	0.53
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.36	0.53
1:2:584:C:H1'	32:E0:18:THR:HG21	1.88	0.53
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.08	0.53
1:2:1479:A:P	21:C9:57:ARG:HH12	2.30	0.53
36:5:3242:G:H5'	36:5:3245:A:C8	2.43	0.53
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	3.23	0.53
39:L2:130:SER:HA	39:L2:169:ILE:HG22	2.61	0.53
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	1.89	0.53
36:5:437:G:H22	36:5:622:A:N6	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.54	0.53
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.39	0.53
27:D5:78:ILE:HD12	27:D5:81:ARG:HH12	4.54	0.53
17:C5:122:THR:CG2	1:6:1558:U:H3	367.32	0.53
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.41	0.53
24:D2:30:SER:OG	24:D2:31:SER:N	2.46	0.53
36:5:850:U:H2'	36:5:851:C:C6	2.42	0.53
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.83	0.53
53:M7:139:TYR:CE1	36:5:2355:G:H5'	143.66	0.53
36:5:181:U:H1'	36:5:236:G:N2	2.22	0.53
6:S4:251:GLU:O	6:S4:255:ARG:HG2	4.01	0.53
36:1:2255:A:OP1	86:1:3927:OHX:N3	2.42	0.53
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.51	0.53
1:6:373:G:N7	86:6:2189:OHX:N3	2.56	0.53
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.58	0.53
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	7.37	0.53
36:5:1155:C:O2'	36:5:1197:A:N1	2.32	0.53
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.29	0.53
11:S9:77:ILE:HG23	11:S9:86:LEU:HD23	2.27	0.53
36:5:385:A:H2'	36:5:386:A:C8	2.42	0.53
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	1.72	0.53
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	2.38	0.53
50:M4:60:LEU:HD22	56:N0:152:LEU:HD11	3.26	0.53
36:1:2960:C:OP1	86:1:3995:OHX:N4	2.41	0.53
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	5.32	0.53
36:5:3383:G:H2'	36:5:3384:U:H6	1.72	0.53
6:S4:49:ARG:HG3	6:S4:50:ASN:N	3.73	0.53
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.07	0.53
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.07	0.53
47:M0:76:MET:HE1	47:M0:138:VAL:HG21	1.90	0.53
74:O8:17:ARG:HB3	74:O8:20:VAL:HG22	3.57	0.53
22:D0:72:ASN:ND2	1:6:1429:G:H21	386.16	0.53
58:N2:49:ASN:C	58:N2:51:GLY:H	2.10	0.53
28:D6:87:ARG:HD3	1:6:1796:C:OP1	346.47	0.53
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	1.91	0.53
34:SR:161:LYS:CB	34:SR:164:ASP:HB3	2.36	0.53
5:S3:73:VAL:HG11	5:S3:84:ILE:HD12	3.80	0.53
1:6:837:G:H2'	1:6:838:G:C8	2.43	0.53
1:2:1785:U:OP1	16:C4:136:ARG:NH1	2.41	0.53
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.08	0.53
5:S3:116:ARG:HG3	5:S3:152:PHE:HE1	5.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:655:C:H2'	36:1:656:A:H8	1.73	0.53
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	4.04	0.53
67:O1:79:ARG:H	67:O1:79:ARG:HE	1.56	0.53
39:L2:203:ALA:HA	39:L2:217:GLN:NE2	2.23	0.53
36:1:1577:G:H2'	36:1:1578:C:O4'	2.08	0.53
1:6:320:U:H2'	1:6:321:C:C2	2.44	0.53
38:8:149:A:H2'	38:8:150:G:C8	2.44	0.53
39:L2:243:THR:OG1	36:5:2244:A:H5''	228.76	0.53
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	4.61	0.53
37:3:89:G:N2	37:3:92:A:OP2	2.42	0.53
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	1.91	0.53
36:5:1214:U:H2'	36:5:1215:U:C6	2.43	0.53
1:6:1015:U:OP1	86:6:2055:OHX:N3	2.41	0.53
50:M4:120:VAL:O	50:M4:124:ARG:HG3	2.08	0.53
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.08	0.53
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.07	0.53
47:M0:168:SER:OG	47:M0:169:LYS:N	2.42	0.53
36:5:1470:U:H2'	36:5:1471:U:C6	2.43	0.53
3:S1:157:GLN:OE1	86:6:2056:OHX:N3	326.22	0.53
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	1.91	0.53
20:C8:145:ARG:HE	20:C8:145:ARG:HA	4.53	0.53
18:C6:32:ASN:N	18:C6:67:VAL:O	2.38	0.53
75:O9:23:LEU:HD21	38:8:52:A:C6	83.99	0.53
36:5:1560:G:HO2'	36:5:1561:G:P	2.31	0.53
1:6:221:A:OP2	1:6:832:U:O2'	2.16	0.53
24:D2:89:TRP:HE3	24:D2:93:LEU:HD22	3.52	0.53
86:1:3997:OHX:N6	86:1:4167:OHX:N5	2.56	0.53
63:N7:95:VAL:HG13	63:N7:110:ALA:HA	1.91	0.53
39:L2:96:LEU:O	79:Q3:87:ARG:NH1	3.66	0.53
6:S4:23:LEU:HD22	6:S4:23:LEU:H	1.88	0.53
36:5:422:A:C2	36:5:2363:A:H4'	2.44	0.53
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.44	0.53
42:L5:148:ILE:HD12	42:L5:159:VAL:HG21	4.81	0.53
70:O4:109:THR:O	70:O4:113:LYS:HB2	2.07	0.53
66:O0:81:VAL:HG23	66:O0:83:LYS:HB2	1.90	0.53
32:E0:30:PRO:HB2	32:E0:34:ALA:HB1	2.48	0.53
6:S4:66:MET:HE3	6:S4:78:THR:HG23	5.37	0.53
36:1:945:C:OP1	68:O2:33:ARG:HG3	2.08	0.53
17:C5:21:ASP:N	17:C5:21:ASP:OD1	2.41	0.53
40:L3:167:ARG:O	86:L3:404:OHX:N5	24.34	0.53
21:C9:117:SER:HB2	21:C9:123:ARG:HE	3.11	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:92:ARG:NH1	48:M1:94:ARG:HD2	4.60	0.53
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.09	0.53
28:D6:10:ARG:NH2	28:D6:35:ALA:O	5.17	0.53
62:N6:51:ARG:HB3	62:N6:115:ARG:NH2	2.23	0.53
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.54	0.53
36:5:2407:C:H2'	36:5:2408:U:C6	2.44	0.53
1:2:788:A:H2'	6:S4:19:LEU:HD22	1.89	0.53
36:1:2946:A:H5''	36:1:2947:G:H5'	1.91	0.53
8:S6:163:THR:HA	8:S6:168:THR:HG22	2.82	0.53
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.17	0.53
36:1:2767:U:H2'	36:1:2768:U:C6	2.43	0.53
21:C9:84:LYS:HE2	21:C9:94:ILE:HG12	1.90	0.53
36:5:3055:U:O2'	36:5:3057:U:OP1	2.22	0.53
21:C9:63:ARG:NH1	1:6:1481:C:OP2	406.32	0.53
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	3.44	0.53
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.08	0.53
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.09	0.53
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.23	0.53
36:1:2689:A:H2'	36:1:2689:A:N3	2.24	0.53
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.59	0.53
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.54	0.53
1:2:772:G:N2	1:2:774:A:O2'	2.39	0.53
1:2:1439:C:H2'	1:2:1440:C:H6	1.73	0.53
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.90	0.53
36:1:1826:C:H2'	36:1:1827:C:H6	1.74	0.53
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.44	0.53
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.09	0.53
36:5:2528:G:N7	86:5:4211:OHX:N3	2.57	0.53
49:M3:50:PRO:O	49:M3:51:LEU:HB2	2.64	0.53
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.45	0.53
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.91	0.53
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.31	0.53
3:S1:70:LEU:HD22	3:S1:74:GLN:HB2	2.27	0.53
36:5:1530:U:OP1	86:5:3994:OHX:N1	2.41	0.53
50:M4:25:LYS:HG3	50:M4:62:GLN:HG2	1.89	0.53
6:S4:242:LYS:HB3	6:S4:244:ILE:HD11	1.89	0.53
52:M6:42:ASN:OD1	52:M6:125:ARG:NH1	2.32	0.53
17:C5:108:ARG:HH21	20:C8:119:ILE:HD12	5.36	0.53
60:N4:13:ILE:HG23	60:N4:17:ARG:HB3	1.90	0.53
36:1:718:G:O6	36:1:751:A:H1'	2.08	0.53
67:O1:43:HIS:O	67:O1:44:MET:HB2	4.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:31:LYS:O	73:O7:33:THR:HG23	3.12	0.53
1:6:1003:A:H4'	1:6:1004:U:O5'	2.09	0.53
45:L8:157:VAL:HG13	36:5:147:U:C5	127.18	0.53
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.08	0.53
44:L7:26:VAL:C	44:L7:28:ALA:H	3.24	0.53
36:5:1072:G:H2'	36:5:1073:U:C6	2.43	0.53
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.09	0.53
1:2:840:U:HO2'	1:2:841:U:H6	1.57	0.53
47:M0:55:ASN:O	47:M0:131:ILE:HG12	3.42	0.53
58:N2:14:THR:HG23	58:N2:66:VAL:HG22	1.91	0.53
1:6:1255:G:H4'	1:6:1256:A:OP1	2.08	0.53
36:1:781:G:OP1	54:M8:151:ARG:NH1	2.37	0.53
64:N8:74:ASN:HB3	64:N8:115:LYS:H	1.74	0.53
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.94	0.53
19:C7:110:VAL:HA	19:C7:113:LEU:HD12	6.12	0.53
51:M5:162:ARG:HD3	36:5:56:G:N3	101.33	0.53
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.90	0.53
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	1.91	0.53
36:1:304:G:H5'	36:1:304:G:N3	2.23	0.53
36:1:1841:A:O2'	36:1:1842:A:H5''	2.09	0.53
36:1:2107:A:H2	36:1:3344:A:C8	2.26	0.53
11:S9:126:ARG:O	11:S9:130:THR:HG23	2.07	0.53
42:L5:269:SER:OG	37:7:1:G:N2	316.94	0.53
11:S9:146:PHE:HZ	1:6:765:G:N2	431.59	0.53
74:O8:11:PHE:CG	74:O8:54:LEU:HD22	3.14	0.53
8:S6:59:GLN:HE21	8:S6:72:ARG:HH12	1.56	0.53
65:N9:14:ARG:CZ	65:N9:18:ARG:HD3	3.61	0.53
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.58	0.53
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	1.91	0.53
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.91	0.53
36:1:1286:A:N3	36:1:1287:A:H1'	2.23	0.53
2:S0:167:LYS:HG2	2:S0:168:HIS:CD2	2.64	0.53
19:C7:83:GLN:O	19:C7:84:TYR:HB2	2.09	0.53
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.33	0.53
3:S1:31:ASP:HA	3:S1:45:LYS:HA	1.88	0.53
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.22	0.53
46:L9:55:VAL:HB	46:L9:68:LEU:CD2	4.24	0.53
24:D2:75:ILE:HG13	24:D2:125:ILE:HD11	1.90	0.53
36:5:3132:C:H2'	36:5:3133:C:C6	2.44	0.53
55:M9:104:ARG:HB3	55:M9:104:ARG:NH1	2.23	0.53
1:2:153:G:OP2	26:D4:131:ARG:NH1	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	3.93	0.53
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	2.07	0.53
22:D0:80:GLU:HG3	31:D9:54:LYS:NZ	2.24	0.53
25:D3:30:LYS:HG2	25:D3:34:LEU:HD11	3.53	0.53
86:2:2093:OHX:N3	86:2:2134:OHX:N6	2.56	0.53
46:L9:49:ASN:OD1	46:L9:51:GLN:HB2	4.90	0.53
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.40	0.53
44:L7:127:LEU:O	44:L7:130:ILE:HG22	5.68	0.53
34:SR:26:SER:OG	34:SR:75:ALA:O	2.27	0.53
17:C5:111:MET:HG2	20:C8:119:ILE:HG23	1.90	0.53
36:1:1558:A:O2'	61:N5:34:LEU:HD23	2.09	0.53
36:5:2775:U:H2'	36:5:2776:C:C6	2.43	0.53
36:5:1192:C:H5	86:5:4094:OHX:N3	2.07	0.53
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.44	0.53
52:M6:24:ALA:HB2	52:M6:84:LEU:HG	3.10	0.53
38:4:10:A:H2'	38:4:11:C:C6	2.44	0.53
12:C0:48:SER:HB2	1:6:1220:C:OP1	439.10	0.53
56:N0:27:MET:HG2	57:N1:151:LEU:O	2.09	0.53
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.27	0.53
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.90	0.53
1:2:843:U:H2'	1:2:844:A:C8	2.44	0.53
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.90	0.53
36:5:2398:A:C2'	36:5:2399:A:H5'	2.38	0.53
38:8:10:A:H2'	38:8:11:C:C6	2.43	0.53
41:L4:312:VAL:HG23	41:L4:313:LEU:HB2	2.38	0.53
42:L5:68:THR:HG22	42:L5:70:THR:N	2.14	0.53
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.91	0.53
3:S1:81:PHE:HD2	3:S1:82:ARG:HB2	3.35	0.53
4:S2:108:ASN:HA	4:S2:141:ARG:HH12	1.74	0.53
36:5:1764:U:H3'	36:5:1765:U:H5''	1.90	0.53
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.89	0.53
54:M8:145:ASN:ND2	36:5:746:A:OP1	177.37	0.53
1:6:1699:G:N2	1:6:1702:A:O4'	2.42	0.53
27:D5:71:ILE:HG22	27:D5:75:LEU:HB2	1.90	0.53
59:N3:48:ARG:NH2	36:5:3043:C:OP2	252.27	0.53
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.26	0.53
1:2:1002:G:H2'	1:2:1003:A:H5'	1.91	0.53
1:2:1105:C:H41	25:D3:4:GLY:CA	2.21	0.53
45:L8:106:LYS:O	45:L8:110:THR:HG23	2.16	0.53
5:S3:195:SER:O	5:S3:197:THR:N	2.37	0.53
42:L5:164:LYS:HG2	42:L5:180:PHE:CZ	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1838:G:H4'	36:5:1839:A:N3	2.23	0.53
1:6:1053:G:H2'	1:6:1053:G:N3	2.24	0.53
36:5:1688:U:H2'	36:5:1689:U:C6	2.44	0.53
86:1:4078:OHX:N4	55:M9:14:VAL:O	2.42	0.53
36:5:3276:G:OP2	36:5:3276:G:H2'	2.09	0.53
42:L5:269:SER:HA	37:7:22:A:C2	324.91	0.53
36:1:1307:G:C2	36:1:1308:A:C2	2.96	0.53
32:E0:15:LYS:NZ	1:6:585:A:OP1	387.46	0.53
18:C6:27:GLY:HA2	18:C6:60:PHE:O	2.09	0.53
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	1.91	0.53
43:L6:52:VAL:HG13	43:L6:65:ILE:HG23	4.55	0.53
3:S1:70:LEU:HB3	3:S1:79:HIS:HB2	6.63	0.53
36:1:1655:G:C5'	36:1:1655:G:H8	2.22	0.53
28:D6:79:ILE:HA	28:D6:84:VAL:HB	1.91	0.53
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.09	0.53
39:L2:174:ARG:HH11	39:L2:174:ARG:HG2	2.25	0.53
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	2.28	0.53
77:Q1:23:ARG:HG2	77:Q1:23:ARG:HH11	5.07	0.53
5:S3:64:ARG:NH2	5:S3:65:ARG:HB2	7.42	0.53
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	1.93	0.53
1:2:741:C:O2	9:S7:107:ARG:NH2	2.42	0.53
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	2.20	0.53
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.44	0.53
1:2:1301:U:OP1	4:S2:88:LYS:HB2	2.09	0.53
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.91	0.53
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.91	0.53
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.43	0.53
5:S3:191:ASP:OD2	5:S3:193:ALA:HB3	2.30	0.53
24:D2:50:PHE:HB2	24:D2:63:VAL:HG22	2.59	0.53
36:1:2418:G:O6	86:1:4112:OHX:N1	2.42	0.53
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.34	0.53
55:M9:186:LYS:HD3	55:M9:187:GLU:HG3	3.91	0.53
71:O5:101:THR:HG23	71:O5:104:GLN:H	1.72	0.53
25:D3:69:ARG:NH2	1:6:568:G:N7	366.01	0.53
62:N6:27:ARG:NH1	62:N6:76:LEU:HA	2.78	0.53
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.43	0.53
71:O5:67:ARG:HG3	71:O5:80:LEU:HD22	1.89	0.53
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.90	0.53
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.95	0.53
1:2:229:U:H3	1:2:236:A:H61	1.54	0.53
1:2:1183:A:N1	17:C5:99:GLY:HA3	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3306:U:H2'	36:1:3307:A:H5''	1.90	0.53
41:L4:108:LYS:NZ	36:5:791:A:OP1	126.59	0.53
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.36	0.53
68:O2:18:LYS:HG2	68:O2:30:GLU:HB3	1.90	0.53
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.09	0.53
9:S7:122:HIS:HA	9:S7:125:ILE:HD13	3.76	0.52
36:5:2234:G:O6	86:5:3964:OHX:N1	2.42	0.52
22:D0:70:THR:HB	22:D0:72:ASN:O	4.72	0.52
3:S1:87:ARG:NH2	3:S1:220:GLN:OE1	2.42	0.52
46:L9:70:THR:HB	36:5:3112:G:HO2'	330.08	0.52
1:2:896:U:H1'	16:C4:38:THR:HG21	1.90	0.52
1:2:65:A:OP1	8:S6:176:GLN:NE2	2.42	0.52
36:1:2818:U:C6	36:1:2818:U:H5'	2.37	0.52
21:C9:118:PRO:C	21:C9:120:GLY:H	2.15	0.52
5:S3:60:GLY:O	5:S3:62:ASN:N	3.28	0.52
1:2:1459:C:OP1	20:C8:126:ARG:NH1	2.40	0.52
56:N0:91:TYR:HD1	56:N0:137:ARG:NH1	2.07	0.52
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.41	0.52
1:2:61:A:H8	1:2:269:G:O2'	1.90	0.52
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.90	0.52
1:6:219:A:H2'	1:6:831:U:O2	2.09	0.52
18:C6:143:ARG:HH12	35:SM:84:LYS:HZ3	1.54	0.52
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.91	0.52
16:C4:132:ARG:NH1	1:6:1788:G:O5'	296.21	0.52
56:N0:1:MET:HG2	56:N0:118:PHE:CE2	4.85	0.52
42:L5:146:LEU:HB3	36:5:2746:A:H2	259.16	0.52
36:1:706:A:H4'	36:1:781:G:O2'	2.09	0.52
36:1:2236:G:OP1	86:1:4112:OHX:N6	2.42	0.52
1:6:1315:U:OP1	1:6:1328:G:N2	2.31	0.52
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	1.91	0.52
18:C6:98:ASP:OD1	18:C6:101:SER:HB3	2.09	0.52
1:6:800:U:H2'	1:6:801:G:C8	2.44	0.52
4:S2:129:ILE:HG22	4:S2:133:LYS:HE3	1.94	0.52
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.03	0.52
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.09	0.52
62:N6:23:PRO:HG2	62:N6:26:GLN:HG3	3.99	0.52
36:1:1744:G:H2'	36:1:1745:C:C6	2.44	0.52
47:M0:50:VAL:HG12	47:M0:152:LEU:HD12	2.58	0.52
1:2:823:G:O2'	1:2:824:G:O5'	2.27	0.52
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.10	0.52
40:L3:296:THR:CG2	40:L3:299:ASP:H	3.03	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.42	0.52
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.16	0.52
47:M0:95:HIS:CE1	47:M0:128:ARG:HE	2.26	0.52
3:S1:176:VAL:C	3:S1:178:GLY:H	2.12	0.52
36:1:1492:G:N7	75:O9:2:ALA:HB3	2.24	0.52
13:C1:131:ILE:HB	13:C1:135:VAL:HG12	3.17	0.52
62:N6:103:LYS:NZ	36:5:221:A:N6	79.52	0.52
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	1.75	0.52
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.42	0.52
1:2:114:C:H5'	1:2:114:C:C6	2.43	0.52
1:6:1228:G:H4'	1:6:1228:G:OP2	2.09	0.52
64:N8:45:MET:HA	64:N8:45:MET:HE3	3.20	0.52
69:O3:90:PRO:HB2	69:O3:93:THR:OG1	2.95	0.52
10:S8:83:TYR:O	10:S8:101:ILE:HB	2.96	0.52
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.49	0.52
56:N0:7:TYR:CZ	56:N0:34:GLU:HG2	2.44	0.52
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.56	0.52
46:L9:92:TYR:HB2	46:L9:142:ASP:HB3	1.90	0.52
36:5:3383:G:H2'	36:5:3384:U:C6	2.44	0.52
18:C6:29:ILE:HA	18:C6:65:ILE:HB	1.92	0.52
1:2:833:U:OP2	86:2:2144:OHX:N4	2.42	0.52
1:2:1746:A:H2'	1:2:1747:G:O4'	2.09	0.52
36:1:1039:U:H2'	36:1:1040:A:C8	2.45	0.52
1:2:1603:U:H2'	1:2:1604:U:C6	2.43	0.52
1:2:605:A:OP2	1:2:606:A:O2'	2.24	0.52
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.74	0.52
55:M9:150:GLN:HA	55:M9:153:LYS:HB3	3.30	0.52
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.07	0.52
86:6:2121:OHX:N2	86:6:2173:OHX:N5	2.57	0.52
36:5:2311:G:OP2	86:5:3980:OHX:N2	2.42	0.52
22:D0:70:THR:HG23	1:6:1280:C:O2'	389.70	0.52
1:2:192:U:O2'	1:2:193:U:O5'	2.24	0.52
1:2:959:U:H5'	29:D7:28:PRO:HB3	1.90	0.52
49:M3:101:ARG:HB2	36:5:76:G:N7	85.07	0.52
36:5:1238:C:H2'	36:5:1239:C:H6	1.73	0.52
57:N1:100:LYS:HB3	36:5:990:U:H4'	259.42	0.52
2:S0:200:ASP:HB2	19:C7:85:VAL:CG2	2.39	0.52
1:2:1711:C:O2'	1:2:1712:A:OP1	2.25	0.52
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	2.51	0.52
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	2.65	0.52
41:L4:38:VAL:O	41:L4:42:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.08	0.52
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.09	0.52
6:S4:159:THR:HG22	6:S4:173:ILE:HB	2.09	0.52
4:S2:86:VAL:O	4:S2:96:THR:HA	2.09	0.52
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.09	0.52
68:O2:16:LYS:HE2	86:O2:201:OHX:N1	27.04	0.52
36:1:1454:A:OP2	86:1:4200:OHX:N6	2.42	0.52
1:2:425:A:H5'	1:2:425:A:H8	1.74	0.52
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.09	0.52
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.92	0.52
86:6:2121:OHX:N2	86:6:2173:OHX:N1	2.56	0.52
40:L3:81:THR:HG22	40:L3:205:VAL:HG21	1.90	0.52
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	1.91	0.52
15:C3:16:ILE:HG22	24:D2:57:ARG:NH2	2.63	0.52
4:S2:99:LYS:HB2	4:S2:117:THR:HB	3.09	0.52
13:C1:57:LYS:HE2	13:C1:131:ILE:HD12	1.90	0.52
21:C9:38:LYS:O	21:C9:39:THR:OG1	2.27	0.52
34:SR:43:ILE:HD13	34:SR:60:SER:HA	2.08	0.52
36:5:438:A:H2'	36:5:494:G:N2	2.24	0.52
7:S5:159:ALA:O	30:D8:61:ARG:NH2	6.08	0.52
36:1:1752:A:OP2	86:1:4041:OHX:N5	2.43	0.52
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.42	0.52
36:5:1299:U:H2'	36:5:1300:G:H8	1.72	0.52
36:1:2356:A:H5'	53:M7:138:LYS:HE3	1.91	0.52
36:5:1533:U:O2'	36:5:1534:A:H5'	2.09	0.52
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.44	0.52
3:S1:116:LYS:HB3	3:S1:117:TRP:CD1	4.17	0.52
59:N3:48:ARG:HH22	36:5:3043:C:P	251.69	0.52
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.08	0.52
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	1.90	0.52
36:1:1668:G:C6	36:1:1669:C:C4	2.98	0.52
8:S6:208:TYR:CE1	8:S6:212:LEU:HD12	2.44	0.52
36:1:1212:A:H2'	36:1:1213:G:H5''	1.92	0.52
40:L3:311:PHE:HE2	40:L3:317:ILE:HG13	2.51	0.52
79:Q3:62:LYS:NZ	36:5:2554:A:N7	219.08	0.52
17:C5:78:THR:OG1	17:C5:79:HIS:N	2.67	0.52
1:2:763:G:C6	1:2:764:U:C4	2.98	0.52
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.35	0.52
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.44	0.52
40:L3:24:SER:HB2	86:L3:404:OHX:N2	2.24	0.52
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:98:SER:OG	66:O0:100:ILE:HG23	4.58	0.52
54:M8:19:PRO:HD3	54:M8:53:PHE:CD1	2.43	0.52
79:Q3:27:LYS:HE2	79:Q3:31:ILE:HD11	1.90	0.52
34:SR:161:LYS:CG	34:SR:164:ASP:HB3	2.39	0.52
36:5:3364:C:OP1	86:5:3945:OHX:N1	2.42	0.52
18:C6:38:LEU:HD11	21:C9:10:ALA:HA	4.31	0.52
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.41	0.52
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	3.20	0.52
11:S9:30:LEU:HD22	11:S9:105:LEU:HD23	1.90	0.52
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.10	0.52
46:L9:94:TYR:HE1	46:L9:142:ASP:OD1	2.30	0.52
40:L3:311:PHE:CE2	40:L3:317:ILE:HG13	3.10	0.52
50:M4:34:ALA:HB2	50:M4:85:TRP:HZ3	1.73	0.52
36:5:1340:G:H2'	36:5:1341:U:H6	1.74	0.52
36:1:2709:C:H2'	36:1:2710:C:H6	1.75	0.52
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.54	0.52
4:S2:178:ILE:HB	4:S2:185:LYS:HD3	4.36	0.52
1:6:38:C:C2'	1:6:39:A:H5'	2.40	0.52
46:L9:107:ASP:OD1	46:L9:107:ASP:N	3.75	0.52
36:5:1456:A:H4'	36:5:1457:U:O5'	2.09	0.52
36:1:1456:A:N6	67:O1:64:VAL:HG22	2.24	0.52
51:M5:53:TYR:HD1	51:M5:133:ILE:HD13	1.74	0.52
1:6:1726:G:N7	86:6:2149:OHX:N5	2.58	0.52
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.53	0.52
40:L3:221:THR:HG22	40:L3:272:TYR:H	2.17	0.52
42:L5:270:LYS:HB3	37:7:1:G:O2'	322.92	0.52
40:L3:260:VAL:HG11	40:L3:266:ARG:NH1	2.24	0.52
36:1:980:A:H2'	36:1:981:U:N1	2.24	0.52
1:2:702:G:HO2'	1:2:703:G:H8	1.55	0.52
7:S5:120:ILE:HG23	27:D5:59:TYR:CE1	2.44	0.52
23:D1:42:GLU:O	23:D1:44:ARG:HD3	2.09	0.52
36:1:200:C:P	62:N6:60:ARG:NH1	2.83	0.52
17:C5:122:THR:HG21	1:6:1455:G:OP1	370.31	0.52
36:5:1438:U:H2'	36:5:1439:U:H6	1.74	0.52
41:L4:93:MET:HB2	36:5:658:G:H21	145.56	0.52
36:5:126:U:H2'	36:5:127:G:O4'	2.09	0.52
36:1:495:G:N2	36:1:619:A:H1'	2.25	0.52
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.43	0.52
34:SR:224:ASN:HB2	34:SR:231:MET:HG3	1.92	0.52
11:S9:96:VAL:O	11:S9:99:LEU:HB3	4.15	0.52
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.33	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.30	0.52
71:O5:54:VAL:HG12	71:O5:58:ILE:HD11	2.89	0.52
1:2:209:U:H2'	1:2:210:A:H8	1.74	0.52
38:8:6:U:H2'	38:8:7:U:C6	2.45	0.52
36:1:2601:A:H2'	36:1:2602:G:H8	1.74	0.52
36:5:3022:G:O2'	36:5:3031:G:O6	2.17	0.52
66:O0:15:ALA:O	66:O0:19:LYS:HG2	2.84	0.52
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	4.13	0.52
47:M0:191:LYS:HB3	47:M0:213:PHE:CE2	2.45	0.52
71:O5:59:ASN:O	71:O5:63:ARG:HG3	2.78	0.52
36:5:1000:C:C2	36:5:1045:C:N4	2.77	0.52
21:C9:33:TYR:O	21:C9:34:VAL:HG12	4.65	0.52
36:5:2859:U:O2'	86:5:3904:OHX:N6	2.43	0.52
36:5:3089:C:H2'	36:5:3090:U:O4'	2.10	0.52
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	2.36	0.52
69:O3:68:TRP:NE1	36:5:3275:U:OP2	228.23	0.52
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.20	0.52
11:S9:149:ARG:O	11:S9:151:ASP:N	2.37	0.52
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.25	0.52
46:L9:7:GLU:OE1	46:L9:54:LYS:HD2	2.08	0.52
36:1:1655:G:H5'	36:1:1655:G:H8	1.75	0.52
34:SR:133:VAL:O	34:SR:141:LEU:N	2.66	0.52
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.42	0.52
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.09	0.52
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.10	0.52
10:S8:147:ALA:O	10:S8:149:SER:N	3.28	0.52
70:O4:42:PRO:HB2	70:O4:51:LEU:HD12	5.62	0.52
7:S5:162:VAL:HA	30:D8:45:LYS:HB3	2.49	0.52
1:2:1282:U:OP1	22:D0:76:SER:OG	2.28	0.52
63:N7:54:THR:HG22	63:N7:57:HIS:CD2	3.14	0.52
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.91	0.52
8:S6:126:ASP:OD2	8:S6:127:THR:N	2.43	0.52
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.74	0.52
1:2:568:G:N7	25:D3:69:ARG:NH2	2.58	0.52
1:2:1211:A:H1'	17:C5:99:GLY:O	2.10	0.52
1:6:1590:G:H2'	1:6:1591:C:H6	1.74	0.52
38:8:62:C:O2	86:8:219:OHX:N1	2.43	0.52
36:5:2942:C:H5''	36:5:2943:G:H5''	1.92	0.52
62:N6:73:VAL:HA	62:N6:80:VAL:HG23	2.15	0.52
44:L7:154:GLY:N	44:L7:161:VAL:O	2.65	0.52
36:5:2787:G:OP2	86:5:4038:OHX:N6	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:926:A:H2'	36:5:927:C:C6	2.44	0.52
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	1.91	0.52
40:L3:187:SER:OG	40:L3:187:SER:O	2.27	0.52
40:L3:301:THR:OG1	40:L3:301:THR:O	2.28	0.52
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.20	0.52
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.75	0.52
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.75	0.52
26:D4:116:LYS:HE2	1:6:57:G:OP2	338.86	0.52
4:S2:108:ASN:HA	4:S2:141:ARG:NH1	2.24	0.52
46:L9:172:ILE:H	46:L9:172:ILE:HD13	1.75	0.52
1:6:25:C:H4'	1:6:25:C:OP2	2.09	0.52
1:6:485:A:C5	1:6:486:G:H1'	2.44	0.52
1:2:487:G:H3'	1:2:488:G:H5''	1.92	0.52
7:S5:143:ARG:HG2	30:D8:55:VAL:HB	3.42	0.52
1:6:546:U:H2'	1:6:547:U:H6	1.75	0.52
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.09	0.52
1:2:264:G:N7	86:2:2037:OHX:N1	2.58	0.52
78:Q2:43:TYR:OH	78:Q2:47:GLN:NE2	2.43	0.52
19:C7:3:ARG:NH2	1:6:1415:U:OP2	409.05	0.52
45:L8:112:GLU:O	45:L8:116:VAL:HB	2.09	0.52
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.44	0.52
36:1:3386:G:H5'	67:O1:10:ARG:NH2	2.25	0.52
1:6:1344:A:H2'	1:6:1345:A:C8	2.44	0.52
1:2:590:C:OP1	32:E0:43:ARG:NH1	2.42	0.52
36:1:2900:A:N3	36:1:3025:C:O2'	2.33	0.52
12:C0:31:LYS:HA	12:C0:37:THR:O	2.49	0.52
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.92	0.52
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.09	0.52
1:6:922:G:H2'	1:6:923:A:H8	1.74	0.52
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.75	0.52
36:5:1020:G:H2'	36:5:1021:G:O4'	2.10	0.52
40:L3:142:ALA:O	40:L3:145:GLU:N	3.38	0.52
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	2.60	0.52
6:S4:10:LYS:HD3	1:6:381:C:H5''	359.67	0.52
36:5:1785:U:H2'	36:5:1786:G:C8	2.44	0.52
36:1:2185:G:O2'	36:1:2314:U:OP2	2.25	0.52
36:5:90:C:C2'	36:5:91:G:H5'	2.39	0.52
39:L2:14:SER:OG	39:L2:15:ILE:N	2.96	0.52
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.10	0.52
1:6:1600:A:H4'	1:6:1601:G:OP1	2.09	0.52
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	2.05	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.92	0.52
1:6:235:G:H2'	1:6:236:A:C8	2.45	0.52
36:5:1875:G:C2'	36:5:1876:U:H5''	2.39	0.52
36:5:2407:C:H2'	36:5:2408:U:H6	1.75	0.52
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.92	0.52
36:5:1576:G:H5'	36:5:1577:G:OP2	2.09	0.52
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.69	0.52
40:L3:283:TYR:CZ	40:L3:325:LYS:HG3	2.83	0.52
36:5:1152:G:H22	36:5:1200:A:H61	1.57	0.52
34:SR:126:SER:OG	34:SR:127:ARG:N	2.42	0.52
35:SM:48:ARG:HB3	35:SM:50:ASN:H	4.73	0.52
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	2.10	0.52
36:5:123:A:C6	36:5:150:A:C5	2.98	0.52
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	1.92	0.52
36:1:1601:U:P	55:M9:42:ARG:HH22	2.33	0.52
52:M6:45:GLY:H	52:M6:135:TYR:HA	2.98	0.52
1:2:808:U:O4	1:2:809:A:N6	2.43	0.52
61:N5:96:LYS:HE3	61:N5:107:VAL:HB	1.94	0.52
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	2.43	0.52
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	1.91	0.52
1:6:1207:C:H42	1:6:1456:C:H5	1.57	0.52
36:1:2743:A:H2'	36:1:2744:U:O4'	2.10	0.52
36:1:1176:C:H2'	36:1:1177:G:N2	2.24	0.52
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.44	0.52
36:5:2523:A:O2'	36:5:2587:U:H1'	2.10	0.52
1:2:1586:A:H2'	1:2:1587:A:O4'	2.10	0.52
1:2:1788:G:P	16:C4:127:ARG:HH12	2.33	0.52
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.73	0.52
36:5:1307:G:C2	36:5:1308:A:C2	2.98	0.52
1:2:1100:G:O2'	24:D2:76:SER:N	2.42	0.52
65:N9:14:ARG:NH1	65:N9:18:ARG:HD2	2.25	0.52
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.92	0.52
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.86	0.52
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.40	0.52
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.48	0.52
20:C8:40:ARG:HB3	21:C9:45:MET:SD	2.50	0.52
1:2:1793:G:O2'	28:D6:5:ARG:NH2	2.43	0.52
36:5:1239:C:N3	36:5:1249:G:N2	2.55	0.52
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.90	0.52
48:M1:9:MET:O	48:M1:11:ASP:N	3.92	0.52
36:5:1438:U:H2'	36:5:1439:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1680:G:O6	86:6:2192:OHX:N4	2.43	0.52
36:5:3092:C:O2'	36:5:3094:A:OP2	2.22	0.52
1:2:186:C:H3'	1:2:187:G:C8	2.45	0.52
68:O2:18:LYS:HB3	68:O2:30:GLU:HG2	4.54	0.52
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.78	0.52
15:C3:4:MET:HG2	15:C3:5:HIS:CD2	4.91	0.52
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.44	0.52
36:5:495:G:H2'	36:5:496:C:O4'	2.10	0.52
36:5:2298:U:O4	36:5:2923:U:H5	1.93	0.52
64:N8:128:ARG:HB3	72:O6:8:ALA:CB	2.87	0.52
55:M9:115:ILE:HG12	55:M9:119:LEU:HD23	1.92	0.52
78:Q2:39:GLY:HA3	36:5:2765:C:O3'	173.75	0.52
1:6:727:U:H2'	1:6:728:U:C6	2.45	0.52
36:1:1831:U:O2'	38:4:114:G:OP1	2.22	0.52
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.15	0.52
1:2:1606:C:H2'	1:2:1607:G:C8	2.45	0.52
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.28	0.52
36:5:2793:G:N7	86:5:3992:OHX:N1	2.58	0.52
40:L3:245:GLY:HA2	36:5:1889:G:H5'	203.31	0.52
1:2:138:A:N6	1:2:266:A:H61	2.07	0.51
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.10	0.51
65:N9:2:ALA:HB2	36:5:2818:U:H5''	211.44	0.51
1:6:151:G:H1	1:6:163:G:H1	1.57	0.51
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.45	0.51
1:2:226:A:C2'	1:2:227:U:H5'	2.39	0.51
77:Q1:7:LYS:HE2	77:Q1:11:ARG:HH12	2.50	0.51
15:C3:64:ARG:HG3	15:C3:70:LYS:HG2	3.62	0.51
77:Q1:6:ARG:HH11	77:Q1:10:THR:HG21	2.81	0.51
36:1:410:U:O4	86:1:4050:OHX:N2	2.43	0.51
70:O4:96:GLU:HA	70:O4:99:LYS:HE3	1.92	0.51
1:6:526:A:N6	1:6:527:A:C6	2.78	0.51
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	1.92	0.51
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.45	0.51
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.09	0.51
36:1:3092:C:O2'	36:1:3094:A:OP2	2.24	0.51
1:2:579:A:C8	5:S3:178:ARG:HD2	2.45	0.51
43:L6:129:GLU:HG2	43:L6:130:ILE:H	3.12	0.51
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.74	0.51
36:1:2709:C:H2'	36:1:2710:C:C6	2.44	0.51
19:C7:13:SER:OG	19:C7:54:THR:HG22	2.08	0.51
37:3:31:U:O2'	37:3:32:U:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:804:A:C8	24:D2:107:SER:HA	2.45	0.51
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.91	0.51
14:C2:124:LYS:O	14:C2:126:TRP:N	2.36	0.51
1:2:1726:G:N7	86:2:2101:OHX:N4	2.58	0.51
25:D3:57:LEU:HD13	32:E0:4:VAL:HG13	2.33	0.51
1:6:11:A:N1	1:6:1143:A:H2	2.07	0.51
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	2.61	0.51
1:2:1769:U:OP2	86:2:2148:OHX:N1	2.43	0.51
46:L9:122:LYS:HG2	46:L9:123:ILE:N	2.25	0.51
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.95	0.51
39:L2:112:ILE:HD11	79:Q3:79:VAL:HG11	4.67	0.51
36:5:655:C:H2'	36:5:656:A:C8	2.45	0.51
50:M4:92:GLU:OE2	50:M4:92:GLU:N	2.38	0.51
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.91	0.51
36:1:2953:U:H2'	36:1:2954:U:H2'	1.90	0.51
6:S4:85:GLY:N	6:S4:88:ASP:OD2	2.39	0.51
36:1:1016:C:H1'	36:1:1028:U:C2	2.45	0.51
75:O9:15:LYS:HD3	38:8:46:G:OP2	91.82	0.51
70:O4:9:ARG:HG2	70:O4:34:HIS:CE1	5.40	0.51
36:1:2943:G:OP2	40:L3:2:SER:OG	2.12	0.51
10:S8:136:SER:OG	10:S8:137:LYS:N	2.42	0.51
51:M5:34:ASN:OD1	86:5:3956:OHX:N6	141.98	0.51
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.09	0.51
1:2:1253:U:H4'	33:E1:143:LYS:HB2	1.93	0.51
36:1:1095:U:N3	57:N1:127:GLN:HG2	2.25	0.51
34:SR:260:ILE:HD12	34:SR:274:LEU:HD12	3.06	0.51
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	1.93	0.51
36:1:1103:A:C8	44:L7:158:LYS:HD3	2.44	0.51
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ1	1.75	0.51
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.11	0.51
36:5:527:A:H2'	36:5:528:U:C6	2.44	0.51
6:S4:34:GLY:HA3	6:S4:83:PRO:HG3	1.92	0.51
63:N7:88:ASP:HB3	63:N7:121:ARG:NH2	2.26	0.51
1:2:1428:G:H5'	1:2:1428:G:C8	2.46	0.51
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.46	0.51
36:5:3128:G:OP2	86:5:4161:OHX:N3	2.43	0.51
70:O4:70:LYS:NZ	36:5:1803:C:O3'	166.62	0.51
36:5:1631:C:H5''	36:5:1632:A:H5''	1.92	0.51
39:L2:104:LEU:O	39:L2:107:VAL:HG22	2.78	0.51
1:6:877:G:H5'	1:6:937:C:H1'	1.93	0.51
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:38:ARG:CZ	51:M5:60:VAL:HG13	2.40	0.51
1:2:635:A:H2'	1:2:636:A:H8	1.74	0.51
46:L9:31:ARG:HG2	46:L9:149:ASN:OD1	2.10	0.51
6:S4:80:THR:HG22	6:S4:81:THR:HG23	2.96	0.51
1:6:686:C:H2'	1:6:687:G:C8	2.45	0.51
1:2:885:G:N2	16:C4:123:SER:HB2	2.19	0.51
1:6:197:A:H2'	1:6:198:A:H8	1.76	0.51
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.90	0.51
36:1:2179:C:OP1	39:L2:132:ASN:ND2	2.37	0.51
36:1:1103:A:N6	36:1:1363:A:O2'	2.43	0.51
23:D1:5:LYS:O	23:D1:7:GLN:N	2.35	0.51
1:2:1591:C:H2'	1:2:1592:A:C8	2.45	0.51
12:C0:14:TYR:CZ	12:C0:18:GLU:HG3	3.15	0.51
52:M6:73:PHE:CD1	52:M6:78:ARG:HD3	3.32	0.51
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.10	0.51
1:6:1294:G:O2'	1:6:1321:A:N1	2.39	0.51
63:N7:128:GLN:O	63:N7:130:PHE:N	3.38	0.51
55:M9:105:LEU:HD22	55:M9:138:LEU:HD13	1.93	0.51
56:N0:12:ARG:HD2	56:N0:22:PRO:HG2	3.58	0.51
1:2:2:A:O2'	4:S2:198:THR:O	2.24	0.51
73:O7:59:THR:HG22	38:8:41:A:O2'	92.00	0.51
59:N3:40:LYS:HD3	59:N3:59:MET:CE	2.41	0.51
32:E0:29:LYS:HG2	32:E0:35:TYR:HE2	4.44	0.51
1:6:1754:A:H4'	1:6:1755:A:O5'	2.10	0.51
36:1:1908:A:H8	36:1:1908:A:O5'	1.93	0.51
40:L3:146:ARG:O	40:L3:150:ARG:N	2.40	0.51
36:1:1384:U:H2'	36:1:1385:C:C6	2.46	0.51
36:5:787:G:H2'	36:5:788:C:C6	2.45	0.51
40:L3:158:VAL:HB	40:L3:191:LYS:HG2	3.79	0.51
44:L7:179:LEU:HD22	44:L7:183:ASP:OD2	2.10	0.51
1:2:1695:G:N2	1:2:1706:C:H41	2.08	0.51
68:O2:75:LEU:HD23	68:O2:95:GLU:HB3	1.92	0.51
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	1.93	0.51
37:3:49:G:N7	42:L5:58:LYS:HG2	2.25	0.51
1:6:230:C:N3	1:6:235:G:N2	2.44	0.51
46:L9:88:TYR:CZ	46:L9:184:LYS:HD3	3.82	0.51
37:3:106:U:H2'	37:3:107:C:C6	2.45	0.51
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.45	0.51
1:6:1695:G:H21	1:6:1706:C:N4	2.09	0.51
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.24	0.51
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.44	0.51
36:5:1241:U:O2'	36:5:1242:G:O5'	2.23	0.51
1:2:1385:G:N7	86:2:2135:OHX:N3	2.58	0.51
36:5:2512:C:H5''	36:5:2512:C:H6	1.76	0.51
36:1:1317:A:OP1	86:1:4057:OHX:N2	2.43	0.51
1:2:1347:U:O2	1:2:1516:A:H5'	2.10	0.51
36:5:969:C:H6	36:5:969:C:O5'	1.93	0.51
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.39	0.51
41:L4:321:LYS:HE2	41:L4:325:LEU:HD11	7.12	0.51
18:C6:115:THR:O	18:C6:117:LEU:N	2.73	0.51
53:M7:79:THR:HG22	53:M7:80:LYS:HG3	6.09	0.51
1:6:825:U:O2'	1:6:826:U:H6	1.94	0.51
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	2.98	0.51
49:M3:70:ARG:HD3	49:M3:71:ALA:O	2.10	0.51
36:1:345:G:OP1	36:1:1429:G:N1	2.35	0.51
36:5:1238:C:H2'	36:5:1239:C:O4'	2.11	0.51
50:M4:4:ASP:N	50:M4:4:ASP:OD2	2.42	0.51
1:2:1762:A:C1'	1:2:1783:C:H5'	2.41	0.51
36:1:75:G:H5''	49:M3:58:VAL:CG1	2.40	0.51
36:1:1383:G:O3'	41:L4:138:ARG:NH2	2.44	0.51
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	8.86	0.51
1:6:591:A:H2'	1:6:592:A:C8	2.45	0.51
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.08	0.51
24:D2:53:ILE:HD13	29:D7:24:LEU:HD11	2.62	0.51
36:1:3169:U:H2'	36:1:3170:A:O4'	2.10	0.51
36:1:2148:U:H2'	36:1:2149:A:C4	2.45	0.51
36:1:871:U:H2'	36:1:872:U:C6	2.46	0.51
14:C2:54:ARG:HH21	33:E1:127:GLY:HA3	1.75	0.51
55:M9:60:LYS:NZ	36:5:1671:C:OP1	169.40	0.51
36:5:370:U:H4'	36:5:404:G:H5'	1.93	0.51
39:L2:182:ALA:HB2	36:5:2148:U:O2'	211.80	0.51
1:2:527:A:OP2	86:2:2056:OHX:N4	2.43	0.51
36:5:3074:G:OP1	86:5:4121:OHX:N4	2.43	0.51
36:5:561:C:H2'	36:5:562:C:H6	1.75	0.51
11:S9:133:HIS:O	11:S9:134:ILE:HG13	4.62	0.51
17:C5:18:ARG:H	17:C5:20:VAL:HG23	1.76	0.51
36:5:801:A:O2'	86:5:4032:OHX:N1	2.43	0.51
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.32	0.51
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.44	0.51
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.92	0.51
16:C4:37:GLU:HA	1:6:895:G:O2'	259.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:86:THR:O	33:E1:87:THR:OG1	2.54	0.51
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.76	0.51
5:S3:125:TYR:O	5:S3:129:SER:OG	3.47	0.51
36:5:2964:G:N2	36:5:2967:A:OP2	2.34	0.51
36:5:528:U:H2'	36:5:529:A:H8	1.76	0.51
36:1:2991:A:P	40:L3:20:LYS:HB2	2.51	0.51
46:L9:2:LYS:HB3	46:L9:59:ASN:OD1	2.10	0.51
36:5:247:C:C2	36:5:248:U:H1'	2.46	0.51
45:L8:156:ASP:O	45:L8:183:LYS:HE3	6.86	0.51
44:L7:60:ARG:HH22	36:5:517:G:P	306.40	0.51
40:L3:108:GLU:HG2	40:L3:109:HIS:CD2	3.57	0.51
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.45	0.51
36:1:2314:U:O2'	36:1:2315:G:OP1	2.24	0.51
37:7:64:A:H5'	37:7:65:G:H5''	1.93	0.51
6:S4:125:LYS:HB2	6:S4:226:PHE:CE2	3.72	0.51
15:C3:105:ASN:C	15:C3:107:LYS:H	2.14	0.51
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.44	0.51
1:6:1130:G:OP2	86:6:2113:OHX:N1	2.44	0.51
36:5:1444:G:H2'	36:5:1445:U:H5'	1.92	0.51
48:M1:95:ASN:HD22	48:M1:95:ASN:N	2.44	0.51
79:Q3:30:GLU:HA	79:Q3:33:GLN:HG2	1.93	0.51
52:M6:142:SER:O	52:M6:145:VAL:N	3.02	0.51
25:D3:107:PHE:CE1	25:D3:123:LYS:HB3	2.46	0.51
36:5:915:A:H8	36:5:2136:C:O2'	1.93	0.51
36:1:2278:C:C2'	36:1:2279:A:H5''	2.41	0.51
36:1:1349:G:H5'	41:L4:291:ASN:OD1	2.11	0.51
1:2:260:U:H3'	1:2:261:U:H5''	1.92	0.51
1:2:1160:A:H2'	1:2:1161:C:C6	2.44	0.51
1:6:675:U:H2'	1:6:676:G:C8	2.46	0.51
86:6:2121:OHX:N6	86:6:2173:OHX:N5	2.59	0.51
49:M3:46:ILE:HG23	49:M3:49:ARG:CZ	4.61	0.51
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.48	0.51
67:O1:13:THR:HG23	67:O1:72:ARG:HH11	1.76	0.51
34:SR:159:ASN:C	34:SR:161:LYS:H	3.06	0.51
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.24	0.51
6:S4:221:ARG:O	6:S4:224:ASN:N	2.96	0.51
37:3:39:C:N3	48:M1:70:THR:HG23	2.25	0.51
15:C3:33:VAL:O	15:C3:37:ILE:HG12	3.78	0.51
48:M1:133:ARG:NH1	48:M1:153:LYS:O	2.43	0.51
4:S2:222:TYR:CE2	23:D1:12:TYR:HD2	2.28	0.51
13:C1:46:LYS:HE2	1:6:846:G:H21	310.77	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2169:G:O6	86:1:3906:OHX:N1	2.43	0.51
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.69	0.51
64:N8:74:ASN:HB2	64:N8:76:ASP:HB2	1.92	0.51
86:2:2047:OHX:N1	86:2:2101:OHX:N5	2.59	0.51
1:2:260:U:H3'	1:2:261:U:C5'	2.41	0.51
36:1:764:U:H4'	36:1:765:C:OP2	2.10	0.51
1:2:1014:G:OP1	86:2:2027:OHX:N5	2.43	0.51
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.37	0.51
36:5:1434:G:C3'	36:5:1435:A:H5'	2.40	0.51
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.25	0.51
65:N9:35:VAL:HG12	65:N9:40:ARG:HG3	1.91	0.51
36:1:603:A:H2'	36:1:604:G:O4'	2.09	0.51
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.28	0.51
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	1.91	0.51
36:5:3152:U:O2	86:5:4229:OHX:N5	2.44	0.51
1:2:609:U:H4'	1:2:610:G:O5'	2.10	0.51
36:1:1419:A:H5'	38:4:20:U:O3'	2.10	0.51
1:2:513:U:H2'	1:2:514:G:C8	2.46	0.51
3:S1:70:LEU:HD21	3:S1:79:HIS:CD2	2.46	0.51
7:S5:125:THR:O	7:S5:127:GLN:HB2	3.25	0.51
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	2.42	0.51
39:L2:129:ALA:O	39:L2:131:GLY:N	2.43	0.51
39:L2:130:SER:CB	39:L2:174:ARG:HE	2.23	0.51
3:S1:45:LYS:HG3	16:C4:13:VAL:HG23	1.93	0.51
38:8:103:G:O6	86:8:216:OHX:N5	2.44	0.51
43:L6:18:LEU:HD22	43:L6:18:LEU:H	1.74	0.51
41:L4:337:GLU:HB2	41:L4:339:LEU:HD23	3.38	0.51
52:M6:75:ALA:O	52:M6:78:ARG:N	2.80	0.51
36:5:2960:C:OP1	86:5:3974:OHX:N5	2.44	0.51
73:O7:28:HIS:HB3	73:O7:31:LYS:HB2	1.93	0.51
11:S9:171:ARG:HA	11:S9:174:ARG:HB2	2.59	0.51
8:S6:30:LYS:HD3	8:S6:36:VAL:HG22	5.49	0.51
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.93	0.51
1:2:1553:G:N2	1:2:1555:A:H3'	2.26	0.51
12:C0:24:LYS:HD2	12:C0:63:TYR:CZ	4.52	0.51
8:S6:35:GLU:HA	8:S6:50:PHE:O	2.36	0.51
36:1:715:A:H5''	64:N8:114:GLY:O	2.11	0.51
36:1:3176:G:H1'	69:O3:3:GLU:OE1	2.11	0.51
36:1:962:A:N1	36:1:2814:G:O2'	2.35	0.51
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.03	0.51
36:1:1713:G:H1	36:1:1730:G:HO2'	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3278:C:H2'	36:1:3278:C:O2	2.11	0.51
36:5:408:A:N6	38:8:15:G:H1'	2.26	0.51
1:2:1647:U:O2	32:E0:2:ALA:HA	2.11	0.51
86:6:2121:OHX:N4	86:6:2173:OHX:N3	2.59	0.51
52:M6:157:GLU:OE2	52:M6:160:ARG:HD3	2.11	0.51
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	3.12	0.51
5:S3:29:LEU:HD21	5:S3:69:LEU:HD11	1.91	0.51
5:S3:70:THR:HG23	5:S3:86:LEU:HD22	1.92	0.51
36:1:1605:A:O2'	36:1:1607:U:OP2	2.15	0.51
34:SR:26:SER:OG	34:SR:27:ALA:N	2.43	0.51
1:2:856:A:N7	9:S7:97:ARG:HB2	2.26	0.51
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.93	0.51
36:1:2659:G:H4'	36:1:2751:G:O2'	2.11	0.51
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.53	0.51
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	1.76	0.51
34:SR:248:ASN:ND2	34:SR:297:ASP:O	2.41	0.51
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.11	0.51
1:2:304:U:H2'	1:2:305:C:H6	1.75	0.51
1:6:709:C:O2	1:6:730:G:N2	2.44	0.51
36:1:25:U:O4	86:1:3865:OHX:N6	2.43	0.51
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	1.93	0.51
36:1:578:A:H5''	36:1:579:G:O5'	2.11	0.51
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.59	0.51
36:1:3082:C:H2'	36:1:3083:G:C8	2.46	0.51
1:2:651:G:N7	86:2:2106:OHX:N6	2.58	0.51
36:1:2986:U:H2'	36:1:2987:A:C8	2.46	0.51
63:N7:104:PRO:O	63:N7:108:GLU:HG3	2.36	0.51
1:2:1350:U:H2'	1:2:1351:G:C8	2.46	0.51
1:6:805:U:C2'	1:6:806:A:H5'	2.40	0.51
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.38	0.51
1:2:1701:A:H3'	1:2:1702:A:H5''	1.91	0.51
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	2.11	0.51
11:S9:53:ARG:CZ	11:S9:53:ARG:HB3	2.87	0.51
50:M4:40:ASP:OD1	50:M4:42:LYS:N	2.30	0.51
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	1.93	0.51
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.46	0.51
45:L8:161:GLU:HA	45:L8:164:VAL:CG2	2.56	0.51
19:C7:14:LYS:HG3	19:C7:69:ILE:HG22	3.03	0.51
66:O0:95:ALA:HB2	66:O0:101:LEU:CD2	3.58	0.51
27:D5:61:SER:H	27:D5:64:VAL:HB	1.75	0.51
3:S1:83:LYS:NZ	16:C4:116:GLU:OE2	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:170:LYS:NZ	47:M0:175:ASN:O	2.39	0.51
46:L9:49:ASN:C	46:L9:49:ASN:HD22	2.14	0.51
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.93	0.51
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.75	0.51
36:1:1240:A:H3'	36:1:1241:U:C5'	2.41	0.51
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.46	0.51
9:S7:51:VAL:HG11	9:S7:168:SER:HB3	1.92	0.51
20:C8:139:LYS:HE2	1:6:1459:C:N4	352.20	0.51
51:M5:183:THR:HG23	51:M5:183:THR:O	2.11	0.51
36:1:408:A:OP1	86:1:4050:OHX:N3	2.44	0.51
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.76	0.51
51:M5:172:ARG:HH11	36:5:30:G:P	107.72	0.51
59:N3:108:GLU:HA	59:N3:128:ARG:HG3	1.93	0.51
36:5:550:A:H2'	36:5:551:A:C8	2.46	0.51
86:1:3906:OHX:N6	51:M5:32:GLN:O	2.43	0.51
38:4:150:G:O2'	45:L8:56:VAL:HG13	2.10	0.51
36:5:2746:A:H2'	36:5:2747:A:O4'	2.11	0.51
64:N8:115:LYS:HG3	36:5:715:A:H8	148.91	0.51
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.44	0.51
8:S6:206:ALA:O	8:S6:210:GLN:NE2	2.44	0.51
41:L4:11:LEU:HD13	41:L4:159:ILE:HD11	2.30	0.51
36:1:1413:G:N7	86:1:4116:OHX:N4	2.59	0.51
40:L3:36:ASP:OD1	40:L3:38:SER:OG	2.24	0.51
13:C1:6:THR:O	13:C1:6:THR:OG1	4.07	0.51
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.15	0.51
39:L2:206:PRO:HD3	39:L2:212:GLY:O	3.58	0.51
7:S5:148:ARG:HE	30:D8:22:ARG:HH21	5.61	0.51
36:5:2514:U:C6	36:5:2514:U:OP1	2.64	0.51
61:N5:39:LYS:HG2	36:5:13:A:H4'	120.57	0.51
63:N7:16:GLY:O	63:N7:18:TYR:N	2.54	0.51
36:1:911:C:N4	39:L2:3:ARG:HD3	2.27	0.50
11:S9:129:ILE:HA	11:S9:134:ILE:HD11	3.04	0.50
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.15	0.50
1:2:702:G:N2	1:2:703:G:H1'	2.26	0.50
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.11	0.50
1:6:188:A:H2'	1:6:189:C:O4'	2.10	0.50
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.11	0.50
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	1.92	0.50
36:1:2310:U:OP1	86:1:4133:OHX:N2	2.44	0.50
72:O6:58:ILE:HG22	72:O6:90:MET:CG	3.50	0.50
5:S3:157:LEU:CD2	5:S3:187:LYS:HD3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:50:GLY:O	10:S8:52:ASN:ND2	2.44	0.50
57:N1:14:MET:HE3	57:N1:55:LYS:HB2	4.16	0.50
1:2:784:C:H2'	1:2:785:U:O4'	2.10	0.50
67:O1:55:LEU:HD23	67:O1:95:PRO:HB3	2.35	0.50
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.93	0.50
55:M9:20:ARG:HG3	55:M9:21:LYS:HG3	2.67	0.50
26:D4:86:GLU:OE2	26:D4:90:ARG:NH1	2.73	0.50
36:1:290:G:H2'	36:1:291:C:C6	2.46	0.50
25:D3:70:LYS:HG3	25:D3:93:LEU:HD22	1.93	0.50
41:L4:23:PRO:HD2	41:L4:26:PHE:HD2	1.74	0.50
6:S4:38:LEU:O	6:S4:41:SER:OG	3.38	0.50
36:1:2698:G:O2'	57:N1:12:ARG:HG2	2.11	0.50
1:6:992:A:OP1	1:6:1786:G:H5'	2.11	0.50
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.31	0.50
6:S4:153:ASN:OD1	8:S6:215:ARG:NH1	4.63	0.50
36:5:2659:G:H4'	36:5:2751:G:O2'	2.11	0.50
68:O2:47:ARG:HD3	36:5:634:C:O2'	215.08	0.50
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.18	0.50
40:L3:95:THR:C	40:L3:97:ARG:H	2.39	0.50
51:M5:176:LYS:HE2	36:5:66:A:N3	96.85	0.50
36:1:817:A:H8	73:O7:15:SER:HG	1.56	0.50
11:S9:92:LYS:NZ	1:6:673:A:OP2	430.70	0.50
1:6:1767:G:OP1	1:6:1770:U:H4'	2.12	0.50
36:1:1294:A:C2	36:1:1295:G:C8	3.00	0.50
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.02	0.50
16:C4:127:ARG:HD3	1:6:990:C:O2'	283.33	0.50
49:M3:15:ARG:CZ	36:5:96:G:H5'	152.22	0.50
42:L5:41:LYS:HD3	57:N1:93:VAL:HG11	1.94	0.50
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	3.31	0.50
2:S0:179:ARG:HH11	2:S0:183:ARG:NH2	3.70	0.50
1:2:896:U:C1'	16:C4:38:THR:HG21	2.42	0.50
1:2:1417:A:OP1	86:2:2074:OHX:N5	2.44	0.50
41:L4:67:THR:OG1	41:L4:68:GLY:N	2.53	0.50
36:1:3187:A:H5'	46:L9:22:SER:HA	1.93	0.50
1:2:1290:U:H2'	1:2:1291:G:C8	2.46	0.50
26:D4:42:GLU:OE2	26:D4:52:LYS:HD2	5.30	0.50
36:1:1821:U:N3	70:O4:67:LYS:HD2	2.27	0.50
40:L3:112:ASP:HA	40:L3:115:LYS:HB2	2.19	0.50
56:N0:73:LYS:NZ	56:N0:97:VAL:O	4.55	0.50
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.46	0.50
46:L9:161:LEU:O	46:L9:164:ILE:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	3.03	0.50
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.43	0.50
21:C9:66:TYR:HD1	21:C9:67:MET:HE2	1.75	0.50
36:1:3178:A:N3	52:M6:115:LYS:HG2	2.26	0.50
24:D2:105:THR:HG23	24:D2:110:ILE:HG13	1.99	0.50
36:5:522:A:OP1	86:5:3942:OHX:N1	2.45	0.50
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.47	0.50
36:5:1620:U:O2	36:5:1825:G:N2	2.29	0.50
46:L9:74:LEU:O	46:L9:78:MET:HG3	2.52	0.50
36:5:1440:G:N7	86:5:3966:OHX:N6	2.59	0.50
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.65	0.50
36:5:811:U:H2'	36:5:812:G:C8	2.45	0.50
3:S1:50:LYS:O	3:S1:52:THR:N	2.44	0.50
36:5:2949:U:C5	36:5:2950:G:C6	3.00	0.50
7:S5:186:ASN:OD1	7:S5:188:LYS:HB2	3.42	0.50
20:C8:52:VAL:HG13	20:C8:61:LEU:HD21	3.66	0.50
12:C0:16:PHE:CD2	12:C0:76:LEU:HD23	2.46	0.50
1:6:1208:A:H5''	1:6:1209:C:OP2	2.12	0.50
36:1:107:A:OP1	49:M3:39:ARG:NH1	2.44	0.50
1:2:332:U:P	10:S8:56:ARG:HH22	2.34	0.50
11:S9:149:ARG:HD2	1:6:765:G:N7	429.01	0.50
9:S7:126:LEU:HD13	9:S7:173:TYR:CE2	2.93	0.50
1:2:67:A:C2	1:2:69:G:H1'	2.47	0.50
40:L3:232:ARG:NH2	36:5:2989:U:O2'	214.92	0.50
52:M6:108:ILE:HD13	52:M6:117:ARG:HE	1.76	0.50
1:2:702:G:O2'	1:2:703:G:H8	1.94	0.50
1:6:1482:C:OP2	1:6:1521:G:N1	2.42	0.50
4:S2:167:VAL:HG21	4:S2:214:ALA:HB2	2.81	0.50
10:S8:138:ASN:HD22	1:6:197:A:H61	279.15	0.50
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.46	0.50
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.99	0.50
36:1:2422:C:O2	51:M5:87:GLN:NE2	2.44	0.50
57:N1:54:HIS:CE1	57:N1:55:LYS:HG2	2.46	0.50
70:O4:85:VAL:HA	70:O4:88:ARG:HB3	4.32	0.50
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.12	0.50
1:2:1711:C:H2'	1:2:1712:A:H5''	1.94	0.50
1:2:1477:G:H2'	1:2:1478:G:C8	2.46	0.50
46:L9:161:LEU:HD13	46:L9:179:ILE:HG21	2.37	0.50
1:2:1130:G:OP2	86:2:2077:OHX:N2	2.44	0.50
24:D2:32:LYS:HD3	1:6:638:U:OP2	364.72	0.50
1:6:53:G:H2'	1:6:54:C:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:7:C:H2'	36:5:8:C:C6	2.45	0.50
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.47	0.50
6:S4:71:LYS:HG3	6:S4:91:THR:HB	1.94	0.50
36:5:679:U:O4	86:5:4018:OHX:N2	2.44	0.50
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.93	0.50
1:2:134:U:OP1	1:2:136:C:N4	2.44	0.50
1:2:978:A:H2'	1:2:979:A:O4'	2.11	0.50
36:5:599:C:H2'	36:5:600:G:O4'	2.12	0.50
36:1:2861:U:H2'	36:1:2862:U:O4'	2.11	0.50
4:S2:59:HIS:CE1	4:S2:239:PRO:HD3	2.92	0.50
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.11	0.50
11:S9:124:HIS:HD2	1:6:478:A:O2'	450.04	0.50
36:1:355:A:H2'	36:1:356:C:O4'	2.12	0.50
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.39	0.50
8:S6:173:PRO:HG3	1:6:66:U:C5	334.61	0.50
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.40	0.50
3:S1:47:LEU:HD12	3:S1:47:LEU:H	2.73	0.50
7:S5:90:ILE:HD11	7:S5:130:ILE:HG13	3.91	0.50
15:C3:26:PHE:HE2	15:C3:66:ILE:HD13	1.77	0.50
36:1:2282:U:O2	36:1:2310:U:H4'	2.11	0.50
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.93	0.50
51:M5:125:SER:CB	36:5:2433:U:H1'	161.15	0.50
17:C5:123:TYR:OH	20:C8:126:ARG:HD3	3.26	0.50
24:D2:27:ILE:HD11	24:D2:34:ILE:HG21	1.93	0.50
69:O3:49:ILE:CD1	69:O3:100:ILE:HG13	2.42	0.50
45:L8:33:ASN:OD1	45:L8:38:GLN:NE2	4.10	0.50
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.92	0.50
57:N1:9:SER:O	57:N1:11:THR:HG23	2.30	0.50
41:L4:23:PRO:O	41:L4:25:VAL:N	2.53	0.50
31:D9:11:PRO:HB3	31:D9:13:ARG:NH2	2.26	0.50
6:S4:212:ASP:OD1	6:S4:214:LEU:N	2.45	0.50
34:SR:13:LEU:O	34:SR:309:VAL:HG12	3.10	0.50
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.12	0.50
76:Q0:93:LYS:HB2	76:Q0:103:LEU:O	2.12	0.50
71:O5:15:GLU:HA	71:O5:18:ALA:HB3	2.62	0.50
36:5:1790:G:O6	86:5:4200:OHX:N4	2.43	0.50
36:1:541:U:H2'	36:1:542:G:C8	2.46	0.50
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.93	0.50
36:1:2138:A:C5	73:O7:3:LYS:HB3	2.46	0.50
5:S3:183:GLY:O	5:S3:184:ILE:HD13	2.85	0.50
1:2:1231:U:H4'	1:2:1258:U:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:639:U:OP1	9:S7:117:THR:OG1	2.24	0.50
1:6:1672:G:H2'	1:6:1673:G:C8	2.47	0.50
13:C1:47:THR:OG1	13:C1:114:ALA:O	2.29	0.50
36:1:385:A:H2'	36:1:386:A:C8	2.47	0.50
36:5:2530:G:H2'	36:5:2531:C:H5'	1.92	0.50
1:2:552:G:C6	1:2:553:G:C6	3.00	0.50
24:D2:118:ARG:HD2	1:6:686:C:H4'	404.00	0.50
52:M6:8:VAL:HG22	52:M6:34:VAL:HG13	1.93	0.50
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	1.93	0.50
3:S1:87:ARG:NH1	3:S1:133:TYR:OH	2.45	0.50
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	2.74	0.50
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.52	0.50
36:5:1759:C:N4	36:5:1760:A:N7	2.59	0.50
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.11	0.50
86:5:4004:OHX:N4	86:5:4093:OHX:N2	2.59	0.50
4:S2:74:PRO:C	4:S2:76:LEU:H	2.15	0.50
1:6:1557:U:O2'	1:6:1558:U:H2'	2.12	0.50
15:C3:112:LYS:O	15:C3:116:ILE:HD13	4.26	0.50
2:S0:168:HIS:HB3	2:S0:203:PHE:CE2	2.46	0.50
10:S8:147:ALA:C	10:S8:149:SER:H	2.78	0.50
3:S1:33:LYS:HD3	3:S1:232:HIS:ND1	8.49	0.50
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.93	0.50
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.24	0.50
36:1:1594:A:H1'	36:1:1615:C:H1'	1.92	0.50
78:Q2:22:GLN:O	78:Q2:75:VAL:HG13	2.11	0.50
22:D0:33:GLN:HB3	22:D0:109:GLU:HG2	2.34	0.50
15:C3:20:ARG:HD3	24:D2:56:HIS:CD2	4.23	0.50
1:6:75:U:O2'	1:6:76:A:O4'	2.30	0.50
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	2.27	0.50
46:L9:31:ARG:HD3	46:L9:149:ASN:OD1	3.43	0.50
55:M9:178:ALA:HA	55:M9:181:ARG:HB3	1.94	0.50
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	2.29	0.50
36:5:2603:G:O6	86:5:3907:OHX:N1	2.45	0.50
1:2:480:G:N2	1:2:509:G:H1'	2.27	0.50
36:5:2376:G:H2'	36:5:2377:G:C8	2.47	0.50
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.10	0.50
1:2:1535:U:O2'	1:2:1536:G:N3	2.40	0.50
1:6:538:A:H2	1:6:540:G:N2	2.08	0.50
36:1:1119:C:OP2	86:1:3948:OHX:N1	2.44	0.50
63:N7:89:VAL:HG23	63:N7:92:PHE:CE2	2.47	0.50
1:2:1087:A:H2'	1:2:1088:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1922:A:H2'	36:1:1923:C:O4'	2.11	0.50
36:5:945:C:H2'	36:5:946:U:C6	2.47	0.50
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.32	0.50
36:5:503:C:H2'	36:5:504:A:H8	1.76	0.50
11:S9:145:SER:OG	11:S9:145:SER:O	3.65	0.50
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	2.73	0.50
36:1:2443:A:N6	36:1:2504:U:C4	2.80	0.50
36:1:1307:G:O4'	52:M6:60:LYS:HE3	2.12	0.50
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	2.64	0.50
22:D0:72:ASN:OD1	22:D0:72:ASN:N	2.45	0.50
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.11	0.50
36:5:2401:A:O2'	36:5:2402:A:H5'	2.12	0.50
28:D6:38:ARG:NH2	28:D6:83:ILE:HG13	2.26	0.50
34:SR:37:SER:OG	34:SR:38:ARG:N	2.56	0.50
38:4:86:U:H5'	38:4:87:G:OP1	2.12	0.50
36:1:3047:U:O2'	36:1:3048:A:H5'	2.10	0.50
38:8:59:A:H5''	38:8:61:A:C8	2.46	0.50
18:C6:78:VAL:O	18:C6:81:ILE:HG12	2.46	0.50
1:6:1660:A:H2'	1:6:1661:U:H6	1.76	0.50
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.43	0.50
9:S7:164:TYR:CE2	9:S7:165:LYS:HG3	2.47	0.50
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.49	0.50
11:S9:171:ARG:NH1	11:S9:174:ARG:HG3	2.27	0.50
28:D6:70:LYS:HD3	28:D6:72:HIS:NE2	2.27	0.50
36:1:2103:U:H2'	36:1:2104:A:H8	1.76	0.50
86:1:3997:OHX:N3	86:1:4167:OHX:N1	2.60	0.50
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.11	0.50
42:L5:279:LYS:NZ	37:7:110:G:OP2	327.13	0.50
36:5:1499:C:H42	36:5:1517:G:H1	1.58	0.50
19:C7:20:TYR:CG	19:C7:38:ILE:HD12	3.99	0.50
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.11	0.50
42:L5:14:SER:O	42:L5:16:PHE:N	2.45	0.50
36:1:1347:U:H5''	41:L4:303:GLY:H	1.76	0.50
59:N3:86:ARG:HD2	59:N3:92:PHE:CZ	2.46	0.50
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.47	0.50
36:1:707:U:H2'	36:1:708:G:H5''	1.94	0.50
1:6:938:G:N7	86:6:2106:OHX:N3	2.59	0.50
34:SR:201:THR:HG21	34:SR:242:SER:HA	1.94	0.50
6:S4:42:LEU:HD12	6:S4:101:LEU:HD22	6.46	0.50
19:C7:119:LEU:H	19:C7:119:LEU:HD12	1.76	0.50
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2686:A:OP2	86:1:3893:OHX:N2	2.45	0.50
36:5:1046:A:H2'	36:5:1049:C:C5	2.46	0.50
86:1:4192:OHX:N2	86:O1:201:OHX:N5	2.59	0.50
36:1:3099:C:O2'	36:1:3100:U:H5'	2.12	0.50
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.12	0.50
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.12	0.50
42:L5:33:ARG:HD2	37:7:7:G:OP1	271.84	0.50
36:5:1024:G:N2	36:5:1026:A:OP2	2.45	0.50
1:2:93:A:H1'	6:S4:3:ARG:O	2.12	0.50
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	2.14	0.50
28:D6:34:LYS:NZ	1:6:1793:G:N7	324.23	0.50
29:D7:26:GLN:NE2	1:6:864:U:OP2	353.55	0.50
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.12	0.50
1:6:119:A:H1'	1:6:397:A:C4	2.47	0.50
3:S1:33:LYS:HB3	3:S1:232:HIS:CE1	7.80	0.50
66:O0:36:GLN:HB3	66:O0:38:LYS:HG3	1.93	0.50
1:2:901:G:H22	16:C4:54:GLU:CD	2.15	0.50
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.45	0.50
67:O1:55:LEU:O	67:O1:59:ILE:HG13	2.65	0.50
43:L6:164:SER:OG	43:L6:166:LYS:HE3	2.12	0.50
36:5:900:G:H1'	36:5:1589:A:H61	1.75	0.50
1:6:329:G:H2'	1:6:330:G:C8	2.47	0.50
1:2:1171:A:H2'	1:2:1172:G:C8	2.46	0.50
15:C3:94:LYS:HE3	1:6:952:A:H5''	299.54	0.50
56:N0:1:MET:HE2	56:N0:4:PHE:CE1	2.46	0.50
45:L8:61:GLN:HB3	51:M5:28:TRP:CH2	2.47	0.50
36:1:1789:G:O6	86:1:4163:OHX:N2	2.45	0.50
52:M6:182:ASN:O	52:M6:182:ASN:ND2	2.38	0.50
39:L2:244:GLY:N	36:5:2244:A:OP1	230.86	0.50
37:3:31:U:H2'	37:3:32:U:C6	2.46	0.50
86:2:2047:OHX:N1	86:2:2101:OHX:N3	2.59	0.50
68:O2:27:ARG:HB3	36:5:655:C:OP1	162.15	0.50
36:5:810:A:H2'	36:5:811:U:C6	2.47	0.50
36:1:383:G:N2	36:1:386:A:OP2	2.32	0.50
1:2:1657:U:H4'	1:2:1658:G:O5'	2.10	0.50
79:Q3:28:LYS:HE2	1:6:983:A:H1'	245.61	0.50
51:M5:85:THR:HG23	36:5:44:U:H5''	162.27	0.50
1:6:794:U:H4'	1:6:795:U:OP2	2.11	0.50
36:5:2101:C:O2'	36:5:2102:U:OP1	2.25	0.50
1:2:1402:G:H2'	1:2:1403:C:C6	2.47	0.50
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:158:SER:HA	41:L4:213:ASN:O	2.12	0.50
36:5:2217:U:H2'	36:5:2218:G:C8	2.46	0.50
14:C2:35:ALA:O	14:C2:40:GLY:N	3.18	0.50
44:L7:186:HIS:CE1	44:L7:190:THR:HG21	3.08	0.50
42:L5:69:ILE:HG13	42:L5:69:ILE:O	2.11	0.50
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.76	0.50
36:1:1276:U:OP1	86:1:4079:OHX:N4	2.44	0.50
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	3.87	0.50
36:1:1159:A:H5'	44:L7:92:ILE:HG22	1.93	0.50
53:M7:69:ARG:NH1	36:5:3308:C:N3	190.70	0.50
36:1:979:U:H1'	36:1:980:A:N9	2.27	0.50
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.21	0.50
3:S1:62:LYS:HD2	3:S1:91:VAL:HB	1.93	0.50
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	3.84	0.50
36:1:2157:G:O6	39:L2:152:SER:HB3	2.12	0.50
9:S7:133:THR:HG22	9:S7:159:VAL:HG12	1.94	0.50
69:O3:86:ARG:O	86:O3:202:OHX:N1	2.45	0.50
48:M1:164:LYS:O	48:M1:168:ASP:HA	2.60	0.50
36:5:2947:G:H4'	36:5:2947:G:OP2	2.11	0.50
25:D3:73:ARG:HE	25:D3:84:THR:HG22	1.76	0.50
48:M1:23:VAL:HG21	48:M1:30:LEU:HA	3.18	0.50
3:S1:107:THR:HG22	3:S1:111:ARG:NH1	6.88	0.50
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.46	0.50
36:5:3159:C:H2'	36:5:3160:U:C6	2.46	0.50
6:S4:162:ILE:HG22	6:S4:164:LEU:H	1.77	0.50
35:SM:31:SER:OG	36:5:2667:A:OP1	289.04	0.50
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.12	0.50
41:L4:303:GLY:H	36:5:1347:U:H5''	198.39	0.50
36:1:1584:U:H2'	36:1:1585:C:H6	1.77	0.50
36:5:1194:G:OP1	86:5:4017:OHX:N6	2.44	0.50
34:SR:74:THR:HG23	34:SR:79:TYR:HB2	1.94	0.50
36:5:2717:U:OP1	86:5:4072:OHX:N3	2.44	0.50
36:5:2619:G:N7	86:5:4246:OHX:N4	2.59	0.50
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.21	0.50
3:S1:147:ALA:O	3:S1:148:ASN:ND2	2.43	0.50
36:5:379:C:H2'	36:5:380:U:H6	1.75	0.50
1:2:647:G:H1	1:2:687:G:N2	2.00	0.50
72:O6:26:ILE:O	72:O6:28:TYR:N	2.45	0.50
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.52	0.50
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.92	0.50
51:M5:63:ARG:NH2	51:M5:131:GLU:OE2	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:67:THR:OG1	36:5:2402:A:H5''	173.56	0.50
49:M3:79:GLU:OE2	49:M3:101:ARG:NH2	2.61	0.50
5:S3:74:GLN:OE1	5:S3:81:PRO:HA	2.12	0.50
77:Q1:9:ARG:HB2	77:Q1:9:ARG:HH11	2.49	0.50
44:L7:144:ILE:HD12	44:L7:189:ILE:HD12	1.94	0.50
1:2:1410:A:H5''	18:C6:118:ILE:CD1	2.42	0.50
36:5:1662:G:O6	86:5:3922:OHX:N1	2.45	0.50
35:SM:64:LYS:O	35:SM:66:ALA:N	3.18	0.50
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.11	0.50
45:L8:24:ASN:O	45:L8:26:LEU:HB2	6.19	0.50
57:N1:130:ARG:HD3	36:5:1098:A:OP2	255.46	0.50
22:D0:28:SER:OG	22:D0:29:THR:N	2.43	0.50
6:S4:6:LYS:HD2	1:6:95:G:OP1	343.02	0.50
1:2:1675:C:H1'	10:S8:32:GLN:OE1	2.12	0.50
51:M5:29:GLU:O	51:M5:32:GLN:HB2	2.12	0.50
41:L4:16:THR:HG23	41:L4:18:ASN:H	2.08	0.50
36:1:781:G:N7	86:1:3934:OHX:N5	2.59	0.50
64:N8:115:LYS:NZ	36:5:782:U:O3'	152.39	0.50
45:L8:110:THR:O	45:L8:114:ALA:HB3	2.63	0.50
25:D3:69:ARG:HD2	25:D3:116:ASP:OD2	2.12	0.50
19:C7:35:CYS:HA	19:C7:38:ILE:HG22	1.94	0.50
1:2:1464:G:O3'	18:C6:141:SER:OG	2.26	0.50
47:M0:39:LYS:HE3	47:M0:40:LYS:HD2	1.94	0.50
36:5:1617:G:H2'	36:5:1618:G:O4'	2.11	0.50
10:S8:103:GLN:HB3	10:S8:164:ARG:HG2	1.94	0.50
55:M9:44:LEU:HA	55:M9:47:ASN:HB2	5.54	0.50
38:8:124:G:OP2	86:8:222:OHX:N2	2.44	0.50
36:1:3316:A:H2	36:1:3389:U:H5'	1.76	0.50
1:2:682:C:H2'	1:2:683:C:O4'	2.11	0.50
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.29	0.50
36:5:546:C:H4'	36:5:547:G:OP1	2.12	0.50
36:1:1156:C:OP2	44:L7:94:LYS:NZ	2.34	0.50
1:2:1138:A:H2'	1:2:1139:A:C8	2.47	0.50
36:1:748:U:H2'	36:1:749:C:C6	2.47	0.50
45:L8:167:PRO:HB3	45:L8:177:TYR:CE1	2.97	0.49
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.12	0.49
3:S1:140:ILE:O	3:S1:210:ILE:HA	2.11	0.49
4:S2:109:GLY:O	4:S2:139:ILE:HG22	4.69	0.49
21:C9:57:ARG:NH1	21:C9:57:ARG:HG3	2.38	0.49
15:C3:29:SER:OG	15:C3:32:SER:OG	2.16	0.49
16:C4:81:VAL:HG13	16:C4:115:ILE:HG12	5.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.13	0.49
36:1:561:C:H2'	36:1:562:C:H6	1.77	0.49
4:S2:159:THR:HG21	1:6:1097:U:O3'	384.10	0.49
1:6:778:G:N2	1:6:780:A:H5'	2.27	0.49
68:O2:44:ARG:NH1	36:5:1145:G:OP1	207.64	0.49
1:2:1281:G:H2'	1:2:1282:U:H6	1.77	0.49
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.76	0.49
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.46	0.49
36:1:2970:C:HO2'	36:1:2971:A:H2	1.58	0.49
17:C5:56:PHE:O	17:C5:60:LEU:HB2	2.12	0.49
15:C3:18:TYR:HA	24:D2:56:HIS:CD2	3.53	0.49
49:M3:2:ALA:N	64:N8:33:GLY:O	4.36	0.49
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	2.03	0.49
86:1:4192:OHX:N6	86:O1:201:OHX:N5	2.60	0.49
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	2.57	0.49
1:2:1076:A:O5'	28:D6:13:LYS:HB3	2.12	0.49
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.12	0.49
36:5:1940:G:H2'	36:5:1941:C:O4'	2.12	0.49
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.12	0.49
54:M8:85:GLY:O	54:M8:104:LEU:HB2	3.25	0.49
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.78	0.49
36:1:1806:A:OP2	86:1:3976:OHX:N6	2.44	0.49
38:4:126:A:O2'	38:4:128:U:OP1	2.29	0.49
36:5:863:C:OP1	86:5:3919:OHX:N3	2.45	0.49
36:1:1273:A:H2'	36:1:1274:A:H8	1.76	0.49
86:6:2121:OHX:N6	86:6:2173:OHX:N3	2.60	0.49
42:L5:270:LYS:C	42:L5:272:TYR:H	2.73	0.49
1:2:538:A:H5'	1:2:543:C:H42	1.77	0.49
1:6:542:A:H1'	1:6:543:C:H5'	1.93	0.49
36:5:1232:C:C5	36:5:1261:G:H2'	2.47	0.49
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.11	0.49
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.94	0.49
39:L2:181:LYS:HB3	36:5:860:G:C5	213.54	0.49
51:M5:37:HIS:CE1	51:M5:63:ARG:HD2	2.47	0.49
3:S1:144:ARG:NH1	3:S1:202:LYS:HE2	7.43	0.49
8:S6:137:ARG:HH21	8:S6:177:ARG:HD3	1.77	0.49
24:D2:55:ASP:OD1	24:D2:57:ARG:HB2	2.66	0.49
1:2:1127:G:P	77:Q1:11:ARG:HH21	2.34	0.49
1:2:1291:G:H2'	1:2:1292:G:H8	1.77	0.49
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.12	0.49
2:S0:62:ARG:HE	23:D1:39:VAL:HG13	2.18	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:25:GLN:O	75:O9:28:ARG:HB2	2.12	0.49
60:N4:6:ASP:HB3	60:N4:11:ALA:H	1.77	0.49
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	1.94	0.49
8:S6:186:ARG:HD3	1:6:268:C:H41	341.72	0.49
1:6:291:G:H2'	1:6:292:U:C6	2.47	0.49
34:SR:249:ARG:O	34:SR:251:TRP:N	3.13	0.49
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	1.94	0.49
1:2:495:C:H3'	1:2:496:G:O4'	2.12	0.49
1:6:72:A:H5'	1:6:73:U:OP2	2.12	0.49
12:C0:43:ILE:HD13	12:C0:64:TYR:HE2	2.19	0.49
36:5:3053:G:O2'	36:5:3054:U:H5'	2.12	0.49
36:5:1045:C:OP2	86:5:4179:OHX:N1	2.44	0.49
55:M9:105:LEU:HD12	55:M9:135:LYS:HG3	1.95	0.49
73:O7:13:ASN:O	36:5:817:A:C4	139.96	0.49
46:L9:189:GLU:O	46:L9:191:LEU:N	2.44	0.49
36:5:1892:G:H5''	36:5:1893:A:OP2	2.12	0.49
38:8:106:C:O2'	86:8:227:OHX:N5	2.45	0.49
29:D7:14:SER:HA	29:D7:17:ARG:HG2	1.94	0.49
36:1:2357:A:H2'	36:1:2358:A:C8	2.46	0.49
36:1:3107:U:H2'	36:1:3108:G:C8	2.47	0.49
8:S6:191:ARG:NH1	1:6:177:U:H1'	319.84	0.49
1:2:1615:C:O2'	1:2:1616:G:OP2	2.28	0.49
12:C0:80:LEU:O	12:C0:82:LEU:N	2.45	0.49
9:S7:122:HIS:CE1	9:S7:177:THR:HB	4.04	0.49
36:1:1306:G:C6	52:M6:62:THR:HA	2.48	0.49
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	3.70	0.49
66:O0:99:ASP:O	66:O0:102:THR:N	2.45	0.49
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	1.94	0.49
1:2:1681:A:N6	1:2:1720:G:O2'	2.45	0.49
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.34	0.49
1:6:230:C:N4	1:6:235:G:H1	2.08	0.49
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.11	0.49
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.12	0.49
17:C5:122:THR:HG22	1:6:1558:U:H3	367.68	0.49
54:M8:2:GLY:N	36:5:1159:A:OP1	228.41	0.49
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.93	0.49
86:5:4024:OHX:N3	86:5:4220:OHX:N4	2.60	0.49
61:N5:103:TYR:O	61:N5:105:VAL:HG23	4.91	0.49
48:M1:19:LEU:HD11	48:M1:79:ILE:HG21	2.71	0.49
47:M0:50:VAL:HG22	47:M0:167:LEU:HD23	1.94	0.49
1:2:1700:C:N4	1:2:1701:A:N7	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:211:LEU:HD22	8:S6:215:ARG:HH21	1.77	0.49
1:2:748:U:H2'	1:2:749:U:H6	1.77	0.49
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.86	0.49
36:5:2284:C:O2	86:5:4182:OHX:N1	2.45	0.49
1:6:1638:G:C2	1:6:1639:C:H1'	2.48	0.49
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.28	0.49
36:1:1530:U:H5''	36:1:1531:C:OP2	2.12	0.49
1:2:1345:A:H2'	1:2:1348:A:H62	1.77	0.49
1:6:1569:A:H8	1:6:1569:A:OP2	1.95	0.49
40:L3:160:VAL:HG13	40:L3:183:LEU:HD21	5.89	0.49
1:6:990:C:H2'	1:6:991:G:O4'	2.12	0.49
56:N0:155:ARG:HD2	56:N0:157:GLN:HG2	4.49	0.49
1:6:542:A:OP1	1:6:544:A:C4	2.66	0.49
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.94	0.49
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ1	1.77	0.49
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.23	0.49
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.68	0.49
61:N5:67:ILE:HD13	61:N5:115:ARG:HH21	1.77	0.49
7:S5:122:ASN:ND2	7:S5:126:ASP:O	4.31	0.49
1:2:1417:A:O3'	18:C6:128:LYS:HE2	2.13	0.49
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.46	0.49
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	1.98	0.49
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	2.02	0.49
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.13	0.49
1:2:325:G:H2'	1:2:326:G:H8	1.77	0.49
36:1:1065:A:H1'	65:N9:28:LYS:HE3	1.93	0.49
69:O3:85:PHE:O	86:O3:202:OHX:N2	4.28	0.49
15:C3:93:LYS:HD2	15:C3:150:VAL:HG13	1.94	0.49
63:N7:46:ILE:HD11	63:N7:49:TYR:N	2.33	0.49
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.04	0.49
1:2:1688:U:H2'	1:2:1689:A:C8	2.47	0.49
36:1:654:C:H2'	36:1:655:C:C6	2.48	0.49
1:2:208:U:H2'	1:2:209:U:C6	2.48	0.49
5:S3:220:PRO:O	5:S3:221:SER:HB3	2.12	0.49
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	2.23	0.49
1:6:656:G:H2'	1:6:657:U:C6	2.47	0.49
13:C1:6:THR:O	13:C1:8:GLN:N	2.46	0.49
53:M7:4:TYR:CZ	53:M7:18:ARG:HG3	2.86	0.49
53:M7:51:VAL:HG21	53:M7:58:ILE:HG12	1.94	0.49
69:O3:88:ASN:HB2	36:5:429:U:H5'	214.73	0.49
36:5:2660:G:O3'	36:5:2749:G:N2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:85:ALA:O	53:M7:89:LYS:HB2	3.51	0.49
36:5:918:C:OP1	86:5:4227:OHX:N4	2.45	0.49
60:N4:16:GLY:O	36:5:3050:U:O2'	245.98	0.49
33:E1:109:ASP:OD1	33:E1:109:ASP:N	2.45	0.49
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.12	0.49
66:O0:41:LEU:O	66:O0:92:ILE:HG12	2.12	0.49
36:5:1308:A:C8	36:5:1308:A:OP2	2.65	0.49
36:5:2209:U:H4'	36:5:2210:G:OP1	2.12	0.49
51:M5:37:HIS:HE1	51:M5:63:ARG:NH1	2.07	0.49
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.11	0.49
20:C8:29:VAL:HB	20:C8:30:TYR:CD1	3.24	0.49
5:S3:113:LEU:HD12	5:S3:117:ARG:HH11	4.15	0.49
1:2:1760:G:O2'	1:2:1781:A:N1	2.39	0.49
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.93	0.49
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	10.44	0.49
19:C7:88:VAL:HG22	19:C7:89:SER:O	4.38	0.49
64:N8:133:LEU:HD22	64:N8:137:LYS:HG3	1.94	0.49
1:6:1071:U:H2'	1:6:1072:C:H6	1.77	0.49
10:S8:10:LYS:HG3	1:6:323:A:OP2	286.56	0.49
34:SR:115:ILE:HD12	34:SR:122:ILE:HG12	3.52	0.49
51:M5:49:ARG:HH11	51:M5:49:ARG:HB2	1.77	0.49
36:1:1932:A:H5'	36:1:1933:A:OP2	2.12	0.49
36:1:1346:G:H1'	41:L4:307:GLN:NE2	2.27	0.49
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.95	0.49
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.78	0.49
1:2:393:C:H2'	1:2:394:C:C6	2.47	0.49
36:1:2683:U:H2'	36:1:2684:C:H6	1.77	0.49
12:C0:52:LYS:HD3	1:6:1220:C:H5'	443.13	0.49
17:C5:99:GLY:O	1:6:1453:G:N2	377.43	0.49
54:M8:125:ASP:O	54:M8:129:VAL:HG23	2.12	0.49
9:S7:174:ASN:O	9:S7:178:GLY:N	2.45	0.49
47:M0:185:ARG:HA	47:M0:190:VAL:HB	1.93	0.49
36:1:239:G:H2'	36:1:240:U:C6	2.47	0.49
1:6:1511:U:H2'	1:6:1512:G:C8	2.47	0.49
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.11	0.49
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.12	0.49
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.11	0.49
1:6:104:A:H61	1:6:308:C:H5'	1.78	0.49
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.12	0.49
19:C7:107:SER:O	19:C7:111:LYS:HB2	3.12	0.49
38:8:157:U:O2'	38:8:158:U:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:27:LYS:HG2	60:N4:29:PHE:CE2	3.97	0.49
40:L3:185:GLY:O	40:L3:191:LYS:NZ	2.44	0.49
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.13	0.49
5:S3:7:LYS:HA	5:S3:10:LYS:HB3	1.94	0.49
1:2:197:A:H2'	1:2:198:A:C8	2.48	0.49
7:S5:202:ALA:O	7:S5:203:LYS:HD2	2.13	0.49
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.94	0.49
1:6:152:U:C2	1:6:163:G:N2	2.80	0.49
36:1:3050:U:OP2	86:1:4176:OHX:N2	2.45	0.49
26:D4:8:ARG:HB3	1:6:780:A:O2'	438.50	0.49
36:1:121:A:C2	45:L8:129:PRO:HB3	2.47	0.49
36:5:1561:G:O2'	36:5:1562:C:OP2	2.22	0.49
47:M0:4:ARG:NH2	47:M0:9:TYR:OH	2.45	0.49
1:2:5:U:H2'	1:2:6:G:C8	2.46	0.49
6:S4:52:LEU:HB3	6:S4:54:TYR:CD2	2.87	0.49
34:SR:222:LEU:O	34:SR:231:MET:HB2	2.49	0.49
36:1:595:G:H1	36:1:609:G:H5''	1.76	0.49
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.48	0.49
10:S8:101:ILE:HD11	10:S8:192:TYR:CD2	3.65	0.49
74:O8:41:THR:HG21	74:O8:62:ALA:HB2	1.95	0.49
55:M9:143:ILE:HD11	36:5:2093:A:C2	246.13	0.49
36:5:141:C:H2'	36:5:142:C:C6	2.47	0.49
68:O2:33:ARG:HH22	36:5:1408:G:P	160.28	0.49
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.45	0.49
36:1:715:A:H4'	36:1:716:A:OP1	2.12	0.49
48:M1:95:ASN:O	48:M1:102:PHE:HA	2.34	0.49
50:M4:121:MET:O	50:M4:125:LYS:HG3	3.19	0.49
86:1:4192:OHX:N4	86:O1:201:OHX:N1	2.61	0.49
34:SR:265:LEU:HA	34:SR:268:GLN:HG2	1.94	0.49
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.45	0.49
62:N6:125:LYS:HD2	71:O5:71:LYS:HB3	53.72	0.49
54:M8:133:LYS:N	54:M8:135:GLN:OE1	2.30	0.49
26:D4:129:VAL:O	26:D4:132:ARG:HB3	3.12	0.49
36:5:1757:A:H2'	36:5:1758:G:C8	2.46	0.49
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.94	0.49
36:1:3152:U:O2'	36:1:3153:U:H5'	2.11	0.49
1:6:950:C:H2'	1:6:951:A:C8	2.47	0.49
40:L3:41:VAL:HG13	40:L3:185:GLY:HA3	3.50	0.49
70:O4:8:ARG:NH2	36:5:1597:C:OP1	137.80	0.49
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.13	0.49
19:C7:6:THR:OG1	19:C7:8:THR:HG23	4.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:65:ILE:O	43:L6:76:LEU:HA	2.59	0.49
48:M1:15:GLU:HG2	48:M1:16:LYS:HD3	1.94	0.49
1:2:1245:G:N1	1:2:1249:U:O4	2.46	0.49
36:5:1471:U:H2'	36:5:1472:U:C6	2.48	0.49
70:O4:56:THR:O	70:O4:57:LEU:HD23	2.66	0.49
36:1:1580:A:H5'	36:1:2522:G:C5	2.48	0.49
40:L3:284:ARG:NH1	40:L3:356:LEU:HD12	2.28	0.49
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.63	0.49
67:O1:88:PRO:O	67:O1:89:LEU:HD12	2.58	0.49
64:N8:73:LEU:HB2	64:N8:109:TYR:CE2	2.48	0.49
19:C7:104:ASN:O	19:C7:106:THR:N	3.20	0.49
54:M8:70:ALA:O	54:M8:73:GLN:HG3	4.52	0.49
36:1:2281:A:H2	36:1:2974:U:O2	1.96	0.49
1:2:1:U:C4	1:2:369:A:C6	3.00	0.49
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.45	0.49
41:L4:65:TRP:CD2	41:L4:76:ARG:HD3	3.27	0.49
36:1:216:G:OP1	62:N6:16:ARG:NH1	2.45	0.49
5:S3:160:SER:OG	1:6:1331:A:N6	415.23	0.49
30:D8:13:ILE:HB	30:D8:29:ARG:HG2	5.09	0.49
1:6:550:A:OP2	86:6:2049:OHX:N2	2.46	0.49
36:1:2369:G:H2'	36:1:2370:G:C8	2.47	0.49
20:C8:112:ASP:OD2	1:6:1547:A:H5'	357.67	0.49
48:M1:32:ARG:HD3	48:M1:119:SER:O	2.12	0.49
36:5:523:A:N6	36:5:570:A:C2	2.81	0.49
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.11	0.49
1:2:1367:G:N7	86:2:2111:OHX:N6	2.61	0.49
40:L3:25:ILE:HG23	40:L3:272:TYR:OH	2.12	0.49
1:2:990:C:H2'	1:2:991:G:O4'	2.13	0.49
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.67	0.49
34:SR:83:ALA:HA	34:SR:89:LEU:HD23	1.95	0.49
44:L7:80:GLN:HG3	57:N1:136:ARG:HB2	4.46	0.49
1:2:1228:G:N1	14:C2:67:THR:HB	2.27	0.49
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.93	0.49
36:1:1098:A:O2'	57:N1:132:PRO:HD3	2.12	0.49
55:M9:26:PRO:HG3	36:5:1473:G:H4'	122.38	0.49
4:S2:88:LYS:HG2	4:S2:89:GLN:H	3.18	0.49
64:N8:116:GLY:HA2	64:N8:137:LYS:NZ	2.27	0.49
1:2:918:U:H2'	1:2:919:A:H8	1.78	0.49
36:1:591:G:H21	43:L6:19:LYS:N	2.11	0.49
43:L6:18:LEU:HB3	36:5:591:G:N2	220.58	0.49
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:290:G:OP1	51:M5:98:LEU:HD22	2.13	0.49
54:M8:169:GLY:H	54:M8:172:PHE:HD2	1.61	0.49
32:E0:49:LEU:HD21	32:E0:55:ARG:HB2	1.95	0.49
13:C1:60:PHE:O	13:C1:62:GLY:N	4.08	0.49
36:1:789:A:H2'	36:1:790:U:H6	1.75	0.49
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.97	0.49
1:2:1439:C:H2'	1:2:1440:C:C6	2.47	0.49
14:C2:108:ARG:O	14:C2:110:ALA:N	2.76	0.49
36:5:3136:G:OP2	86:5:4108:OHX:N3	2.46	0.49
62:N6:3:LYS:HE2	62:N6:8:VAL:O	2.12	0.49
64:N8:36:GLY:HA3	64:N8:40:HIS:CE1	2.68	0.49
1:6:420:A:H2'	1:6:421:A:O4'	2.12	0.49
1:6:891:A:H2'	1:6:892:A:C8	2.47	0.49
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.95	0.49
86:5:4059:OHX:N3	86:5:4202:OHX:N6	2.61	0.49
37:3:64:A:H3'	47:M0:204:GLY:O	2.12	0.49
47:M0:116:ARG:HH21	36:5:2618:G:H5'	229.23	0.49
36:1:269:G:O6	86:1:4073:OHX:N3	2.46	0.49
1:2:1696:G:N2	1:2:1704:U:O2	2.46	0.49
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.13	0.49
36:1:99:A:H1'	36:1:281:G:N7	2.28	0.49
36:5:3273:A:C2'	36:5:3274:A:H5'	2.42	0.49
8:S6:179:VAL:HG21	1:6:140:A:H1'	328.47	0.49
1:2:67:A:H3'	1:2:69:G:H8	1.78	0.49
1:2:793:A:H5''	1:2:794:U:C5	2.48	0.49
40:L3:66:LYS:HZ1	59:N3:120:LYS:HZ3	1.61	0.49
15:C3:26:PHE:HE1	15:C3:60:VAL:H	4.91	0.49
42:L5:58:LYS:CG	42:L5:93:THR:HG21	2.40	0.49
36:1:776:U:C5	36:1:2719:U:O2	2.60	0.49
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.13	0.49
1:6:1773:C:H2'	1:6:1774:G:C8	2.48	0.49
1:6:823:G:C5	1:6:850:A:C2	3.01	0.49
62:N6:103:LYS:NZ	36:5:221:A:H61	79.00	0.49
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.94	0.49
69:O3:45:LEU:HD23	69:O3:71:VAL:HG12	2.71	0.49
26:D4:29:HIS:HB2	26:D4:67:GLY:HA2	5.27	0.49
36:1:767:U:H1'	36:1:768:C:C6	2.48	0.49
63:N7:26:VAL:HG22	63:N7:42:LEU:O	2.12	0.49
1:2:1488:G:H3'	1:2:1515:A:H61	1.78	0.49
17:C5:110:GLU:HB2	20:C8:119:ILE:HD11	1.94	0.49
51:M5:190:THR:HB	51:M5:193:ARG:NH2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:110:ARG:CZ	54:M8:3:ILE:HD12	4.85	0.49
13:C1:2:SER:HB2	13:C1:81:HIS:CD2	2.47	0.49
51:M5:105:ARG:NH1	36:5:1547:G:OP2	132.14	0.49
69:O3:37:THR:HB	69:O3:39:GLN:OE1	2.49	0.49
4:S2:90:THR:O	4:S2:92:ALA:N	2.45	0.49
56:N0:61:ILE:O	56:N0:62:ASN:ND2	2.46	0.49
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.12	0.49
36:1:180:C:H2'	36:1:181:U:H6	1.77	0.49
36:1:1674:G:OP2	86:1:3941:OHX:N2	2.46	0.49
1:6:1697:G:H8	1:6:1705:C:C2	2.30	0.49
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.30	0.49
36:5:2308:C:O2	86:5:4243:OHX:N1	2.46	0.49
36:1:2612:U:H2'	36:1:2613:U:O4'	2.12	0.49
36:1:787:G:H2'	36:1:788:C:C6	2.48	0.49
36:1:3296:A:OP2	40:L3:121:ASN:ND2	2.41	0.49
38:8:83:C:H4'	38:8:85:G:N2	2.28	0.49
36:1:2812:C:H2'	36:1:2813:A:C8	2.48	0.49
15:C3:146:ALA:O	15:C3:149:LEU:N	2.46	0.49
42:L5:32:GLN:NE2	42:L5:149:GLY:O	2.46	0.49
36:5:1922:A:H2'	36:5:1923:C:O4'	2.13	0.49
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.53	0.49
36:5:1108:U:H2'	36:5:1109:U:C6	2.48	0.49
1:6:815:G:H2'	1:6:815:G:OP1	2.13	0.49
36:1:3335:A:H2'	36:1:3336:A:C8	2.48	0.49
52:M6:108:ILE:HD13	52:M6:160:ARG:HD2	4.53	0.49
1:2:700:C:N4	1:2:738:G:H1	2.07	0.49
25:D3:53:VAL:HG13	25:D3:72:VAL:HB	2.06	0.49
33:E1:144:CYS:SG	33:E1:147:VAL:HG22	2.52	0.49
55:M9:100:ARG:NE	36:5:1722:U:OP1	214.97	0.49
36:1:1238:C:H41	36:1:1245:A:P	2.36	0.49
36:1:1245:A:C3'	36:1:1246:G:H5''	2.43	0.49
5:S3:70:THR:CG2	5:S3:86:LEU:HB2	2.62	0.49
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.63	0.49
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.78	0.49
37:3:11:A:H4'	37:3:13:A:C8	2.48	0.49
39:L2:66:PRO:HD2	39:L2:67:TYR:CD2	2.48	0.49
53:M7:108:ASP:OD2	53:M7:110:THR:OG1	2.71	0.49
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.10	0.49
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.22	0.49
86:5:4014:OHX:N6	86:5:4203:OHX:N2	2.61	0.49
4:S2:54:GLU:OE1	23:D1:11:LEU:HB2	4.03	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:549:U:O4	86:5:4016:OHX:N4	2.46	0.49
61:N5:131:ASP:O	61:N5:135:ILE:HG22	4.55	0.49
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.53	0.49
1:6:514:G:O2'	1:6:515:A:H5'	2.13	0.49
39:L2:200:ARG:C	39:L2:202:VAL:H	2.16	0.49
36:5:2523:A:H4'	36:5:2524:A:OP2	2.12	0.49
59:N3:92:PHE:CE1	36:5:3051:U:H1'	246.13	0.49
36:1:1807:G:C6	36:1:1808:G:C6	3.00	0.49
66:O0:41:LEU:HB3	66:O0:92:ILE:HG13	3.18	0.49
58:N2:100:THR:HA	36:5:1677:G:OP1	141.31	0.49
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.46	0.49
36:1:2902:A:H2'	36:1:2903:A:O4'	2.13	0.49
36:5:1479:U:C3'	36:5:1480:G:H5'	2.43	0.49
36:5:1466:G:O6	86:5:3915:OHX:N5	2.45	0.49
36:1:3159:C:H2'	36:1:3160:U:C6	2.48	0.49
11:S9:149:ARG:CG	11:S9:149:ARG:HH11	3.98	0.48
2:S0:179:ARG:HD3	2:S0:183:ARG:NH1	2.22	0.48
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	2.14	0.48
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	3.02	0.48
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.65	0.48
79:Q3:4:ARG:NH1	36:5:837:A:OP2	238.00	0.48
36:5:2255:A:H5'	36:5:2261:G:N2	2.25	0.48
2:S0:202:TYR:O	2:S0:203:PHE:HD2	1.96	0.48
36:1:2534:G:H1	36:1:2545:C:H42	1.60	0.48
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	2.04	0.48
36:5:1723:A:N1	36:5:1788:C:O2'	2.38	0.48
36:1:2659:G:C2	36:1:2712:U:O2	2.66	0.48
86:5:4014:OHX:N3	86:5:4203:OHX:N1	2.61	0.48
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	3.03	0.48
44:L7:74:SER:OG	57:N1:142:SER:HA	2.13	0.48
49:M3:128:ARG:NH2	71:O5:109:ILE:O	2.36	0.48
54:M8:73:GLN:HB3	54:M8:76:ALA:HB3	1.94	0.48
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.12	0.48
36:1:1207:G:N7	86:1:4056:OHX:N2	2.61	0.48
36:5:601:U:H2'	36:5:602:A:O4'	2.12	0.48
6:S4:232:GLY:O	6:S4:234:PRO:HD3	2.12	0.48
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.86	0.48
39:L2:234:LYS:HB3	39:L2:238:ILE:HD11	1.94	0.48
1:6:1720:G:O6	86:6:2094:OHX:N4	2.46	0.48
1:6:446:A:N6	1:6:461:G:H21	2.11	0.48
48:M1:116:TYR:HE1	48:M1:118:PRO:HB3	2.22	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:833:G:H2'	36:5:834:U:O4'	2.13	0.48
17:C5:100:LYS:NZ	1:6:1183:A:O4'	363.05	0.48
39:L2:108:PRO:HG2	79:Q3:86:LEU:HD22	1.95	0.48
13:C1:33:ARG:NH1	13:C1:53:TYR:O	2.90	0.48
36:1:1387:G:OP1	86:1:4151:OHX:N6	2.46	0.48
1:6:539:G:OP2	1:6:539:G:H8	1.95	0.48
67:O1:63:GLY:O	67:O1:65:LYS:N	3.44	0.48
1:6:1029:U:O2'	1:6:1030:A:H5'	2.13	0.48
1:2:538:A:H8	1:2:543:C:N4	2.11	0.48
17:C5:17:TYR:CD1	17:C5:18:ARG:HG3	2.48	0.48
17:C5:28:MET:O	17:C5:32:ASP:HB2	2.12	0.48
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.45	0.48
44:L7:80:GLN:HG3	57:N1:136:ARG:CB	3.83	0.48
75:O9:10:LYS:HA	75:O9:13:MET:HE2	1.94	0.48
11:S9:162:SER:OG	11:S9:163:PRO:O	2.31	0.48
22:D0:48:HIS:CE1	22:D0:99:ILE:HD13	2.49	0.48
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.42	0.48
36:5:1070:U:C4	36:5:1071:U:C4	3.00	0.48
21:C9:39:THR:OG1	21:C9:43:ASN:OD1	2.29	0.48
5:S3:65:ARG:O	5:S3:69:LEU:HD22	4.75	0.48
1:2:16:G:H2'	1:2:17:C:C6	2.48	0.48
1:2:17:C:H2'	1:2:18:C:H6	1.76	0.48
37:3:113:C:H2'	37:3:114:U:O4'	2.13	0.48
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.48	0.48
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.13	0.48
35:SM:84:LYS:H	35:SM:84:LYS:HD2	1.78	0.48
86:5:4014:OHX:N3	86:5:4203:OHX:N5	2.61	0.48
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.78	0.48
4:S2:58:LEU:HD22	23:D1:15:ARG:HG3	1.94	0.48
1:2:567:A:OP1	25:D3:70:LYS:NZ	2.46	0.48
61:N5:91:ASN:H	61:N5:94:GLN:HB2	2.58	0.48
45:L8:78:PHE:O	45:L8:80:TYR:N	2.97	0.48
1:2:398:G:P	10:S8:47:ARG:HH12	2.36	0.48
36:5:589:A:H1'	36:5:1337:A:H5''	1.95	0.48
36:5:54:C:H5''	36:5:1548:C:H1'	1.95	0.48
13:C1:18:HIS:O	86:C1:201:OHX:N6	2.46	0.48
67:O1:20:LEU:O	67:O1:28:ARG:NH1	3.41	0.48
9:S7:141:ARG:HD3	9:S7:151:LYS:HE2	1.95	0.48
36:1:2927:C:H2'	36:1:2928:C:C6	2.49	0.48
49:M3:65:TYR:CD1	36:5:103:G:H5'	104.20	0.48
42:L5:131:LEU:H	42:L5:131:LEU:HD22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1451:C:H2'	1:6:1452:U:C6	2.48	0.48
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.48	0.48
37:7:43:U:C4	37:7:44:C:C4	3.01	0.48
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	3.66	0.48
11:S9:134:ILE:HD13	11:S9:141:VAL:O	2.87	0.48
17:C5:17:TYR:O	17:C5:19:GLY:N	3.97	0.48
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	4.20	0.48
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.36	0.48
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.79	0.48
53:M7:82:ARG:HB3	36:5:2352:A:OP1	159.27	0.48
3:S1:93:GLY:C	3:S1:95:ASN:H	2.71	0.48
1:2:1773:C:H2'	1:2:1774:G:C8	2.49	0.48
9:S7:49:ILE:HD12	9:S7:172:VAL:HA	2.62	0.48
62:N6:103:LYS:HZ2	36:5:221:A:N6	79.78	0.48
44:L7:160:ARG:HG3	44:L7:203:TRP:CD2	2.86	0.48
1:6:445:A:H1'	1:6:525:A:H5'	1.95	0.48
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.29	0.48
36:1:2339:C:OP2	59:N3:48:ARG:HG2	2.14	0.48
51:M5:57:GLN:HB3	51:M5:139:HIS:NE2	2.55	0.48
1:6:1349:G:O2'	1:6:1379:C:N3	2.37	0.48
36:1:671:U:H2'	36:1:672:A:C8	2.48	0.48
71:O5:104:GLN:O	71:O5:107:LYS:N	2.45	0.48
14:C2:58:LEU:HG	14:C2:126:TRP:CZ3	4.54	0.48
36:1:1712:G:N1	36:1:1731:A:OP2	2.36	0.48
24:D2:82:LYS:NZ	1:6:795:U:OP1	357.58	0.48
36:1:664:U:H2'	36:1:665:A:C8	2.47	0.48
36:5:887:G:H2'	36:5:888:A:C8	2.48	0.48
51:M5:78:GLY:HA2	51:M5:89:VAL:HG21	2.31	0.48
1:2:505:A:N3	1:2:505:A:H2'	2.27	0.48
72:O6:42:SER:O	72:O6:46:GLU:HG2	2.14	0.48
38:4:52:A:H62	75:O9:27:ILE:HD13	1.77	0.48
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.13	0.48
36:1:1701:C:H2'	36:1:1702:U:O4'	2.12	0.48
36:5:2507:C:O2'	36:5:2508:U:OP1	2.24	0.48
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.13	0.48
3:S1:163:ALA:O	3:S1:167:VAL:HG23	2.32	0.48
21:C9:117:SER:CB	21:C9:123:ARG:HB3	2.37	0.48
8:S6:21:GLU:O	8:S6:25:ARG:HB2	2.14	0.48
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.74	0.48
47:M0:17:TYR:CE1	47:M0:98:ARG:HD3	2.97	0.48
23:D1:74:GLN:HG2	23:D1:79:LEU:O	4.07	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:83:THR:CG2	63:N7:85:TYR:H	2.59	0.48
47:M0:149:VAL:HG13	47:M0:165:ILE:HG21	3.85	0.48
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.48	0.48
36:5:437:G:N2	36:5:622:A:H61	2.10	0.48
20:C8:14:ILE:H	20:C8:24:GLY:H	1.60	0.48
42:L5:64:ILE:HD12	42:L5:105:ILE:HG13	1.96	0.48
47:M0:99:ILE:HG13	47:M0:123:HIS:CB	5.61	0.48
52:M6:72:HIS:HB2	52:M6:74:ARG:HH12	1.78	0.48
36:1:1103:A:H1'	36:1:1104:G:OP1	2.14	0.48
1:2:40:A:H2'	1:2:41:A:O4'	2.12	0.48
36:5:3163:A:O2'	36:5:3164:C:H5'	2.14	0.48
1:6:1218:G:O6	1:6:1444:A:H2'	2.13	0.48
42:L5:277:LEU:HB3	42:L5:281:GLU:OE2	4.14	0.48
9:S7:44:LYS:HG3	9:S7:63:PRO:HD3	2.37	0.48
36:1:617:G:O2'	53:M7:171:ARG:NH2	2.47	0.48
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.79	0.48
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.48	0.48
1:6:1679:G:C6	1:6:1680:G:C6	3.01	0.48
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	2.11	0.48
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.11	0.48
17:C5:126:VAL:O	17:C5:127:ARG:HD3	5.46	0.48
1:2:12:U:H2'	1:2:13:C:C6	2.48	0.48
6:S4:179:LYS:HD3	6:S4:230:GLU:OE2	2.13	0.48
33:E1:146:SER:OG	1:6:1234:A:H4'	435.79	0.48
36:1:1826:C:H2'	36:1:1827:C:C6	2.48	0.48
55:M9:97:ARG:O	55:M9:101:VAL:HG23	3.08	0.48
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.66	0.48
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	4.16	0.48
36:5:915:A:H8	36:5:2136:C:HO2'	1.61	0.48
86:1:3966:OHX:N3	86:1:4151:OHX:N4	2.62	0.48
1:6:1030:A:H4'	1:6:1031:U:OP2	2.14	0.48
34:SR:200:ASN:H	34:SR:215:GLY:HA2	1.78	0.48
36:5:1769:G:C2	36:5:1770:G:C8	3.02	0.48
36:1:280:U:H4'	51:M5:182:ASN:OD1	2.14	0.48
36:1:2429:G:OP2	86:1:3981:OHX:N4	2.47	0.48
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	1.96	0.48
1:6:1524:A:H2'	1:6:1525:A:C8	2.48	0.48
62:N6:46:LYS:NZ	36:5:188:U:OP2	69.14	0.48
40:L3:64:GLY:O	36:5:3038:U:H4'	288.58	0.48
41:L4:202:ARG:HG2	41:L4:202:ARG:HH11	2.44	0.48
36:1:694:C:OP2	41:L4:118:LYS:HE2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:106:LEU:HA	44:L7:106:LEU:HD23	1.56	0.48
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.49	0.48
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.27	0.48
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	2.13	0.48
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.13	0.48
17:C5:18:ARG:HD2	17:C5:36:LEU:O	3.00	0.48
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.77	0.48
3:S1:136:ARG:NH1	1:6:885:G:OP1	275.69	0.48
36:1:2442:G:N2	36:1:2505:U:H3	2.11	0.48
39:L2:77:ILE:CD1	39:L2:128:ARG:HB3	2.44	0.48
3:S1:131:ASP:HB3	3:S1:180:THR:CG2	2.44	0.48
3:S1:133:TYR:CE2	3:S1:181:LEU:HD12	4.33	0.48
52:M6:119:VAL:HG11	56:N0:167:ARG:HD2	3.52	0.48
1:6:1595:U:N3	1:6:1600:A:C2	2.74	0.48
36:5:1556:C:H5''	36:5:2169:G:H22	1.78	0.48
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	3.79	0.48
46:L9:139:ASN:N	46:L9:139:ASN:OD1	4.43	0.48
31:D9:32:ARG:NH2	1:6:1597:A:OP2	409.38	0.48
64:N8:6:THR:HG23	64:N8:8:THR:H	1.97	0.48
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	1.96	0.48
44:L7:130:ILE:O	44:L7:134:VAL:HG22	2.14	0.48
1:2:623:A:OP2	86:2:2160:OHX:N4	2.47	0.48
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.18	0.48
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.52	0.48
46:L9:163:GLN:O	46:L9:166:ARG:HG3	3.53	0.48
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.46	0.48
15:C3:40:TYR:CE1	15:C3:53:LEU:HD23	3.66	0.48
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.13	0.48
59:N3:38:ALA:HB3	59:N3:59:MET:HB2	2.23	0.48
1:2:1646:C:H2'	1:2:1647:U:C6	2.49	0.48
36:5:864:G:OP2	86:5:3919:OHX:N4	2.46	0.48
69:O3:19:SER:HB3	36:5:1330:A:OP1	233.59	0.48
36:1:1543:G:O6	86:1:4051:OHX:N2	2.46	0.48
10:S8:110:ARG:NH1	10:S8:160:PHE:HB3	2.28	0.48
1:6:1419:G:H2'	1:6:1420:C:O4'	2.13	0.48
1:2:485:A:H2'	1:2:486:G:O4'	2.13	0.48
38:8:73:U:H2'	38:8:74:U:O4'	2.13	0.48
39:L2:8:GLN:HA	36:5:2163:C:O3'	182.36	0.48
40:L3:43:LEU:HD23	40:L3:181:ILE:HD12	1.94	0.48
71:O5:70:TYR:O	71:O5:73:LYS:HG2	2.14	0.48
68:O2:43:ARG:NH1	36:5:1368:U:H5'	194.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:100:A:H2'	1:6:101:U:O4'	2.13	0.48
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.97	0.48
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	2.52	0.48
36:1:2582:C:H2'	36:1:2583:C:C6	2.49	0.48
1:6:733:A:H2'	1:6:734:A:O4'	2.12	0.48
36:5:2319:U:O4	86:5:3999:OHX:N2	2.47	0.48
45:L8:172:LYS:HG3	45:L8:172:LYS:O	2.60	0.48
36:5:1781:C:H2'	36:5:1782:U:H6	1.78	0.48
49:M3:133:PRO:O	49:M3:135:ALA:N	3.34	0.48
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.13	0.48
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.79	0.48
7:S5:35:GLN:C	7:S5:37:GLN:H	3.07	0.48
20:C8:72:ILE:HG12	20:C8:79:TYR:CD2	4.05	0.48
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.14	0.48
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.12	0.48
1:6:913:G:H3'	1:6:914:G:C5'	2.44	0.48
9:S7:49:ILE:HD11	9:S7:172:VAL:HG22	2.52	0.48
14:C2:81:ASP:O	14:C2:83:GLU:N	2.45	0.48
49:M3:165:SER:HA	64:N8:139:ARG:HH21	3.59	0.48
6:S4:191:ARG:HH11	6:S4:245:LYS:HB3	1.78	0.48
49:M3:159:VAL:HG13	64:N8:144:VAL:HG13	1.94	0.48
30:D8:16:LEU:HB3	30:D8:27:GLN:HB3	3.93	0.48
36:1:2663:G:H1	36:1:2707:C:H42	1.62	0.48
51:M5:132:VAL:O	51:M5:134:LEU:HD12	2.14	0.48
52:M6:27:LEU:HD21	52:M6:102:LEU:HB2	1.95	0.48
6:S4:194:THR:O	6:S4:195:ILE:HB	2.13	0.48
34:SR:278:PHE:HE2	34:SR:311:ARG:HH21	3.25	0.48
36:1:3163:A:C2'	36:1:3164:C:H5'	2.43	0.48
45:L8:72:PRO:HD2	45:L8:75:ILE:HD12	3.37	0.48
36:1:540:U:H2'	36:1:541:U:C6	2.48	0.48
36:1:1807:G:C6	36:1:1808:G:N1	2.82	0.48
1:2:1550:A:P	17:C5:42:ARG:HH22	2.36	0.48
36:5:2635:A:H4'	36:5:2636:A:O5'	2.13	0.48
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.94	0.48
64:N8:88:ASP:HA	64:N8:91:LEU:HD22	3.17	0.48
36:5:2291:A:H2'	36:5:2292:U:C6	2.49	0.48
28:D6:44:ILE:HD12	28:D6:45:VAL:N	2.28	0.48
36:1:1069:C:H2'	36:1:1070:U:H6	1.78	0.48
36:5:1481:A:O4'	36:5:1481:A:OP1	2.31	0.48
40:L3:187:SER:O	40:L3:190:GLU:N	2.46	0.48
36:5:3273:A:O2'	36:5:3274:A:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:113:VAL:O	11:S9:118:LEU:HB3	2.14	0.48
34:SR:70:ASP:OD1	34:SR:71:CYS:N	2.45	0.48
36:1:2443:A:O2'	36:1:2444:C:OP2	2.30	0.48
8:S6:171:LYS:NZ	1:6:68:A:OP2	350.48	0.48
41:L4:295:ILE:HG23	41:L4:299:ILE:HD11	1.96	0.48
3:S1:130:SER:OG	3:S1:180:THR:N	2.47	0.48
2:S0:185:ARG:CB	23:D1:45:ALA:H	2.25	0.48
46:L9:49:ASN:C	46:L9:51:GLN:H	2.11	0.48
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.14	0.48
36:1:662:U:H2'	36:1:663:C:C6	2.49	0.48
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.48	0.48
36:1:3216:G:O6	36:1:3259:U:H2'	2.14	0.48
20:C8:138:THR:N	1:6:1458:G:OP1	354.68	0.48
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.28	0.48
36:5:1804:A:H2'	36:5:1805:C:H6	1.73	0.48
36:5:1876:U:C6	36:5:1876:U:C5'	2.97	0.48
36:1:2406:C:H2'	36:1:2407:C:C6	2.49	0.48
36:5:2971:A:H5''	36:5:2972:G:O5'	2.14	0.48
1:2:919:A:H2'	1:2:920:U:C6	2.49	0.48
41:L4:60:THR:HG23	36:5:364:G:OP1	127.87	0.48
38:4:104:A:C8	38:4:105:A:C8	3.02	0.48
36:1:250:U:H5	36:1:251:G:N7	2.11	0.48
1:6:452:A:OP2	86:6:2062:OHX:N1	2.47	0.48
36:1:3365:U:H2'	36:1:3366:G:H8	1.78	0.48
42:L5:208:MET:HG3	42:L5:223:PHE:CE2	2.48	0.48
36:1:517:G:P	44:L7:60:ARG:HH22	2.37	0.48
36:5:1340:G:H2'	36:5:1341:U:C6	2.49	0.48
86:5:4059:OHX:N1	86:5:4202:OHX:N2	2.62	0.48
40:L3:10:ARG:NH2	40:L3:14:LEU:HD21	2.28	0.48
17:C5:34:VAL:HG21	17:C5:45:PHE:HB2	1.95	0.48
40:L3:33:PRO:HG2	40:L3:340:LYS:HB2	1.94	0.48
1:2:380:U:H5	11:S9:5:PRO:HA	1.78	0.48
36:5:423:A:H2'	36:5:424:G:O4'	2.14	0.48
36:1:3233:C:H2'	36:1:3234:A:C8	2.49	0.48
1:2:876:G:H1'	1:2:944:A:O4'	2.14	0.48
73:O7:45:ARG:NH1	73:O7:47:TYR:HE2	2.12	0.48
36:1:1256:G:O6	36:1:1261:G:N2	2.46	0.48
36:5:907:G:OP1	36:5:909:G:O2'	2.29	0.48
36:1:3392:U:H2'	36:1:3393:U:C6	2.48	0.48
36:5:1017:C:H42	36:5:2671:A:P	2.36	0.48
20:C8:2:SER:HB3	20:C8:4:VAL:HG22	8.99	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:19:U:H3	38:4:140:G:H1	1.61	0.48
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.83	0.48
17:C5:43:ARG:O	17:C5:47:ARG:HG2	3.00	0.48
24:D2:15:ASN:ND2	24:D2:71:LYS:HA	2.21	0.48
36:1:1899:G:N7	86:1:3925:OHX:N3	2.62	0.48
33:E1:135:HIS:HB2	33:E1:138:ARG:HG3	1.95	0.48
36:1:900:G:H1'	36:1:1589:A:H61	1.77	0.48
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.98	0.48
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.96	0.48
36:1:1927:G:P	79:Q3:5:THR:HG22	2.54	0.48
36:1:1631:C:OP2	63:N7:48:ARG:NH2	2.47	0.48
2:S0:37:VAL:HG22	2:S0:149:LEU:HD13	5.31	0.48
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.13	0.48
14:C2:63:VAL:HG11	14:C2:94:ALA:HB2	1.95	0.48
10:S8:8:ARG:HH21	10:S8:21:PHE:HB3	1.77	0.48
8:S6:148:SER:HB3	60:N4:98:PRO:HG3	1.95	0.48
36:1:3006:A:C2	36:1:3141:A:C4	3.02	0.48
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	8.56	0.48
1:6:1151:A:O3'	1:6:1766:A:N6	2.46	0.48
25:D3:70:LYS:HD2	25:D3:70:LYS:H	1.79	0.48
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.94	0.48
24:D2:14:ILE:HA	24:D2:25:VAL:HG21	2.67	0.48
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	1.95	0.48
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.54	0.48
36:1:2601:A:H2'	36:1:2602:G:C8	2.49	0.48
49:M3:157:ARG:HH12	64:N8:146:GLU:CD	2.17	0.48
26:D4:131:ARG:NH1	1:6:153:G:OP2	320.65	0.48
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.96	0.48
5:S3:195:SER:OG	5:S3:200:LYS:HA	3.88	0.48
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.47	0.48
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.47	0.48
38:8:74:U:O2	86:8:218:OHX:N5	2.46	0.48
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.48	0.48
64:N8:19:LYS:HB3	64:N8:25:HIS:HB2	1.95	0.48
52:M6:114:LYS:HA	36:5:3180:A:C4	273.58	0.48
43:L6:135:VAL:O	43:L6:139:LYS:HG3	2.14	0.48
1:2:1393:C:H2'	1:2:1394:G:O4'	2.13	0.48
1:6:1236:A:H2'	1:6:1237:G:C8	2.48	0.48
1:2:1622:G:H2'	1:2:1623:C:C6	2.49	0.48
38:8:75:G:H2'	38:8:76:C:C6	2.49	0.48
36:1:2353:G:C5	36:1:2354:C:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1263:G:C2	1:6:1264:G:H1'	2.49	0.48
36:5:2333:C:H2'	36:5:2334:U:O4'	2.13	0.48
4:S2:163:GLY:O	4:S2:164:SER:HB3	3.87	0.48
27:D5:68:ARG:HD3	27:D5:68:ARG:HA	1.69	0.48
49:M3:190:LYS:HE2	49:M3:190:LYS:HB2	1.49	0.48
1:6:194:U:H2'	1:6:194:U:O2	2.13	0.48
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.14	0.48
36:5:112:U:O2'	36:5:113:C:OP2	2.30	0.48
36:1:2680:A:C2	48:M1:24:GLY:HA3	2.49	0.48
1:6:811:A:C4	1:6:858:G:H1'	2.49	0.48
36:5:2209:U:O4	86:5:3964:OHX:N4	2.47	0.48
1:2:79:C:H4'	8:S6:173:PRO:O	2.14	0.48
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.44	0.48
36:1:440:A:OP2	36:1:440:A:H8	1.97	0.48
1:2:1565:C:OP1	20:C8:41:ARG:HG3	2.13	0.48
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.38	0.48
36:5:2573:G:H3'	36:5:2574:G:H5''	1.96	0.48
44:L7:157:ASN:C	44:L7:159:GLN:H	4.14	0.48
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.92	0.48
1:2:1291:G:N2	1:2:1324:G:N2	2.59	0.48
5:S3:168:ILE:HA	5:S3:188:ILE:O	2.55	0.48
7:S5:222:LYS:HA	7:S5:225:ARG:NH1	3.94	0.48
57:N1:9:SER:OG	57:N1:10:ARG:HG3	2.14	0.48
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.29	0.48
1:6:1636:C:H4'	1:6:1637:C:H5''	1.95	0.48
36:1:1820:U:H1'	36:1:1821:U:OP2	2.14	0.48
63:N7:26:VAL:HG21	63:N7:96:VAL:CG1	2.44	0.48
1:2:1677:C:H2'	1:2:1678:A:O4'	2.13	0.48
51:M5:49:ARG:NH1	51:M5:49:ARG:HB2	2.29	0.48
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.80	0.48
47:M0:19:LYS:HG3	47:M0:26:VAL:CG2	4.55	0.48
19:C7:26:LEU:HD21	19:C7:62:GLN:HG3	4.42	0.48
36:1:1668:G:C5	36:1:1669:C:C5	3.02	0.48
56:N0:112:ALA:HB1	36:5:1186:G:N3	297.68	0.48
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.47	0.48
64:N8:90:TYR:CD1	64:N8:100:PRO:HD3	3.49	0.48
36:5:1781:C:H2'	36:5:1782:U:C6	2.49	0.48
36:1:1487:G:H1	36:1:1855:U:H3	1.61	0.48
62:N6:42:GLN:O	71:O5:68:GLN:HG2	53.60	0.48
36:5:882:A:H5''	36:5:883:A:OP2	2.13	0.48
1:2:1404:C:H2'	1:2:1405:G:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:53:LEU:O	28:D6:57:SER:OG	2.23	0.48
25:D3:33:LEU:HD23	25:D3:33:LEU:HA	1.79	0.48
25:D3:38:PHE:CE1	1:6:359:A:H1'	332.44	0.48
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.13	0.48
74:O8:4:GLU:HG3	74:O8:5:ILE:N	2.28	0.48
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.79	0.48
37:7:4:U:H2'	37:7:5:G:C8	2.49	0.48
5:S3:7:LYS:HB2	1:6:1515:A:OP2	443.37	0.48
3:S1:70:LEU:HD12	3:S1:82:ARG:HG2	4.56	0.48
20:C8:5:VAL:O	27:D5:42:LEU:HB2	4.73	0.48
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.79	0.48
1:2:1533:C:H4'	1:2:1539:G:H1	1.74	0.48
15:C3:61:THR:HB	1:6:959:U:O2	351.94	0.48
1:6:913:G:N7	36:5:2205:U:C2	2.81	0.48
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.58	0.48
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.46	0.48
18:C6:14:LYS:HA	18:C6:123:ARG:HE	4.93	0.48
1:6:737:A:H2'	1:6:738:G:H8	1.79	0.48
1:2:912:U:H4'	1:2:913:G:H2'	1.96	0.48
39:L2:204:MET:HG2	39:L2:204:MET:H	1.58	0.48
10:S8:82:VAL:HG13	10:S8:196:LEU:HD21	4.42	0.48
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.13	0.48
36:5:644:G:H2'	36:5:2372:A:N7	2.29	0.48
1:6:800:U:H2'	1:6:801:G:H8	1.79	0.48
45:L8:112:GLU:HA	45:L8:116:VAL:H	1.79	0.48
86:2:2047:OHX:N2	86:2:2101:OHX:N5	2.62	0.48
36:1:3393:U:H2'	36:1:3394:U:C6	2.49	0.48
4:S2:163:GLY:HA3	4:S2:209:ASN:ND2	2.28	0.48
68:O2:66:LEU:HD23	68:O2:72:LYS:HG3	2.53	0.48
1:6:146:U:C4	1:6:167:U:C4	3.02	0.48
36:1:772:U:H2'	36:1:773:G:C8	2.48	0.48
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.17	0.48
36:5:2926:A:O2'	36:5:2927:C:H5'	2.14	0.48
63:N7:100:THR:O	63:N7:106:GLN:HB3	2.14	0.48
1:6:138:A:N6	1:6:266:A:H61	2.12	0.48
8:S6:14:LYS:HD3	8:S6:16:PHE:CZ	2.60	0.48
40:L3:87:VAL:HB	40:L3:110:LEU:HD11	1.94	0.48
1:2:517:U:H2'	1:2:518:A:O4'	2.14	0.48
1:6:1346:A:N3	1:6:1346:A:H2'	2.28	0.48
1:2:1010:C:H2'	1:2:1011:G:O4'	2.14	0.47
36:1:1845:G:C5'	36:1:1845:G:H8	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:4:GLY:HA3	1:6:93:A:O2'	330.30	0.47
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.44	0.47
40:L3:329:PRO:HA	36:5:3047:U:H5'	233.66	0.47
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.49	0.47
44:L7:158:LYS:O	44:L7:203:TRP:HZ3	3.56	0.47
36:1:1878:G:C3'	36:1:1879:A:H5'	2.43	0.47
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.96	0.47
57:N1:54:HIS:CE1	57:N1:55:LYS:HD3	4.33	0.47
4:S2:224:PHE:HE2	1:6:1098:U:C5	393.46	0.47
56:N0:23:LYS:HD2	56:N0:25:PHE:CZ	2.48	0.47
40:L3:275:ARG:NH1	36:5:3046:A:OP1	232.46	0.47
36:5:2977:G:H8	36:5:2977:G:H5''	1.79	0.47
1:6:1151:A:O2'	1:6:1766:A:N7	2.29	0.47
48:M1:10:ARG:HB3	48:M1:152:HIS:CE1	3.25	0.47
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.95	0.47
46:L9:55:VAL:HB	46:L9:68:LEU:HD21	3.69	0.47
63:N7:4:PHE:CE2	66:O0:63:SER:HB3	2.66	0.47
36:1:627:U:H4'	36:1:1399:A:O2'	2.14	0.47
40:L3:162:VAL:O	40:L3:178:LEU:HD12	2.14	0.47
36:1:2257:C:H2'	36:1:2258:U:O4'	2.13	0.47
48:M1:110:ILE:C	48:M1:112:LEU:H	2.16	0.47
86:2:2047:OHX:N4	86:2:2101:OHX:N6	2.62	0.47
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.47	0.47
19:C7:20:TYR:CD2	19:C7:38:ILE:HD11	2.49	0.47
46:L9:190:ASP:OD1	46:L9:191:LEU:HG	2.13	0.47
48:M1:38:GLU:C	48:M1:40:LEU:H	2.83	0.47
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.20	0.47
86:5:4059:OHX:N3	86:5:4202:OHX:N4	2.62	0.47
4:S2:163:GLY:HA3	4:S2:209:ASN:HD21	1.78	0.47
9:S7:17:GLU:O	9:S7:21:ALA:N	3.55	0.47
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	2.40	0.47
36:5:1701:C:H2'	36:5:1702:U:O4'	2.14	0.47
66:O0:14:LEU:HD21	66:O0:43:ILE:HD12	4.19	0.47
34:SR:135:THR:HG23	34:SR:139:GLN:O	2.27	0.47
24:D2:94:LEU:HA	24:D2:95:PRO:HD2	1.65	0.47
1:6:809:A:C6	1:6:810:G:O6	2.67	0.47
68:O2:11:LYS:O	68:O2:12:LYS:HB2	2.14	0.47
36:5:567:G:H2'	36:5:568:G:C8	2.49	0.47
37:3:96:U:H2'	37:3:97:A:H8	1.79	0.47
8:S6:193:LEU:HA	8:S6:193:LEU:HD23	1.65	0.47
28:D6:4:LYS:HG3	28:D6:4:LYS:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:14:THR:HA	11:S9:15:PRO:HD2	1.52	0.47
58:N2:80:THR:HG21	58:N2:95:PHE:HD2	6.73	0.47
79:Q3:21:SER:HA	79:Q3:24:ARG:NH1	2.28	0.47
42:L5:68:THR:HG22	42:L5:71:GLY:N	2.82	0.47
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.14	0.47
1:2:1354:G:H5'	1:2:1355:C:OP2	2.15	0.47
44:L7:40:LYS:HE2	44:L7:170:GLU:OE1	3.14	0.47
1:2:142:G:O5'	1:2:142:G:H8	1.96	0.47
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	3.28	0.47
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	3.83	0.47
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.76	0.47
36:1:2207:A:H2'	36:1:2208:A:H8	1.78	0.47
7:S5:192:GLU:OE2	27:D5:61:SER:OG	3.39	0.47
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	1.95	0.47
3:S1:118:GLN:HB2	3:S1:143:THR:OG1	2.14	0.47
7:S5:64:VAL:HG12	7:S5:89:ILE:HD11	5.08	0.47
33:E1:147:VAL:HG23	33:E1:148:TYR:CG	2.49	0.47
34:SR:306:THR:C	34:SR:308:ASN:H	2.18	0.47
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.78	0.47
62:N6:38:GLU:HG3	62:N6:39:LEU:HD23	1.96	0.47
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	1.95	0.47
15:C3:102:LEU:HD11	15:C3:112:LYS:HG3	1.95	0.47
36:5:2947:G:N2	36:5:2948:C:C2	2.83	0.47
39:L2:70:ARG:NH2	36:5:2522:G:O6	174.94	0.47
53:M7:178:ALA:O	53:M7:182:ILE:HG13	2.13	0.47
53:M7:108:ASP:O	53:M7:110:THR:N	2.47	0.47
1:6:219:A:O2'	1:6:220:A:O5'	2.30	0.47
39:L2:52:SER:OG	39:L2:191:LEU:HD12	7.11	0.47
34:SR:114:ASP:OD1	34:SR:115:ILE:N	2.43	0.47
57:N1:120:LYS:C	57:N1:122:GLN:H	2.27	0.47
36:5:1152:G:OP2	36:5:1152:G:H8	1.97	0.47
1:6:1490:C:OP1	1:6:1514:U:H5	1.97	0.47
54:M8:170:ARG:O	54:M8:171:LYS:HG2	2.14	0.47
2:S0:158:VAL:H	23:D1:69:LEU:HD12	2.59	0.47
36:5:1786:G:H2'	36:5:1787:A:C8	2.49	0.47
36:1:873:C:O5'	36:1:874:U:H4'	2.14	0.47
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	2.43	0.47
12:C0:16:PHE:HD2	12:C0:76:LEU:HD23	1.78	0.47
35:SM:158:GLN:O	35:SM:160:ASN:N	3.21	0.47
24:D2:73:GLY:HA3	24:D2:128:PHE:CE2	3.22	0.47
34:SR:217:ASP:O	34:SR:219:GLU:N	3.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:29:C:H4'	36:5:62:A:H4'	1.96	0.47
36:5:1452:A:H1'	36:5:2347:U:O5'	2.14	0.47
1:6:1620:C:H2'	1:6:1621:U:H6	1.79	0.47
8:S6:152:ASP:OD1	8:S6:154:ARG:HB2	2.14	0.47
68:O2:22:SER:HA	68:O2:28:VAL:HB	1.96	0.47
14:C2:25:GLU:O	14:C2:27:ALA:N	3.70	0.47
13:C1:94:ILE:HG12	25:D3:16:ARG:HD3	3.56	0.47
1:6:542:A:H8	1:6:543:C:H5'	1.78	0.47
52:M6:111:PRO:O	52:M6:113:ASP:N	2.48	0.47
40:L3:4:ARG:HD3	40:L3:7:GLU:HA	1.95	0.47
1:2:144:U:H5	8:S6:137:ARG:NH1	2.12	0.47
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.50	0.47
36:1:2679:A:O2'	48:M1:52:TYR:OH	2.20	0.47
36:1:608:A:C6	43:L6:22:ARG:HD3	2.49	0.47
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.49	0.47
49:M3:9:ILE:HD11	64:N8:45:MET:CE	3.24	0.47
36:1:3228:C:H4'	36:1:3229:G:O5'	2.14	0.47
1:2:472:U:H5''	11:S9:11:THR:HG23	1.97	0.47
6:S4:92:LEU:HB2	6:S4:95:THR:HG21	5.57	0.47
36:1:1080:A:OP1	42:L5:140:ARG:HB2	2.14	0.47
64:N8:33:GLY:N	36:5:798:G:OP1	159.63	0.47
86:2:2047:OHX:N4	86:2:2101:OHX:N3	2.62	0.47
1:2:2:A:N3	4:S2:199:GLN:NE2	2.62	0.47
36:5:812:G:N7	86:5:4048:OHX:N2	2.62	0.47
1:2:1256:A:H4'	1:2:1257:U:O5'	2.15	0.47
1:2:1345:A:OP1	22:D0:54:GLY:N	2.37	0.47
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.22	0.47
8:S6:55:GLY:HA3	8:S6:63:MET:HE2	2.45	0.47
1:2:1474:G:H2'	1:2:1475:A:C8	2.49	0.47
57:N1:26:HIS:HD2	37:7:9:C:OP1	266.51	0.47
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.49	0.47
57:N1:102:ARG:NH2	36:5:1061:A:O3'	238.53	0.47
1:2:82:U:H2'	1:2:83:G:O4'	2.13	0.47
1:2:545:A:H2'	32:E0:31:LYS:HD2	1.95	0.47
55:M9:68:GLN:HA	55:M9:71:ARG:HD2	1.96	0.47
1:6:29:U:H2'	1:6:30:G:H8	1.79	0.47
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.39	0.47
1:2:253:A:H2'	1:2:254:A:H8	1.79	0.47
44:L7:82:LYS:HE2	44:L7:82:LYS:HB3	1.74	0.47
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	4.66	0.47
1:6:1579:U:OP1	86:6:2185:OHX:N4	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.81	0.47
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.49	0.47
36:1:2808:A:C5	36:1:2955:U:H4'	2.49	0.47
36:5:1470:U:H2'	36:5:1471:U:H6	1.78	0.47
86:1:4026:OHX:N4	86:1:4039:OHX:N1	2.63	0.47
5:S3:164:VAL:HG22	5:S3:168:ILE:HG12	3.01	0.47
2:S0:84:ARG:HD3	2:S0:203:PHE:O	3.67	0.47
2:S0:39:ASN:HD22	19:C7:105:GLN:HG2	6.61	0.47
36:1:2712:U:H2'	36:1:2713:U:C5	2.49	0.47
36:1:717:C:N4	36:1:718:G:C2	2.82	0.47
1:6:329:G:H2'	1:6:330:G:H8	1.79	0.47
48:M1:54:VAL:HG23	48:M1:59:ILE:HD11	2.28	0.47
1:6:909:U:H2'	1:6:910:C:C6	2.49	0.47
69:O3:47:LYS:NZ	69:O3:105:SER:HA	3.92	0.47
36:1:1119:C:H2'	36:1:1120:A:C8	2.49	0.47
47:M0:112:GLN:O	86:5:4246:OHX:N5	238.65	0.47
44:L7:163:LEU:O	44:L7:165:ASP:N	2.47	0.47
36:5:2882:U:H2'	36:5:2883:U:O4'	2.14	0.47
1:6:1271:G:H2'	1:6:1272:U:O4'	2.15	0.47
36:5:2911:A:H4'	36:5:2912:G:C8	2.50	0.47
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.14	0.47
53:M7:71:ALA:O	53:M7:73:GLY:N	3.06	0.47
1:6:979:A:H2'	1:6:980:G:O4'	2.14	0.47
56:N0:40:ARG:HA	56:N0:40:ARG:HD2	2.04	0.47
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.14	0.47
36:1:2728:G:C6	57:N1:80:VAL:HG11	2.49	0.47
1:2:964:U:H5''	15:C3:128:TYR:CE1	2.49	0.47
1:2:442:C:H2'	1:2:443:C:H6	1.79	0.47
64:N8:70:LYS:HE2	64:N8:129:PHE:CD2	2.49	0.47
36:1:3124:G:H4'	46:L9:40:HIS:CD2	2.49	0.47
1:2:607:G:H5'	1:2:613:G:N2	2.30	0.47
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.47	0.47
50:M4:46:ILE:HD13	50:M4:58:ILE:HG21	2.25	0.47
72:O6:89:GLU:O	72:O6:93:ILE:HG12	2.14	0.47
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.38	0.47
1:6:558:U:O2	1:6:558:U:H2'	2.13	0.47
31:D9:23:VAL:HB	31:D9:42:CYS:SG	3.07	0.47
2:S0:81:PHE:HB3	2:S0:170:ILE:HD13	1.95	0.47
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.50	0.47
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	1.96	0.47
1:2:992:A:H2	1:2:1012:U:N3	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3343:G:N2	36:5:3362:A:H2	1.98	0.47
1:2:632:U:OP2	13:C1:102:LYS:NZ	2.46	0.47
11:S9:132:ARG:O	11:S9:134:ILE:HD12	7.49	0.47
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.85	0.47
3:S1:139:ALA:HB2	3:S1:172:LEU:HD11	2.31	0.47
4:S2:214:ALA:O	4:S2:218:ILE:HG12	3.25	0.47
3:S1:112:SER:OG	3:S1:113:MET:N	2.46	0.47
8:S6:135:PRO:HB2	8:S6:141:ILE:HG12	3.04	0.47
42:L5:211:LEU:HB2	42:L5:219:PHE:HD2	1.79	0.47
42:L5:187:THR:O	42:L5:189:GLU:N	2.42	0.47
69:O3:53:TYR:CE1	69:O3:65:ARG:HB2	2.85	0.47
36:1:3087:A:H5'	40:L3:365:PHE:CD1	2.49	0.47
36:1:3088:G:OP2	86:1:4176:OHX:N3	2.48	0.47
5:S3:163:PRO:O	5:S3:167:PHE:N	2.42	0.47
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.47	0.47
1:6:1783:C:H2'	1:6:1784:C:C6	2.49	0.47
2:S0:50:VAL:HG22	19:C7:109:LEU:HD21	1.96	0.47
15:C3:119:GLU:HG2	15:C3:141:TYR:HE2	3.42	0.47
26:D4:27:VAL:HG21	26:D4:40:LEU:HD11	1.95	0.47
36:1:2534:G:H2'	36:1:2535:A:C8	2.47	0.47
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.45	0.47
7:S5:143:ARG:O	7:S5:162:VAL:HG13	3.19	0.47
39:L2:20:THR:HB	36:5:2175:U:C5	177.07	0.47
78:Q2:72:LEU:HD11	78:Q2:83:LEU:HB2	2.17	0.47
36:5:115:A:C6	36:5:265:A:C6	3.03	0.47
32:E0:55:ARG:HB3	32:E0:58:PRO:HD3	2.87	0.47
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.15	0.47
36:5:1014:U:C3'	36:5:1015:U:H5'	2.44	0.47
36:1:1916:U:H2'	36:1:1917:C:H6	1.80	0.47
36:5:756:U:H2'	36:5:757:C:C6	2.48	0.47
6:S4:92:LEU:HB2	6:S4:95:THR:CG2	5.64	0.47
53:M7:24:VAL:CG1	53:M7:86:LYS:HG2	2.44	0.47
45:L8:56:VAL:HG13	38:8:150:G:O2'	152.43	0.47
24:D2:39:GLN:HG2	24:D2:50:PHE:HZ	1.80	0.47
33:E1:127:GLY:O	33:E1:129:GLY:N	2.46	0.47
1:2:1349:G:N2	1:2:1350:U:C2	2.83	0.47
86:1:3966:OHX:N6	86:1:4151:OHX:N4	2.63	0.47
1:6:30:G:H2'	1:6:31:C:C6	2.50	0.47
36:1:497:C:H2'	36:1:498:A:O4'	2.15	0.47
6:S4:11:ARG:HG3	6:S4:27:TYR:C	2.34	0.47
1:6:1347:U:O2	1:6:1516:A:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.13	0.47
36:1:3033:A:H2'	36:1:3034:C:C6	2.49	0.47
55:M9:142:ILE:O	55:M9:146:LYS:HG2	5.27	0.47
36:5:3280:U:O2'	36:5:3281:U:H5''	2.15	0.47
36:5:3195:U:H1'	36:5:3196:U:OP1	2.15	0.47
36:5:312:C:H1'	36:5:2778:G:N2	2.29	0.47
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.97	0.47
42:L5:226:TYR:H	42:L5:226:TYR:HD2	4.77	0.47
28:D6:60:PRO:O	28:D6:61:GLU:HB3	2.89	0.47
49:M3:98:ASP:OD2	36:5:76:G:O2'	82.29	0.47
36:1:2808:A:H4'	36:1:2809:C:O5'	2.15	0.47
77:Q1:2:ARG:NH1	1:6:1773:C:OP2	309.74	0.47
1:2:856:A:N6	9:S7:96:ARG:HB3	2.30	0.47
36:1:564:G:H2'	36:1:565:U:C6	2.50	0.47
36:5:2444:C:N4	36:5:2504:U:O4	2.48	0.47
1:6:1680:G:O6	86:6:2192:OHX:N1	2.47	0.47
18:C6:39:VAL:O	18:C6:45:ARG:NE	6.09	0.47
1:2:1433:G:C4	31:D9:41:GLN:HB3	2.50	0.47
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	4.11	0.47
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.15	0.47
36:5:1151:U:H3'	36:5:1152:G:C8	2.50	0.47
32:E0:55:ARG:HH11	32:E0:58:PRO:HB3	1.80	0.47
1:2:1672:G:H2'	1:2:1673:G:C8	2.50	0.47
65:N9:50:THR:HG22	36:5:1073:U:H1'	206.18	0.47
2:S0:53:THR:OG1	2:S0:161:PRO:HG2	2.15	0.47
1:2:1165:G:C6	1:2:1166:A:C6	3.02	0.47
29:D7:61:THR:O	29:D7:62:ILE:HB	2.15	0.47
36:5:150:A:H2'	36:5:151:A:H5'	1.95	0.47
1:2:635:A:H2'	1:2:636:A:C8	2.50	0.47
1:6:96:G:H22	1:6:387:A:H2	1.61	0.47
11:S9:37:LYS:HB2	32:E0:33:ARG:HB2	2.74	0.47
1:2:387:A:H5''	1:2:389:G:OP2	2.14	0.47
1:2:934:C:H6	28:D6:11:ASN:HB2	1.79	0.47
1:6:604:A:OP1	86:6:2153:OHX:N2	2.48	0.47
36:1:415:G:H2'	36:1:416:A:C8	2.50	0.47
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.15	0.47
1:6:1540:G:C6	1:6:1541:G:C4	3.02	0.47
20:C8:102:ALA:O	20:C8:105:VAL:HG12	2.15	0.47
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.83	0.47
6:S4:187:ARG:NH1	1:6:753:A:OP2	377.75	0.47
1:6:1370:U:H4'	1:6:1371:A:H4'	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1355:A:H4'	36:1:1356:U:O5'	2.15	0.47
4:S2:212:LYS:O	4:S2:216:VAL:HG23	2.29	0.47
1:6:393:C:H2'	1:6:394:C:C6	2.50	0.47
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.19	0.47
43:L6:107:ALA:HB3	43:L6:109:GLU:OE2	2.15	0.47
41:L4:89:ALA:O	41:L4:90:PHE:O	4.38	0.47
36:1:1682:U:C5	58:N2:85:LYS:HG2	2.49	0.47
45:L8:29:SER:O	45:L8:31:PRO:HD3	3.62	0.47
72:O6:30:LYS:HD3	36:5:316:U:O2'	103.20	0.47
1:2:474:A:OP1	11:S9:145:SER:HB2	2.15	0.47
11:S9:145:SER:HB3	1:6:474:A:OP1	419.54	0.47
32:E0:28:LYS:HE2	1:6:542:A:H61	430.89	0.47
1:6:542:A:H1'	1:6:543:C:OP1	2.15	0.47
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	1.84	0.47
86:5:3980:OHX:N6	86:5:4201:OHX:N3	2.62	0.47
41:L4:295:ILE:CG2	41:L4:299:ILE:HD11	2.88	0.47
52:M6:110:PRO:O	52:M6:111:PRO:C	3.11	0.47
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.47	0.47
1:2:1202:A:H1'	1:2:1207:C:N4	2.29	0.47
4:S2:41:LEU:HD13	4:S2:68:ILE:HD13	2.10	0.47
3:S1:170:GLU:O	3:S1:174:LYS:HG3	2.15	0.47
3:S1:173:THR:O	3:S1:177:GLN:HB2	6.27	0.47
3:S1:61:LEU:O	3:S1:63:GLY:N	2.47	0.47
47:M0:177:ASP:O	47:M0:180:GLU:N	3.17	0.47
3:S1:179:SER:HB3	3:S1:183:GLN:CB	2.74	0.47
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.97	0.47
26:D4:125:LEU:O	26:D4:128:LYS:HB3	3.51	0.47
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.44	0.47
70:O4:59:PRO:HG3	36:5:1654:A:H2'	166.79	0.47
1:2:93:A:H4'	1:2:94:U:OP2	2.14	0.47
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.58	0.47
48:M1:16:LYS:NZ	36:5:2684:C:OP1	309.49	0.47
3:S1:197:ILE:HG22	3:S1:210:ILE:HD13	2.74	0.47
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.50	0.47
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.15	0.47
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.70	0.47
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.55	0.47
36:1:2273:G:N2	36:1:2311:G:H2'	2.29	0.47
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.15	0.47
49:M3:144:THR:HG21	71:O5:118:ILE:HG21	1.97	0.47
49:M3:123:ILE:HG12	49:M3:124:ILE:N	4.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:46:ILE:HD11	63:N7:49:TYR:CA	2.45	0.47
54:M8:147:ARG:NH2	36:5:670:C:OP1	164.30	0.47
2:S0:84:ARG:NH2	2:S0:201:LEU:HD12	3.27	0.47
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.14	0.47
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	2.91	0.47
36:1:565:U:H2'	36:1:566:G:H8	1.78	0.47
51:M5:140:LYS:HG3	36:5:127:G:OP1	80.09	0.47
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.30	0.47
36:1:623:U:OP1	86:1:4126:OHX:N1	2.48	0.47
13:C1:81:HIS:O	13:C1:82:ARG:HB2	2.45	0.47
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.38	0.47
45:L8:99:PRO:HG2	45:L8:190:VAL:HG23	1.97	0.47
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.17	0.47
1:6:714:G:N2	1:6:724:C:O2	2.46	0.47
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.71	0.47
36:5:172:G:C6	36:5:247:C:N4	2.82	0.47
1:2:422:G:N7	86:2:2110:OHX:N5	2.63	0.47
1:2:1789:G:C8	1:2:1789:G:H5''	2.50	0.47
64:N8:73:LEU:HD13	64:N8:109:TYR:CZ	2.50	0.47
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.50	0.47
13:C1:36:LYS:HD3	1:6:248:U:H4'	312.40	0.47
17:C5:128:HIS:HB3	1:6:1460:A:N7	329.34	0.47
24:D2:26:LEU:HD22	24:D2:62:VAL:HG22	5.72	0.47
9:S7:35:LYS:HZ2	9:S7:39:ARG:HD2	1.80	0.47
36:1:1556:C:H5''	36:1:2169:G:H22	1.78	0.47
16:C4:51:ASP:OD1	1:6:902:G:N1	283.64	0.47
34:SR:86:ASP:O	34:SR:88:THR:HG23	2.14	0.47
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	2.07	0.47
1:2:1183:A:C6	1:2:1184:A:N1	2.82	0.47
51:M5:48:ALA:C	51:M5:53:TYR:HB3	2.55	0.47
36:5:1785:U:H2'	36:5:1786:G:H8	1.80	0.47
11:S9:65:LYS:HD3	11:S9:65:LYS:HA	2.64	0.47
15:C3:4:MET:HG3	15:C3:5:HIS:N	2.30	0.47
56:N0:12:ARG:NH2	56:N0:57:GLU:OE1	2.46	0.47
12:C0:76:LEU:H	12:C0:76:LEU:HD22	1.79	0.47
50:M4:121:MET:HE1	36:5:3215:A:O5'	275.66	0.47
19:C7:20:TYR:CE2	19:C7:38:ILE:HD11	2.50	0.47
55:M9:77:GLY:HA3	36:5:1939:G:OP1	218.67	0.47
1:6:225:A:N6	1:6:226:A:H62	2.13	0.47
36:1:181:U:H2'	36:1:182:U:O4'	2.14	0.47
86:1:3966:OHX:N6	86:1:4151:OHX:N2	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:31:ARG:HG3	41:L4:120:TYR:CE1	2.50	0.47
1:6:1039:A:O2'	1:6:1040:G:OP2	2.25	0.47
36:1:1856:C:H2'	36:1:1857:C:H6	1.80	0.47
64:N8:35:ALA:HB2	36:5:39:A:H5''	167.41	0.47
36:1:713:U:H5'	49:M3:171:ARG:HH11	1.79	0.47
36:5:194:U:H2'	36:5:195:U:H6	1.80	0.47
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.47	0.47
71:O5:93:THR:OG1	71:O5:96:GLU:HG2	2.14	0.47
36:5:1567:U:H2'	36:5:1568:U:H4'	1.97	0.47
40:L3:238:LEU:HD12	40:L3:238:LEU:HA	1.71	0.47
36:5:3084:C:H2'	36:5:3085:G:O4'	2.15	0.47
36:5:2166:A:C6	36:5:2167:A:C6	3.02	0.47
51:M5:65:ARG:HD2	51:M5:127:TYR:CG	2.50	0.47
1:6:1614:A:C6	1:6:1615:C:N4	2.83	0.47
9:S7:91:ILE:HD12	9:S7:92:PHE:H	3.17	0.47
42:L5:278:SER:O	42:L5:280:GLU:N	3.27	0.47
38:8:145:U:H2'	38:8:146:U:C6	2.50	0.47
41:L4:61:SER:HB3	36:5:929:A:H5''	132.43	0.47
11:S9:88:GLU:HA	11:S9:91:LYS:HG3	1.95	0.47
36:5:742:G:N7	86:5:4006:OHX:N4	2.63	0.47
36:5:32:U:H6	36:5:32:U:O5'	1.97	0.47
17:C5:124:THR:OG1	17:C5:124:THR:O	2.93	0.47
62:N6:2:ALA:N	36:5:213:A:H5''	80.42	0.47
22:D0:26:LEU:HD21	22:D0:114:VAL:HG13	1.97	0.47
36:5:2353:G:C6	36:5:2354:C:C4	3.03	0.47
36:5:342:A:C2	36:5:368:G:C8	3.03	0.47
63:N7:15:ARG:C	63:N7:19:ALA:HB2	2.79	0.47
40:L3:81:THR:HG21	40:L3:322:ILE:HD13	4.50	0.47
38:4:79:A:O3'	38:4:80:A:H4'	2.15	0.47
36:1:1018:G:H2'	36:1:1019:G:O4'	2.14	0.47
36:1:2878:G:H8	36:1:2878:G:O5'	1.97	0.47
19:C7:52:GLY:HA3	1:6:1389:C:O2'	424.01	0.47
43:L6:40:LEU:HB3	43:L6:84:VAL:HG12	4.58	0.47
34:SR:134:TRP:CD1	34:SR:134:TRP:N	2.83	0.47
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.36	0.47
38:4:137:C:OP2	86:4:233:OHX:N5	2.47	0.47
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.53	0.47
26:D4:60:PHE:O	1:6:523:G:H5'	413.65	0.47
1:2:862:A:N7	15:C3:64:ARG:NH2	2.63	0.47
1:2:1067:C:H2'	1:2:1068:C:C6	2.45	0.47
1:6:833:U:OP2	86:6:2205:OHX:N5	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1952:G:H3'	36:1:1953:G:H5''	1.96	0.47
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	2.13	0.47
37:3:112:G:H2'	37:3:113:C:C6	2.49	0.47
17:C5:127:ARG:HA	17:C5:127:ARG:HD2	4.28	0.47
22:D0:53:LYS:HD3	22:D0:53:LYS:HA	2.55	0.47
36:1:289:A:C2	51:M5:93:LYS:HD2	2.47	0.47
43:L6:47:PHE:CD1	43:L6:74:VAL:HG22	2.50	0.47
46:L9:41:ILE:HG22	46:L9:42:ASP:N	2.29	0.47
62:N6:80:VAL:HG12	62:N6:99:LEU:O	2.36	0.47
41:L4:51:ALA:O	38:8:27:U:H5'	110.13	0.47
1:2:1:U:O4	11:S9:54:ARG:HD3	2.15	0.47
1:6:1451:C:H2'	1:6:1452:U:H6	1.80	0.47
52:M6:116:LYS:HB2	36:5:3180:A:H5''	276.67	0.47
47:M0:24:ARG:HH11	47:M0:24:ARG:CG	2.28	0.47
24:D2:101:TYR:CD2	24:D2:112:ASP:HB2	3.39	0.47
36:5:1165:A:H2'	36:5:1166:G:O4'	2.15	0.47
14:C2:140:PHE:HA	14:C2:140:PHE:HD2	1.83	0.47
36:5:3303:G:H4'	36:5:3304:U:OP1	2.15	0.47
36:1:270:U:O2'	36:1:318:A:H1'	2.14	0.47
33:E1:123:ASN:CG	33:E1:124:PRO:HD2	2.36	0.47
18:C6:9:THR:HG21	18:C6:87:LYS:O	2.71	0.47
36:5:1936:A:H2'	36:5:1937:U:O4'	2.14	0.47
12:C0:4:PRO:HG2	12:C0:7:ASP:HB2	2.52	0.47
3:S1:65:VAL:HG13	1:6:920:U:H5''	264.33	0.47
1:2:1572:G:N3	1:2:1572:G:H2'	2.30	0.47
51:M5:19:LEU:HA	51:M5:19:LEU:HD12	2.44	0.47
70:O4:37:LYS:NZ	36:5:1592:G:OP2	159.05	0.47
1:6:1561:U:H4'	1:6:1599:C:H4'	1.96	0.47
37:3:1:G:N2	42:L5:269:SER:OG	2.46	0.47
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.47	0.47
36:1:824:C:H2'	36:1:825:U:C6	2.50	0.47
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.80	0.47
2:S0:185:ARG:H	23:D1:44:ARG:HA	1.79	0.47
46:L9:63:LYS:HE3	36:5:3122:A:O2'	313.79	0.47
36:5:24:G:OP2	86:5:3909:OHX:N6	2.48	0.47
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	1.97	0.47
13:C1:57:LYS:HB2	13:C1:110:HIS:NE2	2.29	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.96	0.47
1:6:1025:A:O2'	1:6:1773:C:O2'	2.20	0.47
22:D0:63:LEU:O	22:D0:83:GLU:HA	2.14	0.47
76:Q0:78:ILE:HG12	76:Q0:83:LYS:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.97	0.47
1:2:767:U:H5	11:S9:143:ILE:HG13	1.78	0.47
52:M6:75:ALA:HA	52:M6:76:PRO:HD3	1.98	0.47
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.97	0.47
51:M5:93:LYS:HE3	36:5:276:U:O2	152.23	0.47
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.68	0.47
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	2.67	0.47
2:S0:56:LYS:HG3	2:S0:159:ALA:O	2.14	0.47
34:SR:278:PHE:CE1	34:SR:287:PRO:HD2	2.50	0.47
1:2:1727:G:H2'	1:2:1728:A:C8	2.49	0.47
48:M1:82:ARG:HB3	48:M1:112:LEU:HB2	3.97	0.47
64:N8:115:LYS:HG3	36:5:715:A:C8	149.31	0.47
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.88	0.47
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.48	0.47
38:8:63:G:H22	38:8:97:A:H2	1.63	0.47
36:1:3107:U:P	76:Q0:112:LYS:HE2	2.55	0.47
36:1:281:G:C6	36:1:282:G:C6	3.03	0.47
36:5:1699:A:H2'	36:5:1700:G:C8	2.50	0.47
38:8:145:U:H2'	38:8:146:U:H6	1.79	0.47
34:SR:294:TRP:CE2	34:SR:301:LEU:HD13	3.11	0.47
43:L6:105:TYR:OH	43:L6:134:ARG:HG3	2.14	0.47
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.95	0.47
51:M5:137:PRO:HA	51:M5:142:ILE:HG21	1.97	0.47
40:L3:44:THR:OG1	40:L3:182:GLN:O	2.78	0.47
13:C1:54:ILE:HG22	13:C1:55:ASP:N	2.29	0.47
1:2:677:G:H2'	1:2:678:A:C8	2.50	0.47
48:M1:44:THR:O	37:7:39:C:O2'	300.49	0.47
36:1:976:U:H2'	36:1:977:C:O4'	2.15	0.47
36:5:2213:A:H2'	36:5:2214:A:C8	2.50	0.47
36:1:827:A:H5''	70:O4:14:ASN:O	2.14	0.47
5:S3:92:GLN:CD	5:S3:92:GLN:H	2.17	0.47
34:SR:182:ASN:HD21	34:SR:184:ASN:HB2	1.80	0.47
62:N6:14:LYS:HE3	36:5:335:G:OP2	77.21	0.47
40:L3:46:PHE:CZ	40:L3:205:VAL:HG22	2.49	0.47
18:C6:47:LYS:HZ3	18:C6:114:ARG:NE	2.13	0.47
1:2:541:A:O2'	1:2:542:A:H4'	2.14	0.47
47:M0:85:PHE:HA	47:M0:140:THR:HG22	2.01	0.47
9:S7:170:GLN:HG2	9:S7:181:ILE:HG22	1.97	0.47
1:2:68:A:H3'	1:2:68:A:H8	1.80	0.47
10:S8:46:VAL:N	10:S8:54:LYS:O	2.43	0.47
1:6:825:U:O2'	1:6:826:U:OP2	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.42	0.47
46:L9:5:GLN:OE1	46:L9:7:GLU:HB2	4.23	0.47
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.45	0.47
43:L6:42:LEU:HD23	43:L6:84:VAL:HG13	5.33	0.47
3:S1:205:PHE:CD1	3:S1:206:PRO:HD2	3.13	0.47
1:2:144:U:O2'	1:2:145:A:H8	1.94	0.47
27:D5:38:HIS:CE1	27:D5:70:LYS:HD2	2.51	0.47
22:D0:104:THR:HG21	22:D0:116:VAL:HG21	1.96	0.47
36:5:2662:G:N7	86:5:3902:OHX:N3	2.63	0.47
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.97	0.47
50:M4:25:LYS:HB2	50:M4:62:GLN:OE1	2.15	0.47
45:L8:33:ASN:HA	36:5:2549:G:C2	212.12	0.47
1:2:16:G:O6	4:S2:203:LYS:NZ	2.37	0.47
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.97	0.47
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.51	0.47
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.23	0.47
66:O0:78:GLY:HA2	66:O0:87:VAL:HG12	1.97	0.47
36:1:3151:U:H4'	36:1:3294:A:C1'	2.44	0.47
4:S2:205:ARG:NH2	1:6:7:G:N7	369.41	0.47
54:M8:173:GLU:OE2	64:N8:49:HIS:HD2	5.94	0.47
49:M3:89:TYR:O	49:M3:92:THR:OG1	2.30	0.47
19:C7:58:MET:O	19:C7:62:GLN:HG2	4.85	0.47
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.96	0.47
36:1:3305:A:O2'	36:1:3306:U:H5'	2.15	0.47
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.27	0.47
38:8:83:C:H4'	38:8:85:G:C2	2.50	0.47
10:S8:110:ARG:NH2	36:5:3354:U:O4	240.53	0.47
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	1.96	0.47
1:6:1592:A:H2'	1:6:1593:A:C8	2.48	0.47
62:N6:100:HIS:CE1	62:N6:102:SER:HG	2.66	0.47
36:1:1876:U:H2'	36:1:1877:U:O4'	2.15	0.47
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.48	0.47
36:5:281:G:C6	36:5:282:G:C6	3.03	0.47
1:6:817:A:H2'	1:6:818:C:C6	2.50	0.47
70:O4:6:THR:HG22	36:5:1487:G:H1'	142.70	0.47
1:2:1081:A:H5''	1:2:1082:C:OP1	2.15	0.47
40:L3:122:TRP:CE2	40:L3:127:LYS:HE3	2.50	0.47
36:5:1950:U:H2'	36:5:1951:C:C6	2.50	0.47
36:5:2520:A:H2'	36:5:2521:U:C6	2.50	0.47
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.14	0.47
5:S3:119:ALA:O	5:S3:123:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:312:VAL:O	40:L3:313:HIS:HB2	2.15	0.46
6:S4:44:LEU:HG	6:S4:82:TYR:HB3	1.96	0.46
74:O8:17:ARG:NH2	74:O8:52:TYR:OH	2.87	0.46
1:2:699:U:H2'	1:2:700:C:C6	2.50	0.46
1:2:1251:U:H5'	33:E1:135:HIS:HD2	1.80	0.46
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.15	0.46
61:N5:67:ILE:HG12	61:N5:115:ARG:HH21	2.97	0.46
36:1:1662:G:O6	86:1:3880:OHX:N2	2.48	0.46
33:E1:130:VAL:HG21	33:E1:143:LYS:HB3	1.96	0.46
70:O4:3:GLN:OE1	70:O4:30:LEU:N	2.24	0.46
36:1:2157:G:N2	36:1:2178:A:OP2	2.45	0.46
36:1:3139:A:H5''	36:1:3139:A:H8	1.79	0.46
24:D2:23:ARG:NH1	24:D2:65:LEU:O	2.48	0.46
36:5:296:A:H2'	36:5:297:G:N3	2.30	0.46
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	2.50	0.46
36:1:200:C:P	62:N6:60:ARG:HH12	2.38	0.46
41:L4:93:MET:O	36:5:1438:U:H1'	141.85	0.46
2:S0:88:LYS:HB3	2:S0:202:TYR:CE2	2.50	0.46
26:D4:29:HIS:CE1	26:D4:34:ASN:HA	2.56	0.46
64:N8:75:LEU:HD21	64:N8:138:ILE:HD11	1.96	0.46
36:5:125:C:H2'	36:5:126:U:H6	1.80	0.46
7:S5:166:ARG:HB2	30:D8:46:GLY:HA3	1.98	0.46
16:C4:21:ALA:HA	16:C4:26:THR:HG22	1.96	0.46
2:S0:195:TRP:HE1	2:S0:197:ILE:HD13	2.25	0.46
9:S7:164:TYR:HD2	9:S7:164:TYR:H	1.63	0.46
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.33	0.46
1:6:1045:C:C2	1:6:1074:G:C2	3.03	0.46
36:1:929:A:H2'	36:1:930:U:H6	1.77	0.46
38:8:155:A:H2'	38:8:156:U:O4'	2.15	0.46
41:L4:358:THR:O	56:N0:26:ARG:NE	3.10	0.46
8:S6:164:LYS:HB3	8:S6:167:LYS:O	2.15	0.46
21:C9:63:ARG:NH1	21:C9:67:MET:HE1	3.63	0.46
42:L5:153:THR:HG23	42:L5:160:PHE:HZ	1.80	0.46
1:2:1182:U:O2	1:2:1184:A:H8	1.98	0.46
18:C6:63:ILE:HD12	18:C6:65:ILE:HD11	2.66	0.46
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.45	0.46
37:3:31:U:H2'	37:3:32:U:H6	1.80	0.46
36:1:1273:A:O2'	36:1:1274:A:OP1	2.29	0.46
1:2:1623:C:H2'	1:2:1624:C:C6	2.50	0.46
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.73	0.46
16:C4:35:GLY:HA3	1:6:919:A:H5'	270.05	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:106:TYR:HE2	33:E1:116:LYS:HG2	1.80	0.46
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	1.97	0.46
36:5:612:U:H2'	36:5:613:G:H8	1.80	0.46
57:N1:18:ASP:OD2	86:5:3913:OHX:N5	268.00	0.46
45:L8:93:LEU:HD21	45:L8:211:LEU:HD22	4.18	0.46
39:L2:42:ARG:HG3	39:L2:89:TYR:CE1	3.20	0.46
36:1:2252:A:C6	36:1:2253:G:N7	2.83	0.46
36:1:888:A:H2'	36:1:889:U:O4'	2.16	0.46
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.95	0.46
44:L7:155:LYS:C	44:L7:156:ILE:HG12	3.48	0.46
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.31	0.46
64:N8:18:GLY:O	36:5:1370:G:H5''	174.71	0.46
4:S2:91:ARG:O	4:S2:91:ARG:HD3	4.52	0.46
77:Q1:18:ARG:HE	77:Q1:18:ARG:HB3	3.61	0.46
57:N1:78:LYS:HG2	57:N1:87:LYS:HD2	1.98	0.46
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	5.34	0.46
40:L3:244:ARG:O	40:L3:248:LYS:HE3	2.73	0.46
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.34	0.46
43:L6:44:ALA:O	43:L6:48:ARG:HB3	2.61	0.46
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.82	0.46
1:2:142:G:C5	1:2:266:A:C6	3.04	0.46
1:2:1202:A:H1'	1:2:1207:C:H42	1.81	0.46
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	4.66	0.46
3:S1:176:VAL:HG13	3:S1:184:LEU:HD22	3.94	0.46
40:L3:66:LYS:NZ	59:N3:120:LYS:NZ	2.63	0.46
6:S4:3:ARG:HG2	1:6:399:A:H4'	321.33	0.46
36:1:1833:G:OP1	75:O9:10:LYS:HD2	2.15	0.46
8:S6:155:ASP:OD2	8:S6:155:ASP:N	3.13	0.46
55:M9:39:ASN:O	55:M9:43:LYS:HE3	2.15	0.46
13:C1:78:THR:HG22	13:C1:84:ILE:HG22	1.96	0.46
1:6:1202:A:OP1	86:6:2131:OHX:N1	2.48	0.46
36:1:3088:G:H2'	36:1:3089:C:O4'	2.15	0.46
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.31	0.46
6:S4:104:ASP:HB2	6:S4:107:GLY:H	1.79	0.46
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.45	0.46
21:C9:28:LEU:O	21:C9:107:ALA:HB1	2.15	0.46
12:C0:53:GLY:O	12:C0:55:VAL:N	2.48	0.46
64:N8:94:ALA:CB	64:N8:121:VAL:HG13	2.46	0.46
17:C5:108:ARG:HH21	20:C8:119:ILE:HA	3.04	0.46
76:Q0:95:VAL:HG13	76:Q0:100:TYR:O	2.85	0.46
36:5:1543:G:O6	86:5:4204:OHX:N1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:71:G:H2'	37:3:72:A:H8	1.77	0.46
69:O3:75:HIS:HB3	69:O3:80:VAL:CG1	2.45	0.46
36:1:656:A:H2'	36:1:657:A:C8	2.50	0.46
35:SM:41:SER:C	35:SM:43:ASP:H	2.18	0.46
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.48	0.46
25:D3:93:LEU:O	25:D3:96:VAL:HG23	2.15	0.46
51:M5:93:LYS:NZ	36:5:2600:C:OP1	156.47	0.46
1:6:76:A:H2'	1:6:76:A:N3	2.30	0.46
6:S4:95:THR:O	6:S4:97:GLU:HG3	2.25	0.46
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.80	0.46
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.23	0.46
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	1.97	0.46
8:S6:206:ALA:O	8:S6:210:GLN:HG3	2.45	0.46
40:L3:215:ILE:HD12	40:L3:338:LEU:HG	2.22	0.46
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.78	0.46
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.15	0.46
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.97	0.46
11:S9:170:GLY:O	11:S9:172:VAL:N	2.48	0.46
26:D4:11:LYS:NZ	1:6:775:G:N7	413.96	0.46
1:2:288:A:H2'	1:2:289:U:C6	2.50	0.46
40:L3:174:LYS:N	36:5:3314:A:OP1	204.71	0.46
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	1.96	0.46
39:L2:2:GLY:N	36:5:2608:G:OP1	183.41	0.46
53:M7:122:ALA:H	53:M7:144:SER:HA	1.80	0.46
1:6:1360:A:H3'	1:6:1361:U:C4'	2.45	0.46
50:M4:37:GLU:OE1	56:N0:72:VAL:HB	3.37	0.46
42:L5:45:ASN:OD1	57:N1:33:VAL:HG21	2.15	0.46
29:D7:7:LEU:O	29:D7:10:PRO:HD3	3.10	0.46
20:C8:110:ARG:NH2	20:C8:114:GLU:HG3	3.33	0.46
68:O2:45:ARG:NH1	36:5:1160:C:N3	206.60	0.46
42:L5:120:LYS:HD3	42:L5:123:GLU:OE1	4.68	0.46
72:O6:25:LYS:HG3	72:O6:28:TYR:HD2	1.79	0.46
1:2:68:A:C8	1:2:68:A:H3'	2.50	0.46
1:2:1033:C:H2'	1:2:1034:C:H6	1.80	0.46
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.13	0.46
18:C6:56:GLY:O	18:C6:58:ASP:N	2.81	0.46
3:S1:178:GLY:HA3	3:S1:187:LYS:NZ	2.31	0.46
2:S0:189:VAL:HG13	2:S0:190:ASP:N	2.30	0.46
36:1:3111:U:C2'	36:1:3112:G:H5'	2.45	0.46
23:D1:30:ALA:O	23:D1:60:ARG:HD3	2.98	0.46
26:D4:122:GLY:C	26:D4:124:ARG:H	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:102:LYS:NZ	36:5:2552:C:OP1	232.13	0.46
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.96	0.46
3:S1:201:THR:O	3:S1:203:ASP:N	2.48	0.46
3:S1:71:ALA:HB3	16:C4:114:ARG:NH1	2.51	0.46
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.47	0.46
36:1:1565:G:N2	36:1:1574:C:C2	2.83	0.46
27:D5:73:GLY:O	27:D5:77:ARG:HG3	2.15	0.46
1:2:1793:G:H4'	1:2:1794:A:OP1	2.15	0.46
28:D6:6:ALA:H	1:6:1796:C:H5	345.35	0.46
28:D6:74:CYS:O	28:D6:75:VAL:HB	2.15	0.46
36:1:287:G:H5'	51:M5:179:LYS:O	2.16	0.46
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.16	0.46
26:D4:36:SER:O	26:D4:40:LEU:HG	2.16	0.46
36:1:3276:G:H1	69:O3:60:ARG:HH22	1.61	0.46
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.24	0.46
37:3:11:A:O2'	37:3:13:A:OP2	2.29	0.46
34:SR:244:ALA:HB2	34:SR:292:LEU:HB3	6.03	0.46
5:S3:175:VAL:CG1	5:S3:182:LEU:HB2	2.44	0.46
55:M9:167:ARG:NH1	55:M9:167:ARG:HB3	4.48	0.46
40:L3:284:ARG:HB3	40:L3:323:MET:HB2	2.81	0.46
36:1:3041:U:OP1	59:N3:12:ARG:HD2	2.16	0.46
1:6:218:A:H2'	1:6:219:A:H5''	1.97	0.46
4:S2:49:LYS:HB3	4:S2:243:TYR:CD2	2.51	0.46
1:2:1172:G:H2'	1:2:1173:C:O4'	2.15	0.46
13:C1:46:LYS:HE2	1:6:846:G:N2	310.85	0.46
24:D2:122:SER:OG	24:D2:123:GLY:N	2.91	0.46
59:N3:93:LEU:HA	60:N4:20:LEU:O	2.39	0.46
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	4.29	0.46
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.87	0.46
50:M4:34:ALA:HB2	50:M4:85:TRP:CZ3	2.50	0.46
1:6:727:U:H2'	1:6:728:U:H6	1.80	0.46
41:L4:202:ARG:NH1	41:L4:202:ARG:HG2	2.79	0.46
1:6:1561:U:H2'	1:6:1562:G:H8	1.80	0.46
1:6:699:U:O4	86:6:2074:OHX:N1	2.48	0.46
36:5:3028:G:H2'	36:5:3029:A:C8	2.50	0.46
36:5:3372:A:OP2	86:5:4241:OHX:N3	2.48	0.46
36:5:629:U:H2'	36:5:630:A:C8	2.51	0.46
46:L9:121:LYS:HD3	36:5:3020:U:O2'	319.06	0.46
36:5:2304:C:C5	36:5:2305:G:C6	3.03	0.46
36:5:3155:U:H4'	36:5:3156:U:OP2	2.14	0.46
7:S5:174:LEU:O	7:S5:178:GLY:N	3.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:86:VAL:HG22	48:M1:111:ASP:O	2.15	0.46
36:5:1932:A:H5'	36:5:1933:A:OP2	2.15	0.46
49:M3:104:ARG:C	72:O6:20:MET:HB2	2.35	0.46
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.32	0.46
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.29	0.46
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.96	0.46
36:1:2405:C:O2	36:1:2819:A:N1	2.49	0.46
36:5:2801:A:O2'	36:5:2802:A:H2'	2.14	0.46
2:S0:179:ARG:HH11	2:S0:183:ARG:CZ	3.00	0.46
42:L5:290:ILE:O	42:L5:294:ALA:N	4.54	0.46
1:2:190:C:O2'	1:2:191:C:H5'	2.16	0.46
3:S1:81:PHE:HB3	3:S1:109:LYS:HB2	2.69	0.46
7:S5:94:THR:HB	7:S5:114:ILE:HG13	1.97	0.46
40:L3:274:SER:OG	36:5:3139:A:OP1	228.20	0.46
9:S7:131:PHE:HB3	9:S7:132:PRO:CD	2.44	0.46
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	3.43	0.46
1:6:837:G:O6	86:6:2101:OHX:N1	2.48	0.46
77:Q1:6:ARG:HH22	1:6:1113:A:H3'	313.74	0.46
1:2:1785:U:H2'	1:2:1786:G:C8	2.49	0.46
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.48	0.46
1:6:778:G:C6	1:6:783:G:C6	3.04	0.46
1:2:488:G:OP1	1:2:488:G:H4'	2.15	0.46
18:C6:67:VAL:HG21	18:C6:85:ILE:HD11	3.56	0.46
36:1:2828:G:P	47:M0:7:ARG:HH12	2.38	0.46
11:S9:142:ASN:ND2	1:6:767:U:H5	426.19	0.46
59:N3:13:ILE:HD11	59:N3:54:LEU:HB3	1.97	0.46
36:1:250:U:C5	36:1:251:G:N7	2.83	0.46
43:L6:46:ARG:HH11	43:L6:46:ARG:HG2	3.31	0.46
10:S8:90:LEU:HD22	10:S8:95:THR:HB	3.03	0.46
34:SR:114:ASP:OD2	34:SR:155:ARG:HD3	2.16	0.46
52:M6:24:ALA:HB1	52:M6:88:VAL:HG23	3.65	0.46
44:L7:25:GLN:HA	44:L7:29:GLU:HB2	1.97	0.46
19:C7:5:ARG:N	19:C7:5:ARG:HD3	2.30	0.46
10:S8:58:LEU:O	10:S8:59:ARG:HB2	2.16	0.46
24:D2:26:LEU:HD11	24:D2:60:LYS:HD3	2.94	0.46
86:6:2060:OHX:N1	86:6:2149:OHX:N3	2.63	0.46
39:L2:112:ILE:HD12	79:Q3:79:VAL:HG13	1.98	0.46
30:D8:22:ARG:NH1	1:6:1619:C:O2	340.62	0.46
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.16	0.46
1:2:1535:U:H6	1:2:1535:U:H2'	1.50	0.46
41:L4:303:GLY:O	41:L4:305:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1602:A:H5''	55:M9:38:ARG:HG3	1.96	0.46
9:S7:139:ARG:HB2	9:S7:151:LYS:HB2	1.98	0.46
1:6:919:A:H2'	1:6:920:U:C6	2.50	0.46
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.83	0.46
34:SR:293:ALA:HB3	34:SR:302:PHE:HB2	3.63	0.46
33:E1:102:VAL:HB	33:E1:103:LEU:H	1.41	0.46
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.42	0.46
36:5:1810:A:H2'	36:5:1811:G:C8	2.50	0.46
36:1:2539:C:H5'	36:1:2541:U:O4	2.15	0.46
63:N7:39:GLY:C	63:N7:77:TYR:HD1	3.45	0.46
38:4:58:G:N7	73:O7:63:ARG:NH1	2.51	0.46
64:N8:65:GLN:O	64:N8:66:ALA:HB2	2.15	0.46
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	2.43	0.46
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.98	0.46
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.16	0.46
77:Q1:8:LYS:O	77:Q1:12:ARG:HG3	2.73	0.46
40:L3:306:THR:HG21	40:L3:316:GLU:HA	2.44	0.46
1:6:926:A:H2'	1:6:927:C:C6	2.50	0.46
42:L5:92:LEU:HD23	42:L5:92:LEU:HA	2.26	0.46
36:1:1604:G:H3'	36:1:1604:G:N3	2.31	0.46
10:S8:171:SER:OG	10:S8:180:ASP:N	2.61	0.46
36:1:943:U:H3'	64:N8:13:GLY:HA2	1.98	0.46
40:L3:187:SER:O	40:L3:189:SER:N	2.89	0.46
1:6:1588:G:OP1	86:6:2125:OHX:N2	2.49	0.46
24:D2:118:ARG:HB3	1:6:687:G:H5'	399.41	0.46
18:C6:113:ASP:CG	18:C6:115:THR:H	2.19	0.46
32:E0:14:VAL:HB	1:6:567:A:H1'	376.82	0.46
3:S1:166:LYS:O	3:S1:170:GLU:N	2.39	0.46
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.84	0.46
36:1:1492:G:N7	75:O9:2:ALA:CB	2.79	0.46
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	2.80	0.46
54:M8:98:LYS:HB3	54:M8:99:THR:H	1.71	0.46
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	3.11	0.46
1:6:56:U:H4'	1:6:57:G:H5'	1.98	0.46
49:M3:70:ARG:NH1	36:5:76:G:OP1	87.62	0.46
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.30	0.46
49:M3:87:ALA:O	49:M3:91:ARG:HG3	2.16	0.46
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.10	0.46
74:O8:28:ASN:HD22	74:O8:30:LYS:HE2	1.80	0.46
71:O5:83:LYS:HD2	38:8:38:U:H6	68.41	0.46
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:117:VAL:HG13	22:D0:118:VAL:N	2.31	0.46
36:5:173:G:H1'	36:5:174:C:H5'	1.97	0.46
1:6:1769:U:OP2	86:6:2145:OHX:N2	2.48	0.46
6:S4:184:THR:OG1	6:S4:224:ASN:O	3.40	0.46
45:L8:41:GLN:HG3	45:L8:44:ARG:HH22	3.49	0.46
70:O4:56:THR:HA	70:O4:62:TYR:HH	1.80	0.46
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.15	0.46
14:C2:97:LEU:HD11	14:C2:121:VAL:HG23	1.98	0.46
20:C8:145:ARG:HD3	35:SM:68:ARG:CZ	3.49	0.46
36:1:1560:G:H1	36:1:1580:A:N6	2.13	0.46
1:2:1282:U:O2'	1:2:1283:U:H5'	2.14	0.46
1:6:768:C:H2'	1:6:769:A:O4'	2.16	0.46
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	2.32	0.46
15:C3:53:LEU:HA	15:C3:53:LEU:HD12	1.72	0.46
36:1:1915:A:H2'	36:1:1916:U:C6	2.50	0.46
1:2:73:U:H4'	1:2:74:U:OP1	2.16	0.46
5:S3:211:PRO:O	5:S3:212:LYS:HB2	2.16	0.46
1:6:1172:G:H2'	1:6:1173:C:O4'	2.15	0.46
36:1:1211:U:H2'	36:1:1212:A:C8	2.51	0.46
1:2:764:U:OP2	11:S9:78:ARG:NH1	2.49	0.46
4:S2:178:ILE:HD12	4:S2:189:GLN:HG3	1.96	0.46
36:5:2943:G:O5'	36:5:2943:G:H8	1.99	0.46
11:S9:65:LYS:HA	11:S9:70:LEU:CD1	2.46	0.46
36:1:1517:G:P	75:O9:41:ARG:HH22	2.37	0.46
36:1:1808:G:O6	86:1:3976:OHX:N3	2.48	0.46
1:2:545:A:H4'	1:2:546:U:OP1	2.16	0.46
36:5:993:G:OP1	86:5:3913:OHX:N6	2.48	0.46
4:S2:152:HIS:CG	4:S2:174:ARG:HG3	2.51	0.46
4:S2:43:ARG:CZ	4:S2:249:ALA:HB2	4.20	0.46
45:L8:53:PRO:O	45:L8:55:TYR:N	3.07	0.46
36:1:80:G:H2'	36:1:81:C:H6	1.80	0.46
26:D4:56:SER:HB3	26:D4:74:LEU:HD12	1.96	0.46
15:C3:83:GLU:HG3	15:C3:84:ILE:H	2.50	0.46
36:1:3104:U:O2'	36:1:3105:U:H5'	2.14	0.46
65:N9:7:HIS:O	36:5:1135:A:H5'	227.06	0.46
1:2:1504:G:H2'	1:2:1505:A:C8	2.50	0.46
1:2:1057:U:H1'	1:2:1058:U:H2'	1.98	0.46
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.71	0.46
36:1:1114:U:OP2	86:1:3958:OHX:N4	2.49	0.46
36:1:1078:U:O4	86:1:3960:OHX:N2	2.48	0.46
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2778:G:C2'	36:1:2779:A:H5'	2.46	0.46
36:5:1137:C:H2'	36:5:1138:U:O4'	2.16	0.46
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.51	0.46
1:2:514:G:N1	1:2:543:C:H5	2.03	0.46
53:M7:64:ASN:O	53:M7:67:ILE:HG12	2.62	0.46
47:M0:168:SER:OG	47:M0:170:LYS:HB2	2.71	0.46
8:S6:158:ILE:HG23	60:N4:85:ALA:HB2	3.01	0.46
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.29	0.46
22:D0:96:PRO:HB2	22:D0:97:VAL:H	2.40	0.46
34:SR:180:ALA:HB2	34:SR:192:PHE:HE2	1.80	0.46
5:S3:104:SER:O	5:S3:108:LYS:N	2.41	0.46
16:C4:29:HIS:CB	16:C4:41:ARG:HA	2.45	0.46
26:D4:57:VAL:HB	26:D4:60:PHE:HE2	4.15	0.46
1:6:495:C:H3'	1:6:496:G:C5'	2.46	0.46
1:6:495:C:H3'	1:6:496:G:H5'	1.96	0.46
71:O5:89:ARG:HD3	38:8:38:U:O4	67.10	0.46
1:6:897:C:HO2'	1:6:898:A:H8	1.64	0.46
5:S3:29:LEU:HB2	5:S3:34:TYR:HB2	1.98	0.46
1:2:830:U:H2'	1:2:830:U:O2	2.15	0.46
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	1.97	0.46
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.95	0.46
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.97	0.46
17:C5:86:VAL:O	17:C5:89:MET:HG2	2.16	0.46
10:S8:76:THR:HB	10:S8:108:PRO:HG2	1.98	0.46
18:C6:39:VAL:HG13	18:C6:41:PRO:HD2	4.26	0.46
59:N3:13:ILE:HD12	59:N3:85:TRP:CD1	2.51	0.46
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.25	0.46
41:L4:42:VAL:HG12	41:L4:236:LEU:HD21	3.05	0.46
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	8.18	0.46
24:D2:14:ILE:HD11	24:D2:38:LEU:HD21	1.98	0.46
36:1:2998:U:O4	86:1:4103:OHX:N1	2.49	0.46
63:N7:129:TRP:O	63:N7:132:SER:N	3.24	0.46
36:1:1505:C:H5"	53:M7:127:ARG:HD2	1.98	0.46
18:C6:22:VAL:HG22	18:C6:65:ILE:HD13	1.98	0.46
45:L8:109:LEU:HA	45:L8:109:LEU:HD13	4.04	0.46
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.30	0.46
36:5:2514:U:H6	36:5:2514:U:OP1	1.98	0.46
54:M8:129:VAL:O	54:M8:132:PRO:HD3	2.84	0.46
52:M6:153:VAL:HA	52:M6:156:LEU:HB2	3.13	0.46
36:1:3127:A:N6	36:1:3128:G:C2	2.83	0.46
86:1:3966:OHX:N5	86:1:4151:OHX:N2	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3393:U:H2'	36:1:3394:U:H6	1.81	0.46
50:M4:134:ALA:C	50:M4:136:ALA:H	2.32	0.46
36:1:2675:C:N4	48:M1:22:SER:HB2	2.30	0.46
35:SM:27:LYS:HD2	48:M1:68:HIS:HE1	3.66	0.46
1:6:1066:C:H2'	1:6:1067:C:H6	1.79	0.46
1:6:1078:C:H2'	1:6:1079:U:C6	2.50	0.46
5:S3:102:ALA:HA	5:S3:186:VAL:HG21	1.96	0.46
40:L3:386:ASP:HB3	40:L3:387:LEU:H	1.57	0.46
36:1:821:U:OP2	86:1:3974:OHX:N3	2.49	0.46
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.38	0.46
38:4:124:G:N2	38:4:130:C:C2	2.84	0.46
36:5:2152:A:H1'	36:5:2243:A:N3	2.31	0.46
36:1:551:A:O2'	36:1:552:G:O5'	2.31	0.46
1:2:217:A:OP1	1:2:217:A:H2'	2.16	0.46
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.74	0.46
7:S5:112:ARG:HH21	7:S5:115:LYS:HZ2	3.54	0.46
1:6:542:A:C8	1:6:543:C:H2'	2.50	0.46
3:S1:136:ARG:NH2	3:S1:218:LEU:HD11	4.66	0.46
36:1:1017:C:O2'	36:1:1018:G:OP2	2.31	0.46
1:2:1429:G:C1'	22:D0:74:GLU:HG2	2.41	0.46
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.15	0.46
3:S1:169:SER:O	3:S1:173:THR:OG1	3.16	0.46
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	2.00	0.46
1:2:189:C:H2'	1:2:190:C:H5'	1.96	0.46
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	2.99	0.46
1:6:1572:G:H2'	1:6:1572:G:N3	2.30	0.46
36:5:1818:U:H2'	36:5:1819:U:O4'	2.16	0.46
77:Q1:23:ARG:HG2	77:Q1:23:ARG:O	2.15	0.46
1:6:1203:A:OP2	86:6:2131:OHX:N4	2.49	0.46
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.51	0.46
12:C0:44:LYS:NZ	1:6:1218:G:OP2	424.57	0.46
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	1.72	0.46
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.29	0.46
7:S5:100:ASN:HA	1:6:1166:A:OP1	355.51	0.46
36:1:1318:A:OP1	52:M6:18:ARG:NH2	2.33	0.46
50:M4:22:LEU:HD12	50:M4:31:LYS:O	2.16	0.46
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.24	0.46
64:N8:94:ALA:HA	64:N8:121:VAL:HG13	1.98	0.46
36:5:2537:U:O2'	36:5:2538:U:O4'	2.33	0.46
1:2:1280:C:H2'	1:2:1281:G:H8	1.80	0.46
1:2:1282:U:H2'	1:2:1283:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.36	0.46
5:S3:32:GLU:HG3	5:S3:57:ASP:HB2	1.98	0.46
41:L4:338:LYS:C	41:L4:340:GLY:H	2.18	0.46
86:5:4014:OHX:N6	86:5:4203:OHX:N5	2.63	0.46
36:5:1093:A:H4'	36:5:1093:A:OP1	2.16	0.46
4:S2:54:GLU:O	4:S2:58:LEU:HB2	2.16	0.46
36:1:1919:G:N7	86:1:4007:OHX:N5	2.63	0.46
25:D3:50:LYS:HD3	25:D3:101:GLU:HG2	1.96	0.46
10:S8:196:LEU:HD12	10:S8:196:LEU:HA	1.68	0.46
56:N0:34:GLU:HB3	56:N0:61:ILE:HD13	3.61	0.46
9:S7:35:LYS:C	9:S7:37:GLU:H	2.19	0.46
6:S4:23:LEU:HD21	1:6:772:G:H5''	389.22	0.46
51:M5:23:GLN:NE2	51:M5:122:ASN:OD1	2.33	0.46
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	3.83	0.46
47:M0:191:LYS:O	47:M0:197:VAL:HG22	2.92	0.46
36:5:90:C:H2'	36:5:91:G:H5'	1.98	0.46
36:1:2644:C:O2	47:M0:116:ARG:HD2	2.16	0.46
1:6:1230:A:H8	1:6:1258:U:C4	2.34	0.46
36:1:2419:A:H2'	36:1:2420:C:C6	2.50	0.46
38:8:65:A:H2'	38:8:66:A:O4'	2.16	0.46
47:M0:201:SER:OG	47:M0:203:LYS:HD2	2.16	0.46
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.15	0.46
36:1:1509:A:H2'	36:1:1510:G:C8	2.51	0.46
1:2:130:C:O2'	1:2:131:C:H5'	2.15	0.46
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.76	0.46
29:D7:64:CYS:HA	29:D7:72:LYS:O	2.16	0.46
36:1:2585:G:C2	38:4:151:C:H5	2.33	0.46
35:SM:102:THR:HG23	35:SM:105:LYS:H	1.81	0.46
25:D3:135:LEU:HA	25:D3:135:LEU:HD23	2.28	0.46
73:O7:67:LEU:O	73:O7:67:LEU:HD22	3.32	0.46
1:2:29:U:H2'	1:2:30:G:H8	1.81	0.46
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.22	0.46
14:C2:62:LEU:HB3	14:C2:120:VAL:HG13	2.49	0.46
38:8:43:A:OP1	86:8:224:OHX:N3	2.49	0.46
1:6:647:G:N2	1:6:687:G:N2	2.63	0.46
41:L4:330:TYR:HA	41:L4:333:VAL:HG12	3.42	0.46
1:2:1498:G:C2'	1:2:1499:G:H5'	2.46	0.46
7:S5:127:GLN:HG2	7:S5:128:ASN:H	3.86	0.46
76:Q0:125:LYS:HD2	36:5:2897:A:H5''	325.98	0.46
47:M0:20:SER:HG	47:M0:22:TYR:HD1	1.64	0.46
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:8:215:OHX:N2	86:8:223:OHX:N1	2.63	0.46
76:Q0:78:ILE:HG12	76:Q0:83:LYS:HB2	3.57	0.46
57:N1:54:HIS:NE2	36:5:2724:U:H4'	229.49	0.46
17:C5:108:ARG:HG2	17:C5:109:PRO:HD2	1.96	0.46
10:S8:76:THR:HG21	10:S8:105:ASP:O	6.27	0.46
41:L4:73:ARG:NH2	36:5:2814:G:OP1	172.58	0.46
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.47	0.46
60:N4:9:SER:HB2	60:N4:51:TRP:HZ3	1.80	0.46
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.51	0.46
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.46
1:2:1042:G:C2	1:2:1043:A:C8	3.04	0.46
78:Q2:8:ARG:H	78:Q2:22:GLN:HE21	1.63	0.46
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.98	0.46
26:D4:109:LYS:HD2	1:6:54:C:O3'	356.19	0.46
36:5:1750:A:H4'	36:5:1751:G:H5'	1.98	0.46
36:1:2510:U:O2'	36:1:2511:A:H8	1.98	0.46
7:S5:152:GLY:O	7:S5:154:ALA:N	2.49	0.46
9:S7:35:LYS:O	9:S7:37:GLU:N	2.38	0.46
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.47	0.46
1:2:1537:C:C4	86:2:2157:OHX:N3	2.84	0.46
36:5:999:G:C6	36:5:1000:C:N4	2.84	0.46
1:6:922:G:H2'	1:6:923:A:C8	2.50	0.46
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.16	0.46
86:2:2047:OHX:N2	86:2:2101:OHX:N6	2.63	0.46
36:1:1433:A:O2'	36:1:1434:G:O5'	2.34	0.46
33:E1:127:GLY:C	33:E1:129:GLY:H	2.19	0.46
36:1:2986:U:H2'	36:1:2987:A:H8	1.81	0.46
67:O1:20:LEU:HD23	67:O1:20:LEU:HA	1.67	0.46
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.97	0.46
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.16	0.46
1:2:29:U:H2'	1:2:30:G:C8	2.50	0.46
36:5:2700:G:N7	86:5:3934:OHX:N6	2.64	0.46
1:6:411:C:H2'	1:6:412:A:O4'	2.15	0.46
61:N5:106:ASP:O	61:N5:127:THR:HG23	2.16	0.46
52:M6:89:SER:O	52:M6:92:THR:OG1	2.95	0.46
36:1:2166:A:O3'	51:M5:72:LYS:HD3	2.15	0.46
41:L4:257:LYS:O	41:L4:260:GLN:HB2	2.16	0.46
75:O9:30:ARG:HB2	75:O9:30:ARG:HE	1.55	0.46
38:4:75:G:C8	75:O9:30:ARG:HG2	2.51	0.46
36:1:2890:A:N1	36:1:2913:C:N3	2.64	0.46
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	3.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:516:G:OP2	86:2:2073:OHX:N6	2.49	0.46
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.21	0.46
1:6:828:U:H2'	1:6:829:A:H5''	1.97	0.46
36:5:1846:C:H3'	36:5:1847:A:H8	1.79	0.46
4:S2:98:PHE:CZ	35:SM:116:GLU:HG3	2.51	0.46
51:M5:103:GLU:OE1	51:M5:118:SER:OG	2.29	0.46
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.49	0.46
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.73	0.46
17:C5:18:ARG:HD3	20:C8:90:ASN:ND2	2.69	0.46
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.15	0.46
1:2:894:U:H2'	1:2:895:G:C8	2.51	0.46
3:S1:166:LYS:HA	3:S1:169:SER:HB2	1.97	0.46
1:6:195:G:H2'	1:6:196:G:H5''	1.97	0.46
1:6:196:G:O2'	1:6:197:A:OP2	2.34	0.46
10:S8:138:ASN:ND2	1:6:197:A:N1	278.69	0.46
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.16	0.46
43:L6:42:LEU:HD21	43:L6:52:VAL:HG11	1.98	0.46
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.22	0.46
86:2:2034:OHX:N3	86:2:2149:OHX:N1	2.64	0.46
46:L9:26:LYS:HA	46:L9:35:THR:HG22	1.96	0.46
2:S0:110:TYR:HA	2:S0:115:PHE:CD1	3.00	0.46
12:C0:32:HIS:HB3	12:C0:35:ILE:O	2.16	0.46
48:M1:8:PRO:HD2	48:M1:9:MET:H	1.81	0.46
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	2.19	0.46
36:5:173:G:HO2'	36:5:174:C:C5'	2.28	0.46
29:D7:54:VAL:HG12	29:D7:63:LEU:HD12	3.17	0.46
1:6:1735:U:O4	86:6:2124:OHX:N5	2.49	0.46
1:6:1097:U:OP1	1:6:1098:U:O2'	2.21	0.46
1:2:1689:A:H2'	1:2:1690:G:C8	2.49	0.46
48:M1:27:GLY:O	48:M1:30:LEU:N	2.49	0.46
1:6:219:A:C6	1:6:843:U:H1'	2.50	0.46
55:M9:17:VAL:HG22	55:M9:18:GLY:H	4.39	0.46
18:C6:6:SER:OG	18:C6:7:VAL:N	4.18	0.46
36:5:1064:A:H4'	36:5:1065:A:O5'	2.16	0.46
36:5:1093:A:N3	36:5:1096:U:N3	2.63	0.46
1:6:1504:G:H2'	1:6:1505:A:C8	2.51	0.46
36:1:188:U:H1'	36:1:208:C:H1'	1.98	0.46
36:1:2633:U:H2'	36:1:2634:U:O4'	2.16	0.46
22:D0:33:GLN:O	22:D0:37:VAL:HG23	3.66	0.46
36:1:3066:U:O4	86:1:4129:OHX:N5	2.49	0.46
10:S8:59:ARG:NH2	1:6:1678:A:OP1	254.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:998:A:O2'	36:5:999:G:H5'	2.15	0.46
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.29	0.46
36:5:1452:A:H8	36:5:1452:A:H5''	1.81	0.46
2:S0:31:VAL:HG21	1:6:1040:G:H5''	383.20	0.46
1:6:696:C:H4'	1:6:697:C:H6	1.80	0.46
1:2:131:C:O2'	1:2:132:U:OP1	2.31	0.46
13:C1:72:THR:HG22	13:C1:124:THR:HA	1.98	0.46
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.88	0.46
9:S7:73:VAL:O	9:S7:75:THR:N	2.47	0.46
5:S3:17:PHE:O	5:S3:21:LEU:HB2	2.27	0.46
59:N3:19:VAL:HG13	59:N3:37:ILE:HA	2.29	0.46
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.98	0.46
9:S7:153:LEU:CD2	9:S7:184:GLU:HB2	2.46	0.46
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.62	0.46
1:2:63:G:H4'	1:2:170:U:C5	2.51	0.46
41:L4:324:LEU:HG	41:L4:324:LEU:O	2.14	0.46
1:2:1381:U:O5'	1:2:1381:U:H6	1.99	0.46
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.22	0.46
1:2:240:U:OP1	1:2:240:U:H4'	2.15	0.46
36:5:1128:U:H2'	36:5:1129:A:O4'	2.16	0.46
5:S3:224:ASP:OD1	34:SR:228:LYS:HD2	2.16	0.46
78:Q2:78:LYS:HE2	78:Q2:79:THR:HG22	6.61	0.46
40:L3:214:MET:CE	40:L3:350:ALA:HA	4.03	0.46
42:L5:260:PHE:CE2	37:7:121:U:H5'	321.92	0.46
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.16	0.46
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	1.98	0.46
8:S6:98:ARG:HD3	8:S6:99:GLY:H	2.25	0.46
1:2:1102:G:OP1	24:D2:76:SER:OG	2.30	0.46
15:C3:8:GLY:O	15:C3:9:LYS:HD3	2.16	0.46
36:5:3112:G:O6	86:5:3920:OHX:N6	2.49	0.46
40:L3:3:HIS:CG	40:L3:3:HIS:O	2.69	0.46
51:M5:34:ASN:O	51:M5:37:HIS:HD2	1.99	0.46
42:L5:40:HIS:HB3	42:L5:43:LYS:HD2	1.98	0.46
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.84	0.46
22:D0:102:ARG:HG3	22:D0:103:ILE:N	4.37	0.46
86:2:2034:OHX:N6	86:2:2149:OHX:N5	2.63	0.46
1:6:25:C:O2	86:6:2108:OHX:N2	2.49	0.46
36:1:1951:C:H5'	36:1:1952:G:OP1	2.16	0.46
36:1:1631:C:H5''	36:1:1632:A:H5''	1.97	0.46
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.89	0.46
56:N0:24:LEU:HB2	57:N1:146:ASN:HD21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3227:A:C2'	36:5:3228:C:H5'	2.46	0.46
36:1:3295:A:OP2	40:L3:126:LYS:N	2.34	0.46
60:N4:17:ARG:HD3	60:N4:17:ARG:HA	1.67	0.46
59:N3:104:ASN:HD21	59:N3:108:GLU:HB2	4.11	0.46
22:D0:34:LEU:HD23	22:D0:112:VAL:HG13	1.98	0.46
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.60	0.46
25:D3:108:GLY:HA2	1:6:600:U:P	356.52	0.46
1:2:75:U:H2'	1:2:76:A:O4'	2.15	0.46
47:M0:10:ARG:HH21	47:M0:161:GLY:HA2	1.81	0.46
26:D4:41:ARG:HD2	26:D4:55:VAL:HG23	5.79	0.46
25:D3:118:PRO:O	25:D3:120:VAL:N	3.22	0.46
36:5:2921:U:H2'	36:5:2923:U:H5''	1.97	0.46
45:L8:71:VAL:HA	45:L8:72:PRO:HD2	1.71	0.46
39:L2:8:GLN:O	36:5:2163:C:O2'	180.25	0.46
47:M0:51:HIS:ND1	47:M0:134:ILE:HD13	2.52	0.46
1:2:755:A:O2'	1:2:756:A:OP1	2.30	0.46
1:6:1068:C:H2'	1:6:1069:A:C8	2.50	0.46
54:M8:37:ALA:O	54:M8:46:LYS:HE3	3.95	0.46
36:5:507:U:H2'	36:5:508:U:C6	2.51	0.46
48:M1:17:LEU:HD13	48:M1:129:VAL:HG22	1.97	0.46
36:5:3013:U:H2'	36:5:3014:U:C6	2.51	0.46
36:1:2883:U:H2'	36:1:2884:C:C6	2.50	0.46
9:S7:7:LYS:NZ	55:M9:188:ASP:OD2	5.45	0.46
42:L5:17:GLN:HB2	57:N1:20:ARG:HG2	3.62	0.46
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.15	0.46
1:2:1310:U:H2'	1:2:1311:U:H6	1.81	0.46
1:2:1321:A:H4'	1:2:1322:A:O5'	2.16	0.46
1:2:1055:U:H3	1:2:1064:G:H1	1.64	0.46
43:L6:155:LEU:HA	43:L6:155:LEU:HD23	2.13	0.46
45:L8:178:ALA:HB2	45:L8:218:ILE:HG23	1.96	0.46
37:7:55:A:H2'	37:7:56:A:O4'	2.16	0.46
1:6:213:A:OP2	86:6:2152:OHX:N1	2.48	0.46
72:O6:27:SER:HB2	36:5:156:G:OP2	92.03	0.45
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	3.20	0.45
39:L2:33:ASP:O	39:L2:37:ARG:HG2	2.15	0.45
36:5:1573:G:C5	36:5:1574:C:H1'	2.51	0.45
36:5:3308:C:C4	36:5:3309:G:C5	3.04	0.45
50:M4:113:THR:HB	50:M4:116:GLU:HG3	2.88	0.45
47:M0:12:GLN:NE2	47:M0:128:ARG:HB3	2.31	0.45
3:S1:91:VAL:HG13	3:S1:95:ASN:O	6.01	0.45
36:5:1236:G:H8	36:5:1236:G:H5''	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:10:ASP:CG	52:M6:37:ARG:HH21	2.22	0.45
70:O4:58:ARG:HG3	70:O4:58:ARG:NH1	2.29	0.45
49:M3:8:PRO:HG2	36:5:667:C:O2'	152.03	0.45
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.21	0.45
10:S8:162:ALA:HA	36:1:3353:G:C5'	2.46	0.45
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.43	0.45
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.31	0.45
65:N9:28:LYS:HD3	65:N9:28:LYS:HA	1.62	0.45
36:1:1599:G:C6	36:1:1600:U:C4	3.05	0.45
86:1:4026:OHX:N2	86:1:4039:OHX:N1	2.64	0.45
36:5:244:G:C6	36:5:245:U:C4	3.03	0.45
29:D7:63:LEU:O	29:D7:74:SER:HB2	2.80	0.45
1:6:485:A:N6	1:6:486:G:N3	2.62	0.45
76:Q0:77:ILE:CD1	76:Q0:78:ILE:H	4.17	0.45
70:O4:41:ARG:HA	70:O4:56:THR:HG23	4.39	0.45
1:6:454:U:H3'	1:6:455:C:C6	2.50	0.45
26:D4:10:ARG:NH1	1:6:778:G:N7	432.06	0.45
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.79	0.45
36:5:2537:U:HO2'	36:5:2538:U:C5'	2.29	0.45
1:6:221:A:C2'	1:6:222:A:H5'	2.46	0.45
36:1:1724:U:H1'	36:1:1725:C:C5	2.51	0.45
28:D6:17:HIS:CE1	28:D6:18:VAL:O	2.69	0.45
16:C4:84:ARG:HG3	16:C4:119:THR:HA	1.98	0.45
51:M5:95:GLN:O	36:5:289:A:H5'	129.68	0.45
36:1:2799:A:H1'	64:N8:42:ARG:NH2	2.30	0.45
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.98	0.45
67:O1:64:VAL:HG21	36:5:1456:A:N6	166.73	0.45
86:6:2060:OHX:N2	86:6:2149:OHX:N6	2.64	0.45
19:C7:3:ARG:HD2	1:6:1414:U:H5''	405.02	0.45
38:4:41:A:O2'	73:O7:59:THR:HB	2.16	0.45
50:M4:40:ASP:OD1	50:M4:41:GLN:N	2.50	0.45
36:5:1108:U:H2'	36:5:1109:U:H6	1.80	0.45
1:2:711:U:H1'	1:2:712:G:H5'	1.97	0.45
1:2:1653:C:N4	1:2:1654:G:C6	2.84	0.45
36:1:2881:C:H2'	36:1:2882:U:C6	2.51	0.45
77:Q1:22:ALA:O	77:Q1:24:SER:N	2.49	0.45
1:6:1148:C:O2'	1:6:1149:G:H5'	2.16	0.45
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.61	0.45
36:5:721:G:C2	36:5:722:G:C8	3.03	0.45
36:1:3016:A:H2'	36:1:3017:A:C8	2.51	0.45
36:1:1608:C:H2'	36:1:1609:C:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1081:A:O2'	1:6:1082:C:O5'	2.31	0.45
51:M5:171:SER:O	36:5:288:C:H4'	124.16	0.45
1:2:1325:A:H2'	1:2:1326:A:C8	2.51	0.45
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.49	0.45
69:O3:10:LYS:O	69:O3:33:GLU:HB2	2.79	0.45
74:O8:64:LYS:HG3	74:O8:65:LEU:N	5.33	0.45
43:L6:38:THR:OG1	43:L6:90:LYS:HE2	4.45	0.45
1:6:1:U:O2'	1:6:370:A:H5'	2.16	0.45
23:D1:16:LYS:HD2	23:D1:21:ASN:O	3.52	0.45
9:S7:15:GLU:O	9:S7:19:GLN:HG2	2.16	0.45
36:5:2257:C:H6	36:5:2257:C:O5'	1.97	0.45
45:L8:77:GLN:HB3	45:L8:77:GLN:HE21	3.97	0.45
20:C8:116:LEU:HD12	20:C8:116:LEU:HA	1.78	0.45
36:1:1282:G:C6	36:1:1283:C:C4	3.04	0.45
36:1:197:G:H2'	36:1:198:A:C8	2.50	0.45
22:D0:44:ASN:O	22:D0:47:GLN:HB3	2.16	0.45
36:1:2595:A:H5'	36:1:2596:U:OP2	2.16	0.45
36:5:1313:G:H2'	36:5:1314:C:C6	2.51	0.45
1:2:276:C:O2'	1:2:277:U:H5''	2.17	0.45
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.97	0.45
8:S6:25:ARG:NH2	40:L3:298:PHE:O	2.49	0.45
7:S5:73:THR:CG2	18:C6:114:ARG:HE	5.05	0.45
36:5:1170:A:OP2	86:5:4005:OHX:N6	2.50	0.45
46:L9:49:ASN:ND2	46:L9:52:LEU:HB2	2.30	0.45
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.49	0.45
41:L4:119:ARG:NH2	41:L4:271:LYS:HG2	2.30	0.45
34:SR:43:ILE:HA	34:SR:59:ARG:O	2.16	0.45
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.36	0.45
36:5:845:G:HO2'	36:5:847:A:H62	1.61	0.45
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.98	0.45
1:2:740:A:C2'	1:2:741:C:H5''	2.46	0.45
16:C4:91:THR:C	16:C4:93:THR:H	2.25	0.45
1:2:498:G:O2'	1:2:499:U:O5'	2.30	0.45
39:L2:66:PRO:HD2	39:L2:67:TYR:HD2	1.80	0.45
17:C5:108:ARG:H	17:C5:111:MET:HE3	3.75	0.45
42:L5:85:ARG:HH12	42:L5:254:LYS:H	4.00	0.45
2:S0:25:GLY:N	2:S0:46:HIS:O	2.65	0.45
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	2.01	0.45
36:5:595:G:C8	36:5:609:G:C6	3.04	0.45
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.67	0.45
37:3:60:G:H2'	37:3:61:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2527:G:H2'	36:5:2528:G:O4'	2.16	0.45
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	4.64	0.45
1:2:1528:U:H2'	1:2:1529:C:H6	1.81	0.45
1:2:1537:C:N4	86:2:2157:OHX:N4	2.64	0.45
19:C7:2:GLY:N	1:6:1312:A:N7	395.60	0.45
36:5:2429:G:OP2	86:5:4049:OHX:N5	2.50	0.45
33:E1:103:LEU:HD23	33:E1:103:LEU:HA	1.83	0.45
1:6:1068:C:H2'	1:6:1069:A:H8	1.81	0.45
1:2:1325:A:C2	1:2:1326:A:C5	3.04	0.45
63:N7:8:GLY:HA2	63:N7:25:ILE:O	3.07	0.45
36:5:183:G:H2'	36:5:184:U:O4'	2.17	0.45
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.61	0.45
74:O8:10:GLN:HA	74:O8:13:GLU:HG3	3.87	0.45
9:S7:61:PHE:HE1	9:S7:93:LEU:HD12	1.81	0.45
36:1:599:C:OP1	41:L4:332:LYS:HE2	2.16	0.45
1:6:509:G:H2'	1:6:510:G:O4'	2.16	0.45
45:L8:140:VAL:HA	45:L8:143:ILE:HD12	2.75	0.45
36:1:1424:C:H2'	36:1:1425:U:O4'	2.16	0.45
37:3:77:G:N7	56:N0:52:LYS:HG3	2.31	0.45
41:L4:286:VAL:O	41:L4:289:ILE:HG13	2.17	0.45
18:C6:26:LYS:HE3	18:C6:26:LYS:HB2	3.34	0.45
1:6:1428:G:H8	1:6:1428:G:H5'	1.81	0.45
36:1:394:G:N1	36:1:397:A:OP2	2.49	0.45
1:2:1369:U:O4	86:2:2098:OHX:N5	2.49	0.45
40:L3:171:LEU:O	86:L3:404:OHX:N3	23.02	0.45
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.09	0.45
36:1:1639:C:OP1	70:O4:52:GLN:HG2	2.16	0.45
63:N7:17:ARG:C	63:N7:19:ALA:H	2.35	0.45
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.30	0.45
7:S5:37:GLN:HB3	18:C6:53:LEU:HD13	2.63	0.45
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.98	0.45
8:S6:10:ASN:ND2	8:S6:125:THR:O	4.12	0.45
52:M6:60:LYS:HE2	36:5:1307:G:H5''	251.03	0.45
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.44	0.45
4:S2:61:LEU:HA	4:S2:62:PRO:HD2	1.63	0.45
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	1.98	0.45
1:2:1600:A:O2'	1:2:1602:C:N4	2.49	0.45
66:O0:50:VAL:HB	36:5:2553:U:O4'	230.43	0.45
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	3.44	0.45
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.28	0.45
36:1:2400:G:H5''	36:1:2401:A:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:120:ARG:HD2	35:SM:58:GLU:OE2	5.21	0.45
5:S3:69:LEU:O	5:S3:73:VAL:HG23	2.16	0.45
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.19	0.45
35:SM:52:PRO:C	35:SM:54:PRO:HD3	4.68	0.45
14:C2:83:GLU:C	14:C2:85:LYS:H	4.41	0.45
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.51	0.45
25:D3:46:SER:HG	25:D3:78:LYS:HZ1	2.40	0.45
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.71	0.45
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	1.96	0.45
3:S1:149:GLN:HE21	3:S1:149:GLN:HB2	1.57	0.45
42:L5:85:ARG:NH2	42:L5:252:ALA:O	4.74	0.45
36:5:2970:C:H4'	36:5:2971:A:C2	2.51	0.45
1:2:1337:A:H5'	1:2:1338:C:OP2	2.16	0.45
47:M0:156:ARG:HH12	47:M0:164:LYS:HA	1.81	0.45
40:L3:117:ARG:HA	40:L3:175:LYS:HE2	1.97	0.45
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.48	0.45
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.51	0.45
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	2.87	0.45
34:SR:249:ARG:NH2	34:SR:315:VAL:HG11	3.27	0.45
86:5:4014:OHX:N4	86:5:4203:OHX:N1	2.65	0.45
1:2:482:U:H2'	1:2:483:A:C8	2.50	0.45
1:2:1299:G:H2'	1:2:1300:A:C8	2.51	0.45
39:L2:143:GLU:O	39:L2:145:LYS:N	2.49	0.45
36:1:93:C:O2'	64:N8:55:LYS:HE3	2.17	0.45
4:S2:90:THR:HG22	4:S2:93:GLY:N	2.32	0.45
1:6:74:U:H5''	1:6:75:U:OP2	2.16	0.45
63:N7:128:GLN:HB3	63:N7:129:TRP:H	2.61	0.45
42:L5:237:GLU:O	42:L5:241:THR:HB	2.16	0.45
59:N3:40:LYS:HD3	59:N3:59:MET:HE3	1.98	0.45
36:5:1444:G:C2'	36:5:1445:U:H5'	2.46	0.45
86:5:4059:OHX:N1	86:5:4202:OHX:N4	2.64	0.45
36:1:3296:A:H2'	36:1:3297:U:C6	2.52	0.45
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.50	0.45
36:1:1232:C:H41	36:1:1261:G:H2'	1.81	0.45
36:5:1658:G:O4'	36:5:1796:G:H2'	2.17	0.45
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.15	0.45
70:O4:65:VAL:HG13	70:O4:66:SER:O	2.61	0.45
1:2:759:U:OP1	86:S9:201:OHX:N1	2.49	0.45
36:1:1864:A:H2'	36:1:1865:A:C8	2.52	0.45
19:C7:24:LEU:HD21	19:C7:34:LEU:HD12	1.99	0.45
36:1:1132:C:C2	36:1:1133:A:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:150:LEU:HD11	41:L4:172:VAL:HG12	1.97	0.45
37:3:119:U:OP1	42:L5:256:THR:HG23	2.15	0.45
36:1:2115:G:H4'	55:M9:79:GLY:O	2.17	0.45
1:6:993:A:H2'	1:6:994:G:O4'	2.17	0.45
38:8:82:U:H1'	38:8:87:G:H5'	1.99	0.45
51:M5:16:SER:O	51:M5:20:ARG:HG2	3.67	0.45
36:1:3113:A:H4'	46:L9:69:ARG:HB3	1.97	0.45
1:2:882:U:H2'	1:2:883:C:C6	2.51	0.45
19:C7:60:ARG:HH21	1:6:1400:A:H5'	411.01	0.45
1:6:1649:G:N7	86:6:2110:OHX:N2	2.65	0.45
34:SR:319:ASN:N	34:SR:319:ASN:OD1	3.18	0.45
6:S4:180:LEU:HA	6:S4:180:LEU:HD23	1.69	0.45
78:Q2:29:LYS:HD3	78:Q2:30:ALA:H	1.81	0.45
36:5:3189:G:H2'	36:5:3190:C:O4'	2.16	0.45
36:1:650:C:H2'	36:1:651:G:C8	2.52	0.45
36:5:2161:G:C6	36:5:2162:U:C4	3.04	0.45
36:1:806:A:C4	36:1:936:A:C2	3.05	0.45
1:6:884:A:H2'	1:6:885:G:C8	2.50	0.45
86:5:3980:OHX:N4	86:5:4201:OHX:N1	2.65	0.45
37:3:7:G:OP2	42:L5:22:ARG:NH2	2.49	0.45
36:5:1243:G:O6	36:5:1244:A:N6	2.50	0.45
2:S0:63:ILE:HG23	23:D1:35:ASN:O	2.16	0.45
3:S1:142:PHE:HD2	3:S1:209:ASN:HB2	1.81	0.45
36:1:3353:G:O2'	36:1:3356:G:H5'	2.16	0.45
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.48	0.45
15:C3:29:SER:C	15:C3:66:ILE:HD11	2.37	0.45
13:C1:86:ILE:HG13	13:C1:107:VAL:O	3.73	0.45
16:C4:86:THR:HG21	16:C4:90:ARG:HD2	1.98	0.45
1:2:624:G:OP2	86:2:2160:OHX:N2	2.50	0.45
47:M0:99:ILE:CG2	47:M0:123:HIS:HB2	2.46	0.45
86:1:4026:OHX:N4	86:1:4039:OHX:N3	2.63	0.45
51:M5:140:LYS:O	51:M5:144:ARG:HG3	2.17	0.45
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	3.05	0.45
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	1.98	0.45
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.16	0.45
38:4:104:A:H3'	38:4:105:A:C5'	2.47	0.45
13:C1:37:ASN:HB3	13:C1:44:THR:CG2	2.47	0.45
36:1:208:C:C2'	36:1:209:A:H5'	2.46	0.45
36:1:92:G:OP2	36:1:93:C:H5''	2.16	0.45
36:1:790:U:H5''	41:L4:112:LYS:HD2	1.99	0.45
25:D3:69:ARG:O	25:D3:86:PHE:HE2	2.88	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2278:C:OP1	86:1:3951:OHX:N3	2.49	0.45
36:1:1295:G:H2'	36:1:1296:C:C6	2.51	0.45
12:C0:76:LEU:HA	12:C0:79:TYR:HB3	2.06	0.45
57:N1:80:VAL:HG22	57:N1:80:VAL:O	3.06	0.45
50:M4:89:ALA:O	50:M4:93:LYS:HE3	2.17	0.45
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.99	0.45
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.16	0.45
70:O4:20:ILE:HD12	70:O4:20:ILE:HA	1.69	0.45
36:1:3055:U:O2'	36:1:3057:U:OP1	2.33	0.45
27:D5:92:ILE:HD11	27:D5:102:THR:OG1	3.13	0.45
36:5:829:U:H2'	36:5:894:G:O6	2.16	0.45
42:L5:182:GLY:O	42:L5:190:ILE:HD12	2.16	0.45
28:D6:3:LYS:HA	1:6:1792:G:O5'	338.71	0.45
36:5:1754:G:OP1	86:5:4080:OHX:N1	2.49	0.45
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.19	0.45
12:C0:71:GLU:H	12:C0:71:GLU:HG2	1.90	0.45
66:O0:84:LEU:HA	66:O0:84:LEU:HD23	4.28	0.45
1:6:1489:U:H5'	1:6:1494:C:H1'	1.99	0.45
1:2:720:G:O2'	1:2:721:U:H5'	2.16	0.45
36:1:1651:U:H2'	36:1:1652:G:H8	1.81	0.45
19:C7:63:LYS:HE3	34:SR:284:ALA:HB2	1.99	0.45
36:1:2228:A:H2'	36:1:2229:A:C8	2.51	0.45
1:6:648:G:C4	1:6:687:G:N2	2.85	0.45
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.86	0.45
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	3.03	0.45
3:S1:134:VAL:O	3:S1:218:LEU:HD22	2.17	0.45
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.16	0.45
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	2.69	0.45
1:6:1279:C:H2'	1:6:1280:C:O4'	2.16	0.45
36:1:3112:G:O2'	36:1:3122:A:N6	2.48	0.45
1:2:66:U:O4	8:S6:134:GLY:N	2.43	0.45
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	2.22	0.45
1:2:1250:U:O2'	1:2:1251:U:OP1	2.33	0.45
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.98	0.45
36:1:1664:G:OP1	55:M9:100:ARG:NH2	2.49	0.45
35:SM:61:ILE:HD12	35:SM:62:ARG:H	1.82	0.45
46:L9:27:VAL:HG11	46:L9:79:ILE:HA	1.98	0.45
5:S3:58:VAL:O	5:S3:66:ILE:HG12	2.16	0.45
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	1.98	0.45
9:S7:124:LYS:HD2	9:S7:124:LYS:HA	3.21	0.45
56:N0:139:TYR:HD2	56:N0:140:VAL:HG23	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.77	0.45
23:D1:78:LEU:HA	23:D1:78:LEU:HD13	4.56	0.45
36:5:1299:U:O2'	36:5:1300:G:H5'	2.17	0.45
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.64	0.45
39:L2:49:VAL:O	39:L2:58:LEU:N	2.50	0.45
45:L8:123:GLN:O	36:5:120:G:N2	88.44	0.45
40:L3:117:ARG:CZ	40:L3:175:LYS:HD2	4.76	0.45
31:D9:45:GLU:OE2	1:6:1433:G:N1	407.96	0.45
15:C3:21:ASN:HB2	15:C3:22:ALA:H	1.62	0.45
41:L4:91:GLY:H	41:L4:98:ARG:H	4.65	0.45
1:2:739:G:O6	86:2:2099:OHX:N4	2.49	0.45
41:L4:25:VAL:HG22	41:L4:262:TRP:HB2	1.98	0.45
54:M8:170:ARG:NH1	64:N8:56:VAL:O	2.48	0.45
64:N8:55:LYS:O	64:N8:56:VAL:HG13	2.17	0.45
8:S6:131:LYS:O	60:N4:82:ILE:HA	2.16	0.45
6:S4:163:ASP:O	6:S4:165:ALA:N	2.46	0.45
36:1:668:G:H2'	36:1:669:U:C6	2.52	0.45
47:M0:56:GLU:HG3	47:M0:162:GLN:H	4.25	0.45
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.76	0.45
20:C8:86:LEU:HD12	20:C8:99:HIS:ND1	2.31	0.45
4:S2:111:VAL:O	4:S2:137:ILE:HG22	3.95	0.45
1:6:1207:C:N3	1:6:1456:C:H5	2.15	0.45
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	3.89	0.45
20:C8:61:LEU:H	20:C8:61:LEU:HD23	1.80	0.45
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.65	0.45
6:S4:101:LEU:HB3	6:S4:109:PHE:CD1	3.07	0.45
36:5:2101:C:HO2'	36:5:2102:U:P	2.38	0.45
36:5:423:A:C6	36:5:424:G:C6	3.04	0.45
1:6:386:G:H2'	1:6:387:A:C8	2.52	0.45
47:M0:24:ARG:H	47:M0:24:ARG:HG3	3.40	0.45
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	1.98	0.45
1:6:1324:G:N7	86:6:2104:OHX:N2	2.65	0.45
36:1:1683:A:H2'	36:1:1684:U:O4'	2.16	0.45
7:S5:98:MET:HB2	7:S5:105:GLY:O	2.17	0.45
36:1:501:A:H2'	36:1:502:U:C6	2.52	0.45
41:L4:361:HIS:CG	41:L4:362:ASP:N	3.05	0.45
1:6:995:A:H2'	1:6:996:U:C6	2.52	0.45
36:1:1887:A:OP1	86:1:4081:OHX:N3	2.49	0.45
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.16	0.45
36:5:3269:U:H5'	36:5:3271:G:O4'	2.17	0.45
19:C7:101:ASN:HA	19:C7:120:SER:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:152:ILE:HB	10:S8:153:GLU:H	1.54	0.45
1:6:1450:U:OP2	86:6:2129:OHX:N4	2.50	0.45
64:N8:93:SER:O	64:N8:93:SER:OG	2.32	0.45
21:C9:126:GLU:H	21:C9:126:GLU:CD	2.20	0.45
64:N8:59:ARG:HB2	64:N8:59:ARG:HE	1.59	0.45
68:O2:6:HIS:HA	68:O2:7:PRO:HD2	2.42	0.45
11:S9:17:ARG:HD2	11:S9:20:GLU:OE1	2.16	0.45
36:1:108:A:O2'	36:1:109:A:H2'	2.17	0.45
1:2:1340:U:N3	1:2:1378:U:H4'	2.32	0.45
53:M7:69:ARG:NH2	36:5:2991:A:N3	195.01	0.45
1:6:561:G:C2	1:6:585:A:N3	2.84	0.45
47:M0:98:ARG:HA	47:M0:121:LYS:O	2.53	0.45
3:S1:103:MET:HG2	3:S1:104:ASP:N	2.32	0.45
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.98	0.45
36:5:3121:U:H1'	36:5:3122:A:H5''	1.98	0.45
36:1:2878:G:H5''	40:L3:5:LYS:HE2	1.99	0.45
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.97	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	3.95	0.45
33:E1:135:HIS:ND1	1:6:1250:U:O2	432.44	0.45
7:S5:89:ILE:HA	7:S5:92:ARG:HB2	2.49	0.45
53:M7:120:ASN:OD1	36:5:412:G:H1'	143.88	0.45
34:SR:123:ILE:HG21	34:SR:169:ILE:HG21	2.26	0.45
3:S1:22:ASP:O	3:S1:24:PHE:N	2.50	0.45
1:2:1567:U:H2'	1:2:1568:C:H5'	1.98	0.45
86:2:2034:OHX:N4	86:2:2149:OHX:N1	2.64	0.45
16:C4:29:HIS:CB	16:C4:41:ARG:HG3	2.45	0.45
63:N7:61:LYS:HE3	36:5:2573:G:OP1	181.70	0.45
24:D2:30:SER:HB2	24:D2:61:ILE:CG1	2.46	0.45
2:S0:84:ARG:NE	2:S0:201:LEU:O	2.71	0.45
40:L3:247:ARG:NH2	36:5:2341:A:OP2	219.06	0.45
40:L3:230:THR:HB	40:L3:247:ARG:NH1	3.63	0.45
37:3:13:A:O4'	37:3:112:G:C8	2.70	0.45
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.64	0.45
5:S3:142:LEU:HD13	5:S3:182:LEU:HD21	1.99	0.45
55:M9:23:TRP:CZ3	55:M9:25:ASP:HB2	2.52	0.45
1:6:37:U:O2'	1:6:770:A:N1	2.40	0.45
3:S1:117:TRP:HE1	3:S1:152:ARG:NH1	2.15	0.45
67:O1:44:MET:HB2	67:O1:44:MET:HE2	4.50	0.45
57:N1:129:LYS:NZ	36:5:1097:G:OP1	243.99	0.45
36:1:1482:A:H4'	36:1:1483:G:OP2	2.16	0.45
15:C3:46:THR:HG23	15:C3:49:GLN:NE2	3.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:27:ARG:NH1	62:N6:75:ARG:O	2.90	0.45
1:6:805:U:H2'	1:6:806:A:H5'	1.99	0.45
69:O3:52:VAL:HG21	69:O3:99:ARG:NH1	2.31	0.45
86:1:4192:OHX:N6	86:O1:201:OHX:N3	2.64	0.45
23:D1:16:LYS:HE3	23:D1:16:LYS:HB2	1.78	0.45
70:O4:66:SER:HB3	70:O4:69:HIS:CE1	2.51	0.45
68:O2:71:HIS:CE1	68:O2:118:LYS:HD3	3.10	0.45
1:6:789:A:C2	1:6:790:U:H1'	2.51	0.45
38:8:121:U:O2'	38:8:122:U:H5'	2.16	0.45
36:5:626:U:O4	86:5:3986:OHX:N4	2.49	0.45
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.97	0.45
2:S0:123:VAL:HG11	2:S0:133:ILE:HD11	2.46	0.45
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.47	0.45
1:2:150:U:OP1	26:D4:123:LYS:HE2	2.16	0.45
1:6:1643:U:O2	1:6:1780:G:N2	2.49	0.45
31:D9:22:ARG:HG2	31:D9:38:ILE:HG12	3.71	0.45
25:D3:31:LYS:HE2	25:D3:31:LYS:HB2	1.58	0.45
56:N0:48:LEU:HA	56:N0:48:LEU:HD23	1.68	0.45
1:6:63:G:C6	1:6:64:U:C5	3.04	0.45
50:M4:47:ASP:OD1	50:M4:78:THR:HA	2.29	0.45
42:L5:68:THR:HB	42:L5:71:GLY:O	2.28	0.45
86:2:2093:OHX:N5	86:2:2134:OHX:N6	2.65	0.45
1:2:1695:G:H21	1:2:1706:C:H41	1.63	0.45
18:C6:113:ASP:HA	18:C6:116:LEU:HD23	1.97	0.45
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.51	0.45
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.50	0.45
8:S6:68:LEU:O	8:S6:69:LEU:HB2	3.16	0.45
1:2:1561:U:O2'	1:2:1562:G:H5'	2.15	0.45
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.80	0.45
36:1:1493:G:HO2'	36:1:1494:U:H5	1.64	0.45
1:6:192:U:O2'	1:6:193:U:O5'	2.31	0.45
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.99	0.45
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	3.98	0.45
15:C3:62:GLN:HB2	15:C3:65:VAL:HG22	3.50	0.45
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.47	0.45
1:6:163:G:H8	1:6:163:G:O5'	2.00	0.45
49:M3:123:ILE:HD12	49:M3:125:VAL:HG23	1.99	0.45
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.72	0.45
6:S4:191:ARG:HH11	6:S4:245:LYS:HD3	1.82	0.45
36:1:2948:C:H2'	36:1:2949:U:C6	2.52	0.45
46:L9:168:ARG:HD2	36:5:2894:C:OP1	306.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1227:A:H4'	1:6:1228:G:H5'	1.98	0.45
38:8:47:C:H1'	38:8:61:A:H2'	1.98	0.45
64:N8:44:ASN:O	64:N8:47:LYS:O	2.64	0.45
8:S6:31:ARG:N	8:S6:34:GLN:OE1	3.84	0.45
40:L3:55:THR:HB	40:L3:360:ASP:HB2	2.50	0.45
36:1:3074:G:OP1	86:1:4033:OHX:N1	2.50	0.45
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.31	0.45
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.15	0.45
42:L5:111:GLN:HA	42:L5:116:ASP:CG	2.37	0.45
36:1:1229:G:H1	36:1:1280:C:H42	1.63	0.45
71:O5:20:GLN:HE21	71:O5:20:GLN:HB3	4.42	0.45
36:1:210:U:C2	36:1:230:U:H4'	2.52	0.45
58:N2:33:TYR:O	58:N2:37:LEU:HB2	4.04	0.45
36:1:2733:A:H2'	36:1:2734:A:O4'	2.17	0.45
76:Q0:120:GLN:O	76:Q0:121:LEU:HD23	2.72	0.45
29:D7:56:CYS:O	29:D7:58:SER:N	3.52	0.45
86:6:2060:OHX:N2	86:6:2149:OHX:N4	2.65	0.45
21:C9:34:VAL:O	21:C9:34:VAL:HG13	2.70	0.45
24:D2:107:SER:O	1:6:802:G:O2'	372.45	0.45
1:6:1142:A:H2'	1:6:1143:A:C8	2.52	0.45
1:2:1006:C:O2	86:2:2148:OHX:N2	2.50	0.45
6:S4:87:MET:O	6:S4:122:LYS:HE3	2.17	0.45
29:D7:23:THR:OG1	29:D7:24:LEU:N	2.50	0.45
86:1:4192:OHX:N4	86:O1:201:OHX:N3	2.64	0.45
40:L3:263:SER:O	36:5:2882:U:H4'	232.53	0.45
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.14	0.45
1:6:1263:G:H2'	1:6:1264:G:O4'	2.16	0.45
1:2:934:C:N3	1:2:1077:C:H4'	2.32	0.45
1:2:710:U:H2'	1:2:711:U:H5'	1.99	0.45
36:1:2883:U:H2'	36:1:2884:C:H6	1.80	0.45
1:2:720:G:H2'	1:2:720:G:N3	2.32	0.45
15:C3:2:GLY:O	1:6:866:G:H5''	330.58	0.45
36:1:398:A:H5'	53:M7:3:ARG:HD2	1.98	0.45
54:M8:51:ALA:O	54:M8:54:LEU:HB2	2.17	0.45
17:C5:51:SER:OG	17:C5:53:PRO:HD2	6.73	0.45
1:2:1511:U:H2'	1:2:1512:G:C8	2.52	0.45
36:5:2299:A:OP2	86:5:3962:OHX:N1	2.50	0.45
36:5:307:A:OP2	86:5:4253:OHX:N1	2.50	0.45
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	1.99	0.45
36:5:72:C:C2	36:5:74:G:H1'	2.51	0.45
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:172:HIS:CD2	43:L6:173:MET:HG2	2.63	0.45
1:2:1524:A:H2'	1:2:1525:A:C8	2.52	0.45
36:1:558:U:H6	36:1:558:U:OP1	2.00	0.45
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	1.91	0.45
36:1:1127:G:O5'	36:1:1127:G:H8	2.00	0.45
36:5:3351:U:H3'	36:5:3351:U:O2	2.16	0.45
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.17	0.45
6:S4:206:ASP:N	6:S4:206:ASP:OD1	2.50	0.45
1:2:271:A:H5'	1:2:272:U:OP2	2.17	0.45
1:6:209:U:H2'	1:6:210:A:C8	2.52	0.45
40:L3:155:ALA:O	40:L3:188:ILE:HG21	2.36	0.45
44:L7:92:ILE:HA	44:L7:92:ILE:HD12	1.54	0.45
1:2:542:A:HO2'	1:2:543:C:C5'	2.19	0.45
20:C8:90:ASN:ND2	20:C8:90:ASN:O	4.07	0.45
86:5:3980:OHX:N6	86:5:4201:OHX:N5	2.64	0.45
36:1:2442:G:H22	36:1:2505:U:H3	1.65	0.45
8:S6:98:ARG:HD2	8:S6:106:LEU:HD21	1.99	0.45
3:S1:83:LYS:HE2	3:S1:106:THR:HG22	5.21	0.45
36:1:1493:G:C6	75:O9:2:ALA:HB2	2.52	0.45
58:N2:50:LEU:H	58:N2:50:LEU:HG	2.19	0.45
65:N9:2:ALA:HB2	36:5:2818:U:C5'	211.22	0.45
42:L5:56:THR:C	42:L5:58:LYS:N	2.70	0.45
36:5:1624:G:H2'	36:5:1625:A:O4'	2.17	0.45
49:M3:54:LEU:HD13	49:M3:75:PHE:CE2	2.52	0.45
1:6:1699:G:N2	1:6:1701:A:H3'	2.28	0.45
62:N6:50:ILE:HD13	62:N6:51:ARG:H	2.42	0.45
33:E1:90:LYS:HD3	33:E1:93:HIS:CE1	10.09	0.45
48:M1:165:GLN:HG3	48:M1:166:LYS:N	3.10	0.45
36:1:2528:G:O3'	45:L8:248:LYS:NZ	2.50	0.45
1:2:1469:A:H2'	1:2:1470:C:C6	2.52	0.45
6:S4:184:THR:C	6:S4:189:LEU:HD13	3.02	0.45
57:N1:9:SER:OG	57:N1:10:ARG:N	2.84	0.45
26:D4:63:GLN:N	26:D4:68:LYS:O	2.65	0.45
12:C0:50:THR:HG22	12:C0:55:VAL:O	2.97	0.45
79:Q3:51:ALA:HA	36:5:1795:U:C4	208.63	0.45
36:5:64:G:H2'	36:5:65:A:C8	2.52	0.45
36:5:1541:G:OP2	86:5:4095:OHX:N4	2.50	0.45
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	2.55	0.45
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	3.44	0.45
35:SM:117:LEU:HD21	35:SM:121:LYS:HD2	1.99	0.45
48:M1:79:ILE:HA	48:M1:82:ARG:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:92:A:C5	37:3:93:C:H1'	2.51	0.45
1:2:823:G:H2'	1:2:824:G:C8	2.52	0.45
1:6:1183:A:C6	1:6:1184:A:N1	2.85	0.45
42:L5:256:THR:HG23	37:7:119:U:OP1	293.66	0.45
1:2:1524:A:C6	1:2:1525:A:C6	3.05	0.45
54:M8:107:THR:HG21	36:5:676:G:H3'	136.27	0.45
1:2:802:G:C6	1:2:803:A:C2	3.05	0.45
36:1:2343:C:H2'	36:1:2344:U:H6	1.81	0.45
36:1:792:G:H2'	36:1:793:C:C6	2.52	0.45
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	3.24	0.45
60:N4:45:ASN:HA	60:N4:46:PRO:HD3	1.82	0.45
75:O9:4:GLN:NE2	36:5:1833:G:H21	126.98	0.45
23:D1:25:LYS:HE2	23:D1:27:ASP:OD1	5.37	0.45
12:C0:5:LYS:HG3	12:C0:6:GLU:N	2.31	0.45
1:2:1096:C:H2'	1:2:1096:C:O2	2.15	0.45
2:S0:87:LEU:HD13	2:S0:87:LEU:HA	2.56	0.45
41:L4:179:LEU:HD13	41:L4:183:LYS:HG3	2.52	0.45
51:M5:154:PRO:HA	51:M5:157:LYS:HD2	1.98	0.45
64:N8:16:SER:HA	36:5:942:U:N3	170.08	0.45
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.30	0.45
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.17	0.45
40:L3:346:THR:O	40:L3:351:LEU:HD12	2.79	0.45
40:L3:347:SER:HB2	40:L3:350:ALA:HB2	3.01	0.45
63:N7:29:HIS:HB2	63:N7:40:HIS:O	3.50	0.45
42:L5:41:LYS:HA	42:L5:41:LYS:HD3	3.85	0.45
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.19	0.45
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	2.54	0.45
24:D2:24:GLN:NE2	29:D7:5:GLN:H	2.15	0.45
23:D1:71:ARG:NE	29:D7:4:VAL:HG11	2.91	0.45
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.48	0.45
1:2:1682:U:O2'	1:2:1683:C:H5'	2.17	0.45
1:6:1595:U:H3'	1:6:1596:C:O2	2.17	0.45
51:M5:43:THR:OG1	51:M5:131:GLU:OE2	3.04	0.45
28:D6:10:ARG:CB	28:D6:34:LYS:HA	2.64	0.45
33:E1:97:LYS:HG3	33:E1:97:LYS:O	2.45	0.45
39:L2:130:SER:O	36:5:2179:C:C2	220.44	0.45
34:SR:37:SER:OG	34:SR:39:ASP:OD2	2.29	0.45
36:5:621:A:H2'	36:5:622:A:C8	2.52	0.45
33:E1:90:LYS:H	33:E1:90:LYS:HG3	5.07	0.45
40:L3:77:THR:HG22	40:L3:326:GLY:O	3.68	0.45
23:D1:2:GLU:HB3	23:D1:3:ASN:H	1.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:107:ARG:NH1	1:6:741:C:O2'	345.42	0.45
9:S7:107:ARG:HH22	1:6:741:C:H2'	346.08	0.45
36:5:2821:C:N3	88:5:4256:ZBA:H36A	2.31	0.45
41:L4:282:SER:HB3	54:M8:126:GLN:HE21	1.81	0.45
50:M4:38:ILE:HD13	56:N0:148:LEU:HD13	5.45	0.45
16:C4:92:LYS:HE2	16:C4:92:LYS:HB2	3.24	0.45
10:S8:78:ILE:HA	10:S8:104:ILE:HG22	3.18	0.45
45:L8:121:SER:O	45:L8:123:GLN:N	2.98	0.45
55:M9:175:GLN:O	55:M9:179:GLU:N	2.50	0.45
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.99	0.45
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.17	0.45
15:C3:73:ARG:HD3	1:6:859:A:C5	331.63	0.45
36:5:1265:U:C2	36:5:1277:C:H1'	2.52	0.45
36:5:114:A:H2'	36:5:115:A:O4'	2.17	0.45
13:C1:46:LYS:HG3	13:C1:50:GLU:OE1	6.47	0.45
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.81	0.45
74:O8:43:PHE:O	74:O8:53:THR:HA	2.50	0.45
6:S4:176:ASP:N	6:S4:176:ASP:OD2	2.90	0.45
46:L9:68:LEU:HD23	46:L9:68:LEU:HA	1.82	0.45
6:S4:246:LEU:H	6:S4:246:LEU:HD12	1.81	0.45
61:N5:80:ASN:OD1	61:N5:126:LEU:HB2	2.16	0.45
17:C5:102:PHE:CZ	1:6:1241:G:H5''	385.45	0.45
1:6:1695:G:N2	1:6:1706:C:H41	2.14	0.45
7:S5:93:LEU:HD23	7:S5:172:ILE:HG23	1.99	0.45
63:N7:127:ASN:O	63:N7:129:TRP:N	2.50	0.45
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.32	0.45
49:M3:92:THR:HB	71:O5:114:ARG:HG2	1.99	0.45
40:L3:199:PHE:O	40:L3:200:GLU:HB2	2.16	0.45
64:N8:76:ASP:HB2	64:N8:115:LYS:O	5.58	0.45
1:2:526:A:C6	1:2:527:A:C5	3.04	0.45
1:2:610:G:N3	1:2:610:G:H2'	2.32	0.45
1:2:1617:U:H1'	30:D8:22:ARG:O	2.17	0.45
1:2:553:G:C6	1:2:554:C:N3	2.85	0.45
36:1:2812:C:H2'	36:1:2813:A:H8	1.80	0.45
67:O1:23:VAL:H	67:O1:28:ARG:HH12	2.98	0.45
62:N6:107:THR:O	62:N6:108:LYS:HG2	2.16	0.45
1:2:755:A:HO2'	1:2:756:A:P	2.40	0.45
1:6:1592:A:H2'	1:6:1593:A:H8	1.80	0.45
36:1:80:G:H2'	36:1:81:C:C6	2.52	0.45
77:Q1:24:SER:O	77:Q1:24:SER:OG	2.34	0.45
43:L6:90:LYS:HB2	43:L6:90:LYS:HE3	3.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.66	0.45
36:5:1584:U:H2'	36:5:1585:C:H6	1.82	0.45
39:L2:44:ILE:HD12	39:L2:44:ILE:H	1.81	0.45
36:1:3102:G:O6	86:1:3891:OHX:N3	2.50	0.45
1:6:1685:G:H1	1:6:1716:C:N4	2.15	0.45
1:6:626:U:H2'	1:6:627:C:H6	1.82	0.45
10:S8:89:GLU:O	10:S8:93:THR:HG23	2.17	0.45
36:1:174:C:H2'	36:1:175:C:C6	2.51	0.45
43:L6:73:GLY:HA3	36:5:3267:A:C4	261.27	0.45
39:L2:245:LEU:HD12	39:L2:246:LEU:N	2.32	0.45
36:1:815:G:C2	36:1:926:A:C2	3.04	0.45
36:5:1226:G:H2'	36:5:1227:C:C6	2.52	0.45
63:N7:35:SER:HG	63:N7:36:HIS:HD1	1.61	0.45
11:S9:140:ILE:HG12	11:S9:140:ILE:H	2.63	0.45
50:M4:113:THR:HG22	50:M4:114:ASP:N	3.03	0.45
36:1:2207:A:O2'	36:1:2208:A:H5'	2.17	0.45
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.50	0.45
42:L5:43:LYS:HE2	36:5:1077:U:O3'	229.43	0.45
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.59	0.45
24:D2:57:ARG:NH2	29:D7:26:GLN:OE1	3.44	0.45
41:L4:99:MET:HE1	36:5:1429:G:C5	123.25	0.45
44:L7:102:VAL:HG13	44:L7:126:LEU:HD13	3.49	0.45
62:N6:51:ARG:HG3	62:N6:52:ARG:N	2.31	0.45
1:6:1202:A:H2'	1:6:1203:A:H5''	1.98	0.45
54:M8:65:SER:HB2	54:M8:93:ILE:HG23	1.99	0.45
71:O5:34:GLN:O	71:O5:38:ARG:HB2	2.89	0.45
12:C0:33:GLU:N	12:C0:33:GLU:OE1	2.39	0.45
15:C3:140:LYS:HD3	36:1:847:A:OP1	2.17	0.45
36:5:240:U:O2'	36:5:241:G:H8	1.98	0.45
71:O5:119:LYS:HA	71:O5:119:LYS:HE2	1.98	0.45
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.99	0.45
36:5:2948:C:O5'	36:5:2948:C:H6	2.00	0.45
36:5:125:C:H2'	36:5:126:U:C6	2.52	0.45
53:M7:112:LEU:HD12	53:M7:112:LEU:HA	1.64	0.45
14:C2:26:ASP:O	14:C2:30:VAL:HG23	2.17	0.45
36:1:3045:G:H2'	36:1:3046:A:O4'	2.17	0.45
40:L3:173:GLN:NE2	36:5:3313:U:OP1	210.68	0.45
18:C6:36:ILE:HD11	18:C6:48:VAL:HG22	2.39	0.45
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.98	0.45
36:1:3268:A:H5''	43:L6:46:ARG:NH2	2.31	0.45
57:N1:130:ARG:HH11	36:5:1098:A:P	253.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.17	0.45
40:L3:227:GLU:OE2	40:L3:270:ARG:NE	2.36	0.45
1:6:1220:C:H6	1:6:1220:C:OP2	2.00	0.45
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.52	0.45
36:5:2148:U:H2'	36:5:2149:A:C4	2.52	0.45
36:1:1273:A:HO2'	36:1:1274:A:P	2.39	0.45
1:6:224:C:H2'	1:6:225:A:H8	1.82	0.45
11:S9:54:ARG:HB3	11:S9:54:ARG:HE	2.25	0.45
1:6:175:G:H22	1:6:266:A:P	2.40	0.45
6:S4:187:ARG:HH22	1:6:753:A:H62	375.38	0.45
36:5:1796:G:H5''	36:5:1797:A:OP1	2.16	0.45
36:1:650:C:O5'	36:1:650:C:H6	2.00	0.45
1:2:1497:U:C4	1:2:1511:U:O2	2.70	0.45
36:1:62:A:H2'	36:1:63:A:H8	1.80	0.45
36:5:252:U:H4'	36:5:253:A:C5'	2.47	0.45
40:L3:152:LYS:HE3	40:L3:192:VAL:HG22	1.99	0.45
64:N8:85:ASP:OD1	64:N8:86:LYS:N	2.47	0.45
28:D6:71:LEU:HD13	28:D6:73:TYR:OH	4.78	0.45
39:L2:219:ILE:HG22	39:L2:219:ILE:O	2.33	0.45
1:2:1157:A:C8	1:2:1157:A:H3'	2.52	0.45
45:L8:187:GLY:HA2	45:L8:195:SER:HB2	2.28	0.45
42:L5:49:TYR:CE1	42:L5:75:LEU:HD12	2.83	0.45
36:1:6:A:C2	38:4:154:C:C2	3.05	0.45
1:6:1758:U:O2'	36:5:2262:A:N1	2.34	0.45
1:6:647:G:H1	1:6:687:G:H22	1.64	0.44
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.16	0.44
40:L3:347:SER:O	40:L3:349:LYS:N	2.79	0.44
18:C6:18:ALA:HB3	18:C6:80:ALA:O	2.16	0.44
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.42	0.44
1:6:542:A:H1'	1:6:543:C:P	2.57	0.44
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.83	0.44
40:L3:266:ARG:NH1	36:5:2988:C:O2	211.11	0.44
66:O0:16:LEU:HA	66:O0:16:LEU:HD22	1.84	0.44
2:S0:163:ASN:C	2:S0:165:ARG:H	2.21	0.44
23:D1:71:ARG:HB2	23:D1:83:TRP:CE2	2.51	0.44
22:D0:61:LYS:HE2	22:D0:61:LYS:HB3	1.77	0.44
36:5:3245:A:H2	36:5:3246:G:N1	2.15	0.44
27:D5:43:ASP:C	27:D5:45:GLU:H	2.75	0.44
7:S5:90:ILE:HA	7:S5:90:ILE:HD13	2.21	0.44
62:N6:45:ILE:HD11	62:N6:122:LYS:HE2	4.21	0.44
62:N6:103:LYS:HZ2	36:5:221:A:H61	79.28	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.52	0.44
47:M0:205:SER:HB3	47:M0:208:ASN:HD21	3.41	0.44
6:S4:242:LYS:HE3	6:S4:242:LYS:H	1.83	0.44
49:M3:3:ILE:HG12	64:N8:34:MET:CE	2.55	0.44
34:SR:291:SER:OG	34:SR:304:GLY:HA3	2.17	0.44
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.18	0.44
36:5:1064:A:N6	36:5:1096:U:N3	2.65	0.44
71:O5:50:SER:O	71:O5:54:VAL:HG23	2.72	0.44
4:S2:52:THR:HB	4:S2:54:GLU:HG2	1.99	0.44
1:6:1003:A:H1'	1:6:1005:A:N7	2.33	0.44
56:N0:8:GLN:HG3	56:N0:26:ARG:HE	3.77	0.44
9:S7:35:LYS:NZ	9:S7:39:ARG:HD2	2.32	0.44
47:M0:56:GLU:HG3	47:M0:161:GLY:HA3	5.07	0.44
36:5:1204:A:C2'	36:5:1205:A:H5'	2.45	0.44
46:L9:90:MET:HB3	46:L9:90:MET:HE2	2.27	0.44
1:2:1181:U:H2'	1:2:1182:U:O4'	2.17	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:CB	2.47	0.44
3:S1:148:ASN:ND2	3:S1:148:ASN:H	4.37	0.44
1:2:1139:A:H5''	1:2:1140:G:OP2	2.17	0.44
49:M3:113:VAL:HG12	49:M3:117:LYS:HD2	3.06	0.44
36:5:3279:A:N6	36:5:3280:U:O4	2.50	0.44
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.82	0.44
36:5:1604:G:H3'	36:5:1604:G:N3	2.32	0.44
69:O3:26:ASN:O	69:O3:84:THR:HG22	2.17	0.44
36:5:637:C:HO2'	36:5:638:C:H6	1.63	0.44
36:5:277:G:H2'	36:5:278:U:C6	2.52	0.44
36:1:434:U:O4	86:1:4159:OHX:N5	2.49	0.44
36:5:1011:A:H2'	36:5:1012:G:C8	2.51	0.44
32:E0:20:LYS:HD2	32:E0:21:VAL:H	4.69	0.44
36:1:2577:C:H2'	36:1:2578:U:O4'	2.16	0.44
38:4:142:C:H2'	38:4:143:U:C6	2.51	0.44
79:Q3:12:GLY:HA3	36:5:836:A:O2'	234.41	0.44
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.18	0.44
36:5:155:G:C2	36:5:266:A:C6	3.05	0.44
36:1:3099:C:H4'	40:L3:343:TYR:CE1	2.53	0.44
18:C6:113:ASP:OD2	18:C6:116:LEU:N	2.51	0.44
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	3.63	0.44
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.52	0.44
1:6:561:G:C2	1:6:585:A:C2	3.05	0.44
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.17	0.44
36:5:2234:G:N7	86:5:3964:OHX:N1	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.86	0.44
1:2:795:U:H5	1:2:796:A:C4	2.35	0.44
57:N1:68:THR:HG22	57:N1:71:SER:N	2.32	0.44
51:M5:37:HIS:HE1	51:M5:63:ARG:HD2	1.81	0.44
1:2:159:U:O2'	8:S6:87:ARG:NH1	2.50	0.44
62:N6:52:ARG:HG2	62:N6:53:ASP:N	2.54	0.44
1:6:837:G:H2'	1:6:838:G:H8	1.80	0.44
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.56	0.44
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.52	0.44
40:L3:250:ALA:HB1	36:5:2947:G:N3	219.07	0.44
36:1:283:G:OP2	36:1:285:A:H4'	2.16	0.44
50:M4:22:LEU:HD13	50:M4:32:LEU:CD2	2.56	0.44
14:C2:89:ILE:HD13	14:C2:90:LYS:O	4.64	0.44
19:C7:86:PRO:HB2	19:C7:88:VAL:H	5.91	0.44
41:L4:77:VAL:HG11	41:L4:84:ARG:HG3	1.99	0.44
63:N7:12:VAL:HG22	63:N7:22:LYS:HG2	1.99	0.44
63:N7:114:VAL:HA	63:N7:117:ALA:HB3	1.99	0.44
56:N0:152:LEU:HA	56:N0:152:LEU:HD23	2.10	0.44
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.22	0.44
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.66	0.44
36:1:1414:G:N7	86:1:4116:OHX:N2	2.65	0.44
49:M3:128:ARG:CZ	71:O5:112:PRO:HG2	2.46	0.44
36:1:1464:G:OP2	86:1:4192:OHX:N5	2.51	0.44
86:5:4059:OHX:N5	86:5:4202:OHX:N6	2.65	0.44
1:6:1031:U:H4'	1:6:1032:G:OP2	2.17	0.44
32:E0:31:LYS:HE3	1:6:545:A:OP1	419.63	0.44
34:SR:245:PHE:O	34:SR:294:TRP:CD1	2.71	0.44
77:Q1:22:ALA:C	77:Q1:24:SER:H	2.20	0.44
41:L4:104:LYS:HD2	41:L4:106:TRP:CH2	2.63	0.44
1:6:1685:G:H1	1:6:1716:C:H42	1.65	0.44
13:C1:142:VAL:HG12	13:C1:144:ALA:H	1.82	0.44
32:E0:21:VAL:HG22	1:6:586:G:H4'	408.73	0.44
61:N5:72:ALA:O	61:N5:75:LYS:HG3	2.17	0.44
41:L4:167:ALA:HA	41:L4:170:LYS:HB2	2.96	0.44
1:2:407:A:H2'	1:2:408:C:C6	2.52	0.44
36:1:427:C:H2'	36:1:428:A:O4'	2.17	0.44
36:5:731:U:H2'	36:5:732:C:H6	1.82	0.44
12:C0:30:ALA:O	12:C0:38:LYS:HA	2.17	0.44
69:O3:20:LYS:HE3	36:5:1178:G:O6	242.30	0.44
65:N9:22:LYS:HG2	65:N9:22:LYS:H	1.52	0.44
42:L5:185:PHE:CD2	42:L5:185:PHE:N	4.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:830:A:H2'	36:1:831:G:O4'	2.18	0.44
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.50	0.44
36:5:1554:U:H4'	36:5:1555:U:OP1	2.17	0.44
52:M6:36:VAL:HG21	52:M6:117:ARG:HD2	1.98	0.44
36:5:1613:A:H2'	36:5:1614:C:C6	2.52	0.44
47:M0:91:VAL:HG21	47:M0:129:VAL:HG22	2.78	0.44
20:C8:72:ILE:HG12	20:C8:79:TYR:CE2	4.18	0.44
1:2:1033:C:H2'	1:2:1034:C:C6	2.52	0.44
3:S1:59:ASP:O	3:S1:62:LYS:NZ	2.51	0.44
47:M0:61:SER:OG	47:M0:63:GLU:HG2	2.17	0.44
1:6:1041:G:H2'	1:6:1042:G:C8	2.52	0.44
21:C9:88:VAL:HG13	1:6:1601:G:C2	362.84	0.44
20:C8:27:LYS:HE2	20:C8:27:LYS:HB3	4.02	0.44
28:D6:87:ARG:HD2	1:6:1797:A:N6	344.14	0.44
34:SR:211:ILE:HG22	34:SR:223:TRP:CD1	2.52	0.44
42:L5:219:PHE:CE1	42:L5:227:LEU:HD11	2.53	0.44
2:S0:124:THR:HA	2:S0:146:LEU:HB2	1.98	0.44
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.48	0.44
36:1:2615:G:H2'	36:1:2616:C:C6	2.52	0.44
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.46	0.44
15:C3:115:LEU:HD22	15:C3:115:LEU:O	2.43	0.44
9:S7:67:LEU:HD23	9:S7:67:LEU:HA	1.74	0.44
44:L7:144:ILE:O	44:L7:148:VAL:HG23	2.17	0.44
14:C2:63:VAL:HG13	14:C2:119:SER:O	2.17	0.44
39:L2:54:ARG:NH2	36:5:2176:U:OP1	194.66	0.44
50:M4:23:ILE:HA	50:M4:63:VAL:HG23	1.99	0.44
1:6:906:A:H2'	1:6:907:A:H8	1.79	0.44
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.71	0.44
78:Q2:8:ARG:HG2	78:Q2:72:LEU:HD22	3.62	0.44
45:L8:190:VAL:HG12	45:L8:190:VAL:O	3.75	0.44
15:C3:12:SER:HB3	1:6:956:C:OP2	336.36	0.44
21:C9:135:ILE:O	21:C9:139:THR:OG1	2.66	0.44
18:C6:10:PHE:CE2	1:6:1379:C:H5'	433.14	0.44
49:M3:93:ILE:HG22	49:M3:94:GLY:N	4.10	0.44
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.46	0.44
46:L9:92:TYR:CD1	46:L9:92:TYR:N	2.82	0.44
1:6:352:A:H8	1:6:352:A:OP2	2.00	0.44
2:S0:126:PRO:HG3	2:S0:151:SER:HB3	3.09	0.44
41:L4:156:LEU:HD22	41:L4:215:ILE:HD13	1.98	0.44
34:SR:201:THR:CB	34:SR:242:SER:HA	2.47	0.44
39:L2:225:ILE:O	39:L2:238:ILE:O	4.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:398:G:OP2	10:S8:47:ARG:NH1	2.50	0.44
9:S7:139:ARG:HD3	9:S7:139:ARG:HA	2.17	0.44
1:2:81:G:C6	1:2:82:U:N3	2.86	0.44
18:C6:87:LYS:HB3	18:C6:87:LYS:HE2	1.77	0.44
1:2:132:U:H1'	1:2:133:U:OP2	2.17	0.44
46:L9:106:LYS:HD2	46:L9:106:LYS:HA	3.74	0.44
75:O9:7:PHE:CE2	38:8:113:U:C4	98.65	0.44
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.47	0.44
1:2:980:G:N7	86:2:2048:OHX:N5	2.65	0.44
14:C2:129:GLU:HA	14:C2:133:LEU:HD22	2.00	0.44
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.66	0.44
36:5:3216:G:H3'	36:5:3219:G:N3	2.32	0.44
1:2:200:A:H2'	1:2:201:G:C8	2.52	0.44
1:2:1767:G:OP1	1:2:1770:U:H4'	2.16	0.44
15:C3:136:PRO:O	15:C3:138:ASN:N	2.67	0.44
10:S8:73:SER:O	10:S8:74:LYS:HD2	3.47	0.44
25:D3:22:ASN:OD1	1:6:1108:G:N1	334.76	0.44
47:M0:92:HIS:HB2	47:M0:94:PHE:CE2	2.53	0.44
38:4:85:G:H3'	38:4:85:G:C8	2.52	0.44
1:2:532:U:H6	1:2:532:U:H5''	1.82	0.44
36:5:688:G:H8	36:5:688:G:O5'	2.00	0.44
36:5:400:G:H4'	36:5:401:U:O5'	2.17	0.44
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.17	0.44
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.38	0.44
5:S3:90:ARG:HB3	5:S3:91:VAL:H	3.00	0.44
36:5:501:A:H2'	36:5:502:U:C6	2.52	0.44
36:1:916:G:H1	39:L2:207:VAL:HG11	1.82	0.44
18:C6:50:GLU:O	18:C6:54:LEU:HD23	2.81	0.44
36:1:3244:A:C6	52:M6:105:PHE:HE1	2.35	0.44
20:C8:72:ILE:HA	20:C8:79:TYR:CE2	3.72	0.44
1:2:1034:C:OP1	15:C3:9:LYS:NZ	2.51	0.44
3:S1:174:LYS:O	3:S1:177:GLN:NE2	2.50	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.48	0.44
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.31	0.44
28:D6:75:VAL:O	28:D6:79:ILE:N	2.46	0.44
46:L9:171:ASP:HA	36:5:2899:C:C5	323.36	0.44
13:C1:125:VAL:HB	13:C1:137:PHE:HB3	2.98	0.44
34:SR:34:LEU:HD12	34:SR:43:ILE:O	3.30	0.44
26:D4:21:LYS:HD3	1:6:782:U:C6	421.65	0.44
86:5:4004:OHX:N6	86:5:4093:OHX:N2	2.65	0.44
36:1:1632:A:OP1	63:N7:69:LYS:NZ	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:90:LYS:HG3	44:L7:91:GLY:N	2.31	0.44
70:O4:99:LYS:HG2	70:O4:103:LYS:HZ1	1.83	0.44
1:2:27:U:OP1	86:2:2087:OHX:N6	2.50	0.44
1:2:25:C:H4'	1:2:25:C:OP2	2.17	0.44
51:M5:194:GLN:H	51:M5:194:GLN:HG2	1.52	0.44
21:C9:113:ILE:C	21:C9:125:SER:HB3	2.37	0.44
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.41	0.44
1:6:831:U:H2'	1:6:831:U:OP2	2.18	0.44
52:M6:106:GLU:H	52:M6:106:GLU:HG2	1.82	0.44
8:S6:175:ILE:HG12	8:S6:175:ILE:H	1.55	0.44
1:2:1530:C:H2'	1:2:1531:G:O4'	2.18	0.44
52:M6:24:ALA:HA	52:M6:27:LEU:HD12	1.98	0.44
11:S9:171:ARG:HH12	11:S9:174:ARG:HG3	1.82	0.44
36:5:603:A:H2'	36:5:604:G:O4'	2.17	0.44
46:L9:45:PHE:CD1	46:L9:55:VAL:HG12	2.52	0.44
43:L6:47:PHE:HE2	43:L6:77:ARG:NE	2.46	0.44
47:M0:10:ARG:HG2	47:M0:11:TYR:CE1	2.74	0.44
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.17	0.44
75:O9:41:ARG:NH1	36:5:1517:G:OP1	97.48	0.44
36:1:2357:A:H2'	36:1:2358:A:H8	1.82	0.44
12:C0:70:GLU:O	12:C0:73:VAL:HG22	4.85	0.44
1:6:103:A:H4'	1:6:104:A:O5'	2.18	0.44
58:N2:93:ILE:HA	58:N2:106:ALA:O	2.54	0.44
48:M1:115:LYS:HE3	48:M1:115:LYS:HB2	1.77	0.44
86:1:3966:OHX:N3	86:1:4151:OHX:N1	2.64	0.44
46:L9:91:ARG:HD2	46:L9:91:ARG:HA	2.02	0.44
51:M5:147:ARG:NH2	36:5:113:C:OP1	77.77	0.44
36:5:3027:A:H2'	36:5:3028:G:O4'	2.17	0.44
2:S0:87:LEU:HD12	2:S0:87:LEU:HA	1.78	0.44
36:1:1757:A:H2'	36:1:1758:G:C8	2.53	0.44
36:5:2294:U:O2	36:5:2296:A:H8	2.00	0.44
53:M7:22:LEU:HB3	53:M7:90:PHE:CE2	2.52	0.44
59:N3:39:VAL:HG21	59:N3:51:ALA:C	2.36	0.44
36:5:2681:U:O2'	36:5:2682:C:H5'	2.16	0.44
1:6:1275:A:OP2	1:6:1275:A:H8	2.01	0.44
36:1:2383:C:H2'	36:1:2384:A:H5'	1.99	0.44
36:1:2291:A:H2'	36:1:2292:U:C6	2.53	0.44
1:2:1079:U:H2'	1:2:1080:U:C6	2.52	0.44
1:6:848:C:H2'	1:6:849:C:C6	2.52	0.44
22:D0:108:ILE:HD12	22:D0:108:ILE:HA	3.87	0.44
18:C6:12:LYS:HE3	18:C6:12:LYS:HB3	1.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1220:U:O2	36:5:1222:G:N1	2.50	0.44
46:L9:17:THR:HG21	50:M4:3:THR:O	2.17	0.44
1:6:1771:U:H2'	1:6:1772:C:H6	1.83	0.44
36:1:1262:G:C6	36:1:1278:A:N6	2.86	0.44
1:2:687:G:H5'	24:D2:119:LYS:CD	2.46	0.44
1:2:477:A:N7	1:2:538:A:N1	2.66	0.44
6:S4:77:ARG:HA	6:S4:77:ARG:HD3	4.01	0.44
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.97	0.44
1:2:795:U:OP2	86:2:2060:OHX:N5	2.50	0.44
28:D6:26:CYS:HB2	28:D6:28:LYS:N	4.65	0.44
70:O4:59:PRO:HD3	36:5:1654:A:O2'	168.20	0.44
20:C8:57:ARG:NH1	1:6:1534:G:OP2	341.74	0.44
15:C3:17:PRO:HD3	29:D7:28:PRO:HG3	3.44	0.44
36:1:1664:G:C6	36:1:1786:G:C6	3.05	0.44
1:6:1253:U:H2'	1:6:1254:U:O4'	2.17	0.44
13:C1:80:MET:HB3	13:C1:80:MET:HE2	1.40	0.44
36:1:1244:A:N6	36:1:1271:A:OP2	2.51	0.44
54:M8:67:ILE:CG2	54:M8:81:VAL:HG11	3.46	0.44
36:1:1927:G:O5'	79:Q3:5:THR:HG22	2.17	0.44
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.81	0.44
36:1:2548:C:P	39:L2:93:LYS:NZ	2.91	0.44
36:5:3299:A:N6	36:5:3315:G:H1	2.10	0.44
52:M6:72:HIS:HD2	36:5:3008:A:OP1	247.38	0.44
23:D1:4:ASP:HB3	23:D1:5:LYS:HZ2	5.15	0.44
36:1:3174:A:H2'	36:1:3175:U:C5'	2.46	0.44
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.31	0.44
57:N1:14:MET:HE1	57:N1:55:LYS:HB2	2.89	0.44
51:M5:75:VAL:HA	51:M5:76:PRO:HD3	1.80	0.44
51:M5:73:ARG:NH1	51:M5:92:LEU:HD21	2.33	0.44
49:M3:35:ARG:NH1	36:5:685:G:P	82.95	0.44
7:S5:143:ARG:HB2	7:S5:218:GLU:OE2	2.98	0.44
45:L8:239:GLY:O	45:L8:241:LYS:N	3.22	0.44
34:SR:216:LYS:HD2	34:SR:239:GLU:OE2	3.57	0.44
48:M1:148:VAL:HG12	48:M1:153:LYS:HG2	1.99	0.44
47:M0:47:PRO:HD2	47:M0:141:LYS:HA	1.99	0.44
36:5:1750:A:H1'	36:5:1752:A:N7	2.33	0.44
36:5:1348:U:O4'	36:5:1355:A:N6	2.51	0.44
36:1:1553:U:H4'	36:1:1554:U:H5'	1.99	0.44
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.44	0.44
1:2:840:U:O2'	1:2:841:U:H5''	2.17	0.44
19:C7:7:LYS:N	1:6:1316:G:OP1	411.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	3.06	0.44
86:5:4059:OHX:N5	86:5:4202:OHX:N2	2.66	0.44
1:2:1392:U:H2'	1:2:1393:C:C6	2.53	0.44
68:O2:11:LYS:O	68:O2:13:HIS:N	3.16	0.44
57:N1:102:ARG:O	57:N1:106:LEU:HD22	2.18	0.44
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.55	0.44
31:D9:31:ILE:HB	31:D9:38:ILE:O	2.18	0.44
39:L2:44:ILE:HD13	39:L2:46:LYS:CD	2.48	0.44
28:D6:73:TYR:CE2	28:D6:82:ARG:HD2	2.53	0.44
1:6:1309:C:O2'	1:6:1401:A:N1	2.35	0.44
69:O3:70:LYS:HG3	69:O3:72:THR:HG22	1.99	0.44
36:5:1364:C:O2'	36:5:1365:G:H5'	2.17	0.44
36:5:2951:G:O2'	36:5:2952:G:H5'	2.18	0.44
36:1:2850:G:O6	86:1:4069:OHX:N6	2.51	0.44
36:5:2107:A:H2	36:5:3344:A:N3	2.16	0.44
36:1:2564:G:C6	36:1:2565:U:C4	3.06	0.44
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.17	0.44
3:S1:67:GLU:OE2	3:S1:85:LYS:HE2	2.18	0.44
36:5:770:G:N7	86:5:4098:OHX:N6	2.64	0.44
36:5:2610:G:H2'	36:5:2611:U:O4'	2.17	0.44
1:2:1636:C:C2	1:2:1638:G:C5	3.06	0.44
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.99	0.44
11:S9:28:LEU:HD23	11:S9:28:LEU:HA	2.23	0.44
1:6:129:U:O2	86:6:2059:OHX:N2	2.51	0.44
1:2:213:A:OP2	86:2:2118:OHX:N2	2.50	0.44
36:1:2821:C:N3	88:1:4206:ZBA:H36A	2.33	0.44
1:2:446:A:N6	1:2:461:G:H21	2.15	0.44
36:5:1500:G:H2'	36:5:1501:U:O4'	2.18	0.44
1:2:1586:A:H1'	1:2:1611:A:N6	2.32	0.44
21:C9:116:ILE:HD12	21:C9:122:ARG:HG3	6.15	0.44
8:S6:22:HIS:CE1	8:S6:25:ARG:NH2	4.31	0.44
36:5:3362:A:C2	36:5:3363:U:C2	3.06	0.44
4:S2:56:ILE:HA	4:S2:61:LEU:HD12	1.98	0.44
1:2:706:A:C6	1:2:734:A:N6	2.86	0.44
3:S1:135:LEU:CD2	3:S1:217:LEU:HD12	7.16	0.44
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.50	0.44
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.18	0.44
23:D1:74:GLN:HE22	23:D1:83:TRP:H	1.64	0.44
1:6:93:A:C6	1:6:398:G:C6	3.05	0.44
11:S9:163:PRO:C	11:S9:165:GLY:H	2.21	0.44
46:L9:7:GLU:CD	46:L9:54:LYS:HD2	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:930:A:H5''	1:6:931:C:OP2	2.17	0.44
42:L5:8:LYS:NZ	37:7:16:U:OP1	312.54	0.44
86:2:2034:OHX:N6	86:2:2149:OHX:N2	2.66	0.44
54:M8:93:ILE:H	54:M8:93:ILE:HG13	2.55	0.44
2:S0:112:THR:HG23	2:S0:115:PHE:HB2	2.29	0.44
2:S0:110:TYR:HA	2:S0:115:PHE:CE1	2.93	0.44
36:5:2896:A:H8	36:5:2896:A:H5'	1.83	0.44
54:M8:147:ARG:O	54:M8:150:VAL:HG22	4.69	0.44
73:O7:64:MET:O	73:O7:68:LYS:HB2	2.17	0.44
36:1:2544:U:H2'	36:1:2545:C:C6	2.52	0.44
18:C6:14:LYS:HB3	18:C6:15:SER:H	1.50	0.44
36:1:1495:U:C5	36:1:1835:A:N1	2.81	0.44
6:S4:151:ASP:HA	6:S4:152:PRO:HD3	2.31	0.44
36:1:1364:C:H5''	54:M8:3:ILE:CD1	2.48	0.44
36:1:290:G:H2'	36:1:291:C:H6	1.82	0.44
1:2:1477:G:H1	1:2:1530:C:H42	1.66	0.44
74:O8:78:LEU:HA	74:O8:78:LEU:HD12	3.00	0.44
1:2:1787:C:OP2	16:C4:132:ARG:HB3	2.18	0.44
40:L3:227:GLU:HG3	40:L3:270:ARG:CB	4.47	0.44
36:1:2206:G:H2'	36:1:2206:G:N3	2.32	0.44
67:O1:74:ARG:HD2	67:O1:94:GLU:OE1	2.17	0.44
2:S0:120:LEU:HD11	2:S0:144:ILE:HG12	3.56	0.44
16:C4:24:ASN:ND2	1:6:902:G:OP2	287.16	0.44
36:1:2665:U:C2	36:1:2706:G:N2	2.86	0.44
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.91	0.44
36:5:503:C:H2'	36:5:504:A:C8	2.52	0.44
19:C7:20:TYR:CD2	19:C7:38:ILE:HD12	3.88	0.44
36:1:1231:A:OP2	86:1:4079:OHX:N6	2.51	0.44
48:M1:38:GLU:O	48:M1:40:LEU:N	3.13	0.44
47:M0:24:ARG:HH11	47:M0:24:ARG:HB2	1.83	0.44
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.53	0.44
36:1:1488:G:H5''	36:1:1838:G:O6	2.18	0.44
34:SR:10:ARG:NH1	34:SR:51:ASP:OD1	5.28	0.44
36:5:1432:C:O2'	36:5:1433:A:H3'	2.18	0.44
36:1:959:C:H5'	36:1:960:U:O5'	2.18	0.44
34:SR:63:GLY:HA2	1:6:1341:A:OP1	451.21	0.44
36:5:2767:U:H2'	36:5:2768:U:C6	2.52	0.44
1:6:206:A:H1'	1:6:262:U:C2	2.52	0.44
1:2:484:C:H42	1:2:503:G:H22	1.64	0.44
36:1:2376:G:O2'	36:1:2377:G:H5'	2.18	0.44
36:5:50:U:O2'	36:5:51:A:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2379:U:H2'	36:1:2380:U:C6	2.52	0.44
52:M6:175:THR:HA	52:M6:178:VAL:HB	1.99	0.44
7:S5:49:GLU:HG3	7:S5:49:GLU:H	1.53	0.44
78:Q2:104:LEU:HA	78:Q2:104:LEU:HD12	1.85	0.44
6:S4:208:VAL:HG12	6:S4:210:ILE:HD11	2.00	0.44
1:6:492:A:H2'	1:6:493:U:H5''	1.99	0.44
1:2:67:A:O3'	1:2:68:A:H3'	2.18	0.44
36:5:1308:A:OP2	36:5:1308:A:H8	1.99	0.44
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.33	0.44
52:M6:105:PHE:CD1	52:M6:109:PRO:HG3	2.79	0.44
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	2.00	0.44
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	4.06	0.44
40:L3:4:ARG:HG3	40:L3:4:ARG:NH1	3.72	0.44
11:S9:163:PRO:HG2	11:S9:164:PHE:CD2	3.09	0.44
14:C2:66:VAL:HB	14:C2:67:THR:H	1.43	0.44
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.37	0.44
56:N0:77:VAL:HG21	56:N0:94:ILE:HD12	2.88	0.44
34:SR:106:HIS:CD2	34:SR:110:VAL:HG22	2.72	0.44
15:C3:17:PRO:HD2	15:C3:62:GLN:NE2	2.33	0.44
36:1:2273:G:O2'	36:1:2274:U:P	2.76	0.44
39:L2:132:ASN:HD22	39:L2:151:PRO:HB3	1.83	0.44
24:D2:23:ARG:O	24:D2:65:LEU:N	2.47	0.44
1:2:916:U:H3	16:C4:41:ARG:HH22	1.65	0.44
36:5:3198:U:H4'	36:5:3199:G:OP2	2.18	0.44
55:M9:130:ASN:HD22	55:M9:130:ASN:C	4.84	0.44
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	2.07	0.44
49:M3:178:LYS:HD3	49:M3:179:PHE:CE2	2.91	0.44
2:S0:148:ASP:HB2	2:S0:164:ASN:OD1	2.17	0.44
10:S8:6:ASP:HB2	10:S8:8:ARG:HG3	6.34	0.44
1:6:219:A:N6	1:6:843:U:C2	2.86	0.44
1:2:208:U:H2'	1:2:209:U:H6	1.82	0.44
36:1:1547:G:P	51:M5:105:ARG:NH1	2.91	0.44
5:S3:215:GLU:OE2	5:S3:215:GLU:N	2.68	0.44
36:5:973:A:H2'	36:5:974:G:C1'	2.48	0.44
46:L9:41:ILE:HG23	46:L9:41:ILE:HD12	1.82	0.44
36:1:2746:A:C5	42:L5:148:ILE:HD12	2.53	0.44
1:2:763:G:OP2	11:S9:79:ARG:NH1	2.50	0.44
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.41	0.44
63:N7:18:TYR:O	63:N7:21:LYS:HB2	2.18	0.44
36:1:541:U:H2'	36:1:542:G:H8	1.81	0.44
46:L9:89:LYS:NZ	46:L9:191:LEU:HD11	17.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:81:CYS:O	70:O4:83:ASN:N	2.54	0.44
1:6:223:U:H2'	1:6:224:C:C6	2.53	0.44
36:1:2213:A:N1	36:1:2429:G:H1'	2.32	0.44
11:S9:36:LEU:O	32:E0:33:ARG:HG3	2.17	0.44
9:S7:137:GLY:HA3	9:S7:153:LEU:HD12	3.14	0.44
6:S4:136:VAL:HG11	6:S4:148:ARG:CZ	2.47	0.44
42:L5:145:PHE:CD1	36:5:2748:A:H4'	247.25	0.44
68:O2:83:GLU:OE2	68:O2:111:ARG:NE	2.45	0.44
86:1:3970:OHX:N5	86:1:4150:OHX:N2	2.65	0.44
11:S9:55:ALA:HA	11:S9:58:ASP:HB2	2.19	0.44
44:L7:98:LYS:HG2	44:L7:129:LEU:HD22	1.99	0.44
1:2:625:C:H2'	1:2:626:U:C6	2.52	0.44
36:5:1461:A:H2'	36:5:1462:A:O4'	2.18	0.44
36:5:2772:C:H1'	36:5:2773:C:OP2	2.18	0.44
41:L4:187:LEU:HA	41:L4:187:LEU:HD23	1.70	0.44
58:N2:75:TYR:CE1	58:N2:79:LEU:HD11	2.91	0.44
37:7:106:U:H2'	37:7:107:C:O4'	2.17	0.44
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.33	0.44
1:2:735:C:O2'	1:2:736:C:H5''	2.17	0.44
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.17	0.44
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.18	0.44
1:2:189:C:C2'	1:2:190:C:H5'	2.47	0.44
43:L6:40:LEU:CD1	43:L6:54:TYR:HB2	3.19	0.44
43:L6:54:TYR:OH	43:L6:57:HIS:HB2	2.56	0.44
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.88	0.44
37:3:49:G:O6	42:L5:58:LYS:NZ	2.49	0.44
13:C1:80:MET:HB2	13:C1:80:MET:HE2	2.37	0.44
34:SR:16:HIS:ND1	34:SR:37:SER:HB3	2.93	0.44
42:L5:219:PHE:CE1	42:L5:227:LEU:HD21	4.13	0.44
2:S0:110:TYR:HA	2:S0:115:PHE:CD2	2.53	0.44
36:1:199:A:H4'	36:1:200:C:OP1	2.18	0.44
39:L2:64:ARG:HH22	45:L8:39:ALA:N	2.14	0.44
9:S7:44:LYS:HE2	9:S7:95:GLU:OE2	3.03	0.44
1:6:1167:G:H1	1:6:1578:U:H3	1.65	0.44
36:1:999:G:O2'	36:1:1000:C:H5'	2.17	0.44
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	4.66	0.44
55:M9:163:ARG:O	55:M9:167:ARG:HG2	3.83	0.44
50:M4:72:LEU:HD23	50:M4:73:PRO:HD2	3.20	0.44
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.79	0.44
1:6:1766:A:H5''	86:6:2127:OHX:N3	2.33	0.44
34:SR:95:ALA:O	34:SR:96:THR:HB	3.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:114:VAL:HG22	40:L3:163:HIS:NE2	2.32	0.44
41:L4:264:SER:OG	41:L4:267:VAL:HG12	4.32	0.44
61:N5:131:ASP:O	61:N5:134:ASP:HB2	2.18	0.44
1:6:547:U:H2'	1:6:548:G:O4'	2.18	0.44
34:SR:109:ASP:O	34:SR:126:SER:OG	2.23	0.44
48:M1:51:ARG:CG	48:M1:51:ARG:HH11	4.64	0.44
1:6:199:G:O2'	1:6:200:A:H8	2.00	0.44
35:SM:76:VAL:HG13	1:6:1460:A:C5	328.77	0.44
1:2:393:C:OP2	10:S8:2:GLY:N	2.51	0.44
37:3:93:C:O2'	37:3:94:C:H5'	2.17	0.44
36:1:1408:G:P	68:O2:33:ARG:HH22	2.41	0.44
1:6:350:U:O2	1:6:970:A:H2	2.01	0.44
45:L8:130:TYR:CE1	45:L8:202:GLU:HB3	2.52	0.44
11:S9:92:LYS:HA	11:S9:92:LYS:HE3	1.99	0.44
42:L5:279:LYS:HD2	42:L5:282:ARG:NH1	4.58	0.44
18:C6:140:LYS:HG3	18:C6:141:SER:N	3.42	0.44
36:1:748:U:H2'	36:1:749:C:H6	1.82	0.44
36:5:508:U:H2'	36:5:509:U:C6	2.52	0.44
36:5:3269:U:H4'	36:5:3270:U:O5'	2.18	0.44
1:2:1340:U:C2	1:2:1378:U:H4'	2.53	0.44
1:2:199:G:O2'	1:2:200:A:H8	2.01	0.44
1:2:621:A:N3	1:2:1107:G:H1'	2.33	0.44
36:1:128:G:H2'	36:1:129:U:O4'	2.17	0.44
1:6:108:A:OP2	86:6:2091:OHX:N4	2.51	0.44
1:2:71:A:H2'	1:2:72:A:O4'	2.18	0.44
15:C3:129:TYR:HB3	15:C3:135:LEU:HG	2.93	0.44
1:2:1168:U:H2'	1:2:1169:G:H5'	2.00	0.44
1:6:613:G:H4'	1:6:614:C:OP1	2.17	0.44
16:C4:89:THR:O	16:C4:128:LYS:HE2	2.83	0.44
1:6:249:U:H3'	1:6:250:C:C5'	2.48	0.44
1:2:1691:A:N6	1:2:1692:G:O6	2.51	0.44
36:1:1225:A:C2	36:1:3116:G:C4	3.06	0.44
1:2:1610:G:P	18:C6:75:VAL:HG21	2.58	0.44
36:1:523:A:O2'	56:N0:69:PRO:HD2	2.18	0.44
9:S7:173:TYR:O	9:S7:177:THR:HG23	3.07	0.44
74:O8:45:VAL:HG23	74:O8:52:TYR:HB2	1.99	0.44
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.30	0.44
1:2:704:C:H4'	1:2:705:U:OP1	2.18	0.44
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.33	0.44
1:6:1471:A:C2	1:6:1474:G:N3	2.86	0.44
36:5:2180:G:H2'	36:5:2181:C:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2179:C:H4'	36:5:2180:G:OP2	2.18	0.44
13:C1:131:ILE:HA	13:C1:131:ILE:HD13	1.67	0.44
41:L4:141:ARG:O	41:L4:144:LYS:NZ	8.56	0.44
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	2.24	0.44
35:SM:52:PRO:O	35:SM:54:PRO:HD3	5.27	0.44
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.99	0.44
9:S7:64:VAL:O	9:S7:67:LEU:HB2	2.17	0.44
70:O4:46:ASP:HB3	70:O4:84:CYS:SG	2.57	0.44
54:M8:141:ARG:HD3	36:5:743:C:O2	175.04	0.44
4:S2:88:LYS:CG	4:S2:89:GLN:H	3.26	0.44
36:5:2971:A:H5''	36:5:2972:G:C5'	2.48	0.44
60:N4:6:ASP:OD1	60:N4:32:GLN:N	3.05	0.44
36:5:3045:G:H2'	36:5:3046:A:O4'	2.18	0.44
18:C6:38:LEU:O	18:C6:40:GLU:N	2.49	0.44
41:L4:84:ARG:HH11	41:L4:84:ARG:HD2	1.64	0.44
1:6:1432:U:H4'	1:6:1433:G:H5''	2.00	0.44
38:4:103:G:C6	38:4:105:A:C6	3.06	0.44
1:2:1192:C:H5'	18:C6:142:TYR:HA	1.98	0.44
34:SR:127:ARG:HG2	34:SR:150:TRP:CG	2.53	0.44
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.83	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:HG2	1.99	0.44
44:L7:77:VAL:CG1	56:N0:59:VAL:HA	2.48	0.44
36:1:874:U:H3	36:1:2978:U:H5''	1.83	0.44
1:2:1230:A:H2'	1:2:1258:U:C5	2.53	0.44
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	2.00	0.44
43:L6:102:ASN:O	43:L6:105:TYR:HB3	2.33	0.44
51:M5:16:SER:O	51:M5:20:ARG:HG3	2.17	0.44
36:5:978:G:N2	36:5:1104:G:C4	2.86	0.44
63:N7:116:LYS:O	63:N7:120:GLU:HG3	2.18	0.44
1:6:1623:C:H2'	1:6:1624:C:H6	1.83	0.44
25:D3:87:VAL:HA	25:D3:88:PRO:HD3	1.72	0.44
36:1:730:C:H2'	36:1:731:U:H6	1.83	0.44
1:2:1153:G:H2'	1:2:1154:G:O4'	2.18	0.44
12:C0:54:TYR:N	12:C0:54:TYR:CD1	2.86	0.44
73:O7:84:SER:HB2	73:O7:85:LYS:H	1.58	0.44
2:S0:12:GLU:HG2	2:S0:12:GLU:H	2.73	0.44
75:O9:12:LYS:HE2	75:O9:12:LYS:HB3	1.74	0.44
40:L3:287:LYS:HD2	40:L3:287:LYS:HA	4.65	0.44
56:N0:117:ARG:H	56:N0:117:ARG:HG2	3.43	0.44
1:6:820:U:H6	1:6:820:U:H2'	1.51	0.44
68:O2:102:ALA:HB2	68:O2:125:ARG:HG2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:274:G:H3'	1:2:275:C:C6	2.53	0.44
36:5:3006:A:H2'	36:5:3007:U:O4'	2.18	0.44
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.71	0.44
36:1:863:C:H2'	36:1:864:G:O4'	2.17	0.43
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.53	0.43
36:5:916:G:H5'	36:5:917:A:OP1	2.16	0.43
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.60	0.43
10:S8:172:ARG:O	10:S8:175:GLN:HB2	2.19	0.43
34:SR:82:SER:O	34:SR:89:LEU:HA	2.38	0.43
57:N1:68:THR:HG22	57:N1:71:SER:O	2.70	0.43
3:S1:178:GLY:O	3:S1:179:SER:HB2	4.34	0.43
3:S1:180:THR:HB	3:S1:182:ALA:H	1.82	0.43
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	2.00	0.43
36:5:2436:U:H3	36:5:2511:A:N6	2.16	0.43
27:D5:38:HIS:HA	27:D5:70:LYS:HD3	8.12	0.43
1:2:1744:A:N6	1:2:1745:G:C6	2.86	0.43
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.53	0.43
45:L8:166:LEU:HA	45:L8:166:LEU:HD23	1.85	0.43
42:L5:57:ASN:C	42:L5:58:LYS:HD3	2.38	0.43
17:C5:67:ALA:O	17:C5:69:GLU:N	2.50	0.43
48:M1:166:LYS:C	48:M1:168:ASP:H	2.97	0.43
36:1:608:A:O3'	41:L4:326:ARG:NH1	2.51	0.43
86:8:215:OHX:N2	86:8:223:OHX:N4	2.66	0.43
18:C6:67:VAL:HG21	18:C6:85:ILE:CD1	4.02	0.43
1:2:1487:A:H2'	1:2:1488:G:H8	1.81	0.43
14:C2:63:VAL:HB	14:C2:64:SER:H	1.93	0.43
36:1:1795:U:C2	79:Q3:51:ALA:HB2	2.53	0.43
64:N8:47:LYS:C	64:N8:49:HIS:H	2.21	0.43
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.57	0.43
56:N0:68:HIS:HB2	56:N0:73:LYS:NZ	2.33	0.43
57:N1:129:LYS:HB2	36:5:1098:A:O5'	252.84	0.43
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.89	0.43
36:5:275:U:H2'	36:5:276:U:C6	2.53	0.43
41:L4:22:LEU:HD23	41:L4:22:LEU:HA	1.99	0.43
6:S4:196:VAL:HG12	6:S4:197:HIS:HB2	3.91	0.43
6:S4:256:ARG:HA	6:S4:259:GLN:HB3	3.90	0.43
36:1:1216:C:H6	36:1:1216:C:C5'	2.31	0.43
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.99	0.43
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.84	0.43
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.53	0.43
64:N8:74:ASN:CB	64:N8:76:ASP:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1315:U:H2'	1:6:1316:G:O4'	2.18	0.43
29:D7:59:CYS:O	29:D7:61:THR:HG22	2.18	0.43
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.32	0.43
36:5:2859:U:H4'	36:5:2860:U:O5'	2.18	0.43
56:N0:109:ASP:O	56:N0:112:ALA:N	2.51	0.43
40:L3:209:PHE:HA	40:L3:213:GLU:OE2	2.17	0.43
49:M3:140:SER:OG	49:M3:143:ALA:N	2.93	0.43
1:6:1785:U:H2'	1:6:1786:G:C8	2.53	0.43
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.53	0.43
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.65	0.43
1:2:639:U:P	9:S7:117:THR:HG1	2.39	0.43
36:1:707:U:C2'	36:1:708:G:H5''	2.48	0.43
1:2:1657:U:C2	86:2:2092:OHX:N1	2.86	0.43
47:M0:90:ARG:NH2	47:M0:134:ILE:HD12	2.33	0.43
36:1:770:G:OP1	49:M3:171:ARG:HD2	2.18	0.43
31:D9:22:ARG:HG2	31:D9:37:ASN:O	2.23	0.43
18:C6:12:LYS:NZ	1:6:1380:U:OP1	425.14	0.43
11:S9:28:LEU:O	11:S9:32:GLY:N	2.51	0.43
36:1:1488:G:O2'	70:O4:10:ARG:O	2.36	0.43
47:M0:23:ASN:HD21	47:M0:96:VAL:HG21	3.49	0.43
59:N3:126:TRP:HA	59:N3:127:PRO:HD3	1.77	0.43
54:M8:55:SER:HB2	36:5:672:A:OP2	158.14	0.43
36:1:2412:G:H2'	36:1:2413:A:C8	2.52	0.43
53:M7:65:SER:O	53:M7:66:SER:HB2	2.51	0.43
16:C4:64:ALA:O	16:C4:68:ALA:N	3.05	0.43
1:6:716:C:H2'	1:6:717:C:O4'	2.18	0.43
36:1:1455:U:H1'	67:O1:26:LYS:HE3	2.00	0.43
5:S3:43:PRO:O	5:S3:44:THR:HG22	4.77	0.43
67:O1:30:PRO:HG3	67:O1:60:TRP:CZ2	3.06	0.43
1:2:982:U:OP1	86:2:2138:OHX:N1	2.51	0.43
32:E0:56:MET:HE3	1:6:556:A:H5''	416.55	0.43
1:2:707:A:H2'	1:2:708:C:H5''	2.00	0.43
13:C1:91:LEU:HD23	13:C1:91:LEU:HA	1.74	0.43
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.82	0.43
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.64	0.43
38:8:39:G:H4'	38:8:40:A:H5'	2.00	0.43
36:1:1635:G:N1	36:1:1638:A:OP2	2.50	0.43
7:S5:69:PHE:HD2	18:C6:50:GLU:HG3	1.83	0.43
11:S9:129:ILE:HG12	11:S9:134:ILE:HG12	4.26	0.43
63:N7:73:LYS:HD3	63:N7:74:VAL:O	2.18	0.43
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:44:ARG:HH22	1:6:1280:C:H5'	400.93	0.43
36:1:2207:A:C2'	36:1:2208:A:H5'	2.48	0.43
42:L5:25:GLU:HB2	42:L5:27:LYS:HG3	3.17	0.43
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.83	0.43
1:6:1408:G:H2'	1:6:1409:G:O4'	2.17	0.43
47:M0:153:ARG:HG3	47:M0:165:ILE:CD1	5.86	0.43
1:6:57:G:O6	86:6:2090:OHX:N6	2.51	0.43
7:S5:179:ALA:HB2	7:S5:194:LEU:HD23	3.04	0.43
7:S5:42:LEU:HD21	7:S5:45:LYS:HE2	1.99	0.43
33:E1:148:TYR:HA	33:E1:148:TYR:HD1	2.06	0.43
1:6:1699:G:N2	1:6:1702:A:H5''	2.32	0.43
36:1:1532:C:O2'	36:1:1799:A:N3	2.46	0.43
70:O4:77:GLY:H	36:5:1805:C:H4'	189.40	0.43
16:C4:122:PRO:HB3	1:6:887:A:H1'	283.44	0.43
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.52	0.43
9:S7:143:LEU:C	9:S7:145:GLY:H	2.90	0.43
53:M7:13:LYS:HB3	53:M7:152:GLU:HB2	2.00	0.43
36:1:1792:C:H2'	36:1:1795:U:O4	2.18	0.43
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.18	0.43
55:M9:103:ARG:HH22	36:5:1723:A:P	226.35	0.43
29:D7:19:HIS:HB2	1:6:1071:U:O2'	356.27	0.43
40:L3:56:ILE:HG12	40:L3:356:LEU:HD22	2.00	0.43
27:D5:88:ILE:HD13	27:D5:88:ILE:HA	4.12	0.43
36:1:696:C:HO2'	36:1:697:A:H8	1.63	0.43
54:M8:165:ILE:HD12	54:M8:167:SER:O	4.43	0.43
15:C3:94:LYS:HB2	15:C3:94:LYS:HE3	1.82	0.43
6:S4:252:ARG:O	6:S4:256:ARG:HB2	2.18	0.43
5:S3:210:GLU:HA	5:S3:211:PRO:HD3	2.05	0.43
36:5:2840:C:OP1	86:5:4140:OHX:N3	2.51	0.43
1:2:1308:G:C6	1:2:1309:C:C4	3.06	0.43
40:L3:145:GLU:H	40:L3:145:GLU:HG2	1.59	0.43
69:O3:8:TYR:CD2	69:O3:99:ARG:HG2	2.75	0.43
36:5:379:C:H2'	36:5:380:U:C6	2.53	0.43
12:C0:73:VAL:O	12:C0:77:ARG:HG3	4.71	0.43
1:6:1569:A:OP2	1:6:1569:A:C8	2.71	0.43
48:M1:115:LYS:HB3	48:M1:116:TYR:H	1.58	0.43
36:1:2926:A:C2'	36:1:2927:C:H5'	2.47	0.43
49:M3:104:ARG:O	72:O6:20:MET:HB2	2.18	0.43
36:1:1114:U:H5''	64:N8:22:ILE:HD12	2.00	0.43
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.71	0.43
68:O2:19:ARG:HH22	36:5:1433:A:P	164.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.06	0.43
34:SR:52:GLN:HG2	34:SR:53:LYS:H	1.82	0.43
1:2:576:G:H4'	1:2:580:A:C4	2.52	0.43
4:S2:144:TRP:HB2	4:S2:172:ALA:O	2.17	0.43
65:N9:39:PHE:O	65:N9:43:HIS:N	2.81	0.43
36:1:2623:G:C5	36:1:2624:G:C5	3.06	0.43
11:S9:71:PHE:HE1	1:6:762:A:H4'	405.67	0.43
34:SR:237:GLN:HB2	34:SR:238:ASP:OD1	2.17	0.43
63:N7:82:PRO:HB2	66:O0:62:LEU:HD13	2.66	0.43
38:4:93:U:H2'	38:4:94:C:O4'	2.18	0.43
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.73	0.43
4:S2:148:LEU:HA	4:S2:148:LEU:HD22	1.80	0.43
36:1:297:G:N3	36:1:297:G:H2'	2.33	0.43
11:S9:89:ASP:OD2	11:S9:89:ASP:N	2.51	0.43
20:C8:108:LYS:HA	20:C8:108:LYS:HD2	1.74	0.43
1:2:346:G:H2'	1:2:346:G:N3	2.33	0.43
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.18	0.43
30:D8:8:THR:HB	30:D8:56:LEU:O	2.18	0.43
1:2:449:C:H2'	1:2:450:U:C6	2.53	0.43
43:L6:48:ARG:NH2	36:5:3276:G:O2'	239.94	0.43
36:1:911:C:H42	39:L2:3:ARG:HD3	1.82	0.43
17:C5:20:VAL:HG21	17:C5:36:LEU:CD2	2.48	0.43
66:O0:98:SER:HG	66:O0:99:ASP:H	1.64	0.43
3:S1:139:ALA:HA	3:S1:212:VAL:HA	2.31	0.43
3:S1:183:GLN:O	3:S1:187:LYS:N	2.52	0.43
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.42	0.43
36:5:24:G:H2'	36:5:25:U:O4'	2.18	0.43
42:L5:8:LYS:HD3	37:7:15:C:O2'	314.21	0.43
42:L5:115:LEU:O	42:L5:117:GLU:N	4.46	0.43
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.58	0.43
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.99	0.43
86:5:4004:OHX:N4	86:5:4093:OHX:N1	2.65	0.43
86:5:4004:OHX:N6	86:5:4093:OHX:N5	2.65	0.43
77:Q1:20:VAL:O	77:Q1:23:ARG:HB3	2.18	0.43
36:5:3298:C:H2'	36:5:3299:A:O4'	2.18	0.43
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.17	0.43
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.75	0.43
36:5:1110:U:H2'	36:5:1111:U:H6	1.83	0.43
29:D7:46:VAL:HG13	29:D7:54:VAL:HG21	3.03	0.43
1:6:1734:U:H2'	1:6:1735:U:C6	2.52	0.43
1:6:183:U:H2'	1:6:184:C:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:143:U:H2'	38:8:144:G:O4'	2.18	0.43
58:N2:55:THR:O	58:N2:65:VAL:HA	2.28	0.43
27:D5:85:LYS:CG	27:D5:86:GLU:H	2.91	0.43
46:L9:47:LYS:CB	50:M4:7:VAL:HB	2.46	0.43
51:M5:172:ARG:HD2	36:5:30:G:O5'	111.00	0.43
36:5:1192:C:H42	36:5:1301:A:HO2'	1.59	0.43
43:L6:166:LYS:N	43:L6:169:ASP:OD2	2.44	0.43
52:M6:23:VAL:O	52:M6:27:LEU:HG	2.18	0.43
15:C3:86:GLU:HG3	15:C3:87:ASP:N	2.33	0.43
11:S9:171:ARG:O	11:S9:175:ARG:HB2	2.17	0.43
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.99	0.43
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.70	0.43
36:1:191:U:H2'	36:1:192:C:C6	2.51	0.43
56:N0:103:VAL:O	56:N0:106:LEU:HB3	2.43	0.43
1:2:46:A:N6	1:2:433:C:H4'	2.33	0.43
49:M3:89:TYR:CZ	49:M3:93:ILE:HD11	2.93	0.43
42:L5:148:ILE:HG12	36:5:2746:A:C6	265.19	0.43
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.51	0.43
36:1:1213:G:H4'	56:N0:90:MET:HG2	1.99	0.43
1:6:38:C:H2'	1:6:39:A:H5'	1.99	0.43
60:N4:50:ALA:HA	60:N4:55:PHE:CG	2.73	0.43
36:1:872:U:H2'	36:1:873:C:C6	2.52	0.43
63:N7:100:THR:HA	63:N7:106:GLN:HG2	2.00	0.43
57:N1:39:ILE:HD11	57:N1:102:ARG:HD3	2.01	0.43
1:6:1371:A:H5'	1:6:1372:U:OP2	2.18	0.43
6:S4:33:ALA:O	1:6:121:U:O2'	353.46	0.43
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	2.78	0.43
36:1:1643:A:P	70:O4:66:SER:HG	2.41	0.43
1:6:789:A:H3'	1:6:790:U:H6	1.83	0.43
45:L8:195:SER:O	45:L8:197:VAL:N	2.62	0.43
36:5:1103:A:H3'	36:5:1104:G:H5'	1.99	0.43
53:M7:53:ASP:O	86:M7:207:OHX:N3	2.51	0.43
72:O6:24:PRO:HB2	72:O6:29:LYS:NZ	7.53	0.43
44:L7:202:LEU:HD13	44:L7:205:PHE:HZ	4.20	0.43
21:C9:40:SER:HB2	21:C9:96:ALA:HA	2.51	0.43
48:M1:173:ASP:HB3	48:M1:174:LYS:H	1.63	0.43
1:2:383:G:N7	86:2:2133:OHX:N4	2.65	0.43
1:6:416:A:H5'	1:6:417:A:N7	2.34	0.43
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.01	0.43
52:M6:83:ALA:O	36:5:1312:C:O2'	253.46	0.43
49:M3:17:HIS:HB3	49:M3:20:GLU:HG3	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1146:C:H4'	36:1:1331:U:C4	2.53	0.43
1:6:711:U:H3'	1:6:712:G:H8	1.82	0.43
1:2:51:A:OP2	86:2:2075:OHX:N3	2.51	0.43
36:1:2366:C:H2'	36:1:2367:A:C8	2.54	0.43
36:1:1074:U:O2'	36:1:1075:A:H2'	2.18	0.43
1:2:1335:U:H3	1:2:1416:G:H1	1.66	0.43
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.83	0.43
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.91	0.43
1:6:1674:C:H2'	1:6:1675:C:C6	2.53	0.43
36:1:1277:C:HO2'	36:1:1278:A:H8	1.61	0.43
36:5:2249:G:C8	36:5:2249:G:H3'	2.54	0.43
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.82	0.43
10:S8:54:LYS:HE2	10:S8:175:GLN:OE1	2.90	0.43
3:S1:125:VAL:HG21	3:S1:173:THR:CG2	2.47	0.43
3:S1:51:SER:OG	3:S1:57:ALA:HB3	2.18	0.43
1:2:1596:C:OP1	31:D9:16:LYS:HE2	2.18	0.43
42:L5:293:LEU:HD13	47:M0:210:ILE:HD12	2.00	0.43
10:S8:138:ASN:HD22	1:6:197:A:N6	279.96	0.43
65:N9:38:LYS:HD2	36:5:1076:C:H4'	214.72	0.43
41:L4:269:SER:C	41:L4:271:LYS:H	2.75	0.43
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.62	0.43
34:SR:266:ASP:HA	34:SR:267:PRO:HA	1.91	0.43
5:S3:70:THR:HG22	5:S3:86:LEU:HB2	2.70	0.43
2:S0:108:THR:O	2:S0:109:ASN:CB	2.86	0.43
66:O0:86:ARG:CZ	79:Q3:44:LYS:HG2	2.48	0.43
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	7.83	0.43
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.18	0.43
5:S3:133:GLY:HA2	5:S3:155:GLY:HA3	2.72	0.43
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.38	0.43
33:E1:82:LYS:HE2	1:6:1447:C:C5	381.49	0.43
36:1:2724:U:H4'	57:N1:54:HIS:CD2	2.54	0.43
3:S1:97:LEU:HD12	3:S1:98:THR:H	1.83	0.43
64:N8:75:LEU:HB3	64:N8:118:ILE:HG23	1.99	0.43
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	3.45	0.43
45:L8:101:THR:CG2	45:L8:104:GLU:H	2.31	0.43
1:2:400:A:H5''	10:S8:25:ARG:HA	1.99	0.43
1:2:1145:U:O2'	4:S2:89:GLN:O	2.11	0.43
40:L3:173:GLN:O	40:L3:175:LYS:N	2.47	0.43
16:C4:30:VAL:HG12	16:C4:39:ILE:HG13	4.65	0.43
56:N0:96:ASP:OD1	56:N0:97:VAL:HB	2.18	0.43
47:M0:45:GLU:O	47:M0:141:LYS:HE3	3.94	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2510:U:O2'	36:1:2511:A:H5''	2.18	0.43
36:5:1650:G:C2	36:5:1651:U:C2	3.06	0.43
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.68	0.43
55:M9:101:VAL:O	55:M9:104:ARG:NH1	2.51	0.43
4:S2:178:ILE:HD11	4:S2:193:VAL:O	2.18	0.43
51:M5:59:PHE:HD1	51:M5:133:ILE:HD11	1.84	0.43
36:1:2186:U:H5'	36:1:2314:U:OP2	2.18	0.43
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.33	0.43
46:L9:84:LYS:HE2	46:L9:191:LEU:HB3	2.00	0.43
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.58	0.43
36:5:1657:C:C5	36:5:1797:A:H5''	2.53	0.43
49:M3:63:VAL:HG22	36:5:72:C:H5'	113.66	0.43
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.92	0.43
1:2:803:A:H1'	9:S7:104:ARG:HE	1.83	0.43
1:2:460:A:H3'	1:2:461:G:H8	1.83	0.43
86:1:3970:OHX:N1	86:1:4150:OHX:N4	2.67	0.43
6:S4:133:LYS:O	6:S4:134:LYS:HB2	2.44	0.43
36:1:2414:G:H2'	36:1:2415:C:O4'	2.18	0.43
36:5:677:A:H4'	36:5:678:G:O5'	2.19	0.43
1:6:1224:A:C6	1:6:1225:U:C4	3.07	0.43
70:O4:97:GLU:HA	70:O4:100:ILE:HD12	4.58	0.43
1:2:570:A:HO2'	1:2:572:C:H5	1.66	0.43
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.72	0.43
36:5:2936:A:C2	36:5:2937:G:C5	3.06	0.43
64:N8:67:HIS:NE2	36:5:71:A:OP2	120.17	0.43
36:1:2786:G:N2	64:N8:58:MET:SD	2.90	0.43
1:6:814:A:C8	1:6:816:G:C8	3.07	0.43
1:2:976:G:O6	86:2:2053:OHX:N3	2.52	0.43
36:1:1252:A:H2'	36:1:1253:U:C5	2.54	0.43
20:C8:8:GLN:HB2	20:C8:9:GLY:H	1.60	0.43
43:L6:5:LYS:HA	43:L6:5:LYS:HD2	1.80	0.43
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.87	0.43
78:Q2:74:CYS:HB3	78:Q2:77:CYS:SG	2.66	0.43
86:2:2093:OHX:N1	86:2:2134:OHX:N4	2.65	0.43
36:1:912:G:O5'	36:1:912:G:H8	2.02	0.43
39:L2:207:VAL:CG2	36:5:916:G:C6	187.71	0.43
40:L3:341:SER:HB3	40:L3:343:TYR:O	3.04	0.43
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.36	0.43
18:C6:79:TYR:HA	18:C6:82:ARG:CD	2.49	0.43
52:M6:68:ARG:NH1	36:5:2988:C:P	216.55	0.43
36:5:2989:U:H2'	36:5:2990:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:12:GLN:O	66:O0:16:LEU:HG	4.54	0.43
36:5:1765:U:H2'	36:5:1766:G:O4'	2.17	0.43
39:L2:144:ASN:O	39:L2:160:SER:N	2.95	0.43
79:Q3:56:THR:HB	79:Q3:63:THR:OG1	2.43	0.43
13:C1:109:VAL:HG22	13:C1:139:VAL:HG23	2.01	0.43
79:Q3:7:LYS:HE2	79:Q3:7:LYS:HB3	1.75	0.43
16:C4:20:TYR:HE1	16:C4:86:THR:HA	1.84	0.43
72:O6:54:GLU:O	72:O6:58:ILE:HG23	2.19	0.43
72:O6:86:LYS:NZ	36:5:296:A:OP1	139.96	0.43
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	4.20	0.43
23:D1:2:GLU:HG2	23:D1:6:GLY:HA2	3.01	0.43
88:5:4256:ZBA:H45	88:5:4256:ZBA:H41A	2.01	0.43
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.82	0.43
19:C7:27:ASP:OD2	19:C7:30:THR:N	2.48	0.43
3:S1:145:LYS:HG2	3:S1:149:GLN:OE1	4.31	0.43
60:N4:13:ILE:HG12	60:N4:32:GLN:HA	2.01	0.43
47:M0:193:ASP:CG	47:M0:194:GLY:H	2.22	0.43
11:S9:99:LEU:HA	11:S9:99:LEU:HD13	1.82	0.43
67:O1:46:THR:HG21	67:O1:91:SER:CB	2.48	0.43
27:D5:88:ILE:O	27:D5:104:ALA:N	2.51	0.43
36:1:914:A:C2	39:L2:204:MET:HB3	2.54	0.43
4:S2:235:LEU:HD13	23:D1:33:GLN:NE2	2.34	0.43
40:L3:114:VAL:HG22	40:L3:163:HIS:CE1	2.65	0.43
10:S8:101:ILE:HD13	10:S8:184:LEU:HD21	4.10	0.43
48:M1:59:ILE:HD12	48:M1:65:ILE:HD11	3.46	0.43
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.53	0.43
1:6:1688:U:H3	1:6:1713:G:H1	1.65	0.43
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.11	0.43
86:6:2060:OHX:N5	86:6:2149:OHX:N6	2.66	0.43
63:N7:108:GLU:O	63:N7:112:LYS:HG3	2.42	0.43
34:SR:136:ILE:H	34:SR:136:ILE:CD1	2.31	0.43
36:5:2820:A:OP1	86:5:3975:OHX:N4	2.52	0.43
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.53	0.43
86:1:3966:OHX:N5	86:1:4151:OHX:N1	2.67	0.43
36:5:589:A:H5''	36:5:590:G:OP2	2.18	0.43
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.49	0.43
1:6:808:U:H2'	1:6:809:A:C8	2.53	0.43
36:1:1355:A:H1'	36:1:1356:U:OP2	2.18	0.43
35:SM:27:LYS:HD2	48:M1:68:HIS:CE1	4.06	0.43
29:D7:64:CYS:HB2	29:D7:71:ALA:HB1	2.00	0.43
22:D0:44:ASN:HA	22:D0:47:GLN:HB3	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1313:G:H2'	36:5:1314:C:H6	1.83	0.43
17:C5:51:SER:HB3	17:C5:52:LYS:H	3.68	0.43
1:6:312:A:H4'	1:6:313:U:H5''	2.01	0.43
1:6:692:C:H2'	1:6:693:U:O4'	2.18	0.43
36:5:897:U:H2'	36:5:898:U:C6	2.54	0.43
1:6:89:G:C6	1:6:90:C:C4	3.07	0.43
38:8:68:G:O6	86:8:225:OHX:N6	2.51	0.43
1:6:602:U:H2'	1:6:603:U:C6	2.53	0.43
1:6:1334:U:H2'	1:6:1335:U:O4'	2.19	0.43
36:1:1316:C:OP2	52:M6:133:ARG:NE	2.45	0.43
79:Q3:6:LYS:H	36:5:1927:G:P	249.73	0.43
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.99	0.43
42:L5:162:ALA:O	42:L5:165:GLY:N	2.49	0.43
54:M8:12:ARG:HA	36:5:1342:C:O3'	191.58	0.43
55:M9:124:TYR:CE2	36:5:1720:U:C4	236.22	0.43
8:S6:20:ASP:OD2	8:S6:23:ARG:HG3	5.07	0.43
59:N3:43:GLY:HA3	36:5:3041:U:O2'	265.34	0.43
22:D0:19:ILE:HG13	22:D0:19:ILE:H	1.57	0.43
77:Q1:19:LYS:HD2	77:Q1:19:LYS:HA	1.77	0.43
40:L3:40:PRO:O	40:L3:185:GLY:HA2	2.66	0.43
49:M3:46:ILE:HG23	49:M3:49:ARG:HB2	2.00	0.43
40:L3:322:ILE:HD13	40:L3:322:ILE:HA	1.86	0.43
1:6:333:A:C6	1:6:334:G:O6	2.72	0.43
1:2:1203:A:C4	1:2:1556:A:C2	3.07	0.43
1:2:159:U:O4	26:D4:116:LYS:HE2	2.19	0.43
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.34	0.43
79:Q3:11:THR:CG2	79:Q3:27:LYS:HB2	3.81	0.43
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.19	0.43
26:D4:21:LYS:N	26:D4:21:LYS:HD2	2.34	0.43
36:1:186:U:OP1	62:N6:122:LYS:HE2	2.18	0.43
44:L7:121:LYS:O	44:L7:121:LYS:HD3	2.18	0.43
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	3.03	0.43
62:N6:103:LYS:HA	62:N6:103:LYS:HD3	2.08	0.43
79:Q3:42:CYS:SG	79:Q3:44:LYS:HG3	3.70	0.43
20:C8:134:ARG:HD2	1:6:1559:A:C5	365.43	0.43
36:1:2946:A:C5'	36:1:2947:G:H5'	2.48	0.43
2:S0:66:ALA:HB1	23:D1:50:TYR:CE1	3.74	0.43
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.52	0.43
1:2:767:U:C5	11:S9:143:ILE:HG13	2.53	0.43
40:L3:362:ALA:HB2	40:L3:371:GLN:NE2	2.34	0.43
13:C1:10:GLU:HG2	1:6:327:U:O2'	271.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:900:G:H2'	36:5:901:G:C8	2.54	0.43
36:5:2111:G:H4'	36:5:2112:U:OP2	2.19	0.43
36:5:172:G:N3	36:5:172:G:H2'	2.33	0.43
1:2:1728:A:H1'	10:S8:32:GLN:HE21	1.83	0.43
2:S0:121:VAL:HB	2:S0:143:VAL:HG22	2.01	0.43
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.33	0.43
36:1:1213:G:C2	36:1:1293:U:C2	3.07	0.43
1:6:1312:A:C4	1:6:1414:U:C4	3.06	0.43
12:C0:29:GLN:NE2	12:C0:31:LYS:O	4.60	0.43
34:SR:201:THR:HG21	34:SR:243:LEU:N	2.34	0.43
1:6:104:A:N6	1:6:308:C:H5'	2.33	0.43
36:1:279:U:H2'	36:1:280:U:H6	1.83	0.43
1:6:1360:A:H3'	1:6:1361:U:H4'	2.01	0.43
46:L9:140:VAL:HG21	46:L9:143:GLU:OE1	2.19	0.43
36:5:941:G:C2'	36:5:942:U:H5'	2.48	0.43
42:L5:185:PHE:HD2	42:L5:185:PHE:N	4.82	0.43
1:2:1015:U:OP1	86:2:2048:OHX:N3	2.51	0.43
36:5:48:A:O4'	36:5:50:U:C6	2.72	0.43
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.82	0.43
76:Q0:127:LEU:HA	76:Q0:127:LEU:HD23	2.26	0.43
69:O3:57:LYS:HB2	36:5:432:G:OP1	201.37	0.43
22:D0:23:ARG:HD2	22:D0:90:TYR:CD1	2.54	0.43
1:6:1657:U:H4'	1:6:1658:G:OP2	2.17	0.43
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.81	0.43
1:2:319:U:H1'	1:2:323:A:C4	2.53	0.43
36:1:1352:A:H4'	36:1:1353:U:OP1	2.19	0.43
20:C8:66:LEU:HA	20:C8:69:ILE:CD1	2.48	0.43
36:5:3263:G:O6	86:5:4122:OHX:N2	2.52	0.43
36:5:303:G:H5''	36:5:304:G:H5''	2.00	0.43
23:D1:72:LEU:HA	23:D1:72:LEU:HD23	2.13	0.43
36:5:1944:U:H2'	36:5:1945:A:C8	2.52	0.43
36:1:1506:A:H1'	36:1:1848:G:O6	2.18	0.43
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	2.47	0.43
36:1:1638:A:H5''	36:1:1639:C:OP2	2.18	0.43
36:1:3344:A:H2	36:1:3361:G:N2	2.12	0.43
1:2:477:A:H2'	1:2:478:A:H8	1.83	0.43
1:2:1556:A:C5	1:2:1560:U:C2	3.07	0.43
54:M8:53:PHE:CD1	54:M8:53:PHE:N	2.86	0.43
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	2.00	0.43
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.26	0.43
47:M0:30:LYS:HD2	47:M0:63:GLU:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:114:VAL:HG11	1:6:930:A:H2'	310.52	0.43
36:5:2510:U:O2'	36:5:2511:A:H5''	2.19	0.43
4:S2:139:ILE:CG2	4:S2:141:ARG:HD2	2.43	0.43
1:2:1794:A:H1'	28:D6:79:ILE:HD13	2.00	0.43
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.85	0.43
34:SR:123:ILE:H	34:SR:123:ILE:HG13	1.77	0.43
15:C3:16:ILE:CD1	15:C3:17:PRO:HD2	4.23	0.43
1:2:1565:C:H2'	1:2:1566:U:O4'	2.18	0.43
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.53	0.43
26:D4:57:VAL:HB	26:D4:60:PHE:CE2	5.06	0.43
40:L3:328:ILE:HG12	40:L3:329:PRO:N	3.99	0.43
86:1:4026:OHX:N6	86:1:4039:OHX:N3	2.67	0.43
44:L7:159:GLN:O	44:L7:160:ARG:C	2.57	0.43
5:S3:133:GLY:HA3	5:S3:156:PHE:N	2.89	0.43
62:N6:89:LYS:HG3	62:N6:93:ALA:HB3	3.74	0.43
36:1:1912:U:C4	36:1:1913:A:C6	3.06	0.43
19:C7:84:TYR:C	19:C7:85:VAL:HG23	2.38	0.43
30:D8:16:LEU:HD22	30:D8:16:LEU:HA	2.91	0.43
18:C6:14:LYS:HE2	1:6:1584:G:N7	396.47	0.43
36:1:438:A:C2	36:1:620:U:H5	2.36	0.43
1:2:1281:G:C5	1:2:1282:U:C5	3.06	0.43
18:C6:39:VAL:CG1	18:C6:41:PRO:HD2	4.82	0.43
1:2:78:A:H1'	8:S6:175:ILE:HG12	2.01	0.43
1:2:12:U:O4'	1:2:1300:A:H1'	2.19	0.43
51:M5:93:LYS:HG3	36:5:289:A:C2	147.50	0.43
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.19	0.43
36:5:2093:A:H3'	36:5:2093:A:N3	2.34	0.43
21:C9:63:ARG:HD2	21:C9:67:MET:CE	2.49	0.43
63:N7:113:VAL:O	63:N7:117:ALA:N	2.40	0.43
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.19	0.43
68:O2:32:TRP:HB3	36:5:1407:A:H5'	171.44	0.43
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	1.99	0.43
36:1:3385:U:C2	36:1:3386:G:C8	3.06	0.43
36:1:3385:U:H2'	36:1:3386:G:O4'	2.18	0.43
55:M9:105:LEU:HA	55:M9:105:LEU:HD22	4.25	0.43
36:1:1295:G:P	56:N0:84:ARG:HG3	2.59	0.43
4:S2:50:ILE:HD11	4:S2:239:PRO:HB2	2.63	0.43
5:S3:209:ILE:HG22	19:C7:38:ILE:O	2.18	0.43
1:2:1657:U:C4	86:2:2092:OHX:N4	2.87	0.43
67:O1:23:VAL:HG12	67:O1:28:ARG:HG3	2.00	0.43
17:C5:34:VAL:HG11	17:C5:45:PHE:CD1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3279:A:H2'	36:5:3280:U:H5'	2.00	0.43
36:1:1856:C:H2'	36:1:1857:C:C6	2.53	0.43
36:1:2881:C:H2'	36:1:2882:U:H6	1.83	0.43
36:5:2771:U:O2'	36:5:2772:C:O4'	2.27	0.43
36:1:1353:U:O4	43:L6:12:SER:HB2	2.19	0.43
37:7:113:C:H2'	37:7:114:U:O4'	2.17	0.43
1:2:1396:U:H2'	1:2:1397:U:C6	2.54	0.43
36:5:1714:A:H2	36:5:1727:G:N3	2.16	0.43
35:SM:35:ALA:O	35:SM:37:VAL:N	2.97	0.43
36:1:951:A:H5''	36:1:1143:A:N1	2.33	0.43
36:1:993:G:N2	36:1:1056:U:O4	2.40	0.43
1:2:534:A:H5''	1:2:535:A:OP2	2.19	0.43
1:6:1350:U:H2'	1:6:1351:G:C8	2.53	0.43
72:O6:77:LEU:HD23	36:5:294:U:H4'	145.69	0.43
36:1:1611:G:H2'	36:1:1612:A:O4'	2.19	0.43
36:5:1913:A:N3	36:5:2120:A:H2'	2.33	0.43
11:S9:148:VAL:HG21	11:S9:156:ILE:HD11	2.01	0.43
27:D5:90:LYS:HB3	27:D5:90:LYS:HE2	2.01	0.43
36:5:182:U:H4'	36:5:182:U:OP1	2.18	0.43
36:5:2998:U:O4	86:5:4144:OHX:N4	2.51	0.43
36:1:1478:C:H2'	36:1:1479:U:C6	2.54	0.43
1:2:549:G:OP2	86:2:2029:OHX:N2	2.51	0.43
36:1:2961:G:C6	36:1:2962:U:C4	3.07	0.43
8:S6:32:ILE:HD11	8:S6:54:GLY:HA2	1.99	0.43
44:L7:179:LEU:HD22	44:L7:179:LEU:H	1.87	0.43
4:S2:45:VAL:HG13	4:S2:72:LEU:HD13	2.80	0.43
1:2:1595:U:H5	1:2:1596:C:C5	2.37	0.43
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	2.75	0.43
36:5:1171:G:O6	86:5:4005:OHX:N1	2.52	0.43
86:1:3952:OHX:N4	44:L7:217:PRO:HA	2.33	0.43
28:D6:30:ILE:CG2	28:D6:35:ALA:HB2	4.52	0.43
44:L7:223:PHE:HA	44:L7:227:GLY:HA2	4.69	0.43
1:6:150:U:H2'	1:6:151:G:O4'	2.19	0.43
64:N8:8:THR:HG21	36:5:662:U:OP1	149.71	0.43
41:L4:222:VAL:HA	41:L4:223:PRO:HD2	1.84	0.43
36:1:1734:G:H2'	36:1:1735:G:O4'	2.18	0.43
1:2:853:G:OP2	55:M9:173:ARG:HG3	2.19	0.43
14:C2:81:ASP:OD1	14:C2:81:ASP:N	2.52	0.43
47:M0:207:GLU:HB3	47:M0:211:ARG:NH1	6.06	0.43
86:8:215:OHX:N5	86:8:223:OHX:N3	2.67	0.43
36:1:126:U:H2'	36:1:127:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:62:ARG:HD3	23:D1:37:ALA:O	2.19	0.43
36:5:2555:G:H5'	36:5:2556:C:OP2	2.18	0.43
36:5:1144:U:H1'	36:5:1145:G:C8	2.54	0.43
36:1:1481:A:OP1	36:1:1481:A:C4'	2.67	0.43
5:S3:142:LEU:HB2	35:SM:110:TRP:CE2	2.53	0.43
36:5:1560:G:N1	36:5:1561:G:C6	2.87	0.43
24:D2:46:TYR:HB3	24:D2:69:LEU:HD13	2.01	0.43
26:D4:89:TYR:CD1	1:6:525:A:H5''	396.86	0.43
2:S0:198:MET:SD	19:C7:88:VAL:HG23	3.18	0.43
8:S6:56:ASN:HB2	8:S6:108:VAL:HG12	2.01	0.43
17:C5:97:TYR:HA	17:C5:101:ALA:O	2.53	0.43
36:5:1532:C:H2'	36:5:1533:U:C6	2.53	0.43
1:6:830:U:H2'	1:6:831:U:H5'	2.00	0.43
34:SR:144:LEU:HD13	34:SR:144:LEU:HA	1.74	0.43
67:O1:46:THR:HG23	67:O1:46:THR:O	2.18	0.43
38:4:104:A:H3'	38:4:105:A:H5''	2.00	0.43
42:L5:251:PRO:O	42:L5:253:PHE:N	2.51	0.43
40:L3:49:TYR:C	40:L3:79:VAL:HG23	3.44	0.43
21:C9:97:SER:OG	1:6:1504:G:OP1	395.15	0.43
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.80	0.43
6:S4:179:LYS:O	6:S4:194:THR:HA	2.54	0.43
1:2:304:U:H2'	1:2:305:C:C6	2.53	0.43
19:C7:15:ALA:O	19:C7:19:ARG:HG2	2.17	0.43
86:5:4037:OHX:N1	86:5:4085:OHX:N2	2.66	0.43
41:L4:304:GLN:C	41:L4:306:THR:H	2.21	0.43
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.72	0.43
50:M4:120:VAL:HG22	52:M6:197:LEU:HD13	2.01	0.43
42:L5:160:PHE:O	42:L5:180:PHE:HE1	2.01	0.43
31:D9:39:CYS:O	31:D9:43:PHE:N	2.67	0.43
86:6:2060:OHX:N1	86:6:2149:OHX:N4	2.67	0.43
45:L8:49:TYR:O	36:5:2523:A:H2'	170.89	0.43
1:2:1160:A:H2'	1:2:1161:C:H6	1.82	0.43
36:1:1389:G:N1	36:1:1419:A:N6	2.66	0.43
73:O7:3:LYS:HE3	36:5:2139:A:C4	173.17	0.43
1:6:938:G:N2	1:6:941:A:OP2	2.48	0.43
61:N5:139:ILE:HG12	61:N5:141:TYR:CD2	2.54	0.43
36:1:2902:A:OP1	46:L9:170:LYS:HE3	2.19	0.43
9:S7:151:LYS:HE3	24:D2:51:GLU:OE2	2.19	0.43
41:L4:106:TRP:HB2	51:M5:199:LEU:HD12	1.99	0.43
36:5:1657:C:C4	36:5:1797:A:H5''	2.53	0.43
8:S6:74:LYS:C	8:S6:75:LEU:HD23	2.74	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1838:G:H4'	36:1:1839:A:N3	2.34	0.43
11:S9:57:ARG:O	11:S9:58:ASP:C	3.01	0.43
8:S6:4:ASN:HB3	8:S6:110:ALA:HA	2.36	0.43
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.73	0.43
36:1:2333:C:H2'	36:1:2334:U:O4'	2.19	0.43
7:S5:38:THR:HG21	18:C6:57:LEU:HD11	5.43	0.43
19:C7:41:ILE:HG23	19:C7:46:LEU:HD12	2.01	0.43
37:3:110:G:C6	37:3:111:U:C4	3.07	0.43
36:1:1452:A:N3	36:1:2346:C:O2'	2.41	0.43
36:5:3327:G:O6	86:5:3960:OHX:N1	2.51	0.43
13:C1:29:LYS:O	13:C1:31:THR:N	2.48	0.43
64:N8:82:ILE:HD12	64:N8:82:ILE:HA	4.47	0.43
34:SR:117:LYS:H	34:SR:117:LYS:HE2	1.83	0.43
44:L7:153:PHE:N	44:L7:153:PHE:CD2	2.93	0.43
52:M6:43:ILE:HB	52:M6:136:THR:HG22	4.75	0.43
1:2:1540:G:C6	1:2:1541:G:C4	3.06	0.43
68:O2:59:SER:OG	36:5:1405:U:OP2	185.09	0.43
36:1:568:G:H2'	36:1:569:A:O4'	2.19	0.43
36:5:1670:C:H1'	36:5:1780:G:N2	2.34	0.43
36:1:2657:A:C2	36:1:2694:A:C8	3.07	0.43
40:L3:298:PHE:HD2	40:L3:357:LYS:O	2.01	0.43
25:D3:10:ASN:C	25:D3:12:ALA:H	2.21	0.43
1:2:67:A:H3'	1:2:69:G:C8	2.53	0.43
36:5:2988:C:H2'	36:5:2989:U:C6	2.54	0.43
74:O8:51:LEU:N	36:5:1613:A:OP1	136.08	0.43
36:1:779:G:P	54:M8:185:LYS:HZ1	2.41	0.43
36:1:2232:A:H2'	36:1:2233:A:O4'	2.18	0.43
1:2:1588:G:OP1	86:2:2119:OHX:N3	2.51	0.43
1:2:1608:U:O3'	18:C6:73:GLY:HA3	2.19	0.43
57:N1:92:ARG:NH1	36:5:2736:A:OP1	235.74	0.43
2:S0:52:LYS:HD3	23:D1:82:VAL:HA	2.02	0.43
59:N3:87:ARG:NE	59:N3:121:GLU:OE2	2.46	0.43
1:6:1390:U:H6	1:6:1412:G:H1'	1.84	0.43
3:S1:140:ILE:N	3:S1:211:HIS:O	2.89	0.43
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.22	0.43
28:D6:86:VAL:HG12	1:6:1795:U:OP1	343.86	0.43
37:3:27:A:P	42:L5:57:ASN:H	2.40	0.43
39:L2:189:TYR:CD1	39:L2:192:LYS:HD2	4.59	0.43
20:C8:120:ARG:HD3	35:SM:61:ILE:HG21	4.33	0.43
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	2.00	0.43
36:5:1471:U:H2'	36:5:1472:U:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:226:A:C6	1:2:227:U:N3	2.87	0.43
1:2:852:C:N4	1:2:853:G:C6	2.87	0.43
34:SR:267:PRO:HD2	34:SR:269:TYR:CE1	3.86	0.43
40:L3:77:THR:HG23	40:L3:327:CYS:HA	2.01	0.43
40:L3:53:MET:HG2	40:L3:76:VAL:O	3.56	0.43
51:M5:179:LYS:O	36:5:287:G:H5'	124.69	0.43
36:1:196:G:C2	36:1:199:A:C8	3.07	0.43
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.83	0.43
36:5:20:A:C6	36:5:21:G:C6	3.07	0.43
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.66	0.43
36:1:2828:G:H4'	47:M0:4:ARG:HD3	1.99	0.43
1:6:562:G:OP2	86:6:2156:OHX:N2	2.52	0.43
78:Q2:69:VAL:HG22	78:Q2:84:THR:HB	2.01	0.43
25:D3:93:LEU:HD12	25:D3:96:VAL:HG21	2.01	0.43
5:S3:6:SER:HA	1:6:1514:U:H1'	441.95	0.43
36:5:1284:C:O2'	36:5:1285:G:OP1	2.34	0.43
1:6:1241:G:H2'	1:6:1242:A:O4'	2.19	0.43
1:6:1026:A:O2'	1:6:1789:G:N2	2.43	0.43
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.58	0.43
64:N8:72:VAL:HG11	64:N8:113:LEU:HD11	2.01	0.43
45:L8:105:LYS:O	45:L8:109:LEU:HB2	2.82	0.43
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.78	0.43
27:D5:47:TYR:O	27:D5:50:ILE:HG22	2.18	0.43
1:6:224:C:H2'	1:6:225:A:C8	2.54	0.43
20:C8:110:ARG:CZ	20:C8:114:GLU:HG3	3.14	0.43
15:C3:136:PRO:HG2	15:C3:139:TRP:HB2	2.01	0.43
36:5:3010:U:OP2	86:5:4250:OHX:N4	2.52	0.43
67:O1:33:VAL:HG13	67:O1:51:LEU:HD12	2.35	0.43
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.91	0.43
25:D3:20:ARG:HD2	1:6:310:C:OP1	329.84	0.43
58:N2:29:ASP:OD2	58:N2:31:ALA:HB3	5.97	0.43
36:1:898:U:H2'	36:1:899:U:O4'	2.19	0.43
36:1:2284:C:H3'	36:1:2285:C:C6	2.54	0.43
41:L4:186:LYS:HE2	36:5:1389:G:O6	115.38	0.43
36:1:1072:G:C4	36:1:1087:G:C2	3.06	0.43
4:S2:183:ALA:HB1	4:S2:211:LEU:HD21	2.14	0.43
31:D9:4:GLU:OE1	31:D9:4:GLU:N	4.87	0.43
1:2:555:A:C6	1:2:556:A:N1	2.87	0.43
40:L3:37:ARG:HG2	40:L3:187:SER:N	2.37	0.43
50:M4:36:VAL:HG12	50:M4:75:GLY:HA2	2.10	0.43
36:5:1748:G:O6	86:5:4188:OHX:N4	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.67	0.43
1:2:646:C:H2'	1:2:647:G:C8	2.54	0.43
21:C9:117:SER:HB2	21:C9:123:ARG:NE	3.15	0.43
11:S9:119:ALA:HA	11:S9:124:HIS:ND1	5.10	0.43
74:O8:51:LEU:HA	74:O8:51:LEU:HD12	2.22	0.43
10:S8:46:VAL:HG13	10:S8:54:LYS:HB3	2.69	0.43
1:2:333:A:H5'	10:S8:48:THR:HB	2.00	0.43
1:2:1101:G:H5''	24:D2:76:SER:HB2	1.99	0.43
66:O0:53:LYS:NZ	66:O0:69:TYR:HE2	4.87	0.43
36:1:1493:G:N7	75:O9:5:LYS:NZ	2.64	0.43
43:L6:55:LEU:HB2	43:L6:64:LEU:HD12	2.35	0.43
36:1:1574:C:C4	36:1:1575:A:N7	2.87	0.43
36:5:1759:C:C4	36:5:1760:A:C8	3.07	0.43
36:5:271:C:H5''	36:5:272:G:OP2	2.19	0.43
49:M3:98:ASP:OD1	49:M3:100:ARG:HG2	2.18	0.43
4:S2:225:LEU:HD22	4:S2:230:TRP:CD1	2.54	0.43
16:C4:27:PHE:HZ	1:6:916:U:HO2'	275.02	0.43
77:Q1:23:ARG:O	86:5:4004:OHX:N2	265.42	0.43
44:L7:86:VAL:HG22	44:L7:136:TYR:CB	2.49	0.43
72:O6:15:LYS:HE3	36:5:73:C:C4	98.79	0.43
48:M1:171:VAL:O	48:M1:172:LEU:HB2	2.19	0.43
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.19	0.43
36:1:1470:U:OP1	86:1:3921:OHX:N3	2.52	0.43
41:L4:74:ILE:N	41:L4:74:ILE:HD12	2.34	0.43
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.54	0.43
1:6:486:G:H4'	1:6:486:G:OP1	2.19	0.43
51:M5:163:GLY:HA2	51:M5:168:GLY:HA3	2.17	0.43
18:C6:37:THR:O	18:C6:38:LEU:HD23	2.19	0.43
42:L5:53:VAL:O	42:L5:54:ARG:HD3	2.19	0.43
40:L3:78:VAL:HG22	40:L3:323:MET:HG3	2.74	0.43
71:O5:58:ILE:O	71:O5:62:GLN:NE2	4.58	0.43
1:6:955:A:H2'	1:6:956:C:O4'	2.19	0.43
51:M5:47:LYS:HA	51:M5:50:ARG:HB2	4.93	0.43
1:2:1235:C:H5'	33:E1:146:SER:CB	2.49	0.43
61:N5:105:VAL:HG12	61:N5:130:TYR:CD2	2.54	0.43
36:1:2748:A:H1'	42:L5:36:LEU:HD23	2.01	0.43
34:SR:278:PHE:HE2	34:SR:311:ARG:NH2	2.86	0.43
41:L4:8:VAL:HB	41:L4:16:THR:HG21	2.67	0.43
2:S0:10:THR:HB	2:S0:11:PRO:HD2	1.99	0.43
29:D7:56:CYS:HB3	29:D7:61:THR:CG2	2.48	0.43
7:S5:133:VAL:O	7:S5:137:ILE:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.50	0.43
40:L3:146:ARG:HA	40:L3:146:ARG:CZ	3.60	0.43
36:5:2217:U:H2'	36:5:2218:G:H8	1.82	0.43
36:5:1329:U:O2'	36:5:1330:A:P	2.77	0.43
15:C3:128:TYR:O	15:C3:131:THR:N	2.50	0.43
6:S4:186:GLY:HA3	1:6:753:A:OP1	369.91	0.43
47:M0:24:ARG:O	47:M0:25:ALA:CB	4.28	0.43
33:E1:123:ASN:HA	33:E1:124:PRO:HD2	2.47	0.43
7:S5:112:ARG:HH21	7:S5:115:LYS:NZ	4.26	0.43
19:C7:57:LEU:O	19:C7:60:ARG:HG2	3.19	0.43
36:5:828:A:H2'	36:5:829:U:C6	2.54	0.43
36:5:277:G:H2'	36:5:278:U:H6	1.84	0.43
36:1:1488:G:C2	36:1:1489:A:C8	3.07	0.43
36:1:1225:A:C2	36:1:3116:G:C5	3.06	0.43
21:C9:138:GLN:O	21:C9:141:GLU:HG3	4.90	0.43
36:5:1494:U:H4'	36:5:1495:U:O5'	2.19	0.43
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.76	0.43
36:5:2561:A:O2'	36:5:2562:A:H5''	2.18	0.43
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.49	0.43
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.18	0.43
36:5:650:C:H2'	36:5:651:G:C8	2.53	0.43
75:O9:35:ILE:HD11	38:8:53:A:C2	83.49	0.43
69:O3:16:TYR:CG	69:O3:25:PRO:HA	2.71	0.43
36:1:674:G:O4'	41:L4:117:GLU:HG3	2.18	0.43
78:Q2:32:LYS:HA	78:Q2:32:LYS:HD2	4.45	0.43
43:L6:82:ARG:HA	43:L6:82:ARG:HD2	2.90	0.43
36:1:2994:A:O5'	36:1:2994:A:H8	2.02	0.43
66:O0:32:LYS:HE2	66:O0:32:LYS:HB2	1.70	0.43
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	1.96	0.43
4:S2:233:GLN:HA	4:S2:234:PRO:HD3	1.89	0.43
1:2:1733:C:H2'	1:2:1734:U:H6	1.84	0.43
70:O4:9:ARG:NH1	70:O4:9:ARG:HG3	4.66	0.42
65:N9:23:LYS:HD2	65:N9:24:PRO:HG3	4.60	0.42
56:N0:155:ARG:NH2	56:N0:172:TYR:H	4.71	0.42
7:S5:37:GLN:HB3	18:C6:53:LEU:HD22	2.01	0.42
36:5:1232:C:H2'	36:5:1233:G:C8	2.52	0.42
3:S1:126:THR:HG22	3:S1:136:ARG:HG3	2.01	0.42
8:S6:10:ASN:HB2	8:S6:12:SER:OG	2.18	0.42
4:S2:41:LEU:O	4:S2:45:VAL:HG23	2.80	0.42
4:S2:61:LEU:HG	4:S2:61:LEU:H	2.63	0.42
47:M0:49:CYS:HB3	47:M0:168:SER:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.87	0.42
8:S6:173:PRO:HA	1:6:66:U:O5'	340.18	0.42
36:1:1832:C:O2'	36:1:1833:G:H5'	2.19	0.42
3:S1:211:HIS:CD2	3:S1:211:HIS:N	2.86	0.42
21:C9:57:ARG:O	21:C9:61:VAL:HG23	2.69	0.42
15:C3:16:ILE:HA	15:C3:17:PRO:HD2	2.91	0.42
24:D2:57:ARG:HD2	24:D2:57:ARG:N	2.34	0.42
39:L2:189:TYR:HD1	39:L2:192:LYS:HD2	5.30	0.42
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	311.32	0.42
12:C0:32:HIS:CD2	12:C0:33:GLU:N	4.45	0.42
1:2:830:U:O2'	1:2:831:U:H6	2.02	0.42
39:L2:50:HIS:CD2	36:5:1795:U:H2'	198.74	0.42
39:L2:49:VAL:HG23	39:L2:50:HIS:N	2.34	0.42
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.54	0.42
36:5:1841:A:C6	36:5:1848:G:C2	3.06	0.42
18:C6:48:VAL:HG21	18:C6:81:ILE:HG13	2.01	0.42
36:5:22:G:H1'	38:8:104:A:N3	2.35	0.42
5:S3:54:ARG:C	5:S3:56:GLN:H	2.22	0.42
55:M9:180:LYS:HB3	55:M9:180:LYS:HE2	1.74	0.42
59:N3:11:PHE:O	59:N3:13:ILE:HG22	2.19	0.42
40:L3:255:TRP:CD1	40:L3:256:HIS:ND1	2.87	0.42
2:S0:195:TRP:CE2	2:S0:197:ILE:HD13	2.54	0.42
46:L9:65:VAL:O	46:L9:68:LEU:HB2	2.19	0.42
36:1:1547:G:P	51:M5:105:ARG:HH11	2.41	0.42
24:D2:11:LEU:O	24:D2:14:ILE:HB	2.19	0.42
43:L6:129:GLU:OE2	43:L6:130:ILE:N	2.52	0.42
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	3.00	0.42
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	1.69	0.42
6:S4:6:LYS:O	6:S4:7:LYS:HD3	4.48	0.42
17:C5:128:HIS:HB3	1:6:1460:A:C5	330.55	0.42
1:2:432:G:H2'	1:2:433:C:O4'	2.19	0.42
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.60	0.42
1:6:1590:G:H2'	1:6:1591:C:C6	2.53	0.42
51:M5:96:ARG:CG	51:M5:96:ARG:HH11	2.32	0.42
46:L9:34:LEU:CD2	46:L9:149:ASN:HB3	2.49	0.42
14:C2:54:ARG:NH2	33:E1:127:GLY:HA3	2.34	0.42
79:Q3:33:GLN:HA	79:Q3:69:TYR:O	2.19	0.42
10:S8:60:ILE:HD13	10:S8:60:ILE:HA	1.83	0.42
38:8:157:U:H2'	38:8:158:U:C6	2.54	0.42
36:1:180:C:H2'	36:1:181:U:C6	2.52	0.42
1:6:139:C:C4	1:6:266:A:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:696:C:H4'	1:6:697:C:C6	2.53	0.42
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	3.27	0.42
6:S4:208:VAL:HB	6:S4:225:VAL:HG21	2.35	0.42
6:S4:131:LEU:HD13	6:S4:135:GLY:HA2	3.00	0.42
25:D3:49:ALA:HB1	25:D3:76:LEU:HD22	2.00	0.42
1:6:1317:C:H2'	1:6:1318:G:O4'	2.19	0.42
36:5:2278:C:C2	36:5:2307:G:N2	2.87	0.42
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.43	0.42
1:6:504:U:O4	1:6:505:A:N6	2.52	0.42
34:SR:72:THR:OG1	34:SR:73:LEU:N	2.95	0.42
42:L5:63:GLN:HB3	42:L5:65:ILE:HD11	3.55	0.42
70:O4:79:SER:HB3	70:O4:80:ARG:HE	2.77	0.42
49:M3:183:ARG:HH22	36:5:768:C:H4'	145.63	0.42
26:D4:79:VAL:O	26:D4:82:ALA:HB3	3.00	0.42
29:D7:33:LEU:HD13	29:D7:73:LEU:HD21	3.25	0.42
54:M8:80:THR:O	54:M8:137:THR:HA	2.30	0.42
1:2:1051:G:O2'	1:2:1052:U:P	2.77	0.42
42:L5:46:THR:HG22	42:L5:46:THR:O	2.51	0.42
36:5:3078:U:H4'	36:5:3079:U:O5'	2.18	0.42
42:L5:6:ASP:O	42:L5:7:ALA:O	2.37	0.42
38:4:83:C:H6	38:4:83:C:H5''	1.84	0.42
29:D7:82:LYS:HB2	29:D7:82:LYS:HE3	2.29	0.42
35:SM:96:ARG:HG2	35:SM:96:ARG:H	1.59	0.42
36:1:2692:A:H8	36:1:2692:A:O5'	2.02	0.42
73:O7:25:ARG:HB3	73:O7:25:ARG:HH11	3.23	0.42
19:C7:40:THR:O	19:C7:40:THR:OG1	2.49	0.42
11:S9:60:LEU:HD23	11:S9:60:LEU:HA	3.32	0.42
72:O6:71:LYS:HE2	72:O6:71:LYS:HB3	1.87	0.42
9:S7:154:LEU:O	9:S7:186:PRO:HD3	2.19	0.42
1:2:372:G:H1'	1:2:612:U:O2	2.19	0.42
36:5:1449:A:C2	36:5:2356:A:C4	3.07	0.42
86:2:2093:OHX:N1	86:2:2134:OHX:N2	2.67	0.42
41:L4:193:LYS:HA	41:L4:198:ARG:HA	2.01	0.42
39:L2:14:SER:C	39:L2:16:PHE:H	2.28	0.42
36:1:3362:A:H3'	36:1:3363:U:H6	1.84	0.42
63:N7:35:SER:O	63:N7:36:HIS:CG	5.01	0.42
36:1:1306:G:O2'	36:1:1307:G:H5''	2.19	0.42
36:1:979:U:H4'	36:1:980:A:O5'	2.18	0.42
74:O8:45:VAL:O	74:O8:51:LEU:HD12	2.18	0.42
4:S2:41:LEU:HA	4:S2:41:LEU:HD23	1.78	0.42
36:5:1381:A:C2	36:5:1426:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.19	0.42
75:O9:10:LYS:HA	75:O9:13:MET:CE	2.49	0.42
54:M8:179:ARG:HG3	54:M8:182:LYS:HB2	1.99	0.42
67:O1:12:TYR:O	67:O1:73:LEU:N	2.62	0.42
38:4:107:G:C2'	38:4:108:C:H5'	2.49	0.42
36:1:1236:G:N2	36:1:1244:A:H4'	2.34	0.42
22:D0:117:VAL:O	22:D0:118:VAL:HB	2.20	0.42
2:S0:146:LEU:HD11	2:S0:174:TRP:CD1	2.55	0.42
86:8:215:OHX:N6	86:8:223:OHX:N4	2.67	0.42
16:C4:121:VAL:HA	16:C4:122:PRO:HD3	2.11	0.42
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.54	0.42
55:M9:23:TRP:CE3	55:M9:51:VAL:HB	5.18	0.42
1:2:322:G:O2'	10:S8:10:LYS:NZ	2.52	0.42
18:C6:5:PRO:HB2	18:C6:96:TYR:CE2	3.40	0.42
59:N3:48:ARG:HG3	36:5:2339:C:OP2	247.64	0.42
69:O3:29:LEU:HD22	69:O3:75:HIS:CD2	2.54	0.42
51:M5:68:ARG:HA	51:M5:98:LEU:HD21	3.12	0.42
59:N3:104:ASN:HB2	59:N3:105:PRO:HD2	2.19	0.42
1:2:416:A:H4'	1:2:417:A:OP2	2.19	0.42
36:1:2245:C:H4'	39:L2:221:LYS:O	2.19	0.42
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.01	0.42
1:2:1450:U:H2'	1:2:1451:C:C6	2.53	0.42
1:2:1450:U:H2'	1:2:1451:C:H6	1.84	0.42
1:2:1266:U:H2'	1:2:1267:G:H8	1.82	0.42
1:2:1217:A:C8	1:2:1217:A:H5'	2.52	0.42
36:5:1114:U:C4	36:5:1115:G:N7	2.86	0.42
51:M5:53:TYR:CG	51:M5:54:LYS:N	2.86	0.42
53:M7:71:ALA:C	53:M7:73:GLY:H	2.64	0.42
1:2:442:C:O2'	1:2:525:A:N1	2.50	0.42
1:2:1454:G:O2'	1:2:1455:G:H5'	2.19	0.42
36:1:1366:A:C2	36:1:1367:G:C4	3.07	0.42
10:S8:152:ILE:O	10:S8:153:GLU:HB2	2.19	0.42
31:D9:31:ILE:HA	31:D9:31:ILE:HD13	1.95	0.42
11:S9:32:GLY:HA3	32:E0:40:TYR:CD2	3.48	0.42
25:D3:17:VAL:HG23	25:D3:20:ARG:HH12	4.76	0.42
36:1:1072:G:C5	36:1:1087:G:C2	3.08	0.42
1:2:878:G:O2'	15:C3:108:ASP:OD2	2.24	0.42
36:5:3106:A:H2'	36:5:3107:U:O4'	2.18	0.42
24:D2:5:SER:C	24:D2:7:LEU:H	2.88	0.42
36:1:112:U:O2'	36:1:113:C:OP2	2.32	0.42
15:C3:120:SER:O	15:C3:124:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.84	0.42
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.10	0.42
1:2:1312:A:C6	1:2:1313:A:C6	3.07	0.42
29:D7:36:LYS:O	29:D7:77:THR:HG22	2.96	0.42
40:L3:251:CYS:SG	36:5:2944:U:H1'	224.57	0.42
45:L8:142:LEU:HD22	45:L8:147:LYS:HB3	3.63	0.42
36:1:744:A:H4'	54:M8:142:GLY:O	2.19	0.42
36:5:59:G:H2'	38:8:33:A:O2'	2.19	0.42
1:2:1059:U:O2'	1:2:1060:U:N3	2.53	0.42
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.55	0.42
55:M9:10:LEU:HD12	55:M9:10:LEU:HA	1.85	0.42
36:5:1538:G:O5'	36:5:1538:G:H8	2.02	0.42
5:S3:4:LEU:HD22	5:S3:4:LEU:HA	2.00	0.42
63:N7:13:VAL:HA	63:N7:80:LEU:HD23	2.00	0.42
36:5:2799:A:H5''	36:5:2800:G:O5'	2.19	0.42
32:E0:3:LYS:HB3	32:E0:3:LYS:NZ	2.34	0.42
42:L5:68:THR:HG22	42:L5:71:GLY:H	2.26	0.42
36:1:830:A:OP1	86:1:4004:OHX:N4	2.52	0.42
63:N7:17:ARG:HG2	70:O4:73:SER:O	2.20	0.42
40:L3:214:MET:HE2	40:L3:350:ALA:HA	3.58	0.42
7:S5:37:GLN:CG	18:C6:53:LEU:HD13	2.69	0.42
11:S9:117:GLY:O	11:S9:119:ALA:N	2.64	0.42
11:S9:149:ARG:HD2	1:6:765:G:C5	429.42	0.42
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.49	0.42
3:S1:134:VAL:HB	3:S1:219:LYS:HB2	2.00	0.42
38:4:79:A:H2'	38:4:80:A:C1'	2.40	0.42
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	2.44	0.42
22:D0:25:THR:HG23	22:D0:88:LYS:HD3	2.02	0.42
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.18	0.42
1:2:191:C:O2'	1:2:192:U:O5'	2.36	0.42
7:S5:117:THR:HG21	7:S5:194:LEU:CD1	2.45	0.42
7:S5:194:LEU:HA	7:S5:194:LEU:HD23	2.58	0.42
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.83	0.42
34:SR:132:LYS:HD3	34:SR:140:CYS:SG	2.59	0.42
8:S6:137:ARG:O	8:S6:141:ILE:HG13	3.64	0.42
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.19	0.42
1:6:881:A:OP2	86:6:2109:OHX:N5	2.52	0.42
36:5:2181:C:H2'	36:5:2182:A:O4'	2.18	0.42
72:O6:86:LYS:HB2	72:O6:86:LYS:HE2	1.83	0.42
42:L5:219:PHE:HE1	42:L5:227:LEU:HD11	1.84	0.42
62:N6:50:ILE:HD11	62:N6:70:ILE:HD13	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:32:HIS:CD2	12:C0:33:GLU:HG2	7.40	0.42
1:2:1784:C:H2'	1:2:1785:U:C6	2.54	0.42
2:S0:168:HIS:O	2:S0:172:LEU:HB2	2.19	0.42
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	2.00	0.42
1:2:694:U:H5	9:S7:96:ARG:O	2.03	0.42
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.85	0.42
16:C4:91:THR:O	16:C4:92:LYS:HD2	2.19	0.42
1:2:25:C:OP2	1:2:26:A:H2'	2.18	0.42
20:C8:142:GLY:HA3	20:C8:145:ARG:HD2	2.02	0.42
36:1:353:G:O6	73:O7:52:LYS:HE2	2.20	0.42
39:L2:51:ASP:CB	39:L2:54:ARG:HD2	3.11	0.42
13:C1:22:ASN:HA	13:C1:23:PRO:HD3	1.73	0.42
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	2.87	0.42
40:L3:362:ALA:O	40:L3:364:LYS:HD2	2.19	0.42
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	4.62	0.42
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	3.30	0.42
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.19	0.42
52:M6:28:LEU:HD11	52:M6:88:VAL:HG22	3.44	0.42
36:1:1770:G:C6	36:1:1771:C:C4	3.07	0.42
7:S5:82:PHE:CZ	30:D8:49:ARG:HD2	2.89	0.42
36:5:2683:U:OP1	36:5:2683:U:C4'	2.67	0.42
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.52	0.42
36:5:3054:U:O4	86:5:4175:OHX:N4	2.52	0.42
36:5:3053:G:O6	86:5:4175:OHX:N6	2.52	0.42
36:5:789:A:H2'	36:5:790:U:H6	1.82	0.42
76:Q0:93:LYS:HE3	76:Q0:93:LYS:HB3	1.65	0.42
42:L5:101:THR:O	42:L5:104:LEU:HB3	2.20	0.42
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	3.21	0.42
36:1:1743:G:H2'	36:1:1744:G:H8	1.85	0.42
36:5:2765:C:H2'	36:5:2766:U:H6	1.84	0.42
36:1:1584:U:H2'	36:1:1585:C:C6	2.53	0.42
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.49	0.42
63:N7:99:GLU:HG3	63:N7:100:THR:H	2.69	0.42
18:C6:131:GLY:HA2	18:C6:138:PHE:CD1	2.55	0.42
70:O4:14:ASN:O	36:5:827:A:H5''	164.19	0.42
32:E0:12:GLY:O	32:E0:16:SER:HB3	2.18	0.42
39:L2:44:ILE:HD13	39:L2:46:LYS:HD2	2.01	0.42
36:5:1604:G:C6	36:5:1605:A:N7	2.88	0.42
12:C0:38:LYS:O	12:C0:41:TYR:HB2	2.35	0.42
36:5:2745:G:N2	36:5:2748:A:OP2	2.52	0.42
56:N0:14:LEU:HA	56:N0:15:PRO:HD3	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:517:U:H2'	1:6:518:A:O4'	2.19	0.42
52:M6:131:PRO:HD3	36:5:1316:C:N4	299.89	0.42
36:1:3383:G:H2'	36:1:3384:U:H6	1.85	0.42
46:L9:129:ARG:O	46:L9:132:VAL:HG13	3.45	0.42
36:1:421:G:C8	36:1:2365:C:C6	3.07	0.42
39:L2:117:GLU:HB3	39:L2:119:LYS:O	2.19	0.42
36:5:563:U:H2'	36:5:564:G:C8	2.55	0.42
1:2:246:G:H1'	13:C1:40:LEU:HD13	2.01	0.42
42:L5:222:LEU:HD12	42:L5:222:LEU:O	2.19	0.42
67:O1:97:LEU:HD23	67:O1:97:LEU:HA	1.91	0.42
1:6:1022:C:H4'	1:6:1124:A:N6	2.34	0.42
36:5:1401:A:C2	36:5:1411:C:C2	3.07	0.42
1:6:855:A:H3'	1:6:856:A:H5''	2.01	0.42
1:6:1303:U:H2'	1:6:1304:G:O4'	2.19	0.42
36:5:3275:U:H4'	36:5:3276:G:OP2	2.19	0.42
43:L6:45:GLY:O	43:L6:48:ARG:HD3	3.83	0.42
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.54	0.42
36:1:157:A:C8	72:O6:26:ILE:HG12	2.54	0.42
34:SR:70:ASP:HB2	34:SR:112:SER:HA	2.00	0.42
53:M7:67:ILE:HG23	53:M7:82:ARG:NE	2.35	0.42
1:2:793:A:H5''	1:2:794:U:C6	2.54	0.42
42:L5:25:GLU:O	48:M1:144:CYS:HA	3.02	0.42
7:S5:119:ASP:HB3	27:D5:100:ILE:HD13	5.83	0.42
1:2:1519:U:H2'	1:2:1520:U:C5	2.54	0.42
52:M6:37:ARG:HA	52:M6:39:GLU:OE2	2.20	0.42
1:6:189:C:H2'	1:6:190:C:H5'	2.00	0.42
36:5:2169:G:O6	86:5:3956:OHX:N2	2.53	0.42
58:N2:43:VAL:HG21	58:N2:50:LEU:HD23	2.01	0.42
34:SR:106:HIS:HD2	34:SR:110:VAL:HG22	2.13	0.42
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.78	0.42
15:C3:62:GLN:HB2	15:C3:65:VAL:HG23	2.00	0.42
38:4:108:C:H2'	38:4:109:A:O4'	2.19	0.42
39:L2:193:ARG:HH11	39:L2:193:ARG:HB3	4.80	0.42
20:C8:120:ARG:HA	20:C8:120:ARG:HD3	1.76	0.42
86:5:4004:OHX:N3	86:5:4093:OHX:N1	2.67	0.42
86:5:4004:OHX:N3	86:5:4093:OHX:N5	2.67	0.42
77:Q1:23:ARG:HG2	77:Q1:23:ARG:NH1	4.59	0.42
14:C2:83:GLU:O	14:C2:85:LYS:N	3.72	0.42
36:5:2254:U:H2'	36:5:2261:G:N2	2.35	0.42
86:8:215:OHX:N6	86:8:223:OHX:N3	2.67	0.42
10:S8:104:ILE:HG13	10:S8:105:ASP:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1676:U:O2'	1:2:1677:C:H5'	2.19	0.42
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.54	0.42
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.44	0.42
36:5:1276:U:H2'	36:5:1277:C:C6	2.54	0.42
36:1:1919:G:H1'	36:1:1934:G:N2	2.34	0.42
21:C9:108:LEU:HA	21:C9:108:LEU:HD23	2.50	0.42
36:5:3238:G:N2	36:5:3250:U:H1'	2.35	0.42
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	4.32	0.42
5:S3:211:PRO:CG	19:C7:19:ARG:HB2	2.92	0.42
55:M9:4:LEU:O	55:M9:7:GLN:HG2	4.97	0.42
1:2:393:C:H4'	1:2:1673:G:O2'	2.20	0.42
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.53	0.42
49:M3:51:LEU:HA	49:M3:51:LEU:HD23	1.64	0.42
1:2:762:A:OP1	11:S9:79:ARG:NH2	2.48	0.42
19:C7:9:VAL:HG22	19:C7:50:ILE:HG13	2.62	0.42
24:D2:107:SER:O	24:D2:107:SER:OG	3.54	0.42
36:1:3168:A:C2'	36:1:3169:U:H5'	2.50	0.42
36:1:3243:A:H4'	40:L3:95:THR:HG22	2.02	0.42
36:5:2602:G:C6	36:5:2603:G:N7	2.86	0.42
36:5:863:C:H2'	36:5:864:G:O4'	2.20	0.42
1:6:1719:A:N6	1:6:1720:G:C2	2.87	0.42
20:C8:95:GLY:O	86:C8:201:OHX:N2	2.53	0.42
36:5:1591:G:H1'	36:5:1799:A:N1	2.34	0.42
14:C2:53:THR:HG21	33:E1:106:TYR:OH	2.46	0.42
36:5:959:C:N4	36:5:2801:A:C8	2.87	0.42
4:S2:152:HIS:CD2	4:S2:174:ARG:HG3	2.54	0.42
36:1:1613:A:H2'	36:1:1614:C:C6	2.54	0.42
36:1:1613:A:OP1	74:O8:50:SER:HA	2.19	0.42
36:1:1757:A:H2'	36:1:1758:G:H8	1.84	0.42
36:1:2782:U:OP1	49:M3:185:LYS:HE2	2.20	0.42
36:5:304:G:H3'	36:5:304:G:OP2	2.20	0.42
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	2.02	0.42
36:1:1763:U:H5'	36:1:1764:U:OP2	2.19	0.42
68:O2:82:LEU:HD22	68:O2:117:ILE:HD12	2.81	0.42
62:N6:106:ILE:HG21	62:N6:109:LEU:HD23	2.00	0.42
1:2:1575:G:H2'	1:2:1576:A:C8	2.54	0.42
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.19	0.42
64:N8:3:SER:OG	36:5:1430:U:O4	140.03	0.42
15:C3:71:ILE:O	15:C3:75:LEU:HD12	3.86	0.42
1:6:336:G:H2'	1:6:338:C:H5	1.85	0.42
36:5:1443:G:O6	86:5:4012:OHX:N5	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2584:G:H5'	36:5:2585:G:OP2	2.19	0.42
57:N1:52:MET:HA	57:N1:95:HIS:CD2	2.54	0.42
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.86	0.42
36:1:3154:C:C2	36:1:3157:U:O4	2.72	0.42
62:N6:36:SER:O	62:N6:40:ARG:N	2.55	0.42
36:1:2872:A:H4'	36:1:2873:U:OP1	2.17	0.42
36:5:1767:C:H2'	36:5:1768:U:H6	1.85	0.42
40:L3:187:SER:C	40:L3:189:SER:N	3.25	0.42
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.34	0.42
1:6:647:G:N2	1:6:687:G:H22	2.17	0.42
16:C4:50:ALA:C	16:C4:52:ARG:N	2.91	0.42
21:C9:115:GLU:HG3	21:C9:116:ILE:O	3.46	0.42
21:C9:69:LYS:O	21:C9:123:ARG:HB2	2.29	0.42
36:5:912:G:H2'	36:5:914:A:N7	2.35	0.42
11:S9:149:ARG:NH1	1:6:765:G:C6	429.61	0.42
10:S8:173:PRO:C	10:S8:175:GLN:H	2.22	0.42
1:2:1560:U:C4	1:2:1561:U:C4	3.07	0.42
68:O2:78:ASN:O	68:O2:81:ASP:HB2	2.87	0.42
23:D1:74:GLN:C	23:D1:76:ASP:H	2.22	0.42
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	2.12	0.42
47:M0:2:ALA:O	47:M0:3:ARG:HB2	4.51	0.42
66:O0:30:THR:HG21	66:O0:89:VAL:HG22	2.50	0.42
8:S6:137:ARG:HD3	8:S6:177:ARG:HD3	2.01	0.42
21:C9:25:GLN:HE21	21:C9:27:LYS:HD3	1.85	0.42
22:D0:102:ARG:O	22:D0:106:ILE:HG22	2.20	0.42
36:5:1817:G:OP1	86:5:4183:OHX:N1	2.53	0.42
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.68	0.42
62:N6:39:LEU:CD1	62:N6:43:TYR:HE2	3.21	0.42
77:Q1:4:LYS:O	77:Q1:7:LYS:HB3	2.63	0.42
10:S8:51:GLY:O	10:S8:52:ASN:HB2	2.51	0.42
36:1:2642:A:HO2'	65:N9:6:ASN:HD22	1.62	0.42
2:S0:64:ILE:O	2:S0:66:ALA:N	2.52	0.42
1:2:268:C:O2'	1:2:269:G:H5'	2.19	0.42
39:L2:65:ASP:HA	39:L2:66:PRO:HD3	1.78	0.42
9:S7:143:LEU:HD21	9:S7:149:ILE:HD12	2.01	0.42
34:SR:256:THR:N	34:SR:259:GLY:O	2.95	0.42
1:2:591:A:H2'	1:2:592:A:H8	1.80	0.42
42:L5:85:ARG:NH1	42:L5:254:LYS:H	3.85	0.42
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.18	0.42
16:C4:18:ARG:HB2	16:C4:18:ARG:HE	4.33	0.42
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:17:VAL:HG22	55:M9:18:GLY:N	4.64	0.42
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.83	0.42
36:1:595:G:C6	36:1:609:G:H5''	2.54	0.42
57:N1:124:VAL:HB	57:N1:125:ALA:H	1.51	0.42
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	2.49	0.42
25:D3:93:LEU:HD21	32:E0:8:LEU:HD13	2.02	0.42
36:1:1933:A:OP2	86:1:3879:OHX:N6	2.53	0.42
36:1:209:A:H4'	36:1:211:A:C8	2.54	0.42
1:2:218:A:H2'	1:2:219:A:H5''	2.00	0.42
55:M9:66:HIS:O	55:M9:69:SER:N	2.52	0.42
17:C5:99:GLY:CA	1:6:1453:G:H21	375.94	0.42
45:L8:46:LEU:O	45:L8:49:TYR:N	2.40	0.42
37:3:30:G:C6	37:3:31:U:C4	3.08	0.42
6:S4:122:LYS:HE3	6:S4:122:LYS:HB2	1.81	0.42
36:1:2610:G:H2'	36:1:2611:U:O4'	2.20	0.42
58:N2:90:ARG:HB3	58:N2:90:ARG:NH1	4.65	0.42
1:2:289:U:H2'	1:2:290:G:O4'	2.20	0.42
54:M8:32:LEU:O	54:M8:35:PHE:HB3	2.54	0.42
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.89	0.42
41:L4:152:VAL:HG21	41:L4:172:VAL:HG21	2.01	0.42
8:S6:73:ILE:HB	8:S6:75:LEU:CD2	3.39	0.42
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	2.38	0.42
36:5:1221:A:H3'	36:5:1222:G:H5'	2.02	0.42
1:2:1153:G:N7	86:2:2169:OHX:N1	2.67	0.42
5:S3:15:GLY:HA3	31:D9:50:ILE:O	2.19	0.42
1:6:246:G:C6	1:6:247:A:C6	3.08	0.42
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.19	0.42
36:5:169:U:H4'	36:5:170:G:OP1	2.19	0.42
40:L3:370:PHE:CD1	40:L3:376:LYS:HA	2.58	0.42
45:L8:97:TYR:O	45:L8:132:VAL:HG13	2.22	0.42
1:6:176:C:OP1	86:6:2096:OHX:N6	2.52	0.42
42:L5:5:LYS:HE2	42:L5:5:LYS:HA	2.00	0.42
44:L7:75:TYR:HB2	57:N1:141:VAL:HG22	2.74	0.42
36:1:2442:G:H2'	36:1:2443:A:H5''	2.01	0.42
36:1:981:U:HO2'	36:1:982:C:P	2.42	0.42
74:O8:17:ARG:O	74:O8:18:ALA:HB2	4.59	0.42
10:S8:48:THR:CG2	10:S8:54:LYS:HB2	2.49	0.42
8:S6:59:GLN:HA	1:6:155:U:H4'	305.01	0.42
36:1:2247:G:H2'	36:1:2248:C:O4'	2.20	0.42
1:2:734:A:H4'	1:2:735:C:H5'	2.01	0.42
42:L5:226:TYR:N	42:L5:226:TYR:CD2	4.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.84	0.42
28:D6:35:ALA:HB3	28:D6:37:LYS:HE3	2.00	0.42
15:C3:28:LEU:HA	15:C3:28:LEU:HD23	1.80	0.42
15:C3:26:PHE:HE1	15:C3:59:GLY:O	2.02	0.42
46:L9:86:TYR:CG	46:L9:151:VAL:HG13	3.17	0.42
1:6:1699:G:H2'	1:6:1700:C:H5'	2.02	0.42
1:6:1700:C:O2	1:6:1700:C:H2'	2.18	0.42
71:O5:21:LEU:O	71:O5:25:LYS:HG3	2.60	0.42
2:S0:74:VAL:HG12	2:S0:76:ILE:HG13	2.13	0.42
78:Q2:52:GLY:O	78:Q2:54:THR:HG23	2.23	0.42
1:2:936:G:OP1	1:2:1075:C:H1'	2.19	0.42
64:N8:125:VAL:HG23	64:N8:144:VAL:O	2.20	0.42
10:S8:12:SER:O	10:S8:15:GLY:N	2.31	0.42
36:5:1560:G:O2'	36:5:1561:G:P	2.75	0.42
41:L4:338:LYS:HA	41:L4:338:LYS:HD2	1.57	0.42
36:5:953:G:C8	36:5:1117:G:C8	3.08	0.42
10:S8:84:HIS:CE1	10:S8:90:LEU:HD12	3.26	0.42
1:2:1114:G:O6	86:2:2077:OHX:N5	2.53	0.42
58:N2:58:GLU:HA	58:N2:62:VAL:O	2.42	0.42
17:C5:60:LEU:HB3	17:C5:61:ARG:H	1.70	0.42
61:N5:137:ASN:HB3	61:N5:142:ILE:CG1	2.49	0.42
15:C3:40:TYR:CE2	15:C3:53:LEU:HD23	2.55	0.42
36:1:1916:U:O3'	55:M9:85:ARG:NH1	2.52	0.42
62:N6:87:LYS:HB2	62:N6:87:LYS:HE3	4.51	0.42
36:1:1298:C:OP2	86:1:3957:OHX:N2	2.52	0.42
11:S9:49:LEU:HD23	11:S9:104:PHE:HE2	1.83	0.42
25:D3:59:ILE:HG21	25:D3:118:PRO:HD2	2.20	0.42
1:2:1528:U:H2'	1:2:1529:C:C6	2.55	0.42
37:3:30:G:C2	37:3:31:U:C2	3.08	0.42
36:1:2369:G:H2'	36:1:2370:G:O4'	2.18	0.42
36:5:1769:G:C6	36:5:1770:G:N7	2.87	0.42
1:6:138:A:H2'	1:6:139:C:H5'	2.01	0.42
34:SR:217:ASP:OD1	34:SR:217:ASP:N	2.53	0.42
1:2:712:G:H2'	1:2:713:A:O4'	2.20	0.42
70:O4:20:ILE:HG23	70:O4:21:LYS:N	2.35	0.42
4:S2:44:LEU:HD11	4:S2:247:ALA:HB2	3.23	0.42
1:6:1107:G:C6	1:6:1108:G:O6	2.72	0.42
52:M6:172:ARG:HA	52:M6:175:THR:HG22	4.67	0.42
45:L8:139:VAL:O	45:L8:142:LEU:HB2	2.20	0.42
69:O3:73:ARG:HD3	69:O3:82:ARG:HD2	2.01	0.42
1:2:941:A:C5	1:2:942:G:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1336:A:OP1	86:6:2181:OHX:N1	2.53	0.42
36:1:784:A:H2'	54:M8:69:ARG:HH21	1.83	0.42
36:1:330:G:OP2	86:1:4037:OHX:N2	2.53	0.42
36:1:1500:G:H2'	36:1:1501:U:O4'	2.20	0.42
36:1:3370:A:P	40:L3:383:LEU:HD22	2.59	0.42
36:1:423:A:C6	36:1:424:G:C6	3.07	0.42
1:2:1091:A:H5''	1:2:1091:A:N3	2.35	0.42
17:C5:84:ILE:HA	17:C5:84:ILE:HD13	1.85	0.42
47:M0:53:VAL:HG21	47:M0:166:ILE:HD12	2.23	0.42
1:2:1277:G:H2'	1:2:1278:G:O4'	2.19	0.42
36:5:1317:A:C4	36:5:1319:G:C8	3.07	0.42
36:5:1690:C:H2'	36:5:1691:U:O4'	2.19	0.42
36:5:1310:G:O6	86:5:4030:OHX:N4	2.53	0.42
40:L3:221:THR:HG22	40:L3:222:LYS:O	2.20	0.42
11:S9:109:LEU:HB2	11:S9:146:PHE:CB	2.56	0.42
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.20	0.42
53:M7:30:ARG:HD3	53:M7:30:ARG:C	2.47	0.42
27:D5:59:TYR:CE2	27:D5:100:ILE:HG12	2.55	0.42
3:S1:83:LYS:HD3	3:S1:104:ASP:HB3	2.01	0.42
23:D1:40:ASP:OD1	23:D1:44:ARG:HB2	2.20	0.42
2:S0:185:ARG:H	23:D1:45:ALA:H	2.01	0.42
1:2:1600:A:HO2'	1:2:1602:C:N4	2.18	0.42
40:L3:5:LYS:HG2	40:L3:6:TYR:CE1	2.63	0.42
8:S6:173:PRO:O	1:6:79:C:H4'	344.93	0.42
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.02	0.42
1:6:189:C:C2'	1:6:190:C:H5'	2.49	0.42
1:6:193:U:C4	1:6:195:G:C8	3.08	0.42
21:C9:57:ARG:O	21:C9:61:VAL:N	2.30	0.42
28:D6:87:ARG:HB3	28:D6:91:ASP:CB	2.51	0.42
36:1:1785:U:H2'	36:1:1786:G:C8	2.55	0.42
36:1:3139:A:C8	36:1:3139:A:H5''	2.54	0.42
21:C9:35:ASP:OD2	21:C9:36:ILE:HG23	3.84	0.42
2:S0:96:THR:HA	2:S0:97:PRO:HD3	2.05	0.42
54:M8:122:ILE:HD11	54:M8:130:ARG:NH2	2.49	0.42
67:O1:82:GLU:C	67:O1:84:ASP:H	2.22	0.42
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.09	0.42
36:1:1913:A:N3	36:1:2120:A:H2'	2.35	0.42
10:S8:142:LYS:O	10:S8:146:ARG:N	2.69	0.42
26:D4:29:HIS:CD2	26:D4:29:HIS:N	3.29	0.42
2:S0:66:ALA:HB1	23:D1:50:TYR:CD1	3.63	0.42
63:N7:136:PHE:HB2	70:O4:88:ARG:HG3	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1370:U:H4'	1:2:1371:A:H5'	2.00	0.42
16:C4:45:GLY:HA2	16:C4:54:GLU:HG2	2.01	0.42
16:C4:77:THR:C	16:C4:110:LEU:HD23	4.20	0.42
42:L5:111:GLN:CA	42:L5:116:ASP:HB3	4.89	0.42
45:L8:54:GLU:HG2	45:L8:57:ARG:NH2	2.32	0.42
39:L2:201:GLY:HA2	39:L2:204:MET:CG	2.65	0.42
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.76	0.42
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	2.01	0.42
36:1:2666:C:N3	36:1:2689:A:H8	2.17	0.42
41:L4:316:ASN:C	41:L4:316:ASN:OD1	2.94	0.42
1:2:823:G:H2'	1:2:824:G:H8	1.85	0.42
29:D7:56:CYS:HB3	29:D7:61:THR:HG21	2.02	0.42
44:L7:77:VAL:HG23	44:L7:77:VAL:O	2.20	0.42
36:1:3243:A:N7	52:M6:156:LEU:HB3	2.34	0.42
36:5:811:U:H2'	36:5:812:G:O4'	2.20	0.42
58:N2:98:THR:HG23	58:N2:104:ARG:HH21	6.37	0.42
36:5:1363:A:OP2	86:5:4202:OHX:N3	2.53	0.42
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.27	0.42
36:5:589:A:N6	36:5:610:G:H1'	2.34	0.42
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.64	0.42
36:5:612:U:H2'	36:5:613:G:C8	2.55	0.42
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.52	0.42
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.19	0.42
36:5:2294:U:O2	36:5:2296:A:C8	2.72	0.42
1:6:417:A:H4'	1:6:418:G:O5'	2.19	0.42
64:N8:82:ILE:HD12	64:N8:83:PRO:HD3	6.49	0.42
36:1:2284:C:OP2	36:1:2285:C:H5	2.03	0.42
42:L5:139:PRO:HB3	36:5:1080:A:H5'	231.77	0.42
1:6:136:C:H4'	1:6:137:U:OP2	2.20	0.42
1:2:1663:G:C6	1:2:1664:C:C4	3.08	0.42
36:5:618:C:H2'	36:5:619:A:C8	2.55	0.42
54:M8:110:ALA:O	54:M8:114:ILE:HG13	2.30	0.42
36:5:1464:G:N7	86:5:3976:OHX:N3	2.68	0.42
47:M0:71:CYS:SG	47:M0:72:ALA:N	3.81	0.42
1:6:839:U:H2'	1:6:840:U:H6	1.84	0.42
52:M6:49:ARG:NH1	36:5:1191:U:OP2	285.68	0.42
56:N0:85:SER:HB3	36:5:1294:A:H5''	300.84	0.42
44:L7:169:ILE:HD13	44:L7:181:ILE:HA	2.01	0.42
60:N4:33:ASN:OD1	60:N4:35:LYS:HB3	2.20	0.42
52:M6:4:GLU:HG2	36:5:3178:A:O4'	261.96	0.42
13:C1:111:VAL:HG13	13:C1:111:VAL:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:512:A:C8	1:6:512:A:H3'	2.54	0.42
1:6:390:G:H2'	1:6:391:A:O4'	2.20	0.42
36:5:593:C:C4	36:5:594:U:C4	3.07	0.42
32:E0:41:THR:HA	32:E0:45:VAL:HB	2.01	0.42
1:6:763:G:C5	1:6:764:U:C4	3.07	0.42
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.55	0.42
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.36	0.42
36:5:911:C:O2	36:5:917:A:N1	2.52	0.42
42:L5:23:ARG:HA	42:L5:23:ARG:HD3	3.66	0.42
1:2:67:A:H2'	1:2:69:G:O4'	2.20	0.42
53:M7:69:ARG:HB3	53:M7:79:THR:HG23	4.87	0.42
57:N1:68:THR:OG1	36:5:2737:C:H4'	223.02	0.42
47:M0:168:SER:HG	47:M0:170:LYS:H	1.64	0.42
1:2:1498:G:H5''	21:C9:72:GLY:HA3	2.01	0.42
46:L9:70:THR:HG22	36:5:3113:A:O2'	330.26	0.42
23:D1:35:ASN:OD1	23:D1:52:THR:HB	2.73	0.42
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.72	0.42
28:D6:60:PRO:C	28:D6:62:TYR:H	2.23	0.42
4:S2:141:ARG:H	4:S2:141:ARG:HG2	1.99	0.42
7:S5:63:GLN:HE22	7:S5:66:GLN:HB2	4.05	0.42
22:D0:20:ILE:HD11	22:D0:100:VAL:HG21	2.02	0.42
36:1:1814:A:C2	36:1:1816:A:C6	3.08	0.42
20:C8:35:ILE:O	20:C8:38:VAL:HG22	2.19	0.42
70:O4:3:GLN:CD	70:O4:30:LEU:HB2	2.95	0.42
36:1:1234:G:H2'	36:1:1235:U:C5	2.55	0.42
55:M9:3:ASN:OD1	36:5:1471:U:H4'	113.88	0.42
5:S3:162:GLN:C	5:S3:164:VAL:H	2.74	0.42
44:L7:96:PRO:HA	44:L7:97:PRO:HD3	1.90	0.42
70:O4:41:ARG:O	70:O4:43:LYS:HE3	2.20	0.42
70:O4:41:ARG:HA	70:O4:42:PRO:HD3	2.04	0.42
49:M3:175:SER:O	49:M3:177:LYS:N	2.53	0.42
34:SR:256:THR:HG21	34:SR:261:LYS:HD2	2.02	0.42
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.55	0.42
64:N8:45:MET:HE2	64:N8:49:HIS:HB2	4.20	0.42
44:L7:206:LYS:HB3	36:5:1334:U:OP1	234.93	0.42
1:6:322:G:O4'	1:6:323:A:H8	2.02	0.42
1:6:1535:U:H4'	1:6:1535:U:OP1	2.20	0.42
1:2:1433:G:N2	31:D9:45:GLU:OE1	2.51	0.42
36:1:159:A:C2'	36:1:160:G:H5'	2.49	0.42
35:SM:43:ASP:HA	35:SM:44:PRO:HD3	2.28	0.42
36:5:1262:G:H5''	36:5:1263:A:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:109:LYS:NZ	1:6:459:G:OP1	358.49	0.42
10:S8:168:CYS:HB2	10:S8:184:LEU:HD11	2.01	0.42
1:2:1032:G:C6	1:2:1104:U:C4	3.07	0.42
41:L4:354:VAL:HG13	41:L4:355:PHE:N	4.61	0.42
9:S7:39:ARG:NH2	55:M9:185:LEU:HD22	2.67	0.42
67:O1:57:GLN:O	67:O1:61:LYS:HB2	2.44	0.42
45:L8:71:VAL:HA	45:L8:72:PRO:HD3	2.42	0.42
36:1:1389:G:C6	36:1:1419:A:N6	2.87	0.42
68:O2:47:ARG:HH11	68:O2:47:ARG:HD2	1.67	0.42
36:5:2949:U:O2'	36:5:2950:G:H5'	2.20	0.42
41:L4:62:ALA:HB1	41:L4:76:ARG:C	2.40	0.42
9:S7:138:LYS:O	9:S7:139:ARG:NE	2.49	0.42
86:1:4013:OHX:N6	86:1:4051:OHX:N2	2.68	0.42
1:6:1620:C:H2'	1:6:1621:U:C6	2.54	0.42
1:2:1092:A:O2'	1:2:1094:G:N7	2.33	0.42
42:L5:122:VAL:HG11	42:L5:130:GLU:CD	2.40	0.42
1:6:697:C:OP2	86:6:2074:OHX:N5	2.53	0.42
38:4:151:C:C5	61:N5:24:LEU:HD11	2.55	0.42
41:L4:361:HIS:O	56:N0:28:ARG:NH2	2.52	0.42
1:6:1107:G:C5	1:6:1108:G:C6	3.08	0.42
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.20	0.42
36:1:65:A:C8	36:1:110:G:O6	2.73	0.42
36:1:890:C:O2	36:1:2324:A:H2	2.03	0.42
37:3:45:A:H2'	37:3:46:A:C8	2.54	0.42
36:5:1078:U:O4	86:5:4002:OHX:N5	2.52	0.42
62:N6:57:LEU:HD23	62:N6:67:GLU:HB3	2.73	0.42
36:1:3279:A:N6	36:1:3280:U:O4	2.53	0.42
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.84	0.42
1:2:126:A:OP1	8:S6:201:GLN:HG2	2.20	0.42
64:N8:63:LYS:HE3	64:N8:68:PHE:CE2	2.54	0.42
36:5:78:U:C2'	36:5:79:U:H5'	2.50	0.42
36:1:1754:G:OP1	86:1:4149:OHX:N1	2.53	0.42
1:2:1420:C:H2'	1:2:1421:A:O4'	2.20	0.42
36:5:2225:U:H2'	36:5:2226:U:O4'	2.20	0.42
42:L5:205:SER:O	42:L5:209:GLU:HG3	3.37	0.42
54:M8:166:LEU:HA	54:M8:166:LEU:HD22	2.50	0.42
36:1:642:U:O5'	36:1:642:U:H6	2.03	0.42
49:M3:122:LYS:NZ	49:M3:122:LYS:HB3	2.35	0.42
1:2:902:G:H8	1:2:902:G:O5'	2.03	0.42
25:D3:43:PHE:CD1	25:D3:43:PHE:N	2.86	0.42
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:42:ARG:NH1	15:C3:80:LEU:HD11	5.97	0.42
1:6:1580:C:H2'	1:6:1581:C:O4'	2.20	0.42
36:5:1001:G:N3	36:5:1041:U:H5'	2.34	0.42
36:1:1277:C:O2'	36:1:1278:A:H8	2.03	0.42
37:7:27:A:H2'	37:7:28:C:C6	2.55	0.42
36:5:912:G:H5''	36:5:913:A:P	2.60	0.42
18:C6:13:LYS:HB3	18:C6:80:ALA:HB2	3.36	0.42
11:S9:134:ILE:N	11:S9:134:ILE:HD12	4.25	0.42
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.20	0.42
36:5:3181:C:H2'	36:5:3182:G:O4'	2.20	0.42
52:M6:108:ILE:HD11	52:M6:113:ASP:HA	5.44	0.42
1:2:192:U:HO2'	1:2:193:U:P	2.42	0.42
1:2:1795:U:O2	28:D6:10:ARG:NH2	2.37	0.42
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	2.02	0.42
31:D9:32:ARG:HG2	31:D9:32:ARG:NH1	2.42	0.42
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.25	0.42
62:N6:110:HIS:O	62:N6:115:ARG:NH1	3.28	0.42
77:Q1:4:LYS:HG3	77:Q1:5:TRP:CE3	2.55	0.42
36:5:2128:C:H2'	36:5:2129:U:O4'	2.20	0.42
1:2:320:U:H3'	1:2:321:C:C5'	2.43	0.42
36:5:837:A:H3'	36:5:838:G:H8	1.85	0.42
36:1:846:A:H2'	36:1:847:A:O4'	2.20	0.42
49:M3:32:LYS:O	49:M3:36:ARG:HG3	2.20	0.42
36:5:2404:A:N7	36:5:2872:A:N6	2.68	0.42
2:S0:84:ARG:HD2	2:S0:203:PHE:O	2.20	0.42
36:1:1145:G:H5'	68:O2:46:PHE:CE1	2.55	0.42
1:2:1460:A:O4'	35:SM:71:ASN:HB3	2.20	0.42
17:C5:85:ILE:HD13	17:C5:107:ILE:HG23	2.02	0.42
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	2.01	0.42
47:M0:5:PRO:C	47:M0:7:ARG:H	2.23	0.42
39:L2:54:ARG:HG2	39:L2:55:GLY:O	4.45	0.42
16:C4:12:GLN:HB3	16:C4:78:ALA:HB2	2.83	0.42
36:5:63:A:C6	36:5:64:G:C6	3.08	0.42
36:5:3191:G:H2'	36:5:3192:U:C6	2.55	0.42
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.36	0.42
11:S9:171:ARG:HH11	11:S9:174:ARG:HD3	4.28	0.42
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.55	0.42
1:2:848:C:H2'	1:2:849:C:H6	1.83	0.42
57:N1:142:SER:OG	57:N1:143:THR:N	2.52	0.42
1:6:1392:U:H2'	1:6:1393:C:H6	1.85	0.42
56:N0:1:MET:HE2	56:N0:1:MET:HB3	1.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:39:ARG:HH22	55:M9:185:LEU:CA	2.33	0.42
36:1:2278:C:H2'	36:1:2279:A:H5''	2.01	0.42
36:5:1939:G:C6	36:5:1940:G:C5	3.08	0.42
1:2:1357:A:C6	1:2:1367:G:C6	3.08	0.42
36:1:2612:U:H1'	36:1:2803:A:N3	2.34	0.42
1:6:1230:A:H2'	1:6:1258:U:C5	2.55	0.42
20:C8:94:ASP:OD2	20:C8:98:TYR:HE2	2.43	0.42
40:L3:43:LEU:HA	40:L3:43:LEU:HD12	2.56	0.42
33:E1:119:ARG:CZ	33:E1:119:ARG:HB3	4.60	0.42
64:N8:65:GLN:O	64:N8:66:ALA:CB	2.67	0.42
36:5:508:U:H2'	36:5:509:U:H6	1.85	0.42
1:2:1320:U:O2	1:2:1322:A:H5'	2.20	0.42
1:6:63:G:H4'	1:6:170:U:C5	2.55	0.42
36:1:58:G:OP1	51:M5:157:LYS:NZ	2.43	0.42
13:C1:123:VAL:CG2	13:C1:142:VAL:HG22	3.65	0.42
36:5:2107:A:C2	36:5:2108:C:C2	3.07	0.42
36:1:351:A:N6	75:O9:35:ILE:HG23	2.34	0.42
1:6:137:U:H2'	1:6:137:U:H6	1.64	0.42
1:6:763:G:C6	1:6:764:U:C4	3.08	0.42
36:5:144:A:N6	36:5:145:G:C2	2.88	0.42
36:5:1887:A:OP2	86:5:3933:OHX:N5	2.53	0.42
36:5:597:G:C2	36:5:608:A:H1'	2.54	0.42
45:L8:63:LYS:O	45:L8:67:ILE:HG13	2.20	0.42
1:6:635:A:H2'	1:6:636:A:H8	1.85	0.42
1:2:891:A:H2'	1:2:892:A:C8	2.55	0.42
23:D1:46:ILE:H	23:D1:46:ILE:HD12	4.93	0.42
8:S6:214:LYS:HE3	8:S6:214:LYS:HB2	4.46	0.42
1:2:1178:G:H2'	1:2:1179:G:O4'	2.19	0.42
9:S7:70:PHE:HA	9:S7:70:PHE:HD1	1.76	0.42
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.59	0.42
36:1:370:U:C4	36:1:371:G:C6	3.08	0.42
1:2:1523:G:C8	21:C9:79:LEU:HD13	2.54	0.42
36:5:960:U:H4'	36:5:963:G:N1	2.34	0.42
23:D1:38:LYS:HD2	23:D1:49:GLU:HG2	2.00	0.42
39:L2:149:ARG:NH2	39:L2:252:THR:O	4.32	0.42
36:5:639:G:C2'	36:5:640:U:H5'	2.48	0.42
49:M3:46:ILE:HA	49:M3:46:ILE:HD12	1.80	0.42
48:M1:92:ARG:HB2	48:M1:94:ARG:HG2	2.02	0.42
18:C6:44:LEU:HA	18:C6:44:LEU:HD23	2.35	0.42
36:1:2444:C:H3'	36:1:2445:A:H5''	2.02	0.42
4:S2:41:LEU:HD11	4:S2:56:ILE:HD13	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:51:SER:HB3	3:S1:57:ALA:H	3.05	0.42
1:6:196:G:C2	1:6:197:A:H1'	2.55	0.42
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	2.01	0.42
3:S1:77:GLU:O	3:S1:80:SER:N	2.52	0.42
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.52	0.42
34:SR:37:SER:HG	34:SR:38:ARG:H	2.82	0.42
36:5:662:U:H2'	36:5:663:C:C6	2.54	0.42
74:O8:26:LYS:HE3	74:O8:28:ASN:OD1	4.14	0.42
1:2:916:U:HO2'	16:C4:27:PHE:HZ	1.68	0.42
36:1:3133:C:H2'	36:1:3134:A:O4'	2.20	0.42
47:M0:99:ILE:HG13	47:M0:123:HIS:CG	5.38	0.42
36:5:1502:C:N3	36:5:1513:G:O6	2.53	0.42
55:M9:90:PRO:O	55:M9:94:VAL:HG23	2.86	0.42
22:D0:63:LEU:HD22	31:D9:34:TYR:CZ	2.55	0.42
42:L5:281:GLU:O	42:L5:285:ARG:HG3	2.33	0.42
36:5:2444:C:N4	36:5:2503:G:H1	2.16	0.42
17:C5:30:THR:HG23	17:C5:86:VAL:HG21	2.01	0.42
17:C5:108:ARG:NH2	20:C8:119:ILE:HA	3.64	0.42
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.02	0.42
36:1:3022:G:O2'	36:1:3031:G:O6	2.25	0.42
36:1:1334:U:H1'	44:L7:208:SER:HB2	2.02	0.42
36:1:955:U:H2'	36:1:956:U:C6	2.55	0.42
57:N1:130:ARG:NH1	36:5:1098:A:OP1	251.92	0.42
52:M6:27:LEU:HD11	52:M6:84:LEU:HD21	2.01	0.42
36:5:1152:G:H22	36:5:1200:A:N6	2.17	0.42
28:D6:41:ILE:HG22	28:D6:68:TYR:HA	2.02	0.42
1:2:1451:C:OP1	31:D9:10:HIS:HB3	2.20	0.42
36:1:1554:U:O2'	36:1:1582:C:H5	2.02	0.42
57:N1:13:TYR:HA	57:N1:16:GLN:HB2	2.14	0.42
1:2:526:A:H2'	1:2:527:A:O4'	2.20	0.42
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.20	0.42
63:N7:89:VAL:HG23	63:N7:92:PHE:HE2	1.83	0.42
39:L2:4:VAL:HG12	39:L2:8:GLN:HB2	2.02	0.42
24:D2:90:THR:HA	24:D2:94:LEU:HG	2.79	0.42
14:C2:25:GLU:C	14:C2:27:ALA:H	2.75	0.42
57:N1:104:GLU:O	57:N1:108:ARG:HB2	2.20	0.42
70:O4:16:ARG:HH11	70:O4:37:LYS:HD3	1.84	0.42
13:C1:54:ILE:HD12	13:C1:54:ILE:HA	1.87	0.42
1:2:150:U:H2'	1:2:151:G:C8	2.55	0.42
1:6:621:A:N3	1:6:1107:G:H1'	2.35	0.42
36:5:501:A:H2'	36:5:502:U:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:147:LYS:HD3	36:5:117:U:O4	106.22	0.42
36:1:3383:G:H2'	36:1:3384:U:C6	2.55	0.42
36:1:65:A:C4	36:1:110:G:N7	2.88	0.42
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.49	0.42
1:6:872:G:H2'	1:6:873:U:O4'	2.20	0.42
1:2:100:A:H61	1:2:385:A:H1'	1.84	0.42
10:S8:70:GLU:OE2	13:C1:24:LYS:NZ	2.53	0.42
52:M6:96:LYS:O	52:M6:100:GLU:HG3	2.20	0.42
36:1:1332:A:H2'	36:1:1333:C:C6	2.55	0.42
55:M9:70:LYS:O	55:M9:73:GLY:N	2.80	0.42
20:C8:11:PHE:CD2	20:C8:59:GLY:HA3	2.55	0.42
1:2:1072:C:H4'	15:C3:11:ILE:HD11	2.02	0.42
36:1:537:A:C2	36:1:557:A:C4	3.08	0.42
29:D7:67:THR:HB	29:D7:68:GLY:H	1.48	0.42
1:6:933:A:H2'	1:6:933:A:N3	2.35	0.42
11:S9:182:GLU:HG3	11:S9:182:GLU:H	2.79	0.42
57:N1:31:LEU:HD23	57:N1:31:LEU:HA	1.78	0.42
36:1:720:A:N3	36:1:720:A:H2'	2.34	0.42
1:6:472:U:H2'	1:6:473:A:H8	1.84	0.42
36:5:854:G:H2'	36:5:855:U:O4'	2.20	0.42
36:5:2623:G:H2'	36:5:2624:G:O4'	2.20	0.42
10:S8:56:ARG:NH2	1:6:332:U:OP2	287.44	0.41
1:6:1553:G:O2'	1:6:1555:A:N7	2.53	0.41
39:L2:9:ARG:HH21	39:L2:9:ARG:HD3	1.67	0.41
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	2.02	0.41
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.75	0.41
36:1:2989:U:H2'	36:1:2990:G:O4'	2.19	0.41
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	1.99	0.41
3:S1:137:ILE:HD11	3:S1:172:LEU:HD22	2.51	0.41
46:L9:70:THR:HG21	36:5:3122:A:C2	323.94	0.41
19:C7:45:ARG:HG3	1:6:1389:C:OP2	423.04	0.41
19:C7:45:ARG:O	19:C7:49:LYS:HG3	4.83	0.41
3:S1:207:LEU:HB3	3:S1:210:ILE:HD11	2.01	0.41
78:Q2:63:LYS:HD3	36:5:2795:U:OP2	213.46	0.41
41:L4:115:HIS:NE2	41:L4:119:ARG:CZ	2.83	0.41
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.47	0.41
1:6:1698:G:O2'	1:6:1699:G:O5'	2.35	0.41
44:L7:127:LEU:HA	44:L7:127:LEU:HD23	2.17	0.41
33:E1:90:LYS:HD3	33:E1:93:HIS:HE1	9.84	0.41
1:6:679:U:H2'	1:6:680:U:O4'	2.20	0.41
36:5:2250:G:C2'	36:5:2251:G:H5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4026:OHX:N6	86:1:4039:OHX:N5	2.68	0.41
2:S0:70:PRO:HD2	2:S0:71:GLU:OE2	2.94	0.41
1:6:1218:G:C8	1:6:1444:A:C6	3.08	0.41
16:C4:122:PRO:HB2	16:C4:124:ASP:HA	2.02	0.41
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.55	0.41
36:1:743:C:O2	54:M8:141:ARG:HD3	2.20	0.41
53:M7:111:LYS:HD3	53:M7:152:GLU:HB3	4.05	0.41
10:S8:69:SER:HB3	13:C1:23:PRO:HD2	2.32	0.41
41:L4:334:PHE:CD1	41:L4:339:LEU:HD11	4.39	0.41
36:5:361:A:N3	36:5:814:U:H1'	2.35	0.41
41:L4:180:LYS:NZ	41:L4:203:ARG:O	3.17	0.41
62:N6:83:ASP:O	62:N6:84:LYS:HD2	3.46	0.41
36:5:246:U:H2'	36:5:247:C:H5''	2.02	0.41
36:1:2514:U:OP1	36:1:2514:U:H6	2.03	0.41
61:N5:44:PRO:HB2	61:N5:45:LYS:H	3.75	0.41
78:Q2:64:THR:O	78:Q2:65:THR:HG23	2.90	0.41
55:M9:104:ARG:NH1	36:5:1949:G:H5''	219.31	0.41
36:1:2710:C:H2'	36:1:2711:C:C6	2.55	0.41
37:3:31:U:H4'	42:L5:218:ARG:CZ	2.50	0.41
32:E0:35:TYR:CE1	32:E0:39:LEU:HD21	3.21	0.41
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.85	0.41
79:Q3:28:LYS:O	79:Q3:32:GLN:HG3	2.25	0.41
54:M8:104:LEU:HA	54:M8:104:LEU:HD23	2.34	0.41
39:L2:83:HIS:O	39:L2:86:GLN:HB3	2.33	0.41
1:6:809:A:C6	1:6:810:G:C6	3.08	0.41
1:6:1125:A:C5	1:6:1126:G:H1'	2.55	0.41
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.85	0.41
2:S0:80:THR:HA	2:S0:83:GLN:OE1	2.78	0.41
36:1:373:A:N1	36:1:394:G:H4'	2.35	0.41
43:L6:171:PRO:C	43:L6:173:MET:H	2.34	0.41
11:S9:28:LEU:HD13	32:E0:40:TYR:HA	2.87	0.41
36:1:2378:C:H2'	36:1:2379:U:C6	2.55	0.41
36:1:1316:C:C2	52:M6:130:LYS:HG3	2.55	0.41
36:1:2284:C:H5''	36:1:2285:C:OP2	2.19	0.41
38:4:111:A:N3	73:O7:17:THR:HG21	2.35	0.41
36:5:439:C:H4'	36:5:440:A:H5'	2.00	0.41
1:2:1119:G:O6	86:2:2151:OHX:N1	2.53	0.41
45:L8:169:LEU:HD22	45:L8:173:MET:HG2	2.32	0.41
38:4:120:C:H2'	38:4:121:U:O4'	2.20	0.41
1:2:529:A:H2'	1:2:530:C:O4'	2.20	0.41
36:1:2309:A:H8	36:1:2309:A:OP1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:54:LEU:HA	60:N4:54:LEU:HD12	1.58	0.41
36:1:2508:U:O5'	36:1:2508:U:H6	2.03	0.41
36:5:720:A:H2'	36:5:720:A:N3	2.35	0.41
53:M7:95:LEU:HD23	53:M7:95:LEU:HA	1.88	0.41
29:D7:80:ARG:HG2	29:D7:81:ARG:N	2.35	0.41
14:C2:29:LYS:HG3	14:C2:100:TRP:CD1	2.95	0.41
1:6:1119:G:H2'	1:6:1120:U:O4'	2.20	0.41
40:L3:343:TYR:CE2	40:L3:345:ASN:HB2	3.16	0.41
63:N7:35:SER:OG	63:N7:36:HIS:N	2.53	0.41
9:S7:101:LYS:HB2	1:6:639:U:H5''	364.82	0.41
54:M8:185:LYS:HG2	54:M8:186:VAL:HG23	2.02	0.41
7:S5:23:VAL:O	7:S5:34:GLN:NE2	3.40	0.41
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.50	0.41
23:D1:74:GLN:HB2	23:D1:74:GLN:HE21	1.69	0.41
22:D0:58:LEU:HD23	22:D0:58:LEU:HA	1.86	0.41
1:2:399:A:H1'	1:2:401:A:O4'	2.20	0.41
40:L3:148:LEU:HD12	40:L3:148:LEU:HA	1.82	0.41
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.20	0.41
13:C1:109:VAL:HG21	13:C1:125:VAL:HG12	3.44	0.41
49:M3:54:LEU:HD22	49:M3:55:ARG:N	2.36	0.41
41:L4:144:LYS:HB3	41:L4:144:LYS:HE3	4.61	0.41
36:5:2573:G:H5'	36:5:2574:G:OP2	2.20	0.41
36:5:1878:G:HO2'	36:5:1879:A:P	2.43	0.41
5:S3:67:ASN:HA	5:S3:70:THR:OG1	2.64	0.41
48:M1:171:VAL:HG13	48:M1:172:LEU:N	2.31	0.41
44:L7:158:LYS:HD3	44:L7:159:GLN:HA	4.94	0.41
36:5:3165:A:H61	36:5:3285:C:N4	2.18	0.41
7:S5:159:ALA:HB3	7:S5:225:ARG:HB3	4.28	0.41
1:6:1150:G:C6	1:6:1768:G:C6	3.08	0.41
3:S1:149:GLN:OE1	3:S1:154:SER:HB2	2.20	0.41
36:1:1834:U:C3'	36:1:1835:A:H5'	2.50	0.41
60:N4:13:ILE:HG12	60:N4:32:GLN:CB	3.18	0.41
55:M9:163:ARG:HD3	1:6:813:U:C6	304.72	0.41
2:S0:140:ASN:HD22	23:D1:29:HIS:HA	1.85	0.41
78:Q2:72:LEU:HD11	78:Q2:83:LEU:HD12	4.24	0.41
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	2.75	0.41
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.20	0.41
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.20	0.41
42:L5:36:LEU:HD23	42:L5:36:LEU:HA	1.78	0.41
46:L9:117:PHE:CE1	46:L9:178:GLY:HA2	2.53	0.41
13:C1:36:LYS:HE3	13:C1:59:PRO:O	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:31:SER:HA	9:S7:35:LYS:HB3	3.15	0.41
4:S2:128:GLY:O	4:S2:132:ALA:N	2.72	0.41
58:N2:37:LEU:HD22	58:N2:37:LEU:HA	4.50	0.41
36:5:2398:A:H2'	36:5:2399:A:H5'	2.02	0.41
21:C9:33:TYR:C	21:C9:33:TYR:CD1	2.94	0.41
25:D3:57:LEU:HA	25:D3:57:LEU:HD23	2.15	0.41
1:2:1646:C:H2'	1:2:1647:U:H6	1.84	0.41
24:D2:105:THR:HG23	24:D2:110:ILE:CG1	2.49	0.41
69:O3:103:TYR:HA	69:O3:105:SER:N	2.35	0.41
36:1:3108:G:C2	36:1:3127:A:C2	3.07	0.41
36:1:2281:A:C6	36:1:2959:C:H1'	2.56	0.41
36:1:1069:C:H2'	36:1:1070:U:C6	2.55	0.41
36:5:1481:A:O2'	36:5:1858:A:C2	2.71	0.41
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.20	0.41
33:E1:123:ASN:O	33:E1:125:THR:N	2.91	0.41
57:N1:87:LYS:HD2	36:5:2723:U:OP1	217.94	0.41
42:L5:122:VAL:HG23	42:L5:123:GLU:H	4.21	0.41
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.85	0.41
6:S4:206:ASP:HB2	6:S4:222:LEU:HB2	2.34	0.41
36:1:2343:C:H2'	36:1:2344:U:C6	2.54	0.41
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.83	0.41
1:2:620:A:O2'	1:2:621:A:H5'	2.19	0.41
1:2:1334:U:H2'	1:2:1335:U:H6	1.85	0.41
1:6:312:A:C2	1:6:314:C:H2'	2.55	0.41
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	2.40	0.41
36:5:2224:A:N7	36:5:2225:U:H1'	2.35	0.41
36:5:2172:A:OP2	86:5:4154:OHX:N5	2.53	0.41
56:N0:33:ASN:ND2	56:N0:35:VAL:HB	3.31	0.41
58:N2:20:SER:HB3	58:N2:61:THR:HB	2.88	0.41
61:N5:92:LYS:HG3	61:N5:110:VAL:HG12	2.02	0.41
1:2:1352:G:H2'	1:2:1353:U:O4'	2.20	0.41
1:6:1180:C:C4	1:6:1181:U:C4	3.07	0.41
79:Q3:18:TYR:HA	36:5:2131:A:N6	227.15	0.41
1:2:924:A:O2'	1:2:987:G:OP1	2.37	0.41
36:1:1901:A:H5''	36:1:1902:G:OP2	2.20	0.41
67:O1:105:GLN:H	67:O1:105:GLN:HG2	1.83	0.41
36:1:553:U:H2'	36:1:554:A:O4'	2.20	0.41
36:5:719:U:H2'	36:5:719:U:H6	1.63	0.41
51:M5:164:LEU:HA	51:M5:164:LEU:HD23	1.86	0.41
46:L9:175:PHE:N	46:L9:175:PHE:CD2	3.07	0.41
36:1:3242:G:C2	36:1:3245:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1008:U:H2'	36:1:1009:A:O4'	2.20	0.41
40:L3:113:GLU:CD	40:L3:167:ARG:HD3	2.44	0.41
36:1:155:G:O2'	72:O6:27:SER:HB3	2.20	0.41
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	2.01	0.41
1:2:142:G:H1	1:2:173:A:H2	1.65	0.41
1:2:1429:G:C6	1:2:1430:U:C4	3.08	0.41
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.61	0.41
47:M0:177:ASP:O	47:M0:180:GLU:HB3	3.32	0.41
1:2:1498:G:O2'	1:2:1499:G:H5'	2.20	0.41
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.69	0.41
8:S6:173:PRO:HG3	1:6:66:U:H5	334.10	0.41
78:Q2:23:HIS:HA	78:Q2:73:GLU:O	2.46	0.41
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.98	0.41
3:S1:193:ILE:O	3:S1:196:GLU:N	2.93	0.41
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.84	0.41
20:C8:27:LYS:NZ	1:6:1539:G:H1	352.91	0.41
44:L7:126:LEU:HD23	44:L7:126:LEU:HA	1.79	0.41
77:Q1:3:ALA:HB3	1:6:1773:C:OP1	313.06	0.41
1:2:830:U:O2'	1:2:831:U:OP2	2.32	0.41
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.19	0.41
44:L7:192:GLY:HA3	44:L7:193:PRO:HD3	2.83	0.41
1:6:40:A:O2'	86:6:2108:OHX:N4	2.52	0.41
36:1:1878:G:C2'	36:1:1879:A:H5'	2.50	0.41
9:S7:107:ARG:NH2	1:6:741:C:O2	348.90	0.41
40:L3:247:ARG:HH22	36:5:2341:A:P	220.00	0.41
1:6:485:A:C6	1:6:486:G:H1'	2.55	0.41
9:S7:94:ALA:HB3	9:S7:96:ARG:HH12	3.44	0.41
36:1:2544:U:H2'	36:1:2545:C:H6	1.84	0.41
36:5:129:U:O4	86:5:3935:OHX:N4	2.53	0.41
19:C7:25:THR:C	19:C7:27:ASP:H	2.24	0.41
49:M3:107:GLU:H	49:M3:107:GLU:HG2	1.65	0.41
41:L4:138:ARG:HB3	41:L4:138:ARG:NH1	3.93	0.41
54:M8:173:GLU:OE2	64:N8:49:HIS:CD2	5.11	0.41
45:L8:91:PHE:O	45:L8:95:ASN:HB2	2.43	0.41
1:2:767:U:C5	11:S9:142:ASN:OD1	2.74	0.41
40:L3:257:PRO:HG2	40:L3:261:MET:CE	2.50	0.41
1:2:872:G:H2'	1:2:873:U:O4'	2.21	0.41
36:5:1237:G:H22	36:5:1251:A:H2	1.68	0.41
1:6:8:U:O2'	86:6:2072:OHX:N2	2.54	0.41
36:1:92:G:H5'	36:1:93:C:O5'	2.20	0.41
36:5:982:C:N4	36:5:1101:G:H1	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:248:U:H4'	13:C1:36:LYS:HD3	2.01	0.41
1:2:180:A:H2'	1:2:181:A:O4'	2.20	0.41
1:2:1116:A:H2'	1:2:1117:U:O4'	2.20	0.41
11:S9:76:LEU:O	11:S9:80:LEU:HG	2.20	0.41
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	2.02	0.41
1:2:222:A:N6	1:2:840:U:O4	2.53	0.41
36:1:715:A:H8	64:N8:115:LYS:HG2	1.84	0.41
79:Q3:62:LYS:HZ2	36:5:2554:A:H62	217.77	0.41
1:2:1414:U:OP1	19:C7:2:GLY:N	2.54	0.41
60:N4:39:LEU:HA	60:N4:39:LEU:HD12	1.78	0.41
45:L8:71:VAL:HG13	45:L8:234:GLY:C	2.43	0.41
55:M9:135:LYS:O	55:M9:139:VAL:HG13	5.77	0.41
42:L5:14:SER:C	42:L5:16:PHE:H	2.23	0.41
12:C0:70:GLU:O	12:C0:73:VAL:HB	2.19	0.41
70:O4:81:CYS:O	70:O4:81:CYS:SG	2.86	0.41
39:L2:4:VAL:HG13	39:L2:8:GLN:HB2	2.51	0.41
36:1:3020:U:H2'	36:1:3033:A:N6	2.36	0.41
1:2:1387:G:OP1	34:SR:66:HIS:NE2	2.52	0.41
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.71	0.41
36:5:1138:U:H2'	36:5:1139:G:O4'	2.20	0.41
36:1:1613:A:H2'	36:1:1614:C:H6	1.85	0.41
70:O4:65:VAL:HG22	70:O4:69:HIS:ND1	3.86	0.41
14:C2:130:THR:O	14:C2:133:LEU:HB2	2.19	0.41
34:SR:238:ASP:N	34:SR:238:ASP:OD1	2.52	0.41
36:1:2694:A:C6	36:1:2695:A:C6	3.08	0.41
25:D3:17:VAL:HG23	25:D3:20:ARG:NH1	5.11	0.41
63:N7:24:VAL:HG23	63:N7:44:ALA:O	2.77	0.41
1:2:800:U:H2'	1:2:801:G:H8	1.84	0.41
36:1:3192:U:H2'	36:1:3193:C:C6	2.55	0.41
37:3:121:U:C2	42:L5:268:GLU:HB3	2.56	0.41
49:M3:33:VAL:HG12	49:M3:34:SER:N	2.34	0.41
4:S2:106:ASP:OD1	4:S2:107:SER:N	2.53	0.41
36:5:2590:A:C6	36:5:2591:A:C5	3.09	0.41
57:N1:65:TYR:CE2	57:N1:88:ARG:HB3	2.68	0.41
7:S5:217:LEU:HD23	7:S5:217:LEU:HA	2.01	0.41
43:L6:165:LEU:HD23	43:L6:165:LEU:HA	1.82	0.41
46:L9:146:LEU:H	46:L9:146:LEU:HD12	2.11	0.41
66:O0:66:LYS:N	66:O0:66:LYS:HD2	4.67	0.41
1:2:910:C:H2'	1:2:911:U:O4'	2.20	0.41
34:SR:176:LYS:HG2	34:SR:197:SER:O	2.20	0.41
36:1:274:G:C6	36:1:275:U:N3	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1750:A:H4'	36:1:1751:G:H5'	2.01	0.41
36:1:911:C:H5''	39:L2:15:ILE:HG12	2.01	0.41
42:L5:269:SER:OG	37:7:1:G:C2	316.26	0.41
11:S9:140:ILE:HG13	26:D4:65:GLY:CA	3.71	0.41
9:S7:173:TYR:CE1	9:S7:179:LYS:HB2	2.54	0.41
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.42	0.41
40:L3:17:LEU:HD12	40:L3:17:LEU:HA	2.21	0.41
43:L6:3:ALA:HB1	68:O2:75:LEU:CD1	3.35	0.41
1:2:702:G:C6	1:2:737:A:C6	3.09	0.41
2:S0:165:ARG:HA	2:S0:165:ARG:HH11	1.85	0.41
2:S0:180:GLU:HA	2:S0:183:ARG:HD3	2.40	0.41
44:L7:80:GLN:CD	57:N1:136:ARG:HG2	2.41	0.41
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	2.02	0.41
22:D0:61:LYS:HG3	22:D0:86:ILE:HB	2.02	0.41
1:6:1388:A:HO2'	1:6:1411:A:H2	1.68	0.41
30:D8:10:ALA:O	30:D8:53:ILE:HG23	3.09	0.41
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.06	0.41
7:S5:128:ASN:OD1	7:S5:130:ILE:HG22	4.77	0.41
22:D0:106:ILE:HD12	22:D0:106:ILE:HA	1.89	0.41
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.76	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:N	2.35	0.41
39:L2:56:ALA:HA	39:L2:57:PRO:HD3	1.93	0.41
62:N6:119:ILE:HG22	62:N6:124:GLY:HA3	2.34	0.41
14:C2:57:ALA:O	14:C2:85:LYS:HE3	3.35	0.41
2:S0:57:LEU:CD2	2:S0:177:LEU:HG	2.76	0.41
38:4:42:G:OP1	73:O7:60:GLY:N	2.46	0.41
45:L8:36:ILE:HG22	45:L8:37:GLY:N	2.35	0.41
19:C7:80:ARG:C	19:C7:82:ASP:H	2.24	0.41
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.98	0.41
1:6:887:A:H2'	1:6:888:U:C6	2.55	0.41
1:2:269:G:C6	1:2:287:G:C6	3.08	0.41
53:M7:108:ASP:C	53:M7:110:THR:H	2.22	0.41
43:L6:19:LYS:HE3	43:L6:19:LYS:HB3	1.91	0.41
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.43	0.41
52:M6:76:PRO:HD2	52:M6:106:GLU:OE1	3.16	0.41
33:E1:89:LYS:HD2	33:E1:89:LYS:HA	1.80	0.41
36:5:2187:G:OP2	86:5:3974:OHX:N4	2.52	0.41
61:N5:91:ASN:HD21	61:N5:93:TYR:HD2	1.68	0.41
36:1:1895:A:N6	36:1:2335:G:O2'	2.54	0.41
42:L5:83:LEU:HA	42:L5:83:LEU:HD23	1.95	0.41
8:S6:77:LEU:HB3	8:S6:81:VAL:HG11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:90:THR:C	4:S2:92:ALA:H	2.23	0.41
1:6:515:A:H2'	1:6:516:G:O4'	2.20	0.41
58:N2:41:ILE:HD13	58:N2:71:PHE:CE2	3.81	0.41
86:5:4037:OHX:N3	86:5:4085:OHX:N4	2.68	0.41
22:D0:80:GLU:HG3	31:D9:54:LYS:HZ2	1.85	0.41
36:1:1742:U:H2'	36:1:1743:G:O4'	2.20	0.41
7:S5:118:LEU:HD22	7:S5:129:PRO:HB2	2.03	0.41
1:6:1413:U:H4'	1:6:1414:U:OP2	2.20	0.41
36:5:2512:C:N4	36:5:2513:U:O4	2.53	0.41
36:1:3316:A:H3'	36:1:3316:A:C8	2.55	0.41
73:O7:13:ASN:O	36:5:817:A:C5	138.80	0.41
36:1:2611:U:H2'	36:1:2612:U:C6	2.55	0.41
67:O1:20:LEU:HD21	67:O1:31:ARG:HB2	2.01	0.41
1:6:919:A:H2'	1:6:920:U:H6	1.85	0.41
33:E1:106:TYR:CE2	33:E1:116:LYS:HG2	2.55	0.41
29:D7:6:ASP:OD1	29:D7:9:HIS:HB2	2.48	0.41
1:2:881:A:H2'	1:2:882:U:O4'	2.20	0.41
19:C7:57:LEU:HA	19:C7:60:ARG:HG2	2.53	0.41
17:C5:52:LYS:HD2	17:C5:52:LYS:HA	3.96	0.41
5:S3:55:THR:CG2	5:S3:90:ARG:HA	3.46	0.41
1:2:484:C:N4	1:2:503:G:H22	2.18	0.41
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.77	0.41
38:8:68:G:H1	38:8:91:C:H42	1.69	0.41
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	2.02	0.41
13:C1:40:LEU:HD22	1:6:246:G:C2	327.33	0.41
36:1:423:A:N6	36:1:424:G:C6	2.88	0.41
36:1:2561:A:C4	45:L8:32:LYS:HD2	2.55	0.41
36:1:3269:U:H4'	36:1:3270:U:O5'	2.20	0.41
34:SR:236:ALA:HB2	34:SR:263:PHE:HZ	1.86	0.41
73:O7:26:SER:O	73:O7:34:CYS:HA	2.19	0.41
33:E1:112:GLY:HA3	33:E1:113:LYS:NZ	7.54	0.41
36:1:3195:U:H1'	36:1:3196:U:OP1	2.20	0.41
34:SR:87:LYS:HG2	34:SR:108:SER:O	3.55	0.41
36:5:1184:A:H2'	36:5:1185:C:H6	1.85	0.41
1:2:1146:G:C6	1:2:1147:A:C6	3.09	0.41
72:O6:91:ASN:O	72:O6:94:ILE:HG22	4.41	0.41
5:S3:124:ARG:HH21	35:SM:128:ALA:HB2	7.54	0.41
54:M8:21:SER:OG	54:M8:22:ASP:N	2.85	0.41
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.55	0.41
36:1:104:G:H2'	36:1:105:C:O4'	2.20	0.41
1:2:1587:A:O5'	1:2:1587:A:H8	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1552:U:OP2	17:C5:43:ARG:NH2	2.53	0.41
36:5:912:G:H1'	36:5:917:A:C2	2.54	0.41
53:M7:82:ARG:HB3	53:M7:83:TRP:H	2.13	0.41
36:5:3182:G:H2'	36:5:3183:A:O4'	2.21	0.41
1:2:1498:G:OP1	21:C9:75:LYS:HD2	2.21	0.41
14:C2:67:THR:C	14:C2:69:ALA:H	2.29	0.41
3:S1:70:LEU:HD13	3:S1:79:HIS:ND1	5.49	0.41
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.55	0.41
20:C8:38:VAL:HG12	20:C8:42:TYR:CD2	2.56	0.41
28:D6:87:ARG:NH1	28:D6:92:ARG:HA	3.11	0.41
36:1:2273:G:C6	86:1:4133:OHX:N5	2.88	0.41
34:SR:34:LEU:HD12	34:SR:35:SER:H	2.84	0.41
16:C4:29:HIS:HB3	16:C4:41:ARG:HA	2.02	0.41
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.21	0.41
36:5:2904:U:H2'	36:5:2905:U:C6	2.55	0.41
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.48	0.41
36:1:769:G:OP1	49:M3:175:SER:HB2	2.20	0.41
36:5:130:A:C2	36:5:139:G:C2	3.09	0.41
36:5:3294:A:H2'	36:5:3295:A:O4'	2.21	0.41
64:N8:121:VAL:O	64:N8:123:VAL:HG23	2.49	0.41
1:6:705:U:O2'	1:6:706:A:H8	2.01	0.41
36:1:3030:G:N7	86:1:4067:OHX:N6	2.69	0.41
40:L3:284:ARG:NH2	40:L3:293:ASN:O	3.15	0.41
86:5:4014:OHX:N4	86:5:4203:OHX:N2	2.69	0.41
1:6:453:U:O2	1:6:453:U:H3'	2.21	0.41
41:L4:220:ARG:HG3	41:L4:221:ASN:N	2.36	0.41
1:6:52:U:H2'	1:6:53:G:C8	2.55	0.41
7:S5:150:GLY:N	30:D8:67:ARG:O	2.44	0.41
33:E1:133:ALA:O	33:E1:139:LEU:HA	2.20	0.41
14:C2:70:ASN:ND2	14:C2:73:LYS:HE2	2.34	0.41
68:O2:33:ARG:NH2	36:5:1407:A:O3'	162.07	0.41
45:L8:72:PRO:HG2	45:L8:75:ILE:HD12	2.03	0.41
36:1:873:C:H5''	36:1:874:U:O5'	2.21	0.41
42:L5:279:LYS:HD3	37:7:110:G:OP2	329.92	0.41
86:5:3975:OHX:N3	86:5:4246:OHX:N4	2.68	0.41
36:1:2358:A:H2'	36:1:2359:C:O4'	2.19	0.41
36:5:1107:C:H2'	36:5:1108:U:H6	1.86	0.41
46:L9:170:LYS:HE3	36:5:2902:A:OP1	319.19	0.41
12:C0:2:LEU:HD22	1:6:1258:U:H4'	433.52	0.41
57:N1:106:LEU:HA	57:N1:106:LEU:HD23	4.40	0.41
1:6:1039:A:N7	1:6:1091:A:C5	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2353:G:H2'	36:5:2354:C:O4'	2.21	0.41
40:L3:385:LYS:HG3	40:L3:386:ASP:H	2.53	0.41
9:S7:73:VAL:O	9:S7:75:THR:HG23	2.21	0.41
51:M5:13:LYS:HB3	51:M5:16:SER:HB3	2.02	0.41
36:1:3055:U:C2	36:1:3085:G:N1	2.88	0.41
1:2:717:C:H42	1:2:720:G:H22	1.67	0.41
36:1:1651:U:H2'	36:1:1652:G:C8	2.55	0.41
36:5:731:U:H2'	36:5:732:C:C6	2.55	0.41
36:1:2379:U:H2'	36:1:2380:U:H6	1.85	0.41
86:1:3970:OHX:N1	86:1:4150:OHX:N2	2.68	0.41
66:O0:62:LEU:HA	66:O0:62:LEU:HD23	1.77	0.41
36:5:897:U:H2'	36:5:898:U:H6	1.86	0.41
13:C1:40:LEU:HD22	1:6:246:G:N3	328.36	0.41
1:6:839:U:H2'	1:6:840:U:C6	2.56	0.41
23:D1:38:LYS:HE3	23:D1:51:VAL:HG23	2.92	0.41
36:5:2591:A:O2'	36:5:2592:G:H5'	2.20	0.41
1:2:127:G:N7	8:S6:202:ARG:NH2	2.68	0.41
36:5:653:A:C8	36:5:2360:C:C4	3.08	0.41
36:1:2338:C:H1'	59:N3:49:LEU:HD12	2.02	0.41
39:L2:47:GLN:OE1	39:L2:60:LYS:HD2	5.31	0.41
36:5:1807:G:C6	36:5:1808:G:N1	2.89	0.41
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.39	0.41
25:D3:114:LYS:HB3	25:D3:115:GLY:H	1.67	0.41
62:N6:86:THR:HG22	62:N6:96:PRO:HA	3.16	0.41
1:6:904:G:C6	1:6:905:A:C5	3.08	0.41
4:S2:113:LEU:HB2	4:S2:215:PHE:CD1	3.38	0.41
1:6:1467:C:H2'	1:6:1468:U:H6	1.84	0.41
64:N8:14:HIS:ND1	68:O2:36:LYS:HE2	2.39	0.41
36:5:578:A:H5'	36:5:579:G:O5'	2.21	0.41
21:C9:106:GLN:HE21	1:6:1500:C:P	419.42	0.41
18:C6:93:HIS:CE1	18:C6:97:VAL:HG21	2.55	0.41
56:N0:42:TRP:HA	56:N0:42:TRP:CE3	2.55	0.41
6:S4:48:LEU:HD12	6:S4:48:LEU:HA	2.13	0.41
6:S4:117:GLU:O	6:S4:118:GLU:HB3	4.65	0.41
1:2:162:A:C6	1:2:163:G:C6	3.09	0.41
36:5:80:G:H2'	36:5:81:C:C6	2.55	0.41
1:2:1362:U:O2'	1:2:1363:U:O2	2.32	0.41
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	2.02	0.41
1:2:256:A:H2'	1:2:257:A:O4'	2.20	0.41
36:1:807:A:H61	36:1:934:G:H22	1.69	0.41
1:2:463:U:H2'	1:2:464:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:647:G:C2	1:2:688:G:C2	3.09	0.41
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.34	0.41
1:6:755:A:C2	1:6:756:A:C4	3.09	0.41
36:1:1843:C:H2'	36:1:1844:C:H6	1.85	0.41
9:S7:126:LEU:HD12	9:S7:126:LEU:HA	2.08	0.41
2:S0:136:ALA:O	2:S0:139:VAL:HG12	2.20	0.41
36:5:406:G:H1'	38:8:16:G:N2	2.35	0.41
34:SR:42:LEU:HB2	34:SR:61:PHE:CD2	3.00	0.41
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.48	0.41
1:2:1519:U:H3'	1:2:1520:U:H2'	2.02	0.41
6:S4:3:ARG:HD2	6:S4:3:ARG:HH11	1.72	0.41
58:N2:43:VAL:HG11	58:N2:50:LEU:HA	2.03	0.41
36:5:1764:U:H3'	36:5:1765:U:C5'	2.49	0.41
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.32	0.41
20:C8:26:ILE:O	20:C8:31:ALA:HB2	2.21	0.41
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.33	0.41
39:L2:188:LYS:HD2	39:L2:189:TYR:CE1	4.12	0.41
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	1.99	0.41
36:1:76:G:OP1	49:M3:70:ARG:NH1	2.53	0.41
20:C8:41:ARG:CD	21:C9:46:PRO:HD3	2.51	0.41
46:L9:18:VAL:N	50:M4:5:SER:OG	3.27	0.41
55:M9:130:ASN:HB3	55:M9:131:ALA:H	1.62	0.41
40:L3:75:ALA:HB2	36:5:3049:A:C2	246.61	0.41
12:C0:32:HIS:CD2	12:C0:34:GLU:O	5.37	0.41
40:L3:328:ILE:HG21	40:L3:328:ILE:HD13	1.83	0.41
1:2:1785:U:H2'	1:2:1786:G:H8	1.84	0.41
36:1:2630:C:C5	57:N1:4:SER:HB2	2.54	0.41
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.48	0.41
17:C5:85:ILE:HD12	17:C5:119:PHE:HE2	1.84	0.41
5:S3:116:ARG:HA	5:S3:152:PHE:CE1	4.04	0.41
10:S8:76:THR:HG22	10:S8:108:PRO:CG	3.01	0.41
6:S4:60:GLU:O	6:S4:64:ILE:HG13	3.26	0.41
44:L7:239:LEU:HD22	44:L7:243:MET:SD	2.61	0.41
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	3.55	0.41
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	2.02	0.41
1:6:382:C:H2'	1:6:383:G:O4'	2.20	0.41
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.86	0.41
48:M1:10:ARG:NH2	48:M1:151:SER:O	2.53	0.41
35:SM:46:LYS:HD3	35:SM:46:LYS:HA	1.83	0.41
45:L8:94:PHE:HB3	45:L8:189:LEU:HD11	4.40	0.41
1:2:931:C:OP1	28:D6:70:LYS:HE2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:23:GLN:HB2	21:C9:55:TYR:CD2	5.13	0.41
36:1:2259:A:OP2	86:1:3927:OHX:N2	2.53	0.41
5:S3:215:GLU:HA	5:S3:216:PRO:HD2	2.46	0.41
36:5:3133:C:C2	36:5:3134:A:C8	3.08	0.41
1:2:1570:A:H2'	1:2:1571:C:O4'	2.20	0.41
36:1:2186:U:H2'	36:1:2187:G:O4'	2.21	0.41
36:5:656:A:H2'	36:5:657:A:C8	2.56	0.41
56:N0:13:ARG:CZ	56:N0:51:VAL:HG13	3.78	0.41
1:6:656:G:N2	1:6:675:U:O2	2.53	0.41
56:N0:84:ARG:HG3	36:5:1295:G:OP1	295.23	0.41
1:2:1086:A:C6	1:2:1087:A:C6	3.09	0.41
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	2.03	0.41
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.55	0.41
1:6:1237:G:N2	1:6:1248:C:O2	2.42	0.41
36:5:3279:A:C2'	36:5:3280:U:H5'	2.51	0.41
1:6:829:A:OP1	1:6:829:A:H4'	2.20	0.41
9:S7:47:ARG:HE	9:S7:61:PHE:HE2	2.49	0.41
36:1:1423:C:H2'	36:1:1424:C:C6	2.55	0.41
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	2.04	0.41
36:5:1222:G:OP2	36:5:1222:G:H8	2.02	0.41
36:1:2564:G:C5	36:1:2565:U:C4	3.08	0.41
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.20	0.41
1:6:249:U:H3'	1:6:250:C:H5'	2.02	0.41
42:L5:46:THR:HA	42:L5:47:PRO:HD3	2.51	0.41
36:1:256:G:O6	86:1:4154:OHX:N3	2.54	0.41
36:5:765:C:H4'	36:5:766:U:OP2	2.20	0.41
36:5:2542:U:HO2'	36:5:2543:U:P	2.44	0.41
36:5:3203:U:H2'	36:5:3204:C:C6	2.56	0.41
8:S6:219:ARG:O	8:S6:223:LYS:HB2	2.19	0.41
1:2:1522:U:OP1	86:2:2062:OHX:N3	2.53	0.41
59:N3:33:ASN:O	59:N3:34:LEU:HG	2.63	0.41
36:1:1802:C:H4'	70:O4:60:ARG:HG2	2.03	0.41
1:6:46:A:H1'	1:6:48:G:C8	2.55	0.41
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.20	0.41
46:L9:118:LEU:HD22	46:L9:118:LEU:HA	2.95	0.41
1:6:1723:U:H6	1:6:1723:U:O5'	2.03	0.41
36:5:839:C:H2'	36:5:839:C:O2	2.19	0.41
60:N4:1:MET:HG3	60:N4:15:PRO:HG3	2.02	0.41
21:C9:14:PHE:CZ	21:C9:132:LEU:HD13	5.64	0.41
1:2:1012:U:O3'	39:L2:248:GLY:HA2	2.20	0.41
56:N0:155:ARG:HD2	56:N0:171:PHE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:733:A:H4'	1:2:734:A:C5	2.56	0.41
3:S1:87:ARG:HG2	3:S1:88:VAL:O	3.12	0.41
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.72	0.41
2:S0:188:LEU:HD12	2:S0:189:VAL:CG1	2.49	0.41
79:Q3:17:ARG:HH11	79:Q3:17:ARG:HD2	1.65	0.41
1:6:192:U:HO2'	1:6:193:U:P	2.43	0.41
7:S5:198:LEU:O	7:S5:202:ALA:N	2.54	0.41
48:M1:101:ASN:OD1	48:M1:130:VAL:HG23	2.21	0.41
3:S1:113:MET:HE2	3:S1:142:PHE:HE2	4.39	0.41
36:1:2178:A:OP1	39:L2:127:ALA:HA	2.20	0.41
36:1:2157:G:O6	39:L2:151:PRO:HD2	2.21	0.41
4:S2:230:TRP:CD2	24:D2:68:ARG:HD2	3.26	0.41
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	2.03	0.41
5:S3:62:ASN:OD1	5:S3:62:ASN:N	2.54	0.41
51:M5:124:ASP:HB2	51:M5:125:SER:H	1.66	0.41
36:1:848:A:H8	36:1:848:A:O5'	2.03	0.41
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.02	0.41
36:1:2550:U:O4'	45:L8:38:GLN:NE2	2.54	0.41
1:2:285:G:H2'	1:2:286:C:H6	1.86	0.41
53:M7:151:THR:HG22	53:M7:152:GLU:O	2.75	0.41
15:C3:37:ILE:HD11	15:C3:54:LEU:HD11	4.25	0.41
41:L4:44:LYS:HA	41:L4:47:ARG:HD2	2.08	0.41
51:M5:98:LEU:HD23	51:M5:128:LYS:HD2	2.30	0.41
36:5:2733:A:H2'	36:5:2734:A:O4'	2.21	0.41
59:N3:66:LYS:O	59:N3:70:ARG:HG3	2.43	0.41
10:S8:83:TYR:HB3	10:S8:101:ILE:HG13	2.03	0.41
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	2.03	0.41
19:C7:5:ARG:HH21	19:C7:53:TYR:HD2	1.67	0.41
36:1:2745:G:H2'	36:1:2747:A:OP2	2.21	0.41
7:S5:150:GLY:O	7:S5:152:GLY:N	3.15	0.41
36:5:954:U:O4	36:5:1115:G:H1'	2.21	0.41
2:S0:9:LEU:HD11	2:S0:14:ALA:CB	3.20	0.41
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	2.01	0.41
47:M0:167:LEU:H	47:M0:167:LEU:CD2	4.03	0.41
59:N3:40:LYS:HA	59:N3:40:LYS:HD2	2.43	0.41
36:5:1444:G:H2'	36:5:1445:U:C5'	2.50	0.41
69:O3:6:ARG:NH1	69:O3:8:TYR:O	3.03	0.41
1:2:748:U:H2'	1:2:749:U:C6	2.55	0.41
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.60	0.41
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	3.27	0.41
62:N6:56:VAL:HG13	62:N6:104:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:31:VAL:HG21	14:C2:136:ILE:CD1	3.04	0.41
36:5:2213:A:N1	36:5:2429:G:H1'	2.36	0.41
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	2.34	0.41
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.54	0.41
36:5:1797:A:C6	36:5:1798:A:C5	3.09	0.41
17:C5:51:SER:CB	17:C5:53:PRO:HD2	6.04	0.41
4:S2:44:LEU:CD2	4:S2:247:ALA:HB2	2.51	0.41
36:1:2376:G:C6	36:1:2377:G:O6	2.74	0.41
36:1:729:C:H2'	36:1:730:C:H6	1.86	0.41
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG2	2.03	0.41
20:C8:66:LEU:HA	20:C8:69:ILE:HD12	2.02	0.41
36:5:1778:G:N2	36:5:1780:G:C4	2.89	0.41
36:1:3035:A:OP2	86:1:4068:OHX:N4	2.54	0.41
36:1:3262:U:H2'	36:1:3263:G:O5'	2.21	0.41
36:1:850:U:H2'	36:1:851:C:H6	1.85	0.41
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.39	0.41
36:1:2240:G:H2'	36:1:2241:U:O4'	2.20	0.41
36:5:1594:A:H1'	36:5:1615:C:H1'	2.03	0.41
1:2:1480:G:H4'	21:C9:11:ALA:CB	2.50	0.41
36:1:795:G:O2'	36:1:796:U:H5'	2.20	0.41
36:5:1270:A:H2'	36:5:1271:A:C8	2.55	0.41
20:C8:47:CYS:HB3	20:C8:54:LEU:HD12	2.03	0.41
36:5:1383:G:O6	86:5:3939:OHX:N2	2.54	0.41
1:6:1373:C:H2'	1:6:1374:C:H6	1.86	0.41
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.83	0.41
36:1:1539:A:H2'	36:1:1540:U:H5'	2.02	0.41
1:6:570:A:H5''	1:6:571:G:OP2	2.20	0.41
23:D1:8:LEU:HD22	23:D1:8:LEU:HA	2.29	0.41
62:N6:111:LEU:HD23	62:N6:111:LEU:HA	3.89	0.41
40:L3:39:LYS:HB3	40:L3:39:LYS:HE2	3.91	0.41
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.51	0.41
1:2:3:U:C5	11:S9:16:LYS:HD3	2.55	0.41
40:L3:299:ASP:OD1	40:L3:301:THR:HG23	2.58	0.41
56:N0:171:PHE:O	56:N0:172:TYR:C	4.19	0.41
1:2:476:U:H5''	1:2:477:A:O4'	2.20	0.41
36:1:824:C:H2'	36:1:825:U:H6	1.85	0.41
43:L6:31:ARG:HH12	69:O3:107:ILE:HG22	5.26	0.41
36:1:1017:C:HO2'	36:1:1018:G:P	2.44	0.41
22:D0:78:THR:HG21	1:6:1281:G:H5''	387.24	0.41
1:2:1102:G:P	24:D2:76:SER:HG	2.44	0.41
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.26	0.41
7:S5:190:ILE:HG12	7:S5:190:ILE:H	2.63	0.41
1:2:1236:A:H2'	1:2:1237:G:C8	2.55	0.41
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.91	0.41
1:2:143:G:N7	8:S6:177:ARG:NH2	2.68	0.41
18:C6:125:GLU:HG3	18:C6:126:PRO:HD2	2.03	0.41
25:D3:79:ASN:C	25:D3:81:LYS:H	2.23	0.41
28:D6:87:ARG:NH1	28:D6:92:ARG:O	3.21	0.41
34:SR:16:HIS:O	34:SR:308:ASN:HB3	2.42	0.41
25:D3:127:VAL:O	25:D3:129:GLY:N	2.54	0.41
26:D4:57:VAL:HG13	26:D4:60:PHE:CE2	2.53	0.41
5:S3:70:THR:O	5:S3:74:GLN:N	2.36	0.41
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.66	0.41
36:5:3047:U:O2'	36:5:3048:A:H5'	2.21	0.41
36:1:1362:G:H2'	36:1:1363:A:H8	1.86	0.41
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.59	0.41
36:5:3164:C:H1'	36:5:3165:A:H5'	2.02	0.41
36:1:2700:G:O2'	36:1:2705:A:N1	2.46	0.41
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	2.02	0.41
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.36	0.41
79:Q3:45:LYS:HG3	79:Q3:45:LYS:O	2.20	0.41
41:L4:138:ARG:HD3	41:L4:245:GLY:O	3.10	0.41
75:O9:44:TRP:CE2	75:O9:45:ARG:HG2	5.89	0.41
15:C3:50:ILE:HG22	15:C3:54:LEU:HD12	2.03	0.41
8:S6:2:LYS:HB3	8:S6:108:VAL:HG23	2.02	0.41
36:1:591:G:N2	43:L6:18:LEU:HB3	2.36	0.41
18:C6:4:VAL:HG11	18:C6:23:LYS:HB2	6.47	0.41
42:L5:108:ARG:NH1	42:L5:253:PHE:HD2	2.19	0.41
10:S8:90:LEU:HA	10:S8:95:THR:OG1	2.20	0.41
15:C3:125:LEU:HA	15:C3:125:LEU:HD23	2.05	0.41
1:6:846:G:H2'	1:6:847:A:O4'	2.20	0.41
21:C9:108:LEU:O	21:C9:111:ILE:HG22	2.21	0.41
1:6:723:G:H5'	1:6:724:C:OP2	2.21	0.41
61:N5:105:VAL:HG11	61:N5:135:ILE:HG13	2.02	0.41
1:6:149:C:N4	1:6:165:G:H1	2.17	0.41
41:L4:10:SER:OG	41:L4:14:GLU:HG3	6.01	0.41
25:D3:23:ARG:HA	25:D3:26:GLU:OE1	2.48	0.41
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.54	0.41
46:L9:41:ILE:HD13	46:L9:41:ILE:HA	1.86	0.41
11:S9:6:ARG:HD3	11:S9:6:ARG:HA	1.78	0.41
36:1:2665:U:H4'	36:1:2666:C:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:839:U:C2'	1:2:840:U:H5'	2.50	0.41
71:O5:64:GLU:HA	71:O5:67:ARG:HB2	2.48	0.41
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.37	0.41
36:1:2314:U:H2'	36:1:2314:U:H6	1.31	0.41
36:1:1433:A:O4'	68:O2:27:ARG:HD2	2.20	0.41
68:O2:47:ARG:HG2	68:O2:48:GLY:N	3.10	0.41
86:1:4192:OHX:N2	86:O1:201:OHX:N1	2.68	0.41
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.56	0.41
1:2:1138:A:H2'	1:2:1139:A:H8	1.86	0.41
1:6:1230:A:H8	1:6:1258:U:C5	2.39	0.41
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.21	0.41
25:D3:38:PHE:HB3	1:6:359:A:C2	325.73	0.41
1:2:755:A:H2'	1:2:756:A:C8	2.56	0.41
50:M4:68:LEU:HD23	50:M4:68:LEU:HA	1.98	0.41
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.88	0.41
47:M0:24:ARG:HH11	47:M0:24:ARG:HG3	1.86	0.41
63:N7:11:ALA:O	63:N7:23:VAL:HG22	2.21	0.41
34:SR:184:ASN:OD1	34:SR:185:GLN:N	4.95	0.41
38:8:70:G:O2'	38:8:87:G:N2	2.54	0.41
36:5:1523:U:OP2	36:5:1604:G:O2'	2.36	0.41
36:5:687:U:O2'	36:5:688:G:H5'	2.21	0.41
36:1:2875:U:O4'	88:1:4206:ZBA:H41A	2.21	0.41
1:6:493:U:H2'	1:6:494:U:H5''	2.03	0.41
1:2:583:C:OP1	86:2:2029:OHX:N3	2.53	0.41
1:6:1405:G:H2'	1:6:1406:A:C8	2.55	0.41
14:C2:47:GLU:CG	1:6:1229:G:H1	460.99	0.41
1:6:227:U:O2'	1:6:228:G:OP2	2.34	0.41
36:5:985:U:H2'	36:5:986:U:H6	1.85	0.41
1:6:1054:U:H2'	1:6:1055:U:H6	1.85	0.41
36:1:1411:C:P	68:O2:98:HIS:HB3	2.61	0.41
65:N9:31:SER:OG	65:N9:33:LYS:HB3	3.19	0.41
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	2.02	0.41
36:5:270:U:O2'	36:5:318:A:H1'	2.21	0.41
36:5:1908:A:H2'	36:5:1909:A:O4'	2.20	0.41
1:2:1698:G:H1'	1:2:1699:G:OP1	2.20	0.41
35:SM:87:THR:O	35:SM:88:ARG:HB3	2.20	0.41
50:M4:39:ILE:HB	50:M4:43:LYS:HB3	2.20	0.41
17:C5:115:TYR:CZ	1:6:1556:A:H5''	385.52	0.41
1:2:898:A:N3	1:2:899:G:H1'	2.35	0.41
36:1:26:A:N3	36:1:328:U:O2'	2.43	0.41
1:6:1756:A:H8	1:6:1756:A:O5'	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:232:TYR:CD2	34:SR:232:TYR:N	2.89	0.41
13:C1:26:LYS:HD3	13:C1:26:LYS:HA	1.85	0.41
39:L2:249:SER:OG	39:L2:250:GLN:N	2.53	0.41
3:S1:158:SER:O	3:S1:162:ARG:HG3	2.21	0.41
50:M4:76:ALA:HA	36:5:561:C:H5'	348.50	0.41
1:2:1011:G:OP2	86:2:2093:OHX:N6	2.54	0.41
48:M1:137:ARG:NH2	37:7:44:C:OP2	296.72	0.41
1:6:1552:U:H2'	1:6:1553:G:O4'	2.21	0.41
1:2:1500:C:P	21:C9:122:ARG:HH22	2.43	0.41
36:1:3272:C:P	43:L6:78:ARG:HH12	2.43	0.41
44:L7:180:SER:HB2	44:L7:182:ASP:H	1.84	0.41
44:L7:180:SER:O	44:L7:183:ASP:HB2	2.54	0.41
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.20	0.41
7:S5:73:THR:HG21	18:C6:114:ARG:HE	5.31	0.41
17:C5:20:VAL:HB	17:C5:25:LEU:HG	2.03	0.41
71:O5:78:LYS:O	71:O5:81:ARG:HB2	2.21	0.41
1:2:68:A:O2'	1:2:69:G:OP2	2.35	0.41
36:5:2988:C:H2'	36:5:2989:U:H6	1.86	0.41
7:S5:31:GLU:HA	7:S5:34:GLN:HB2	4.47	0.41
1:2:794:U:O2	1:2:794:U:O2'	2.39	0.41
1:2:737:A:OP2	1:2:737:A:H2'	2.20	0.41
74:O8:32:ASN:OD1	74:O8:36:LYS:N	3.97	0.41
1:2:737:A:HO2'	1:2:738:G:H8	1.66	0.41
7:S5:123:VAL:HG21	27:D5:100:ILE:HD12	2.02	0.41
2:S0:182:LEU:C	2:S0:184:LEU:N	2.73	0.41
47:M0:206:LEU:HD12	47:M0:206:LEU:HA	1.90	0.41
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.20	0.41
19:C7:45:ARG:O	19:C7:49:LYS:HB2	2.21	0.41
51:M5:63:ARG:HA	51:M5:130:PHE:O	2.20	0.41
49:M3:126:PHE:HA	49:M3:127:PRO:HD3	1.91	0.41
65:N9:38:LYS:NZ	36:5:1077:U:OP1	219.57	0.41
46:L9:12:VAL:HG13	46:L9:13:PRO:HD2	2.03	0.41
36:1:1655:G:C5'	36:1:1655:G:C8	3.03	0.41
7:S5:62:VAL:CG1	7:S5:89:ILE:HG12	2.61	0.41
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	2.02	0.41
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.35	0.41
20:C8:27:LYS:HA	20:C8:57:ARG:HA	2.32	0.41
27:D5:74:SER:HA	27:D5:77:ARG:NH1	2.36	0.41
36:1:1233:G:H22	36:1:1255:C:N4	2.18	0.41
49:M3:73:ARG:HD2	36:5:76:G:H3'	82.66	0.41
42:L5:8:LYS:HZ3	37:7:16:U:P	312.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:132:ARG:HD2	1:6:150:U:C1'	327.07	0.41
1:2:819:G:H22	1:2:853:G:H2'	1.86	0.41
36:1:1246:G:H8	36:1:1246:G:OP1	2.03	0.41
5:S3:163:PRO:HG3	5:S3:203:PRO:HG2	2.41	0.41
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.31	0.41
48:M1:164:LYS:HD2	48:M1:171:VAL:HB	2.03	0.41
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	2.54	0.41
2:S0:173:ILE:O	2:S0:177:LEU:HB2	2.59	0.41
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.21	0.41
73:O7:60:GLY:HA2	73:O7:64:MET:CE	2.51	0.41
36:5:2549:G:H2'	36:5:2549:G:H8	1.69	0.41
36:1:563:U:H2'	36:1:564:G:C8	2.55	0.41
86:5:4070:OHX:N1	86:5:4145:OHX:N2	2.69	0.41
49:M3:31:LYS:HB3	49:M3:35:ARG:HH21	1.84	0.41
59:N3:84:SER:HA	59:N3:94:TYR:HB3	2.03	0.41
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	2.03	0.41
1:2:1282:U:H2'	1:2:1283:U:C6	2.56	0.41
12:C0:27:PHE:HD1	12:C0:40:LEU:HD23	2.53	0.41
18:C6:42:GLU:HG3	18:C6:43:ILE:N	4.42	0.41
42:L5:53:VAL:HA	42:L5:61:ILE:O	2.21	0.41
38:8:103:G:N1	38:8:105:A:N6	2.68	0.41
20:C8:36:LYS:HA	20:C8:36:LYS:HD3	1.77	0.41
5:S3:54:ARG:O	5:S3:56:GLN:N	2.54	0.41
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.36	0.41
36:1:717:C:C5	36:1:718:G:C6	3.08	0.41
59:N3:13:ILE:CD1	59:N3:54:LEU:HB3	2.53	0.41
31:D9:45:GLU:CD	1:6:1433:G:H22	411.23	0.41
69:O3:91:ALA:C	69:O3:93:THR:N	2.96	0.41
67:O1:44:MET:HG3	67:O1:77:ARG:HD3	2.02	0.41
78:Q2:8:ARG:NH2	78:Q2:83:LEU:HD13	3.99	0.41
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.56	0.41
1:6:348:U:O4	86:6:2165:OHX:N4	2.53	0.41
63:N7:54:THR:HG22	63:N7:57:HIS:ND1	2.36	0.41
21:C9:84:LYS:HD3	21:C9:86:ARG:HG2	2.03	0.41
15:C3:88:LEU:O	15:C3:92:ILE:HG13	2.20	0.41
1:2:566:C:H2'	1:2:567:A:O4'	2.20	0.41
38:4:133:G:H4'	61:N5:55:ASN:ND2	2.35	0.41
8:S6:77:LEU:HD12	8:S6:95:LYS:HG3	3.90	0.41
36:5:3238:G:H5''	36:5:3238:G:H8	1.86	0.41
15:C3:46:THR:O	15:C3:48:SER:N	2.79	0.41
48:M1:54:VAL:HG23	48:M1:59:ILE:CG1	3.11	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:8:GLN:HG2	56:N0:62:ASN:HB2	2.03	0.41
41:L4:354:VAL:HG21	57:N1:143:THR:HG21	2.86	0.41
34:SR:20:VAL:HG11	34:SR:310:ILE:HG12	2.15	0.41
55:M9:185:LEU:O	55:M9:189:ALA:HB3	6.33	0.41
5:S3:219:ALA:HB1	5:S3:220:PRO:HD2	2.02	0.41
46:L9:116:ASN:OD1	46:L9:119:GLY:HA2	2.21	0.41
71:O5:95:PHE:O	71:O5:97:ALA:N	2.52	0.41
1:6:902:G:H2'	1:6:903:U:H6	1.84	0.41
1:2:1166:A:H2'	1:2:1167:G:O4'	2.21	0.41
1:2:1579:U:H2'	1:2:1580:C:C6	2.56	0.41
39:L2:96:LEU:HA	39:L2:96:LEU:HD23	2.55	0.41
66:O0:18:ILE:HD13	66:O0:81:VAL:HG12	2.96	0.41
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.21	0.41
7:S5:118:LEU:HD23	7:S5:118:LEU:HA	1.90	0.41
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.66	0.41
1:2:1413:U:H4'	1:2:1414:U:OP2	2.20	0.41
36:5:150:A:C2'	36:5:151:A:H5'	2.51	0.41
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.28	0.41
15:C3:105:ASN:O	15:C3:107:LYS:N	2.53	0.41
24:D2:105:THR:HG21	1:6:805:U:O4'	365.25	0.41
50:M4:40:ASP:HA	56:N0:143:PHE:CE1	3.31	0.41
36:5:810:A:H2'	36:5:811:U:H6	1.85	0.41
42:L5:279:LYS:HD2	42:L5:282:ARG:HH12	4.46	0.41
34:SR:201:THR:HB	34:SR:241:PHE:O	2.21	0.41
36:1:3316:A:C2	36:1:3389:U:H5'	2.55	0.41
36:1:239:G:O6	86:1:4028:OHX:N3	2.53	0.41
58:N2:17:VAL:HG22	58:N2:103:TYR:HB2	2.02	0.41
13:C1:17:PRO:HB2	13:C1:18:HIS:ND1	3.66	0.41
41:L4:202:ARG:HD3	36:5:1384:U:OP2	118.75	0.41
1:2:1391:A:H2'	1:2:1392:U:C6	2.56	0.41
24:D2:95:PRO:HD3	24:D2:130:TYR:CD1	3.51	0.41
6:S4:187:ARG:NH2	1:6:753:A:H62	374.68	0.41
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	2.01	0.41
49:M3:171:ARG:HE	49:M3:171:ARG:HB3	4.17	0.41
36:5:993:G:N3	36:5:2637:A:H2'	2.36	0.41
34:SR:183:LEU:HA	34:SR:183:LEU:HD23	1.79	0.41
28:D6:96:ALA:C	28:D6:98:PRO:HD2	2.41	0.41
56:N0:28:ARG:O	56:N0:29:ILE:HD13	2.21	0.41
38:8:121:U:C2'	38:8:122:U:H5'	2.51	0.41
36:5:2294:U:C2	36:5:2297:U:C5	3.09	0.41
36:1:2380:U:C2	36:1:2381:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:729:C:OP1	54:M8:43:PRO:HD2	2.21	0.41
36:5:1927:G:N2	36:5:1928:G:C8	2.88	0.41
1:2:97:C:H2'	1:2:98:U:C6	2.56	0.41
54:M8:131:ALA:O	54:M8:134:GLY:N	2.52	0.41
36:5:2221:G:N2	36:5:2224:A:OP2	2.45	0.41
1:6:1179:G:C6	1:6:1180:C:N3	2.89	0.41
1:2:1146:G:C2	1:2:1147:A:C4	3.09	0.41
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.86	0.41
36:5:2157:G:N1	36:5:2178:A:OP2	2.38	0.41
36:5:1674:G:H2'	36:5:1675:G:O4'	2.20	0.41
34:SR:6:VAL:HG22	34:SR:7:LEU:H	1.86	0.41
41:L4:343:LYS:HG2	36:5:515:C:H5'	308.46	0.41
1:6:1799:U:H4'	1:6:1800:A:H2'	2.03	0.41
56:N0:131:LYS:HG3	56:N0:134:ASP:OD2	2.21	0.41
36:5:712:G:H2'	36:5:713:U:C6	2.56	0.41
36:5:2397:A:H8	36:5:2941:A:N1	2.19	0.41
1:6:12:U:H2'	1:6:13:C:C6	2.55	0.41
49:M3:37:ASN:O	49:M3:41:THR:HG23	5.62	0.41
1:6:282:C:H2'	1:6:283:U:O4'	2.21	0.41
42:L5:276:LYS:HE3	42:L5:276:LYS:HB2	4.80	0.41
18:C6:83:GLN:HB3	18:C6:83:GLN:HE21	3.29	0.41
36:5:771:A:H2'	36:5:772:U:O4'	2.21	0.41
1:6:1205:C:H5''	1:6:1206:U:OP2	2.21	0.41
72:O6:5:THR:HG23	72:O6:12:ASN:C	2.41	0.41
36:5:237:G:N2	36:5:238:A:O4'	2.54	0.41
39:L2:177:LYS:HA	79:Q3:29:LEU:HD13	3.33	0.41
36:1:2147:A:H5''	39:L2:198:LYS:O	2.21	0.41
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.54	0.41
36:5:1422:G:H2'	36:5:1423:C:C6	2.56	0.41
54:M8:44:PHE:CD1	54:M8:139:ILE:HD11	2.86	0.41
1:2:1017:U:H2'	1:2:1018:U:H6	1.86	0.41
36:1:739:G:O6	86:1:3912:OHX:N3	2.53	0.41
62:N6:62:SER:C	62:N6:64:LYS:H	2.24	0.41
70:O4:54:ILE:HD11	70:O4:78:GLY:HA2	2.03	0.41
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.20	0.41
1:2:1288:G:N7	1:2:1314:U:H2'	2.36	0.41
36:1:727:G:H2'	36:1:728:G:O4'	2.21	0.41
1:2:1233:G:O2'	33:E1:145:HIS:HB2	2.21	0.41
36:1:346:C:OP1	41:L4:53:SER:HB3	2.21	0.41
36:1:2603:G:O6	86:1:3861:OHX:N2	2.53	0.41
1:2:602:U:H2'	1:2:603:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2409:G:H4'	36:5:2410:U:OP2	2.21	0.41
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.84	0.41
48:M1:122:ILE:HA	48:M1:122:ILE:HD13	1.94	0.41
3:S1:222:LYS:HA	3:S1:222:LYS:HD3	2.47	0.41
36:5:2704:A:C8	36:5:2706:G:C6	3.09	0.41
36:5:831:G:N7	86:5:3926:OHX:N2	2.69	0.41
2:S0:23:HIS:HA	2:S0:48:ILE:HB	2.03	0.41
50:M4:47:ASP:OD2	50:M4:55:ARG:HB2	2.97	0.41
63:N7:17:ARG:HG3	36:5:1639:C:N4	198.86	0.41
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.56	0.41
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.03	0.41
9:S7:121:VAL:O	9:S7:125:ILE:HD12	3.95	0.41
52:M6:65:ASN:HB3	52:M6:68:ARG:HG2	2.03	0.41
52:M6:109:PRO:O	52:M6:110:PRO:O	2.69	0.41
37:3:7:G:O3'	42:L5:33:ARG:NH2	2.54	0.41
4:S2:140:ARG:HB3	4:S2:221:THR:HB	2.03	0.41
4:S2:218:ILE:H	4:S2:218:ILE:HG13	1.66	0.41
40:L3:66:LYS:NZ	59:N3:120:LYS:HZ3	2.18	0.41
36:1:2551:U:H4'	36:1:2552:C:OP1	2.21	0.41
66:O0:50:VAL:HG11	36:5:2552:C:H2'	234.60	0.41
58:N2:48:GLY:C	58:N2:50:LEU:H	2.24	0.41
36:1:613:G:C6	36:1:614:C:C4	3.09	0.41
24:D2:55:ASP:C	24:D2:57:ARG:H	2.23	0.41
36:1:1662:G:C6	36:1:1663:C:C4	3.09	0.41
33:E1:143:LYS:N	1:6:1253:U:H4'	450.12	0.41
1:2:1566:U:H2'	1:2:1567:U:H6	1.86	0.41
1:2:1568:C:H6	1:2:1568:C:H2'	1.71	0.41
50:M4:8:LYS:O	50:M4:9:ALA:HB2	2.21	0.41
48:M1:166:LYS:O	48:M1:168:ASP:N	4.03	0.41
36:1:1103:A:N3	36:1:1103:A:H2'	2.36	0.41
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.62	0.41
10:S8:146:ARG:O	10:S8:147:ALA:HB3	2.20	0.41
1:6:207:U:H2'	1:6:208:U:C6	2.56	0.41
26:D4:7:ILE:HD11	26:D4:40:LEU:HD22	2.02	0.41
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.94	0.41
1:2:499:U:H6	1:2:499:U:H2'	1.47	0.41
6:S4:61:VAL:O	6:S4:64:ILE:HB	2.77	0.41
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.18	0.41
7:S5:162:VAL:CG2	7:S5:167:ARG:HG2	3.33	0.41
49:M3:9:ILE:HG12	64:N8:34:MET:HE3	3.29	0.41
13:C1:22:ASN:HB3	13:C1:25:VAL:HG23	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:529:A:H2'	36:5:530:G:O4'	2.21	0.41
36:5:1252:A:N1	36:5:1263:A:H2'	2.36	0.41
52:M6:121:PRO:O	52:M6:124:LEU:HB2	3.15	0.41
6:S4:197:HIS:HB3	6:S4:209:HIS:HB2	4.62	0.41
61:N5:82:LEU:HD21	61:N5:135:ILE:HG22	2.03	0.41
4:S2:90:THR:HG23	4:S2:92:ALA:H	1.85	0.41
36:5:49:A:C2	36:5:279:U:H4'	2.56	0.41
30:D8:21:SER:N	30:D8:67:ARG:HA	4.33	0.41
36:1:2244:A:H5''	39:L2:243:THR:OG1	2.21	0.41
1:2:1316:G:O2'	1:2:1401:A:O2'	2.25	0.41
1:6:315:A:C6	1:6:350:U:C5	3.09	0.41
55:M9:14:VAL:C	55:M9:16:GLY:H	2.73	0.41
9:S7:142:TYR:CG	24:D2:50:PHE:CE2	3.25	0.41
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.21	0.41
25:D3:85:ALA:HA	25:D3:120:VAL:HG13	2.03	0.41
45:L8:105:LYS:NZ	36:5:123:A:OP1	91.61	0.41
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.20	0.41
11:S9:90:LYS:O	11:S9:92:LYS:N	3.45	0.41
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.20	0.41
58:N2:104:ARG:NH2	36:5:1758:G:H5'	120.47	0.41
31:D9:9:SER:HA	1:6:1451:C:OP1	411.49	0.41
17:C5:37:ALA:O	17:C5:42:ARG:NH1	4.80	0.41
1:2:756:A:H1'	6:S4:12:LEU:O	2.21	0.41
36:1:770:G:O6	86:1:4089:OHX:N6	2.54	0.41
1:6:774:A:C5	1:6:775:G:H1'	2.56	0.41
1:6:1360:A:C4	1:6:1361:U:H1'	2.56	0.41
33:E1:118:ARG:HB3	33:E1:119:ARG:H	3.71	0.41
9:S7:153:LEU:HD22	9:S7:184:GLU:HB3	3.15	0.41
23:D1:85:TYR:CE1	29:D7:6:ASP:HB2	2.62	0.41
36:1:1386:A:N7	41:L4:183:LYS:HE3	2.36	0.41
5:S3:90:ARG:HD2	5:S3:91:VAL:HG12	7.33	0.41
78:Q2:33:ALA:HA	36:5:2767:U:OP1	184.54	0.41
77:Q1:21:ARG:HD2	77:Q1:21:ARG:HH11	4.29	0.41
42:L5:144:VAL:HG12	42:L5:173:VAL:HG13	3.18	0.41
1:6:1467:C:H2'	1:6:1468:U:C6	2.56	0.41
1:6:1046:G:C5	1:6:1047:G:N7	2.89	0.41
1:6:413:U:H2'	1:6:414:C:C6	2.55	0.41
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.31	0.41
55:M9:37:SER:O	55:M9:41:ILE:HG12	3.19	0.41
17:C5:49:MET:HB3	17:C5:50:THR:H	4.31	0.41
34:SR:5:GLU:HA	34:SR:317:THR:HA	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:117:GLU:O	4:S2:40:LYS:NZ	2.37	0.41
1:2:225:A:C6	1:2:837:G:N1	2.89	0.41
24:D2:96:ALA:HB1	24:D2:98:GLN:HG2	2.03	0.41
36:5:961:C:O2	86:5:4181:OHX:N4	2.54	0.41
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	3.20	0.41
64:N8:12:ARG:NH2	36:5:661:G:OP2	152.51	0.41
44:L7:105:LEU:HA	44:L7:105:LEU:HD23	1.80	0.41
1:2:194:U:O5'	1:2:194:U:H6	2.04	0.41
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.63	0.41
1:2:367:A:C6	1:2:368:U:C4	3.08	0.41
57:N1:84:TYR:CE2	65:N9:23:LYS:HE2	6.37	0.40
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	9.74	0.40
17:C5:38:PRO:HD2	17:C5:41:VAL:CG2	3.45	0.40
86:5:3980:OHX:N2	86:5:4201:OHX:N5	2.69	0.40
74:O8:14:LEU:HD23	74:O8:17:ARG:HD3	3.21	0.40
43:L6:51:ARG:HD3	43:L6:51:ARG:HH11	1.83	0.40
64:N8:27:LYS:HB2	36:5:937:G:OP2	167.55	0.40
1:2:1519:U:H5	1:2:1520:U:HO2'	1.67	0.40
1:6:470:A:OP2	86:6:2103:OHX:N1	2.54	0.40
22:D0:18:GLN:O	22:D0:96:PRO:HB3	3.62	0.40
1:2:1796:C:C5	28:D6:6:ALA:N	2.79	0.40
34:SR:192:PHE:HD1	34:SR:223:TRP:CD2	3.65	0.40
36:1:2899:C:H41	46:L9:172:ILE:HD13	1.86	0.40
13:C1:86:ILE:HD11	13:C1:109:VAL:HG11	4.10	0.40
36:5:1817:G:O2'	36:5:1818:U:C6	2.74	0.40
36:1:1733:G:OP2	86:1:3909:OHX:N6	2.54	0.40
1:6:897:C:C4	1:6:914:G:C2	3.09	0.40
1:6:680:U:C2	1:6:682:C:N4	2.89	0.40
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	3.03	0.40
1:2:861:U:H5'	1:2:862:A:OP2	2.20	0.40
48:M1:8:PRO:HG2	48:M1:9:MET:HB3	5.21	0.40
2:S0:76:ILE:HG12	2:S0:98:ILE:HB	2.03	0.40
1:2:1558:U:H3'	1:2:1559:A:H4'	2.02	0.40
57:N1:101:CYS:HB3	36:5:990:U:C1'	252.81	0.40
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	2.02	0.40
1:2:783:G:O2'	1:2:784:C:P	2.79	0.40
3:S1:97:LEU:HB3	3:S1:232:HIS:CD2	4.99	0.40
58:N2:35:LYS:O	58:N2:38:ILE:HG22	2.20	0.40
12:C0:15:LEU:HD13	12:C0:68:LEU:HD13	5.08	0.40
18:C6:123:ARG:HB2	18:C6:123:ARG:HE	1.75	0.40
1:6:1228:G:H2'	1:6:1228:G:N3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.21	0.40
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.57	0.40
36:5:1788:C:H5'	36:5:1788:C:H6	1.86	0.40
26:D4:89:TYR:O	26:D4:92:VAL:HG22	4.92	0.40
21:C9:114:VAL:N	21:C9:125:SER:HB3	2.37	0.40
36:1:2922:G:H1'	36:1:2951:G:N3	2.35	0.40
36:5:1638:A:H2	36:5:1736:G:N3	2.18	0.40
36:1:3226:A:H2'	36:1:3227:A:O4'	2.21	0.40
34:SR:220:ILE:HB	34:SR:234:LEU:HD13	3.70	0.40
36:1:717:C:C2'	36:1:718:G:H5'	2.52	0.40
40:L3:283:TYR:HB3	40:L3:323:MET:HE2	2.32	0.40
36:1:3060:C:H1'	36:1:3332:U:H1'	2.03	0.40
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	2.27	0.40
67:O1:43:HIS:O	67:O1:44:MET:CB	4.12	0.40
1:2:78:A:H1'	8:S6:175:ILE:CG1	2.51	0.40
36:1:839:C:H4'	36:1:1724:U:C2'	2.51	0.40
36:5:1064:A:N6	36:5:1096:U:H3	2.19	0.40
1:6:1765:A:OP2	86:6:2127:OHX:N4	2.54	0.40
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	2.03	0.40
6:S4:51:ARG:HA	6:S4:51:ARG:NE	2.36	0.40
45:L8:186:LEU:HA	45:L8:186:LEU:HD23	1.82	0.40
61:N5:82:LEU:HD11	61:N5:135:ILE:HG21	2.03	0.40
7:S5:172:ILE:O	7:S5:176:THR:HG23	3.12	0.40
5:S3:193:ALA:HA	5:S3:200:LYS:O	2.21	0.40
2:S0:13:ASP:O	2:S0:16:LEU:HB2	2.20	0.40
36:1:1601:U:OP1	55:M9:42:ARG:NH2	2.54	0.40
68:O2:27:ARG:NH2	36:5:654:C:OP1	169.65	0.40
13:C1:8:GLN:OE1	13:C1:14:GLN:N	2.43	0.40
36:5:945:C:H2'	36:5:946:U:H6	1.84	0.40
1:2:1657:U:H4'	1:2:1658:G:C5'	2.51	0.40
1:2:1402:G:OP1	19:C7:10:LYS:NZ	2.54	0.40
86:5:3975:OHX:N5	86:5:4246:OHX:N2	2.69	0.40
36:5:1923:C:C4	36:5:1924:U:C4	3.10	0.40
1:2:481:A:H61	1:2:505:A:H62	1.68	0.40
53:M7:134:GLY:HA3	36:5:883:A:N7	156.76	0.40
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.20	0.40
36:5:929:A:H2'	36:5:930:U:C6	2.56	0.40
12:C0:54:TYR:O	12:C0:69:THR:OG1	2.30	0.40
72:O6:60:LEU:HD22	72:O6:60:LEU:HA	1.90	0.40
42:L5:39:GLN:NE2	42:L5:46:THR:O	3.46	0.40
51:M5:6:TYR:CZ	72:O6:40:VAL:HG22	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:175:PHE:CZ	36:5:2901:G:H5'	329.31	0.40
36:5:267:G:H2'	36:5:318:A:N7	2.36	0.40
61:N5:63:ILE:HG12	61:N5:64:GLU:N	2.89	0.40
36:1:2110:G:O2'	36:1:2111:G:H5''	2.21	0.40
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.21	0.40
16:C4:80:HIS:HA	16:C4:113:GLY:O	2.98	0.40
1:2:1317:C:H2'	1:2:1318:G:O4'	2.22	0.40
27:D5:39:ALA:HB1	27:D5:72:GLY:N	2.36	0.40
11:S9:127:VAL:O	11:S9:131:GLN:HB2	2.22	0.40
1:2:245:U:O4	86:2:2096:OHX:N5	2.53	0.40
36:5:734:C:H6	36:5:734:C:OP1	2.04	0.40
16:C4:99:GLN:HG2	16:C4:99:GLN:H	1.61	0.40
73:O7:70:VAL:HG13	73:O7:70:VAL:O	3.11	0.40
40:L3:305:ILE:H	40:L3:305:ILE:HG13	1.62	0.40
1:2:1643:U:H2'	1:2:1644:C:O4'	2.22	0.40
36:5:411:U:C2	38:8:13:A:C2	3.09	0.40
21:C9:105:LEU:O	21:C9:109:GLU:HG3	5.19	0.40
25:D3:13:ARG:NH1	1:6:351:C:O4'	322.30	0.40
36:1:3206:C:O2	56:N0:155:ARG:NH1	2.46	0.40
40:L3:17:LEU:HD11	40:L3:233:TRP:HH2	2.08	0.40
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.57	0.40
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	2.03	0.40
1:2:1519:U:H2'	1:2:1520:U:C6	2.56	0.40
66:O0:50:VAL:HG13	66:O0:53:LYS:HE2	2.02	0.40
22:D0:103:ILE:HD13	22:D0:103:ILE:HA	2.65	0.40
36:5:3000:A:H2'	36:5:3001:C:C6	2.56	0.40
7:S5:185:ARG:NH1	1:6:1572:G:H1'	330.61	0.40
13:C1:109:VAL:HA	13:C1:135:VAL:HG13	2.03	0.40
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.49	0.40
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.38	0.40
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.21	0.40
72:O6:59:ASP:O	72:O6:63:ASN:HB2	3.16	0.40
5:S3:64:ARG:O	5:S3:67:ASN:N	2.43	0.40
12:C0:11:ILE:HD13	12:C0:35:ILE:HG21	2.03	0.40
36:5:286:U:H2'	36:5:287:G:H8	1.86	0.40
48:M1:12:LEU:HD12	48:M1:162:TRP:CD1	4.38	0.40
36:1:1362:G:O2'	44:L7:159:GLN:HA	2.21	0.40
49:M3:165:SER:C	49:M3:167:PHE:N	2.74	0.40
27:D5:71:ILE:HA	27:D5:71:ILE:HD12	4.71	0.40
2:S0:202:TYR:O	2:S0:203:PHE:CD2	2.84	0.40
36:5:2805:G:N3	36:5:2967:A:H2	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:120:GLU:CD	54:M8:130:ARG:HH22	2.24	0.40
6:S4:105:VAL:HG11	6:S4:245:LYS:HA	2.03	0.40
46:L9:163:GLN:O	46:L9:166:ARG:HD3	2.20	0.40
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	2.01	0.40
73:O7:55:ARG:HD3	36:5:353:G:N7	109.24	0.40
1:2:1488:G:H5''	1:2:1489:U:OP1	2.21	0.40
39:L2:49:VAL:N	39:L2:58:LEU:O	2.81	0.40
76:Q0:95:VAL:N	76:Q0:122:ARG:O	2.85	0.40
41:L4:180:LYS:HE2	41:L4:180:LYS:HB3	1.67	0.40
27:D5:97:LYS:HG3	27:D5:98:GLN:H	1.85	0.40
17:C5:130:ARG:HD2	17:C5:130:ARG:N	3.21	0.40
36:5:2440:G:HO2'	36:5:2441:A:P	2.42	0.40
73:O7:28:HIS:ND1	73:O7:31:LYS:HG3	2.84	0.40
36:1:1440:G:H2'	36:1:1441:G:O4'	2.22	0.40
59:N3:67:PRO:HA	59:N3:70:ARG:HG3	2.27	0.40
44:L7:29:GLU:HA	44:L7:32:ALA:HB3	2.83	0.40
25:D3:47:SER:HB3	1:6:600:U:H1'	354.27	0.40
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.53	0.40
36:1:2255:A:OP2	36:1:2261:G:N1	2.35	0.40
36:1:2258:U:H2'	36:1:2259:A:O4'	2.21	0.40
47:M0:56:GLU:CG	47:M0:162:GLN:H	3.79	0.40
1:2:1116:A:C2'	1:2:1117:U:H5'	2.52	0.40
36:5:2279:A:H2'	36:5:2288:G:O6	2.21	0.40
1:2:1239:U:O4	86:2:2050:OHX:N2	2.54	0.40
41:L4:318:LEU:HA	41:L4:318:LEU:HD23	1.85	0.40
54:M8:57:ILE:HG22	54:M8:58:ASN:N	2.35	0.40
6:S4:88:ASP:HA	6:S4:122:LYS:HZ1	1.86	0.40
41:L4:325:LEU:HD23	41:L4:325:LEU:HA	1.72	0.40
36:5:944:C:O2'	36:5:945:C:H5'	2.21	0.40
28:D6:13:LYS:HB3	1:6:1076:A:O5'	334.37	0.40
36:5:3279:A:C6	36:5:3280:U:C4	3.09	0.40
1:6:1592:A:C2	1:6:1605:G:C2	3.08	0.40
14:C2:49:THR:O	14:C2:53:THR:HG23	3.04	0.40
36:1:2675:C:H41	48:M1:22:SER:HB2	1.85	0.40
1:6:1078:C:H2'	1:6:1079:U:H6	1.86	0.40
36:5:1584:U:H2'	36:5:1585:C:C6	2.56	0.40
1:6:1274:C:H4'	1:6:1275:A:O5'	2.21	0.40
36:5:2768:U:H2'	36:5:2769:A:C8	2.56	0.40
36:1:2376:G:H2'	36:1:2377:G:C8	2.56	0.40
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.67	0.40
64:N8:63:LYS:HE2	64:N8:68:PHE:CE2	4.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:113:LYS:H	33:E1:113:LYS:HD2	1.87	0.40
36:1:2158:A:H4'	36:1:2159:U:H5''	2.04	0.40
36:1:3328:G:C2	36:1:3329:U:H1'	2.56	0.40
75:O9:16:ALA:HA	75:O9:19:GLN:HG3	3.77	0.40
1:2:805:U:H2'	1:2:806:A:H5''	2.02	0.40
7:S5:149:VAL:HG13	7:S5:151:GLY:N	6.20	0.40
78:Q2:26:THR:HG23	78:Q2:71:ARG:HD3	5.37	0.40
59:N3:32:ARG:HB3	59:N3:64:LYS:HB3	2.03	0.40
35:SM:47:ALA:HA	36:1:2678:A:H5'	2.03	0.40
1:6:1738:U:H2'	1:6:1739:C:C6	2.56	0.40
1:2:156:A:H2'	1:2:157:A:O4'	2.22	0.40
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	1.91	0.40
44:L7:108:LEU:HA	44:L7:108:LEU:HD23	2.36	0.40
5:S3:96:LEU:HD23	5:S3:96:LEU:HA	2.44	0.40
15:C3:114:ARG:HH11	15:C3:114:ARG:CG	2.35	0.40
36:5:1595:U:C2	36:5:1596:C:C5	3.09	0.40
40:L3:11:HIS:ND1	40:L3:234:GLY:O	2.54	0.40
1:2:362:G:H2'	1:2:363:G:O4'	2.20	0.40
1:6:117:U:H2'	1:6:118:U:H6	1.86	0.40
38:4:152:G:H2'	38:4:153:U:O4'	2.21	0.40
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	2.02	0.40
40:L3:299:ASP:O	40:L3:301:THR:HG23	2.22	0.40
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	3.28	0.40
24:D2:71:LYS:NZ	1:6:1099:U:OP1	375.58	0.40
11:S9:113:VAL:HG12	11:S9:119:ALA:HB2	3.13	0.40
40:L3:266:ARG:HH22	36:5:2392:C:HO2'	209.17	0.40
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.71	0.40
1:2:734:A:O2'	1:2:735:C:H5'	2.21	0.40
1:6:826:U:H2'	1:6:827:C:C6	2.57	0.40
54:M8:49:LEU:O	54:M8:49:LEU:HD22	2.22	0.40
1:2:1683:C:O2'	1:2:1684:U:O5'	2.33	0.40
36:5:2509:U:H2'	36:5:2510:U:C5'	2.51	0.40
1:2:144:U:C2	1:2:145:A:C8	3.10	0.40
7:S5:89:ILE:H	7:S5:89:ILE:HG13	1.66	0.40
36:1:2401:A:O3'	41:L4:68:GLY:HA2	2.21	0.40
36:5:1819:U:H2'	36:5:1820:U:H5'	2.02	0.40
12:C0:32:HIS:HB3	12:C0:34:GLU:O	4.16	0.40
52:M6:72:HIS:CD2	36:5:3008:A:OP1	246.64	0.40
10:S8:51:GLY:N	1:6:397:A:H5''	313.59	0.40
5:S3:154:ASP:OD1	5:S3:155:GLY:N	4.12	0.40
36:5:1066:G:C6	36:5:1067:U:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:103:LYS:N	70:O4:103:LYS:HD3	2.36	0.40
1:6:525:A:C6	1:6:526:A:C6	3.09	0.40
7:S5:81:ARG:NH2	30:D8:47:PRO:HB3	2.93	0.40
7:S5:163:SER:HB2	30:D8:48:VAL:CG2	2.47	0.40
1:2:1388:A:C5	1:2:1411:A:C6	3.09	0.40
64:N8:133:LEU:HD23	64:N8:133:LEU:HA	1.85	0.40
36:1:3030:G:C6	36:1:3031:G:C4	3.09	0.40
42:L5:79:TYR:HB2	42:L5:82:GLU:HG3	2.30	0.40
52:M6:73:PHE:CG	52:M6:78:ARG:HG2	2.56	0.40
36:1:159:A:C2	36:1:263:C:O2	2.74	0.40
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.96	0.40
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.47	0.40
61:N5:91:ASN:O	61:N5:95:ILE:N	2.90	0.40
1:2:1174:C:H2'	1:2:1175:U:O4'	2.21	0.40
36:1:298:U:OP2	72:O6:33:ALA:HB2	2.22	0.40
68:O2:55:ILE:HA	68:O2:55:ILE:HD12	1.80	0.40
61:N5:82:LEU:HD11	61:N5:126:LEU:HD11	2.04	0.40
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.92	0.40
5:S3:179:GLN:HB3	5:S3:180:GLY:H	2.33	0.40
40:L3:108:GLU:HG2	40:L3:109:HIS:NE2	3.62	0.40
46:L9:90:MET:HB2	46:L9:144:ILE:CG2	2.51	0.40
2:S0:126:PRO:CG	2:S0:151:SER:HB3	3.00	0.40
55:M9:60:LYS:HD2	55:M9:64:ARG:HH21	3.82	0.40
6:S4:42:LEU:HD23	6:S4:42:LEU:HA	4.08	0.40
57:N1:109:VAL:HG13	36:5:1063:G:N1	245.38	0.40
36:5:3354:U:O2	36:5:3354:U:H5''	2.21	0.40
36:5:1700:G:H2'	36:5:1701:C:O4'	2.21	0.40
1:6:1270:G:C2	1:6:1271:G:C8	3.09	0.40
1:2:1475:A:H2'	1:2:1476:C:C6	2.56	0.40
1:2:711:U:H1'	1:2:712:G:C8	2.56	0.40
1:6:1067:C:H2'	1:6:1068:C:C6	2.57	0.40
36:5:1797:A:N6	36:5:1798:A:C6	2.89	0.40
1:2:1378:U:H2'	1:2:1379:C:O4'	2.22	0.40
36:5:430:U:OP2	86:5:3986:OHX:N5	2.54	0.40
63:N7:82:PRO:HB2	66:O0:62:LEU:CD1	2.86	0.40
72:O6:60:LEU:HD11	72:O6:68:ARG:HD2	2.03	0.40
69:O3:24:ASN:HA	69:O3:25:PRO:HD3	1.88	0.40
42:L5:46:THR:HA	42:L5:47:PRO:HD2	1.87	0.40
1:2:743:U:C4	1:2:744:U:C5	3.10	0.40
69:O3:14:LEU:HD11	69:O3:31:LYS:CB	3.07	0.40
11:S9:64:GLU:HB2	11:S9:69:ARG:CZ	5.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:59:LEU:HD13	11:S9:69:ARG:HA	3.37	0.40
34:SR:124:SER:O	34:SR:131:ILE:HA	2.34	0.40
1:2:967:A:H2'	1:2:968:U:O4'	2.21	0.40
36:1:1624:G:N2	36:1:1822:C:C4	2.90	0.40
36:5:1729:A:H4'	36:5:1730:G:OP2	2.20	0.40
19:C7:77:GLU:O	19:C7:81:LYS:HB2	2.21	0.40
57:N1:56:PHE:O	57:N1:60:LYS:HD3	2.22	0.40
36:1:644:G:H2'	36:1:2372:A:C5	2.57	0.40
34:SR:283:LYS:HE3	34:SR:283:LYS:HB2	1.89	0.40
49:M3:13:HIS:ND1	49:M3:13:HIS:N	2.90	0.40
61:N5:133:LEU:HD23	61:N5:133:LEU:HA	1.90	0.40
52:M6:14:HIS:O	52:M6:41:LEU:HD12	3.16	0.40
1:2:1640:C:H2'	1:2:1641:C:C6	2.56	0.40
70:O4:9:ARG:HG3	70:O4:9:ARG:HH11	4.47	0.40
24:D2:15:ASN:ND2	24:D2:72:CYS:O	4.18	0.40
11:S9:151:ASP:OD1	11:S9:151:ASP:N	2.65	0.40
36:5:2248:C:H2'	36:5:2273:G:C8	2.56	0.40
7:S5:120:ILE:HG23	27:D5:59:TYR:HE1	1.82	0.40
3:S1:181:LEU:HD11	3:S1:217:LEU:HD11	6.57	0.40
1:6:824:G:C6	1:6:825:U:O4	2.74	0.40
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.20	0.40
68:O2:101:SER:OG	68:O2:103:LYS:HG2	2.49	0.40
22:D0:27:THR:HB	22:D0:88:LYS:HG2	2.54	0.40
42:L5:236:LEU:HD12	42:L5:236:LEU:HA	1.96	0.40
1:2:196:G:O2'	1:2:197:A:P	2.79	0.40
42:L5:40:HIS:NE2	57:N1:69:LYS:HA	2.49	0.40
30:D8:53:ILE:HG22	30:D8:54:LEU:O	3.44	0.40
56:N0:78:TRP:HB2	56:N0:125:LYS:HB3	2.03	0.40
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.77	0.40
34:SR:156:VAL:HG22	34:SR:169:ILE:HG22	2.33	0.40
14:C2:46:ARG:NH1	14:C2:50:LYS:HE2	4.10	0.40
33:E1:99:LYS:O	33:E1:100:LEU:HB2	2.22	0.40
36:1:2179:C:C2	39:L2:130:SER:O	2.75	0.40
13:C1:86:ILE:O	13:C1:106:ASN:HA	2.22	0.40
1:2:149:C:OP1	26:D4:121:THR:OG1	2.30	0.40
34:SR:38:ARG:HB3	34:SR:67:ILE:HG12	2.84	0.40
42:L5:156:GLY:HA2	42:L5:181:PRO:HD3	2.03	0.40
46:L9:18:VAL:HA	46:L9:26:LYS:O	2.21	0.40
51:M5:129:TYR:N	51:M5:129:TYR:CD2	2.89	0.40
24:D2:31:SER:O	24:D2:34:ILE:N	2.86	0.40
47:M0:205:SER:HB3	47:M0:208:ASN:ND2	3.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	3.28	0.40
37:3:63:A:P	42:L5:285:ARG:HH11	2.44	0.40
36:5:3328:G:C2	36:5:3379:C:C2	3.09	0.40
26:D4:63:GLN:HB2	26:D4:68:LYS:HB3	2.45	0.40
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.21	0.40
26:D4:8:ARG:CZ	1:6:780:A:H2	438.06	0.40
53:M7:136:ILE:HD13	53:M7:136:ILE:HG21	1.79	0.40
14:C2:43:ARG:HB3	14:C2:121:VAL:HG12	3.72	0.40
45:L8:101:THR:HG22	45:L8:104:GLU:HB2	2.03	0.40
39:L2:67:TYR:O	39:L2:68:LYS:HB2	2.21	0.40
39:L2:70:ARG:NH2	39:L2:72:ARG:HH21	6.93	0.40
1:2:312:A:C2	1:2:314:C:H2'	2.57	0.40
1:2:1295:G:C6	1:2:1296:A:N7	2.90	0.40
1:2:39:A:H2	1:2:469:C:H5	1.69	0.40
40:L3:117:ARG:NH1	40:L3:175:LYS:HD2	4.42	0.40
13:C1:81:HIS:NE2	13:C1:82:ARG:HD2	4.17	0.40
34:SR:300:THR:HG23	34:SR:314:GLN:HG3	2.03	0.40
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.36	0.40
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.56	0.40
86:5:4095:OHX:N3	86:5:4204:OHX:N1	2.68	0.40
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.70	0.40
18:C6:142:TYR:HB2	18:C6:143:ARG:H	2.12	0.40
78:Q2:83:LEU:HD23	78:Q2:83:LEU:HA	1.91	0.40
3:S1:107:THR:OG1	16:C4:117:ASP:O	3.10	0.40
1:6:846:G:H2'	1:6:847:A:C8	2.57	0.40
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.56	0.40
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.20	0.40
56:N0:7:TYR:HE1	56:N0:34:GLU:HG2	2.37	0.40
36:1:324:A:H2'	36:1:325:A:C8	2.57	0.40
36:1:668:G:H2'	36:1:669:U:H6	1.86	0.40
67:O1:78:LYS:HG2	67:O1:79:ARG:HH21	1.86	0.40
34:SR:88:THR:HG21	34:SR:102:ARG:HH22	1.86	0.40
50:M4:124:ARG:HD3	50:M4:124:ARG:HH11	1.88	0.40
29:D7:44:THR:OG1	29:D7:56:CYS:SG	5.15	0.40
4:S2:165:VAL:HA	4:S2:201:ASN:O	2.21	0.40
73:O7:11:ARG:HG2	36:5:817:A:O2'	148.41	0.40
67:O1:16:LEU:O	67:O1:20:LEU:N	2.77	0.40
11:S9:15:PRO:HG2	11:S9:23:ARG:NH1	3.59	0.40
18:C6:138:PHE:HB3	18:C6:139:GLN:H	1.76	0.40
36:1:1592:G:OP2	70:O4:37:LYS:NZ	2.35	0.40
1:6:1067:C:H2'	1:6:1068:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1509:A:O2'	36:1:1510:G:H5'	2.21	0.40
1:2:1512:G:C6	1:2:1513:G:C6	3.09	0.40
42:L5:185:PHE:HD2	42:L5:185:PHE:H	4.50	0.40
5:S3:55:THR:HG21	5:S3:90:ARG:HA	3.32	0.40
36:1:2564:G:C5	36:1:2565:U:C5	3.09	0.40
20:C8:69:ILE:HG13	20:C8:69:ILE:H	1.66	0.40
5:S3:124:ARG:O	5:S3:128:GLU:HB2	2.35	0.40
52:M6:41:LEU:HD12	52:M6:41:LEU:HA	1.96	0.40
36:1:3209:A:OP2	56:N0:161:LYS:HD2	2.22	0.40
1:6:1122:G:O6	86:6:2164:OHX:N6	2.55	0.40
36:1:301:G:C6	36:1:302:U:C4	3.10	0.40
14:C2:56:GLU:HG2	35:SM:171:LYS:CB	5.11	0.40
66:O0:28:LYS:HD3	36:5:1713:G:O6	236.52	0.40
36:5:2656:A:C2	36:5:2658:G:C6	3.09	0.40
50:M4:105:GLN:O	50:M4:109:ARG:HG3	2.22	0.40
36:5:2993:G:C6	36:5:3142:A:C4	3.09	0.40
36:1:101:G:C8	64:N8:64:GLN:HG2	2.56	0.40
1:6:1356:U:H1'	1:6:1368:G:N2	2.37	0.40
38:8:92:A:H2'	38:8:93:U:O4'	2.22	0.40
36:5:1656:A:O2'	86:5:4180:OHX:N2	2.55	0.40
1:2:470:A:C8	1:2:470:A:H5''	2.57	0.40
56:N0:113:ARG:HH11	56:N0:113:ARG:HD2	1.68	0.40
48:M1:85:LYS:HB2	48:M1:85:LYS:HE3	1.70	0.40
13:C1:69:LYS:HG3	1:6:304:U:O2'	327.22	0.40
37:3:23:A:H2'	37:3:24:A:C8	2.56	0.40
13:C1:94:ILE:HG12	25:D3:16:ARG:HD2	2.03	0.40
37:7:22:A:C6	37:7:23:A:C6	3.10	0.40
18:C6:50:GLU:HA	18:C6:53:LEU:HD12	2.04	0.40
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.54	0.40
1:2:884:A:H2'	1:2:885:G:C8	2.56	0.40
36:1:2503:G:HO2'	36:1:2504:U:H5	1.69	0.40
18:C6:129:PHE:CG	22:D0:79:TRP:HB2	2.57	0.40
37:7:4:U:H2'	37:7:5:G:H8	1.85	0.40
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.87	0.40
63:N7:51:LEU:HD23	63:N7:51:LEU:N	2.37	0.40
75:O9:5:LYS:HG3	75:O9:5:LYS:H	1.70	0.40
46:L9:52:LEU:HD22	46:L9:53:ILE:H	1.87	0.40
36:1:1654:A:C2'	36:1:1655:G:H5''	2.44	0.40
36:5:1760:A:C6	36:5:1766:G:C6	3.09	0.40
36:1:2402:A:H5''	41:L4:67:THR:OG1	2.21	0.40
36:1:1816:A:O2'	36:1:1817:G:OP1	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:37:LYS:C	28:D6:38:ARG:HD2	2.41	0.40
17:C5:67:ALA:C	17:C5:69:GLU:H	2.24	0.40
1:6:678:A:HO2'	1:6:679:U:P	2.44	0.40
1:6:678:A:O2'	1:6:679:U:OP1	2.30	0.40
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.44	0.40
5:S3:192:PRO:HG3	5:S3:202:LEU:HD22	4.27	0.40
5:S3:9:ARG:HG3	31:D9:34:TYR:O	3.06	0.40
5:S3:162:GLN:O	5:S3:164:VAL:N	3.02	0.40
29:D7:63:LEU:HD23	29:D7:63:LEU:HA	2.02	0.40
10:S8:116:HIS:O	10:S8:146:ARG:NH1	2.95	0.40
40:L3:250:ALA:HB1	36:5:2947:G:C2	220.28	0.40
26:D4:67:GLY:O	26:D4:68:LYS:HB2	3.71	0.40
36:1:999:G:C6	36:1:1000:C:N4	2.90	0.40
39:L2:23:ARG:C	39:L2:24:GLN:O	4.17	0.40
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.37	0.40
37:3:11:A:H8	42:L5:18:THR:HG1	1.70	0.40
63:N7:27:LYS:HA	63:N7:28:PRO:HD2	2.71	0.40
12:C0:55:VAL:HG23	12:C0:67:THR:O	2.47	0.40
45:L8:128:LYS:HA	45:L8:129:PRO:HD3	1.83	0.40
55:M9:25:ASP:HA	55:M9:26:PRO:HD2	2.07	0.40
6:S4:150:PRO:HB2	6:S4:154:ILE:HD12	2.03	0.40
55:M9:167:ARG:HG2	55:M9:170:ARG:CZ	2.52	0.40
10:S8:18:ARG:NH1	1:6:105:A:OP1	305.89	0.40
59:N3:12:ARG:HG3	59:N3:13:ILE:N	2.35	0.40
35:SM:64:LYS:C	35:SM:66:ALA:H	2.83	0.40
71:O5:31:LEU:CD2	71:O5:44:ILE:HA	2.50	0.40
61:N5:93:TYR:CE2	36:5:1830:G:H4'	104.37	0.40
6:S4:252:ARG:HA	6:S4:255:ARG:HG2	5.36	0.40
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.57	0.40
2:S0:56:LYS:HE2	23:D1:70:ASN:HD21	2.83	0.40
42:L5:208:MET:HG3	42:L5:223:PHE:CD2	2.57	0.40
66:O0:18:ILE:HA	66:O0:18:ILE:HD12	1.87	0.40
47:M0:152:LEU:HA	47:M0:152:LEU:HD23	1.87	0.40
36:5:2774:C:C2	36:5:2787:G:C2	3.09	0.40
56:N0:92:LYS:HZ2	56:N0:92:LYS:HG2	1.72	0.40
36:1:1384:U:H2'	36:1:1385:C:H6	1.84	0.40
1:2:1230:A:C8	1:2:1256:A:C6	3.10	0.40
1:6:891:A:H2'	1:6:892:A:H8	1.87	0.40
39:L2:108:PRO:CG	79:Q3:86:LEU:HD22	2.52	0.40
28:D6:44:ILE:HD12	28:D6:45:VAL:HG13	2.03	0.40
20:C8:2:SER:HB2	20:C8:3:LEU:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	2.03	0.40
18:C6:139:GLN:HG3	1:6:1579:U:H1'	356.90	0.40
14:C2:136:ILE:O	14:C2:140:PHE:HB2	2.20	0.40
36:5:1846:C:H5''	36:5:1849:C:N4	2.36	0.40
39:L2:101:VAL:HA	39:L2:165:VAL:HA	2.46	0.40
20:C8:8:GLN:H	20:C8:8:GLN:HG3	1.47	0.40
6:S4:131:LEU:O	1:6:252:U:H5'	326.96	0.40
1:2:292:U:H2'	1:2:293:U:C6	2.56	0.40
22:D0:64:LYS:HA	22:D0:82:TYR:O	2.22	0.40
1:2:53:G:H2'	1:2:54:C:O4'	2.21	0.40
1:6:1325:A:H2'	1:6:1326:A:C8	2.56	0.40
24:D2:113:HIS:O	24:D2:116:ALA:HB3	2.22	0.40
36:5:2144:A:H1'	36:5:2281:A:N6	2.36	0.40
43:L6:13:GLU:OE1	68:O2:90:LYS:HB2	3.01	0.40
36:5:192:C:H2'	36:5:193:C:C6	2.57	0.40
7:S5:21:THR:HA	7:S5:22:PRO:HD3	1.84	0.40
36:1:530:G:N2	36:1:531:G:H1'	2.36	0.40
39:L2:87:PHE:O	39:L2:88:ILE:HD13	3.34	0.40
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.57	0.40
14:C2:78:LEU:HA	14:C2:78:LEU:HD23	1.95	0.40
55:M9:5:ARG:HB3	55:M9:5:ARG:HE	4.36	0.40
48:M1:80:LEU:HD22	48:M1:80:LEU:O	2.54	0.40
36:5:3288:G:O2'	36:5:3289:G:P	2.79	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%)	151 (74%)	32 (16%)	21 (10%)	1	4
2	s0	204/251 (81%)	152 (74%)	34 (17%)	18 (9%)	1	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	S1	212/254 (84%)	140 (66%)	34 (16%)	38 (18%)	0	0
3	s1	214/254 (84%)	168 (78%)	31 (14%)	15 (7%)	1	8
4	S2	215/253 (85%)	169 (79%)	31 (14%)	15 (7%)	1	8
4	s2	215/253 (85%)	173 (80%)	30 (14%)	12 (6%)	2	13
5	S3	221/239 (92%)	181 (82%)	25 (11%)	15 (7%)	1	8
5	s3	221/239 (92%)	178 (80%)	24 (11%)	19 (9%)	1	5
6	S4	258/260 (99%)	224 (87%)	23 (9%)	11 (4%)	3	19
6	s4	258/260 (99%)	220 (85%)	21 (8%)	17 (7%)	1	9
7	S5	204/224 (91%)	162 (79%)	25 (12%)	17 (8%)	1	6
7	s5	204/224 (91%)	152 (74%)	38 (19%)	14 (7%)	1	8
8	S6	224/236 (95%)	189 (84%)	23 (10%)	12 (5%)	2	14
8	s6	216/236 (92%)	179 (83%)	28 (13%)	9 (4%)	3	19
9	S7	182/189 (96%)	135 (74%)	30 (16%)	17 (9%)	1	4
9	s7	184/189 (97%)	148 (80%)	21 (11%)	15 (8%)	1	6
10	S8	184/200 (92%)	155 (84%)	19 (10%)	10 (5%)	2	14
10	s8	184/200 (92%)	155 (84%)	20 (11%)	9 (5%)	3	16
11	S9	183/196 (93%)	145 (79%)	28 (15%)	10 (6%)	2	13
11	s9	183/196 (93%)	142 (78%)	32 (18%)	9 (5%)	3	16
12	C0	94/105 (90%)	71 (76%)	16 (17%)	7 (7%)	1	7
12	c0	92/105 (88%)	63 (68%)	13 (14%)	16 (17%)	0	0
13	C1	153/155 (99%)	126 (82%)	18 (12%)	9 (6%)	2	12
13	c1	144/155 (93%)	122 (85%)	14 (10%)	8 (6%)	2	13
14	C2	122/142 (86%)	69 (57%)	34 (28%)	19 (16%)	0	0
14	c2	122/142 (86%)	66 (54%)	34 (28%)	22 (18%)	0	0
15	C3	148/150 (99%)	122 (82%)	15 (10%)	11 (7%)	1	7
15	c3	148/150 (99%)	121 (82%)	17 (12%)	10 (7%)	1	8
16	C4	125/136 (92%)	86 (69%)	26 (21%)	13 (10%)	1	3
16	c4	126/136 (93%)	99 (79%)	18 (14%)	9 (7%)	1	8
17	C5	122/141 (86%)	88 (72%)	22 (18%)	12 (10%)	1	4
17	c5	133/141 (94%)	94 (71%)	23 (17%)	16 (12%)	0	2
18	C6	139/142 (98%)	115 (83%)	13 (9%)	11 (8%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	c6	140/142 (99%)	116 (83%)	16 (11%)	8 (6%)	2	12
19	C7	116/136 (85%)	89 (77%)	20 (17%)	7 (6%)	2	11
19	c7	113/136 (83%)	87 (77%)	16 (14%)	10 (9%)	1	5
20	C8	143/145 (99%)	117 (82%)	13 (9%)	13 (9%)	1	5
20	c8	143/145 (99%)	117 (82%)	17 (12%)	9 (6%)	2	10
21	C9	141/143 (99%)	116 (82%)	19 (14%)	6 (4%)	3	19
21	c9	141/143 (99%)	115 (82%)	19 (14%)	7 (5%)	3	16
22	D0	105/120 (88%)	83 (79%)	16 (15%)	6 (6%)	2	12
22	d0	108/120 (90%)	89 (82%)	11 (10%)	8 (7%)	1	7
23	D1	85/87 (98%)	60 (71%)	18 (21%)	7 (8%)	1	6
23	d1	85/87 (98%)	73 (86%)	7 (8%)	5 (6%)	2	12
24	D2	127/129 (98%)	109 (86%)	15 (12%)	3 (2%)	7	33
24	d2	127/129 (98%)	108 (85%)	15 (12%)	4 (3%)	5	27
25	D3	142/144 (99%)	109 (77%)	23 (16%)	10 (7%)	1	8
25	d3	142/144 (99%)	118 (83%)	17 (12%)	7 (5%)	3	16
26	D4	132/134 (98%)	107 (81%)	16 (12%)	9 (7%)	1	8
26	d4	132/134 (98%)	106 (80%)	14 (11%)	12 (9%)	1	5
27	D5	68/107 (64%)	46 (68%)	11 (16%)	11 (16%)	0	0
27	d5	67/107 (63%)	51 (76%)	12 (18%)	4 (6%)	2	11
28	D6	95/97 (98%)	65 (68%)	15 (16%)	15 (16%)	0	0
28	d6	95/97 (98%)	73 (77%)	16 (17%)	6 (6%)	2	10
29	D7	79/81 (98%)	62 (78%)	13 (16%)	4 (5%)	2	15
29	d7	79/81 (98%)	61 (77%)	9 (11%)	9 (11%)	0	2
30	D8	61/66 (92%)	47 (77%)	11 (18%)	3 (5%)	3	16
30	d8	61/66 (92%)	42 (69%)	13 (21%)	6 (10%)	1	4
31	D9	51/55 (93%)	44 (86%)	7 (14%)	0	100	100
31	d9	51/55 (93%)	43 (84%)	3 (6%)	5 (10%)	1	4
32	E0	58/60 (97%)	47 (81%)	7 (12%)	4 (7%)	1	8
33	E1	69/76 (91%)	37 (54%)	17 (25%)	15 (22%)	0	0
33	e1	74/76 (97%)	38 (51%)	16 (22%)	20 (27%)	0	0
34	SR	316/318 (99%)	267 (84%)	42 (13%)	7 (2%)	8	36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	sR	316/318 (99%)	264 (84%)	41 (13%)	11 (4%)	4	24
35	SM	155/273 (57%)	106 (68%)	21 (14%)	28 (18%)	0	0
35	sM	98/273 (36%)	60 (61%)	27 (28%)	11 (11%)	0	3
39	L2	250/253 (99%)	211 (84%)	26 (10%)	13 (5%)	2	15
39	l2	250/253 (99%)	210 (84%)	26 (10%)	14 (6%)	2	13
40	L3	384/386 (100%)	328 (85%)	41 (11%)	15 (4%)	4	22
40	l3	384/386 (100%)	338 (88%)	37 (10%)	9 (2%)	8	35
41	L4	359/361 (99%)	289 (80%)	49 (14%)	21 (6%)	2	12
41	l4	359/361 (99%)	298 (83%)	43 (12%)	18 (5%)	3	16
42	L5	294/296 (99%)	241 (82%)	35 (12%)	18 (6%)	2	11
42	l5	292/296 (99%)	257 (88%)	26 (9%)	9 (3%)	5	27
43	L6	152/175 (87%)	135 (89%)	10 (7%)	7 (5%)	3	17
43	l6	153/175 (87%)	133 (87%)	16 (10%)	4 (3%)	7	32
44	L7	220/243 (90%)	196 (89%)	17 (8%)	7 (3%)	5	26
44	l7	221/243 (91%)	194 (88%)	20 (9%)	7 (3%)	5	26
45	L8	231/255 (91%)	190 (82%)	33 (14%)	8 (4%)	4	24
45	l8	229/255 (90%)	179 (78%)	36 (16%)	14 (6%)	2	11
46	L9	189/191 (99%)	164 (87%)	20 (11%)	5 (3%)	7	32
46	l9	189/191 (99%)	164 (87%)	18 (10%)	7 (4%)	4	23
47	M0	207/220 (94%)	169 (82%)	32 (16%)	6 (3%)	6	29
47	m0	209/220 (95%)	164 (78%)	34 (16%)	11 (5%)	2	14
48	M1	167/173 (96%)	125 (75%)	19 (11%)	23 (14%)	0	1
48	m1	167/173 (96%)	137 (82%)	18 (11%)	12 (7%)	1	7
49	M3	191/198 (96%)	155 (81%)	29 (15%)	7 (4%)	4	23
49	m3	192/198 (97%)	159 (83%)	22 (12%)	11 (6%)	2	12
50	M4	134/137 (98%)	114 (85%)	12 (9%)	8 (6%)	2	11
50	m4	135/137 (98%)	120 (89%)	12 (9%)	3 (2%)	8	36
51	M5	201/203 (99%)	182 (90%)	13 (6%)	6 (3%)	5	28
51	m5	201/203 (99%)	177 (88%)	15 (8%)	9 (4%)	3	17
52	M6	195/198 (98%)	172 (88%)	19 (10%)	4 (2%)	9	37
52	m6	195/198 (98%)	176 (90%)	15 (8%)	4 (2%)	9	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
53	M7	181/183 (99%)	154 (85%)	18 (10%)	9 (5%)	3	16
53	m7	153/183 (84%)	139 (91%)	11 (7%)	3 (2%)	9	38
54	M8	183/185 (99%)	158 (86%)	20 (11%)	5 (3%)	6	31
54	m8	183/185 (99%)	151 (82%)	24 (13%)	8 (4%)	3	18
55	M9	186/188 (99%)	165 (89%)	18 (10%)	3 (2%)	12	44
55	m9	186/188 (99%)	164 (88%)	17 (9%)	5 (3%)	6	31
56	N0	170/172 (99%)	155 (91%)	14 (8%)	1 (1%)	30	68
56	n0	170/172 (99%)	159 (94%)	9 (5%)	2 (1%)	16	52
57	N1	157/159 (99%)	135 (86%)	17 (11%)	5 (3%)	5	26
57	n1	157/159 (99%)	137 (87%)	16 (10%)	4 (2%)	7	32
58	N2	98/120 (82%)	77 (79%)	13 (13%)	8 (8%)	1	6
58	n2	96/120 (80%)	82 (85%)	11 (12%)	3 (3%)	5	27
59	N3	134/136 (98%)	121 (90%)	10 (8%)	3 (2%)	8	36
59	n3	134/136 (98%)	121 (90%)	12 (9%)	1 (1%)	26	65
60	N4	96/155 (62%)	75 (78%)	15 (16%)	6 (6%)	2	10
60	n4	133/155 (86%)	109 (82%)	15 (11%)	9 (7%)	1	8
61	N5	119/141 (84%)	107 (90%)	12 (10%)	0	100	100
61	n5	118/141 (84%)	96 (81%)	13 (11%)	9 (8%)	1	7
62	N6	124/126 (98%)	114 (92%)	6 (5%)	4 (3%)	5	26
62	n6	124/126 (98%)	105 (85%)	12 (10%)	7 (6%)	2	13
63	N7	133/135 (98%)	98 (74%)	24 (18%)	11 (8%)	1	6
63	n7	133/135 (98%)	98 (74%)	22 (16%)	13 (10%)	1	4
64	N8	146/148 (99%)	121 (83%)	14 (10%)	11 (8%)	1	7
64	n8	146/148 (99%)	123 (84%)	18 (12%)	5 (3%)	5	25
65	N9	56/58 (97%)	46 (82%)	8 (14%)	2 (4%)	4	24
65	n9	56/58 (97%)	44 (79%)	9 (16%)	3 (5%)	2	14
66	O0	95/104 (91%)	81 (85%)	11 (12%)	3 (3%)	5	26
66	o0	98/104 (94%)	82 (84%)	14 (14%)	2 (2%)	9	38
67	O1	107/112 (96%)	94 (88%)	7 (6%)	6 (6%)	2	13
67	o1	107/112 (96%)	88 (82%)	12 (11%)	7 (6%)	1	9
68	O2	125/129 (97%)	109 (87%)	15 (12%)	1 (1%)	24	63

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	o2	125/129 (97%)	106 (85%)	11 (9%)	8 (6%)	2	10
69	O3	104/106 (98%)	96 (92%)	6 (6%)	2 (2%)	10	40
69	o3	104/106 (98%)	90 (86%)	10 (10%)	4 (4%)	4	22
70	O4	110/120 (92%)	100 (91%)	9 (8%)	1 (1%)	21	61
70	o4	110/120 (92%)	99 (90%)	9 (8%)	2 (2%)	11	42
71	O5	117/119 (98%)	100 (86%)	13 (11%)	4 (3%)	5	25
71	o5	117/119 (98%)	101 (86%)	14 (12%)	2 (2%)	11	43
72	O6	97/99 (98%)	74 (76%)	13 (13%)	10 (10%)	1	4
72	o6	97/99 (98%)	81 (84%)	10 (10%)	6 (6%)	2	10
73	O7	85/87 (98%)	74 (87%)	7 (8%)	4 (5%)	3	17
73	o7	85/87 (98%)	73 (86%)	10 (12%)	2 (2%)	7	33
74	O8	75/77 (97%)	66 (88%)	8 (11%)	1 (1%)	15	50
74	o8	75/77 (97%)	60 (80%)	11 (15%)	4 (5%)	2	14
75	O9	48/50 (96%)	40 (83%)	8 (17%)	0	100	100
75	o9	48/50 (96%)	45 (94%)	2 (4%)	1 (2%)	9	37
76	Q0	50/52 (96%)	44 (88%)	4 (8%)	2 (4%)	4	21
76	q0	50/52 (96%)	45 (90%)	3 (6%)	2 (4%)	4	21
77	Q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	19
77	q1	23/25 (92%)	19 (83%)	4 (17%)	0	100	100
78	Q2	103/105 (98%)	77 (75%)	18 (18%)	8 (8%)	1	6
78	q2	103/105 (98%)	93 (90%)	9 (9%)	1 (1%)	19	58
79	Q3	89/91 (98%)	76 (85%)	11 (12%)	2 (2%)	8	36
79	q3	89/91 (98%)	81 (91%)	6 (7%)	2 (2%)	8	36
80	e0	60/62 (97%)	44 (73%)	9 (15%)	7 (12%)	0	2
81	p0	139/311 (45%)	114 (82%)	20 (14%)	5 (4%)	4	24
All	All	22333/24143 (92%)	18335 (82%)	2722 (12%)	1276 (6%)	2	12

All (1276) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	49	ASN

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Mol	Chain	Res	Type
2	S0	66	ALA
2	S0	95	ALA
2	S0	139	VAL
2	S0	158	VAL
2	S0	187	ALA
2	S0	191	ARG
2	S0	192	THR
3	S1	37	THR
3	S1	49	ASN
3	S1	51	SER
3	S1	58	SER
3	S1	63	GLY
3	S1	79	HIS
3	S1	113	MET
3	S1	117	TRP
3	S1	148	ASN
3	S1	177	GLN
3	S1	206	PRO
3	S1	221	PRO
3	S1	223	PHE
4	S2	72	LEU
5	S3	62	ASN
5	S3	65	ARG
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	26	CYS
6	S4	104	ASP
6	S4	223	ASN
6	S4	242	LYS
7	S5	26	ALA
7	S5	35	GLN
7	S5	39	GLU
7	S5	58	LEU
7	S5	153	GLY
8	S6	122	GLU
8	S6	149	LYS
8	S6	154	ARG
8	S6	173	PRO
8	S6	174	LYS
9	S7	5	GLN
9	S7	64	VAL

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Mol	Chain	Res	Type
9	S7	111	LYS
9	S7	112	ARG
9	S7	116	ARG
9	S7	131	PHE
9	S7	134	GLU
10	S8	59	ARG
11	S9	121	SER
11	S9	134	ILE
12	C0	54	TYR
12	C0	60	SER
12	C0	81	ASN
12	C0	87	VAL
12	C0	88	PRO
13	C1	7	VAL
13	C1	96	LYS
14	C2	126	TRP
14	C2	127	GLY
15	C3	57	ALA
15	C3	138	ASN
16	C4	50	ALA
16	C4	92	LYS
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	39	ALA
17	C5	54	ALA
17	C5	125	PRO
17	C5	126	VAL
18	C6	41	PRO
18	C6	58	ASP
18	C6	114	ARG
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	124	VAL
20	C8	14	ILE
20	C8	61	LEU
20	C8	82	PRO
20	C8	92	ILE
21	C9	53	TRP
22	D0	118	VAL
25	D3	70	LYS

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Mol	Chain	Res	Type
25	D3	114	LYS
25	D3	131	SER
26	D4	33	ALA
27	D5	39	ALA
27	D5	44	GLN
27	D5	54	VAL
27	D5	97	LYS
28	D6	45	VAL
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	102	VAL
33	E1	103	LEU
33	E1	106	TYR
33	E1	127	GLY
33	E1	138	ARG
34	SR	98	GLU
35	SM	17	VAL
35	SM	18	VAL
35	SM	87	THR
35	SM	100	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	17	THR
39	L2	20	THR
39	L2	24	GLN
39	L2	130	SER
39	L2	144	ASN
40	L3	3	HIS
40	L3	4	ARG
40	L3	5	LYS
40	L3	136	LYS
40	L3	140	ASP
40	L3	142	ALA
40	L3	187	SER
40	L3	188	ILE
41	L4	15	ALA

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Mol	Chain	Res	Type
41	L4	130	ALA
41	L4	131	VAL
41	L4	146	PRO
41	L4	230	VAL
41	L4	270	SER
41	L4	311	HIS
41	L4	317	PRO
41	L4	318	LEU
41	L4	338	LYS
42	L5	7	ALA
42	L5	58	LYS
42	L5	178	ASN
42	L5	233	ALA
42	L5	234	ASP
42	L5	295	GLY
43	L6	6	ALA
43	L6	97	ASN
43	L6	98	VAL
44	L7	24	GLU
44	L7	26	VAL
45	L8	25	PRO
45	L8	36	ILE
47	M0	189	GLU
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	12	LEU
48	M1	24	GLY
48	M1	74	PRO
48	M1	115	LYS
48	M1	151	SER
48	M1	165	GLN
48	M1	173	ASP
49	M3	47	ALA
49	M3	50	PRO
49	M3	76	THR
49	M3	129	ASN
50	M4	8	LYS
50	M4	9	ALA
50	M4	10	SER
51	M5	74	PRO
51	M5	94	TYR

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Mol	Chain	Res	Type
52	M6	111	PRO
53	M7	157	VAL
53	M7	182	ILE
54	M8	24	VAL
54	M8	99	THR
57	N1	124	VAL
57	N1	159	PHE
58	N2	51	GLY
60	N4	26	SER
60	N4	64	THR
60	N4	81	PRO
63	N7	7	ALA
63	N7	35	SER
63	N7	128	GLN
64	N8	29	PRO
64	N8	30	GLY
64	N8	66	ALA
66	O0	46	ALA
67	O1	6	ASP
67	O1	83	GLU
67	O1	84	ASP
71	O5	119	LYS
72	O6	33	ALA
72	O6	50	LEU
72	O6	64	SER
73	O7	12	HIS
73	O7	68	LYS
74	O8	33	LYS
76	Q0	78	ILE
77	Q1	23	ARG
78	Q2	15	LYS
78	Q2	60	LYS
78	Q2	78	LYS
78	Q2	100	LYS
2	s0	4	PRO
2	s0	44	GLY
2	s0	95	ALA
2	s0	111	ILE
2	s0	158	VAL
2	s0	185	ARG
2	s0	186	GLY
2	s0	189	VAL

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Mol	Chain	Res	Type
2	s0	203	PHE
2	s0	206	ASP
3	s1	82	ARG
3	s1	223	PHE
4	s2	92	ALA
4	s2	107	SER
4	s2	163	GLY
5	s3	59	LEU
5	s3	61	GLU
5	s3	90	ARG
5	s3	144	ALA
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
5	s3	221	SER
6	s4	24	SER
6	s4	104	ASP
6	s4	163	ASP
6	s4	196	VAL
7	s5	28	PRO
7	s5	29	ILE
7	s5	184	PHE
8	s6	25	ARG
8	s6	153	VAL
8	s6	154	ARG
8	s6	173	PRO
9	s7	30	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	101	ILE
11	s9	65	LYS
11	s9	91	LYS
11	s9	146	PHE
11	s9	147	MET
12	c0	2	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE

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Mol	Chain	Res	Type
12	c0	97	PRO
13	c1	114	ALA
14	c2	22	VAL
14	c2	89	ILE
14	c2	109	GLU
14	c2	131	ASP
15	c3	66	ILE
15	c3	87	ASP
15	c3	137	PRO
16	c4	35	GLY
16	c4	50	ALA
16	c4	51	ASP
16	c4	76	ILE
17	c5	11	VAL
17	c5	51	SER
17	c5	71	GLU
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
18	c6	42	GLU
18	c6	116	LEU
19	c7	88	VAL
19	c7	99	VAL
19	c7	103	ASP
19	c7	118	PRO
20	c8	91	ASP
20	c8	92	ILE
20	c8	145	ARG
21	c9	33	TYR
22	d0	49	ASN
22	d0	51	VAL
22	d0	52	LYS
23	d1	4	ASP
26	d4	30	PRO
26	d4	33	ALA
26	d4	35	VAL
26	d4	49	LYS
27	d5	85	LYS
28	d6	82	ARG
29	d7	20	LYS
29	d7	57	GLU
29	d7	62	ILE

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Mol	Chain	Res	Type
30	d8	32	PHE
30	d8	59	SER
30	d8	61	ARG
31	d9	6	VAL
80	e0	60	PRO
33	e1	79	LYS
33	e1	83	LYS
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	102	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	4	ASN
34	sR	163	ASP
34	sR	165	ASP
34	sR	250	TYR
35	sM	42	ALA
35	sM	50	ASN
35	sM	158	GLN
35	sM	172	VAL
39	l2	104	LEU
39	l2	194	ASN
40	l3	347	SER
41	l4	14	GLU
41	l4	90	PHE
41	l4	301	PRO
41	l4	304	GLN
41	l4	329	PRO
41	l4	349	THR
41	l4	361	HIS
42	l5	116	ASP
42	l5	258	LYS
43	l6	98	VAL
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	36	ILE
45	l8	240	ASN
46	l9	62	ARG
47	m0	25	ALA

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Mol	Chain	Res	Type
47	m0	194	GLY
47	m0	204	GLY
48	m1	8	PRO
48	m1	10	ARG
48	m1	39	GLN
48	m1	108	GLU
49	m3	47	ALA
49	m3	76	THR
49	m3	134	GLU
49	m3	141	ALA
51	m5	76	PRO
52	m6	110	PRO
55	m9	156	ASN
57	n1	135	PRO
57	n1	136	ARG
58	n2	50	LEU
59	n3	42	SER
60	n4	63	ILE
60	n4	76	VAL
60	n4	133	THR
61	n5	44	PRO
62	n6	77	LYS
62	n6	83	ASP
62	n6	84	LYS
62	n6	85	VAL
62	n6	92	GLY
62	n6	126	LEU
63	n7	36	HIS
63	n7	105	SER
63	n7	129	TRP
64	n8	47	LYS
64	n8	76	ASP
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE
67	o1	64	VAL
67	o1	84	ASP
68	o2	4	LEU
68	o2	5	PRO
69	o3	90	PRO
71	o5	82	ALA
71	o5	119	LYS

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Mol	Chain	Res	Type
72	o6	33	ALA
72	o6	63	ASN
72	o6	64	SER
72	o6	98	ARG
74	o8	18	ALA
81	p0	93	LEU
2	S0	140	ASN
2	S0	164	ASN
3	S1	36	SER
3	S1	60	ALA
3	S1	62	LYS
3	S1	93	GLY
3	S1	130	SER
3	S1	147	ALA
3	S1	202	LYS
4	S2	75	GLY
4	S2	79	GLU
4	S2	107	SER
4	S2	148	LEU
5	S3	216	PRO
6	S4	195	ILE
6	S4	245	LYS
7	S5	43	PHE
7	S5	51	VAL
7	S5	64	VAL
7	S5	81	ARG
7	S5	101	GLY
7	S5	150	GLY
8	S6	148	SER
8	S6	165	GLY
9	S7	32	PRO
9	S7	73	VAL
9	S7	110	GLN
9	S7	133	THR
9	S7	155	ASP
10	S8	22	ARG
10	S8	50	GLY
10	S8	52	ASN
10	S8	149	SER
10	S8	186	GLY
11	S9	93	LEU
11	S9	117	GLY

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Mol	Chain	Res	Type
11	S9	168	ARG
12	C0	64	TYR
13	C1	4	GLU
13	C1	29	LYS
13	C1	55	ASP
13	C1	95	PRO
13	C1	146	ALA
14	C2	82	PRO
14	C2	89	ILE
14	C2	91	VAL
14	C2	93	ASP
14	C2	130	THR
15	C3	22	ALA
15	C3	68	GLY
15	C3	106	ARG
16	C4	39	ILE
16	C4	42	VAL
16	C4	51	ASP
17	C5	51	SER
17	C5	60	LEU
18	C6	32	ASN
18	C6	97	VAL
18	C6	113	ASP
19	C7	84	TYR
20	C8	83	ALA
20	C8	144	ARG
21	C9	69	LYS
22	D0	49	ASN
23	D1	6	GLY
23	D1	12	TYR
25	D3	4	GLY
25	D3	11	SER
25	D3	128	SER
26	D4	6	THR
26	D4	34	ASN
26	D4	36	SER
27	D5	43	ASP
28	D6	18	VAL
28	D6	36	ILE
28	D6	46	GLU
28	D6	75	VAL
29	D7	63	LEU

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Mol	Chain	Res	Type
30	D8	36	THR
32	E0	51	ASN
33	E1	83	LYS
33	E1	84	VAL
33	E1	85	TYR
33	E1	98	VAL
34	SR	51	ASP
35	SM	42	ALA
35	SM	52	PRO
35	SM	139	GLU
35	SM	152	GLN
35	SM	172	VAL
35	SM	173	GLU
39	L2	234	LYS
40	L3	379	PHE
40	L3	385	LYS
41	L4	4	PRO
41	L4	190	GLY
41	L4	232	SER
41	L4	304	GLN
42	L5	59	ASP
42	L5	260	PHE
43	L6	100	LYS
44	L7	160	ARG
45	L8	39	ALA
45	L8	156	ASP
47	M0	117	GLY
47	M0	187	ALA
47	M0	194	GLY
48	M1	94	ARG
48	M1	167	TYR
49	M3	141	ALA
50	M4	36	VAL
51	M5	75	VAL
51	M5	184	LYS
52	M6	110	PRO
56	N0	2	ALA
58	N2	11	ILE
58	N2	31	ALA
58	N2	50	LEU
58	N2	52	ASN
62	N6	52	ARG

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Mol	Chain	Res	Type
62	N6	53	ASP
62	N6	84	LYS
63	N7	17	ARG
63	N7	102	GLU
64	N8	76	ASP
66	O0	100	ILE
70	O4	77	GLY
72	O6	28	TYR
72	O6	34	SER
72	O6	49	GLY
78	Q2	94	GLY
2	s0	30	GLN
2	s0	103	THR
3	s1	26	ARG
3	s1	81	PHE
3	s1	177	GLN
3	s1	194	ASN
4	s2	199	GLN
4	s2	238	SER
5	s3	160	SER
5	s3	179	GLN
6	s4	12	LEU
6	s4	95	THR
6	s4	164	LEU
6	s4	168	LYS
6	s4	195	ILE
6	s4	242	LYS
7	s5	35	GLN
7	s5	36	ALA
7	s5	43	PHE
7	s5	56	ALA
7	s5	100	ASN
7	s5	151	GLY
7	s5	204	GLY
8	s6	174	LYS
9	s7	144	VAL
10	s8	62	THR
10	s8	94	ASN
10	s8	100	ALA
10	s8	148	ALA
11	s9	58	ASP
11	s9	134	ILE

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Mol	Chain	Res	Type
11	s9	169	PRO
12	c0	23	ALA
12	c0	31	LYS
12	c0	32	HIS
13	c1	7	VAL
13	c1	55	ASP
13	c1	61	THR
13	c1	144	ALA
14	c2	26	ASP
14	c2	101	ALA
14	c2	119	SER
15	c3	19	SER
15	c3	60	VAL
16	c4	74	VAL
17	c5	9	LYS
17	c5	52	LYS
17	c5	131	ALA
18	c6	57	LEU
18	c6	113	ASP
20	c8	29	VAL
20	c8	60	GLU
20	c8	61	LEU
21	c9	28	LEU
21	c9	29	GLU
22	d0	15	GLN
22	d0	97	VAL
22	d0	118	VAL
24	d2	31	SER
25	d3	61	SER
25	d3	119	GLY
26	d4	42	GLU
27	d5	103	ARG
28	d6	8	ASN
28	d6	13	LYS
29	d7	3	LEU
29	d7	38	PRO
29	d7	59	CYS
29	d7	60	SER
29	d7	75	GLU
31	d9	5	ASN
31	d9	7	TRP
80	e0	9	ALA

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Mol	Chain	Res	Type
80	e0	47	VAL
33	e1	111	GLU
33	e1	124	PRO
33	e1	127	GLY
34	sR	149	ASP
34	sR	186	PHE
34	sR	218	GLY
34	sR	318	ALA
35	sM	47	ALA
35	sM	65	THR
35	sM	159	ALA
35	sM	167	PRO
39	l2	24	GLN
39	l2	142	ASP
39	l2	213	GLY
40	l3	143	GLY
40	l3	187	SER
41	l4	233	LEU
41	l4	302	ALA
41	l4	330	TYR
42	l5	85	ARG
42	l5	178	ASN
44	l7	191	VAL
45	l8	121	SER
45	l8	122	LYS
45	l8	133	LYS
46	l9	108	GLY
46	l9	144	ILE
47	m0	187	ALA
47	m0	196	PHE
47	m0	207	GLU
48	m1	94	ARG
48	m1	115	LYS
49	m3	93	ILE
49	m3	135	ALA
49	m3	150	PRO
51	m5	183	THR
51	m5	184	LYS
52	m6	16	VAL
53	m7	67	ILE
53	m7	72	GLN
54	m8	91	ALA

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Mol	Chain	Res	Type
55	m9	35	ALA
55	m9	155	LEU
56	n0	2	ALA
57	n1	16	GLN
57	n1	122	GLN
60	n4	71	ARG
60	n4	77	LYS
60	n4	83	THR
61	n5	25	LYS
61	n5	45	LYS
63	n7	130	PHE
64	n8	129	PHE
66	o0	99	ASP
68	o2	6	HIS
68	o2	110	ALA
68	o2	124	GLY
69	o3	88	ASN
69	o3	92	LYS
72	o6	4	LYS
74	o8	17	ARG
76	q0	101	ALA
81	p0	33	VAL
81	p0	198	PRO
2	S0	27	ARG
2	S0	65	ALA
2	S0	163	ASN
3	S1	26	ARG
3	S1	54	LEU
3	S1	78	ASP
3	S1	81	PHE
3	S1	82	ARG
3	S1	112	SER
3	S1	114	VAL
3	S1	116	LYS
3	S1	179	SER
3	S1	207	LEU
3	S1	213	ARG
4	S2	91	ARG
4	S2	108	ASN
4	S2	146	THR
4	S2	236	PRO
5	S3	59	LEU

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Mol	Chain	Res	Type
5	S3	81	PRO
5	S3	218	LEU
6	S4	3	ARG
6	S4	12	LEU
7	S5	63	GLN
7	S5	127	GLN
8	S6	25	ARG
8	S6	146	GLY
8	S6	152	ASP
9	S7	85	PHE
10	S8	120	THR
10	S8	153	GLU
11	S9	169	PRO
13	C1	145	ALA
14	C2	22	VAL
14	C2	106	ILE
14	C2	107	ASP
14	C2	108	ARG
14	C2	112	ALA
14	C2	128	ALA
15	C3	3	ARG
15	C3	27	LYS
17	C5	52	LYS
17	C5	130	ARG
18	C6	40	GLU
18	C6	138	PHE
20	C8	8	GLN
21	C9	31	PRO
21	C9	39	THR
22	D0	17	GLN
23	D1	10	GLU
24	D2	79	PHE
24	D2	83	ILE
26	D4	4	ALA
26	D4	5	VAL
26	D4	54	ALA
27	D5	41	ILE
27	D5	42	LEU
27	D5	55	PRO
28	D6	63	ALA
29	D7	51	GLN
33	E1	128	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	E1	137	ASP
34	SR	15	GLY
34	SR	318	ALA
35	SM	97	THR
35	SM	101	ASP
35	SM	153	ASP
35	SM	174	LEU
39	L2	125	ALA
39	L2	127	ALA
39	L2	180	LEU
40	L3	378	ALA
41	L4	14	GLU
41	L4	268	ALA
41	L4	291	ASN
42	L5	15	ARG
42	L5	137	ASP
42	L5	258	LYS
42	L5	276	LYS
45	L8	37	GLY
45	L8	254	ASP
46	L9	50	ASN
46	L9	190	ASP
47	M0	211	ARG
48	M1	28	ASP
48	M1	64	LYS
48	M1	172	LEU
51	M5	81	TYR
51	M5	187	ARG
52	M6	182	ASN
54	M8	41	ASP
57	N1	18	ASP
57	N1	123	GLY
58	N2	49	ASN
59	N3	46	LEU
59	N3	134	GLY
60	N4	97	LYS
62	N6	126	LEU
63	N7	18	TYR
64	N8	96	LYS
64	N8	97	GLU
66	O0	20	SER
67	O1	7	VAL

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Mol	Chain	Res	Type
71	O5	97	ALA
72	O6	3	VAL
78	Q2	17	CYS
78	Q2	30	ALA
78	Q2	34	SER
2	s0	10	THR
2	s0	109	ASN
2	s0	114	SER
2	s0	183	ARG
3	s1	147	ALA
3	s1	206	PRO
4	s2	91	ARG
4	s2	182	PRO
5	s3	44	THR
5	s3	45	LYS
5	s3	93	ASP
5	s3	211	PRO
6	s4	38	LEU
8	s6	68	LEU
8	s6	149	LYS
8	s6	165	GLY
9	s7	10	SER
9	s7	34	LEU
9	s7	145	GLY
10	s8	147	ALA
12	c0	30	ALA
12	c0	94	GLU
14	c2	87	PRO
14	c2	90	LYS
14	c2	92	ALA
14	c2	118	ALA
15	c3	18	TYR
15	c3	22	ALA
16	c4	90	ARG
17	c5	14	THR
17	c5	17	TYR
18	c6	13	LYS
18	c6	115	THR
19	c7	117	LEU
20	c8	14	ILE
20	c8	77	THR
22	d0	17	GLN

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Mol	Chain	Res	Type
22	d0	96	PRO
23	d1	44	ARG
24	d2	6	VAL
24	d2	32	LYS
25	d3	27	ASN
25	d3	46	SER
26	d4	11	LYS
29	d7	53	ALA
30	d8	33	LEU
30	d8	64	ARG
80	e0	61	SER
33	e1	131	PHE
34	sR	141	LEU
35	sM	63	ASP
35	sM	83	LYS
39	l2	80	GLU
39	l2	130	SER
40	l3	385	LYS
40	l3	386	ASP
41	l4	132	ALA
41	l4	146	PRO
41	l4	272	VAL
41	l4	338	LYS
42	l5	215	ASP
42	l5	260	PHE
42	l5	279	LYS
43	l6	97	ASN
45	l8	203	VAL
46	l9	2	LYS
46	l9	38	LEU
46	l9	107	ASP
47	m0	53	VAL
48	m1	114	ILE
48	m1	153	LYS
48	m1	167	TYR
49	m3	60	ALA
49	m3	130	GLY
50	m4	135	LEU
50	m4	136	ALA
51	m5	181	ASN
54	m8	41	ASP
54	m8	84	VAL

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Mol	Chain	Res	Type
54	m8	99	THR
54	m8	171	LYS
61	n5	24	LEU
61	n5	38	LEU
61	n5	46	TYR
61	n5	47	ALA
61	n5	55	ASN
63	n7	134	LEU
64	n8	48	TYR
66	o0	98	SER
67	o1	47	ASP
67	o1	83	GLU
69	o3	59	VAL
73	o7	86	ALA
74	o8	49	SER
76	q0	78	ILE
79	q3	51	ALA
81	p0	102	SER
2	S0	5	ALA
2	S0	64	ILE
2	S0	195	TRP
3	S1	61	LEU
4	S2	150	GLN
4	S2	248	SER
5	S3	55	THR
5	S3	143	ARG
5	S3	217	ILE
6	S4	77	ARG
7	S5	21	THR
7	S5	65	ARG
9	S7	98	ILE
10	S8	10	LYS
10	S8	152	ILE
11	S9	16	LYS
11	S9	98	ALA
11	S9	171	ARG
12	C0	35	ILE
13	C1	30	ARG
14	C2	21	GLU
14	C2	66	VAL
14	C2	119	SER
15	C3	13	SER

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Mol	Chain	Res	Type
15	C3	31	GLU
16	C4	75	GLY
17	C5	29	SER
17	C5	69	GLU
18	C6	59	LYS
18	C6	142	TYR
19	C7	81	LYS
20	C8	7	GLU
20	C8	84	TRP
20	C8	91	ASP
21	C9	130	ARG
23	D1	2	GLU
23	D1	4	ASP
23	D1	11	LEU
23	D1	44	ARG
24	D2	57	ARG
25	D3	41	SER
25	D3	112	LYS
28	D6	59	TYR
28	D6	64	LEU
30	D8	51	ASN
33	E1	90	LYS
33	E1	111	GLU
33	E1	118	ARG
34	SR	226	ALA
35	SM	12	VAL
35	SM	15	ALA
35	SM	53	ARG
35	SM	72	ARG
35	SM	86	ASN
35	SM	154	TYR
39	L2	251	LYS
40	L3	138	ALA
41	L4	140	HIS
41	L4	271	LYS
42	L5	6	ASP
42	L5	253	PHE
43	L6	36	PRO
43	L6	81	ALA
44	L7	25	GLN
44	L7	164	SER
45	L8	100	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	L9	96	HIS
48	M1	108	GLU
48	M1	114	ILE
48	M1	117	ASP
49	M3	176	GLU
50	M4	29	ALA
50	M4	71	ALA
50	M4	136	ALA
53	M7	108	ASP
53	M7	162	GLU
54	M8	4	ASP
54	M8	162	ALA
55	M9	5	ARG
63	N7	36	HIS
63	N7	103	GLN
64	N8	47	LYS
64	N8	78	LEU
64	N8	117	ARG
65	N9	25	LYS
68	O2	12	LYS
72	O6	21	THR
72	O6	78	GLY
73	O7	84	SER
76	Q0	79	GLU
79	Q3	75	ALA
79	Q3	76	ALA
3	s1	93	GLY
3	s1	106	THR
3	s1	224	ASP
3	s1	230	ALA
4	s2	106	ASP
4	s2	150	GLN
4	s2	196	VAL
4	s2	235	LEU
6	s4	90	ILE
6	s4	166	SER
7	s5	98	MET
7	s5	223	SER
8	s6	70	PRO
10	s8	136	SER
10	s8	199	LYS
12	c0	35	ILE

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Mol	Chain	Res	Type
12	c0	49	LEU
12	c0	82	LEU
12	c0	96	ASN
14	c2	58	LEU
14	c2	103	LEU
14	c2	106	ILE
14	c2	111	ASN
14	c2	127	GLY
16	c4	12	GLN
17	c5	7	ALA
17	c5	130	ARG
17	c5	132	GLY
18	c6	142	TYR
19	c7	67	ARG
19	c7	68	GLY
19	c7	98	GLY
19	c7	116	LYS
20	c8	4	VAL
21	c9	118	PRO
23	d1	6	GLY
23	d1	10	GLU
24	d2	68	ARG
25	d3	66	SER
25	d3	138	GLU
26	d4	68	LYS
26	d4	91	LEU
28	d6	59	TYR
31	d9	17	GLY
33	e1	86	THR
33	e1	105	TYR
33	e1	128	ALA
33	e1	136	LYS
34	sR	281	TYR
35	sM	43	ASP
39	l2	56	ALA
39	l2	69	TYR
39	l2	180	LEU
39	l2	215	ASN
39	l2	249	SER
40	l3	40	PRO
40	l3	142	ALA
41	l4	339	LEU

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Mol	Chain	Res	Type
42	l5	153	THR
44	l7	27	ALA
44	l7	158	LYS
45	l8	54	GLU
45	l8	77	GLN
45	l8	237	ILE
47	m0	145	LYS
47	m0	176	LEU
47	m0	220	GLN
48	m1	95	ASN
48	m1	168	ASP
51	m5	102	ALA
51	m5	187	ARG
52	m6	89	SER
54	m8	42	ALA
54	m8	113	LYS
54	m8	155	MET
56	n0	142	GLN
58	n2	23	THR
60	n4	72	SER
63	n7	5	LEU
67	o1	86	LYS
79	q3	4	ARG
2	S0	103	THR
2	S0	126	PRO
2	S0	189	VAL
3	S1	38	PHE
3	S1	158	SER
3	S1	176	VAL
4	S2	92	ALA
5	S3	212	LYS
7	S5	54	LYS
8	S6	69	LEU
9	S7	74	GLN
14	C2	81	ASP
14	C2	87	PRO
14	C2	115	VAL
16	C4	18	ARG
16	C4	114	ARG
17	C5	101	ALA
20	C8	6	GLN
22	D0	59	PRO

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Mol	Chain	Res	Type
22	D0	117	VAL
25	D3	96	VAL
25	D3	109	ARG
28	D6	62	TYR
30	D8	35	ASP
32	E0	60	PRO
33	E1	87	THR
34	SR	163	ASP
35	SM	63	ASP
35	SM	68	ARG
35	SM	88	ARG
39	L2	47	GLN
39	L2	229	ALA
40	L3	141	GLY
41	L4	82	THR
41	L4	233	LEU
42	L5	188	GLU
42	L5	252	ALA
42	L5	259	LYS
43	L6	5	LYS
45	L8	157	VAL
46	L9	42	ASP
47	M0	16	PRO
48	M1	34	SER
48	M1	78	GLU
48	M1	95	ASN
49	M3	136	GLU
52	M6	11	GLY
53	M7	75	GLU
53	M7	109	ALA
53	M7	160	ALA
53	M7	169	THR
55	M9	53	LYS
55	M9	130	ASN
59	N3	16	GLY
60	N4	80	ARG
60	N4	86	SER
63	N7	16	GLY
63	N7	33	SER
64	N8	24	LYS
67	O1	5	LYS
69	O3	59	VAL

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Mol	Chain	Res	Type
71	O5	75	TYR
73	O7	78	PHE
2	s0	139	VAL
4	s2	234	PRO
5	s3	43	PRO
5	s3	113	LEU
5	s3	161	GLY
5	s3	219	ALA
6	s4	3	ARG
6	s4	30	ARG
6	s4	245	LYS
9	s7	11	GLN
9	s7	133	THR
9	s7	186	PRO
10	s8	78	ILE
11	s9	167	ALA
12	c0	3	MET
14	c2	21	GLU
14	c2	63	VAL
15	c3	29	SER
16	c4	37	GLU
17	c5	6	ASN
18	c6	97	VAL
21	c9	119	LYS
26	d4	58	PHE
26	d4	77	ASN
26	d4	104	SER
28	d6	35	ALA
80	e0	51	ASN
80	e0	54	ARG
33	e1	97	LYS
33	e1	148	TYR
34	sR	160	GLU
40	l3	221	THR
41	l4	311	HIS
41	l4	328	ASN
41	l4	342	LYS
43	l6	10	TYR
44	l7	228	SER
47	m0	47	PRO
51	m5	55	ALA
51	m5	170	LYS

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Mol	Chain	Res	Type
52	m6	65	ASN
55	m9	154	ALA
60	n4	103	ALA
62	n6	125	LYS
63	n7	6	LYS
63	n7	17	ARG
63	n7	28	PRO
64	n8	56	VAL
67	o1	45	GLY
72	o6	34	SER
73	o7	85	LYS
75	o9	3	ALA
3	S1	23	PRO
3	S1	210	ILE
4	S2	39	THR
4	S2	62	PRO
5	S3	26	THR
5	S3	76	ARG
7	S5	45	LYS
9	S7	31	SER
9	S7	132	PRO
15	C3	28	LEU
15	C3	137	PRO
16	C4	40	ALA
18	C6	33	GLY
19	C7	87	GLU
20	C8	5	VAL
26	D4	95	GLY
27	D5	38	HIS
32	E0	50	VAL
34	SR	105	GLY
35	SM	102	THR
40	L3	155	ALA
40	L3	317	ILE
44	L7	178	ILE
53	M7	84	PRO
64	N8	27	LYS
67	O1	82	GLU
71	O5	37	SER
72	O6	77	LEU
2	s0	85	ALA
3	s1	207	LEU

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Mol	Chain	Res	Type
3	s1	233	GLY
7	s5	45	LYS
7	s5	55	ASP
12	c0	95	ARG
14	c2	107	ASP
14	c2	115	VAL
15	c3	78	ASN
21	c9	11	ALA
25	d3	101	GLU
26	d4	51	GLU
27	d5	44	GLN
27	d5	104	ALA
28	d6	63	ALA
31	d9	11	PRO
33	e1	81	LYS
39	l2	127	ALA
43	l6	107	ALA
44	l7	91	GLY
44	l7	178	ILE
45	l8	39	ALA
45	l8	69	LEU
46	l9	167	VAL
49	m3	101	ARG
50	m4	49	PRO
51	m5	81	TYR
61	n5	79	GLY
63	n7	16	GLY
63	n7	103	GLN
68	o2	122	PRO
70	o4	66	SER
78	q2	33	ALA
27	D5	88	ILE
28	D6	9	GLY
50	M4	6	ILE
57	N1	36	VAL
58	N2	27	VAL
65	N9	21	ILE
6	s4	31	PRO
13	c1	113	PRO
13	c1	129	ARG
39	l2	172	GLY
48	m1	7	ASN

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Mol	Chain	Res	Type
55	m9	15	VAL
58	n2	51	GLY
63	n7	104	PRO
6	S4	193	GLY
8	S6	9	VAL
16	C4	96	PRO
17	C5	68	PRO
20	C8	142	GLY
27	D5	71	ILE
39	L2	210	PRO
46	L9	98	PRO
3	s1	193	ILE
5	s3	115	ILE
13	c1	139	VAL
80	e0	45	VAL
40	l3	9	PRO
42	l5	125	VAL
68	o2	9	ILE
6	S4	111	VAL
11	S9	84	GLY
26	D4	35	VAL
28	D6	65	PRO
48	M1	23	VAL
48	M1	118	PRO
11	s9	162	SER
14	c2	40	GLY
19	c7	86	PRO
23	d1	77	GLY
53	m7	84	PRO
60	n4	98	PRO
63	n7	70	PRO
81	p0	78	PRO
4	S2	74	PRO
21	C9	65	ILE
35	SM	20	LEU
42	L5	125	VAL
44	L7	91	GLY
63	N7	89	VAL
14	c2	66	VAL
15	c3	47	PRO
16	c4	88	GLY
21	c9	34	VAL

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Mol	Chain	Res	Type
30	d8	20	GLY
44	l7	188	ILE
49	m3	133	PRO
67	o1	7	VAL
68	o2	68	PRO
74	o8	60	GLY
3	S1	35	PRO
22	D0	19	ILE
58	N2	60	GLY
9	s7	13	PRO
17	c5	117	GLY
70	o4	100	ILE
69	O3	104	PRO

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	S0	164/209 (78%)	134 (82%)	30 (18%)	2	9
2	s0	165/209 (79%)	135 (82%)	30 (18%)	2	9
3	S1	191/223 (86%)	156 (82%)	35 (18%)	2	9
3	s1	192/223 (86%)	154 (80%)	38 (20%)	1	7
4	S2	176/204 (86%)	132 (75%)	44 (25%)	1	2
4	s2	176/204 (86%)	136 (77%)	40 (23%)	1	4
5	S3	182/194 (94%)	149 (82%)	33 (18%)	2	9
5	s3	182/194 (94%)	141 (78%)	41 (22%)	1	4
6	S4	221/221 (100%)	178 (80%)	43 (20%)	2	7
6	s4	221/221 (100%)	183 (83%)	38 (17%)	2	11
7	S5	173/190 (91%)	136 (79%)	37 (21%)	1	5
7	s5	173/190 (91%)	142 (82%)	31 (18%)	2	10
8	S6	188/201 (94%)	151 (80%)	37 (20%)	1	7
8	s6	187/201 (93%)	153 (82%)	34 (18%)	2	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	S7	165/169 (98%)	138 (84%)	27 (16%)	3	12
9	s7	165/169 (98%)	130 (79%)	35 (21%)	1	6
10	S8	150/161 (93%)	126 (84%)	24 (16%)	3	13
10	s8	150/161 (93%)	129 (86%)	21 (14%)	4	18
11	S9	158/165 (96%)	124 (78%)	34 (22%)	1	5
11	s9	158/165 (96%)	121 (77%)	37 (23%)	1	4
12	C0	77/98 (79%)	61 (79%)	16 (21%)	1	6
12	c0	73/98 (74%)	60 (82%)	13 (18%)	2	10
13	C1	129/136 (95%)	108 (84%)	21 (16%)	3	12
13	c1	129/136 (95%)	102 (79%)	27 (21%)	1	6
14	C2	88/118 (75%)	63 (72%)	25 (28%)	0	1
14	c2	88/118 (75%)	59 (67%)	29 (33%)	0	0
15	C3	127/127 (100%)	102 (80%)	25 (20%)	1	7
15	c3	127/127 (100%)	104 (82%)	23 (18%)	2	9
16	C4	81/104 (78%)	57 (70%)	24 (30%)	0	1
16	c4	97/104 (93%)	78 (80%)	19 (20%)	1	7
17	C5	101/117 (86%)	81 (80%)	20 (20%)	1	7
17	c5	103/117 (88%)	85 (82%)	18 (18%)	2	10
18	C6	117/118 (99%)	94 (80%)	23 (20%)	1	7
18	c6	118/118 (100%)	94 (80%)	24 (20%)	1	6
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	7
19	c7	92/124 (74%)	77 (84%)	15 (16%)	3	12
20	C8	128/128 (100%)	96 (75%)	32 (25%)	1	2
20	c8	128/128 (100%)	99 (77%)	29 (23%)	1	4
21	C9	115/115 (100%)	91 (79%)	24 (21%)	1	6
21	c9	115/115 (100%)	94 (82%)	21 (18%)	2	9
22	D0	100/113 (88%)	76 (76%)	24 (24%)	1	3
22	d0	103/113 (91%)	78 (76%)	25 (24%)	1	3
23	D1	74/74 (100%)	54 (73%)	20 (27%)	0	1
23	d1	74/74 (100%)	52 (70%)	22 (30%)	0	1
24	D2	110/110 (100%)	89 (81%)	21 (19%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	d2	110/110 (100%)	94 (86%)	16 (14%)	4	16
25	D3	119/119 (100%)	91 (76%)	28 (24%)	1	4
25	d3	119/119 (100%)	103 (87%)	16 (13%)	5	20
26	D4	112/112 (100%)	102 (91%)	10 (9%)	12	42
26	d4	112/112 (100%)	98 (88%)	14 (12%)	6	22
27	D5	61/88 (69%)	51 (84%)	10 (16%)	3	12
27	d5	61/88 (69%)	51 (84%)	10 (16%)	3	12
28	D6	83/83 (100%)	62 (75%)	21 (25%)	1	2
28	d6	83/83 (100%)	71 (86%)	12 (14%)	4	16
29	D7	70/70 (100%)	56 (80%)	14 (20%)	1	7
29	d7	70/70 (100%)	52 (74%)	18 (26%)	0	2
30	D8	56/59 (95%)	46 (82%)	10 (18%)	2	10
30	d8	56/59 (95%)	43 (77%)	13 (23%)	1	4
31	D9	47/48 (98%)	39 (83%)	8 (17%)	2	11
31	d9	47/48 (98%)	40 (85%)	7 (15%)	4	15
32	E0	51/51 (100%)	39 (76%)	12 (24%)	1	4
33	E1	62/66 (94%)	42 (68%)	20 (32%)	0	0
33	e1	66/66 (100%)	47 (71%)	19 (29%)	0	1
34	SR	260/261 (100%)	219 (84%)	41 (16%)	3	13
34	sR	260/261 (100%)	231 (89%)	29 (11%)	7	29
35	SM	97/228 (42%)	78 (80%)	19 (20%)	1	7
35	sM	54/228 (24%)	44 (82%)	10 (18%)	2	9
39	L2	193/195 (99%)	156 (81%)	37 (19%)	2	8
39	l2	192/195 (98%)	145 (76%)	47 (24%)	1	3
40	L3	320/322 (99%)	250 (78%)	70 (22%)	1	5
40	l3	319/322 (99%)	248 (78%)	71 (22%)	1	5
41	L4	288/288 (100%)	224 (78%)	64 (22%)	1	5
41	l4	288/288 (100%)	231 (80%)	57 (20%)	1	7
42	L5	244/244 (100%)	197 (81%)	47 (19%)	2	8
42	l5	243/244 (100%)	191 (79%)	52 (21%)	1	5
43	L6	134/152 (88%)	106 (79%)	28 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	l6	135/152 (89%)	113 (84%)	22 (16%)	3	12
44	L7	186/204 (91%)	162 (87%)	24 (13%)	5	21
44	l7	187/204 (92%)	161 (86%)	26 (14%)	4	19
45	L8	187/207 (90%)	152 (81%)	35 (19%)	2	8
45	l8	177/207 (86%)	148 (84%)	29 (16%)	3	12
46	L9	171/171 (100%)	132 (77%)	39 (23%)	1	4
46	l9	171/171 (100%)	134 (78%)	37 (22%)	1	5
47	M0	177/186 (95%)	139 (78%)	38 (22%)	1	5
47	m0	179/186 (96%)	144 (80%)	35 (20%)	1	7
48	M1	147/150 (98%)	119 (81%)	28 (19%)	2	8
48	m1	147/150 (98%)	112 (76%)	35 (24%)	1	3
49	M3	154/158 (98%)	127 (82%)	27 (18%)	2	10
49	m3	154/158 (98%)	123 (80%)	31 (20%)	1	7
50	M4	107/108 (99%)	89 (83%)	18 (17%)	2	11
50	m4	108/108 (100%)	91 (84%)	17 (16%)	3	13
51	M5	175/175 (100%)	146 (83%)	29 (17%)	3	12
51	m5	175/175 (100%)	139 (79%)	36 (21%)	1	6
52	M6	160/161 (99%)	142 (89%)	18 (11%)	7	28
52	m6	160/161 (99%)	131 (82%)	29 (18%)	2	9
53	M7	140/145 (97%)	115 (82%)	25 (18%)	2	10
53	m7	125/145 (86%)	106 (85%)	19 (15%)	3	14
54	M8	150/150 (100%)	119 (79%)	31 (21%)	1	6
54	m8	150/150 (100%)	122 (81%)	28 (19%)	2	8
55	M9	153/153 (100%)	134 (88%)	19 (12%)	6	23
55	m9	153/153 (100%)	115 (75%)	38 (25%)	1	3
56	N0	156/156 (100%)	123 (79%)	33 (21%)	1	6
56	n0	156/156 (100%)	123 (79%)	33 (21%)	1	6
57	N1	136/136 (100%)	111 (82%)	25 (18%)	2	9
57	n1	136/136 (100%)	112 (82%)	24 (18%)	2	10
58	N2	87/106 (82%)	73 (84%)	14 (16%)	3	13
58	n2	85/106 (80%)	67 (79%)	18 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	N3	104/104 (100%)	90 (86%)	14 (14%)	5	20
59	n3	104/104 (100%)	95 (91%)	9 (9%)	13	44
60	N4	57/129 (44%)	49 (86%)	8 (14%)	4	18
60	n4	100/129 (78%)	89 (89%)	11 (11%)	8	30
61	N5	104/117 (89%)	81 (78%)	23 (22%)	1	5
61	n5	104/117 (89%)	85 (82%)	19 (18%)	2	9
62	N6	109/109 (100%)	86 (79%)	23 (21%)	1	6
62	n6	109/109 (100%)	73 (67%)	36 (33%)	0	0
63	N7	115/115 (100%)	91 (79%)	24 (21%)	1	6
63	n7	115/115 (100%)	87 (76%)	28 (24%)	1	3
64	N8	118/118 (100%)	101 (86%)	17 (14%)	4	17
64	n8	118/118 (100%)	91 (77%)	27 (23%)	1	4
65	N9	46/46 (100%)	37 (80%)	9 (20%)	1	7
65	n9	46/46 (100%)	34 (74%)	12 (26%)	0	2
66	O0	81/87 (93%)	65 (80%)	16 (20%)	1	7
66	o0	84/87 (97%)	65 (77%)	19 (23%)	1	4
67	O1	92/96 (96%)	71 (77%)	21 (23%)	1	4
67	o1	94/96 (98%)	67 (71%)	27 (29%)	0	1
68	O2	109/110 (99%)	91 (84%)	18 (16%)	3	12
68	o2	109/110 (99%)	88 (81%)	21 (19%)	2	8
69	O3	90/90 (100%)	82 (91%)	8 (9%)	12	42
69	o3	90/90 (100%)	71 (79%)	19 (21%)	1	6
70	O4	95/102 (93%)	80 (84%)	15 (16%)	3	13
70	o4	95/102 (93%)	76 (80%)	19 (20%)	1	7
71	O5	104/104 (100%)	80 (77%)	24 (23%)	1	4
71	o5	103/104 (99%)	80 (78%)	23 (22%)	1	5
72	O6	81/81 (100%)	57 (70%)	24 (30%)	0	1
72	o6	80/81 (99%)	54 (68%)	26 (32%)	0	0
73	O7	70/70 (100%)	58 (83%)	12 (17%)	2	11
73	o7	70/70 (100%)	59 (84%)	11 (16%)	3	13
74	O8	68/68 (100%)	50 (74%)	18 (26%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
74	o8	67/68 (98%)	48 (72%)	19 (28%)	0	1
75	O9	45/45 (100%)	39 (87%)	6 (13%)	5	20
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2	10
76	Q0	47/47 (100%)	41 (87%)	6 (13%)	5	21
76	q0	47/47 (100%)	39 (83%)	8 (17%)	2	11
77	Q1	23/23 (100%)	16 (70%)	7 (30%)	0	1
77	q1	23/23 (100%)	15 (65%)	8 (35%)	0	0
78	Q2	90/90 (100%)	71 (79%)	19 (21%)	1	6
78	q2	90/90 (100%)	70 (78%)	20 (22%)	1	5
79	Q3	71/71 (100%)	61 (86%)	10 (14%)	4	18
79	q3	71/71 (100%)	56 (79%)	15 (21%)	1	6
80	e0	53/53 (100%)	41 (77%)	12 (23%)	1	4
81	p0	105/253 (42%)	81 (77%)	24 (23%)	1	4
All	All	18727/20241 (92%)	15046 (80%)	3681 (20%)	1	7

All (3681) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR
2	S0	9	LEU
2	S0	30	GLN
2	S0	37	VAL
2	S0	49	ASN
2	S0	50	VAL
2	S0	78	SER
2	S0	83	GLN
2	S0	84	ARG
2	S0	86	VAL
2	S0	87	LEU
2	S0	88	LYS
2	S0	101	ARG
2	S0	111	ILE
2	S0	117	GLU
2	S0	119	ARG
2	S0	131	GLN
2	S0	134	LYS
2	S0	140	ASN

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Mol	Chain	Res	Type
2	S0	147	THR
2	S0	157	ASP
2	S0	164	ASN
2	S0	165	ARG
2	S0	172	LEU
2	S0	177	LEU
2	S0	184	LEU
2	S0	188	LEU
2	S0	196	SER
2	S0	200	ASP
2	S0	203	PHE
3	S1	21	VAL
3	S1	22	ASP
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	46	THR
3	S1	55	LYS
3	S1	61	LEU
3	S1	70	LEU
3	S1	76	SER
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	85	LYS
3	S1	96	LEU
3	S1	97	LEU
3	S1	105	PHE
3	S1	110	LEU
3	S1	111	ARG
3	S1	140	ILE
3	S1	149	GLN
3	S1	154	SER
3	S1	166	LYS
3	S1	170	GLU
3	S1	180	THR
3	S1	181	LEU
3	S1	183	GLN
3	S1	184	LEU
3	S1	202	LYS
3	S1	211	HIS
3	S1	214	LYS

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Mol	Chain	Res	Type
3	S1	215	VAL
3	S1	216	LYS
3	S1	218	LEU
3	S1	223	PHE
4	S2	41	LEU
4	S2	54	GLU
4	S2	58	LEU
4	S2	64	LYS
4	S2	69	ILE
4	S2	73	LEU
4	S2	76	LEU
4	S2	77	GLN
4	S2	87	GLN
4	S2	90	THR
4	S2	91	ARG
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR
4	S2	119	LYS
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	146	THR
4	S2	147	ASN
4	S2	148	LEU
4	S2	156	THR
4	S2	166	THR
4	S2	174	ARG
4	S2	181	SER
4	S2	187	LEU
4	S2	194	GLU
4	S2	201	ASN
4	S2	207	LEU
4	S2	221	THR
4	S2	222	TYR
4	S2	224	PHE
4	S2	225	LEU

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Mol	Chain	Res	Type
4	S2	226	THR
4	S2	229	LEU
4	S2	235	LEU
4	S2	237	VAL
4	S2	240	LEU
4	S2	245	ASP
5	S3	5	ILE
5	S3	6	SER
5	S3	9	ARG
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	62	ASN
5	S3	65	ARG
5	S3	69	LEU
5	S3	71	LEU
5	S3	84	ILE
5	S3	92	GLN
5	S3	93	ASP
5	S3	103	GLU
5	S3	117	ARG
5	S3	128	GLU
5	S3	137	VAL
5	S3	142	LEU
5	S3	157	LEU
5	S3	170	THR
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	189	MET
5	S3	195	SER
5	S3	207	THR
5	S3	209	ILE
5	S3	215	GLU
5	S3	222	VAL
5	S3	224	ASP
6	S4	6	LYS
6	S4	9	LEU
6	S4	23	LEU

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Mol	Chain	Res	Type
6	S4	38	LEU
6	S4	42	LEU
6	S4	45	ILE
6	S4	48	LEU
6	S4	49	ARG
6	S4	54	TYR
6	S4	62	LYS
6	S4	70	VAL
6	S4	77	ARG
6	S4	92	LEU
6	S4	102	VAL
6	S4	113	ARG
6	S4	115	THR
6	S4	117	GLU
6	S4	120	SER
6	S4	131	LEU
6	S4	142	HIS
6	S4	146	THR
6	S4	170	THR
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	197	HIS
6	S4	206	ASP
6	S4	211	LYS
6	S4	214	LEU
6	S4	215	ASP
6	S4	219	VAL
6	S4	221	ARG
6	S4	222	LEU
6	S4	226	PHE
6	S4	227	VAL
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	248	ILE
6	S4	256	ARG
6	S4	258	GLN
6	S4	259	GLN
7	S5	23	VAL
7	S5	25	LEU

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Mol	Chain	Res	Type
7	S5	32	GLU
7	S5	34	GLN
7	S5	38	THR
7	S5	39	GLU
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	48	PHE
7	S5	49	GLU
7	S5	65	ARG
7	S5	70	VAL
7	S5	76	ARG
7	S5	83	ARG
7	S5	89	ILE
7	S5	90	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	99	MET
7	S5	117	THR
7	S5	119	ASP
7	S5	126	ASP
7	S5	130	ILE
7	S5	139	ASN
7	S5	147	THR
7	S5	148	ARG
7	S5	149	VAL
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	166	ARG
7	S5	194	LEU
7	S5	213	LYS
7	S5	216	GLU
7	S5	225	ARG
8	S6	6	SER
8	S6	13	GLN
8	S6	21	GLU
8	S6	25	ARG
8	S6	32	ILE
8	S6	44	GLU
8	S6	45	PHE

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Mol	Chain	Res	Type
8	S6	58	LYS
8	S6	68	LEU
8	S6	71	THR
8	S6	76	LEU
8	S6	77	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	94	ARG
8	S6	98	ARG
8	S6	109	LEU
8	S6	119	GLN
8	S6	120	GLU
8	S6	125	THR
8	S6	126	ASP
8	S6	127	THR
8	S6	129	VAL
8	S6	132	ARG
8	S6	137	ARG
8	S6	143	LYS
8	S6	154	ARG
8	S6	155	ASP
8	S6	158	ILE
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	201	GLN
8	S6	211	LEU
8	S6	212	LEU
8	S6	217	SER
8	S6	223	LYS
9	S7	16	LEU
9	S7	28	GLU
9	S7	34	LEU
9	S7	37	GLU
9	S7	38	LEU
9	S7	42	GLN
9	S7	50	ASP
9	S7	60	ILE
9	S7	67	LEU
9	S7	70	PHE
9	S7	75	THR
9	S7	77	LEU

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Mol	Chain	Res	Type
9	S7	85	PHE
9	S7	87	ASP
9	S7	97	ARG
9	S7	99	LEU
9	S7	104	ARG
9	S7	109	VAL
9	S7	114	ARG
9	S7	122	HIS
9	S7	126	LEU
9	S7	144	VAL
9	S7	161	GLN
9	S7	164	TYR
9	S7	167	GLU
9	S7	174	ASN
9	S7	185	ILE
10	S8	4	SER
10	S8	5	ARG
10	S8	21	PHE
10	S8	25	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	46	VAL
10	S8	61	GLU
10	S8	70	GLU
10	S8	74	LYS
10	S8	76	THR
10	S8	82	VAL
10	S8	95	THR
10	S8	137	LYS
10	S8	138	ASN
10	S8	151	LYS
10	S8	152	ILE
10	S8	155	SER
10	S8	161	SER
10	S8	164	ARG
10	S8	176	SER
10	S8	185	GLU
10	S8	193	LEU
10	S8	196	LEU
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR

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Mol	Chain	Res	Type
11	S9	17	ARG
11	S9	28	LEU
11	S9	40	LYS
11	S9	69	ARG
11	S9	70	LEU
11	S9	78	ARG
11	S9	82	ARG
11	S9	83	VAL
11	S9	88	GLU
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	97	LEU
11	S9	99	LEU
11	S9	101	VAL
11	S9	103	ASP
11	S9	105	LEU
11	S9	109	LEU
11	S9	110	GLN
11	S9	115	LYS
11	S9	130	THR
11	S9	134	ILE
11	S9	138	LYS
11	S9	145	SER
11	S9	149	ARG
11	S9	151	ASP
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	182	GLU
12	C0	1	MET
12	C0	6	GLU
12	C0	8	ARG
12	C0	20	VAL
12	C0	27	PHE
12	C0	28	ASN
12	C0	29	GLN
12	C0	46	LEU
12	C0	47	GLN
12	C0	55	VAL
12	C0	56	LYS

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Mol	Chain	Res	Type
12	C0	60	SER
12	C0	71	GLU
12	C0	76	LEU
12	C0	78	GLU
12	C0	82	LEU
13	C1	8	GLN
13	C1	16	GLN
13	C1	21	ASN
13	C1	27	THR
13	C1	29	LYS
13	C1	40	LEU
13	C1	44	THR
13	C1	54	ILE
13	C1	67	ARG
13	C1	69	LYS
13	C1	74	THR
13	C1	80	MET
13	C1	83	THR
13	C1	99	ARG
13	C1	109	VAL
13	C1	118	GLN
13	C1	125	VAL
13	C1	131	ILE
13	C1	136	ARG
13	C1	138	ASN
13	C1	143	SER
14	C2	28	LEU
14	C2	33	ARG
14	C2	36	LEU
14	C2	37	VAL
14	C2	41	LEU
14	C2	43	ARG
14	C2	45	LEU
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	58	LEU
14	C2	59	LEU
14	C2	61	VAL
14	C2	62	LEU
14	C2	66	VAL
14	C2	71	ILE

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Mol	Chain	Res	Type
14	C2	86	VAL
14	C2	89	ILE
14	C2	103	LEU
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	133	LEU
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG
15	C3	9	LYS
15	C3	11	ILE
15	C3	16	ILE
15	C3	21	ASN
15	C3	27	LYS
15	C3	39	LYS
15	C3	42	ARG
15	C3	45	LEU
15	C3	58	HIS
15	C3	61	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	75	LEU
15	C3	76	LYS
15	C3	88	LEU
15	C3	102	LEU
15	C3	103	GLU
15	C3	110	ASP
15	C3	114	ARG
15	C3	115	LEU
15	C3	117	LEU
15	C3	125	LEU
15	C3	142	GLU
15	C3	149	LEU
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

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
16	C4	51	ASP
16	C4	55	SER
16	C4	56	SER
16	C4	89	THR
16	C4	92	LYS
16	C4	93	THR
16	C4	99	GLN
16	C4	102	LEU
16	C4	103	ARG
16	C4	108	SER
16	C4	123	SER
16	C4	124	ASP
16	C4	125	SER
16	C4	127	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	13	LYS
17	C5	20	VAL
17	C5	21	ASP
17	C5	22	LEU
17	C5	26	LEU
17	C5	28	MET
17	C5	29	SER
17	C5	34	VAL
17	C5	35	LYS
17	C5	40	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	60	LEU
17	C5	94	VAL
17	C5	108	ARG
17	C5	110	GLU
17	C5	116	LEU
17	C5	121	ILE
18	C6	4	VAL
18	C6	8	GLN
18	C6	17	THR
18	C6	26	LYS
18	C6	28	LEU
18	C6	43	ILE

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Mol	Chain	Res	Type
18	C6	47	LYS
18	C6	53	LEU
18	C6	54	LEU
18	C6	55	VAL
18	C6	57	LEU
18	C6	66	ARG
18	C6	69	VAL
18	C6	94	GLN
18	C6	98	ASP
18	C6	101	SER
18	C6	106	LYS
18	C6	118	ILE
18	C6	123	ARG
18	C6	127	LYS
18	C6	128	LYS
18	C6	137	ARG
18	C6	138	PHE
19	C7	3	ARG
19	C7	5	ARG
19	C7	25	THR
19	C7	34	LEU
19	C7	48	ASN
19	C7	49	LYS
19	C7	54	THR
19	C7	58	MET
19	C7	69	ILE
19	C7	71	PHE
19	C7	72	LYS
19	C7	73	LEU
19	C7	83	GLN
19	C7	84	TYR
19	C7	86	PRO
19	C7	105	GLN
19	C7	107	SER
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	8	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE

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Mol	Chain	Res	Type
20	C8	15	LEU
20	C8	17	LEU
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	40	ARG
20	C8	54	LEU
20	C8	57	ARG
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	72	ILE
20	C8	77	THR
20	C8	80	LYS
20	C8	92	ILE
20	C8	93	THR
20	C8	108	LYS
20	C8	110	ARG
20	C8	114	GLU
20	C8	115	ARG
20	C8	116	LEU
20	C8	132	ARG
20	C8	136	GLN
20	C8	140	THR
20	C8	141	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	18	TYR
21	C9	22	LEU
21	C9	24	ARG
21	C9	28	LEU
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	41	SER
21	C9	57	ARG
21	C9	63	ARG
21	C9	65	ILE
21	C9	67	MET
21	C9	70	GLN

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Mol	Chain	Res	Type
21	C9	71	VAL
21	C9	84	LYS
21	C9	94	ILE
21	C9	123	ARG
21	C9	125	SER
21	C9	130	ARG
21	C9	131	ASP
21	C9	144	GLU
22	D0	15	GLN
22	D0	18	GLN
22	D0	19	ILE
22	D0	27	THR
22	D0	31	VAL
22	D0	34	LEU
22	D0	39	SER
22	D0	41	ILE
22	D0	47	GLN
22	D0	51	VAL
22	D0	52	LYS
22	D0	57	ARG
22	D0	60	THR
22	D0	65	ILE
22	D0	66	SER
22	D0	74	GLU
22	D0	76	SER
22	D0	81	THR
22	D0	85	ARG
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	105	GLN
22	D0	114	VAL
23	D1	1	MET
23	D1	2	GLU
23	D1	3	ASN
23	D1	5	LYS
23	D1	7	GLN
23	D1	9	VAL
23	D1	11	LEU
23	D1	18	SER
23	D1	25	LYS
23	D1	32	VAL

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Mol	Chain	Res	Type
23	D1	41	GLU
23	D1	49	GLU
23	D1	50	TYR
23	D1	52	THR
23	D1	68	SER
23	D1	69	LEU
23	D1	75	ASN
23	D1	78	LEU
23	D1	80	LYS
23	D1	84	SER
24	D2	12	ASN
24	D2	23	ARG
24	D2	24	GLN
24	D2	25	VAL
24	D2	27	ILE
24	D2	29	PRO
24	D2	49	GLU
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	68	ARG
24	D2	74	VAL
24	D2	76	SER
24	D2	81	VAL
24	D2	83	ILE
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	105	THR
24	D2	117	ARG
24	D2	126	LEU
25	D3	7	ARG
25	D3	9	LEU
25	D3	14	LYS
25	D3	18	HIS
25	D3	19	ARG
25	D3	31	LYS
25	D3	40	SER
25	D3	41	SER
25	D3	47	SER
25	D3	73	ARG
25	D3	74	VAL

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Mol	Chain	Res	Type
25	D3	79	ASN
25	D3	82	LYS
25	D3	83	VAL
25	D3	84	THR
25	D3	96	VAL
25	D3	100	ASP
25	D3	101	GLU
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	110	LYS
25	D3	114	LYS
25	D3	131	SER
25	D3	132	LEU
25	D3	136	TRP
25	D3	140	LYS
25	D3	144	ARG
26	D4	28	LEU
26	D4	32	ARG
26	D4	34	ASN
26	D4	51	GLU
26	D4	57	VAL
26	D4	61	ARG
26	D4	102	LYS
26	D4	105	ARG
26	D4	124	ARG
26	D4	127	LYS
27	D5	58	ARG
27	D5	59	TYR
27	D5	62	VAL
27	D5	68	ARG
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	95	HIS
27	D5	96	SER
27	D5	100	ILE
28	D6	4	LYS
28	D6	5	ARG
28	D6	12	LYS
28	D6	30	ILE
28	D6	34	LYS

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Mol	Chain	Res	Type
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	50	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	68	TYR
28	D6	69	ASN
28	D6	76	SER
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
28	D6	90	GLU
29	D7	3	LEU
29	D7	4	VAL
29	D7	14	SER
29	D7	17	ARG
29	D7	23	THR
29	D7	33	LEU
29	D7	36	LYS
29	D7	42	ASN
29	D7	48	SER
29	D7	55	THR
29	D7	57	GLU
29	D7	61	THR
29	D7	67	THR
29	D7	81	ARG
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	33	LEU
30	D8	51	ASN
30	D8	52	ASP
30	D8	57	MET
30	D8	58	GLU
30	D8	62	GLU
30	D8	64	ARG
31	D9	7	TRP
31	D9	9	SER

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Mol	Chain	Res	Type
31	D9	12	ARG
31	D9	19	ARG
31	D9	22	ARG
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
32	E0	3	LYS
32	E0	15	LYS
32	E0	16	SER
32	E0	20	LYS
32	E0	25	GLU
32	E0	28	LYS
32	E0	31	LYS
32	E0	42	ARG
32	E0	47	VAL
32	E0	49	LEU
32	E0	50	VAL
32	E0	56	MET
33	E1	84	VAL
33	E1	85	TYR
33	E1	86	THR
33	E1	89	LYS
33	E1	90	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	102	VAL
33	E1	108	VAL
33	E1	109	ASP
33	E1	111	GLU
33	E1	113	LYS
33	E1	120	GLU
33	E1	130	VAL
33	E1	135	HIS
33	E1	137	ASP
33	E1	139	LEU
33	E1	150	VAL
33	E1	151	ASN
34	SR	6	VAL
34	SR	10	ARG
34	SR	16	HIS
34	SR	17	ASN

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Mol	Chain	Res	Type
34	SR	29	GLN
34	SR	39	ASP
34	SR	50	ASP
34	SR	52	GLN
34	SR	59	ARG
34	SR	60	SER
34	SR	66	HIS
34	SR	71	CYS
34	SR	74	THR
34	SR	76	ASP
34	SR	87	LYS
34	SR	96	THR
34	SR	106	HIS
34	SR	112	SER
34	SR	117	LYS
34	SR	134	TRP
34	SR	136	ILE
34	SR	137	LYS
34	SR	141	LEU
34	SR	144	LEU
34	SR	165	ASP
34	SR	191	ASP
34	SR	202	LEU
34	SR	207	ASP
34	SR	211	ILE
34	SR	222	LEU
34	SR	229	LYS
34	SR	232	TYR
34	SR	238	ASP
34	SR	248	ASN
34	SR	265	LEU
34	SR	266	ASP
34	SR	268	GLN
34	SR	277	GLU
34	SR	299	GLN
34	SR	308	ASN
34	SR	317	THR
35	SM	23	LYS
35	SM	37	VAL
35	SM	43	ASP
35	SM	61	ILE
35	SM	62	ARG

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Mol	Chain	Res	Type
35	SM	68	ARG
35	SM	69	ARG
35	SM	72	ARG
35	SM	77	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	94	HIS
35	SM	96	ARG
35	SM	100	THR
35	SM	103	LYS
35	SM	105	LYS
35	SM	113	ASP
35	SM	139	GLU
39	L2	18	SER
39	L2	19	HIS
39	L2	32	LEU
39	L2	41	ILE
39	L2	44	ILE
39	L2	45	VAL
39	L2	49	VAL
39	L2	62	VAL
39	L2	70	ARG
39	L2	71	LEU
39	L2	73	GLU
39	L2	74	GLU
39	L2	88	ILE
39	L2	95	SER
39	L2	96	LEU
39	L2	97	ASN
39	L2	98	VAL
39	L2	101	VAL
39	L2	104	LEU
39	L2	118	GLU
39	L2	134	VAL
39	L2	142	ASP
39	L2	143	GLU
39	L2	158	ILE
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	190	ARG

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Mol	Chain	Res	Type
39	L2	193	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	227	ARG
39	L2	230	VAL
39	L2	231	SER
39	L2	242	ARG
39	L2	252	THR
40	L3	2	SER
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	20	LYS
40	L3	21	ARG
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	47	LEU
40	L3	56	ILE
40	L3	67	PHE
40	L3	71	GLU
40	L3	79	VAL
40	L3	84	VAL
40	L3	85	VAL
40	L3	86	VAL
40	L3	100	ARG
40	L3	103	THR
40	L3	104	THR
40	L3	114	VAL
40	L3	116	ARG
40	L3	120	LYS
40	L3	121	ASN
40	L3	134	SER
40	L3	139	GLN
40	L3	145	GLU
40	L3	146	ARG
40	L3	148	LEU
40	L3	157	VAL
40	L3	160	VAL
40	L3	187	SER

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Mol	Chain	Res	Type
40	L3	188	ILE
40	L3	189	SER
40	L3	192	VAL
40	L3	196	ARG
40	L3	202	THR
40	L3	206	ASP
40	L3	210	GLU
40	L3	212	ASN
40	L3	218	ILE
40	L3	232	ARG
40	L3	235	THR
40	L3	237	LYS
40	L3	238	LEU
40	L3	244	ARG
40	L3	252	ILE
40	L3	264	VAL
40	L3	274	SER
40	L3	284	ARG
40	L3	289	ASP
40	L3	300	ARG
40	L3	304	THR
40	L3	305	ILE
40	L3	317	ILE
40	L3	320	ASP
40	L3	324	VAL
40	L3	325	LYS
40	L3	328	ILE
40	L3	332	ARG
40	L3	338	LEU
40	L3	347	SER
40	L3	354	VAL
40	L3	355	SER
40	L3	357	LYS
40	L3	375	GLU
40	L3	380	MET
40	L3	383	LEU
40	L3	387	LEU
41	L4	4	PRO
41	L4	16	THR
41	L4	20	LEU
41	L4	22	LEU
41	L4	25	VAL

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Mol	Chain	Res	Type
41	L4	40	THR
41	L4	46	LYS
41	L4	53	SER
41	L4	55	LYS
41	L4	71	VAL
41	L4	74	ILE
41	L4	93	MET
41	L4	118	LYS
41	L4	120	TYR
41	L4	124	SER
41	L4	133	SER
41	L4	135	VAL
41	L4	136	LEU
41	L4	138	ARG
41	L4	144	LYS
41	L4	145	ILE
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	169	LEU
41	L4	176	SER
41	L4	177	ASP
41	L4	179	LEU
41	L4	182	LEU
41	L4	186	LYS
41	L4	187	LEU
41	L4	193	LYS
41	L4	194	TYR
41	L4	195	ARG
41	L4	203	ARG
41	L4	206	LEU
41	L4	211	GLU
41	L4	220	ARG
41	L4	223	PRO
41	L4	230	VAL
41	L4	246	ARG
41	L4	256	THR
41	L4	258	LEU
41	L4	266	THR
41	L4	270	SER
41	L4	275	THR
41	L4	284	SER

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Mol	Chain	Res	Type
41	L4	286	VAL
41	L4	287	THR
41	L4	288	ARG
41	L4	289	ILE
41	L4	292	SER
41	L4	295	ILE
41	L4	297	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	308	LYS
41	L4	323	VAL
41	L4	333	VAL
41	L4	338	LYS
41	L4	339	LEU
41	L4	343	LYS
41	L4	347	THR
41	L4	349	THR
42	L5	4	GLN
42	L5	5	LYS
42	L5	8	LYS
42	L5	9	SER
42	L5	10	SER
42	L5	22	ARG
42	L5	23	ARG
42	L5	32	GLN
42	L5	36	LEU
42	L5	41	LYS
42	L5	58	LYS
42	L5	63	GLN
42	L5	64	ILE
42	L5	65	ILE
42	L5	66	SER
42	L5	69	ILE
42	L5	70	THR
42	L5	93	THR
42	L5	110	LEU
42	L5	112	LYS
42	L5	115	LEU
42	L5	131	LEU
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE

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Mol	Chain	Res	Type
42	L5	152	ARG
42	L5	154	THR
42	L5	155	THR
42	L5	164	LYS
42	L5	173	VAL
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	188	GLU
42	L5	190	ILE
42	L5	196	ARG
42	L5	208	MET
42	L5	222	LEU
42	L5	234	ASP
42	L5	241	THR
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU
42	L5	273	ARG
42	L5	279	LYS
42	L5	290	ILE
42	L5	293	LEU
43	L6	2	SER
43	L6	4	GLN
43	L6	9	TRP
43	L6	15	VAL
43	L6	21	THR
43	L6	31	ARG
43	L6	35	VAL
43	L6	41	ILE
43	L6	46	ARG
43	L6	48	ARG
43	L6	50	LYS
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	78	ARG
43	L6	84	VAL
43	L6	89	THR
43	L6	108	LYS
43	L6	109	GLU
43	L6	129	GLU

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Mol	Chain	Res	Type
43	L6	134	ARG
43	L6	136	GLU
43	L6	150	LYS
43	L6	152	THR
43	L6	155	LEU
43	L6	160	SER
43	L6	170	LYS
43	L6	173	MET
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	78	GLU
44	L7	82	LYS
44	L7	83	LEU
44	L7	89	ILE
44	L7	93	ASN
44	L7	98	LYS
44	L7	110	ARG
44	L7	121	LYS
44	L7	124	LEU
44	L7	143	THR
44	L7	164	SER
44	L7	178	ILE
44	L7	179	LEU
44	L7	180	SER
44	L7	182	ASP
44	L7	184	LEU
44	L7	185	ILE
44	L7	228	SER
44	L7	229	PHE
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	61	GLN
45	L8	63	LYS
45	L8	65	LEU
45	L8	66	SER
45	L8	69	LEU
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	84	ARG

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Mol	Chain	Res	Type
45	L8	92	LYS
45	L8	95	ASN
45	L8	101	THR
45	L8	106	LYS
45	L8	107	GLU
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	145	ASN
45	L8	149	LYS
45	L8	152	LEU
45	L8	156	ASP
45	L8	163	VAL
45	L8	169	LEU
45	L8	181	LYS
45	L8	183	LYS
45	L8	185	ARG
45	L8	194	THR
45	L8	203	VAL
45	L8	204	ARG
45	L8	206	GLU
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
45	L8	251	LYS
46	L9	4	ILE
46	L9	5	GLN
46	L9	9	GLN
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	20	ILE
46	L9	31	ARG
46	L9	33	THR
46	L9	34	LEU
46	L9	36	LYS
46	L9	41	ILE
46	L9	48	VAL
46	L9	49	ASN
46	L9	52	LEU
46	L9	68	LEU
46	L9	69	ARG

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Mol	Chain	Res	Type
46	L9	70	THR
46	L9	76	ASP
46	L9	77	ASN
46	L9	82	VAL
46	L9	129	ARG
46	L9	132	VAL
46	L9	133	THR
46	L9	138	THR
46	L9	139	ASN
46	L9	140	VAL
46	L9	147	SER
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	168	ARG
46	L9	172	ILE
46	L9	173	ARG
46	L9	189	GLU
46	L9	190	ASP
47	M0	3	ARG
47	M0	21	ARG
47	M0	23	ASN
47	M0	24	ARG
47	M0	26	VAL
47	M0	29	SER
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	58	GLU
47	M0	62	SER
47	M0	63	GLU
47	M0	74	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	M0	87	LEU
47	M0	90	ARG
47	M0	91	VAL
47	M0	129	VAL
47	M0	139	ARG
47	M0	141	LYS
47	M0	143	SER
47	M0	145	LYS
47	M0	146	ASP
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	169	LYS
47	M0	174	THR
47	M0	177	ASP
47	M0	178	ARG
47	M0	184	LYS
47	M0	203	LYS
48	M1	9	MET
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	13	LYS
48	M1	16	LYS
48	M1	23	VAL
48	M1	26	SER
48	M1	28	ASP
48	M1	29	ARG
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	70	THR
48	M1	80	LEU
48	M1	94	ARG
48	M1	99	THR
48	M1	101	ASN
48	M1	107	ASP
48	M1	111	ASP
48	M1	112	LEU
48	M1	130	VAL
48	M1	137	ARG
48	M1	140	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	M1	147	THR
48	M1	157	GLU
48	M1	158	ASP
48	M1	166	LYS
49	M3	23	LYS
49	M3	24	VAL
49	M3	34	SER
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	107	GLU
49	M3	115	ARG
49	M3	121	SER
49	M3	123	ILE
49	M3	124	ILE
49	M3	131	LYS
49	M3	136	GLU
49	M3	144	THR
49	M3	164	GLU
49	M3	168	ARG
49	M3	175	SER
49	M3	190	LYS
49	M3	194	GLU
50	M4	4	ASP
50	M4	5	SER
50	M4	15	VAL
50	M4	20	VAL
50	M4	41	GLN
50	M4	45	LEU
50	M4	53	VAL
50	M4	58	ILE
50	M4	63	VAL
50	M4	74	ARG
50	M4	82	SER

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Mol	Chain	Res	Type
50	M4	90	VAL
50	M4	91	CYS
50	M4	92	GLU
50	M4	106	ARG
50	M4	113	THR
50	M4	133	LYS
50	M4	135	LEU
51	M5	10	LEU
51	M5	18	VAL
51	M5	22	LEU
51	M5	36	ILE
51	M5	49	ARG
51	M5	80	THR
51	M5	85	THR
51	M5	92	LEU
51	M5	96	ARG
51	M5	97	SER
51	M5	98	LEU
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	124	ASP
51	M5	133	ILE
51	M5	138	GLN
51	M5	142	ILE
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	159	ARG
51	M5	170	LYS
51	M5	182	ASN
51	M5	184	LYS
51	M5	190	THR
51	M5	194	GLN
51	M5	198	SER
51	M5	201	ARG
52	M6	33	ILE
52	M6	34	VAL
52	M6	58	LEU
52	M6	67	THR
52	M6	78	ARG
52	M6	82	LYS

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Mol	Chain	Res	Type
52	M6	85	ARG
52	M6	106	GLU
52	M6	110	PRO
52	M6	113	ASP
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	124	LEU
52	M6	128	ARG
52	M6	143	THR
52	M6	182	ASN
52	M6	190	VAL
53	M7	9	THR
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	43	LYS
53	M7	49	GLU
53	M7	51	VAL
53	M7	52	LEU
53	M7	53	ASP
53	M7	56	ARG
53	M7	69	ARG
53	M7	78	VAL
53	M7	79	THR
53	M7	103	GLU
53	M7	112	LEU
53	M7	114	VAL
53	M7	119	VAL
53	M7	120	ASN
53	M7	126	ARG
53	M7	127	ARG
53	M7	138	LYS
53	M7	142	SER
53	M7	171	ARG
53	M7	181	ARG
54	M8	7	SER
54	M8	12	ARG
54	M8	17	THR
54	M8	20	LYS
54	M8	24	VAL

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Mol	Chain	Res	Type
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	39	ARG
54	M8	40	THR
54	M8	49	LEU
54	M8	57	ILE
54	M8	63	SER
54	M8	64	VAL
54	M8	66	ARG
54	M8	74	GLU
54	M8	80	THR
54	M8	81	VAL
54	M8	86	THR
54	M8	99	THR
54	M8	101	VAL
54	M8	111	ARG
54	M8	127	LEU
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	147	ARG
54	M8	150	VAL
54	M8	168	THR
54	M8	171	LYS
54	M8	180	ARG
55	M9	5	ARG
55	M9	8	LYS
55	M9	22	VAL
55	M9	41	ILE
55	M9	44	LEU
55	M9	46	LYS
55	M9	74	ARG
55	M9	86	GLU
55	M9	89	LEU
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	115	ILE
55	M9	134	HIS
55	M9	138	LEU

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Mol	Chain	Res	Type
55	M9	153	LYS
55	M9	175	GLN
55	M9	177	VAL
56	N0	1	MET
56	N0	8	GLN
56	N0	16	THR
56	N0	23	LYS
56	N0	45	LEU
56	N0	51	VAL
56	N0	61	ILE
56	N0	63	GLN
56	N0	71	LYS
56	N0	80	ARG
56	N0	81	TYR
56	N0	85	SER
56	N0	87	THR
56	N0	92	LYS
56	N0	97	VAL
56	N0	100	VAL
56	N0	104	GLU
56	N0	115	ARG
56	N0	117	ARG
56	N0	122	HIS
56	N0	131	LYS
56	N0	132	THR
56	N0	137	ARG
56	N0	138	GLN
56	N0	139	TYR
56	N0	145	THR
56	N0	149	LYS
56	N0	155	ARG
56	N0	156	VAL
56	N0	157	GLN
56	N0	160	THR
56	N0	167	ARG
56	N0	172	TYR
57	N1	9	SER
57	N1	12	ARG
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	68	THR

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Mol	Chain	Res	Type
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	83	ARG
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU
57	N1	102	ARG
57	N1	104	GLU
57	N1	106	LEU
57	N1	110	LYS
57	N1	124	VAL
57	N1	126	VAL
57	N1	127	GLN
57	N1	139	ARG
57	N1	141	VAL
57	N1	143	THR
57	N1	146	ASN
57	N1	158	THR
58	N2	10	LYS
58	N2	14	THR
58	N2	16	THR
58	N2	27	VAL
58	N2	38	ILE
58	N2	43	VAL
58	N2	52	ASN
58	N2	66	VAL
58	N2	75	TYR
58	N2	81	LYS
58	N2	88	GLN
58	N2	93	ILE
58	N2	100	THR
58	N2	105	LEU
59	N3	13	ILE
59	N3	45	ARG
59	N3	48	ARG
59	N3	63	LYS
59	N3	64	LYS
59	N3	69	LEU
59	N3	72	LYS
59	N3	73	VAL
59	N3	74	MET

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Mol	Chain	Res	Type
59	N3	91	VAL
59	N3	102	ILE
59	N3	104	ASN
59	N3	115	THR
59	N3	135	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	7	SER
60	N4	25	ASP
60	N4	39	LEU
60	N4	52	THR
60	N4	54	LEU
60	N4	64	THR
61	N5	26	VAL
61	N5	27	ARG
61	N5	36	LYS
61	N5	37	THR
61	N5	38	LEU
61	N5	63	ILE
61	N5	70	GLU
61	N5	71	THR
61	N5	73	MET
61	N5	74	LYS
61	N5	75	LYS
61	N5	81	ILE
61	N5	92	LYS
61	N5	108	LEU
61	N5	109	LYS
61	N5	113	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	133	LEU
61	N5	134	ASP
61	N5	135	ILE
61	N5	139	ILE
61	N5	142	ILE
62	N6	6	LEU
62	N6	13	ARG
62	N6	26	GLN
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU

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Mol	Chain	Res	Type
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	72	SER
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	83	ASP
62	N6	112	ASP
62	N6	115	ARG
62	N6	127	GLU
63	N7	17	ARG
63	N7	21	LYS
63	N7	24	VAL
63	N7	27	LYS
63	N7	34	LYS
63	N7	46	ILE
63	N7	51	LEU
63	N7	60	LYS
63	N7	72	ILE
63	N7	73	LYS
63	N7	74	VAL
63	N7	75	VAL
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	99	GLU
63	N7	102	GLU
63	N7	103	GLN
63	N7	106	GLN
63	N7	107	ARG
63	N7	109	GLU
63	N7	121	ARG
63	N7	123	GLN
63	N7	134	LEU
64	N8	4	ARG

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Mol	Chain	Res	Type
64	N8	6	THR
64	N8	8	THR
64	N8	10	LYS
64	N8	16	SER
64	N8	26	ARG
64	N8	42	ARG
64	N8	60	TYR
64	N8	76	ASP
64	N8	78	LEU
64	N8	91	LEU
64	N8	93	SER
64	N8	95	SER
64	N8	115	LYS
64	N8	120	ASN
64	N8	125	VAL
64	N8	133	LEU
65	N9	13	THR
65	N9	22	LYS
65	N9	24	PRO
65	N9	25	LYS
65	N9	28	LYS
65	N9	40	ARG
65	N9	42	ASN
65	N9	50	THR
65	N9	59	LYS
66	O0	10	ILE
66	O0	14	LEU
66	O0	16	LEU
66	O0	30	THR
66	O0	32	LYS
66	O0	34	LEU
66	O0	36	GLN
66	O0	40	LYS
66	O0	61	MET
66	O0	76	GLU
66	O0	77	LEU
66	O0	83	LYS
66	O0	87	VAL
66	O0	100	ILE
66	O0	101	LEU
66	O0	103	THR
67	O1	7	VAL

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Mol	Chain	Res	Type
67	O1	8	VAL
67	O1	12	TYR
67	O1	16	LEU
67	O1	28	ARG
67	O1	35	GLU
67	O1	36	ILE
67	O1	44	MET
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	79	ARG
67	O1	82	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	96	VAL
67	O1	102	LYS
67	O1	104	LEU
67	O1	106	THR
67	O1	107	VAL
67	O1	110	GLU
68	O2	14	THR
68	O2	19	ARG
68	O2	24	ARG
68	O2	28	VAL
68	O2	33	ARG
68	O2	38	ILE
68	O2	51	SER
68	O2	54	LYS
68	O2	59	SER
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	82	LEU
68	O2	106	VAL
68	O2	109	LEU
68	O2	111	ARG
68	O2	125	ARG
68	O2	128	LEU
69	O3	4	SER
69	O3	45	LEU
69	O3	47	LYS
69	O3	59	VAL

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Mol	Chain	Res	Type
69	O3	80	VAL
69	O3	90	PRO
69	O3	98	VAL
69	O3	105	SER
70	O4	5	VAL
70	O4	8	ARG
70	O4	20	ILE
70	O4	24	LYS
70	O4	29	ILE
70	O4	52	GLN
70	O4	56	THR
70	O4	57	LEU
70	O4	58	ARG
70	O4	60	ARG
70	O4	71	THR
70	O4	79	SER
70	O4	86	LYS
70	O4	87	GLU
70	O4	104	VAL
71	O5	4	VAL
71	O5	13	SER
71	O5	15	GLU
71	O5	21	LEU
71	O5	27	GLU
71	O5	30	GLU
71	O5	36	LEU
71	O5	38	ARG
71	O5	44	ILE
71	O5	46	THR
71	O5	48	ARG
71	O5	49	LYS
71	O5	62	GLN
71	O5	68	GLN
71	O5	71	LYS
71	O5	85	THR
71	O5	86	ARG
71	O5	89	ARG
71	O5	90	ARG
71	O5	100	VAL
71	O5	102	GLU
71	O5	105	ARG
71	O5	107	LYS

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Mol	Chain	Res	Type
71	O5	119	LYS
72	O6	11	LEU
72	O6	18	THR
72	O6	20	MET
72	O6	21	THR
72	O6	25	LYS
72	O6	26	ILE
72	O6	28	TYR
72	O6	36	ARG
72	O6	42	SER
72	O6	45	ARG
72	O6	50	LEU
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	64	SER
72	O6	68	ARG
72	O6	71	LYS
72	O6	72	VAL
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
72	O6	98	ARG
72	O6	99	ARG
73	O7	3	LYS
73	O7	7	SER
73	O7	24	ARG
73	O7	25	ARG
73	O7	26	SER
73	O7	33	THR
73	O7	36	SER
73	O7	45	ARG
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	67	LEU
74	O8	5	ILE
74	O8	6	THR
74	O8	8	ILE
74	O8	12	LEU
74	O8	22	THR

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Mol	Chain	Res	Type
74	O8	25	VAL
74	O8	28	ASN
74	O8	31	LEU
74	O8	32	ASN
74	O8	41	THR
74	O8	46	ARG
74	O8	53	THR
74	O8	54	LEU
74	O8	61	LYS
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	77	ARG
75	O9	5	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	28	ARG
75	O9	29	LEU
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	85	LEU
76	Q0	93	LYS
76	Q0	113	ARG
76	Q0	127	LEU
77	Q1	9	ARG
77	Q1	11	ARG
77	Q1	13	LEU
77	Q1	16	LYS
77	Q1	19	LYS
77	Q1	24	SER
77	Q1	25	LYS
78	Q2	3	ASN
78	Q2	4	VAL
78	Q2	8	ARG
78	Q2	20	HIS
78	Q2	21	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	45	ARG
78	Q2	47	GLN
78	Q2	55	LYS

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Mol	Chain	Res	Type
78	Q2	60	LYS
78	Q2	71	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	88	CYS
78	Q2	92	GLU
78	Q2	100	LYS
78	Q2	104	LEU
79	Q3	5	THR
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	25	GLN
79	Q3	45	LYS
79	Q3	58	SER
79	Q3	60	CYS
79	Q3	70	THR
79	Q3	73	THR
79	Q3	91	GLU
2	s0	10	THR
2	s0	12	GLU
2	s0	21	ASN
2	s0	30	GLN
2	s0	41	ARG
2	s0	43	ASP
2	s0	45	VAL
2	s0	48	ILE
2	s0	57	LEU
2	s0	59	LEU
2	s0	80	THR
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	108	THR
2	s0	110	TYR
2	s0	119	ARG
2	s0	124	THR
2	s0	127	ARG
2	s0	131	GLN
2	s0	144	ILE
2	s0	154	GLU
2	s0	172	LEU

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Mol	Chain	Res	Type
2	s0	179	ARG
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	189	VAL
2	s0	191	ARG
2	s0	202	TYR
3	s1	21	VAL
3	s1	25	THR
3	s1	47	LEU
3	s1	51	SER
3	s1	62	LYS
3	s1	65	VAL
3	s1	70	LEU
3	s1	74	GLN
3	s1	78	ASP
3	s1	81	PHE
3	s1	82	ARG
3	s1	84	ILE
3	s1	89	ASP
3	s1	105	PHE
3	s1	107	THR
3	s1	110	LEU
3	s1	120	LEU
3	s1	122	GLU
3	s1	125	VAL
3	s1	126	THR
3	s1	127	VAL
3	s1	130	SER
3	s1	152	ARG
3	s1	154	SER
3	s1	173	THR
3	s1	175	GLU
3	s1	181	LEU
3	s1	184	LEU
3	s1	202	LYS
3	s1	204	ILE
3	s1	206	PRO
3	s1	212	VAL
3	s1	215	VAL
3	s1	219	LYS
3	s1	222	LYS

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Mol	Chain	Res	Type
3	s1	223	PHE
3	s1	228	LEU
3	s1	232	HIS
4	s2	41	LEU
4	s2	53	ILE
4	s2	55	GLU
4	s2	58	LEU
4	s2	61	LEU
4	s2	69	ILE
4	s2	72	LEU
4	s2	73	LEU
4	s2	77	GLN
4	s2	80	VAL
4	s2	81	MET
4	s2	83	ILE
4	s2	84	LYS
4	s2	87	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	97	ARG
4	s2	102	VAL
4	s2	106	ASP
4	s2	111	VAL
4	s2	113	LEU
4	s2	117	THR
4	s2	141	ARG
4	s2	146	THR
4	s2	148	LEU
4	s2	158	THR
4	s2	164	SER
4	s2	182	PRO
4	s2	185	LYS
4	s2	199	GLN
4	s2	205	ARG
4	s2	207	LEU
4	s2	209	ASN
4	s2	218	ILE
4	s2	221	THR
4	s2	222	TYR
4	s2	225	LEU
4	s2	229	LEU
4	s2	240	LEU

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Mol	Chain	Res	Type
4	s2	245	ASP
5	s3	4	LEU
5	s3	7	LYS
5	s3	9	ARG
5	s3	10	LYS
5	s3	21	LEU
5	s3	34	TYR
5	s3	37	VAL
5	s3	40	ARG
5	s3	44	THR
5	s3	53	THR
5	s3	59	LEU
5	s3	61	GLU
5	s3	67	ASN
5	s3	69	LEU
5	s3	84	ILE
5	s3	89	GLU
5	s3	90	ARG
5	s3	93	ASP
5	s3	94	ARG
5	s3	111	ASN
5	s3	115	ILE
5	s3	116	ARG
5	s3	120	TYR
5	s3	125	TYR
5	s3	127	MET
5	s3	129	SER
5	s3	132	LYS
5	s3	134	CYS
5	s3	141	LYS
5	s3	142	LEU
5	s3	158	ILE
5	s3	168	ILE
5	s3	169	ASP
5	s3	172	THR
5	s3	176	LEU
5	s3	202	LEU
5	s3	210	GLU
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
5	s3	225	TYR

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Mol	Chain	Res	Type
6	s4	6	LYS
6	s4	9	LEU
6	s4	11	ARG
6	s4	23	LEU
6	s4	24	SER
6	s4	38	LEU
6	s4	42	LEU
6	s4	48	LEU
6	s4	49	ARG
6	s4	50	ASN
6	s4	51	ARG
6	s4	52	LEU
6	s4	67	GLN
6	s4	70	VAL
6	s4	78	THR
6	s4	95	THR
6	s4	98	ASN
6	s4	104	ASP
6	s4	113	ARG
6	s4	115	THR
6	s4	116	ASP
6	s4	123	LEU
6	s4	127	LYS
6	s4	131	LEU
6	s4	146	THR
6	s4	148	ARG
6	s4	160	VAL
6	s4	175	PHE
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	184	THR
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	223	ASN
6	s4	245	LYS
6	s4	246	LEU
7	s5	23	VAL
7	s5	24	VAL
7	s5	25	LEU
7	s5	27	THR

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Mol	Chain	Res	Type
7	s5	31	GLU
7	s5	33	VAL
7	s5	38	THR
7	s5	45	LYS
7	s5	59	VAL
7	s5	63	GLN
7	s5	68	ILE
7	s5	76	ARG
7	s5	93	LEU
7	s5	94	THR
7	s5	96	SER
7	s5	102	ARG
7	s5	112	ARG
7	s5	119	ASP
7	s5	125	THR
7	s5	134	VAL
7	s5	147	THR
7	s5	148	ARG
7	s5	157	ARG
7	s5	170	GLN
7	s5	175	LEU
7	s5	186	ASN
7	s5	190	ILE
7	s5	192	GLU
7	s5	194	LEU
7	s5	216	GLU
7	s5	219	ARG
8	s6	15	THR
8	s6	25	ARG
8	s6	30	LYS
8	s6	31	ARG
8	s6	43	ASP
8	s6	57	ASP
8	s6	67	VAL
8	s6	69	LEU
8	s6	71	THR
8	s6	73	ILE
8	s6	76	LEU
8	s6	81	VAL
8	s6	93	LYS
8	s6	97	VAL
8	s6	108	VAL

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Mol	Chain	Res	Type
8	s6	109	LEU
8	s6	115	LYS
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	129	VAL
8	s6	143	LYS
8	s6	148	SER
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	155	ASP
8	s6	157	VAL
8	s6	170	THR
8	s6	179	VAL
8	s6	180	THR
8	s6	193	LEU
8	s6	207	GLU
8	s6	215	ARG
9	s7	9	LEU
9	s7	10	SER
9	s7	14	THR
9	s7	15	GLU
9	s7	24	PHE
9	s7	33	GLU
9	s7	35	LYS
9	s7	50	ASP
9	s7	67	LEU
9	s7	73	VAL
9	s7	77	LEU
9	s7	79	ARG
9	s7	80	GLU
9	s7	86	GLN
9	s7	97	ARG
9	s7	108	GLN
9	s7	112	ARG
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	123	ASP

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Mol	Chain	Res	Type
9	s7	130	VAL
9	s7	143	LEU
9	s7	144	VAL
9	s7	148	LYS
9	s7	149	ILE
9	s7	150	GLN
9	s7	163	ASP
9	s7	166	LEU
9	s7	177	THR
9	s7	180	GLN
9	s7	181	ILE
9	s7	185	ILE
10	s8	8	ARG
10	s8	18	ARG
10	s8	25	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	43	ILE
10	s8	46	VAL
10	s8	60	ILE
10	s8	61	GLU
10	s8	62	THR
10	s8	66	SER
10	s8	74	LYS
10	s8	92	ARG
10	s8	120	THR
10	s8	123	LYS
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	183	ILE
10	s8	184	LEU
10	s8	185	GLU
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	16	LYS
11	s9	28	LEU
11	s9	37	LYS
11	s9	41	GLU
11	s9	49	LEU

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Mol	Chain	Res	Type
11	s9	53	ARG
11	s9	54	ARG
11	s9	58	ASP
11	s9	78	ARG
11	s9	82	ARG
11	s9	89	ASP
11	s9	96	VAL
11	s9	105	LEU
11	s9	108	ARG
11	s9	109	LEU
11	s9	110	GLN
11	s9	111	THR
11	s9	118	LEU
11	s9	120	LYS
11	s9	126	ARG
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	140	ILE
11	s9	142	ASN
11	s9	149	ARG
11	s9	150	LEU
11	s9	151	ASP
11	s9	162	SER
11	s9	172	VAL
11	s9	179	ARG
11	s9	180	LYS
11	s9	182	GLU
12	c0	2	LEU
12	c0	5	LYS
12	c0	15	LEU
12	c0	21	VAL
12	c0	27	PHE
12	c0	33	GLU
12	c0	47	GLN
12	c0	48	SER
12	c0	55	VAL
12	c0	57	THR
12	c0	60	SER
12	c0	67	THR
12	c0	71	GLU
13	c1	3	THR

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Mol	Chain	Res	Type
13	c1	5	LEU
13	c1	6	THR
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	47	THR
13	c1	60	PHE
13	c1	67	ARG
13	c1	74	THR
13	c1	77	SER
13	c1	78	THR
13	c1	80	MET
13	c1	86	ILE
13	c1	87	ARG
13	c1	109	VAL
13	c1	117	VAL
13	c1	123	VAL
13	c1	129	ARG
13	c1	138	ASN
14	c2	30	VAL
14	c2	36	LEU
14	c2	37	VAL
14	c2	38	HIS
14	c2	39	ASP
14	c2	43	ARG
14	c2	45	LEU
14	c2	50	LYS
14	c2	52	LEU
14	c2	53	THR
14	c2	54	ARG
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	65	SER

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Mol	Chain	Res	Type
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	93	ASP
14	c2	103	LEU
14	c2	116	VAL
14	c2	120	VAL
14	c2	121	VAL
14	c2	132	GLU
14	c2	136	ILE
14	c2	140	PHE
15	c3	14	SER
15	c3	20	ARG
15	c3	21	ASN
15	c3	27	LYS
15	c3	35	GLU
15	c3	39	LYS
15	c3	53	LEU
15	c3	66	ILE
15	c3	67	THR
15	c3	80	LEU
15	c3	84	ILE
15	c3	87	ASP
15	c3	93	LYS
15	c3	102	LEU
15	c3	103	GLU
15	c3	107	LYS
15	c3	115	LEU
15	c3	116	ILE
15	c3	125	LEU
15	c3	127	ARG
15	c3	131	THR
15	c3	138	ASN
15	c3	139	TRP
16	c4	13	VAL
16	c4	16	VAL
16	c4	18	ARG
16	c4	33	LEU
16	c4	51	ASP
16	c4	52	ARG

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Mol	Chain	Res	Type
16	c4	65	GLN
16	c4	81	VAL
16	c4	82	LYS
16	c4	92	LYS
16	c4	102	LEU
16	c4	107	ARG
16	c4	110	LEU
16	c4	114	ARG
16	c4	119	THR
16	c4	123	SER
16	c4	124	ASP
16	c4	133	ARG
16	c4	136	ARG
17	c5	12	PHE
17	c5	24	LYS
17	c5	27	GLU
17	c5	29	SER
17	c5	36	LEU
17	c5	40	ARG
17	c5	44	ARG
17	c5	51	SER
17	c5	69	GLU
17	c5	71	GLU
17	c5	72	LYS
17	c5	92	SER
17	c5	107	ILE
17	c5	110	GLU
17	c5	112	LEU
17	c5	122	THR
17	c5	125	PRO
17	c5	127	ARG
18	c6	6	SER
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	38	LEU
18	c6	40	GLU
18	c6	43	ILE
18	c6	47	LYS
18	c6	50	GLU
18	c6	53	LEU
18	c6	55	VAL

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Mol	Chain	Res	Type
18	c6	57	LEU
18	c6	66	ARG
18	c6	68	ARG
18	c6	69	VAL
18	c6	83	GLN
18	c6	90	VAL
18	c6	94	GLN
18	c6	110	THR
18	c6	114	ARG
18	c6	115	THR
18	c6	137	ARG
18	c6	140	LYS
18	c6	143	ARG
19	c7	3	ARG
19	c7	8	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	40	THR
19	c7	46	LEU
19	c7	69	ILE
19	c7	72	LYS
19	c7	75	GLU
19	c7	83	GLN
19	c7	85	VAL
19	c7	88	VAL
19	c7	104	ASN
19	c7	106	THR
19	c7	107	SER
20	c8	2	SER
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	15	LEU
20	c8	16	ARG
20	c8	25	ASN
20	c8	26	ILE
20	c8	33	THR
20	c8	34	THR
20	c8	36	LYS
20	c8	40	ARG
20	c8	63	GLN

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Mol	Chain	Res	Type
20	c8	74	GLN
20	c8	85	PHE
20	c8	89	GLN
20	c8	94	ASP
20	c8	100	THR
20	c8	105	VAL
20	c8	116	LEU
20	c8	119	ILE
20	c8	133	VAL
20	c8	134	ARG
20	c8	136	GLN
20	c8	138	THR
20	c8	143	ARG
20	c8	144	ARG
20	c8	145	ARG
21	c9	27	LYS
21	c9	28	LEU
21	c9	29	GLU
21	c9	30	VAL
21	c9	34	VAL
21	c9	37	VAL
21	c9	41	SER
21	c9	57	ARG
21	c9	68	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
21	c9	86	ARG
21	c9	88	VAL
21	c9	116	ILE
21	c9	117	SER
21	c9	123	ARG
21	c9	129	GLN
21	c9	139	THR
21	c9	140	LEU
21	c9	142	GLU
22	d0	13	GLU
22	d0	22	ILE
22	d0	25	THR
22	d0	27	THR
22	d0	31	VAL
22	d0	34	LEU

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Mol	Chain	Res	Type
22	d0	44	ASN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	70	THR
22	d0	74	GLU
22	d0	77	LYS
22	d0	81	THR
22	d0	85	ARG
22	d0	88	LYS
22	d0	89	ARG
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	108	ILE
22	d0	115	GLU
23	d1	2	GLU
23	d1	5	LYS
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	32	VAL
23	d1	33	GLN
23	d1	38	LYS
23	d1	41	GLU
23	d1	44	ARG
23	d1	49	GLU
23	d1	52	THR
23	d1	66	ASP
23	d1	69	LEU
23	d1	74	GLN
23	d1	75	ASN
23	d1	78	LEU
23	d1	79	LEU
23	d1	81	ASN
23	d1	85	TYR
23	d1	86	SER
23	d1	87	ARG
24	d2	6	VAL

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Mol	Chain	Res	Type
24	d2	7	LEU
24	d2	23	ARG
24	d2	24	GLN
24	d2	25	VAL
24	d2	26	LEU
24	d2	37	PHE
24	d2	43	LYS
24	d2	65	LEU
24	d2	74	VAL
24	d2	83	ILE
24	d2	88	LYS
24	d2	93	LEU
24	d2	103	ILE
24	d2	105	THR
24	d2	107	SER
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	17	VAL
25	d3	19	ARG
25	d3	28	ASN
25	d3	40	SER
25	d3	73	ARG
25	d3	84	THR
25	d3	96	VAL
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	121	ARG
25	d3	123	LYS
26	d4	6	THR
26	d4	8	ARG
26	d4	13	ILE
26	d4	22	GLN
26	d4	26	ASP
26	d4	36	SER
26	d4	38	ASP
26	d4	42	GLU
26	d4	43	LYS
26	d4	49	LYS
26	d4	51	GLU

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Mol	Chain	Res	Type
26	d4	88	THR
26	d4	125	LEU
26	d4	132	ARG
27	d5	53	GLU
27	d5	57	TYR
27	d5	63	SER
27	d5	71	ILE
27	d5	78	ILE
27	d5	81	ARG
27	d5	88	ILE
27	d5	92	ILE
27	d5	93	SER
27	d5	97	LYS
28	d6	3	LYS
28	d6	10	ARG
28	d6	11	ASN
28	d6	30	ILE
28	d6	41	ILE
28	d6	44	ILE
28	d6	66	LYS
28	d6	67	THR
28	d6	82	ARG
28	d6	87	ARG
28	d6	89	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	4	VAL
29	d7	11	THR
29	d7	19	HIS
29	d7	25	VAL
29	d7	26	GLN
29	d7	37	CYS
29	d7	40	CYS
29	d7	41	LEU
29	d7	43	ILE
29	d7	44	THR
29	d7	49	HIS
29	d7	52	THR
29	d7	61	THR
29	d7	62	ILE
29	d7	72	LYS
29	d7	74	SER

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Mol	Chain	Res	Type
29	d7	78	SER
30	d8	5	THR
30	d8	16	LEU
30	d8	19	THR
30	d8	22	ARG
30	d8	30	VAL
30	d8	33	LEU
30	d8	36	THR
30	d8	40	ILE
30	d8	52	ASP
30	d8	54	LEU
30	d8	58	GLU
30	d8	64	ARG
30	d8	66	LEU
31	d9	21	CYS
31	d9	23	VAL
31	d9	25	SER
31	d9	30	LEU
31	d9	32	ARG
31	d9	36	LEU
31	d9	54	LYS
80	e0	14	VAL
80	e0	15	LYS
80	e0	21	VAL
80	e0	24	THR
80	e0	26	LYS
80	e0	29	LYS
80	e0	38	LEU
80	e0	39	LEU
80	e0	44	PHE
80	e0	49	LEU
80	e0	54	ARG
80	e0	56	MET
33	e1	82	LYS
33	e1	84	VAL
33	e1	87	THR
33	e1	90	LYS
33	e1	96	LYS
33	e1	97	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR

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Mol	Chain	Res	Type
33	e1	108	VAL
33	e1	109	ASP
33	e1	113	LYS
33	e1	116	LYS
33	e1	120	GLU
33	e1	121	CYS
33	e1	130	VAL
33	e1	135	HIS
33	e1	147	VAL
33	e1	148	TYR
34	sR	10	ARG
34	sR	23	LEU
34	sR	25	THR
34	sR	29	GLN
34	sR	50	ASP
34	sR	58	VAL
34	sR	59	ARG
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	74	THR
34	sR	76	ASP
34	sR	96	THR
34	sR	108	SER
34	sR	114	ASP
34	sR	123	ILE
34	sR	145	LEU
34	sR	159	ASN
34	sR	176	LYS
34	sR	202	LEU
34	sR	228	LYS
34	sR	232	TYR
34	sR	234	LEU
34	sR	245	PHE
34	sR	260	ILE
34	sR	295	SER
34	sR	297	ASP
34	sR	309	VAL
34	sR	312	VAL
35	sM	23	LYS
35	sM	34	LYS
35	sM	43	ASP

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Mol	Chain	Res	Type
35	sM	45	SER
35	sM	49	LYS
35	sM	61	ILE
35	sM	74	LYS
35	sM	75	ASP
35	sM	76	VAL
35	sM	77	THR
39	l2	7	ASN
39	l2	10	LYS
39	l2	15	ILE
39	l2	30	ARG
39	l2	32	LEU
39	l2	41	ILE
39	l2	44	ILE
39	l2	46	LYS
39	l2	48	ILE
39	l2	49	VAL
39	l2	52	SER
39	l2	61	VAL
39	l2	70	ARG
39	l2	74	GLU
39	l2	82	VAL
39	l2	84	THR
39	l2	95	SER
39	l2	96	LEU
39	l2	101	VAL
39	l2	112	ILE
39	l2	114	SER
39	l2	119	LYS
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	168	VAL
39	l2	169	ILE
39	l2	179	LEU
39	l2	188	LYS
39	l2	191	LEU
39	l2	193	ARG
39	l2	200	ARG

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Mol	Chain	Res	Type
39	12	202	VAL
39	12	204	MET
39	12	205	ASN
39	12	215	ASN
39	12	224	THR
39	12	227	ARG
39	12	230	VAL
39	12	233	GLN
39	12	241	ARG
39	12	243	THR
39	12	246	LEU
39	12	247	ARG
40	13	4	ARG
40	13	5	LYS
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	21	ARG
40	13	24	SER
40	13	37	ARG
40	13	38	SER
40	13	39	LYS
40	13	44	THR
40	13	47	LEU
40	13	56	ILE
40	13	65	SER
40	13	69	LYS
40	13	70	ARG
40	13	73	VAL
40	13	74	GLU
40	13	77	THR
40	13	85	VAL
40	13	102	LEU
40	13	103	THR
40	13	104	THR
40	13	114	VAL
40	13	125	SER
40	13	132	LYS
40	13	148	LEU
40	13	150	ARG
40	13	160	VAL
40	13	169	THR

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Mol	Chain	Res	Type
40	l3	183	LEU
40	l3	187	SER
40	l3	188	ILE
40	l3	192	VAL
40	l3	196	ARG
40	l3	197	GLU
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
40	l3	211	GLN
40	l3	213	GLU
40	l3	222	LYS
40	l3	232	ARG
40	l3	235	THR
40	l3	237	LYS
40	l3	238	LEU
40	l3	244	ARG
40	l3	246	LEU
40	l3	248	LYS
40	l3	249	VAL
40	l3	252	ILE
40	l3	261	MET
40	l3	266	ARG
40	l3	274	SER
40	l3	282	ILE
40	l3	284	ARG
40	l3	296	THR
40	l3	302	LYS
40	l3	308	MET
40	l3	316	GLU
40	l3	320	ASP
40	l3	322	ILE
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	340	LYS
40	l3	341	SER
40	l3	347	SER
40	l3	348	ARG
40	l3	376	LYS
40	l3	382	THR
41	l4	2	SER

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Mol	Chain	Res	Type
41	14	3	ARG
41	14	14	GLU
41	14	16	THR
41	14	18	ASN
41	14	41	SER
41	14	47	ARG
41	14	48	GLN
41	14	55	LYS
41	14	64	SER
41	14	73	ARG
41	14	90	PHE
41	14	92	ASN
41	14	93	MET
41	14	98	ARG
41	14	99	MET
41	14	118	LYS
41	14	120	TYR
41	14	136	LEU
41	14	144	LYS
41	14	150	LEU
41	14	156	LEU
41	14	170	LYS
41	14	172	VAL
41	14	176	SER
41	14	177	ASP
41	14	179	LEU
41	14	186	LYS
41	14	187	LEU
41	14	200	THR
41	14	202	ARG
41	14	203	ARG
41	14	206	LEU
41	14	215	ILE
41	14	220	ARG
41	14	222	VAL
41	14	230	VAL
41	14	233	LEU
41	14	246	ARG
41	14	258	LEU
41	14	265	GLU
41	14	276	LEU
41	14	291	ASN

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Mol	Chain	Res	Type
41	14	300	ARG
41	14	306	THR
41	14	307	GLN
41	14	313	LEU
41	14	319	LYS
41	14	321	LYS
41	14	323	VAL
41	14	327	LEU
41	14	339	LEU
41	14	347	THR
41	14	356	THR
41	14	357	GLU
41	14	358	THR
41	14	359	LEU
42	15	15	ARG
42	15	23	ARG
42	15	25	GLU
42	15	34	LYS
42	15	35	ARG
42	15	41	LYS
42	15	51	LEU
42	15	58	LYS
42	15	61	ILE
42	15	66	SER
42	15	68	THR
42	15	70	THR
42	15	73	VAL
42	15	74	VAL
42	15	89	THR
42	15	107	ARG
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	118	THR
42	15	132	THR
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	151	GLN
42	15	152	ARG

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Mol	Chain	Res	Type
42	15	155	THR
42	15	158	ARG
42	15	164	LYS
42	15	177	GLU
42	15	183	TRP
42	15	185	PHE
42	15	187	THR
42	15	190	ILE
42	15	194	LEU
42	15	206	GLN
42	15	210	GLU
42	15	211	LEU
42	15	218	ARG
42	15	221	GLU
42	15	226	TYR
42	15	227	LEU
42	15	236	LEU
42	15	241	THR
42	15	242	SER
42	15	258	LYS
42	15	259	LYS
42	15	261	THR
42	15	268	GLU
42	15	279	LYS
43	16	12	SER
43	16	18	LEU
43	16	19	LYS
43	16	21	THR
43	16	36	PRO
43	16	50	LYS
43	16	65	ILE
43	16	76	LEU
43	16	78	ARG
43	16	80	ASN
43	16	82	ARG
43	16	84	VAL
43	16	89	THR
43	16	91	VAL
43	16	93	VAL
43	16	98	VAL
43	16	108	LYS
43	16	131	LYS

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Mol	Chain	Res	Type
43	16	152	THR
43	16	155	LEU
43	16	160	SER
43	16	162	SER
44	17	26	VAL
44	17	41	ARG
44	17	54	GLU
44	17	60	ARG
44	17	78	GLU
44	17	82	LYS
44	17	83	LEU
44	17	88	ARG
44	17	98	LYS
44	17	100	ARG
44	17	101	LYS
44	17	110	ARG
44	17	124	LEU
44	17	129	LEU
44	17	130	ILE
44	17	156	ILE
44	17	158	LYS
44	17	173	LEU
44	17	175	LYS
44	17	178	ILE
44	17	179	LEU
44	17	184	LEU
44	17	208	SER
44	17	229	PHE
44	17	239	LEU
44	17	244	ASN
45	18	41	GLN
45	18	50	VAL
45	18	65	LEU
45	18	67	ILE
45	18	68	ARG
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	81	THR
45	18	89	GLU
45	18	90	THR
45	18	109	LEU

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Mol	Chain	Res	Type
45	18	111	LYS
45	18	136	LEU
45	18	147	LYS
45	18	149	LYS
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	185	ARG
45	18	200	LEU
45	18	211	LEU
45	18	217	THR
45	18	224	ASP
45	18	230	LYS
45	18	231	LYS
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	17	THR
46	19	18	VAL
46	19	19	SER
46	19	24	ILE
46	19	31	ARG
46	19	33	THR
46	19	39	LYS
46	19	43	VAL
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG
46	19	63	LYS
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	89	LYS
46	19	92	TYR
46	19	107	ASP
46	19	118	LEU
46	19	121	LYS
46	19	129	ARG
46	19	130	ASP
46	19	132	VAL

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Mol	Chain	Res	Type
46	l9	133	THR
46	l9	138	THR
46	l9	143	GLU
46	l9	144	ILE
46	l9	146	LEU
46	l9	151	VAL
46	l9	152	GLU
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	177	ASP
46	l9	191	LEU
47	m0	4	ARG
47	m0	24	ARG
47	m0	30	LYS
47	m0	36	LEU
47	m0	38	LYS
47	m0	39	LYS
47	m0	48	LEU
47	m0	52	LEU
47	m0	53	VAL
47	m0	57	LEU
47	m0	59	GLN
47	m0	60	LEU
47	m0	63	GLU
47	m0	71	CYS
47	m0	76	MET
47	m0	77	THR
47	m0	87	LEU
47	m0	99	ILE
47	m0	103	LEU
47	m0	128	ARG
47	m0	130	ASP
47	m0	139	ARG
47	m0	144	ASN
47	m0	156	ARG
47	m0	163	GLN
47	m0	167	LEU
47	m0	168	SER
47	m0	169	LYS
47	m0	177	ASP
47	m0	178	ARG

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Mol	Chain	Res	Type
47	m0	197	VAL
47	m0	201	SER
47	m0	208	ASN
47	m0	211	ARG
47	m0	217	PHE
48	m1	6	GLN
48	m1	9	MET
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	16	LYS
48	m1	29	ARG
48	m1	30	LEU
48	m1	34	SER
48	m1	35	LYS
48	m1	44	THR
48	m1	46	VAL
48	m1	51	ARG
48	m1	54	VAL
48	m1	56	THR
48	m1	61	ARG
48	m1	82	ARG
48	m1	92	ARG
48	m1	99	THR
48	m1	107	ASP
48	m1	112	LEU
48	m1	129	VAL
48	m1	130	VAL
48	m1	140	ARG
48	m1	142	LYS
48	m1	147	THR
48	m1	148	VAL
48	m1	151	SER
48	m1	158	ASP
48	m1	159	THR
48	m1	161	SER
48	m1	165	GLN
48	m1	166	LYS
48	m1	171	VAL
49	m3	13	HIS
49	m3	54	LEU

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Mol	Chain	Res	Type
49	m3	57	VAL
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	86	THR
49	m3	104	ARG
49	m3	107	GLU
49	m3	108	ILE
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	154	VAL
49	m3	157	ARG
49	m3	164	GLU
49	m3	168	ARG
49	m3	171	ARG
49	m3	180	ARG
49	m3	183	ARG
49	m3	184	GLU
49	m3	189	GLU
49	m3	190	LYS
50	m4	3	THR
50	m4	4	ASP
50	m4	6	ILE
50	m4	16	GLU
50	m4	20	VAL
50	m4	53	VAL
50	m4	58	ILE
50	m4	60	LEU
50	m4	63	VAL
50	m4	64	VAL
50	m4	72	LEU
50	m4	82	SER
50	m4	107	GLU

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Mol	Chain	Res	Type
50	m4	108	ARG
50	m4	126	GLN
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	7	LEU
51	m5	8	GLU
51	m5	12	ARG
51	m5	19	LEU
51	m5	20	ARG
51	m5	24	ARG
51	m5	49	ARG
51	m5	64	VAL
51	m5	66	VAL
51	m5	67	ARG
51	m5	68	ARG
51	m5	75	VAL
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	90	ASN
51	m5	91	GLU
51	m5	97	SER
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL
51	m5	117	ASN
51	m5	138	GLN
51	m5	142	ILE
51	m5	153	ASP
51	m5	159	ARG
51	m5	171	SER
51	m5	175	ASN
51	m5	176	LYS
51	m5	183	THR
51	m5	188	ARG
51	m5	190	THR
51	m5	194	GLN
51	m5	198	SER
51	m5	204	LYS
52	m6	3	VAL
52	m6	18	ARG

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Mol	Chain	Res	Type
52	m6	22	VAL
52	m6	34	VAL
52	m6	58	LEU
52	m6	59	ARG
52	m6	67	THR
52	m6	74	ARG
52	m6	84	LEU
52	m6	85	ARG
52	m6	100	GLU
52	m6	106	GLU
52	m6	108	ILE
52	m6	110	PRO
52	m6	115	LYS
52	m6	117	ARG
52	m6	122	GLN
52	m6	124	LEU
52	m6	134	LYS
52	m6	136	THR
52	m6	143	THR
52	m6	160	ARG
52	m6	166	GLU
52	m6	171	LYS
52	m6	180	SER
52	m6	182	ASN
52	m6	184	THR
52	m6	188	SER
52	m6	190	VAL
53	m7	9	THR
53	m7	16	SER
53	m7	31	GLU
53	m7	32	THR
53	m7	42	THR
53	m7	52	LEU
53	m7	53	ASP
53	m7	55	GLN
53	m7	56	ARG
53	m7	78	VAL
53	m7	89	LYS
53	m7	105	LYS
53	m7	114	VAL
53	m7	124	LYS
53	m7	126	ARG

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Mol	Chain	Res	Type
53	m7	127	ARG
53	m7	144	SER
53	m7	148	LEU
53	m7	155	GLU
54	m8	7	SER
54	m8	8	LYS
54	m8	9	GLN
54	m8	17	THR
54	m8	22	ASP
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	63	SER
54	m8	64	VAL
54	m8	80	THR
54	m8	81	VAL
54	m8	93	ILE
54	m8	98	LYS
54	m8	113	LYS
54	m8	122	ILE
54	m8	135	GLN
54	m8	138	LEU
54	m8	147	ARG
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	170	ARG
54	m8	178	ARG
54	m8	186	VAL
55	m9	5	ARG
55	m9	7	GLN
55	m9	8	LYS
55	m9	20	ARG
55	m9	24	LEU
55	m9	27	ASN
55	m9	29	THR
55	m9	30	SER
55	m9	36	ASN
55	m9	37	SER

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Mol	Chain	Res	Type
55	m9	43	LYS
55	m9	49	THR
55	m9	52	LYS
55	m9	56	THR
55	m9	57	VAL
55	m9	63	THR
55	m9	70	LYS
55	m9	74	ARG
55	m9	98	ARG
55	m9	99	LEU
55	m9	105	LEU
55	m9	106	LEU
55	m9	119	LEU
55	m9	126	GLU
55	m9	128	LYS
55	m9	130	ASN
55	m9	133	LYS
55	m9	134	HIS
55	m9	138	LEU
55	m9	139	VAL
55	m9	148	ASP
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	167	ARG
55	m9	170	ARG
55	m9	186	LYS
56	n0	1	MET
56	n0	13	ARG
56	n0	17	GLU
56	n0	21	GLU
56	n0	23	LYS
56	n0	32	SER
56	n0	45	LEU
56	n0	51	VAL
56	n0	53	LYS
56	n0	55	SER
56	n0	58	ILE
56	n0	73	LYS
56	n0	74	ASN
56	n0	77	VAL

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Mol	Chain	Res	Type
56	n0	84	ARG
56	n0	87	THR
56	n0	96	ASP
56	n0	97	VAL
56	n0	104	GLU
56	n0	115	ARG
56	n0	117	ARG
56	n0	125	LYS
56	n0	130	GLU
56	n0	132	THR
56	n0	137	ARG
56	n0	145	THR
56	n0	148	LEU
56	n0	149	LYS
56	n0	155	ARG
56	n0	160	THR
56	n0	162	THR
56	n0	164	SER
56	n0	172	TYR
57	n1	3	LYS
57	n1	22	HIS
57	n1	32	LYS
57	n1	35	LYS
57	n1	36	VAL
57	n1	52	MET
57	n1	55	LYS
57	n1	71	SER
57	n1	80	VAL
57	n1	83	ARG
57	n1	88	ARG
57	n1	89	LEU
57	n1	93	VAL
57	n1	96	ILE
57	n1	102	ARG
57	n1	104	GLU
57	n1	126	VAL
57	n1	131	GLN
57	n1	139	ARG
57	n1	141	VAL
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR

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Mol	Chain	Res	Type
57	n1	154	VAL
58	n2	13	LYS
58	n2	16	THR
58	n2	21	SER
58	n2	23	THR
58	n2	27	VAL
58	n2	37	LEU
58	n2	43	VAL
58	n2	47	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	58	GLU
58	n2	63	VAL
58	n2	68	THR
58	n2	72	SER
58	n2	74	LYS
58	n2	90	ARG
58	n2	98	THR
59	n3	4	ASN
59	n3	13	ILE
59	n3	45	ARG
59	n3	48	ARG
59	n3	66	LYS
59	n3	69	LEU
59	n3	88	ARG
59	n3	115	THR
59	n3	120	LYS
60	n4	1	MET
60	n4	26	SER
60	n4	39	LEU
60	n4	63	ILE
60	n4	82	ILE
60	n4	89	LEU
60	n4	96	LEU
60	n4	105	ARG
60	n4	119	GLU
60	n4	126	GLU
60	n4	127	LYS
61	n5	24	LEU
61	n5	27	ARG
61	n5	33	ARG

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Mol	Chain	Res	Type
61	n5	34	LEU
61	n5	37	THR
61	n5	38	LEU
61	n5	45	LYS
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	71	THR
61	n5	78	ASP
61	n5	86	VAL
61	n5	88	MET
61	n5	108	LEU
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	135	ILE
62	n6	3	LYS
62	n6	7	ASP
62	n6	11	ASP
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	25	SER
62	n6	32	SER
62	n6	35	LEU
62	n6	37	LYS
62	n6	38	GLU
62	n6	39	LEU
62	n6	40	ARG
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	66	GLN
62	n6	67	GLU
62	n6	69	LYS
62	n6	74	TYR
62	n6	76	LEU
62	n6	83	ASP
62	n6	89	LYS

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Mol	Chain	Res	Type
62	n6	90	VAL
62	n6	91	ASN
62	n6	94	SER
62	n6	99	LEU
62	n6	105	VAL
62	n6	115	ARG
62	n6	119	ILE
62	n6	120	GLN
62	n6	122	LYS
62	n6	126	LEU
63	n7	5	LEU
63	n7	17	ARG
63	n7	24	VAL
63	n7	26	VAL
63	n7	33	SER
63	n7	34	LYS
63	n7	36	HIS
63	n7	42	LEU
63	n7	46	ILE
63	n7	52	LYS
63	n7	56	LYS
63	n7	72	ILE
63	n7	73	LYS
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	90	GLU
63	n7	95	VAL
63	n7	97	SER
63	n7	99	GLU
63	n7	103	GLN
63	n7	121	ARG
63	n7	126	LYS
63	n7	127	ASN
63	n7	128	GLN
63	n7	132	SER
63	n7	134	LEU
63	n7	135	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	15	VAL

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Mol	Chain	Res	Type
64	n8	24	LYS
64	n8	27	LYS
64	n8	34	MET
64	n8	42	ARG
64	n8	45	MET
64	n8	46	ASP
64	n8	56	VAL
64	n8	60	TYR
64	n8	65	GLN
64	n8	67	HIS
64	n8	73	LEU
64	n8	78	LEU
64	n8	82	ILE
64	n8	85	ASP
64	n8	88	ASP
64	n8	89	GLN
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	115	LYS
64	n8	124	ILE
64	n8	128	ARG
64	n8	133	LEU
65	n9	10	HIS
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	50	THR
65	n9	52	LYS
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	9	SER
66	o0	10	ILE
66	o0	14	LEU
66	o0	30	THR
66	o0	32	LYS
66	o0	33	SER

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Mol	Chain	Res	Type
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	61	MET
66	o0	65	THR
66	o0	76	GLU
66	o0	81	VAL
66	o0	83	LYS
66	o0	86	ARG
66	o0	87	VAL
66	o0	89	VAL
66	o0	92	ILE
67	o1	6	ASP
67	o1	8	VAL
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	42	LEU
67	o1	44	MET
67	o1	46	THR
67	o1	50	ARG
67	o1	55	LEU
67	o1	64	VAL
67	o1	70	ARG
67	o1	76	SER
67	o1	82	GLU
67	o1	90	PHE
67	o1	96	VAL
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
67	o1	112	ASP
68	o2	16	LYS
68	o2	19	ARG
68	o2	21	HIS

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Mol	Chain	Res	Type
68	o2	24	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	40	SER
68	o2	41	VAL
68	o2	51	SER
68	o2	52	GLN
68	o2	54	LYS
68	o2	61	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	86	THR
68	o2	89	THR
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	21	ARG
69	o3	28	SER
69	o3	31	LYS
69	o3	33	GLU
69	o3	37	THR
69	o3	49	ILE
69	o3	56	SER
69	o3	58	GLU
69	o3	59	VAL
69	o3	73	ARG
69	o3	74	THR
69	o3	81	VAL
69	o3	84	THR
69	o3	90	PRO
69	o3	93	THR
69	o3	98	VAL
70	o4	6	THR
70	o4	9	ARG
70	o4	10	ARG
70	o4	20	ILE
70	o4	23	VAL

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Mol	Chain	Res	Type
70	o4	24	LYS
70	o4	25	THR
70	o4	31	ARG
70	o4	33	GLN
70	o4	46	ASP
70	o4	47	CYS
70	o4	58	ARG
70	o4	71	THR
70	o4	79	SER
70	o4	85	VAL
70	o4	88	ARG
70	o4	95	ILE
70	o4	98	GLN
70	o4	101	VAL
71	o5	4	VAL
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	31	LEU
71	o5	38	ARG
71	o5	41	LEU
71	o5	44	ILE
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	62	GLN
71	o5	69	LEU
71	o5	79	ASP
71	o5	84	LYS
71	o5	85	THR
71	o5	86	ARG
71	o5	88	LEU
71	o5	98	SER
71	o5	100	VAL
71	o5	107	LYS
71	o5	113	GLN
71	o5	118	ILE
72	o6	7	ILE
72	o6	9	ILE
72	o6	12	ASN
72	o6	15	LYS
72	o6	16	LYS

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Mol	Chain	Res	Type
72	o6	17	VAL
72	o6	21	THR
72	o6	26	ILE
72	o6	27	SER
72	o6	29	LYS
72	o6	34	SER
72	o6	35	ASN
72	o6	36	ARG
72	o6	37	THR
72	o6	38	LYS
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	68	ARG
72	o6	76	ARG
72	o6	89	GLU
72	o6	93	ILE
72	o6	94	ILE
72	o6	98	ARG
73	o7	7	SER
73	o7	25	ARG
73	o7	36	SER
73	o7	54	LYS
73	o7	55	ARG
73	o7	58	THR
73	o7	59	THR
73	o7	67	LEU
73	o7	70	VAL
73	o7	80	THR
73	o7	84	SER
74	o8	5	ILE
74	o8	6	THR
74	o8	12	LEU
74	o8	13	GLU
74	o8	14	LEU
74	o8	16	ARG
74	o8	19	ASP
74	o8	20	VAL
74	o8	22	THR
74	o8	24	THR

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Mol	Chain	Res	Type
74	o8	31	LEU
74	o8	40	GLN
74	o8	41	THR
74	o8	48	SER
74	o8	50	SER
74	o8	53	THR
74	o8	63	LYS
74	o8	64	LYS
74	o8	65	LEU
75	o9	4	GLN
75	o9	5	LYS
75	o9	11	GLN
75	o9	21	ARG
75	o9	23	LEU
75	o9	29	LEU
75	o9	31	THR
75	o9	51	ILE
76	q0	78	ILE
76	q0	79	GLU
76	q0	85	LEU
76	q0	93	LYS
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	16	LYS
77	q1	21	ARG
77	q1	23	ARG
77	q1	24	SER
78	q2	7	THR
78	q2	8	ARG
78	q2	17	CYS
78	q2	20	HIS
78	q2	26	THR
78	q2	35	LEU
78	q2	45	ARG
78	q2	46	LYS
78	q2	61	LYS

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Mol	Chain	Res	Type
78	q2	71	ARG
78	q2	72	LEU
78	q2	78	LYS
78	q2	79	THR
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	87	ARG
78	q2	93	LEU
78	q2	105	GLN
78	q2	106	PHE
79	q3	10	ILE
79	q3	20	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	41	PHE
79	q3	45	LYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	59	CYS
79	q3	72	SER
79	q3	78	THR
79	q3	79	VAL
79	q3	81	SER
81	p0	4	ILE
81	p0	5	ARG
81	p0	14	LYS
81	p0	15	LEU
81	p0	25	LEU
81	p0	28	VAL
81	p0	32	ASN
81	p0	42	ARG
81	p0	44	GLU
81	p0	51	VAL
81	p0	57	THR
81	p0	63	ILE
81	p0	67	LEU
81	p0	68	SER
81	p0	70	LEU
81	p0	76	LEU

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Mol	Chain	Res	Type
81	p0	81	LYS
81	p0	83	ASN
81	p0	84	VAL
81	p0	91	GLU
81	p0	93	LEU
81	p0	97	LYS
81	p0	103	ASN
81	p0	104	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (55) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	149	GLN
3	S1	177	GLN
3	S1	209	ASN
6	S4	259	GLN
7	S5	139	ASN
8	S6	59	GLN
9	S7	74	GLN
9	S7	170	GLN
11	S9	110	GLN
12	C0	12	HIS
14	C2	70	ASN
21	C9	25	GLN
23	D1	74	GLN
24	D2	56	HIS
27	D5	95	HIS
31	D9	48	ASN
32	E0	17	GLN
41	L4	320	ASN
42	L5	40	HIS
44	L7	244	ASN
46	L9	49	ASN
47	M0	95	HIS
47	M0	144	ASN
51	M5	37	HIS
54	M8	145	ASN
56	N0	154	HIS
57	N1	146	ASN
59	N3	98	ASN
62	N6	42	GLN
63	N7	127	ASN

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Mol	Chain	Res	Type
65	N9	6	ASN
78	Q2	22	GLN
11	s9	110	GLN
11	s9	124	HIS
11	s9	142	ASN
12	c0	32	HIS
14	c2	125	ASN
20	c8	89	GLN
20	c8	90	ASN
22	d0	12	GLN
22	d0	72	ASN
24	d2	56	HIS
25	d3	48	HIS
29	d7	19	HIS
29	d7	42	ASN
40	l3	211	GLN
42	l5	40	HIS
52	m6	31	GLN
52	m6	72	HIS
57	n1	26	HIS
61	n5	111	ASN
63	n7	103	GLN
64	n8	49	HIS
69	o3	5	HIS
70	o4	3	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1777/1800 (98%)	496 (27%)	62 (3%)
1	6	1793/1800 (99%)	470 (26%)	50 (2%)
36	1	3145/3396 (92%)	697 (22%)	82 (2%)
36	5	3145/3396 (92%)	693 (22%)	83 (2%)
37	3	120/121 (99%)	17 (14%)	2 (1%)
37	7	120/121 (99%)	18 (15%)	1 (0%)
38	4	157/158 (99%)	38 (24%)	4 (2%)
38	8	157/158 (99%)	35 (22%)	5 (3%)
All	All	10414/10950 (95%)	2464 (23%)	289 (2%)

All (2464) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	8	U
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	39	A
1	2	45	U
1	2	46	A
1	2	47	A
1	2	50	C
1	2	57	G
1	2	60	U
1	2	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	99	C
1	2	101	U
1	2	104	A
1	2	111	U
1	2	114	C
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	153	G
1	2	158	U
1	2	159	U

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Mol	Chain	Res	Type
1	2	175	G
1	2	178	U
1	2	185	U
1	2	186	C
1	2	187	G
1	2	188	A
1	2	189	C
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	214	G
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	242	U
1	2	246	G
1	2	250	C
1	2	261	U
1	2	262	U
1	2	265	A
1	2	267	U
1	2	269	G
1	2	271	A

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Mol	Chain	Res	Type
1	2	272	U
1	2	274	G
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	308	C
1	2	309	C
1	2	313	U
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	337	G
1	2	338	C
1	2	341	A
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	387	A
1	2	397	A
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	416	A
1	2	418	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U

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Mol	Chain	Res	Type
1	2	444	C
1	2	446	A
1	2	447	U
1	2	448	C
1	2	454	U
1	2	459	G
1	2	468	A
1	2	483	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	514	G
1	2	515	A
1	2	516	G
1	2	519	C
1	2	520	A
1	2	525	A
1	2	527	A
1	2	532	U
1	2	534	A
1	2	536	C
1	2	538	A
1	2	539	G

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Mol	Chain	Res	Type
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
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	594	A
1	2	595	G
1	2	597	G
1	2	606	A
1	2	617	U
1	2	619	A
1	2	620	A
1	2	621	A
1	2	622	A
1	2	623	A
1	2	639	U
1	2	640	U
1	2	650	U
1	2	653	C
1	2	655	G
1	2	656	G
1	2	657	U
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C

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Mol	Chain	Res	Type
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	709	C
1	2	710	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	729	G
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	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	776	G

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Mol	Chain	Res	Type
1	2	778	G
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	785	U
1	2	787	G
1	2	789	A
1	2	793	A
1	2	794	U
1	2	795	U
1	2	796	A
1	2	806	A
1	2	807	A
1	2	811	A
1	2	812	A
1	2	813	U
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	823	G
1	2	824	G
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	854	U
1	2	856	A
1	2	860	U
1	2	862	A
1	2	863	A
1	2	865	A
1	2	876	G
1	2	886	U
1	2	896	U
1	2	898	A
1	2	911	U
1	2	912	U
1	2	913	G

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Mol	Chain	Res	Type
1	2	914	G
1	2	915	A
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	949	C
1	2	951	A
1	2	959	U
1	2	960	U
1	2	966	A
1	2	988	A
1	2	991	G
1	2	992	A
1	2	993	A
1	2	995	A
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1020	A
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1029	U
1	2	1031	U
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1066	C
1	2	1076	A
1	2	1079	U
1	2	1080	U
1	2	1082	C
1	2	1086	A
1	2	1091	A
1	2	1092	A

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Mol	Chain	Res	Type
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1111	G
1	2	1117	U
1	2	1138	A
1	2	1139	A
1	2	1146	G
1	2	1150	G
1	2	1151	A
1	2	1154	G
1	2	1155	G
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1163	A
1	2	1164	G
1	2	1165	G
1	2	1167	G
1	2	1168	U
1	2	1176	G
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
1	2	1208	A
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U

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Mol	Chain	Res	Type
1	2	1257	U
1	2	1258	U
1	2	1260	U
1	2	1286	U
1	2	1287	A
1	2	1301	U
1	2	1314	U
1	2	1315	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	1354	G
1	2	1361	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1383	G
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1412	G
1	2	1413	U
1	2	1414	U
1	2	1415	U
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1446	A
1	2	1447	C
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1462	G
1	2	1464	G

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Mol	Chain	Res	Type
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1477	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	1516	A
1	2	1517	U
1	2	1523	G
1	2	1524	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1542	G
1	2	1550	A
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1624	C
1	2	1631	A
1	2	1634	C
1	2	1639	C
1	2	1657	U
1	2	1658	G
1	2	1681	A
1	2	1682	U

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Mol	Chain	Res	Type
1	2	1683	C
1	2	1684	U
1	2	1692	G
1	2	1697	G
1	2	1698	G
1	2	1699	G
1	2	1700	C
1	2	1701	A
1	2	1702	A
1	2	1703	C
1	2	1711	C
1	2	1712	A
1	2	1713	G
1	2	1715	G
1	2	1729	C
1	2	1730	A
1	2	1747	G
1	2	1750	A
1	2	1756	A
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1789	G
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	26	A
36	1	40	A
36	1	43	A
36	1	49	A
36	1	56	G
36	1	57	A
36	1	59	G
36	1	60	A
36	1	65	A

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Mol	Chain	Res	Type
36	1	66	A
36	1	68	C
36	1	76	G
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	136	G
36	1	143	G
36	1	147	U
36	1	156	G
36	1	157	A
36	1	160	G
36	1	163	C
36	1	166	C
36	1	169	U
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	200	C
36	1	210	U
36	1	213	A
36	1	218	G
36	1	219	A
36	1	238	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	266	A

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Mol	Chain	Res	Type
36	1	269	G
36	1	278	U
36	1	282	G
36	1	283	G
36	1	284	A
36	1	286	U
36	1	295	A
36	1	298	U
36	1	323	A
36	1	326	U
36	1	329	U
36	1	339	C
36	1	344	A
36	1	349	A
36	1	350	C
36	1	351	A
36	1	352	A
36	1	375	A
36	1	376	G
36	1	395	A
36	1	397	A
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	419	G
36	1	421	G
36	1	422	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	498	A
36	1	520	U
36	1	521	A
36	1	523	A
36	1	531	G
36	1	535	G
36	1	536	U
36	1	541	U
36	1	543	C
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	555	U
36	1	556	U
36	1	557	A
36	1	558	U
36	1	559	A
36	1	569	A
36	1	578	A
36	1	579	G
36	1	589	A
36	1	592	A
36	1	594	U
36	1	595	G
36	1	601	U
36	1	604	G
36	1	609	G
36	1	611	A
36	1	620	U
36	1	621	A
36	1	625	G
36	1	636	C
36	1	649	A
36	1	651	G
36	1	658	G
36	1	660	A
36	1	677	A
36	1	679	U
36	1	681	U
36	1	691	A
36	1	705	A
36	1	708	G
36	1	709	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	725	G
36	1	733	G
36	1	735	A

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Mol	Chain	Res	Type
36	1	758	C
36	1	759	U
36	1	763	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	780	A
36	1	781	G
36	1	784	A
36	1	785	G
36	1	786	A
36	1	806	A
36	1	817	A
36	1	830	A
36	1	837	A
36	1	849	C
36	1	861	C
36	1	865	U
36	1	872	U
36	1	874	U
36	1	879	U
36	1	890	C
36	1	894	G
36	1	896	A
36	1	907	G
36	1	908	G
36	1	910	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	921	A
36	1	923	C
36	1	924	G
36	1	937	G
36	1	944	C
36	1	947	G
36	1	959	C
36	1	960	U

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Mol	Chain	Res	Type
36	1	973	A
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	994	G
36	1	1000	C
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G
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	1057	A
36	1	1064	A
36	1	1065	A
36	1	1068	C
36	1	1069	C
36	1	1071	U
36	1	1072	G
36	1	1079	A
36	1	1081	U
36	1	1082	U
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

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Mol	Chain	Res	Type
36	1	1104	G
36	1	1117	G
36	1	1121	U
36	1	1128	U
36	1	1131	G
36	1	1144	U
36	1	1148	G
36	1	1153	A
36	1	1154	A
36	1	1159	A
36	1	1160	C
36	1	1165	A
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1185	C
36	1	1190	A
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1201	C
36	1	1202	A
36	1	1205	A
36	1	1206	G
36	1	1209	G
36	1	1212	A
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1218	U
36	1	1222	G
36	1	1225	A
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

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Mol	Chain	Res	Type
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1251	A
36	1	1258	U
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1280	C
36	1	1285	G
36	1	1286	A
36	1	1287	A
36	1	1292	C
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1330	A
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	1355	A
36	1	1356	U
36	1	1357	G
36	1	1363	A
36	1	1379	G
36	1	1380	G
36	1	1386	A
36	1	1399	A

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Mol	Chain	Res	Type
36	1	1400	G
36	1	1417	G
36	1	1418	A
36	1	1419	A
36	1	1425	U
36	1	1429	G
36	1	1431	G
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1450	G
36	1	1455	U
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1487	G
36	1	1495	U
36	1	1496	C
36	1	1508	C
36	1	1524	A
36	1	1527	C
36	1	1529	A
36	1	1536	G
36	1	1556	C
36	1	1558	A
36	1	1560	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1572	U
36	1	1576	G
36	1	1578	C
36	1	1579	C
36	1	1582	C
36	1	1583	A
36	1	1587	A

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Mol	Chain	Res	Type
36	1	1589	A
36	1	1605	A
36	1	1607	U
36	1	1620	U
36	1	1629	U
36	1	1639	C
36	1	1641	U
36	1	1643	A
36	1	1645	U
36	1	1655	G
36	1	1657	C
36	1	1677	G
36	1	1683	A
36	1	1716	U
36	1	1717	U
36	1	1725	C
36	1	1727	G
36	1	1736	G
36	1	1741	A
36	1	1742	U
36	1	1750	A
36	1	1751	G
36	1	1762	C
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1770	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1834	U
36	1	1835	A
36	1	1839	A
36	1	1841	A

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Mol	Chain	Res	Type
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1849	C
36	1	1855	U
36	1	1863	G
36	1	1864	A
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	1931	U
36	1	1935	G
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1954	G
36	1	2094	C
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2116	G
36	1	2121	G
36	1	2122	G
36	1	2123	G
36	1	2124	G
36	1	2131	A
36	1	2138	A
36	1	2139	A
36	1	2140	U
36	1	2146	C
36	1	2158	A
36	1	2168	A
36	1	2169	G
36	1	2187	G

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Mol	Chain	Res	Type
36	1	2188	A
36	1	2201	G
36	1	2205	U
36	1	2208	A
36	1	2210	G
36	1	2223	A
36	1	2225	U
36	1	2226	U
36	1	2239	G
36	1	2244	A
36	1	2249	G
36	1	2250	G
36	1	2252	A
36	1	2255	A
36	1	2256	A
36	1	2267	C
36	1	2272	G
36	1	2273	G
36	1	2282	U
36	1	2284	C
36	1	2288	G
36	1	2298	U
36	1	2303	A
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2319	U
36	1	2334	U
36	1	2336	U
36	1	2339	C
36	1	2363	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2388	U
36	1	2393	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G

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Mol	Chain	Res	Type
36	1	2404	A
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2424	A
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2507	C
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	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	2585	G
36	1	2586	G
36	1	2593	A
36	1	2594	C
36	1	2595	A
36	1	2606	G

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Mol	Chain	Res	Type
36	1	2607	G
36	1	2614	G
36	1	2619	G
36	1	2621	G
36	1	2626	A
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2651	G
36	1	2652	U
36	1	2653	C
36	1	2656	A
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2699	G
36	1	2705	A
36	1	2714	G
36	1	2720	G
36	1	2725	U
36	1	2728	G
36	1	2732	G
36	1	2752	U
36	1	2753	G
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C
36	1	2816	G
36	1	2817	A

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Mol	Chain	Res	Type
36	1	2818	U
36	1	2819	A
36	1	2829	U
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	2883	U
36	1	2887	A
36	1	2889	C
36	1	2898	G
36	1	2899	C
36	1	2904	U
36	1	2914	G
36	1	2922	G
36	1	2923	U
36	1	2924	U
36	1	2925	C
36	1	2927	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2943	G
36	1	2945	G
36	1	2947	G
36	1	2971	A
36	1	2974	U
36	1	2983	C
36	1	2990	G
36	1	2996	U
36	1	2997	G
36	1	3012	A
36	1	3018	C
36	1	3025	C
36	1	3030	G

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Mol	Chain	Res	Type
36	1	3037	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3093	C
36	1	3113	A
36	1	3116	G
36	1	3119	U
36	1	3122	A
36	1	3130	A
36	1	3131	U
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
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	3166	C
36	1	3168	A
36	1	3169	U
36	1	3170	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3185	U
36	1	3187	A

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Mol	Chain	Res	Type
36	1	3195	U
36	1	3196	U
36	1	3198	U
36	1	3202	G
36	1	3207	U
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	3239	G
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3257	C
36	1	3259	U
36	1	3270	U
36	1	3271	G
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3282	U
36	1	3286	G
36	1	3287	U
36	1	3289	G
36	1	3293	U
36	1	3294	A
36	1	3295	A
36	1	3304	U
36	1	3307	A
36	1	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G

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Mol	Chain	Res	Type
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	3360	C
36	1	3369	G
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3386	G
36	1	3389	U
36	1	3390	G
37	3	13	A
37	3	14	U
37	3	22	A
37	3	32	U
37	3	42	A
37	3	50	U
37	3	54	U
37	3	65	G
37	3	73	C
37	3	74	C
37	3	76	A
37	3	91	G
37	3	92	A
37	3	102	A
37	3	104	A
37	3	112	G
37	3	121	U
38	4	13	A
38	4	21	C
38	4	26	U
38	4	34	U
38	4	35	C
38	4	47	C
38	4	51	G
38	4	52	A
38	4	53	A

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Mol	Chain	Res	Type
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	85	G
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	108	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
38	4	148	G
38	4	152	G
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	39	A
1	6	44	U
1	6	46	A
1	6	47	A
1	6	57	G
1	6	60	U

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Mol	Chain	Res	Type
1	6	63	G
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	103	A
1	6	104	A
1	6	114	C
1	6	125	U
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	143	G
1	6	144	U
1	6	145	A
1	6	146	U
1	6	159	U
1	6	166	C
1	6	175	G
1	6	178	U
1	6	179	A
1	6	185	U
1	6	187	G
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	197	A
1	6	199	G
1	6	200	A
1	6	215	A

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Mol	Chain	Res	Type
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	234	G
1	6	235	G
1	6	240	U
1	6	241	U
1	6	246	G
1	6	249	U
1	6	250	C
1	6	260	U
1	6	261	U
1	6	262	U
1	6	265	A
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	285	G
1	6	287	G
1	6	299	A
1	6	301	A
1	6	308	C
1	6	313	U
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C

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Mol	Chain	Res	Type
1	6	322	G
1	6	323	A
1	6	337	G
1	6	338	C
1	6	352	A
1	6	357	G
1	6	359	A
1	6	360	A
1	6	361	C
1	6	369	A
1	6	370	A
1	6	381	C
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	417	A
1	6	418	G
1	6	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	464	A
1	6	469	C
1	6	477	A
1	6	480	G
1	6	484	C
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	492	A
1	6	493	U
1	6	494	U
1	6	495	C
1	6	496	G

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Mol	Chain	Res	Type
1	6	497	G
1	6	500	C
1	6	501	U
1	6	502	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	513	U
1	6	514	G
1	6	515	A
1	6	519	C
1	6	527	A
1	6	536	C
1	6	538	A
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	594	A
1	6	595	G
1	6	597	G
1	6	609	U
1	6	611	U
1	6	619	A

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Mol	Chain	Res	Type
1	6	620	A
1	6	622	A
1	6	623	A
1	6	637	C
1	6	639	U
1	6	640	U
1	6	651	G
1	6	652	G
1	6	653	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	696	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	726	C
1	6	730	G
1	6	739	G

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Mol	Chain	Res	Type
1	6	742	U
1	6	751	G
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	766	U
1	6	774	A
1	6	775	G
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	787	G
1	6	789	A
1	6	793	A
1	6	803	A
1	6	806	A
1	6	811	A
1	6	812	A
1	6	814	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
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	861	U
1	6	863	A
1	6	864	U
1	6	865	A
1	6	898	A
1	6	906	A
1	6	910	C

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Mol	Chain	Res	Type
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A
1	6	971	A
1	6	991	G
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1020	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1072	C
1	6	1076	A
1	6	1082	C
1	6	1083	G
1	6	1084	A
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

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Mol	Chain	Res	Type
1	6	1108	G
1	6	1109	G
1	6	1138	A
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1160	A
1	6	1164	G
1	6	1167	G
1	6	1185	U
1	6	1193	A
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1203	A
1	6	1206	U
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1239	U
1	6	1240	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1261	G
1	6	1275	A
1	6	1286	U

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Mol	Chain	Res	Type
1	6	1297	G
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1338	C
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1348	A
1	6	1352	G
1	6	1354	G
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1367	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1384	A
1	6	1388	A
1	6	1390	U
1	6	1391	A
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1415	U
1	6	1424	A
1	6	1425	A
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1431	C
1	6	1433	G
1	6	1435	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1458	G

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Mol	Chain	Res	Type
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1469	A
1	6	1471	A
1	6	1478	G
1	6	1482	C
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1506	G
1	6	1514	U
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1526	A
1	6	1527	C
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1548	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1584	G
1	6	1590	G
1	6	1600	A
1	6	1601	G
1	6	1616	G
1	6	1618	C
1	6	1620	C
1	6	1621	U
1	6	1631	A
1	6	1634	C

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Mol	Chain	Res	Type
1	6	1657	U
1	6	1658	G
1	6	1680	G
1	6	1683	C
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1703	C
1	6	1710	U
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1730	A
1	6	1736	G
1	6	1750	A
1	6	1760	G
1	6	1762	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1783	C
1	6	1788	G
1	6	1789	G
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	26	A
36	5	40	A
36	5	44	U
36	5	49	A

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Mol	Chain	Res	Type
36	5	52	A
36	5	54	C
36	5	57	A
36	5	59	G
36	5	60	A
36	5	65	A
36	5	66	A
36	5	76	G
36	5	89	A
36	5	92	G
36	5	96	G
36	5	99	A
36	5	109	A
36	5	110	G
36	5	111	C
36	5	116	A
36	5	117	U
36	5	118	U
36	5	120	G
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U
36	5	136	G
36	5	150	A
36	5	152	U
36	5	156	G
36	5	157	A
36	5	161	G
36	5	165	A
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	178	U
36	5	180	C
36	5	181	U
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U

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Mol	Chain	Res	Type
36	5	210	U
36	5	211	A
36	5	218	G
36	5	219	A
36	5	221	A
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	247	C
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	259	C
36	5	269	G
36	5	270	U
36	5	271	C
36	5	284	A
36	5	286	U
36	5	294	U
36	5	295	A
36	5	311	C
36	5	315	C
36	5	323	A
36	5	326	U
36	5	329	U
36	5	334	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	376	G
36	5	377	A
36	5	398	A
36	5	399	A
36	5	401	U

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Mol	Chain	Res	Type
36	5	402	A
36	5	403	C
36	5	404	G
36	5	421	G
36	5	422	A
36	5	437	G
36	5	438	A
36	5	439	C
36	5	440	A
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	507	U
36	5	516	A
36	5	521	A
36	5	532	A
36	5	535	G
36	5	538	G
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	553	U
36	5	555	U
36	5	557	A
36	5	559	A
36	5	569	A
36	5	578	A
36	5	579	G
36	5	585	A
36	5	592	A
36	5	600	G
36	5	604	G
36	5	608	A
36	5	609	G
36	5	611	A
36	5	612	U
36	5	619	A
36	5	620	U
36	5	621	A

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Mol	Chain	Res	Type
36	5	630	A
36	5	636	C
36	5	640	U
36	5	649	A
36	5	660	A
36	5	677	A
36	5	681	U
36	5	683	U
36	5	691	A
36	5	705	A
36	5	709	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	737	G
36	5	747	A
36	5	758	C
36	5	763	G
36	5	766	U
36	5	776	U
36	5	777	U
36	5	780	A
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	809	G
36	5	817	A
36	5	830	A
36	5	846	A
36	5	851	C
36	5	854	G
36	5	861	C
36	5	874	U
36	5	879	U
36	5	880	G
36	5	881	C
36	5	882	A

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Mol	Chain	Res	Type
36	5	884	A
36	5	890	C
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	913	A
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	926	A
36	5	937	G
36	5	938	C
36	5	944	C
36	5	947	G
36	5	959	C
36	5	960	U
36	5	961	C
36	5	963	G
36	5	979	U
36	5	984	G
36	5	986	U
36	5	993	G
36	5	994	G
36	5	1000	C
36	5	1001	G
36	5	1002	A
36	5	1010	G
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G
36	5	1019	G
36	5	1021	G
36	5	1022	U
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A

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Mol	Chain	Res	Type
36	5	1028	U
36	5	1029	G
36	5	1032	C
36	5	1034	U
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1064	A
36	5	1065	A
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1087	G
36	5	1093	A
36	5	1094	U
36	5	1096	U
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1117	G
36	5	1129	A
36	5	1131	G
36	5	1144	U
36	5	1152	G
36	5	1153	A
36	5	1154	A
36	5	1159	A
36	5	1174	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1196	C
36	5	1201	C
36	5	1202	A
36	5	1209	G
36	5	1222	G
36	5	1223	A
36	5	1232	C

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Mol	Chain	Res	Type
36	5	1233	G
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1285	G
36	5	1294	A
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1330	A
36	5	1331	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1356	U
36	5	1357	G
36	5	1386	A
36	5	1399	A
36	5	1400	G
36	5	1403	C
36	5	1419	A
36	5	1421	G
36	5	1429	G
36	5	1431	G
36	5	1434	G
36	5	1435	A
36	5	1437	C
36	5	1450	G

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Mol	Chain	Res	Type
36	5	1454	A
36	5	1465	A
36	5	1480	G
36	5	1481	A
36	5	1482	A
36	5	1484	U
36	5	1488	G
36	5	1503	A
36	5	1508	C
36	5	1519	G
36	5	1527	C
36	5	1528	G
36	5	1531	C
36	5	1536	G
36	5	1539	A
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	1581	C
36	5	1582	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1593	A
36	5	1605	A

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Mol	Chain	Res	Type
36	5	1620	U
36	5	1621	A
36	5	1629	U
36	5	1632	A
36	5	1635	G
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1682	U
36	5	1687	U
36	5	1702	U
36	5	1713	G
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1750	A
36	5	1751	G
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1769	G
36	5	1770	G
36	5	1780	G
36	5	1794	G
36	5	1795	U
36	5	1797	A
36	5	1812	G
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1821	U
36	5	1839	A
36	5	1841	A
36	5	1842	A

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Mol	Chain	Res	Type
36	5	1846	C
36	5	1847	A
36	5	1849	C
36	5	1850	A
36	5	1851	G
36	5	1858	A
36	5	1859	A
36	5	1876	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1886	A
36	5	1892	G
36	5	1893	A
36	5	1906	G
36	5	1918	C
36	5	1935	G
36	5	1952	G
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2117	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2157	G
36	5	2158	A
36	5	2169	G
36	5	2170	U
36	5	2184	U
36	5	2187	G
36	5	2205	U
36	5	2208	A
36	5	2209	U
36	5	2210	G
36	5	2222	A
36	5	2223	A
36	5	2225	U
36	5	2244	A

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Mol	Chain	Res	Type
36	5	2246	G
36	5	2250	G
36	5	2251	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2288	G
36	5	2298	U
36	5	2303	A
36	5	2304	C
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2318	U
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2364	G
36	5	2366	C
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2386	A
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2399	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2405	C

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Mol	Chain	Res	Type
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2438	A
36	5	2439	A
36	5	2441	A
36	5	2443	A
36	5	2444	C
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	2524	A
36	5	2525	G
36	5	2526	C
36	5	2530	G
36	5	2531	C
36	5	2532	U
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2544	U
36	5	2549	G
36	5	2552	C
36	5	2555	G
36	5	2559	U
36	5	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2570	U
36	5	2571	U

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Mol	Chain	Res	Type
36	5	2572	C
36	5	2574	G
36	5	2580	A
36	5	2584	G
36	5	2585	G
36	5	2589	G
36	5	2593	A
36	5	2594	C
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2618	G
36	5	2626	A
36	5	2638	C
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2683	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2714	G
36	5	2728	G
36	5	2729	U
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2780	A
36	5	2796	G
36	5	2797	C
36	5	2799	A
36	5	2800	G

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Mol	Chain	Res	Type
36	5	2801	A
36	5	2802	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2826	U
36	5	2834	G
36	5	2839	G
36	5	2843	U
36	5	2845	A
36	5	2847	A
36	5	2849	C
36	5	2853	A
36	5	2860	U
36	5	2871	G
36	5	2872	A
36	5	2873	U
36	5	2876	C
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2900	A
36	5	2901	G
36	5	2922	G
36	5	2923	U
36	5	2924	U
36	5	2935	U
36	5	2936	A
36	5	2941	A
36	5	2942	C
36	5	2943	G
36	5	2947	G
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2976	A
36	5	2977	G
36	5	2979	U
36	5	2983	C

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Mol	Chain	Res	Type
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3046	A
36	5	3049	A
36	5	3050	U
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3084	C
36	5	3086	A
36	5	3092	C
36	5	3102	G
36	5	3119	U
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3153	U
36	5	3154	C
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3177	G
36	5	3179	U
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U

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Mol	Chain	Res	Type
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3224	G
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3243	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
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	3281	U
36	5	3282	U
36	5	3283	U
36	5	3284	G
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3302	U
36	5	3304	U
36	5	3313	U
36	5	3314	A
36	5	3316	A
36	5	3317	U
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3332	U
36	5	3333	G
36	5	3341	U

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Mol	Chain	Res	Type
36	5	3342	A
36	5	3343	G
36	5	3345	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3376	A
36	5	3378	C
36	5	3382	U
36	5	3389	U
36	5	3391	A
36	5	3393	U
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	23	A
37	7	33	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	79	A
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	112	G
38	8	14	C
38	8	34	U
38	8	35	C
38	8	41	A
38	8	48	A
38	8	59	A
38	8	62	C
38	8	63	G

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Mol	Chain	Res	Type
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	86	U
38	8	87	G
38	8	90	U
38	8	95	G
38	8	96	A
38	8	97	A
38	8	99	C
38	8	101	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	122	U
38	8	125	U
38	8	126	A
38	8	127	U
38	8	138	A
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (289) 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	130	C
1	2	131	C
1	2	132	U
1	2	139	C

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Mol	Chain	Res	Type
1	2	144	U
1	2	158	U
1	2	187	G
1	2	192	U
1	2	218	A
1	2	240	U
1	2	278	U
1	2	280	U
1	2	400	A
1	2	417	A
1	2	497	G
1	2	498	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	510	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	782	U
1	2	794	U
1	2	811	A
1	2	829	A
1	2	1051	G
1	2	1058	U
1	2	1081	A
1	2	1157	A
1	2	1196	A
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1339	C
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1517	U

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Mol	Chain	Res	Type
1	2	1568	C
1	2	1573	A
1	2	1600	A
1	2	1615	C
1	2	1657	U
1	2	1696	G
1	2	1698	G
1	2	1711	C
1	2	1761	U
36	1	43	A
36	1	65	A
36	1	93	C
36	1	217	U
36	1	239	G
36	1	282	G
36	1	397	A
36	1	547	G
36	1	588	G
36	1	594	U
36	1	715	A
36	1	763	G
36	1	764	U
36	1	816	A
36	1	873	C
36	1	916	G
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1181	U
36	1	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
36	1	1484	U
36	1	1507	G
36	1	1562	C

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Mol	Chain	Res	Type
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	1846	C
36	1	1849	C
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2249	G
36	1	2281	A
36	1	2297	U
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2418	G
36	1	2513	U
36	1	2537	U
36	1	2538	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2656	A
36	1	2689	A
36	1	2704	A
36	1	2728	G
36	1	2801	A
36	1	2818	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3157	U
36	1	3169	U
36	1	3195	U
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3228	C
36	1	3269	U

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Mol	Chain	Res	Type
36	1	3275	U
36	1	3316	A
36	1	3319	U
36	1	3333	G
36	1	3350	C
36	1	3351	U
36	1	3353	G
37	3	13	A
37	3	49	G
38	4	85	G
38	4	90	U
38	4	111	A
38	4	125	U
1	6	25	C
1	6	66	U
1	6	76	A
1	6	103	A
1	6	114	C
1	6	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	272	U
1	6	277	U
1	6	322	G
1	6	400	A
1	6	417	A
1	6	468	A
1	6	512	A
1	6	539	G
1	6	542	A
1	6	555	A
1	6	558	U
1	6	651	G
1	6	667	U
1	6	678	A
1	6	717	C
1	6	755	A
1	6	829	A

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Mol	Chain	Res	Type
1	6	834	G
1	6	1051	G
1	6	1058	U
1	6	1081	A
1	6	1097	U
1	6	1238	A
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1481	C
1	6	1491	U
1	6	1535	U
1	6	1568	C
1	6	1572	G
1	6	1573	A
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	151	A
36	5	210	U
36	5	217	U
36	5	218	G
36	5	238	A
36	5	438	A
36	5	546	C
36	5	594	U
36	5	647	A
36	5	715	A
36	5	735	A
36	5	765	C
36	5	816	A
36	5	873	C
36	5	896	A
36	5	916	G
36	5	937	G
36	5	960	U
36	5	993	G
36	5	1027	A

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Mol	Chain	Res	Type
36	5	1033	U
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1222	G
36	5	1238	C
36	5	1241	U
36	5	1284	C
36	5	1307	G
36	5	1317	A
36	5	1329	U
36	5	1331	U
36	5	1352	A
36	5	1355	A
36	5	1481	A
36	5	1507	G
36	5	1560	G
36	5	1589	A
36	5	1716	U
36	5	1815	U
36	5	1816	A
36	5	1846	C
36	5	1878	G
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2256	A
36	5	2372	A
36	5	2418	G
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2539	C
36	5	2593	A
36	5	2689	A
36	5	2704	A
36	5	2728	G
36	5	2772	C
36	5	2801	A

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Mol	Chain	Res	Type
36	5	2818	U
36	5	2872	A
36	5	2887	A
36	5	2896	A
36	5	2971	A
36	5	2996	U
36	5	3056	U
36	5	3078	U
36	5	3154	C
36	5	3167	A
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3242	G
36	5	3269	U
36	5	3275	U
36	5	3289	G
36	5	3340	G
36	5	3341	U
36	5	3357	U
37	7	49	G
38	8	83	C
38	8	89	A
38	8	111	A
38	8	126	A
38	8	156	U

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 2558 ligands modelled in this entry, 1425 are monoatomic - leaving 1133 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and

the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3860	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3861	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3862	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3863	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3864	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3865	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
88	ZBA	1	4206	85	35,36,36	1.13	2 (5%)	44,58,58	1.03	1 (2%)
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4255	-	0,6,6	0.00	-	0,15,15	0.00	-
88	ZBA	5	4256	85	35,36,36	1.22	2 (5%)	44,58,58	1.10	3 (6%)
86	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	600	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3860	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3861	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3862	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3863	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3864	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
88	ZBA	1	4206	85	1/1/13/14	0/18/83/83	0/1/4/4
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	3	214	-	-	0/0/0/0	0/0/0/0
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	4	237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4255	-	-	0/0/0/0	0/0/0/0
88	ZBA	5	4256	85	-	0/18/83/83	0/1/4/4
86	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2205	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2206	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2207	-	-	0/0/0/0	0/0/0/0
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	7	228	-	-	0/0/0/0	0/0/0/0
86	OHX	7	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	213	-	-	0/0/0/0	0/0/0/0
86	OHX	8	214	-	-	0/0/0/0	0/0/0/0
86	OHX	8	215	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	C1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M6	202	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	207	-	-	0/0/0/0	0/0/0/0
86	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	S9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	203	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	600	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	203	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	306	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	205	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
88	5	4256	ZBA	C45-C46	-3.80	1.46	1.51
88	1	4206	ZBA	C45-C46	-2.25	1.48	1.51
88	1	4206	ZBA	C48-C46	5.55	1.51	1.33
88	5	4256	ZBA	C48-C46	5.60	1.51	1.33

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	1	4206	ZBA	C47-C46-C48	-4.33	110.81	121.72
88	5	4256	ZBA	C47-C46-C48	-3.93	111.81	121.72
88	5	4256	ZBA	C37-C28-C35	-2.01	108.32	112.96
88	5	4256	ZBA	O10-C34-C29	3.04	116.44	112.38

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
88	1	4206	ZBA	C35

There are no torsion outliers.

There are no ring outliers.

417 monomers are involved in 613 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3861	OHX	1	0
86	1	3862	OHX	1	0
86	1	3864	OHX	1	0
86	1	3865	OHX	2	0
86	1	3867	OHX	1	0
86	1	3869	OHX	1	0
86	1	3873	OHX	1	0
86	1	3876	OHX	1	0
86	1	3878	OHX	1	0
86	1	3879	OHX	2	0
86	1	3880	OHX	1	0
86	1	3884	OHX	1	0
86	1	3887	OHX	1	0
86	1	3891	OHX	1	0
86	1	3893	OHX	1	0
86	1	3895	OHX	1	0
86	1	3900	OHX	1	0
86	1	3906	OHX	2	0
86	1	3908	OHX	1	0
86	1	3909	OHX	2	0
86	1	3912	OHX	1	0
86	1	3921	OHX	2	0
86	1	3925	OHX	2	0
86	1	3927	OHX	2	0
86	1	3928	OHX	1	0
86	1	3934	OHX	1	0
86	1	3940	OHX	1	0
86	1	3941	OHX	1	0
86	1	3945	OHX	1	0
86	1	3948	OHX	1	0
86	1	3951	OHX	1	0
86	1	3952	OHX	5	0
86	1	3953	OHX	1	0
86	1	3957	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3958	OHX	1	0
86	1	3960	OHX	1	0
86	1	3962	OHX	1	0
86	1	3963	OHX	1	0
86	1	3966	OHX	6	0
86	1	3967	OHX	1	0
86	1	3970	OHX	3	0
86	1	3971	OHX	1	0
86	1	3974	OHX	1	0
86	1	3975	OHX	1	0
86	1	3976	OHX	2	0
86	1	3978	OHX	1	0
86	1	3981	OHX	1	0
86	1	3991	OHX	1	0
86	1	3995	OHX	1	0
86	1	3997	OHX	4	0
86	1	4002	OHX	1	0
86	1	4004	OHX	1	0
86	1	4007	OHX	1	0
86	1	4011	OHX	1	0
86	1	4013	OHX	1	0
86	1	4024	OHX	1	0
86	1	4026	OHX	5	0
86	1	4027	OHX	1	0
86	1	4028	OHX	1	0
86	1	4033	OHX	2	0
86	1	4035	OHX	1	0
86	1	4037	OHX	1	0
86	1	4038	OHX	2	0
86	1	4039	OHX	6	0
86	1	4041	OHX	2	0
86	1	4050	OHX	4	0
86	1	4051	OHX	2	0
86	1	4054	OHX	1	0
86	1	4056	OHX	1	0
86	1	4057	OHX	1	0
86	1	4060	OHX	1	0
86	1	4067	OHX	1	0
86	1	4068	OHX	1	0
86	1	4069	OHX	1	0
86	1	4073	OHX	1	0
86	1	4074	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4078	OHX	1	0
86	1	4079	OHX	2	0
86	1	4081	OHX	1	0
86	1	4082	OHX	1	0
86	1	4089	OHX	1	0
86	1	4090	OHX	1	0
86	1	4092	OHX	1	0
86	1	4098	OHX	1	0
86	1	4103	OHX	2	0
86	1	4112	OHX	2	0
86	1	4114	OHX	1	0
86	1	4116	OHX	2	0
86	1	4119	OHX	1	0
86	1	4125	OHX	1	0
86	1	4126	OHX	2	0
86	1	4127	OHX	1	0
86	1	4129	OHX	1	0
86	1	4133	OHX	4	0
86	1	4136	OHX	1	0
86	1	4138	OHX	2	0
86	1	4141	OHX	1	0
86	1	4142	OHX	1	0
86	1	4145	OHX	1	0
86	1	4149	OHX	1	0
86	1	4150	OHX	3	0
86	1	4151	OHX	7	0
86	1	4154	OHX	1	0
86	1	4159	OHX	1	0
86	1	4160	OHX	1	0
86	1	4163	OHX	2	0
86	1	4167	OHX	4	0
86	1	4174	OHX	1	0
86	1	4176	OHX	5	0
86	1	4178	OHX	1	0
86	1	4190	OHX	1	0
86	1	4192	OHX	7	0
86	1	4193	OHX	1	0
86	1	4196	OHX	1	0
86	1	4200	OHX	1	0
88	1	4206	ZBA	2	0
86	2	2027	OHX	1	0
86	2	2029	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2034	OHX	5	0
86	2	2035	OHX	1	0
86	2	2037	OHX	1	0
86	2	2039	OHX	1	0
86	2	2041	OHX	1	0
86	2	2042	OHX	2	0
86	2	2044	OHX	1	0
86	2	2045	OHX	1	0
86	2	2047	OHX	6	0
86	2	2048	OHX	2	0
86	2	2050	OHX	1	0
86	2	2053	OHX	1	0
86	2	2054	OHX	1	0
86	2	2056	OHX	1	0
86	2	2060	OHX	2	0
86	2	2061	OHX	1	0
86	2	2062	OHX	1	0
86	2	2067	OHX	1	0
86	2	2073	OHX	1	0
86	2	2074	OHX	1	0
86	2	2075	OHX	1	0
86	2	2076	OHX	1	0
86	2	2077	OHX	2	0
86	2	2079	OHX	1	0
86	2	2081	OHX	1	0
86	2	2085	OHX	1	0
86	2	2087	OHX	2	0
86	2	2089	OHX	1	0
86	2	2092	OHX	2	0
86	2	2093	OHX	5	0
86	2	2095	OHX	1	0
86	2	2096	OHX	1	0
86	2	2097	OHX	1	0
86	2	2098	OHX	1	0
86	2	2099	OHX	2	0
86	2	2101	OHX	7	0
86	2	2106	OHX	1	0
86	2	2107	OHX	1	0
86	2	2110	OHX	1	0
86	2	2111	OHX	1	0
86	2	2112	OHX	1	0
86	2	2113	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2118	OHX	1	0
86	2	2119	OHX	1	0
86	2	2123	OHX	1	0
86	2	2125	OHX	1	0
86	2	2129	OHX	1	0
86	2	2132	OHX	1	0
86	2	2133	OHX	1	0
86	2	2134	OHX	6	0
86	2	2135	OHX	1	0
86	2	2138	OHX	1	0
86	2	2144	OHX	1	0
86	2	2148	OHX	2	0
86	2	2149	OHX	5	0
86	2	2151	OHX	1	0
86	2	2152	OHX	1	0
86	2	2157	OHX	2	0
86	2	2158	OHX	1	0
86	2	2160	OHX	4	0
86	2	2169	OHX	1	0
86	2	2175	OHX	1	0
86	3	217	OHX	1	0
86	3	220	OHX	1	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	226	OHX	1	0
86	4	228	OHX	1	0
86	4	229	OHX	1	0
86	4	233	OHX	2	0
86	5	3902	OHX	2	0
86	5	3904	OHX	1	0
86	5	3907	OHX	1	0
86	5	3908	OHX	1	0
86	5	3909	OHX	3	0
86	5	3911	OHX	1	0
86	5	3912	OHX	1	0
86	5	3913	OHX	2	0
86	5	3915	OHX	1	0
86	5	3918	OHX	1	0
86	5	3919	OHX	2	0
86	5	3920	OHX	1	0
86	5	3922	OHX	1	0
86	5	3924	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3925	OHX	1	0
86	5	3926	OHX	1	0
86	5	3927	OHX	2	0
86	5	3933	OHX	1	0
86	5	3934	OHX	1	0
86	5	3935	OHX	1	0
86	5	3939	OHX	1	0
86	5	3942	OHX	1	0
86	5	3945	OHX	7	0
86	5	3948	OHX	1	0
86	5	3951	OHX	1	0
86	5	3956	OHX	3	0
86	5	3959	OHX	3	0
86	5	3960	OHX	1	0
86	5	3962	OHX	1	0
86	5	3964	OHX	5	0
86	5	3966	OHX	1	0
86	5	3968	OHX	1	0
86	5	3971	OHX	1	0
86	5	3974	OHX	2	0
86	5	3975	OHX	3	0
86	5	3976	OHX	1	0
86	5	3978	OHX	1	0
86	5	3980	OHX	9	0
86	5	3985	OHX	1	0
86	5	3986	OHX	2	0
86	5	3990	OHX	1	0
86	5	3992	OHX	1	0
86	5	3994	OHX	2	0
86	5	3999	OHX	1	0
86	5	4002	OHX	1	0
86	5	4004	OHX	7	0
86	5	4005	OHX	5	0
86	5	4006	OHX	1	0
86	5	4012	OHX	1	0
86	5	4014	OHX	6	0
86	5	4016	OHX	1	0
86	5	4017	OHX	1	0
86	5	4018	OHX	1	0
86	5	4024	OHX	6	0
86	5	4027	OHX	1	0
86	5	4028	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4030	OHX	1	0
86	5	4031	OHX	1	0
86	5	4032	OHX	1	0
86	5	4035	OHX	1	0
86	5	4037	OHX	2	0
86	5	4038	OHX	1	0
86	5	4048	OHX	1	0
86	5	4049	OHX	1	0
86	5	4050	OHX	1	0
86	5	4054	OHX	1	0
86	5	4055	OHX	1	0
86	5	4059	OHX	6	0
86	5	4069	OHX	1	0
86	5	4070	OHX	2	0
86	5	4072	OHX	1	0
86	5	4076	OHX	1	0
86	5	4078	OHX	1	0
86	5	4080	OHX	1	0
86	5	4081	OHX	1	0
86	5	4083	OHX	1	0
86	5	4084	OHX	1	0
86	5	4085	OHX	3	0
86	5	4092	OHX	1	0
86	5	4093	OHX	7	0
86	5	4094	OHX	1	0
86	5	4095	OHX	2	0
86	5	4098	OHX	1	0
86	5	4101	OHX	1	0
86	5	4104	OHX	2	0
86	5	4107	OHX	2	0
86	5	4108	OHX	1	0
86	5	4112	OHX	1	0
86	5	4113	OHX	1	0
86	5	4121	OHX	1	0
86	5	4122	OHX	1	0
86	5	4132	OHX	1	0
86	5	4133	OHX	1	0
86	5	4140	OHX	2	0
86	5	4142	OHX	1	0
86	5	4143	OHX	1	0
86	5	4144	OHX	1	0
86	5	4145	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4146	OHX	1	0
86	5	4149	OHX	1	0
86	5	4154	OHX	1	0
86	5	4155	OHX	1	0
86	5	4161	OHX	1	0
86	5	4162	OHX	1	0
86	5	4170	OHX	1	0
86	5	4175	OHX	2	0
86	5	4179	OHX	1	0
86	5	4180	OHX	1	0
86	5	4181	OHX	1	0
86	5	4182	OHX	1	0
86	5	4183	OHX	1	0
86	5	4185	OHX	1	0
86	5	4187	OHX	1	0
86	5	4188	OHX	2	0
86	5	4192	OHX	2	0
86	5	4194	OHX	2	0
86	5	4197	OHX	1	0
86	5	4200	OHX	1	0
86	5	4201	OHX	11	0
86	5	4202	OHX	7	0
86	5	4203	OHX	7	0
86	5	4204	OHX	2	0
86	5	4211	OHX	1	0
86	5	4220	OHX	6	0
86	5	4222	OHX	1	0
86	5	4227	OHX	1	0
86	5	4229	OHX	1	0
86	5	4231	OHX	1	0
86	5	4237	OHX	6	0
86	5	4239	OHX	2	0
86	5	4241	OHX	1	0
86	5	4243	OHX	1	0
86	5	4246	OHX	4	0
86	5	4250	OHX	1	0
86	5	4252	OHX	1	0
86	5	4253	OHX	1	0
88	5	4256	ZBA	3	0
86	6	2049	OHX	1	0
86	6	2054	OHX	1	0
86	6	2055	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2056	OHX	1	0
86	6	2059	OHX	1	0
86	6	2060	OHX	5	0
86	6	2062	OHX	2	0
86	6	2066	OHX	1	0
86	6	2069	OHX	1	0
86	6	2071	OHX	1	0
86	6	2072	OHX	2	0
86	6	2074	OHX	2	0
86	6	2075	OHX	1	0
86	6	2080	OHX	1	0
86	6	2089	OHX	1	0
86	6	2090	OHX	1	0
86	6	2091	OHX	1	0
86	6	2093	OHX	1	0
86	6	2094	OHX	1	0
86	6	2096	OHX	1	0
86	6	2097	OHX	1	0
86	6	2101	OHX	3	0
86	6	2102	OHX	1	0
86	6	2103	OHX	2	0
86	6	2104	OHX	1	0
86	6	2106	OHX	1	0
86	6	2108	OHX	3	0
86	6	2109	OHX	2	0
86	6	2110	OHX	1	0
86	6	2112	OHX	1	0
86	6	2113	OHX	1	0
86	6	2115	OHX	2	0
86	6	2120	OHX	1	0
86	6	2121	OHX	7	0
86	6	2122	OHX	1	0
86	6	2124	OHX	2	0
86	6	2125	OHX	1	0
86	6	2127	OHX	3	0
86	6	2129	OHX	1	0
86	6	2131	OHX	3	0
86	6	2138	OHX	1	0
86	6	2139	OHX	1	0
86	6	2145	OHX	1	0
86	6	2148	OHX	1	0
86	6	2149	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2151	OHX	1	0
86	6	2152	OHX	1	0
86	6	2153	OHX	1	0
86	6	2156	OHX	2	0
86	6	2161	OHX	1	0
86	6	2164	OHX	1	0
86	6	2165	OHX	1	0
86	6	2173	OHX	7	0
86	6	2177	OHX	1	0
86	6	2180	OHX	2	0
86	6	2181	OHX	1	0
86	6	2185	OHX	1	0
86	6	2189	OHX	1	0
86	6	2192	OHX	3	0
86	6	2193	OHX	1	0
86	6	2205	OHX	1	0
86	7	220	OHX	1	0
86	7	222	OHX	1	0
86	7	228	OHX	1	0
86	8	213	OHX	1	0
86	8	214	OHX	1	0
86	8	215	OHX	5	0
86	8	216	OHX	2	0
86	8	218	OHX	1	0
86	8	219	OHX	1	0
86	8	222	OHX	1	0
86	8	223	OHX	6	0
86	8	224	OHX	1	0
86	8	225	OHX	1	0
86	8	227	OHX	1	0
86	C1	201	OHX	1	0
86	C5	201	OHX	2	0
86	C8	201	OHX	1	0
86	L3	404	OHX	3	0
86	L3	405	OHX	1	0
86	L4	403	OHX	1	0
86	M5	303	OHX	1	0
86	M7	206	OHX	1	0
86	M7	207	OHX	1	0
86	M9	202	OHX	1	0
86	N1	201	OHX	1	0
86	O1	201	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	O2	201	OHX	1	0
86	O3	202	OHX	2	0
86	O7	103	OHX	4	0
86	Q2	503	OHX	1	0
86	S9	201	OHX	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	2	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2	1716:C	O3'	1717:G	P	4.21
1	2	1685:G	O3'	1686:C	P	2.96

## 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.