Full wwPDB X-ray Structure Validation Report (i)

Feb 1, 2016 – 10:00 PM GMT

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

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

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

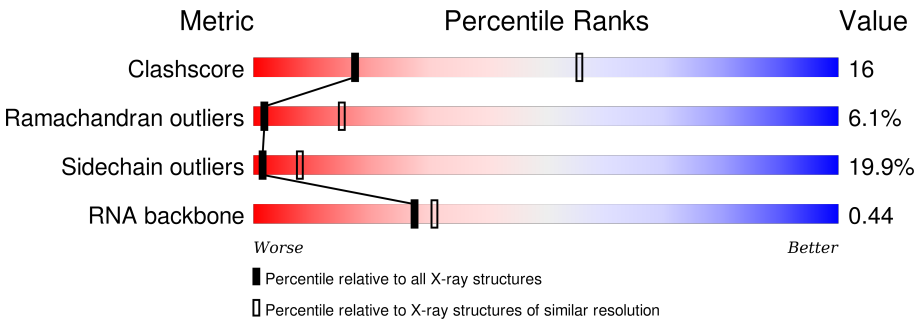
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	FAILED
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RNA backbone	2183	1079 (3.70-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	32% 43% 19% • •
1	6	1800	34% 44% 19% •
2	S0	251	25% 43% 14% • 18%
2	s0	251	62% 18% • 18%
3	S1	254	15% 49% 18% • 16%
3	s1	254	66% 18% • 15%

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Mol	Chain	Length	Quality of chain
4	S2	253	30% 41% 14% • 14%
4	s2	253	63% 21% • 14%
5	S3	239	36% 44% 13% • 7%
5	s3	239	72% 19% • 7%
6	S4	260	32% 52% 15% •
6	s4	260	80% 18% •
7	S5	224	25% 49% 17% • 8%
7	s5	224	68% 22% • 8%
8	S6	236	37% 48% 10% •
8	s6	236	73% 17% • 8%
9	S7	189	29% 49% 17% • •
9	s7	189	79% 17% • •
10	S8	200	34% 51% 9% • 6%
10	s8	200	76% 18% • 6%
11	S9	196	32% 45% 15% • 6%
11	s9	196	76% 17% • 6%
12	C0	105	24% 53% 13% • 9%
12	c0	105	64% 24% • 9%
13	C1	155	44% 40% 15% •
13	c1	155	72% 22% • 6%
14	C2	142	35% 35% 15% • 13%
14	c2	142	58% 27% • 13%
15	C3	150	32% 49% 16% •
15	c3	150	80% 16% •
16	C4	136	32% 40% 16% • 7%

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Mol	Chain	Length	Quality of chain
16	c4	136	76% 15% • 6%
17	C5	141	26% 50% 11% • 12%
17	c5	141	73% 21% •• •
18	C6	142	25% 57% 14% • •
18	c6	142	76% 23% •
19	C7	136	22% 50% 14% • 12%
19	c7	136	65% 20% • 14%
20	C8	145	27% 50% 19% •
20	c8	145	75% 23% •
21	C9	143	36% 48% 16%
21	c9	143	85% 14% •
22	D0	120	22% 56% 12% 11%
22	d0	120	63% 28% • 8%
23	D1	87	38% 45% 15% •
23	d1	87	74% 23% •
24	D2	129	37% 47% 15% •
24	d2	129	88% 11% •
25	D3	144	33% 45% 20% •
25	d3	144	82% 15% •
26	D4	134	31% 57% 12% •
26	d4	134	78% 21% •
27	D5	107	12% 40% 10% • 35%
27	d5	107	52% 12% 36%
28	D6	97	23% 51% 21% 6%
28	d6	97	82% 16% •

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Mol	Chain	Length	Quality of chain
29	D7	81	37% 51% 10% •
29	d7	81	83% 16% •
30	D8	66	21% 53% 20% • 5%
30	d8	66	68% 26% • 5%
31	D9	55	25% 55% 15% • •
31	d9	55	69% 24% • •
32	E0	60	40% 52% 7% •
33	E1	76	21% 36% 29% 8% 7%
33	e1	76	57% 38% 5%
34	SR	318	31% 55% 12% •
34	sR	318	86% 14%
35	SM	273	29% 21% 7% • 42%
35	sM	273	28% 9% • 62%
36	1	3396	26% 41% 22% • 7%
36	5	3396	27% 41% 20% • 7%
37	3	121	40% 41% 17% •
37	7	121	26% 51% 18% •
38	4	158	30% 44% 22% •
38	8	158	34% 44% 20% •
39	L2	253	36% 51% 12%
39	l2	253	76% 21% •
40	L3	386	39% 46% 14% •
40	l3	386	81% 19% •
41	L4	361	35% 49% 15% •
41	l4	361	78% 19% •

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Mol	Chain	Length	Quality of chain
42	L5	296	33% 54% 12% •
42	l5	296	79% 19% ••
43	L6	175	35% 47% 7% 11%
43	l6	175	75% 14% • 10%
44	L7	243	36% 47% 6% • 9%
44	l7	243	77% 13% • 8%
45	L8	255	29% 53% 10% 9%
45	l8	255	70% 20% • 9%
46	L9	191	28% 53% 17% •
46	l9	191	73% 26% •
47	M0	220	35% 44% 16% •
47	m0	220	75% 21% •
48	M1	173	31% 51% 12% • •
48	m1	173	73% 22% • • •
49	M3	198	31% 51% 13% • •
49	m3	198	75% 22% • •
50	M4	137	34% 55% 10% •
50	m4	137	79% 20% •
51	M5	203	35% 48% 16%
51	m5	203	80% 18% •
52	M6	198	40% 50% 9% ••
52	m6	198	79% 19% • •
53	M7	183	39% 50% 10% •
53	m7	183	68% 16% • 15%
54	M8	185	44% 48% 8%

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Mol	Chain	Length	Quality of chain
54	m8	185	84% 15% •
55	M9	188	38% 48% 14%
55	m9	188	84% 15% •
56	N0	172	44% 41% 15% •
56	n0	172	78% 21% •
57	N1	159	47% 40% 13% •
57	n1	159	82% 16% •
58	N2	120	28% 43% 13% 17%
58	n2	120	65% 16% • 18%
59	N3	136	43% 49% 7%
59	n3	136	85% 13% •
60	N4	155	35% 26% • • 37%
60	n4	155	70% 17% • 13%
61	N5	141	35% 37% 11% • 14%
61	n5	141	65% 17% • • 15%
62	N6	126	37% 48% 15%
62	n6	126	78% 21% •
63	N7	135	25% 55% 19% •
63	n7	135	74% 24% •
64	N8	148	29% 52% 17% •
64	n8	148	80% 17% •
65	N9	58	36% 40% 21% •
65	n9	58	69% 26% 5%
66	O0	104	37% 43% 13% 7%
66	o0	104	79% 17% •

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Mol	Chain	Length	Quality of chain
67	O1	112	35% 51% 10%
67	o1	112	70% 25%
68	O2	129	37% 47% 14%
68	o2	129	73% 25%
69	O3	106	33% 51% 15%
69	o3	106	81% 18%
70	O4	120	38% 41% 14% 7%
70	o4	120	77% 16% 7%
71	O5	119	34% 50% 15%
71	o5	119	77% 22%
72	O6	99	28% 55% 16%
72	o6	99	68% 30%
73	O7	87	31% 55% 11%
73	o7	87	79% 18%
74	O8	77	32% 52% 16%
74	o8	77	75% 25%
75	O9	50	46% 38% 16%
75	o9	50	84% 16%
76	Q0	52	37% 44% 17%
76	q0	52	75% 23%
77	Q1	25	32% 48% 20%
77	q1	25	64% 36%
78	Q2	105	40% 46% 11%
78	q2	105	82% 16%
79	Q3	91	37% 46% 16%

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Mol	Chain	Length	Quality of chain
79	q3	91	80% 20%
80	e0	62	68% 29% •
81	p0	311	38% 8% • 54%
82	m2	160	93% • 6%
83	p1	47	100%
84	p2	46	100%

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

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

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

2 Entry composition (i)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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
			Total	C	N	O	S			
14	C2	124	892	562	156	172	2	0	0	0
14	c2	124	892	562	156	172	2	0	0	0

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
			Total	C	N	O	S			
15	C3	150	1192	759	224	207	2	0	0	0
15	c3	150	1192	759	224	207	2	0	0	0

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

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

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

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

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
			Total	C	N	O			
18	C6	141	1105	708	203	194	0	0	0
18	c6	142	1111	711	204	196	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 35 is a protein called Suppressor protein STM1.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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
			Total	C	N	O	S			
71	O5	119	969	615	186	167	1	0	0	0
71	o5	119	965	612	185	167	1	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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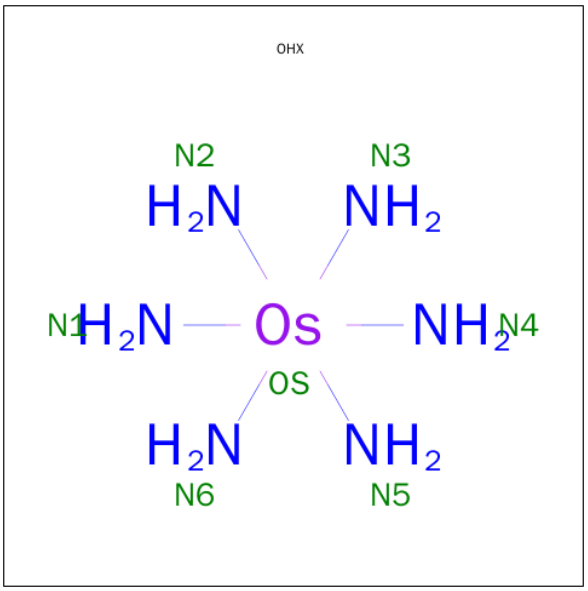
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
85	s1	1	1	1	0	0
85	l9	1	1	1	0	0
85	s8	2	2	2	0	0
85	c7	1	1	1	0	0
85	7	17	17	17	0	0
85	n3	2	2	2	0	0
85	q1	1	1	1	0	0
85	L3	3	3	3	0	0
85	O5	1	1	1	0	0
85	N6	2	2	2	0	0
85	8	14	14	14	0	0
85	l4	1	1	1	0	0
85	M6	1	1	1	0	0
85	N0	1	1	1	0	0
85	m0	1	1	1	0	0
85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

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: $H_{12}N_6Os$).



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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	7	6	1	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	7	6	1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	7	6	1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	7	6	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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86	4	1	7	6	1	0	0

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	7	6	1	0	0

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	N	Os		
86	8	1	7	6	1	0	0
			Total	N	Os		
86	8	1	7	6	1	0	0
			Total	N	Os		
86	l3	1	7	6	1	0	0
			Total	N	Os		
86	l3	1	7	6	1	0	0
			Total	N	Os		
86	l3	1	7	6	1	0	0
			Total	N	Os		
86	l4	1	7	6	1	0	0
			Total	N	Os		
86	l4	1	7	6	1	0	0
			Total	N	Os		
86	l5	1	7	6	1	0	0
			Total	N	Os		
86	l5	1	7	6	1	0	0
			Total	N	Os		
86	l5	1	7	6	1	0	0
			Total	N	Os		
86	l9	1	7	6	1	0	0
			Total	N	Os		
86	m0	1	7	6	1	0	0
			Total	N	Os		
86	m0	1	7	6	1	0	0
			Total	N	Os		
86	m1	1	7	6	1	0	0
			Total	N	Os		
86	m4	1	7	6	1	0	0
			Total	N	Os		
86	m5	1	7	6	1	0	0
			Total	N	Os		
86	m6	1	7	6	1	0	0
			Total	N	Os		
86	m7	1	7	6	1	0	0
			Total	N	Os		
86	m8	1	7	6	1	0	0
			Total	N	Os		
86	m9	1	7	6	1	0	0
			Total	N	Os		
86	n1	1	7	6	1	0	0

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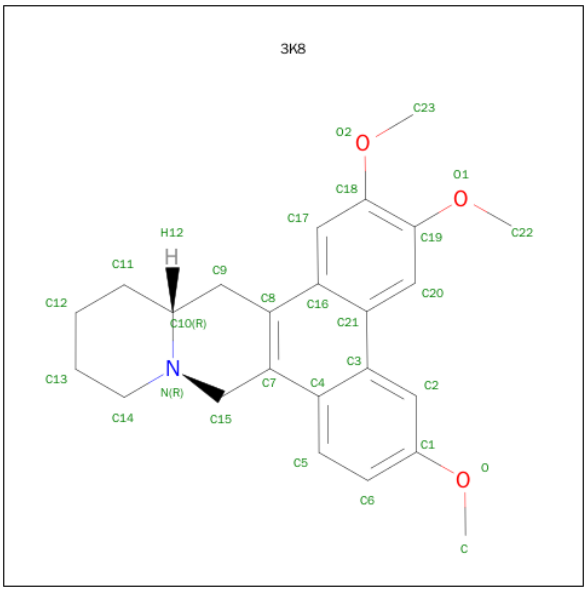
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	N	Os		
86	n3	1	7	6	1	0	0
			Total	N	Os		
86	n9	1	7	6	1	0	0
			Total	N	Os		
86	o3	1	7	6	1	0	0
			Total	N	Os		
86	q2	1	7	6	1	0	0

- Molecule 87 is (14aR)-2,3,6-trimethoxy-11,12,13,14,14a,15-hexahydro-9H-dibenzo[f,h]pyrido[1,2-b]isoquinoline (three-letter code: 3K8) (formula: $C_{24}H_{27}NO_3$).



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

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

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

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

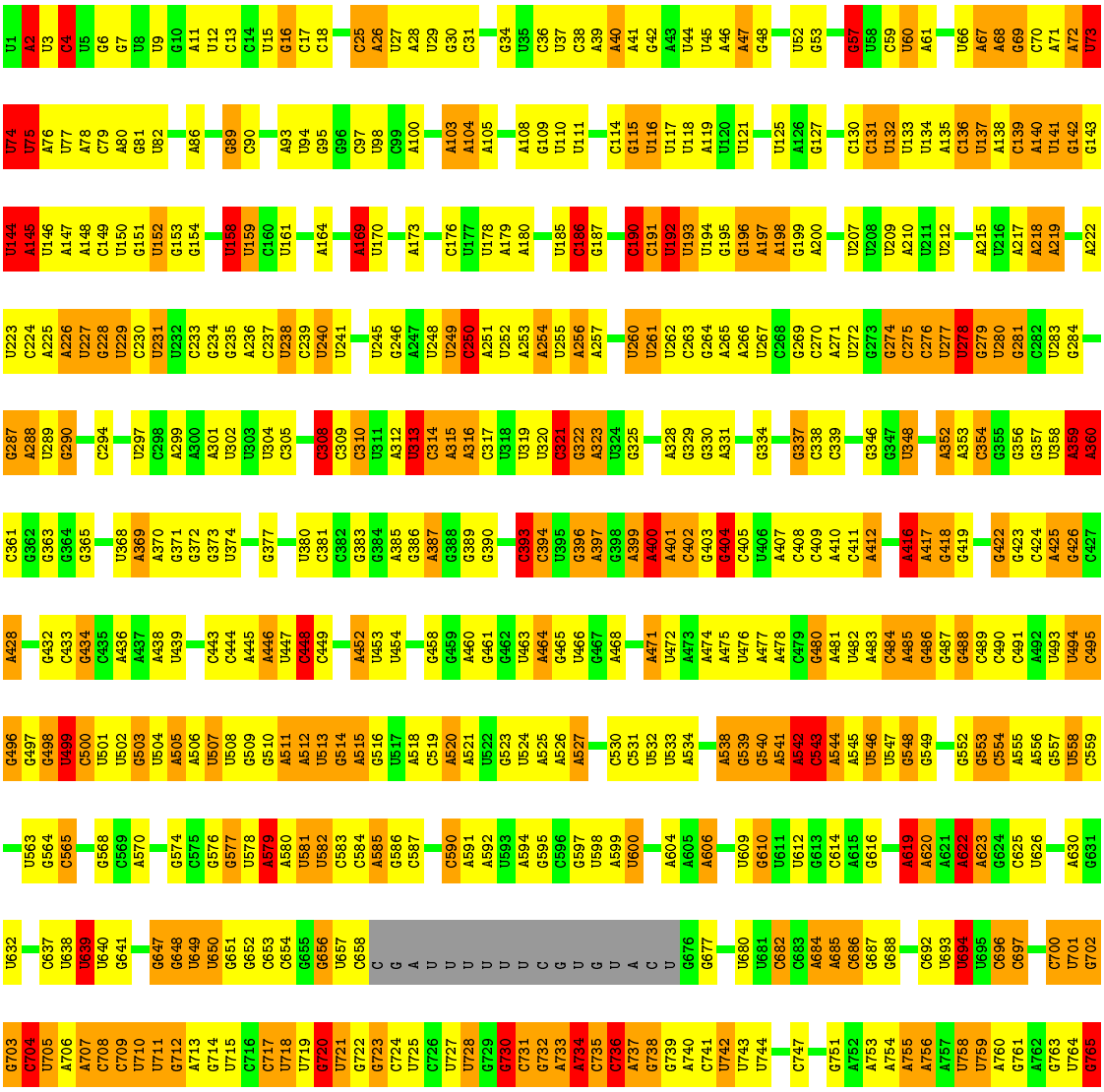
3 Residue-property plots (i)

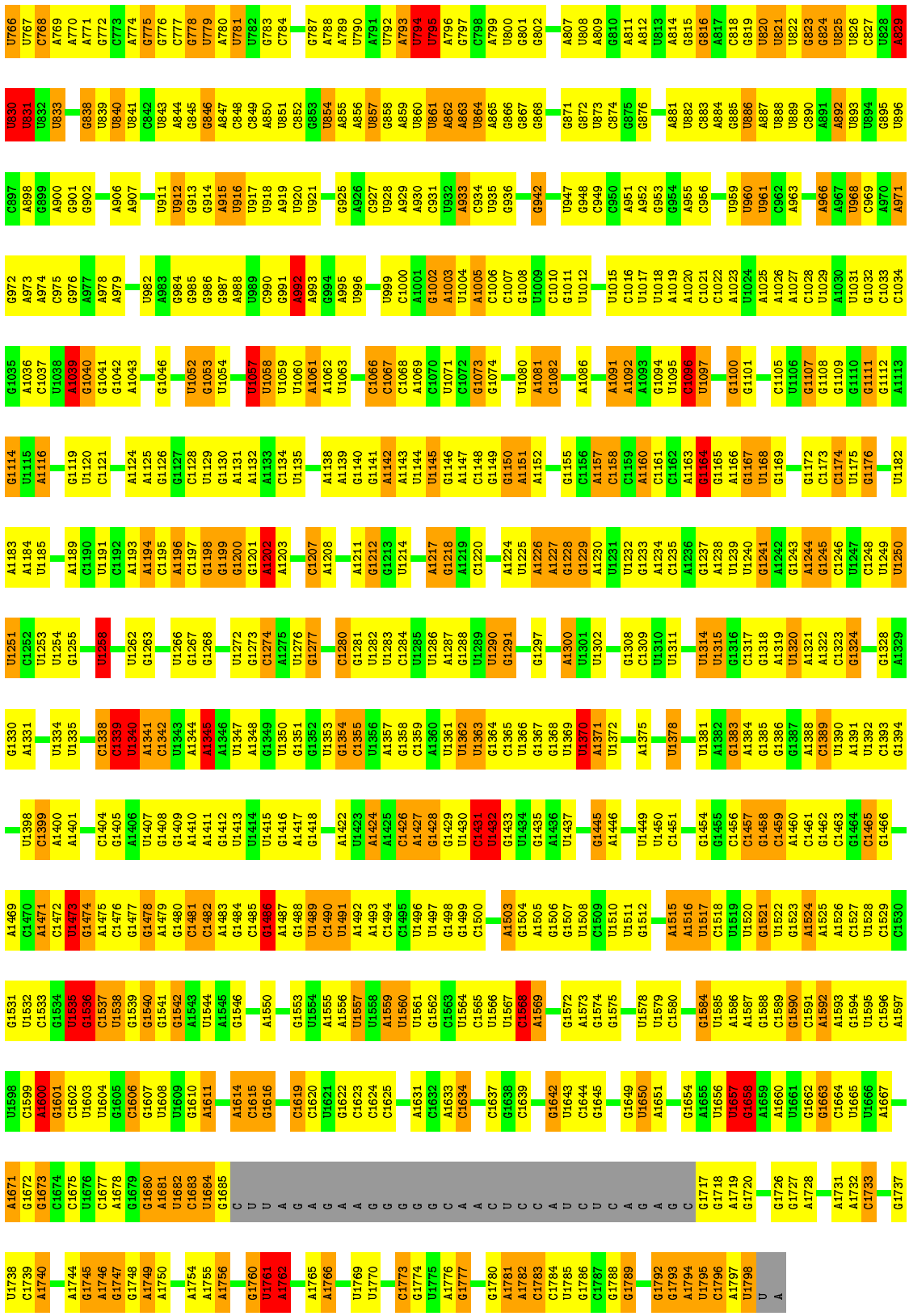
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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

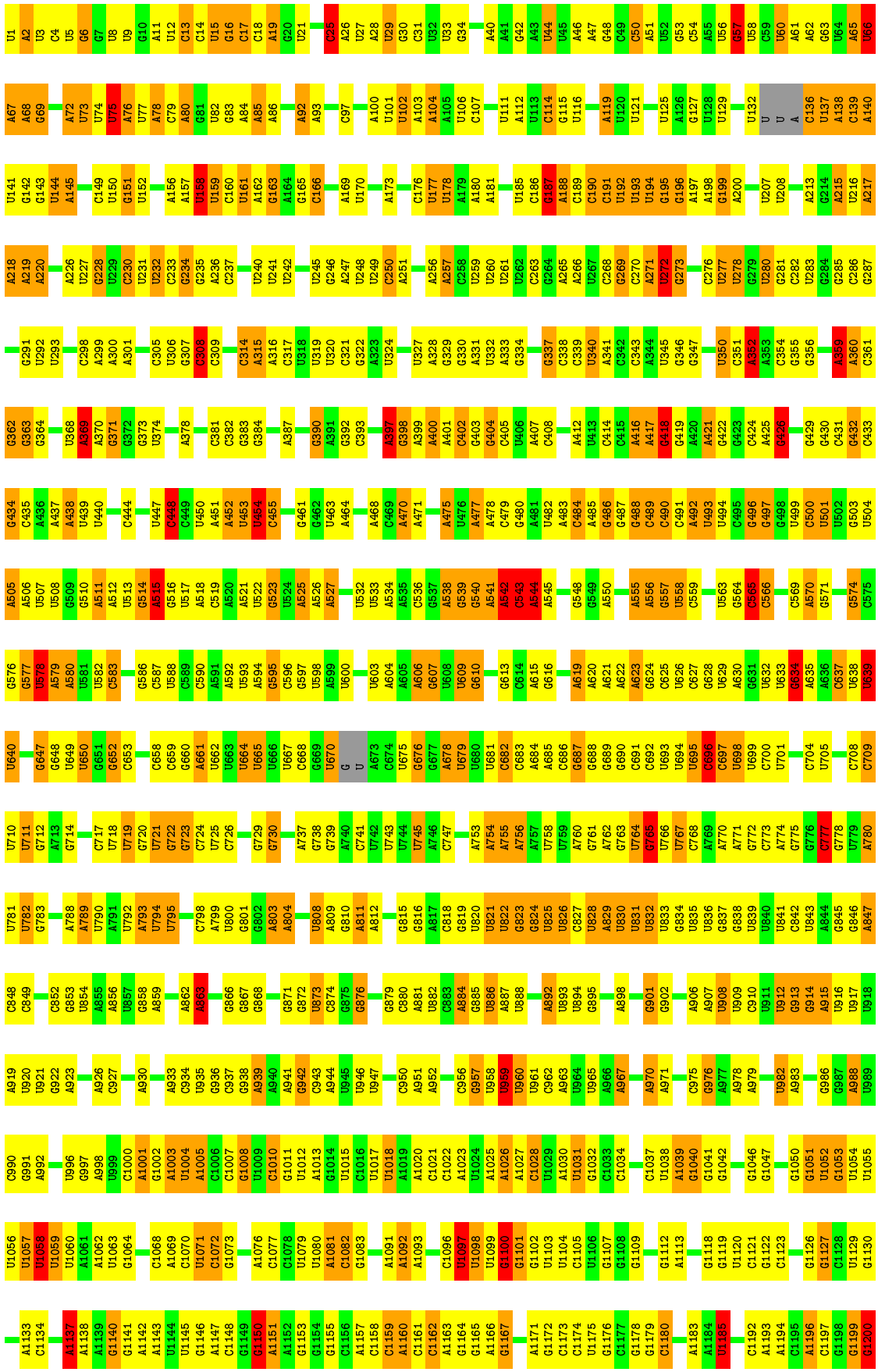
Chain 2: 32% 43% 19%





- Molecule 1: 18S ribosomal RNA

Chain 6: 34% 44% 19% •



G1201 A1202 A1203 C1207 A1208 C1209 C1210 A1211 G1212 G1213 A1217 G1218 A1219 C1220 U1225 A1226 A1227 G1228 G1229 A1230 U1231 G1237 A1238 U1239 U1240 G1241 A1242 G1243 A1244 G1245 C1246 U1247 C1248 U1249 U1250 U1251 C1252 U1253 U1254 G1255 A1256 U1257 U1258 G1263 G1264 G1265 U1266 G1267 G1268 U1269 G1270 G1271 U1272 G1273 C1274

A1275 U1276 G1277 G1278 C1279 C1280 G1281 U1282 U1285 U1286 A1287 G1288 G1291 G1294 G1297 A1300 C1309 U1314 U1315 G1316 C1317 G1318 A1319 U1320 A1321 A1322 C1323 G1324 G1328 A1329 G1330 A1331 C1332 C1333 U1334 U1335 U1340 A1341 C1342 U1343 A1344 A1345 A1346 U1347 A1348 G1349 U1350 G1351 G1354 C1355

G1358 C1359 A1360 U1361 U1362 U1363 G1364 U1369 U1370 A1371 U1372 C1373 C1374 A1375 C1376 U1377 U1378 C1379 U1380 U1381 A1382 G1383 A1384 G1385 A1388 C1389 U1390 A1391 U1392 C1393 G1394 G1395 U1396 U1397 U1398 C1399 A1400 A1401 G1402 C1403 C1404 G1405 A1406 U1407 G1408 G1409 G1412 U1413 U1414 U1415 G1416 A1417 C1420 A1421

A1424 A1425 C1426 A1427 G1428 G1429 U1430 C1431 U1432 G1433 U1434 G1435 A1436 U1437 G1438 C1439 C1440 G1445 A1446 C1447 G1448 U1449 U1450 C1451 U1452 G1453 G1454 G1455 C1456 C1457 G1458 C1459 A1460 C1461 G1462 C1465 A1469 C1470 A1471 C1472 U1473 G1474 G1478 A1479 G1480 C1481 C1482 A1487 G1488 U1489 C1490 U1491 A1492 A1493 C1494

C1495 U1496 U1497 G1498 G1499 C1500 C1501 G1502 A1503 G1506 G1507 U1508 U1511 G1512 G1513 U1514 A1515 A1516 U1517 C1518 G1521 U1522 G1523 A1524 A1525 A1526 C1529 C1530 G1531 U1532 C1533 G1534 U1535 G1536 C1537 U1538 G1539 G1540 G1541 G1542 A1543 U1544 A1545 G1546 A1547 G1548 U1552 G1553 U1554 A1555 A1556 U1557 U1558 A1559 U1560

U1564 C1565 U1566 U1567 C1568 A1569 A1570 C1571 G1572 A1573 G1574 G1575 A1576 A1577 U1578 U1579 C1580 C1581 U1582 A1583 G1584 G1588 C1589 G1590 C1591 U1595 C1596 A1597 A1600 G1601 C1602 U1603 U1604 U1608 U1609 G1610 A1611 A1614 C1615 G1616 U1617 C1618 C1619 C1620 U1621 G1622 C1623 C1624 C1625 U1626 G1629 U1630 A1631

C1634 A1635 C1636 C1637 G1638 C1639 C1640 C1641 G1642 U1643 C1644 G1645 A1648 G1649 U1650 A1651 C1652 C1653 G1654 U1657 G1658 G1662 U1665 U1666 G1670 A1671 G1672 G1673 C1674 C1675 G1679 G1680 A1681 U1682 C1683 U1684 U1688 A1689 G1690 A1691 G1692 G1695 G1696 G1697 G1698 G1699 C1700 A1701 A1702 C1703 U1704

C1705 C1706 A1712 G1713 A1714 G1715 C1716 G1717 G1720 U1724 U1725 G1726 G1727 A1728 A1731 U1735 G1736 A1740 U1741 U1742 U1743 A1744 G1745 A1746 G1747 G1748 A1749 A1750 C1751 U1752 A1753 A1754 A1755 A1756 G1757 U1758 C1759 G1760 U1761 A1762 A1765 A1766 G1767 G1768 U1769 U1770 U1771 C1772 C1773 G1774 U1775 A1776

G1780 A1781 A1782 C1783 C1784 C1787 G1788 G1789 A1790 A1791 G1792 G1793 A1794 U1795 C1796 A1797 U1798 U1799 A1800

- Molecule 2: 40S ribosomal protein S0-A

Chain S0:

S2 L3 P4 A5 T6 F7 D8 I9 T10 P11 E12 D13 A14 Q15 L16 L17 L18 N21 T22 H23 L24 N28 V29 Q30 V31 H32 Q33 E34 P35 Y36 V37 F38 N39 A40 R41 P42 V45 H46 V47 I48 N49 V50 G51 K52 T53 W54 E55 K56 L57 V58 L59 A60 A61 R62 I63 I64 A65

A66 N69 P70 E71 D72 V73 V74 A75 I76 S77 S78 R79 T80 F81 G82 Q83 R84 A85 V86 L87 K88 F89 A90 G94 A95 T96 P97 I98 A99 G100 R101 F102 T103 P104 G105 S106 F107 T108 N109 Y110 I111 T112 F115 P118 R119 L120 V121 I122 V123 T124 D125 P126 D129 A130 Q131

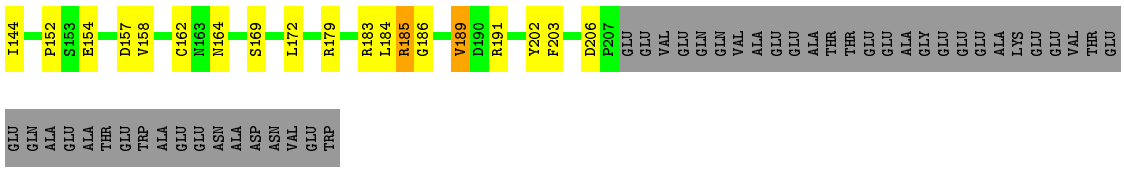
K134 E135 A136 S137 Y138 V139 N140 I141 P142 V143 I144 A145 L146 T147 D148 L149 D150 S151 P152 S153 E154 D157 V158 A159 I160 P161 C162 N163 N164 R165 G166 K167 H168 S169 I170 G171 L172 I173 W174 Y175 L176 L177 A178 R179 E180 V181 L182 R183 L184 R185 G186 A187 L188 V189 D190 R191 T192 Q193

P194 W195 S196 I197 M198 P199 D200 L201 Y202 F203 P207 GLU GLU VAL GLU GLN GLN GLN VAL ALA ALA GLU GLU ALA THR THR GLU GLU ALA GLY GLU GLU GLU GLU ALA LYS GLU GLU VAL THR GLU GLU GLN ALA GLU ALA THR GLU TRP ALA GLU GLU GLU ASN ALA ASP ASN VAL GLU TRP

- Molecule 2: 40S ribosomal protein S0-A

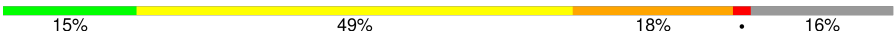
Chain s0:

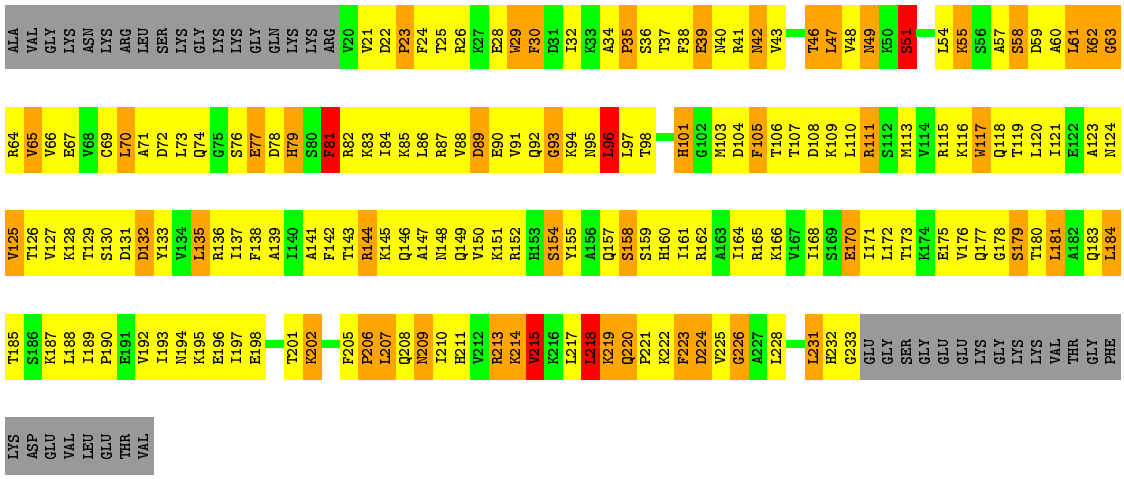
S2 L3 P4 T10 P11 E12 N28 V29 Q30 Y36 R41 V45 N49 V50 W54 L59 R62 A66 D72 I76 S77 S78 F81 L87 H92 T93 G94 A95 R101 F102 T103 S106 F107 T108 I111 R119 T124 V139



- Molecule 3: 40S ribosomal protein S1-A

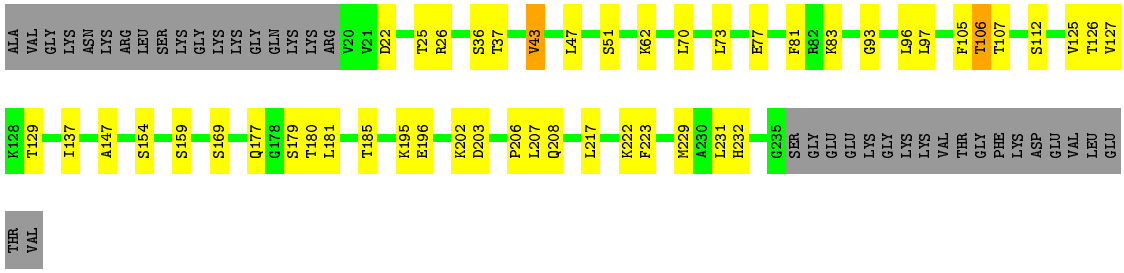
Chain S1:





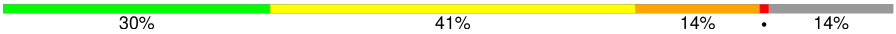
- Molecule 3: 40S ribosomal protein S1-A

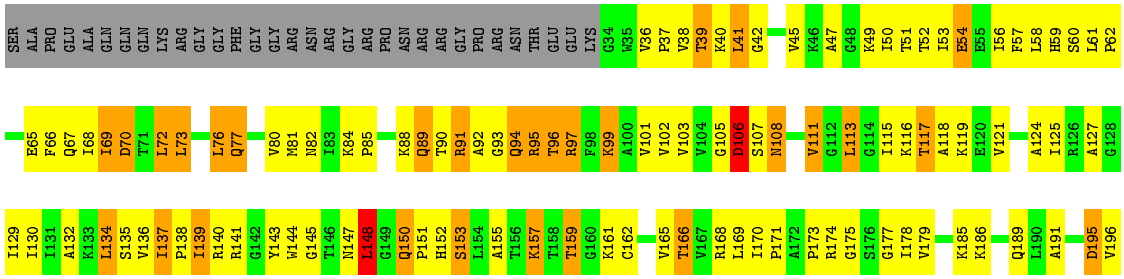
Chain s1:



- Molecule 4: 40S ribosomal protein S2

Chain S2:





Y197 T198 N201 G202 K203 T204 R205 T206 L207 E208 A213 A214 F215 I218 T221 Y222 L225 T226 P227 N228 L229 W230 P234 L235 P236 V237 S238 P239 L240 D241 I242 Y243 S244 D245 E246 A247 S248 A249 Q250 LYS LYS ARG PHE

- Molecule 4: 40S ribosomal protein S2

Chain s2:

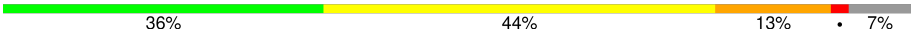
SER ALA PRO GLU ALA GLN GLN GLN LYS ARG GLY GLY PHE GLY GLY ARG ASN ARG GLY ARG PRO ASN ARG ARG GLY PRO ARG ASN THR GLU GLU LYS G34 L41 T52 I53 E54 E55 L58 H59 S60 I69 D70 L73 Q77 I83 Q87 K88 Q89 T90 R91 A92

G93 Q94 R95 T96 R97 D106 S107 V111 G112 L113 K116 T117 E120 I137 P138 I139 R140 R141 T146 G149 Q150 P151 H152 S153 K161 C162 G163 S164 V165 T166 I170 I178 P182 K185 E194 T206 L207 T210 T221 Y222 L225 T226

L229 E232 Q233 P234 L235 S238 S244 S248 A249 Q250 LYS LYS ARG PHE

- Molecule 5: 40S ribosomal protein S3

Chain S3:



VAL A3 L4 I5 S6 K7 K8 R9 K10 L11 V12 V16 F17 Y18 A19 E20 L21 N22 E23 F24 F25 T26 R27 E28 L29 A30 E31 E32 G36 V37 E38 V39 R40 V41 T42 P43 T44 K45 T46 E47 V48 I49 T53 R54 D57 V58 R64 R65 I66 N67 E68 L69 T70 L71 L72

V73 Q74 K75 R76 Y79 A80 P81 G82 T83 I84 V85 L86 E89 R90 V91 Q92 D93 R94 S97 A98 V99 A100 Q101 A102 E103 S104 M105 K106 L109 L110 N111 G112 L113 A114 I115 R116 R117 Y120 R124 Y125 V126 M127 K132 G133 C134 V137 V138 S139 G140 K141 L142 R143

A144 A145 R146 A147 K148 K151 G155 F156 I157 I158 Q162 P163 V164 N165 D166 F167 I168 D169 T170 A171 T172 R173 H174 Y175 L176 M177 R178 Q179 L182 G183 I184 K185 V186 K187 I188 M189 R190 D191 P192 A193 K194 S195 R196 T197 K200 P203 I208 I209 E210 P211 K212 E215

P216 I217 L218 A219 P220 S221 V222 K223 D224 Y225 ARG PRO ALA GLU GLU THR GLU ALA GLN ALA GLU PRO VAL GLU ALA

- Molecule 5: 40S ribosomal protein S3

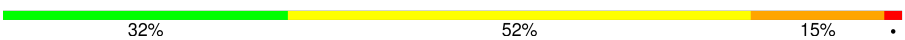
Chain s3:

VAL A3 K7 L11 L21 N22 E23 G33 Y34 S35 V39 R40 V41 T42 P43 T44 R54 E61 L69 T70 R76 I84 V85 L86 Y87 R90 D93 L113 A114 I115 R116 R117 Y125 V126 M127 E128 C134 S139 L142 R143 K148

L157 I158 Q162 P163 V164 D169 L176 M177 R178 Q179 G180 S195 R196 P211 K212 E213 P216 I217 P220 S221 V222 K223 D224 Y225 ARG PRO ALA GLU GLU THR GLU ALA GLN ALA GLU PRO VAL GLU ALA

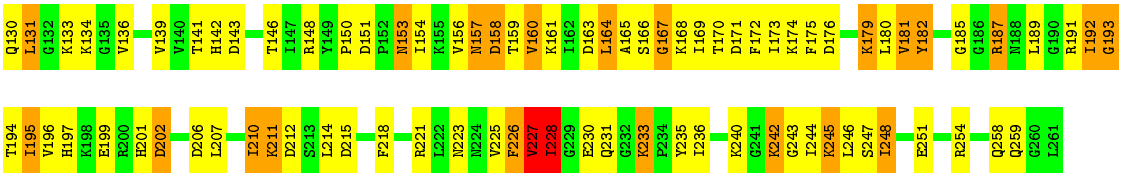
- Molecule 6: 40S ribosomal protein S4-A

Chain S4:



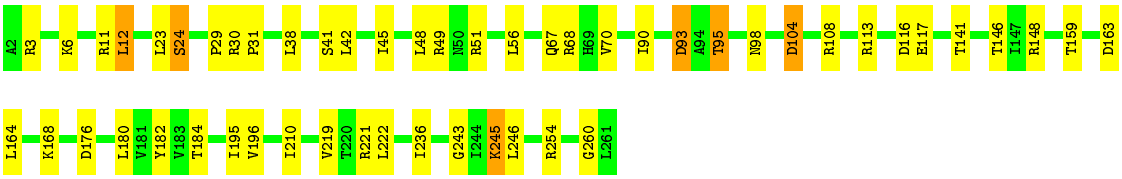
A2 R3 G4 P5 K6 K7 H8 L9 K10 R11 L12 A13 A14 P15 W18 L19 L20 D21 K22 L23 S24 G25 C26 Y27 A28 P29 R30 P31 S32 A33 G34 P35 H36 K37 L38 R39 E40 S41 L42 P43 L44 I45 V46 F47 L48 R49 N50 R51 Y54 A55 L56 N57 E60 V61 K62 A63 I64

L65 M66 Q67 R68 H69 V70 K71 V72 D73 V76 R77 T78 D79 T80 T81 Y82 P83 A84 G85 F86 M87 D88 V89 I90 T91 L92 D93 A94 T95 N96 E97 N98 F99 R100 L101 V102 Y103 D104 V105 K106 G107 R108 R113 I114 T115 D116 E117 E118 Y121 K122 L123 G124 K125 V126 K127 K128 V129



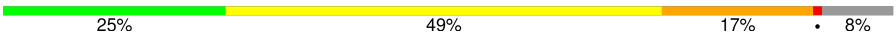
- Molecule 6: 40S ribosomal protein S4-A

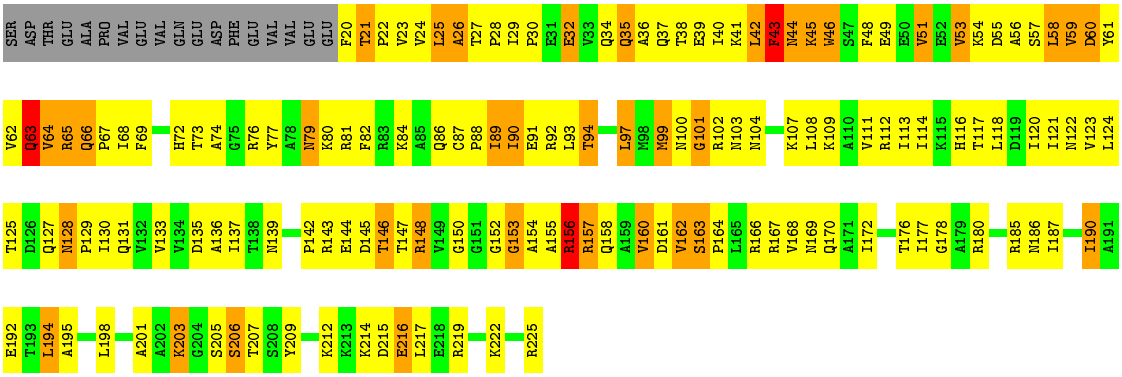
Chain s4:



- Molecule 7: 40S ribosomal protein S5

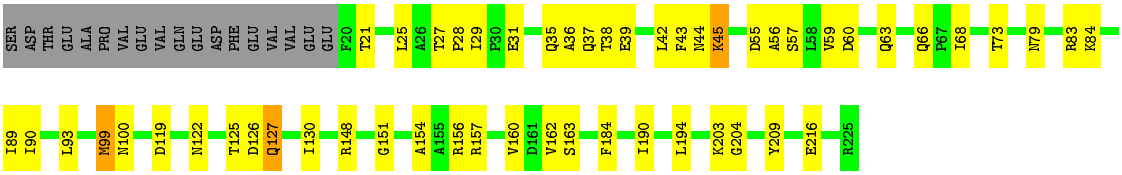
Chain S5:





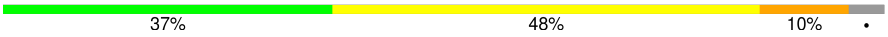
- Molecule 7: 40S ribosomal protein S5

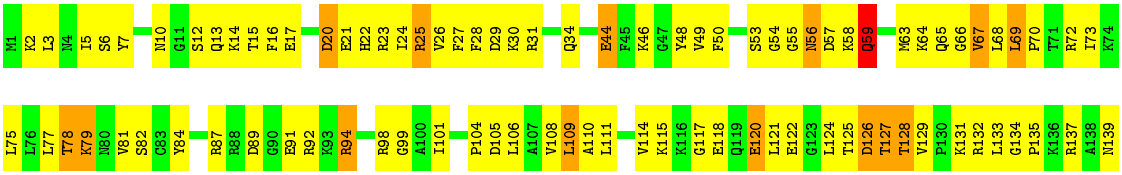
Chain s5:

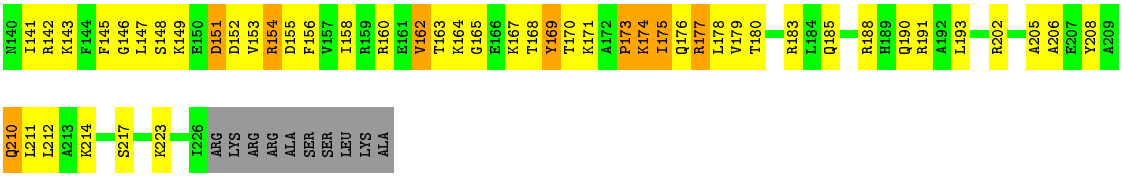


- Molecule 8: 40S ribosomal protein S6-A

Chain S6:

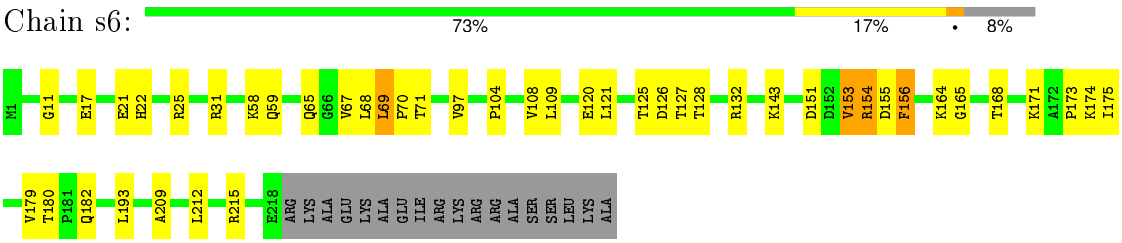






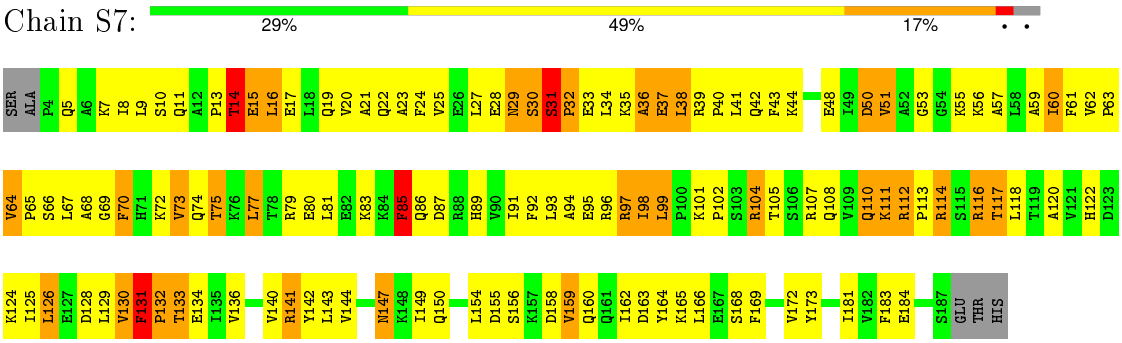
- Molecule 8: 40S ribosomal protein S6-A

Chain s6:



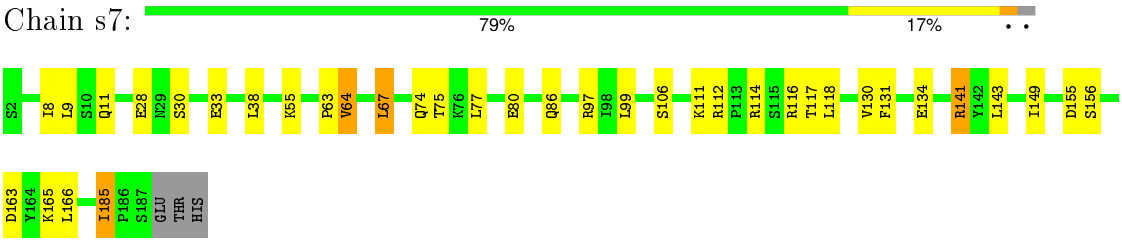
- Molecule 9: 40S ribosomal protein S7-A

Chain S7:



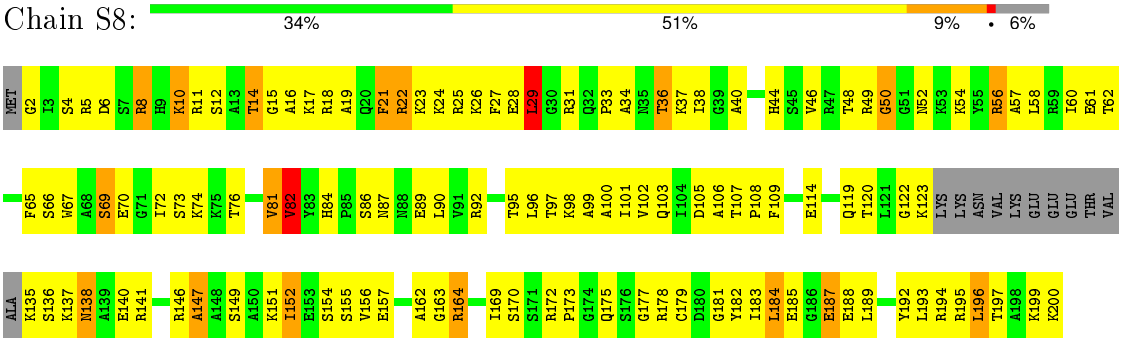
- Molecule 9: 40S ribosomal protein S7-A

Chain s7:



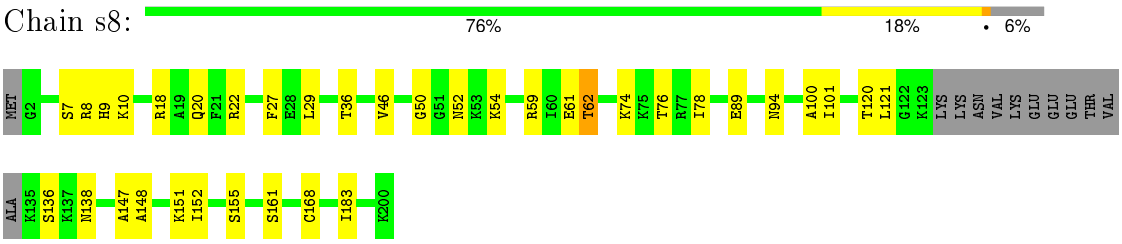
- Molecule 10: 40S ribosomal protein S8-A

Chain S8:



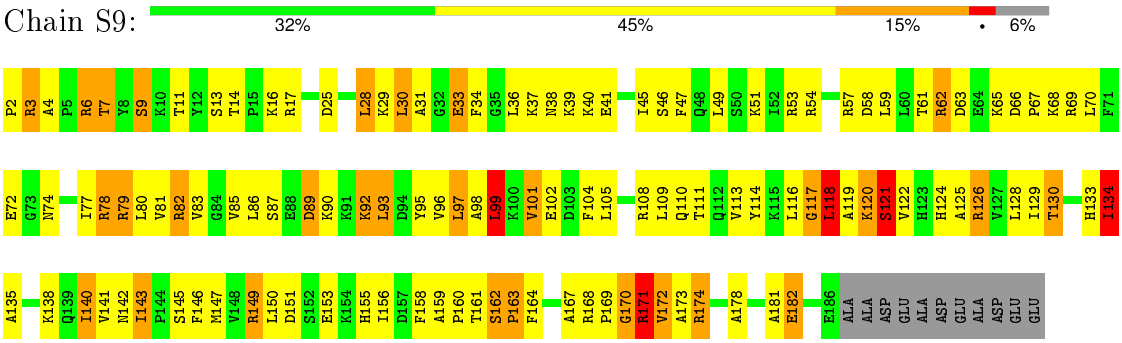
- Molecule 10: 40S ribosomal protein S8-A

Chain s8:



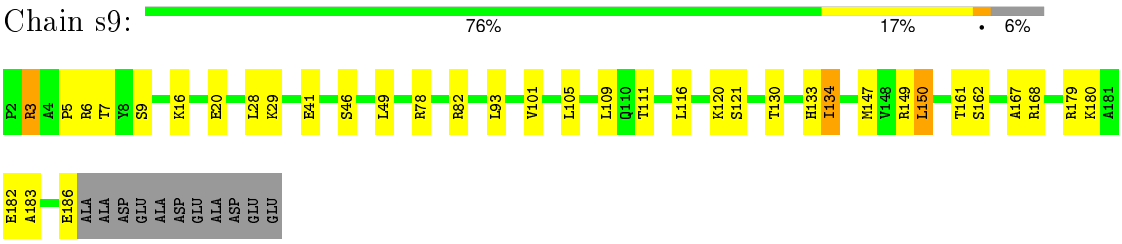
- Molecule 11: 40S ribosomal protein S9-A

Chain S9:



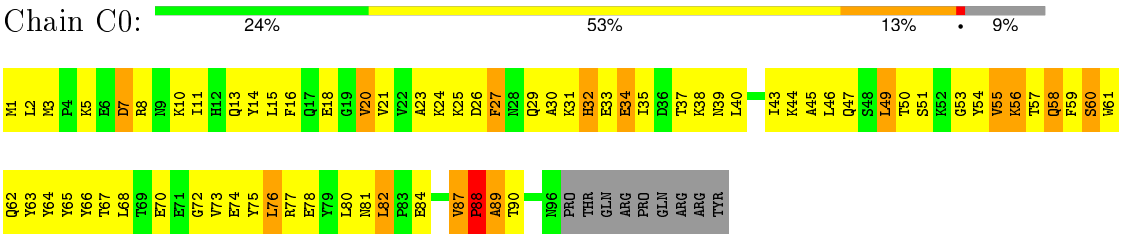
- Molecule 11: 40S ribosomal protein S9-A

Chain s9:



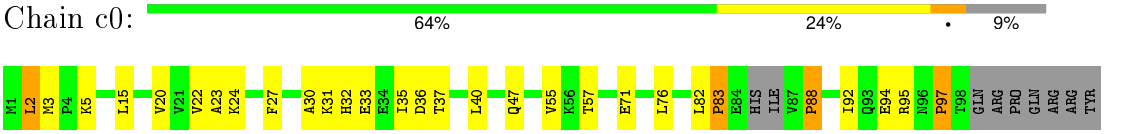
- Molecule 12: 40S ribosomal protein S10-A

Chain C0:



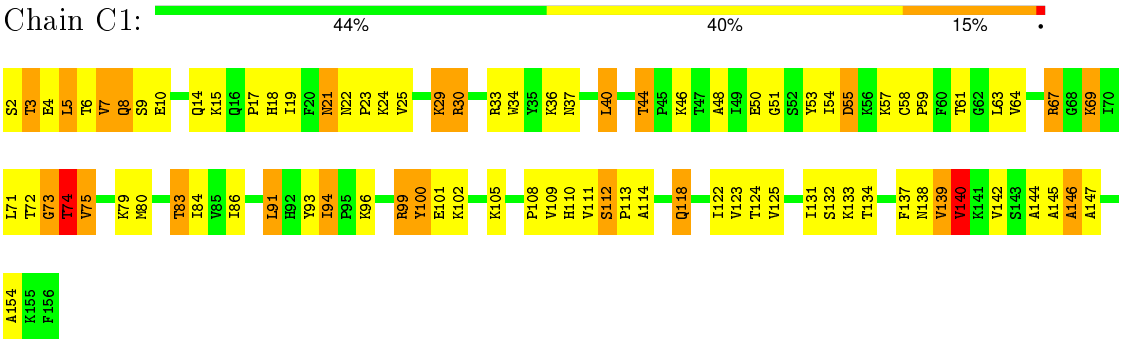
- Molecule 12: 40S ribosomal protein S10-A

Chain c0:



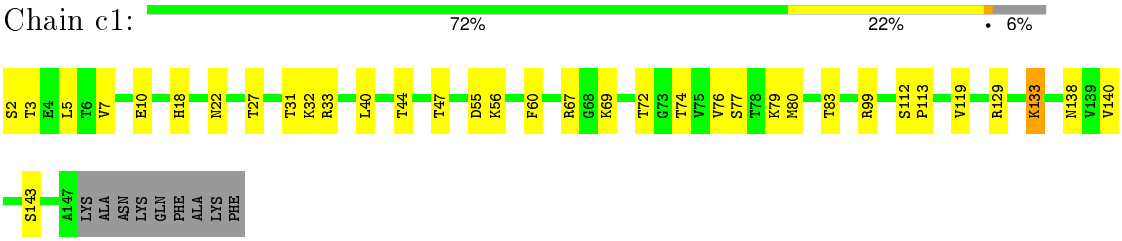
- Molecule 13: 40S ribosomal protein S11-A

Chain C1:



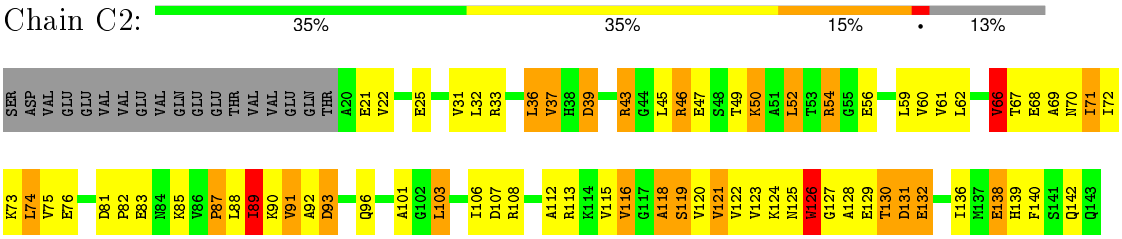
- Molecule 13: 40S ribosomal protein S11-A

Chain c1:



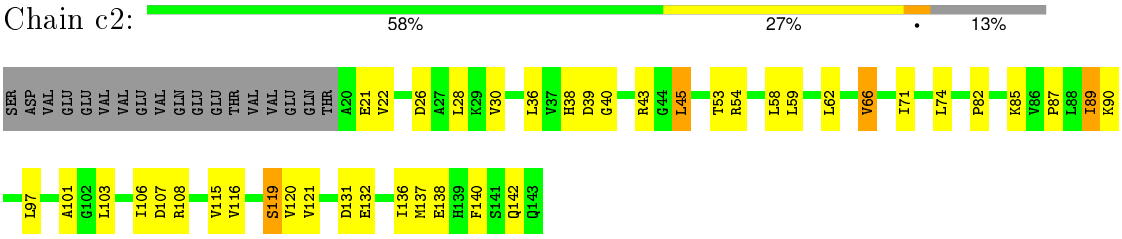
- Molecule 14: 40S ribosomal protein S12

Chain C2:



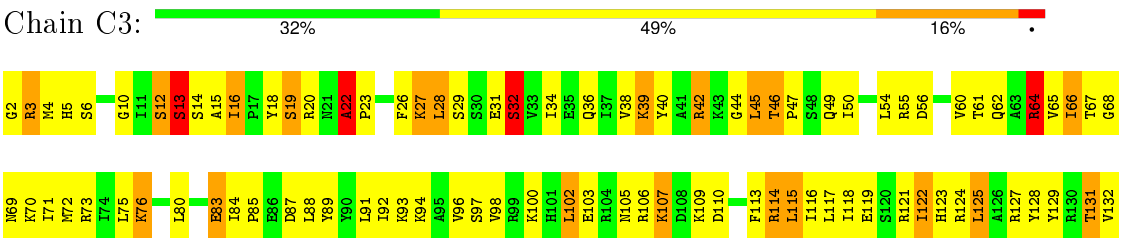
- Molecule 14: 40S ribosomal protein S12

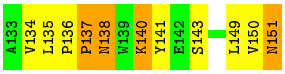
Chain c2:



- Molecule 15: 40S ribosomal protein S13

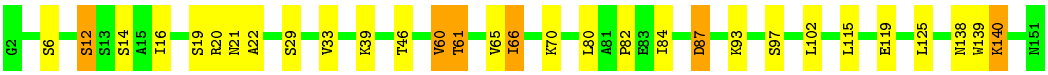
Chain C3:





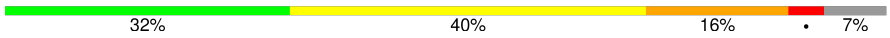
- Molecule 15: 40S ribosomal protein S13

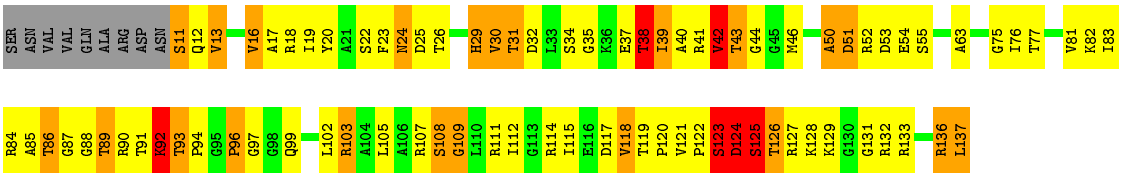
Chain c3:



- Molecule 16: 40S ribosomal protein S14-A

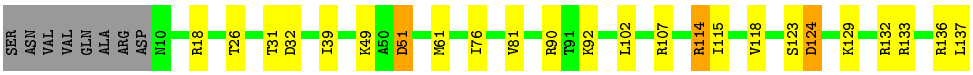
Chain C4:





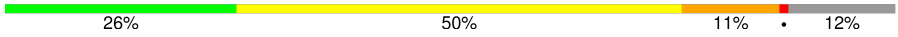
- Molecule 16: 40S ribosomal protein S14-A

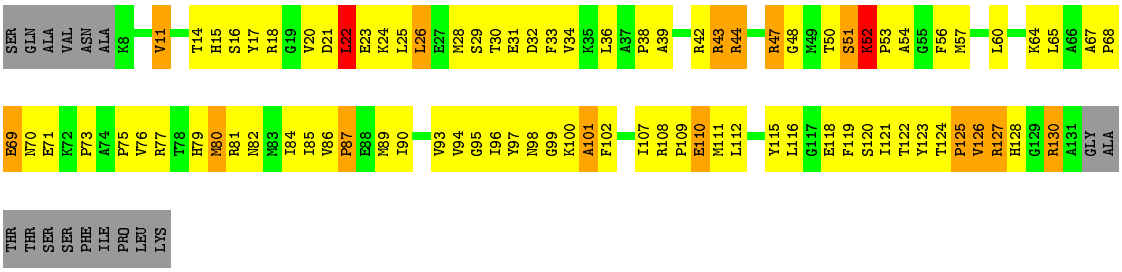
Chain c4:



- Molecule 17: 40S ribosomal protein S15

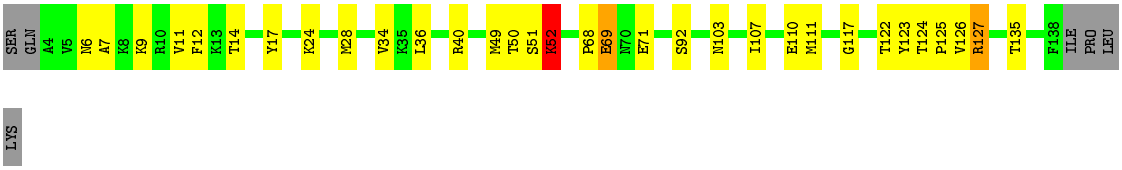
Chain C5:





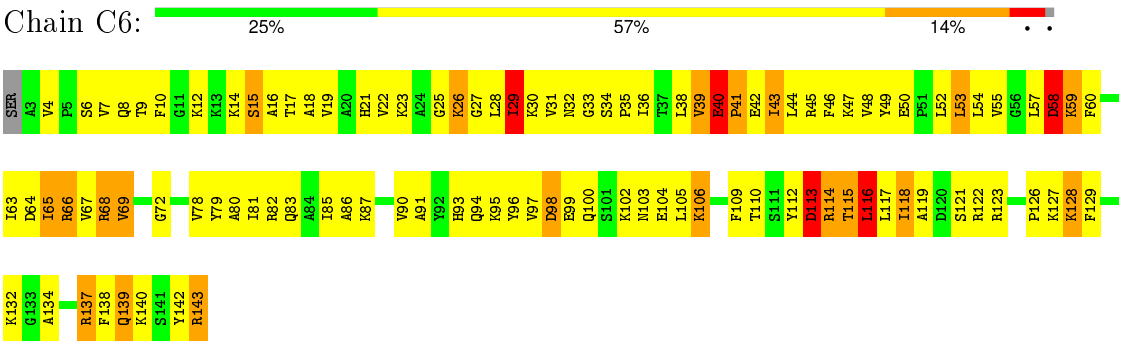
- Molecule 17: 40S ribosomal protein S15

Chain c5:



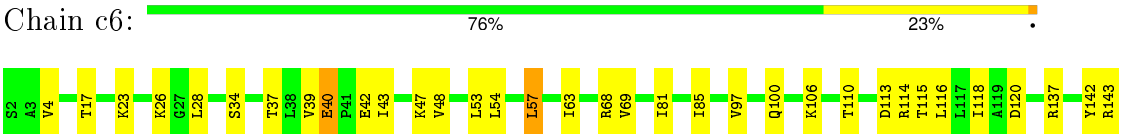
- Molecule 18: 40S ribosomal protein S16-A

Chain C6:



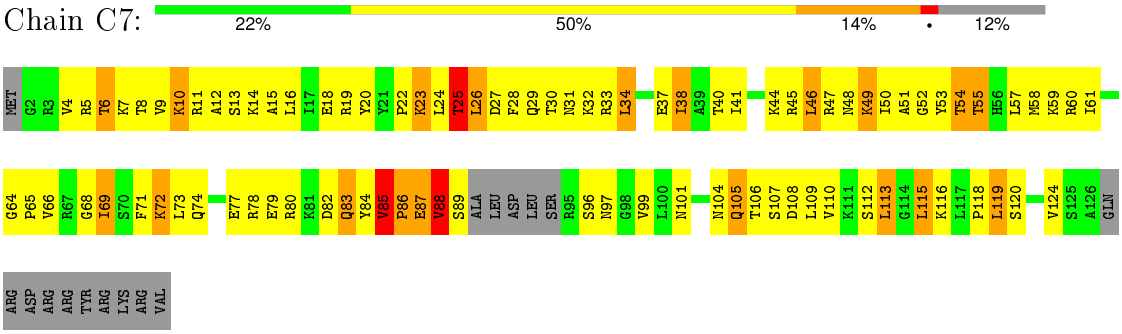
- Molecule 18: 40S ribosomal protein S16-A

Chain c6:



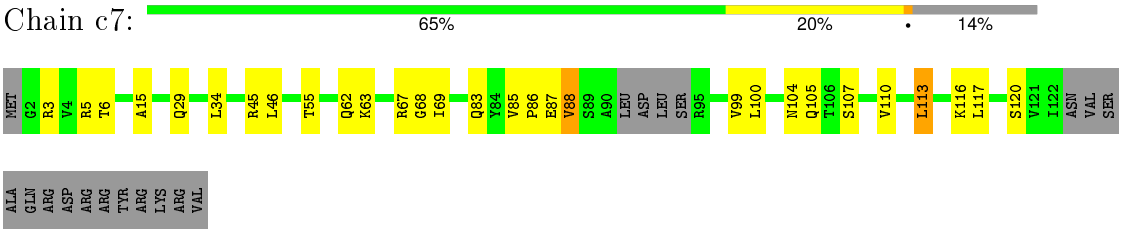
- Molecule 19: 40S ribosomal protein S17-A

Chain C7:



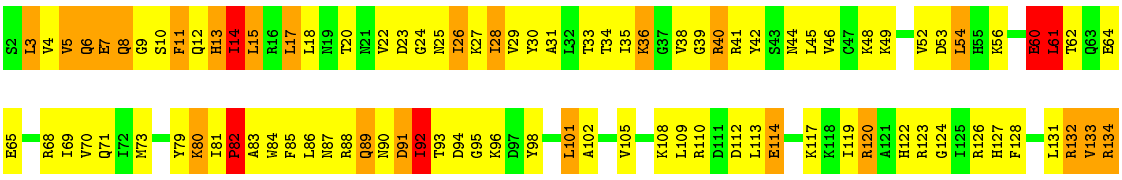
- Molecule 19: 40S ribosomal protein S17-A

Chain c7:



- Molecule 20: 40S ribosomal protein S18-A

Chain C8:



G135 Q136 H137 T138 K139 T140 T141 G142 R143 R144 R145 A146

- Molecule 20: 40S ribosomal protein S18-A

Chain c8: 75% 23% •

S2 L3 V4 V5 G9 Q12 H13 I14 L15 T20 N25 I26 K27 I28 T33 K36 R40 D51 R57 L61 T62 Q63 R68 T77 D91 I92 V105 D112 L116 I119 R120 R126 G135 Q136 H137 T138 K139 T140 T141 R144

R145 A146

- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 36% 48% 16%

P2 G3 V4 S5 V6 R7 A10 A11 Q12 D13 F14 I15 N16 A17 Y18 A19 S20 F21 L22 Q23 R24 Q25 G26 K27 L28 E29 V30 F31 G32 Y33 V34 D35 I36 V37 K38 T39 G42 N45 P46 P47 Q48 D49 G52 W53 F54 Y55 K56 R57 V61 A62 R63 H64 I65 Y66 N67

R68 K69 Q70 V71 G72 V73 G74 K75 L76 N77 K78 L79 Y80 K84 S85 R86 G87 V88 R89 P90 H93 I94 S97 G98 S99 I100 N101 R102 K103 V104 L105 L108 I111 G112 I113 V114 E115 I116 S117 P118 K119 R122 R123 I124 S125 E126 N127 R130 D131 L132 D133 R134 I135

A136 A137 L140 E144

- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 85% 14% •

P2 V6 Q12 K27 L28 Y33 V34 V37 R57 Q70 V71 K75 R86 G87 V88 R102 I111 S117 R123 T139 L140 E141 E142 D143 E144

- Molecule 22: 40S ribosomal protein S20

Chain D0: 22% 56% 12% 11%

SER ASP PHE GLN LYS GLU LYS VAL GLU GLU GLN GLU GLN Q15 Q16 Q17 Q18 I19 I20 K21 I22 R23 I24 T25 L26 T27 S28 T29 K30 V31 K32 Q33 L34 E35 N36 V37 S38 S39 N40 I41 V42 A45 E46 Q47 H48 N49 L50 V51 K52 K53 G54 P55 V56 R57 L58 K61 V62 L63

S66 T67 R68 K69 T70 P71 N72 G73 E74 K77 T78 W79 E80 T81 Y82 E83 M84 R85 I86 H87 K88 R89 Y90 I91 D92 L93 E94 A95 P96 V97 Q98 I99 V100 I103 T104 Q105 I106 T107 I108 E109 P110 G111 V112 D113 V116 V117 V118 A119 S120 N121

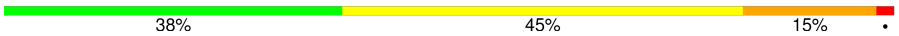
- Molecule 22: 40S ribosomal protein S20

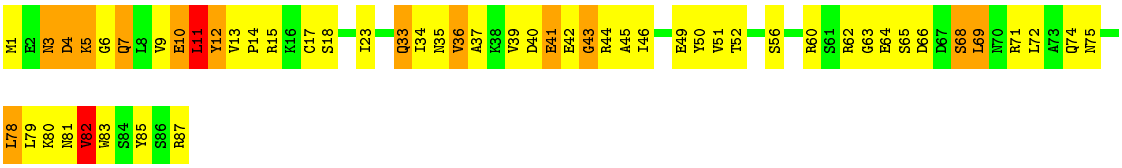
Chain d0: 63% 28% • 8%

SER ASP PHE GLN LYS GLU LYS VAL GLU GLU Q12 Q15 Q16 Q17 I22 T25 L26 T27 V31 L34 S39 N44 A45 E46 Q47 H48 N49 L50 V51 K52 R57 T60 K61 V62 L63 S66 T70 E74 K88 P96 V97 Q98 I99 I103 T104

- Molecule 23: 40S ribosomal protein S21-A

Chain D1:



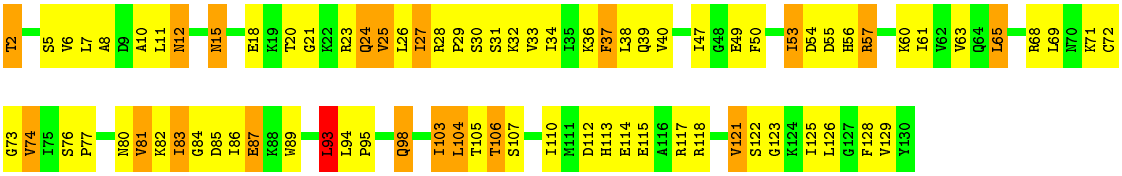


- Molecule 23: 40S ribosomal protein S21-A

Chain d1:

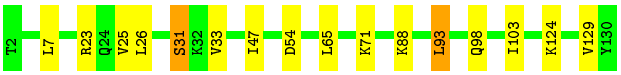
- Molecule 24: 40S ribosomal protein S22-A

Chain D2:



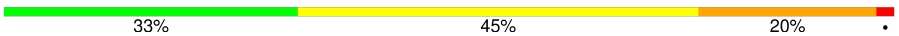
- Molecule 24: 40S ribosomal protein S22-A

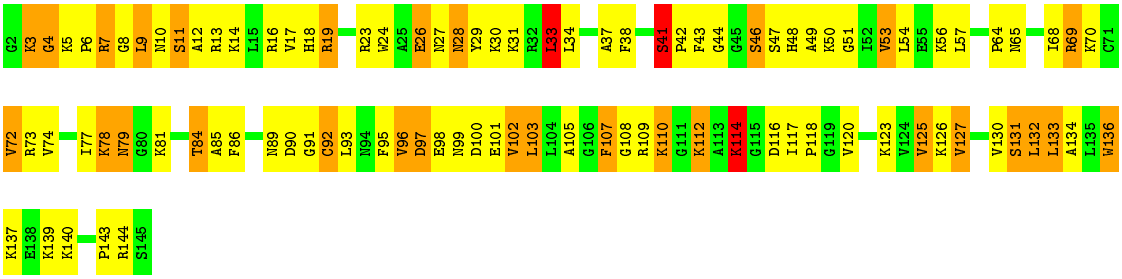
Chain d2:



- Molecule 25: 40S ribosomal protein S23-A

Chain D3:



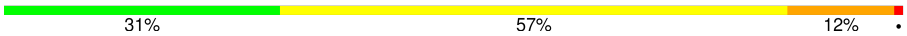


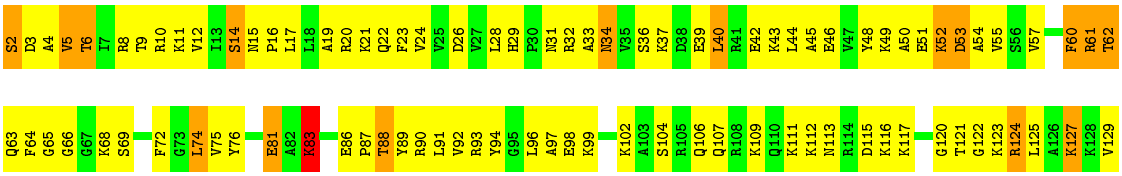
- Molecule 25: 40S ribosomal protein S23-A

Chain d3:

- Molecule 26: 40S ribosomal protein S24-A

Chain D4:



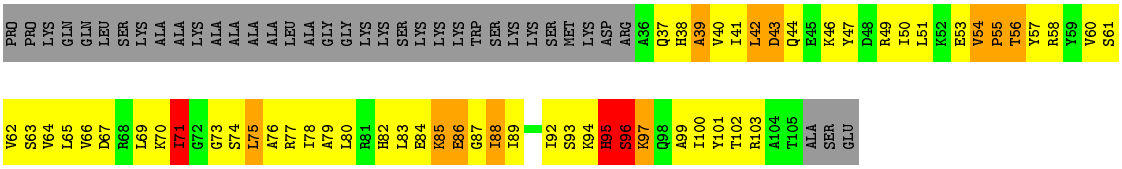


- Molecule 26: 40S ribosomal protein S24-A

Chain d4:

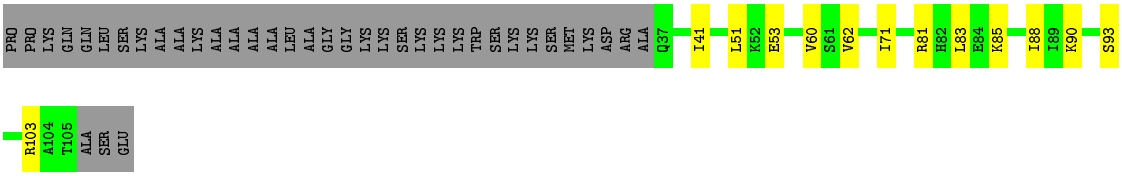
- Molecule 27: 40S ribosomal protein S25-A

Chain D5:



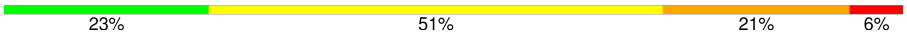
- Molecule 27: 40S ribosomal protein S25-A

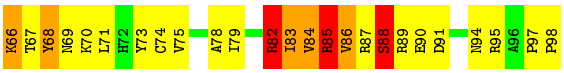
Chain d5:



- Molecule 28: 40S ribosomal protein S26-B

Chain D6:



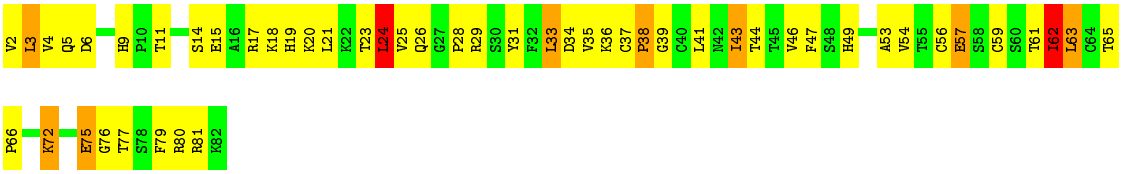


• Molecule 28: 40S ribosomal protein S26-B

Chain d6:

• Molecule 29: 40S ribosomal protein S27-A

Chain D7:

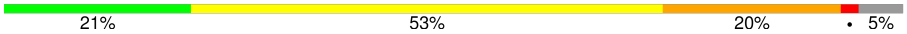


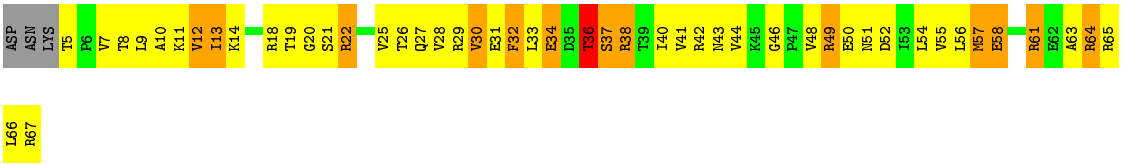
• Molecule 29: 40S ribosomal protein S27-A

Chain d7:

• Molecule 30: 40S ribosomal protein S28-A

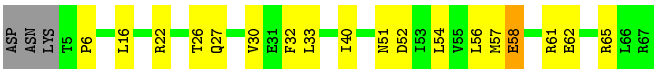
Chain D8:





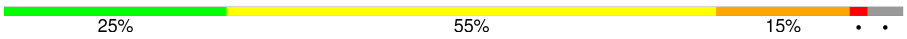
• Molecule 30: 40S ribosomal protein S28-A

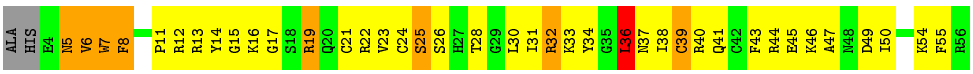
Chain d8:



• Molecule 31: 40S ribosomal protein S29-A

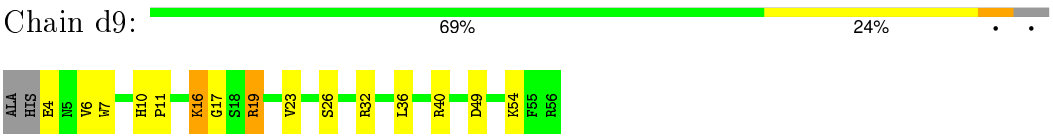
Chain D9:





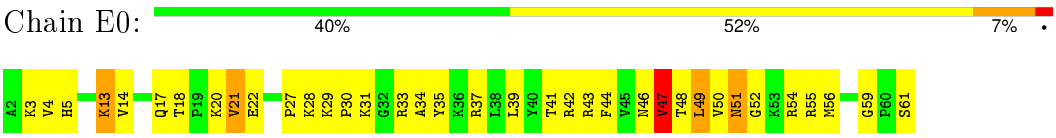
• Molecule 31: 40S ribosomal protein S29-A

Chain d9:



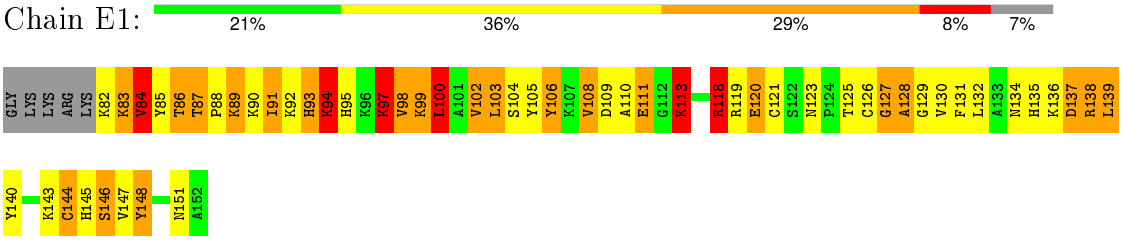
- Molecule 32: 40S ribosomal protein S30-A

Chain E0:



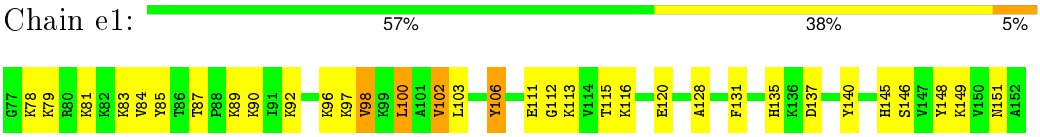
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1:



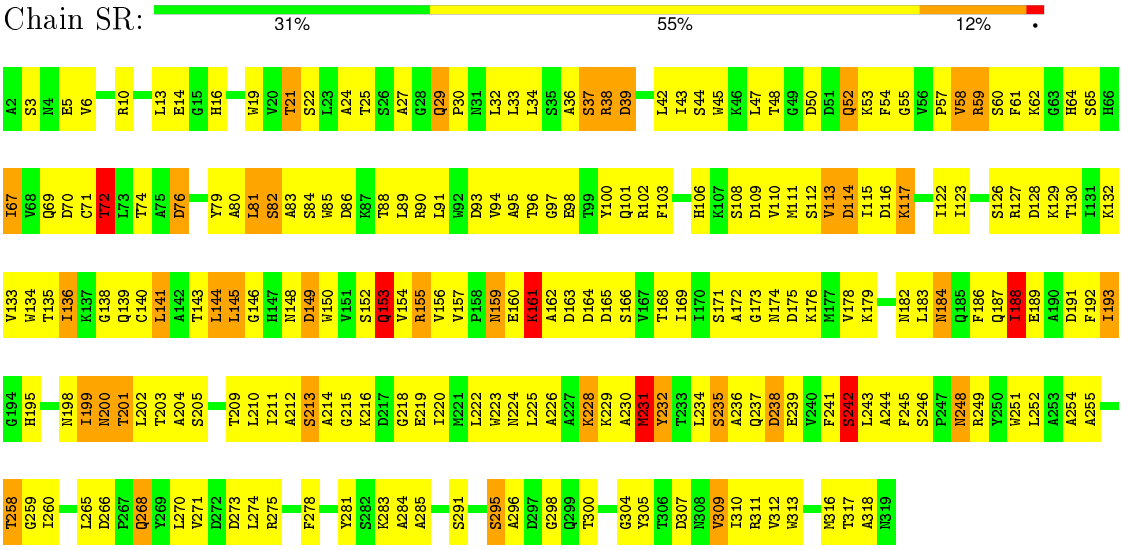
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1:



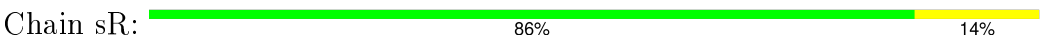
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

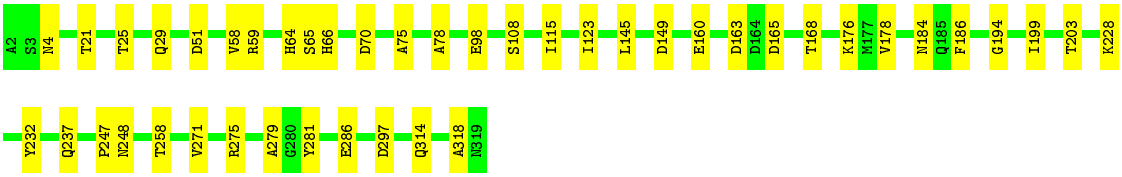
Chain SR:



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

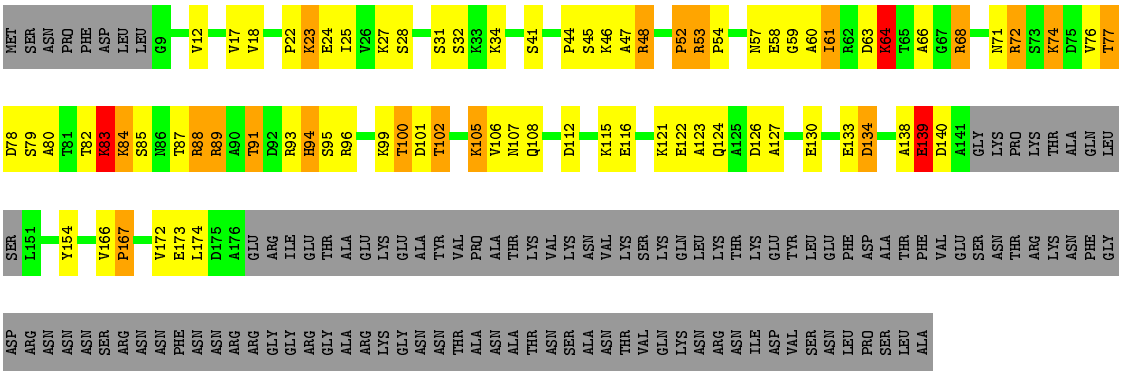
Chain sR:





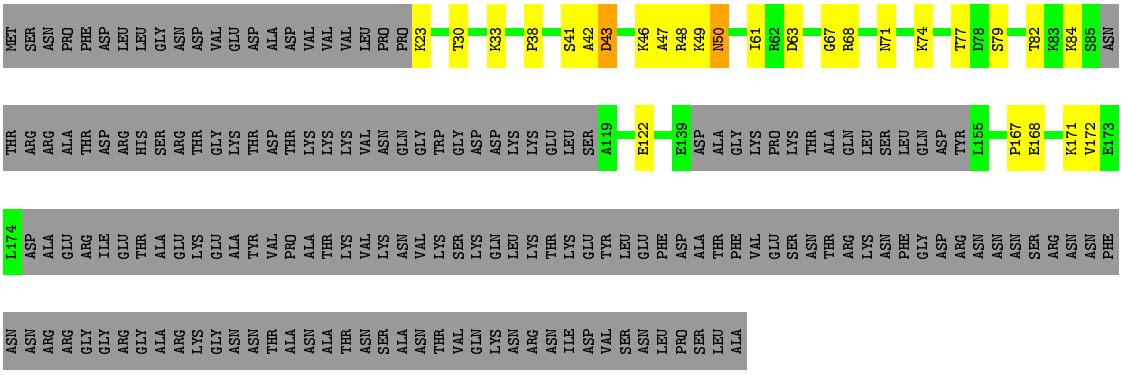
- Molecule 35: Suppressor protein STM1

Chain SM:



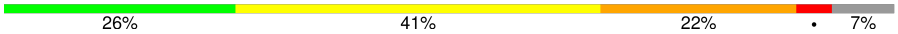
- Molecule 35: Suppressor protein STM1

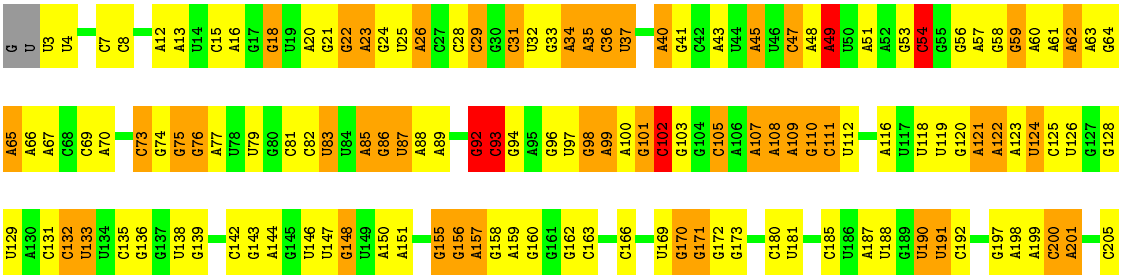
Chain sM:



- Molecule 36: 25S ribosomal RNA

Chain 1:





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G2335		U2205	A2138	C	U	G1954	U1876	C1805	U1732	C1657	G1590	U1526	A1456	C1396	U1331
U2336	G2272	G2206	A2139	C	C	U1955	U1877	A1806	G1733	G1658	G1591	C1527		C1397	A1332
C2337	G2273	A2207	U2140	G	U	A	G1878	G1807	G1734	U1659	G1592	G1528	A1461	U1398	C1333
C2338	U2274	A2208	U2141	U	G	G	A1879	G1808	G1735	C1660	A1593	A1529		A1399	U1334
C2339	A2275	U2209	A2142	C	C	U	U1880	A1809		G1661	A1594	U1530	G1466	G1400	C1335
U2340	G2276	G2210	A2143	G	U	G	A1881	A1810	U1739	G1662	U1595	C1531	A1467	A1401	U1336
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C2343	A2279	A2213	C2146	U	G	G		U1815	U1742	A1667	G1598	A1534	U1470	G1404	G1340
U2344	A2280	A2214	A2147	G	C	G	A1886	A1816	G1743	G1668	G1599	A1535	U1471	U1405	
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C2346	U2282	G2216	A2149	U	G	C	A1891	U1818	C1745	C1670	A1602	A1537	G1473	A1407	G1344
	G2283	U2217	G2150	A	A	U		U1819	U1746		A1603	G1538	A1474	G1408	G1345
U2351	C2284	G2218	C2151	C	C	U	U1894	U1820	G1747	G1674	G1604	A1539	A1475	G1409	G1346
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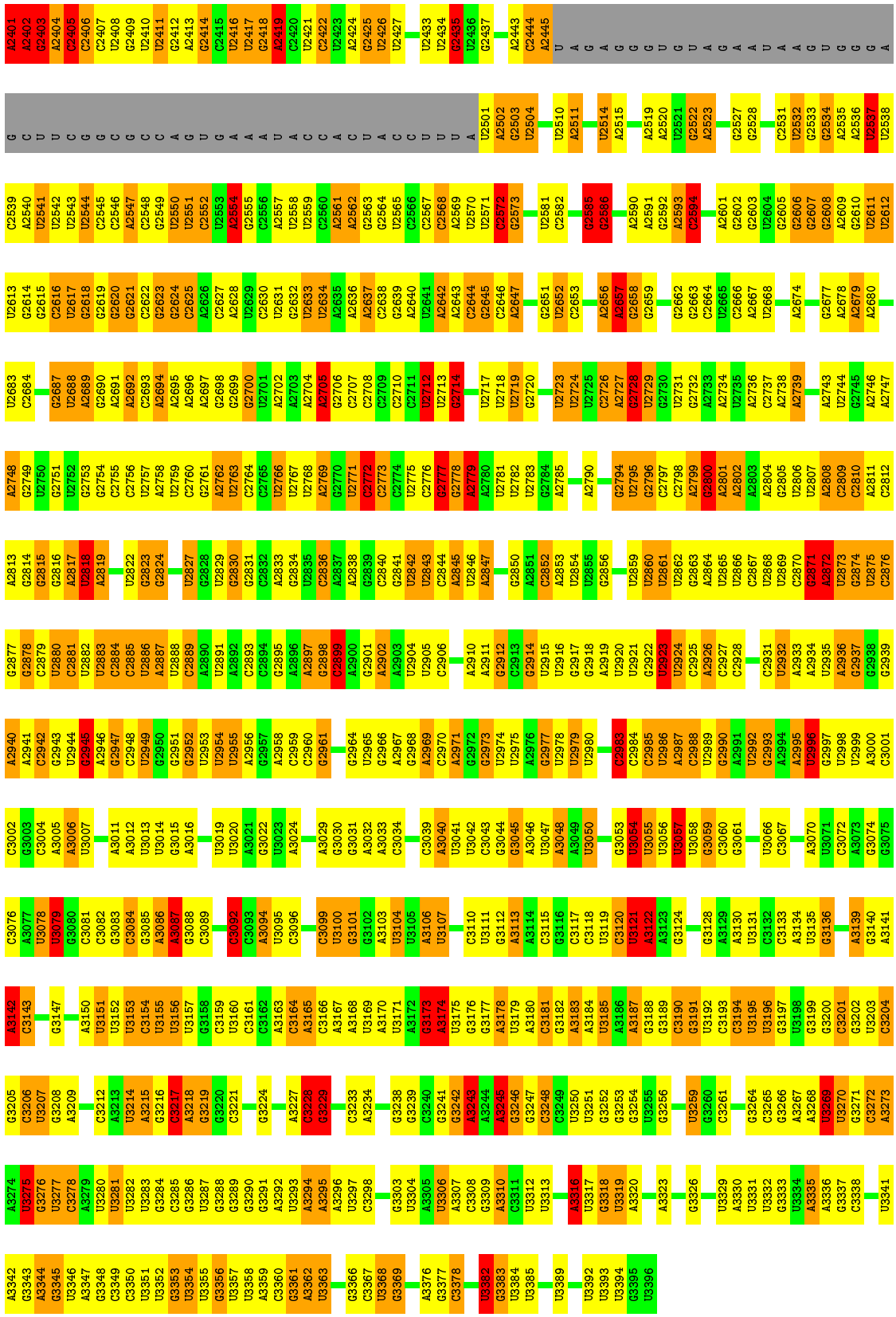
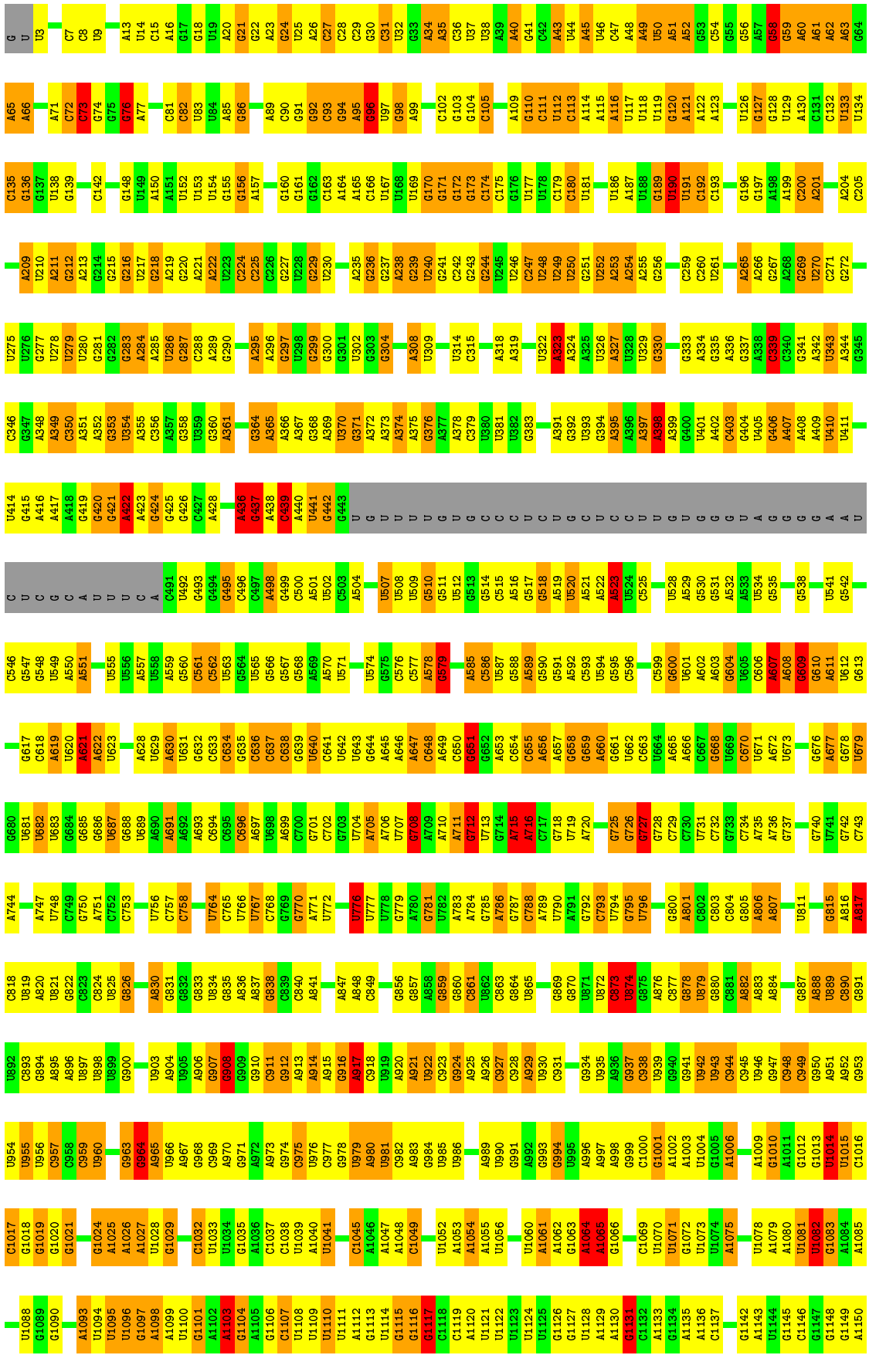


• Molecule 36: 25S ribosomal RNA

Chain 5: 27% 41% 20% • 7%



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A A U A G A G G
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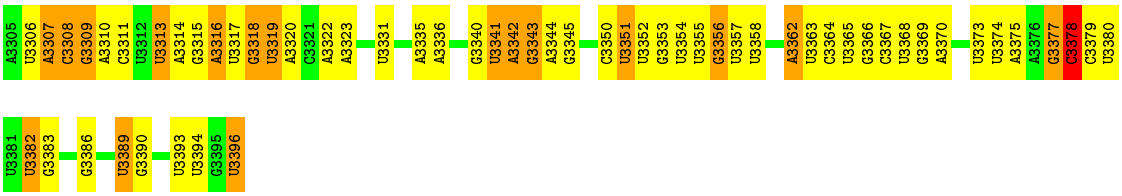
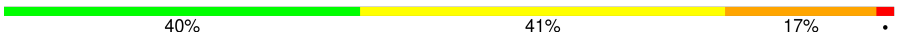
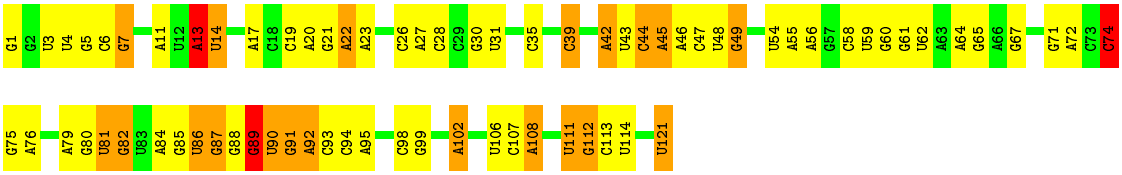


- Molecule 37: 5S ribosomal RNA

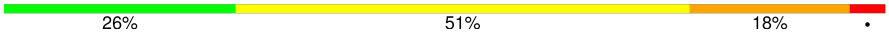
Chain 3:





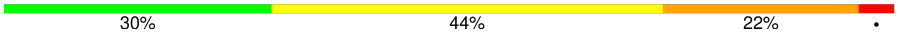
- Molecule 37: 5S ribosomal RNA

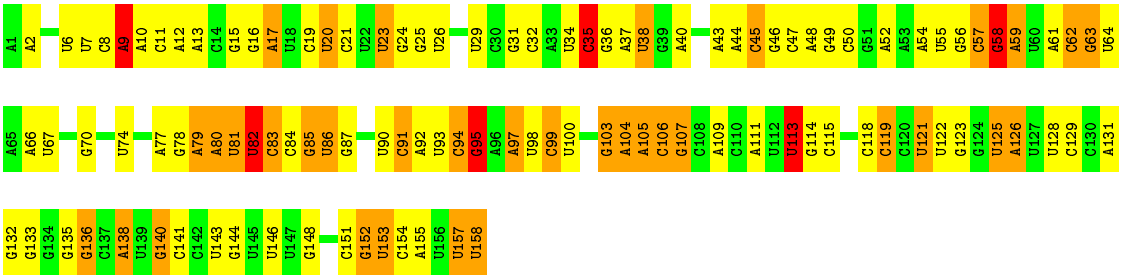
Chain 7:



- Molecule 38: 5.8S ribosomal RNA

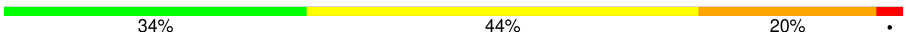
Chain 4:

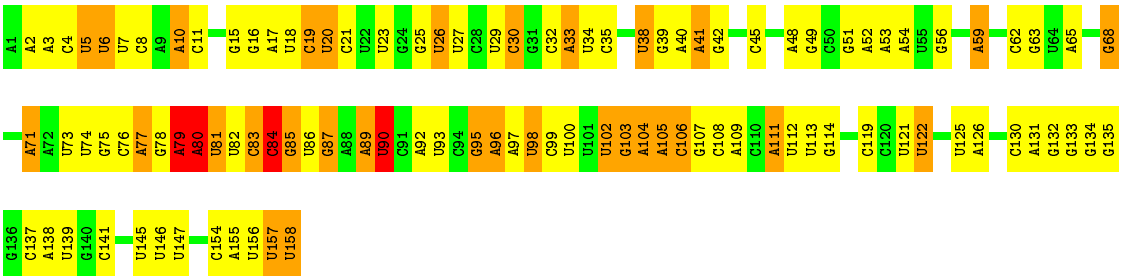




- Molecule 38: 5.8S ribosomal RNA

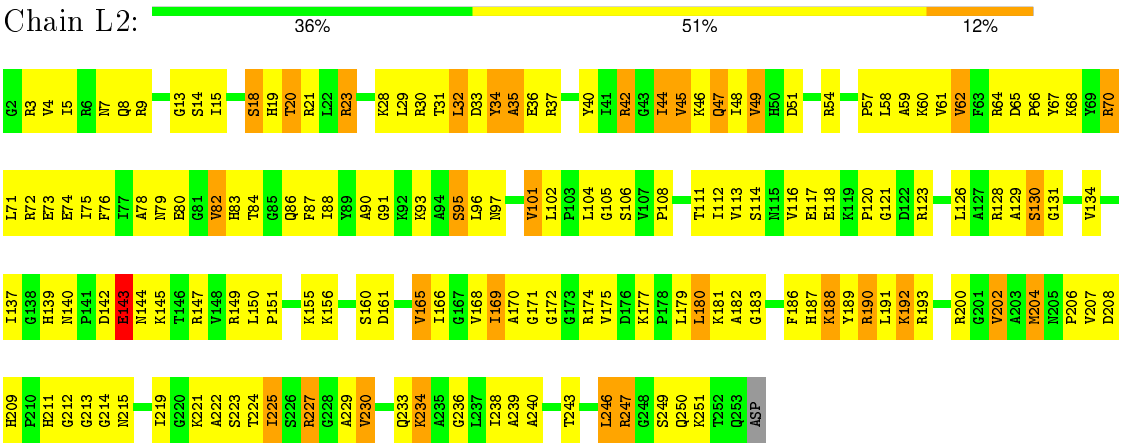
Chain 8:





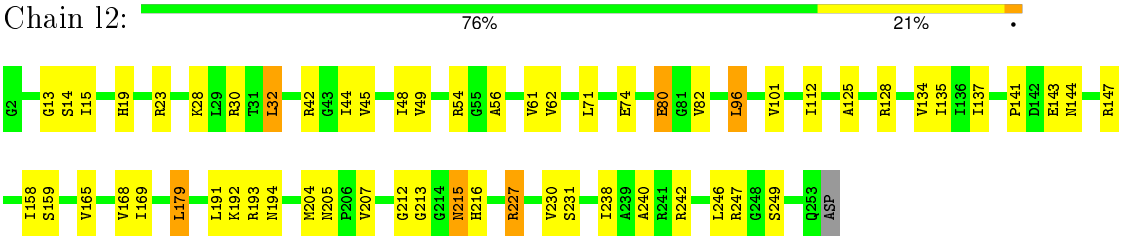
- Molecule 39: 60S ribosomal protein L2-A

Chain L2:



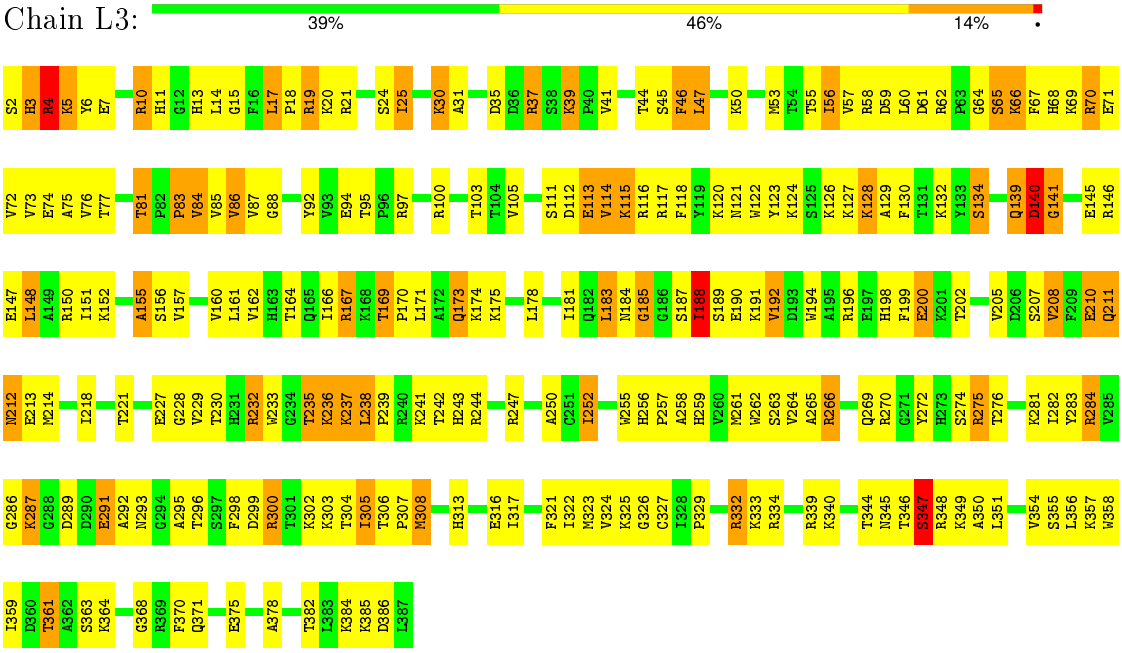
- Molecule 39: 60S ribosomal protein L2-A

Chain l2:



- Molecule 40: 60S ribosomal protein L3

Chain L3:



- Molecule 40: 60S ribosomal protein L3

Chain l3:

S2 H3 R4 K5 R10 L17 P18 R19 R26 T44 L47 K50 I56 K69 R70 T81 V85 S101 L102 T103 T104 S111 V114 K115 R116 K120 A129 Q139 D140 G141 A142 R146 E147 L148 A149 R150 A155 S156 V157 V160

R167 K168 T169 L183 I188 R196 E197 T202 V205 D206 E210 Q211 M212 E213 R232 T235 L238 T242 V249 A250 C251 I252 S274 R275 R284 D289 T296 S297 K302 K303 T304 M308 V324 K325 I328 R332 L338 R339 K340

S341 T346 S347 V354 S363 K364 K385 D386 L387

- Molecule 41: 60S ribosomal protein L4-A

Chain L4: 35% 49% 15%

S2 R3 P4 Q5 V8 H9 S10 L11 T12 G13 E14 A15 T16 A17 N18 A19 L20 P21 L22 P23 A24 V25 F26 P29 I30 R31 F32 D33 I34 V35 H36 T37 V38 F39 T40 S41 V42 M43 K44 M45 K46 R47 Q48 A49 Y50 A51 V52 K55 Q59 T60 S64 T67 G68 R69

A70 V71 A72 R73 I74 P75 R76 V77 T82 G83 R84 S85 G86 Q87 G88 A89 F90 G91 N92 M93 C94 R98 M99 F100 A101 P102 T103 K104 T105 W106 R107 K108 W109 K112 N116 Y120 A121 T122 A123 S124 A125 I126 A127 A130 V131 L134 V135 L136 A137 R138 G139 H140 R141

V142 E143 K144 I145 P146 E147 I148 P149 L150 V151 V152 L156 E157 S158 K161 T162 K170 A171 V172 H175 S176 D177 L178 L179 K180 V181 L182 K183 S184 K185 K186 L187 R188 A189 G190 K191 G192 K193 Y194 R195 N196 R197 T200 Q201 R202 R203 G204 P205 L206 V207 V208 Y209 A210 E211 D212

N213 V216 K217 A218 L219 R220 N221 V222 P223 G224 V225 E226 T227 A228 N229 V230 A231 S232 L233 N234 L235 L236 Q237 L238 A239 P240 G241 A242 E243 L244 G245 R246 F247 A254 F255 T256 K257 I258 D259 Q260 V261 W262 G263 S264 E265 T266 V267 A268 S269 S270 K271 Y274 T275 L276 P277 S278 H279

T283 S284 D285 V286 T287 R288 I289 I290 N291 S292 S293 E294 I295 Q296 S297 A298 I299 R300 P301 A302 G303 Q304 A305 T306 Q307 K308 R309 T310 H311 V312 L313 K314 K315 N316 P317 L318 K319 N320 K321 Q322 V323 L324 L325 R326 L327 N328 P329 Y330 A331 K332 V333 F334 E337 K338 L339 G340 E345

K346 K350 P351 V354 T358 H361 D362

- Molecule 41: 60S ribosomal protein L4-A

Chain l4: 78% 19%

S2 R3 P4 Q5 E14 A15 T16 L20 A24 V25 F26 S27 N43 S53 E54 K55 S64 R73 F90 M93 C94 M99 Y120 V131 V142 E143 K144 I145 P146 L150 V151 T154 D155 L156 L169 K170 A171 V172 L179 L182 K186

L187 K193 R203 R220 N221 V222 V230 L233 R246 T256 K257 L258 E265 T266 V267 S270 P277 S284 I295 I299 R300 P301 A302 G303 Q304 A305 T306 Q307 H311 V312 L313 N316 K319 V323 L327 N328 P329 Y330 V333 K338

L339 K342 E345 K346 T347 A352 T356 K360 H361 D362

- Molecule 42: 60S ribosomal protein L5

Chain L5: 33% 54% 12%

A2 F3 Q4 K5 D6 A7 K8 S9 S10 A11 Y12 R15 R21 R22 R23 R24 E25 G26 K27 T28 Q32 R33 K34 R35 L36 V37 T38 Q39 H40 K41 A42 K43 T46 P47 K48 Y49 V52 V53 R54 F55 T56 N57 K58 D59 I60 I61 I64 I65 S66 S67 T68 I69 T70 G71

D72 L75 A76 Y79 S80 H81 E82 L83 Y86 G87 I88 L92 T93 N94 W95 A96 A97 A98 Y99 A100 T101 G102 I105 A106 R107 R108 T109 L110 Q111 K112 L113 G114 L115 D116 E117 T118 Y119 K120 G121 V122 E123 E124 V125 E126 L131 T132 V135 E136 D137 R140 K143

V144 F145 L146 D147 I148 Q151 R152 T153 T154 T155 G156 A157 R158 V159 F160 G161 A162 L163 K164 G165 A166 G169 G170 L171 Y172 V173 S176 E177 N178 R179 F180 P181 G182 W183 D184 F185 E186 T187 E188 E189 I190 E193 R196 S197 Y198 I199 F200 H203 V204 S205 Q206 E210 L211

D215 E216 E217 R218 F219 S220 E221 L222 F223 K224 D229 D230 I231 D232 A233 D234 S235 L236 E237 D238 I239 S242 A243 H244 E245 A246 I247 R248 A249 F253 K254 P255 T256 E257 K258 K259 F260 T261 Q264 Y265 A266 A267 E268 S269 K270 K271 Y272 R273 Q274 T275 K276 L277 S278 K279 E280

E281 R282 A283 A284 R285 V286 K289 I290 A291 A292 L293 A294 G295 Q296 Q297

- Molecule 42: 60S ribosomal protein L5

Chain l5: 79% 19% ••

ALA PHE Q4 S9 S10 S13 S14 R15 K34 R35 L51 N57 I61 I64 T70 G71 D72 V73 V74 L75 Y79 T89 T109 L110 Q111 K112 L113 G114 L115 T118 Y119 K120 V125 E128 L131 T132 E133 A134 V135 E136 R140 L146

Q151 R152 T153 T154 T155 R158 N178 F185 L194 L195 R196 L211 L227 I239 Y240 T241 K254 E257 K258 K259 F260 A266 A267 E268 S269 K270 K271 Y272 R273 E280 E281 Q297

- Molecule 43: 60S ribosomal protein L6-A

Chain L6: 35% 47% 7% 11%

S2 A3 Q4 K5 A6 P7 K8 P11 S12 E13 D14 L18 K19 N20 T21 R22 R23 A24 A25 R26 P27 Q28 R31 V35 T38 V39 L40 T41 L42 L43 A44 G45 R46 F47 R48 G49 K50 R51 V52 V53 Y54 L55 K56 H57 L58 T62 L63 L64 I65 S66 G67 P68 F69 K70

V71 V74 R77 R78 V79 N80 A81 R82 Y83 V84 I85 A86 T87 S88 T89 K90 V93 V96 N97 V98 E99 N102 V103 E104 Y105 F106 A107 K108 E109 LYS LEU THR LYS LYS GLU LYS LYS GLU ALA ASN LEU PHE PRO GLU GLN GLN ASN LYS E129 I130 K131 A132 E133 R134 V135

E136 D137 Q138 K139 V140 V141 D142 K143 A144 L145 I146 A147 E148 I149 K150 K151 T152 P153 L154 L155 K156 Q157 Y158 L159 S162 F163 S164 L165 K166 K170 P171 H172 M173 I174 K175 F176

- Molecule 43: 60S ribosomal protein L6-A

Chain l6: 75% 14% • 10%

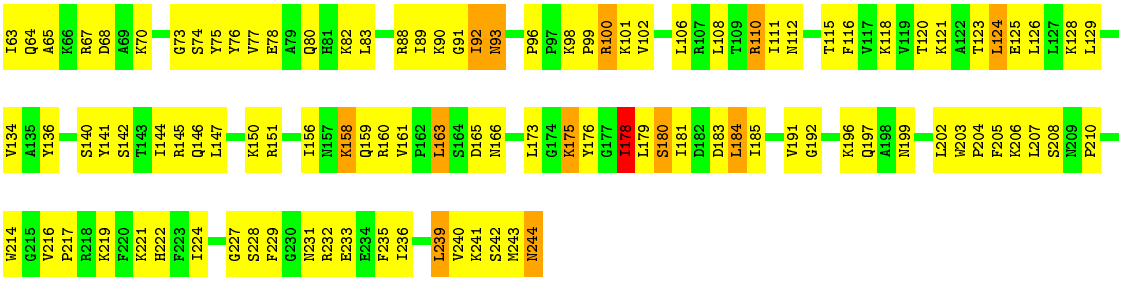
S2 A3 Q4 K8 W9 Y10 D14 V15 K20 T21 R31 K50 L64 I65 L76 R77 R78 T89 K90 V91 S92 V93 V98 E109 LYS LEU THR LYS LYS GLU LYS LYS GLU ALA ASN LEU PHE PRO GLU GLN GLN ASN K128 K131 A132 E133 K143

K151 T152 L155 P171 H172 M173 F176

- Molecule 44: 60S ribosomal protein L7-A

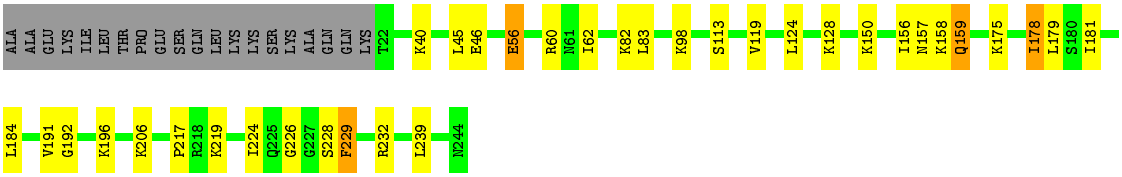
Chain L7: 36% 47% 6% • 9%

ALA ALA GLU LYS ILE LEU THR PRO GLU SER GLN LEU LYS LYS SER LYS ALA GLN GLN LYS THR A23 E24 Q25 V26 A27 A28 E29 R30 A31 A32 R33 K34 A35 A36 E39 K40 R41 A42 I43 I44 L45 E46 R47 N48 A49 A50 Y51 Q52 K53 E54 Y55 E56 T57 A58 E59 R60 N61 I62



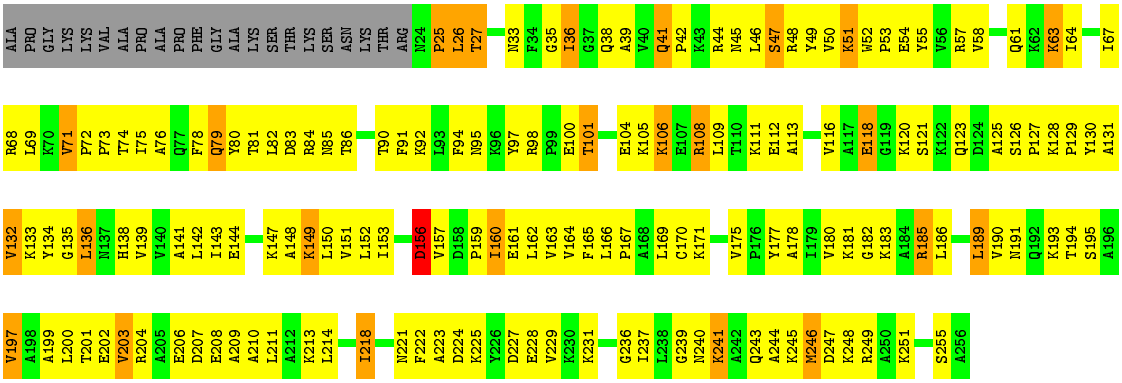
- Molecule 44: 60S ribosomal protein L7-A

Chain l7:



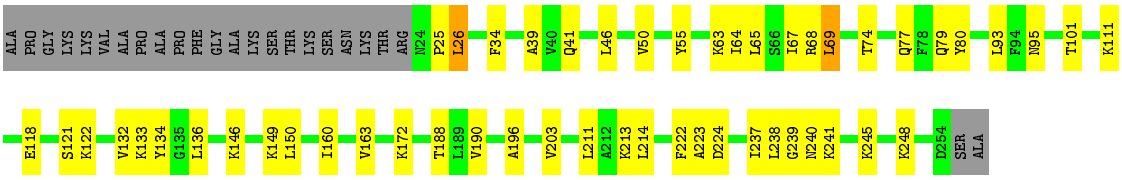
- Molecule 45: 60S ribosomal protein L8-A

Chain L8:



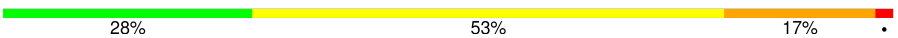
- Molecule 45: 60S ribosomal protein L8-A

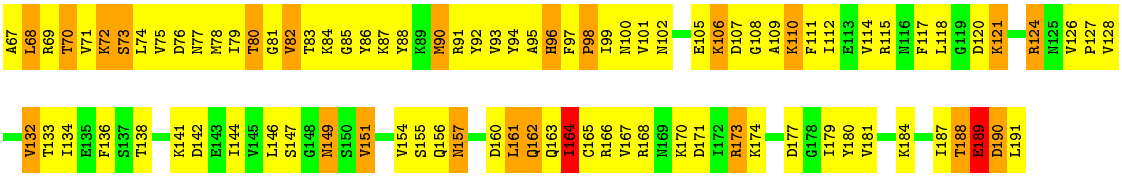
Chain l8:



- Molecule 46: 60S ribosomal protein L9-A

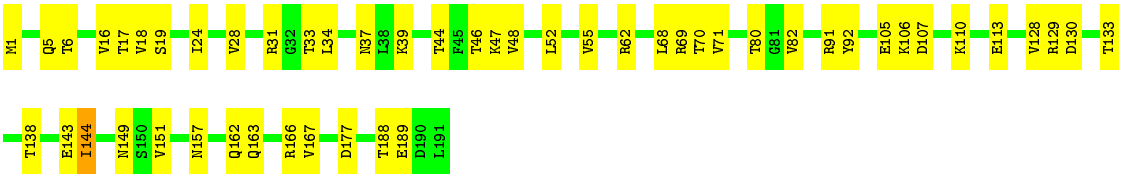
Chain L9:





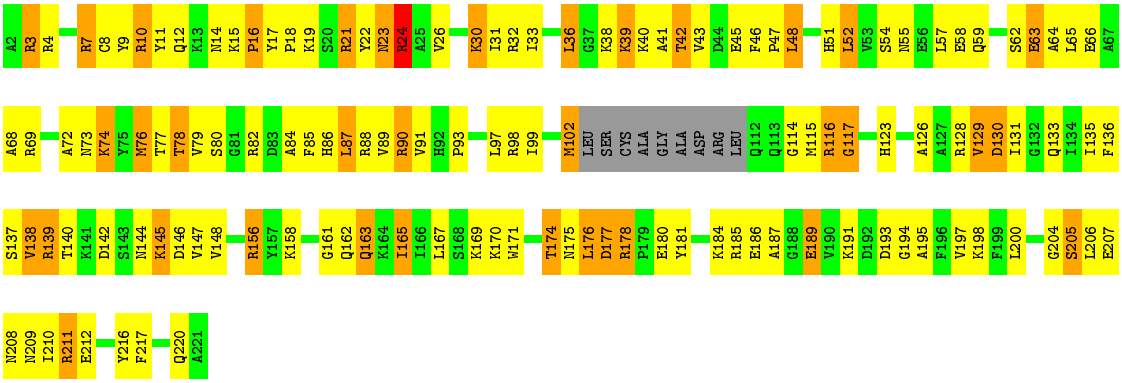
- Molecule 46: 60S ribosomal protein L9-A

Chain l9:



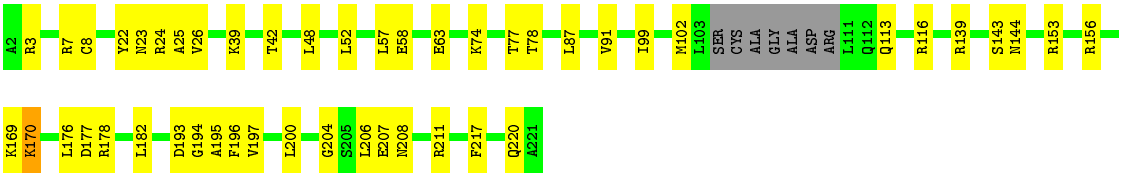
- Molecule 47: 60S ribosomal protein L10

Chain M0:



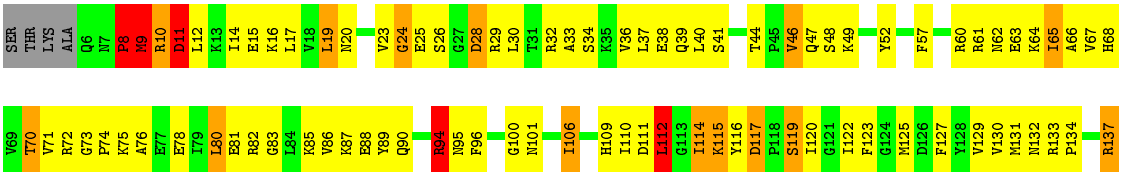
- Molecule 47: 60S ribosomal protein L10

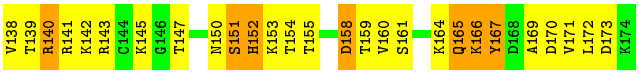
Chain m0:



- Molecule 48: 60S ribosomal protein L11-B

Chain M1:



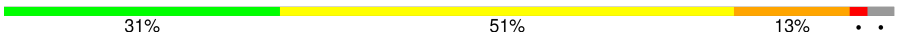


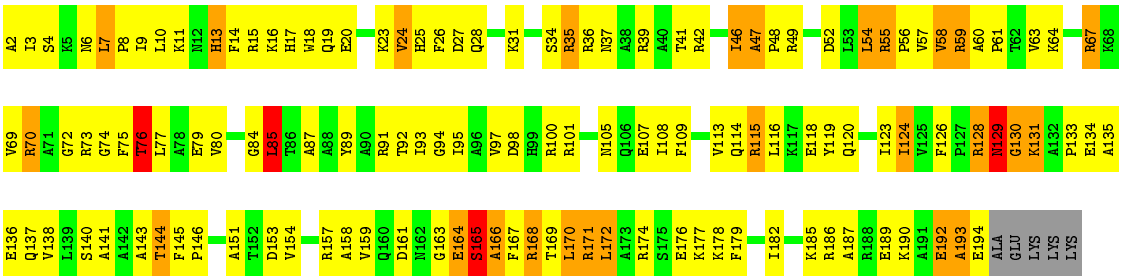
• Molecule 48: 60S ribosomal protein L11-B

Chain m1:

• Molecule 49: 60S ribosomal protein L13-A

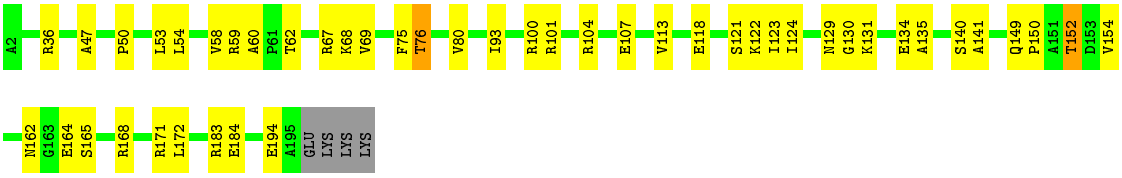
Chain M3:





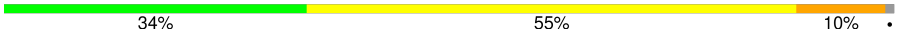
• Molecule 49: 60S ribosomal protein L13-A

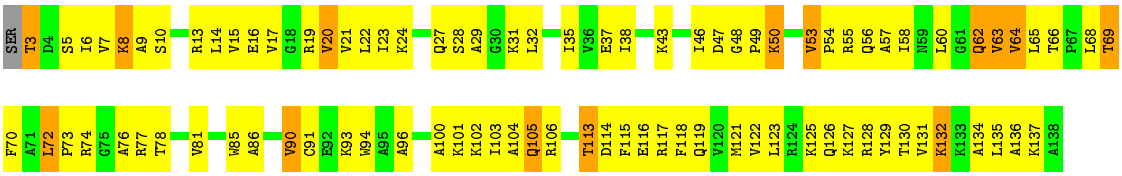
Chain m3:



• Molecule 50: 60S ribosomal protein L14-A

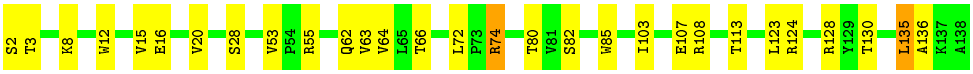
Chain M4:





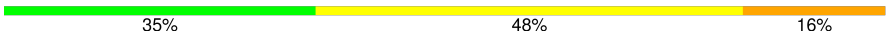
• Molecule 50: 60S ribosomal protein L14-A

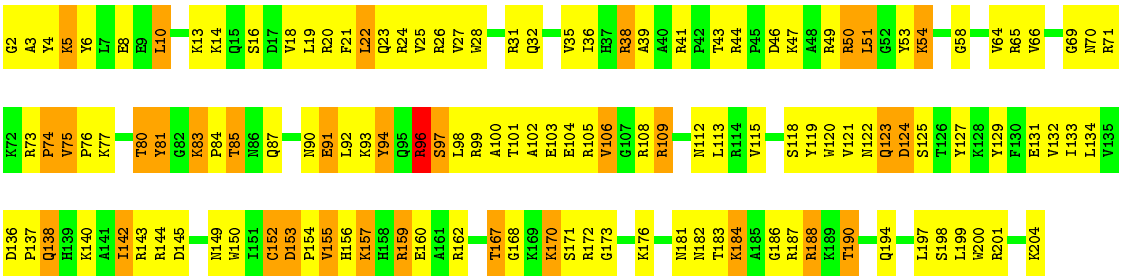
Chain m4:



• Molecule 51: 60S ribosomal protein L15-A

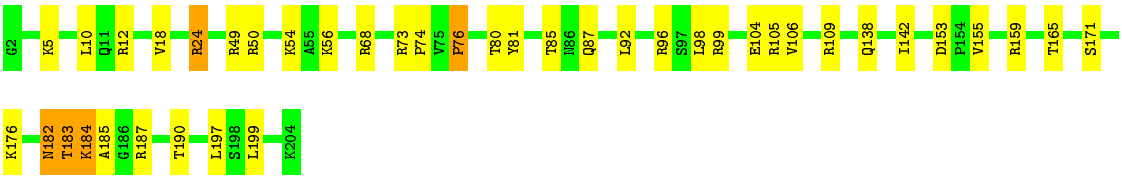
Chain M5:





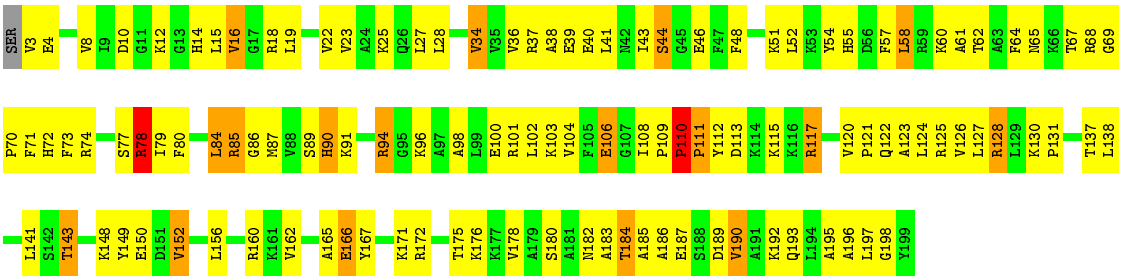
• Molecule 51: 60S ribosomal protein L15-A

Chain m5:



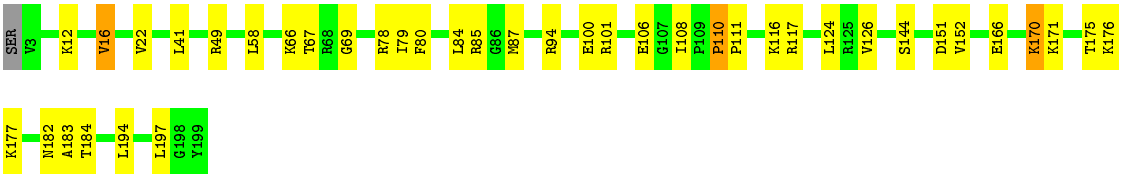
• Molecule 52: 60S ribosomal protein L16-A

Chain M6:



• Molecule 52: 60S ribosomal protein L16-A

Chain m6:



• Molecule 53: 60S ribosomal protein L17-A

Chain M7: 39% 50% 10%

A2 R3 Y4 T7 S8 T9 S14 A15 S16 A17 R18 G19 S20 Y21 L22 R23 V24 S25 F26 K27 N28 T29 R30 E31 T32 A33 Q34 A35 I36 N37 G38 L41 A44 Q45 L48 E49 Q50 V51 L52 D53 R56 P59 F60 R61 R62 F63 N64 S65 S66 I67 G68 R69 T70

A71 Q72 G73 F76 G77 V78 T79 K80 A81 R82 K86 S87 V88 Q92 G93 L94 L95 Q96 N97 A100 K105 G106 L107 D108 A109 T110 K111 L112 Y113 V114 S115 H116 I117 Q118 V119 N120 Q121 A122 Q125 R126 R127 R128 T129 Y130 R131 A132 H133 I136 N137 K138 Y139 E140 S141

S142 P143 S144 H145 I146 E147 L148 V149 Y150 T151 E152 V157 A158 K159 A160 A161 E162 K163 K164 L168 T169 S170 R171 Q172 R173 G174 R175 A178 Q179 K180 R181 I182 A183 A184

- Molecule 53: 60S ribosomal protein L17-A

Chain m7: 68% 16% 15%

A2 R3 T7 S8 T9 S16 R23 V24 T29 T32 N37 L41 T42 Y47 L52 D53 S66 I67 G68 R69 T70 A71 Q72 V78 T79 K86 L94 K105 V114 V119 N120 Q121 R126 R127 R128 K138 S144 A156 VAL ALA

LYS ALA ALA GLU LYS LYS VAL VAL ARG LEU THR SER ARG GLN ARG GLY ARG ILE ALA ALA GLN LYS ARG ILE ALA ALA

- Molecule 54: 60S ribosomal protein L18-A

Chain M8: 44% 48% 8%

G2 I3 D4 S7 K8 T17 A18 P19 D22 N23 V24 Y25 L26 K27 L28 L29 V30 K31 L32 Y33 T34 F35 L36 A37 R38 R39 T40 D41 A42 P43 F44 M45 K46 L49 K50 F53 L54 I57 P60 P61 V62 S63 V64 S65 R66 I67 A68 R69 A70 L71 E74

K79 T80 V81 V82 V83 T86 D89 D90 A91 R92 I93 F94 E95 F96 P97 K98 T99 T100 V101 A102 A103 L104 R105 K113 I114 V115 G118 G119 E120 C121 I122 D125 Q126 V129 R130 K133 G134 Q135 L138 I139 L140 R141 R144 R147 V150 R151 H152 F153

H158 K159 G160 K161 A162 P163 R164 I165 L166 S167 T168 G169 R170 K171 F172 E173 R174 A175 R176 G177 R178 R179 R180 S181 K182 G183 F184 K185 V186

- Molecule 54: 60S ribosomal protein L18-A

Chain m8: 84% 15%

G2 I3 S7 R12 D22 L26 K31 L32 Y33 T34 K46 I57 S63 V64 R69 E74 T80 V81 V82 I93 T99 Q135 L138 R147 V150 K159 I165 L166 S167 R178 R179 R180 V186

- Molecule 55: 60S ribosomal protein L19-A

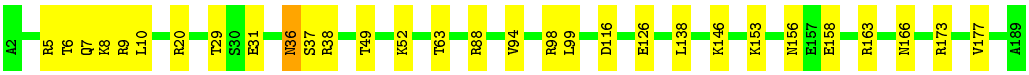
Chain M9: 38% 48% 14%

A2 N3 L4 R5 T6 Q7 K8 R9 L10 A11 A12 S13 V14 V15 G16 V17 G18 K19 R20 K21 V22 W23 E28 T29 S30 E31 A35 N36 S37 R38 I41 R42 K43 L44 V45 K46 N47 G48 T49 I50 V51 K52 K53 A54 V55 T56 R62 H66 A67 Q68 S69 K70 R71 E72 G73

R74 H75 S76 G77 K80 R81 K82 R85 E86 A87 R88 L89 P90 S91 Q92 V93 I96 R97 R98 L99 R100 V101 L102 R103 R104 L105 L106 A107 K108 Y109 R110 I115 D116 K117 Y120 H121 K125 E126 S127 K128 G129 K133 H134 K135 R136 A137 L138 V139 E140 K146 A147 D148

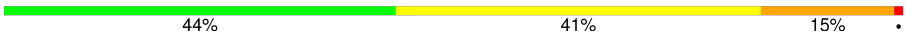
- Molecule 55: 60S ribosomal protein L19-A

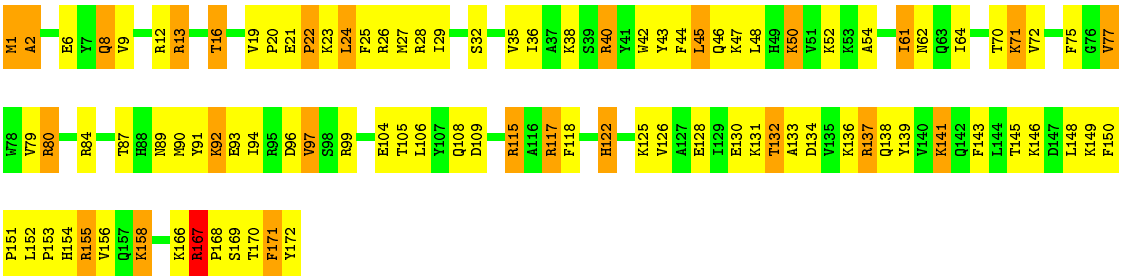
Chain m9:



- Molecule 56: 60S ribosomal protein L20-A

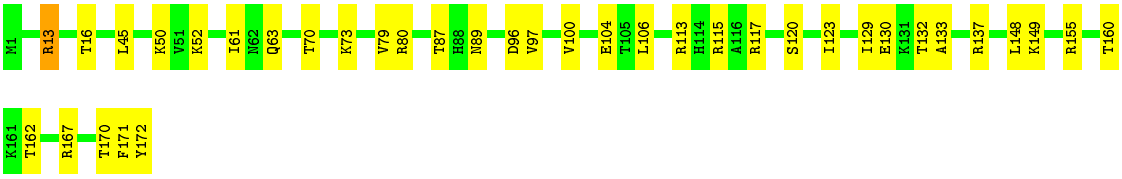
Chain N0:





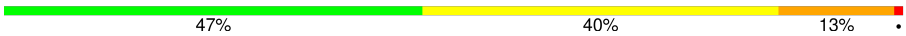
- Molecule 56: 60S ribosomal protein L20-A

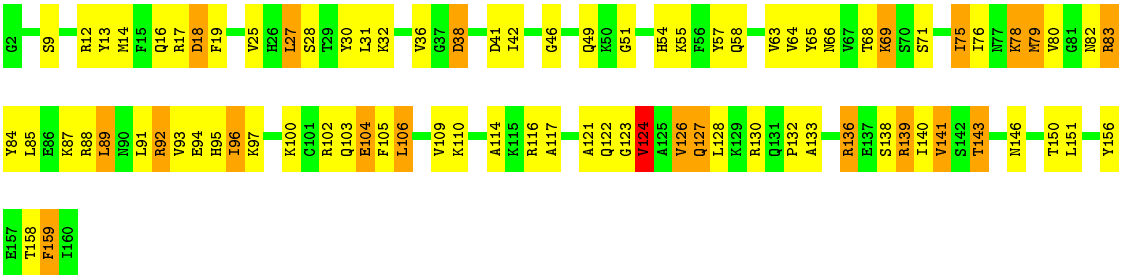
Chain n0:



- Molecule 57: 60S ribosomal protein L21-A

Chain N1:



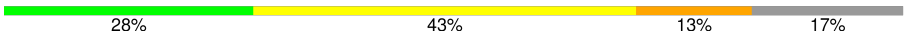


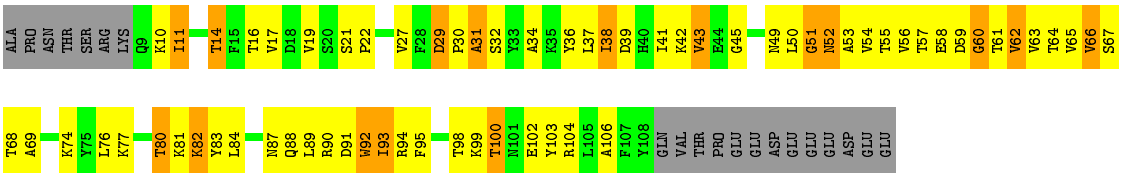
- Molecule 57: 60S ribosomal protein L21-A

Chain n1:

- Molecule 58: 60S ribosomal protein L22-A

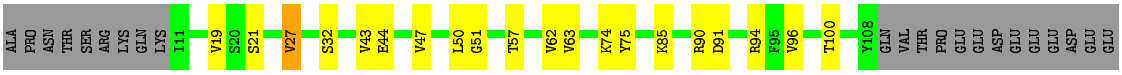
Chain N2:





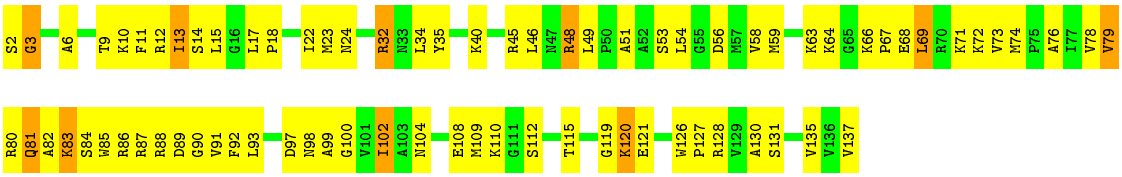
- Molecule 58: 60S ribosomal protein L22-A

Chain n2:



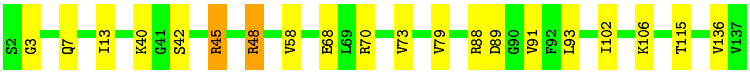
- Molecule 59: 60S ribosomal protein L23-A

Chain N3:



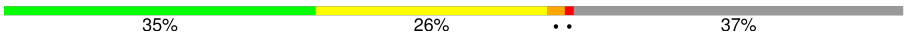
- Molecule 59: 60S ribosomal protein L23-A

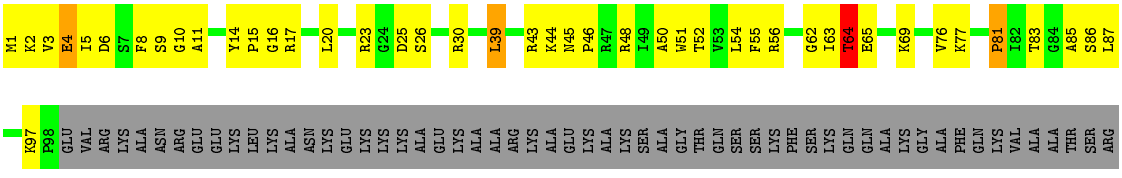
Chain n3:



- Molecule 60: 60S ribosomal protein L24-A

Chain N4:



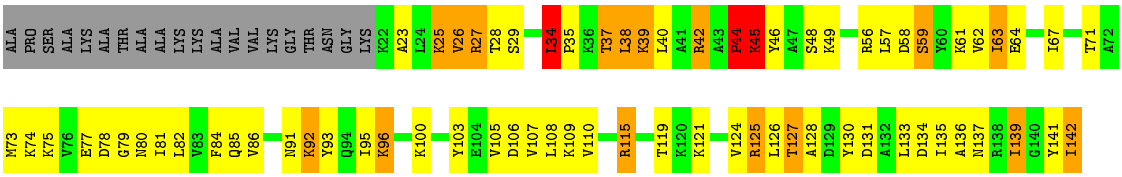


- Molecule 60: 60S ribosomal protein L24-A

Chain n4:

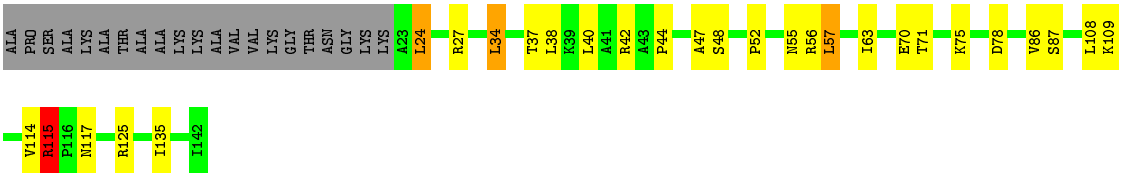
- Molecule 61: 60S ribosomal protein L25

Chain N5:



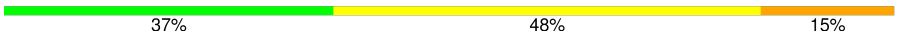
- Molecule 61: 60S ribosomal protein L25

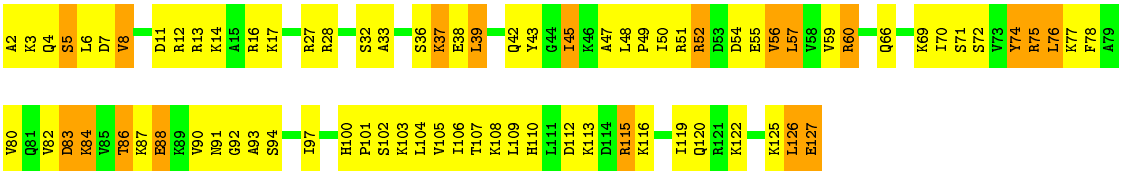
Chain n5:



- Molecule 62: 60S ribosomal protein L26-A

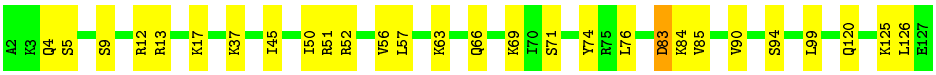
Chain N6:





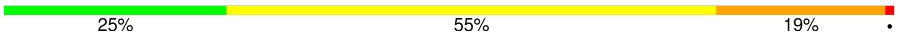
- Molecule 62: 60S ribosomal protein L26-A

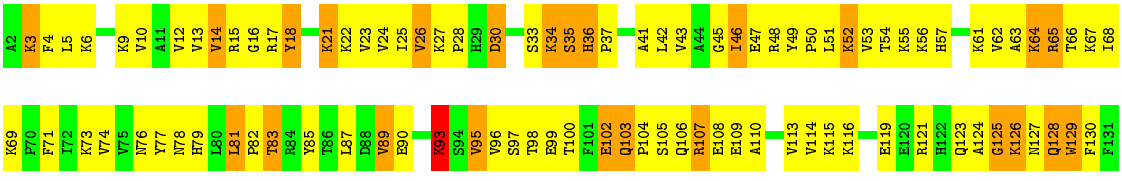
Chain n6:



- Molecule 63: 60S ribosomal protein L27-A

Chain N7:



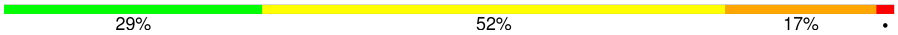


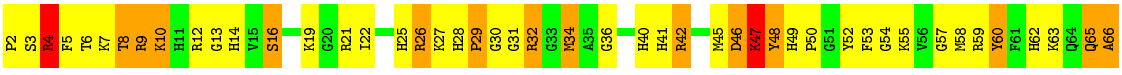
- Molecule 63: 60S ribosomal protein L27-A

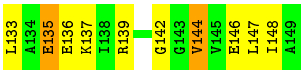
Chain n7:

- Molecule 64: 60S ribosomal protein L28

Chain N8:





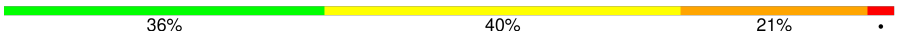


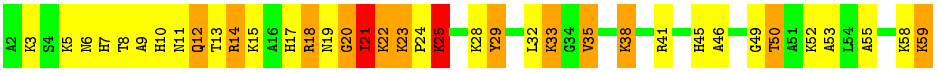
- Molecule 64: 60S ribosomal protein L28

Chain n8:

- Molecule 65: 60S ribosomal protein L29

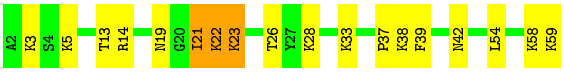
Chain N9:





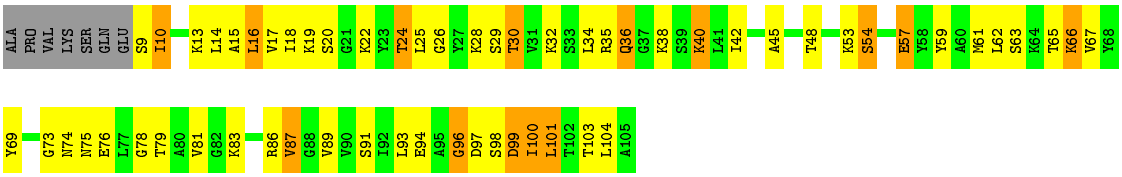
- Molecule 65: 60S ribosomal protein L29

Chain n9:



- Molecule 66: 60S ribosomal protein L30

Chain O0:

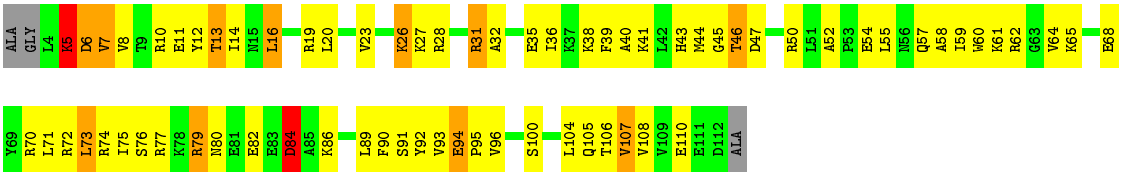


- Molecule 66: 60S ribosomal protein L30

Chain o0:

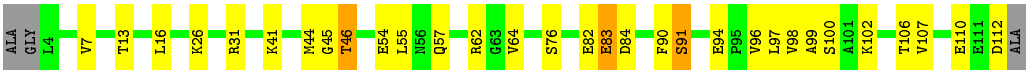
- Molecule 67: 60S ribosomal protein L31-A

Chain O1:



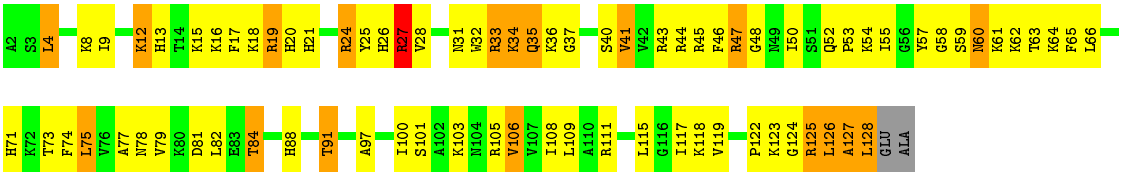
- Molecule 67: 60S ribosomal protein L31-A

Chain o1:



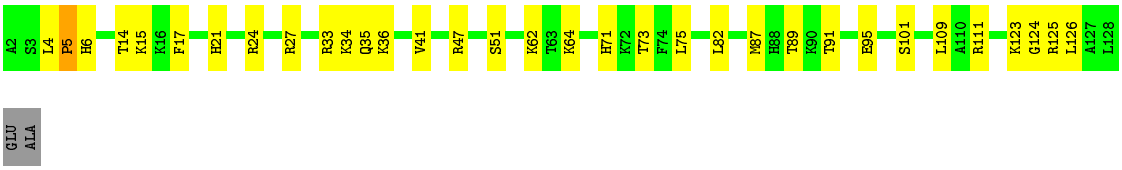
- Molecule 68: 60S ribosomal protein L32

Chain O2:



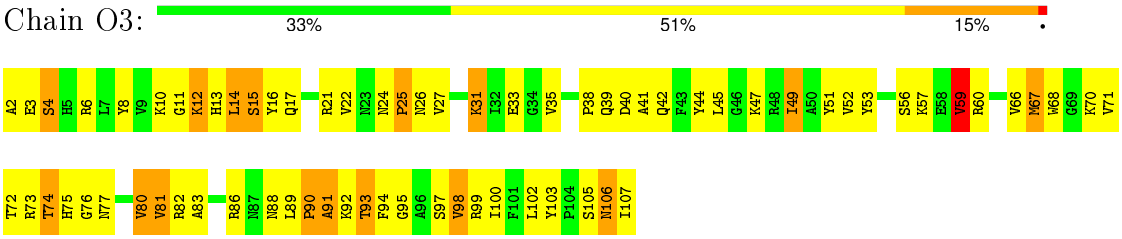
- Molecule 68: 60S ribosomal protein L32

Chain o2:



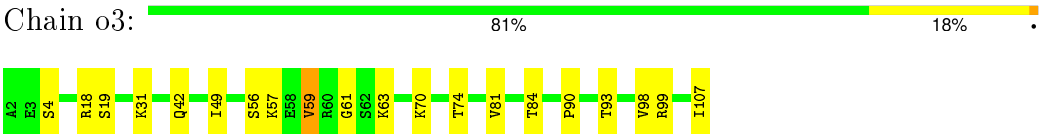
- Molecule 69: 60S ribosomal protein L33-A

Chain O3:



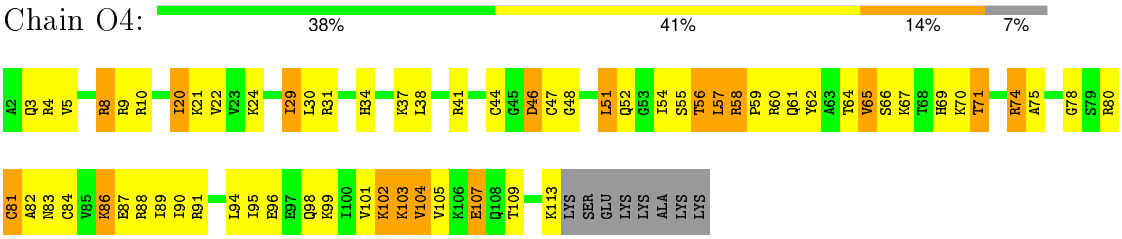
- Molecule 69: 60S ribosomal protein L33-A

Chain o3:



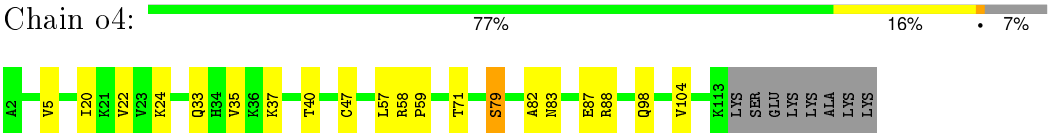
- Molecule 70: 60S ribosomal protein L34-A

Chain O4:



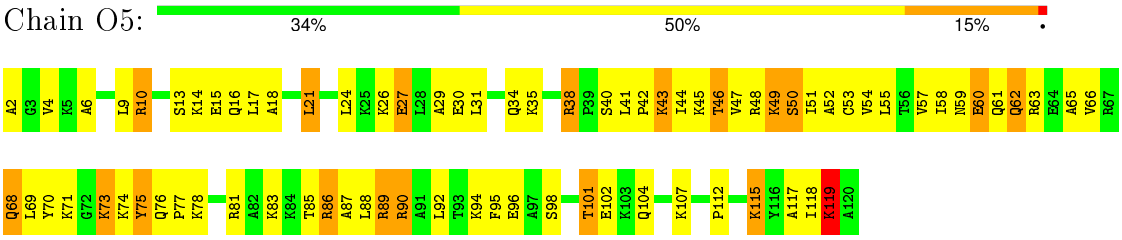
- Molecule 70: 60S ribosomal protein L34-A

Chain o4:



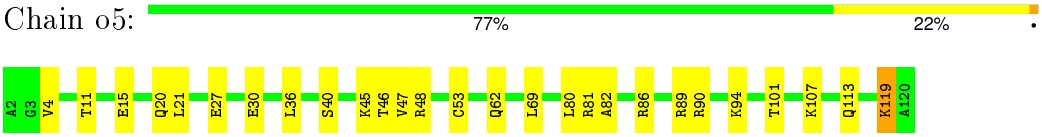
- Molecule 71: 60S ribosomal protein L35-A

Chain O5:



- Molecule 71: 60S ribosomal protein L35-A

Chain o5:



- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 28% 55% 16%

T2 V3 K4 T5 G6 I7 A8 I9 G10 L11 N12 K13 G14 V17 T18 S19 K20 T21 K25 I26 S27 Y28 K29 K30 A33 S34 N35 R36 T37 V40 R41 S42 L43 V44 R45 E46 I47 L50 S51 P52 Y53 E54 R55 R56 L57 I58 D59 L60 I61 R62 N63 S64 G65 E66

R70 K71 V72 A73 K74 K75 R76 L77 G78 S79 F80 T81 R82 A83 K86 V87 E88 E89 M90 I93 I94 A95 A96 S97 R98 R99 H100

- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 68% 30%

T2 V3 K4 I7 A8 I9 G10 L11 K15 T21 I26 S27 Y28 K29 A33 S34 N35 R36 T37 L43 V44 R45 L57 I58 D59 L60 I61 R62 N63 S64 G65 E66 K67 R68 K71 K74 K75 R76 T81 E88 I94 R98 R99 H100

- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 31% 55% 11%

G2 K3 G4 T5 F8 G9 K10 R11 H12 N13 K14 S15 H16 T17 L18 R21 C22 G23 R24 R25 S26 F27 H28 K31 K32 T33 C34 S35 S36 C37 G38 Y39 P40 A41 T44 R45 S46 Y47 N48 W49 G50 A53 K54 R55 T58 T59 G60 T61 G62 R63 M64 R65 Y66 L67

K68 H69 V70 S71 R72 R73 F74 K75 N76 Q79 T80 S84 K85 A86 S87 A88

- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 79% 18%

G2 K3 G4 T5 T17 L18 C19 N20 R21 R25 T33 S36 R55 T59 R65 Y66 L67 F74 K75 S84 K85 A86 S87 A88

- Molecule 74: 60S ribosomal protein L38

Chain O8: 32% 52% 16%

A2 R3 E4 I5 T6 D7 I8 K9 Q10 F11 L12 E13 L14 T15 R16 R17 A18 D19 T22 A23 T24 V25 K26 I27 N28 K29 K30 L31 N32 K33 A34 G35 K36 P37 Q40 T41 K42 F43 K44 V45 R46 G47 L51 Y52 T53 L54 V55 I56 N57 D58 A59 G60 K61 A62 K63 K64 L65

I66 Q67 S68 L69 P70 F71 T72 L73 K74 R77 L78

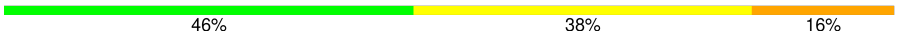
- Molecule 74: 60S ribosomal protein L38

Chain o8: 75% 25%

A2 L12 E13 R16 R17 A18 I27 P37 F38 T41 R46 S50 T53 L54 K61 A62 K63 K64 L65 I66 Q67 T72 L78

- Molecule 75: 60S ribosomal protein L39

Chain O9:

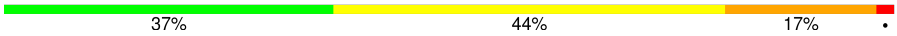


- Molecule 75: 60S ribosomal protein L39

Chain o9:

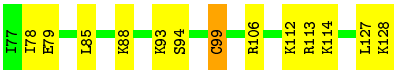
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:



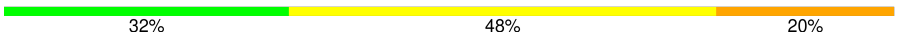
- Molecule 76: Ubiquitin-60S ribosomal protein L40

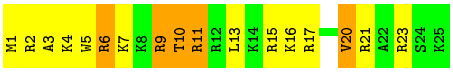
Chain q0:



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:



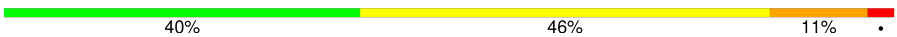


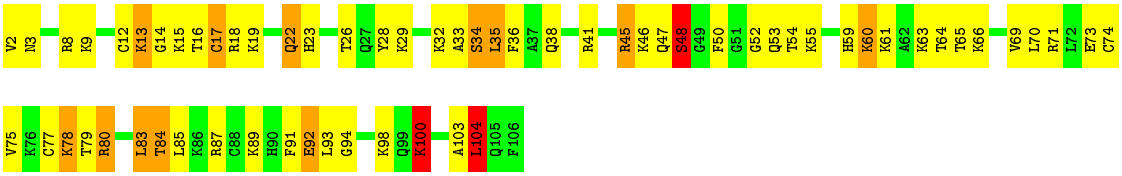
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:

- Molecule 78: 60S ribosomal protein L42-A

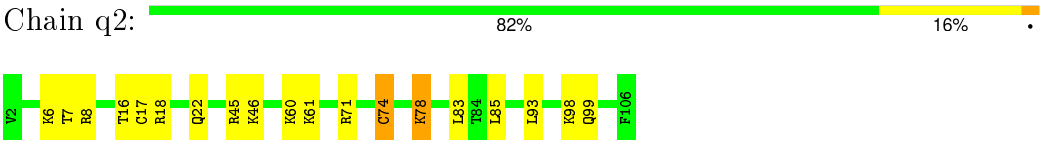
Chain Q2:





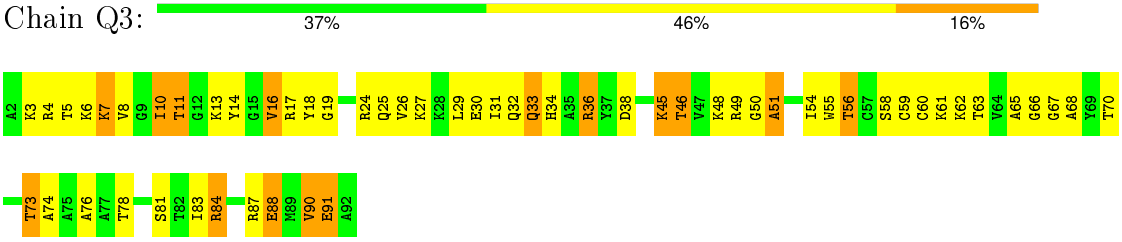
- Molecule 78: 60S ribosomal protein L42-A

Chain q2:



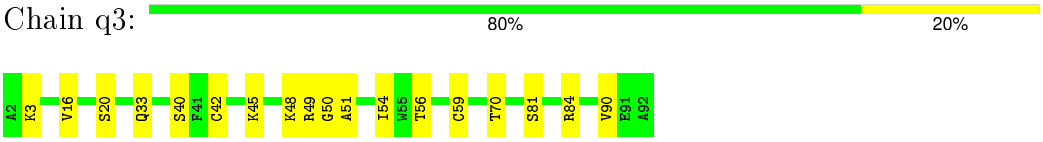
- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:



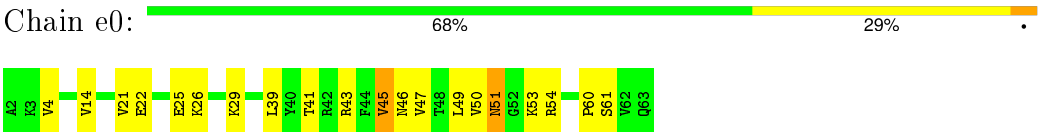
- Molecule 79: 60S ribosomal protein L43-A

Chain q3:



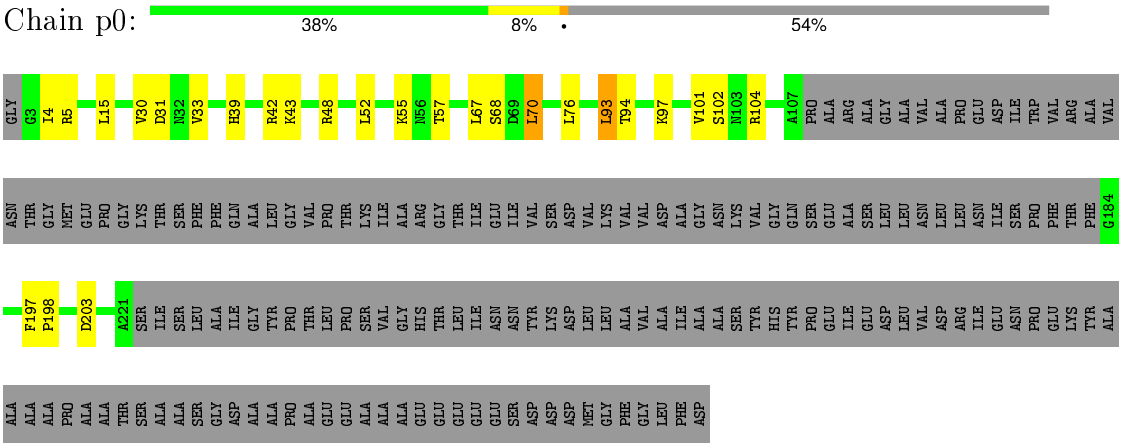
- Molecule 80: 40S ribosomal protein S30-A

Chain e0:



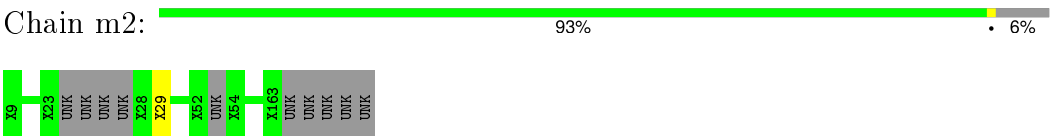
- Molecule 81: 60S acidic ribosomal protein P0

Chain p0:



- Molecule 82: Unknown protein chain m2

Chain m2:



- 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 (i)

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

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	435.15Å 287.07Å 303.24Å 90.00° 98.87° 90.00°	Depositor
Resolution (Å)	99.87 – 3.20	Depositor
% Data completeness (in resolution range)	100.0 (99.87-3.20)	Depositor
R_{merge}	0.37	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.28 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.194 , 0.246	Depositor
Wilson B-factor (Å^2)	88.0	Xtriage
Anisotropy	0.117	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Outliers	1 of 1206031 reflections (0.000%)	Xtriage
Total number of atoms	411206	wwPDB-VP
Average B, all atoms (Å^2)	76.0	wwPDB-VP

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

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

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

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

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

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

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

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

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

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

All (573) bond length outliers are listed below:

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2970	C	N1-C6	-6.44	1.33	1.37
36	1	661	G	N1-C2	-6.42	1.32	1.37
36	1	34	A	N9-C4	-6.41	1.34	1.37
36	1	2619	G	C5-C4	-6.41	1.33	1.38
44	l7	56	GLU	CG-CD	6.41	1.61	1.51
36	5	367	A	N9-C4	-6.40	1.34	1.37
47	m0	8	CYS	CB-SG	-6.39	1.71	1.82
36	5	883	A	C6-N1	-6.39	1.31	1.35
36	5	2875	U	C2-N3	6.39	1.42	1.37
36	1	919	U	C2-N3	-6.39	1.33	1.37
36	1	2396	G	N9-C8	-6.38	1.33	1.37
36	1	2138	A	N7-C5	-6.37	1.35	1.39
36	5	2954	U	N1-C2	6.37	1.44	1.38
36	1	2977	G	N1-C2	-6.37	1.32	1.37
36	5	2243	A	N9-C4	-6.37	1.34	1.37
36	5	523	A	N3-C4	-6.36	1.31	1.34
36	1	345	G	N9-C8	-6.35	1.33	1.37
36	5	804	C	N1-C6	-6.35	1.33	1.37
36	1	2326	A	N9-C4	-6.34	1.34	1.37
36	1	1371	G	C5-C4	-6.34	1.33	1.38
36	5	2704	A	N9-C4	-6.33	1.34	1.37
36	1	2357	A	N7-C5	-6.32	1.35	1.39
36	5	1331	U	C4-O4	-6.30	1.18	1.23
36	1	3273	A	N3-C4	-6.30	1.31	1.34
52	M6	100	GLU	CG-CD	6.29	1.61	1.51
36	1	2616	C	N1-C6	-6.29	1.33	1.37
41	l4	94	CYS	CB-SG	-6.28	1.71	1.82
36	5	1159	A	N9-C4	-6.27	1.34	1.37
51	M5	152	CYS	CB-SG	-6.27	1.71	1.82
36	1	1369	A	N7-C5	-6.27	1.35	1.39
36	5	2881	C	C2-N3	-6.26	1.30	1.35
36	5	2943	G	N7-C5	-6.25	1.35	1.39
36	1	1116	G	N9-C8	-6.24	1.33	1.37
36	1	1142	G	C6-N1	-6.24	1.35	1.39
36	5	576	C	N1-C6	-6.24	1.33	1.37
36	1	716	A	N9-C4	-6.23	1.34	1.37
1	6	1744	A	N9-C4	-6.22	1.34	1.37
36	5	1061	A	N9-C4	-6.21	1.34	1.37
36	5	1177	G	C6-N1	-6.20	1.35	1.39
36	5	2872	A	N9-C4	-6.19	1.34	1.37
36	5	3218	A	C5-C6	-6.18	1.35	1.41
36	5	424	G	C5-C6	-6.16	1.36	1.42

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	930	U	C4-O4	-5.04	1.19	1.23
36	1	2355	G	N7-C5	-5.04	1.36	1.39
36	1	2968	G	N3-C4	-5.04	1.31	1.35
36	5	2409	G	C5-C4	-5.04	1.34	1.38
36	1	144	A	N9-C4	-5.03	1.34	1.37
36	1	651	G	N9-C4	5.03	1.42	1.38
36	5	1445	U	N1-C2	-5.03	1.34	1.38
36	5	967	A	C6-N1	-5.03	1.32	1.35
36	5	2792	A	N9-C4	5.03	1.40	1.37
36	5	2811	A	C6-N1	-5.03	1.32	1.35
36	5	2937	G	N9-C8	-5.03	1.34	1.37
36	5	1163	A	C6-N1	-5.03	1.32	1.35
36	5	3197	G	N9-C8	5.03	1.41	1.37
36	5	295	A	N9-C4	-5.02	1.34	1.37
36	1	206	G	N1-C2	-5.02	1.33	1.37
36	1	1660	C	C2-N3	-5.02	1.31	1.35
36	1	3209	A	C5-C4	5.02	1.42	1.38
36	5	2934	A	C6-N1	-5.02	1.32	1.35
37	7	11	A	C5-C6	-5.02	1.36	1.41
36	5	924	G	C5-C4	-5.01	1.34	1.38
36	5	2412	G	N7-C5	-5.01	1.36	1.39
36	1	2605	G	N9-C4	-5.01	1.33	1.38
36	1	805	G	N9-C8	-5.01	1.34	1.37
40	L3	200	GLU	CG-CD	5.01	1.59	1.51
36	5	2326	A	N3-C4	-5.01	1.31	1.34
42	l5	257	GLU	CG-CD	5.01	1.59	1.51

All (5562) bond angle outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	2191	U	N1-C2-O2	7.55	128.09	122.80
36	5	2306	C	N3-C2-O2	-7.54	116.62	121.90
36	1	949	C	C6-N1-C2	-7.54	117.28	120.30
36	1	1148	G	N1-C6-O6	7.54	124.43	119.90
36	5	835	G	C5-C6-O6	7.54	133.13	128.60
36	1	339	C	OP1-P-OP2	-7.54	108.29	119.60
36	5	437	G	N9-C4-C5	7.54	108.42	105.40
1	2	554	C	N1-C2-O2	7.53	123.42	118.90
36	1	2658	G	O5'-P-OP2	-7.53	98.92	105.70
36	5	2434	U	O5'-P-OP2	-7.53	98.92	105.70
36	5	948	C	C5-C4-N4	-7.53	114.93	120.20
36	5	2192	C	O5'-P-OP2	-7.53	98.92	105.70
36	1	1507	G	N3-C4-N9	7.53	130.52	126.00
36	5	3183	A	C4-C5-N7	7.53	114.46	110.70
36	1	33	G	O5'-P-OP1	-7.52	98.93	105.70
36	5	1710	C	N3-C4-C5	7.52	124.91	121.90
36	1	1153	A	O5'-P-OP1	-7.52	98.93	105.70
1	6	639	U	N3-C2-O2	-7.52	116.94	122.20
36	5	2385	G	N1-C6-O6	7.52	124.41	119.90
36	1	907	G	O5'-P-OP2	-7.52	98.93	105.70
37	7	98	C	C6-N1-C2	7.52	123.31	120.30
36	1	1820	U	N3-C2-O2	-7.52	116.94	122.20
36	1	1315	U	C5-C6-N1	-7.51	118.94	122.70
44	l7	229	PHE	CB-CG-CD1	7.51	126.06	120.80
36	1	1334	U	N3-C4-C5	-7.51	110.09	114.60
36	5	1592	G	C4-C5-N7	-7.51	107.80	110.80
1	2	1600	A	C5-C6-N1	-7.51	113.95	117.70
36	5	2326	A	C8-N9-C4	7.51	108.80	105.80
36	1	1303	A	N7-C8-N9	-7.51	110.05	113.80
36	1	1489	A	N1-C6-N6	7.50	123.10	118.60
36	1	2333	C	C5-C6-N1	-7.50	117.25	121.00
36	5	632	G	C5-C6-N1	7.50	115.25	111.50
36	1	1419	A	N1-C6-N6	7.50	123.10	118.60
36	1	3057	U	N3-C2-O2	-7.50	116.95	122.20
36	5	2134	G	C5-C6-O6	7.50	133.10	128.60
36	1	662	U	O5'-P-OP2	-7.49	98.96	105.70
36	5	2811	A	N1-C6-N6	-7.49	114.10	118.60
1	2	190	C	O4'-C1'-N1	7.49	114.19	108.20
36	5	2572	C	C2-N1-C1'	7.49	127.04	118.80
12	C0	88	PRO	N-CA-CB	7.49	112.28	103.30
36	5	2327	U	C5-C6-N1	-7.49	118.96	122.70
36	1	896	A	C8-N9-C4	-7.49	102.81	105.80

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	4	45	C	O5'-P-OP2	-6.32	100.01	105.70
36	5	1858	A	N1-C2-N3	6.32	132.46	129.30
36	5	561	C	C5-C6-N1	6.32	124.16	121.00
36	5	806	A	C2-N3-C4	-6.32	107.44	110.60
37	7	87	G	N1-C6-O6	6.32	123.69	119.90
36	1	281	G	C6-N1-C2	-6.32	121.31	125.10
36	5	1837	U	O5'-P-OP1	-6.32	100.02	105.70
36	5	1843	C	C5-C4-N4	-6.32	115.78	120.20
41	l4	300	ARG	NE-CZ-NH1	6.31	123.46	120.30
37	7	11	A	C5-C6-N6	-6.31	118.65	123.70
36	1	3143	C	N1-C2-O2	-6.31	115.11	118.90
36	5	3212	C	C5-C6-N1	-6.31	117.84	121.00
1	2	1300	A	N1-C6-N6	-6.31	114.81	118.60
1	2	1654	G	N3-C4-N9	6.31	129.79	126.00
36	1	1943	C	C6-N1-C2	-6.31	117.78	120.30
36	1	2827	U	C5-C6-N1	-6.31	119.55	122.70
1	2	1761	U	N1-C2-N3	6.31	118.68	114.90
36	1	1513	G	N3-C4-C5	-6.31	125.45	128.60
36	5	1426	C	N3-C4-C5	6.31	124.42	121.90
36	5	111	C	O5'-P-OP2	-6.31	100.03	105.70
36	1	1113	G	C8-N9-C4	-6.30	103.88	106.40
36	1	1437	C	C6-N1-C2	-6.30	117.78	120.30
35	sM	167	PRO	N-CA-CB	6.30	110.86	103.30
36	5	957	C	C2-N3-C4	-6.30	116.75	119.90
36	5	2917	G	N3-C4-N9	6.30	129.78	126.00
36	1	1049	C	O5'-P-OP2	-6.30	100.03	105.70
36	5	297	G	N3-C4-C5	-6.30	125.45	128.60
36	1	650	C	OP2-P-O3'	6.30	119.06	105.20
1	6	1031	U	C6-N1-C2	6.30	124.78	121.00
36	5	2403	G	N3-C4-C5	-6.30	125.45	128.60
36	5	3143	C	N1-C2-O2	-6.30	115.12	118.90
1	2	1762	A	C2-N3-C4	-6.30	107.45	110.60
36	5	719	U	N3-C2-O2	-6.30	117.79	122.20
36	1	295	A	O5'-P-OP1	-6.30	100.03	105.70
36	1	585	A	C8-N9-C4	6.30	108.32	105.80
36	1	2764	C	N3-C4-N4	6.30	122.41	118.00
36	1	1154	A	C6-C5-N7	-6.30	127.89	132.30
36	1	1407	A	C8-N9-C4	6.30	108.32	105.80
36	1	2760	C	N3-C2-O2	6.30	126.31	121.90
37	7	20	A	C8-N9-C4	6.30	108.32	105.80
36	1	718	G	N7-C8-N9	6.29	116.25	113.10
36	1	1405	U	OP1-P-OP2	6.29	129.04	119.60

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1	1619	A	C8-N9-C4	5.71	108.08	105.80
36	1	2142	A	N1-C6-N6	-5.71	115.18	118.60
36	1	2865	U	C6-N1-C2	5.71	124.42	121.00
38	8	103	G	N3-C4-N9	5.71	129.42	126.00
36	1	65	A	OP1-P-O3'	5.71	117.75	105.20
36	1	1602	A	N1-C6-N6	5.71	122.02	118.60
36	1	2174	G	C8-N9-C4	-5.70	104.12	106.40
36	1	2871	G	C5-C6-O6	-5.70	125.18	128.60
36	5	804	C	OP1-P-O3'	5.70	117.75	105.20
36	5	869	G	N1-C6-O6	-5.70	116.48	119.90
36	5	3136	G	N1-C2-N3	5.70	127.32	123.90
44	l7	232	ARG	NE-CZ-NH1	-5.70	117.45	120.30
36	5	770	G	O4'-C1'-N9	5.70	112.76	108.20
36	1	983	A	C6-N1-C2	-5.70	115.18	118.60
1	6	1046	G	N7-C8-N9	-5.70	110.25	113.10
36	5	225	C	C2-N3-C4	-5.70	117.05	119.90
36	1	919	U	N1-C2-O2	5.70	126.79	122.80
36	1	1154	A	C5-C6-N6	-5.70	119.14	123.70
36	5	3184	A	C4-C5-N7	5.70	113.55	110.70
36	1	804	C	C4-C5-C6	5.70	120.25	117.40
36	5	43	A	C4-C5-N7	5.70	113.55	110.70
36	5	417	A	OP2-P-O3'	5.69	117.73	105.20
36	1	895	A	N9-C4-C5	-5.69	103.52	105.80
36	1	3270	U	O5'-P-OP1	-5.69	100.58	105.70
1	6	66	U	P-O3'-C3'	5.69	126.53	119.70
36	5	637	C	N1-C2-O2	-5.69	115.48	118.90
36	5	1116	G	C4-C5-N7	-5.69	108.52	110.80
36	1	1340	G	C8-N9-C4	5.69	108.68	106.40
1	6	544	A	C8-N9-C4	5.69	108.08	105.80
36	5	1114	U	OP1-P-O3'	5.69	117.72	105.20
36	5	2943	G	C6-C5-N7	-5.69	126.98	130.40
38	8	10	A	N1-C6-N6	5.69	122.01	118.60
36	1	498	A	C8-N9-C4	-5.69	103.52	105.80
36	1	1891	A	N7-C8-N9	-5.69	110.96	113.80
36	5	1161	G	N3-C4-N9	5.69	129.41	126.00
38	8	54	A	C5-C6-N1	-5.69	114.86	117.70
36	1	2729	U	N3-C2-O2	-5.69	118.22	122.20
36	5	2164	A	C4-C5-C6	5.69	119.84	117.00
36	5	2759	U	N3-C4-C5	-5.69	111.19	114.60
36	5	1911	A	C2-N3-C4	-5.69	107.76	110.60
1	2	857	U	N3-C2-O2	-5.68	118.22	122.20
36	1	1796	G	C8-N9-C4	-5.68	104.13	106.40

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	5	45	A	C6-N1-C2	-5.39	115.37	118.60
36	5	767	U	O4'-C1'-N1	5.39	112.51	108.20
36	5	2157	G	O5'-P-OP1	-5.39	100.85	105.70
36	5	2264	U	O5'-P-OP2	-5.39	100.85	105.70
36	5	2889	C	N1-C2-N3	5.39	122.97	119.20
1	2	794	U	OP1-P-O3'	5.39	117.05	105.20
1	2	1600	A	P-O3'-C3'	5.39	126.16	119.70
36	1	711	A	N7-C8-N9	-5.39	111.11	113.80
36	1	861	C	N3-C4-C5	5.39	124.05	121.90
36	1	2796	G	C8-N9-C4	-5.39	104.25	106.40
36	1	2881	C	O4'-C1'-N1	5.39	112.51	108.20
36	5	838	G	C5-C6-O6	5.39	131.83	128.60
36	5	3093	C	C6-N1-C2	5.39	122.45	120.30
1	2	577	G	N3-C4-C5	5.38	131.29	128.60
1	2	1798	U	C2-N1-C1'	5.38	124.16	117.70
36	1	404	G	C5-C6-N1	-5.38	108.81	111.50
36	1	2876	C	N3-C4-C5	-5.38	119.75	121.90
36	1	2883	U	N1-C2-N3	-5.38	111.67	114.90
36	1	3269	U	C5-C4-O4	5.38	129.13	125.90
36	5	2355	G	C5-C6-O6	-5.38	125.37	128.60
37	7	26	C	O5'-P-OP2	-5.38	100.85	105.70
36	1	3081	C	C4-C5-C6	5.38	120.09	117.40
36	1	82	C	N3-C4-C5	-5.38	119.75	121.90
36	1	867	G	N3-C2-N2	-5.38	116.13	119.90
36	1	939	U	O5'-P-OP1	5.38	117.16	110.70
36	1	1172	G	O5'-P-OP1	-5.38	100.86	105.70
36	1	1838	G	C4-C5-N7	5.38	112.95	110.80
36	1	2731	U	C5-C4-O4	-5.38	122.67	125.90
36	5	1884	A	C8-N9-C4	-5.38	103.65	105.80
36	5	2651	G	OP2-P-O3'	5.38	117.04	105.20
36	5	63	A	N9-C4-C5	-5.38	103.65	105.80
36	5	327	A	C8-N9-C4	5.38	107.95	105.80
36	1	765	C	C2-N1-C1'	5.38	124.72	118.80
36	1	1414	G	C4-C5-N7	5.38	112.95	110.80
36	1	1531	C	C2-N1-C1'	5.38	124.72	118.80
36	5	691	A	N1-C6-N6	-5.38	115.37	118.60
36	5	1174	G	N3-C4-N9	5.38	129.23	126.00
36	5	2300	G	O5'-P-OP1	-5.38	100.86	105.70
41	l4	230	VAL	CB-CA-C	-5.38	101.18	111.40
36	1	2137	U	N1-C2-O2	5.38	126.56	122.80
36	1	2385	G	N3-C4-C5	5.38	131.29	128.60
36	1	3044	G	N1-C6-O6	-5.38	116.67	119.90

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2	150	U	O5'-P-OP1	-5.02	101.18	105.70
1	2	1740	A	C5-C6-N6	-5.02	119.68	123.70
36	1	1431	G	C4-C5-N7	-5.02	108.79	110.80
38	4	74	U	C2-N3-C4	-5.02	123.99	127.00
44	L7	129	LEU	CB-CG-CD2	-5.02	102.46	111.00
51	M5	96	ARG	NE-CZ-NH1	5.02	122.81	120.30
36	5	878	G	N3-C4-C5	-5.02	126.09	128.60
36	5	2212	C	C5-C6-N1	5.02	123.51	121.00
44	l7	229	PHE	CB-CG-CD2	-5.02	117.28	120.80
1	6	119	A	N1-C6-N6	5.02	121.61	118.60
36	5	343	U	N3-C4-C5	-5.02	111.59	114.60
36	5	796	U	C6-N1-C2	-5.02	117.99	121.00
36	5	2932	U	C6-N1-C1'	-5.02	114.17	121.20
1	2	389	G	C5-C6-O6	-5.02	125.59	128.60
36	1	1384	U	OP2-P-O3'	5.02	116.24	105.20
36	1	2197	C	N1-C2-N3	-5.02	115.69	119.20
36	1	2824	G	C8-N9-C4	5.02	108.41	106.40
36	5	437	G	N7-C8-N9	5.02	115.61	113.10
36	5	1306	G	C4-N9-C1'	5.02	133.02	126.50
36	1	2607	G	O5'-P-OP2	-5.02	101.18	105.70
36	1	2823	G	C4-C5-N7	-5.02	108.79	110.80
36	1	3111	U	C6-N1-C2	5.02	124.01	121.00
1	6	1503	A	C5-N7-C8	-5.02	101.39	103.90
36	5	341	G	N3-C4-N9	-5.02	122.99	126.00
36	5	2632	G	C5-C6-O6	5.02	131.61	128.60
36	5	2792	A	C4-C5-C6	5.02	119.51	117.00
36	5	3351	U	N1-C2-O2	5.02	126.31	122.80
36	1	2772	C	C3'-C2'-C1'	-5.02	97.49	101.50
36	1	1322	U	N3-C2-O2	5.01	125.71	122.20
36	1	3201	C	C4-C5-C6	5.01	119.91	117.40
38	4	136	G	C5-C6-O6	-5.01	125.59	128.60
1	6	1140	G	C5-C6-O6	-5.01	125.59	128.60
36	5	1447	G	N3-C4-C5	-5.01	126.09	128.60
36	5	2257	C	C6-N1-C2	-5.01	118.29	120.30
36	5	2266	U	N3-C2-O2	-5.01	118.69	122.20
36	5	3362	A	OP2-P-O3'	5.01	116.23	105.20
37	7	27	A	C6-N1-C2	-5.01	115.59	118.60
1	2	57	G	O5'-P-OP2	-5.01	101.19	105.70
36	1	814	U	C2-N3-C4	5.01	130.01	127.00
36	5	637	C	O5'-P-OP1	-5.01	101.19	105.70
36	5	1481	A	O5'-P-OP2	-5.01	101.19	105.70
36	5	2303	A	C2-N3-C4	-5.01	108.09	110.60

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

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

There are no chirality outliers.

All (46) planarity outliers are listed below:

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

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

5.2 Too-close contacts (i)

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

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

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

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

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

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

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

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

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

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 16.

All (11067) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.09	0.86
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.29	0.86
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.08	0.86
36:1:2123:G:N7	86:1:4197:OHX:N2	2.23	0.86
36:5:2620:G:O6	86:5:4245:OHX:N4	2.08	0.86
1:6:991:G:OP2	86:6:2171:OHX:N2	2.08	0.86
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.60	0.86
33:E1:134:ASN:H	1:6:1251:U:H4'	441.48	0.86
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.40	0.86
47:M0:175:ASN:OD1	47:M0:176:LEU:N	5.02	0.86
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.85
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.40	0.85
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.09	0.85
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.18	0.85
36:1:824:C:H5"	39:L2:21:ARG:HD3	1.58	0.85
66:O0:63:SER:HG	66:O0:65:THR:HG1	1.24	0.85
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.59	0.85
86:1:3954:OHX:N6	44:L7:217:PRO:O	2.08	0.85
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.58	0.85
36:1:3050:U:OP2	86:1:4180:OHX:N4	2.09	0.85
1:6:1696:G:O2'	1:6:1698:G:N7	2.08	0.85
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.64	0.85
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.58	0.85
25:D3:79:ASN:HD22	25:D3:81:LYS:H	1.20	0.85
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.40	0.85
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.42	0.84
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	3.56	0.84
41:L4:338:LYS:O	41:L4:340:GLY:N	2.15	0.84
36:5:1555:U:O4	36:5:1557:A:N6	2.09	0.84
46:L9:91:ARG:NH2	46:L9:141:LYS:O	5.06	0.84
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.59	0.84
1:2:1542:G:N2	1:2:1569:A:OP2	2.09	0.84
37:3:17:A:OP1	42:L5:2:ALA:N	2.09	0.84
1:6:990:C:OP2	86:6:2121:OHX:N2	2.11	0.84
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.49	0.84
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	3.06	0.84
47:M0:76:MET:HE3	47:M0:148:VAL:HA	1.57	0.84
49:M3:73:ARG:NH1	36:5:110:G:OP2	75.22	0.84
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.41	0.84
72:O6:28:TYR:O	86:5:4191:OHX:N2	104.16	0.84
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.89	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.10	0.84
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.24	0.84
36:5:2836:C:H5	36:5:2852:C:H42	1.21	0.84
48:M1:94:ARG:O	48:M1:96:PHE:N	2.31	0.84
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.78	0.84
49:M3:15:ARG:NH2	36:5:96:G:OP1	154.01	0.84
1:2:1280:C:H2'	1:2:1281:G:H8	1.40	0.84
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.20	0.84
68:O2:81:ASP:O	68:O2:84:THR:OG1	1.96	0.84
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.42	0.84
18:C6:32:ASN:HD21	18:C6:69:VAL:HG23	3.96	0.84
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.10	0.84
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.43	0.83
64:N8:3:SER:O	64:N8:6:THR:HB	3.34	0.83
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.60	0.83
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	2.20	0.83
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.12	0.83
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.29	0.83
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.20	0.83
73:O7:87:SER:O	86:O7:105:OHX:N3	2.10	0.83
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.60	0.83
1:6:1688:U:H3	1:6:1713:G:H1	1.26	0.83
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.72	0.83
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.60	0.83
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.43	0.83
36:5:2444:C:H42	36:5:2503:G:H1	1.27	0.83
36:1:13:A:OP2	86:1:4201:OHX:N5	2.11	0.83
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.10	0.83
36:5:2211:U:O4	86:5:3964:OHX:N4	2.12	0.83
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.63	0.82
36:1:371:G:O6	86:1:4179:OHX:N4	2.11	0.82
1:6:453:U:O4	86:6:2062:OHX:N4	2.12	0.82
1:6:833:U:O4	86:6:2101:OHX:N2	2.12	0.82
46:L9:49:ASN:O	46:L9:51:GLN:N	2.12	0.82
7:S5:57:SER:O	7:S5:59:VAL:N	2.12	0.82
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.26	0.82
51:M5:24:ARG:HH11	51:M5:24:ARG:HG2	3.50	0.82
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.67	0.82
36:1:3155:U:H3'	36:1:3156:U:H4'	1.62	0.82
42:L5:279:LYS:HE3	42:L5:282:ARG:HH12	1.44	0.82
55:M9:104:ARG:HH21	55:M9:105:LEU:HB2	1.42	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:88:ALA:O	86:O7:105:OHX:N1	2.12	0.82
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.52	0.82
16:C4:50:ALA:O	16:C4:52:ARG:N	2.49	0.82
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.70	0.82
1:6:1011:G:OP2	86:6:2121:OHX:N3	2.13	0.82
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.58	0.82
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	1.87	0.82
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.45	0.82
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.26	0.81
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.85	0.81
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.25	0.81
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.62	0.81
36:5:2818:U:H6	36:5:2818:U:H5'	1.43	0.81
36:5:409:A:OP2	86:5:4105:OHX:N3	2.13	0.81
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.10	0.81
19:C7:25:THR:O	19:C7:27:ASP:N	2.13	0.81
40:L3:139:GLN:O	40:L3:141:GLY:N	2.42	0.81
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.69	0.81
1:2:140:A:N6	1:2:281:G:OP1	2.13	0.81
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.13	0.81
48:M1:15:GLU:HB3	48:M1:130:VAL:HG13	1.60	0.81
36:1:1243:G:N2	36:1:1244:A:N7	2.28	0.81
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.90	0.81
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.46	0.81
36:5:1235:U:H4'	36:5:1236:G:H5'	1.61	0.81
41:L4:317:PRO:O	41:L4:319:LYS:N	2.13	0.81
38:4:79:A:H2'	38:4:80:A:H1'	1.63	0.81
42:L5:265:TYR:HE1	37:7:121:U:H5"	315.13	0.81
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.77	0.81
73:O7:62:GLY:O	86:8:217:OHX:N3	82.54	0.81
36:5:566:G:N7	86:5:4134:OHX:N5	2.29	0.81
36:1:425:G:O6	86:1:3871:OHX:N6	2.13	0.80
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.82	0.80
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.44	0.80
36:5:2234:G:O6	86:5:3964:OHX:N1	2.14	0.80
36:5:510:G:O6	86:5:4025:OHX:N2	2.13	0.80
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.69	0.80
36:5:2233:A:OP2	86:5:3964:OHX:N5	2.14	0.80
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.94	0.80
36:5:1877:U:H5"	36:5:1878:G:H5'	1.62	0.80
12:C0:44:LYS:HE2	1:6:1217:A:H4'	425.07	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:300:G:O6	86:1:4149:OHX:N1	2.14	0.80
49:M3:73:ARG:NH2	36:5:77:A:N7	80.39	0.80
36:1:979:U:H1'	36:1:980:A:C8	2.17	0.80
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.61	0.80
1:2:283:U:H5"	8:S6:188:ARG:HD3	1.63	0.80
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.12	0.80
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	3.49	0.80
36:1:2443:A:N6	36:1:2504:U:O4	2.14	0.80
38:8:79:A:H3'	38:8:80:A:C8	2.15	0.80
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	1.82	0.80
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.81	0.79
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	3.03	0.79
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	4.33	0.79
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.41	0.79
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.62	0.79
36:5:2404:A:H2'	36:5:2405:C:H5'	1.62	0.79
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.81	0.79
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.31	0.79
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.14	0.79
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.72	0.79
42:L5:259:LYS:HG3	42:L5:260:PHE:HD2	1.48	0.79
3:S1:157:GLN:O	3:S1:159:SER:N	2.15	0.79
36:5:1808:G:O6	86:5:4026:OHX:N3	2.16	0.79
13:C1:132:SER:O	13:C1:134:THR:N	3.07	0.79
1:2:715:U:H3	1:2:723:G:H1	1.27	0.79
36:5:2258:U:OP2	86:5:3950:OHX:N4	2.15	0.79
49:M3:165:SER:O	49:M3:167:PHE:N	2.14	0.79
72:O6:63:ASN:O	72:O6:65:GLY:N	4.84	0.79
36:1:562:C:H2'	36:1:563:U:H6	1.48	0.79
1:2:895:G:H1	1:2:917:U:H3	1.29	0.79
36:1:3066:U:O4	86:1:4134:OHX:N5	2.16	0.79
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.91	0.79
36:1:36:C:N4	36:1:47:C:O2	2.14	0.79
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	3.27	0.78
1:6:228:G:N2	1:6:237:C:N3	2.31	0.78
1:6:754:A:N6	1:6:793:A:N7	2.31	0.78
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.65	0.78
57:N1:130:ARG:NH1	36:5:1098:A:OP2	253.08	0.78
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.02	0.78
5:S3:66:ILE:O	5:S3:70:THR:OG1	3.13	0.78
9:S7:131:PHE:O	9:S7:133:THR:N	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.46	0.78
36:5:2960:C:OP1	86:5:3974:OHX:N5	2.17	0.78
62:N6:91:ASN:O	62:N6:93:ALA:N	2.16	0.78
75:O9:2:ALA:N	36:5:1493:G:O6	122.50	0.78
1:2:1237:G:N2	1:2:1248:C:O2	2.15	0.78
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.19	0.78
36:1:3087:A:OP1	86:1:4180:OHX:N5	2.17	0.78
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.17	0.78
36:1:1563:C:O2	36:1:1577:G:N2	2.11	0.78
10:S8:162:ALA:HA	36:1:3353:G:H5"	1.65	0.78
36:1:807:A:H61	36:1:934:G:H22	1.29	0.78
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.17	0.78
36:1:829:U:H3	36:1:895:A:N6	1.82	0.78
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.17	0.78
18:C6:50:GLU:OE1	18:C6:114:ARG:NH1	2.14	0.78
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.17	0.78
37:3:112:G:OP2	86:3:221:OHX:N1	2.17	0.78
25:D3:91:GLY:O	25:D3:93:LEU:N	2.17	0.78
63:N7:128:GLN:O	63:N7:130:PHE:N	2.17	0.78
40:L3:347:SER:O	40:L3:349:LYS:N	2.16	0.78
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.74	0.78
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	5.39	0.78
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.64	0.78
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.05	0.77
52:M6:60:LYS:HE2	36:5:1307:G:H5"	250.76	0.77
40:L3:169:THR:HG23	40:L3:171:LEU:H	1.95	0.77
53:M7:25:SER:O	53:M7:29:THR:HG23	2.28	0.77
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.66	0.77
36:5:419:G:N7	86:5:3907:OHX:N3	2.32	0.77
1:2:1585:U:H3	1:2:1611:A:H2	1.31	0.77
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.25	0.77
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.16	0.77
1:2:237:C:H5"	1:2:238:U:H5'	1.64	0.77
44:L7:180:SER:HB2	44:L7:183:ASP:H	1.47	0.77
1:2:1010:C:OP2	86:2:2131:OHX:N6	2.18	0.77
36:1:1878:G:OP1	86:1:3923:OHX:N4	2.18	0.77
36:1:2233:A:OP2	86:1:4041:OHX:N5	2.17	0.77
51:M5:50:ARG:HH11	36:5:267:G:H4'	111.01	0.77
1:2:9:U:O4	86:2:2154:OHX:N6	2.18	0.77
1:2:800:U:O4	86:2:2054:OHX:N5	2.18	0.77
36:1:924:G:OP1	86:1:4142:OHX:N5	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:705:A:H62	64:N8:74:ASN:HD21	1.31	0.77
41:L4:291:ASN:O	41:L4:293:SER:N	2.16	0.77
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.18	0.77
36:5:1599:G:OP1	86:5:4140:OHX:N4	2.18	0.77
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.13	0.77
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.18	0.77
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.65	0.77
44:L7:80:GLN:HE21	57:N1:136:ARG:H	4.96	0.77
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.18	0.77
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	2.18	0.77
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	1.86	0.77
37:7:86:U:O2	86:7:220:OHX:N4	2.18	0.77
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.05	0.77
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.58	0.77
36:1:276:U:O2	51:M5:93:LYS:NZ	2.18	0.76
86:2:2039:OHX:N1	25:D3:64:PRO:O	2.17	0.76
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.13	0.76
18:C6:66:ARG:NH1	1:6:1351:G:OP1	435.33	0.76
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	2.73	0.76
29:D7:59:CYS:O	29:D7:61:THR:N	2.83	0.76
1:2:143:G:N7	8:S6:177:ARG:NH2	2.33	0.76
40:L3:296:THR:HG22	40:L3:299:ASP:H	1.90	0.76
1:2:1203:A:OP2	86:2:2110:OHX:N5	2.18	0.76
1:2:142:G:H22	1:2:173:A:H2	1.33	0.76
36:1:3224:G:O6	86:1:3889:OHX:N4	2.18	0.76
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.51	0.76
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.65	0.76
40:L3:346:THR:O	40:L3:348:ARG:N	2.18	0.76
39:L2:70:ARG:HH11	39:L2:72:ARG:HG2	1.49	0.76
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.48	0.76
36:5:3343:G:H21	36:5:3362:A:H2	1.33	0.76
36:5:410:U:O4	86:5:4105:OHX:N1	2.18	0.76
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.92	0.76
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.67	0.76
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.85	0.76
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.88	0.76
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	3.37	0.76
69:O3:86:ARG:O	86:O3:201:OHX:N1	2.18	0.76
37:3:49:G:N7	42:L5:58:LYS:HG3	2.00	0.76
36:5:2822:U:OP2	86:5:3955:OHX:N1	2.19	0.76
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.53	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3165:A:H61	36:5:3285:C:H42	1.32	0.76
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.19	0.76
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.29	0.76
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.68	0.76
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.66	0.76
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	2.02	0.76
36:1:1565:G:N2	36:1:1574:C:O2	2.19	0.76
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.88	0.76
1:6:868:G:H1	1:6:960:U:H3	1.33	0.76
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.66	0.76
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.31	0.76
55:M9:17:VAL:HG21	55:M9:52:LYS:HE2	4.01	0.76
69:O3:12:LYS:NZ	69:O3:95:GLY:O	2.18	0.76
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.67	0.76
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.18	0.76
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	5.19	0.76
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.66	0.76
36:1:679:U:O4	86:1:3969:OHX:N1	2.19	0.76
36:5:2971:A:H3'	36:5:2971:A:N3	1.99	0.76
67:O1:46:THR:OG1	67:O1:47:ASP:N	3.74	0.75
1:2:169:A:H5"	8:S6:176:GLN:HG2	1.66	0.75
15:C3:140:LYS:NZ	36:5:847:A:OP1	286.27	0.75
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.68	0.75
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.26	0.75
36:5:742:G:N7	86:5:4005:OHX:N4	2.34	0.75
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.49	0.75
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.68	0.75
36:1:2794:G:N7	86:1:3930:OHX:N2	2.34	0.75
86:5:3944:OHX:N2	86:5:4236:OHX:N4	2.34	0.75
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.04	0.75
5:S3:167:PHE:HA	5:S3:190:ARG:HD3	1.67	0.75
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	1.67	0.75
8:S6:20:ASP:HB3	8:S6:23:ARG:HG3	3.50	0.75
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.61	0.75
1:6:230:C:N3	1:6:235:G:N2	2.33	0.75
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.64	0.75
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.12	0.75
1:2:1507:G:O6	86:2:2145:OHX:N5	2.20	0.75
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.18	0.75
1:2:452:A:OP2	86:2:2038:OHX:N5	2.19	0.75
46:L9:100:ASN:HB3	46:L9:115:ARG:HB2	2.44	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.52	0.75
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.68	0.75
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.20	0.75
36:1:2897:A:H2'	36:1:2899:C:H5"	1.68	0.75
46:L9:70:THR:HG21	36:5:3122:A:N1	323.95	0.75
1:2:992:A:OP1	86:2:2035:OHX:N2	2.20	0.75
36:5:1066:G:OP1	86:5:4230:OHX:N2	2.20	0.75
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.99	0.75
47:M0:88:ARG:HG2	47:M0:90:ARG:HG2	2.47	0.75
16:C4:91:THR:O	16:C4:93:THR:N	2.19	0.75
36:1:715:A:H8	64:N8:115:LYS:HG3	1.50	0.75
46:L9:22:SER:OG	46:L9:23:ARG:N	2.19	0.75
34:SR:115:ILE:HG13	34:SR:122:ILE:HG12	1.97	0.75
46:L9:77:ASN:HA	46:L9:80:THR:HG23	2.16	0.75
1:6:138:A:N6	1:6:266:A:H61	1.85	0.75
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.69	0.75
36:5:2996:U:OP1	36:5:2996:U:H4'	1.86	0.75
1:2:1557:U:OP2	1:2:1559:A:O2'	2.05	0.75
36:5:789:A:H2'	36:5:790:U:H6	1.52	0.75
36:1:1591:G:O2'	36:1:1799:A:N1	2.17	0.75
1:2:1291:G:N2	1:2:1324:G:H22	1.83	0.75
36:1:1877:U:OP2	86:1:3923:OHX:N2	2.20	0.75
70:O4:8:ARG:HH21	70:O4:31:ARG:HH11	2.47	0.75
29:D7:19:HIS:HD2	29:D7:21:LEU:H	5.22	0.75
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.51	0.75
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	4.40	0.74
34:SR:70:ASP:OD2	34:SR:155:ARG:NH2	2.20	0.74
6:S4:85:GLY:N	6:S4:88:ASP:OD2	2.46	0.74
7:S5:120:ILE:HG12	27:D5:100:ILE:HD11	1.69	0.74
1:2:116:U:H2'	1:2:117:U:C6	2.22	0.74
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.67	0.74
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.19	0.74
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.67	0.74
1:6:471:A:OP2	86:6:2103:OHX:N5	2.20	0.74
36:1:1740:U:H1'	36:1:1741:A:H2	1.52	0.74
36:5:1238:C:O2'	36:5:1239:C:OP1	2.05	0.74
26:D4:62:THR:HA	26:D4:69:SER:HA	1.67	0.74
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.19	0.74
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.20	0.74
19:C7:66:VAL:O	19:C7:68:GLY:N	3.18	0.74
64:N8:34:MET:HB2	36:5:95:A:H5"	162.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.50	0.74
70:O4:54:ILE:HD11	70:O4:78:GLY:HA2	2.26	0.74
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	1.68	0.74
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.68	0.74
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.14	0.74
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.25	0.74
5:S3:79:TYR:HD1	5:S3:84:ILE:HB	1.50	0.74
36:5:979:U:H1'	36:5:980:A:C4	2.22	0.74
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.52	0.74
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.85	0.74
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.67	0.74
86:5:3944:OHX:N5	86:5:4236:OHX:N6	2.35	0.74
38:4:16:G:O6	86:4:222:OHX:N3	2.20	0.74
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.68	0.74
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.21	0.74
47:M0:73:ASN:O	47:M0:77:THR:OG1	3.64	0.74
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	4.87	0.74
86:5:3944:OHX:N5	86:5:4236:OHX:N3	2.36	0.74
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.23	0.74
15:C3:67:THR:O	15:C3:69:ASN:N	2.21	0.74
1:2:1290:U:H2'	1:2:1291:G:C8	2.21	0.74
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.20	0.74
6:S4:108:ARG:NH1	1:6:788:A:OP2	397.07	0.74
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.21	0.74
49:M3:182:ILE:HD12	49:M3:182:ILE:H	1.53	0.74
1:6:1130:G:OP2	86:6:2113:OHX:N1	2.20	0.74
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.52	0.74
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.20	0.74
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.68	0.74
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.59	0.74
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.20	0.74
1:6:369:A:O2'	1:6:371:G:OP2	2.05	0.74
36:5:955:U:H2'	36:5:956:U:C6	2.21	0.74
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.69	0.74
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.20	0.74
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.52	0.74
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.45	0.74
48:M1:60:ARG:NH1	78:Q2:104:LEU:O	3.50	0.74
1:6:25:C:O2	86:6:2108:OHX:N5	2.20	0.74
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.08	0.74
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.21	0.74
1:2:1280:C:H2'	1:2:1281:G:C8	2.23	0.74
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.81	0.74
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.20	0.74
64:N8:128:ARG:HB2	72:O6:8:ALA:HB2	4.03	0.74
63:N7:95:VAL:HG21	63:N7:113:VAL:HG21	1.68	0.74
1:6:1665:U:O4	86:6:2124:OHX:N6	2.21	0.74
69:O3:60:ARG:HD3	36:5:3275:U:N3	213.34	0.73
36:5:864:G:OP2	86:5:3918:OHX:N4	2.20	0.73
36:5:2439:A:N6	36:5:2508:U:H3	1.86	0.73
1:2:823:G:H2'	1:2:824:G:H8	1.53	0.73
86:2:2031:OHX:N3	86:2:2145:OHX:N5	2.36	0.73
1:2:1720:G:O6	86:2:2082:OHX:N5	2.21	0.73
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.52	0.73
72:O6:9:ILE:HD13	72:O6:10:GLY:H	4.90	0.73
39:L2:70:ARG:HH11	39:L2:72:ARG:HE	4.14	0.73
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.51	0.73
36:5:2705:A:OP2	86:5:3901:OHX:N2	2.21	0.73
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.56	0.73
36:1:3085:G:OP2	86:1:3883:OHX:N2	2.21	0.73
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.21	0.73
36:1:148:G:OP2	51:M5:4:TYR:OH	2.05	0.73
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.61	0.73
36:1:2659:G:N7	86:1:3876:OHX:N5	2.37	0.73
36:5:3174:A:H2'	36:5:3175:U:H5'	1.71	0.73
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.68	0.73
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.69	0.73
1:2:747:C:O2'	24:D2:80:ASN:OD1	2.05	0.73
1:6:770:A:OP2	86:6:2139:OHX:N3	2.21	0.73
1:2:1339:C:O2'	1:2:1341:A:N7	2.21	0.73
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.20	0.73
36:1:2107:A:H2	36:1:3344:A:H8	1.36	0.73
1:6:1050:G:N2	1:6:1068:C:O2	2.19	0.73
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.71	0.73
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.73	0.73
36:5:1009:A:N6	36:5:1041:U:O4	2.14	0.73
34:SR:160:GLU:O	34:SR:162:ALA:N	2.21	0.73
55:M9:135:LYS:NZ	36:5:1949:G:OP2	224.53	0.73
39:L2:21:ARG:HD3	36:5:824:C:H5"	170.46	0.73
1:2:1796:C:H5	28:D6:6:ALA:H	1.37	0.73
1:2:900:A:OP1	16:C4:43:THR:OG1	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:26:C:H5'	42:L5:56:THR:HB	1.70	0.73
24:D2:2:THR:N	1:6:1034:C:HO2'	337.79	0.73
36:1:3115:C:O2'	36:1:3117:C:N4	2.22	0.73
36:1:1222:G:O2'	36:1:1285:G:N1	2.20	0.73
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.21	0.73
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.69	0.73
10:S8:6:ASP:HB2	10:S8:8:ARG:HG3	6.21	0.73
40:L3:152:LYS:HD3	40:L3:189:SER:HA	1.70	0.73
1:2:499:U:O2'	1:2:500:C:O5'	2.07	0.73
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.21	0.73
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.21	0.73
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	3.25	0.73
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.04	0.73
36:5:255:A:H2'	36:5:256:G:H8	1.54	0.73
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.70	0.73
36:1:1466:G:O6	86:1:3875:OHX:N4	2.21	0.73
36:1:2273:G:O6	86:1:4138:OHX:N5	2.22	0.73
40:L3:97:ARG:NH1	36:5:3244:A:N1	244.51	0.73
60:N4:52:THR:O	60:N4:56:ARG:HG3	1.88	0.73
36:1:3275:U:H5"	69:O3:68:TRP:HZ2	1.53	0.73
36:5:2440:G:H2'	36:5:2441:A:C8	2.23	0.73
36:1:3122:A:N1	46:L9:70:THR:HG21	2.04	0.73
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.11	0.73
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.71	0.73
64:N8:27:LYS:NZ	36:5:801:A:OP1	153.95	0.73
1:6:895:G:H1	1:6:917:U:H3	1.33	0.73
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.54	0.72
56:N0:23:LYS:O	57:N1:146:ASN:ND2	2.22	0.72
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.35	0.72
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.76	0.72
8:S6:153:VAL:O	8:S6:155:ASP:N	2.67	0.72
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.55	0.72
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.05	0.72
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.07	0.72
8:S6:13:GLN:OE1	1:6:151:G:N2	310.85	0.72
53:M7:168:LEU:HD13	53:M7:173:ARG:HB3	1.72	0.72
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	3.04	0.72
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.70	0.72
36:1:3060:C:OP1	86:1:4036:OHX:N4	2.21	0.72
36:5:1249:G:H2'	36:5:1250:G:H8	1.55	0.72
86:2:2031:OHX:N6	86:2:2145:OHX:N5	2.36	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.58	0.72
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.14	0.72
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.83	0.72
19:C7:8:THR:HG21	1:6:1330:G:H21	418.89	0.72
36:5:1734:G:O6	86:5:3971:OHX:N5	2.22	0.72
2:S0:78:SER:OG	2:S0:129:ASP:OD1	3.29	0.72
36:5:398:A:O2'	36:5:1416:C:OP1	2.07	0.72
16:C4:38:THR:HG21	1:6:895:G:H21	262.27	0.72
48:M1:23:VAL:O	48:M1:25:GLU:N	2.22	0.72
36:5:2745:G:N2	36:5:2748:A:OP2	2.21	0.72
47:M0:4:ARG:NH1	36:5:2828:G:O2'	264.16	0.72
36:5:2236:G:OP1	86:5:4251:OHX:N3	2.22	0.72
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.05	0.72
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.74	0.72
10:S8:89:GLU:OE1	10:S8:92:ARG:NH2	2.16	0.72
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	1.71	0.72
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.80	0.72
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.65	0.72
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.69	0.72
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.25	0.72
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.54	0.72
48:M1:137:ARG:NH1	37:7:28:C:OP1	300.53	0.72
1:2:541:A:O2'	1:2:542:A:H4'	1.89	0.72
1:2:542:A:O2'	1:2:543:C:H3'	1.89	0.72
1:6:138:A:H62	1:6:266:A:H61	1.38	0.72
36:5:2568:C:O2'	36:5:2569:A:O5'	2.07	0.72
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.72	0.72
78:Q2:63:LYS:NZ	36:5:2761:G:N7	210.68	0.72
1:6:1727:G:H2'	1:6:1728:A:C8	2.25	0.72
36:1:3316:A:OP1	36:1:3318:G:N2	2.23	0.72
1:2:1595:U:N3	1:2:1600:A:H2	1.88	0.72
36:1:2503:G:H1'	36:1:2504:U:H5	1.54	0.72
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.70	0.72
29:D7:19:HIS:CD2	29:D7:21:LEU:H	4.41	0.72
1:2:1680:G:O6	86:2:2109:OHX:N5	2.23	0.72
8:S6:206:ALA:O	8:S6:210:GLN:NE2	2.72	0.72
36:5:3066:U:O4	86:5:4108:OHX:N4	2.22	0.72
49:M3:164:GLU:O	64:N8:139:ARG:NH2	5.38	0.72
72:O6:97:SER:OG	72:O6:98:ARG:N	2.19	0.72
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.27	0.72
56:N0:77:VAL:HG11	56:N0:106:LEU:HD12	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:47:ASN:ND2	55:M9:47:ASN:O	2.22	0.72
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.84	0.72
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.05	0.72
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	1.72	0.72
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	3.95	0.72
1:6:140:A:N6	1:6:281:G:OP1	2.23	0.72
86:5:3944:OHX:N1	86:5:4236:OHX:N4	2.37	0.71
36:5:2568:C:N4	36:5:2574:G:O6	2.23	0.71
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.53	0.71
36:5:1015:U:O2'	36:5:1017:C:OP1	2.06	0.71
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.08	0.71
34:SR:74:THR:O	34:SR:76:ASP:N	3.39	0.71
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.23	0.71
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.65	0.71
36:1:1790:G:O6	86:1:4167:OHX:N4	2.23	0.71
36:5:658:G:OP1	86:8:223:OHX:N5	2.23	0.71
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.72	0.71
36:1:595:G:N1	36:1:609:G:H5"	2.04	0.71
71:O5:13:SER:HB3	71:O5:16:GLN:HG3	1.72	0.71
63:N7:67:LYS:NZ	36:5:1630:U:OP1	196.56	0.71
27:D5:55:PRO:O	27:D5:57:TYR:N	2.23	0.71
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.23	0.71
36:1:618:C:H5'	53:M7:169:THR:HG22	1.71	0.71
25:D3:79:ASN:ND2	25:D3:81:LYS:H	1.89	0.71
50:M4:14:LEU:H	50:M4:19:ARG:HH11	2.20	0.71
36:5:2207:A:H62	36:5:2236:G:H1	1.36	0.71
36:1:595:G:H1	36:1:609:G:H5"	1.56	0.71
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.55	0.71
40:L3:368:GLY:O	60:N4:17:ARG:NH1	2.96	0.71
40:L3:81:THR:HG22	40:L3:321:PHE:HA	5.07	0.71
6:S4:174:LYS:HE3	6:S4:175:PHE:H	3.52	0.71
23:D1:74:GLN:HE22	23:D1:82:VAL:HG12	1.55	0.71
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.23	0.71
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.85	0.71
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.73	0.71
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	2.48	0.71
36:1:410:U:O4	86:1:4054:OHX:N2	2.24	0.71
36:1:1230:G:H1	36:1:1279:C:H42	1.38	0.71
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.42	0.71
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.46	0.71
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.72	0.71
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.63	0.71
49:M3:161:ASP:O	49:M3:163:GLY:N	3.24	0.71
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	281.76	0.71
51:M5:90:ASN:O	51:M5:92:LEU:N	2.22	0.71
36:1:1712:G:N2	36:1:1731:A:OP2	2.24	0.71
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.54	0.71
1:2:1067:C:H2'	1:2:1068:C:C6	2.25	0.71
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.26	0.71
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.30	0.71
36:5:1466:G:O6	86:5:3914:OHX:N5	2.24	0.71
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.21	0.71
36:5:1940:G:N2	36:5:3362:A:H8	1.89	0.71
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.72	0.71
1:2:142:G:O6	8:S6:177:ARG:NH1	2.23	0.71
4:S2:88:LYS:HB3	4:S2:95:ARG:HD2	5.07	0.71
68:O2:124:GLY:O	68:O2:126:LEU:N	2.67	0.71
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	2.68	0.71
1:2:1564:U:H2'	1:2:1565:C:C6	2.26	0.71
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.73	0.71
36:5:604:G:N7	86:5:4170:OHX:N2	2.39	0.71
36:5:3057:U:O2'	36:5:3059:G:OP1	2.06	0.71
12:C0:16:PHE:HD2	12:C0:76:LEU:HD23	1.55	0.71
36:1:1495:U:H5	36:1:1835:A:N1	1.87	0.71
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.23	0.71
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.54	0.71
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.09	0.71
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.01	0.71
1:2:800:U:H2'	1:2:801:G:H8	1.55	0.71
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.71	0.71
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.24	0.71
69:O3:90:PRO:O	69:O3:92:LYS:N	2.23	0.71
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.47	0.71
36:5:1155:C:H2'	36:5:1156:C:H6	1.56	0.71
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	2.25	0.71
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.22	0.71
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.71	0.71
1:6:454:U:H5"	1:6:455:C:H5	1.56	0.71
50:M4:3:THR:O	50:M4:3:THR:OG1	2.08	0.71
86:2:2031:OHX:N4	86:2:2145:OHX:N1	2.38	0.70
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.37	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2307:G:O2'	36:1:2310:U:OP2	2.09	0.70
1:2:885:G:H21	16:C4:123:SER:HB2	1.54	0.70
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.72	0.70
37:7:91:G:H2'	37:7:92:A:C8	2.26	0.70
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.63	0.70
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.24	0.70
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.26	0.70
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.74	0.70
39:L2:200:ARG:NH1	36:5:2146:C:OP1	213.11	0.70
36:1:2808:A:O2'	36:1:2969:A:OP1	2.09	0.70
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	2.90	0.70
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.61	0.70
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	2.42	0.70
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	2.85	0.70
36:1:2732:G:OP2	86:1:4202:OHX:N2	2.23	0.70
36:5:1696:A:OP2	86:5:4187:OHX:N6	2.24	0.70
36:1:1234:G:H1	36:1:1254:C:H42	1.38	0.70
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.20	0.70
13:C1:112:SER:O	13:C1:114:ALA:N	2.82	0.70
39:L2:79:ASN:O	39:L2:82:VAL:HG13	1.91	0.70
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.26	0.70
1:2:477:A:H2'	1:2:478:A:H8	1.55	0.70
38:4:70:G:O6	86:O7:105:OHX:N4	2.24	0.70
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.73	0.70
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.71	0.70
64:N8:19:LYS:HD2	64:N8:25:HIS:HD2	4.89	0.70
41:L4:10:SER:OG	41:L4:13:GLY:O	2.07	0.70
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.71	0.70
51:M5:149:ASN:OD1	86:M5:302:OHX:N2	2.24	0.70
36:1:353:G:N7	73:O7:55:ARG:HD3	2.06	0.70
1:2:732:G:O2'	1:2:733:A:O4'	2.09	0.70
40:L3:92:TYR:HB2	40:L3:157:VAL:HG13	1.71	0.70
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.72	0.70
40:L3:347:SER:HB3	40:L3:350:ALA:H	2.02	0.70
36:1:3343:G:H21	36:1:3362:A:H2	1.39	0.70
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	1.72	0.70
39:L2:112:ILE:HD11	39:L2:168:VAL:HG12	5.92	0.70
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.18	0.70
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.74	0.70
86:2:2031:OHX:N4	86:2:2145:OHX:N2	2.39	0.70
49:M3:91:ARG:NH2	49:M3:97:VAL:O	3.02	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.73	0.70
36:1:3174:A:OP1	69:O3:97:SER:OG	2.09	0.70
49:M3:168:ARG:HG3	49:M3:172:LEU:HD12	1.77	0.70
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.74	0.70
36:5:2774:C:O2	36:5:2786:G:N2	2.16	0.70
40:L3:62:ARG:H	40:L3:68:HIS:HD1	1.39	0.70
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.86	0.70
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.64	0.70
36:1:3134:A:OP1	86:1:3897:OHX:N4	2.24	0.70
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.25	0.70
45:L8:181:LYS:HD3	38:8:154:C:H5"	150.55	0.70
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.83	0.70
36:5:2128:C:OP1	86:5:4093:OHX:N3	2.24	0.70
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.72	0.70
1:2:820:U:H2'	1:2:821:U:H4'	1.74	0.70
36:1:619:A:H5"	36:1:620:U:OP1	1.92	0.70
36:5:3299:A:N6	36:5:3315:G:H1	1.87	0.70
1:6:1698:G:O2'	1:6:1699:G:O5'	2.08	0.70
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.03	0.70
49:M3:87:ALA:O	49:M3:91:ARG:HG3	1.90	0.70
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.25	0.70
36:1:2924:U:O4	86:1:4014:OHX:N1	2.25	0.70
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.26	0.70
62:N6:120:GLN:CD	62:N6:126:LEU:HA	7.99	0.70
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	1.74	0.70
36:5:1556:C:H2'	36:5:2169:G:N1	2.06	0.70
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.73	0.70
11:S9:168:ARG:HD3	11:S9:174:ARG:HD2	3.64	0.70
44:L7:217:PRO:O	86:5:4004:OHX:N3	259.43	0.70
40:L3:171:LEU:O	86:L3:405:OHX:N6	2.24	0.70
86:5:3944:OHX:N2	86:5:4236:OHX:N6	2.39	0.70
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.56	0.70
36:5:1103:A:H3'	36:5:1104:G:H5'	1.73	0.70
6:S4:37:LYS:NZ	6:S4:40:GLU:OE2	5.87	0.70
46:L9:28:VAL:HG13	46:L9:33:THR:HB	2.60	0.70
36:1:3136:G:OP2	86:1:4098:OHX:N6	2.25	0.70
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.74	0.70
41:L4:295:ILE:HG22	41:L4:299:ILE:HD11	1.74	0.70
37:7:23:A:HO2'	37:7:121:U:HO3'	1.36	0.70
3:S1:89:ASP:OD1	3:S1:89:ASP:N	2.25	0.70
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.58	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:99:ASP:HB2	66:O0:103:THR:HG23	1.74	0.70
72:O6:9:ILE:HA	72:O6:13:LYS:HD2	2.61	0.70
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	4.78	0.70
18:C6:43:ILE:H	18:C6:43:ILE:HD13	2.23	0.70
1:2:532:U:H4'	26:D4:66:GLY:HA2	1.74	0.70
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.65	0.70
57:N1:65:TYR:HB3	57:N1:75:ILE:HG13	5.45	0.70
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	1.95	0.70
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.61	0.70
1:2:656:G:O2'	1:2:657:U:O4'	2.09	0.70
53:M7:62:ARG:O	86:M7:206:OHX:N1	2.25	0.70
86:2:2031:OHX:N3	86:2:2145:OHX:N1	2.40	0.69
6:S4:125:LYS:NZ	6:S4:225:VAL:O	2.21	0.69
36:1:801:A:O2'	86:1:3978:OHX:N2	2.24	0.69
1:2:530:C:O2	26:D4:61:ARG:NH2	2.25	0.69
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.36	0.69
1:6:822:U:H2'	1:6:823:G:H5"	1.74	0.69
1:2:738:G:O6	86:2:2096:OHX:N1	2.24	0.69
28:D6:82:ARG:HB2	28:D6:85:ARG:HE	8.15	0.69
36:1:1817:G:OP1	86:1:4089:OHX:N1	2.25	0.69
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.56	0.69
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.28	0.69
1:6:833:U:O4	86:6:2101:OHX:N5	2.26	0.69
36:1:562:C:H2'	36:1:563:U:C6	2.27	0.69
1:2:1564:U:H2'	1:2:1565:C:H6	1.57	0.69
36:1:770:G:N7	86:1:4094:OHX:N6	2.40	0.69
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.81	0.69
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.74	0.69
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.72	0.69
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.25	0.69
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.57	0.69
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	2.67	0.69
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.75	0.69
1:6:1579:U:OP1	86:6:2182:OHX:N4	2.26	0.69
74:O8:67:GLN:NE2	74:O8:67:GLN:O	2.22	0.69
36:5:595:G:H1	36:5:609:G:H5"	1.57	0.69
1:2:992:A:H2	1:2:1012:U:N3	1.86	0.69
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.89	0.69
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.73	0.69
1:2:702:G:O6	1:2:737:A:N6	2.25	0.69
1:2:127:G:N7	8:S6:202:ARG:NH2	2.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1105:C:H41	25:D3:4:GLY:HA3	1.56	0.69
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.75	0.69
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	4.57	0.69
54:M8:165:ILE:HG23	54:M8:167:SER:H	3.38	0.69
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.24	0.69
36:5:2836:C:H5	36:5:2852:C:N4	1.90	0.69
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.26	0.69
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.38	0.69
64:N8:45:MET:HE2	64:N8:45:MET:HA	4.60	0.69
14:C2:88:LEU:HB3	14:C2:140:PHE:HZ	1.57	0.69
51:M5:172:ARG:HH11	36:5:30:G:P	107.39	0.69
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.34	0.69
36:1:735:A:H2'	36:1:736:A:H8	1.55	0.69
36:1:2298:U:O4	36:1:2923:U:H5	1.76	0.69
40:L3:230:THR:HA	40:L3:235:THR:HG22	2.10	0.69
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.73	0.69
7:S5:59:VAL:O	7:S5:61:TYR:N	2.25	0.69
1:6:151:G:H1	1:6:163:G:H1	1.38	0.69
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.87	0.69
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.26	0.69
36:1:2766:U:O4	86:1:4035:OHX:N2	2.24	0.69
36:5:2975:U:OP1	86:5:4091:OHX:N3	2.25	0.69
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.26	0.69
36:5:1239:C:N3	36:5:1249:G:N2	2.40	0.69
7:S5:43:PHE:H	7:S5:46:TRP:H	2.28	0.69
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.25	0.69
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.74	0.69
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.25	0.69
1:2:740:A:H2'	1:2:741:C:H5"	1.74	0.69
39:L2:144:ASN:O	39:L2:160:SER:N	3.01	0.69
36:1:1103:A:OP2	36:1:1103:A:H4'	1.91	0.69
20:C8:135:GLY:HA3	1:6:1559:A:H5"	365.41	0.69
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.66	0.69
24:D2:15:ASN:HD21	24:D2:71:LYS:HG2	4.11	0.69
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.07	0.69
1:2:280:U:O2'	1:2:281:G:OP2	2.11	0.69
6:S4:122:LYS:HD2	6:S4:164:LEU:HD21	1.75	0.69
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.97	0.69
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.91	0.69
5:S3:141:LYS:NZ	5:S3:179:GLN:OE1	4.36	0.69
15:C3:124:ARG:NH2	1:6:967:A:OP2	319.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:189:TYR:HA	39:L2:192:LYS:HG3	1.80	0.69
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.75	0.69
36:1:1409:G:N7	86:1:4065:OHX:N3	2.41	0.69
36:5:2875:U:H3	36:5:2952:G:H1	1.40	0.69
22:D0:36:ASN:HA	22:D0:39:SER:HB3	5.59	0.69
1:2:73:U:H4'	1:2:74:U:OP1	1.92	0.69
1:6:542:A:H2'	1:6:542:A:OP1	1.93	0.69
75:O9:45:ARG:NH2	36:5:1841:A:N3	129.03	0.69
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	5.39	0.69
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.83	0.69
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.25	0.69
36:5:1025:A:H3'	36:5:1026:A:H4'	1.75	0.69
34:SR:16:HIS:CE1	34:SR:37:SER:HB3	2.28	0.69
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.74	0.69
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.67	0.69
1:2:197:A:H61	10:S8:138:ASN:ND2	1.91	0.69
27:D5:74:SER:OG	1:6:1534:G:OP2	344.41	0.69
57:N1:46:GLY:O	57:N1:49:GLN:NE2	2.25	0.69
36:1:565:U:H2'	36:1:566:G:H8	1.58	0.69
50:M4:113:THR:HG22	50:M4:116:GLU:H	2.01	0.69
36:1:662:U:OP1	64:N8:8:THR:HG21	1.92	0.69
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.70	0.69
36:5:3364:C:OP1	86:5:3944:OHX:N1	2.26	0.69
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.12	0.69
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.74	0.69
55:M9:46:LYS:HZ1	36:5:1766:G:H8	101.40	0.69
56:N0:71:LYS:NZ	36:5:563:U:OP1	340.19	0.69
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.73	0.69
36:5:980:A:H2'	36:5:981:U:C2	2.28	0.68
36:1:1231:A:OP2	86:1:4084:OHX:N6	2.27	0.68
9:S7:35:LYS:O	9:S7:37:GLU:N	2.26	0.68
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.73	0.68
66:O0:9:SER:OG	66:O0:10:ILE:N	2.54	0.68
26:D4:120:GLY:HA2	1:6:85:A:O3'	335.44	0.68
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.26	0.68
5:S3:115:ILE:HD11	5:S3:138:VAL:HG21	1.74	0.68
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	9.49	0.68
6:S4:187:ARG:HH11	6:S4:187:ARG:HB2	5.79	0.68
71:O5:14:LYS:NZ	71:O5:62:GLN:OE1	5.21	0.68
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	1.75	0.68
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:800:U:H2'	1:2:801:G:C8	2.28	0.68
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.29	0.68
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.38	0.68
1:6:218:A:H2'	1:6:219:A:H5"	1.74	0.68
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.07	0.68
78:Q2:47:GLN:HE22	78:Q2:53:GLN:HA	1.58	0.68
42:L5:259:LYS:HG3	42:L5:260:PHE:CD2	2.29	0.68
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.58	0.68
41:L4:73:ARG:NH2	36:5:2814:G:OP1	171.68	0.68
36:1:2120:A:OP2	86:1:4005:OHX:N2	2.26	0.68
37:3:7:G:H5"	42:L5:22:ARG:HD3	1.76	0.68
7:S5:35:GLN:O	7:S5:37:GLN:N	2.89	0.68
86:5:3944:OHX:N1	86:5:4236:OHX:N3	2.41	0.68
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.74	0.68
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.74	0.68
41:L4:337:GLU:O	41:L4:339:LEU:N	2.25	0.68
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.08	0.68
1:2:591:A:H2'	1:2:592:A:C8	2.29	0.68
2:S0:88:LYS:NZ	19:C7:82:ASP:OD1	3.25	0.68
36:1:3312:U:H5"	40:L3:25:ILE:HD12	1.74	0.68
13:C1:139:VAL:O	13:C1:140:VAL:HB	1.92	0.68
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.95	0.68
41:L4:361:HIS:CG	41:L4:362:ASP:N	3.05	0.68
3:S1:175:GLU:O	3:S1:179:SER:OG	9.43	0.68
36:5:2897:A:H2'	36:5:2899:C:H5"	1.75	0.68
28:D6:78:ALA:HA	28:D6:83:ILE:HD12	8.53	0.68
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.53	0.68
2:S0:101:ARG:NH2	1:6:1321:A:OP2	400.88	0.68
1:2:1029:U:O4	86:2:2168:OHX:N3	2.27	0.68
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.18	0.68
1:6:1680:G:O6	86:6:2189:OHX:N4	2.27	0.68
1:2:770:A:OP2	86:2:2138:OHX:N6	2.27	0.68
1:6:1230:A:H2	1:6:1255:G:H21	1.42	0.68
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.89	0.68
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.76	0.68
31:D9:30:LEU:HD12	31:D9:32:ARG:HD3	3.89	0.68
37:3:60:G:OP2	86:3:225:OHX:N3	2.26	0.68
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.27	0.68
36:1:781:G:N7	86:1:3936:OHX:N5	2.41	0.68
41:L4:304:GLN:O	41:L4:306:THR:N	2.63	0.68
36:1:582:G:O6	86:1:4171:OHX:N2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.10	0.68
45:L8:182:GLY:HA3	45:L8:185:ARG:HB2	1.76	0.68
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.28	0.68
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.27	0.68
36:1:156:G:OP2	72:O6:25:LYS:HB3	1.94	0.68
58:N2:49:ASN:O	58:N2:51:GLY:N	2.67	0.68
37:3:11:A:O2'	37:3:13:A:OP2	2.12	0.68
36:1:3358:U:H2'	36:1:3359:A:O4'	1.94	0.68
36:1:1596:C:H2'	36:1:1597:C:C6	2.29	0.68
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.07	0.68
32:E0:13:LYS:HD3	32:E0:14:VAL:HG23	4.04	0.68
1:2:883:C:H2'	1:2:884:A:H8	1.58	0.68
46:L9:132:VAL:HG23	46:L9:154:VAL:HG22	5.31	0.68
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.29	0.68
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.78	0.68
36:5:1806:A:OP2	86:5:4026:OHX:N5	2.27	0.68
36:5:2841:G:OP2	86:5:4141:OHX:N1	2.26	0.68
33:E1:86:THR:O	33:E1:87:THR:OG1	3.06	0.68
1:2:312:A:H4'	1:2:313:U:H5"	1.74	0.68
1:2:1041:G:H2'	1:2:1042:G:C8	2.29	0.68
36:1:13:A:H4'	61:N5:39:LYS:HG3	1.75	0.68
3:S1:92:GLN:O	3:S1:94:LYS:N	2.26	0.68
10:S8:52:ASN:OD1	86:6:2137:OHX:N3	310.70	0.68
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.26	0.68
1:6:1359:C:N4	1:6:1364:G:O6	2.20	0.68
1:6:180:A:H2'	1:6:181:A:O4'	1.94	0.68
12:C0:56:LYS:N	12:C0:67:THR:O	2.89	0.68
36:5:2248:C:OP2	86:5:3980:OHX:N6	2.28	0.67
36:5:863:C:OP1	86:5:3918:OHX:N3	2.27	0.67
36:5:2569:A:H4'	36:5:2570:U:H5'	1.76	0.67
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.77	0.67
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	4.30	0.67
17:C5:115:TYR:OH	1:6:1556:A:OP1	386.99	0.67
1:2:1649:G:N7	86:2:2051:OHX:N1	2.41	0.67
1:2:515:A:OP2	86:2:2070:OHX:N3	2.27	0.67
34:SR:90:ARG:HH21	34:SR:102:ARG:HH21	3.10	0.67
37:3:19:C:H2'	37:3:20:A:H8	1.59	0.67
2:S0:56:LYS:HZ3	2:S0:158:VAL:HG23	1.58	0.67
1:6:486:G:H22	1:6:501:U:H3	1.43	0.67
36:1:410:U:O4	86:1:4054:OHX:N5	2.27	0.67
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:74:THR:O	13:C1:74:THR:OG1	2.12	0.67
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.74	0.67
1:6:826:U:O4	86:6:2066:OHX:N3	2.27	0.67
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.75	0.67
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.07	0.67
3:S1:85:LYS:HB3	3:S1:101:HIS:HB3	1.76	0.67
25:D3:24:TRP:HE3	25:D3:30:LYS:HG3	2.65	0.67
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.62	0.67
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.41	0.67
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	3.05	0.67
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	5.16	0.67
36:1:239:G:O6	86:1:4031:OHX:N3	2.27	0.67
36:1:1238:C:N4	36:1:1245:A:OP2	2.27	0.67
37:3:86:U:O2	86:3:218:OHX:N5	2.28	0.67
36:1:2101:C:O2'	36:1:2102:U:O5'	2.10	0.67
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.27	0.67
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	2.12	0.67
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.76	0.67
63:N7:54:THR:H	63:N7:57:HIS:CD2	2.66	0.67
5:S3:7:LYS:HD3	22:D0:27:THR:HG21	3.56	0.67
1:2:1017:U:H2'	1:2:1018:U:C6	2.30	0.67
36:1:3166:C:H42	36:1:3284:G:H1	1.40	0.67
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.75	0.67
64:N8:77:LYS:O	64:N8:79:TRP:N	2.63	0.67
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	1.76	0.67
1:2:358:U:O2'	1:2:360:A:OP1	2.12	0.67
36:5:1662:G:N2	36:5:1788:C:O2	2.28	0.67
36:1:1015:U:O2'	36:1:1017:C:OP2	2.12	0.67
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.76	0.67
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.30	0.67
3:S1:62:LYS:O	3:S1:64:ARG:N	2.27	0.67
1:6:823:G:H2'	1:6:824:G:O4'	1.95	0.67
1:6:542:A:H8	1:6:543:C:H5'	1.60	0.67
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.75	0.67
73:O7:60:GLY:O	86:O7:106:OHX:N6	2.27	0.67
41:L4:197:ARG:NH2	36:5:339:C:OP2	107.33	0.67
36:1:1352:A:H4'	36:1:1353:U:OP1	1.95	0.67
36:5:1387:G:OP1	86:5:4202:OHX:N3	2.27	0.67
36:1:2218:G:H2'	36:1:2219:A:H8	1.58	0.67
18:C6:109:PHE:O	18:C6:113:ASP:N	2.82	0.67
63:N7:22:LYS:HE3	63:N7:134:LEU:HB2	2.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.77	0.67
36:5:1661:G:O6	86:5:3921:OHX:N3	2.27	0.67
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.76	0.67
1:2:218:A:O2'	1:2:219:A:OP1	2.09	0.67
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.75	0.67
1:2:301:A:OP2	86:2:2064:OHX:N2	2.28	0.67
10:S8:44:HIS:O	10:S8:56:ARG:N	2.84	0.67
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.58	0.67
36:1:3187:A:H5'	46:L9:22:SER:HA	1.77	0.67
36:1:2107:A:H2	36:1:3344:A:C8	2.12	0.67
36:1:1487:G:H1	36:1:1855:U:H3	1.43	0.67
12:C0:50:THR:HG21	12:C0:57:THR:OG1	1.94	0.67
36:1:1135:A:OP2	65:N9:5:LYS:NZ	2.27	0.67
1:6:1160:A:H2'	1:6:1161:C:C6	2.30	0.67
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.77	0.67
34:SR:209:THR:HB	34:SR:226:ALA:HB2	4.19	0.67
36:5:1541:G:OP2	86:5:4096:OHX:N4	2.28	0.67
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.54	0.67
17:C5:15:HIS:H	17:C5:22:LEU:HD22	3.49	0.67
53:M7:138:LYS:NZ	36:5:2356:A:OP1	148.81	0.67
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.43	0.67
3:S1:175:GLU:HG3	3:S1:193:ILE:HD12	1.76	0.67
1:2:1681:A:H2'	1:2:1682:U:H5'	1.76	0.67
79:Q3:27:LYS:O	79:Q3:31:ILE:HD12	2.59	0.67
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.76	0.67
36:1:718:G:C2	36:1:721:G:H1'	2.30	0.67
1:6:1542:G:N2	1:6:1568:C:H1'	2.09	0.67
36:5:847:A:H2'	36:5:848:A:C8	2.29	0.67
36:5:801:A:O2'	86:5:4030:OHX:N1	2.28	0.67
17:C5:67:ALA:O	86:C5:201:OHX:N2	2.28	0.67
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.44	0.67
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	1.85	0.67
9:S7:114:ARG:NH2	1:6:637:C:O2	351.34	0.67
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.75	0.67
11:S9:29:LYS:HG3	32:E0:44:PHE:HE1	5.08	0.67
36:1:567:G:O6	86:1:3999:OHX:N1	2.27	0.67
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.27	0.67
86:2:2031:OHX:N6	86:2:2145:OHX:N2	2.43	0.67
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.26	0.67
2:S0:183:ARG:HG3	2:S0:188:LEU:HD12	4.07	0.67
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.22	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:734:A:H5"	1:2:735:C:OP1	1.94	0.67
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	1.95	0.67
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.73	0.67
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.18	0.67
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.75	0.67
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	4.86	0.67
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.09	0.67
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	5.15	0.67
40:L3:2:SER:O	40:L3:3:HIS:HB3	1.98	0.66
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.76	0.66
86:5:4022:OHX:N5	86:5:4219:OHX:N1	2.43	0.66
42:L5:148:ILE:HG12	42:L5:159:VAL:HG11	1.77	0.66
7:S5:76:ARG:HG3	7:S5:79:ASN:HD21	1.60	0.66
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	4.08	0.66
1:2:854:U:O4	55:M9:173:ARG:NH2	2.28	0.66
36:1:2255:A:H5'	36:1:2261:G:H22	1.60	0.66
45:L8:90:THR:HA	45:L8:214:LEU:HD21	2.17	0.66
55:M9:125:LYS:NZ	36:5:1720:U:O4	241.21	0.66
36:5:2957:G:H8	36:5:2957:G:H5'	1.60	0.66
28:D6:6:ALA:H	1:6:1796:C:H5	345.10	0.66
1:6:486:G:O6	1:6:488:G:N2	2.27	0.66
9:S7:107:ARG:HH22	1:6:741:C:H2'	345.45	0.66
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.59	0.66
3:S1:51:SER:HA	3:S1:57:ALA:H	1.60	0.66
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.77	0.66
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.27	0.66
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.22	0.66
1:6:463:U:OP1	86:6:2204:OHX:N1	2.28	0.66
36:5:1487:G:H1	36:5:1855:U:H3	1.40	0.66
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	1.77	0.66
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.10	0.66
36:5:1878:G:OP1	86:5:3959:OHX:N5	2.28	0.66
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.95	0.66
1:6:1159:C:N3	86:6:2138:OHX:N5	2.43	0.66
38:4:62:C:O2	86:4:227:OHX:N5	2.27	0.66
1:6:1057:U:O2'	1:6:1059:U:OP1	2.12	0.66
36:5:3103:A:OP2	86:5:4161:OHX:N4	2.28	0.66
1:6:1151:A:H4'	1:6:1766:A:C5	2.31	0.66
36:5:2514:U:OP1	36:5:2514:U:H6	1.78	0.66
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	2.29	0.66
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.77	0.66
1:6:1041:G:OP1	86:6:2175:OHX:N4	2.28	0.66
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.77	0.66
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.76	0.66
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.28	0.66
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.37	0.66
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	1.99	0.66
44:L7:196:LYS:HE2	36:5:1100:U:OP2	245.81	0.66
37:3:27:A:OP2	42:L5:57:ASN:HB2	1.95	0.66
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.59	0.66
1:6:301:A:OP2	86:6:2093:OHX:N1	2.28	0.66
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.01	0.66
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.55	0.66
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.58	0.66
1:6:219:A:C6	1:6:843:U:H1'	2.30	0.66
36:5:2827:U:O4	86:5:3903:OHX:N6	2.28	0.66
36:5:3269:U:O2	36:5:3271:G:N1	2.28	0.66
49:M3:63:VAL:HG22	36:5:72:C:H5'	112.76	0.66
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.25	0.66
54:M8:60:PRO:HG2	54:M8:144:ARG:HA	1.76	0.66
16:C4:131:GLY:O	16:C4:133:ARG:N	3.12	0.66
1:6:363:G:OP1	86:6:2112:OHX:N1	2.28	0.66
59:N3:67:PRO:O	59:N3:69:LEU:N	3.23	0.66
36:5:789:A:H2'	36:5:790:U:C6	2.30	0.66
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.51	0.66
36:1:2108:C:O2'	36:1:3362:A:N6	2.28	0.66
36:1:1278:A:O2'	36:1:1279:C:O5'	2.12	0.66
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.43	0.66
77:Q1:9:ARG:HH11	77:Q1:9:ARG:HG3	1.80	0.66
9:S7:66:SER:O	9:S7:68:ALA:N	2.73	0.66
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.29	0.66
29:D7:37:CYS:O	29:D7:39:GLY:N	2.35	0.66
36:1:743:C:O2	54:M8:141:ARG:HD2	1.94	0.66
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.29	0.66
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.87	0.66
36:5:2311:G:OP2	86:5:4200:OHX:N1	2.28	0.66
3:S1:183:GLN:HG2	3:S1:187:LYS:HE3	1.76	0.66
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.25	0.66
36:5:1556:C:H2'	36:5:2169:G:H1	1.60	0.66
1:2:39:A:O2'	1:2:40:A:OP2	2.12	0.66
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:64:A:H5'	37:7:65:G:H5"	1.77	0.66
1:2:422:G:OP1	86:2:2042:OHX:N6	2.29	0.66
1:2:209:U:H2'	1:2:210:A:C8	2.30	0.66
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	4.63	0.66
36:5:1192:C:H41	36:5:1302:A:P	2.19	0.66
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.10	0.66
39:L2:229:ALA:HB3	39:L2:234:LYS:HG3	1.78	0.66
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.28	0.66
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.94	0.66
5:S3:192:PRO:O	5:S3:195:SER:OG	4.08	0.66
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.44	0.66
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.59	0.66
36:5:1596:C:H2'	36:5:1597:C:C6	2.31	0.66
40:L3:257:PRO:HG2	40:L3:261:MET:HE1	1.78	0.66
70:O4:109:THR:HG22	70:O4:113:LYS:HD2	1.78	0.66
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.28	0.66
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	3.75	0.66
36:5:2255:A:H5'	36:5:2261:G:H22	1.60	0.66
23:D1:5:LYS:O	23:D1:7:GLN:N	2.29	0.66
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.13	0.66
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.25	0.66
53:M7:53:ASP:O	86:M7:207:OHX:N3	2.28	0.66
1:2:472:U:H5"	11:S9:11:THR:HG23	1.76	0.66
9:S7:118:LEU:N	1:6:639:U:OP1	366.16	0.66
86:7:219:OHX:N3	86:7:226:OHX:N6	2.44	0.66
1:2:1015:U:OP1	86:2:2045:OHX:N3	2.29	0.66
1:2:1488:G:H3'	1:2:1515:A:H61	1.59	0.66
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.78	0.66
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.77	0.66
36:1:2768:U:H2'	36:1:2769:A:H8	1.61	0.66
1:2:322:G:OP1	86:2:2091:OHX:N4	2.28	0.66
41:L4:265:GLU:N	41:L4:265:GLU:OE1	2.29	0.66
1:6:564:G:O6	86:6:2154:OHX:N5	2.29	0.66
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.43	0.66
4:S2:234:PRO:O	4:S2:235:LEU:HB2	1.95	0.66
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.96	0.66
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.78	0.66
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.10	0.66
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.28	0.66
41:L4:93:MET:HB2	36:5:658:G:N2	145.32	0.66
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.78	0.66
1:6:1650:U:H2'	1:6:1651:A:C8	2.31	0.66
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.61	0.65
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.29	0.65
14:C2:124:LYS:O	14:C2:126:TRP:N	2.28	0.65
36:5:2254:U:H2'	36:5:2261:G:N2	2.11	0.65
1:2:480:G:N2	1:2:509:G:H1'	2.11	0.65
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.77	0.65
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.86	0.65
36:1:2376:G:H2'	36:1:2377:G:C8	2.31	0.65
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.49	0.65
1:6:709:C:O2	1:6:730:G:N2	2.29	0.65
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.31	0.65
36:1:3042:U:OP2	36:1:3092:C:N4	2.26	0.65
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.78	0.65
5:S3:53:THR:HG22	5:S3:91:VAL:HG11	2.97	0.65
36:5:437:G:H22	36:5:622:A:H61	1.44	0.65
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	1.95	0.65
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.60	0.65
72:O6:45:ARG:HH22	72:O6:54:GLU:CD	2.62	0.65
64:N8:19:LYS:HD2	64:N8:25:HIS:CD2	4.12	0.65
1:6:1282:U:OP1	86:6:2138:OHX:N4	2.29	0.65
34:SR:14:GLU:HB3	34:SR:309:VAL:HG13	1.78	0.65
19:C7:74:GLN:HA	19:C7:77:GLU:HB2	1.78	0.65
36:1:926:A:H2'	36:1:927:C:C6	2.32	0.65
47:M0:16:PRO:O	47:M0:18:PRO:HD3	1.96	0.65
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.97	0.65
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.78	0.65
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.29	0.65
1:6:1281:G:H1	1:6:1426:C:H42	1.43	0.65
86:7:219:OHX:N3	86:7:226:OHX:N5	2.43	0.65
62:N6:52:ARG:O	62:N6:54:ASP:N	2.24	0.65
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.68	0.65
37:3:4:U:H2'	37:3:5:G:C8	2.30	0.65
9:S7:95:GLU:OE1	9:S7:97:ARG:NH2	5.69	0.65
42:L5:276:LYS:HG2	42:L5:277:LEU:H	3.74	0.65
1:2:959:U:C6	15:C3:61:THR:HB	2.32	0.65
1:6:755:A:H2'	1:6:756:A:O4'	1.95	0.65
36:5:1564:U:H2'	36:5:1565:G:C8	2.32	0.65
3:S1:180:THR:H	3:S1:183:GLN:HB2	5.62	0.65
36:1:3318:G:H2'	36:1:3318:G:OP2	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.77	0.65
1:6:1680:G:O6	86:6:2189:OHX:N1	2.29	0.65
1:6:1542:G:H22	1:6:1568:C:H1'	1.61	0.65
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.25	0.65
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.79	0.65
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.62	0.65
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.77	0.65
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.37	0.65
36:1:1724:U:H1'	36:1:1725:C:C6	2.32	0.65
19:C7:119:LEU:HD12	19:C7:119:LEU:H	1.61	0.65
36:1:863:C:OP1	86:1:3879:OHX:N5	2.29	0.65
36:1:272:G:OP2	86:1:4027:OHX:N3	2.29	0.65
1:2:1202:A:H62	1:2:1457:C:H5"	1.62	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.60	0.65
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.21	0.65
36:5:595:G:N1	36:5:609:G:H5"	2.10	0.65
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.79	0.65
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	1.96	0.65
1:6:1726:G:N7	86:6:2147:OHX:N5	2.45	0.65
1:6:1370:U:H4'	1:6:1371:A:H4'	1.78	0.65
36:1:2593:A:H4'	36:1:2594:C:O5'	1.97	0.65
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	2.38	0.65
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	2.99	0.65
25:D3:95:PHE:HE2	25:D3:136:TRP:HA	2.96	0.65
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	1.77	0.65
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.26	0.65
33:E1:102:VAL:O	33:E1:104:SER:N	2.29	0.65
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.01	0.65
10:S8:82:VAL:HG13	10:S8:101:ILE:HG22	3.87	0.65
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.65	0.65
27:D5:61:SER:H	27:D5:64:VAL:HB	1.89	0.65
1:2:25:C:O2	86:2:2084:OHX:N3	2.30	0.65
47:M0:116:ARG:NH2	36:5:2617:U:O3'	227.60	0.65
59:N3:66:LYS:HD2	59:N3:68:GLU:HB2	6.85	0.65
36:1:1383:G:O6	86:1:3877:OHX:N3	2.29	0.65
1:6:1294:G:O6	86:6:2069:OHX:N5	2.29	0.65
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.32	0.65
36:5:314:U:H2'	36:5:315:C:C6	2.32	0.65
34:SR:84:SER:OG	34:SR:85:TRP:N	2.75	0.65
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.78	0.65
1:2:1034:C:HO2'	24:D2:2:THR:N	1.94	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.60	0.65
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.71	0.65
47:M0:24:ARG:HG3	47:M0:24:ARG:HH11	1.62	0.65
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	4.44	0.65
51:M5:153:ASP:HB3	51:M5:155:VAL:HG23	2.28	0.65
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	2.28	0.65
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.79	0.65
1:2:1239:U:O4	86:2:2047:OHX:N2	2.29	0.65
36:1:3227:A:H2'	36:1:3228:C:H5'	1.78	0.65
36:1:715:A:C8	64:N8:115:LYS:HG3	2.30	0.65
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	4.70	0.65
36:1:413:U:OP1	53:M7:34:GLN:NE2	2.30	0.65
42:L5:105:ILE:O	42:L5:109:THR:HG22	3.31	0.65
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.62	0.65
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.61	0.65
19:C7:7:LYS:N	1:6:1316:G:OP1	409.99	0.65
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.78	0.65
36:5:1790:G:O6	86:5:4199:OHX:N4	2.29	0.65
42:L5:233:ALA:O	42:L5:235:SER:N	2.29	0.65
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.29	0.65
58:N2:14:THR:HG23	58:N2:66:VAL:HG22	4.10	0.65
1:6:607:G:H5'	1:6:613:G:N2	2.12	0.65
33:E1:119:ARG:NH2	33:E1:120:GLU:O	8.81	0.65
1:6:1533:C:H4'	1:6:1539:G:N1	2.12	0.65
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.98	0.65
36:1:655:C:H2'	36:1:656:A:H8	1.61	0.65
36:5:1414:G:O6	86:5:4149:OHX:N1	2.29	0.65
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.84	0.65
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.34	0.65
3:S1:81:PHE:HD2	3:S1:82:ARG:H	2.99	0.65
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.85	0.65
52:M6:65:ASN:ND2	36:5:2988:C:OP1	220.48	0.65
36:1:2261:G:O2'	36:1:2263:C:N4	2.30	0.65
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.28	0.65
36:1:223:U:O4	86:1:4194:OHX:N5	2.30	0.65
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.21	0.65
36:1:1543:G:O6	86:1:4055:OHX:N2	2.30	0.65
1:2:1274:C:C5	35:SM:95:SER:HA	2.32	0.65
47:M0:10:ARG:HD3	47:M0:11:TYR:CE1	2.32	0.65
36:1:160:G:O6	86:1:4193:OHX:N6	2.30	0.65
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.71	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:299:G:N7	86:1:4079:OHX:N2	2.44	0.65
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.27	0.65
33:E1:98:VAL:HG13	33:E1:99:LYS:H	1.61	0.65
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.43	0.65
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.60	0.65
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.79	0.65
36:1:3329:U:H5"	40:L3:308:MET:HE3	1.79	0.65
42:L5:8:LYS:NZ	37:7:15:C:O3'	312.86	0.65
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.78	0.65
3:S1:149:GLN:HE21	3:S1:151:LYS:HG2	2.22	0.65
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.94	0.65
1:2:369:A:O2'	1:2:371:G:OP2	2.13	0.65
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.07	0.64
36:5:2818:U:C6	36:5:2818:U:H5'	2.31	0.64
36:1:1635:G:N2	36:1:1638:A:OP2	2.25	0.64
1:2:1535:U:O2'	1:2:1536:G:N3	2.31	0.64
36:1:1841:A:N3	75:O9:45:ARG:NH2	2.44	0.64
12:C0:46:LEU:O	12:C0:50:THR:HG23	1.97	0.64
1:2:1672:G:H2'	1:2:1673:G:C8	2.32	0.64
36:5:2101:C:O2'	36:5:2102:U:OP1	2.15	0.64
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	3.19	0.64
70:O4:74:ARG:HG2	70:O4:75:ALA:H	2.93	0.64
1:2:1202:A:N6	1:2:1457:C:H5"	2.11	0.64
1:2:1796:C:H5'	1:2:1797:A:C8	2.33	0.64
1:2:277:U:H6	1:2:279:G:H22	1.46	0.64
86:5:4022:OHX:N3	86:5:4219:OHX:N1	2.45	0.64
16:C4:51:ASP:OD1	1:6:902:G:N1	282.42	0.64
10:S8:62:THR:HA	10:S8:76:THR:O	2.62	0.64
16:C4:86:THR:HG21	16:C4:90:ARG:HH21	1.63	0.64
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.31	0.64
1:6:220:A:H3'	1:6:832:U:H1'	1.80	0.64
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.95	0.64
46:L9:106:LYS:H	46:L9:109:ALA:HB3	2.44	0.64
47:M0:194:GLY:HA3	36:5:1010:G:N3	335.66	0.64
11:S9:58:ASP:O	11:S9:61:THR:OG1	3.21	0.64
53:M7:178:ALA:O	53:M7:182:ILE:HB	1.97	0.64
9:S7:158:ASP:O	9:S7:160:GLN:N	2.30	0.64
1:6:845:G:H2'	1:6:846:G:H8	1.62	0.64
36:1:3259:U:H6	36:1:3259:U:H5'	1.62	0.64
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.08	0.64
15:C3:12:SER:O	15:C3:13:SER:HB3	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	2.09	0.64
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.63	0.64
86:5:4022:OHX:N5	86:5:4219:OHX:N2	2.45	0.64
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.30	0.64
49:M3:9:ILE:HG12	64:N8:34:MET:HE1	1.78	0.64
55:M9:46:LYS:NZ	36:5:1766:G:H8	101.60	0.64
10:S8:151:LYS:NZ	10:S8:157:GLU:OE2	8.52	0.64
1:2:348:U:O4	86:2:2127:OHX:N5	2.31	0.64
36:5:1781:C:H2'	36:5:1782:U:C6	2.33	0.64
5:S3:223:LYS:HB2	34:SR:191:ASP:HB2	2.27	0.64
1:2:1228:G:H1	14:C2:67:THR:HB	1.63	0.64
36:1:271:C:O2	72:O6:82:ARG:NH2	2.31	0.64
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.80	0.64
36:5:1877:U:OP2	86:5:3959:OHX:N1	2.30	0.64
41:L4:144:LYS:HG2	41:L4:145:ILE:H	4.97	0.64
36:5:2704:A:OP2	86:5:3901:OHX:N5	2.30	0.64
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.80	0.64
36:1:2108:C:H1'	36:1:3344:A:C8	2.31	0.64
56:N0:84:ARG:NH2	36:5:1296:C:OP1	287.68	0.64
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.78	0.64
68:O2:33:ARG:HH11	36:5:944:C:H4'	161.43	0.64
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.57	0.64
36:1:1688:U:H2'	36:1:1689:U:C6	2.32	0.64
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.32	0.64
36:1:3195:U:O2'	36:1:3197:G:N2	2.30	0.64
1:6:1645:G:OP2	86:6:2183:OHX:N3	2.30	0.64
73:O7:14:LYS:HZ3	75:O9:51:ILE:HD11	1.62	0.64
8:S6:154:ARG:HD3	1:6:78:A:C8	340.01	0.64
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	1.82	0.64
30:D8:44:VAL:HG21	30:D8:48:VAL:HG21	2.40	0.64
28:D6:35:ALA:HB3	28:D6:37:LYS:HE3	1.79	0.64
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.80	0.64
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.24	0.64
3:S1:29:TRP:HE1	3:S1:47:LEU:HG	1.60	0.64
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.78	0.64
1:6:518:A:O2'	1:6:534:A:N6	2.30	0.64
66:O0:20:SER:OG	66:O0:96:GLY:HA3	1.97	0.64
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.57	0.64
1:2:1542:G:N2	1:2:1568:C:H1'	2.13	0.64
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.70	0.64
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.79	0.64
20:C8:27:LYS:O	20:C8:31:ALA:N	2.59	0.64
1:6:190:C:N4	1:6:196:G:O6	2.31	0.64
36:5:1765:U:H4'	36:5:1765:U:OP1	1.98	0.64
1:6:578:U:O2	86:6:2154:OHX:N3	2.31	0.64
36:5:1591:G:O2'	36:5:1799:A:N1	2.30	0.64
36:5:1898:G:OP2	86:5:3947:OHX:N5	2.31	0.64
1:2:855:A:C2	1:2:857:U:H1'	2.33	0.64
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	3.38	0.64
10:S8:147:ALA:O	10:S8:149:SER:N	3.47	0.64
34:SR:157:VAL:HB	34:SR:168:THR:HG22	3.42	0.64
1:2:531:C:OP2	86:2:2070:OHX:N4	2.31	0.64
10:S8:36:THR:HB	10:S8:57:ALA:O	1.98	0.64
40:L3:296:THR:HG21	40:L3:357:LYS:O	2.09	0.64
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.63	0.64
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.43	0.64
1:2:1126:G:OP1	77:Q1:15:ARG:NH1	2.31	0.64
9:S7:16:LEU:HD11	9:S7:48:GLU:HG3	2.98	0.64
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.49	0.64
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	2.82	0.64
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	1.78	0.64
34:SR:258:THR:O	34:SR:258:THR:OG1	2.16	0.64
26:D4:10:ARG:HD2	1:6:778:G:O6	429.53	0.64
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.39	0.64
6:S4:117:GLU:OE1	6:S4:118:GLU:N	2.30	0.64
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.80	0.64
36:1:1233:G:H1	36:1:1255:C:H42	1.44	0.64
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.80	0.64
5:S3:7:LYS:HD3	22:D0:88:LYS:HE2	1.80	0.64
36:5:2373:A:N3	36:5:2824:G:O2'	2.30	0.64
36:1:1194:G:H2'	36:1:1195:A:C8	2.32	0.64
36:5:3279:A:H2'	36:5:3280:U:H5'	1.79	0.64
17:C5:126:VAL:HG22	17:C5:127:ARG:H	2.61	0.64
36:1:2818:U:C6	36:1:2818:U:H5'	2.29	0.64
36:1:1093:A:N3	36:1:1096:U:N3	2.46	0.64
36:1:735:A:H2'	36:1:736:A:C8	2.32	0.64
1:6:915:A:OP1	86:6:2071:OHX:N6	2.31	0.64
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.49	0.64
36:1:742:G:N7	86:1:3972:OHX:N1	2.46	0.64
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.30	0.64
1:6:1257:U:O2'	1:6:1258:U:O4'	2.16	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	3.23	0.64
25:D3:30:LYS:HG2	25:D3:34:LEU:HG	2.74	0.64
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.23	0.64
86:7:219:OHX:N1	86:7:226:OHX:N5	2.46	0.64
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.27	0.64
1:2:959:U:H6	15:C3:61:THR:HB	1.63	0.64
54:M8:147:ARG:NH2	36:5:670:C:OP1	161.91	0.64
55:M9:56:THR:HG22	36:5:1873:U:P	150.37	0.64
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.79	0.64
6:S4:11:ARG:HB2	6:S4:27:TYR:C	4.24	0.64
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	2.26	0.64
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.29	0.64
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.80	0.64
36:1:162:G:N2	36:1:259:C:O2	2.31	0.64
1:6:9:U:O4	86:6:2146:OHX:N3	2.31	0.64
86:1:4196:OHX:N6	86:O1:201:OHX:N5	2.45	0.64
58:N2:43:VAL:O	58:N2:45:GLY:N	2.99	0.63
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.81	0.63
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.13	0.63
27:D5:87:GLY:O	27:D5:89:ILE:N	2.30	0.63
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.80	0.63
36:1:2244:A:H5"	39:L2:243:THR:OG1	1.97	0.63
1:6:1799:U:H4'	1:6:1800:A:H2'	1.79	0.63
1:6:1431:C:O2'	1:6:1437:U:O4	2.14	0.63
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.30	0.63
1:2:975:C:H5"	15:C3:109:LYS:HE3	1.80	0.63
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.51	0.63
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	1.78	0.63
36:5:2520:A:H2'	36:5:2521:U:C6	2.33	0.63
43:L6:164:SER:HB3	43:L6:166:LYS:HE2	1.79	0.63
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	1.78	0.63
6:S4:163:ASP:O	6:S4:165:ALA:N	2.30	0.63
1:2:1533:C:H4'	1:2:1539:G:N1	2.13	0.63
40:L3:81:THR:HG23	40:L3:81:THR:O	4.19	0.63
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.97	0.63
1:6:542:A:C8	1:6:543:C:H2'	2.33	0.63
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.31	0.63
62:N6:83:ASP:O	62:N6:84:LYS:HB2	1.99	0.63
38:4:106:C:O2'	86:4:231:OHX:N4	2.31	0.63
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.10	0.63
11:S9:78:ARG:NH1	11:S9:82:ARG:HH21	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	2.81	0.63
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.82	0.63
36:5:3255:U:H2'	36:5:3256:G:C8	2.34	0.63
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.10	0.63
1:2:1600:A:H4'	1:2:1601:G:OP1	1.99	0.63
76:Q0:106:ARG:NH1	76:Q0:106:ARG:HB2	3.86	0.63
34:SR:19:TRP:HB2	34:SR:38:ARG:HD2	1.80	0.63
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.11	0.63
41:L4:112:LYS:HD3	36:5:682:U:H5	113.70	0.63
20:C8:12:GLN:NE2	20:C8:14:ILE:O	3.91	0.63
36:5:1595:U:C2	36:5:1596:C:C5	2.87	0.63
35:SM:76:VAL:HG11	1:6:1461:C:H1'	328.26	0.63
9:S7:7:LYS:O	9:S7:9:LEU:N	4.06	0.63
1:6:961:U:H2'	1:6:962:C:C6	2.33	0.63
56:N0:170:THR:OG1	36:5:3185:U:O2'	304.20	0.63
36:1:1952:G:H3'	36:1:1953:G:H5"	1.78	0.63
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.81	0.63
1:2:1592:A:H2'	1:2:1593:A:C8	2.34	0.63
67:O1:26:LYS:NZ	36:5:1456:A:N7	167.59	0.63
45:L8:129:PRO:HB3	36:5:121:A:C2	101.30	0.63
36:1:2404:A:N3	36:1:2404:A:H2'	2.13	0.63
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.31	0.63
36:1:3118:C:C4'	76:Q0:106:ARG:HH22	2.11	0.63
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.28	0.63
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	3.12	0.63
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.80	0.63
26:D4:121:THR:H	1:6:85:A:H4'	338.44	0.63
25:D3:53:VAL:HG23	25:D3:100:ASP:O	1.99	0.63
86:7:219:OHX:N1	86:7:226:OHX:N2	2.46	0.63
36:5:1397:C:O2'	36:5:1398:U:H5'	1.97	0.63
20:C8:89:GLN:HE21	1:6:1548:G:H1'	375.23	0.63
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.50	0.63
10:S8:184:LEU:HD23	10:S8:189:LEU:HA	3.80	0.63
31:D9:45:GLU:OE1	1:6:1433:G:N2	410.43	0.63
59:N3:79:VAL:HG13	59:N3:100:GLY:HA2	1.81	0.63
20:C8:133:VAL:O	20:C8:135:GLY:N	2.31	0.63
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.81	0.63
10:S8:56:ARG:HH22	1:6:332:U:P	287.98	0.63
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.93	0.63
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.99	0.63
73:O7:17:THR:HG22	73:O7:18:LEU:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:98:ASP:OD2	18:C6:100:GLN:N	2.32	0.63
36:1:3280:U:O2'	36:1:3281:U:H5"	1.98	0.63
26:D4:53:ASP:HB3	26:D4:96:LEU:HD21	2.16	0.63
36:1:1078:U:O4	86:1:3962:OHX:N2	2.31	0.63
1:2:1449:U:H2'	1:2:1450:U:C6	2.34	0.63
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.34	0.63
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	1.80	0.63
36:5:783:A:OP2	86:5:4195:OHX:N6	2.31	0.63
3:S1:106:THR:O	3:S1:109:LYS:N	3.01	0.63
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.89	0.63
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.33	0.63
46:L9:44:THR:HG22	36:5:3186:A:C2	326.73	0.63
1:2:377:G:O6	86:2:2078:OHX:N5	2.31	0.63
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.31	0.63
7:S5:42:LEU:HB2	7:S5:45:LYS:HD2	5.25	0.63
3:S1:70:LEU:O	3:S1:74:GLN:N	2.31	0.63
19:C7:27:ASP:O	19:C7:31:ASN:ND2	4.48	0.63
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.79	0.63
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.62	0.63
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.81	0.63
1:2:1592:A:H2'	1:2:1593:A:H8	1.64	0.63
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	3.64	0.63
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.89	0.63
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.80	0.63
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.01	0.63
36:1:3344:A:H2	36:1:3361:G:H21	1.46	0.63
33:E1:87:THR:O	1:6:1445:G:N1	377.53	0.63
36:5:679:U:O4	86:5:4017:OHX:N2	2.31	0.63
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.08	0.63
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.57	0.63
1:6:626:U:H2'	1:6:627:C:H6	1.64	0.63
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.26	0.63
57:N1:13:TYR:O	86:N1:201:OHX:N4	5.62	0.63
36:1:1815:U:O2'	36:1:1816:A:OP2	2.17	0.63
36:1:1213:G:OP1	56:N0:137:ARG:HD3	1.99	0.63
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.65	0.63
8:S6:20:ASP:O	8:S6:22:HIS:N	3.01	0.63
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.07	0.63
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	1.81	0.63
40:L3:81:THR:HG22	40:L3:321:PHE:CA	5.83	0.63
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:197:ARG:NH1	36:5:1381:A:OP1	108.99	0.63
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	1.81	0.63
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.90	0.63
1:2:717:C:H42	1:2:720:G:H22	1.46	0.63
1:2:583:C:OP1	86:2:2026:OHX:N3	2.31	0.63
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.79	0.62
36:5:299:G:N7	86:5:4191:OHX:N1	2.46	0.62
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.35	0.62
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	2.67	0.62
2:S0:167:LYS:HB3	2:S0:168:HIS:HD2	1.64	0.62
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.64	0.62
41:L4:64:SER:HA	41:L4:75:PRO:HA	1.80	0.62
37:7:91:G:H2'	37:7:92:A:H8	1.61	0.62
42:L5:211:LEU:HD11	42:L5:218:ARG:HG2	6.11	0.62
51:M5:172:ARG:NH1	36:5:30:G:OP1	107.32	0.62
17:C5:48:GLY:O	17:C5:50:THR:N	3.84	0.62
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.31	0.62
3:S1:65:VAL:HG12	1:6:920:U:H5"	264.47	0.62
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.65	0.62
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.87	0.62
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.27	0.62
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.13	0.62
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.64	0.62
9:S7:28:GLU:HG2	9:S7:35:LYS:HG3	1.80	0.62
34:SR:101:GLN:HG2	34:SR:138:GLY:HA3	2.76	0.62
1:6:75:U:O2'	1:6:76:A:O4'	2.17	0.62
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.31	0.62
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.81	0.62
36:1:705:A:N6	64:N8:74:ASN:HD21	1.96	0.62
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.32	0.62
36:1:364:G:OP1	41:L4:60:THR:HG23	1.99	0.62
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	4.33	0.62
36:1:2255:A:OP1	86:1:3929:OHX:N3	2.32	0.62
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	3.60	0.62
44:L7:59:GLU:O	44:L7:63:ILE:HG13	1.99	0.62
1:6:982:U:OP1	86:6:2076:OHX:N2	2.32	0.62
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.56	0.62
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.28	0.62
48:M1:151:SER:O	48:M1:152:HIS:HB2	2.44	0.62
86:5:3975:OHX:N3	86:5:4245:OHX:N5	2.47	0.62
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1564:U:H2'	36:1:1565:G:C8	2.34	0.62
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.81	0.62
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.81	0.62
1:2:1566:U:H2'	1:2:1567:U:H6	1.64	0.62
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.82	0.62
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.79	0.62
10:S8:12:SER:O	10:S8:15:GLY:N	2.25	0.62
24:D2:82:LYS:O	24:D2:84:GLY:N	2.30	0.62
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.07	0.62
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.80	0.62
36:5:3153:U:H4'	36:5:3154:C:H5'	1.80	0.62
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.63	0.62
41:L4:84:ARG:O	41:L4:87:GLN:HG3	1.99	0.62
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.53	0.62
41:L4:269:SER:OG	41:L4:269:SER:O	2.52	0.62
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.76	0.62
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	5.72	0.62
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.14	0.62
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.14	0.62
57:N1:116:ARG:NH2	36:5:1097:G:N7	247.02	0.62
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.09	0.62
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.48	0.62
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	2.61	0.62
54:M8:141:ARG:HD3	36:5:743:C:O2	174.14	0.62
24:D2:24:GLN:HE22	29:D7:4:VAL:HA	2.91	0.62
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.61	0.62
36:5:651:G:O2'	36:5:1435:A:OP1	2.17	0.62
36:5:2112:U:H4'	36:5:2113:A:H5'	1.82	0.62
36:1:2754:G:OP2	86:1:4003:OHX:N6	2.31	0.62
1:2:1335:U:H3	1:2:1416:G:H1	1.47	0.62
1:6:1395:G:O6	86:6:2089:OHX:N3	2.32	0.62
1:6:1670:G:O6	86:6:2190:OHX:N4	2.33	0.62
1:2:647:G:N2	1:2:687:G:H22	1.96	0.62
36:5:622:A:H2'	36:5:623:U:O4'	1.99	0.62
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.99	0.62
40:L3:296:THR:HG22	40:L3:298:PHE:N	2.13	0.62
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.65	0.62
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	1.80	0.62
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.33	0.62
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	2.36	0.62
1:2:780:A:H8	26:D4:8:ARG:HB3	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	1.99	0.62
14:C2:81:ASP:O	14:C2:83:GLU:N	2.84	0.62
36:1:3376:A:OP2	86:1:3902:OHX:N5	2.32	0.62
1:2:304:U:H2'	1:2:305:C:H6	1.64	0.62
61:N5:92:LYS:HG3	36:5:1831:U:P	100.78	0.62
36:5:279:U:H2'	36:5:280:U:H6	1.64	0.62
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.71	0.62
1:2:978:A:H2'	1:2:979:A:O4'	2.00	0.62
36:5:3159:C:H2'	36:5:3160:U:C6	2.35	0.62
1:2:1789:G:H8	1:2:1789:G:H5"	1.65	0.62
36:5:3274:A:H3'	36:5:3275:U:C5'	2.23	0.62
4:S2:53:ILE:O	4:S2:56:ILE:N	2.32	0.62
46:L9:92:TYR:CD1	46:L9:142:ASP:HB3	3.87	0.62
75:O9:4:GLN:HG2	36:5:1588:A:C2	128.02	0.62
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.86	0.62
36:1:1308:A:C8	36:1:1308:A:OP2	2.53	0.62
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.83	0.62
11:S9:164:PHE:HE2	1:6:512:A:H4'	452.33	0.62
86:1:4109:OHX:N4	65:N9:6:ASN:OD1	2.33	0.62
86:1:4196:OHX:N2	86:O1:201:OHX:N5	2.47	0.62
9:S7:89:HIS:ND1	9:S7:168:SER:OG	2.28	0.62
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	3.02	0.62
1:2:104:A:OP2	1:2:308:C:N4	2.33	0.62
79:Q3:36:ARG:NH1	79:Q3:48:LYS:HE3	7.42	0.62
52:M6:87:MET:HB3	36:5:1175:C:O2	250.63	0.62
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.31	0.62
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.68	0.62
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	1.81	0.62
36:1:440:A:OP1	36:1:494:G:H1'	1.98	0.62
36:5:655:C:H2'	36:5:656:A:H8	1.63	0.62
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	2.01	0.62
62:N6:2:ALA:N	36:5:212:G:OP2	77.13	0.62
36:1:3278:C:H2'	36:1:3278:C:O2	1.99	0.62
8:S6:2:LYS:HB2	8:S6:108:VAL:HG22	1.80	0.62
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.33	0.62
67:O1:44:MET:O	67:O1:46:THR:N	3.44	0.62
1:6:1350:U:H2'	1:6:1351:G:C8	2.35	0.62
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.34	0.62
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.65	0.62
36:1:3362:A:H2'	36:1:3363:U:O4'	2.00	0.62
1:2:1566:U:H5"	20:C8:39:GLY:H	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.32	0.62
68:O2:26:HIS:O	68:O2:28:VAL:N	2.33	0.62
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.81	0.62
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.44	0.62
64:N8:47:LYS:O	64:N8:49:HIS:N	3.09	0.62
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	1.80	0.62
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.80	0.62
1:6:1765:A:OP1	86:6:2127:OHX:N2	2.33	0.62
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.80	0.62
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.31	0.62
42:L5:206:GLN:NE2	42:L5:210:GLU:OE2	2.33	0.62
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.44	0.62
69:O3:60:ARG:HD3	36:5:3275:U:C4	213.38	0.62
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.00	0.62
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.82	0.62
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.80	0.62
49:M3:151:ALA:O	49:M3:153:ASP:N	4.07	0.62
1:2:1482:C:O2'	18:C6:72:GLY:O	2.18	0.62
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.65	0.62
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.70	0.62
5:S3:203:PRO:HB3	1:6:1332:C:H4'	427.38	0.62
1:2:987:G:C2	39:L2:249:SER:HB2	2.35	0.62
17:C5:128:HIS:HA	1:6:1180:C:O2'	333.71	0.62
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.11	0.62
86:6:2121:OHX:N2	86:6:2171:OHX:N1	2.48	0.62
46:L9:70:THR:HB	36:5:3112:G:O2'	328.66	0.62
22:D0:57:ARG:HD2	22:D0:89:ARG:HD3	1.81	0.62
52:M6:62:THR:HA	36:5:1306:G:C6	232.94	0.62
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.00	0.62
66:O0:36:GLN:HB3	66:O0:38:LYS:HG3	1.82	0.62
11:S9:9:SER:OG	1:6:771:A:OP1	390.44	0.62
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.00	0.62
48:M1:9:MET:O	48:M1:9:MET:HG3	2.00	0.62
57:N1:54:HIS:CE1	57:N1:55:LYS:HG2	2.35	0.62
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.34	0.62
17:C5:123:TYR:HE1	20:C8:122:HIS:HE2	3.17	0.61
1:6:1699:G:H22	1:6:1702:A:H5"	1.64	0.61
39:L2:130:SER:OG	39:L2:174:ARG:NH2	3.36	0.61
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	1.81	0.61
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.00	0.61
70:O4:8:ARG:NH2	70:O4:31:ARG:HH11	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.08	0.61
36:5:1194:G:OP1	86:5:4016:OHX:N6	2.33	0.61
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.00	0.61
1:6:1767:G:OP1	1:6:1770:U:H4'	1.99	0.61
36:5:3041:U:H2'	36:5:3042:U:C6	2.35	0.61
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH1	2.26	0.61
10:S8:87:ASN:ND2	1:6:341:A:H4'	257.63	0.61
36:1:2274:U:OP2	86:1:3961:OHX:N4	2.33	0.61
18:C6:115:THR:O	18:C6:117:LEU:N	2.31	0.61
36:1:2296:A:OP1	86:1:4146:OHX:N2	2.33	0.61
32:E0:59:GLY:O	32:E0:61:SER:N	3.32	0.61
1:6:1208:A:H5"	1:6:1209:C:OP2	2.00	0.61
41:L4:292:SER:HG	41:L4:295:ILE:H	1.47	0.61
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.39	0.61
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.00	0.61
49:M3:177:LYS:HA	72:O6:11:LEU:HD22	3.30	0.61
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.20	0.61
36:1:873:C:H5"	36:1:874:U:O5'	1.99	0.61
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	2.33	0.61
1:2:1066:C:H1'	3:S1:146:GLN:HG2	1.83	0.61
43:L6:23:LYS:HD2	36:5:611:A:N3	235.92	0.61
36:1:2373:A:H3'	36:1:2373:A:OP2	2.00	0.61
36:1:831:G:O6	86:1:3885:OHX:N4	2.33	0.61
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.16	0.61
42:L5:114:GLY:O	42:L5:116:ASP:N	2.30	0.61
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.90	0.61
1:6:1700:C:O2'	1:6:1701:A:OP1	2.17	0.61
7:S5:222:LYS:HE3	7:S5:225:ARG:HH12	1.65	0.61
10:S8:76:THR:HB	10:S8:105:ASP:HB3	1.81	0.61
1:6:1564:U:H2'	1:6:1565:C:C6	2.35	0.61
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.81	0.61
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.70	0.61
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.65	0.61
36:1:2373:A:N3	36:1:2824:G:O2'	2.31	0.61
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	1.82	0.61
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.34	0.61
56:N0:9:VAL:HG22	56:N0:61:ILE:HG12	1.82	0.61
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	1.81	0.61
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.33	0.61
36:1:2827:U:O4	86:1:3863:OHX:N4	2.33	0.61
36:1:356:C:OP2	86:O9:101:OHX:N1	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1788:G:P	16:C4:127:ARG:HH12	2.23	0.61
62:N6:37:LYS:CD	62:N6:37:LYS:H	2.29	0.61
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.38	0.61
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.34	0.61
1:2:1389:C:OP1	19:C7:48:ASN:ND2	2.32	0.61
36:5:1155:C:H2'	36:5:1156:C:C6	2.35	0.61
1:2:1588:G:H1	1:2:1608:U:H3	1.48	0.61
1:6:542:A:C8	1:6:543:C:H5'	2.35	0.61
86:1:4000:OHX:N3	86:1:4171:OHX:N5	2.48	0.61
37:3:4:U:H2'	37:3:5:G:H8	1.65	0.61
25:D3:69:ARG:HD3	25:D3:117:ILE:HG12	1.80	0.61
51:M5:36:ILE:HG21	51:M5:109:ARG:HG2	1.82	0.61
22:D0:28:SER:OG	22:D0:111:GLY:O	2.47	0.61
1:2:1645:G:H22	1:2:1756:A:H2	1.48	0.61
54:M8:170:ARG:NH2	64:N8:58:MET:O	2.33	0.61
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.00	0.61
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.30	0.61
1:6:1417:A:OP1	86:6:2087:OHX:N4	2.33	0.61
3:S1:154:SER:OG	3:S1:154:SER:O	2.11	0.61
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.80	0.61
1:2:649:U:O2'	1:2:650:U:O5'	2.18	0.61
7:S5:205:SER:O	7:S5:207:THR:N	2.33	0.61
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	1.83	0.61
16:C4:92:LYS:HD3	28:D6:69:ASN:HD21	1.66	0.61
1:2:1367:G:N7	86:2:2108:OHX:N6	2.48	0.61
86:5:4022:OHX:N6	86:5:4219:OHX:N2	2.49	0.61
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	3.06	0.61
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.81	0.61
36:5:1544:G:O6	86:5:4203:OHX:N5	2.33	0.61
13:C1:46:LYS:HE2	1:6:846:G:H21	312.05	0.61
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.00	0.61
62:N6:37:LYS:HD3	62:N6:37:LYS:H	1.70	0.61
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	1.82	0.61
61:N5:75:LYS:NZ	36:5:1523:U:O4	96.71	0.61
1:6:1166:A:H2'	1:6:1167:G:O4'	2.00	0.61
36:1:576:C:OP1	44:L7:241:LYS:NZ	2.33	0.61
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	2.15	0.61
10:S8:146:ARG:NH2	1:6:186:C:OP1	275.09	0.61
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.31	0.61
36:1:776:U:H5	36:1:2719:U:O2	1.82	0.61
53:M7:29:THR:HG22	53:M7:87:SER:OG	2.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:59:GLN:OE1	1:6:418:G:O2'	295.57	0.61
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.04	0.61
44:L7:151:ARG:NH1	44:L7:244:ASN:O	2.97	0.61
15:C3:119:GLU:O	15:C3:123:HIS:ND1	2.93	0.61
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.82	0.61
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.35	0.61
63:N7:51:LEU:HD13	63:N7:65:ARG:HE	4.15	0.61
1:6:687:G:H2'	1:6:688:G:H8	1.65	0.61
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.25	0.61
36:1:1310:G:O6	86:1:4024:OHX:N1	2.34	0.61
36:1:2810:C:OP1	86:1:4081:OHX:N6	2.33	0.61
1:6:649:U:H2'	1:6:650:U:H5	1.66	0.61
1:6:1374:C:H2'	1:6:1375:A:C8	2.35	0.61
34:SR:164:ASP:O	34:SR:166:SER:N	2.92	0.61
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.23	0.61
34:SR:69:GLN:OE1	34:SR:85:TRP:NE1	2.32	0.61
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.81	0.61
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	1.82	0.61
1:2:1650:U:H2'	1:2:1651:A:C8	2.36	0.61
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.34	0.61
36:5:173:G:HO2'	36:5:174:C:H6	1.48	0.61
59:N3:2:SER:OG	59:N3:3:GLY:N	4.21	0.61
1:6:1524:A:H2'	1:6:1525:A:C8	2.36	0.61
1:2:1220:C:H42	1:2:1263:G:H1	1.49	0.61
36:5:990:U:O4	86:5:4186:OHX:N6	2.33	0.61
36:1:2289:U:H2'	36:1:2290:C:H6	1.66	0.61
7:S5:109:LYS:NZ	1:6:1474:G:OP1	365.17	0.61
4:S2:148:LEU:O	4:S2:174:ARG:NH2	4.99	0.61
58:N2:83:TYR:O	58:N2:87:ASN:ND2	2.33	0.61
1:2:359:A:C2	25:D3:38:PHE:HB3	2.35	0.61
31:D9:19:ARG:NH2	1:6:1597:A:OP2	407.18	0.61
18:C6:66:ARG:HE	18:C6:68:ARG:HD2	1.65	0.61
15:C3:26:PHE:HE1	15:C3:60:VAL:H	5.22	0.61
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.31	0.61
36:1:2107:A:C2	36:1:3344:A:H8	2.18	0.61
10:S8:8:ARG:HD3	10:S8:21:PHE:H	1.65	0.61
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.63	0.61
40:L3:150:ARG:HD2	36:5:3242:G:N7	250.99	0.61
27:D5:88:ILE:HG22	27:D5:89:ILE:HG23	4.31	0.61
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.30	0.61
36:1:1507:G:N7	53:M7:129:THR:HG22	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.01	0.61
1:2:1018:U:OP1	15:C3:107:LYS:NZ	2.27	0.61
86:7:219:OHX:N4	86:7:226:OHX:N2	2.48	0.61
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.35	0.61
36:1:1581:C:O2	36:1:1582:C:H5'	2.01	0.61
9:S7:44:LYS:HD2	9:S7:63:PRO:HA	2.90	0.61
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.83	0.61
4:S2:178:ILE:HD12	4:S2:178:ILE:H	4.58	0.61
65:N9:50:THR:HB	36:5:1073:U:H1'	205.57	0.61
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.34	0.61
86:8:216:OHX:N2	86:8:225:OHX:N1	2.48	0.61
36:5:3237:U:H2'	36:5:3238:G:O4'	2.01	0.61
11:S9:70:LEU:O	11:S9:74:ASN:HB2	1.99	0.61
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.34	0.61
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	6.49	0.61
36:1:155:G:O2'	72:O6:27:SER:HB3	2.01	0.61
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.84	0.61
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.85	0.61
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	3.29	0.61
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	3.30	0.61
8:S6:202:ARG:NH2	1:6:127:G:N7	330.04	0.61
36:5:1024:G:N2	36:5:1026:A:OP2	2.34	0.61
1:6:639:U:H1'	1:6:640:U:C6	2.36	0.61
36:1:2768:U:H2'	36:1:2769:A:C8	2.36	0.61
1:6:73:U:H2'	1:6:74:U:C6	2.36	0.61
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.75	0.61
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.82	0.61
51:M5:97:SER:O	51:M5:100:ALA:N	2.56	0.61
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.90	0.61
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.39	0.61
36:5:1750:A:H4'	36:5:1751:G:H5'	1.82	0.61
41:L4:292:SER:OG	41:L4:295:ILE:N	2.27	0.61
75:O9:3:ALA:O	75:O9:4:GLN:HB2	2.00	0.61
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.34	0.61
8:S6:177:ARG:NH2	1:6:143:G:N7	311.74	0.61
37:3:60:G:H2'	37:3:61:G:H8	1.65	0.61
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.66	0.61
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.08	0.61
36:5:3055:U:O2'	36:5:3057:U:OP1	2.17	0.61
86:1:4196:OHX:N4	86:O1:201:OHX:N3	2.48	0.61
70:O4:9:ARG:NH2	36:5:1606:U:O4	139.95	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.83	0.61
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.82	0.61
13:C1:5:LEU:HB3	13:C1:6:THR:HG23	1.82	0.61
62:N6:88:GLU:OE2	62:N6:94:SER:OG	2.18	0.61
1:6:922:G:H2'	1:6:923:A:H8	1.66	0.61
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.70	0.61
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	2.25	0.60
46:L9:49:ASN:C	46:L9:51:GLN:H	2.04	0.60
3:S1:129:THR:OG1	3:S1:130:SER:N	3.66	0.60
36:1:3353:G:O2'	36:1:3356:G:OP2	2.20	0.60
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.59	0.60
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.83	0.60
3:S1:58:SER:HA	3:S1:62:LYS:HD3	1.83	0.60
1:2:736:C:H2'	1:2:737:A:H5'	1.83	0.60
1:2:1606:C:H2'	1:2:1607:G:C8	2.35	0.60
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.82	0.60
36:1:668:G:OP1	86:1:4119:OHX:N2	2.34	0.60
25:D3:109:ARG:O	25:D3:112:LYS:HG2	2.69	0.60
36:1:1752:A:OP2	86:1:4045:OHX:N5	2.34	0.60
36:1:3233:C:H2'	36:1:3234:A:C8	2.36	0.60
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.99	0.60
48:M1:155:THR:O	48:M1:159:THR:HG23	5.21	0.60
36:5:1688:U:H2'	36:5:1689:U:C6	2.36	0.60
36:1:841:A:OP2	86:1:4174:OHX:N2	2.34	0.60
36:1:1362:G:H2'	36:1:1363:A:C8	2.36	0.60
74:O8:44:LYS:HB3	74:O8:51:LEU:HD11	1.83	0.60
63:N7:69:LYS:NZ	36:5:1632:A:OP1	192.12	0.60
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.25	0.60
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	1.82	0.60
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.34	0.60
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	5.67	0.60
1:6:694:U:H3'	1:6:695:U:O2	2.00	0.60
44:L7:110:ARG:NH2	54:M8:3:ILE:HD11	2.16	0.60
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.36	0.60
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.35	0.60
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.83	0.60
56:N0:8:GLN:HG2	56:N0:62:ASN:HB2	1.84	0.60
36:5:90:C:H2'	36:5:91:G:H5'	1.82	0.60
36:1:2503:G:H1'	36:1:2504:U:C5	2.36	0.60
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.66	0.60
24:D2:104:LEU:HA	24:D2:126:LEU:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:109:GLU:HG3	22:D0:110:PRO:HD2	2.62	0.60
25:D3:89:ASN:HB3	25:D3:136:TRP:CZ2	2.36	0.60
36:1:790:U:H4'	41:L4:112:LYS:O	2.01	0.60
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.82	0.60
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	3.03	0.60
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.02	0.60
86:7:219:OHX:N4	86:7:226:OHX:N6	2.49	0.60
48:M1:166:LYS:O	48:M1:167:TYR:HB2	2.21	0.60
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.31	0.60
37:3:39:C:N3	48:M1:70:THR:HG23	2.15	0.60
1:6:1508:U:O4	86:6:2055:OHX:N4	2.33	0.60
1:6:8:U:O2'	86:6:2072:OHX:N2	2.34	0.60
36:1:1315:U:OP2	52:M6:44:SER:OG	2.19	0.60
1:6:1248:C:H2'	1:6:1249:U:C6	2.36	0.60
24:D2:122:SER:OG	24:D2:123:GLY:N	2.34	0.60
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.61	0.60
1:6:800:U:H2'	1:6:801:G:H8	1.67	0.60
1:2:795:U:H5	1:2:796:A:C5	2.19	0.60
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.36	0.60
36:5:1560:G:O2'	36:5:1561:G:OP1	2.18	0.60
56:N0:70:THR:OG1	56:N0:70:THR:O	3.26	0.60
47:M0:48:LEU:HA	47:M0:178:ARG:HH12	1.66	0.60
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.17	0.60
37:3:112:G:H2'	37:3:113:C:C6	2.36	0.60
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.32	0.60
36:1:2310:U:OP1	86:1:4138:OHX:N2	2.34	0.60
1:6:1042:G:N2	1:6:1077:C:O2	2.34	0.60
43:L6:131:LYS:HA	43:L6:131:LYS:HE2	5.17	0.60
43:L6:97:ASN:OD1	43:L6:99:GLU:HB2	2.01	0.60
36:5:900:G:H1'	36:5:1589:A:N6	2.17	0.60
36:5:59:G:H2'	38:8:33:A:O2'	2.00	0.60
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.56	0.60
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	4.17	0.60
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.83	0.60
42:L5:279:LYS:HG2	42:L5:282:ARG:NH2	2.17	0.60
41:L4:144:LYS:HD2	41:L4:145:ILE:HG23	6.21	0.60
36:5:979:U:H4'	36:5:980:A:H5'	1.83	0.60
76:Q0:83:LYS:O	76:Q0:87:SER:OG	2.17	0.60
36:1:1940:G:H21	36:1:3362:A:H8	1.50	0.60
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.67	0.60
47:M0:208:ASN:HB3	47:M0:211:ARG:NH1	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2218:G:H2'	36:1:2219:A:C8	2.35	0.60
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.02	0.60
36:1:1933:A:OP2	86:1:3881:OHX:N6	2.33	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.41	0.60
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.92	0.60
1:2:1358:G:H2'	1:2:1359:C:C6	2.35	0.60
36:1:1441:G:O6	86:1:3921:OHX:N1	2.34	0.60
36:1:748:U:H2'	36:1:749:C:H6	1.66	0.60
36:1:180:C:H2'	36:1:181:U:C6	2.37	0.60
41:L4:283:THR:HB	41:L4:285:ASP:H	3.47	0.60
36:1:1240:A:H61	36:1:1244:A:H5"	1.66	0.60
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.01	0.60
1:6:151:G:H22	1:6:163:G:N2	2.00	0.60
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.65	0.60
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.50	0.60
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.84	0.60
36:1:1024:G:N7	86:1:4164:OHX:N6	2.49	0.60
39:L2:32:LEU:HD13	39:L2:37:ARG:HD3	1.82	0.60
41:L4:8:VAL:HB	41:L4:16:THR:HG21	3.56	0.60
36:5:3035:A:OP2	86:5:4053:OHX:N5	2.34	0.60
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	1.72	0.60
36:5:23:A:OP1	86:5:3909:OHX:N4	2.35	0.60
50:M4:100:ALA:HA	50:M4:103:ILE:HD12	1.84	0.60
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.84	0.60
1:2:1745:G:O6	86:2:2086:OHX:N6	2.35	0.60
36:1:708:G:H8	36:1:708:G:H5'	1.66	0.60
1:2:449:C:H4'	6:S4:8:HIS:CD2	2.36	0.60
1:6:383:G:N7	86:6:2149:OHX:N5	2.49	0.60
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.84	0.60
1:6:1385:G:N7	86:6:2122:OHX:N6	2.50	0.60
1:2:1199:G:O6	22:D0:67:THR:HG23	2.01	0.60
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.17	0.60
7:S5:26:ALA:N	18:C6:27:GLY:O	2.87	0.60
86:1:3954:OHX:N4	44:L7:217:PRO:HA	2.16	0.60
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.84	0.60
34:SR:70:ASP:HB3	34:SR:112:SER:HA	1.82	0.60
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.04	0.60
36:5:2403:G:N2	36:5:2404:A:N7	2.49	0.60
1:2:705:U:H2'	1:2:706:A:C8	2.37	0.60
25:D3:50:LYS:HG2	25:D3:77:ILE:HD12	3.72	0.60
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	2.40	0.60
46:L9:1:MET:HB3	36:5:1212:A:OP1	320.09	0.60
1:6:1175:U:H2'	1:6:1176:G:C8	2.36	0.60
36:1:1532:C:H2'	36:1:1533:U:C6	2.37	0.60
36:1:191:U:H2'	36:1:192:C:C6	2.36	0.60
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.20	0.60
36:1:1108:U:H2'	36:1:1109:U:C6	2.37	0.60
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.66	0.60
42:L5:279:LYS:HG2	42:L5:282:ARG:HH22	1.67	0.60
36:1:3048:A:H5'	40:L3:53:MET:HE3	1.82	0.60
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.83	0.60
1:6:831:U:O2'	1:6:832:U:H5'	2.01	0.60
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG3	3.59	0.60
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.15	0.60
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.35	0.60
36:1:3254:G:O6	86:1:4053:OHX:N5	2.35	0.60
49:M3:95:ILE:HD13	49:M3:116:LEU:HD22	1.83	0.60
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.94	0.60
36:1:1868:G:N2	36:1:2118:C:O2	2.35	0.60
45:L8:208:GLU:HA	45:L8:211:LEU:HB2	3.85	0.60
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	3.14	0.60
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.02	0.60
43:L6:44:ALA:O	43:L6:48:ARG:HG2	4.88	0.60
64:N8:118:ILE:HD13	64:N8:118:ILE:H	1.66	0.60
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.02	0.60
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.01	0.60
45:L8:45:ASN:ND2	45:L8:47:SER:HB3	2.14	0.60
1:6:66:U:H4'	1:6:67:A:OP1	2.01	0.60
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.08	0.60
16:C4:85:ALA:H	16:C4:119:THR:HB	3.69	0.60
34:SR:37:SER:OG	34:SR:38:ARG:N	2.83	0.60
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.75	0.60
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.35	0.60
36:5:1064:A:H4'	36:5:1065:A:O5'	2.02	0.60
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	6.57	0.60
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.82	0.60
36:1:1508:C:C6	36:1:1880:U:H1'	2.36	0.60
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.10	0.60
1:6:1202:A:OP1	86:6:2131:OHX:N2	2.35	0.60
86:1:4196:OHX:N2	86:O1:201:OHX:N1	2.49	0.60
62:N6:103:LYS:NZ	36:5:190:U:O4	77.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.66	0.60
37:3:106:U:H2'	37:3:107:C:C6	2.37	0.60
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.30	0.60
7:S5:178:GLY:HA3	7:S5:209:TYR:CG	2.36	0.60
36:1:249:U:H1'	36:1:250:U:O2	2.02	0.60
20:C8:87:ASN:OD1	20:C8:88:ARG:N	2.35	0.60
36:5:3192:U:O4	86:5:4147:OHX:N6	2.34	0.60
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	1.83	0.60
36:1:314:U:O4	86:1:4149:OHX:N4	2.35	0.60
1:2:543:C:O2	1:2:543:C:H5'	2.01	0.60
36:5:3242:G:H5"	36:5:3245:A:C8	2.37	0.60
36:5:1464:G:O2'	86:5:3914:OHX:N5	2.35	0.60
1:6:217:A:C8	1:6:218:A:C8	2.90	0.60
25:D3:30:LYS:HE2	25:D3:34:LEU:HD11	1.84	0.60
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.00	0.60
86:1:4196:OHX:N4	86:O1:201:OHX:N1	2.49	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CD2	2.37	0.60
36:1:2970:C:H4'	36:1:2971:A:N1	2.17	0.60
36:1:1033:U:H2'	36:1:1034:U:C6	2.37	0.60
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.34	0.60
53:M7:18:ARG:NH2	53:M7:147:GLU:OE1	2.27	0.60
86:2:2036:OHX:N2	10:S8:17:LYS:O	2.35	0.60
49:M3:6:ASN:O	54:M8:164:ARG:HD2	2.02	0.60
1:6:1450:U:OP2	86:6:2129:OHX:N4	2.35	0.60
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.01	0.60
1:6:1595:U:N3	1:6:1600:A:H2	1.93	0.59
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.67	0.59
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.16	0.59
12:C0:44:LYS:HE3	12:C0:47:GLN:HG2	7.08	0.59
36:5:2404:A:H2'	36:5:2405:C:C5'	2.31	0.59
36:5:1307:G:C2	36:5:1308:A:C2	2.90	0.59
59:N3:54:LEU:HA	59:N3:78:VAL:HG12	1.83	0.59
77:Q1:23:ARG:O	86:5:4003:OHX:N2	264.30	0.59
6:S4:254:ARG:HH11	6:S4:254:ARG:HB3	4.59	0.59
36:5:180:C:H2'	36:5:181:U:H6	1.67	0.59
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.50	0.59
54:M8:182:LYS:HE3	64:N8:55:LYS:O	2.02	0.59
35:SM:25:ILE:HG12	37:3:39:C:H5'	1.84	0.59
58:N2:59:ASP:O	58:N2:61:THR:N	2.34	0.59
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	1.84	0.59
36:1:964:G:HO2'	64:N8:41:HIS:HE2	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.12	0.59
51:M5:160:GLU:OE1	51:M5:160:GLU:N	2.93	0.59
36:5:2434:U:H4'	36:5:2435:G:H5"	1.83	0.59
36:5:132:C:H2'	36:5:133:U:H5"	1.84	0.59
46:L9:36:LYS:HD3	46:L9:38:LEU:HD21	2.67	0.59
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.66	0.59
26:D4:29:HIS:O	26:D4:31:ASN:N	3.75	0.59
1:2:514:G:O2'	1:2:515:A:H5'	2.02	0.59
24:D2:53:ILE:HD13	29:D7:24:LEU:HD12	1.84	0.59
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.38	0.59
1:2:851:U:H2'	1:2:852:C:C6	2.37	0.59
1:2:1657:U:H4'	1:2:1658:G:O5'	2.02	0.59
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.35	0.59
36:1:1781:C:H2'	36:1:1782:U:H6	1.66	0.59
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.84	0.59
1:2:931:C:O2'	3:S1:118:GLN:O	2.19	0.59
1:2:434:G:N7	86:2:2048:OHX:N4	2.49	0.59
36:1:2209:U:H2'	36:1:2209:U:OP2	2.01	0.59
7:S5:73:THR:HG21	18:C6:114:ARG:HE	5.49	0.59
2:S0:76:ILE:HB	2:S0:123:VAL:HG23	1.85	0.59
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.03	0.59
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.35	0.59
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.25	0.59
86:5:4022:OHX:N6	86:5:4219:OHX:N4	2.50	0.59
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.56	0.59
49:M3:161:ASP:C	49:M3:163:GLY:H	2.62	0.59
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.02	0.59
54:M8:185:LYS:HG2	54:M8:186:VAL:HG23	1.85	0.59
36:1:670:C:P	54:M8:147:ARG:HH22	2.26	0.59
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.82	0.59
1:2:1450:U:H2'	1:2:1451:C:C6	2.38	0.59
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.50	0.59
61:N5:100:LYS:NZ	61:N5:106:ASP:OD2	2.33	0.59
86:1:4083:OHX:N4	55:M9:14:VAL:O	2.34	0.59
1:6:1511:U:H2'	1:6:1512:G:C8	2.38	0.59
38:4:85:G:O6	62:N6:112:ASP:HB3	2.01	0.59
36:5:1717:U:H2'	36:5:1718:G:C8	2.37	0.59
36:5:2977:G:OP1	86:5:4155:OHX:N4	2.35	0.59
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.84	0.59
36:5:1581:C:OP2	36:5:1581:C:H4'	2.01	0.59
1:6:489:C:O2'	1:6:490:C:O5'	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1031:U:H4'	1:6:1032:G:OP2	2.02	0.59
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.17	0.59
36:1:978:G:O2'	36:1:979:U:O4'	2.20	0.59
40:L3:76:VAL:HG11	40:L3:323:MET:HE3	2.31	0.59
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.62	0.59
6:S4:92:LEU:HD13	26:D4:17:LEU:HD11	6.44	0.59
2:S0:41:ARG:HD2	2:S0:42:PRO:HD2	3.72	0.59
1:2:778:G:H22	26:D4:10:ARG:NH1	1.99	0.59
79:Q3:49:ARG:HD2	79:Q3:50:GLY:H	1.67	0.59
1:2:1657:U:O4	86:2:2089:OHX:N4	2.34	0.59
36:1:1567:U:O2	36:1:1571:A:N6	2.35	0.59
1:2:1370:U:O2'	1:2:1371:A:OP2	2.17	0.59
54:M8:40:THR:O	54:M8:42:ALA:N	2.30	0.59
1:2:1297:G:N2	1:2:1300:A:OP2	2.34	0.59
36:5:1621:A:H2'	36:5:1622:U:C6	2.37	0.59
38:4:121:U:H2'	38:4:122:U:C6	2.37	0.59
25:D3:28:ASN:OD1	25:D3:28:ASN:N	2.35	0.59
1:6:1491:U:H5'	1:6:1492:A:OP1	2.02	0.59
36:1:1447:G:N7	53:M7:25:SER:OG	2.34	0.59
51:M5:24:ARG:NH1	51:M5:24:ARG:HG2	3.80	0.59
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.83	0.59
37:3:121:U:H5"	42:L5:265:TYR:HE1	1.68	0.59
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.36	0.59
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.35	0.59
10:S8:138:ASN:OD1	1:6:189:C:N4	273.27	0.59
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.56	0.59
5:S3:53:THR:HG22	5:S3:91:VAL:HG12	1.84	0.59
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	3.76	0.59
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.38	0.59
36:1:1497:C:O2'	36:1:1602:A:N3	2.33	0.59
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.42	0.59
38:8:104:A:H3'	38:8:105:A:H5"	1.84	0.59
36:1:691:A:OP1	41:L4:46:LYS:NZ	2.36	0.59
1:2:1320:U:O2	1:2:1322:A:H5'	2.02	0.59
15:C3:29:SER:OG	15:C3:32:SER:OG	2.15	0.59
1:2:730:G:H21	1:2:731:C:H5'	1.67	0.59
52:M6:77:SER:OG	52:M6:106:GLU:OE2	2.21	0.59
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	5.19	0.59
13:C1:139:VAL:HG12	13:C1:140:VAL:N	2.13	0.59
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.38	0.59
70:O4:10:ARG:O	36:5:1488:G:O2'	139.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:129:THR:HB	3:S1:180:THR:HA	1.85	0.59
10:S8:105:ASP:OD1	10:S8:106:ALA:N	4.92	0.59
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.83	0.59
24:D2:55:ASP:HB3	29:D7:25:VAL:HG22	2.73	0.59
41:L4:22:LEU:HD23	41:L4:23:PRO:HD2	3.13	0.59
36:5:255:A:H2'	36:5:256:G:C8	2.37	0.59
76:Q0:99:CYS:HB3	76:Q0:114:LYS:HD2	4.47	0.59
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.36	0.59
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.84	0.59
1:6:75:U:O2'	1:6:76:A:O5'	2.14	0.59
36:1:2700:G:O2'	36:1:2705:A:N1	2.31	0.59
63:N7:33:SER:OG	63:N7:34:LYS:N	2.64	0.59
36:1:3057:U:H5'	36:1:3086:A:H61	1.67	0.59
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.04	0.59
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.34	0.59
1:6:1573:A:H4'	1:6:1574:G:O5'	2.01	0.59
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.24	0.59
36:5:2409:G:H4'	36:5:2410:U:OP2	2.03	0.59
7:S5:225:ARG:CZ	30:D8:58:GLU:HB2	5.09	0.59
86:5:4022:OHX:N3	86:5:4219:OHX:N4	2.50	0.59
1:2:1533:C:H4'	1:2:1539:G:H1	1.67	0.59
66:O0:13:LYS:NZ	66:O0:103:THR:HG21	3.19	0.59
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.84	0.59
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.95	0.59
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.34	0.59
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	5.09	0.59
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.01	0.59
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.41	0.59
1:6:909:U:H2'	1:6:910:C:C6	2.38	0.59
13:C1:33:ARG:NH1	13:C1:53:TYR:O	2.89	0.59
2:S0:124:THR:HA	2:S0:146:LEU:HB2	1.85	0.59
49:M3:70:ARG:NH2	36:5:103:G:OP1	94.33	0.59
36:5:1151:U:OP1	86:5:4213:OHX:N1	2.36	0.59
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.38	0.59
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.05	0.59
11:S9:170:GLY:O	11:S9:172:VAL:N	2.36	0.59
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.32	0.59
48:M1:137:ARG:HG2	37:7:28:C:H5"	307.06	0.59
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	3.59	0.59
49:M3:15:ARG:CZ	36:5:96:G:H5'	151.71	0.59
37:7:23:A:H2'	37:7:24:A:C8	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2443:A:O2'	36:1:2444:C:OP2	2.18	0.59
7:S5:123:VAL:HG12	7:S5:124:LEU:HG	1.85	0.59
1:2:732:G:O6	86:2:2129:OHX:N5	2.35	0.59
33:E1:98:VAL:HG12	33:E1:99:LYS:H	2.93	0.59
11:S9:66:ASP:HB3	11:S9:69:ARG:HB3	2.57	0.59
8:S6:2:LYS:HD3	8:S6:17:GLU:HG3	1.83	0.59
86:8:216:OHX:N6	86:8:225:OHX:N3	2.51	0.59
86:8:216:OHX:N5	86:8:225:OHX:N3	2.51	0.59
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.48	0.59
1:6:193:U:C2	1:6:195:G:H1'	2.38	0.59
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	1.84	0.59
51:M5:47:LYS:HE3	51:M5:51:LEU:HD11	1.85	0.59
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.84	0.59
43:L6:64:LEU:HD22	43:L6:65:ILE:H	3.01	0.59
5:S3:99:VAL:HG13	5:S3:173:ARG:HH12	3.18	0.59
36:5:507:U:H2'	36:5:508:U:C6	2.38	0.59
71:O5:83:LYS:HA	38:8:38:U:H5	65.46	0.59
75:O9:9:ILE:O	75:O9:13:MET:HG3	2.02	0.59
39:L2:70:ARG:HD2	39:L2:72:ARG:NE	3.57	0.59
1:6:230:C:H42	1:6:235:G:H1	1.49	0.59
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.56	0.59
1:6:1371:A:H5'	1:6:1372:U:OP2	2.02	0.59
86:2:2044:OHX:N1	86:2:2098:OHX:N5	2.51	0.59
33:E1:144:CYS:O	33:E1:146:SER:N	2.51	0.59
6:S4:45:ILE:HB	6:S4:80:THR:HG23	2.81	0.59
17:C5:116:LEU:O	17:C5:118:GLU:N	3.12	0.59
36:5:2730:G:OP2	86:5:3961:OHX:N4	2.36	0.59
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.38	0.59
58:N2:94:ARG:NH2	36:5:1757:A:OP1	128.38	0.59
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.03	0.59
1:6:1001:A:H2'	1:6:1002:G:C8	2.38	0.59
36:1:2572:C:O2'	36:1:2573:G:O4'	2.20	0.59
36:5:1944:U:H2'	36:5:1945:A:H8	1.68	0.59
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	2.25	0.59
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.36	0.59
55:M9:104:ARG:NH1	36:5:1949:G:OP1	220.79	0.59
30:D8:26:THR:HB	30:D8:44:VAL:HG22	1.84	0.59
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.83	0.59
68:O2:126:LEU:O	68:O2:128:LEU:N	2.35	0.59
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.18	0.59
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:591:A:H2'	1:2:592:A:H8	1.66	0.59
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.64	0.59
13:C1:6:THR:O	13:C1:8:GLN:N	2.34	0.59
55:M9:117:LYS:HD3	36:5:1718:G:H4'	246.91	0.59
1:6:489:C:O2'	1:6:490:C:O4'	2.19	0.59
36:1:1207:G:N7	86:1:4061:OHX:N2	2.51	0.59
1:6:871:G:H2'	1:6:872:G:C8	2.38	0.59
39:L2:236:GLY:H	36:5:2183:A:HO2'	205.69	0.59
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.38	0.59
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.84	0.59
29:D7:36:LYS:HD3	29:D7:43:ILE:HG23	3.85	0.59
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	2.43	0.59
36:1:290:G:H2'	36:1:291:C:C6	2.37	0.59
36:1:1429:G:N1	41:L4:99:MET:HE2	2.18	0.59
35:SM:72:ARG:NH1	1:6:1460:A:O2'	322.65	0.58
36:5:437:G:H22	36:5:622:A:N6	2.00	0.58
41:L4:269:SER:C	41:L4:271:LYS:H	2.05	0.58
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.22	0.58
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.67	0.58
7:S5:225:ARG:HH22	30:D8:57:MET:HB2	3.64	0.58
3:S1:131:ASP:O	3:S1:133:TYR:N	2.34	0.58
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.85	0.58
66:O0:99:ASP:O	66:O0:101:LEU:N	3.02	0.58
72:O6:95:ALA:O	72:O6:99:ARG:HB2	2.02	0.58
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.49	0.58
36:1:544:C:H1'	36:1:548:G:H22	1.68	0.58
1:2:1657:U:C4	86:2:2089:OHX:N2	2.70	0.58
1:2:839:U:H2'	1:2:840:U:H5'	1.84	0.58
1:6:1691:A:H2'	1:6:1692:G:C8	2.38	0.58
57:N1:105:PHE:CE2	36:5:1062:A:H4'	243.60	0.58
26:D4:52:LYS:O	26:D4:54:ALA:N	2.47	0.58
1:2:1031:U:H4'	1:2:1032:G:OP2	2.02	0.58
1:2:1148:C:H2'	1:2:1149:G:H8	1.68	0.58
5:S3:127:MET:HE2	5:S3:127:MET:HA	4.17	0.58
50:M4:121:MET:HE1	36:5:3215:A:O5'	275.13	0.58
1:2:1202:A:N3	1:2:1202:A:H3'	2.18	0.58
25:D3:79:ASN:ND2	25:D3:81:LYS:HG3	2.18	0.58
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.85	0.58
28:D6:7:SER:O	28:D6:9:GLY:N	3.72	0.58
30:D8:52:ASP:N	30:D8:52:ASP:OD2	3.89	0.58
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3294:A:H2'	36:1:3295:A:O4'	2.03	0.58
40:L3:113:GLU:OE2	40:L3:167:ARG:HB3	2.17	0.58
1:2:1067:C:H5"	3:S1:150:VAL:HG23	1.84	0.58
1:2:52:U:H2'	1:2:53:G:C8	2.37	0.58
71:O5:6:ALA:O	71:O5:10:ARG:HG3	3.88	0.58
86:2:2134:OHX:N6	10:S8:52:ASN:OD1	2.35	0.58
1:2:1488:G:H5'	1:2:1489:U:OP1	2.04	0.58
86:2:2044:OHX:N1	86:2:2098:OHX:N3	2.50	0.58
31:D9:34:TYR:OH	1:6:1487:A:OP1	418.86	0.58
70:O4:101:VAL:O	70:O4:105:VAL:HG23	2.80	0.58
36:1:1675:G:H2'	36:1:1676:A:C8	2.38	0.58
1:2:383:G:N7	86:2:2130:OHX:N4	2.51	0.58
62:N6:106:ILE:HG21	62:N6:109:LEU:HD23	2.27	0.58
37:3:45:A:H2'	37:3:46:A:C8	2.37	0.58
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.62	0.58
30:D8:22:ARG:NH1	1:6:1619:C:O2	339.09	0.58
1:2:1537:C:O2'	1:2:1540:G:O6	2.21	0.58
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.11	0.58
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.25	0.58
38:4:151:C:OP2	61:N5:25:LYS:NZ	2.36	0.58
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.70	0.58
67:O1:72:ARG:HH22	67:O1:107:VAL:HG23	1.68	0.58
15:C3:115:LEU:O	15:C3:119:GLU:HB2	2.78	0.58
36:5:956:U:H2'	36:5:957:C:C6	2.38	0.58
73:O7:55:ARG:NH1	36:5:353:G:N7	110.51	0.58
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	1.86	0.58
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.84	0.58
1:2:1726:G:N7	86:2:2098:OHX:N4	2.51	0.58
1:2:778:G:H3'	1:2:780:A:H2	1.67	0.58
36:5:655:C:H2'	36:5:656:A:C8	2.38	0.58
12:C0:26:ASP:O	12:C0:39:ASN:ND2	2.36	0.58
36:5:171:G:H1	36:5:247:C:N4	2.02	0.58
74:O8:17:ARG:O	74:O8:19:ASP:N	2.37	0.58
36:1:2573:G:O6	86:1:3994:OHX:N3	2.37	0.58
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.83	0.58
58:N2:22:PRO:HG3	58:N2:93:ILE:HG21	1.84	0.58
1:2:1504:G:H2'	1:2:1505:A:C8	2.39	0.58
50:M4:37:GLU:HG2	50:M4:38:ILE:H	1.68	0.58
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.23	0.58
1:6:737:A:H2'	1:6:738:G:C8	2.38	0.58
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.26	0.58
9:S7:10:SER:HB3	9:S7:43:PHE:O	2.03	0.58
36:1:621:A:H8	36:1:623:U:O4	1.85	0.58
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.34	0.58
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.36	0.58
5:S3:57:ASP:O	5:S3:65:ARG:HG2	5.19	0.58
40:L3:296:THR:CG2	40:L3:298:PHE:H	2.34	0.58
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.86	0.58
36:5:980:A:H2'	36:5:981:U:N1	2.18	0.58
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.03	0.58
12:C0:16:PHE:CD2	12:C0:76:LEU:HD23	2.38	0.58
13:C1:74:THR:HA	13:C1:122:ILE:HA	1.84	0.58
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	4.11	0.58
58:N2:90:ARG:HB3	58:N2:90:ARG:NH1	4.30	0.58
36:5:495:G:H2'	36:5:496:C:O4'	2.03	0.58
36:1:1498:A:H2'	36:1:1499:C:C6	2.38	0.58
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.38	0.58
36:1:2157:G:O2'	39:L2:156:LYS:HD2	2.03	0.58
36:1:1039:U:H2'	36:1:1040:A:C8	2.38	0.58
42:L5:68:THR:HG22	42:L5:71:GLY:O	4.21	0.58
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.51	0.58
9:S7:59:ALA:HA	9:S7:91:ILE:HG22	1.85	0.58
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	3.95	0.58
36:5:1650:G:N7	86:5:4183:OHX:N3	2.51	0.58
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.85	0.58
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.15	0.58
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.76	0.58
17:C5:122:THR:OG1	1:6:1454:G:O3'	368.28	0.58
20:C8:140:THR:HA	20:C8:143:ARG:HH11	2.96	0.58
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.84	0.58
6:S4:49:ARG:HG3	6:S4:50:ASN:N	4.32	0.58
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.85	0.58
6:S4:86:PHE:HE2	6:S4:102:VAL:HG23	2.46	0.58
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.38	0.58
36:1:1564:U:H2'	36:1:1565:G:H8	1.68	0.58
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.87	0.58
2:S0:31:VAL:HA	2:S0:34:GLU:OE2	7.31	0.58
1:6:488:G:N2	1:6:499:U:H3	2.01	0.58
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.38	0.58
36:5:595:G:C8	36:5:609:G:C6	2.92	0.58
1:2:71:A:H2'	1:2:72:A:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:239:G:O2'	36:1:240:U:OP1	2.20	0.58
3:S1:121:ILE:HD13	3:S1:161:ILE:HG23	2.79	0.58
46:L9:47:LYS:HE3	46:L9:50:ASN:H	1.67	0.58
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.85	0.58
72:O6:37:THR:O	72:O6:41:ARG:HB2	2.03	0.58
36:5:1363:A:OP2	86:5:4201:OHX:N3	2.37	0.58
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.39	0.58
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	1.86	0.58
2:S0:110:TYR:O	2:S0:112:THR:N	2.89	0.58
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.44	0.58
1:6:722:G:HO2'	1:6:723:G:H8	1.51	0.58
36:1:2128:C:OP1	86:1:3953:OHX:N4	2.36	0.58
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.34	0.58
36:1:12:A:OP1	86:1:4201:OHX:N6	2.37	0.58
75:O9:10:LYS:HD3	36:5:1833:G:H5"	107.87	0.58
2:S0:84:ARG:NH2	2:S0:201:LEU:O	4.66	0.58
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.04	0.58
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.14	0.58
36:1:2734:A:OP1	86:1:4003:OHX:N3	2.36	0.58
33:E1:82:LYS:O	33:E1:84:VAL:N	4.96	0.58
36:5:90:C:C2'	36:5:91:G:H5'	2.34	0.58
36:1:849:C:H2'	36:1:850:U:H6	1.67	0.58
40:L3:274:SER:OG	36:5:3139:A:OP1	228.03	0.58
73:O7:59:THR:HG22	38:8:41:A:O2'	91.80	0.58
36:5:1919:G:N7	86:5:4074:OHX:N4	2.52	0.58
47:M0:78:THR:OG1	47:M0:79:VAL:N	4.10	0.58
38:8:157:U:H2'	38:8:158:U:H6	1.69	0.58
57:N1:38:ASP:OD1	57:N1:38:ASP:N	2.34	0.58
36:5:3263:G:O6	86:5:4123:OHX:N2	2.37	0.58
69:O3:39:GLN:N	69:O3:39:GLN:OE1	2.78	0.58
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	4.25	0.58
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.86	0.58
36:1:92:G:OP2	36:1:93:C:H5"	2.04	0.58
1:6:1011:G:HO2'	1:6:1012:U:H6	1.51	0.58
56:N0:90:MET:HG2	36:5:1213:G:H4'	318.07	0.58
36:1:917:A:OP2	86:1:4142:OHX:N2	2.36	0.58
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.67	0.58
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.86	0.58
49:M3:98:ASP:OD2	36:5:76:G:O2'	81.63	0.58
28:D6:73:TYR:CZ	28:D6:82:ARG:HD3	2.39	0.58
86:1:4000:OHX:N6	86:1:4171:OHX:N1	2.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:72:ASN:HD22	22:D0:74:GLU:H	1.51	0.58
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.39	0.58
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.67	0.58
36:1:118:U:O2	36:1:121:A:H5'	2.04	0.58
36:5:247:C:C4	36:5:248:U:H1'	2.39	0.58
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.24	0.58
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.69	0.58
63:N7:100:THR:HA	63:N7:106:GLN:HG2	4.96	0.58
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.04	0.58
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.84	0.58
36:5:1378:U:OP1	86:5:4029:OHX:N3	2.36	0.58
1:6:104:A:H61	1:6:308:C:H5'	1.68	0.58
1:6:263:C:H4'	1:6:292:U:H5'	1.86	0.58
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.83	0.58
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.38	0.58
47:M0:144:ASN:O	47:M0:147:VAL:N	2.36	0.58
40:L3:347:SER:O	40:L3:348:ARG:HB3	2.37	0.58
46:L9:22:SER:O	46:L9:23:ARG:HG3	2.04	0.58
41:L4:139:GLY:O	41:L4:141:ARG:NH1	4.54	0.58
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.68	0.58
1:2:1229:G:H1	14:C2:47:GLU:HG3	1.68	0.58
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	2.16	0.58
12:C0:53:GLY:O	12:C0:55:VAL:N	2.29	0.58
1:6:1058:U:H4'	1:6:1059:U:OP1	2.02	0.58
36:1:655:C:H2'	36:1:656:A:C8	2.39	0.58
1:2:986:G:H2'	1:2:987:G:O4'	2.04	0.58
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.04	0.58
6:S4:38:LEU:O	6:S4:41:SER:OG	2.87	0.58
54:M8:43:PRO:HA	54:M8:46:LYS:HD3	1.86	0.58
41:L4:106:TRP:HB2	51:M5:199:LEU:HD12	1.85	0.58
1:2:485:A:H2'	1:2:486:G:O4'	2.03	0.58
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	1.86	0.58
46:L9:110:LYS:O	46:L9:128:VAL:HG23	2.46	0.58
36:1:3119:U:OP2	86:1:3887:OHX:N4	2.36	0.58
19:C7:104:ASN:O	19:C7:106:THR:N	3.49	0.58
36:1:816:A:H5"	36:1:920:A:H62	1.68	0.58
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.73	0.58
36:1:812:G:N7	86:1:3981:OHX:N1	2.51	0.58
36:5:2510:U:O2'	36:5:2511:A:H5"	2.03	0.58
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.56	0.58
6:S4:187:ARG:NH1	6:S4:187:ARG:HB2	6.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1068:C:H2'	1:6:1069:A:C8	2.37	0.58
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.03	0.58
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	4.68	0.58
1:2:1254:U:H5	14:C2:46:ARG:HH11	1.50	0.58
24:D2:77:PRO:HB2	25:D3:9:LEU:HD23	1.86	0.58
49:M3:35:ARG:NH1	36:5:685:G:OP2	83.29	0.58
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.37	0.58
36:1:2356:A:N6	36:1:2983:C:H5	1.95	0.58
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.94	0.58
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.04	0.58
75:O9:2:ALA:HB1	75:O9:5:LYS:NZ	2.19	0.58
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.37	0.58
8:S6:139:ASN:OD1	8:S6:142:ARG:NH1	2.37	0.58
1:2:1681:A:H1'	8:S6:66:GLY:HA3	1.85	0.58
47:M0:177:ASP:O	47:M0:180:GLU:N	2.79	0.58
54:M8:57:ILE:HD12	36:5:671:U:OP2	158.76	0.58
36:1:1951:C:H42	36:1:2095:G:H1	1.51	0.58
1:2:793:A:H5"	1:2:794:U:C5	2.39	0.58
36:5:1701:C:H2'	36:5:1702:U:O4'	2.04	0.58
1:2:579:A:H2	5:S3:143:ARG:HG3	1.69	0.58
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.04	0.58
1:6:165:G:H2'	1:6:166:C:H5"	1.86	0.58
40:L3:64:GLY:O	36:5:3038:U:H4'	288.07	0.58
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.72	0.58
36:1:1809:A:H2'	36:1:1810:A:O4'	2.04	0.58
35:SM:121:LYS:O	35:SM:123:ALA:N	3.11	0.58
13:C1:124:THR:O	13:C1:140:VAL:HG12	2.03	0.57
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	1.86	0.57
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.86	0.57
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.68	0.57
40:L3:53:MET:HE3	36:5:3048:A:H5'	233.18	0.57
40:L3:205:VAL:C	40:L3:207:SER:H	2.33	0.57
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.86	0.57
36:5:618:C:H2'	36:5:619:A:C8	2.38	0.57
39:L2:96:LEU:HD23	79:Q3:83:ILE:HG23	1.86	0.57
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.39	0.57
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.96	0.57
31:D9:24:CYS:SG	31:D9:26:SER:HB3	3.24	0.57
36:5:1934:G:O6	86:5:3917:OHX:N2	2.37	0.57
36:5:2249:G:OP1	86:5:4200:OHX:N6	2.36	0.57
40:L3:2:SER:HB3	36:5:2943:G:OP2	237.41	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.03	0.57
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.52	0.57
42:L5:265:TYR:CE1	37:7:121:U:H5"	314.68	0.57
36:5:2187:G:OP2	86:5:3974:OHX:N4	2.37	0.57
44:L7:43:ILE:O	44:L7:47:ARG:HG2	2.03	0.57
44:L7:80:GLN:NE2	57:N1:136:ARG:HB2	6.31	0.57
48:M1:23:VAL:HG12	48:M1:25:GLU:H	3.22	0.57
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.63	0.57
59:N3:15:LEU:HD23	59:N3:53:SER:HB3	1.87	0.57
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.17	0.57
86:1:4000:OHX:N3	86:1:4171:OHX:N3	2.52	0.57
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.85	0.57
19:C7:10:LYS:NZ	1:6:1401:A:O3'	406.88	0.57
45:L8:177:TYR:CZ	45:L8:222:PHE:HB3	3.16	0.57
11:S9:178:ALA:HA	11:S9:181:ALA:HB3	2.97	0.57
62:N6:27:ARG:HD3	62:N6:75:ARG:O	2.51	0.57
36:1:1134:G:O2'	36:1:2642:A:N3	2.34	0.57
38:4:23:U:P	62:N6:16:ARG:HH21	2.27	0.57
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.39	0.57
36:5:2523:A:O2'	36:5:2587:U:H1'	2.04	0.57
36:5:770:G:N7	86:5:4099:OHX:N6	2.52	0.57
40:L3:247:ARG:NH2	36:5:2341:A:OP1	218.75	0.57
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	2.50	0.57
42:L5:46:THR:HG21	36:5:1078:U:H4'	237.12	0.57
1:6:1699:G:C2	1:6:1701:A:H5"	2.38	0.57
40:L3:117:ARG:CZ	40:L3:175:LYS:HD2	4.07	0.57
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.44	0.57
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.26	0.57
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.41	0.57
1:6:1542:G:N2	1:6:1569:A:OP2	2.37	0.57
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.68	0.57
36:1:2718:U:OP2	86:1:3980:OHX:N3	2.37	0.57
86:8:216:OHX:N2	86:8:225:OHX:N4	2.52	0.57
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.70	0.57
71:O5:21:LEU:HD11	71:O5:55:LEU:HD21	1.86	0.57
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.23	0.57
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.04	0.57
36:1:1894:U:O2	36:1:3054:U:H5"	2.05	0.57
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.04	0.57
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	6.93	0.57
36:1:29:C:H4'	36:1:62:A:H4'	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:6:2121:OHX:N2	86:6:2171:OHX:N5	2.52	0.57
75:O9:9:ILE:O	75:O9:12:LYS:N	3.04	0.57
5:S3:64:ARG:O	5:S3:66:ILE:N	2.37	0.57
1:2:1718:G:OP2	86:2:2082:OHX:N1	2.37	0.57
26:D4:124:ARG:NH2	1:6:151:G:O6	319.47	0.57
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.37	0.57
46:L9:87:LYS:HZ1	46:L9:191:LEU:HD21	14.51	0.57
1:2:532:U:H2'	1:2:533:U:O4'	2.04	0.57
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.37	0.57
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	1.87	0.57
36:5:2101:C:HO2'	36:5:2102:U:P	2.28	0.57
58:N2:90:ARG:HH11	58:N2:90:ARG:HB3	4.16	0.57
62:N6:103:LYS:HZ2	36:5:221:A:N6	79.49	0.57
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.27	0.57
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.69	0.57
1:2:1370:U:O4	86:2:2120:OHX:N1	2.38	0.57
36:1:1429:G:C2	41:L4:99:MET:HE2	2.39	0.57
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.05	0.57
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.37	0.57
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	2.55	0.57
71:O5:4:VAL:HG21	71:O5:9:LEU:HD11	2.32	0.57
1:6:213:A:OP2	86:6:2150:OHX:N1	2.37	0.57
36:1:612:U:H2'	36:1:613:G:H8	1.69	0.57
45:L8:195:SER:O	45:L8:197:VAL:N	2.33	0.57
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.61	0.57
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.07	0.57
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	2.00	0.57
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	2.49	0.57
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.37	0.57
36:1:1246:G:H8	36:1:1246:G:OP1	1.86	0.57
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.71	0.57
10:S8:154:SER:O	10:S8:156:VAL:N	2.38	0.57
32:E0:4:VAL:HG12	32:E0:5:HIS:ND1	3.76	0.57
6:S4:45:ILE:HD12	6:S4:61:VAL:HG21	2.71	0.57
1:6:909:U:H2'	1:6:910:C:H6	1.69	0.57
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.87	0.57
36:1:1808:G:O6	86:1:3979:OHX:N3	2.37	0.57
4:S2:186:LYS:HD2	4:S2:189:GLN:OE1	3.78	0.57
1:6:44:U:OP2	1:6:437:A:N6	2.38	0.57
43:L6:165:LEU:HD11	69:O3:102:LEU:HD11	2.10	0.57
1:2:1761:U:O2'	1:2:1762:A:OP2	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.04	0.57
36:1:503:C:OP1	43:L6:26:ARG:NH1	2.37	0.57
86:1:3968:OHX:N6	86:1:4155:OHX:N4	2.52	0.57
36:5:437:G:N2	36:5:622:A:H61	2.02	0.57
72:O6:79:SER:HB3	72:O6:82:ARG:HB2	6.29	0.57
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.70	0.57
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.40	0.57
34:SR:22:SER:N	34:SR:291:SER:OG	2.34	0.57
67:O1:43:HIS:O	67:O1:44:MET:HE2	4.38	0.57
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.38	0.57
49:M3:179:PHE:HA	49:M3:182:ILE:HD13	1.87	0.57
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.40	0.57
40:L3:60:LEU:HD21	40:L3:62:ARG:HE	1.69	0.57
75:O9:44:TRP:CH2	75:O9:45:ARG:HD3	2.39	0.57
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.30	0.57
36:1:1408:G:OP2	68:O2:31:ASN:ND2	2.38	0.57
39:L2:204:MET:O	39:L2:212:GLY:HA2	2.21	0.57
11:S9:29:LYS:HG3	32:E0:44:PHE:CE1	4.49	0.57
24:D2:24:GLN:NE2	29:D7:4:VAL:HA	3.22	0.57
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.99	0.57
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	2.75	0.57
36:5:2732:G:OP2	86:5:4221:OHX:N1	2.37	0.57
1:6:1405:G:H2'	1:6:1406:A:C8	2.39	0.57
45:L8:72:PRO:HG2	45:L8:75:ILE:HD12	1.86	0.57
61:N5:46:TYR:HD2	71:O5:75:TYR:HB3	1.86	0.57
36:1:1674:G:OP2	86:1:3943:OHX:N2	2.37	0.57
73:O7:58:THR:O	73:O7:61:THR:HG23	2.07	0.57
12:C0:5:LYS:NZ	14:C2:39:ASP:OD2	4.25	0.57
45:L8:33:ASN:O	45:L8:35:GLY:N	3.36	0.57
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.09	0.57
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.32	0.57
20:C8:143:ARG:O	20:C8:144:ARG:HB2	4.54	0.57
24:D2:15:ASN:ND2	24:D2:72:CYS:O	5.32	0.57
8:S6:58:LYS:C	8:S6:59:GLN:HE21	2.91	0.57
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.52	0.57
1:6:138:A:H62	1:6:266:A:N6	2.02	0.57
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.35	0.57
36:5:1155:C:O2'	36:5:1197:A:N1	2.35	0.57
42:L5:187:THR:O	42:L5:189:GLU:N	2.37	0.57
23:D1:71:ARG:O	23:D1:75:ASN:HB2	4.73	0.57
86:1:4196:OHX:N6	86:O1:201:OHX:N3	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.89	0.57
36:1:2717:U:OP1	86:1:3980:OHX:N6	2.37	0.57
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	2.11	0.57
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.39	0.57
36:1:1119:C:OP2	86:1:3950:OHX:N1	2.38	0.57
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.85	0.57
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.78	0.57
36:1:999:G:N3	36:1:1002:A:N6	2.53	0.57
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.52	0.57
10:S8:185:GLU:HG2	13:C1:23:PRO:HG3	1.87	0.57
36:1:2318:U:O4	86:1:4037:OHX:N2	2.38	0.57
1:2:862:A:N7	15:C3:64:ARG:NH2	2.52	0.57
36:1:1480:G:H4'	36:1:1481:A:OP1	2.03	0.57
50:M4:121:MET:HG3	36:5:3214:U:C4	281.87	0.57
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	2.79	0.57
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.87	0.57
22:D0:24:ILE:HG23	22:D0:116:VAL:HG22	1.85	0.57
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.48	0.57
36:1:3084:C:H2'	36:1:3085:G:O4'	2.05	0.57
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	2.79	0.57
36:1:1245:A:H3'	36:1:1246:G:H5"	1.85	0.57
1:6:1316:G:HO2'	1:6:1401:A:HO2'	1.51	0.57
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	1.85	0.57
43:L6:154:LEU:HA	43:L6:157:GLN:OE1	2.05	0.57
36:1:2209:U:H6	36:1:2209:U:OP2	1.88	0.57
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.39	0.57
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	3.85	0.57
1:6:1695:G:H21	1:6:1706:C:H41	1.51	0.57
36:5:707:U:H2'	36:5:708:G:H5"	1.87	0.57
36:1:1636:U:H5"	63:N7:73:LYS:NZ	2.19	0.57
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.09	0.57
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	1.87	0.57
36:1:1846:C:OP1	36:1:1849:C:N4	2.37	0.57
1:6:1458:G:H5"	1:6:1459:C:OP2	2.05	0.57
48:M1:16:LYS:HE3	48:M1:130:VAL:HG11	1.85	0.57
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.16	0.57
38:8:79:A:H2'	38:8:80:A:O4'	2.05	0.57
39:L2:70:ARG:HH22	36:5:2522:G:H1	173.20	0.57
36:5:3121:U:H1'	36:5:3122:A:H5"	1.86	0.57
49:M3:36:ARG:HG2	49:M3:39:ARG:HH21	1.70	0.57
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:830:U:H2'	1:6:831:U:H5'	1.85	0.57
25:D3:56:LYS:HE3	25:D3:96:VAL:HG23	1.87	0.57
48:M1:150:ASN:O	48:M1:152:HIS:N	2.35	0.57
17:C5:87:PRO:HD3	17:C5:112:LEU:HD22	1.86	0.57
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.85	0.57
1:2:590:C:H5"	32:E0:43:ARG:HH12	1.70	0.57
36:5:1383:G:O6	86:5:3938:OHX:N2	2.37	0.57
5:S3:137:VAL:HG22	5:S3:151:LYS:HE2	1.87	0.57
36:1:2617:U:H5	36:1:2621:G:OP2	1.88	0.57
38:8:83:C:H4'	38:8:85:G:N3	2.19	0.57
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.20	0.57
43:L6:39:VAL:O	43:L6:87:THR:OG1	2.67	0.57
36:1:900:G:H1'	36:1:1589:A:N6	2.20	0.57
36:5:1070:U:O4	86:5:4114:OHX:N6	2.38	0.57
36:5:696:C:HO2'	36:5:697:A:H8	1.51	0.57
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.05	0.57
20:C8:132:ARG:NH2	1:6:1173:C:OP1	343.42	0.57
46:L9:90:MET:HE2	46:L9:179:ILE:HG22	1.86	0.57
7:S5:161:ASP:OD2	30:D8:42:ARG:NH2	2.38	0.57
2:S0:167:LYS:HE3	2:S0:168:HIS:HD2	1.70	0.57
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.85	0.57
1:6:151:G:N2	1:6:163:G:N2	2.53	0.57
28:D6:84:VAL:O	28:D6:86:VAL:N	2.37	0.57
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.05	0.57
42:L5:236:LEU:HA	42:L5:239:ILE:HD12	1.87	0.57
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.65	0.57
36:5:279:U:H2'	36:5:280:U:C6	2.40	0.57
79:Q3:36:ARG:HH11	79:Q3:48:LYS:HE3	6.85	0.57
1:6:158:U:O2'	1:6:159:U:H3'	2.05	0.57
1:6:1227:A:H4'	1:6:1228:G:H5'	1.86	0.57
1:2:579:A:C8	5:S3:178:ARG:HD2	2.38	0.57
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.86	0.57
34:SR:219:GLU:OE1	34:SR:235:SER:OG	2.18	0.57
15:C3:151:ASN:O	86:C3:201:OHX:N6	3.29	0.57
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.87	0.57
36:5:3074:G:OP1	86:5:4122:OHX:N4	2.38	0.57
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.02	0.56
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.29	0.56
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.75	0.56
1:6:235:G:H2'	1:6:236:A:H8	1.70	0.56
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.65	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:90:ARG:HA	16:C4:128:LYS:NZ	2.20	0.56
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.53	0.56
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.85	0.56
11:S9:89:ASP:HB3	1:6:660:G:N2	443.87	0.56
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.86	0.56
47:M0:116:ARG:HH21	36:5:2618:G:P	228.59	0.56
58:N2:89:LEU:HB3	58:N2:93:ILE:HD12	2.99	0.56
14:C2:119:SER:OG	1:6:1228:G:OP1	464.08	0.56
36:5:322:U:H5"	36:5:323:A:OP1	2.05	0.56
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.21	0.56
1:6:1697:G:H8	1:6:1705:C:N3	2.02	0.56
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.39	0.56
36:5:2217:U:H2'	36:5:2218:G:H8	1.70	0.56
36:1:2379:U:H2'	36:1:2380:U:H6	1.70	0.56
1:2:1175:U:H2'	1:2:1176:G:C8	2.40	0.56
1:2:28:A:H2'	1:2:29:U:C6	2.40	0.56
36:1:847:A:H2'	36:1:848:A:C8	2.40	0.56
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.09	0.56
36:1:3087:A:P	86:1:4180:OHX:N5	2.78	0.56
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.06	0.56
2:S0:179:ARG:HG2	2:S0:183:ARG:HD2	2.72	0.56
37:3:49:G:C5	42:L5:58:LYS:HG3	2.40	0.56
40:L3:53:MET:HG3	40:L3:77:THR:HG22	2.86	0.56
55:M9:8:LYS:NZ	36:5:1473:G:OP2	124.36	0.56
36:5:2255:A:H5'	36:5:2261:G:N2	2.20	0.56
1:2:103:A:H4'	1:2:104:A:OP2	2.05	0.56
1:2:1656:U:H5"	1:2:1657:U:O5'	2.05	0.56
54:M8:40:THR:C	54:M8:42:ALA:H	2.08	0.56
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.53	0.56
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.70	0.56
9:S7:5:GLN:O	9:S7:8:ILE:HG22	4.20	0.56
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.36	0.56
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.40	0.56
36:5:2993:G:H2'	36:5:3142:A:N6	2.19	0.56
1:6:1623:C:H2'	1:6:1624:C:C6	2.40	0.56
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	2.01	0.56
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.15	0.56
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.05	0.56
36:1:2771:U:O2'	36:1:2772:C:O5'	2.23	0.56
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.86	0.56
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:35:ARG:HG2	49:M3:35:ARG:HH11	1.69	0.56
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.71	0.56
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	2.97	0.56
36:5:271:C:H2'	36:5:272:G:O4'	2.05	0.56
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.37	0.56
48:M1:96:PHE:CD1	48:M1:160:VAL:HG23	3.50	0.56
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.88	0.56
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.06	0.56
36:1:269:G:H5"	51:M5:14:LYS:HE2	1.87	0.56
38:4:79:A:O3'	38:4:80:A:H4'	2.04	0.56
41:L4:354:VAL:O	41:L4:358:THR:HG23	3.31	0.56
24:D2:103:ILE:HD11	24:D2:126:LEU:HD13	1.86	0.56
37:3:11:A:H4'	37:3:13:A:C8	2.40	0.56
67:O1:80:ASN:HA	67:O1:90:PHE:CE2	5.88	0.56
2:S0:158:VAL:H	23:D1:69:LEU:HD12	2.89	0.56
67:O1:20:LEU:HD21	67:O1:31:ARG:HB3	1.87	0.56
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.61	0.56
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.05	0.56
57:N1:127:GLN:HA	36:5:1095:U:O2	257.57	0.56
36:5:2207:A:H2'	36:5:2208:A:O4'	2.06	0.56
72:O6:62:ARG:HH22	72:O6:98:ARG:HH11	1.53	0.56
36:5:1015:U:O3'	36:5:1016:C:H2'	2.06	0.56
59:N3:12:ARG:HG3	59:N3:13:ILE:N	4.10	0.56
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.81	0.56
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.24	0.56
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	8.11	0.56
1:6:450:U:H2'	1:6:451:A:C8	2.40	0.56
36:1:656:A:H2'	36:1:657:A:C8	2.40	0.56
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.41	0.56
15:C3:12:SER:HB3	1:6:956:C:OP2	334.88	0.56
73:O7:25:ARG:HH11	73:O7:25:ARG:HB3	3.84	0.56
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.86	0.56
58:N2:82:LYS:NZ	36:5:1686:U:O4	163.31	0.56
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.89	0.56
4:S2:206:THR:HG21	1:6:14:C:OP2	375.43	0.56
15:C3:103:GLU:O	15:C3:106:ARG:NH2	2.39	0.56
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.86	0.56
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	2.25	0.56
10:S8:103:GLN:HB3	10:S8:164:ARG:HG2	1.86	0.56
8:S6:131:LYS:O	60:N4:83:THR:N	2.39	0.56
36:5:2562:A:N6	36:5:2579:G:O2'	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:625:C:H2'	1:2:626:U:C6	2.40	0.56
21:C9:73:VAL:HG12	21:C9:77:ASN:HD21	1.70	0.56
10:S8:172:ARG:NH1	1:6:330:G:OP2	280.34	0.56
72:O6:5:THR:OG1	72:O6:7:ILE:HG12	2.05	0.56
1:6:1354:G:H5'	1:6:1355:C:OP2	2.05	0.56
39:L2:60:LYS:HG2	39:L2:75:ILE:HD13	5.97	0.56
8:S6:163:THR:HA	8:S6:168:THR:HG22	3.86	0.56
1:6:1081:A:H8	1:6:1081:A:OP2	1.89	0.56
36:1:73:C:O2	49:M3:59:ARG:HD3	2.06	0.56
36:1:2850:G:O6	86:1:4074:OHX:N6	2.38	0.56
36:1:1561:G:O6	36:1:1579:C:N4	2.39	0.56
36:5:501:A:H2'	36:5:502:U:C6	2.41	0.56
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.38	0.56
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.06	0.56
20:C8:134:ARG:O	20:C8:136:GLN:N	3.68	0.56
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.15	0.56
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.05	0.56
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.39	0.56
36:1:979:U:H1'	36:1:980:A:C5	2.41	0.56
3:S1:164:ILE:O	3:S1:168:ILE:HG13	2.78	0.56
1:2:1350:U:OP1	18:C6:68:ARG:NH2	2.39	0.56
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.12	0.56
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.05	0.56
50:M4:72:LEU:HD13	50:M4:73:PRO:HD2	1.88	0.56
36:1:1286:A:O2'	36:1:1287:A:OP2	2.21	0.56
1:2:1480:G:H3'	1:2:1481:C:C6	2.41	0.56
36:5:180:C:H2'	36:5:181:U:C6	2.40	0.56
1:2:16:G:O6	4:S2:203:LYS:HE2	2.05	0.56
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	2.89	0.56
36:5:1953:G:O6	36:5:2094:C:N4	2.39	0.56
68:O2:64:LYS:HD2	36:5:1404:G:H5"	179.94	0.56
7:S5:73:THR:HG22	7:S5:74:ALA:H	2.42	0.56
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.05	0.56
2:S0:87:LEU:HD12	2:S0:97:PRO:HB2	1.87	0.56
41:L4:299:ILE:HG22	54:M8:39:ARG:HB3	2.29	0.56
3:S1:143:THR:O	3:S1:208:GLN:NE2	2.94	0.56
48:M1:60:ARG:HH11	78:Q2:104:LEU:C	4.05	0.56
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.69	0.56
19:C7:8:THR:HG21	1:6:1330:G:N2	418.79	0.56
21:C9:68:ARG:NH1	1:6:1521:G:O6	413.67	0.56
2:S0:41:ARG:HB2	2:S0:47:VAL:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1456:A:N7	67:O1:26:LYS:HE2	2.21	0.56
9:S7:93:LEU:HD21	9:S7:129:LEU:HD23	1.88	0.56
36:1:1719:G:OP1	55:M9:110:ARG:NH2	2.38	0.56
1:6:1237:G:N2	1:6:1248:C:O2	2.38	0.56
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.39	0.56
48:M1:171:VAL:HG13	48:M1:172:LEU:H	1.71	0.56
14:C2:72:ILE:O	14:C2:76:GLU:HB2	2.37	0.56
3:S1:36:SER:O	3:S1:38:PHE:N	2.37	0.56
1:6:492:A:H2'	1:6:493:U:H5"	1.87	0.56
71:O5:85:THR:HB	71:O5:88:LEU:HB2	1.87	0.56
86:5:3980:OHX:N4	86:5:4200:OHX:N3	2.54	0.56
50:M4:55:ARG:HD3	56:N0:70:THR:HB	1.87	0.56
18:C6:114:ARG:O	18:C6:116:LEU:N	2.39	0.56
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.83	0.56
8:S6:63:MET:HA	8:S6:98:ARG:O	2.16	0.56
36:1:2899:C:C5	46:L9:171:ASP:HA	2.41	0.56
9:S7:67:LEU:HA	9:S7:70:PHE:HB2	1.88	0.56
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.97	0.56
32:E0:17:GLN:OE1	1:6:563:U:H4'	383.82	0.56
36:5:1661:G:H2'	36:5:1662:G:C8	2.41	0.56
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.92	0.56
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.06	0.56
36:5:1716:U:H6	36:5:1716:U:H5'	1.71	0.56
41:L4:99:MET:HE1	36:5:1429:G:C5	122.23	0.56
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.36	0.56
43:L6:142:ASP:O	43:L6:146:ILE:HG12	2.04	0.56
7:S5:156:ARG:HA	7:S5:157:ARG:HE	3.06	0.56
1:6:913:G:N7	36:5:2205:U:C2	2.73	0.56
1:6:906:A:H2'	1:6:907:A:C8	2.41	0.56
36:1:3022:G:O2'	36:1:3031:G:O6	2.19	0.56
36:1:965:A:H5"	49:M3:4:SER:HB3	1.88	0.56
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.70	0.56
36:5:381:U:O4	86:5:4129:OHX:N5	2.39	0.56
60:N4:62:GLY:O	60:N4:64:THR:OG1	2.21	0.56
35:SM:64:LYS:C	35:SM:66:ALA:H	2.40	0.56
28:D6:10:ARG:NE	1:6:1795:U:O2	328.95	0.56
6:S4:159:THR:HG21	6:S4:228:ILE:H	1.71	0.56
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.84	0.56
39:L2:212:GLY:O	39:L2:214:GLY:N	4.09	0.56
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	4.61	0.56
1:2:304:U:H2'	1:2:305:C:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:156:A:H2'	1:6:157:A:O4'	2.05	0.56
36:1:707:U:C2'	36:1:708:G:H5"	2.36	0.56
36:1:2510:U:HO2'	36:1:2511:A:H8	1.53	0.56
36:1:263:C:H2'	36:1:264:G:O4'	2.06	0.56
58:N2:55:THR:HG22	58:N2:57:THR:HG22	7.15	0.56
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.38	0.56
7:S5:97:LEU:O	7:S5:99:MET:N	3.17	0.56
86:6:2121:OHX:N4	86:6:2171:OHX:N3	2.54	0.56
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.18	0.56
3:S1:105:PHE:H	3:S1:214:LYS:HE2	1.70	0.56
36:1:1874:A:H5"	55:M9:18:GLY:HA3	1.88	0.56
1:6:538:A:H2	1:6:540:G:H22	1.52	0.56
36:1:564:G:H2'	36:1:565:U:C6	2.41	0.56
36:1:565:U:H2'	36:1:566:G:C8	2.40	0.56
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.97	0.56
1:6:58:U:O2'	1:6:451:A:N3	2.38	0.56
86:6:2060:OHX:N2	86:6:2147:OHX:N4	2.54	0.56
46:L9:106:LYS:HE3	46:L9:107:ASP:H	4.34	0.56
13:C1:46:LYS:HE2	1:6:846:G:N2	312.21	0.56
78:Q2:71:ARG:HH21	78:Q2:80:ARG:HH11	1.52	0.56
57:N1:100:LYS:HB3	36:5:990:U:H4'	258.14	0.56
36:1:748:U:H2'	36:1:749:C:C6	2.41	0.56
36:5:22:G:H1'	38:8:104:A:N3	2.21	0.56
58:N2:92:TRP:O	58:N2:93:ILE:HG13	3.81	0.56
36:1:1114:U:H5"	64:N8:22:ILE:HD13	1.87	0.56
77:Q1:1:MET:HA	1:6:1783:C:OP1	313.29	0.56
1:6:86:A:OP2	86:6:2188:OHX:N1	2.38	0.56
36:1:132:C:H2'	36:1:133:U:H5"	1.88	0.56
26:D4:113:ASN:HA	26:D4:116:LYS:HD3	1.87	0.56
61:N5:77:GLU:HG2	61:N5:133:LEU:HD23	3.28	0.56
61:N5:64:GLU:HG3	61:N5:86:VAL:C	2.94	0.56
71:O5:94:LYS:O	71:O5:98:SER:OG	3.26	0.56
36:1:1655:G:H1'	36:1:1800:A:H61	1.71	0.56
63:N7:97:SER:OG	63:N7:98:THR:N	3.94	0.56
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.58	0.56
2:S0:184:LEU:O	2:S0:186:GLY:N	2.80	0.56
1:2:896:U:C4'	16:C4:38:THR:HG21	2.36	0.56
3:S1:125:VAL:HG11	3:S1:173:THR:HG22	3.32	0.56
36:5:1013:G:C2	36:5:1014:U:H1'	2.41	0.56
47:M0:191:LYS:O	47:M0:197:VAL:HG22	3.07	0.56
1:2:929:A:H1'	16:C4:124:ASP:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.88	0.56
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	7.45	0.56
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.86	0.56
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.72	0.56
5:S3:142:LEU:H	5:S3:142:LEU:HD22	5.14	0.56
5:S3:223:LYS:HD3	34:SR:193:ILE:HD11	1.87	0.56
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.78	0.56
1:2:520:A:H2'	1:2:521:A:C8	2.40	0.56
36:5:2123:G:N7	86:5:4102:OHX:N1	2.53	0.56
34:SR:27:ALA:HA	34:SR:296:ALA:HB2	2.58	0.56
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.88	0.56
36:1:1029:G:H2'	36:1:1030:A:C8	2.41	0.56
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.18	0.56
36:5:2209:U:H4'	36:5:2210:G:OP1	2.06	0.56
19:C7:28:PHE:HA	19:C7:55:THR:HG21	1.89	0.56
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.41	0.56
36:5:2516:U:O2	36:5:2594:C:N4	2.38	0.56
39:L2:45:VAL:HG22	39:L2:84:THR:HA	2.02	0.56
18:C6:139:GLN:NE2	1:6:1465:C:OP1	352.53	0.56
42:L5:234:ASP:N	42:L5:234:ASP:OD2	2.39	0.56
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.06	0.56
51:M5:50:ARG:NH1	36:5:267:G:H4'	111.72	0.56
36:1:2503:G:HO2'	36:1:2504:U:H5	1.53	0.56
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.34	0.56
23:D1:74:GLN:NE2	23:D1:82:VAL:HG12	2.20	0.56
78:Q2:63:LYS:HE2	78:Q2:87:ARG:NH2	2.21	0.56
12:C0:88:PRO:O	12:C0:90:THR:N	2.39	0.56
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.48	0.56
1:6:825:U:O2'	1:6:826:U:H6	1.89	0.56
1:2:639:U:P	9:S7:117:THR:HG1	2.29	0.56
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.71	0.56
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.42	0.56
36:5:1276:U:OP2	86:5:4009:OHX:N1	2.39	0.56
36:5:253:A:HO2'	36:5:254:A:H8	1.53	0.56
31:D9:49:ASP:OD1	31:D9:49:ASP:N	4.01	0.56
36:5:1246:G:O2'	36:5:1264:G:OP2	2.23	0.56
1:2:652:G:H1	1:2:682:C:H42	1.54	0.56
12:C0:72:GLY:O	12:C0:75:TYR:N	2.39	0.56
36:1:3106:A:H2'	36:1:3107:U:O4'	2.05	0.56
36:1:3128:G:OP2	86:1:4166:OHX:N6	2.39	0.56
36:1:3033:A:H2'	36:1:3034:C:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:117:SER:HB2	21:C9:123:ARG:HE	2.38	0.56
14:C2:31:VAL:HG21	14:C2:136:ILE:HD11	2.52	0.56
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.05	0.56
1:6:550:A:OP2	86:6:2050:OHX:N2	2.39	0.56
36:5:3198:U:H4'	36:5:3199:G:OP2	2.04	0.56
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.71	0.55
36:5:1807:G:C6	36:5:1808:G:N1	2.74	0.55
1:2:396:G:N2	1:2:399:A:OP2	2.39	0.55
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.39	0.55
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.59	0.55
40:L3:53:MET:CG	40:L3:77:THR:HG22	2.57	0.55
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.21	0.55
51:M5:4:TYR:OH	36:5:148:G:OP2	110.09	0.55
59:N3:13:ILE:HD11	59:N3:54:LEU:HB3	1.88	0.55
1:2:190:C:N4	1:2:196:G:O6	2.40	0.55
11:S9:90:LYS:HG2	11:S9:95:TYR:CD1	4.64	0.55
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	3.00	0.55
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.44	0.55
36:1:2278:C:H2'	36:1:2279:A:H5"	1.87	0.55
1:2:1000:C:H2'	1:2:1002:G:OP2	2.06	0.55
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.33	0.55
66:O0:57:GLU:OE2	36:5:2552:C:N4	242.52	0.55
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	5.32	0.55
1:2:811:A:H5'	1:2:816:G:O2'	2.05	0.55
49:M3:18:TRP:C	49:M3:20:GLU:H	2.09	0.55
36:5:3227:A:H2'	36:5:3228:C:H5'	1.88	0.55
33:E1:127:GLY:O	33:E1:129:GLY:N	2.39	0.55
30:D8:13:ILE:HD11	30:D8:31:GLU:HB2	1.88	0.55
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.07	0.55
45:L8:128:LYS:HG3	36:5:120:G:N7	99.59	0.55
54:M8:181:SER:HB3	36:5:2790:A:OP2	183.23	0.55
36:1:3215:A:H8	50:M4:121:MET:HE1	1.70	0.55
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.16	0.55
8:S6:55:GLY:O	8:S6:63:MET:HG3	2.06	0.55
36:1:979:U:H1'	36:1:980:A:C4	2.41	0.55
55:M9:17:VAL:CG1	55:M9:21:LYS:HB2	2.35	0.55
27:D5:65:LEU:HB3	27:D5:71:ILE:HD12	1.88	0.55
8:S6:53:SER:OG	1:6:163:G:H4'	293.71	0.55
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	2.70	0.55
63:N7:55:LYS:O	63:N7:57:HIS:N	3.06	0.55
22:D0:80:GLU:HG3	31:D9:54:LYS:NZ	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:219:PHE:HD2	42:L5:223:PHE:HD1	1.53	0.55
1:2:74:U:O2'	1:2:75:U:OP2	2.22	0.55
1:2:830:U:O2'	1:2:831:U:H6	1.89	0.55
1:2:829:A:O2'	1:2:830:U:OP2	2.22	0.55
36:1:2162:U:OP1	39:L2:234:LYS:HE2	2.06	0.55
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.35	0.55
6:S4:12:LEU:HD21	11:S9:4:ALA:HB2	1.87	0.55
48:M1:37:LEU:O	48:M1:41:SER:OG	2.18	0.55
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.88	0.55
36:1:1498:A:H2'	36:1:1499:C:H6	1.71	0.55
71:O5:21:LEU:HD21	71:O5:51:ILE:HG23	1.87	0.55
36:1:1211:U:H2'	36:1:1212:A:C8	2.41	0.55
44:L7:222:HIS:CE1	44:L7:224:ILE:HD12	3.10	0.55
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	1.88	0.55
36:1:1413:G:N7	86:1:4121:OHX:N4	2.55	0.55
36:1:1620:U:H2'	36:1:1621:A:C8	2.40	0.55
1:2:985:G:N7	86:2:2024:OHX:N4	2.53	0.55
7:S5:133:VAL:HG22	7:S5:198:LEU:HD22	4.54	0.55
56:N0:133:ALA:HA	56:N0:141:LYS:NZ	2.19	0.55
36:5:1564:U:H2'	36:5:1565:G:H8	1.71	0.55
1:6:67:A:O2'	1:6:69:G:OP1	2.11	0.55
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.41	0.55
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.04	0.55
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.32	0.55
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.88	0.55
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.40	0.55
38:4:85:G:H3'	38:4:85:G:H8	1.72	0.55
38:8:102:U:H2'	38:8:103:G:C8	2.41	0.55
36:1:1311:G:N2	52:M6:86:GLY:O	2.38	0.55
34:SR:106:HIS:ND1	34:SR:128:ASP:OD2	2.84	0.55
2:S0:61:ALA:HA	2:S0:64:ILE:HD12	1.89	0.55
1:2:484:C:H42	1:2:503:G:H22	1.55	0.55
36:5:929:A:H2'	36:5:930:U:C6	2.41	0.55
71:O5:92:LEU:HB3	71:O5:96:GLU:HG3	1.89	0.55
1:6:853:G:H2'	1:6:854:U:C6	2.41	0.55
86:5:3980:OHX:N6	86:5:4200:OHX:N5	2.54	0.55
7:S5:42:LEU:HD21	7:S5:45:LYS:HD2	1.88	0.55
57:N1:68:THR:CG2	57:N1:71:SER:HB2	2.37	0.55
36:5:1573:G:C5	36:5:1574:C:H1'	2.41	0.55
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.06	0.55
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:125:ILE:HG12	24:D2:126:LEU:H	1.70	0.55
1:2:1237:G:N1	1:2:1248:C:N3	2.34	0.55
36:1:3354:U:OP1	36:1:3356:G:H5'	2.07	0.55
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.88	0.55
26:D4:122:GLY:O	26:D4:125:LEU:N	2.63	0.55
1:6:1230:A:C8	1:6:1258:U:C4	2.93	0.55
13:C1:133:LYS:NZ	1:6:324:U:OP1	292.38	0.55
19:C7:5:ARG:HB2	19:C7:10:LYS:HE2	4.04	0.55
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.70	0.55
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.21	0.55
1:6:872:G:H2'	1:6:873:U:O4'	2.07	0.55
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.40	0.55
1:6:231:U:H2'	1:6:232:U:H2'	1.88	0.55
36:5:1352:A:H1'	36:5:1353:U:H5'	1.88	0.55
68:O2:4:LEU:HD22	68:O2:91:THR:HG23	1.88	0.55
1:2:1338:C:H1'	1:2:1410:A:C4	2.41	0.55
30:D8:36:THR:OG1	30:D8:37:SER:N	2.39	0.55
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.45	0.55
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	3.18	0.55
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.41	0.55
4:S2:52:THR:OG1	4:S2:53:ILE:N	3.70	0.55
66:O0:63:SER:OG	66:O0:65:THR:OG1	2.10	0.55
36:5:2211:U:H5	36:5:2234:G:O6	1.89	0.55
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.56	0.55
73:O7:21:ARG:NH1	73:O7:37:CYS:O	2.39	0.55
41:L4:144:LYS:H	41:L4:144:LYS:HE3	5.59	0.55
77:Q1:23:ARG:NH1	36:5:2278:C:OP1	264.75	0.55
86:6:2060:OHX:N1	86:6:2147:OHX:N4	2.54	0.55
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.76	0.55
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.39	0.55
18:C6:128:LYS:HE2	1:6:1417:A:O3'	393.43	0.55
59:N3:2:SER:N	59:N3:56:ASP:OD1	4.40	0.55
36:1:1807:G:C6	36:1:1808:G:N1	2.75	0.55
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.07	0.55
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	1.88	0.55
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.33	0.55
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.06	0.55
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.14	0.55
55:M9:5:ARG:NH1	36:5:1471:U:OP1	120.88	0.55
78:Q2:13:LYS:NZ	36:5:2718:U:OP1	195.89	0.55
36:5:776:U:C5	36:5:2719:U:O2	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:339:C:OP1	36:1:1380:G:O2'	2.21	0.55
12:C0:32:HIS:NE2	12:C0:35:ILE:HB	2.22	0.55
70:O4:38:LEU:HD23	36:5:1741:A:H4'	173.81	0.55
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.82	0.55
36:1:385:A:H2'	36:1:386:A:C8	2.42	0.55
74:O8:46:ARG:HA	74:O8:51:LEU:HD12	2.90	0.55
34:SR:123:ILE:HG23	34:SR:133:VAL:HG22	3.42	0.55
1:2:900:A:H4'	1:2:916:U:H1'	1.88	0.55
36:5:2970:C:H4'	36:5:2971:A:N1	2.21	0.55
34:SR:74:THR:HG23	34:SR:79:TYR:H	1.71	0.55
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	1.88	0.55
1:6:196:G:N3	1:6:197:A:H1'	2.22	0.55
2:S0:202:TYR:H	2:S0:202:TYR:HD2	1.79	0.55
3:S1:135:LEU:HA	3:S1:217:LEU:O	2.07	0.55
1:2:358:U:O2'	1:2:360:A:H5"	2.06	0.55
1:6:1151:A:O3'	1:6:1766:A:N6	2.40	0.55
1:6:76:A:H3'	86:6:2192:OHX:N1	2.22	0.55
61:N5:57:LEU:HD23	61:N5:61:LYS:HG2	6.11	0.55
36:1:1108:U:H2'	36:1:1109:U:H6	1.70	0.55
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.06	0.55
70:O4:57:LEU:HG	70:O4:62:TYR:HE1	3.49	0.55
47:M0:19:LYS:HG3	47:M0:26:VAL:HG11	2.34	0.55
1:2:1748:G:O6	86:2:2104:OHX:N4	2.38	0.55
36:1:209:A:H4'	36:1:211:A:C8	2.42	0.55
1:6:1342:C:O2'	1:6:1343:U:H5'	2.07	0.55
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.99	0.55
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.20	0.55
36:1:2631:U:OP1	36:1:2757:U:O2'	2.23	0.55
36:5:1615:C:H2'	36:5:1616:U:H6	1.71	0.55
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.71	0.55
48:M1:94:ARG:C	48:M1:96:PHE:H	2.10	0.55
59:N3:89:ASP:OD1	59:N3:89:ASP:N	2.75	0.55
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.89	0.55
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.39	0.55
4:S2:90:THR:O	4:S2:92:ALA:N	2.39	0.55
41:L4:23:PRO:O	41:L4:25:VAL:N	2.39	0.55
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.42	0.55
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.87	0.55
39:L2:59:ALA:O	39:L2:61:VAL:HG23	2.07	0.55
40:L3:227:GLU:HG3	40:L3:270:ARG:HB3	4.13	0.55
1:6:1535:U:O2'	1:6:1536:G:O5'	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.89	0.55
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	1.86	0.55
1:2:1789:G:C8	1:2:1789:G:H5"	2.42	0.55
86:8:216:OHX:N6	86:8:225:OHX:N4	2.55	0.55
1:6:1030:A:H4'	1:6:1031:U:OP2	2.07	0.55
86:1:3968:OHX:N3	86:1:4155:OHX:N4	2.54	0.55
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.42	0.55
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.04	0.55
36:1:111:C:O2'	36:1:112:U:H5'	2.06	0.55
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.07	0.55
78:Q2:100:LYS:HZ2	78:Q2:100:LYS:H	1.54	0.55
24:D2:86:ILE:HD12	24:D2:87:GLU:HG3	1.88	0.55
1:6:521:A:H2'	1:6:522:U:O4'	2.07	0.55
36:5:2882:U:H2'	36:5:2883:U:C6	2.42	0.55
11:S9:77:ILE:O	11:S9:81:VAL:HG23	2.38	0.55
36:1:3124:G:H5'	46:L9:40:HIS:ND1	2.22	0.55
1:2:7:G:O6	4:S2:205:ARG:NH2	2.39	0.55
1:2:1738:U:H2'	1:2:1739:C:C6	2.42	0.55
1:6:604:A:OP2	86:6:2151:OHX:N4	2.40	0.55
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.20	0.55
36:5:2507:C:O2'	36:5:2508:U:OP1	2.20	0.55
1:2:1291:G:H8	1:2:1291:G:O5'	1.90	0.55
42:L5:107:ARG:NH2	42:L5:169:GLY:O	2.39	0.55
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	3.57	0.55
10:S8:105:ASP:O	10:S8:107:THR:N	2.37	0.55
5:S3:132:LYS:HE3	5:S3:192:PRO:HD2	3.61	0.55
36:5:3241:G:H2'	36:5:3245:A:C8	2.41	0.55
41:L4:89:ALA:O	41:L4:91:GLY:N	2.39	0.55
1:6:1151:A:H4'	1:6:1766:A:N7	2.22	0.55
17:C5:108:ARG:H	17:C5:111:MET:HE3	3.52	0.55
15:C3:16:ILE:HD12	1:6:959:U:H4'	346.69	0.55
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.40	0.55
33:E1:82:LYS:HE2	1:6:1447:C:C4	380.07	0.55
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	6.64	0.55
9:S7:104:ARG:NH1	1:6:745:U:O4	353.31	0.55
36:1:496:C:H2'	36:1:497:C:O4'	2.06	0.55
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.38	0.55
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.42	0.55
36:1:3165:A:H61	36:1:3285:C:H42	1.53	0.55
36:1:2112:U:H4'	36:1:2113:A:H5'	1.88	0.55
79:Q3:3:LYS:HD2	79:Q3:5:THR:O	3.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:58:VAL:HG22	59:N3:76:ALA:HB3	2.47	0.55
3:S1:218:LEU:HD23	3:S1:219:LYS:HB2	1.87	0.55
36:1:1349:G:O2'	36:1:1350:A:O4'	2.24	0.55
1:2:1637:C:O2'	35:SM:94:HIS:HE1	1.89	0.55
36:1:2683:U:H2'	36:1:2684:C:C6	2.42	0.55
15:C3:40:TYR:O	15:C3:45:LEU:HB2	2.47	0.55
44:L7:108:LEU:HD23	44:L7:115:THR:HG23	1.87	0.55
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.55	0.55
1:2:393:C:H2'	1:2:394:C:C6	2.42	0.55
11:S9:38:ASN:HB3	11:S9:40:LYS:N	2.21	0.55
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	3.26	0.55
64:N8:128:ARG:HB2	72:O6:8:ALA:CB	4.49	0.55
1:2:1068:C:H2'	1:2:1069:A:H8	1.70	0.55
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.63	0.55
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.09	0.55
11:S9:49:LEU:HD22	11:S9:53:ARG:HG3	2.78	0.55
10:S8:12:SER:OG	10:S8:14:THR:OG1	2.54	0.55
36:5:3041:U:H2'	36:5:3042:U:H6	1.70	0.55
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.64	0.55
61:N5:82:LEU:HD11	61:N5:126:LEU:HD11	1.89	0.55
1:2:1002:G:N1	1:2:1761:U:OP1	2.28	0.55
64:N8:22:ILE:H	64:N8:22:ILE:HD12	1.81	0.55
12:C0:32:HIS:HB3	12:C0:34:GLU:O	6.90	0.55
43:L6:24:ALA:N	36:5:607:A:OP1	245.58	0.55
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.69	0.55
36:1:2986:U:H2'	36:1:2987:A:C8	2.42	0.55
39:L2:7:ASN:O	36:5:2163:C:H4'	185.46	0.55
36:1:138:U:H2'	36:1:139:G:C8	2.42	0.55
69:O3:16:TYR:CG	69:O3:25:PRO:HA	2.79	0.55
1:2:1160:A:H2'	1:2:1161:C:C6	2.42	0.55
1:2:1340:U:O4'	1:2:1378:U:H5'	2.07	0.55
50:M4:119:GLN:O	50:M4:123:LEU:HD12	3.03	0.55
1:2:545:A:H4'	1:2:546:U:OP1	2.05	0.55
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.00	0.55
4:S2:137:ILE:HD12	4:S2:215:PHE:CE2	5.36	0.55
30:D8:10:ALA:HB2	30:D8:56:LEU:HD11	3.06	0.55
36:1:2180:G:P	39:L2:174:ARG:HH22	2.29	0.55
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.72	0.55
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.21	0.55
36:1:1740:U:H1'	36:1:1741:A:C2	2.38	0.55
49:M3:36:ARG:HG3	49:M3:39:ARG:HH21	2.73	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.53	0.55
46:L9:31:ARG:HG2	46:L9:149:ASN:ND2	2.22	0.55
55:M9:96:ILE:HG22	55:M9:100:ARG:HD2	4.26	0.55
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.84	0.55
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.45	0.55
86:8:216:OHX:N5	86:8:225:OHX:N1	2.55	0.55
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	1.89	0.55
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.39	0.55
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.07	0.55
60:N4:4:GLU:HG3	60:N4:30:ARG:NH1	4.20	0.55
59:N3:108:GLU:HB3	59:N3:128:ARG:HH11	3.58	0.55
8:S6:114:VAL:HG12	8:S6:115:LYS:HG2	4.74	0.55
45:L8:121:SER:O	45:L8:123:GLN:N	3.78	0.55
36:5:1445:U:H5"	36:5:1446:A:OP2	2.06	0.55
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.89	0.55
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	1.76	0.55
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.41	0.55
1:2:416:A:H4'	1:2:417:A:OP2	2.07	0.55
39:L2:213:GLY:HA2	36:5:2967:A:OP1	207.94	0.55
36:5:2696:A:H2'	36:5:2697:A:C8	2.42	0.55
36:1:1631:C:H5"	36:1:1632:A:H5"	1.87	0.55
36:5:408:A:N6	38:8:15:G:H1'	2.22	0.55
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.87	0.54
16:C4:43:THR:HG23	16:C4:46:MET:HG3	1.89	0.54
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.42	0.54
64:N8:128:ARG:CB	72:O6:8:ALA:HB2	3.12	0.54
1:2:192:U:O2'	1:2:193:U:O4'	2.25	0.54
1:6:828:U:H2'	1:6:829:A:H5"	1.90	0.54
36:5:191:U:H2'	36:5:192:C:H6	1.72	0.54
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	1.88	0.54
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.73	0.54
36:5:2734:A:OP1	86:5:4048:OHX:N6	2.40	0.54
1:2:759:U:OP1	86:2:2159:OHX:N1	2.40	0.54
36:5:1345:G:N7	86:5:4068:OHX:N5	2.55	0.54
1:6:46:A:N6	1:6:433:C:H4'	2.22	0.54
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.88	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HB	3.22	0.54
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	3.47	0.54
36:5:2762:A:OP2	86:5:3991:OHX:N5	2.40	0.54
36:1:3248:C:O5'	36:1:3248:C:H6	1.90	0.54
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.07	0.54
34:SR:69:GLN:O	34:SR:83:ALA:HB3	2.08	0.54
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.07	0.54
67:O1:80:ASN:HA	67:O1:90:PHE:HE2	6.74	0.54
37:3:60:G:H2'	37:3:61:G:C8	2.42	0.54
8:S6:22:HIS:HA	8:S6:25:ARG:HH11	1.71	0.54
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.42	0.54
15:C3:65:VAL:O	15:C3:67:THR:N	4.22	0.54
68:O2:16:LYS:HE3	68:O2:18:LYS:HG2	1.89	0.54
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.29	0.54
24:D2:32:LYS:HG3	1:6:637:C:OP1	363.35	0.54
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.14	0.54
56:N0:155:ARG:HG2	56:N0:172:TYR:HB2	1.89	0.54
36:5:2112:U:O2	86:5:3978:OHX:N1	2.39	0.54
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	3.20	0.54
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	3.64	0.54
62:N6:60:ARG:HG3	62:N6:103:LYS:HD2	1.88	0.54
42:L5:196:ARG:HB3	42:L5:196:ARG:HH11	1.72	0.54
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.24	0.54
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.75	0.54
36:5:792:G:H2'	36:5:793:C:C6	2.42	0.54
1:6:1488:G:O2'	1:6:1494:C:O2	2.19	0.54
48:M1:38:GLU:C	48:M1:40:LEU:H	2.10	0.54
28:D6:88:SER:OG	28:D6:89:ARG:N	2.39	0.54
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	3.50	0.54
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.40	0.54
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	1.88	0.54
1:2:996:U:O2	1:2:1008:G:N2	2.29	0.54
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	1.89	0.54
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.07	0.54
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.07	0.54
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.54
86:6:2121:OHX:N6	86:6:2171:OHX:N3	2.56	0.54
36:5:2971:A:H5"	36:5:2972:G:C5'	2.36	0.54
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	1.94	0.54
1:6:152:U:C2	1:6:163:G:N2	2.75	0.54
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.38	0.54
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.59	0.54
53:M7:69:ARG:NH2	36:5:2991:A:N3	194.47	0.54
3:S1:91:VAL:HG23	3:S1:96:LEU:HB3	1.89	0.54
20:C8:89:GLN:NE2	1:6:1548:G:H1'	375.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:83:C:H4'	38:8:85:G:C2	2.42	0.54
36:1:3033:A:H2'	36:1:3034:C:H6	1.72	0.54
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.62	0.54
43:L6:13:GLU:OE2	68:O2:88:HIS:HA	2.88	0.54
36:5:238:A:H2'	36:5:239:G:C8	2.42	0.54
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	2.56	0.54
41:L4:138:ARG:HB3	41:L4:138:ARG:NH1	3.96	0.54
1:2:1665:U:O4	86:2:2136:OHX:N4	2.41	0.54
36:1:1767:C:H2'	36:1:1768:U:C6	2.42	0.54
36:1:773:G:O6	86:1:3884:OHX:N6	2.40	0.54
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	1.89	0.54
17:C5:102:PHE:HZ	1:6:1241:G:H5"	384.80	0.54
42:L5:160:PHE:O	42:L5:180:PHE:HE1	1.90	0.54
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.06	0.54
55:M9:85:ARG:HH21	36:5:1916:U:H4'	228.71	0.54
36:5:878:G:C2	36:5:2980:U:H5'	2.42	0.54
8:S6:44:GLU:N	8:S6:44:GLU:OE2	2.40	0.54
70:O4:3:GLN:HE22	70:O4:30:LEU:H	1.55	0.54
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	3.02	0.54
1:2:648:G:O6	1:2:686:C:N4	2.38	0.54
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.24	0.54
4:S2:51:THR:HG22	4:S2:52:THR:HG23	1.90	0.54
1:6:1010:C:OP2	86:6:2171:OHX:N3	2.41	0.54
47:M0:72:ALA:O	47:M0:76:MET:HG3	3.89	0.54
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.23	0.54
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.06	0.54
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.22	0.54
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.42	0.54
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.90	0.54
36:1:718:G:H3'	36:1:719:U:C5'	2.38	0.54
86:6:2060:OHX:N1	86:6:2147:OHX:N3	2.56	0.54
5:S3:24:PHE:HZ	5:S3:72:LEU:HD13	1.71	0.54
41:L4:98:ARG:HD3	41:L4:102:PRO:HG3	1.90	0.54
36:1:1854:C:OP2	86:1:4030:OHX:N5	2.41	0.54
36:5:439:C:O2	36:5:493:G:N2	2.29	0.54
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	1.97	0.54
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.66	0.54
40:L3:243:HIS:ND1	40:L3:244:ARG:HG3	2.22	0.54
39:L2:193:ARG:NH1	36:5:2174:G:OP2	190.30	0.54
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.74	0.54
66:O0:25:LEU:O	66:O0:29:SER:OG	3.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.07	0.54
40:L3:3:HIS:O	40:L3:5:LYS:N	2.40	0.54
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.08	0.54
1:2:544:A:H5"	1:2:545:A:OP2	2.07	0.54
27:D5:95:HIS:HE1	27:D5:97:LYS:HG3	3.24	0.54
28:D6:10:ARG:HG3	1:6:1797:A:OP1	331.93	0.54
41:L4:358:THR:HA	41:L4:361:HIS:HB2	2.22	0.54
31:D9:8:PHE:HE2	1:6:1217:A:H61	418.54	0.54
40:L3:173:GLN:O	40:L3:175:LYS:N	2.37	0.54
36:1:1941:C:O2'	36:1:3344:A:N6	2.39	0.54
20:C8:23:ASP:O	20:C8:26:ILE:HG23	2.07	0.54
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.87	0.54
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.87	0.54
40:L3:257:PRO:HG2	40:L3:261:MET:CE	2.38	0.54
40:L3:332:ARG:HH22	36:5:3304:U:P	206.48	0.54
36:1:2724:U:OP1	57:N1:57:TYR:OH	2.20	0.54
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.71	0.54
20:C8:15:LEU:HD23	20:C8:22:VAL:O	3.45	0.54
36:5:528:U:H2'	36:5:529:A:C8	2.42	0.54
1:2:858:G:OP1	9:S7:116:ARG:NH2	2.40	0.54
38:4:103:G:O6	86:4:224:OHX:N4	2.41	0.54
36:5:1839:A:N6	36:5:1843:C:C2	2.76	0.54
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.42	0.54
36:1:1743:G:H2'	36:1:1744:G:H8	1.73	0.54
49:M3:80:VAL:HG13	49:M3:85:LEU:O	2.58	0.54
36:5:1881:A:OP2	86:5:4032:OHX:N6	2.41	0.54
15:C3:3:ARG:NE	15:C3:3:ARG:HA	2.82	0.54
36:1:2205:U:H5'	36:1:2206:G:OP2	2.08	0.54
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.85	0.54
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.67	0.54
42:L5:56:THR:HG21	37:7:26:C:H5"	294.66	0.54
69:O3:13:HIS:O	69:O3:95:GLY:N	2.57	0.54
29:D7:19:HIS:HD2	29:D7:21:LEU:N	6.04	0.54
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	2.85	0.54
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.08	0.54
59:N3:18:PRO:HA	59:N3:51:ALA:HA	1.89	0.54
75:O9:45:ARG:HH22	36:5:1841:A:H1'	132.08	0.54
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.42	0.54
16:C4:13:VAL:HG23	16:C4:77:THR:H	5.03	0.54
59:N3:67:PRO:C	59:N3:69:LEU:H	2.83	0.54
62:N6:100:HIS:ND1	62:N6:102:SER:OG	3.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:154:SER:O	10:S8:157:GLU:N	2.40	0.54
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.07	0.54
41:L4:52:VAL:HG11	41:L4:99:MET:HE3	1.90	0.54
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.73	0.54
62:N6:3:LYS:O	62:N6:4:GLN:NE2	4.60	0.54
24:D2:86:ILE:HD12	24:D2:87:GLU:H	1.72	0.54
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.34	0.54
37:7:113:C:C4	37:7:114:U:C4	2.96	0.54
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.33	0.54
44:L7:233:GLU:OE1	56:N0:38:LYS:NZ	2.99	0.54
43:L6:14:ASP:N	43:L6:14:ASP:OD2	3.96	0.54
36:1:2927:C:H2'	36:1:2928:C:C6	2.42	0.54
36:1:643:U:OP1	36:1:1116:G:O2'	2.17	0.54
26:D4:91:LEU:HB3	26:D4:97:ALA:HB3	3.13	0.54
1:6:539:G:OP2	1:6:539:G:H8	1.90	0.54
4:S2:59:HIS:CE1	4:S2:238:SER:HA	4.00	0.54
86:5:3980:OHX:N2	86:5:4200:OHX:N1	2.56	0.54
86:2:2090:OHX:N5	86:2:2131:OHX:N6	2.56	0.54
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	4.43	0.54
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.48	0.54
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.08	0.54
3:S1:213:ARG:HG2	3:S1:214:LYS:HE3	1.89	0.54
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.08	0.54
11:S9:162:SER:OG	11:S9:163:PRO:O	2.25	0.54
28:D6:75:VAL:O	28:D6:79:ILE:N	2.29	0.54
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.37	0.54
9:S7:107:ARG:NH1	1:6:741:C:O2'	344.50	0.54
10:S8:137:LYS:NZ	1:6:192:U:O4	263.72	0.54
45:L8:90:THR:HG22	45:L8:214:LEU:HG	5.51	0.54
40:L3:334:ARG:NH2	36:5:3304:U:O3'	212.76	0.54
24:D2:81:VAL:HG12	24:D2:82:LYS:O	5.27	0.54
63:N7:3:LYS:HE3	66:O0:36:GLN:HG3	1.89	0.54
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.62	0.54
50:M4:37:GLU:OE1	56:N0:72:VAL:HB	2.36	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.90	0.54
71:O5:49:LYS:O	71:O5:52:ALA:N	3.13	0.54
36:1:2422:C:H42	36:1:2608:G:H1	1.55	0.54
1:6:1263:G:H2'	1:6:1264:G:O4'	2.08	0.54
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	4.24	0.54
21:C9:39:THR:HA	21:C9:100:ILE:HD12	3.75	0.54
36:1:2528:G:N7	86:1:4182:OHX:N3	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3152:U:O2'	36:1:3153:U:H5'	2.07	0.54
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.90	0.54
1:2:365:G:N7	86:2:2105:OHX:N5	2.55	0.54
37:7:107:C:H2'	37:7:108:A:C8	2.42	0.54
4:S2:215:PHE:O	4:S2:218:ILE:HG13	2.08	0.54
63:N7:47:GLU:HG2	63:N7:69:LYS:HG2	3.65	0.54
34:SR:203:THR:OG1	34:SR:204:ALA:N	2.40	0.54
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.08	0.54
34:SR:74:THR:OG1	34:SR:76:ASP:OD1	2.52	0.54
36:5:2169:G:O6	86:5:3956:OHX:N5	2.40	0.54
86:6:2060:OHX:N2	86:6:2147:OHX:N6	2.56	0.54
3:S1:158:SER:HA	3:S1:161:ILE:HD12	2.74	0.54
78:Q2:71:ARG:NH2	78:Q2:80:ARG:HD3	2.77	0.54
36:1:1582:C:O2'	36:1:1583:A:O5'	2.24	0.54
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.38	0.54
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.40	0.54
46:L9:74:LEU:O	46:L9:78:MET:HG3	3.37	0.54
86:1:3968:OHX:N5	86:1:4155:OHX:N1	2.56	0.54
49:M3:59:ARG:NH1	36:5:73:C:N3	94.96	0.54
40:L3:88:GLY:O	40:L3:161:LEU:N	2.44	0.54
1:2:325:G:H5'	13:C1:80:MET:HE3	1.90	0.54
1:6:1039:A:O2'	1:6:1040:G:OP2	2.25	0.54
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.33	0.54
14:C2:93:ASP:HB3	14:C2:96:GLN:HB2	3.66	0.54
21:C9:20:SER:OG	21:C9:21:PHE:N	3.48	0.54
36:1:610:G:C8	41:L4:312:VAL:HG21	2.42	0.54
1:6:1649:G:N7	86:6:2110:OHX:N2	2.56	0.54
1:2:176:C:OP1	86:2:2073:OHX:N3	2.40	0.54
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CZ	2.43	0.54
1:6:1497:U:H2'	1:6:1498:G:H8	1.72	0.54
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.41	0.54
47:M0:46:PHE:CD1	47:M0:140:THR:HA	3.03	0.54
6:S4:159:THR:HG22	6:S4:227:VAL:HB	1.90	0.54
36:5:956:U:H2'	36:5:957:C:H6	1.73	0.54
1:2:1229:G:O2'	1:2:1255:G:N2	2.41	0.54
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.51	0.54
86:1:4000:OHX:N6	86:1:4171:OHX:N5	2.55	0.54
1:2:1041:G:OP1	86:2:2148:OHX:N5	2.40	0.54
26:D4:10:ARG:HB3	1:6:778:G:O6	427.09	0.54
36:5:174:C:H2'	36:5:175:C:C6	2.42	0.54
36:5:1944:U:H2'	36:5:1945:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1664:C:H42	1:2:1737:G:H1	1.55	0.54
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.08	0.54
1:6:513:U:H2'	1:6:514:G:C8	2.42	0.54
36:5:2320:A:OP2	86:5:4077:OHX:N5	2.41	0.54
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.08	0.54
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.06	0.54
36:1:1796:G:H5"	36:1:1797:A:OP1	2.08	0.54
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.89	0.54
36:5:2771:U:H2'	36:5:2772:C:C6	2.42	0.54
58:N2:58:GLU:OE2	58:N2:60:GLY:N	5.55	0.54
36:1:1384:U:O2'	36:1:1385:C:H5'	2.08	0.54
58:N2:77:LYS:HE2	58:N2:81:LYS:HE3	5.14	0.54
1:2:1165:G:C6	1:2:1166:A:C6	2.96	0.54
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.81	0.54
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.79	0.54
36:1:434:U:O4	86:1:4163:OHX:N5	2.41	0.54
86:6:2121:OHX:N6	86:6:2171:OHX:N5	2.55	0.54
28:D6:4:LYS:HE3	28:D6:5:ARG:NH2	3.22	0.54
36:5:2960:C:H2'	36:5:2961:G:C8	2.43	0.54
3:S1:83:LYS:HD2	3:S1:106:THR:HG23	4.74	0.54
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	2.69	0.54
36:1:2898:G:H5"	36:1:2899:C:C5'	2.39	0.54
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.89	0.54
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	2.02	0.54
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.53	0.54
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.73	0.54
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.91	0.54
1:2:702:G:O2'	1:2:703:G:H8	1.90	0.54
1:6:187:G:H4'	1:6:188:A:OP1	2.07	0.54
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	8.41	0.54
1:2:224:C:H2'	1:2:225:A:C8	2.43	0.54
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.29	0.54
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.89	0.54
11:S9:62:ARG:CZ	11:S9:68:LYS:HD3	3.29	0.54
62:N6:103:LYS:NZ	36:5:221:A:H61	78.75	0.54
36:1:249:U:H1'	36:1:250:U:C2	2.43	0.54
1:6:737:A:H2'	1:6:738:G:H8	1.72	0.54
1:2:1226:A:O2'	1:2:1227:A:OP1	2.24	0.54
50:M4:129:TYR:HE1	36:5:3229:G:N3	288.23	0.54
1:2:1410:A:H5"	18:C6:118:ILE:HD13	1.90	0.54
36:5:2697:A:H2'	36:5:2698:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:24:ILE:HD13	46:L9:37:ASN:HB2	3.40	0.54
36:1:2947:G:H4'	36:1:2947:G:OP2	2.07	0.54
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.89	0.54
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	1.73	0.54
36:1:2726:C:O2'	36:1:2727:A:H2'	2.08	0.54
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.83	0.54
36:1:361:A:H5'	73:O7:35:SER:OG	2.08	0.54
69:O3:41:ALA:HB3	69:O3:74:THR:HG22	1.89	0.54
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.08	0.54
12:C0:51:SER:OG	1:6:1219:A:N3	432.10	0.54
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.68	0.53
36:1:2407:C:H1'	36:1:2818:U:O2	2.08	0.53
27:D5:95:HIS:ND1	27:D5:96:SER:O	2.41	0.53
41:L4:300:ARG:CG	41:L4:300:ARG:HH11	2.97	0.53
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.68	0.53
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.90	0.53
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.41	0.53
40:L3:187:SER:O	40:L3:190:GLU:N	2.40	0.53
36:1:1495:U:C5	36:1:1835:A:N1	2.73	0.53
1:2:1482:C:OP2	1:2:1521:G:N2	2.41	0.53
36:5:1556:C:H5"	36:5:2169:G:H22	1.73	0.53
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	2.88	0.53
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.62	0.53
25:D3:109:ARG:O	25:D3:112:LYS:HE3	5.13	0.53
38:4:85:G:C8	38:4:85:G:H3'	2.43	0.53
71:O5:24:LEU:HA	71:O5:27:GLU:HB2	1.90	0.53
26:D4:116:LYS:HE2	1:6:57:G:OP2	338.47	0.53
36:5:1742:U:H2'	36:5:1743:G:C8	2.42	0.53
37:7:8:G:C6	37:7:9:C:C4	2.96	0.53
36:1:953:G:N2	36:1:1116:G:H2'	2.23	0.53
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.35	0.53
36:5:1501:U:O2'	36:5:1502:C:H5'	2.07	0.53
42:L5:242:SER:O	42:L5:245:GLU:HB2	3.87	0.53
36:5:160:G:H2'	36:5:161:G:O4'	2.09	0.53
42:L5:177:GLU:O	42:L5:179:ARG:N	2.41	0.53
45:L8:78:PHE:C	45:L8:80:TYR:H	2.12	0.53
11:S9:51:LYS:HB3	11:S9:54:ARG:HH11	1.73	0.53
1:2:1624:C:H2'	1:2:1625:C:H6	1.73	0.53
26:D4:45:ALA:HB1	26:D4:50:ALA:HB3	4.88	0.53
36:1:86:G:C5	49:M3:13:HIS:ND1	2.76	0.53
36:5:1819:U:H2'	36:5:1820:U:H5'	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:95:ALA:O	34:SR:97:GLY:N	4.89	0.53
58:N2:37:LEU:HD12	58:N2:37:LEU:H	1.73	0.53
36:1:341:G:N7	41:L4:195:ARG:NH2	2.53	0.53
20:C8:54:LEU:H	20:C8:54:LEU:HD12	3.98	0.53
22:D0:105:GLN:HA	22:D0:108:ILE:HD13	7.32	0.53
1:2:1097:U:O2'	4:S2:159:THR:OG1	2.16	0.53
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	4.10	0.53
40:L3:86:VAL:HG21	40:L3:198:HIS:HB3	1.90	0.53
36:5:3195:U:H1'	36:5:3196:U:OP1	2.08	0.53
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.94	0.53
36:1:2232:A:H2'	36:1:2233:A:C8	2.44	0.53
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.90	0.53
36:1:1213:G:H4'	56:N0:90:MET:HG3	1.90	0.53
50:M4:70:PHE:HE2	50:M4:72:LEU:HD23	1.72	0.53
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.09	0.53
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.73	0.53
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.22	0.53
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.07	0.53
18:C6:26:LYS:NZ	1:6:1364:G:O3'	436.60	0.53
24:D2:24:GLN:NE2	29:D7:5:GLN:H	2.06	0.53
1:2:582:U:H3'	1:2:583:C:C5	2.43	0.53
36:5:246:U:H2'	36:5:247:C:H5"	1.90	0.53
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	3.51	0.53
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.08	0.53
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.92	0.53
65:N9:9:ALA:O	65:N9:12:GLN:HB2	2.09	0.53
51:M5:113:LEU:HB3	51:M5:134:LEU:HD23	1.89	0.53
36:1:2707:C:H2'	36:1:2708:C:H6	1.73	0.53
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.73	0.53
44:L7:36:ALA:HA	44:L7:39:GLU:HG3	1.88	0.53
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.21	0.53
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.74	0.53
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.08	0.53
36:5:1190:A:C8	36:5:1193:A:H1'	2.44	0.53
41:L4:162:THR:HA	41:L4:218:ALA:O	2.08	0.53
36:5:48:A:O4'	36:5:50:U:C6	2.60	0.53
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.32	0.53
1:2:2:A:H5'	1:2:2:A:H8	1.74	0.53
36:5:2273:G:O2'	36:5:2311:G:O6	2.15	0.53
1:6:1600:A:H4'	1:6:1601:G:OP1	2.08	0.53
69:O3:3:GLU:HG3	69:O3:4:SER:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1103:A:C8	44:L7:158:LYS:HD3	2.42	0.53
86:1:4029:OHX:N6	86:1:4042:OHX:N3	2.57	0.53
53:M7:60:PHE:O	53:M7:64:ASN:ND2	2.98	0.53
3:S1:131:ASP:HB3	3:S1:180:THR:CG2	2.38	0.53
6:S4:159:THR:HG1	6:S4:226:PHE:HE1	1.57	0.53
42:L5:56:THR:O	42:L5:58:LYS:N	2.40	0.53
41:L4:141:ARG:O	41:L4:144:LYS:NZ	9.03	0.53
1:6:1161:C:H2'	1:6:1162:C:H6	1.73	0.53
66:O0:24:THR:HG22	66:O0:91:SER:HB3	2.69	0.53
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.89	0.53
15:C3:129:TYR:HB3	15:C3:134:VAL:HG22	1.89	0.53
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.66	0.53
41:L4:106:TRP:CZ2	49:M3:19:GLN:HG2	4.23	0.53
1:2:1760:G:C2'	1:2:1761:U:H5'	2.38	0.53
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.89	0.53
1:2:416:A:H5"	1:2:417:A:N7	2.24	0.53
1:2:623:A:OP1	86:2:2156:OHX:N1	2.41	0.53
52:M6:108:ILE:O	52:M6:108:ILE:HG12	4.79	0.53
36:1:3095:U:H2'	36:1:3096:C:H6	1.73	0.53
1:2:859:A:C6	15:C3:73:ARG:HD3	2.42	0.53
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.58	0.53
1:6:1720:G:O6	86:6:2094:OHX:N4	2.42	0.53
44:L7:239:LEU:O	44:L7:242:SER:OG	2.67	0.53
36:5:2342:U:H5"	36:5:3089:C:O2'	2.08	0.53
39:L2:42:ARG:HA	39:L2:88:ILE:O	2.30	0.53
1:2:352:A:OP2	1:2:352:A:H8	1.92	0.53
1:2:207:U:O2	10:S8:178:ARG:NH1	2.39	0.53
36:5:1317:A:OP1	86:5:4100:OHX:N1	2.42	0.53
4:S2:41:LEU:HD11	4:S2:56:ILE:HG12	2.51	0.53
36:5:1170:A:OP2	86:5:4004:OHX:N4	2.41	0.53
36:1:1240:A:H3'	36:1:1241:U:H5'	1.91	0.53
42:L5:265:TYR:OH	37:7:121:U:OP2	311.24	0.53
9:S7:131:PHE:O	9:S7:133:THR:OG1	2.26	0.53
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.69	0.53
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.06	0.53
1:2:400:A:H8	10:S8:24:LYS:O	1.92	0.53
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.43	0.53
40:L3:50:LYS:HG2	40:L3:332:ARG:HA	1.90	0.53
39:L2:181:LYS:HZ3	36:5:860:G:P	214.56	0.53
22:D0:62:VAL:HG22	22:D0:85:ARG:HG3	1.89	0.53
36:5:247:C:N3	36:5:248:U:H1'	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:63:VAL:HG12	57:N1:64:VAL:N	2.79	0.53
86:1:3968:OHX:N5	86:1:4155:OHX:N2	2.56	0.53
44:L7:64:GLN:HG3	44:L7:68:ASP:OD2	2.09	0.53
45:L8:131:ALA:HB3	45:L8:133:LYS:HE2	5.65	0.53
36:1:1073:U:O2'	65:N9:49:GLY:HA3	2.08	0.53
38:4:113:U:H5"	75:O9:7:PHE:HB3	1.91	0.53
36:5:3276:G:OP2	36:5:3276:G:H2'	2.07	0.53
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	1.89	0.53
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.44	0.53
8:S6:57:ASP:O	8:S6:59:GLN:N	2.96	0.53
56:N0:13:ARG:NH1	37:7:73:C:O2	305.24	0.53
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	3.41	0.53
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.73	0.53
36:1:2747:A:H2'	36:1:2748:A:C8	2.44	0.53
1:2:1477:G:H2'	1:2:1478:G:C8	2.44	0.53
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.08	0.53
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.53	0.53
1:2:323:A:OP2	10:S8:10:LYS:HA	2.08	0.53
1:2:1417:A:O3'	18:C6:128:LYS:HE2	2.08	0.53
48:M1:80:LEU:HD13	48:M1:167:TYR:OH	2.69	0.53
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.44	0.53
1:2:1657:U:H1'	1:2:1658:G:OP2	2.08	0.53
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.89	0.53
36:5:776:U:H5	36:5:2719:U:O2	1.92	0.53
19:C7:54:THR:O	19:C7:58:MET:HB2	2.09	0.53
36:1:3094:A:H2'	36:1:3095:U:C6	2.43	0.53
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	1.90	0.53
75:O9:15:LYS:O	75:O9:19:GLN:HG3	2.57	0.53
2:S0:80:THR:O	2:S0:82:GLY:N	2.93	0.53
16:C4:11:SER:OG	16:C4:12:GLN:N	4.30	0.53
36:5:1772:U:H5"	36:5:1773:C:H5'	1.91	0.53
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	3.05	0.53
36:5:112:U:O2'	36:5:113:C:OP2	2.24	0.53
36:1:7:C:H2'	36:1:8:C:C6	2.43	0.53
64:N8:16:SER:HA	36:5:942:U:N3	169.12	0.53
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.69	0.53
36:5:621:A:H2'	36:5:622:A:H8	1.73	0.53
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.73	0.53
61:N5:37:THR:OG1	61:N5:38:LEU:N	2.41	0.53
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.42	0.53
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:955:U:H2'	36:5:956:U:H6	1.68	0.53
1:6:500:C:O2'	1:6:501:U:O4'	2.27	0.53
36:1:1064:A:H4'	36:1:1065:A:O5'	2.07	0.53
40:L3:235:THR:HG23	40:L3:236:LYS:O	2.56	0.53
1:2:190:C:N4	1:2:196:G:C6	2.77	0.53
26:D4:125:LEU:O	26:D4:129:VAL:HG23	2.09	0.53
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.08	0.53
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.69	0.53
45:L8:210:ALA:O	45:L8:214:LEU:HB2	2.57	0.53
47:M0:177:ASP:OD2	47:M0:177:ASP:N	3.50	0.53
20:C8:120:ARG:O	35:SM:57:ASN:ND2	3.20	0.53
1:6:922:G:H2'	1:6:923:A:C8	2.43	0.53
38:4:83:C:H1'	38:4:85:G:N2	2.24	0.53
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	2.84	0.53
5:S3:114:ALA:O	5:S3:116:ARG:N	3.17	0.53
36:5:3132:C:H2'	36:5:3133:C:C6	2.44	0.53
86:1:3968:OHX:N3	86:1:4155:OHX:N1	2.57	0.53
3:S1:35:PRO:HB3	3:S1:231:LEU:HD21	5.17	0.53
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	3.33	0.53
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.38	0.53
1:6:333:A:C6	1:6:334:G:C6	2.97	0.53
36:5:2563:G:H2'	36:5:2564:G:O4'	2.09	0.53
55:M9:23:TRP:HB3	55:M9:51:VAL:HG22	1.89	0.53
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	1.89	0.53
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.90	0.53
38:4:104:A:C8	38:4:105:A:C8	2.96	0.53
77:Q1:13:LEU:HD11	77:Q1:17:ARG:CZ	2.39	0.53
36:5:688:G:H8	36:5:688:G:O5'	1.90	0.53
1:6:587:C:H2'	1:6:588:U:O4'	2.09	0.53
68:O2:9:ILE:HG12	68:O2:63:THR:HB	1.90	0.53
72:O6:26:ILE:O	72:O6:28:TYR:N	2.42	0.53
36:1:2983:C:OP1	86:1:4187:OHX:N3	2.41	0.53
61:N5:25:LYS:HD3	61:N5:27:ARG:NH1	2.24	0.53
48:M1:100:GLY:HA3	48:M1:154:THR:HB	2.76	0.53
1:2:1585:U:N3	1:2:1611:A:H2	2.03	0.53
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.44	0.53
40:L3:95:THR:C	40:L3:97:ARG:H	2.12	0.53
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.11	0.53
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.91	0.53
42:L5:27:LYS:HE2	48:M1:143:ARG:HH12	1.73	0.53
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:356:G:OP2	86:2:2036:OHX:N6	2.41	0.53
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.92	0.53
1:2:1760:G:H2'	1:2:1761:U:H5'	1.90	0.53
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.22	0.53
51:M5:22:LEU:O	51:M5:26:ARG:HG3	2.09	0.53
69:O3:52:VAL:HG22	69:O3:66:VAL:HG22	2.14	0.53
13:C1:75:VAL:HG22	13:C1:84:ILE:HD12	1.90	0.53
16:C4:108:SER:OG	16:C4:109:GLY:N	2.42	0.53
36:5:2921:U:H2'	36:5:2923:U:H5"	1.90	0.53
1:2:1114:G:O2'	1:2:1130:G:O6	2.23	0.53
1:2:1490:C:H4'	1:2:1491:U:OP1	2.08	0.53
36:5:629:U:H2'	36:5:630:A:C8	2.44	0.53
23:D1:51:VAL:HG11	23:D1:78:LEU:HD21	3.56	0.53
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.43	0.53
1:2:874:C:OP1	86:2:2033:OHX:N2	2.41	0.53
19:C7:14:LYS:HG3	19:C7:69:ILE:HG22	3.10	0.53
36:1:1540:U:OP1	86:1:4016:OHX:N1	2.42	0.53
36:1:2093:A:H3'	36:1:2093:A:N3	2.24	0.53
36:5:128:G:H2'	36:5:129:U:O4'	2.09	0.53
36:5:1615:C:H2'	36:5:1616:U:C6	2.43	0.53
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.95	0.53
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.98	0.53
61:N5:25:LYS:HD2	61:N5:25:LYS:H	1.74	0.53
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.22	0.53
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.90	0.53
56:N0:26:ARG:NH1	57:N1:150:THR:HG21	2.90	0.53
5:S3:65:ARG:O	5:S3:69:LEU:HB2	2.69	0.53
39:L2:70:ARG:NH1	39:L2:72:ARG:HG2	2.23	0.53
36:1:1573:G:N2	36:1:1574:C:O2'	2.42	0.53
41:L4:205:PRO:HD2	41:L4:225:VAL:HG22	1.91	0.53
27:D5:40:VAL:HA	27:D5:75:LEU:HD13	3.56	0.53
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.90	0.53
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.90	0.53
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.89	0.53
17:C5:108:ARG:O	17:C5:111:MET:HG3	3.13	0.53
59:N3:66:LYS:CD	59:N3:68:GLU:HB2	6.05	0.53
1:2:795:U:C5	1:2:796:A:C8	2.97	0.53
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.51	0.53
13:C1:17:PRO:HB2	13:C1:18:HIS:CE1	5.04	0.53
36:1:846:A:H2'	36:1:847:A:O4'	2.09	0.53
8:S6:163:THR:HA	8:S6:168:THR:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:36:SER:OG	3:S1:231:LEU:O	2.26	0.53
1:2:867:G:H5'	15:C3:4:MET:HE3	1.91	0.53
37:7:110:G:C6	37:7:111:U:C4	2.97	0.53
61:N5:74:LYS:O	61:N5:78:ASP:HB2	3.13	0.53
6:S4:146:THR:OG1	6:S4:146:THR:O	4.37	0.53
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	3.40	0.53
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.08	0.53
34:SR:16:HIS:NE2	34:SR:43:ILE:HG12	2.50	0.53
1:2:119:A:H1'	1:2:397:A:C4	2.44	0.53
67:O1:50:ARG:HD3	67:O1:90:PHE:CD2	2.44	0.53
15:C3:115:LEU:HD22	15:C3:119:GLU:OE1	2.72	0.53
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	3.15	0.53
27:D5:71:ILE:HG22	27:D5:75:LEU:HD12	1.90	0.53
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.31	0.53
1:6:219:A:H2'	1:6:831:U:O2	2.09	0.53
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.17	0.53
11:S9:29:LYS:O	11:S9:33:GLU:HB2	2.09	0.53
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.75	0.53
42:L5:184:ASP:CG	42:L5:187:THR:HG23	2.29	0.53
26:D4:29:HIS:CE1	26:D4:34:ASN:HA	3.62	0.53
45:L8:190:VAL:O	45:L8:191:ASN:HB2	2.09	0.53
36:5:1853:U:O4	86:5:4041:OHX:N4	2.42	0.53
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.41	0.53
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.09	0.53
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	3.03	0.53
36:5:3084:C:H2'	36:5:3085:G:O4'	2.09	0.53
16:C4:137:LEU:HD23	87:6:2205:3K8:H20	302.20	0.53
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.42	0.53
49:M3:2:ALA:N	64:N8:31:GLY:O	4.08	0.53
23:D1:42:GLU:O	23:D1:44:ARG:N	2.33	0.53
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.09	0.53
36:1:2882:U:H2'	36:1:2883:U:C6	2.43	0.53
36:5:1249:G:H2'	36:5:1250:G:C8	2.41	0.53
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.78	0.53
42:L5:40:HIS:HB3	42:L5:43:LYS:HD2	3.81	0.53
31:D9:21:CYS:SG	31:D9:23:VAL:HB	2.49	0.53
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.62	0.53
36:1:1528:G:H2'	36:1:1529:A:O4'	2.09	0.53
1:2:1248:C:H2'	1:2:1249:U:C6	2.44	0.53
69:O3:86:ARG:HH12	36:5:498:A:H5'	216.27	0.53
11:S9:149:ARG:O	11:S9:151:ASP:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:979:U:C2	36:5:980:A:N3	2.77	0.53
50:M4:17:VAL:HA	50:M4:35:ILE:O	2.08	0.53
36:1:3317:U:H4'	36:1:3318:G:O5'	2.09	0.53
51:M5:154:PRO:O	51:M5:157:LYS:HG3	4.23	0.53
10:S8:10:LYS:HE3	1:6:339:C:P	284.34	0.53
1:2:959:U:H5'	15:C3:15:ALA:O	2.09	0.53
36:1:2592:G:H4'	36:1:2594:C:C2	2.43	0.53
86:2:2044:OHX:N4	86:2:2098:OHX:N6	2.57	0.53
3:S1:117:TRP:HE1	3:S1:152:ARG:NH2	2.07	0.53
36:1:1951:C:H5'	36:1:1952:G:OP1	2.09	0.53
79:Q3:18:TYR:H	36:5:2131:A:H61	227.09	0.53
1:2:16:G:H2'	1:2:17:C:C6	2.43	0.53
36:5:2093:A:H3'	36:5:2093:A:N3	2.23	0.53
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.90	0.53
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.42	0.53
63:N7:121:ARG:O	63:N7:125:GLY:HA2	5.41	0.53
53:M7:116:HIS:O	53:M7:149:VAL:N	2.39	0.53
37:3:85:G:O6	86:3:216:OHX:N4	2.42	0.53
1:6:938:G:N7	86:6:2106:OHX:N3	2.56	0.53
36:5:2816:G:C8	36:5:2869:U:H3'	2.44	0.53
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.50	0.53
36:5:2192:C:O2'	36:5:2312:A:N1	2.33	0.53
45:L8:136:LEU:HD22	51:M5:3:ALA:HB2	1.90	0.53
36:5:1310:G:O6	86:5:4028:OHX:N4	2.41	0.53
1:2:121:U:H1'	6:S4:33:ALA:HB3	1.90	0.53
86:5:3980:OHX:N6	86:5:4200:OHX:N3	2.57	0.52
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.90	0.52
59:N3:24:ASN:N	59:N3:98:ASN:O	2.42	0.52
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.29	0.52
34:SR:123:ILE:HD11	34:SR:156:VAL:HG23	2.22	0.52
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.91	0.52
1:2:901:G:N1	16:C4:54:GLU:OE2	2.34	0.52
46:L9:41:ILE:HD13	46:L9:67:ALA:HB1	3.52	0.52
2:S0:165:ARG:HH11	2:S0:165:ARG:HA	1.74	0.52
16:C4:125:SER:OG	16:C4:126:THR:N	2.84	0.52
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.91	0.52
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.46	0.52
19:C7:10:LYS:HE3	1:6:1316:G:H4'	407.23	0.52
36:5:3279:A:C2'	36:5:3280:U:H5'	2.39	0.52
36:5:3280:U:O2'	36:5:3281:U:H5"	2.09	0.52
12:C0:30:ALA:HA	12:C0:38:LYS:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1148:C:H2'	1:2:1149:G:C8	2.44	0.52
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.83	0.52
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.89	0.52
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.08	0.52
25:D3:23:ARG:HB2	25:D3:29:TYR:CE1	3.22	0.52
1:6:256:A:H2'	1:6:257:A:O4'	2.09	0.52
4:S2:40:LYS:HG3	4:S2:247:ALA:O	7.20	0.52
1:6:11:A:N1	1:6:1143:A:H2	2.07	0.52
70:O4:83:ASN:ND2	36:5:1709:C:OP1	215.60	0.52
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	4.51	0.52
1:6:246:G:C6	1:6:247:A:C6	2.97	0.52
7:S5:153:GLY:O	7:S5:155:ALA:N	2.42	0.52
1:6:711:U:H5'	1:6:712:G:OP2	2.09	0.52
36:1:603:A:H2'	36:1:604:G:O4'	2.09	0.52
1:2:641:G:H1	1:2:693:U:H3	1.56	0.52
36:5:201:A:OP2	86:5:3989:OHX:N1	2.42	0.52
1:2:354:C:H5"	10:S8:16:ALA:HB2	1.91	0.52
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.74	0.52
36:1:2561:A:O2'	36:1:2562:A:O5'	2.27	0.52
36:1:1445:U:H5"	36:1:1446:A:OP2	2.09	0.52
4:S2:96:THR:OG1	4:S2:97:ARG:N	3.55	0.52
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.74	0.52
86:1:3873:OHX:N5	51:M5:91:GLU:OE2	2.42	0.52
11:S9:117:GLY:O	11:S9:119:ALA:N	2.47	0.52
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.98	0.52
1:6:836:U:H2'	1:6:837:G:C8	2.44	0.52
36:1:1240:A:H61	36:1:1244:A:C5'	2.21	0.52
36:5:1806:A:H2'	36:5:1807:G:O4'	2.09	0.52
50:M4:77:ARG:NH1	36:5:562:C:OP2	346.36	0.52
24:D2:103:ILE:H	24:D2:103:ILE:HD13	4.93	0.52
6:S4:86:PHE:CE2	6:S4:102:VAL:HG23	2.88	0.52
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.34	0.52
1:6:789:A:H3'	1:6:790:U:H6	1.75	0.52
76:Q0:77:ILE:HG22	76:Q0:78:ILE:H	1.74	0.52
36:1:2338:C:C1'	59:N3:49:LEU:HD12	2.39	0.52
36:1:1128:U:H5'	47:M0:4:ARG:NH2	2.24	0.52
34:SR:132:LYS:HD3	34:SR:140:CYS:SG	2.50	0.52
36:1:1234:G:N2	36:1:1254:C:N3	2.52	0.52
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.91	0.52
48:M1:155:THR:OG1	48:M1:158:ASP:HB3	3.90	0.52
1:2:1657:U:C4	86:2:2089:OHX:N4	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:900:G:H1'	36:1:1589:A:H61	1.74	0.52
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	2.44	0.52
14:C2:76:GLU:OE2	14:C2:90:LYS:NZ	2.29	0.52
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.92	0.52
7:S5:215:ASP:O	7:S5:219:ARG:N	2.41	0.52
38:8:74:U:O2	86:8:220:OHX:N5	2.41	0.52
6:S4:15:PRO:HG2	6:S4:18:TRP:CZ2	2.69	0.52
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.29	0.52
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.95	0.52
36:5:277:G:H2'	36:5:278:U:C6	2.44	0.52
48:M1:71:VAL:HG11	48:M1:75:LYS:HG2	3.05	0.52
1:2:1347:U:O2	1:2:1516:A:H5'	2.09	0.52
1:6:848:C:H2'	1:6:849:C:C6	2.44	0.52
35:SM:78:ASP:O	35:SM:80:ALA:N	3.39	0.52
36:5:3287:U:H2'	36:5:3288:G:H5'	1.91	0.52
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.04	0.52
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	3.90	0.52
1:2:1248:C:H2'	1:2:1249:U:H6	1.73	0.52
1:2:802:G:H21	24:D2:107:SER:HB3	1.74	0.52
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.91	0.52
1:6:40:A:O2'	86:6:2108:OHX:N4	2.42	0.52
1:2:1067:C:H2'	1:2:1068:C:H6	1.70	0.52
1:2:1524:A:N3	1:2:1590:G:O2'	2.34	0.52
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.43	0.52
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.13	0.52
36:1:3195:U:O2'	36:1:3196:U:H5'	2.09	0.52
36:1:1781:C:H2'	36:1:1782:U:C6	2.42	0.52
15:C3:113:PHE:HD1	15:C3:114:ARG:HH11	2.64	0.52
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.09	0.52
44:L7:70:LYS:NZ	36:5:519:A:OP2	313.09	0.52
7:S5:148:ARG:HD2	7:S5:155:ALA:HB3	1.91	0.52
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	2.12	0.52
40:L3:329:PRO:HA	36:5:3047:U:H5'	233.42	0.52
36:1:2358:A:H2'	36:1:2359:C:O4'	2.09	0.52
36:5:209:A:H4'	36:5:211:A:C8	2.45	0.52
1:2:526:A:H2'	1:2:527:A:O4'	2.09	0.52
1:2:1362:U:H1'	1:2:1363:U:C5	2.43	0.52
36:1:2225:U:H2'	36:1:2226:U:C6	2.45	0.52
1:2:1556:A:C5	1:2:1560:U:C2	2.97	0.52
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.43	0.52
38:4:38:U:C4	71:O5:89:ARG:HD2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:277:G:OP1	86:1:3873:OHX:N5	2.41	0.52
1:2:514:G:H1	1:2:543:C:H5	1.57	0.52
47:M0:76:MET:CE	47:M0:138:VAL:HG11	2.39	0.52
28:D6:95:ARG:HG2	1:6:1797:A:H5'	342.84	0.52
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	1.94	0.52
1:2:916:U:H3	16:C4:41:ARG:NH2	2.06	0.52
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.09	0.52
63:N7:10:VAL:O	63:N7:83:THR:HG22	2.21	0.52
25:D3:10:ASN:O	25:D3:12:ALA:N	2.41	0.52
63:N7:95:VAL:HG23	63:N7:96:VAL:HG23	6.33	0.52
27:D5:43:ASP:O	27:D5:46:LYS:N	2.42	0.52
1:2:488:G:N2	1:2:500:C:O2	2.43	0.52
36:5:3241:G:H2'	36:5:3245:A:H8	1.74	0.52
36:5:1018:G:H2'	36:5:1019:G:O4'	2.10	0.52
17:C5:68:PRO:O	86:C5:201:OHX:N5	6.35	0.52
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.91	0.52
86:1:4000:OHX:N3	86:1:4171:OHX:N1	2.58	0.52
79:Q3:6:LYS:HG2	79:Q3:7:LYS:HG3	5.30	0.52
1:2:480:G:H22	1:2:509:G:H1'	1.72	0.52
34:SR:50:ASP:O	34:SR:52:GLN:N	2.40	0.52
36:1:656:A:H2'	36:1:657:A:H8	1.72	0.52
1:2:857:U:O2	1:2:857:U:H2'	2.10	0.52
1:2:1657:U:C2	86:2:2089:OHX:N1	2.77	0.52
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	2.36	0.52
41:L4:230:VAL:HG21	41:L4:254:ALA:HA	2.58	0.52
48:M1:171:VAL:O	48:M1:172:LEU:HB2	2.09	0.52
36:5:2922:G:H5"	36:5:2923:U:OP2	2.09	0.52
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.44	0.52
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.91	0.52
45:L8:67:ILE:HG23	45:L8:237:ILE:HD12	1.90	0.52
36:1:2984:C:H2'	36:1:2985:C:H6	1.75	0.52
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.10	0.52
11:S9:2:PRO:HD2	1:6:461:G:OP1	359.24	0.52
55:M9:66:HIS:O	55:M9:69:SER:HB3	3.11	0.52
38:4:9:A:H2'	38:4:10:A:C8	2.45	0.52
37:3:89:G:N2	37:3:92:A:OP2	2.42	0.52
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.44	0.52
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.43	0.52
36:1:2666:C:OP2	36:1:2687:G:N1	2.35	0.52
21:C9:102:ARG:O	21:C9:105:LEU:N	3.31	0.52
1:6:1291:G:N2	1:6:1291:G:OP2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.00	0.52
36:1:1481:A:O2'	36:1:1858:A:C2	2.62	0.52
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.74	0.52
36:1:1613:A:H2'	36:1:1614:C:H6	1.73	0.52
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.18	0.52
86:5:3975:OHX:N4	86:5:4245:OHX:N2	2.57	0.52
34:SR:159:ASN:O	34:SR:161:LYS:N	4.94	0.52
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.91	0.52
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.40	0.52
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.65	0.52
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.25	0.52
1:2:1068:C:H2'	1:2:1069:A:C8	2.44	0.52
8:S6:94:ARG:NH2	1:6:407:A:H5'	288.80	0.52
36:1:1064:A:H5"	36:1:1066:G:O4'	2.10	0.52
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.42	0.52
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	2.98	0.52
1:2:1274:C:H5	35:SM:95:SER:HA	1.72	0.52
36:1:1599:G:OP1	86:1:4083:OHX:N5	2.42	0.52
38:4:83:C:H1'	38:4:85:G:H21	1.75	0.52
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.45	0.52
36:1:2379:U:H2'	36:1:2380:U:C6	2.43	0.52
36:1:729:C:H2'	36:1:730:C:H6	1.73	0.52
36:5:2298:U:O4	36:5:2923:U:H5	1.93	0.52
40:L3:160:VAL:HG22	40:L3:183:LEU:HD13	5.72	0.52
19:C7:88:VAL:HG22	19:C7:89:SER:O	5.06	0.52
1:2:1393:C:H2'	1:2:1394:G:O4'	2.10	0.52
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.92	0.52
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.09	0.52
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.12	0.52
36:5:2953:U:H2'	36:5:2954:U:H2'	1.92	0.52
3:S1:103:MET:H	3:S1:215:VAL:HG13	2.23	0.52
71:O5:34:GLN:HB3	71:O5:38:ARG:HD2	4.78	0.52
36:1:156:G:O2'	36:1:157:A:H4'	2.10	0.52
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.77	0.52
3:S1:77:GLU:O	3:S1:79:HIS:N	2.40	0.52
63:N7:21:LYS:HE2	63:N7:47:GLU:O	2.08	0.52
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.10	0.52
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.61	0.52
37:3:19:C:H2'	37:3:20:A:C8	2.42	0.52
1:2:1536:G:C6	1:2:1538:U:H1'	2.45	0.52
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.36	0.52
10:S8:5:ARG:HG3	10:S8:28:GLU:O	2.92	0.52
1:2:1483:A:H2'	1:2:1484:G:C8	2.44	0.52
36:1:2921:U:H2'	36:1:2923:U:H5"	1.91	0.52
86:5:4013:OHX:N3	86:5:4202:OHX:N5	2.57	0.52
36:1:718:G:OP2	36:1:718:G:H8	1.92	0.52
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.75	0.52
1:2:793:A:OP2	1:2:793:A:H8	1.92	0.52
49:M3:6:ASN:O	54:M8:164:ARG:NH1	3.08	0.52
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	3.12	0.52
36:1:119:U:C2	45:L8:138:HIS:CE1	2.98	0.52
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	4.95	0.52
41:L4:195:ARG:O	41:L4:196:ASN:HB2	2.16	0.52
42:L5:119:TYR:OH	42:L5:135:VAL:HG12	2.10	0.52
36:1:1765:U:H5"	55:M9:43:LYS:HE2	1.91	0.52
1:2:482:U:H2'	1:2:483:A:C8	2.45	0.52
15:C3:91:LEU:HB3	15:C3:122:ILE:HG12	1.91	0.52
25:D3:137:LYS:O	25:D3:139:LYS:N	3.35	0.52
1:2:892:A:H2'	1:2:893:U:C6	2.45	0.52
24:D2:36:LYS:HD3	24:D2:39:GLN:OE1	3.39	0.52
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	3.21	0.52
36:1:2221:G:N2	36:1:2224:A:OP2	2.38	0.52
51:M5:10:LEU:HD22	51:M5:19:LEU:HD13	1.92	0.52
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.45	0.52
29:D7:46:VAL:HG13	29:D7:54:VAL:HG21	2.41	0.52
36:1:284:A:OP1	78:Q2:41:ARG:NH1	2.43	0.52
42:L5:281:GLU:O	42:L5:285:ARG:HG3	2.10	0.52
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	4.57	0.52
41:L4:112:LYS:HD3	36:5:682:U:C5	112.84	0.52
63:N7:26:VAL:HG12	63:N7:89:VAL:HG21	2.98	0.52
10:S8:8:ARG:HG3	10:S8:8:ARG:O	2.09	0.52
1:6:407:A:H2'	1:6:408:C:C6	2.44	0.52
36:5:2308:C:O2	86:5:4242:OHX:N1	2.43	0.52
54:M8:165:ILE:HG21	54:M8:168:THR:HG22	2.14	0.52
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.64	0.52
36:1:1235:U:H4'	36:1:1236:G:H5'	1.90	0.52
1:6:729:G:O2'	1:6:730:G:O5'	2.28	0.52
11:S9:72:GLU:OE2	1:6:761:G:O2'	397.44	0.52
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.45	0.52
36:1:191:U:H2'	36:1:192:C:H6	1.73	0.52
36:1:1110:U:H2'	36:1:1111:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.44	0.52
66:O0:53:LYS:HE2	36:5:2552:C:H5	242.06	0.52
41:L4:220:ARG:HG3	41:L4:221:ASN:N	2.24	0.52
1:6:1515:A:O2'	1:6:1517:U:OP2	2.21	0.52
37:7:112:G:OP2	86:7:222:OHX:N2	2.43	0.52
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.92	0.52
1:6:692:C:H2'	1:6:693:U:O4'	2.10	0.52
46:L9:7:GLU:HB2	46:L9:56:ALA:HB2	1.90	0.52
1:2:825:U:H3	1:2:847:A:H61	1.57	0.52
36:5:702:C:O2	36:5:788:C:H4'	2.10	0.52
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.10	0.52
64:N8:2:PRO:HG2	64:N8:5:PHE:CE2	3.07	0.52
45:L8:97:TYR:O	45:L8:132:VAL:HG12	2.09	0.52
1:2:872:G:H2'	1:2:873:U:O4'	2.10	0.52
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.52	0.52
1:6:1451:C:H2'	1:6:1452:U:H6	1.75	0.52
7:S5:49:GLU:O	7:S5:51:VAL:HG23	2.09	0.52
36:1:3309:G:N3	36:1:3309:G:H5"	2.25	0.52
49:M3:31:LYS:NZ	36:5:326:U:OP1	87.96	0.52
72:O6:26:ILE:O	72:O6:29:LYS:N	2.51	0.52
36:1:2234:G:O6	86:1:4041:OHX:N1	2.43	0.52
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.35	0.52
1:2:542:A:H2'	1:2:544:A:C8	2.45	0.52
7:S5:91:GLU:OE2	7:S5:107:LYS:NZ	2.37	0.52
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	3.69	0.52
30:D8:44:VAL:HG12	30:D8:54:LEU:HD21	1.92	0.52
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.74	0.52
56:N0:26:ARG:HB3	57:N1:150:THR:HG22	4.64	0.52
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.17	0.52
34:SR:80:ALA:O	34:SR:91:LEU:HD12	2.09	0.52
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.09	0.52
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	3.67	0.52
41:L4:74:ILE:HG13	41:L4:75:PRO:HD2	4.82	0.52
36:1:3013:U:H2'	36:1:3014:U:C6	2.45	0.52
1:2:1590:G:H2'	1:2:1591:C:H6	1.75	0.52
1:2:72:A:C2	1:2:73:U:N3	2.77	0.52
1:2:198:A:H5"	1:2:199:G:OP2	2.10	0.52
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	2.40	0.52
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.10	0.52
36:1:3228:C:H4'	36:1:3229:G:O5'	2.08	0.52
36:5:2799:A:H5"	36:5:2800:G:O5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:72:A:H2'	1:6:73:U:C1'	2.39	0.52
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.43	0.52
12:C0:29:GLN:HB3	12:C0:39:ASN:CB	2.39	0.52
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.09	0.52
36:1:345:G:OP1	36:1:1429:G:N2	2.39	0.52
1:2:968:U:O3'	1:2:1032:G:N2	2.43	0.52
9:S7:91:ILE:HD12	9:S7:92:PHE:H	2.67	0.52
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.45	0.52
36:1:1636:U:H5"	63:N7:73:LYS:HZ2	1.75	0.52
36:5:1838:G:H4'	36:5:1839:A:N3	2.25	0.52
15:C3:96:VAL:O	15:C3:100:LYS:HG2	5.46	0.52
7:S5:128:ASN:O	7:S5:131:GLN:N	2.91	0.52
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.97	0.52
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.49	0.52
5:S3:31:GLU:O	5:S3:54:ARG:NH2	4.22	0.52
21:C9:112:GLY:O	21:C9:127:ASN:HB3	2.74	0.52
1:6:1754:A:H4'	1:6:1755:A:O5'	2.09	0.52
1:2:1080:U:O2'	1:2:1081:A:H5'	2.09	0.52
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.18	0.52
1:6:1037:C:H2'	1:6:1038:U:H6	1.75	0.52
1:6:1178:G:H2'	1:6:1179:G:O4'	2.10	0.52
36:1:156:G:OP2	72:O6:27:SER:OG	2.24	0.52
64:N8:3:SER:O	64:N8:6:THR:HG22	2.09	0.52
36:5:304:G:N3	36:5:304:G:H5'	2.25	0.52
36:5:1565:G:N2	36:5:1566:A:H1'	2.25	0.52
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.95	0.52
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.75	0.52
37:3:61:G:H2'	37:3:62:U:H6	1.74	0.52
3:S1:48:VAL:HG11	3:S1:61:LEU:HD22	3.56	0.52
1:2:1479:A:H2'	1:2:1480:G:H8	1.75	0.52
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	1.91	0.52
1:6:755:A:O2'	1:6:756:A:OP1	2.25	0.52
42:L5:8:LYS:HE2	36:5:2687:G:OP1	308.69	0.52
7:S5:205:SER:C	7:S5:207:THR:H	2.14	0.52
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.90	0.52
1:2:795:U:H5	1:2:796:A:N7	2.08	0.52
58:N2:59:ASP:OD1	58:N2:62:VAL:N	4.96	0.52
36:1:2620:G:H2'	36:1:2621:G:H8	1.75	0.52
36:5:549:U:H2'	36:5:550:A:C8	2.44	0.52
14:C2:31:VAL:HG23	14:C2:132:GLU:HB2	1.91	0.52
1:2:417:A:H4'	1:2:418:G:O5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:36:GLU:O	39:L2:91:GLY:HA2	2.10	0.52
1:6:1488:G:H3'	1:6:1515:A:H61	1.75	0.52
36:1:2225:U:H2'	36:1:2226:U:H6	1.74	0.52
67:O1:94:GLU:HB2	67:O1:95:PRO:HD2	2.46	0.52
36:5:123:A:C6	36:5:150:A:C5	2.98	0.52
13:C1:2:SER:O	13:C1:3:THR:OG1	4.72	0.52
1:6:97:C:H1'	1:6:426:G:H5'	1.90	0.52
1:2:491:C:N3	1:2:496:G:N2	2.57	0.52
36:5:2518:C:H2'	36:5:2519:A:H8	1.74	0.52
1:6:808:U:H2'	1:6:809:A:C8	2.45	0.52
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.39	0.52
36:5:2949:U:O2'	36:5:2950:G:H5'	2.10	0.52
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.40	0.52
18:C6:81:ILE:O	18:C6:85:ILE:HD12	2.10	0.52
36:1:1229:G:H1	36:1:1280:C:H42	1.58	0.52
36:1:3239:G:O6	86:1:3964:OHX:N6	2.43	0.52
36:5:1409:G:O6	86:5:4164:OHX:N6	2.43	0.52
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.50	0.52
1:2:1291:G:H5'	4:S2:119:LYS:HE3	1.92	0.52
36:5:1566:A:H2'	36:5:1567:U:H5'	1.92	0.52
16:C4:117:ASP:OD2	16:C4:119:THR:OG1	2.23	0.52
8:S6:22:HIS:HA	8:S6:25:ARG:NH1	2.25	0.52
67:O1:27:LYS:O	67:O1:31:ARG:HB2	2.21	0.52
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.41	0.52
36:1:2193:U:H5'	36:1:2194:G:H5'	1.91	0.52
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.90	0.52
63:N7:57:HIS:CD2	63:N7:65:ARG:HH12	3.51	0.52
45:L8:25:PRO:HG2	45:L8:27:THR:HB	1.92	0.52
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.45	0.52
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	3.74	0.52
86:1:4000:OHX:N5	86:1:4171:OHX:N5	2.57	0.52
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.37	0.52
79:Q3:7:LYS:HD2	36:5:1926:C:H2'	252.35	0.52
19:C7:60:ARG:NH1	1:6:1401:A:OP1	411.31	0.52
1:6:1511:U:H2'	1:6:1512:G:H8	1.75	0.52
47:M0:193:ASP:O	47:M0:195:ALA:N	2.91	0.52
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.13	0.52
36:1:73:C:N3	49:M3:59:ARG:NH1	2.58	0.52
45:L8:126:SER:O	36:5:120:G:N2	93.75	0.52
1:2:7:G:N7	4:S2:205:ARG:NH1	2.58	0.52
63:N7:35:SER:OG	63:N7:36:HIS:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:55:VAL:HG12	26:D4:75:VAL:HG13	7.44	0.52
36:1:1765:U:H4'	36:1:1765:U:OP1	2.10	0.52
36:1:856:G:C6	36:1:857:G:N1	2.78	0.52
39:L2:190:ARG:HB3	39:L2:191:LEU:HD23	6.40	0.52
58:N2:16:THR:HG22	58:N2:64:THR:OG1	5.62	0.52
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.09	0.52
1:2:868:G:H1	1:2:960:U:H3	1.58	0.52
13:C1:36:LYS:HD3	1:6:248:U:H4'	311.08	0.52
1:6:1523:G:N3	1:6:1523:G:H5'	2.26	0.52
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.21	0.52
7:S5:118:LEU:HD23	7:S5:129:PRO:HB2	2.74	0.52
36:1:2174:G:OP2	39:L2:193:ARG:NH1	2.38	0.51
36:5:1567:U:H2'	36:5:1568:U:H4'	1.92	0.51
63:N7:104:PRO:O	63:N7:107:ARG:N	2.78	0.51
41:L4:293:SER:O	41:L4:297:SER:OG	2.19	0.51
1:6:25:C:OP2	1:6:25:C:H4'	2.10	0.51
1:6:542:A:H1'	1:6:543:C:H5'	1.91	0.51
33:E1:103:LEU:HD23	33:E1:105:TYR:HB2	2.84	0.51
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.11	0.51
26:D4:83:LYS:HA	26:D4:91:LEU:HD11	1.92	0.51
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.13	0.51
36:1:3337:G:H2'	36:1:3338:C:H6	1.75	0.51
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	1.90	0.51
36:1:3006:A:OP2	52:M6:148:LYS:NZ	2.41	0.51
1:6:615:A:O2'	1:6:621:A:N1	2.37	0.51
36:5:2580:A:O2'	86:5:4133:OHX:N1	2.43	0.51
1:6:1015:U:OP1	86:6:2056:OHX:N3	2.44	0.51
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.41	0.51
36:1:1149:G:O6	86:1:4165:OHX:N6	2.43	0.51
45:L8:224:ASP:OD1	45:L8:224:ASP:N	3.05	0.51
50:M4:113:THR:CB	50:M4:116:GLU:HG3	2.76	0.51
57:N1:92:ARG:NH1	36:5:2736:A:OP1	235.18	0.51
86:1:4029:OHX:N4	86:1:4042:OHX:N1	2.58	0.51
72:O6:82:ARG:NH2	36:5:271:C:O2	130.83	0.51
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.19	0.51
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	4.70	0.51
36:1:1307:G:C2	36:1:1308:A:C2	2.98	0.51
48:M1:28:ASP:O	48:M1:32:ARG:HB2	2.84	0.51
64:N8:74:ASN:HD22	64:N8:115:LYS:H	1.56	0.51
1:6:1350:U:H2'	1:6:1351:G:H8	1.76	0.51
22:D0:22:ILE:HD12	22:D0:118:VAL:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:208:TYR:C	8:S6:210:GLN:H	3.12	0.51
36:5:1014:U:C3'	36:5:1015:U:H5'	2.41	0.51
35:SM:48:ARG:HH12	36:5:1017:C:H5"	337.32	0.51
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	1.92	0.51
9:S7:105:THR:O	9:S7:107:ARG:N	4.33	0.51
14:C2:59:LEU:HB3	14:C2:123:VAL:HB	2.51	0.51
86:5:4013:OHX:N3	86:5:4202:OHX:N1	2.58	0.51
86:6:2060:OHX:N5	86:6:2147:OHX:N3	2.59	0.51
36:1:2435:G:N7	36:1:2593:A:H2'	2.25	0.51
61:N5:135:ILE:O	61:N5:139:ILE:HG22	2.09	0.51
52:M6:182:ASN:O	52:M6:185:ALA:N	2.98	0.51
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.11	0.51
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.67	0.51
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.35	0.51
68:O2:64:LYS:HG2	68:O2:65:PHE:CE2	3.40	0.51
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.11	0.51
36:1:2416:U:H2'	36:1:2417:U:C6	2.45	0.51
1:6:1315:U:OP1	1:6:1328:G:N2	2.38	0.51
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	290.41	0.51
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.64	0.51
25:D3:98:GLU:O	25:D3:99:ASN:HB2	2.21	0.51
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.74	0.51
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.34	0.51
43:L6:102:ASN:OD1	43:L6:104:GLU:HB3	2.09	0.51
63:N7:16:GLY:O	63:N7:18:TYR:N	2.43	0.51
36:1:600:G:N7	86:1:4095:OHX:N1	2.58	0.51
1:2:1291:G:H21	1:2:1324:G:H22	1.58	0.51
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.25	0.51
7:S5:222:LYS:HE3	7:S5:225:ARG:NH1	2.25	0.51
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.92	0.51
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.49	0.51
1:2:393:C:H2'	1:2:394:C:H6	1.75	0.51
15:C3:42:ARG:NH1	15:C3:80:LEU:HD11	5.68	0.51
63:N7:26:VAL:O	63:N7:93:LYS:NZ	2.40	0.51
16:C4:81:VAL:HG13	16:C4:115:ILE:HG23	3.33	0.51
36:1:3344:A:H2	36:1:3361:G:N2	2.08	0.51
2:S0:30:GLN:NE2	2:S0:149:LEU:HD13	2.26	0.51
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.92	0.51
1:2:700:C:H42	1:2:738:G:H1	1.58	0.51
36:1:975:C:H2'	36:1:976:U:C6	2.45	0.51
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.92	0.51
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.11	0.51
34:SR:218:GLY:HA2	34:SR:238:ASP:O	2.10	0.51
64:N8:96:LYS:O	64:N8:98:THR:N	2.44	0.51
36:5:118:U:O2	36:5:121:A:H5'	2.11	0.51
26:D4:94:TYR:HB2	26:D4:96:LEU:HD12	1.90	0.51
18:C6:99:GLU:O	18:C6:102:LYS:N	2.53	0.51
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.63	0.51
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.10	0.51
36:5:406:G:H1'	38:8:16:G:N2	2.26	0.51
51:M5:73:ARG:HB3	51:M5:75:VAL:HG22	3.33	0.51
36:1:381:U:O4	86:1:4060:OHX:N4	2.43	0.51
79:Q3:58:SER:O	79:Q3:61:LYS:NZ	2.95	0.51
36:5:3033:A:H2'	36:5:3034:C:C6	2.45	0.51
36:5:1714:A:H2	36:5:1727:G:N3	2.09	0.51
1:6:1150:G:O6	86:6:2115:OHX:N5	2.43	0.51
1:2:1317:C:H2'	1:2:1318:G:O4'	2.10	0.51
38:4:67:U:H5"	73:O7:84:SER:O	2.09	0.51
26:D4:19:ALA:HB1	26:D4:81:GLU:HG2	1.92	0.51
51:M5:182:ASN:HB2	51:M5:183:THR:HG22	3.40	0.51
1:2:619:A:H5'	1:2:620:A:OP2	2.10	0.51
1:2:826:U:H2'	1:2:827:C:C6	2.44	0.51
1:2:553:G:C6	1:2:554:C:N3	2.79	0.51
1:2:372:G:H1'	1:2:612:U:O2	2.10	0.51
86:5:3980:OHX:N2	86:5:4200:OHX:N5	2.59	0.51
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.31	0.51
1:6:1588:G:OP1	86:6:2125:OHX:N2	2.43	0.51
57:N1:42:ILE:HG12	57:N1:96:ILE:HD11	2.05	0.51
5:S3:46:THR:HB	5:S3:84:ILE:HG12	1.93	0.51
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.93	0.51
15:C3:55:ARG:HD2	15:C3:56:ASP:OD2	2.11	0.51
72:O6:56:ARG:HH22	72:O6:76:ARG:NH1	5.14	0.51
10:S8:29:LEU:HD12	1:6:400:A:N6	297.26	0.51
21:C9:52:GLY:O	21:C9:54:PHE:N	2.35	0.51
28:D6:85:ARG:O	28:D6:86:VAL:HB	2.09	0.51
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.09	0.51
21:C9:114:VAL:HG21	21:C9:122:ARG:HB3	1.92	0.51
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	2.60	0.51
3:S1:29:TRP:NE1	3:S1:47:LEU:HG	2.24	0.51
53:M7:112:LEU:HA	53:M7:151:THR:O	2.46	0.51
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1765:A:OP2	86:6:2127:OHX:N4	2.43	0.51
22:D0:83:GLU:CD	22:D0:85:ARG:HH21	2.14	0.51
20:C8:65:GLU:HG2	20:C8:68:ARG:NH2	2.96	0.51
48:M1:81:GLU:OE1	48:M1:167:TYR:HE2	2.65	0.51
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.92	0.51
36:5:1262:G:H5"	36:5:1263:A:OP2	2.11	0.51
66:O0:53:LYS:HE3	66:O0:57:GLU:OE1	4.01	0.51
62:N6:14:LYS:HE3	36:5:335:G:OP2	76.59	0.51
36:1:1555:U:O2'	36:1:2169:G:N2	2.43	0.51
49:M3:105:ASN:ND2	49:M3:108:ILE:HD13	5.25	0.51
1:6:65:A:H2	1:6:84:A:H62	1.58	0.51
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.46	0.51
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	3.45	0.51
36:1:1405:U:OP2	68:O2:59:SER:OG	2.29	0.51
56:N0:29:ILE:HD12	56:N0:40:ARG:HB3	1.92	0.51
36:5:186:U:OP2	86:5:3912:OHX:N4	2.43	0.51
17:C5:76:VAL:O	17:C5:95:GLY:N	2.69	0.51
32:E0:29:LYS:HG3	32:E0:30:PRO:HD2	4.71	0.51
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.13	0.51
31:D9:15:GLY:O	31:D9:17:GLY:N	3.02	0.51
1:6:1268:G:H1'	1:6:1448:G:H5"	1.91	0.51
1:6:1271:G:H2'	1:6:1272:U:O4'	2.11	0.51
1:2:1061:A:H2'	1:2:1062:A:H5'	1.93	0.51
42:L5:289:LYS:O	42:L5:292:ALA:HB3	2.88	0.51
36:5:172:G:N3	36:5:172:G:H2'	2.26	0.51
1:6:1518:C:OP2	86:6:2144:OHX:N1	2.43	0.51
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	1.92	0.51
36:5:879:U:O2	36:5:2357:A:H1'	2.10	0.51
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.29	0.51
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.41	0.51
7:S5:43:PHE:N	7:S5:46:TRP:H	2.74	0.51
33:E1:134:ASN:N	1:6:1251:U:H4'	441.73	0.51
7:S5:162:VAL:HG22	7:S5:167:ARG:HG2	3.31	0.51
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.92	0.51
3:S1:138:PHE:HD2	3:S1:214:LYS:HB3	1.75	0.51
21:C9:12:GLN:O	21:C9:16:ASN:HB2	2.96	0.51
36:1:1798:A:H2'	36:1:1799:A:C8	2.46	0.51
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	2.13	0.51
41:L4:93:MET:HB2	36:5:658:G:H21	144.82	0.51
49:M3:54:LEU:HD13	49:M3:75:PHE:CZ	2.45	0.51
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.52	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:132:LYS:HD2	34:SR:134:TRP:CZ2	2.45	0.51
21:C9:52:GLY:C	21:C9:54:PHE:H	2.14	0.51
45:L8:57:ARG:O	45:L8:61:GLN:HG3	3.25	0.51
18:C6:7:VAL:HG22	18:C6:8:GLN:H	4.75	0.51
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.82	0.51
86:2:2044:OHX:N2	86:2:2098:OHX:N5	2.58	0.51
1:6:846:G:H2'	1:6:847:A:C8	2.46	0.51
1:6:1645:G:H22	1:6:1756:A:H2	1.57	0.51
34:SR:238:ASP:OD2	34:SR:258:THR:HG23	2.11	0.51
62:N6:59:VAL:HG12	62:N6:103:LYS:O	2.11	0.51
1:2:17:C:H2'	1:2:18:C:C6	2.45	0.51
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.11	0.51
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.75	0.51
26:D4:109:LYS:O	26:D4:112:LYS:N	3.12	0.51
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.24	0.51
36:1:138:U:H2'	36:1:139:G:H8	1.75	0.51
48:M1:38:GLU:O	48:M1:40:LEU:N	2.41	0.51
1:6:1142:A:H2'	1:6:1143:A:C8	2.45	0.51
16:C4:132:ARG:HB3	1:6:1787:C:OP2	292.74	0.51
5:S3:185:LYS:HE2	1:6:1278:G:OP1	405.26	0.51
1:2:309:C:H2'	1:2:310:C:C6	2.44	0.51
1:6:725:U:H2'	1:6:726:C:C6	2.45	0.51
1:2:246:G:H1'	13:C1:40:LEU:HD13	1.92	0.51
5:S3:220:PRO:O	5:S3:221:SER:OG	2.23	0.51
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.10	0.51
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	2.08	0.51
86:1:4029:OHX:N4	86:1:4042:OHX:N3	2.58	0.51
64:N8:6:THR:CG2	64:N8:9:ARG:HG2	2.90	0.51
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.51	0.51
16:C4:114:ARG:HA	28:D6:62:TYR:CE1	2.46	0.51
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	1.92	0.51
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.11	0.51
1:6:485:A:N6	1:6:486:G:N3	2.59	0.51
55:M9:99:LEU:HD13	36:5:1722:U:H5"	224.81	0.51
86:6:2060:OHX:N5	86:6:2147:OHX:N6	2.58	0.51
36:1:1544:G:O6	86:1:4055:OHX:N4	2.43	0.51
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.25	0.51
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	3.84	0.51
46:L9:44:THR:HG22	36:5:3186:A:N3	326.09	0.51
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.47	0.51
1:6:799:A:H2'	1:6:800:U:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.02	0.51
49:M3:24:VAL:HG12	51:M5:199:LEU:HB2	1.93	0.51
5:S3:151:LYS:HE3	1:6:1424:A:OP2	399.39	0.51
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.33	0.51
51:M5:74:PRO:HA	36:5:2166:A:O4'	152.42	0.51
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	3.26	0.51
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.45	0.51
1:6:102:U:O4	1:6:360:A:H2'	2.10	0.51
36:5:1110:U:H2'	36:5:1111:U:C6	2.44	0.51
34:SR:117:LYS:N	34:SR:117:LYS:HD2	2.25	0.51
36:5:1032:C:H5'	36:5:1033:U:OP2	2.11	0.51
39:L2:95:SER:OG	39:L2:97:ASN:OD1	2.28	0.51
44:L7:180:SER:H	44:L7:183:ASP:HB2	1.76	0.51
1:2:142:G:N2	1:2:173:A:H2	2.05	0.51
52:M6:124:LEU:HD11	56:N0:167:ARG:HH21	1.76	0.51
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.92	0.51
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.91	0.51
1:2:881:A:H2'	1:2:882:U:O4'	2.10	0.51
21:C9:115:GLU:O	21:C9:117:SER:N	2.44	0.51
41:L4:138:ARG:HB3	41:L4:138:ARG:HH11	3.32	0.51
36:5:687:U:H2'	36:5:688:G:C8	2.46	0.51
10:S8:16:ALA:HB2	1:6:354:C:H5"	297.59	0.51
1:2:1517:U:OP2	1:2:1518:C:N4	2.42	0.51
34:SR:200:ASN:O	34:SR:201:THR:HG22	2.11	0.51
36:1:407:A:C2	38:4:17:A:H1'	2.46	0.51
8:S6:191:ARG:NH1	1:6:177:U:H1'	318.57	0.51
16:C4:107:ARG:HH12	28:D6:52:ASP:CG	4.79	0.51
60:N4:45:ASN:O	60:N4:48:ARG:HG3	2.11	0.51
55:M9:98:ARG:HD3	55:M9:133:LYS:O	4.68	0.51
9:S7:164:TYR:OH	9:S7:165:LYS:HE2	3.01	0.51
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.26	0.51
38:8:23:U:H6	38:8:23:U:O5'	1.94	0.51
23:D1:41:GLU:N	23:D1:41:GLU:OE1	2.44	0.51
36:5:308:A:H5'	36:5:2223:A:O2'	2.11	0.51
1:6:484:C:H42	1:6:503:G:N2	2.09	0.51
29:D7:80:ARG:HG2	29:D7:81:ARG:N	2.26	0.51
86:5:3980:OHX:N4	86:5:4200:OHX:N1	2.59	0.51
3:S1:76:SER:OG	3:S1:77:GLU:N	3.13	0.51
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.10	0.51
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	2.63	0.51
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:58:LEU:HD11	7:S5:167:ARG:NH1	2.71	0.51
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.21	0.51
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.76	0.51
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.44	0.51
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.11	0.51
6:S4:227:VAL:O	6:S4:228:ILE:HG12	2.11	0.51
63:N7:12:VAL:HG12	63:N7:13:VAL:O	2.11	0.51
15:C3:119:GLU:HG3	15:C3:141:TYR:HE2	3.89	0.51
2:S0:50:VAL:HA	2:S0:53:THR:HB	2.32	0.51
16:C4:91:THR:C	16:C4:93:THR:H	2.09	0.51
15:C3:65:VAL:C	15:C3:67:THR:H	3.21	0.51
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.32	0.51
36:1:2679:A:HO2'	48:M1:52:TYR:HH	1.59	0.51
1:2:1480:G:H3'	1:2:1481:C:H6	1.75	0.51
1:2:1607:G:H2'	1:2:1608:U:C6	2.46	0.51
36:5:181:U:H1'	36:5:236:G:N2	2.26	0.51
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.75	0.51
3:S1:121:ILE:HG12	3:S1:161:ILE:HG23	1.92	0.51
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.76	0.51
79:Q3:49:ARG:HD2	79:Q3:50:GLY:N	2.26	0.51
41:L4:99:MET:HG3	41:L4:102:PRO:HB3	1.93	0.51
36:1:2771:U:H2'	36:1:2772:C:O2	2.11	0.51
36:5:119:U:H4'	36:5:120:G:H3'	1.92	0.51
1:2:996:U:H3	1:2:1008:G:H1	1.59	0.51
34:SR:178:VAL:HG23	34:SR:192:PHE:O	4.30	0.51
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.45	0.51
32:E0:30:PRO:O	32:E0:35:TYR:HB2	2.10	0.51
50:M4:134:ALA:O	50:M4:136:ALA:N	2.69	0.51
40:L3:13:HIS:HD1	40:L3:15:GLY:H	1.59	0.51
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	2.15	0.51
1:6:56:U:O4	1:6:92:A:H4'	2.11	0.51
36:1:501:A:H5"	43:L6:28:GLN:HE21	1.75	0.51
36:5:2425:G:H2'	36:5:2426:U:O4'	2.10	0.51
1:2:889:U:H2'	1:2:890:C:O4'	2.11	0.51
1:2:1158:C:OP2	86:2:2171:OHX:N5	2.43	0.51
6:S4:202:ASP:N	6:S4:202:ASP:OD2	2.43	0.51
20:C8:49:LYS:HG3	20:C8:81:ILE:HD11	2.45	0.51
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.76	0.51
36:1:3251:U:H2'	36:1:3252:G:C8	2.45	0.51
36:5:621:A:H2'	36:5:622:A:C8	2.46	0.51
40:L3:174:LYS:N	36:5:3314:A:OP1	203.95	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:767:U:H5'	49:M3:186:ARG:CZ	2.41	0.51
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.76	0.51
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.29	0.51
34:SR:291:SER:O	34:SR:304:GLY:N	2.41	0.51
44:L7:51:TYR:O	44:L7:54:GLU:HB3	2.11	0.51
36:1:3121:U:H1'	36:1:3122:A:H5"	1.93	0.51
1:2:1532:U:OP2	27:D5:77:ARG:NH1	2.43	0.51
72:O6:62:ARG:HH12	72:O6:98:ARG:HD2	1.76	0.51
36:1:409:A:OP2	86:1:4054:OHX:N5	2.43	0.51
1:2:297:U:H5"	6:S4:37:LYS:HD3	1.93	0.51
1:6:829:A:OP1	1:6:829:A:H4'	2.09	0.51
2:S0:88:LYS:NZ	19:C7:82:ASP:O	4.94	0.51
52:M6:68:ARG:HH12	36:5:2988:C:P	215.00	0.51
1:2:780:A:C8	26:D4:8:ARG:HB3	2.46	0.51
37:7:55:A:H2'	37:7:56:A:O4'	2.10	0.51
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.46	0.51
34:SR:111:MET:H	34:SR:126:SER:HA	1.75	0.51
86:5:4057:OHX:N3	86:5:4201:OHX:N6	2.58	0.51
78:Q2:100:LYS:NZ	78:Q2:100:LYS:H	2.08	0.51
59:N3:127:PRO:O	59:N3:131:SER:N	3.03	0.51
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	2.74	0.51
36:5:648:C:N4	36:5:2375:G:H5'	2.26	0.51
36:5:1804:A:H2'	36:5:1805:C:C6	2.45	0.51
45:L8:95:ASN:ND2	45:L8:98:ARG:HH12	5.14	0.51
1:6:1714:A:H2'	1:6:1715:G:O4'	2.10	0.51
36:5:1000:C:C2	36:5:1045:C:N4	2.78	0.51
1:6:1273:G:H4'	1:6:1274:C:H5"	1.92	0.51
64:N8:88:ASP:OD2	64:N8:88:ASP:N	4.49	0.51
1:6:1003:A:O2'	1:6:1005:A:N6	2.38	0.51
21:C9:14:PHE:HZ	21:C9:132:LEU:HG	1.76	0.51
86:2:2090:OHX:N3	86:2:2131:OHX:N6	2.58	0.51
36:1:2207:A:C2'	36:1:2208:A:H5'	2.41	0.51
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.49	0.51
1:6:1688:U:H2'	1:6:1689:A:C8	2.46	0.51
1:6:837:G:O6	86:6:2101:OHX:N1	2.44	0.51
7:S5:144:GLU:HA	7:S5:162:VAL:HG12	1.92	0.51
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.96	0.51
38:4:79:A:H2'	38:4:80:A:C1'	2.39	0.51
36:1:1562:C:H2'	36:1:1563:C:C6	2.46	0.51
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.11	0.51
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.18	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:235:G:H2'	1:6:236:A:C8	2.46	0.51
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.11	0.51
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.59	0.51
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.27	0.51
79:Q3:4:ARG:HD2	36:5:837:A:OP2	238.64	0.51
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.92	0.51
1:2:523:G:OP1	26:D4:60:PHE:HB2	2.11	0.51
53:M7:109:ALA:O	53:M7:111:LYS:N	2.44	0.51
6:S4:26:CYS:HB2	6:S4:27:TYR:CE2	4.76	0.51
10:S8:184:LEU:HD21	10:S8:192:TYR:CD2	5.38	0.51
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.44	0.51
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.31	0.51
1:2:1594:G:H5"	31:D9:33:LYS:HG3	1.93	0.51
29:D7:36:LYS:HB3	29:D7:43:ILE:HG23	1.93	0.51
36:5:252:U:H4'	36:5:253:A:C5'	2.40	0.51
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	3.09	0.51
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.11	0.51
1:6:1497:U:C2	1:6:1498:G:C8	2.99	0.51
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.15	0.51
15:C3:105:ASN:HB3	1:6:879:G:O2'	275.94	0.51
1:6:315:A:O2'	86:6:2160:OHX:N1	2.44	0.51
8:S6:48:TYR:CE2	8:S6:121:LEU:HD22	4.40	0.51
1:2:505:A:N3	1:2:505:A:H2'	2.26	0.51
36:1:40:A:N7	64:N8:29:PRO:O	2.44	0.51
41:L4:202:ARG:HA	41:L4:202:ARG:NE	2.26	0.51
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.59	0.51
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.29	0.51
36:1:2396:G:OP1	36:1:2397:A:H4'	2.10	0.51
12:C0:87:VAL:O	12:C0:89:ALA:N	4.97	0.51
69:O3:60:ARG:NH2	69:O3:60:ARG:HB2	2.26	0.50
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.42	0.50
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.34	0.50
67:O1:41:LYS:HA	67:O1:46:THR:HG23	4.15	0.50
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.11	0.50
86:1:4204:OHX:N4	38:4:16:G:OP1	2.44	0.50
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.26	0.50
10:S8:8:ARG:HH21	10:S8:21:PHE:N	2.09	0.50
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	2.67	0.50
42:L5:36:LEU:HD23	36:5:2748:A:N3	254.30	0.50
21:C9:79:LEU:HD23	21:C9:80:TYR:CE2	3.45	0.50
36:5:1556:C:C5	36:5:2169:G:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:14:LYS:O	25:D3:18:HIS:HB3	4.32	0.50
2:S0:9:LEU:HD13	2:S0:10:THR:O	3.08	0.50
24:D2:23:ARG:HA	24:D2:65:LEU:HD22	1.92	0.50
36:1:3192:U:O4	86:1:4127:OHX:N1	2.44	0.50
54:M8:57:ILE:HG12	54:M8:147:ARG:HD2	1.92	0.50
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.36	0.50
21:C9:89:ARG:HB3	21:C9:90:PRO:HD2	1.92	0.50
5:S3:114:ALA:O	5:S3:117:ARG:N	2.94	0.50
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	2.91	0.50
45:L8:195:SER:O	45:L8:195:SER:OG	2.27	0.50
36:5:541:U:H2'	36:5:542:G:C8	2.46	0.50
36:5:529:A:H2'	36:5:530:G:O4'	2.10	0.50
1:2:1381:U:H1'	1:2:1516:A:N6	2.26	0.50
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.95	0.50
36:1:2419:A:H1'	36:1:2804:A:O4'	2.11	0.50
36:5:985:U:H2'	36:5:986:U:H6	1.76	0.50
36:5:1176:C:H2'	36:5:1177:G:N2	2.26	0.50
1:6:700:C:H2'	1:6:701:U:C6	2.46	0.50
74:O8:73:LEU:HG	74:O8:74:LYS:H	1.76	0.50
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.47	0.50
36:1:621:A:O2'	86:1:4163:OHX:N1	2.44	0.50
1:6:452:A:OP2	86:6:2062:OHX:N1	2.44	0.50
1:6:453:U:O2	1:6:453:U:H3'	2.11	0.50
39:L2:200:ARG:HG3	36:5:2147:A:OP1	207.65	0.50
36:1:3294:A:H5'	40:L3:128:LYS:HG3	1.93	0.50
41:L4:60:THR:HG23	36:5:364:G:OP1	128.59	0.50
4:S2:90:THR:HB	4:S2:93:GLY:CA	2.41	0.50
46:L9:171:ASP:HA	36:5:2899:C:C5	322.62	0.50
20:C8:44:ASN:HD21	20:C8:48:LYS:HE3	1.76	0.50
1:6:542:A:H1'	1:6:543:C:P	2.50	0.50
54:M8:71:LEU:CD1	54:M8:99:THR:HG21	2.42	0.50
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.45	0.50
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	1.75	0.50
1:6:300:A:H2'	1:6:301:A:C8	2.46	0.50
1:6:1672:G:H2'	1:6:1673:G:C8	2.46	0.50
86:5:4057:OHX:N5	86:5:4201:OHX:N6	2.60	0.50
30:D8:13:ILE:HD11	30:D8:31:GLU:HG3	4.08	0.50
30:D8:13:ILE:HD12	30:D8:29:ARG:HG2	4.32	0.50
36:5:1502:C:N3	36:5:1513:G:O6	2.44	0.50
42:L5:143:LYS:HE3	42:L5:145:PHE:HZ	2.92	0.50
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	4.07	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1408:G:H2'	1:6:1409:G:O4'	2.11	0.50
1:6:1414:U:O2'	86:6:2048:OHX:N5	2.45	0.50
1:6:1063:U:H2'	1:6:1064:G:H8	1.76	0.50
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.47	0.50
64:N8:60:TYR:CE2	64:N8:63:LYS:HG3	2.46	0.50
72:O6:83:ALA:O	72:O6:87:VAL:HG23	2.11	0.50
2:S0:140:ASN:ND2	4:S2:60:SER:O	3.81	0.50
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.12	0.50
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.93	0.50
36:1:1019:G:O6	86:1:4057:OHX:N1	2.44	0.50
36:5:300:G:O6	86:5:4193:OHX:N2	2.45	0.50
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.82	0.50
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.10	0.50
44:L7:217:PRO:HA	86:5:4004:OHX:N5	262.35	0.50
46:L9:48:VAL:HG22	46:L9:52:LEU:HB3	1.93	0.50
36:5:1235:U:C4'	36:5:1236:G:H5'	2.34	0.50
67:O1:72:ARG:HD3	67:O1:104:LEU:HD12	1.94	0.50
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.11	0.50
36:5:2897:A:H2'	36:5:2899:C:C5'	2.41	0.50
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	6.34	0.50
1:6:454:U:H3'	1:6:455:C:C6	2.45	0.50
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.53	0.50
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.46	0.50
73:O7:75:LYS:HE2	36:5:181:U:O3'	50.63	0.50
39:L2:206:PRO:HD3	39:L2:212:GLY:O	4.11	0.50
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.44	0.50
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	3.25	0.50
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.93	0.50
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.11	0.50
86:5:4057:OHX:N1	86:5:4201:OHX:N2	2.59	0.50
36:1:2357:A:H2'	36:1:2358:A:H8	1.77	0.50
36:1:2413:A:H2'	36:1:2414:G:C8	2.46	0.50
36:5:1366:A:C2	36:5:1367:G:C4	3.00	0.50
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.44	0.50
22:D0:15:GLN:O	22:D0:16:GLN:NE2	3.65	0.50
1:6:30:G:H2'	1:6:31:C:C6	2.47	0.50
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	2.47	0.50
36:1:2245:C:O2'	39:L2:221:LYS:HA	2.11	0.50
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.93	0.50
36:1:1818:U:H2'	36:1:1819:U:O4'	2.11	0.50
43:L6:66:SER:O	43:L6:68:PRO:HA	4.05	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	2.01	0.50
1:2:477:A:H2'	1:2:478:A:C8	2.42	0.50
36:5:283:G:O6	36:5:304:G:H1'	2.10	0.50
1:6:66:U:O2'	1:6:67:A:H5"	2.10	0.50
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.28	0.50
30:D8:32:PHE:O	30:D8:34:GLU:N	3.58	0.50
44:L7:208:SER:HB2	36:5:1334:U:H1'	240.81	0.50
54:M8:62:VAL:HG13	54:M8:66:ARG:HD3	1.93	0.50
36:1:36:C:H2'	36:1:37:U:H5'	1.92	0.50
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.42	0.50
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.91	0.50
41:L4:77:VAL:HB	41:L4:85:SER:HA	1.93	0.50
52:M6:39:GLU:N	52:M6:39:GLU:OE1	2.37	0.50
15:C3:26:PHE:CE2	15:C3:66:ILE:HD13	2.46	0.50
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	7.17	0.50
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	1.94	0.50
44:L7:27:ALA:O	44:L7:31:ALA:N	2.41	0.50
46:L9:87:LYS:HE3	46:L9:187:ILE:HA	3.77	0.50
41:L4:334:PHE:HA	41:L4:339:LEU:HD11	3.02	0.50
36:1:3001:C:HO2'	40:L3:118:PHE:HE2	1.57	0.50
26:D4:60:PHE:O	1:6:523:G:H5'	412.99	0.50
36:1:976:U:H5'	54:M8:144:ARG:HH12	1.76	0.50
5:S3:142:LEU:O	5:S3:144:ALA:N	2.40	0.50
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	7.51	0.50
39:L2:181:LYS:HB3	36:5:860:G:C5	212.96	0.50
1:2:651:G:N7	86:2:2103:OHX:N6	2.59	0.50
1:6:800:U:H2'	1:6:801:G:C8	2.47	0.50
1:2:795:U:C5	1:2:796:A:N7	2.80	0.50
1:6:1175:U:H2'	1:6:1176:G:H8	1.75	0.50
36:5:2434:U:C4'	36:5:2435:G:H5"	2.41	0.50
61:N5:82:LEU:HD11	61:N5:135:ILE:HD12	5.10	0.50
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.26	0.50
14:C2:118:ALA:HA	1:6:1227:A:H3'	461.61	0.50
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.12	0.50
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.43	0.50
9:S7:104:ARG:H	9:S7:104:ARG:HD3	1.76	0.50
19:C7:58:MET:HA	19:C7:61:ILE:HD12	1.93	0.50
9:S7:164:TYR:CE1	9:S7:165:LYS:HG2	2.49	0.50
1:2:1198:G:O3'	31:D9:40:ARG:NH2	2.43	0.50
36:5:1450:G:OP1	86:5:4231:OHX:N4	2.44	0.50
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:807:A:N7	36:5:2411:U:O2'	2.37	0.50
36:5:441:U:H2'	36:5:442:G:C8	2.47	0.50
44:L7:52:GLN:O	44:L7:56:GLU:HG2	2.11	0.50
36:1:230:U:H2'	36:1:231:G:O4'	2.11	0.50
36:5:1895:A:O2'	36:5:3053:G:H4'	2.10	0.50
36:1:1608:C:H2'	36:1:1609:C:C6	2.46	0.50
36:1:1701:C:H2'	36:1:1702:U:O4'	2.11	0.50
1:6:470:A:H5"	1:6:470:A:H8	1.76	0.50
48:M1:14:ILE:HD12	48:M1:14:ILE:H	4.25	0.50
62:N6:12:ARG:HD3	36:5:215:G:H5"	87.44	0.50
1:2:12:U:H2'	1:2:13:C:C6	2.46	0.50
1:6:278:U:OP2	1:6:278:U:H2'	2.11	0.50
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.43	0.50
32:E0:31:LYS:HE3	1:6:545:A:OP1	419.24	0.50
42:L5:43:LYS:HE2	36:5:1078:U:OP1	231.78	0.50
16:C4:54:GLU:CD	1:6:901:G:H22	281.85	0.50
40:L3:166:ILE:O	40:L3:169:THR:HG22	2.76	0.50
3:S1:83:LYS:N	3:S1:104:ASP:O	2.44	0.50
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.41	0.50
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.45	0.50
1:6:368:U:H2'	1:6:369:A:H5'	1.92	0.50
1:6:1050:G:O6	86:6:2195:OHX:N4	2.45	0.50
16:C4:30:VAL:HG12	16:C4:39:ILE:HG13	4.35	0.50
1:2:1426:C:H5"	35:SM:93:ARG:HH12	1.77	0.50
1:2:1105:C:H41	25:D3:4:GLY:CA	2.22	0.50
8:S6:162:VAL:N	8:S6:169:TYR:O	2.70	0.50
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.94	0.50
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.10	0.50
34:SR:52:GLN:OE1	34:SR:53:LYS:HG2	2.11	0.50
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.11	0.50
36:5:3232:G:H2'	36:5:3233:C:O4'	2.11	0.50
55:M9:172:ARG:NH1	1:6:852:C:OP1	322.04	0.50
54:M8:176:ARG:HG3	36:5:2763:U:H5'	181.47	0.50
9:S7:143:LEU:HB2	9:S7:147:ASN:O	3.37	0.50
47:M0:74:LYS:O	47:M0:78:THR:HG23	4.92	0.50
86:1:3968:OHX:N6	86:1:4155:OHX:N2	2.59	0.50
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.46	0.50
36:5:541:U:H2'	36:5:542:G:H8	1.76	0.50
59:N3:128:ARG:CZ	59:N3:128:ARG:HB3	3.43	0.50
17:C5:75:PRO:HG3	17:C5:93:VAL:HG11	4.64	0.50
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.35	0.50
64:N8:60:TYR:CD2	64:N8:63:LYS:HG3	2.46	0.50
24:D2:115:GLU:HA	24:D2:118:ARG:NH1	2.25	0.50
76:Q0:96:CYS:HA	76:Q0:121:LEU:HD23	1.94	0.50
46:L9:81:GLY:O	46:L9:85:GLY:HA2	2.37	0.50
36:5:920:A:OP1	36:5:922:U:H5	1.94	0.50
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.32	0.50
51:M5:176:LYS:HE2	36:5:66:A:N3	96.61	0.50
36:5:953:G:H2'	36:5:1117:G:H5"	1.92	0.50
1:6:950:C:H2'	1:6:951:A:C8	2.46	0.50
1:6:355:G:OP1	86:6:2067:OHX:N5	2.44	0.50
18:C6:113:ASP:HA	18:C6:116:LEU:HD22	1.94	0.50
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.65	0.50
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	4.07	0.50
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.11	0.50
1:6:417:A:H5'	1:6:418:G:C5	2.46	0.50
19:C7:27:ASP:CG	34:SR:38:ARG:HH22	2.14	0.50
36:5:2257:C:H6	36:5:2257:C:O5'	1.94	0.50
36:5:1308:A:C8	36:5:1308:A:OP2	2.63	0.50
25:D3:13:ARG:O	25:D3:17:VAL:HG12	5.81	0.50
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	1.93	0.50
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.43	0.50
40:L3:147:GLU:O	40:L3:151:ILE:HD12	4.25	0.50
86:5:4003:OHX:N4	86:5:4093:OHX:N2	2.59	0.50
6:S4:95:THR:O	6:S4:97:GLU:N	2.45	0.50
45:L8:178:ALA:HB2	45:L8:218:ILE:HG12	1.93	0.50
36:1:3227:A:C2'	36:1:3228:C:H5'	2.42	0.50
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.77	0.50
36:1:1312:C:O2	52:M6:87:MET:HE3	2.12	0.50
36:1:440:A:OP2	36:1:440:A:H8	1.94	0.50
57:N1:78:LYS:HG2	57:N1:87:LYS:HG3	1.94	0.50
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.45	0.50
1:2:1254:U:H5	14:C2:46:ARG:NH1	2.09	0.50
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.47	0.50
36:5:1952:G:N1	36:5:1953:G:N7	2.59	0.50
1:6:913:G:C8	36:5:2205:U:C4	3.00	0.50
5:S3:162:GLN:HG3	1:6:1333:C:C4'	427.09	0.50
36:5:2947:G:OP2	36:5:2947:G:H4'	2.11	0.50
36:5:1817:G:O2'	36:5:1818:U:OP2	2.26	0.50
41:L4:325:LEU:O	44:L7:41:ARG:NH2	2.45	0.50
1:6:482:U:H2'	1:6:483:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:398:A:C4	53:M7:3:ARG:NH2	2.77	0.50
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.15	0.50
36:5:163:C:H2'	36:5:164:A:O4'	2.11	0.50
79:Q3:56:THR:HB	79:Q3:63:THR:HG23	1.94	0.50
6:S4:166:SER:O	6:S4:168:LYS:N	2.36	0.50
1:6:1584:G:H22	1:6:1611:A:P	2.35	0.50
36:5:1638:A:H2	36:5:1736:G:N3	2.10	0.50
36:1:1047:A:N3	36:1:2633:U:O2'	2.44	0.50
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.93	0.50
65:N9:55:ALA:O	65:N9:58:LYS:HB2	3.64	0.50
15:C3:18:TYR:O	24:D2:56:HIS:HD2	1.95	0.50
36:5:1506:A:H1'	36:5:1848:G:O6	2.12	0.50
50:M4:122:VAL:O	50:M4:126:GLN:HG3	2.12	0.50
1:2:1281:G:H2'	1:2:1282:U:H6	1.76	0.50
36:1:2712:U:H2'	36:1:2713:U:C6	2.46	0.50
36:1:3349:C:H42	36:1:3356:G:H1	1.60	0.50
40:L3:283:TYR:CZ	40:L3:325:LYS:HG3	3.02	0.50
19:C7:105:GLN:O	19:C7:109:LEU:N	2.65	0.50
20:C8:29:VAL:HG22	20:C8:44:ASN:HA	4.12	0.50
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.12	0.50
42:L5:178:ASN:HD21	36:5:2746:A:H5'	252.15	0.50
10:S8:29:LEU:HD12	1:6:400:A:H61	296.74	0.50
1:2:887:A:H2'	1:2:888:U:H6	1.76	0.50
21:C9:54:PHE:CE2	21:C9:104:VAL:HG22	2.46	0.50
1:2:741:C:O2	9:S7:107:ARG:NH1	2.45	0.50
19:C7:20:TYR:CD1	19:C7:38:ILE:HD12	3.46	0.50
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	2.11	0.50
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.43	0.50
62:N6:54:ASP:OD1	62:N6:110:HIS:N	2.61	0.50
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.75	0.50
36:1:2871:G:H5"	36:1:2872:A:H5'	1.94	0.50
36:1:439:C:H3'	36:1:440:A:C8	2.46	0.50
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.47	0.50
70:O4:22:VAL:HG13	70:O4:30:LEU:HD22	1.93	0.50
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.47	0.50
36:1:3189:G:C2'	36:1:3190:C:H5'	2.42	0.50
66:O0:45:ALA:O	66:O0:48:THR:HG22	2.12	0.50
7:S5:180:ARG:HG3	1:6:1473:U:H3	350.16	0.50
36:1:2309:A:OP1	36:1:2309:A:H8	1.95	0.50
48:M1:106:ILE:HG12	48:M1:106:ILE:O	2.10	0.50
35:SM:99:LYS:O	35:SM:100:THR:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:37:LYS:HE3	10:S8:95:THR:OG1	5.07	0.50
59:N3:74:MET:SD	59:N3:102:ILE:HD13	2.52	0.50
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.67	0.50
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	1.94	0.50
86:5:3975:OHX:N1	86:5:4245:OHX:N5	2.60	0.50
47:M0:171:TRP:HE3	47:M0:178:ARG:HB3	2.73	0.50
34:SR:21:THR:HG23	34:SR:37:SER:HA	1.93	0.50
36:5:2405:C:O2	36:5:2819:A:N1	2.45	0.50
64:N8:74:ASN:ND2	64:N8:115:LYS:H	2.10	0.50
3:S1:144:ARG:HD2	3:S1:208:GLN:HB3	4.21	0.50
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.38	0.50
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.25	0.50
1:6:151:G:H2'	1:6:152:U:H6	1.75	0.50
36:5:2207:A:N6	36:5:2236:G:H1	2.08	0.50
22:D0:35:GLU:OE2	22:D0:89:ARG:NH2	2.45	0.50
86:5:4013:OHX:N6	86:5:4202:OHX:N5	2.60	0.50
36:1:839:C:H4'	36:1:1724:U:H2'	1.94	0.50
1:2:1672:G:N7	86:2:2044:OHX:N5	2.60	0.50
1:2:1450:U:OP2	86:2:2062:OHX:N5	2.44	0.50
1:6:272:U:O2'	1:6:273:G:OP2	2.25	0.50
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.46	0.50
36:1:776:U:C5	36:1:2719:U:O2	2.63	0.50
55:M9:9:ARG:NH2	36:5:1603:A:OP1	110.25	0.50
62:N6:103:LYS:NZ	36:5:221:A:N6	79.26	0.50
64:N8:66:ALA:HA	64:N8:69:TRP:N	4.33	0.50
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.94	0.50
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.45	0.50
36:5:501:A:H2'	36:5:502:U:H6	1.76	0.50
1:2:866:G:H5"	15:C3:3:ARG:H	1.77	0.50
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.82	0.50
1:2:693:U:H5'	1:2:694:U:H5'	1.93	0.50
36:5:1090:G:O6	86:5:4192:OHX:N5	2.44	0.50
36:1:3088:G:H2'	36:1:3089:C:O4'	2.11	0.50
34:SR:5:GLU:HA	34:SR:317:THR:HA	2.73	0.50
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.93	0.50
38:8:107:G:OP2	86:8:230:OHX:N1	2.44	0.50
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.41	0.50
4:S2:66:PHE:O	4:S2:69:ILE:N	2.45	0.50
1:6:820:U:O2'	1:6:821:U:H5"	2.12	0.50
55:M9:163:ARG:CZ	55:M9:163:ARG:HB2	3.88	0.50
9:S7:79:ARG:HB2	9:S7:79:ARG:NH1	3.06	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:54:C:O2'	36:1:1547:G:H1'	2.11	0.50
76:Q0:109:ASN:ND2	76:Q0:119:ASN:HB3	3.08	0.50
50:M4:123:LEU:HA	50:M4:126:GLN:HB2	2.59	0.50
11:S9:45:ILE:HG22	11:S9:101:VAL:HG12	1.93	0.50
7:S5:25:LEU:HB3	18:C6:27:GLY:O	3.70	0.50
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.45	0.50
57:N1:71:SER:HB3	57:N1:91:LEU:O	2.12	0.50
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.12	0.50
41:L4:296:GLN:HA	41:L4:299:ILE:HD11	3.12	0.50
36:1:1878:G:C2'	36:1:1879:A:H5'	2.41	0.50
63:N7:22:LYS:NZ	63:N7:132:SER:O	2.42	0.50
46:L9:70:THR:HG22	36:5:3113:A:H1'	328.49	0.50
34:SR:74:THR:C	34:SR:76:ASP:H	2.95	0.50
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.32	0.50
46:L9:149:ASN:OD1	46:L9:149:ASN:N	2.44	0.50
2:S0:131:GLN:O	2:S0:135:GLU:HG3	3.88	0.50
1:2:225:A:H2'	1:2:226:A:O4'	2.12	0.50
16:C4:82:LYS:HG2	16:C4:118:VAL:HG11	3.71	0.50
17:C5:28:MET:HE1	17:C5:33:PHE:HB2	1.94	0.50
7:S5:76:ARG:HG3	7:S5:79:ASN:ND2	2.25	0.50
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	1.92	0.50
1:2:1147:A:H2'	1:2:1148:C:C6	2.47	0.50
1:2:15:U:H2'	1:2:16:G:O4'	2.12	0.50
86:5:4057:OHX:N5	86:5:4201:OHX:N2	2.59	0.50
1:2:1784:C:H2'	1:2:1785:U:C6	2.47	0.50
15:C3:92:ILE:O	15:C3:96:VAL:HG23	2.11	0.50
48:M1:17:LEU:HD11	48:M1:19:LEU:HG	4.39	0.50
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.97	0.50
26:D4:42:GLU:O	26:D4:46:GLU:HG3	2.12	0.50
36:1:2993:G:H2'	36:1:3142:A:N6	2.27	0.50
38:4:45:C:H2'	38:4:46:G:O4'	2.12	0.50
6:S4:161:LYS:HB3	6:S4:170:THR:O	5.20	0.50
1:6:1620:C:H2'	1:6:1621:U:H6	1.76	0.50
36:1:3030:G:N7	86:1:4072:OHX:N6	2.60	0.50
1:2:346:G:O6	86:2:2125:OHX:N5	2.45	0.50
10:S8:22:ARG:HD2	10:S8:23:LYS:O	4.87	0.50
65:N9:7:HIS:O	36:5:1135:A:H5'	226.52	0.50
36:1:634:C:H4'	68:O2:47:ARG:NH1	2.27	0.50
52:M6:46:GLU:HG2	52:M6:48:PHE:H	1.76	0.50
36:5:2309:A:H4'	86:5:4200:OHX:N4	2.27	0.49
1:6:1172:G:H2'	1:6:1173:C:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.40	0.49
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.76	0.49
43:L6:166:LYS:NZ	36:5:3214:U:H6	272.44	0.49
36:1:2836:C:H5	36:1:2852:C:N4	1.98	0.49
36:1:1103:A:N3	36:1:1103:A:H2'	2.27	0.49
41:L4:283:THR:OG1	41:L4:289:ILE:HD11	3.48	0.49
1:6:417:A:H4'	1:6:418:G:O5'	2.12	0.49
1:6:836:U:H2'	1:6:837:G:H8	1.77	0.49
41:L4:317:PRO:HB3	41:L4:324:LEU:HA	2.21	0.49
62:N6:91:ASN:C	62:N6:93:ALA:H	2.15	0.49
6:S4:87:MET:SD	6:S4:123:LEU:HB3	3.40	0.49
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.12	0.49
20:C8:30:TYR:OH	20:C8:40:ARG:NH1	3.15	0.49
10:S8:8:ARG:HD2	10:S8:21:PHE:HD1	1.77	0.49
1:6:282:C:H2'	1:6:283:U:O4'	2.12	0.49
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.35	0.49
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.46	0.49
36:5:61:A:H2'	36:5:62:A:O4'	2.12	0.49
24:D2:7:LEU:HD12	24:D2:33:VAL:HG12	1.92	0.49
40:L3:25:ILE:CD1	40:L3:25:ILE:H	2.24	0.49
42:L5:294:ALA:O	42:L5:296:GLN:N	2.40	0.49
86:5:4013:OHX:N4	86:5:4202:OHX:N1	2.60	0.49
22:D0:72:ASN:OD1	22:D0:73:GLY:N	4.43	0.49
45:L8:83:ASP:OD2	45:L8:86:THR:N	2.84	0.49
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.10	0.49
1:2:792:U:C2'	1:2:793:A:H5'	2.41	0.49
39:L2:236:GLY:O	39:L2:238:ILE:HD12	5.16	0.49
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.52	0.49
36:1:849:C:H2'	36:1:850:U:C6	2.47	0.49
77:Q1:2:ARG:HG2	77:Q1:4:LYS:HG2	1.94	0.49
38:8:81:U:H3	38:8:83:C:H5	1.60	0.49
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.44	0.49
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.12	0.49
58:N2:99:LYS:HG3	58:N2:102:GLU:HB2	1.94	0.49
1:2:1739:C:H2'	1:2:1740:A:C8	2.47	0.49
1:2:1340:U:H5'	1:2:1340:U:O2	2.12	0.49
59:N3:128:ARG:HB3	59:N3:128:ARG:NH2	4.18	0.49
40:L3:250:ALA:HB3	36:5:2880:U:O2	223.92	0.49
36:5:3089:C:H2'	36:5:3090:U:O4'	2.11	0.49
17:C5:51:SER:OG	17:C5:52:LYS:N	4.66	0.49
36:5:2533:G:N2	36:5:2546:C:O2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:131:LYS:HB2	56:N0:134:ASP:OD2	2.11	0.49
1:2:269:G:C6	1:2:287:G:C6	3.00	0.49
38:4:131:A:H5"	61:N5:93:TYR:CE2	2.47	0.49
34:SR:135:THR:HG23	34:SR:141:LEU:HD11	1.94	0.49
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.49	0.49
44:L7:25:GLN:HA	44:L7:29:GLU:HB2	1.94	0.49
1:2:252:U:H5'	6:S4:131:LEU:O	2.12	0.49
46:L9:17:THR:O	46:L9:17:THR:OG1	2.65	0.49
36:5:3194:C:H2'	36:5:3195:U:H3'	1.94	0.49
55:M9:102:LEU:O	55:M9:106:LEU:HB2	2.38	0.49
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.94	0.49
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.89	0.49
41:L4:300:ARG:O	41:L4:300:ARG:HG2	3.89	0.49
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.33	0.49
36:1:1528:G:N3	36:1:1588:A:H2	2.10	0.49
75:O9:2:ALA:HB1	75:O9:5:LYS:HZ3	1.78	0.49
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.45	0.49
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.43	0.49
2:S0:36:TYR:CD1	2:S0:161:PRO:HG3	2.46	0.49
41:L4:181:VAL:HG21	41:L4:224:GLY:HA3	1.92	0.49
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.14	0.49
2:S0:29:VAL:O	2:S0:30:GLN:HB3	4.14	0.49
1:2:386:G:C6	1:2:387:A:N6	2.80	0.49
1:2:705:U:H2'	1:2:706:A:H8	1.77	0.49
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.41	0.49
37:3:3:U:H2'	37:3:4:U:C6	2.47	0.49
1:2:582:U:H3'	1:2:583:C:C6	2.47	0.49
1:6:74:U:H3'	1:6:75:U:H3'	1.93	0.49
24:D2:82:LYS:H	24:D2:85:ASP:HB2	1.77	0.49
5:S3:168:ILE:HG22	5:S3:189:MET:HA	2.39	0.49
36:1:2289:U:H2'	36:1:2290:C:C6	2.45	0.49
50:M4:22:LEU:HD12	50:M4:31:LYS:O	2.12	0.49
53:M7:18:ARG:HG2	53:M7:147:GLU:HB3	5.02	0.49
44:L7:239:LEU:HD22	44:L7:243:MET:SD	2.52	0.49
47:M0:22:TYR:CE1	36:5:1048:A:H2'	267.93	0.49
1:6:483:A:H2'	1:6:484:C:O4'	2.12	0.49
1:2:1107:G:C6	1:2:1108:G:C6	3.00	0.49
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.47	0.49
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.12	0.49
41:L4:264:SER:C	41:L4:266:THR:H	2.16	0.49
1:6:1053:G:N7	86:6:2196:OHX:N4	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:64:A:H3'	47:M0:204:GLY:O	2.12	0.49
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	4.10	0.49
64:N8:117:ARG:H	64:N8:137:LYS:HE2	1.77	0.49
39:L2:118:GLU:HG3	39:L2:126:LEU:HD21	2.10	0.49
36:5:1196:C:OP1	86:5:4239:OHX:N6	2.45	0.49
68:O2:60:ASN:OD1	68:O2:62:LYS:HB2	2.72	0.49
45:L8:246:MET:HE3	45:L8:249:ARG:HH21	1.76	0.49
57:N1:102:ARG:NH2	36:5:1061:A:O3'	237.58	0.49
40:L3:59:ASP:OD1	40:L3:71:GLU:HG3	3.50	0.49
45:L8:142:LEU:HD23	36:5:117:U:C4	106.98	0.49
86:1:4029:OHX:N2	86:1:4042:OHX:N1	2.61	0.49
19:C7:33:ARG:HD2	34:SR:109:ASP:OD2	2.63	0.49
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	4.33	0.49
3:S1:113:MET:SD	3:S1:209:ASN:ND2	2.85	0.49
8:S6:7:TYR:HB3	8:S6:12:SER:HB2	2.07	0.49
16:C4:30:VAL:O	16:C4:39:ILE:HG12	3.15	0.49
16:C4:123:SER:HB2	1:6:885:G:H21	286.39	0.49
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	1.93	0.49
39:L2:112:ILE:CD1	39:L2:168:VAL:HG12	5.09	0.49
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.94	0.49
1:6:197:A:H2'	1:6:198:A:C8	2.48	0.49
37:3:111:U:OP1	42:L5:276:LYS:HE3	2.12	0.49
36:1:830:A:O2'	36:1:1866:C:H2'	2.13	0.49
54:M8:120:GLU:CD	54:M8:130:ARG:HH22	2.16	0.49
36:5:189:G:C2	36:5:191:U:C4	3.00	0.49
36:5:191:U:H2'	36:5:192:C:C6	2.47	0.49
36:5:1716:U:O2'	36:5:1717:U:O5'	2.25	0.49
36:5:3132:C:H2'	36:5:3133:C:H6	1.78	0.49
61:N5:91:ASN:O	61:N5:95:ILE:HG13	2.12	0.49
38:8:16:G:O6	86:8:215:OHX:N6	2.45	0.49
36:1:2984:C:H2'	36:1:2985:C:C6	2.47	0.49
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.13	0.49
36:1:2973:G:N7	86:1:4097:OHX:N2	2.59	0.49
62:N6:57:LEU:HD23	62:N6:66:GLN:O	2.64	0.49
42:L5:254:LYS:HD2	42:L5:255:PRO:O	4.45	0.49
39:L2:3:ARG:HD3	36:5:911:C:N4	178.87	0.49
36:5:3078:U:O2'	86:5:4197:OHX:N1	2.45	0.49
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	3.28	0.49
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.01	0.49
67:O1:70:ARG:O	67:O1:71:LEU:HD23	2.66	0.49
20:C8:145:ARG:HB3	35:SM:68:ARG:NH1	3.57	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.94	0.49
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.27	0.49
44:L7:217:PRO:O	86:5:4004:OHX:N6	258.83	0.49
65:N9:21:ILE:C	65:N9:22:LYS:HZ1	7.43	0.49
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.95	0.49
7:S5:56:ALA:O	7:S5:57:SER:OG	2.25	0.49
58:N2:67:SER:OG	58:N2:68:THR:N	2.51	0.49
40:L3:66:LYS:HE2	40:L3:70:ARG:HH22	3.79	0.49
5:S3:157:LEU:HD23	5:S3:187:LYS:HD3	1.93	0.49
37:7:25:G:H2'	37:7:26:C:O4'	2.12	0.49
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.92	0.49
39:L2:230:VAL:HG21	36:5:2424:A:N1	183.12	0.49
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.85	0.49
36:1:2259:A:OP2	86:1:3929:OHX:N2	2.46	0.49
77:Q1:9:ARG:NH2	1:6:1642:G:O3'	306.58	0.49
36:1:744:A:H1'	54:M8:141:ARG:HD3	1.94	0.49
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.76	0.49
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.13	0.49
36:5:3160:U:H2'	36:5:3161:C:C6	2.46	0.49
36:1:1567:U:H5	36:1:1568:U:C2	2.31	0.49
1:6:1098:U:H6	1:6:1098:U:H5"	1.77	0.49
19:C7:104:ASN:HA	19:C7:107:SER:HB3	3.47	0.49
21:C9:73:VAL:HG12	21:C9:77:ASN:ND2	2.27	0.49
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.12	0.49
38:8:15:G:C6	38:8:16:G:N1	2.81	0.49
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.27	0.49
55:M9:85:ARG:NH2	36:5:1916:U:H4'	228.62	0.49
9:S7:140:VAL:HG22	9:S7:150:GLN:HG2	1.94	0.49
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.94	0.49
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.68	0.49
64:N8:116:GLY:HA2	64:N8:137:LYS:HE2	1.94	0.49
36:1:2689:A:H2'	36:1:2689:A:N3	2.27	0.49
1:2:1207:C:H42	1:2:1456:C:H5	1.60	0.49
8:S6:175:ILE:HB	8:S6:178:LEU:HD13	4.16	0.49
1:2:1776:A:H2'	1:2:1777:G:C8	2.48	0.49
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.47	0.49
63:N7:82:PRO:HB2	66:O0:62:LEU:HD13	2.31	0.49
36:1:664:U:H5'	41:L4:107:ARG:HA	1.93	0.49
1:6:373:G:N7	86:6:2186:OHX:N3	2.60	0.49
36:5:407:A:C2	38:8:17:A:H1'	2.48	0.49
69:O3:67:MET:HE3	69:O3:89:LEU:HD23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1208:A:N1	1:6:1455:G:N2	2.59	0.49
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.32	0.49
46:L9:49:ASN:HD21	46:L9:52:LEU:HB2	1.77	0.49
36:1:2808:A:H4'	36:1:2809:C:O5'	2.11	0.49
55:M9:17:VAL:HG12	55:M9:18:GLY:O	2.12	0.49
4:S2:90:THR:HG22	4:S2:94:GLN:O	8.57	0.49
1:6:234:G:H2'	1:6:235:G:O4'	2.12	0.49
6:S4:4:GLY:HA3	1:6:93:A:O2'	330.11	0.49
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.12	0.49
1:6:149:C:H2'	1:6:150:U:H6	1.78	0.49
36:1:3074:G:OP1	86:1:4036:OHX:N1	2.46	0.49
73:O7:55:ARG:NH1	36:5:353:G:O6	112.69	0.49
21:C9:63:ARG:O	21:C9:67:MET:HG3	4.99	0.49
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	9.32	0.49
1:6:542:A:H1'	1:6:543:C:OP1	2.13	0.49
75:O9:44:TRP:CZ3	75:O9:45:ARG:HD3	2.48	0.49
36:5:2102:U:H2'	36:5:2103:U:C6	2.47	0.49
79:Q3:36:ARG:O	79:Q3:45:LYS:HD3	3.85	0.49
78:Q2:71:ARG:HE	78:Q2:80:ARG:HH11	1.60	0.49
1:6:647:G:H1	1:6:687:G:H22	1.59	0.49
36:1:249:U:O2	36:1:250:U:N3	2.36	0.49
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.45	0.49
14:C2:119:SER:OG	14:C2:120:VAL:N	2.46	0.49
45:L8:138:HIS:CE1	36:5:119:U:C2	104.28	0.49
53:M7:4:TYR:HH	53:M7:16:SER:HG	3.64	0.49
36:1:2501:U:H4'	36:1:2502:A:OP1	2.12	0.49
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.28	0.49
1:6:697:C:H2'	1:6:698:U:H6	1.77	0.49
36:5:330:G:OP2	86:5:4051:OHX:N1	2.45	0.49
36:5:996:A:C2	36:5:1054:A:C4	3.00	0.49
36:5:2659:G:H4'	36:5:2751:G:O2'	2.13	0.49
41:L4:262:TRP:O	41:L4:276:LEU:HD11	3.25	0.49
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.12	0.49
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.94	0.49
64:N8:84:GLU:O	64:N8:87:ARG:HB2	3.37	0.49
64:N8:93:SER:O	64:N8:93:SER:OG	2.30	0.49
36:1:1158:A:O5'	36:1:1158:A:H8	1.94	0.49
6:S4:71:LYS:O	6:S4:90:ILE:HA	3.18	0.49
36:1:658:G:OP1	86:1:4043:OHX:N4	2.45	0.49
18:C6:36:ILE:O	18:C6:39:VAL:HG23	2.35	0.49
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.05	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.13	0.49
47:M0:87:LEU:HD23	47:M0:138:VAL:HG13	1.95	0.49
1:2:1797:A:OP2	28:D6:10:ARG:HG2	2.13	0.49
3:S1:181:LEU:O	3:S1:185:THR:N	2.30	0.49
11:S9:110:GLN:NE2	11:S9:126:ARG:HG3	2.47	0.49
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.44	0.49
65:N9:28:LYS:HG3	65:N9:29:TYR:CD1	2.47	0.49
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.44	0.49
24:D2:29:PRO:O	24:D2:30:SER:HB3	2.12	0.49
86:1:3974:OHX:N2	53:M7:138:LYS:HE2	2.28	0.49
47:M0:16:PRO:HG3	47:M0:128:ARG:HH11	3.62	0.49
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	4.74	0.49
38:4:121:U:O2'	38:4:122:U:H5'	2.12	0.49
36:5:2718:U:H2'	36:5:2719:U:C6	2.48	0.49
36:5:408:A:H61	38:8:15:G:H1'	1.75	0.49
61:N5:56:ARG:NH2	38:8:135:G:OP2	81.95	0.49
36:1:3095:U:H2'	36:1:3096:C:C6	2.47	0.49
39:L2:57:PRO:HG2	39:L2:170:ALA:HB3	1.94	0.49
1:2:289:U:H2'	1:2:290:G:O4'	2.12	0.49
36:5:155:G:H5"	36:5:156:G:C8	2.48	0.49
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.46	0.49
36:5:2916:U:H5	36:5:2935:U:HO2'	1.59	0.49
46:L9:105:GLU:OE2	46:L9:108:GLY:HA2	2.12	0.49
50:M4:101:LYS:O	50:M4:104:ALA:HB3	3.03	0.49
29:D7:11:THR:OG1	29:D7:14:SER:HB3	3.55	0.49
29:D7:31:TYR:CE2	29:D7:33:LEU:HD21	3.37	0.49
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.12	0.49
36:5:2964:G:N7	86:5:3984:OHX:N6	2.60	0.49
55:M9:3:ASN:ND2	55:M9:3:ASN:O	4.11	0.49
19:C7:59:LYS:HE2	1:6:1393:C:OP2	421.67	0.49
1:6:661:A:N3	1:6:670:U:N3	2.61	0.49
20:C8:145:ARG:HE	20:C8:145:ARG:HA	3.99	0.49
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.12	0.49
41:L4:261:VAL:HG12	41:L4:271:LYS:HE2	1.95	0.49
36:1:1613:A:H2'	36:1:1614:C:C6	2.47	0.49
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.73	0.49
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.42	0.49
48:M1:16:LYS:O	48:M1:130:VAL:HG12	2.13	0.49
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.76	0.49
57:N1:136:ARG:HG2	57:N1:139:ARG:NH2	5.53	0.49
6:S4:3:ARG:HG2	1:6:399:A:C4'	319.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.43	0.49
1:2:1531:G:N2	21:C9:48:GLN:OE1	2.30	0.49
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.18	0.49
42:L5:48:LYS:NZ	36:5:2748:A:O2'	245.57	0.49
1:2:1022:C:H4'	1:2:1125:A:H61	1.77	0.49
1:2:927:C:H2'	1:2:928:U:C6	2.47	0.49
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.61	0.49
68:O2:19:ARG:HD3	68:O2:28:VAL:HG13	3.36	0.49
36:5:677:A:H4'	36:5:678:G:O5'	2.12	0.49
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.12	0.49
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.35	0.49
20:C8:56:LYS:HD2	20:C8:61:LEU:HD23	2.99	0.49
48:M1:133:ARG:NH2	48:M1:158:ASP:OD2	2.46	0.49
37:3:45:A:H2'	37:3:46:A:H8	1.77	0.49
1:2:1002:G:N2	1:2:1760:G:O3'	2.42	0.49
6:S4:195:ILE:O	6:S4:210:ILE:HA	5.02	0.49
36:1:211:A:OP1	41:L4:220:ARG:HD2	2.12	0.49
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.48	0.49
36:1:1764:U:H5"	55:M9:43:LYS:NZ	2.27	0.49
1:6:1037:C:H2'	1:6:1038:U:C6	2.48	0.49
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	2.09	0.49
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.51	0.49
36:1:1204:A:H2	36:1:2834:G:N3	2.10	0.49
1:2:67:A:O2'	1:2:69:G:OP1	2.23	0.49
36:1:2992:U:OP1	36:1:3310:A:O2'	2.22	0.49
1:2:1586:A:H2'	1:2:1587:A:O4'	2.12	0.49
36:1:2532:U:H3	36:1:2547:A:H61	1.61	0.49
5:S3:194:LYS:O	5:S3:196:ARG:N	2.52	0.49
60:N4:6:ASP:HB3	60:N4:11:ALA:H	2.34	0.49
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.47	0.49
51:M5:167:THR:O	51:M5:170:LYS:HB3	2.87	0.49
36:1:629:U:H2'	36:1:630:A:C8	2.47	0.49
36:5:2505:U:H2'	36:5:2506:U:C4	2.48	0.49
50:M4:43:LYS:HE3	56:N0:96:ASP:OD2	4.27	0.49
36:5:771:A:H2'	36:5:772:U:O4'	2.12	0.49
2:S0:79:ARG:NH1	2:S0:164:ASN:O	2.42	0.49
36:1:273:A:N7	86:1:3988:OHX:N6	2.60	0.49
1:2:911:U:H5'	1:2:912:U:OP1	2.13	0.49
36:1:1615:C:H2'	36:1:1616:U:H6	1.78	0.49
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.27	0.49
36:1:824:C:H2'	36:1:825:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:66:U:C5	8:S6:173:PRO:HG3	2.47	0.49
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.98	0.49
51:M5:14:LYS:NZ	36:5:269:G:H5"	132.30	0.49
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.61	0.49
37:3:22:A:H2'	37:3:23:A:C8	2.48	0.49
7:S5:87:CYS:HB3	7:S5:92:ARG:HD2	2.94	0.49
27:D5:42:LEU:HD12	27:D5:43:ASP:H	1.78	0.49
36:5:1096:U:H4'	36:5:1097:G:O5'	2.11	0.49
1:2:1608:U:OP1	18:C6:15:SER:OG	2.30	0.49
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.28	0.49
8:S6:92:ARG:NH2	1:6:1674:C:OP1	291.57	0.49
22:D0:89:ARG:NH2	1:6:1383:G:OP1	445.68	0.49
1:6:1358:G:H2'	1:6:1359:C:C6	2.47	0.49
12:C0:46:LEU:HD23	12:C0:66:TYR:CD2	2.47	0.49
45:L8:82:LEU:HD21	45:L8:218:ILE:HD11	1.95	0.49
62:N6:52:ARG:NH1	38:8:71:A:O2'	35.03	0.49
86:2:2044:OHX:N4	86:2:2098:OHX:N3	2.60	0.49
34:SR:236:ALA:O	34:SR:238:ASP:N	2.98	0.49
36:1:2653:C:O2'	36:1:2657:A:N6	2.45	0.49
36:1:1720:U:P	55:M9:110:ARG:HH12	2.35	0.49
1:6:1001:A:C6	1:6:1002:G:C6	3.01	0.49
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.83	0.49
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.43	0.49
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.44	0.49
36:5:1069:C:H2'	36:5:1070:U:H6	1.78	0.49
56:N0:1:MET:HE3	56:N0:32:SER:HB3	1.94	0.49
34:SR:225:LEU:O	34:SR:228:LYS:HG3	2.12	0.49
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.69	0.49
36:1:1547:G:OP1	51:M5:105:ARG:NH1	2.46	0.49
1:6:595:G:H2'	1:6:596:C:C6	2.48	0.49
36:5:2271:A:H2'	36:5:2272:G:O4'	2.13	0.49
36:5:589:A:H1'	36:5:1337:A:H5"	1.93	0.49
52:M6:189:ASP:N	52:M6:189:ASP:OD1	2.45	0.49
36:1:3384:U:H2'	36:1:3385:U:C6	2.48	0.49
54:M8:125:ASP:O	54:M8:129:VAL:HG23	2.13	0.49
1:2:604:A:OP1	86:2:2167:OHX:N1	2.46	0.49
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.41	0.49
36:5:2796:G:H4'	36:5:2798:C:C6	2.48	0.49
36:1:806:A:C4	36:1:936:A:C2	3.01	0.49
53:M7:67:ILE:HG22	53:M7:80:LYS:HB3	1.94	0.49
86:6:2121:OHX:N4	86:6:2171:OHX:N1	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.48	0.49
46:L9:163:GLN:O	46:L9:165:CYS:N	2.45	0.49
47:M0:45:GLU:HG2	47:M0:46:PHE:CD1	2.48	0.49
44:L7:166:ASN:OD1	44:L7:181:ILE:N	2.43	0.49
42:L5:270:LYS:C	42:L5:272:TYR:H	2.90	0.49
67:O1:44:MET:O	67:O1:46:THR:HG22	5.45	0.49
6:S4:159:THR:CG2	6:S4:227:VAL:HB	2.42	0.49
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	6.85	0.49
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.12	0.49
45:L8:149:LYS:HD2	45:L8:201:THR:O	5.20	0.49
36:1:1573:G:H2'	36:1:1573:G:N3	2.28	0.49
36:5:1765:U:H2'	36:5:1766:G:O4'	2.13	0.49
36:1:507:U:H2'	36:1:508:U:C6	2.48	0.49
21:C9:3:GLY:HA3	1:6:1364:G:N2	430.20	0.49
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.27	0.49
36:1:2763:U:H5'	54:M8:176:ARG:HG3	1.95	0.49
36:1:2723:U:H2'	36:1:2724:U:C6	2.48	0.49
36:1:873:C:H5"	36:1:874:U:H4'	1.95	0.49
1:2:795:U:H5	1:2:796:A:C8	2.31	0.49
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.27	0.49
36:5:938:C:OP1	36:5:963:G:H5'	2.13	0.49
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.47	0.49
39:L2:51:ASP:HB2	39:L2:58:LEU:HG	1.93	0.49
1:2:581:U:OP1	35:SM:108:GLN:NE2	2.46	0.49
1:2:1773:C:H2'	1:2:1774:G:C8	2.46	0.49
38:4:23:U:OP1	62:N6:16:ARG:NH2	2.43	0.49
32:E0:56:MET:HG2	1:6:590:C:H5'	417.38	0.49
70:O4:56:THR:OG1	70:O4:56:THR:O	2.31	0.49
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.28	0.49
36:5:2771:U:O2'	36:5:2772:C:O4'	2.20	0.49
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.11	0.49
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.95	0.49
43:L6:5:LYS:O	43:L6:6:ALA:HB3	2.13	0.49
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.19	0.49
36:1:2558:U:O2'	36:1:2559:U:H5'	2.13	0.49
36:1:1322:U:OP1	56:N0:117:ARG:HD2	2.12	0.49
1:2:245:U:O4	86:2:2093:OHX:N5	2.46	0.49
40:L3:344:THR:HG22	40:L3:344:THR:O	4.76	0.49
45:L8:46:LEU:HG	61:N5:28:THR:O	3.53	0.49
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.17	0.49
36:1:951:A:C4	36:1:1369:A:C2	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:101:VAL:HA	55:M9:104:ARG:NH1	2.28	0.49
36:1:980:A:H2'	36:1:981:U:N1	2.28	0.49
3:S1:87:ARG:HH22	3:S1:220:GLN:HG2	1.78	0.49
1:2:1283:U:OP1	86:2:2114:OHX:N2	2.46	0.49
1:6:150:U:H2'	1:6:151:G:O4'	2.13	0.49
40:L3:46:PHE:CE2	40:L3:205:VAL:HG22	2.47	0.49
1:6:1535:U:OP1	1:6:1535:U:H4'	2.13	0.49
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	1.95	0.49
22:D0:70:THR:HB	22:D0:72:ASN:O	4.94	0.49
36:1:653:A:C2	36:1:1443:G:C4	3.01	0.49
9:S7:69:GLY:HA2	9:S7:72:LYS:HE3	1.95	0.49
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.42	0.49
51:M5:153:ASP:OD2	51:M5:155:VAL:HG22	2.13	0.49
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.78	0.49
51:M5:35:VAL:HG23	36:5:1543:G:P	140.13	0.49
11:S9:59:LEU:O	11:S9:62:ARG:HG3	2.12	0.49
36:1:1782:U:H2'	36:1:1783:U:O4'	2.13	0.49
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.77	0.49
2:S0:107:PHE:O	2:S0:115:PHE:HE2	3.03	0.49
14:C2:45:LEU:HB2	1:6:1228:G:OP1	462.75	0.49
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.36	0.49
36:1:2616:C:C2'	36:1:2617:U:H5'	2.42	0.49
1:6:1082:C:OP2	1:6:1082:C:H3'	2.13	0.49
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.48	0.49
39:L2:101:VAL:C	39:L2:102:LEU:HD12	2.34	0.49
36:5:2518:C:H2'	36:5:2519:A:C8	2.48	0.49
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.51	0.49
36:1:3006:A:H2'	36:1:3007:U:O4'	2.13	0.49
39:L2:219:ILE:HD13	39:L2:223:SER:HB3	2.30	0.49
1:2:1151:A:H4'	1:2:1766:A:C5	2.47	0.49
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	1.95	0.49
25:D3:3:LYS:HE2	1:6:1100:G:OP1	354.42	0.49
1:6:921:U:O4	86:6:2179:OHX:N3	2.45	0.49
1:2:1111:G:C2	1:2:1112:G:H1'	2.48	0.49
36:5:1815:U:O2'	36:5:1816:A:OP2	2.25	0.49
34:SR:6:VAL:N	34:SR:316:MET:O	3.13	0.49
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.94	0.49
53:M7:94:LEU:HD23	53:M7:146:ILE:HB	2.30	0.49
5:S3:44:THR:HG23	5:S3:45:LYS:HD3	5.51	0.49
36:1:3039:C:OP1	40:L3:65:SER:OG	2.22	0.49
40:L3:120:LYS:HD3	36:5:3000:A:H5"	201.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:32:LEU:O	14:C2:36:LEU:N	2.45	0.49
36:1:722:G:O6	86:1:4012:OHX:N6	2.45	0.49
36:1:3217:C:H2'	36:1:3217:C:O2	2.12	0.49
36:5:2610:G:H2'	36:5:2611:U:O4'	2.12	0.49
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	2.95	0.49
36:1:2960:C:OP1	86:1:3998:OHX:N4	2.46	0.49
5:S3:98:ALA:O	5:S3:102:ALA:N	2.93	0.49
2:S0:74:VAL:HA	2:S0:96:THR:O	2.76	0.48
36:1:157:A:C8	72:O6:26:ILE:HG12	2.48	0.48
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	1.95	0.48
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.37	0.48
1:6:1698:G:H1'	1:6:1699:G:OP1	2.13	0.48
34:SR:42:LEU:O	34:SR:43:ILE:HD13	2.26	0.48
43:L6:58:LEU:HD12	43:L6:78:ARG:HD2	1.94	0.48
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.14	0.48
8:S6:28:PHE:CZ	8:S6:104:PRO:HG3	2.48	0.48
15:C3:50:ILE:HG22	15:C3:54:LEU:HD12	1.94	0.48
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.46	0.48
57:N1:127:GLN:HG2	36:5:1095:U:H3	260.50	0.48
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.60	0.48
56:N0:77:VAL:HG13	56:N0:126:VAL:HG22	1.94	0.48
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.64	0.48
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.46	0.48
1:2:929:A:H5"	1:2:930:A:OP2	2.12	0.48
1:2:73:U:H1'	1:2:74:U:H5'	1.95	0.48
1:2:186:C:H42	1:2:199:G:H1	1.59	0.48
1:6:1535:U:H1'	1:6:1536:G:C2	2.47	0.48
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.67	0.48
36:5:3127:A:H2'	36:5:3128:G:O4'	2.12	0.48
1:2:1642:G:O6	86:2:2023:OHX:N6	2.45	0.48
34:SR:309:VAL:HB	34:SR:311:ARG:HH12	2.73	0.48
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.52	0.48
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.71	0.48
43:L6:135:VAL:O	43:L6:139:LYS:HG3	2.13	0.48
52:M6:38:ALA:O	52:M6:41:LEU:HB3	3.19	0.48
58:N2:59:ASP:HB3	58:N2:62:VAL:HG12	1.95	0.48
36:1:290:G:H2'	36:1:291:C:H6	1.76	0.48
59:N3:85:TRP:CE2	59:N3:93:LEU:HD21	2.69	0.48
39:L2:49:VAL:HG12	39:L2:58:LEU:HB2	3.02	0.48
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.77	0.48
1:2:1000:C:O2'	1:2:1002:G:N7	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:862:A:C2	1:2:963:A:C4	3.00	0.48
36:5:1070:U:C4	36:5:1071:U:C4	3.01	0.48
72:O6:30:LYS:HE3	36:5:266:A:H2'	102.70	0.48
27:D5:82:HIS:C	27:D5:84:GLU:H	3.13	0.48
36:1:911:C:H42	39:L2:3:ARG:HD3	1.77	0.48
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.16	0.48
36:5:1769:G:C2	36:5:1770:G:C8	3.01	0.48
14:C2:73:LYS:HE3	33:E1:108:VAL:HG13	1.95	0.48
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.12	0.48
45:L8:203:VAL:CG1	45:L8:207:ASP:HB2	4.16	0.48
78:Q2:2:VAL:HG13	78:Q2:91:PHE:HA	1.93	0.48
1:2:1391:A:H2'	1:2:1392:U:C6	2.48	0.48
26:D4:9:THR:HG21	26:D4:48:TYR:OH	2.12	0.48
69:O3:73:ARG:HG3	69:O3:82:ARG:HD2	2.01	0.48
1:6:1071:U:H2'	1:6:1072:C:C6	2.48	0.48
86:5:4035:OHX:N1	86:5:4083:OHX:N2	2.60	0.48
4:S2:143:TYR:O	24:D2:98:GLN:NE2	2.66	0.48
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.22	0.48
36:1:255:A:O2'	36:1:256:G:H5'	2.12	0.48
36:1:2651:G:H4'	36:1:2652:U:OP2	2.12	0.48
52:M6:195:ALA:O	52:M6:197:LEU:N	2.46	0.48
53:M7:36:ILE:CD1	53:M7:95:LEU:HD11	2.43	0.48
44:L7:58:ALA:O	44:L7:61:ASN:HB2	2.26	0.48
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.94	0.48
36:5:2180:G:H2'	36:5:2181:C:C6	2.48	0.48
52:M6:27:LEU:HD13	52:M6:98:ALA:O	2.12	0.48
2:S0:87:LEU:HD21	2:S0:99:ALA:HB2	5.29	0.48
49:M3:15:ARG:NH2	36:5:96:G:H5'	152.53	0.48
64:N8:115:LYS:NZ	36:5:783:A:OP1	150.17	0.48
63:N7:10:VAL:HG11	63:N7:129:TRP:HZ3	2.11	0.48
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.13	0.48
36:1:2898:G:H5"	36:1:2899:C:H5'	1.95	0.48
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.63	0.48
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	1.93	0.48
11:S9:83:VAL:HG23	11:S9:85:VAL:HG23	1.95	0.48
72:O6:9:ILE:HD13	72:O6:10:GLY:N	4.88	0.48
42:L5:178:ASN:ND2	36:5:2746:A:H5'	252.24	0.48
41:L4:91:GLY:O	41:L4:94:CYS:HB2	3.43	0.48
21:C9:80:TYR:HD2	21:C9:101:ASN:HD21	1.60	0.48
11:S9:162:SER:O	11:S9:167:ALA:HB3	2.13	0.48
1:2:738:G:H2'	1:2:739:G:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:739:G:O6	86:2:2096:OHX:N4	2.47	0.48
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.95	0.48
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.78	0.48
1:2:1274:C:H5	35:SM:96:ARG:H	1.61	0.48
29:D7:20:LYS:NZ	1:6:958:U:OP2	347.08	0.48
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.51	0.48
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.28	0.48
36:1:2986:U:H2'	36:1:2987:A:H8	1.78	0.48
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.13	0.48
21:C9:20:SER:OG	21:C9:24:ARG:NH2	7.49	0.48
36:5:873:C:H5"	36:5:874:U:O5'	2.13	0.48
76:Q0:95:VAL:HG12	76:Q0:96:CYS:O	2.69	0.48
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.93	0.48
36:1:3178:A:C2	52:M6:115:LYS:HD3	2.46	0.48
36:1:370:U:H4'	36:1:404:G:H5'	1.95	0.48
63:N7:61:LYS:O	63:N7:64:LYS:N	2.91	0.48
7:S5:150:GLY:O	7:S5:152:GLY:N	2.75	0.48
36:5:643:U:OP1	36:5:1116:G:O2'	2.30	0.48
36:1:3203:U:H2'	36:1:3204:C:C6	2.49	0.48
56:N0:104:GLU:O	56:N0:108:GLN:HG2	2.14	0.48
1:6:1638:G:C2	1:6:1639:C:H1'	2.48	0.48
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.96	0.48
36:5:3264:G:N2	36:5:3265:C:H1'	2.28	0.48
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.44	0.48
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.21	0.48
1:2:425:A:H8	1:2:425:A:H5'	1.77	0.48
36:5:2973:G:N7	86:5:4120:OHX:N1	2.61	0.48
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.60	0.48
71:O5:83:LYS:HA	38:8:38:U:C5	66.28	0.48
71:O5:89:ARG:HH11	71:O5:89:ARG:HG2	1.81	0.48
36:5:1238:C:H2'	36:5:1239:C:O4'	2.14	0.48
36:1:2206:G:N2	36:1:2207:A:C8	2.81	0.48
4:S2:140:ARG:HH21	4:S2:226:THR:HG21	2.17	0.48
7:S5:56:ALA:O	7:S5:58:LEU:N	3.19	0.48
36:1:34:A:H2'	36:1:35:A:C8	2.48	0.48
6:S4:35:PRO:HB3	6:S4:143:ASP:O	2.65	0.48
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	3.94	0.48
29:D7:35:VAL:HG12	29:D7:63:LEU:HD22	2.73	0.48
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.67	0.48
10:S8:2:GLY:N	1:6:393:C:OP2	292.24	0.48
1:6:1735:U:O4	86:6:2124:OHX:N5	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	2.48	0.48
24:D2:50:PHE:HB3	24:D2:63:VAL:HG22	2.29	0.48
1:2:1053:G:H2'	1:2:1054:U:C6	2.48	0.48
36:1:2718:U:H2'	36:1:2719:U:C6	2.48	0.48
41:L4:16:THR:HG23	41:L4:18:ASN:N	3.27	0.48
9:S7:141:ARG:HH11	9:S7:141:ARG:HG3	2.46	0.48
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.13	0.48
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.95	0.48
1:6:652:G:N2	1:6:682:C:O2	2.46	0.48
36:5:2718:U:OP2	86:5:4070:OHX:N6	2.47	0.48
39:L2:140:ASN:ND2	39:L2:142:ASP:HB3	5.84	0.48
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.12	0.48
7:S5:216:GLU:OE2	7:S5:219:ARG:HD3	3.37	0.48
36:1:1019:G:H2'	36:1:1020:G:O4'	2.13	0.48
36:1:3160:U:H2'	36:1:3161:C:C6	2.47	0.48
43:L6:5:LYS:HD3	36:5:1423:C:H1'	142.15	0.48
36:1:2799:A:H5"	36:1:2800:G:O5'	2.12	0.48
1:2:1677:C:H2'	1:2:1678:A:O4'	2.13	0.48
1:6:1239:U:O4	86:6:2097:OHX:N5	2.44	0.48
5:S3:183:GLY:O	5:S3:184:ILE:HD13	2.77	0.48
69:O3:106:ASN:ND2	69:O3:106:ASN:O	3.37	0.48
36:5:2612:U:H2'	36:5:2613:U:O4'	2.14	0.48
36:5:2794:G:H1'	36:5:2795:U:C6	2.47	0.48
36:1:539:C:H2'	36:1:540:U:H6	1.78	0.48
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.47	0.48
38:4:35:C:OP1	71:O5:85:THR:HG21	2.13	0.48
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	3.18	0.48
41:L4:263:GLY:HA3	41:L4:269:SER:HB2	2.90	0.48
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.82	0.48
48:M1:137:ARG:O	48:M1:141:ARG:HG2	2.46	0.48
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.31	0.48
78:Q2:52:GLY:O	78:Q2:54:THR:HG23	2.30	0.48
70:O4:10:ARG:HD2	75:O9:4:GLN:HE22	2.24	0.48
43:L6:78:ARG:HD3	43:L6:106:PHE:CD2	2.48	0.48
36:1:829:U:H3	36:1:895:A:H61	1.61	0.48
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.27	0.48
37:7:3:U:H2'	37:7:4:U:H6	1.78	0.48
1:2:93:A:O2'	6:S4:4:GLY:HA3	2.14	0.48
41:L4:141:ARG:O	41:L4:143:GLU:N	4.10	0.48
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.95	0.48
1:2:164:A:N3	8:S6:13:GLN:NE2	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.75	0.48
71:O5:68:GLN:C	71:O5:70:TYR:H	2.15	0.48
40:L3:305:ILE:HD11	40:L3:321:PHE:CD2	2.48	0.48
36:1:1231:A:OP2	86:1:4084:OHX:N5	2.46	0.48
9:S7:96:ARG:HB3	1:6:856:A:N6	365.16	0.48
1:6:1225:U:H2'	1:6:1226:A:H8	1.79	0.48
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.94	0.48
36:5:174:C:H42	36:5:244:G:H1	1.62	0.48
40:L3:148:LEU:HA	40:L3:148:LEU:HD12	2.30	0.48
36:1:345:G:OP1	36:1:1429:G:N1	2.45	0.48
27:D5:58:ARG:O	27:D5:102:THR:HG23	3.62	0.48
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.26	0.48
18:C6:9:THR:HA	1:6:1340:U:O4	434.32	0.48
36:5:1021:G:N1	36:5:1032:C:O2	2.46	0.48
9:S7:162:ILE:O	9:S7:164:TYR:N	4.05	0.48
68:O2:71:HIS:CE1	68:O2:118:LYS:HD3	2.49	0.48
36:5:1439:U:H2'	36:5:1440:G:O4'	2.14	0.48
36:1:1713:G:O6	66:O0:28:LYS:HD3	2.14	0.48
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	2.80	0.48
36:5:1901:A:O3'	36:5:2918:G:H5'	2.13	0.48
1:6:997:G:C2	1:6:998:A:H1'	2.48	0.48
1:2:443:C:O2	1:2:445:A:N6	2.45	0.48
30:D8:27:GLN:OE1	30:D8:64:ARG:NH1	5.61	0.48
10:S8:135:LYS:O	10:S8:136:SER:HB2	4.60	0.48
49:M3:129:ASN:OD1	49:M3:130:GLY:N	4.99	0.48
35:SM:64:LYS:O	35:SM:66:ALA:N	2.63	0.48
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.95	0.48
1:2:1546:G:OP1	20:C8:123:ARG:HD2	2.13	0.48
36:1:1170:A:OP2	86:1:3954:OHX:N5	2.46	0.48
28:D6:5:ARG:HG2	1:6:1796:C:C6	341.35	0.48
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	1.95	0.48
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.29	0.48
5:S3:41:VAL:HA	5:S3:46:THR:HG23	3.11	0.48
44:L7:43:ILE:O	44:L7:47:ARG:HG3	3.41	0.48
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.43	0.48
5:S3:190:ARG:HH12	5:S3:195:SER:HA	3.20	0.48
67:O1:20:LEU:CD2	67:O1:31:ARG:HB3	2.42	0.48
66:O0:16:LEU:HD22	66:O0:19:LYS:HE3	1.95	0.48
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.27	0.48
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.86	0.48
6:S4:246:LEU:HD21	6:S4:254:ARG:NH1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:104:PRO:HA	2:S0:135:GLU:OE2	2.92	0.48
45:L8:241:LYS:HD3	36:5:2586:G:C8	183.38	0.48
1:2:25:C:H4'	1:2:25:C:OP2	2.13	0.48
1:6:1270:G:H1	1:6:1440:C:H42	1.62	0.48
37:3:71:G:H2'	37:3:72:A:C8	2.49	0.48
49:M3:61:PRO:HD3	49:M3:70:ARG:HH21	2.43	0.48
36:5:1151:U:H3'	36:5:1152:G:C8	2.48	0.48
14:C2:46:ARG:HH21	14:C2:50:LYS:HE2	1.78	0.48
3:S1:36:SER:HB3	3:S1:231:LEU:O	4.19	0.48
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.14	0.48
86:5:4068:OHX:N5	86:5:4146:OHX:N2	2.61	0.48
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	2.94	0.48
36:1:610:G:O6	41:L4:309:ARG:NH2	2.45	0.48
1:6:1141:G:H2'	1:6:1142:A:C8	2.48	0.48
36:1:1802:C:O2'	70:O4:59:PRO:O	2.19	0.48
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.48	0.48
23:D1:35:ASN:HB3	23:D1:50:TYR:CD1	2.49	0.48
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.54	0.48
36:1:2236:G:OP1	86:1:4117:OHX:N6	2.47	0.48
36:1:884:A:OP1	73:O7:5:THR:HG23	2.14	0.48
28:D6:50:VAL:O	28:D6:53:LEU:HB3	2.14	0.48
36:1:1070:U:O4	86:1:4099:OHX:N3	2.46	0.48
1:2:539:G:OP2	1:2:539:G:H8	1.96	0.48
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.43	0.48
36:1:3246:G:O6	86:1:4106:OHX:N4	2.46	0.48
36:5:1785:U:H2'	36:5:1786:G:C8	2.48	0.48
36:1:1299:U:H2'	36:1:1300:G:O4'	2.14	0.48
11:S9:105:LEU:HD13	11:S9:108:ARG:HD2	1.96	0.48
86:1:3971:OHX:N2	78:Q2:50:PHE:O	2.47	0.48
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.13	0.48
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.13	0.48
6:S4:158:ASP:OD1	6:S4:158:ASP:N	2.46	0.48
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.49	0.48
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.15	0.48
1:6:486:G:H4'	1:6:486:G:OP1	2.13	0.48
1:6:887:A:H2'	1:6:888:U:C6	2.49	0.48
1:2:704:C:OP2	1:2:704:C:H3'	2.14	0.48
86:5:4003:OHX:N4	86:5:4093:OHX:N1	2.62	0.48
36:5:608:A:H5"	36:5:609:G:OP2	2.14	0.48
36:1:3306:U:H5"	40:L3:21:ARG:NH1	2.28	0.48
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	5.02	0.48
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.42	0.48
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.15	0.48
33:E1:130:VAL:HG13	33:E1:143:LYS:HB3	4.50	0.48
9:S7:141:ARG:NH2	9:S7:143:LEU:HD22	2.29	0.48
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.48	0.48
9:S7:29:ASN:O	9:S7:30:SER:OG	2.27	0.48
59:N3:85:TRP:CZ2	59:N3:93:LEU:HD21	2.75	0.48
38:8:157:U:H2'	38:8:158:U:C6	2.48	0.48
77:Q1:4:LYS:O	77:Q1:7:LYS:HB3	2.82	0.48
36:1:677:A:H4'	36:1:678:G:O5'	2.12	0.48
36:1:612:U:H2'	36:1:613:G:C8	2.48	0.48
2:S0:120:LEU:HD21	2:S0:144:ILE:HD11	2.51	0.48
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.49	0.48
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.69	0.48
36:1:1802:C:H2'	36:1:1803:C:C6	2.49	0.48
76:Q0:98:LYS:HD3	76:Q0:118:THR:HG21	1.95	0.48
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.44	0.48
1:2:760:A:H2'	1:2:761:G:O4'	2.14	0.48
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.56	0.48
1:6:986:G:OP2	86:6:2120:OHX:N2	2.47	0.48
36:5:54:C:O2'	36:5:1547:G:H1'	2.12	0.48
16:C4:94:PRO:HB2	16:C4:99:GLN:HE22	1.79	0.48
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.13	0.48
1:2:1211:A:H1'	17:C5:99:GLY:O	2.12	0.48
36:1:551:A:O2'	36:1:552:G:O5'	2.31	0.48
67:O1:65:LYS:HD3	36:5:3058:U:H3	180.27	0.48
36:5:437:G:OP2	36:5:437:G:H8	1.97	0.48
44:L7:160:ARG:HD2	44:L7:203:TRP:CE2	2.49	0.48
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.32	0.48
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.61	0.48
37:7:23:A:O2'	37:7:121:U:O3'	2.15	0.48
44:L7:73:GLY:O	57:N1:143:THR:HB	2.16	0.48
67:O1:41:LYS:HE3	67:O1:47:ASP:HA	4.05	0.48
40:L3:111:SER:OG	40:L3:113:GLU:HB2	2.13	0.48
4:S2:94:GLN:O	4:S2:95:ARG:HB2	4.49	0.48
52:M6:124:LEU:O	52:M6:128:ARG:HB2	2.24	0.48
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.92	0.48
1:2:1388:A:H4'	1:2:1389:C:O5'	2.13	0.48
47:M0:39:LYS:HA	47:M0:86:HIS:ND1	2.28	0.48
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:387:A:OP2	1:2:387:A:H8	1.96	0.48
1:6:538:A:H8	1:6:543:C:H41	1.51	0.48
45:L8:68:ARG:HA	45:L8:236:GLY:O	4.34	0.48
40:L3:129:ALA:O	36:5:3150:A:H5'	211.41	0.48
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.54	0.48
1:2:1017:U:H2'	1:2:1018:U:H6	1.74	0.48
36:1:2217:U:H2'	36:1:2218:G:H8	1.79	0.48
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	4.52	0.48
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.35	0.48
36:5:1782:U:H2'	36:5:1783:U:H6	1.79	0.48
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.95	0.48
9:S7:129:LEU:HD23	9:S7:129:LEU:HA	1.91	0.48
7:S5:20:PHE:CE1	7:S5:34:GLN:HB3	3.07	0.48
36:5:242:C:H2'	36:5:243:G:H8	1.77	0.48
59:N3:2:SER:N	59:N3:56:ASP:HA	3.52	0.48
47:M0:74:LYS:HE3	47:M0:74:LYS:HB2	1.62	0.48
14:C2:46:ARG:O	14:C2:49:THR:OG1	3.16	0.48
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.13	0.48
38:4:23:U:C4'	62:N6:17:LYS:HG2	2.43	0.48
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.56	0.48
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.56	0.48
36:5:529:A:O2'	36:5:530:G:H5'	2.13	0.48
36:1:3006:A:C2	36:1:3141:A:C4	3.01	0.48
56:N0:40:ARG:HD2	56:N0:40:ARG:HA	1.55	0.48
1:6:482:U:H3	1:6:505:A:H61	1.59	0.48
36:1:1852:G:N7	86:1:3975:OHX:N3	2.62	0.48
7:S5:54:LYS:HD2	7:S5:135:ASP:OD2	4.93	0.48
36:1:128:G:H2'	36:1:129:U:O4'	2.14	0.48
1:2:59:C:H1'	1:2:60:U:C5	2.49	0.48
69:O3:15:SER:HA	69:O3:94:PHE:CE1	2.48	0.48
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.32	0.48
36:1:2115:G:O2'	55:M9:82:LYS:HE3	2.14	0.48
1:2:138:A:H62	1:2:266:A:H61	1.61	0.48
73:O7:64:MET:O	73:O7:68:LYS:HG3	2.14	0.48
36:5:2274:U:OP1	86:5:3986:OHX:N6	2.47	0.48
1:6:276:C:O2'	1:6:277:U:H5"	2.14	0.48
36:5:1586:G:OP1	86:5:3993:OHX:N3	2.46	0.48
1:2:632:U:OP1	13:C1:102:LYS:HG3	2.13	0.48
36:1:1645:U:H2'	36:1:1646:G:H5'	1.96	0.48
1:2:1193:A:OP1	1:2:1193:A:H8	1.97	0.48
1:6:914:G:OP2	1:6:914:G:H8	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:138:U:H2'	36:5:139:G:C8	2.49	0.48
36:1:438:A:C2	36:1:620:U:H5	2.31	0.48
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.28	0.48
18:C6:52:LEU:HD23	18:C6:60:PHE:CE1	4.35	0.48
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.45	0.48
86:1:3971:OHX:N6	78:Q2:46:LYS:O	2.46	0.48
36:1:1171:G:O6	86:1:3954:OHX:N2	2.46	0.48
31:D9:21:CYS:C	31:D9:23:VAL:H	2.59	0.48
73:O7:88:ALA:O	86:O7:105:OHX:N4	2.45	0.48
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	4.02	0.48
51:M5:14:LYS:HE2	51:M5:120:TRP:CZ3	2.88	0.48
34:SR:19:TRP:CG	34:SR:38:ARG:HD2	2.48	0.48
36:1:2180:G:H2'	36:1:2181:C:C6	2.49	0.48
67:O1:13:THR:HG22	67:O1:72:ARG:NH2	4.64	0.48
67:O1:90:PHE:HB3	67:O1:91:SER:H	3.68	0.48
68:O2:123:LYS:HA	68:O2:126:LEU:HB2	1.94	0.48
36:1:2898:G:H5"	36:1:2899:C:O5'	2.13	0.48
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.14	0.48
36:1:1940:G:H2'	36:1:1941:C:O4'	2.13	0.48
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.14	0.48
56:N0:84:ARG:HG3	36:5:1295:G:OP1	293.92	0.48
2:S0:102:PHE:CZ	2:S0:106:SER:HB2	2.49	0.48
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.96	0.48
1:6:1255:G:O2'	1:6:1256:A:H8	1.97	0.48
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.81	0.48
47:M0:24:ARG:CG	47:M0:24:ARG:HH11	2.27	0.48
36:5:2103:U:H2'	36:5:2104:A:H8	1.78	0.48
45:L8:222:PHE:O	45:L8:223:ALA:HB2	4.61	0.48
17:C5:85:ILE:HD11	17:C5:116:LEU:HD23	1.94	0.48
43:L6:64:LEU:O	43:L6:65:ILE:HD13	5.38	0.48
9:S7:10:SER:OG	9:S7:10:SER:O	2.26	0.48
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.02	0.48
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.49	0.48
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	3.26	0.48
1:6:1054:U:H2'	1:6:1055:U:O4'	2.14	0.48
2:S0:147:THR:OG1	2:S0:159:ALA:HB1	2.14	0.48
70:O4:46:ASP:OD1	70:O4:80:ARG:HD2	2.14	0.48
1:6:719:U:N3	1:6:721:U:H5	2.12	0.48
36:1:2097:U:H2'	36:1:2098:C:C6	2.49	0.48
36:1:2743:A:H2'	36:1:2744:U:O4'	2.13	0.48
36:1:2664:C:OP2	48:M1:142:LYS:HE2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:36:GLN:HA	15:C3:39:LYS:HB3	3.62	0.48
40:L3:94:GLU:HB3	52:M6:152:VAL:HG21	1.95	0.48
47:M0:17:TYR:CE1	47:M0:98:ARG:HD3	2.75	0.48
1:6:678:A:N7	1:6:679:U:N3	2.62	0.48
12:C0:74:GLU:O	12:C0:77:ARG:HB3	2.13	0.48
36:1:1843:C:H2'	36:1:1844:C:H6	1.78	0.48
78:Q2:17:CYS:HG	78:Q2:77:CYS:CB	3.25	0.48
1:6:1459:C:OP2	1:6:1459:C:H6	1.96	0.48
49:M3:27:ASP:OD1	49:M3:31:LYS:HD2	4.68	0.48
18:C6:38:LEU:O	18:C6:40:GLU:N	2.59	0.48
18:C6:41:PRO:HB2	18:C6:44:LEU:HB2	1.96	0.48
2:S0:87:LEU:HD13	2:S0:87:LEU:HA	3.07	0.48
36:1:1942:U:O2'	36:1:3345:G:O2'	2.30	0.48
1:2:1553:G:N2	1:2:1555:A:H3'	2.28	0.48
1:2:276:C:O2'	1:2:277:U:H5"	2.14	0.48
40:L3:345:ASN:CG	40:L3:347:SER:HB2	2.33	0.48
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.47	0.48
41:L4:181:VAL:HG12	41:L4:182:LEU:N	2.29	0.48
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.64	0.48
64:N8:19:LYS:HD2	64:N8:25:HIS:ND1	2.29	0.48
1:6:189:C:C2'	1:6:190:C:H5'	2.43	0.48
10:S8:141:ARG:NH2	1:6:196:G:N7	280.32	0.48
1:6:832:U:OP2	86:6:2202:OHX:N6	2.46	0.48
49:M3:124:ILE:HD11	49:M3:126:PHE:CE1	2.49	0.48
1:2:711:U:H1'	1:2:712:G:H5'	1.96	0.48
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.14	0.48
72:O6:55:ARG:O	72:O6:58:ILE:HD13	2.14	0.48
36:1:2662:G:H2'	36:1:2663:G:C8	2.48	0.48
42:L5:205:SER:OG	42:L5:206:GLN:N	3.67	0.48
1:6:1374:C:H2'	1:6:1375:A:H8	1.78	0.48
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.13	0.48
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.49	0.48
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.13	0.48
1:6:723:G:H5'	1:6:724:C:OP2	2.14	0.48
5:S3:113:LEU:HD13	5:S3:117:ARG:HH11	3.39	0.48
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.28	0.48
1:2:330:G:C6	1:2:331:A:C6	3.02	0.48
6:S4:194:THR:O	6:S4:195:ILE:HB	2.13	0.48
36:1:2413:A:H2'	36:1:2414:G:H8	1.78	0.48
1:2:13:C:OP1	4:S2:84:LYS:NZ	2.47	0.48
1:2:1207:C:N4	1:2:1456:C:H5	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:64:ARG:NH2	30:D8:65:ARG:HB3	7.48	0.48
1:6:689:G:H2'	1:6:690:G:O4'	2.13	0.48
29:D7:15:GLU:HA	29:D7:18:LYS:HD3	1.95	0.48
36:1:1623:G:OP2	86:1:4038:OHX:N1	2.46	0.48
45:L8:231:LYS:HB2	45:L8:231:LYS:HE3	3.59	0.48
36:1:1823:A:H2'	36:1:1824:U:H6	1.79	0.48
1:6:28:A:H2'	1:6:29:U:O4'	2.14	0.48
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	1.96	0.48
36:1:2280:A:H5"	36:1:2281:A:OP2	2.14	0.48
52:M6:172:ARG:HA	52:M6:175:THR:HG22	1.94	0.48
1:2:708:C:C2	1:2:709:C:H5	2.32	0.48
79:Q3:54:ILE:O	79:Q3:54:ILE:HG12	4.71	0.48
43:L6:46:ARG:HH11	43:L6:46:ARG:HG3	2.64	0.48
1:2:513:U:H2'	1:2:514:G:C8	2.49	0.48
78:Q2:47:GLN:NE2	78:Q2:53:GLN:HA	2.35	0.48
8:S6:174:LYS:HG3	1:6:79:C:H1'	341.90	0.48
8:S6:72:ARG:HG2	8:S6:98:ARG:HA	1.96	0.48
58:N2:50:LEU:H	58:N2:50:LEU:HG	2.17	0.48
34:SR:22:SER:HB2	34:SR:70:ASP:HA	1.94	0.48
34:SR:70:ASP:OD1	34:SR:71:CYS:N	2.47	0.48
36:1:979:U:H1'	36:1:980:A:N9	2.27	0.48
36:5:420:G:O5'	36:5:420:G:OP2	2.32	0.48
36:1:705:A:H62	64:N8:74:ASN:ND2	2.07	0.48
6:S4:163:ASP:HB3	6:S4:167:GLY:O	4.51	0.48
4:S2:88:LYS:HG2	1:6:1145:U:O2'	380.61	0.48
36:1:789:A:H2'	36:1:790:U:C6	2.49	0.48
51:M5:149:ASN:O	51:M5:152:CYS:HB2	2.45	0.48
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.97	0.48
1:6:188:A:H2'	1:6:189:C:O4'	2.14	0.48
1:6:1280:C:H2'	1:6:1281:G:C8	2.49	0.48
12:C0:50:THR:HG22	12:C0:55:VAL:HG13	1.95	0.48
54:M8:60:PRO:CG	54:M8:144:ARG:HA	2.41	0.48
7:S5:63:GLN:HE22	7:S5:66:GLN:HB2	2.82	0.48
36:5:135:C:H4'	36:5:136:G:OP2	2.14	0.48
58:N2:21:SER:HB2	58:N2:22:PRO:HD3	1.95	0.48
1:6:862:A:C2	1:6:963:A:C4	3.02	0.48
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.86	0.48
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.56	0.48
14:C2:131:ASP:OD1	14:C2:132:GLU:HG2	2.14	0.48
86:5:4068:OHX:N3	86:5:4146:OHX:N6	2.62	0.48
36:1:2357:A:H2'	36:1:2358:A:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:648:C:C4	36:5:2375:G:H5'	2.48	0.48
74:O8:69:LEU:HD12	74:O8:70:PRO:HD2	1.95	0.48
16:C4:99:GLN:HB3	28:D6:46:GLU:OE2	2.14	0.48
59:N3:83:LYS:HE2	59:N3:84:SER:N	2.29	0.48
1:6:1631:A:OP2	86:6:2168:OHX:N3	2.46	0.48
47:M0:169:LYS:CD	47:M0:169:LYS:H	3.35	0.48
41:L4:287:THR:HG22	36:5:1349:G:OP2	174.21	0.48
78:Q2:19:LYS:HA	36:5:2741:C:H4'	207.79	0.48
1:6:345:U:H1'	1:6:346:G:C8	2.49	0.48
1:6:1751:C:H2'	1:6:1752:U:O4'	2.13	0.48
38:8:26:U:H2'	38:8:27:U:C6	2.49	0.48
74:O8:62:ALA:O	74:O8:66:ILE:HG12	3.62	0.48
36:5:1927:G:N2	36:5:1928:G:C8	2.82	0.48
36:5:1576:G:C8	36:5:1577:G:C8	3.02	0.48
45:L8:245:LYS:HG2	45:L8:245:LYS:O	2.28	0.48
5:S3:106:LYS:HG2	5:S3:110:LEU:HD12	1.95	0.48
55:M9:166:ASN:HD21	55:M9:170:ARG:NH1	7.89	0.48
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.44	0.47
4:S2:139:ILE:HD11	4:S2:218:ILE:HG21	2.21	0.47
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.96	0.47
48:M1:47:GLN:OE1	48:M1:64:LYS:HD3	2.28	0.47
7:S5:144:GLU:OE2	7:S5:225:ARG:NH2	4.04	0.47
39:L2:182:ALA:HB2	36:5:2148:U:O2'	211.34	0.47
36:1:3151:U:OP1	40:L3:128:LYS:NZ	2.47	0.47
15:C3:119:GLU:CG	15:C3:141:TYR:HE2	3.13	0.47
37:3:20:A:C4	37:3:60:G:N2	2.82	0.47
2:S0:52:LYS:HB3	23:D1:82:VAL:HG23	1.95	0.47
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.14	0.47
36:5:397:A:H5"	36:5:398:A:H5'	1.95	0.47
1:2:1572:G:H8	7:S5:185:ARG:HH12	1.62	0.47
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.13	0.47
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.48	0.47
22:D0:34:LEU:HD23	22:D0:35:GLU:HG2	8.72	0.47
1:2:190:C:O2'	1:2:191:C:H5'	2.14	0.47
56:N0:171:PHE:O	56:N0:172:TYR:C	4.13	0.47
1:2:1450:U:H2'	1:2:1451:C:H6	1.77	0.47
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.27	0.47
57:N1:76:ILE:O	57:N1:87:LYS:N	2.79	0.47
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.25	0.47
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.51	0.47
86:5:4057:OHX:N3	86:5:4201:OHX:N4	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:26:LYS:O	71:O5:30:GLU:HG3	2.14	0.47
36:5:696:C:O2'	36:5:697:A:H8	1.97	0.47
33:E1:127:GLY:C	33:E1:129:GLY:H	2.18	0.47
36:1:517:G:P	44:L7:60:ARG:HH22	2.36	0.47
44:L7:60:ARG:HH22	36:5:517:G:P	306.06	0.47
45:L8:159:PRO:HB2	45:L8:161:GLU:OE2	3.36	0.47
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.25	0.47
17:C5:102:PHE:CZ	1:6:1241:G:H5"	384.09	0.47
77:Q1:16:LYS:NZ	1:6:1750:A:OP1	287.93	0.47
26:D4:45:ALA:HB2	26:D4:55:VAL:HG21	1.96	0.47
36:5:1818:U:H2'	36:5:1819:U:H6	1.77	0.47
36:5:1819:U:O4	86:5:4052:OHX:N5	2.47	0.47
15:C3:73:ARG:HD3	1:6:859:A:C5	330.82	0.47
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.96	0.47
36:1:54:C:H5"	36:1:1548:C:H1'	1.96	0.47
44:L7:116:PHE:CZ	44:L7:144:ILE:HG12	2.49	0.47
29:D7:33:LEU:HD13	29:D7:79:PHE:HB2	4.08	0.47
42:L5:229:ASP:HB2	42:L5:231:ILE:HG12	3.60	0.47
36:1:1394:A:H4'	36:1:1420:C:H4'	1.96	0.47
1:6:404:G:H2'	1:6:405:C:C6	2.49	0.47
44:L7:76:TYR:HE2	44:L7:78:GLU:HG3	1.79	0.47
1:2:108:A:H2'	1:2:109:G:C8	2.48	0.47
1:2:1662:G:O2'	1:2:1663:G:H5'	2.14	0.47
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.42	0.47
36:1:2352:A:N6	36:1:2353:G:C6	2.82	0.47
1:2:448:C:H4'	6:S4:28:ALA:O	2.14	0.47
1:2:1140:G:H2'	1:2:1141:G:H8	1.77	0.47
36:5:3155:U:H4'	36:5:3156:U:OP2	2.14	0.47
40:L3:306:THR:OG1	40:L3:316:GLU:O	2.23	0.47
1:6:1390:U:HO2'	1:6:1391:A:H8	1.62	0.47
12:C0:80:LEU:HB2	12:C0:82:LEU:HG	1.95	0.47
1:6:1179:G:C6	1:6:1180:C:N3	2.82	0.47
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	3.46	0.47
36:5:1614:C:H2'	36:5:1615:C:C6	2.47	0.47
6:S4:25:GLY:HA3	1:6:447:U:O2'	374.95	0.47
75:O9:5:LYS:NZ	36:5:1493:G:N7	116.27	0.47
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.52	0.47
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.54	0.47
71:O5:86:ARG:HG3	71:O5:90:ARG:CZ	2.80	0.47
1:2:1538:U:HO2'	1:2:1539:G:H8	1.62	0.47
56:N0:24:LEU:HD21	57:N1:141:VAL:HG21	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:135:ARG:HH21	63:N7:135:ARG:CB	3.39	0.47
27:D5:54:VAL:HG11	27:D5:83:LEU:HD13	3.23	0.47
86:5:4003:OHX:N3	86:5:4093:OHX:N5	2.62	0.47
42:L5:211:LEU:O	42:L5:215:ASP:N	3.47	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.96	0.47
54:M8:170:ARG:NH2	64:N8:59:ARG:HA	2.29	0.47
50:M4:23:ILE:HD11	50:M4:53:VAL:HG21	2.82	0.47
52:M6:14:HIS:O	52:M6:41:LEU:HD12	2.65	0.47
17:C5:85:ILE:HA	17:C5:89:MET:SD	2.54	0.47
62:N6:16:ARG:NH1	36:5:216:G:OP1	83.80	0.47
36:5:2217:U:H2'	36:5:2218:G:C8	2.49	0.47
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	1.81	0.47
58:N2:80:THR:O	58:N2:84:LEU:HG	2.14	0.47
3:S1:103:MET:HB3	3:S1:215:VAL:HG12	2.51	0.47
55:M9:151:ARG:O	55:M9:155:LEU:HG	4.96	0.47
50:M4:57:ALA:HB2	56:N0:97:VAL:HG21	1.96	0.47
12:C0:77:ARG:NH1	12:C0:84:GLU:HA	2.29	0.47
1:2:1169:G:N1	1:2:1575:G:OP2	2.36	0.47
26:D4:39:GLU:HG2	26:D4:43:LYS:HE2	1.96	0.47
1:6:978:A:H2'	1:6:979:A:O4'	2.15	0.47
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.32	0.47
38:8:132:G:C6	38:8:133:G:N7	2.82	0.47
57:N1:41:ASP:HB2	57:N1:97:LYS:HE3	5.86	0.47
36:1:650:C:O5'	36:1:650:C:H6	1.96	0.47
20:C8:8:GLN:O	20:C8:10:SER:N	3.33	0.47
1:2:249:U:H3'	1:2:250:C:H5'	1.97	0.47
31:D9:22:ARG:HG2	31:D9:38:ILE:HD13	2.02	0.47
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.44	0.47
67:O1:61:LYS:HB3	67:O1:61:LYS:HE2	4.72	0.47
36:5:1879:A:N3	36:5:1879:A:H2'	2.29	0.47
4:S2:152:HIS:H	4:S2:152:HIS:CD2	2.31	0.47
36:5:1481:A:H2'	36:5:1481:A:N3	2.28	0.47
36:1:3335:A:H2'	36:1:3336:A:C8	2.48	0.47
34:SR:281:TYR:HB3	34:SR:285:ALA:HB3	2.22	0.47
36:5:1039:U:H2'	36:5:1040:A:C8	2.49	0.47
50:M4:127:LYS:O	50:M4:130:THR:HG23	3.87	0.47
18:C6:82:ARG:NH1	18:C6:114:ARG:O	3.24	0.47
47:M0:171:TRP:CD2	47:M0:181:TYR:HD2	2.33	0.47
42:L5:41:LYS:HA	42:L5:41:LYS:HD3	3.42	0.47
1:6:1701:A:H62	1:6:1702:A:H2	1.62	0.47
46:L9:49:ASN:ND2	46:L9:52:LEU:HB2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3043:C:P	59:N3:48:ARG:HH22	2.37	0.47
79:Q3:73:THR:CG2	79:Q3:76:ALA:H	2.24	0.47
20:C8:13:HIS:O	20:C8:14:ILE:HG22	4.03	0.47
40:L3:205:VAL:O	40:L3:207:SER:N	2.75	0.47
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.31	0.47
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.49	0.47
73:O7:72:ARG:O	73:O7:75:LYS:N	2.47	0.47
1:2:226:A:H2'	1:2:227:U:H5'	1.96	0.47
86:5:4013:OHX:N6	86:5:4202:OHX:N2	2.63	0.47
36:5:1549:U:O4	86:5:4203:OHX:N2	2.48	0.47
72:O6:57:LEU:HD21	72:O6:73:ALA:HB2	1.96	0.47
36:1:121:A:C2	45:L8:129:PRO:HB3	2.50	0.47
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	4.17	0.47
1:2:353:A:O3'	10:S8:14:THR:HG21	2.14	0.47
39:L2:30:ARG:HH22	39:L2:33:ASP:CG	2.17	0.47
36:1:1581:C:H2'	36:1:1582:C:C5'	2.45	0.47
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.25	0.47
36:1:1751:G:H5"	74:O8:26:LYS:HE3	1.96	0.47
36:1:317:A:C2	36:1:318:A:C4	3.02	0.47
36:1:270:U:O2'	36:1:318:A:H1'	2.14	0.47
36:5:2947:G:N2	36:5:2948:C:C2	2.82	0.47
1:2:859:A:C5	15:C3:73:ARG:HD3	2.49	0.47
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.15	0.47
36:5:196:G:C2	36:5:199:A:C8	3.03	0.47
1:2:526:A:C6	1:2:527:A:C5	3.02	0.47
70:O4:59:PRO:HD3	36:5:1654:A:O2'	167.82	0.47
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.48	0.47
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.13	0.47
10:S8:114:GLU:HG2	10:S8:119:GLN:O	5.39	0.47
1:2:373:G:N7	86:2:2158:OHX:N6	2.62	0.47
36:5:2676:A:H4'	36:5:2677:G:O5'	2.14	0.47
1:6:269:G:H1	1:6:286:C:H42	1.62	0.47
1:2:1233:G:O2'	33:E1:145:HIS:HB2	2.15	0.47
36:1:3218:A:H4'	36:1:3219:G:O5'	2.15	0.47
20:C8:36:LYS:HB3	20:C8:102:ALA:O	2.66	0.47
36:5:756:U:H2'	36:5:757:C:C6	2.49	0.47
44:L7:125:GLU:OE1	44:L7:128:LYS:HE3	2.14	0.47
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.49	0.47
36:1:817:A:H8	73:O7:15:SER:HG	1.62	0.47
44:L7:106:LEU:HD23	44:L7:106:LEU:HA	1.64	0.47
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2712:U:HO2'	36:5:2743:A:HO2'	1.53	0.47
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.56	0.47
50:M4:121:MET:O	50:M4:125:LYS:HG2	2.15	0.47
50:M4:128:ARG:O	50:M4:128:ARG:HG2	2.13	0.47
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.77	0.47
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.50	0.47
10:S8:34:ALA:O	10:S8:36:THR:HG22	4.06	0.47
36:5:420:G:OP1	36:5:420:G:OP2	2.33	0.47
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.97	0.47
36:5:1093:A:C2	36:5:1096:U:C2	3.02	0.47
9:S7:41:LEU:HB3	9:S7:70:PHE:CE2	3.82	0.47
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	1.80	0.47
28:D6:79:ILE:HD12	1:6:1794:A:H1'	331.12	0.47
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.47	0.47
1:6:1255:G:H4'	1:6:1256:A:OP1	2.15	0.47
4:S2:175:GLY:HA3	11:S9:97:LEU:O	3.11	0.47
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.89	0.47
36:1:2405:C:O2	36:1:2819:A:N1	2.48	0.47
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.88	0.47
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.48	0.47
61:N5:137:ASN:HA	61:N5:141:TYR:H	3.89	0.47
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.15	0.47
86:5:4057:OHX:N1	86:5:4201:OHX:N4	2.62	0.47
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	2.78	0.47
19:C7:28:PHE:CE2	19:C7:32:LYS:HD3	2.84	0.47
6:S4:194:THR:HG21	6:S4:231:GLN:OE1	4.15	0.47
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.15	0.47
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.50	0.47
64:N8:112:ILE:HB	64:N8:130:VAL:HG12	1.95	0.47
64:N8:92:LYS:HG2	64:N8:92:LYS:H	1.54	0.47
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.62	0.47
36:5:3306:U:H2'	36:5:3307:A:H5"	1.94	0.47
38:8:76:C:H2'	38:8:77:A:O4'	2.14	0.47
36:1:107:A:H1'	36:1:325:A:N3	2.29	0.47
36:5:2528:G:H1	36:5:2582:C:H42	1.63	0.47
64:N8:73:LEU:HD21	64:N8:78:LEU:HA	1.97	0.47
36:5:2400:G:H5"	36:5:2401:A:OP2	2.14	0.47
1:6:1740:A:H2'	1:6:1741:U:C6	2.49	0.47
55:M9:146:LYS:HA	55:M9:146:LYS:HD3	4.25	0.47
1:6:1572:G:H2'	1:6:1572:G:N3	2.30	0.47
15:C3:102:LEU:HD23	15:C3:102:LEU:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.60	0.47
36:1:2202:C:O2'	39:L2:240:ALA:O	2.26	0.47
32:E0:48:THR:OG1	32:E0:49:LEU:HD22	3.53	0.47
79:Q3:26:VAL:HG12	79:Q3:30:GLU:HG3	1.96	0.47
36:1:3215:A:N6	50:M4:122:VAL:HG13	2.30	0.47
32:E0:33:ARG:NH2	1:6:478:A:H5'	436.76	0.47
7:S5:43:PHE:N	7:S5:46:TRP:O	3.14	0.47
23:D1:1:MET:SD	23:D1:10:GLU:HB3	2.54	0.47
7:S5:53:VAL:O	7:S5:55:ASP:N	3.04	0.47
24:D2:125:ILE:HG12	24:D2:126:LEU:N	2.29	0.47
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	2.39	0.47
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.13	0.47
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.47	0.47
11:S9:149:ARG:NH1	1:6:765:G:C6	428.58	0.47
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.48	0.47
36:1:2248:C:OP2	86:1:3878:OHX:N3	2.47	0.47
36:5:1556:C:H2'	36:5:2169:G:C6	2.49	0.47
1:2:1794:A:H1'	28:D6:79:ILE:HD12	1.97	0.47
1:6:477:A:N7	1:6:538:A:N1	2.62	0.47
1:6:218:A:H61	1:6:829:A:H2	1.63	0.47
2:S0:202:TYR:O	2:S0:203:PHE:HD2	1.98	0.47
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.30	0.47
43:L6:130:ILE:HG12	36:5:3269:U:C5	248.02	0.47
86:2:2044:OHX:N2	86:2:2098:OHX:N6	2.62	0.47
41:L4:125:ALA:HB1	41:L4:238:LEU:HB3	2.26	0.47
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.53	0.47
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.61	0.47
74:O8:7:ASP:HB3	74:O8:10:GLN:HB3	1.96	0.47
13:C1:33:ARG:NH2	13:C1:48:ALA:O	4.96	0.47
1:2:1147:A:H2'	1:2:1148:C:H6	1.79	0.47
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.14	0.47
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.41	0.47
62:N6:5:SER:OG	62:N6:8:VAL:HG12	2.15	0.47
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.26	0.47
1:2:1410:A:H2'	1:2:1411:A:O4'	2.15	0.47
1:2:1340:U:O4	18:C6:9:THR:HA	2.14	0.47
25:D3:23:ARG:HG3	25:D3:23:ARG:HH11	1.79	0.47
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	3.08	0.47
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.36	0.47
25:D3:133:LEU:HD13	25:D3:137:LYS:HE3	2.92	0.47
62:N6:74:TYR:CE2	62:N6:77:LYS:HD2	5.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:14:ILE:CD1	48:M1:14:ILE:H	4.33	0.47
24:D2:118:ARG:NH1	1:6:686:C:O3'	400.20	0.47
1:2:1107:G:O2'	1:2:1108:G:H5'	2.15	0.47
5:S3:44:THR:O	5:S3:45:LYS:HB2	4.43	0.47
86:5:4035:OHX:N1	86:5:4083:OHX:N4	2.62	0.47
36:1:1397:C:C2'	36:1:1398:U:H5'	2.44	0.47
1:2:1385:G:N7	86:2:2132:OHX:N3	2.62	0.47
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.95	0.47
1:2:1496:U:HO2'	1:2:1497:U:H6	1.61	0.47
5:S3:176:LEU:H	5:S3:176:LEU:HD12	1.80	0.47
63:N7:14:VAL:HG22	70:O4:86:LYS:HG3	4.75	0.47
1:2:1685:G:C2	1:2:1717:G:C6	3.02	0.47
36:5:1641:U:O2'	36:5:1642:A:H3'	2.14	0.47
1:2:230:C:H2'	1:2:231:U:H5"	1.96	0.47
8:S6:3:LEU:O	8:S6:15:THR:HA	2.60	0.47
54:M8:94:PHE:CE1	64:N8:119:PRO:HD3	2.49	0.47
1:6:926:A:H2'	1:6:927:C:C6	2.49	0.47
12:C0:70:GLU:HA	12:C0:73:VAL:HB	1.97	0.47
36:1:2213:A:H2	36:1:2601:A:N3	2.13	0.47
36:1:2402:A:OP2	86:1:4087:OHX:N6	2.47	0.47
36:5:3134:A:OP1	86:5:3927:OHX:N5	2.48	0.47
50:M4:128:ARG:HG2	50:M4:132:LYS:HG3	1.97	0.47
44:L7:158:LYS:HD2	44:L7:159:GLN:H	3.51	0.47
36:1:2206:G:OP2	36:1:2206:G:H8	1.97	0.47
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.30	0.47
36:1:92:G:H5'	36:1:93:C:O5'	2.15	0.47
42:L5:40:HIS:HD2	42:L5:42:ALA:N	2.00	0.47
46:L9:92:TYR:CD1	46:L9:179:ILE:HG12	2.49	0.47
34:SR:112:SER:HB3	34:SR:155:ARG:HH22	1.79	0.47
44:L7:120:THR:HB	57:N1:132:PRO:HB2	1.96	0.47
36:1:829:U:H3	36:1:895:A:H62	1.57	0.47
41:L4:181:VAL:O	41:L4:182:LEU:CB	2.62	0.47
3:S1:58:SER:O	3:S1:60:ALA:N	2.48	0.47
42:L5:34:LYS:HD3	57:N1:30:TYR:CE2	2.49	0.47
6:S4:62:LYS:HD2	6:S4:66:MET:HG2	4.58	0.47
39:L2:79:ASN:ND2	39:L2:166:ILE:O	3.05	0.47
1:2:703:G:H2'	1:2:704:C:H5'	1.95	0.47
37:3:30:G:C6	37:3:31:U:C4	3.02	0.47
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.96	0.47
41:L4:44:LYS:O	41:L4:47:ARG:HD2	2.14	0.47
55:M9:46:LYS:NZ	36:5:1766:G:C8	101.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:584:C:H1'	32:E0:18:THR:HG21	1.95	0.47
36:1:1135:A:OP1	65:N9:6:ASN:HB2	2.14	0.47
34:SR:14:GLU:HG3	34:SR:309:VAL:HG13	4.58	0.47
1:2:25:C:OP2	1:2:26:A:H2'	2.14	0.47
14:C2:67:THR:C	14:C2:69:ALA:H	2.18	0.47
45:L8:177:TYR:CE1	45:L8:222:PHE:HB3	3.10	0.47
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.14	0.47
57:N1:14:MET:SD	57:N1:58:GLN:HG2	2.54	0.47
36:1:999:G:O2'	36:1:1000:C:H5'	2.15	0.47
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.15	0.47
36:1:1668:G:H4'	70:O4:22:VAL:HG12	1.97	0.47
46:L9:37:ASN:ND2	46:L9:37:ASN:O	4.93	0.47
71:O5:45:LYS:O	71:O5:49:LYS:HG2	4.74	0.47
42:L5:156:GLY:N	42:L5:179:ARG:O	2.45	0.47
36:1:2562:A:OP2	63:N7:56:LYS:NZ	2.35	0.47
32:E0:30:PRO:HB2	32:E0:34:ALA:HB3	2.38	0.47
1:6:62:A:HO2'	1:6:268:C:HO2'	1.62	0.47
70:O4:82:ALA:O	70:O4:86:LYS:N	2.92	0.47
6:S4:136:VAL:HG21	6:S4:148:ARG:HH22	1.80	0.47
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	1.97	0.47
36:1:391:A:C5	36:1:392:G:C8	3.03	0.47
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.14	0.47
46:L9:73:SER:O	46:L9:76:ASP:HB2	2.14	0.47
1:6:1614:A:C6	1:6:1615:C:N4	2.83	0.47
40:L3:370:PHE:HD1	40:L3:375:GLU:HG2	1.80	0.47
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	2.27	0.47
36:1:1881:A:H2'	36:1:1882:G:H8	1.80	0.47
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.97	0.47
1:6:352:A:H8	1:6:352:A:OP2	1.96	0.47
1:2:1354:G:H5'	1:2:1355:C:OP2	2.14	0.47
8:S6:164:LYS:N	8:S6:167:LYS:O	2.47	0.47
36:1:2426:U:O4	86:1:3862:OHX:N1	2.48	0.47
1:6:664:U:O2'	1:6:665:U:O5'	2.31	0.47
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.14	0.47
17:C5:125:PRO:O	17:C5:126:VAL:HB	2.22	0.47
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.14	0.47
11:S9:45:ILE:HD12	11:S9:105:LEU:HD13	5.68	0.47
40:L3:2:SER:O	40:L3:3:HIS:CB	2.68	0.47
36:1:1103:A:H62	36:1:1363:A:H1'	1.79	0.47
36:1:1615:C:H2'	36:1:1616:U:C6	2.49	0.47
36:1:2206:G:H2'	36:1:2206:G:N3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	1.76	0.47
28:D6:5:ARG:HB2	28:D6:5:ARG:HE	1.61	0.47
49:M3:48:PRO:HA	49:M3:137:GLN:HB2	1.95	0.47
36:1:978:G:O2'	36:1:979:U:O2	2.24	0.47
67:O1:10:ARG:HG2	67:O1:108:VAL:HA	1.96	0.47
67:O1:77:ARG:HG2	67:O1:89:LEU:HD23	2.39	0.47
52:M6:12:LYS:HB3	56:N0:167:ARG:NH2	4.37	0.47
64:N8:91:LEU:HD12	64:N8:121:VAL:HG21	1.97	0.47
41:L4:144:LYS:H	41:L4:144:LYS:CE	5.84	0.47
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.52	0.47
15:C3:47:PRO:HA	15:C3:50:ILE:HD12	1.96	0.47
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.37	0.47
36:5:2418:G:O6	86:5:4251:OHX:N2	2.48	0.47
17:C5:69:GLU:OE1	86:C5:201:OHX:N6	2.48	0.47
27:D5:54:VAL:HG22	27:D5:57:TYR:CE1	2.49	0.47
27:D5:55:PRO:C	27:D5:57:TYR:H	2.16	0.47
49:M3:74:GLY:HA3	49:M3:98:ASP:HB2	2.21	0.47
51:M5:90:ASN:ND2	36:5:2424:A:OP1	166.27	0.47
10:S8:26:LYS:O	10:S8:28:GLU:N	3.04	0.47
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.31	0.47
36:1:1094:U:H3'	36:1:1094:U:H6	1.79	0.47
36:1:761:A:N1	36:1:771:A:H1'	2.29	0.47
21:C9:37:VAL:O	21:C9:46:PRO:HB3	2.56	0.47
42:L5:144:VAL:HG13	42:L5:173:VAL:HG22	1.96	0.47
2:S0:202:TYR:O	2:S0:203:PHE:CG	3.67	0.47
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.14	0.47
47:M0:184:LYS:HE3	47:M0:189:GLU:OE1	2.15	0.47
25:D3:51:GLY:O	25:D3:101:GLU:HA	3.15	0.47
36:1:2767:U:H2'	36:1:2768:U:C6	2.50	0.47
1:6:1671:A:H2'	1:6:1672:G:O4'	2.15	0.47
10:S8:122:GLY:N	10:S8:157:GLU:OE2	2.46	0.47
79:Q3:83:ILE:HG22	79:Q3:87:ARG:NH1	2.30	0.47
1:6:760:A:H2'	1:6:761:G:O4'	2.14	0.47
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.17	0.47
36:1:355:A:H2'	36:1:356:C:O4'	2.15	0.47
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.96	0.47
61:N5:105:VAL:HG12	61:N5:130:TYR:CD2	3.84	0.47
74:O8:32:ASN:HD21	74:O8:36:LYS:HB2	1.79	0.47
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.15	0.47
42:L5:55:PHE:CE2	42:L5:158:ARG:HG3	2.49	0.47
40:L3:30:LYS:NZ	36:5:3139:A:OP2	235.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:579:A:N7	5:S3:178:ARG:HD2	2.29	0.47
2:S0:193:GLN:O	2:S0:195:TRP:N	2.47	0.47
62:N6:5:SER:C	62:N6:7:ASP:H	2.69	0.47
36:1:1389:G:OP2	86:1:3968:OHX:N4	2.48	0.47
28:D6:23:CYS:O	28:D6:25:ASN:N	3.06	0.47
32:E0:43:ARG:HH12	1:6:590:C:H5"	417.67	0.47
36:1:1560:G:O2'	36:1:1561:G:H5'	2.14	0.47
45:L8:128:LYS:HG3	36:5:120:G:C5	99.09	0.47
2:S0:64:ILE:HD12	2:S0:181:VAL:HG11	3.00	0.47
1:6:1334:U:H2'	1:6:1335:U:O4'	2.14	0.47
1:2:1516:A:O2'	1:2:1517:U:H5'	2.15	0.47
46:L9:7:GLU:OE1	46:L9:54:LYS:HD3	3.67	0.47
18:C6:78:VAL:O	18:C6:81:ILE:HG12	2.45	0.47
36:1:1260:A:H1'	36:1:1280:C:H1'	1.95	0.47
54:M8:178:ARG:HA	54:M8:178:ARG:HD2	2.40	0.47
45:L8:95:ASN:HD21	45:L8:98:ARG:HH22	2.90	0.47
36:5:3053:G:O6	86:5:4174:OHX:N6	2.48	0.47
36:1:2633:U:H2'	36:1:2634:U:O4'	2.15	0.47
51:M5:104:GLU:O	51:M5:108:ARG:HG3	3.86	0.47
36:5:2628:A:H1'	36:5:2798:C:C2	2.50	0.47
36:5:1786:G:H2'	36:5:1787:A:C8	2.50	0.47
36:5:1530:U:OP1	86:5:3993:OHX:N1	2.48	0.47
86:5:3993:OHX:N4	38:8:112:U:O2	2.47	0.47
1:2:1234:A:H1'	33:E1:145:HIS:O	2.15	0.47
36:1:325:A:H5"	36:1:326:U:OP2	2.15	0.47
1:6:926:A:H1'	1:6:988:A:C2	2.50	0.47
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	1.96	0.47
46:L9:99:ILE:HG22	46:L9:101:VAL:HG23	3.23	0.47
1:6:880:C:OP2	86:6:2109:OHX:N2	2.48	0.47
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.96	0.47
36:1:2822:U:H2'	36:1:2823:G:O4'	2.15	0.47
36:5:3152:U:O2	86:5:4228:OHX:N5	2.48	0.47
36:1:2567:C:C2'	36:1:2568:C:H5'	2.45	0.47
31:D9:13:ARG:NH2	1:6:1554:U:OP1	412.95	0.47
36:1:627:U:H2'	36:1:628:A:C8	2.50	0.47
51:M5:184:LYS:C	51:M5:186:GLY:H	2.83	0.47
86:5:4205:OHX:N6	86:8:226:OHX:N5	2.63	0.47
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.42	0.47
1:6:1773:C:H2'	1:6:1774:G:C8	2.50	0.47
50:M4:106:ARG:HD3	36:5:3209:A:C8	293.32	0.47
36:1:2334:U:H2'	36:1:2335:G:H5"	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1145:U:O2'	4:S2:89:GLN:O	2.25	0.47
1:2:808:U:H2'	1:2:809:A:C8	2.50	0.47
5:S3:23:GLU:CD	12:C0:61:TRP:HE1	2.18	0.47
36:5:1813:A:H2'	36:5:1814:A:H5"	1.97	0.47
36:1:1141:C:O2'	36:1:1153:A:N3	2.46	0.47
54:M8:166:LEU:HA	54:M8:166:LEU:HD23	1.54	0.47
45:L8:63:LYS:HA	45:L8:63:LYS:HE3	1.96	0.47
46:L9:5:GLN:O	46:L9:5:GLN:HG3	2.14	0.47
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.78	0.47
36:1:2216:G:OP1	72:O6:75:LYS:NZ	2.25	0.47
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.15	0.47
36:1:367:A:OP1	86:1:3880:OHX:N2	2.48	0.47
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.24	0.47
86:2:2090:OHX:N1	86:2:2131:OHX:N4	2.63	0.47
1:2:1291:G:H5'	4:S2:119:LYS:HD2	1.96	0.47
3:S1:70:LEU:HD21	3:S1:79:HIS:CE1	2.49	0.47
61:N5:25:LYS:HD3	61:N5:27:ARG:HH11	1.79	0.47
36:1:1834:U:OP1	75:O9:5:LYS:HE3	2.15	0.47
48:M1:15:GLU:CD	48:M1:132:ASN:HD22	2.17	0.47
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.25	0.47
44:L7:77:VAL:HG21	57:N1:139:ARG:HD3	3.04	0.47
36:5:2971:A:H4'	36:5:2972:G:OP2	2.15	0.47
5:S3:195:SER:O	5:S3:197:THR:N	2.48	0.47
1:2:93:A:H4'	1:2:94:U:OP2	2.15	0.47
36:1:3187:A:C2	36:1:3188:G:H1'	2.50	0.47
1:2:788:A:C4	6:S4:19:LEU:HD13	2.50	0.47
46:L9:95:ALA:O	76:Q0:77:ILE:HG12	8.42	0.47
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.14	0.47
16:C4:31:THR:HA	16:C4:38:THR:HA	3.16	0.47
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.50	0.47
49:M3:168:ARG:O	49:M3:172:LEU:HB2	2.15	0.47
1:2:1400:A:H4'	19:C7:60:ARG:HH22	1.80	0.47
1:2:1401:A:OP1	19:C7:60:ARG:NH1	2.48	0.47
19:C7:71:PHE:C	19:C7:73:LEU:H	2.19	0.47
5:S3:72:LEU:HD22	12:C0:65:TYR:HB3	2.35	0.47
39:L2:44:ILE:HG23	39:L2:87:PHE:CD1	2.63	0.47
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.54	0.47
16:C4:112:ILE:H	28:D6:57:SER:HA	1.80	0.47
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.39	0.47
15:C3:4:MET:HG2	15:C3:5:HIS:CD2	3.01	0.47
86:5:4068:OHX:N3	86:5:4146:OHX:N4	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1652:C:H2'	1:6:1653:C:H6	1.80	0.47
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	3.06	0.47
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	1.70	0.47
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.16	0.47
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.49	0.47
36:1:650:C:O2'	36:1:651:G:H5'	2.14	0.47
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.50	0.47
36:1:3019:U:C4	36:1:3020:U:C4	3.02	0.47
1:2:1603:U:H2'	1:2:1604:U:C6	2.50	0.47
4:S2:132:ALA:O	4:S2:135:SER:OG	2.44	0.47
61:N5:109:LYS:HB2	61:N5:109:LYS:HE3	1.60	0.47
36:5:3189:G:H2'	36:5:3190:C:O4'	2.15	0.47
36:1:2185:G:O2'	36:1:2314:U:OP2	2.29	0.47
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.52	0.47
55:M9:105:LEU:HD22	55:M9:138:LEU:HD13	1.97	0.47
1:2:1291:G:N2	1:2:1324:G:N2	2.59	0.47
86:5:3975:OHX:N1	86:5:4245:OHX:N2	2.63	0.47
7:S5:82:PHE:CD1	30:D8:49:ARG:HD2	3.60	0.47
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.95	0.47
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.49	0.47
57:N1:132:PRO:HD3	36:5:1098:A:O2'	256.84	0.47
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.45	0.47
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	1.95	0.47
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	7.12	0.47
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.31	0.47
1:2:1524:A:H2	1:2:1590:G:H1'	1.79	0.47
3:S1:139:ALA:HB2	3:S1:172:LEU:HD11	2.24	0.47
37:3:31:U:H4'	42:L5:218:ARG:NH2	2.30	0.47
1:2:882:U:H2'	1:2:883:C:C6	2.50	0.47
33:E1:86:THR:C	33:E1:87:THR:HG1	2.79	0.47
36:5:235:A:H2'	36:5:236:G:O4'	2.14	0.47
1:6:1429:G:H2'	1:6:1430:U:C6	2.50	0.47
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.15	0.47
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.97	0.47
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.31	0.47
3:S1:65:VAL:CG1	1:6:920:U:H5"	264.93	0.47
1:6:271:A:H5'	1:6:272:U:OP2	2.15	0.47
36:1:1720:U:OP2	55:M9:120:TYR:OH	2.25	0.47
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.18	0.47
16:C4:19:ILE:HD11	16:C4:105:LEU:HD21	1.95	0.47
86:1:4053:OHX:N6	86:1:4162:OHX:N3	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.45	0.47
48:M1:85:LYS:O	48:M1:88:GLU:N	2.41	0.47
1:2:1657:U:N3	86:2:2089:OHX:N4	2.62	0.47
29:D7:36:LYS:O	29:D7:77:THR:HG22	3.52	0.47
55:M9:93:VAL:O	55:M9:97:ARG:HG3	2.47	0.47
49:M3:14:PHE:CE1	36:5:665:A:H1'	133.20	0.47
13:C1:80:MET:HE2	13:C1:83:THR:HB	3.94	0.47
4:S2:159:THR:HG21	1:6:1097:U:O3'	383.43	0.47
23:D1:40:ASP:OD1	23:D1:44:ARG:NH1	2.48	0.47
36:1:3337:G:H2'	36:1:3338:C:C6	2.50	0.47
36:5:1020:G:H2'	36:5:1021:G:O4'	2.15	0.47
49:M3:128:ARG:NH1	71:O5:112:PRO:HG3	3.23	0.47
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.50	0.47
4:S2:153:SER:OG	4:S2:195:ASP:O	2.20	0.47
36:5:177:U:OP2	86:5:4019:OHX:N6	2.48	0.47
1:6:15:U:H2'	1:6:16:G:O4'	2.15	0.47
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.30	0.47
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.29	0.47
36:5:7:C:H2'	36:5:8:C:C6	2.50	0.47
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	2.17	0.47
54:M8:159:LYS:HD2	54:M8:159:LYS:HA	3.24	0.47
36:5:2263:C:OP1	86:5:3958:OHX:N2	2.48	0.47
2:S0:90:ALA:HB2	2:S0:97:PRO:HB3	2.95	0.47
45:L8:108:ARG:O	45:L8:111:LYS:HB2	2.14	0.47
36:1:283:G:OP2	36:1:285:A:H4'	2.15	0.47
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	2.09	0.47
28:D6:87:ARG:HD2	1:6:1797:A:C6	344.01	0.47
1:2:274:G:C2	1:2:275:C:H1'	2.50	0.47
1:2:902:G:H8	1:2:902:G:O5'	1.98	0.47
1:6:794:U:H4'	1:6:795:U:OP2	2.15	0.47
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	1.97	0.47
9:S7:15:GLU:O	9:S7:19:GLN:HG2	2.14	0.47
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.06	0.47
17:C5:67:ALA:HB2	17:C5:73:PRO:HA	2.99	0.47
36:1:1065:A:O4'	65:N9:28:LYS:HE3	2.15	0.47
1:2:741:C:HO2'	1:2:742:U:H6	1.60	0.47
86:1:4000:OHX:N4	86:1:4171:OHX:N1	2.62	0.47
25:D3:53:VAL:O	25:D3:74:VAL:HA	2.15	0.47
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.55	0.47
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HG2	4.16	0.47
26:D4:29:HIS:CD2	26:D4:29:HIS:N	4.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2209:U:C6	36:1:2209:U:OP2	2.67	0.47
86:1:3908:OHX:N6	51:M5:32:GLN:O	2.48	0.47
36:1:2157:G:O6	39:L2:151:PRO:HG2	2.15	0.47
4:S2:203:LYS:HG2	4:S2:206:THR:HG23	1.97	0.47
36:1:2278:C:C2'	36:1:2279:A:H5"	2.44	0.47
71:O5:31:LEU:O	71:O5:35:LYS:N	2.46	0.47
36:1:612:U:OP1	43:L6:21:THR:HB	2.15	0.47
46:L9:13:PRO:HG2	46:L9:16:VAL:HG13	1.97	0.47
36:5:707:U:C2'	36:5:708:G:H5"	2.44	0.47
70:O4:61:GLN:O	70:O4:64:THR:OG1	2.62	0.47
19:C7:46:LEU:HD22	19:C7:50:ILE:HG13	1.97	0.47
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	3.41	0.47
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	281.88	0.47
40:L3:67:PHE:CE1	59:N3:88:ARG:HB2	3.09	0.47
36:1:1547:G:OP1	51:M5:108:ARG:NH2	2.42	0.47
36:1:2973:G:O6	86:1:4097:OHX:N2	2.48	0.47
28:D6:45:VAL:O	28:D6:46:GLU:HG2	3.76	0.47
34:SR:278:PHE:HB3	34:SR:281:TYR:CD1	2.49	0.47
5:S3:23:GLU:HG2	12:C0:61:TRP:NE1	4.38	0.47
17:C5:39:ALA:HA	17:C5:42:ARG:HH11	1.80	0.47
36:5:2279:A:H2'	36:5:2288:G:O6	2.15	0.47
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.33	0.47
38:8:89:A:H4'	38:8:90:U:OP1	2.15	0.47
1:6:63:G:H4'	1:6:170:U:C5	2.50	0.47
36:5:51:A:H2'	36:5:52:A:O4'	2.15	0.47
69:O3:56:SER:OG	36:5:3170:A:OP2	202.86	0.47
1:6:1243:G:N3	1:6:1243:G:H5"	2.30	0.47
36:1:3382:U:H2'	36:1:3382:U:O2	2.14	0.47
52:M6:94:ARG:HH11	52:M6:94:ARG:HG2	1.78	0.47
52:M6:58:LEU:HA	52:M6:58:LEU:HD12	1.97	0.47
36:1:1363:A:OP2	86:1:4042:OHX:N6	2.48	0.46
78:Q2:45:ARG:O	78:Q2:48:SER:HB2	2.15	0.46
22:D0:42:VAL:HG13	22:D0:52:LYS:HE3	1.96	0.46
24:D2:15:ASN:ND2	24:D2:71:LYS:HG2	4.68	0.46
64:N8:76:ASP:HB2	64:N8:115:LYS:HB3	1.97	0.46
36:1:3120:C:HO2'	36:1:3121:U:H6	1.62	0.46
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.14	0.46
1:2:1535:U:O2'	1:2:1536:G:H5"	2.15	0.46
66:O0:13:LYS:HZ1	66:O0:103:THR:HG21	2.76	0.46
16:C4:17:ALA:HA	16:C4:30:VAL:HG22	5.36	0.46
8:S6:53:SER:O	8:S6:110:ALA:HB3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:93:MET:H	41:L4:93:MET:HE2	4.49	0.46
41:L4:93:MET:CE	41:L4:93:MET:H	4.19	0.46
71:O5:13:SER:OG	71:O5:15:GLU:HG3	2.14	0.46
1:2:702:G:O2'	1:2:703:G:O4'	2.32	0.46
36:5:1841:A:O2'	36:5:1842:A:H5"	2.15	0.46
1:6:1320:U:O2	1:6:1322:A:H5'	2.15	0.46
15:C3:94:LYS:O	15:C3:97:SER:N	2.97	0.46
1:6:340:U:H2'	1:6:341:A:C8	2.50	0.46
74:O8:13:GLU:H	74:O8:13:GLU:HG3	2.30	0.46
86:1:4053:OHX:N2	86:1:4162:OHX:N1	2.63	0.46
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	5.21	0.46
36:1:3139:A:OP1	40:L3:274:SER:OG	2.33	0.46
1:2:972:G:O2'	36:1:847:A:N1	2.43	0.46
1:2:331:A:H5'	10:S8:33:PRO:HA	1.97	0.46
1:6:1080:U:H3	1:6:1091:A:H2	1.63	0.46
1:6:1091:A:H4'	1:6:1092:A:O5'	2.15	0.46
36:1:208:C:O2'	36:1:209:A:H5'	2.16	0.46
86:5:4068:OHX:N1	86:5:4146:OHX:N2	2.63	0.46
69:O3:51:TYR:HD2	69:O3:67:MET:HG3	1.80	0.46
36:5:1815:U:O2'	36:5:1816:A:P	2.73	0.46
17:C5:39:ALA:HA	17:C5:42:ARG:NH1	2.30	0.46
1:2:45:U:C2	1:2:436:A:N6	2.84	0.46
36:5:2812:C:H2'	36:5:2813:A:C8	2.50	0.46
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.96	0.46
40:L3:10:ARG:HD3	40:L3:11:HIS:N	3.86	0.46
3:S1:22:ASP:O	3:S1:24:PHE:N	2.46	0.46
36:1:70:A:N1	36:1:313:A:O2'	2.45	0.46
1:2:57:G:O6	86:2:2046:OHX:N3	2.47	0.46
15:C3:72:MET:O	15:C3:75:LEU:N	3.30	0.46
36:5:997:A:H4'	37:7:80:G:H5'	1.96	0.46
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.82	0.46
26:D4:5:VAL:HG12	26:D4:6:THR:H	1.80	0.46
36:1:1662:G:N2	36:1:1788:C:O2	2.48	0.46
37:3:79:A:C2	37:3:102:A:C4	3.03	0.46
36:5:1120:A:H2'	36:5:1121:U:C6	2.50	0.46
6:S4:5:PRO:HG2	6:S4:7:LYS:HZ3	1.80	0.46
56:N0:146:LYS:HA	36:5:534:U:O2	349.44	0.46
54:M8:177:GLY:HA2	54:M8:184:PHE:CD2	2.76	0.46
39:L2:120:PRO:HB3	39:L2:161:ASP:O	2.86	0.46
40:L3:3:HIS:O	40:L3:3:HIS:CD2	2.67	0.46
36:5:1239:C:H3'	36:5:1240:A:H8	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:136:GLN:NE2	1:6:1544:U:OP1	354.66	0.46
1:2:79:C:H4'	8:S6:173:PRO:O	2.16	0.46
75:O9:10:LYS:HE3	36:5:1834:U:OP2	107.12	0.46
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.29	0.46
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	1.97	0.46
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.15	0.46
50:M4:70:PHE:CE2	50:M4:72:LEU:HD23	2.51	0.46
1:6:1068:C:H2'	1:6:1069:A:H8	1.79	0.46
36:1:1095:U:N3	57:N1:127:GLN:OE1	2.42	0.46
1:2:1565:C:H2'	1:2:1566:U:O4'	2.15	0.46
16:C4:126:THR:HG21	1:6:888:U:H1'	274.56	0.46
21:C9:3:GLY:H	1:6:1360:A:H4'	426.23	0.46
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.97	0.46
18:C6:4:VAL:HG12	18:C6:23:LYS:HB2	7.18	0.46
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.53	0.46
42:L5:233:ALA:O	42:L5:236:LEU:N	2.42	0.46
33:E1:130:VAL:HG22	33:E1:143:LYS:HG2	5.00	0.46
36:1:259:C:O5'	36:1:259:C:H6	1.98	0.46
39:L2:243:THR:HG23	36:5:2242:A:H5'	232.96	0.46
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.15	0.46
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.31	0.46
48:M1:37:LEU:HD22	48:M1:37:LEU:HA	2.67	0.46
61:N5:103:TYR:HE1	61:N5:139:ILE:HD12	1.80	0.46
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.97	0.46
1:2:984:G:H2'	1:2:985:G:O4'	2.16	0.46
43:L6:11:PRO:HG2	68:O2:91:THR:HG21	2.48	0.46
36:1:1767:C:H2'	36:1:1768:U:H6	1.80	0.46
45:L8:78:PHE:O	45:L8:80:TYR:N	2.43	0.46
36:1:2707:C:H2'	36:1:2708:C:C6	2.49	0.46
6:S4:191:ARG:HH11	6:S4:245:LYS:HD3	1.80	0.46
67:O1:36:ILE:O	67:O1:39:PHE:N	2.49	0.46
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.15	0.46
25:D3:65:ASN:ND2	1:6:574:G:O6	364.26	0.46
29:D7:31:TYR:HE2	29:D7:33:LEU:HD21	2.47	0.46
1:2:67:A:H3'	1:2:69:G:H8	1.80	0.46
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.43	0.46
36:1:2257:C:H2'	36:1:2258:U:O4'	2.16	0.46
36:1:1501:U:H6	36:1:1501:U:O5'	1.97	0.46
57:N1:122:GLN:O	57:N1:124:VAL:HG22	6.83	0.46
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.51	0.46
55:M9:149:ALA:O	55:M9:152:GLU:HB3	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:85:ASP:O	64:N8:89:GLN:HG3	2.14	0.46
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.54	0.46
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	2.19	0.46
1:2:438:A:H1'	1:2:466:U:O2	2.15	0.46
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.50	0.46
36:1:2775:U:H2'	36:1:2776:C:C6	2.49	0.46
36:1:2778:G:C2'	36:1:2779:A:H5'	2.46	0.46
36:1:438:A:H8	36:1:438:A:OP2	1.98	0.46
36:1:685:G:OP1	49:M3:35:ARG:HG2	2.15	0.46
7:S5:37:GLN:HG2	7:S5:69:PHE:CZ	3.20	0.46
59:N3:119:GLY:HA2	59:N3:137:VAL:HG23	1.97	0.46
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.31	0.46
3:S1:119:THR:HG1	3:S1:155:TYR:HD1	1.62	0.46
15:C3:119:GLU:OE2	15:C3:141:TYR:OH	4.98	0.46
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.60	0.46
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.17	0.46
66:O0:98:SER:OG	66:O0:100:ILE:HG13	2.15	0.46
40:L3:187:SER:HB2	40:L3:188:ILE:HD12	1.97	0.46
36:5:1556:C:H5"	36:5:2169:G:N2	2.30	0.46
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.81	0.46
56:N0:115:ARG:NH1	36:5:1295:G:O2'	294.63	0.46
4:S2:38:VAL:N	4:S2:65:GLU:OE1	2.84	0.46
15:C3:131:THR:HG22	15:C3:132:VAL:HG13	1.97	0.46
62:N6:33:ALA:HB2	62:N6:101:PRO:HB2	2.90	0.46
14:C2:66:VAL:HB	14:C2:67:THR:H	1.47	0.46
16:C4:127:ARG:HG3	16:C4:127:ARG:HH11	4.51	0.46
36:1:1581:C:H2'	36:1:1582:C:H5'	1.97	0.46
36:1:2209:U:P	36:1:2209:U:H6	2.37	0.46
29:D7:36:LYS:HG2	29:D7:43:ILE:HA	5.41	0.46
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.50	0.46
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.38	0.46
26:D4:112:LYS:NZ	1:6:57:G:OP1	344.87	0.46
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.98	0.46
47:M0:19:LYS:HG3	47:M0:26:VAL:CG1	2.71	0.46
36:1:1769:G:H5'	36:1:1770:G:OP2	2.15	0.46
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.80	0.46
1:6:1267:G:H2'	1:6:1268:G:H8	1.80	0.46
36:1:274:G:H2'	36:1:275:U:O4'	2.16	0.46
52:M6:167:TYR:OH	52:M6:171:LYS:HE3	2.16	0.46
61:N5:81:ILE:HG13	61:N5:125:ARG:HA	2.48	0.46
44:L7:147:LEU:HD22	44:L7:205:PHE:CD1	3.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:526:A:N6	1:6:527:A:C6	2.84	0.46
69:O3:21:ARG:O	69:O3:22:VAL:HG23	2.16	0.46
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	3.85	0.46
1:6:398:G:O5'	1:6:398:G:H8	1.99	0.46
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.31	0.46
36:5:1355:A:H1'	36:5:1356:U:OP2	2.14	0.46
40:L3:3:HIS:O	40:L3:4:ARG:C	2.56	0.46
36:1:1614:C:H2'	36:1:1615:C:H6	1.79	0.46
36:5:3314:A:O2'	36:5:3315:G:H5'	2.15	0.46
1:2:277:U:H6	1:2:279:G:N2	2.13	0.46
31:D9:6:VAL:O	31:D9:8:PHE:N	4.56	0.46
36:1:2807:U:O3'	36:1:2808:A:H3'	2.15	0.46
69:O3:12:LYS:HD2	69:O3:12:LYS:HA	1.63	0.46
67:O1:31:ARG:HD3	67:O1:31:ARG:HA	1.79	0.46
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.25	0.46
40:L3:53:MET:HE1	40:L3:327:CYS:HB2	1.97	0.46
8:S6:142:ARG:NH2	8:S6:149:LYS:O	6.11	0.46
49:M3:170:LEU:HB3	72:O6:9:ILE:HD11	1.98	0.46
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.80	0.46
1:2:1481:C:O2'	1:2:1482:C:O5'	2.21	0.46
2:S0:88:LYS:HE2	2:S0:201:LEU:HD11	5.39	0.46
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.29	0.46
22:D0:58:LEU:HD23	1:6:1516:A:H8	444.45	0.46
12:C0:55:VAL:HA	12:C0:68:LEU:HA	2.83	0.46
17:C5:20:VAL:HG12	17:C5:24:LYS:HB2	1.96	0.46
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.50	0.46
33:E1:143:LYS:HD3	1:6:1254:U:OP1	456.68	0.46
1:6:818:C:O2'	1:6:819:G:H5'	2.15	0.46
1:6:626:U:H2'	1:6:627:C:C6	2.47	0.46
36:1:1175:C:O2'	52:M6:87:MET:HB3	2.15	0.46
6:S4:57:ASN:CB	6:S4:60:GLU:H	2.62	0.46
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.38	0.46
33:E1:97:LYS:HE2	1:6:1231:U:C5	436.89	0.46
61:N5:135:ILE:HD13	61:N5:135:ILE:HA	1.65	0.46
38:4:85:G:O2'	38:4:86:U:O5'	2.24	0.46
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.35	0.46
15:C3:2:GLY:HA2	1:6:866:G:OP1	333.38	0.46
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.09	0.46
68:O2:34:LYS:O	68:O2:36:LYS:HD3	2.77	0.46
36:1:2689:A:C8	36:1:2702:A:C6	3.04	0.46
3:S1:128:LYS:NZ	3:S1:132:ASP:HB3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1913:A:N3	36:5:2120:A:H2'	2.30	0.46
74:O8:11:PHE:CD1	74:O8:12:LEU:HD23	2.50	0.46
1:2:256:A:H2'	1:2:257:A:O4'	2.15	0.46
42:L5:97:ALA:O	42:L5:101:THR:OG1	2.25	0.46
26:D4:40:LEU:O	26:D4:44:LEU:HB2	2.74	0.46
26:D4:40:LEU:O	26:D4:44:LEU:HD12	2.15	0.46
25:D3:44:GLY:H	25:D3:78:LYS:HZ2	2.32	0.46
36:5:2765:C:H2'	36:5:2766:U:H6	1.80	0.46
8:S6:26:VAL:O	8:S6:30:LYS:HD2	2.16	0.46
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.16	0.46
1:6:777:C:C6	1:6:777:C:H5"	2.51	0.46
6:S4:248:ILE:H	6:S4:248:ILE:HD13	1.80	0.46
6:S4:24:SER:OG	6:S4:24:SER:O	2.31	0.46
36:1:1375:G:O6	64:N8:10:LYS:HE2	2.15	0.46
36:5:1037:C:H2'	36:5:1038:C:C6	2.50	0.46
35:SM:74:LYS:HB2	35:SM:74:LYS:HE2	4.57	0.46
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.14	0.46
1:2:1291:G:H5'	4:S2:119:LYS:CE	2.45	0.46
1:2:538:A:H8	1:2:543:C:C4	2.33	0.46
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.50	0.46
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.39	0.46
37:7:22:A:H5"	37:7:23:A:OP2	2.16	0.46
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.69	0.46
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.96	0.46
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.75	0.46
1:6:281:G:C6	1:6:282:C:C4	3.04	0.46
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.98	0.46
59:N3:23:MET:SD	59:N3:78:VAL:HG22	2.97	0.46
1:2:701:U:H3	1:2:737:A:H61	1.63	0.46
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.30	0.46
1:6:542:A:N7	1:6:543:C:H2'	2.30	0.46
1:6:191:C:O2'	1:6:192:U:O5'	2.32	0.46
1:6:217:A:O2'	1:6:218:A:H8	1.99	0.46
1:6:1225:U:O2	1:6:1230:A:O2'	2.34	0.46
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.15	0.46
42:L5:53:VAL:O	42:L5:54:ARG:HD3	2.29	0.46
1:6:578:U:H4'	1:6:579:A:H5'	1.97	0.46
11:S9:78:ARG:HH11	11:S9:82:ARG:HH21	1.63	0.46
16:C4:32:ASP:O	16:C4:35:GLY:N	2.35	0.46
79:Q3:38:ASP:HA	79:Q3:45:LYS:HA	1.97	0.46
36:1:1433:A:H2	68:O2:25:TYR:CD2	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.50	0.46
57:N1:14:MET:CE	57:N1:55:LYS:HB2	2.69	0.46
51:M5:71:ARG:NH1	36:5:1546:A:N7	137.40	0.46
43:L6:52:VAL:HG13	43:L6:65:ILE:HG23	4.67	0.46
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.29	0.46
33:E1:135:HIS:HB3	1:6:1250:U:O2'	431.42	0.46
1:6:1783:C:H2'	1:6:1784:C:C6	2.50	0.46
36:1:1739:U:O3'	70:O4:56:THR:HG23	2.16	0.46
39:L2:90:ALA:CB	39:L2:101:VAL:HG13	3.05	0.46
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.15	0.46
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.59	0.46
36:5:2651:G:H4'	36:5:2652:U:OP2	2.16	0.46
45:L8:105:LYS:NZ	36:5:123:A:OP1	90.88	0.46
1:2:552:G:C6	1:2:553:G:C6	3.04	0.46
48:M1:36:VAL:HG21	48:M1:123:PHE:HD2	1.80	0.46
36:1:3384:U:H2'	36:1:3385:U:H6	1.79	0.46
1:6:1590:G:H2'	1:6:1591:C:H6	1.80	0.46
41:L4:330:TYR:HB2	44:L7:45:LEU:HD23	3.30	0.46
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	2.43	0.46
69:O3:26:ASN:HA	69:O3:88:ASN:OD1	2.16	0.46
8:S6:158:ILE:HD12	60:N4:85:ALA:HB2	3.75	0.46
1:6:245:U:O4	86:6:2123:OHX:N4	2.48	0.46
11:S9:7:THR:HG21	1:6:758:U:OP1	383.40	0.46
38:8:121:U:O2'	38:8:122:U:H5'	2.16	0.46
26:D4:104:SER:HB3	26:D4:107:GLN:HB2	1.98	0.46
6:S4:10:LYS:HD3	1:6:381:C:OP1	358.45	0.46
79:Q3:62:LYS:HZ2	36:5:2554:A:H62	217.57	0.46
52:M6:67:THR:HG23	52:M6:67:THR:O	3.37	0.46
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.15	0.46
1:2:976:G:C6	1:2:1023:A:C4	3.03	0.46
1:2:262:U:H2'	1:2:263:C:O4'	2.16	0.46
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.75	0.46
1:6:1481:C:H4'	1:6:1482:C:OP1	2.14	0.46
36:5:2256:A:OP2	36:5:2256:A:H2'	2.15	0.46
2:S0:170:ILE:HD12	2:S0:170:ILE:H	1.79	0.46
2:S0:28:ASN:ND2	2:S0:28:ASN:O	2.31	0.46
26:D4:49:LYS:N	26:D4:49:LYS:HD3	3.39	0.46
1:2:1732:A:H2'	1:2:1733:C:C6	2.50	0.46
36:1:906:A:OP1	86:1:3996:OHX:N1	2.48	0.46
68:O2:115:LEU:HB3	68:O2:117:ILE:HD12	2.96	0.46
40:L3:86:VAL:HA	40:L3:162:VAL:HG12	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:109:PHE:O	18:C6:112:TYR:N	3.31	0.46
52:M6:34:VAL:HB	52:M6:103:LYS:HB2	2.29	0.46
43:L6:164:SER:OG	69:O3:4:SER:HB2	2.16	0.46
1:6:1545:A:H2'	1:6:1546:G:C8	2.51	0.46
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.50	0.46
1:6:478:A:C2	1:6:511:A:C2	3.04	0.46
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.76	0.46
63:N7:21:LYS:HD3	63:N7:47:GLU:HA	3.63	0.46
34:SR:155:ARG:H	34:SR:155:ARG:HH11	1.62	0.46
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.88	0.46
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.16	0.46
1:2:906:A:OP2	16:C4:51:ASP:HB3	2.16	0.46
6:S4:226:PHE:C	6:S4:226:PHE:CD1	2.89	0.46
6:S4:227:VAL:HB	6:S4:228:ILE:H	1.52	0.46
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.50	0.46
15:C3:140:LYS:HG3	15:C3:141:TYR:N	4.45	0.46
34:SR:115:ILE:HG12	34:SR:116:ASP:H	1.81	0.46
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.21	0.46
36:5:979:U:H1'	36:5:980:A:N9	2.29	0.46
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.16	0.46
28:D6:36:ILE:HG21	28:D6:78:ALA:HB2	1.97	0.46
72:O6:54:GLU:HA	72:O6:90:MET:HE3	4.12	0.46
1:6:454:U:H5"	1:6:455:C:C5	2.44	0.46
71:O5:6:ALA:HB1	71:O5:10:ARG:NH2	2.52	0.46
1:2:196:G:O2'	1:2:197:A:OP2	2.28	0.46
1:6:1534:G:H4'	1:6:1536:G:O6	2.15	0.46
1:6:829:A:H61	1:6:843:U:H3	1.64	0.46
24:D2:7:LEU:HD23	24:D2:7:LEU:HA	3.44	0.46
86:1:4000:OHX:N6	86:1:4171:OHX:N2	2.64	0.46
1:6:450:U:H2'	1:6:451:A:H8	1.80	0.46
19:C7:71:PHE:O	19:C7:73:LEU:N	2.44	0.46
68:O2:19:ARG:HD3	68:O2:28:VAL:CG1	3.82	0.46
23:D1:71:ARG:NE	29:D7:4:VAL:HG11	2.62	0.46
1:6:957:G:C6	1:6:958:U:C4	3.04	0.46
17:C5:79:HIS:O	17:C5:81:ARG:N	2.44	0.46
1:6:919:A:H2'	1:6:920:U:C6	2.51	0.46
36:5:3017:A:H2'	36:5:3018:C:C6	2.51	0.46
36:5:1622:U:H2'	36:5:1623:G:H8	1.81	0.46
1:2:1146:G:C6	1:2:1147:A:C6	3.02	0.46
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.79	0.46
36:5:549:U:O4	86:5:4015:OHX:N4	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:205:ARG:HD2	1:6:6:G:OP2	379.37	0.46
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.67	0.46
36:1:2359:C:H2'	36:1:2360:C:C6	2.50	0.46
34:SR:201:THR:HG21	34:SR:243:LEU:N	2.30	0.46
1:6:356:G:OP2	86:6:2067:OHX:N6	2.49	0.46
36:1:937:G:OP2	64:N8:26:ARG:HB3	2.14	0.46
86:5:4035:OHX:N3	86:5:4083:OHX:N4	2.63	0.46
38:4:57:C:O2'	38:4:58:G:H5'	2.15	0.46
70:O4:94:LEU:O	70:O4:98:GLN:HB2	2.73	0.46
86:5:4205:OHX:N4	86:8:226:OHX:N1	2.64	0.46
36:5:2812:C:H2'	36:5:2813:A:H8	1.80	0.46
38:8:145:U:H2'	38:8:146:U:O4'	2.15	0.46
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.27	0.46
24:D2:113:HIS:O	24:D2:117:ARG:HB2	2.58	0.46
36:1:2995:A:C3'	36:1:2996:U:H5"	2.46	0.46
1:6:1102:G:H2'	1:6:1103:U:O4'	2.16	0.46
42:L5:176:SER:OG	36:5:2747:A:OP1	244.07	0.46
45:L8:200:LEU:HD23	45:L8:200:LEU:HA	1.59	0.46
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.15	0.46
36:1:1946:A:H5"	55:M9:136:ARG:HH12	1.79	0.46
1:6:555:A:O2'	1:6:556:A:H5'	2.15	0.46
36:5:1108:U:H2'	36:5:1109:U:C6	2.51	0.46
20:C8:110:ARG:CZ	20:C8:114:GLU:HG3	4.09	0.46
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.49	0.46
72:O6:71:LYS:HE2	72:O6:71:LYS:HB3	2.10	0.46
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	1.98	0.46
1:6:811:A:C2	1:6:858:G:H1'	2.51	0.46
36:5:1221:A:H4'	36:5:1222:G:OP2	2.16	0.46
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.31	0.46
34:SR:174:ASN:OD1	34:SR:198:ASN:HB3	2.58	0.46
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.15	0.46
1:2:1465:C:C4	1:2:1466:G:C8	3.04	0.46
1:6:1171:A:H2'	1:6:1172:G:C8	2.50	0.46
4:S2:54:GLU:HA	4:S2:57:PHE:HB2	1.98	0.46
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.56	0.46
36:1:2585:G:N3	38:4:151:C:H5	2.13	0.46
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.51	0.46
34:SR:21:THR:HG23	34:SR:36:ALA:O	3.17	0.46
12:C0:47:GLN:O	12:C0:47:GLN:NE2	5.08	0.46
41:L4:23:PRO:HG2	41:L4:26:PHE:HE2	1.80	0.46
15:C3:42:ARG:C	15:C3:44:GLY:H	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:27:MET:HG2	57:N1:151:LEU:O	2.16	0.46
36:5:2748:A:OP1	86:5:4163:OHX:N5	2.49	0.46
6:S4:66:MET:HB3	1:6:454:U:C4	376.39	0.46
1:2:888:U:H1'	16:C4:126:THR:HG21	1.98	0.46
36:5:1596:C:O2'	36:5:1696:A:N3	2.47	0.46
40:L3:115:LYS:HA	40:L3:118:PHE:HD1	2.12	0.46
36:1:1595:U:C2	36:1:1596:C:C5	3.03	0.46
45:L8:86:THR:O	45:L8:90:THR:HG23	5.03	0.46
38:4:62:C:H4'	38:4:63:G:O5'	2.16	0.46
1:2:1015:U:H5"	1:2:1016:C:OP2	2.16	0.46
36:1:3192:U:H2'	36:1:3193:C:C6	2.51	0.46
36:5:1656:A:O2'	86:5:4179:OHX:N2	2.49	0.46
55:M9:56:THR:HG22	36:5:1873:U:OP1	149.30	0.46
36:1:2657:A:C2	36:1:2694:A:C8	3.04	0.46
36:1:1602:A:OP2	55:M9:38:ARG:HG3	2.16	0.46
13:C1:5:LEU:HD22	13:C1:5:LEU:H	4.44	0.46
71:O5:95:PHE:N	36:5:135:C:O2'	57.16	0.46
36:1:2617:U:C5	36:1:2621:G:OP2	2.68	0.46
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	1.88	0.46
19:C7:51:ALA:O	19:C7:54:THR:OG1	3.34	0.46
36:5:701:G:H2'	36:5:702:C:C6	2.51	0.46
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.51	0.46
15:C3:18:TYR:CZ	24:D2:56:HIS:CE1	3.03	0.46
8:S6:175:ILE:HG12	8:S6:175:ILE:H	1.46	0.46
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.97	0.46
36:1:1069:C:H2'	36:1:1070:U:H6	1.79	0.46
36:5:354:U:OP1	86:5:4205:OHX:N5	2.48	0.46
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.16	0.46
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.16	0.46
36:1:1482:A:H4'	36:1:1483:G:OP2	2.14	0.46
36:1:373:A:N1	36:1:394:G:H4'	2.30	0.46
1:2:1475:A:H2'	1:2:1476:C:O4'	2.16	0.46
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	2.16	0.46
13:C1:64:VAL:HG21	13:C1:138:ASN:HD22	1.81	0.46
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.37	0.46
1:2:768:C:H2'	1:2:769:A:O4'	2.15	0.46
2:S0:55:GLU:OE2	23:D1:80:LYS:N	3.08	0.46
9:S7:20:VAL:HG22	9:S7:85:PHE:CE1	2.51	0.46
36:1:709:A:H1'	64:N8:57:GLY:HA2	1.98	0.46
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.50	0.46
36:1:1650:G:N7	86:1:4137:OHX:N6	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1063:G:C6	36:1:1097:G:C5	3.04	0.46
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.43	0.46
36:1:171:G:H2'	36:1:172:G:O4'	2.16	0.46
19:C7:101:ASN:HA	19:C7:120:SER:O	2.15	0.46
38:4:143:U:H2'	38:4:144:G:O4'	2.16	0.46
34:SR:29:GLN:HG3	34:SR:32:LEU:HB3	1.97	0.46
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.47	0.46
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.33	0.46
17:C5:122:THR:CG2	1:6:1558:U:H3	366.31	0.46
1:2:1600:A:O2'	1:2:1602:C:N4	2.48	0.46
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.98	0.46
4:S2:137:ILE:HG12	4:S2:138:PRO:CD	2.44	0.46
28:D6:4:LYS:O	28:D6:5:ARG:HB2	2.14	0.46
18:C6:32:ASN:N	18:C6:67:VAL:O	2.33	0.46
59:N3:46:LEU:HD12	59:N3:46:LEU:HA	1.69	0.46
51:M5:44:ARG:HH12	36:5:269:G:P	126.11	0.46
58:N2:50:LEU:O	58:N2:52:ASN:N	2.48	0.46
39:L2:202:VAL:HA	39:L2:211:HIS:O	2.98	0.46
40:L3:112:ASP:O	40:L3:114:VAL:N	2.48	0.46
44:L7:51:TYR:HE2	44:L7:183:ASP:OD1	2.68	0.46
64:N8:74:ASN:CG	64:N8:115:LYS:HB2	2.36	0.46
2:S0:185:ARG:HG3	23:D1:45:ALA:O	2.16	0.46
36:1:1255:C:H2'	36:1:1256:G:H8	1.81	0.46
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.98	0.46
64:N8:122:PRO:HB3	64:N8:142:GLY:O	3.49	0.46
22:D0:50:LEU:HG	22:D0:94:GLU:O	2.16	0.46
2:S0:163:ASN:HD21	2:S0:165:ARG:HG3	1.81	0.46
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.12	0.46
3:S1:61:LEU:O	3:S1:63:GLY:N	2.48	0.46
49:M3:97:VAL:HG12	49:M3:98:ASP:N	2.31	0.46
72:O6:86:LYS:NZ	36:5:296:A:OP1	140.63	0.46
36:1:3173:G:O6	69:O3:92:LYS:HG2	2.16	0.46
1:6:884:A:H2'	1:6:885:G:C8	2.51	0.46
1:6:188:A:H3'	1:6:189:C:H6	1.81	0.46
1:6:190:C:O2'	1:6:191:C:O5'	2.34	0.46
45:L8:61:GLN:HA	45:L8:64:ILE:HG13	2.19	0.46
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.61	0.46
42:L5:294:ALA:C	42:L5:296:GLN:H	2.18	0.46
34:SR:195:HIS:CE1	34:SR:214:ALA:HA	2.51	0.46
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.50	0.46
1:2:765:G:C6	11:S9:82:ARG:NH1	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.15	0.46
33:E1:144:CYS:C	33:E1:146:SER:N	2.69	0.46
1:6:72:A:H2'	1:6:73:U:O4'	2.15	0.46
36:1:2663:G:H4'	42:L5:152:ARG:NH1	2.31	0.46
57:N1:17:ARG:HG3	36:5:2700:G:H5"	265.60	0.46
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.64	0.46
1:6:1030:A:C5	1:6:1792:G:C6	3.03	0.46
74:O8:32:ASN:O	74:O8:34:ALA:N	2.49	0.46
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	1.97	0.46
1:6:1228:G:H2'	1:6:1228:G:N3	2.30	0.46
14:C2:45:LEU:H	14:C2:120:VAL:HG23	5.50	0.46
62:N6:3:LYS:C	62:N6:4:GLN:HE21	5.76	0.46
36:1:1895:A:O2'	36:1:3053:G:H4'	2.16	0.46
71:O5:9:LEU:HB3	71:O5:17:LEU:HD21	1.98	0.46
36:1:900:G:H2'	36:1:901:G:C8	2.51	0.46
45:L8:126:SER:HA	45:L8:127:PRO:HD3	1.72	0.46
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.42	0.46
36:1:361:A:O4'	36:1:814:U:H4'	2.16	0.46
36:1:2139:A:H62	73:O7:4:GLY:CA	2.28	0.46
36:5:129:U:H2'	36:5:130:A:C8	2.51	0.46
37:3:92:A:C5	37:3:93:C:H1'	2.51	0.46
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.81	0.46
15:C3:18:TYR:O	15:C3:19:SER:HB2	4.70	0.46
1:6:975:C:H2'	1:6:976:G:O4'	2.16	0.46
36:1:3335:A:H5'	36:1:3335:A:H8	1.81	0.46
4:S2:177:GLY:N	4:S2:195:ASP:HB3	2.31	0.46
36:5:887:G:H2'	36:5:888:A:C8	2.51	0.46
36:1:1918:C:OP2	86:1:4010:OHX:N2	2.48	0.46
86:5:4037:OHX:N6	86:5:4240:OHX:N2	2.64	0.46
45:L8:170:CYS:HB3	45:L8:175:VAL:O	2.15	0.46
36:5:2381:G:C2'	36:5:2382:G:H5'	2.46	0.46
59:N3:63:LYS:HZ3	36:5:2295:A:P	270.93	0.46
36:5:3316:A:H5"	36:5:3318:G:N2	2.30	0.46
36:1:2267:C:H2'	36:1:2268:U:O4'	2.16	0.46
36:5:374:A:N3	36:5:376:G:H5"	2.30	0.46
36:1:3024:A:H4'	46:L9:97:PHE:CE2	2.51	0.46
74:O8:61:LYS:H	74:O8:61:LYS:HG2	3.03	0.46
66:O0:76:GLU:HA	66:O0:79:THR:HB	2.68	0.46
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.16	0.46
47:M0:102:MET:HE3	47:M0:102:MET:HB2	1.86	0.46
1:2:228:G:H4'	1:2:228:G:OP1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	1.72	0.46
43:L6:69:PHE:CZ	36:5:3267:A:H2'	258.55	0.46
35:SM:68:ARG:HD3	1:6:1460:A:P	335.39	0.46
36:1:2943:G:OP2	40:L3:2:SER:HB2	2.15	0.46
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.37	0.46
36:5:1566:A:C2'	36:5:1567:U:H5'	2.46	0.46
25:D3:79:ASN:HD22	25:D3:81:LYS:HG3	1.81	0.46
75:O9:23:LEU:HD22	75:O9:24:PRO:CD	2.39	0.46
47:M0:64:ALA:HB2	36:5:2853:A:O3'	295.76	0.46
34:SR:21:THR:HA	34:SR:291:SER:OG	2.16	0.46
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.40	0.46
1:6:138:A:H2'	1:6:139:C:H5'	1.98	0.46
36:5:94:G:H2'	36:5:95:A:O4'	2.16	0.46
66:O0:99:ASP:HB2	66:O0:103:THR:CG2	2.46	0.46
1:6:485:A:C6	1:6:486:G:H1'	2.51	0.46
41:L4:74:ILE:HG21	41:L4:94:CYS:SG	2.56	0.46
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.16	0.46
7:S5:185:ARG:HD3	1:6:1471:A:OP1	334.90	0.46
44:L7:26:VAL:O	44:L7:30:ARG:HB3	2.80	0.46
1:6:1579:U:H2'	1:6:1580:C:C6	2.51	0.46
51:M5:172:ARG:NH1	36:5:29:C:O3'	105.54	0.46
51:M5:84:PRO:HA	51:M5:87:GLN:OE1	3.80	0.46
26:D4:120:GLY:O	26:D4:122:GLY:N	3.94	0.46
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.51	0.46
22:D0:58:LEU:HD22	1:6:1516:A:H5"	442.80	0.46
36:1:1927:G:P	79:Q3:6:LYS:H	2.39	0.46
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.29	0.46
37:3:27:A:P	42:L5:57:ASN:H	2.39	0.46
49:M3:133:PRO:O	49:M3:135:ALA:N	3.43	0.46
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	3.43	0.46
41:L4:238:LEU:HA	41:L4:238:LEU:HD23	1.71	0.46
36:1:352:A:H61	36:1:365:A:H5"	1.80	0.46
61:N5:92:LYS:HD3	61:N5:110:VAL:O	4.53	0.46
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.86	0.46
1:6:1140:G:OP2	86:6:2072:OHX:N3	2.48	0.46
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.62	0.46
36:5:937:G:C6	36:5:2410:U:H5"	2.50	0.46
36:1:123:A:C6	36:1:150:A:C5	3.03	0.46
36:1:1655:G:H1'	36:1:1800:A:N6	2.31	0.46
43:L6:13:GLU:HA	68:O2:4:LEU:HD21	1.97	0.46
86:5:4068:OHX:N5	86:5:4146:OHX:N6	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:178:ARG:NH1	1:6:207:U:O2	288.25	0.46
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.98	0.46
48:M1:73:GLY:O	48:M1:75:LYS:N	2.49	0.46
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.37	0.46
36:5:874:U:H5"	36:5:2950:G:OP1	2.16	0.46
64:N8:60:TYR:CD2	64:N8:63:LYS:HD2	4.38	0.46
1:6:719:U:C4	1:6:721:U:H5	2.34	0.46
51:M5:140:LYS:HB3	51:M5:144:ARG:NH1	2.31	0.46
86:1:3944:OHX:N2	52:M6:67:THR:HG21	2.31	0.46
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.47	0.46
1:2:763:G:C6	1:2:764:U:C4	3.03	0.46
47:M0:65:LEU:HA	47:M0:65:LEU:HD23	2.10	0.46
86:2:2075:OHX:N3	86:2:2161:OHX:N5	2.64	0.46
1:2:222:A:H2'	1:2:223:U:C6	2.50	0.46
36:5:1911:A:H8	36:5:1911:A:O5'	1.99	0.46
1:2:696:C:H1'	1:2:697:C:H2'	1.98	0.46
36:1:2911:A:H4'	36:1:2912:G:C8	2.50	0.46
36:1:1706:C:H2'	36:1:1707:A:O4'	2.15	0.46
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	2.13	0.46
64:N8:111:LYS:HD2	64:N8:129:PHE:HB3	3.33	0.46
38:4:152:G:H2'	38:4:153:U:O4'	2.16	0.46
78:Q2:32:LYS:O	78:Q2:33:ALA:HB3	4.59	0.46
1:2:463:U:H2'	1:2:464:A:C8	2.51	0.46
7:S5:24:VAL:O	7:S5:25:LEU:HD13	3.36	0.46
45:L8:108:ARG:O	45:L8:112:GLU:HG2	2.15	0.46
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.84	0.46
42:L5:40:HIS:CD2	57:N1:69:LYS:HA	2.51	0.46
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.54	0.46
7:S5:143:ARG:HG2	30:D8:55:VAL:HB	3.67	0.46
39:L2:174:ARG:HE	39:L2:174:ARG:HB3	1.58	0.46
36:5:1243:G:O6	36:5:1244:A:N6	2.43	0.46
5:S3:32:GLU:HG2	5:S3:57:ASP:CB	3.29	0.46
36:1:1577:G:H2'	36:1:1578:C:O4'	2.15	0.46
2:S0:185:ARG:H	23:D1:45:ALA:H	2.19	0.46
36:1:1741:A:C2	36:1:1742:U:C4	3.04	0.46
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.59	0.46
15:C3:54:LEU:O	15:C3:60:VAL:HG13	4.97	0.46
15:C3:60:VAL:O	15:C3:60:VAL:HG22	4.71	0.46
15:C3:65:VAL:HG23	15:C3:66:ILE:N	3.15	0.46
1:2:488:G:OP1	1:2:488:G:H4'	2.15	0.46
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:114:ALA:O	57:N1:116:ARG:N	2.49	0.46
39:L2:59:ALA:N	39:L2:76:PHE:O	2.49	0.46
36:1:2814:G:OP1	41:L4:73:ARG:NH2	2.49	0.46
6:S4:62:LYS:HD2	6:S4:66:MET:CE	4.03	0.46
1:2:733:A:H4'	1:2:734:A:C5	2.51	0.46
44:L7:27:ALA:CA	44:L7:30:ARG:HB3	2.45	0.46
1:2:1483:A:H61	1:2:1591:C:H1'	1.80	0.46
86:5:4003:OHX:N6	86:5:4093:OHX:N5	2.64	0.46
1:6:219:A:O2'	1:6:220:A:O5'	2.31	0.46
14:C2:56:GLU:HB3	14:C2:124:LYS:HG2	1.98	0.46
73:O7:69:HIS:ND1	73:O7:72:ARG:NH2	2.62	0.46
36:1:653:A:H61	36:1:1442:U:H3	1.64	0.46
9:S7:120:ALA:O	9:S7:124:LYS:HG2	2.57	0.46
77:Q1:9:ARG:HH11	77:Q1:9:ARG:CG	2.46	0.46
1:6:1725:U:H2'	1:6:1726:G:O4'	2.16	0.46
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.03	0.46
15:C3:13:SER:OG	15:C3:14:SER:N	2.89	0.46
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	3.74	0.46
56:N0:155:ARG:O	56:N0:170:THR:HG22	3.09	0.46
56:N0:152:LEU:N	56:N0:153:PRO:HD3	2.47	0.46
39:L2:44:ILE:HD12	39:L2:62:VAL:HG13	2.10	0.46
36:1:1752:A:OP2	86:1:4045:OHX:N3	2.48	0.46
36:5:24:G:OP2	86:5:3909:OHX:N6	2.49	0.46
1:2:1765:A:OP2	86:2:2092:OHX:N5	2.49	0.46
1:6:1783:C:H2'	1:6:1784:C:H6	1.81	0.46
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.56	0.46
36:1:2948:C:H2'	36:1:2949:U:C6	2.51	0.46
36:5:2299:A:OP2	86:5:3962:OHX:N1	2.49	0.46
36:5:1852:G:N7	86:5:4041:OHX:N6	2.64	0.46
64:N8:40:HIS:CD2	36:5:40:A:C2	180.76	0.46
48:M1:17:LEU:HD23	48:M1:76:ALA:HB1	4.13	0.46
36:5:2628:A:C2	36:5:2629:U:H1'	2.51	0.46
36:1:551:A:C4	36:1:552:G:C8	3.04	0.46
47:M0:169:LYS:HD2	47:M0:169:LYS:H	3.73	0.46
26:D4:3:ASP:C	26:D4:5:VAL:H	2.19	0.46
36:1:2778:G:H2'	36:1:2779:A:H5'	1.97	0.46
24:D2:83:ILE:HG13	24:D2:117:ARG:HH12	1.81	0.46
18:C6:140:LYS:NZ	1:6:1192:C:O2'	361.35	0.46
42:L5:99:TYR:CD2	42:L5:199:ILE:HG12	2.85	0.46
4:S2:161:LYS:HB2	4:S2:166:THR:HB	2.94	0.46
37:7:71:G:H2'	37:7:72:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1324:G:N7	86:6:2104:OHX:N2	2.63	0.46
36:5:2584:G:H5'	36:5:2585:G:OP2	2.15	0.46
36:5:1393:A:N3	36:5:1419:A:O2'	2.46	0.46
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.30	0.46
36:1:1902:G:C6	36:1:1903:U:C2	3.05	0.46
51:M5:197:LEU:HD12	51:M5:197:LEU:HA	2.18	0.46
43:L6:93:VAL:HG13	43:L6:93:VAL:O	2.16	0.46
36:1:3078:U:H4'	36:1:3079:U:O5'	2.09	0.46
36:1:2878:G:H5"	40:L3:5:LYS:HE2	1.98	0.45
36:1:2208:A:N1	86:1:4041:OHX:N4	2.64	0.45
18:C6:52:LEU:HD23	18:C6:60:PHE:CZ	3.43	0.45
4:S2:214:ALA:O	4:S2:218:ILE:HG13	3.16	0.45
1:2:1795:U:H3	28:D6:10:ARG:HG3	1.81	0.45
36:1:2444:C:H3'	36:1:2445:A:H5"	1.98	0.45
36:5:2960:C:H2'	36:5:2961:G:H8	1.81	0.45
40:L3:116:ARG:HG2	40:L3:175:LYS:CB	2.91	0.45
63:N7:103:GLN:HA	63:N7:104:PRO:HD3	1.68	0.45
54:M8:92:ARG:HG2	64:N8:76:ASP:O	2.84	0.45
6:S4:226:PHE:HD1	6:S4:226:PHE:C	2.19	0.45
3:S1:113:MET:CE	3:S1:209:ASN:HB3	4.25	0.45
39:L2:70:ARG:HH11	39:L2:72:ARG:CG	2.23	0.45
15:C3:98:VAL:HG12	15:C3:115:LEU:HG	2.10	0.45
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.98	0.45
36:1:2247:G:OP1	86:1:3878:OHX:N1	2.49	0.45
40:L3:97:ARG:NH1	36:5:3244:A:C6	245.71	0.45
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	6.46	0.45
49:M3:76:THR:OG1	49:M3:79:GLU:HG3	2.16	0.45
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.16	0.45
41:L4:42:VAL:C	41:L4:44:LYS:H	2.52	0.45
54:M8:165:ILE:HD12	54:M8:167:SER:O	5.34	0.45
1:2:740:A:C2'	1:2:741:C:H5"	2.45	0.45
21:C9:3:GLY:HA3	1:6:1364:G:H22	429.74	0.45
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.47	0.45
26:D4:14:SER:O	26:D4:16:PRO:HD3	2.16	0.45
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.16	0.45
1:6:1756:A:H2'	1:6:1757:G:H8	1.80	0.45
1:2:778:G:H3'	1:2:780:A:C2	2.50	0.45
3:S1:66:VAL:HG22	16:C4:34:SER:HA	1.97	0.45
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	3.46	0.45
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.66	0.45
6:S4:55:ALA:HB1	6:S4:60:GLU:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:872:U:H2'	36:1:873:C:C6	2.51	0.45
36:5:244:G:H8	36:5:244:G:OP2	1.99	0.45
1:2:1527:C:H2'	1:2:1528:U:C6	2.50	0.45
9:S7:64:VAL:HG12	9:S7:65:PRO:N	2.65	0.45
20:C8:61:LEU:HD22	20:C8:65:GLU:OE1	3.73	0.45
34:SR:110:VAL:HA	34:SR:126:SER:HB2	1.99	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	4.12	0.45
5:S3:117:ARG:NH1	35:SM:126:ASP:OD1	2.48	0.45
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	3.51	0.45
36:1:1917:C:P	55:M9:85:ARG:HH22	2.39	0.45
4:S2:50:ILE:HD11	4:S2:239:PRO:HB3	1.96	0.45
1:2:1195:C:N4	18:C6:143:ARG:HA	2.30	0.45
1:2:1114:G:O6	86:2:2074:OHX:N5	2.49	0.45
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.92	0.45
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.17	0.45
1:6:696:C:H4'	1:6:697:C:C6	2.50	0.45
45:L8:203:VAL:HG13	45:L8:207:ASP:HB2	3.56	0.45
1:6:1391:A:H2'	1:6:1392:U:C6	2.50	0.45
51:M5:184:LYS:C	51:M5:186:GLY:N	3.18	0.45
36:1:368:G:OP1	86:1:3880:OHX:N1	2.48	0.45
1:6:16:G:H2'	1:6:17:C:C6	2.52	0.45
57:N1:79:MET:HA	57:N1:84:TYR:HA	1.98	0.45
36:5:1355:A:H4'	36:5:1356:U:O5'	2.16	0.45
36:5:1157:G:H2'	36:5:1158:A:O4'	2.15	0.45
18:C6:34:SER:OG	21:C9:7:ARG:O	3.16	0.45
1:6:628:G:N1	1:6:970:A:OP2	2.40	0.45
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.10	0.45
1:2:1445:G:C5	33:E1:91:ILE:HB	2.50	0.45
73:O7:3:LYS:HB3	36:5:2138:A:C4	170.53	0.45
36:5:378:A:N7	36:5:391:A:H2	2.14	0.45
48:M1:24:GLY:HA2	36:5:2680:A:C2	308.43	0.45
36:1:2401:A:O3'	41:L4:68:GLY:HA2	2.15	0.45
48:M1:131:MET:HB3	48:M1:131:MET:HE3	2.18	0.45
36:1:1282:G:C6	36:1:1283:C:C4	3.04	0.45
1:2:30:G:H2'	1:2:31:C:C6	2.51	0.45
46:L9:83:THR:OG1	46:L9:84:LYS:N	2.70	0.45
37:7:38:U:HO2'	37:7:40:C:H5	1.60	0.45
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.15	0.45
36:5:3295:A:H2'	36:5:3296:A:C8	2.51	0.45
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.18	0.45
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.16	0.45
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.45
75:O9:33:ASN:CG	75:O9:34:THR:H	2.20	0.45
16:C4:121:VAL:O	1:6:886:U:O2'	287.29	0.45
36:1:979:U:H1'	36:1:980:A:N7	2.31	0.45
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.16	0.45
19:C7:45:ARG:NH2	1:6:1331:A:OP1	413.04	0.45
13:C1:99:ARG:HB2	25:D3:12:ALA:HB2	1.98	0.45
20:C8:6:GLN:O	20:C8:7:GLU:HB2	2.60	0.45
28:D6:82:ARG:NH2	1:6:1153:G:OP2	331.98	0.45
68:O2:33:ARG:HG3	36:5:945:C:OP1	170.17	0.45
55:M9:96:ILE:HG23	36:5:1722:U:O4'	217.62	0.45
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.55	0.45
53:M7:112:LEU:HA	53:M7:112:LEU:HD12	1.67	0.45
1:2:315:A:C2	1:2:353:A:C5	3.03	0.45
1:2:647:G:N2	1:2:688:G:C2	2.84	0.45
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	2.42	0.45
1:2:1783:C:H2'	1:2:1784:C:H6	1.81	0.45
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.07	0.45
44:L7:67:ARG:NH2	36:5:517:G:H5"	308.64	0.45
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.16	0.45
10:S8:46:VAL:N	10:S8:54:LYS:O	2.42	0.45
45:L8:109:LEU:O	45:L8:113:ALA:N	2.42	0.45
52:M6:148:LYS:NZ	36:5:3006:A:OP2	249.96	0.45
4:S2:49:LYS:HB3	4:S2:243:TYR:CD2	2.52	0.45
1:6:482:U:H2'	1:6:483:A:H8	1.80	0.45
36:5:1135:A:C2	36:5:1136:A:C8	3.05	0.45
38:8:130:C:H2'	38:8:131:A:C8	2.51	0.45
45:L8:228:GLU:OE2	45:L8:231:LYS:NZ	4.90	0.45
1:6:1391:A:C8	1:6:1412:G:C6	3.04	0.45
20:C8:36:LYS:HD3	20:C8:36:LYS:HA	1.48	0.45
3:S1:22:ASP:C	3:S1:24:PHE:H	2.19	0.45
38:8:145:U:H2'	38:8:146:U:C6	2.50	0.45
46:L9:84:LYS:O	46:L9:188:THR:HG23	2.15	0.45
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.97	0.45
49:M3:55:ARG:O	49:M3:115:ARG:NH2	2.82	0.45
1:6:1603:U:H2'	1:6:1604:U:C6	2.51	0.45
1:6:42:G:OP2	1:6:438:A:N6	2.50	0.45
1:6:12:U:H1'	1:6:1300:A:N3	2.31	0.45
36:5:2787:G:OP2	86:5:4036:OHX:N6	2.48	0.45
5:S3:212:LYS:NZ	5:S3:212:LYS:HB2	3.95	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:33:U:H2'	37:7:34:C:O4'	2.17	0.45
64:N8:95:SER:HB2	64:N8:97:GLU:OE2	3.56	0.45
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.61	0.45
17:C5:123:TYR:OH	20:C8:122:HIS:NE2	2.29	0.45
52:M6:110:PRO:O	52:M6:111:PRO:C	3.39	0.45
2:S0:76:ILE:HG23	2:S0:98:ILE:HB	2.06	0.45
72:O6:29:LYS:N	72:O6:29:LYS:HE3	5.50	0.45
44:L7:159:GLN:HA	36:5:1362:G:O2'	217.25	0.45
36:1:2206:G:H1	36:1:2237:C:H42	1.63	0.45
4:S2:139:ILE:HG13	4:S2:218:ILE:HD13	1.99	0.45
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.17	0.45
8:S6:57:ASP:C	8:S6:59:GLN:H	2.79	0.45
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.15	0.45
36:5:2234:G:N7	86:5:3964:OHX:N1	2.63	0.45
58:N2:54:VAL:HG12	58:N2:67:SER:HA	1.98	0.45
34:SR:67:ILE:O	34:SR:84:SER:OG	2.11	0.45
1:2:901:G:H22	16:C4:54:GLU:CD	2.20	0.45
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.97	0.45
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.17	0.45
15:C3:138:ASN:O	15:C3:140:LYS:N	3.40	0.45
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.55	0.45
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.16	0.45
11:S9:129:ILE:O	11:S9:142:ASN:HA	2.76	0.45
11:S9:83:VAL:HA	11:S9:149:ARG:HA	1.97	0.45
20:C8:29:VAL:HG12	20:C8:30:TYR:CD1	4.28	0.45
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	1.86	0.45
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.46	0.45
36:1:1507:G:C8	53:M7:129:THR:HG22	2.51	0.45
56:N0:115:ARG:N	56:N0:115:ARG:HD2	2.50	0.45
1:6:830:U:C2'	1:6:831:U:H5'	2.45	0.45
36:5:1662:G:O6	86:5:3921:OHX:N1	2.50	0.45
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.59	0.45
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.16	0.45
4:S2:67:GLN:OE1	4:S2:67:GLN:N	2.52	0.45
50:M4:24:LYS:HG2	50:M4:62:GLN:C	2.37	0.45
59:N3:40:LYS:HD3	59:N3:59:MET:CE	2.47	0.45
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.42	0.45
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.62	0.45
1:6:307:G:H2'	1:6:308:C:H5"	1.98	0.45
1:2:581:U:O4	35:SM:115:LYS:NZ	2.49	0.45
1:2:1762:A:C1'	1:2:1783:C:H5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:28:A:H2'	1:2:29:U:H6	1.78	0.45
60:N4:4:GLU:HG3	60:N4:30:ARG:HH11	3.99	0.45
36:5:1915:A:H2'	36:5:1916:U:C6	2.51	0.45
70:O4:3:GLN:CD	70:O4:30:LEU:HB2	2.69	0.45
49:M3:13:HIS:NE2	36:5:98:G:N7	139.15	0.45
42:L5:143:LYS:HE3	42:L5:145:PHE:CZ	3.70	0.45
36:5:209:A:H4'	36:5:211:A:N7	2.30	0.45
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.98	0.45
86:1:4025:OHX:N2	86:1:4145:OHX:N5	2.64	0.45
36:1:372:A:H2'	36:1:373:A:O4'	2.16	0.45
1:2:766:U:C4	1:2:769:A:C8	3.05	0.45
36:1:1919:G:N7	86:1:4010:OHX:N5	2.64	0.45
18:C6:34:SER:HB3	18:C6:35:PRO:HD2	1.98	0.45
1:2:46:A:N6	1:2:433:C:H4'	2.31	0.45
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.64	0.45
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	2.81	0.45
73:O7:50:GLY:O	73:O7:53:ALA:HB3	2.17	0.45
36:5:2224:A:H5"	36:5:2225:U:OP2	2.16	0.45
49:M3:77:LEU:HD23	49:M3:77:LEU:HA	2.29	0.45
54:M8:169:GLY:O	54:M8:172:PHE:HB2	2.17	0.45
36:5:2344:U:H2'	36:5:2345:A:C8	2.50	0.45
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.18	0.45
78:Q2:35:LEU:HG	78:Q2:35:LEU:O	3.51	0.45
1:6:635:A:C2	1:6:863:A:C8	3.05	0.45
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.99	0.45
36:1:2174:G:OP2	39:L2:18:SER:OG	2.34	0.45
36:1:1103:A:H1'	36:1:1104:G:P	2.57	0.45
36:5:1613:A:H2'	36:5:1614:C:C6	2.51	0.45
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	2.98	0.45
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.35	0.45
1:2:538:A:C8	1:2:543:C:C4	3.04	0.45
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.82	0.45
34:SR:159:ASN:C	34:SR:161:LYS:H	4.79	0.45
8:S6:58:LYS:HE3	8:S6:105:ASP:O	2.16	0.45
1:6:1688:U:O2	1:6:1713:G:N2	2.47	0.45
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.55	0.45
31:D9:5:ASN:CG	31:D9:7:TRP:NE1	2.68	0.45
44:L7:77:VAL:HG22	57:N1:139:ARG:O	2.37	0.45
63:N7:9:LYS:O	63:N7:25:ILE:HD12	3.19	0.45
16:C4:89:THR:O	16:C4:128:LYS:HE3	4.11	0.45
34:SR:81:LEU:HD21	34:SR:122:ILE:HD13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:790:U:H2'	36:1:791:A:O4'	2.16	0.45
67:O1:20:LEU:O	67:O1:28:ARG:NH2	3.13	0.45
15:C3:26:PHE:CZ	15:C3:28:LEU:HB2	2.52	0.45
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.84	0.45
9:S7:48:GLU:OE1	9:S7:56:LYS:HD3	4.38	0.45
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.30	0.45
36:5:28:C:O2'	36:5:61:A:H1'	2.17	0.45
36:5:2951:G:O2'	36:5:2952:G:H5'	2.17	0.45
1:6:1382:A:C4	1:6:1383:G:N7	2.85	0.45
1:2:191:C:O2'	1:2:192:U:O5'	2.30	0.45
45:L8:68:ARG:H	45:L8:68:ARG:HG2	1.93	0.45
24:D2:31:SER:O	24:D2:34:ILE:N	2.94	0.45
1:2:301:A:C6	1:2:302:U:C4	3.05	0.45
1:6:1402:G:C6	1:6:1403:C:C4	3.05	0.45
1:2:422:G:N7	86:2:2107:OHX:N5	2.65	0.45
8:S6:10:ASN:ND2	8:S6:127:THR:O	3.35	0.45
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.25	0.45
1:2:778:G:H22	26:D4:10:ARG:CZ	2.28	0.45
1:2:717:C:H2'	1:2:718:U:H5"	1.99	0.45
36:5:2111:G:H4'	36:5:2112:U:OP2	2.15	0.45
40:L3:57:VAL:HB	40:L3:358:TRP:HB3	2.75	0.45
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.90	0.45
7:S5:23:VAL:HG11	18:C6:57:LEU:HD13	3.16	0.45
28:D6:22:ARG:HD2	28:D6:29:SER:HA	2.26	0.45
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.57	0.45
36:1:251:G:H4'	36:1:252:U:OP1	2.16	0.45
36:1:1429:G:C6	41:L4:99:MET:HE2	2.51	0.45
1:2:1619:C:H2'	1:2:1620:C:H6	1.80	0.45
1:6:722:G:O2'	1:6:723:G:H5"	2.17	0.45
1:2:862:A:H8	1:2:862:A:OP2	2.00	0.45
1:6:1079:U:C4	1:6:1080:U:C4	3.04	0.45
1:2:325:G:H4'	13:C1:83:THR:HG21	1.96	0.45
25:D3:29:TYR:CZ	25:D3:33:LEU:HD13	3.11	0.45
1:2:2:A:C8	1:2:2:A:H5'	2.51	0.45
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.17	0.45
87:2:2179:3K8:H4	16:C4:137:LEU:HD22	1.98	0.45
53:M7:4:TYR:OH	53:M7:16:SER:OG	3.71	0.45
34:SR:201:THR:CB	34:SR:242:SER:HA	2.47	0.45
36:5:1638:A:N1	36:5:1736:G:O2'	2.37	0.45
1:2:61:A:C8	1:2:269:G:O2'	2.70	0.45
1:2:138:A:N6	1:2:266:A:H61	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3156:U:O2'	36:5:3157:U:O2	2.31	0.45
44:L7:62:ILE:O	44:L7:65:ALA:HB3	2.71	0.45
36:5:1883:A:C6	36:5:1884:A:C5	3.05	0.45
1:6:137:U:H2'	1:6:137:U:H6	1.50	0.45
86:1:3973:OHX:N1	86:1:4154:OHX:N4	2.65	0.45
40:L3:221:THR:O	40:L3:272:TYR:HA	2.34	0.45
40:L3:363:SER:OG	40:L3:364:LYS:N	2.98	0.45
36:1:2998:U:H3	36:1:3150:A:H61	1.63	0.45
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.26	0.45
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	2.36	0.45
33:E1:139:LEU:HB2	33:E1:151:ASN:HA	1.98	0.45
75:O9:37:TYR:O	36:5:351:A:N6	93.80	0.45
1:6:1724:U:O4	86:6:2092:OHX:N5	2.48	0.45
34:SR:241:PHE:O	34:SR:255:ALA:HB3	2.17	0.45
10:S8:27:PHE:C	10:S8:27:PHE:CD2	2.99	0.45
6:S4:153:ASN:N	6:S4:153:ASN:OD1	2.31	0.45
86:5:4110:OHX:N5	38:8:139:U:O4	2.49	0.45
22:D0:68:ARG:NH2	22:D0:77:LYS:HA	2.39	0.45
6:S4:212:ASP:C	6:S4:214:LEU:H	2.34	0.45
36:5:2537:U:O2'	36:5:2538:U:O4'	2.27	0.45
36:1:1016:C:H1'	36:1:1028:U:C2	2.51	0.45
36:1:3275:U:O2'	36:1:3276:G:OP1	2.27	0.45
20:C8:123:ARG:CG	20:C8:133:VAL:HG21	2.45	0.45
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.16	0.45
4:S2:140:ARG:HG3	4:S2:155:ALA:HB2	1.97	0.45
36:1:2406:C:H2'	36:1:2407:C:C6	2.51	0.45
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	3.01	0.45
1:2:1541:G:C5	1:2:1542:G:C6	3.05	0.45
36:1:1836:C:N4	75:O9:3:ALA:HB2	2.32	0.45
47:M0:45:GLU:HG2	47:M0:46:PHE:CE1	2.51	0.45
51:M5:14:LYS:HZ1	36:5:269:G:H5"	131.54	0.45
13:C1:108:PRO:HG2	13:C1:134:THR:O	2.76	0.45
3:S1:105:PHE:CE2	3:S1:213:ARG:HA	2.51	0.45
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.52	0.45
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.48	0.45
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.15	0.45
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.16	0.45
36:5:570:A:H2'	36:5:571:U:O4'	2.17	0.45
71:O5:15:GLU:OE2	71:O5:15:GLU:N	4.44	0.45
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.07	0.45
26:D4:121:THR:HG22	26:D4:123:LYS:N	6.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.33	0.45
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.47	0.45
36:1:1245:A:C3'	36:1:1246:G:H5"	2.47	0.45
34:SR:195:HIS:HE2	34:SR:213:SER:C	2.19	0.45
53:M7:138:LYS:HD2	53:M7:140:GLU:OE1	2.16	0.45
36:1:1306:G:C6	52:M6:62:THR:HA	2.51	0.45
5:S3:144:ALA:HB2	1:6:579:A:N1	391.40	0.45
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	2.97	0.45
36:1:3110:C:O3'	46:L9:155:SER:HB2	2.17	0.45
1:6:1252:C:H2'	1:6:1253:U:O4'	2.17	0.45
26:D4:29:HIS:HE1	26:D4:34:ASN:HA	4.01	0.45
61:N5:136:ALA:O	61:N5:139:ILE:HB	4.80	0.45
46:L9:57:VAL:HG13	46:L9:64:HIS:CE1	2.62	0.45
36:5:2561:A:O2'	36:5:2562:A:H5"	2.15	0.45
21:C9:77:ASN:OD1	21:C9:98:GLY:HA2	2.16	0.45
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.16	0.45
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.33	0.45
4:S2:115:ILE:HG21	4:S2:208:GLU:OE1	2.97	0.45
1:6:1003:A:H4'	1:6:1004:U:O5'	2.15	0.45
62:N6:77:LYS:NZ	75:O9:31:THR:OG1	4.01	0.45
6:S4:128:LYS:HA	6:S4:156:VAL:HG22	1.98	0.45
55:M9:82:LYS:HE3	36:5:2115:G:O2'	208.29	0.45
36:1:578:A:H5"	36:1:579:G:O5'	2.16	0.45
36:5:2376:G:H2'	36:5:2377:G:C8	2.52	0.45
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.51	0.45
36:1:3004:C:O2'	36:1:3005:A:H5'	2.16	0.45
36:1:2623:G:H2'	36:1:2624:G:H8	1.80	0.45
1:2:1315:U:OP1	1:2:1328:G:N2	2.47	0.45
43:L6:56:LYS:HG2	43:L6:57:HIS:O	3.55	0.45
10:S8:100:ALA:HB3	10:S8:169:ILE:HG12	2.83	0.45
36:5:1258:U:O2	36:5:1260:A:H8	1.99	0.45
36:1:2842:U:C5	36:1:2843:U:C5	3.04	0.45
8:S6:193:LEU:HA	8:S6:193:LEU:HD23	1.75	0.45
8:S6:56:ASN:OD1	8:S6:56:ASN:N	2.50	0.45
15:C3:76:LYS:HE3	15:C3:76:LYS:HB3	1.69	0.45
49:M3:120:GLN:HA	49:M3:123:ILE:HG12	1.98	0.45
49:M3:120:GLN:HB3	49:M3:120:GLN:HE21	1.64	0.45
1:2:1092:A:O2'	1:2:1094:G:N7	2.43	0.45
31:D9:43:PHE:O	31:D9:47:ALA:N	2.50	0.45
36:5:436:A:H3'	36:5:437:G:C8	2.51	0.45
18:C6:41:PRO:HG2	18:C6:44:LEU:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2876:C:H2'	36:1:2877:G:O4'	2.17	0.45
36:1:880:G:O6	36:1:883:A:H5"	2.17	0.45
36:5:3343:G:N2	36:5:3362:A:C2	2.75	0.45
1:2:514:G:N1	1:2:543:C:H5	2.15	0.45
7:S5:94:THR:HA	7:S5:97:LEU:HB2	1.98	0.45
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	6.62	0.45
1:6:417:A:O5'	1:6:417:A:H8	1.98	0.45
34:SR:113:VAL:HG13	34:SR:114:ASP:H	1.82	0.45
1:2:275:C:H2'	1:2:276:C:C5	2.51	0.45
44:L7:165:ASP:OD2	44:L7:166:ASN:N	3.15	0.45
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	2.25	0.45
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.41	0.45
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.40	0.45
68:O2:125:ARG:O	68:O2:127:ALA:N	2.50	0.45
1:6:139:C:C2	1:6:176:C:C2	3.04	0.45
27:D5:99:ALA:O	27:D5:100:ILE:HG12	2.16	0.45
41:L4:259:ASP:OD1	41:L4:259:ASP:N	3.00	0.45
25:D3:10:ASN:C	25:D3:12:ALA:H	2.19	0.45
61:N5:115:ARG:CG	61:N5:115:ARG:HH11	2.85	0.45
1:2:1607:G:H2'	1:2:1608:U:H6	1.80	0.45
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.30	0.45
71:O5:57:VAL:O	71:O5:61:GLN:HG3	2.92	0.45
1:2:38:C:C2'	1:2:39:A:H5'	2.47	0.45
20:C8:92:ILE:HG23	20:C8:93:THR:HG23	2.98	0.45
1:2:830:U:C2	1:2:831:U:C5	3.04	0.45
1:6:1157:A:H2'	1:6:1160:A:N7	2.32	0.45
36:1:718:G:H3'	36:1:719:U:H5"	1.99	0.45
1:2:1643:U:H2'	1:2:1644:C:O4'	2.17	0.45
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.15	0.45
40:L3:56:ILE:HG23	40:L3:57:VAL:N	2.80	0.45
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	1.98	0.45
36:5:189:G:H2'	36:5:224:C:OP1	2.17	0.45
36:5:192:C:H2'	36:5:193:C:C6	2.52	0.45
36:1:1675:G:H2'	36:1:1676:A:H8	1.78	0.45
47:M0:193:ASP:CG	47:M0:198:LYS:HE3	2.37	0.45
33:E1:135:HIS:CE1	33:E1:138:ARG:HE	4.91	0.45
36:5:2204:C:H4'	36:5:2205:U:OP1	2.17	0.45
36:1:3106:A:H61	36:1:3128:G:H1'	1.80	0.45
54:M8:67:ILE:HD13	54:M8:101:VAL:HG21	2.44	0.45
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.27	0.45
1:6:431:C:H2'	1:6:432:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.84	0.45
1:6:484:C:N4	1:6:503:G:H1	2.15	0.45
43:L6:55:LEU:HA	43:L6:55:LEU:HD23	1.67	0.45
74:O8:11:PHE:HD1	74:O8:12:LEU:HD23	1.81	0.45
68:O2:58:GLY:HA3	36:5:1339:C:O2'	189.75	0.45
52:M6:162:VAL:O	52:M6:165:ALA:HB3	2.35	0.45
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.04	0.45
36:5:2319:U:O4	86:5:3998:OHX:N2	2.50	0.45
36:1:535:G:C6	36:1:555:U:N3	2.85	0.45
20:C8:139:LYS:HB2	1:6:1458:G:OP2	353.12	0.45
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.50	0.45
17:C5:130:ARG:H	35:SM:74:LYS:HD2	5.61	0.45
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.98	0.45
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.17	0.45
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.50	0.45
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.98	0.45
3:S1:194:ASN:O	3:S1:197:ILE:HB	2.17	0.45
36:1:1233:G:H22	36:1:1255:C:N4	2.14	0.45
1:2:401:A:H4'	6:S4:3:ARG:HD3	1.99	0.45
41:L4:140:HIS:CD2	41:L4:247:PHE:H	3.06	0.45
1:2:1684:U:O2	1:2:1718:G:N2	2.48	0.45
40:L3:187:SER:O	40:L3:188:ILE:C	2.54	0.45
36:5:167:U:H3	36:5:255:A:H2	1.65	0.45
26:D4:124:ARG:O	26:D4:127:LYS:HE2	2.17	0.45
47:M0:39:LYS:HB2	47:M0:86:HIS:CE1	2.51	0.45
40:L3:205:VAL:O	40:L3:208:VAL:HG23	2.16	0.45
36:5:1464:G:N2	36:5:1466:G:H3'	2.31	0.45
1:2:735:C:H1'	1:2:736:C:H5"	1.98	0.45
53:M7:30:ARG:C	53:M7:30:ARG:HD3	2.62	0.45
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.49	0.45
1:6:538:A:C8	1:6:543:C:N4	2.69	0.45
9:S7:31:SER:HA	9:S7:35:LYS:HB3	4.14	0.45
1:6:1203:A:C4	1:6:1556:A:C2	3.05	0.45
36:1:1927:G:OP1	79:Q3:8:VAL:HG13	2.17	0.45
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.56	0.45
36:1:974:G:H2'	36:1:975:C:C6	2.52	0.45
55:M9:99:LEU:HD22	55:M9:99:LEU:O	2.16	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.24	0.45
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.52	0.45
36:5:1782:U:H2'	36:5:1783:U:C6	2.52	0.45
55:M9:38:ARG:O	55:M9:42:ARG:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:10:LYS:HG2	5:S3:11:LEU:HD23	2.54	0.45
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.97	0.45
1:2:521:A:H1'	26:D4:34:ASN:HD21	1.81	0.45
36:5:508:U:H2'	36:5:509:U:C6	2.52	0.45
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.51	0.45
61:N5:59:SER:O	61:N5:63:ILE:HG22	2.16	0.45
1:6:1081:A:H1'	1:6:1082:C:H5	1.82	0.45
49:M3:59:ARG:HD3	36:5:73:C:C2	92.74	0.45
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.16	0.45
68:O2:103:LYS:O	68:O2:106:VAL:HG22	3.92	0.45
4:S2:58:LEU:HA	23:D1:12:TYR:HE1	2.43	0.45
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.16	0.45
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.17	0.45
42:L5:286:VAL:HG13	47:M0:206:LEU:HD21	2.88	0.45
36:1:210:U:C2	36:1:230:U:H4'	2.51	0.45
69:O3:73:ARG:HH21	69:O3:82:ARG:CZ	2.30	0.45
36:1:2798:C:H5"	36:1:2799:A:OP1	2.17	0.45
36:5:1784:G:H2'	36:5:1785:U:O4'	2.17	0.45
69:O3:91:ALA:HA	69:O3:94:PHE:CE2	2.52	0.45
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.53	0.45
36:5:602:A:H2'	36:5:603:A:C8	2.52	0.45
39:L2:137:ILE:HG12	39:L2:147:ARG:CG	3.67	0.45
1:2:110:U:O2'	1:2:797:G:H1'	2.17	0.45
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.50	0.45
38:8:100:U:OP2	86:8:218:OHX:N2	2.50	0.45
36:1:3200:G:C5	36:1:3201:C:C5	3.05	0.45
36:5:1468:A:C6	36:5:1469:C:N4	2.85	0.45
36:5:372:A:C6	36:5:373:A:C6	3.04	0.45
36:1:2632:G:C6	36:1:2647:A:C6	3.05	0.45
1:2:1057:U:H1'	1:2:1058:U:H2'	1.97	0.45
44:L7:33:ARG:NH1	36:5:596:C:OP1	237.16	0.45
36:1:3323:A:O5'	36:1:3323:A:H8	2.00	0.45
69:O3:57:LYS:HE3	69:O3:57:LYS:HB3	2.68	0.45
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.73	0.45
36:5:1858:A:HO2'	36:5:1859:A:P	2.40	0.45
1:6:1120:U:H2'	1:6:1121:C:C6	2.51	0.45
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.10	0.45
36:1:3275:U:C5'	69:O3:68:TRP:HZ2	2.27	0.45
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.65	0.45
36:5:314:U:O4	86:5:4193:OHX:N5	2.49	0.45
40:L3:2:SER:N	36:5:2940:A:N7	237.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:540:G:O3'	1:2:541:A:H3'	2.17	0.45
1:6:82:U:H2'	1:6:83:G:O4'	2.17	0.45
28:D6:87:ARG:HD2	1:6:1797:A:N1	344.93	0.45
34:SR:85:TRP:HA	34:SR:109:ASP:HA	1.99	0.45
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.05	0.45
5:S3:25:PHE:HD2	5:S3:37:VAL:HG21	4.59	0.45
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.16	0.45
23:D1:79:LEU:HD23	23:D1:79:LEU:HA	1.66	0.45
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.16	0.45
41:L4:3:ARG:NH1	41:L4:22:LEU:HD12	2.31	0.45
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.25	0.45
27:D5:38:HIS:CE1	27:D5:70:LYS:HD3	2.52	0.45
36:5:3174:A:H2'	36:5:3175:U:C5'	2.44	0.45
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.16	0.45
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.99	0.45
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	4.29	0.45
6:S4:62:LYS:HA	6:S4:62:LYS:HD3	3.63	0.45
36:5:3309:G:H2'	36:5:3310:A:H5'	1.99	0.45
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.52	0.45
15:C3:128:TYR:O	15:C3:132:VAL:HG22	2.17	0.45
47:M0:23:ASN:HB3	47:M0:24:ARG:H	1.60	0.45
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	3.45	0.45
24:D2:23:ARG:H	24:D2:24:GLN:NE2	4.26	0.45
24:D2:65:LEU:HD13	24:D2:65:LEU:H	1.82	0.45
78:Q2:61:LYS:HB3	78:Q2:61:LYS:HE2	1.65	0.45
11:S9:68:LYS:O	11:S9:72:GLU:N	2.48	0.45
41:L4:72:ALA:O	41:L4:76:ARG:NH1	3.08	0.45
13:C1:7:VAL:O	13:C1:9:SER:N	2.99	0.45
62:N6:88:GLU:OE1	62:N6:88:GLU:N	4.45	0.45
38:8:104:A:C8	38:8:105:A:C8	3.04	0.45
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.33	0.45
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.16	0.45
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	3.10	0.45
13:C1:17:PRO:HG3	13:C1:63:LEU:HD11	1.98	0.45
13:C1:37:ASN:HA	13:C1:44:THR:CG2	2.45	0.45
56:N0:133:ALA:HA	56:N0:141:LYS:HZ1	1.81	0.45
46:L9:111:PHE:CD1	46:L9:127:PRO:HA	2.52	0.45
36:1:1656:A:H4'	36:1:1657:C:O5'	2.16	0.45
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	6.91	0.45
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	4.21	0.45
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:223:PHE:CE1	3:S1:225:VAL:HG12	4.70	0.45
1:6:1273:G:O5'	1:6:1274:C:H3'	2.17	0.45
36:1:2144:A:C4	36:1:2281:A:N6	2.85	0.45
61:N5:79:GLY:C	61:N5:81:ILE:HD12	2.60	0.45
6:S4:136:VAL:HG21	6:S4:148:ARG:NH2	2.32	0.45
4:S2:177:GLY:H	4:S2:195:ASP:HB3	1.82	0.45
36:1:75:G:H5"	49:M3:58:VAL:HG13	1.99	0.45
43:L6:80:ASN:O	43:L6:82:ARG:N	2.50	0.45
36:5:422:A:N1	36:5:2362:C:O2'	2.43	0.45
36:5:240:U:O2'	36:5:241:G:H8	1.99	0.45
40:L3:14:LEU:HD13	40:L3:262:TRP:CH2	2.52	0.45
36:1:956:U:OP1	86:1:4124:OHX:N1	2.50	0.45
13:C1:118:GLN:OE1	13:C1:146:ALA:HA	2.17	0.45
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.55	0.45
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.98	0.45
6:S4:22:LYS:HG2	6:S4:23:LEU:HD13	1.98	0.45
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.99	0.45
36:1:2902:A:OP1	46:L9:170:LYS:HE3	2.17	0.45
1:2:1407:U:H2'	1:2:1408:G:O4'	2.16	0.45
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.10	0.45
48:M1:48:SER:N	48:M1:66:ALA:O	2.98	0.45
1:6:633:U:H2'	1:6:634:G:O4'	2.17	0.45
1:2:147:A:H2'	1:2:148:A:O4'	2.17	0.45
34:SR:245:PHE:CD1	34:SR:252:LEU:HD13	2.53	0.45
50:M4:105:GLN:NE2	52:M6:198:GLY:O	4.35	0.45
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	2.23	0.45
17:C5:122:THR:HB	1:6:1558:U:H3	365.61	0.45
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.67	0.45
9:S7:130:VAL:HG11	9:S7:154:LEU:HD21	3.97	0.45
1:6:447:U:C4	1:6:448:C:C4	3.05	0.45
59:N3:45:ARG:O	59:N3:46:LEU:C	2.63	0.45
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.89	0.45
57:N1:139:ARG:NH2	57:N1:139:ARG:HG2	4.48	0.45
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.47	0.45
63:N7:95:VAL:HG11	63:N7:113:VAL:HG21	3.32	0.45
44:L7:75:TYR:HB2	57:N1:141:VAL:HG22	1.99	0.45
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.17	0.45
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.32	0.45
36:1:2563:G:H5"	45:L8:27:THR:HG23	1.99	0.45
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.99	0.45
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:197:A:H2'	1:2:198:A:C8	2.51	0.45
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.98	0.45
13:C1:74:THR:HG22	13:C1:122:ILE:HG13	1.98	0.45
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.17	0.45
52:M6:68:ARG:NH1	36:5:2988:C:P	215.86	0.45
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.98	0.45
36:5:2104:A:H2'	36:5:2105:G:H8	1.82	0.45
6:S4:11:ARG:HG3	6:S4:27:TYR:C	2.38	0.45
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.17	0.45
48:M1:151:SER:O	48:M1:152:HIS:CB	3.05	0.45
36:5:189:G:H3'	36:5:224:C:OP2	2.17	0.45
61:N5:100:LYS:HZ2	61:N5:107:VAL:H	1.65	0.45
61:N5:131:ASP:O	61:N5:135:ILE:HG22	5.78	0.45
14:C2:62:LEU:HA	14:C2:120:VAL:HA	1.98	0.45
62:N6:5:SER:HB3	62:N6:8:VAL:HG13	3.39	0.45
28:D6:23:CYS:C	28:D6:25:ASN:H	2.42	0.45
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.47	0.45
36:5:1237:G:H22	36:5:1251:A:H2	1.65	0.45
70:O4:55:SER:O	70:O4:62:TYR:OH	2.64	0.45
70:O4:57:LEU:HB2	70:O4:61:GLN:HB2	2.73	0.45
1:2:622:A:H4'	1:2:623:A:OP1	2.17	0.45
36:1:98:G:O6	49:M3:11:LYS:NZ	2.48	0.45
36:1:1608:C:H2'	36:1:1609:C:H6	1.82	0.45
1:2:11:A:C2'	1:2:12:U:H5'	2.47	0.45
36:1:1339:C:H2'	36:1:1340:G:O4'	2.16	0.45
1:2:1150:G:O2'	1:2:1151:A:OP2	2.32	0.45
39:L2:80:GLU:HB2	39:L2:170:ALA:HA	2.29	0.45
36:1:2630:C:H1'	36:1:2758:A:N3	2.32	0.45
30:D8:64:ARG:HH21	30:D8:65:ARG:HD2	7.91	0.45
86:1:4025:OHX:N4	86:1:4145:OHX:N3	2.64	0.45
36:1:1787:A:N6	36:1:1788:C:C4	2.85	0.45
36:1:199:A:C4	36:1:201:A:C8	3.05	0.45
1:6:53:G:H2'	1:6:54:C:O4'	2.17	0.45
36:5:421:G:OP1	86:5:4021:OHX:N2	2.50	0.45
36:1:673:U:O2'	36:1:674:G:H5'	2.17	0.45
36:1:2611:U:H2'	36:1:2612:U:C6	2.52	0.45
1:6:704:C:H2'	1:6:705:U:O4'	2.16	0.45
1:6:1163:A:N6	1:6:1164:G:C6	2.85	0.45
49:M3:185:LYS:HG2	49:M3:189:GLU:OE1	2.17	0.45
44:L7:156:ILE:HG13	44:L7:161:VAL:HG21	4.62	0.45
1:2:328:A:H2'	1:2:329:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:134:ILE:HD12	46:L9:146:LEU:HG	4.23	0.45
1:2:410:A:H2	1:2:423:G:H22	1.65	0.45
6:S4:199:GLU:OE1	6:S4:201:HIS:NE2	4.60	0.45
54:M8:53:PHE:CD1	54:M8:53:PHE:N	2.83	0.45
56:N0:75:PHE:N	56:N0:94:ILE:O	2.46	0.45
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.48	0.45
36:1:2830:G:H1'	36:1:2861:U:C2	2.52	0.45
51:M5:190:THR:O	51:M5:194:GLN:HG3	2.17	0.45
11:S9:45:ILE:HA	11:S9:45:ILE:HD13	1.81	0.45
53:M7:67:ILE:HB	53:M7:80:LYS:HD2	2.54	0.45
1:2:477:A:N7	1:2:538:A:N1	2.65	0.45
1:2:540:G:O2'	1:2:541:A:OP1	2.31	0.45
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.50	0.45
1:6:1699:G:N2	1:6:1701:A:H5"	2.32	0.45
24:D2:15:ASN:ND2	24:D2:72:CYS:H	2.73	0.45
73:O7:87:SER:C	86:O7:105:OHX:N1	2.71	0.45
6:S4:159:THR:HG22	6:S4:173:ILE:HG13	4.28	0.45
18:C6:66:ARG:HH21	18:C6:68:ARG:NE	2.14	0.45
29:D7:62:ILE:CG1	29:D7:63:LEU:H	2.29	0.45
46:L9:41:ILE:HD11	46:L9:67:ALA:CB	2.47	0.45
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.17	0.45
19:C7:44:LYS:O	19:C7:48:ASN:N	3.00	0.45
36:1:1940:G:OP1	55:M9:80:LYS:HE3	2.17	0.45
2:S0:21:ASN:OD1	2:S0:24:LEU:HD22	4.52	0.45
1:6:151:G:H2'	1:6:152:U:C6	2.51	0.45
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.65	0.45
41:L4:64:SER:OG	41:L4:73:ARG:O	3.33	0.45
62:N6:120:GLN:OE1	62:N6:126:LEU:HD23	5.83	0.45
1:2:52:U:H2'	1:2:53:G:H8	1.78	0.45
41:L4:318:LEU:CD1	44:L7:146:GLN:HB3	3.51	0.45
1:2:301:A:H2'	1:2:302:U:O4'	2.16	0.45
53:M7:138:LYS:HE2	53:M7:140:GLU:OE1	4.22	0.45
34:SR:307:ASP:OD2	34:SR:311:ARG:NH2	3.68	0.45
62:N6:70:ILE:HA	62:N6:82:VAL:HG22	2.91	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.75	0.45
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.17	0.45
72:O6:51:SER:O	72:O6:55:ARG:HG3	3.02	0.45
55:M9:164:LEU:O	55:M9:168:ALA:N	3.33	0.45
1:6:74:U:H5"	1:6:75:U:OP2	2.17	0.45
57:N1:14:MET:HE1	57:N1:55:LYS:HA	2.12	0.45
1:2:1365:C:N4	1:2:1366:U:O4	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:32:ASN:HD21	74:O8:34:ALA:HB3	5.24	0.45
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.44	0.45
1:6:193:U:C4	1:6:195:G:C8	3.04	0.45
36:1:2617:U:H3'	65:N9:3:LYS:HD3	1.99	0.45
36:5:2594:C:H2'	36:5:2595:A:O4'	2.17	0.45
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.99	0.45
51:M5:173:GLY:O	51:M5:183:THR:OG1	2.82	0.45
1:6:1715:G:C6	1:6:1716:C:N4	2.85	0.45
36:5:999:G:C6	36:5:1000:C:N4	2.85	0.45
36:1:1558:A:O3'	61:N5:34:LEU:HB3	2.17	0.45
73:O7:63:ARG:O	73:O7:68:LYS:HE2	2.17	0.45
13:C1:64:VAL:HG21	13:C1:138:ASN:ND2	2.32	0.45
46:L9:188:THR:O	46:L9:189:GLU:HB2	4.56	0.45
44:L7:184:LEU:HD11	44:L7:202:LEU:HD21	1.99	0.45
36:5:3027:A:H2'	36:5:3028:G:O4'	2.17	0.45
36:5:499:G:H2'	36:5:500:C:C6	2.52	0.45
7:S5:142:PRO:HG2	7:S5:170:GLN:OE1	2.55	0.45
36:5:1441:G:O2'	36:5:1442:U:H5'	2.17	0.45
1:2:81:G:C6	1:2:82:U:N3	2.85	0.45
49:M3:192:GLU:O	49:M3:194:GLU:N	2.50	0.45
1:2:264:G:N7	86:2:2034:OHX:N1	2.65	0.45
1:6:1007:C:C2'	1:6:1008:G:H5'	2.47	0.45
1:2:240:U:OP1	1:2:240:U:H4'	2.17	0.45
49:M3:7:LEU:HA	49:M3:7:LEU:HD23	1.62	0.45
36:1:3330:A:H2'	36:1:3331:U:H6	1.82	0.45
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.32	0.45
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.93	0.45
36:1:930:U:H2'	36:1:931:C:C6	2.52	0.45
11:S9:102:GLU:HA	11:S9:105:LEU:HD23	3.10	0.44
20:C8:113:LEU:HA	20:C8:113:LEU:HD23	1.58	0.44
20:C8:127:HIS:NE2	20:C8:133:VAL:HG11	3.04	0.44
86:5:3975:OHX:N3	86:5:4245:OHX:N2	2.65	0.44
46:L9:166:ARG:O	46:L9:167:VAL:C	3.77	0.44
47:M0:158:LYS:NZ	36:5:2852:C:N3	307.97	0.44
36:1:1334:U:H5"	44:L7:206:LYS:HB3	1.97	0.44
3:S1:180:THR:N	3:S1:183:GLN:HB2	5.05	0.44
36:5:2257:C:H2'	36:5:2258:U:H6	1.81	0.44
42:L5:56:THR:OG1	42:L5:59:ASP:HB3	2.18	0.44
42:L5:281:GLU:O	42:L5:284:ALA:HB3	2.61	0.44
36:1:789:A:H2'	36:1:790:U:H6	1.83	0.44
72:O6:60:LEU:HD23	72:O6:60:LEU:HA	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:54:LEU:O	15:C3:60:VAL:HB	2.17	0.44
22:D0:24:ILE:HG13	22:D0:116:VAL:HG13	1.97	0.44
1:2:499:U:H2'	1:2:499:U:H6	1.41	0.44
1:2:1229:G:O2'	1:2:1255:G:N1	2.50	0.44
1:6:1499:G:H2'	1:6:1500:C:O4'	2.17	0.44
36:5:1100:U:H2'	36:5:1101:G:O4'	2.17	0.44
1:6:956:C:H2'	1:6:957:G:C8	2.52	0.44
2:S0:154:GLU:N	2:S0:154:GLU:OE1	2.36	0.44
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.51	0.44
1:2:717:C:N4	1:2:720:G:H22	2.13	0.44
48:M1:152:HIS:HE1	37:7:55:A:N3	325.74	0.44
3:S1:146:GLN:O	3:S1:148:ASN:N	2.59	0.44
1:2:730:G:H21	1:2:731:C:C5'	2.29	0.44
35:SM:123:ALA:O	35:SM:126:ASP:HB2	2.16	0.44
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CZ3	4.15	0.44
1:2:1762:A:H1'	1:2:1783:C:H5'	1.98	0.44
61:N5:64:GLU:HB2	61:N5:85:GLN:HG2	2.21	0.44
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.45	0.44
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.17	0.44
36:5:127:G:H2'	36:5:128:G:C8	2.51	0.44
7:S5:51:VAL:HG11	7:S5:130:ILE:HG23	6.13	0.44
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.50	0.44
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.52	0.44
61:N5:28:THR:OG1	61:N5:29:SER:N	3.62	0.44
1:6:926:A:H2'	1:6:927:C:H6	1.82	0.44
8:S6:134:GLY:HA3	8:S6:158:ILE:HG21	1.99	0.44
36:5:3266:G:C6	36:5:3267:A:C6	3.05	0.44
1:2:1754:A:O2'	86:2:2058:OHX:N5	2.50	0.44
36:5:3375:A:OP2	86:5:3960:OHX:N3	2.49	0.44
18:C6:103:ASN:HA	18:C6:106:LYS:HB2	3.08	0.44
36:5:2689:A:N3	36:5:2689:A:H2'	2.31	0.44
1:6:1017:U:H2'	1:6:1018:U:C6	2.52	0.44
4:S2:162:CYS:H	4:S2:213:ALA:HB2	2.28	0.44
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.17	0.44
36:5:2560:C:O2	86:5:4033:OHX:N2	2.51	0.44
36:1:2136:C:O2'	36:1:2137:U:H5'	2.18	0.44
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	1.98	0.44
36:1:1336:U:OP2	86:1:4042:OHX:N4	2.50	0.44
36:5:1940:G:H2'	36:5:1941:C:O4'	2.18	0.44
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	2.12	0.44
28:D6:10:ARG:CB	28:D6:34:LYS:HA	2.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:161:LYS:HB3	34:SR:161:LYS:HE3	2.11	0.44
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.47	0.44
61:N5:38:LEU:HD22	61:N5:39:LYS:N	2.32	0.44
34:SR:19:TRP:CB	34:SR:38:ARG:HD2	2.47	0.44
5:S3:74:GLN:O	5:S3:79:TYR:N	3.23	0.44
8:S6:155:ASP:OD2	8:S6:155:ASP:N	3.07	0.44
57:N1:136:ARG:HD3	57:N1:139:ARG:CZ	3.88	0.44
1:2:393:C:OP2	10:S8:2:GLY:N	2.49	0.44
11:S9:149:ARG:HD2	1:6:765:G:N7	428.05	0.44
36:1:3048:A:C5'	40:L3:53:MET:HE3	2.47	0.44
66:O0:13:LYS:HZ2	66:O0:103:THR:HG21	3.65	0.44
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.98	0.44
40:L3:81:THR:CG2	40:L3:81:THR:O	3.51	0.44
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	3.86	0.44
1:2:196:G:O2'	1:2:197:A:P	2.74	0.44
12:C0:2:LEU:HD22	12:C0:2:LEU:HA	4.22	0.44
36:1:1611:G:H2'	36:1:1612:A:O4'	2.18	0.44
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.52	0.44
6:S4:230:GLU:HB2	6:S4:233:LYS:NZ	4.75	0.44
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	5.22	0.44
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.21	0.44
36:5:2514:U:C6	36:5:2514:U:OP1	2.65	0.44
26:D4:57:VAL:HG22	26:D4:60:PHE:CE2	2.52	0.44
59:N3:67:PRO:C	59:N3:69:LEU:N	3.21	0.44
36:1:1721:U:H3'	55:M9:103:ARG:HH21	1.81	0.44
47:M0:10:ARG:HH11	47:M0:10:ARG:HD2	1.58	0.44
2:S0:9:LEU:HA	2:S0:54:TRP:NE1	3.54	0.44
10:S8:184:LEU:HD21	10:S8:192:TYR:HD2	4.79	0.44
1:2:720:G:H2'	1:2:720:G:N3	2.32	0.44
64:N8:47:LYS:C	64:N8:49:HIS:H	2.56	0.44
1:2:771:A:OP1	11:S9:9:SER:OG	2.34	0.44
1:2:1756:A:OP2	1:2:1756:A:H8	2.00	0.44
1:6:649:U:H2'	1:6:650:U:C5	2.48	0.44
21:C9:86:ARG:HB2	21:C9:89:ARG:HB2	2.57	0.44
71:O5:95:PHE:CG	36:5:136:G:H5'	61.65	0.44
39:L2:224:THR:HG21	36:5:2201:G:H21	222.85	0.44
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.72	0.44
19:C7:12:ALA:O	19:C7:15:ALA:HB3	3.08	0.44
36:5:1230:G:OP2	86:5:4009:OHX:N6	2.51	0.44
36:5:549:U:H2'	36:5:550:A:H8	1.81	0.44
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.67	0.44
36:1:729:C:H2'	36:1:730:C:C6	2.52	0.44
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.98	0.44
37:7:8:G:C5	37:7:9:C:C4	3.04	0.44
36:1:633:C:H2'	36:1:634:C:O4'	2.17	0.44
53:M7:95:LEU:HD23	53:M7:95:LEU:HA	1.76	0.44
63:N7:64:LYS:HD2	36:5:1812:G:O6	185.32	0.44
31:D9:46:LYS:HA	31:D9:46:LYS:HD3	1.89	0.44
47:M0:169:LYS:NZ	57:N1:158:THR:OG1	2.50	0.44
36:5:1814:A:OP1	86:5:4182:OHX:N3	2.50	0.44
1:6:525:A:C6	1:6:526:A:C6	3.06	0.44
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.52	0.44
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.99	0.44
43:L6:7:PRO:HD3	68:O2:74:PHE:CE1	4.18	0.44
1:2:1003:A:C4	1:2:1005:A:C6	3.04	0.44
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.18	0.44
36:1:1857:C:O2'	70:O4:5:VAL:HG12	2.18	0.44
36:5:1365:G:OP2	86:5:4031:OHX:N3	2.50	0.44
1:6:1626:U:O4	86:6:2201:OHX:N5	2.50	0.44
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.17	0.44
1:6:577:G:C8	1:6:577:G:H3'	2.52	0.44
49:M3:10:LEU:HA	49:M3:10:LEU:HD23	2.09	0.44
1:6:250:C:H5'	1:6:250:C:H6	1.82	0.44
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.05	0.44
48:M1:65:ILE:O	48:M1:65:ILE:HG12	2.18	0.44
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.81	0.44
36:1:1745:C:H2'	36:1:1746:U:O4'	2.17	0.44
1:2:460:A:H5'	1:2:461:G:OP2	2.17	0.44
36:1:289:A:C2	51:M5:93:LYS:HG3	2.53	0.44
46:L9:163:GLN:O	46:L9:166:ARG:HG3	2.65	0.44
46:L9:161:LEU:HD13	46:L9:179:ILE:HG21	1.99	0.44
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.71	0.44
8:S6:58:LYS:HG3	8:S6:105:ASP:O	3.66	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.44	0.44
34:SR:21:THR:O	34:SR:36:ALA:HB3	2.17	0.44
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.32	0.44
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.98	0.44
36:1:3066:U:H2'	36:1:3067:C:C6	2.52	0.44
9:S7:133:THR:HG21	9:S7:159:VAL:HA	3.00	0.44
3:S1:144:ARG:HG3	3:S1:145:LYS:O	2.18	0.44
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	3.08	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:142:ASN:ND2	26:D4:64:PHE:HZ	2.68	0.44
41:L4:142:VAL:HB	41:L4:145:ILE:HG12	2.75	0.44
41:L4:180:LYS:HE2	41:L4:180:LYS:HB3	1.89	0.44
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.61	0.44
36:1:3060:C:H1'	36:1:3332:U:H1'	1.99	0.44
21:C9:101:ASN:O	21:C9:104:VAL:N	2.50	0.44
7:S5:108:LEU:HD22	18:C6:43:ILE:HD11	4.97	0.44
53:M7:69:ARG:CZ	36:5:2389:C:H1'	189.47	0.44
1:6:219:A:N6	1:6:843:U:C2	2.85	0.44
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.71	0.44
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.49	0.44
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.18	0.44
45:L8:101:THR:N	45:L8:104:GLU:OE1	2.46	0.44
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.25	0.44
39:L2:44:ILE:HG23	39:L2:87:PHE:CE1	2.53	0.44
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.88	0.44
22:D0:28:SER:OG	22:D0:29:THR:N	2.50	0.44
36:5:243:G:O2'	36:5:244:G:H5'	2.16	0.44
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.68	0.44
86:1:4053:OHX:N4	86:1:4162:OHX:N1	2.65	0.44
40:L3:259:HIS:HE1	36:5:2366:C:H5'	218.76	0.44
1:2:1619:C:H2'	1:2:1620:C:C6	2.53	0.44
53:M7:48:LEU:HD23	53:M7:48:LEU:HA	1.68	0.44
73:O7:28:HIS:O	73:O7:32:LYS:N	2.48	0.44
21:C9:28:LEU:HD22	21:C9:30:VAL:HG22	1.98	0.44
36:5:277:G:H2'	36:5:278:U:H6	1.81	0.44
36:1:1556:C:O2	36:1:2169:G:C2	2.70	0.44
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.17	0.44
41:L4:264:SER:O	41:L4:266:THR:N	2.50	0.44
76:Q0:98:LYS:HD2	76:Q0:118:THR:HG21	2.82	0.44
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.00	0.44
86:2:2075:OHX:N6	86:2:2161:OHX:N2	2.64	0.44
36:1:2844:C:H5"	36:1:2845:A:OP2	2.17	0.44
36:5:975:C:H2'	36:5:976:U:H6	1.82	0.44
36:1:279:U:H2'	36:1:280:U:C6	2.52	0.44
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.82	0.44
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.17	0.44
36:1:1132:C:C2	36:1:1133:A:C8	3.06	0.44
1:2:1404:C:H2'	1:2:1405:G:H8	1.83	0.44
58:N2:29:ASP:HA	58:N2:30:PRO:HD3	1.80	0.44
33:E1:94:LYS:HB3	33:E1:95:HIS:H	1.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2683:U:H2'	36:5:2684:C:C6	2.52	0.44
45:L8:251:LYS:O	45:L8:255:SER:HB2	2.17	0.44
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.17	0.44
1:2:254:A:H2'	1:2:255:U:H6	1.82	0.44
33:E1:90:LYS:H	33:E1:90:LYS:HG3	4.58	0.44
36:1:928:C:H2'	36:1:929:A:C8	2.53	0.44
36:1:3:U:H2'	36:1:4:U:O4'	2.17	0.44
1:6:1557:U:O2'	1:6:1558:U:H2'	2.16	0.44
18:C6:50:GLU:HA	18:C6:53:LEU:HD11	3.04	0.44
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	2.70	0.44
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.42	0.44
1:6:1698:G:HO2'	1:6:1699:G:P	2.38	0.44
47:M0:76:MET:HE2	47:M0:138:VAL:HG11	2.00	0.44
9:S7:166:LEU:HD21	9:S7:183:PHE:HB2	1.99	0.44
36:5:2836:C:C5	36:5:2852:C:N4	2.76	0.44
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	3.20	0.44
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.75	0.44
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.16	0.44
37:3:43:U:H4'	48:M1:140:ARG:O	2.17	0.44
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.70	0.44
8:S6:20:ASP:CB	8:S6:23:ARG:HG3	3.94	0.44
2:S0:39:ASN:HD22	19:C7:105:GLN:HB3	1.82	0.44
49:M3:182:ILE:CD1	49:M3:182:ILE:H	2.25	0.44
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.82	0.44
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	2.92	0.44
1:2:97:C:H2'	1:2:98:U:C6	2.52	0.44
1:2:736:C:C2'	1:2:737:A:H5'	2.47	0.44
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.81	0.44
86:5:4013:OHX:N4	86:5:4202:OHX:N2	2.65	0.44
3:S1:26:ARG:HD2	3:S1:49:ASN:OD1	2.60	0.44
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.84	0.44
37:7:78:U:OP1	86:7:219:OHX:N5	2.50	0.44
8:S6:109:LEU:HA	8:S6:109:LEU:HD23	1.81	0.44
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.17	0.44
36:1:439:C:H5'	36:1:440:A:OP2	2.18	0.44
43:L6:22:ARG:O	43:L6:23:LYS:HG2	2.42	0.44
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.99	0.44
1:2:1651:A:N1	1:2:1749:A:H2	2.15	0.44
1:2:792:U:H2'	1:2:793:A:H5'	2.00	0.44
36:1:2705:A:OP2	86:1:3865:OHX:N1	2.50	0.44
42:L5:140:ARG:HD3	36:5:1080:A:OP1	226.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:80:PHE:HD2	52:M6:104:VAL:HG11	2.24	0.44
19:C7:107:SER:O	19:C7:110:VAL:HG23	3.44	0.44
36:5:253:A:O2'	36:5:254:A:H8	1.99	0.44
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.83	0.44
42:L5:155:THR:HB	42:L5:179:ARG:HH11	1.82	0.44
64:N8:63:LYS:HE2	64:N8:65:GLN:OE1	3.47	0.44
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.71	0.44
36:1:1547:G:P	51:M5:105:ARG:NH1	2.90	0.44
61:N5:93:TYR:CE2	38:8:131:A:H5"	105.69	0.44
36:1:911:C:N4	39:L2:3:ARG:HD3	2.33	0.44
61:N5:34:LEU:HD13	61:N5:34:LEU:O	2.18	0.44
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.17	0.44
5:S3:45:LYS:HE2	5:S3:45:LYS:HB2	1.79	0.44
20:C8:17:LEU:O	20:C8:20:THR:N	3.08	0.44
56:N0:89:ASN:CG	57:N1:156:TYR:H	2.20	0.44
16:C4:96:PRO:O	16:C4:99:GLN:HG2	2.18	0.44
1:6:268:C:O2'	1:6:269:G:H5'	2.17	0.44
36:5:27:C:O2'	36:5:327:A:N3	2.43	0.44
36:5:3393:U:H2'	36:5:3394:U:C6	2.53	0.44
15:C3:127:ARG:NH2	1:6:629:U:OP1	307.40	0.44
34:SR:24:ALA:HB2	34:SR:72:THR:HA	1.98	0.44
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	3.10	0.44
36:1:2534:G:C2	36:1:2535:A:N7	2.85	0.44
79:Q3:84:ARG:NH1	79:Q3:88:GLU:OE1	2.51	0.44
36:1:1452:A:N3	36:1:2346:C:O2'	2.39	0.44
36:5:2981:U:O2'	36:5:2982:A:H5'	2.16	0.44
1:6:80:A:H8	1:6:80:A:OP2	2.01	0.44
56:N0:128:GLU:O	56:N0:128:GLU:HG2	3.55	0.44
6:S4:65:LEU:HD23	6:S4:70:VAL:CG1	2.48	0.44
13:C1:105:LYS:HD2	1:6:306:U:P	322.62	0.44
17:C5:126:VAL:O	17:C5:127:ARG:HD3	4.63	0.44
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.82	0.44
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.61	0.44
36:5:2943:G:H2'	36:5:2944:U:O4'	2.17	0.44
58:N2:50:LEU:O	58:N2:53:ALA:N	2.49	0.44
1:2:917:U:HO2'	16:C4:29:HIS:CE1	2.31	0.44
1:6:793:A:H3'	1:6:794:U:H5'	1.99	0.44
5:S3:37:VAL:O	5:S3:38:GLU:HB3	2.18	0.44
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.53	0.44
1:2:144:U:O2'	1:2:145:A:H5'	2.16	0.44
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:94:G:H2'	36:5:95:A:C8	2.53	0.44
13:C1:91:LEU:HD23	13:C1:91:LEU:HA	2.88	0.44
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	2.93	0.44
50:M4:19:ARG:HA	50:M4:19:ARG:HD3	2.25	0.44
1:6:162:A:H2'	1:6:163:G:C8	2.53	0.44
71:O5:15:GLU:HA	71:O5:18:ALA:HB3	2.78	0.44
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	2.70	0.44
21:C9:45:MET:HE3	21:C9:45:MET:HB3	1.85	0.44
42:L5:22:ARG:HG2	42:L5:28:THR:CB	2.47	0.44
1:2:563:U:H4'	32:E0:17:GLN:NE2	2.33	0.44
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.34	0.44
1:6:708:C:H2'	1:6:709:C:O4'	2.17	0.44
1:2:1228:G:N1	14:C2:67:THR:HB	2.31	0.44
10:S8:184:LEU:HD23	10:S8:184:LEU:O	2.17	0.44
1:2:549:G:OP2	86:2:2026:OHX:N2	2.50	0.44
1:6:72:A:H2'	1:6:73:U:H1'	1.99	0.44
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.50	0.44
48:M1:9:MET:O	48:M1:11:ASP:N	3.33	0.44
38:8:68:G:OP1	86:8:216:OHX:N3	2.50	0.44
17:C5:112:LEU:HD23	17:C5:112:LEU:HA	1.99	0.44
1:2:1409:G:N2	1:2:1411:A:H3'	2.33	0.44
5:S3:162:GLN:HG3	1:6:1333:C:H4'	427.57	0.44
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.97	0.44
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.64	0.44
1:6:1652:C:H2'	1:6:1653:C:C6	2.52	0.44
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.18	0.44
73:O7:39:TYR:CG	73:O7:40:PRO:HA	2.52	0.44
49:M3:93:ILE:HA	49:M3:93:ILE:HD13	1.55	0.44
1:2:781:U:P	26:D4:9:THR:HG1	2.40	0.44
36:1:2795:U:O2	36:1:2800:G:H1'	2.17	0.44
36:1:2280:A:H5"	36:1:2281:A:P	2.57	0.44
36:1:817:A:C4	73:O7:13:ASN:O	2.71	0.44
86:5:4037:OHX:N3	86:5:4240:OHX:N5	2.66	0.44
1:6:12:U:H2'	1:6:13:C:C6	2.52	0.44
36:1:2842:U:OP1	36:1:2844:C:N4	2.50	0.44
42:L5:221:GLU:O	42:L5:224:LYS:HB2	2.17	0.44
38:8:6:U:H2'	38:8:7:U:C6	2.53	0.44
1:2:843:U:H2'	1:2:844:A:C8	2.50	0.44
40:L3:384:LYS:O	86:L3:404:OHX:N6	54.90	0.44
36:1:2989:U:H2'	36:1:2990:G:O4'	2.17	0.44
1:2:489:C:H2'	1:2:490:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:938:C:OP1	36:1:963:G:H5'	2.17	0.44
36:5:355:A:H2'	36:5:356:C:O4'	2.18	0.44
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	1.83	0.44
36:5:926:A:C5	36:5:927:C:C4	3.06	0.44
8:S6:14:LYS:HD3	8:S6:16:PHE:CE1	2.52	0.44
38:4:136:G:OP1	61:N5:48:SER:HB3	2.17	0.44
36:5:2406:C:H2'	36:5:2407:C:C6	2.52	0.44
38:4:91:C:H2'	38:4:92:A:C8	2.52	0.44
55:M9:87:ALA:O	86:5:4007:OHX:N5	204.61	0.44
36:5:578:A:H5"	36:5:579:G:O5'	2.17	0.44
40:L3:145:GLU:HA	40:L3:145:GLU:OE2	2.69	0.44
71:O5:73:LYS:HD2	71:O5:73:LYS:HA	3.64	0.44
1:6:491:C:H42	1:6:497:G:H21	1.65	0.44
69:O3:2:ALA:HB1	69:O3:4:SER:O	5.94	0.44
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.65	0.44
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	2.00	0.44
86:5:3975:OHX:N1	86:5:4245:OHX:N1	2.66	0.44
36:1:2656:A:C8	36:1:2658:G:C8	3.06	0.44
54:M8:93:ILE:HG23	36:5:784:A:C6	150.02	0.44
24:D2:110:ILE:HG12	24:D2:126:LEU:HD11	2.96	0.44
21:C9:16:ASN:HA	21:C9:56:LYS:HZ3	2.51	0.44
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.24	0.44
41:L4:23:PRO:HB3	41:L4:258:LEU:HB3	2.13	0.44
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.17	0.44
1:6:894:U:H2'	1:6:895:G:C8	2.52	0.44
56:N0:23:LYS:HB3	56:N0:25:PHE:CE2	2.52	0.44
47:M0:97:LEU:O	47:M0:123:HIS:N	2.48	0.44
1:6:485:A:C5	1:6:486:G:H1'	2.53	0.44
36:5:1017:C:H42	36:5:2671:A:P	2.40	0.44
59:N3:13:ILE:CD1	59:N3:54:LEU:HB3	2.48	0.44
40:L3:21:ARG:HG3	36:5:2991:A:OP1	209.83	0.44
26:D4:121:THR:HG22	26:D4:123:LYS:H	5.67	0.44
36:1:1408:G:P	68:O2:33:ARG:NH2	2.90	0.44
64:N8:79:TRP:CE3	64:N8:82:ILE:HD12	2.63	0.44
19:C7:6:THR:O	19:C7:9:VAL:HB	2.64	0.44
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.38	0.44
7:S5:76:ARG:HG3	18:C6:122:ARG:NH2	5.98	0.44
1:2:1592:A:C6	1:2:1593:A:C6	3.05	0.44
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	5.57	0.44
11:S9:59:LEU:O	11:S9:62:ARG:HB2	3.57	0.44
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:27:THR:HG23	18:C6:28:LEU:HB2	1.98	0.44
36:1:873:C:O3'	36:1:875:G:H5'	2.18	0.44
21:C9:86:ARG:HG3	21:C9:90:PRO:O	3.28	0.44
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.18	0.44
2:S0:105:GLY:O	2:S0:112:THR:HG21	2.17	0.44
14:C2:43:ARG:HG3	1:6:1227:A:C2	461.91	0.44
13:C1:18:HIS:O	86:6:2126:OHX:N3	293.95	0.44
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.47	0.44
36:5:3228:C:H4'	36:5:3229:G:O5'	2.17	0.44
36:1:2631:U:H4'	36:1:2697:A:H2	1.82	0.44
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.37	0.44
10:S8:54:LYS:HG2	10:S8:175:GLN:O	2.17	0.44
2:S0:62:ARG:NH2	23:D1:39:VAL:HG22	2.32	0.44
36:5:3290:G:N7	86:5:4104:OHX:N5	2.65	0.44
26:D4:76:TYR:CE1	26:D4:86:GLU:HG2	3.20	0.44
86:5:4035:OHX:N5	86:5:4083:OHX:N2	2.65	0.44
86:5:4035:OHX:N3	86:5:4083:OHX:N6	2.65	0.44
37:7:80:G:H2'	37:7:81:U:O4'	2.18	0.44
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.17	0.44
36:1:49:A:C2	36:1:279:U:H4'	2.52	0.44
36:1:3:U:C2	38:4:157:U:C2	3.05	0.44
36:5:927:C:H2'	36:5:928:C:H6	1.82	0.44
1:2:919:A:H2'	1:2:920:U:C6	2.52	0.44
36:5:2189:U:C5	36:5:2190:U:C5	3.06	0.44
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	1.99	0.44
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.52	0.44
14:C2:138:GLU:OE1	14:C2:142:GLN:HB3	2.17	0.44
62:N6:71:SER:OG	62:N6:72:SER:N	2.51	0.44
1:2:1036:A:H2'	1:2:1037:C:O4'	2.17	0.44
1:6:1657:U:O5'	1:6:1658:G:H5"	2.17	0.44
36:5:3377:G:O6	86:5:4090:OHX:N1	2.50	0.44
24:D2:38:LEU:HA	24:D2:38:LEU:HD23	1.83	0.44
47:M0:58:GLU:OE1	47:M0:161:GLY:HA3	2.27	0.44
51:M5:115:VAL:O	51:M5:159:ARG:NH1	3.49	0.44
86:2:2090:OHX:N1	86:2:2131:OHX:N2	2.65	0.44
52:M6:110:PRO:C	52:M6:112:TYR:N	2.85	0.44
50:M4:113:THR:H	50:M4:116:GLU:HG3	3.60	0.44
69:O3:3:GLU:HG3	69:O3:4:SER:N	2.32	0.44
36:1:155:G:H5"	36:1:156:G:C8	2.53	0.44
36:5:2941:A:O5'	36:5:2943:G:H4'	2.17	0.44
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:108:ARG:O	45:L8:112:GLU:N	2.75	0.44
9:S7:163:ASP:O	9:S7:166:LEU:HB2	2.17	0.44
28:D6:95:ARG:NH1	1:6:1796:C:O2'	341.28	0.44
8:S6:31:ARG:HH21	8:S6:68:LEU:CD1	4.12	0.44
7:S5:143:ARG:NH1	30:D8:57:MET:SD	2.87	0.44
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	7.33	0.44
17:C5:43:ARG:HG2	17:C5:47:ARG:HD2	2.00	0.44
36:1:2339:C:P	59:N3:48:ARG:HG2	2.58	0.44
63:N7:133:LYS:HE3	36:5:1807:G:OP1	197.62	0.44
36:5:1307:G:O2'	36:5:1308:A:OP2	2.30	0.44
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.45	0.44
3:S1:104:ASP:OD1	3:S1:214:LYS:HG3	3.66	0.44
37:7:3:U:H2'	37:7:4:U:C6	2.52	0.44
68:O2:105:ARG:HD2	68:O2:125:ARG:HD3	2.72	0.44
40:L3:323:MET:CE	40:L3:356:LEU:HD11	2.88	0.44
35:SM:23:LYS:H	35:SM:23:LYS:CD	2.24	0.44
1:6:488:G:H21	1:6:499:U:H3	1.65	0.44
35:SM:48:ARG:HA	36:5:1019:G:OP1	334.16	0.44
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.33	0.44
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.40	0.44
36:5:2307:G:H4'	36:5:2308:C:OP2	2.18	0.44
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	1.68	0.44
71:O5:10:ARG:HG3	71:O5:57:VAL:HG13	2.00	0.44
32:E0:28:LYS:HD3	1:6:542:A:N1	428.85	0.44
19:C7:79:GLU:HA	19:C7:82:ASP:OD2	2.18	0.44
1:2:1253:U:H4'	33:E1:143:LYS:N	2.33	0.44
36:1:439:C:H5'	36:1:440:A:C8	2.52	0.44
48:M1:8:PRO:CG	48:M1:9:MET:H	3.18	0.44
22:D0:83:GLU:HG3	22:D0:85:ARG:HE	1.82	0.44
36:5:1686:U:O2	36:5:1688:U:H1'	2.18	0.44
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.65	0.44
46:L9:55:VAL:O	46:L9:68:LEU:HD21	2.71	0.44
26:D4:52:LYS:C	26:D4:54:ALA:H	2.21	0.44
36:1:1144:U:H1'	36:1:1145:G:C8	2.53	0.44
1:6:583:C:OP1	86:6:2050:OHX:N6	2.51	0.44
44:L7:108:LEU:CD2	44:L7:115:THR:HG23	2.48	0.44
86:5:4068:OHX:N1	86:5:4146:OHX:N4	2.66	0.44
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.76	0.44
23:D1:62:ARG:HH12	24:D2:20:THR:HB	2.67	0.44
65:N9:10:HIS:O	65:N9:12:GLN:NE2	2.51	0.44
1:6:1681:A:H2	1:6:1720:G:H21	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:199:A:C4	36:5:201:A:C8	3.06	0.44
36:5:2954:U:H6	36:5:2954:U:HO2'	1.61	0.44
1:6:879:G:H8	1:6:879:G:O5'	2.00	0.44
36:1:716:A:N6	64:N8:117:ARG:HG3	2.33	0.44
36:5:138:U:H2'	36:5:139:G:H8	1.81	0.44
1:2:1497:U:O4	1:2:1511:U:C2	2.71	0.44
1:6:17:C:H2'	1:6:18:C:C6	2.53	0.44
36:5:668:G:OP1	86:5:4144:OHX:N1	2.51	0.44
36:1:3333:G:N2	36:1:3369:G:O2'	2.51	0.44
1:6:419:G:N7	86:6:2118:OHX:N1	2.65	0.44
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.18	0.44
36:5:2665:U:H4'	36:5:2666:C:OP1	2.18	0.44
36:1:971:G:H2'	36:1:972:A:O4'	2.18	0.44
36:1:636:C:O2'	36:1:637:C:H3'	2.18	0.44
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.18	0.44
36:5:1208:U:O2	36:5:1208:U:H2'	2.16	0.44
5:S3:215:GLU:HA	5:S3:216:PRO:HD2	2.18	0.44
55:M9:88:ARG:HG2	55:M9:88:ARG:H	3.59	0.44
36:5:599:C:H2'	36:5:600:G:O4'	2.17	0.44
40:L3:282:ILE:HD13	40:L3:322:ILE:HD12	2.00	0.44
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	2.00	0.44
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.32	0.44
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.79	0.44
2:S0:139:VAL:O	2:S0:141:ILE:HG13	2.88	0.44
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.63	0.44
4:S2:137:ILE:HD12	4:S2:215:PHE:CZ	5.25	0.44
10:S8:56:ARG:NH2	1:6:332:U:OP2	287.13	0.44
12:C0:25:LYS:NZ	1:6:1435:G:N7	419.18	0.44
1:6:1435:G:H4'	1:6:1436:A:H5'	1.99	0.44
31:D9:6:VAL:HG23	31:D9:7:TRP:CE3	2.53	0.44
56:N0:13:ARG:HB3	56:N0:13:ARG:HE	1.30	0.44
54:M8:69:ARG:HG3	36:5:784:A:N7	158.43	0.44
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.18	0.44
36:1:36:C:OP2	51:M5:83:LYS:HE2	2.17	0.44
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.98	0.44
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.53	0.44
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.44
36:5:3364:C:H2'	36:5:3365:U:H6	1.82	0.44
8:S6:20:ASP:O	8:S6:21:GLU:C	2.69	0.44
11:S9:134:ILE:HG12	11:S9:135:ALA:N	2.31	0.44
27:D5:66:VAL:HG22	27:D5:71:ILE:HG22	5.89	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2273:G:N2	36:1:2311:G:H2'	2.32	0.44
41:L4:93:MET:O	36:5:1438:U:H1'	141.64	0.44
40:L3:46:PHE:HD1	40:L3:208:VAL:HG21	2.44	0.44
36:1:409:A:OP2	86:1:4054:OHX:N6	2.50	0.44
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	3.09	0.44
11:S9:164:PHE:CE2	1:6:512:A:H4'	452.86	0.44
9:S7:21:ALA:O	9:S7:25:VAL:HG23	4.02	0.44
36:1:1443:G:O6	86:1:3974:OHX:N3	2.50	0.44
1:2:639:U:H5"	9:S7:101:LYS:HB2	1.99	0.44
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.05	0.44
36:1:2197:C:C2	36:1:2241:U:C4	3.06	0.44
18:C6:28:LEU:HG	18:C6:64:ASP:CG	2.38	0.44
41:L4:98:ARG:HD2	41:L4:98:ARG:HH11	1.56	0.44
57:N1:36:VAL:HG22	57:N1:64:VAL:O	4.97	0.44
36:1:677:A:OP1	54:M8:89:ASP:HB3	2.18	0.44
43:L6:26:ARG:HB3	43:L6:27:PRO:HD2	2.35	0.44
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.48	0.44
1:6:1762:A:O2'	1:6:1783:C:H5'	2.18	0.44
70:O4:38:LEU:H	70:O4:38:LEU:HD12	3.08	0.44
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.02	0.44
36:1:2163:C:H4'	39:L2:7:ASN:O	2.18	0.44
1:6:432:G:H2'	1:6:433:C:O4'	2.17	0.44
1:6:1291:G:N3	1:6:1291:G:H5"	2.32	0.44
36:5:2425:G:H2'	36:5:2426:U:C6	2.52	0.44
1:6:1584:G:N2	1:6:1611:A:OP2	2.37	0.44
1:2:577:G:H3'	1:2:577:G:C8	2.52	0.44
52:M6:48:PHE:CE1	52:M6:52:LEU:HD11	3.16	0.44
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.32	0.44
61:N5:34:LEU:HD22	61:N5:35:PRO:O	2.42	0.44
36:1:1823:A:H2'	36:1:1824:U:C6	2.53	0.44
47:M0:169:LYS:HG2	57:N1:159:PHE:HA	1.99	0.44
34:SR:173:GLY:O	34:SR:199:ILE:HG13	2.33	0.44
86:2:2075:OHX:N4	86:2:2161:OHX:N1	2.65	0.44
45:L8:53:PRO:HB2	45:L8:55:TYR:CE2	2.81	0.44
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.17	0.44
51:M5:66:VAL:CG2	51:M5:98:LEU:HD12	2.48	0.44
1:2:1622:G:H2'	1:2:1623:C:C6	2.52	0.44
42:L5:67:SER:HB3	57:N1:31:LEU:HD11	1.99	0.44
38:4:7:U:H2'	38:4:8:C:C6	2.53	0.44
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.88	0.44
26:D4:88:THR:O	26:D4:92:VAL:HG22	4.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.82	0.44
5:S3:29:LEU:HD22	5:S3:58:VAL:HG22	3.12	0.44
38:4:93:U:H2'	38:4:94:C:O4'	2.17	0.44
36:1:77:A:H5'	49:M3:100:ARG:CZ	2.48	0.44
36:1:26:A:C4	36:1:330:G:C8	3.06	0.44
1:2:1096:C:O2	1:2:1096:C:H2'	2.18	0.44
36:5:2437:G:H2'	36:5:2438:A:O4'	2.17	0.44
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.70	0.44
36:5:1027:A:N7	36:5:1029:G:C2	2.86	0.44
42:L5:111:GLN:CA	42:L5:116:ASP:HB3	4.32	0.44
11:S9:101:VAL:HG23	11:S9:102:GLU:OE2	2.17	0.44
36:5:1239:C:H3'	36:5:1240:A:C8	2.53	0.44
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.43	0.44
11:S9:121:SER:HB3	11:S9:124:HIS:CB	4.14	0.44
4:S2:218:ILE:HG13	4:S2:218:ILE:H	2.24	0.44
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.58	0.44
37:3:42:A:C5	37:3:43:U:C5	3.06	0.44
41:L4:324:LEU:O	41:L4:327:LEU:O	2.66	0.44
1:2:1164:G:OP1	7:S5:166:ARG:NH2	2.51	0.44
1:6:901:G:N1	1:6:902:G:C6	2.85	0.44
40:L3:117:ARG:HA	40:L3:175:LYS:HD3	3.21	0.44
49:M3:9:ILE:HD13	64:N8:52:TYR:HE1	1.81	0.44
41:L4:131:VAL:CG1	41:L4:134:LEU:HG	2.48	0.44
49:M3:164:GLU:HA	49:M3:164:GLU:OE2	4.01	0.44
27:D5:89:ILE:HB	27:D5:101:TYR:HB3	1.99	0.44
1:2:887:A:H2'	1:2:888:U:C6	2.52	0.44
44:L7:24:GLU:O	44:L7:26:VAL:N	2.51	0.44
1:2:1524:A:C6	1:2:1525:A:C6	3.06	0.44
1:2:39:A:HO2'	1:2:40:A:P	2.38	0.44
1:6:217:A:HO2'	1:6:218:A:H8	1.64	0.44
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.91	0.44
1:2:947:U:H2'	1:2:948:G:C8	2.52	0.44
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	2.00	0.44
36:1:2255:A:H5'	36:1:2261:G:N2	2.32	0.44
42:L5:57:ASN:N	42:L5:57:ASN:OD1	4.08	0.44
36:5:1192:C:C5	86:5:4094:OHX:N6	2.86	0.44
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.17	0.44
36:1:1492:G:OP1	73:O7:14:LYS:NZ	2.48	0.44
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.47	0.44
1:6:647:G:H22	1:6:687:G:N2	2.15	0.44
5:S3:168:ILE:HA	5:S3:188:ILE:O	2.54	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:136:GLU:O	43:L6:139:LYS:N	2.51	0.44
73:O7:48:ASN:HA	73:O7:54:LYS:HZ1	2.54	0.44
36:5:1080:A:O2'	36:5:1081:U:H5'	2.18	0.44
39:L2:224:THR:HG23	36:5:2202:C:O4'	218.95	0.44
57:N1:64:VAL:HG12	57:N1:66:ASN:H	2.09	0.44
40:L3:247:ARG:HD3	36:5:1888:U:OP1	209.77	0.44
36:5:2993:G:C6	36:5:3142:A:C4	3.05	0.44
41:L4:193:LYS:HE3	41:L4:193:LYS:HB2	2.68	0.44
51:M5:21:PHE:HD2	51:M5:22:LEU:HD12	2.32	0.44
36:1:590:G:C2	36:1:610:G:H2'	2.52	0.44
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.18	0.44
1:2:1167:G:H2'	1:2:1168:U:C6	2.53	0.44
34:SR:243:LEU:HD23	34:SR:254:ALA:HA	2.00	0.44
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.43	0.44
36:1:716:A:C6	64:N8:117:ARG:HG3	2.53	0.44
1:2:67:A:H3'	1:2:69:G:C8	2.52	0.44
1:2:911:U:O2'	1:2:915:A:H1'	2.18	0.44
73:O7:13:ASN:O	36:5:817:A:C4	139.81	0.44
1:2:1437:U:H5'	5:S3:176:LEU:HD23	2.00	0.44
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.18	0.44
8:S6:24:ILE:O	8:S6:26:VAL:N	2.73	0.44
1:6:555:A:C8	1:6:555:A:H3'	2.53	0.44
42:L5:37:VAL:HG11	57:N1:31:LEU:HD21	2.00	0.44
39:L2:34:TYR:O	39:L2:35:ALA:C	2.55	0.44
1:2:833:U:OP2	86:2:2141:OHX:N4	2.51	0.44
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.51	0.44
36:5:1729:A:H4'	36:5:1730:G:OP2	2.18	0.44
4:S2:106:ASP:OD1	4:S2:108:ASN:N	2.50	0.44
36:1:993:G:N3	36:1:2637:A:H2'	2.32	0.44
36:5:2693:C:H1'	36:5:2706:G:H5"	1.99	0.44
36:5:750:G:H2'	36:5:751:A:H8	1.83	0.44
59:N3:109:MET:HB3	59:N3:109:MET:HE3	1.84	0.44
36:1:282:G:H3'	36:1:282:G:C8	2.52	0.44
63:N7:15:ARG:HG3	63:N7:15:ARG:HH11	1.83	0.44
28:D6:90:GLU:H	28:D6:90:GLU:CD	3.04	0.44
65:N9:38:LYS:HG3	65:N9:38:LYS:O	4.43	0.44
65:N9:59:LYS:HB2	65:N9:59:LYS:HE3	4.73	0.44
36:1:2554:A:C8	36:1:2554:A:H5'	2.53	0.44
36:5:826:G:OP1	36:5:1590:G:H4'	2.18	0.44
5:S3:80:ALA:O	5:S3:83:THR:HG23	2.18	0.44
60:N4:2:LYS:HG3	60:N4:3:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.32	0.44
36:1:1481:A:H2'	36:1:1858:A:H1'	1.99	0.43
86:1:4029:OHX:N2	86:1:4042:OHX:N5	2.65	0.43
48:M1:141:ARG:O	48:M1:145:LYS:HG3	3.03	0.43
4:S2:41:LEU:HD12	4:S2:68:ILE:HD13	2.00	0.43
4:S2:61:LEU:HD23	4:S2:61:LEU:HA	1.68	0.43
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.84	0.43
48:M1:96:PHE:CE1	48:M1:160:VAL:HG23	4.19	0.43
58:N2:11:ILE:O	58:N2:68:THR:HG22	6.46	0.43
1:2:274:G:N1	1:2:275:C:O2	2.51	0.43
41:L4:316:ASN:C	41:L4:317:PRO:O	2.56	0.43
36:1:981:U:HO2'	36:1:982:C:P	2.41	0.43
56:N0:137:ARG:HD3	36:5:1213:G:OP1	324.47	0.43
67:O1:10:ARG:HG2	67:O1:108:VAL:HG22	2.00	0.43
2:S0:50:VAL:HG22	19:C7:109:LEU:HD21	1.99	0.43
23:D1:69:LEU:HD23	23:D1:69:LEU:HA	2.31	0.43
41:L4:112:LYS:O	36:5:790:U:H4'	122.27	0.43
2:S0:23:HIS:CE1	2:S0:24:LEU:HD13	3.78	0.43
42:L5:178:ASN:HA	42:L5:183:TRP:CD1	3.38	0.43
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.99	0.43
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	2.09	0.43
4:S2:170:ILE:O	4:S2:196:VAL:HG23	2.33	0.43
62:N6:127:GLU:O	71:O5:68:GLN:HG3	52.24	0.43
40:L3:205:VAL:C	40:L3:207:SER:N	2.85	0.43
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.51	0.43
36:1:3174:A:H2'	36:1:3175:U:H5'	1.99	0.43
1:6:1535:U:HO2'	1:6:1536:G:P	2.41	0.43
34:SR:195:HIS:NE2	34:SR:213:SER:O	2.46	0.43
1:6:1159:C:H5"	1:6:1160:A:H5'	2.00	0.43
45:L8:90:THR:HG21	45:L8:152:LEU:HD21	2.00	0.43
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.99	0.43
1:2:959:U:H5'	29:D7:28:PRO:HB3	1.99	0.43
47:M0:24:ARG:H	47:M0:24:ARG:HG3	3.54	0.43
1:2:936:G:O6	28:D6:15:ARG:HG3	2.17	0.43
1:2:756:A:H1'	6:S4:12:LEU:O	2.17	0.43
1:6:961:U:H2'	1:6:962:C:H6	1.79	0.43
36:1:1952:G:H5'	36:1:1953:G:OP2	2.17	0.43
1:6:75:U:C2	1:6:76:A:C8	3.06	0.43
68:O2:20:HIS:HB2	68:O2:50:ILE:HD11	2.58	0.43
18:C6:28:LEU:O	18:C6:29:ILE:HG13	4.05	0.43
36:5:25:U:O4	86:5:3909:OHX:N5	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4083:OHX:N2	86:1:4153:OHX:N4	2.66	0.43
38:4:85:G:C8	38:4:85:G:C3'	3.01	0.43
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.17	0.43
1:6:292:U:H2'	1:6:293:U:C6	2.53	0.43
16:C4:111:ARG:NH2	28:D6:57:SER:O	2.47	0.43
68:O2:4:LEU:HD23	68:O2:91:THR:HG23	2.55	0.43
36:1:385:A:H2'	36:1:386:A:H8	1.81	0.43
36:5:528:U:H2'	36:5:529:A:H8	1.83	0.43
36:5:3289:G:H2'	36:5:3290:G:O4'	2.18	0.43
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	1.83	0.43
64:N8:36:GLY:HA3	64:N8:40:HIS:CE1	2.55	0.43
1:6:1063:U:C2	1:6:1064:G:C8	3.06	0.43
56:N0:96:ASP:OD1	56:N0:97:VAL:HG23	2.17	0.43
1:2:445:A:H1'	1:2:525:A:OP1	2.18	0.43
36:1:3296:A:H2'	36:1:3297:U:O4'	2.18	0.43
40:L3:306:THR:HA	40:L3:307:PRO:HD3	1.88	0.43
1:6:350:U:H5"	1:6:352:A:H5'	1.99	0.43
5:S3:22:ASN:O	5:S3:26:THR:HB	2.18	0.43
8:S6:27:PHE:O	8:S6:30:LYS:HG3	2.21	0.43
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.53	0.43
47:M0:62:SER:O	47:M0:65:LEU:HB2	2.79	0.43
36:1:727:G:H2'	36:1:728:G:O4'	2.17	0.43
62:N6:55:GLU:OE2	62:N6:69:LYS:HB2	6.99	0.43
13:C1:57:LYS:HD2	13:C1:131:ILE:HG23	2.00	0.43
68:O2:35:GLN:HB3	68:O2:43:ARG:HB2	2.22	0.43
7:S5:214:LYS:HA	7:S5:217:LEU:HD12	3.14	0.43
36:5:2726:C:O2'	36:5:2727:A:H2'	2.18	0.43
8:S6:46:LYS:HD2	8:S6:118:GLU:OE2	5.23	0.43
38:4:133:G:O6	86:4:228:OHX:N5	2.51	0.43
36:1:402:A:C6	53:M7:21:TYR:CE2	3.05	0.43
36:1:1317:A:O2'	36:1:1318:A:H3'	2.18	0.43
36:1:3292:A:C6	36:1:3293:U:N3	2.86	0.43
63:N7:115:LYS:O	63:N7:119:GLU:HG3	2.18	0.43
36:5:1270:A:H3'	36:5:1271:A:H8	1.83	0.43
12:C0:31:LYS:HA	12:C0:37:THR:O	2.22	0.43
36:1:1734:G:H2'	36:1:1735:G:O4'	2.18	0.43
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.53	0.43
1:2:1266:U:H2'	1:2:1267:G:C8	2.52	0.43
36:5:2986:U:H2'	36:5:2987:A:C8	2.53	0.43
52:M6:176:LYS:O	52:M6:178:VAL:N	3.63	0.43
36:1:2667:A:C2	36:1:2668:U:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	2.21	0.43
1:2:1184:A:H2	1:2:1454:G:N3	2.16	0.43
36:5:3166:C:H42	36:5:3284:G:H1	1.66	0.43
36:5:1947:G:H5"	36:5:1948:G:OP2	2.18	0.43
36:1:1470:U:H2'	36:1:1471:U:H6	1.83	0.43
52:M6:54:TYR:O	52:M6:57:PHE:HB3	2.38	0.43
21:C9:135:ILE:HD12	21:C9:136:ALA:N	2.33	0.43
17:C5:127:ARG:HH12	35:SM:66:ALA:CB	4.36	0.43
36:1:1481:A:H2'	36:1:1481:A:N3	2.34	0.43
51:M5:93:LYS:HG3	36:5:289:A:C2	145.79	0.43
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.18	0.43
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	2.54	0.43
86:5:4191:OHX:N5	86:5:4193:OHX:N6	2.65	0.43
36:1:2881:C:H2'	36:1:2882:U:C6	2.53	0.43
36:5:2397:A:H8	36:5:2941:A:N1	2.15	0.43
64:N8:6:THR:HG23	64:N8:8:THR:H	2.15	0.43
36:5:1614:C:H2'	36:5:1615:C:H6	1.84	0.43
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.95	0.43
28:D6:60:PRO:O	28:D6:62:TYR:N	2.51	0.43
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.18	0.43
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.18	0.43
59:N3:120:LYS:H	59:N3:137:VAL:HG21	1.83	0.43
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.22	0.43
36:1:2656:A:C4	36:1:2658:G:N7	2.86	0.43
3:S1:171:ILE:O	3:S1:175:GLU:HG2	2.18	0.43
1:2:901:G:C6	1:2:902:G:C6	3.06	0.43
41:L4:182:LEU:HA	41:L4:182:LEU:HD12	2.03	0.43
1:2:151:G:N2	1:2:164:A:C5	2.86	0.43
36:5:1415:U:H2'	36:5:1416:C:O4'	2.18	0.43
1:6:454:U:OP1	1:6:455:C:N4	2.49	0.43
21:C9:11:ALA:HA	21:C9:63:ARG:HH21	1.83	0.43
21:C9:94:ILE:HA	21:C9:94:ILE:HD13	3.52	0.43
40:L3:61:ASP:OD1	40:L3:68:HIS:HE1	2.38	0.43
3:S1:172:LEU:HD23	3:S1:172:LEU:HA	1.71	0.43
42:L5:219:PHE:HD2	42:L5:223:PHE:CD1	2.36	0.43
32:E0:28:LYS:HE2	1:6:542:A:H61	430.33	0.43
1:6:829:A:O2'	1:6:830:U:O5'	2.34	0.43
11:S9:92:LYS:O	11:S9:95:TYR:N	4.95	0.43
36:5:945:C:H2'	36:5:946:U:O4'	2.18	0.43
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.51	0.43
6:S4:95:THR:HG22	26:D4:16:PRO:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:127:ALA:O	64:N8:148:ILE:HG12	2.49	0.43
15:C3:15:ALA:O	1:6:959:U:H5"	350.82	0.43
36:1:2591:A:O2'	36:1:2592:G:H5'	2.18	0.43
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	3.04	0.43
62:N6:84:LYS:O	62:N6:86:THR:HG23	3.17	0.43
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.18	0.43
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.29	0.43
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.83	0.43
44:L7:96:PRO:O	44:L7:100:ARG:HB2	2.18	0.43
28:D6:28:LYS:HG2	28:D6:29:SER:O	2.40	0.43
1:2:1053:G:H2'	1:2:1054:U:H6	1.81	0.43
43:L6:131:LYS:HG2	43:L6:133:GLU:HB3	2.00	0.43
34:SR:126:SER:OG	34:SR:127:ARG:N	2.51	0.43
36:1:1109:U:H2'	36:1:1110:U:C6	2.53	0.43
86:1:4083:OHX:N6	86:1:4153:OHX:N4	2.67	0.43
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.91	0.43
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.17	0.43
36:1:2616:C:H2'	36:1:2617:U:H5'	2.00	0.43
10:S8:33:PRO:HA	1:6:331:A:H5'	276.85	0.43
36:5:1263:A:N3	36:5:1263:A:H2'	2.32	0.43
70:O4:102:LYS:NZ	36:5:2552:C:OP1	230.24	0.43
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.41	0.43
11:S9:54:ARG:HB3	11:S9:54:ARG:HE	2.03	0.43
36:5:1771:C:H2'	36:5:1772:U:O4'	2.18	0.43
64:N8:88:ASP:O	64:N8:92:LYS:HG2	2.18	0.43
16:C4:136:ARG:H	16:C4:136:ARG:HG2	1.71	0.43
9:S7:79:ARG:HB2	9:S7:79:ARG:HH11	2.81	0.43
53:M7:36:ILE:HD11	53:M7:95:LEU:HD11	2.00	0.43
1:6:1773:C:H2'	1:6:1774:G:H8	1.84	0.43
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.18	0.43
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.22	0.43
36:1:3277:U:H2'	53:M7:175:ARG:HH22	1.82	0.43
36:5:1703:U:N3	36:5:1740:U:O2	2.51	0.43
36:1:1694:U:H2'	36:1:1695:U:C6	2.53	0.43
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.83	0.43
36:1:796:U:H2'	36:1:797:U:C6	2.54	0.43
1:2:1134:C:H2'	1:2:1135:U:O4'	2.18	0.43
36:5:2767:U:H2'	36:5:2768:U:C6	2.53	0.43
36:1:1626:U:H2'	36:1:1627:U:C6	2.53	0.43
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.49	0.43
8:S6:77:LEU:HA	8:S6:77:LEU:HD23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.83	0.43
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.33	0.43
36:1:2714:G:H5"	36:1:2714:G:C8	2.53	0.43
71:O5:89:ARG:HD2	38:8:38:U:C4	68.47	0.43
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	2.64	0.43
55:M9:102:LEU:HD22	55:M9:138:LEU:HD12	2.00	0.43
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.30	0.43
36:1:1362:G:H21	44:L7:158:LYS:HZ1	1.65	0.43
1:6:1699:G:H2'	1:6:1700:C:H5'	2.00	0.43
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	2.07	0.43
65:N9:17:HIS:O	65:N9:20:GLY:HA2	2.18	0.43
30:D8:42:ARG:HH11	30:D8:56:LEU:HD13	1.83	0.43
36:5:1234:G:H2'	36:5:1235:U:C5	2.53	0.43
36:5:1241:U:O2'	36:5:1242:G:O5'	2.31	0.43
37:3:113:C:C4	37:3:114:U:C4	3.07	0.43
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.18	0.43
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.54	0.43
49:M3:178:LYS:HD3	49:M3:179:PHE:CE2	2.53	0.43
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.27	0.43
52:M6:18:ARG:HA	36:5:1181:U:O4	266.73	0.43
66:O0:103:THR:HB	66:O0:104:LEU:H	1.54	0.43
28:D6:44:ILE:HD13	28:D6:65:PRO:HG2	4.22	0.43
16:C4:37:GLU:HA	1:6:895:G:O2'	258.97	0.43
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.48	0.43
25:D3:130:VAL:HG21	25:D3:143:PRO:HD3	2.01	0.43
36:1:1230:G:H1	36:1:1279:C:N4	2.11	0.43
1:2:929:A:N6	1:2:930:A:N1	2.66	0.43
59:N3:13:ILE:HD13	59:N3:13:ILE:HG21	1.89	0.43
36:5:978:G:N2	36:5:1104:G:C4	2.87	0.43
6:S4:185:GLY:N	6:S4:189:LEU:HD13	2.33	0.43
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.99	0.43
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	2.01	0.43
36:1:3166:C:H2'	36:1:3167:A:O4'	2.18	0.43
11:S9:25:ASP:O	11:S9:29:LYS:HD2	4.04	0.43
58:N2:90:ARG:HG2	58:N2:90:ARG:H	2.58	0.43
33:E1:83:LYS:O	33:E1:84:VAL:HG12	2.18	0.43
36:1:1602:A:C6	36:1:1603:A:C6	3.06	0.43
55:M9:9:ARG:NH2	36:5:1602:A:O3'	108.04	0.43
13:C1:5:LEU:HD23	13:C1:5:LEU:HA	1.78	0.43
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	4.13	0.43
1:2:840:U:O2'	1:2:841:U:H5"	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:25:HIS:HD2	51:M5:199:LEU:O	2.00	0.43
1:2:581:U:OP2	5:S3:143:ARG:NH1	2.51	0.43
1:2:861:U:H5'	1:2:862:A:OP2	2.19	0.43
1:6:1333:C:H2'	1:6:1334:U:C6	2.53	0.43
36:1:86:G:N7	49:M3:13:HIS:ND1	2.65	0.43
15:C3:87:ASP:HB3	15:C3:125:LEU:HD11	4.66	0.43
1:6:484:C:H42	1:6:503:G:H1	1.65	0.43
1:6:1062:A:H3'	1:6:1063:U:C6	2.53	0.43
68:O2:115:LEU:HA	68:O2:115:LEU:HD23	1.89	0.43
4:S2:161:LYS:HA	4:S2:165:VAL:O	2.18	0.43
1:2:1091:A:N3	1:2:1091:A:H5"	2.33	0.43
36:5:115:A:H2'	36:5:265:A:N3	2.33	0.43
35:SM:34:LYS:NZ	36:1:2692:A:O2'	2.51	0.43
1:2:918:U:H2'	1:2:919:A:C8	2.54	0.43
51:M5:85:THR:HG21	36:5:45:A:OP1	156.56	0.43
70:O4:65:VAL:HG13	70:O4:69:HIS:ND1	2.33	0.43
36:5:1610:G:C6	36:5:1611:G:C6	3.06	0.43
36:1:1120:A:H2'	36:1:1121:U:C6	2.53	0.43
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.17	0.43
3:S1:107:THR:OG1	3:S1:108:ASP:N	2.82	0.43
7:S5:160:VAL:HG12	30:D8:43:ASN:HB3	2.44	0.43
36:1:3393:U:H2'	36:1:3394:U:C6	2.53	0.43
36:1:2369:G:H2'	36:1:2370:G:C8	2.52	0.43
1:6:1469:A:H4'	1:6:1541:G:H4'	2.00	0.43
37:7:11:A:O2'	37:7:13:A:H2'	2.19	0.43
86:1:3956:OHX:N1	86:1:4139:OHX:N3	2.66	0.43
43:L6:8:LYS:HD3	43:L6:8:LYS:HA	4.54	0.43
54:M8:29:LEU:HA	54:M8:29:LEU:HD23	2.33	0.43
2:S0:32:HIS:ND1	2:S0:32:HIS:C	2.72	0.43
31:D9:16:LYS:H	31:D9:16:LYS:HG2	2.31	0.43
1:6:576:G:H4'	1:6:580:A:C4	2.53	0.43
6:S4:42:LEU:HD23	6:S4:42:LEU:HA	1.86	0.43
36:5:856:G:C6	36:5:857:G:N1	2.86	0.43
36:1:1949:G:H2'	36:1:1950:U:C6	2.53	0.43
4:S2:139:ILE:CG2	4:S2:141:ARG:HG2	2.48	0.43
36:5:824:C:H2'	36:5:825:U:C6	2.53	0.43
41:L4:316:ASN:ND2	44:L7:150:LYS:HG3	2.34	0.43
3:S1:183:GLN:O	3:S1:187:LYS:N	2.51	0.43
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.54	0.43
68:O2:105:ARG:HE	68:O2:124:GLY:HA3	1.84	0.43
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3055:U:C2	36:1:3085:G:N1	2.86	0.43
1:2:1339:C:O2'	1:2:1341:A:C8	2.69	0.43
44:L7:74:SER:HB3	57:N1:141:VAL:O	2.18	0.43
3:S1:41:ARG:O	3:S1:43:VAL:HG23	2.19	0.43
36:5:2573:G:H5'	36:5:2574:G:OP2	2.19	0.43
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	2.19	0.43
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.98	0.43
72:O6:86:LYS:HA	72:O6:86:LYS:HD3	1.63	0.43
1:2:886:U:H2'	1:2:887:A:O4'	2.18	0.43
36:1:3015:G:C5	36:1:3040:A:C2	3.07	0.43
36:5:1597:C:C4'	36:5:1696:A:H1'	2.49	0.43
68:O2:17:PHE:CD1	68:O2:53:PRO:HD3	2.72	0.43
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.34	0.43
31:D9:44:ARG:NH2	1:6:1280:C:H5'	399.51	0.43
62:N6:39:LEU:HD21	62:N6:107:THR:O	2.98	0.43
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	2.55	0.43
16:C4:25:ASP:H	16:C4:55:SER:HB3	1.84	0.43
34:SR:238:ASP:N	34:SR:238:ASP:OD1	2.50	0.43
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.83	0.43
49:M3:64:LYS:HD2	64:N8:69:TRP:CD1	2.53	0.43
46:L9:110:LYS:HB2	46:L9:110:LYS:HE3	4.71	0.43
7:S5:125:THR:H	27:D5:58:ARG:NH1	2.15	0.43
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.96	0.43
36:1:1657:C:C5	36:1:1797:A:H5"	2.52	0.43
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.03	0.43
36:5:1184:A:OP2	86:5:4100:OHX:N6	2.51	0.43
36:1:2424:A:H2'	36:1:2425:G:O4'	2.19	0.43
36:5:2950:G:C5	36:5:2979:U:C4	3.07	0.43
20:C8:80:LYS:HD2	20:C8:80:LYS:HA	1.74	0.43
8:S6:48:TYR:CD2	8:S6:117:GLY:HA3	2.71	0.43
70:O4:20:ILE:HA	70:O4:20:ILE:HD13	1.66	0.43
1:2:1151:A:H2'	1:2:1152:A:H8	1.82	0.43
53:M7:94:LEU:HA	53:M7:94:LEU:HD12	1.91	0.43
74:O8:66:ILE:HG12	74:O8:66:ILE:H	3.28	0.43
48:M1:78:GLU:O	48:M1:82:ARG:HG3	5.01	0.43
48:M1:82:ARG:HB3	48:M1:82:ARG:HH11	4.69	0.43
86:5:4205:OHX:N6	86:8:226:OHX:N3	2.66	0.43
1:6:15:U:C4	1:6:16:G:C5	3.06	0.43
36:1:2395:G:H5"	40:L3:255:TRP:CD1	2.53	0.43
26:D4:3:ASP:O	26:D4:5:VAL:N	2.50	0.43
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	1.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4037:OHX:N6	86:5:4240:OHX:N5	2.65	0.43
86:2:2075:OHX:N4	86:2:2161:OHX:N2	2.66	0.43
86:5:4036:OHX:N1	86:5:4121:OHX:N3	2.65	0.43
36:1:2135:U:O2'	36:1:2136:C:H5'	2.18	0.43
36:1:1317:A:OP1	86:1:4062:OHX:N2	2.52	0.43
21:C9:4:VAL:HG21	21:C9:140:LEU:CD1	2.48	0.43
5:S3:133:GLY:HA2	5:S3:155:GLY:HA3	3.16	0.43
33:E1:109:ASP:O	33:E1:111:GLU:N	2.51	0.43
36:5:612:U:H2'	36:5:613:G:H8	1.83	0.43
36:5:3253:G:N7	86:5:4241:OHX:N1	2.66	0.43
37:3:55:A:H2'	37:3:56:A:O4'	2.19	0.43
55:M9:77:GLY:HA3	36:5:1939:G:OP1	218.65	0.43
38:4:126:A:O2'	38:4:129:C:N4	2.51	0.43
36:1:1075:A:C6	65:N9:45:HIS:CE1	3.06	0.43
34:SR:152:SER:HB2	34:SR:172:ALA:HB3	5.12	0.43
36:5:1507:G:N3	36:5:1507:G:H5'	2.33	0.43
1:6:1381:U:OP1	86:6:2178:OHX:N6	2.52	0.43
36:5:2962:U:OP1	86:5:3980:OHX:N4	2.51	0.43
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.19	0.43
7:S5:32:GLU:HA	7:S5:35:GLN:HB2	2.01	0.43
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.47	0.43
36:1:436:A:O5'	36:1:436:A:H8	2.01	0.43
3:S1:69:CYS:SG	3:S1:71:ALA:HB3	2.58	0.43
1:6:83:G:H8	1:6:83:G:O5'	2.02	0.43
47:M0:76:MET:HE1	47:M0:148:VAL:HG13	2.22	0.43
28:D6:33:ASP:OD1	28:D6:34:LYS:N	2.50	0.43
70:O4:10:ARG:HD2	75:O9:4:GLN:NE2	2.58	0.43
19:C7:27:ASP:OD2	34:SR:38:ARG:NH2	2.48	0.43
42:L5:258:LYS:O	42:L5:259:LYS:HG2	2.18	0.43
18:C6:68:ARG:C	18:C6:68:ARG:HE	5.50	0.43
36:5:284:A:H4'	36:5:285:A:C2	2.54	0.43
2:S0:184:LEU:HA	2:S0:184:LEU:HD13	2.12	0.43
26:D4:63:GLN:HG3	26:D4:64:PHE:O	2.46	0.43
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.31	0.43
1:2:1341:A:H1'	34:SR:65:SER:OG	2.18	0.43
36:1:1286:A:N3	36:1:1287:A:H1'	2.33	0.43
1:2:896:U:O4'	16:C4:38:THR:HG21	2.18	0.43
27:D5:83:LEU:HA	27:D5:83:LEU:HD23	1.90	0.43
44:L7:175:LYS:HD2	44:L7:176:TYR:CZ	2.54	0.43
1:2:1483:A:C6	1:2:1484:G:C6	3.06	0.43
6:S4:160:VAL:HG23	6:S4:172:PHE:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:172:ARG:NH1	36:5:30:G:P	107.04	0.43
24:D2:30:SER:OG	24:D2:31:SER:N	2.56	0.43
2:S0:102:PHE:O	2:S0:103:THR:HB	2.35	0.43
3:S1:32:ILE:HD11	3:S1:46:THR:OG1	2.19	0.43
1:6:1202:A:H2'	1:6:1203:A:H5"	2.00	0.43
1:6:639:U:O4	1:6:695:U:C6	2.72	0.43
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.18	0.43
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.19	0.43
36:5:1657:C:N4	36:5:1798:A:OP2	2.42	0.43
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.36	0.43
36:1:1815:U:O2'	36:1:1816:A:P	2.77	0.43
1:6:892:A:H2'	1:6:893:U:O4'	2.17	0.43
36:5:174:C:H2'	36:5:175:C:H6	1.81	0.43
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.68	0.43
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.38	0.43
45:L8:73:PRO:HA	45:L8:76:ALA:HB3	2.23	0.43
40:L3:238:LEU:HD12	40:L3:238:LEU:HA	2.40	0.43
10:S8:31:ARG:HH21	10:S8:48:THR:HG22	2.35	0.43
2:S0:200:ASP:HB2	19:C7:85:VAL:HG13	2.00	0.43
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.07	0.43
36:1:651:G:O2'	36:1:1435:A:OP1	2.29	0.43
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.21	0.43
1:6:1740:A:H2'	1:6:1741:U:H6	1.84	0.43
86:5:4037:OHX:N4	86:5:4240:OHX:N1	2.66	0.43
43:L6:69:PHE:CE1	36:5:3268:A:C4	257.43	0.43
36:5:764:U:H6	36:5:764:U:O5'	2.02	0.43
41:L4:20:LEU:H	41:L4:20:LEU:HG	1.99	0.43
1:6:876:G:H1'	1:6:944:A:O4'	2.18	0.43
36:5:2888:U:C6	36:5:2911:A:N6	2.87	0.43
36:1:3271:G:OP1	53:M7:171:ARG:HG2	2.18	0.43
1:2:1579:U:H2'	1:2:1580:C:H6	1.83	0.43
53:M7:71:ALA:O	53:M7:73:GLY:N	2.86	0.43
1:6:1427:A:O2'	1:6:1428:G:OP1	2.28	0.43
12:C0:10:LYS:HA	12:C0:13:GLN:HB3	2.94	0.43
58:N2:17:VAL:HB	58:N2:63:VAL:HG23	3.21	0.43
40:L3:47:LEU:HB3	40:L3:164:THR:HG22	2.09	0.43
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.99	0.43
36:5:2317:A:OP2	86:5:4189:OHX:N6	2.51	0.43
47:M0:93:PRO:HA	47:M0:126:ALA:O	2.57	0.43
36:1:840:C:O4'	55:M9:128:LYS:HE2	2.19	0.43
36:5:1863:G:N1	36:5:1866:C:OP2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:11:GLY:O	69:O3:98:VAL:N	2.56	0.43
36:1:1804:A:H2'	36:1:1805:C:C6	2.53	0.43
1:2:159:U:H5'	26:D4:117:LYS:HB3	2.01	0.43
64:N8:12:ARG:HH22	36:5:661:G:P	149.98	0.43
69:O3:17:GLN:HB3	69:O3:27:VAL:HB	2.01	0.43
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.77	0.43
51:M5:41:ARG:HB3	51:M5:41:ARG:HE	1.54	0.43
42:L5:136:GLU:CD	42:L5:136:GLU:N	5.02	0.43
70:O4:60:ARG:O	70:O4:60:ARG:HG3	2.18	0.43
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	2.15	0.43
12:C0:33:GLU:H	12:C0:33:GLU:CD	2.21	0.43
1:2:1459:C:H6	1:2:1459:C:OP2	2.02	0.43
17:C5:123:TYR:OH	20:C8:126:ARG:NH1	3.32	0.43
20:C8:109:LEU:O	20:C8:113:LEU:HG	2.55	0.43
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.28	0.43
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	2.27	0.43
8:S6:160:ARG:NH2	1:6:66:U:O2'	343.23	0.43
46:L9:92:TYR:CD2	46:L9:92:TYR:N	4.05	0.43
34:SR:291:SER:HB2	34:SR:304:GLY:HA3	2.01	0.43
37:3:87:G:OP1	44:L7:221:LYS:NZ	2.52	0.43
1:2:1369:U:O4	86:2:2095:OHX:N5	2.52	0.43
36:5:1242:G:H2'	36:5:1243:G:O4'	2.17	0.43
42:L5:270:LYS:O	42:L5:273:ARG:HB3	3.25	0.43
31:D9:5:ASN:C	31:D9:7:TRP:H	2.22	0.43
38:8:78:G:H2'	38:8:79:A:O4'	2.17	0.43
16:C4:29:HIS:HB3	16:C4:41:ARG:CG	2.45	0.43
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.53	0.43
21:C9:34:VAL:HG23	21:C9:53:TRP:CZ2	2.54	0.43
56:N0:166:LYS:O	56:N0:167:ARG:CB	2.67	0.43
46:L9:41:ILE:O	46:L9:41:ILE:HD13	2.19	0.43
70:O4:8:ARG:HE	70:O4:31:ARG:HD2	3.56	0.43
66:O0:101:LEU:HD22	66:O0:101:LEU:HA	1.87	0.43
51:M5:124:ASP:OD2	51:M5:127:TYR:N	2.89	0.43
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.71	0.43
1:2:498:G:C5	1:2:499:U:O4	2.72	0.43
36:1:2282:U:O2	36:1:2310:U:H4'	2.19	0.43
36:1:3317:U:O2'	86:1:4020:OHX:N3	2.51	0.43
11:S9:3:ARG:N	11:S9:3:ARG:HD3	2.60	0.43
1:6:1280:C:H2'	1:6:1281:G:H8	1.83	0.43
45:L8:241:LYS:HB2	36:5:2586:G:C5	183.99	0.43
36:1:2255:A:OP2	36:1:2261:G:N1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:60:PRO:HG2	54:M8:144:ARG:CA	2.48	0.43
1:2:755:A:H2'	1:2:756:A:C8	2.53	0.43
48:M1:153:LYS:HG2	48:M1:153:LYS:O	5.04	0.43
20:C8:61:LEU:HA	20:C8:65:GLU:OE1	2.94	0.43
36:5:937:G:N3	36:5:963:G:H1'	2.34	0.43
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.54	0.43
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.19	0.43
1:2:1550:A:C6	1:2:1562:G:C6	3.06	0.43
49:M3:25:HIS:O	51:M5:201:ARG:HD2	2.48	0.43
36:5:1252:A:N6	36:5:1264:G:OP1	2.50	0.43
1:2:811:A:N7	9:S7:111:LYS:HB2	2.33	0.43
35:SM:94:HIS:N	35:SM:94:HIS:ND1	2.67	0.43
1:2:743:U:OP1	9:S7:108:GLN:N	2.37	0.43
36:5:1317:A:C4	36:5:1319:G:N7	2.87	0.43
1:2:1006:C:H2'	87:2:2179:3K8:H19	1.99	0.43
3:S1:223:PHE:O	3:S1:224:ASP:HB3	2.90	0.43
86:1:4060:OHX:N3	86:1:4173:OHX:N1	2.66	0.43
36:5:2533:G:H2'	36:5:2534:G:C8	2.53	0.43
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	2.07	0.43
48:M1:112:LEU:HD11	48:M1:127:PHE:HZ	2.94	0.43
86:1:4025:OHX:N6	86:1:4145:OHX:N5	2.65	0.43
5:S3:23:GLU:O	5:S3:26:THR:N	2.51	0.43
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.83	0.43
69:O3:21:ARG:O	36:5:634:C:H5'	222.99	0.43
1:6:1603:U:H2'	1:6:1604:U:H6	1.84	0.43
78:Q2:83:LEU:HD23	78:Q2:84:THR:H	2.81	0.43
36:5:926:A:H2'	36:5:927:C:C6	2.54	0.43
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.51	0.43
36:1:1680:G:H2'	36:1:1681:U:H6	1.83	0.43
36:5:734:C:H2'	36:5:735:A:O4'	2.19	0.43
51:M5:69:GLY:O	36:5:290:G:H4'	145.38	0.43
40:L3:73:VAL:HG13	59:N3:90:GLY:HA3	2.26	0.43
49:M3:131:LYS:NZ	49:M3:131:LYS:HB3	2.34	0.43
1:6:1576:A:H2'	1:6:1577:A:O4'	2.19	0.43
11:S9:28:LEU:O	11:S9:28:LEU:HD22	2.19	0.43
1:6:1398:U:H4'	1:6:1399:C:OP2	2.18	0.43
36:1:1004:U:C2	36:1:1005:G:C8	3.07	0.43
1:2:179:A:H2'	1:2:180:A:O4'	2.19	0.43
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.66	0.43
60:N4:63:ILE:O	60:N4:65:GLU:N	2.83	0.43
7:S5:91:GLU:HA	7:S5:94:THR:HG23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:1:MET:O	23:D1:9:VAL:HG12	2.62	0.43
7:S5:164:PRO:O	7:S5:168:VAL:HG23	2.18	0.43
2:S0:13:ASP:O	2:S0:16:LEU:HB2	2.18	0.43
58:N2:53:ALA:HB1	58:N2:68:THR:HG22	2.00	0.43
59:N3:120:LYS:HB2	59:N3:137:VAL:HG23	3.13	0.43
36:1:980:A:H2'	36:1:981:U:C1'	2.49	0.43
36:1:35:A:O2'	36:1:36:C:H5'	2.18	0.43
36:1:3294:A:OP2	40:L3:126:LYS:HE2	2.19	0.43
29:D7:24:LEU:HB3	29:D7:25:VAL:H	1.69	0.43
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.39	0.43
36:1:3112:G:O6	36:1:3120:C:H5"	2.18	0.43
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.52	0.43
64:N8:121:VAL:HA	64:N8:122:PRO:HD3	2.15	0.43
36:5:2567:C:N4	36:5:2568:C:H41	2.17	0.43
36:5:1017:C:H2'	36:5:1017:C:OP2	2.18	0.43
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.18	0.43
28:D6:32:LYS:NZ	1:6:930:A:OP1	310.36	0.43
1:2:735:C:OP2	1:2:735:C:H2'	2.18	0.43
1:2:1525:A:H5'	21:C9:93:HIS:HB2	2.00	0.43
21:C9:31:PRO:HD2	21:C9:54:PHE:CZ	2.53	0.43
1:6:1674:C:H2'	1:6:1675:C:C6	2.54	0.43
40:L3:232:ARG:NH2	36:5:2989:U:O2'	214.74	0.43
1:2:76:A:H2'	1:2:80:A:H62	1.84	0.43
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.32	0.43
68:O2:33:ARG:HH22	36:5:1408:G:P	159.14	0.43
22:D0:58:LEU:HD13	22:D0:88:LYS:HE3	3.57	0.43
1:2:638:U:O3'	9:S7:117:THR:OG1	2.34	0.43
1:2:1584:G:O2'	1:2:1610:G:O6	2.19	0.43
62:N6:52:ARG:O	62:N6:70:ILE:HB	2.18	0.43
42:L5:25:GLU:HB2	42:L5:27:LYS:HG3	2.59	0.43
36:1:863:C:H2'	36:1:864:G:O4'	2.18	0.43
1:2:846:G:C8	13:C1:46:LYS:HE3	2.54	0.43
36:1:1194:G:OP1	86:1:3959:OHX:N1	2.51	0.43
1:2:1366:U:OP1	18:C6:30:LYS:HD2	2.19	0.43
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.18	0.43
25:D3:108:GLY:O	25:D3:109:ARG:HG2	2.21	0.43
36:1:180:C:H2'	36:1:181:U:H6	1.81	0.43
37:3:107:C:H2'	37:3:108:A:H8	1.82	0.43
61:N5:106:ASP:HB2	61:N5:130:TYR:CE1	2.54	0.43
1:2:1149:G:H1'	1:2:1765:A:C4	2.54	0.43
36:1:150:A:C4	36:1:151:A:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1389:G:N1	36:1:1419:A:N6	2.67	0.43
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.70	0.43
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.55	0.43
23:D1:85:TYR:CG	29:D7:6:ASP:HB2	3.37	0.43
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.19	0.43
6:S4:33:ALA:HB3	1:6:121:U:H1'	348.72	0.43
1:2:1560:U:C4	1:2:1561:U:C4	3.06	0.43
1:6:615:A:H1'	1:6:1107:G:N2	2.34	0.43
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	2.01	0.43
1:6:1003:A:H1'	1:6:1005:A:N7	2.32	0.43
69:O3:53:TYR:HE1	69:O3:67:MET:HG3	3.61	0.43
36:1:1845:G:C5'	36:1:1845:G:H8	2.31	0.43
37:3:99:G:O2'	44:L7:128:LYS:NZ	2.48	0.43
36:1:1063:G:N7	36:1:1097:G:H2'	2.33	0.43
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.49	0.43
49:M3:55:ARG:HG3	49:M3:72:GLY:O	2.19	0.43
64:N8:95:SER:O	64:N8:99:ALA:HB2	2.19	0.43
1:2:86:A:O2'	1:2:147:A:N3	2.42	0.43
28:D6:90:GLU:N	28:D6:90:GLU:OE1	2.55	0.43
1:2:1183:A:C6	1:2:1184:A:N1	2.87	0.43
70:O4:66:SER:HB3	70:O4:69:HIS:CE1	4.03	0.43
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.52	0.43
36:5:830:A:O2'	36:5:1866:C:H2'	2.18	0.43
49:M3:131:LYS:HG2	49:M3:131:LYS:H	1.50	0.43
34:SR:25:THR:HG21	34:SR:295:SER:HA	3.32	0.43
79:Q3:32:GLN:HG2	79:Q3:70:THR:HB	2.00	0.43
36:5:585:A:H2'	36:5:586:C:C6	2.53	0.43
56:N0:20:PRO:O	56:N0:21:GLU:HB2	2.19	0.43
36:5:1168:U:O2'	36:5:1169:A:H5'	2.19	0.43
63:N7:105:SER:N	63:N7:108:GLU:HG3	3.16	0.43
36:5:1908:A:H2'	36:5:1909:A:O4'	2.17	0.43
37:3:1:G:C4	42:L5:266:ALA:HA	2.54	0.43
36:5:736:A:C5	36:5:737:G:H1'	2.54	0.43
49:M3:190:LYS:O	49:M3:193:ALA:HB3	2.62	0.43
36:1:419:G:N7	86:1:3869:OHX:N6	2.67	0.43
36:1:908:G:H4'	36:1:909:G:O5'	2.18	0.43
36:1:304:G:H5'	36:1:304:G:N3	2.34	0.43
41:L4:161:LYS:HD2	41:L4:161:LYS:HA	1.88	0.43
2:S0:111:ILE:HD12	2:S0:111:ILE:HA	1.75	0.43
46:L9:157:ASN:C	46:L9:157:ASN:HD22	2.21	0.43
47:M0:12:GLN:HG2	47:M0:59:GLN:HG2	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1785:U:H2'	36:1:1786:G:C8	2.54	0.43
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	2.59	0.43
36:1:3215:A:H8	50:M4:121:MET:CE	2.32	0.43
55:M9:101:VAL:HG22	55:M9:104:ARG:NH1	2.34	0.43
2:S0:96:THR:HA	2:S0:97:PRO:HD3	1.86	0.43
20:C8:133:VAL:HG21	1:6:1546:G:OP1	356.05	0.43
59:N3:80:ARG:O	59:N3:98:ASN:HA	2.52	0.43
3:S1:72:ASP:OD2	16:C4:114:ARG:NH1	2.41	0.43
51:M5:5:LYS:HE3	51:M5:8:GLU:OE2	2.19	0.43
46:L9:112:ILE:HD13	46:L9:161:LEU:HG	2.01	0.43
49:M3:73:ARG:NH2	36:5:77:A:C8	81.28	0.43
34:SR:37:SER:OG	34:SR:39:ASP:OD2	2.18	0.43
41:L4:361:HIS:ND1	41:L4:362:ASP:N	2.67	0.43
7:S5:92:ARG:HB3	7:S5:172:ILE:CD1	2.48	0.43
54:M8:64:VAL:O	54:M8:96:PHE:HE2	2.02	0.43
3:S1:175:GLU:HG3	3:S1:187:LYS:NZ	6.68	0.43
6:S4:173:ILE:HD11	6:S4:235:TYR:CE1	2.54	0.43
44:L7:80:GLN:NE2	57:N1:136:ARG:H	4.23	0.43
41:L4:130:ALA:O	41:L4:148:ILE:HG21	2.18	0.43
1:2:1683:C:O2'	1:2:1684:U:O5'	2.35	0.43
1:2:47:A:N1	1:2:386:G:H1'	2.34	0.43
9:S7:16:LEU:CD1	9:S7:48:GLU:HG3	3.79	0.43
39:L2:166:ILE:H	39:L2:166:ILE:HG12	1.59	0.43
71:O5:57:VAL:HA	71:O5:60:GLU:HB2	2.01	0.43
1:6:196:G:O2'	1:6:197:A:OP2	2.30	0.43
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.18	0.43
1:2:209:U:H2'	1:2:210:A:H8	1.82	0.43
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	3.64	0.43
36:1:1433:A:C2	68:O2:25:TYR:CD2	3.06	0.43
79:Q3:49:ARG:HD3	79:Q3:51:ALA:C	2.39	0.43
1:6:771:A:C2	1:6:772:G:H1'	2.53	0.43
22:D0:29:THR:HG22	22:D0:85:ARG:O	2.19	0.43
9:S7:63:PRO:O	9:S7:64:VAL:HG23	2.44	0.43
37:3:72:A:C2	37:3:74:C:C6	3.06	0.43
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.18	0.43
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	1.84	0.43
36:1:2278:C:OP1	86:1:3953:OHX:N3	2.51	0.43
1:6:1227:A:OP1	1:6:1228:G:H3'	2.18	0.43
1:6:329:G:H2'	1:6:330:G:H8	1.84	0.43
49:M3:17:HIS:O	49:M3:20:GLU:HB2	2.19	0.43
36:5:929:A:H2'	36:5:930:U:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1741:A:C6	36:5:1742:U:C2	3.06	0.43
6:S4:210:ILE:HB	6:S4:218:PHE:CZ	2.81	0.43
36:1:112:U:C2	36:1:320:G:C2	3.07	0.43
36:1:1355:A:H5"	36:1:1356:U:H5	1.84	0.43
36:5:2733:A:H2'	36:5:2734:A:O4'	2.19	0.43
58:N2:84:LEU:HA	58:N2:84:LEU:HD23	1.79	0.43
35:SM:83:LYS:HB3	35:SM:84:LYS:H	2.81	0.43
45:L8:78:PHE:C	45:L8:80:TYR:N	2.72	0.43
22:D0:108:ILE:HG13	22:D0:108:ILE:H	1.54	0.43
36:5:2923:U:H2'	36:5:2924:U:C6	2.53	0.43
1:2:491:C:H42	1:2:496:G:H1	1.65	0.43
1:2:481:A:H61	1:2:505:A:H62	1.64	0.43
7:S5:180:ARG:HB3	7:S5:180:ARG:HH11	1.83	0.43
36:5:1576:G:H5'	36:5:1577:G:OP2	2.18	0.43
63:N7:87:LEU:HD13	63:N7:127:ASN:HB3	3.36	0.43
55:M9:136:ARG:O	55:M9:140:GLU:HG3	2.19	0.43
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.52	0.43
36:1:3200:G:C6	36:1:3201:C:C4	3.07	0.43
1:2:1183:A:C5	1:2:1184:A:C6	3.07	0.43
36:1:2523:A:C8	45:L8:51:LYS:HG3	2.54	0.43
86:5:4131:OHX:N4	86:5:4148:OHX:N1	2.67	0.43
52:M6:89:SER:O	52:M6:91:LYS:N	2.52	0.43
9:S7:80:GLU:HA	9:S7:83:LYS:HE3	3.33	0.43
36:1:336:A:C2	36:1:337:G:C5	3.06	0.43
58:N2:34:ALA:O	58:N2:38:ILE:HG13	2.64	0.43
41:L4:100:PHE:O	41:L4:101:ALA:C	2.57	0.43
76:Q0:79:GLU:O	76:Q0:79:GLU:HG3	2.31	0.43
54:M8:54:LEU:HD23	54:M8:54:LEU:HA	1.82	0.43
36:5:964:G:OP1	86:5:4010:OHX:N3	2.52	0.43
36:1:1861:G:O6	86:1:3992:OHX:N2	2.51	0.43
36:1:109:A:H4'	36:1:110:G:OP1	2.18	0.43
53:M7:169:THR:O	53:M7:173:ARG:HG2	2.19	0.43
1:2:992:A:C2	1:2:1012:U:N3	2.69	0.43
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.14	0.43
86:1:4079:OHX:N4	86:1:4149:OHX:N1	2.67	0.43
46:L9:90:MET:C	46:L9:91:ARG:HG2	3.07	0.43
28:D6:18:VAL:HG21	28:D6:33:ASP:H	2.26	0.43
36:1:1488:G:O2'	70:O4:10:ARG:O	2.35	0.43
6:S4:187:ARG:NH2	1:6:754:A:N7	375.01	0.43
6:S4:158:ASP:HB3	6:S4:173:ILE:O	2.17	0.43
41:L4:298:ALA:HB1	54:M8:133:LYS:HE3	2.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:148:ALA:C	45:L8:149:LYS:HG2	2.38	0.43
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	2.61	0.43
34:SR:74:THR:HG1	34:SR:76:ASP:CG	2.22	0.43
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.22	0.43
36:1:146:U:H5"	36:1:148:G:O4'	2.19	0.43
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	2.00	0.43
56:N0:24:LEU:HB2	57:N1:146:ASN:HD21	1.84	0.43
26:D4:124:ARG:HH11	26:D4:124:ARG:HB3	1.84	0.43
36:1:1659:U:H2'	36:1:1660:C:C6	2.54	0.43
71:O5:65:ALA:O	71:O5:69:LEU:HD23	2.49	0.43
61:N5:115:ARG:HG2	61:N5:119:THR:O	2.19	0.43
1:2:775:G:H2'	1:2:776:G:O4'	2.19	0.43
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.41	0.43
1:2:702:G:C6	1:2:737:A:N6	2.87	0.43
12:C0:2:LEU:O	1:6:1257:U:H1'	439.90	0.43
1:2:883:C:H2'	1:2:884:A:C8	2.46	0.43
1:6:1358:G:H2'	1:6:1359:C:H6	1.84	0.43
12:C0:15:LEU:HD22	12:C0:68:LEU:HD13	4.60	0.43
86:5:4096:OHX:N3	86:5:4203:OHX:N1	2.67	0.43
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.18	0.43
9:S7:98:ILE:HD13	9:S7:118:LEU:HD23	2.00	0.43
36:5:2101:C:H2'	36:5:2102:U:C6	2.54	0.43
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.84	0.43
18:C6:137:ARG:HA	18:C6:137:ARG:NE	2.34	0.43
50:M4:48:GLY:CA	50:M4:53:VAL:HG13	2.49	0.43
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.54	0.43
54:M8:36:LEU:O	54:M8:40:THR:OG1	2.21	0.43
45:L8:186:LEU:HA	45:L8:186:LEU:HD23	1.76	0.43
59:N3:85:TRP:O	59:N3:92:PHE:HA	2.45	0.43
1:2:330:G:H2'	1:2:331:A:C8	2.54	0.43
58:N2:100:THR:O	58:N2:102:GLU:HG3	2.56	0.43
36:1:1668:G:H2'	36:1:1669:C:O4'	2.18	0.43
36:1:878:G:O6	40:L3:243:HIS:NE2	2.52	0.43
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.32	0.43
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.18	0.43
1:6:246:G:H2'	1:6:247:A:C8	2.54	0.43
48:M1:19:LEU:HD22	48:M1:125:MET:SD	3.42	0.43
5:S3:42:THR:O	5:S3:44:THR:N	3.20	0.43
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.16	0.43
36:5:756:U:H2'	36:5:757:C:H6	1.83	0.43
86:1:4025:OHX:N2	86:1:4145:OHX:N1	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	2.01	0.43
36:5:1037:C:H2'	36:5:1038:C:H6	1.82	0.43
1:2:1091:A:H4'	1:2:1092:A:O5'	2.19	0.43
42:L5:24:ARG:NH2	37:7:13:A:N3	292.34	0.43
1:2:1578:U:O2'	1:2:1579:U:H5'	2.19	0.43
1:6:1147:A:H2'	1:6:1148:C:C6	2.53	0.43
36:1:861:C:H2'	36:1:862:U:C6	2.53	0.43
36:5:1165:A:H2'	36:5:1166:G:O4'	2.19	0.43
36:5:3010:U:OP2	86:5:4249:OHX:N4	2.51	0.43
1:2:1025:A:H2'	1:2:1027:A:O5'	2.19	0.43
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.34	0.43
1:2:1244:A:O2'	1:2:1245:G:OP1	2.37	0.43
36:1:2840:C:N4	36:1:2841:G:C6	2.87	0.43
67:O1:73:LEU:H	67:O1:73:LEU:HD12	1.84	0.43
47:M0:31:ILE:HG23	47:M0:31:ILE:O	2.19	0.43
46:L9:121:LYS:HA	46:L9:121:LYS:HD2	1.78	0.43
36:5:954:U:O4	36:5:1115:G:H1'	2.18	0.43
36:1:3242:G:N2	36:1:3245:A:H5"	2.34	0.43
36:5:2430:A:H2'	36:5:2431:C:C6	2.54	0.43
35:SM:124:GLN:O	35:SM:127:ALA:N	2.52	0.43
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.19	0.43
39:L2:193:ARG:NH2	36:5:2181:C:H5"	195.63	0.43
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.65	0.43
36:5:314:U:H2'	36:5:315:C:H6	1.83	0.43
36:1:2877:G:H2'	36:1:2878:G:O4'	2.19	0.43
1:2:1599:C:O2	86:2:2110:OHX:N1	2.52	0.43
1:2:66:U:H5'	8:S6:173:PRO:HA	2.00	0.43
18:C6:19:VAL:O	18:C6:67:VAL:HA	2.19	0.43
41:L4:292:SER:HG	41:L4:295:ILE:N	2.10	0.43
1:2:119:A:H1'	1:2:397:A:C5	2.54	0.43
42:L5:258:LYS:N	42:L5:258:LYS:HD3	3.67	0.43
3:S1:131:ASP:N	3:S1:131:ASP:OD1	4.28	0.43
3:S1:189:ILE:H	3:S1:189:ILE:HG13	2.27	0.43
40:L3:112:ASP:O	40:L3:113:GLU:C	2.57	0.43
3:S1:113:MET:HE3	3:S1:209:ASN:HB3	5.22	0.43
39:L2:68:LYS:HD2	39:L2:70:ARG:HH21	5.31	0.43
24:D2:55:ASP:OD1	24:D2:57:ARG:HB2	2.95	0.43
36:1:2898:G:OP2	36:1:2899:C:H5'	2.19	0.43
2:S0:36:TYR:OH	2:S0:56:LYS:HE3	2.19	0.43
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.18	0.43
7:S5:120:ILE:O	7:S5:124:LEU:HD13	3.94	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:48:HIS:CE1	22:D0:50:LEU:HD13	2.54	0.43
40:L3:205:VAL:HA	40:L3:208:VAL:HG23	2.35	0.43
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	2.62	0.43
1:6:1674:C:H2'	1:6:1675:C:H6	1.84	0.43
56:N0:84:ARG:HG3	36:5:1295:G:P	294.26	0.43
41:L4:170:LYS:HG3	41:L4:175:HIS:CB	2.95	0.43
1:6:827:C:H2'	1:6:828:U:H6	1.82	0.43
9:S7:117:THR:O	9:S7:120:ALA:N	2.52	0.43
36:1:914:A:C2	39:L2:204:MET:HB3	2.54	0.43
55:M9:177:VAL:O	55:M9:181:ARG:HB2	2.21	0.43
1:2:1498:G:O2'	1:2:1499:G:H5'	2.18	0.43
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.19	0.43
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.19	0.43
62:N6:100:HIS:CG	62:N6:101:PRO:HD2	2.70	0.43
15:C3:109:LYS:H	15:C3:109:LYS:HG2	1.65	0.43
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.48	0.43
43:L6:51:ARG:HD2	43:L6:158:TYR:CZ	2.53	0.43
38:4:121:U:H2'	38:4:122:U:H6	1.80	0.43
9:S7:8:ILE:HG23	9:S7:8:ILE:O	2.54	0.43
25:D3:72:VAL:N	25:D3:85:ALA:O	2.40	0.43
1:6:912:U:OP1	1:6:913:G:O2'	2.32	0.43
30:D8:11:LYS:O	30:D8:31:GLU:N	2.57	0.43
61:N5:49:LYS:HE3	38:8:135:G:OP1	79.34	0.43
36:5:2770:G:O2'	36:5:2771:U:H5'	2.19	0.43
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.19	0.43
6:S4:18:TRP:O	6:S4:51:ARG:NH1	2.87	0.43
36:1:1763:U:H3'	36:1:1764:U:C5	2.53	0.43
1:2:246:G:C2	13:C1:40:LEU:HD22	2.53	0.43
49:M3:89:TYR:O	49:M3:92:THR:OG1	2.34	0.43
7:S5:177:ILE:HA	7:S5:180:ARG:NH1	2.34	0.43
36:1:1547:G:H2'	36:1:1548:C:C6	2.54	0.43
1:6:1621:U:H2'	1:6:1622:G:C8	2.54	0.43
38:4:131:A:H2'	38:4:132:G:H8	1.84	0.43
40:L3:120:LYS:NZ	36:5:3001:C:OP1	203.88	0.43
10:S8:136:SER:O	10:S8:140:GLU:HB2	2.19	0.43
1:2:585:A:H2'	1:2:586:G:C8	2.54	0.43
1:2:585:A:N6	1:2:586:G:O6	2.52	0.43
36:1:2213:A:H2'	36:1:2214:A:C8	2.53	0.43
51:M5:58:GLY:HA3	51:M5:142:ILE:CD1	2.49	0.43
36:1:305:U:C5	36:1:2776:C:H1'	2.53	0.43
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:577:G:H3'	1:6:577:G:H8	1.82	0.43
5:S3:217:ILE:HB	5:S3:218:LEU:H	2.07	0.43
1:2:446:A:N6	1:2:461:G:H21	2.17	0.43
38:4:157:U:H3'	38:4:158:U:C6	2.53	0.43
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.30	0.43
1:6:1683:C:H2'	1:6:1684:U:O4'	2.19	0.43
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.19	0.43
36:1:2884:C:H2'	36:1:2885:C:H6	1.83	0.43
38:4:77:A:OP2	86:4:225:OHX:N2	2.52	0.43
56:N0:16:THR:HG23	56:N0:19:VAL:HB	2.00	0.43
62:N6:104:LEU:HA	62:N6:104:LEU:HD23	1.76	0.43
36:1:593:C:C4	36:1:594:U:C4	3.07	0.43
36:1:1049:C:H2'	36:1:1050:U:H6	1.83	0.43
35:SM:31:SER:OG	35:SM:32:SER:N	2.87	0.43
63:N7:124:ALA:O	63:N7:126:LYS:N	2.52	0.43
36:5:2198:A:OP2	86:5:4194:OHX:N4	2.52	0.43
1:2:767:U:C5	11:S9:143:ILE:HD11	2.54	0.43
21:C9:144:GLU:OE2	21:C9:144:GLU:N	2.52	0.43
42:L5:164:LYS:O	42:L5:164:LYS:HD3	2.19	0.43
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.55	0.43
36:5:593:C:C4	36:5:594:U:C4	3.06	0.43
1:6:1199:G:OP1	1:6:1200:G:H8	2.01	0.43
11:S9:13:SER:HB2	11:S9:47:PHE:HD1	1.84	0.43
54:M8:22:ASP:HA	54:M8:27:LYS:HE3	2.27	0.43
1:6:763:G:C5	1:6:764:U:C4	3.07	0.43
1:2:558:U:OP2	32:E0:55:ARG:NH1	2.52	0.43
56:N0:28:ARG:HE	56:N0:99:ARG:NH2	3.14	0.42
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.92	0.42
4:S2:72:LEU:HD12	4:S2:72:LEU:HA	1.77	0.42
36:5:93:C:OP2	36:5:2764:C:O2'	2.25	0.42
28:D6:6:ALA:N	1:6:1796:C:C5	344.53	0.42
28:D6:40:ALA:HB1	28:D6:42:ARG:NH2	4.01	0.42
30:D8:57:MET:HE2	30:D8:57:MET:HB3	1.80	0.42
16:C4:52:ARG:HG3	16:C4:53:ASP:OD1	4.29	0.42
36:1:1488:G:C2	36:1:1489:A:C8	3.07	0.42
1:2:1368:G:C6	1:2:1369:U:C4	3.07	0.42
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.67	0.42
36:5:419:G:N2	38:8:5:U:C2	2.87	0.42
64:N8:74:ASN:ND2	64:N8:115:LYS:HB2	2.33	0.42
40:L3:77:THR:HG23	40:L3:327:CYS:HA	2.04	0.42
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1:U:C4	1:6:369:A:C6	3.08	0.42
1:2:1682:U:O2'	1:2:1683:C:H5'	2.19	0.42
40:L3:187:SER:O	40:L3:190:GLU:HB2	2.87	0.42
64:N8:135:GLU:O	64:N8:139:ARG:HG2	2.19	0.42
1:2:1125:A:C5	1:2:1126:G:H1'	2.53	0.42
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.61	0.42
21:C9:31:PRO:HD2	21:C9:54:PHE:CE1	2.54	0.42
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	2.50	0.42
37:3:47:C:O2'	37:3:48:U:H5'	2.18	0.42
21:C9:45:MET:HE1	21:C9:46:PRO:HD2	2.01	0.42
1:6:542:A:OP1	1:6:544:A:C4	2.72	0.42
1:2:591:A:C6	1:2:592:A:N6	2.87	0.42
73:O7:69:HIS:HB3	73:O7:72:ARG:HH21	2.69	0.42
22:D0:82:TYR:HH	31:D9:44:ARG:HD2	3.76	0.42
9:S7:117:THR:HG22	9:S7:120:ALA:HB2	1.99	0.42
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.00	0.42
36:1:830:A:OP1	86:1:4007:OHX:N4	2.52	0.42
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	5.23	0.42
36:5:1131:G:C4	36:5:2373:A:C2	3.07	0.42
36:1:1175:C:H1'	52:M6:87:MET:HG2	2.00	0.42
43:L6:96:VAL:HG13	43:L6:141:VAL:HG13	2.00	0.42
1:2:1226:A:HO2'	1:2:1227:A:P	2.41	0.42
1:2:1227:A:C2	14:C2:43:ARG:HG2	2.54	0.42
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD12	2.54	0.42
13:C1:19:ILE:HD13	86:6:2126:OHX:N3	294.91	0.42
1:2:1783:C:H2'	1:2:1784:C:C6	2.54	0.42
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.55	0.42
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.21	0.42
56:N0:1:MET:HE1	56:N0:32:SER:N	2.34	0.42
36:5:1352:A:H1'	36:5:1353:U:C5'	2.48	0.42
36:1:208:C:C2'	36:1:209:A:H5'	2.48	0.42
1:6:1220:C:H42	1:6:1263:G:H1	1.67	0.42
45:L8:160:ILE:O	45:L8:164:VAL:HG13	2.19	0.42
36:5:1818:U:H2'	36:5:1819:U:C6	2.53	0.42
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.83	0.42
34:SR:211:ILE:HG22	34:SR:223:TRP:CD1	2.53	0.42
19:C7:87:GLU:O	19:C7:88:VAL:HG12	2.19	0.42
63:N7:18:TYR:HB3	63:N7:71:PHE:CZ	3.00	0.42
17:C5:57:MET:O	17:C5:60:LEU:N	3.75	0.42
54:M8:178:ARG:HA	54:M8:178:ARG:HD3	1.60	0.42
59:N3:127:PRO:O	59:N3:130:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:70:PRO:HB2	74:O8:73:LEU:HB2	2.01	0.42
36:1:2777:G:C4	64:N8:60:TYR:CE1	3.06	0.42
38:8:137:C:OP2	86:8:230:OHX:N4	2.52	0.42
1:2:1151:A:H4'	1:2:1766:A:N7	2.34	0.42
61:N5:34:LEU:HD23	61:N5:35:PRO:HD2	2.86	0.42
36:5:1336:U:H2'	36:5:1337:A:C8	2.54	0.42
45:L8:203:VAL:HG12	45:L8:204:ARG:O	3.92	0.42
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.40	0.42
51:M5:140:LYS:HD2	51:M5:144:ARG:NH2	2.98	0.42
54:M8:159:LYS:HB3	54:M8:159:LYS:HE2	1.44	0.42
69:O3:22:VAL:HG12	69:O3:22:VAL:O	2.19	0.42
54:M8:38:ARG:NH2	36:5:1348:U:OP2	187.60	0.42
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.53	0.42
86:2:2075:OHX:N6	86:2:2161:OHX:N5	2.67	0.42
36:5:114:A:H2'	36:5:115:A:O4'	2.19	0.42
21:C9:4:VAL:HG11	21:C9:137:ALA:HB2	2.01	0.42
11:S9:13:SER:HB2	11:S9:47:PHE:CD1	2.54	0.42
36:5:994:G:N2	36:5:1053:A:H2'	2.34	0.42
74:O8:14:LEU:HD21	74:O8:52:TYR:CD2	4.71	0.42
36:5:2144:A:C4	36:5:2281:A:C6	3.07	0.42
1:6:1420:C:H2'	1:6:1421:A:O4'	2.19	0.42
38:4:36:G:N2	38:4:37:A:N1	2.67	0.42
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.19	0.42
1:6:1609:U:H2'	1:6:1610:G:O4'	2.19	0.42
36:1:3100:U:O2'	36:1:3101:G:OP2	2.32	0.42
56:N0:52:LYS:HG3	56:N0:54:ALA:HB3	2.01	0.42
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.29	0.42
1:2:1250:U:O2'	1:2:1251:U:OP1	2.33	0.42
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.72	0.42
41:L4:11:LEU:HD23	41:L4:11:LEU:HA	1.70	0.42
72:O6:94:ILE:HD13	72:O6:94:ILE:HA	4.28	0.42
41:L4:207:VAL:HB	41:L4:227:THR:HG22	2.25	0.42
36:5:270:U:O2'	36:5:318:A:H1'	2.19	0.42
42:L5:111:GLN:HA	42:L5:116:ASP:CG	2.40	0.42
52:M6:8:VAL:HG22	52:M6:34:VAL:HG13	2.00	0.42
36:5:662:U:H2'	36:5:663:C:C6	2.53	0.42
36:1:2206:G:OP2	36:1:2206:G:C8	2.72	0.42
63:N7:46:ILE:CD1	63:N7:49:TYR:HA	2.81	0.42
75:O9:23:LEU:HA	75:O9:24:PRO:HD2	2.20	0.42
7:S5:164:PRO:O	7:S5:167:ARG:HB2	2.19	0.42
47:M0:144:ASN:HA	47:M0:144:ASN:HD22	4.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3348:G:H2'	36:1:3349:C:C6	2.54	0.42
40:L3:166:ILE:CD1	40:L3:173:GLN:HG2	2.49	0.42
8:S6:7:TYR:CE1	8:S6:125:THR:HA	2.89	0.42
47:M0:130:ASP:N	47:M0:133:GLN:OE1	3.67	0.42
41:L4:23:PRO:O	41:L4:259:ASP:HB3	5.50	0.42
6:S4:19:LEU:HD13	1:6:788:A:C4	393.43	0.42
22:D0:103:ILE:HD13	22:D0:107:THR:HG21	2.01	0.42
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	2.01	0.42
50:M4:17:VAL:HG12	50:M4:72:LEU:HB3	2.00	0.42
36:1:2108:C:H1'	36:1:3344:A:H8	1.80	0.42
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.75	0.42
1:2:929:A:C8	16:C4:123:SER:HA	2.54	0.42
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.27	0.42
36:1:508:U:O4	86:1:4171:OHX:N5	2.53	0.42
23:D1:3:ASN:HB3	23:D1:7:GLN:O	2.20	0.42
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.39	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.19	0.42
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.43	0.42
68:O2:19:ARG:NH1	68:O2:28:VAL:HG13	3.03	0.42
55:M9:164:LEU:HD22	55:M9:167:ARG:NH1	2.35	0.42
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	2.01	0.42
79:Q3:36:ARG:HE	79:Q3:36:ARG:HB2	3.61	0.42
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.40	0.42
1:6:647:G:H1	1:6:687:G:H1	1.67	0.42
36:5:190:U:C4	36:5:224:C:H1'	2.54	0.42
41:L4:191:LYS:HB3	41:L4:191:LYS:HE2	3.47	0.42
17:C5:96:ILE:HD13	17:C5:116:LEU:O	2.19	0.42
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	2.01	0.42
52:M6:182:ASN:O	52:M6:183:ALA:C	2.92	0.42
11:S9:182:GLU:HG3	11:S9:182:GLU:H	3.10	0.42
71:O5:47:VAL:O	71:O5:51:ILE:HG13	3.07	0.42
71:O5:50:SER:O	71:O5:54:VAL:HG23	2.46	0.42
1:6:1405:G:H2'	1:6:1406:A:H8	1.82	0.42
36:5:1404:G:N2	36:5:1407:A:OP2	2.38	0.42
48:M1:164:LYS:HE3	48:M1:171:VAL:HG12	3.80	0.42
1:2:867:G:C5'	15:C3:4:MET:HE3	2.49	0.42
39:L2:36:GLU:HG2	39:L2:90:ALA:O	2.21	0.42
1:6:1263:G:C2	1:6:1264:G:H1'	2.54	0.42
38:4:104:A:H3'	38:4:105:A:C5'	2.49	0.42
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	2.16	0.42
67:O1:55:LEU:O	67:O1:55:LEU:HD22	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:181:ASN:C	51:M5:182:ASN:O	4.19	0.42
20:C8:18:LEU:O	20:C8:20:THR:HG23	2.19	0.42
1:6:939:A:N1	1:6:975:C:H1'	2.34	0.42
86:1:4025:OHX:N4	86:1:4145:OHX:N1	2.66	0.42
36:5:633:C:H2'	36:5:634:C:O4'	2.19	0.42
36:5:1910:A:H2'	36:5:1911:A:C8	2.54	0.42
5:S3:218:LEU:HA	5:S3:218:LEU:HD23	2.22	0.42
36:5:1792:C:HO2'	36:5:1794:G:H8	1.68	0.42
36:5:2541:U:H4'	36:5:2542:U:OP1	2.19	0.42
1:6:1051:G:H4'	1:6:1052:U:OP1	2.19	0.42
76:Q0:111:ARG:HH21	36:5:3120:C:H3'	321.27	0.42
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.83	0.42
1:6:1617:U:H2'	1:6:1618:C:C6	2.54	0.42
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.80	0.42
36:5:727:G:H2'	36:5:728:G:O4'	2.18	0.42
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.19	0.42
1:6:106:U:H2'	1:6:107:C:O4'	2.19	0.42
36:1:2190:U:C4	36:1:2191:U:C4	3.07	0.42
37:3:81:U:H2'	37:3:82:G:C8	2.54	0.42
1:2:511:A:H5'	11:S9:173:ALA:HB2	2.01	0.42
48:M1:116:TYR:CD2	48:M1:122:ILE:HD11	2.54	0.42
38:8:10:A:H2'	38:8:11:C:C6	2.53	0.42
7:S5:113:ILE:HD13	7:S5:190:ILE:HG13	4.60	0.42
1:6:838:G:C6	1:6:839:U:C4	3.07	0.42
51:M5:204:LYS:HE2	51:M5:204:LYS:HB3	1.85	0.42
40:L3:287:LYS:HE3	40:L3:287:LYS:HB3	3.78	0.42
36:1:833:G:H2'	36:1:834:U:O4'	2.20	0.42
1:2:374:U:OP1	13:C1:96:LYS:HE3	2.19	0.42
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.49	0.42
36:5:1949:G:H1	36:5:2097:U:H3	1.65	0.42
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.84	0.42
36:5:3362:A:C2	36:5:3363:U:C2	3.07	0.42
47:M0:176:LEU:HD12	47:M0:181:TYR:HA	2.00	0.42
46:L9:163:GLN:C	46:L9:165:CYS:N	2.73	0.42
8:S6:68:LEU:O	8:S6:69:LEU:HB2	2.18	0.42
42:L5:270:LYS:HD3	37:7:22:A:N6	323.10	0.42
29:D7:47:PHE:CD1	29:D7:49:HIS:O	2.73	0.42
37:3:49:G:O6	42:L5:58:LYS:NZ	2.47	0.42
36:5:3164:C:HO2'	36:5:3165:A:P	2.42	0.42
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.31	0.42
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	2.49	0.42
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.24	0.42
47:M0:77:THR:HG22	47:M0:82:ARG:HA	2.03	0.42
1:2:1719:A:N6	1:2:1720:G:C2	2.87	0.42
50:M4:19:ARG:HB3	50:M4:35:ILE:HD12	2.51	0.42
36:1:412:G:O2'	53:M7:119:VAL:O	2.33	0.42
36:5:29:C:H4'	36:5:62:A:H4'	2.01	0.42
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.16	0.42
1:2:1383:G:H1'	22:D0:57:ARG:HH12	1.85	0.42
21:C9:122:ARG:NH2	1:6:1500:C:OP1	418.54	0.42
37:3:27:A:P	42:L5:57:ASN:HD22	2.42	0.42
16:C4:13:VAL:HG21	16:C4:75:GLY:O	3.41	0.42
1:6:1641:C:H2'	1:6:1642:G:C8	2.54	0.42
36:5:1192:C:N4	36:5:1301:A:O3'	2.53	0.42
54:M8:122:ILE:HG21	54:M8:122:ILE:HD13	4.12	0.42
36:1:3259:U:H5'	36:1:3259:U:C6	2.50	0.42
36:5:1781:C:H2'	36:5:1782:U:H6	1.82	0.42
72:O6:52:PRO:HA	72:O6:55:ARG:HH11	2.50	0.42
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.13	0.42
1:2:111:U:C2	1:2:304:U:C4	3.08	0.42
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.51	0.42
13:C1:6:THR:CB	13:C1:9:SER:HB3	2.49	0.42
48:M1:166:LYS:HD3	48:M1:167:TYR:CD1	2.55	0.42
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.30	0.42
41:L4:192:GLY:O	41:L4:194:TYR:N	2.52	0.42
6:S4:9:LEU:CB	6:S4:30:ARG:HB2	2.85	0.42
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.43	0.42
52:M6:138:LEU:O	52:M6:141:LEU:N	2.93	0.42
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.93	0.42
1:6:1082:C:H2'	1:6:1083:G:O4'	2.18	0.42
1:6:853:G:H2'	1:6:854:U:H6	1.84	0.42
36:1:2631:U:H4'	36:1:2697:A:C2	2.54	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:ND1	2.52	0.42
45:L8:136:LEU:HD23	45:L8:136:LEU:HA	2.16	0.42
1:2:287:G:O2'	1:2:288:A:P	2.77	0.42
35:SM:44:PRO:HA	36:1:2678:A:C4	2.55	0.42
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.18	0.42
46:L9:188:THR:HG22	46:L9:189:GLU:HG2	8.31	0.42
36:5:2225:U:H2'	36:5:2226:U:C6	2.54	0.42
40:L3:31:ALA:O	40:L3:339:ARG:NH1	2.48	0.42
36:5:976:U:H2'	36:5:977:C:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:491:C:N4	1:6:496:G:O6	2.52	0.42
40:L3:322:ILE:HD13	40:L3:322:ILE:HA	1.73	0.42
45:L8:239:GLY:O	45:L8:240:ASN:C	3.10	0.42
17:C5:31:GLU:HG3	17:C5:32:ASP:H	1.85	0.42
44:L7:32:ALA:O	44:L7:35:ALA:HB3	4.22	0.42
36:5:3178:A:H5"	36:5:3179:U:OP1	2.19	0.42
36:5:2660:G:O3'	36:5:2749:G:N2	2.52	0.42
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	2.04	0.42
36:1:699:A:H2'	36:1:700:C:O4'	2.20	0.42
1:2:955:A:H2'	1:2:956:C:O4'	2.19	0.42
25:D3:86:PHE:HB2	25:D3:120:VAL:HG11	2.41	0.42
1:2:411:C:H2'	1:2:412:A:O4'	2.19	0.42
1:2:229:U:H3	1:2:236:A:H61	1.68	0.42
36:5:2599:U:H2'	36:5:2600:C:C6	2.54	0.42
36:5:3167:A:H2'	36:5:3168:A:O4'	2.18	0.42
36:1:2105:G:O2'	36:1:2106:A:H5'	2.19	0.42
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.51	0.42
50:M4:27:GLN:HG2	50:M4:27:GLN:H	1.56	0.42
1:2:1727:G:H2'	1:2:1728:A:C8	2.53	0.42
69:O3:59:VAL:HB	69:O3:60:ARG:H	1.56	0.42
35:SM:68:ARG:HD3	1:6:1460:A:OP1	335.44	0.42
36:1:1481:A:OP1	36:1:1481:A:O4'	2.37	0.42
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.52	0.42
50:M4:123:LEU:HB3	52:M6:190:VAL:HG13	6.69	0.42
55:M9:105:LEU:HD21	55:M9:139:VAL:HG13	6.23	0.42
40:L3:5:LYS:HG2	40:L3:6:TYR:CE1	2.65	0.42
64:N8:3:SER:OG	36:5:1430:U:O4	139.04	0.42
64:N8:8:THR:HG21	36:5:662:U:OP1	149.19	0.42
36:1:766:U:H4'	36:1:767:U:O5'	2.18	0.42
3:S1:71:ALA:HB2	3:S1:79:HIS:C	2.40	0.42
18:C6:18:ALA:CB	18:C6:69:VAL:HG13	2.61	0.42
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.54	0.42
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	1.84	0.42
34:SR:153:GLN:HB3	34:SR:202:LEU:HD23	2.02	0.42
71:O5:2:ALA:HB2	38:8:80:A:H4'	24.83	0.42
36:1:561:C:H2'	36:1:562:C:C6	2.55	0.42
36:1:2809:C:O2'	86:1:4142:OHX:N6	2.52	0.42
1:2:1302:U:OP1	4:S2:88:LYS:NZ	2.40	0.42
36:1:679:U:H2'	36:1:680:G:C8	2.55	0.42
8:S6:20:ASP:O	8:S6:23:ARG:N	2.97	0.42
26:D4:63:GLN:N	26:D4:68:LYS:O	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:22:ALA:HB1	15:C3:23:PRO:CA	2.49	0.42
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HB2	2.01	0.42
2:S0:31:VAL:N	2:S0:149:LEU:O	2.49	0.42
47:M0:9:TYR:CD1	47:M0:97:LEU:HD13	2.54	0.42
49:M3:171:ARG:HE	49:M3:171:ARG:HB3	4.30	0.42
11:S9:168:ARG:NE	11:S9:171:ARG:HH11	2.17	0.42
36:5:1295:G:H2'	36:5:1296:C:C6	2.54	0.42
36:5:945:C:H2'	36:5:946:U:C6	2.54	0.42
1:2:358:U:HO2'	1:2:360:A:H5"	1.84	0.42
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.53	0.42
1:2:1643:U:H5'	77:Q1:9:ARG:NH2	2.33	0.42
37:3:6:C:OP1	42:L5:54:ARG:NE	2.39	0.42
36:1:2590:A:C4	36:1:2591:A:C8	3.06	0.42
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.69	0.42
33:E1:103:LEU:HD13	33:E1:131:PHE:HD2	5.25	0.42
33:E1:123:ASN:O	33:E1:126:CYS:N	2.48	0.42
1:2:1241:G:H1'	17:C5:79:HIS:CG	2.54	0.42
1:2:647:G:N2	1:2:687:G:H1	2.17	0.42
36:1:2724:U:H4'	57:N1:54:HIS:CE1	2.54	0.42
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.19	0.42
26:D4:106:GLN:HA	26:D4:109:LYS:HD2	2.02	0.42
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.65	0.42
45:L8:123:GLN:C	45:L8:125:ALA:H	3.26	0.42
36:5:113:C:C2	36:5:319:A:C2	3.07	0.42
18:C6:55:VAL:O	18:C6:59:LYS:HD3	2.62	0.42
1:2:494:U:O2'	1:2:495:C:O5'	2.28	0.42
64:N8:14:HIS:ND1	68:O2:36:LYS:HE2	3.11	0.42
56:N0:134:ASP:O	56:N0:136:LYS:HG2	2.56	0.42
36:1:936:A:H5"	36:1:937:G:OP1	2.19	0.42
36:1:1844:C:H2'	36:1:1845:G:H5"	2.00	0.42
36:5:2581:U:O2'	36:5:2582:C:H5'	2.19	0.42
40:L3:10:ARG:HD3	40:L3:11:HIS:H	4.27	0.42
40:L3:255:TRP:O	40:L3:255:TRP:HD1	2.02	0.42
36:5:1108:U:H2'	36:5:1109:U:H6	1.83	0.42
73:O7:27:PHE:HA	73:O7:34:CYS:HA	2.02	0.42
36:1:2137:U:OP2	36:1:2142:A:N6	2.42	0.42
36:1:1618:G:H2'	36:1:1619:A:O4'	2.20	0.42
1:2:158:U:O2'	1:2:159:U:H3'	2.19	0.42
36:5:2171:G:O6	86:5:4250:OHX:N2	2.52	0.42
36:1:3082:C:H2'	36:1:3083:G:C8	2.54	0.42
55:M9:35:ALA:O	55:M9:37:SER:N	4.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.20	0.42
71:O5:59:ASN:O	71:O5:63:ARG:HG3	2.18	0.42
36:5:711:A:H5"	36:5:712:G:OP2	2.18	0.42
1:2:89:G:C6	1:2:90:C:C4	3.07	0.42
1:2:1224:A:H2'	1:2:1225:U:H6	1.84	0.42
1:6:1529:C:H2'	1:6:1530:C:C6	2.53	0.42
36:5:1280:C:H2'	36:5:1281:G:O4'	2.19	0.42
36:5:1106:G:H2'	36:5:1107:C:O4'	2.19	0.42
1:6:114:C:H6	1:6:114:C:H5'	1.84	0.42
36:1:1667:A:O5'	36:1:1667:A:H8	2.02	0.42
36:5:1680:G:C5	36:5:1681:U:C5	3.08	0.42
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.19	0.42
1:6:565:C:H4'	1:6:566:C:O5'	2.18	0.42
1:6:1118:G:O6	86:6:2176:OHX:N2	2.53	0.42
79:Q3:19:GLY:HA2	36:5:1925:U:O2	239.54	0.42
15:C3:46:THR:HG23	15:C3:49:GLN:OE1	2.43	0.42
68:O2:55:ILE:HB	36:5:947:G:H5'	186.41	0.42
36:1:1100:U:H2'	36:1:1101:G:O4'	2.19	0.42
36:5:3274:A:C3'	36:5:3275:U:H5"	2.28	0.42
71:O5:85:THR:H	71:O5:88:LEU:HB2	1.83	0.42
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.52	0.42
51:M5:96:ARG:HD2	36:5:31:C:H4'	124.17	0.42
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.86	0.42
1:6:1545:A:H2'	1:6:1546:G:H8	1.84	0.42
20:C8:124:GLY:O	20:C8:127:HIS:HB2	2.20	0.42
53:M7:67:ILE:HB	53:M7:80:LYS:CG	3.89	0.42
63:N7:23:VAL:HB	63:N7:43:VAL:HB	2.02	0.42
36:1:1170:A:H2'	36:1:1171:G:O4'	2.19	0.42
24:D2:15:ASN:HD21	24:D2:72:CYS:H	2.27	0.42
63:N7:48:ARG:NH2	63:N7:69:LYS:HD2	2.35	0.42
65:N9:21:ILE:HG22	65:N9:22:LYS:N	3.73	0.42
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.19	0.42
75:O9:25:GLN:O	75:O9:28:ARG:HG3	2.67	0.42
47:M0:30:LYS:HG3	47:M0:63:GLU:OE1	5.03	0.42
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.18	0.42
44:L7:207:LEU:O	36:5:1334:U:H5'	239.87	0.42
86:5:4025:OHX:N4	86:5:4219:OHX:N3	2.67	0.42
7:S5:84:LYS:HD3	7:S5:92:ARG:HH22	4.85	0.42
54:M8:65:SER:OG	54:M8:66:ARG:N	2.84	0.42
36:5:914:A:O2'	36:5:2146:C:H4'	2.20	0.42
3:S1:119:THR:HB	3:S1:143:THR:HG23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:73:ASN:O	47:M0:77:THR:HG23	2.18	0.42
22:D0:41:ILE:HD11	22:D0:107:THR:HB	2.01	0.42
36:1:1286:A:H1'	36:1:1287:A:O4'	2.20	0.42
53:M7:23:ARG:HH21	53:M7:125:GLN:HB3	1.84	0.42
25:D3:125:VAL:CG1	25:D3:126:LYS:HG3	2.49	0.42
17:C5:69:GLU:HG2	17:C5:70:ASN:ND2	8.10	0.42
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.35	0.42
36:1:2933:A:C2	36:1:3014:U:H4'	2.54	0.42
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	2.08	0.42
26:D4:61:ARG:O	26:D4:61:ARG:HG3	2.19	0.42
1:2:740:A:N1	1:2:741:C:C4	2.88	0.42
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	6.33	0.42
1:2:198:A:H2'	1:2:198:A:N3	2.34	0.42
24:D2:5:SER:HB2	1:6:1101:G:O2'	353.18	0.42
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	3.88	0.42
2:S0:201:LEU:O	2:S0:203:PHE:N	2.51	0.42
18:C6:26:LYS:H	18:C6:26:LYS:HG3	1.73	0.42
34:SR:231:MET:HB3	34:SR:232:TYR:H	1.66	0.42
6:S4:56:LEU:HD21	26:D4:20:ARG:NH1	3.50	0.42
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.53	0.42
1:2:1489:U:H5'	1:2:1494:C:H1'	2.00	0.42
9:S7:158:ASP:C	9:S7:160:GLN:N	2.91	0.42
36:1:3194:C:O2'	36:1:3195:U:H2'	2.20	0.42
9:S7:57:ALA:HA	9:S7:89:HIS:O	2.18	0.42
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.97	0.42
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	2.02	0.42
42:L5:152:ARG:CG	42:L5:152:ARG:NH1	3.15	0.42
57:N1:14:MET:HE1	57:N1:55:LYS:HB2	2.02	0.42
20:C8:56:LYS:HD3	20:C8:60:GLU:HG3	2.00	0.42
14:C2:50:LYS:O	14:C2:54:ARG:HG2	2.96	0.42
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.79	0.42
58:N2:100:THR:HA	36:5:1677:G:OP1	140.94	0.42
36:1:1770:G:H5'	36:1:1771:C:OP2	2.19	0.42
9:S7:99:LEU:HD13	9:S7:108:GLN:HE22	13.54	0.42
15:C3:2:GLY:O	15:C3:3:ARG:HB3	2.19	0.42
37:7:112:G:H2'	37:7:113:C:C6	2.55	0.42
36:5:2694:A:C6	36:5:2695:A:C6	3.07	0.42
36:5:3289:G:H4'	36:5:3290:G:OP1	2.19	0.42
70:O4:58:ARG:NH1	36:5:1592:G:OP1	160.39	0.42
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.32	0.42
45:L8:95:ASN:OD1	45:L8:98:ARG:NE	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:7:HIS:CG	65:N9:8:THR:N	3.00	0.42
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.78	0.42
1:6:777:C:H6	1:6:777:C:H5"	1.84	0.42
36:1:1918:C:H2'	36:1:1919:G:C8	2.55	0.42
36:5:3377:G:O6	86:5:4090:OHX:N2	2.52	0.42
1:2:1746:A:H2'	1:2:1747:G:O4'	2.19	0.42
49:M3:187:ALA:HA	49:M3:190:LYS:HB3	2.01	0.42
11:S9:143:ILE:HD13	1:6:768:C:C2	419.14	0.42
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.43	0.42
36:5:3204:C:H2'	36:5:3205:G:C8	2.54	0.42
1:2:961:U:H5"	15:C3:71:ILE:HD12	2.01	0.42
34:SR:205:SER:OG	34:SR:210:LEU:HB2	2.19	0.42
43:L6:148:GLU:OE2	43:L6:151:LYS:HE2	2.20	0.42
36:1:376:G:H1'	36:1:400:G:N2	2.35	0.42
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	2.00	0.42
36:5:260:C:H2'	36:5:261:U:H6	1.84	0.42
1:2:1120:U:H2'	1:2:1121:C:C6	2.55	0.42
41:L4:29:PRO:HG3	41:L4:279:HIS:ND1	3.26	0.42
36:5:370:U:O4	36:5:371:G:C6	2.72	0.42
36:1:2925:C:H2'	36:1:2926:A:O4'	2.19	0.42
36:1:1717:U:H2'	36:1:1718:G:C8	2.54	0.42
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.31	0.42
36:5:3353:G:O2'	36:5:3356:G:OP2	2.37	0.42
62:N6:6:LEU:HA	62:N6:6:LEU:HD23	1.59	0.42
40:L3:39:LYS:H	40:L3:39:LYS:HG2	1.60	0.42
3:S1:202:LYS:HE3	3:S1:202:LYS:HB2	1.90	0.42
36:5:2442:G:N1	36:5:2443:A:N7	2.67	0.42
20:C8:139:LYS:HG3	1:6:1459:C:N4	348.94	0.42
86:2:2090:OHX:N3	86:2:2131:OHX:N4	2.68	0.42
66:O0:25:LEU:HD22	66:O0:87:VAL:HG21	2.02	0.42
11:S9:108:ARG:NH2	11:S9:145:SER:HB2	2.34	0.42
36:5:1238:C:HO2'	36:5:1239:C:P	2.34	0.42
44:L7:158:LYS:HG2	44:L7:203:TRP:HH2	1.84	0.42
1:2:538:A:H8	1:2:543:C:N4	2.18	0.42
4:S2:139:ILE:HD11	4:S2:218:ILE:HB	2.02	0.42
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.96	0.42
1:6:1698:G:N2	1:6:1699:G:C5	2.87	0.42
41:L4:299:ILE:H	41:L4:299:ILE:HG12	1.55	0.42
6:S4:187:ARG:O	6:S4:187:ARG:HD3	2.20	0.42
5:S3:38:GLU:HB3	5:S3:49:ILE:HD12	3.27	0.42
8:S6:25:ARG:HG3	8:S6:28:PHE:HD1	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3113:A:H1'	46:L9:70:THR:HG22	2.01	0.42
16:C4:90:ARG:HB3	16:C4:91:THR:H	1.66	0.42
34:SR:81:LEU:HD23	34:SR:91:LEU:HA	4.01	0.42
11:S9:126:ARG:HA	11:S9:129:ILE:HD12	2.01	0.42
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	2.27	0.42
8:S6:147:LEU:O	8:S6:148:SER:OG	2.24	0.42
19:C7:49:LYS:HA	1:6:1389:C:H4'	421.99	0.42
27:D5:70:LYS:HD3	27:D5:70:LYS:HA	1.80	0.42
86:1:3878:OHX:N6	86:1:4138:OHX:N5	2.67	0.42
16:C4:38:THR:O	16:C4:39:ILE:HG23	2.20	0.42
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.18	0.42
57:N1:114:ALA:O	57:N1:117:ALA:HB3	2.94	0.42
36:5:1014:U:C2'	36:5:1015:U:H5'	2.50	0.42
4:S2:169:LEU:HB3	4:S2:196:VAL:HG21	2.29	0.42
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.20	0.42
66:O0:74:ASN:HB2	66:O0:86:ARG:HG3	5.28	0.42
1:2:1566:U:H2'	1:2:1567:U:C6	2.51	0.42
36:5:1595:U:C2	36:5:1596:C:C6	3.08	0.42
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.53	0.42
42:L5:144:VAL:CG1	42:L5:173:VAL:HG22	2.49	0.42
40:L3:236:LYS:HG3	40:L3:237:LYS:N	2.35	0.42
9:S7:35:LYS:NZ	9:S7:36:ALA:H	2.18	0.42
24:D2:5:SER:O	24:D2:6:VAL:HB	4.51	0.42
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.19	0.42
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.52	0.42
34:SR:222:LEU:O	34:SR:231:MET:HB2	3.06	0.42
36:1:1135:A:C2'	36:1:1136:A:H5'	2.49	0.42
1:2:1498:G:C2	1:2:1510:U:O2	2.72	0.42
1:2:1660:A:H5'	59:N3:67:PRO:HG2	2.01	0.42
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.23	0.42
49:M3:176:GLU:HG2	72:O6:11:LEU:HD23	2.79	0.42
47:M0:23:ASN:O	47:M0:24:ARG:HB2	2.20	0.42
33:E1:118:ARG:HB3	33:E1:119:ARG:H	3.45	0.42
24:D2:50:PHE:CB	24:D2:63:VAL:HG22	3.02	0.42
36:1:3193:C:H2'	36:1:3194:C:C6	2.55	0.42
36:5:1798:A:H2'	36:5:1799:A:C8	2.55	0.42
79:Q3:17:ARG:HB2	79:Q3:18:TYR:CE1	2.55	0.42
40:L3:58:ARG:NE	40:L3:74:GLU:OE1	3.14	0.42
7:S5:20:PHE:CZ	7:S5:22:PRO:HG3	5.22	0.42
12:C0:29:GLN:O	12:C0:30:ALA:HB3	2.20	0.42
1:2:651:G:C2	1:2:684:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4053:OHX:N2	86:1:4162:OHX:N5	2.68	0.42
36:5:1561:G:H1	36:5:1578:C:N4	2.17	0.42
36:1:250:U:C5	36:1:251:G:N7	2.87	0.42
61:N5:96:LYS:HG3	61:N5:107:VAL:HB	2.74	0.42
49:M3:61:PRO:HD3	49:M3:70:ARG:NH2	2.99	0.42
49:M3:24:VAL:O	49:M3:26:PHE:N	2.52	0.42
11:S9:178:ALA:O	11:S9:182:GLU:HB3	2.20	0.42
12:C0:54:TYR:HA	12:C0:72:GLY:N	2.34	0.42
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.28	0.42
36:1:1349:G:H22	36:1:1355:A:N6	2.16	0.42
1:2:1063:U:OP1	29:D7:72:LYS:NZ	2.52	0.42
44:L7:210:PRO:CA	44:L7:243:MET:HG2	2.49	0.42
1:6:587:C:H2'	1:6:588:U:C6	2.54	0.42
19:C7:85:VAL:HA	19:C7:86:PRO:HD2	3.96	0.42
1:6:569:C:H2'	1:6:570:A:O4'	2.20	0.42
51:M5:183:THR:O	51:M5:183:THR:OG1	2.87	0.42
60:N4:85:ALA:O	60:N4:87:LEU:N	2.52	0.42
41:L4:234:ASN:OD1	41:L4:236:LEU:HB2	2.63	0.42
46:L9:188:THR:O	46:L9:188:THR:OG1	2.36	0.42
36:1:2535:A:H3'	36:1:2536:A:C8	2.55	0.42
21:C9:65:ILE:HG23	21:C9:71:VAL:HG22	2.01	0.42
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	2.63	0.42
36:1:3169:U:H2'	36:1:3170:A:O4'	2.20	0.42
3:S1:93:GLY:C	3:S1:95:ASN:H	2.82	0.42
28:D6:11:ASN:HB3	1:6:934:C:C6	332.92	0.42
36:5:647:A:C2	36:5:2372:A:H2'	2.55	0.42
1:2:1073:G:H4'	15:C3:10:GLY:HA2	2.02	0.42
36:5:1443:G:O6	86:5:4011:OHX:N5	2.52	0.42
36:1:1691:U:H2'	36:1:1692:U:C6	2.55	0.42
36:1:1748:G:C6	36:1:1749:A:C6	3.08	0.42
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.35	0.42
36:5:2608:G:C2	36:5:2609:A:C8	3.08	0.42
36:5:818:C:C4	36:5:819:U:C4	3.08	0.42
36:1:1074:U:H1'	65:N9:46:ALA:HB2	2.01	0.42
36:5:637:C:H1'	36:5:638:C:C6	2.54	0.42
75:O9:30:ARG:HG2	38:8:75:G:C8	64.38	0.42
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.20	0.42
36:1:898:U:H2'	36:1:899:U:O4'	2.19	0.42
34:SR:145:LEU:HB2	34:SR:146:GLY:H	3.44	0.42
36:5:747:A:H2'	36:5:748:U:O4'	2.20	0.42
41:L4:55:LYS:HD2	41:L4:59:GLN:CD	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:34:TRP:O	13:C1:61:THR:HA	3.41	0.42
36:1:2389:C:H2'	36:1:2390:A:C8	2.54	0.42
1:6:412:A:H8	1:6:412:A:O5'	2.01	0.42
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	2.01	0.42
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	4.43	0.42
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.87	0.42
36:1:1369:A:H2'	36:1:1370:G:O4'	2.19	0.42
52:M6:113:ASP:OD2	52:M6:113:ASP:N	2.52	0.42
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.80	0.42
36:5:2440:G:N2	36:5:2508:U:C2	2.87	0.42
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.40	0.42
4:S2:53:ILE:HG13	4:S2:72:LEU:HB3	2.84	0.42
75:O9:28:ARG:H	75:O9:28:ARG:HG2	1.60	0.42
8:S6:185:GLN:HA	8:S6:188:ARG:NH1	2.43	0.42
1:6:119:A:H1'	1:6:397:A:C5	2.54	0.42
50:M4:77:ARG:HG3	36:5:561:C:OP1	347.16	0.42
39:L2:200:ARG:C	39:L2:202:VAL:H	2.22	0.42
3:S1:81:PHE:CE1	3:S1:109:LYS:HE2	2.55	0.42
11:S9:146:PHE:HZ	1:6:765:G:N1	431.29	0.42
41:L4:177:ASP:O	41:L4:181:VAL:HG23	3.40	0.42
36:5:981:U:H2'	36:5:982:C:O4'	2.19	0.42
1:2:1531:G:C6	1:2:1532:U:C4	3.07	0.42
20:C8:45:LEU:O	20:C8:48:LYS:N	3.29	0.42
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.20	0.42
27:D5:39:ALA:HB1	27:D5:71:ILE:N	2.35	0.42
20:C8:14:ILE:H	20:C8:24:GLY:H	1.66	0.42
40:L3:95:THR:C	40:L3:97:ARG:N	2.73	0.42
10:S8:84:HIS:CE1	10:S8:90:LEU:HD13	3.37	0.42
68:O2:32:TRP:CE2	68:O2:53:PRO:HD2	2.54	0.42
56:N0:84:ARG:HH22	36:5:1296:C:P	288.89	0.42
3:S1:85:LYS:O	3:S1:101:HIS:N	2.53	0.42
34:SR:222:LEU:HA	34:SR:222:LEU:HD13	1.90	0.42
6:S4:92:LEU:HB3	6:S4:95:THR:CG2	3.73	0.42
1:6:1671:A:OP2	86:6:2060:OHX:N3	2.52	0.42
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	3.29	0.42
38:4:107:G:OP2	86:4:231:OHX:N2	2.52	0.42
36:1:2403:G:H5'	36:1:2872:A:C2	2.55	0.42
1:2:850:A:H2'	1:2:851:U:C6	2.55	0.42
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.56	0.42
36:5:242:C:H2'	36:5:243:G:C8	2.55	0.42
13:C1:6:THR:HB	13:C1:9:SER:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:106:THR:HB	24:D2:122:SER:O	2.19	0.42
44:L7:123:THR:HA	44:L7:126:LEU:HD12	2.00	0.42
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.19	0.42
45:L8:134:TYR:CD2	45:L8:134:TYR:N	3.04	0.42
1:2:838:G:H2'	1:2:839:U:C6	2.53	0.42
42:L5:158:ARG:HB2	37:7:46:A:OP1	278.38	0.42
1:2:1504:G:C6	1:2:1505:A:C6	3.07	0.42
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.33	0.42
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	2.02	0.42
38:8:85:G:C2	38:8:87:G:N2	2.88	0.42
61:N5:63:ILE:C	61:N5:63:ILE:HD13	2.66	0.42
42:L5:261:THR:H	42:L5:264:GLN:NE2	2.17	0.42
44:L7:239:LEU:O	44:L7:242:SER:N	2.52	0.42
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	2.01	0.42
41:L4:325:LEU:HA	41:L4:325:LEU:HD23	1.96	0.42
1:2:1560:U:O4'	1:2:1560:U:O2	2.37	0.42
21:C9:14:PHE:CZ	21:C9:132:LEU:HD13	5.19	0.42
49:M3:92:THR:HB	71:O5:112:PRO:O	2.60	0.42
34:SR:260:ILE:HD12	34:SR:274:LEU:HD12	2.97	0.42
43:L6:55:LEU:HD11	43:L6:66:SER:HB2	2.53	0.42
52:M6:48:PHE:HE1	52:M6:52:LEU:HD11	2.76	0.42
52:M6:189:ASP:O	52:M6:192:LYS:N	2.53	0.42
86:1:4025:OHX:N6	86:1:4145:OHX:N3	2.67	0.42
40:L3:262:TRP:HB3	52:M6:64:PHE:O	2.22	0.42
36:1:956:U:H2'	36:1:957:C:C6	2.55	0.42
51:M5:49:ARG:HA	51:M5:53:TYR:HB3	2.36	0.42
36:1:2544:U:H2'	36:1:2545:C:C6	2.55	0.42
38:4:118:C:C2	38:4:136:G:C2	3.07	0.42
1:6:496:G:N7	1:6:497:G:N2	2.67	0.42
36:1:888:A:H2'	36:1:889:U:O4'	2.19	0.42
36:5:712:G:H2'	36:5:713:U:C6	2.54	0.42
1:2:105:A:OP1	10:S8:18:ARG:HD3	2.20	0.42
45:L8:118:GLU:C	45:L8:120:LYS:N	2.73	0.42
36:1:1210:U:OP1	46:L9:62:ARG:NH1	2.52	0.42
67:O1:52:ALA:HB2	67:O1:92:TYR:CZ	2.54	0.42
36:1:511:G:H2'	36:1:512:U:O4'	2.19	0.42
29:D7:75:GLU:HB2	29:D7:76:GLY:H	3.33	0.42
36:1:1496:C:C2	36:1:1521:G:N2	2.88	0.42
42:L5:47:PRO:HG2	42:L5:49:TYR:CE2	3.00	0.42
42:L5:75:LEU:CD2	42:L5:112:LYS:HE2	4.47	0.42
36:1:2932:U:O2	36:1:2934:A:C8	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:97:A:C2	38:4:98:U:C2	3.08	0.42
3:S1:124:ASN:N	3:S1:124:ASN:OD1	2.51	0.42
35:SM:138:ALA:O	35:SM:139:GLU:HB3	2.20	0.42
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.35	0.42
86:5:4191:OHX:N1	86:5:4193:OHX:N4	2.66	0.42
7:S5:72:HIS:HD2	7:S5:107:LYS:HG2	2.35	0.42
63:N7:41:ALA:HB2	63:N7:77:TYR:CE2	5.04	0.42
39:L2:131:GLY:H	39:L2:169:ILE:HG22	2.64	0.42
5:S3:37:VAL:HG11	5:S3:48:VAL:HG13	3.67	0.42
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.62	0.42
8:S6:153:VAL:HG22	8:S6:153:VAL:H	3.36	0.42
36:1:3112:G:O2'	46:L9:70:THR:HB	2.19	0.42
2:S0:63:ILE:HD13	23:D1:34:ILE:CG2	3.08	0.42
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	3.53	0.42
13:C1:91:LEU:HD22	13:C1:100:TYR:HB3	6.09	0.42
1:2:1535:U:H4'	1:2:1535:U:OP1	2.20	0.42
27:D5:46:LYS:HE2	27:D5:70:LYS:HD2	2.02	0.42
36:1:3060:C:H2'	36:1:3061:G:O4'	2.20	0.42
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.80	0.42
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.84	0.42
71:O5:65:ALA:O	71:O5:68:GLN:N	3.61	0.42
71:O5:68:GLN:C	71:O5:70:TYR:N	2.72	0.42
65:N9:28:LYS:HD3	65:N9:28:LYS:HA	1.82	0.42
44:L7:26:VAL:C	44:L7:28:ALA:H	3.18	0.42
21:C9:76:LEU:HB3	21:C9:101:ASN:HD22	1.84	0.42
31:D9:54:LYS:HB3	31:D9:54:LYS:HE3	1.77	0.42
1:6:127:G:H21	1:6:178:U:H1'	1.85	0.42
3:S1:30:PHE:HD1	3:S1:96:LEU:HD22	1.85	0.42
68:O2:19:ARG:HH11	68:O2:28:VAL:HG13	3.04	0.42
51:M5:137:PRO:HG2	51:M5:138:GLN:NE2	2.96	0.42
36:1:1688:U:H2'	36:1:1689:U:H6	1.79	0.42
39:L2:96:LEU:HD11	39:L2:108:PRO:HD2	2.02	0.42
33:E1:126:CYS:O	33:E1:128:ALA:N	2.48	0.42
48:M1:150:ASN:HA	48:M1:153:LYS:HD2	2.01	0.42
6:S4:57:ASN:O	6:S4:61:VAL:HG23	2.20	0.42
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.54	0.42
43:L6:41:ILE:HB	43:L6:85:ILE:HB	2.01	0.42
57:N1:17:ARG:HG3	36:5:2700:G:OP1	266.68	0.42
36:1:707:U:H2'	36:1:708:G:H5"	2.00	0.42
17:C5:89:MET:O	17:C5:107:ILE:HG13	3.24	0.42
36:5:1716:U:HO2'	36:5:1717:U:P	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:22:G:O4'	38:8:104:A:H1'	2.19	0.42
2:S0:124:THR:CG2	2:S0:174:TRP:HE1	2.36	0.42
9:S7:91:ILE:HD12	9:S7:92:PHE:N	3.28	0.42
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.35	0.42
36:1:2620:G:H2'	36:1:2621:G:C8	2.55	0.42
1:6:97:C:C1'	1:6:426:G:H5'	2.50	0.42
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.33	0.42
36:5:2765:C:H2'	36:5:2766:U:C6	2.55	0.42
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	2.02	0.42
1:2:1445:G:C4	33:E1:91:ILE:HB	2.55	0.42
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.20	0.42
86:1:3973:OHX:N1	86:1:4154:OHX:N2	2.68	0.42
1:2:772:G:H5"	6:S4:23:LEU:HD21	2.02	0.42
38:4:6:U:H2'	38:4:7:U:C6	2.55	0.42
36:5:2985:C:H2'	36:5:2986:U:C6	2.55	0.42
7:S5:192:GLU:O	7:S5:195:ALA:N	3.32	0.42
36:5:1340:G:H2'	36:5:1341:U:H6	1.85	0.42
36:1:1593:A:C6	36:1:1594:A:C6	3.08	0.42
61:N5:42:ARG:C	61:N5:44:PRO:HD3	3.00	0.42
1:6:515:A:H2'	1:6:516:G:O4'	2.20	0.42
1:2:131:C:HO2'	1:2:132:U:P	2.43	0.42
24:D2:94:LEU:HD23	24:D2:94:LEU:HA	1.85	0.42
36:1:733:G:O6	86:1:4064:OHX:N2	2.52	0.42
1:2:170:U:H6	1:2:267:U:HO2'	1.67	0.42
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.53	0.42
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.19	0.42
79:Q3:24:ARG:HE	79:Q3:24:ARG:HB3	2.87	0.42
45:L8:213:LYS:HB2	45:L8:213:LYS:HE3	4.38	0.42
36:1:1345:G:H5"	36:1:1345:G:H8	1.85	0.42
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.74	0.42
36:5:1763:U:H3'	36:5:1764:U:C5	2.55	0.42
36:1:101:G:C2'	36:1:102:C:H5'	2.50	0.42
5:S3:97:SER:O	5:S3:101:GLN:HG2	2.83	0.42
14:C2:68:GLU:C	14:C2:70:ASN:H	2.23	0.42
21:C9:88:VAL:HG23	1:6:1172:G:H21	354.84	0.42
1:2:1010:C:H2'	1:2:1011:G:O4'	2.19	0.42
21:C9:108:LEU:HA	21:C9:108:LEU:HD23	2.15	0.42
1:2:476:U:H5"	1:2:477:A:O4'	2.19	0.42
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.20	0.42
7:S5:90:ILE:HA	7:S5:90:ILE:HD13	2.33	0.42
36:1:2585:G:N7	45:L8:47:SER:OG	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	2.87	0.42
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.99	0.42
46:L9:124:ARG:HB3	46:L9:164:ILE:HD13	4.61	0.42
36:1:1493:G:OP2	36:1:1493:G:N2	2.51	0.42
75:O9:10:LYS:HA	75:O9:13:MET:HE3	2.01	0.42
58:N2:67:SER:OG	58:N2:69:ALA:N	2.89	0.42
34:SR:34:LEU:HD12	34:SR:43:ILE:O	3.10	0.42
36:1:1334:U:H1'	44:L7:208:SER:HB2	2.02	0.42
86:5:4025:OHX:N2	86:5:4219:OHX:N5	2.68	0.42
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	2.52	0.42
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.02	0.42
8:S6:155:ASP:HB2	8:S6:156:PHE:CD1	2.55	0.42
36:5:2822:U:H2'	36:5:2823:G:O4'	2.20	0.42
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.20	0.42
55:M9:55:VAL:HG22	55:M9:55:VAL:H	1.63	0.42
23:D1:74:GLN:HB2	23:D1:74:GLN:HE21	1.67	0.42
64:N8:94:ALA:HB1	64:N8:121:VAL:HG13	2.01	0.42
13:C1:94:ILE:HG12	25:D3:16:ARG:HD3	4.06	0.42
72:O6:13:LYS:HB3	72:O6:13:LYS:HE3	1.89	0.42
56:N0:25:PHE:CD1	57:N1:151:LEU:HD21	2.93	0.42
1:2:1793:G:H1'	1:2:1794:A:H2'	2.01	0.42
26:D4:129:VAL:O	26:D4:132:ARG:HB3	2.40	0.42
6:S4:233:LYS:HZ2	6:S4:233:LYS:HB3	5.43	0.42
1:6:1567:U:H2'	1:6:1568:C:H5'	2.02	0.42
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.97	0.42
15:C3:16:ILE:HA	15:C3:16:ILE:HD12	4.31	0.42
10:S8:196:LEU:HD23	10:S8:196:LEU:HA	4.26	0.42
50:M4:60:LEU:C	50:M4:62:GLN:H	2.24	0.42
57:N1:87:LYS:HE3	36:5:2723:U:OP1	215.69	0.42
54:M8:170:ARG:HH22	64:N8:59:ARG:HA	1.84	0.42
18:C6:128:LYS:O	18:C6:137:ARG:NH2	3.22	0.42
36:5:248:U:H2'	36:5:249:U:H5'	2.02	0.42
9:S7:62:VAL:HA	9:S7:63:PRO:HD3	1.93	0.42
48:M1:46:VAL:HG22	48:M1:68:HIS:CE1	2.54	0.42
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	2.65	0.42
38:8:85:G:H8	38:8:85:G:H3'	1.85	0.42
61:N5:86:VAL:HG11	61:N5:95:ILE:HD11	2.39	0.42
36:5:119:U:H4'	36:5:120:G:H5"	2.01	0.42
36:1:3164:C:C2	36:1:3165:A:C8	3.07	0.42
13:C1:73:GLY:HA3	13:C1:86:ILE:HG23	5.97	0.42
25:D3:23:ARG:HA	25:D3:23:ARG:HD2	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:570:A:H5"	1:6:571:G:OP2	2.19	0.42
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.61	0.42
39:L2:221:LYS:O	36:5:2245:C:H4'	218.44	0.42
36:1:1547:G:P	51:M5:105:ARG:HH12	2.43	0.42
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.47	0.42
36:1:3383:G:H2'	36:1:3384:U:C6	2.55	0.42
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.20	0.42
38:4:57:C:OP2	73:O7:68:LYS:HE3	2.20	0.42
36:5:8:C:H2'	36:5:9:U:O4'	2.19	0.42
69:O3:24:ASN:O	69:O3:26:ASN:N	2.52	0.42
86:2:2075:OHX:N3	86:2:2161:OHX:N1	2.67	0.42
36:1:2623:G:H2'	36:1:2624:G:C8	2.54	0.42
36:1:2624:G:H2'	36:1:2625:C:C6	2.55	0.42
36:1:2861:U:H2'	36:1:2862:U:O4'	2.20	0.42
36:5:3393:U:H2'	36:5:3394:U:H6	1.85	0.42
6:S4:65:LEU:HD23	6:S4:70:VAL:HG11	2.02	0.42
62:N6:108:LYS:HD3	62:N6:108:LYS:HA	3.03	0.42
49:M3:187:ALA:O	49:M3:190:LYS:HB3	2.48	0.42
36:1:1696:A:N6	36:1:1748:G:H2'	2.35	0.42
36:5:2877:G:OP1	86:5:4056:OHX:N4	2.52	0.42
25:D3:8:GLY:O	25:D3:11:SER:OG	2.84	0.42
54:M8:8:LYS:HE2	36:5:950:G:OP1	199.70	0.42
1:6:1244:A:O2'	1:6:1245:G:O5'	2.24	0.42
36:5:532:A:H2	36:5:560:G:H22	1.67	0.42
36:1:792:G:H2'	36:1:793:C:C6	2.55	0.42
55:M9:109:TYR:HB3	55:M9:115:ILE:HG23	2.02	0.42
38:8:98:U:H5"	38:8:99:C:OP2	2.20	0.42
3:S1:67:GLU:HA	3:S1:84:ILE:O	2.20	0.42
59:N3:22:ILE:HG12	59:N3:35:TYR:HA	2.01	0.42
31:D9:25:SER:HB3	86:D9:102:OHX:N3	2.34	0.42
55:M9:134:HIS:CE1	55:M9:137:ALA:HB2	2.61	0.42
37:3:90:U:H2'	37:3:91:G:O4'	2.19	0.42
1:2:1345:A:H2'	1:2:1348:A:H62	1.84	0.42
53:M7:180:LYS:NZ	53:M7:180:LYS:HB3	2.35	0.42
34:SR:47:LEU:HA	34:SR:47:LEU:HD23	1.81	0.42
1:2:385:A:H8	1:2:385:A:O5'	2.03	0.42
86:1:4140:OHX:N1	86:1:4183:OHX:N5	2.68	0.42
36:1:2548:C:P	39:L2:93:LYS:NZ	2.92	0.42
34:SR:188:ILE:HD12	34:SR:188:ILE:HA	1.83	0.42
36:1:1875:G:H2'	36:1:1876:U:O4'	2.20	0.42
17:C5:122:THR:HG22	17:C5:123:TYR:CD1	6.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:31:LYS:H	32:E0:31:LYS:HG2	1.59	0.42
36:5:92:G:OP2	36:5:93:C:H5"	2.20	0.42
1:2:1796:C:H4'	1:2:1797:A:OP2	2.20	0.42
48:M1:94:ARG:HB2	48:M1:95:ASN:H	1.72	0.42
31:D9:30:LEU:HD11	31:D9:37:ASN:HA	4.79	0.42
30:D8:9:LEU:O	30:D8:32:PHE:HA	2.20	0.42
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.20	0.42
59:N3:45:ARG:HB3	59:N3:48:ARG:HB2	2.31	0.42
34:SR:203:THR:HG23	34:SR:212:ALA:HB3	2.01	0.42
34:SR:38:ARG:HB3	34:SR:67:ILE:HG12	2.01	0.42
1:2:902:G:O6	16:C4:54:GLU:OE1	2.38	0.42
52:M6:121:PRO:C	52:M6:123:ALA:H	2.40	0.42
52:M6:10:ASP:CG	52:M6:37:ARG:HH21	2.60	0.42
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	2.42	0.42
15:C3:38:VAL:O	15:C3:42:ARG:HD2	2.20	0.42
20:C8:11:PHE:CD1	27:D5:41:ILE:HG21	4.78	0.42
36:1:1230:G:H2'	36:1:1231:A:H8	1.84	0.42
9:S7:41:LEU:HD22	9:S7:70:PHE:CD1	2.55	0.42
36:1:3015:G:N2	36:1:3040:A:H1'	2.35	0.42
39:L2:112:ILE:HG13	39:L2:112:ILE:O	4.74	0.42
36:1:3174:A:H2'	36:1:3175:U:C5'	2.50	0.42
1:2:1483:A:C2	1:2:1607:G:H1'	2.54	0.42
1:2:1589:C:H2'	1:2:1590:G:C8	2.54	0.42
53:M7:127:ARG:O	53:M7:139:TYR:N	2.96	0.42
36:1:564:G:C5	36:1:565:U:C4	3.08	0.42
1:6:829:A:N6	1:6:843:U:H3	2.18	0.42
24:D2:5:SER:O	24:D2:7:LEU:N	3.01	0.42
36:1:706:A:H4'	36:1:781:G:O2'	2.20	0.42
24:D2:21:GLY:O	29:D7:3:LEU:HD22	3.05	0.42
47:M0:180:GLU:OE2	47:M0:184:LYS:HD3	2.19	0.42
9:S7:97:ARG:CZ	9:S7:97:ARG:HB2	5.54	0.42
55:M9:44:LEU:HD13	55:M9:44:LEU:HA	1.87	0.42
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.25	0.42
33:E1:123:ASN:O	33:E1:125:THR:N	2.53	0.42
36:1:352:A:N6	36:1:365:A:H5"	2.35	0.42
40:L3:56:ILE:HG22	40:L3:74:GLU:HB2	2.16	0.42
57:N1:54:HIS:CD2	36:5:2724:U:H4'	229.19	0.42
1:2:1756:A:C8	1:2:1756:A:OP2	2.73	0.42
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.63	0.42
36:1:2289:U:O5'	36:1:2289:U:H6	2.02	0.42
4:S2:148:LEU:HA	4:S2:148:LEU:HD22	1.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:148:LEU:HB3	4:S2:174:ARG:HH22	1.85	0.42
25:D3:38:PHE:CE1	1:6:359:A:H1'	332.04	0.42
40:L3:212:ASN:O	40:L3:281:LYS:NZ	2.51	0.42
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.54	0.42
38:8:104:A:C3'	38:8:105:A:H5"	2.49	0.42
36:5:1152:G:N2	36:5:1200:A:H61	2.17	0.42
15:C3:150:VAL:HG12	15:C3:151:ASN:OD1	2.20	0.42
5:S3:18:TYR:CE2	31:D9:49:ASP:HB3	2.87	0.42
6:S4:179:LYS:N	6:S4:194:THR:O	2.53	0.42
36:1:2727:A:H4'	36:1:2728:G:OP2	2.20	0.42
27:D5:44:GLN:O	27:D5:47:TYR:HB3	2.66	0.42
2:S0:198:MET:SD	19:C7:88:VAL:HG23	3.04	0.42
36:1:3011:A:C5	40:L3:13:HIS:CD2	3.08	0.42
49:M3:89:TYR:CZ	49:M3:93:ILE:HD11	3.33	0.42
1:6:470:A:H5"	1:6:470:A:C8	2.53	0.42
36:1:2531:C:C4	36:1:2532:U:C4	3.08	0.42
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	3.08	0.42
36:1:986:U:O2'	44:L7:125:GLU:HB2	2.20	0.42
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.73	0.42
86:1:3973:OHX:N5	86:1:4154:OHX:N6	2.68	0.42
22:D0:68:ARG:NH1	1:6:1197:C:O2'	381.09	0.42
42:L5:37:VAL:CG1	57:N1:31:LEU:HD21	2.49	0.42
36:5:1906:G:N2	36:5:1909:A:N1	2.67	0.42
28:D6:11:ASN:HB3	1:6:934:C:H6	332.07	0.42
36:5:415:G:OP2	86:5:4223:OHX:N4	2.53	0.42
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	3.79	0.42
36:5:1329:U:O2'	36:5:1330:A:H5"	2.20	0.42
8:S6:214:LYS:HA	8:S6:217:SER:HB2	2.02	0.42
41:L4:345:GLU:HB3	41:L4:346:LYS:H	3.75	0.42
86:1:4066:OHX:N3	86:1:4113:OHX:N4	2.68	0.42
34:SR:171:SER:N	34:SR:179:LYS:O	2.41	0.42
36:5:1624:G:H2'	36:5:1625:A:H8	1.85	0.42
1:6:841:U:H2'	1:6:842:C:O4'	2.19	0.42
36:1:891:G:H2'	36:1:892:U:O4'	2.19	0.42
36:5:2213:A:N1	36:5:2429:G:H1'	2.35	0.42
36:5:3341:U:H5"	36:5:3342:A:OP2	2.20	0.42
42:L5:117:GLU:HB3	42:L5:118:THR:H	2.89	0.42
27:D5:80:LEU:HD23	27:D5:80:LEU:HA	1.93	0.42
8:S6:180:THR:HG23	8:S6:183:ARG:H	1.85	0.42
1:6:867:G:O6	86:6:2058:OHX:N1	2.53	0.42
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3182:G:H2'	36:1:3183:A:O4'	2.20	0.41
36:1:2881:C:H2'	36:1:2882:U:H6	1.84	0.41
47:M0:171:TRP:C	47:M0:171:TRP:CD1	2.93	0.41
8:S6:173:PRO:HB2	8:S6:174:LYS:H	1.60	0.41
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	2.25	0.41
18:C6:18:ALA:HB3	18:C6:80:ALA:O	2.48	0.41
31:D9:21:CYS:C	31:D9:23:VAL:N	2.95	0.41
40:L3:140:ASP:OD2	40:L3:141:GLY:N	4.09	0.41
38:4:79:A:O5'	38:4:79:A:H8	2.03	0.41
36:1:784:A:C6	54:M8:93:ILE:HG22	2.55	0.41
3:S1:178:GLY:O	3:S1:180:THR:N	2.53	0.41
36:1:829:U:C2	36:1:894:G:C6	3.08	0.41
6:S4:35:PRO:HB2	6:S4:36:HIS:CD2	2.54	0.41
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.55	0.41
67:O1:20:LEU:HA	67:O1:20:LEU:HD23	1.75	0.41
1:2:141:U:OP1	8:S6:149:LYS:NZ	2.37	0.41
2:S0:163:ASN:HB3	2:S0:169:SER:OG	2.58	0.41
36:5:1095:U:H4'	36:5:1096:U:H5"	2.02	0.41
17:C5:68:PRO:HG2	17:C5:71:GLU:HB3	2.02	0.41
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.53	0.41
1:2:196:G:C2	1:2:197:A:H1'	2.55	0.41
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	2.02	0.41
34:SR:224:ASN:ND2	34:SR:226:ALA:HB3	5.59	0.41
37:3:28:C:OP2	42:L5:57:ASN:ND2	2.43	0.41
39:L2:229:ALA:HB1	39:L2:233:GLN:HB2	2.49	0.41
1:2:710:U:H2'	1:2:711:U:H5'	2.01	0.41
33:E1:131:PHE:HB3	33:E1:132:LEU:H	1.73	0.41
3:S1:149:GLN:NE2	3:S1:151:LYS:HE3	3.24	0.41
1:6:845:G:H2'	1:6:846:G:C8	2.51	0.41
36:5:3153:U:H4'	36:5:3154:C:C5'	2.49	0.41
43:L6:157:GLN:O	43:L6:158:TYR:C	2.58	0.41
52:M6:25:LYS:HD3	52:M6:25:LYS:O	2.18	0.41
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	2.01	0.41
1:2:707:A:H2	1:2:731:C:H2'	1.84	0.41
30:D8:22:ARG:HA	30:D8:22:ARG:HD3	1.72	0.41
36:5:550:A:H2'	36:5:551:A:C8	2.55	0.41
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.39	0.41
13:C1:86:ILE:HD11	13:C1:125:VAL:CG1	4.31	0.41
36:1:3366:G:H2'	36:1:3367:C:C6	2.55	0.41
15:C3:125:LEU:HD23	15:C3:125:LEU:HA	2.12	0.41
1:2:574:G:O6	25:D3:65:ASN:ND2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1554:U:H4'	36:1:1555:U:C5'	2.50	0.41
1:2:1391:A:H2'	1:2:1392:U:H6	1.85	0.41
38:4:56:G:H2'	38:4:57:C:O4'	2.20	0.41
36:5:1529:A:H5"	36:5:1530:U:OP2	2.20	0.41
46:L9:72:LYS:HE3	46:L9:76:ASP:OD2	2.20	0.41
9:S7:113:PRO:HD3	1:6:811:A:N6	345.07	0.41
69:O3:42:GLN:HA	69:O3:45:LEU:HG	2.02	0.41
13:C1:118:GLN:HE21	13:C1:118:GLN:HB2	1.59	0.41
79:Q3:88:GLU:HA	79:Q3:91:GLU:HG2	2.01	0.41
48:M1:115:LYS:HB3	48:M1:116:TYR:H	1.87	0.41
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.20	0.41
1:2:568:G:O5'	25:D3:90:ASP:HA	2.20	0.41
47:M0:185:ARG:C	47:M0:187:ALA:H	2.24	0.41
38:4:19:C:H2'	38:4:20:U:O4'	2.19	0.41
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.54	0.41
36:5:1711:C:H2'	36:5:1712:G:O4'	2.19	0.41
36:5:2655:U:H4'	36:5:2656:A:O4'	2.20	0.41
29:D7:23:THR:OG1	29:D7:26:GLN:HA	2.42	0.41
36:5:2108:C:H1'	36:5:3344:A:N3	2.35	0.41
36:1:2269:U:C2	36:1:2272:G:C2	3.08	0.41
38:8:19:C:H2'	38:8:20:U:O4'	2.20	0.41
13:C1:10:GLU:HG2	1:6:327:U:O2'	270.88	0.41
1:2:404:G:H2'	1:2:405:C:C6	2.55	0.41
36:1:2367:A:H2'	36:1:2368:A:O4'	2.20	0.41
60:N4:8:PHE:CD2	60:N4:46:PRO:HG3	2.54	0.41
1:2:1095:U:O2	24:D2:12:ASN:ND2	2.52	0.41
1:2:1615:C:OP1	30:D8:18:ARG:NH2	2.45	0.41
36:1:1908:A:H2'	36:1:1909:A:O4'	2.19	0.41
53:M7:37:ASN:C	53:M7:37:ASN:OD1	2.58	0.41
6:S4:211:LYS:HE3	6:S4:211:LYS:HB2	4.05	0.41
36:5:1510:G:H8	36:5:1510:G:O5'	2.03	0.41
21:C9:35:ASP:N	21:C9:35:ASP:OD2	4.32	0.41
36:5:333:G:H1	38:8:30:C:H42	1.67	0.41
36:1:1295:G:H2'	36:1:1296:C:C6	2.54	0.41
9:S7:142:TYR:O	24:D2:49:GLU:HB2	2.45	0.41
1:6:1212:G:C2	1:6:1213:G:C8	3.08	0.41
3:S1:166:LYS:HE2	3:S1:170:GLU:OE1	8.97	0.41
36:5:297:G:C8	36:5:299:G:H1'	2.56	0.41
21:C9:108:LEU:O	21:C9:111:ILE:HG22	2.20	0.41
42:L5:107:ARG:HA	42:L5:107:ARG:HE	1.85	0.41
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:60:PRO:C	28:D6:62:TYR:H	2.23	0.41
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.54	0.41
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.43	0.41
61:N5:38:LEU:HD12	38:8:147:U:C4'	122.56	0.41
2:S0:13:ASP:O	2:S0:16:LEU:N	2.99	0.41
62:N6:90:VAL:HG23	62:N6:91:ASN:N	2.35	0.41
1:6:803:A:O2'	1:6:804:A:OP2	2.36	0.41
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.90	0.41
3:S1:104:ASP:OD1	3:S1:214:LYS:HD3	2.20	0.41
86:5:4095:OHX:N6	86:7:220:OHX:N3	2.67	0.41
39:L2:70:ARG:NH2	36:5:2522:G:C6	174.71	0.41
40:L3:323:MET:HE2	40:L3:356:LEU:HD11	3.59	0.41
4:S2:179:VAL:HG11	1:6:2:A:H3'	390.89	0.41
15:C3:20:ARG:O	15:C3:65:VAL:HB	2.64	0.41
1:6:1388:A:H4'	1:6:1389:C:O5'	2.21	0.41
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.55	0.41
36:5:1063:G:H2'	36:5:1097:G:N2	2.36	0.41
36:5:3241:G:N2	36:5:3245:A:H2'	2.35	0.41
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.53	0.41
36:1:1094:U:H1'	36:1:1096:U:H2'	2.02	0.41
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.20	0.41
36:1:412:G:C6	36:1:413:U:C4	3.08	0.41
8:S6:202:ARG:O	8:S6:205:ALA:HB3	2.20	0.41
86:1:3947:OHX:N2	86:1:4035:OHX:N6	2.69	0.41
1:6:1321:A:H4'	1:6:1322:A:O5'	2.20	0.41
11:S9:87:SER:HB2	11:S9:89:ASP:OD1	2.20	0.41
1:2:219:A:H5'	1:2:831:U:O2'	2.20	0.41
35:SM:77:THR:HG1	35:SM:79:SER:HG	3.13	0.41
49:M3:126:PHE:HZ	49:M3:135:ALA:HB3	1.84	0.41
12:C0:58:GLN:HB3	12:C0:65:TYR:HB2	2.86	0.41
23:D1:71:ARG:HB2	23:D1:83:TRP:CE2	2.55	0.41
36:5:2101:C:O2'	36:5:2102:U:P	2.76	0.41
1:2:849:C:C2	1:2:850:A:C8	3.09	0.41
1:2:720:G:O2'	1:2:721:U:H5'	2.20	0.41
1:2:548:G:H2'	1:2:549:G:O4'	2.19	0.41
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.64	0.41
7:S5:29:ILE:HG21	18:C6:57:LEU:HD11	2.02	0.41
11:S9:74:ASN:OD1	11:S9:74:ASN:N	3.89	0.41
74:O8:10:GLN:HA	74:O8:13:GLU:OE1	2.21	0.41
36:1:547:G:N2	36:1:548:G:N3	2.67	0.41
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4083:OHX:N6	86:1:4153:OHX:N3	2.68	0.41
38:4:122:U:H2'	38:4:123:G:H8	1.84	0.41
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.46	0.41
58:N2:89:LEU:HB3	58:N2:93:ILE:HD11	2.00	0.41
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.19	0.41
8:S6:131:LYS:HB2	60:N4:81:PRO:O	2.20	0.41
1:6:907:A:C6	1:6:908:U:C4	3.09	0.41
12:C0:54:TYR:HA	12:C0:72:GLY:H	1.84	0.41
36:1:3128:G:OP2	86:1:4166:OHX:N2	2.53	0.41
47:M0:19:LYS:NZ	47:M0:26:VAL:HG13	4.05	0.41
78:Q2:100:LYS:HE2	36:5:2657:A:OP2	259.37	0.41
23:D1:11:LEU:HB2	23:D1:12:TYR:H	1.71	0.41
36:1:1795:U:H4'	36:1:1796:G:C4	2.56	0.41
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.20	0.41
1:2:1007:C:C1'	87:2:2179:3K8:H17	2.50	0.41
3:S1:111:ARG:HB3	28:D6:68:TYR:HB2	2.02	0.41
1:6:1451:C:H2'	1:6:1452:U:C6	2.55	0.41
8:S6:121:LEU:HD12	8:S6:121:LEU:HA	4.56	0.41
36:1:40:A:C2	64:N8:40:HIS:CE1	3.08	0.41
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.55	0.41
1:2:1308:G:C6	1:2:1309:C:C4	3.09	0.41
1:2:577:G:C2	35:SM:99:LYS:HG2	2.55	0.41
23:D1:87:ARG:C	29:D7:11:THR:HG23	2.40	0.41
20:C8:18:LEU:CD2	20:C8:70:VAL:HG13	2.50	0.41
36:5:2115:G:H22	36:5:2120:A:H1'	1.85	0.41
1:6:976:G:C6	1:6:1023:A:C4	3.08	0.41
52:M6:166:GLU:O	52:M6:167:TYR:C	2.58	0.41
1:2:586:G:H4'	32:E0:21:VAL:HG22	2.02	0.41
1:2:1511:U:H2'	1:2:1512:G:C8	2.55	0.41
36:1:391:A:OP2	86:1:4145:OHX:N1	2.52	0.41
36:1:1501:U:O2'	36:1:1502:C:H5'	2.20	0.41
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	2.01	0.41
36:5:2407:C:H2'	36:5:2408:U:C6	2.54	0.41
21:C9:137:ALA:HA	21:C9:140:LEU:HD12	2.02	0.41
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.86	0.41
36:1:108:A:O2'	36:1:109:A:H2'	2.19	0.41
36:1:124:U:H2'	36:1:125:C:H6	1.83	0.41
36:1:1316:C:O4'	52:M6:130:LYS:HD3	2.19	0.41
52:M6:143:THR:OG1	52:M6:150:GLU:HB2	3.07	0.41
36:1:1642:A:O2'	36:1:1643:A:C8	2.73	0.41
36:1:802:C:H2'	36:1:803:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:19:ARG:NE	25:D3:19:ARG:HA	2.35	0.41
57:N1:93:VAL:HG22	57:N1:93:VAL:H	1.79	0.41
41:L4:150:LEU:HD23	41:L4:150:LEU:HA	1.81	0.41
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.77	0.41
38:4:81:U:O2	38:4:82:U:C5	2.73	0.41
40:L3:37:ARG:HA	40:L3:185:GLY:O	2.20	0.41
1:6:1185:U:C2	1:6:1458:G:C8	3.09	0.41
36:5:2310:U:OP1	86:5:4200:OHX:N2	2.53	0.41
51:M5:94:TYR:CZ	51:M5:96:ARG:HD3	2.82	0.41
1:2:1323:C:H2'	1:2:1324:G:O4'	2.20	0.41
44:L7:159:GLN:O	44:L7:160:ARG:C	2.57	0.41
3:S1:39:GLU:HB3	3:S1:74:GLN:HA	2.01	0.41
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.67	0.41
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.79	0.41
28:D6:40:ALA:N	28:D6:69:ASN:O	2.51	0.41
31:D9:19:ARG:HB2	31:D9:30:LEU:HD11	2.03	0.41
36:1:1240:A:H3'	36:1:1241:U:C5'	2.49	0.41
2:S0:168:HIS:H	2:S0:168:HIS:CD2	2.38	0.41
40:L3:128:LYS:HB3	40:L3:128:LYS:HE2	3.84	0.41
36:1:1638:A:N3	36:1:1709:C:H1'	2.35	0.41
32:E0:50:VAL:O	32:E0:52:GLY:N	2.54	0.41
16:C4:86:THR:HB	16:C4:87:GLY:H	1.71	0.41
11:S9:126:ARG:O	11:S9:130:THR:HG23	2.21	0.41
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.73	0.41
27:D5:76:ALA:O	27:D5:79:ALA:HB3	2.52	0.41
1:2:487:G:H3'	1:2:488:G:H5"	2.02	0.41
2:S0:29:VAL:HG13	2:S0:150:ASP:HB3	2.02	0.41
40:L3:17:LEU:HD11	40:L3:233:TRP:HH2	2.48	0.41
62:N6:45:ILE:HD11	62:N6:48:LEU:HG	5.38	0.41
86:5:4003:OHX:N6	86:5:4093:OHX:N2	2.67	0.41
21:C9:37:VAL:HG13	21:C9:38:LYS:N	2.41	0.41
1:6:1579:U:H2'	1:6:1580:C:H6	1.85	0.41
40:L3:228:GLY:O	40:L3:232:ARG:HB3	2.76	0.41
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.20	0.41
6:S4:69:HIS:CD2	26:D4:17:LEU:HB2	2.55	0.41
26:D4:72:PHE:HE1	26:D4:74:LEU:HD23	1.85	0.41
9:S7:66:SER:O	9:S7:69:GLY:N	3.05	0.41
25:D3:96:VAL:HB	25:D3:127:VAL:HG21	4.85	0.41
39:L2:96:LEU:O	39:L2:96:LEU:HD23	2.20	0.41
56:N0:154:HIS:CE1	56:N0:170:THR:HG21	2.67	0.41
18:C6:99:GLU:OE1	18:C6:102:LYS:NZ	4.15	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:625:C:H2'	1:6:626:U:C6	2.54	0.41
1:6:157:A:O2'	1:6:158:U:H5'	2.21	0.41
40:L3:55:THR:HG22	40:L3:56:ILE:H	1.85	0.41
36:1:2723:U:OP1	57:N1:87:LYS:HD3	2.19	0.41
78:Q2:71:ARG:HE	78:Q2:80:ARG:NH1	2.18	0.41
37:3:107:C:H2'	37:3:108:A:C8	2.55	0.41
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.28	0.41
29:D7:43:ILE:HG12	29:D7:43:ILE:H	2.20	0.41
10:S8:193:LEU:O	10:S8:197:THR:HG23	3.00	0.41
2:S0:193:GLN:HA	2:S0:194:PRO:HD3	2.65	0.41
36:5:229:G:C2	36:5:230:U:C2	3.08	0.41
15:C3:64:ARG:HG2	15:C3:64:ARG:O	2.20	0.41
1:2:1175:U:H2'	1:2:1176:G:H8	1.84	0.41
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	1.85	0.41
4:S2:238:SER:HA	4:S2:239:PRO:HD2	2.47	0.41
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	2.01	0.41
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	2.02	0.41
36:5:112:U:H2'	36:5:112:U:H6	1.61	0.41
47:M0:21:ARG:NH2	47:M0:22:TYR:OH	2.53	0.41
34:SR:259:GLY:HA3	34:SR:275:ARG:HH11	2.91	0.41
1:2:482:U:H2'	1:2:483:A:H8	1.85	0.41
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	2.03	0.41
49:M3:129:ASN:HD22	49:M3:129:ASN:HA	1.63	0.41
4:S2:103:VAL:CG2	4:S2:113:LEU:HD23	2.50	0.41
32:E0:49:LEU:HD12	32:E0:51:ASN:HB3	2.01	0.41
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.11	0.41
36:1:2567:C:O2'	36:1:2568:C:H5'	2.20	0.41
38:8:73:U:H4'	38:8:90:U:OP1	2.21	0.41
74:O8:58:ASP:HB3	74:O8:61:LYS:CG	3.46	0.41
36:5:2387:A:OP2	86:5:4021:OHX:N4	2.54	0.41
36:1:1130:A:C8	36:1:1132:C:C6	3.08	0.41
36:5:2171:G:H2'	36:5:2172:A:H8	1.86	0.41
36:5:1699:A:H2'	36:5:1700:G:C8	2.55	0.41
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.24	0.41
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.76	0.41
42:L5:15:ARG:NH2	36:5:1003:A:H1'	288.48	0.41
20:C8:101:LEU:O	20:C8:105:VAL:HG12	5.04	0.41
4:S2:77:GLN:NE2	4:S2:105:GLY:O	2.53	0.41
48:M1:83:GLY:O	48:M1:86:VAL:N	2.54	0.41
36:1:915:A:H2'	36:1:915:A:N3	2.35	0.41
59:N3:104:ASN:OD1	59:N3:104:ASN:C	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:61:ARG:HH11	53:M7:61:ARG:HD2	1.72	0.41
1:2:70:C:H6	1:2:70:C:O5'	2.03	0.41
36:5:729:C:H6	36:5:729:C:O5'	2.04	0.41
36:1:638:C:H2'	36:1:639:G:H8	1.85	0.41
20:C8:85:PHE:C	20:C8:86:LEU:HD12	2.40	0.41
36:1:2954:U:H4'	36:1:2955:U:C5'	2.51	0.41
36:5:2359:C:O5'	36:5:2359:C:H6	2.03	0.41
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.19	0.41
64:N8:21:ARG:HD2	36:5:1369:A:H5'	185.87	0.41
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.21	0.41
1:2:278:U:OP1	1:2:279:G:N2	2.53	0.41
42:L5:272:TYR:CE1	37:7:22:A:H1'	333.23	0.41
41:L4:358:THR:O	56:N0:26:ARG:NE	2.68	0.41
36:5:2403:G:N2	36:5:2404:A:H62	2.19	0.41
1:2:1330:G:H2'	1:2:1331:A:O4'	2.20	0.41
1:2:144:U:H5	8:S6:137:ARG:NH1	2.17	0.41
55:M9:21:LYS:O	55:M9:53:LYS:HB2	2.20	0.41
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	2.55	0.41
52:M6:121:PRO:O	52:M6:124:LEU:HB2	2.92	0.41
34:SR:115:ILE:HG12	34:SR:116:ASP:N	2.36	0.41
8:S6:145:PHE:HB2	8:S6:147:LEU:HD11	2.24	0.41
1:2:1536:G:C5	1:2:1538:U:H1'	2.55	0.41
66:O0:100:ILE:HG13	66:O0:101:LEU:H	3.60	0.41
28:D6:44:ILE:CD1	28:D6:44:ILE:H	2.31	0.41
40:L3:95:THR:HG22	36:5:3243:A:H4'	255.33	0.41
36:1:3040:A:OP1	59:N3:12:ARG:N	2.53	0.41
1:2:1484:G:O4'	1:2:1607:G:H4'	2.20	0.41
36:5:1759:C:N4	36:5:1760:A:N7	2.68	0.41
12:C0:3:MET:HB3	12:C0:8:ARG:HH12	4.49	0.41
1:2:1499:G:C2	1:2:1500:C:C2	3.08	0.41
43:L6:130:ILE:HA	36:5:3269:U:C4	247.23	0.41
36:1:655:C:H5"	68:O2:26:HIS:HB2	2.02	0.41
49:M3:159:VAL:HG13	64:N8:144:VAL:HG13	2.01	0.41
18:C6:93:HIS:ND1	18:C6:97:VAL:HG21	2.35	0.41
16:C4:32:ASP:O	16:C4:34:SER:N	2.54	0.41
79:Q3:34:HIS:O	79:Q3:48:LYS:HE3	2.21	0.41
36:1:439:C:H2'	36:1:439:C:O2	2.20	0.41
86:1:4053:OHX:N6	86:1:4162:OHX:N5	2.68	0.41
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.33	0.41
1:2:1773:C:H2'	1:2:1774:G:H8	1.85	0.41
62:N6:4:GLN:N	36:5:229:G:OP1	68.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:64:LYS:HG2	68:O2:65:PHE:CD2	3.19	0.41
36:1:1414:G:N7	86:1:4121:OHX:N2	2.68	0.41
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.54	0.41
35:SM:83:LYS:HB2	35:SM:84:LYS:H	1.64	0.41
36:5:2298:U:C3'	36:5:2299:A:H5'	2.50	0.41
36:5:2518:C:C2	36:5:2590:A:C2	3.08	0.41
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.20	0.41
35:SM:107:ASN:OD1	35:SM:112:ASP:HB3	2.20	0.41
36:1:3189:G:H2'	36:1:3190:C:O4'	2.20	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.50	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:NE	2.34	0.41
1:6:1070:C:H2'	1:6:1071:U:O4'	2.20	0.41
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.62	0.41
36:1:348:A:H4'	36:1:367:A:N6	2.35	0.41
34:SR:29:GLN:HA	34:SR:30:PRO:HD2	1.94	0.41
78:Q2:34:SER:OG	78:Q2:35:LEU:O	2.36	0.41
36:1:1663:C:H42	36:1:1786:G:H1	1.68	0.41
50:M4:20:VAL:HG13	50:M4:68:LEU:HB2	2.01	0.41
1:2:1287:A:H4'	1:2:1288:G:OP1	2.18	0.41
36:1:890:C:O2'	36:1:2324:A:N3	2.47	0.41
1:6:1318:G:N7	86:6:2165:OHX:N5	2.67	0.41
36:1:867:G:C6	36:1:868:C:C4	3.09	0.41
37:3:58:C:H2'	37:3:59:U:H6	1.85	0.41
55:M9:68:GLN:OE1	55:M9:71:ARG:NH1	5.33	0.41
36:1:334:A:C2	36:1:335:G:C5	3.09	0.41
1:2:260:U:H3'	1:2:261:U:H5"	2.02	0.41
36:1:2195:C:O2'	36:1:2196:C:H5'	2.20	0.41
40:L3:122:TRP:CE2	40:L3:127:LYS:HE3	2.55	0.41
36:1:1237:G:H2'	36:1:1237:G:N3	2.34	0.41
11:S9:159:ALA:HA	11:S9:160:PRO:HD3	2.59	0.41
36:1:1838:G:H4'	36:1:1839:A:N3	2.35	0.41
18:C6:60:PHE:HA	18:C6:63:ILE:HG12	2.03	0.41
53:M7:64:ASN:O	53:M7:80:LYS:NZ	2.90	0.41
1:2:531:C:O2	26:D4:62:THR:HG23	2.21	0.41
4:S2:73:LEU:O	4:S2:76:LEU:HD22	2.55	0.41
48:M1:49:LYS:HA	48:M1:64:LYS:H	1.86	0.41
36:5:2211:U:OP2	86:5:4225:OHX:N1	2.53	0.41
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.52	0.41
16:C4:43:THR:OG1	16:C4:44:GLY:N	2.53	0.41
5:S3:69:LEU:O	5:S3:73:VAL:HG23	2.21	0.41
6:S4:102:VAL:HG22	6:S4:182:TYR:CZ	2.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:144:U:O2'	1:2:145:A:H8	2.04	0.41
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.30	0.41
40:L3:284:ARG:H	40:L3:323:MET:HB3	2.56	0.41
36:5:3364:C:C2	36:5:3365:U:C5	3.07	0.41
5:S3:167:PHE:HD1	5:S3:190:ARG:HH11	1.69	0.41
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.89	0.41
47:M0:38:LYS:HG3	47:M0:41:ALA:HB2	3.50	0.41
41:L4:93:MET:HE2	41:L4:93:MET:N	5.14	0.41
40:L3:81:THR:HB	40:L3:205:VAL:HG21	2.02	0.41
61:N5:115:ARG:H	61:N5:115:ARG:HG2	1.72	0.41
1:2:927:C:O2'	16:C4:125:SER:HB2	2.20	0.41
20:C8:27:LYS:HA	20:C8:27:LYS:HD2	4.52	0.41
36:1:3133:C:H2'	36:1:3134:A:O4'	2.19	0.41
40:L3:236:LYS:HD2	36:5:2340:U:OP1	233.71	0.41
1:2:75:U:H2'	1:2:76:A:O4'	2.20	0.41
1:6:540:G:O2'	1:6:542:A:H5'	2.21	0.41
36:1:3312:U:C5'	40:L3:25:ILE:HD12	2.46	0.41
1:2:312:A:C2	1:2:314:C:H2'	2.55	0.41
1:6:1203:A:OP2	86:6:2131:OHX:N4	2.53	0.41
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.68	0.41
14:C2:56:GLU:HB3	14:C2:124:LYS:HE3	2.02	0.41
1:2:357:G:C2'	1:2:358:U:H5'	2.50	0.41
1:6:1309:C:O2'	1:6:1401:A:N1	2.49	0.41
49:M3:126:PHE:CE1	49:M3:133:PRO:HG2	2.55	0.41
1:2:1487:A:H2'	1:2:1488:G:C8	2.56	0.41
10:S8:82:VAL:CG1	10:S8:101:ILE:HG22	3.69	0.41
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	2.91	0.41
26:D4:10:ARG:NH1	1:6:778:G:N7	431.59	0.41
26:D4:8:ARG:HH11	26:D4:26:ASP:HB3	3.41	0.41
4:S2:129:ILE:HG21	4:S2:129:ILE:HD13	1.86	0.41
46:L9:29:GLY:HA3	46:L9:30:PRO:HD2	2.80	0.41
1:6:761:G:O6	86:6:2084:OHX:N1	2.53	0.41
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	1.98	0.41
1:6:647:G:N2	1:6:687:G:H22	2.18	0.41
1:6:1270:G:H1'	1:6:1447:C:O2	2.20	0.41
55:M9:38:ARG:NH2	36:5:1603:A:OP1	112.21	0.41
20:C8:28:ILE:HG13	20:C8:28:ILE:H	4.39	0.41
17:C5:30:THR:HG23	17:C5:86:VAL:HG21	2.01	0.41
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.42	0.41
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.81	0.41
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	2.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:328:A:H2'	1:6:329:G:O4'	2.21	0.41
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.20	0.41
70:O4:56:THR:HA	70:O4:62:TYR:HH	1.86	0.41
24:D2:87:GLU:HG3	24:D2:87:GLU:H	1.56	0.41
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.61	0.41
43:L6:12:SER:OG	43:L6:14:ASP:HB2	2.21	0.41
42:L5:95:TRP:CZ2	42:L5:161:GLY:HA2	2.55	0.41
36:1:98:G:N7	49:M3:13:HIS:NE2	2.68	0.41
36:5:2287:C:C5	36:5:2298:U:C2	3.08	0.41
87:2:2179:3K8:H4	16:C4:137:LEU:CD2	2.50	0.41
19:C7:86:PRO:HB2	19:C7:88:VAL:H	6.20	0.41
45:L8:105:LYS:O	45:L8:109:LEU:HB2	3.46	0.41
49:M3:128:ARG:CZ	71:O5:112:PRO:HG3	3.47	0.41
36:1:2960:C:H2'	36:1:2961:G:H8	1.86	0.41
69:O3:15:SER:HA	69:O3:94:PHE:CD1	2.56	0.41
52:M6:171:LYS:O	52:M6:175:THR:HG22	2.55	0.41
36:1:2426:U:H2'	36:1:2427:U:C6	2.55	0.41
36:1:3020:U:O4	86:1:3986:OHX:N4	2.53	0.41
86:1:3973:OHX:N3	86:1:4154:OHX:N4	2.68	0.41
10:S8:98:LYS:HA	10:S8:169:ILE:HG22	2.02	0.41
38:4:118:C:H2'	38:4:119:C:C6	2.56	0.41
18:C6:87:LYS:HA	18:C6:90:VAL:HG22	2.01	0.41
86:1:3956:OHX:N2	86:1:4139:OHX:N6	2.69	0.41
1:6:1317:C:H2'	1:6:1318:G:O4'	2.19	0.41
1:2:260:U:H3'	1:2:261:U:C5'	2.50	0.41
36:1:945:C:H2'	36:1:946:U:C6	2.55	0.41
69:O3:38:PRO:HD3	69:O3:77:ASN:O	2.21	0.41
1:2:1486:G:C6	1:2:1522:U:H5	2.37	0.41
54:M8:83:VAL:O	54:M8:103:ALA:HA	2.20	0.41
36:5:3218:A:C2	36:5:3277:U:H1'	2.56	0.41
54:M8:115:VAL:O	54:M8:118:GLY:N	2.47	0.41
1:2:1128:C:H2'	1:2:1129:U:O4'	2.20	0.41
36:5:815:G:C6	36:5:906:A:C4	3.09	0.41
19:C7:108:ASP:O	19:C7:112:SER:HB2	3.08	0.41
19:C7:64:GLY:HA2	19:C7:65:PRO:HD2	2.59	0.41
36:1:2875:U:H3	36:1:2952:G:H1	1.67	0.41
41:L4:67:THR:OG1	36:5:2402:A:H2'	173.67	0.41
34:SR:184:ASN:N	34:SR:184:ASN:OD1	2.53	0.41
5:S3:90:ARG:H	5:S3:90:ARG:HG2	1.67	0.41
25:D3:132:LEU:HA	25:D3:132:LEU:HD13	1.88	0.41
17:C5:84:ILE:HD12	17:C5:84:ILE:HG23	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:10:ARG:HD3	34:SR:10:ARG:HA	4.77	0.41
36:5:3378:C:H2'	36:5:3379:C:H6	1.85	0.41
18:C6:12:LYS:HG2	18:C6:17:THR:HA	2.03	0.41
40:L3:41:VAL:HG11	40:L3:194:TRP:CG	2.56	0.41
36:5:2273:G:O6	86:5:3980:OHX:N2	2.54	0.41
52:M6:8:VAL:HA	52:M6:34:VAL:O	2.20	0.41
86:1:4079:OHX:N2	86:1:4149:OHX:N1	2.67	0.41
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	2.03	0.41
46:L9:90:MET:HB3	46:L9:180:TYR:O	2.21	0.41
86:1:4201:OHX:N4	38:4:140:G:OP1	2.53	0.41
30:D8:41:VAL:O	30:D8:42:ARG:HD2	2.19	0.41
30:D8:48:VAL:HG12	30:D8:49:ARG:O	3.39	0.41
48:M1:16:LYS:HB2	48:M1:72:ARG:HG2	2.03	0.41
44:L7:206:LYS:HB3	36:5:1334:U:OP1	234.89	0.41
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.43	0.41
11:S9:149:ARG:CZ	1:6:765:G:C5	428.38	0.41
27:D5:38:HIS:HE1	27:D5:70:LYS:HA	1.85	0.41
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.86	0.41
3:S1:176:VAL:HG12	3:S1:177:GLN:N	2.30	0.41
59:N3:15:LEU:HA	59:N3:15:LEU:HD23	1.90	0.41
49:M3:168:ARG:O	49:M3:168:ARG:HG3	2.20	0.41
1:6:1230:A:H8	1:6:1258:U:C4	2.35	0.41
1:2:1217:A:H5"	12:C0:1:MET:HG3	2.02	0.41
12:C0:46:LEU:HD12	12:C0:46:LEU:HA	1.79	0.41
17:C5:16:SER:HB3	17:C5:21:ASP:OD2	3.89	0.41
17:C5:17:TYR:HB2	17:C5:25:LEU:HD11	2.25	0.41
1:2:638:U:OP2	24:D2:32:LYS:HD3	2.21	0.41
62:N6:39:LEU:HA	62:N6:39:LEU:HD22	1.87	0.41
1:6:517:U:H2'	1:6:518:A:O4'	2.21	0.41
36:1:2403:G:N2	36:1:2404:A:H62	2.19	0.41
36:1:2403:G:C2	36:1:2405:C:C4	3.08	0.41
1:2:647:G:H22	1:2:687:G:H1	1.67	0.41
61:N5:92:LYS:HE3	36:5:1831:U:OP2	103.82	0.41
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.21	0.41
36:1:2299:A:OP1	86:1:3942:OHX:N1	2.53	0.41
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	2.02	0.41
4:S2:178:ILE:HB	4:S2:185:LYS:HG2	2.80	0.41
56:N0:8:GLN:HB2	56:N0:64:ILE:HD11	2.97	0.41
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.20	0.41
1:6:1174:C:H2'	1:6:1175:U:O4'	2.20	0.41
62:N6:112:ASP:O	62:N6:116:LYS:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:142:ILE:HD13	61:N5:142:ILE:HA	1.72	0.41
59:N3:93:LEU:HA	60:N4:20:LEU:O	2.28	0.41
11:S9:178:ALA:HA	11:S9:181:ALA:CB	3.87	0.41
1:2:625:C:O2	1:2:974:A:N1	2.53	0.41
45:L8:116:VAL:HG21	45:L8:123:GLN:HA	2.03	0.41
63:N7:27:LYS:HA	63:N7:28:PRO:HD2	2.35	0.41
49:M3:84:GLY:O	49:M3:85:LEU:HB3	2.60	0.41
36:1:2421:U:H2'	36:1:2422:C:O4'	2.20	0.41
45:L8:164:VAL:HG23	45:L8:165:PHE:N	2.34	0.41
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.37	0.41
36:5:1818:U:H2'	36:5:1819:U:O4'	2.20	0.41
36:5:47:C:OP2	36:5:48:A:O2'	2.34	0.41
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.48	0.41
70:O4:70:LYS:HD2	36:5:1804:A:H5'	170.37	0.41
44:L7:55:TYR:O	44:L7:56:GLU:C	3.15	0.41
1:2:78:A:H1'	8:S6:175:ILE:HG12	2.03	0.41
39:L2:64:ARG:O	39:L2:66:PRO:HD3	2.20	0.41
36:1:3202:G:H2'	36:1:3203:U:O4'	2.20	0.41
74:O8:56:ILE:HG21	74:O8:62:ALA:HB2	3.10	0.41
51:M5:142:ILE:O	51:M5:144:ARG:O	2.38	0.41
45:L8:193:LYS:HB3	36:5:7:C:H5"	122.49	0.41
36:1:2374:C:N4	36:1:2941:A:N3	2.69	0.41
28:D6:2:PRO:HB2	28:D6:3:LYS:H	1.64	0.41
49:M3:57:VAL:HG12	49:M3:58:VAL:H	1.85	0.41
36:1:3024:A:C6	36:1:3032:A:C8	3.08	0.41
1:6:136:C:H4'	1:6:137:U:OP2	2.20	0.41
36:5:2683:U:H2'	36:5:2684:C:H6	1.85	0.41
36:1:995:U:C2	36:1:2637:A:C8	3.08	0.41
36:5:2767:U:H2'	36:5:2768:U:H6	1.85	0.41
86:1:3956:OHX:N1	86:1:4139:OHX:N4	2.68	0.41
36:1:3185:U:O2	56:N0:169:SER:HA	2.20	0.41
40:L3:18:PRO:O	40:L3:20:LYS:N	3.06	0.41
21:C9:66:TYR:HA	21:C9:124:ILE:HB	2.16	0.41
9:S7:73:VAL:O	9:S7:75:THR:N	2.53	0.41
36:1:310:U:H2'	36:1:311:C:O4'	2.21	0.41
51:M5:81:TYR:OH	36:5:908:G:H3'	165.10	0.41
1:6:1104:U:H2'	1:6:1105:C:O4'	2.21	0.41
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.32	0.41
36:1:3159:C:OP1	86:1:4148:OHX:N1	2.53	0.41
1:2:321:C:N4	1:2:1667:A:P	2.93	0.41
36:1:2738:A:C6	36:1:2739:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2284:C:H5"	36:1:2285:C:OP2	2.20	0.41
2:S0:134:LYS:O	2:S0:137:SER:OG	2.19	0.41
1:6:1745:G:O6	86:6:2078:OHX:N4	2.53	0.41
39:L2:150:LEU:HD23	39:L2:150:LEU:HA	2.11	0.41
44:L7:124:LEU:HA	44:L7:124:LEU:HD22	1.78	0.41
27:D5:50:ILE:HD13	27:D5:50:ILE:HA	1.88	0.41
7:S5:187:ILE:H	7:S5:187:ILE:HG13	3.12	0.41
39:L2:149:ARG:HH22	39:L2:155:LYS:HE2	2.47	0.41
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	3.10	0.41
36:1:22:G:C2'	36:1:23:A:H5'	2.50	0.41
1:2:1459:C:O2	17:C5:128:HIS:NE2	2.43	0.41
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.43	0.41
28:D6:61:GLU:O	28:D6:62:TYR:HB3	2.20	0.41
78:Q2:55:LYS:HD2	36:5:92:G:O2'	175.00	0.41
63:N7:5:LEU:HD13	63:N7:77:TYR:CE2	3.80	0.41
1:6:1698:G:N2	1:6:1699:G:C8	2.88	0.41
46:L9:90:MET:HE3	46:L9:90:MET:HB3	1.71	0.41
65:N9:22:LYS:HB2	65:N9:23:LYS:H	3.61	0.41
30:D8:9:LEU:HA	30:D8:9:LEU:HD23	1.90	0.41
58:N2:43:VAL:HG21	58:N2:50:LEU:HA	2.02	0.41
1:2:1163:A:C6	1:2:1164:G:C5	3.09	0.41
1:2:900:A:H2'	1:2:901:G:O4'	2.21	0.41
10:S8:76:THR:HG22	10:S8:108:PRO:CG	2.44	0.41
5:S3:64:ARG:O	5:S3:67:ASN:N	2.37	0.41
24:D2:107:SER:HA	1:6:804:A:C8	366.86	0.41
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.21	0.41
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.66	0.41
36:1:2659:G:H4'	36:1:2751:G:O2'	2.21	0.41
64:N8:27:LYS:HB3	64:N8:27:LYS:HE3	1.81	0.41
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.51	0.41
48:M1:23:VAL:CG1	48:M1:29:ARG:HG2	2.50	0.41
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	2.75	0.41
53:M7:125:GLN:HB2	53:M7:141:SER:CB	2.51	0.41
36:5:523:A:N6	36:5:570:A:C2	2.89	0.41
63:N7:63:ALA:O	63:N7:67:LYS:HE3	2.20	0.41
36:1:408:A:OP1	86:1:4054:OHX:N3	2.54	0.41
34:SR:134:TRP:HA	34:SR:139:GLN:O	2.20	0.41
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	14.60	0.41
14:C2:140:PHE:HA	14:C2:140:PHE:HD2	2.10	0.41
1:2:190:C:O2'	1:2:191:C:OP2	2.29	0.41
1:2:947:U:H6	1:2:947:U:O5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1035:G:C6	36:1:1036:A:C6	3.08	0.41
1:6:1281:G:H1	1:6:1426:C:N4	2.14	0.41
79:Q3:10:ILE:HG23	79:Q3:11:THR:HG23	5.95	0.41
26:D4:22:GLN:HA	26:D4:74:LEU:HA	2.02	0.41
36:5:3269:U:H5'	36:5:3271:G:O4'	2.20	0.41
2:S0:41:ARG:HB2	2:S0:47:VAL:CG2	2.51	0.41
33:E1:99:LYS:HB3	33:E1:100:LEU:H	1.43	0.41
3:S1:158:SER:O	3:S1:162:ARG:HG3	2.20	0.41
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.13	0.41
1:2:1417:A:H2'	1:2:1418:G:O4'	2.21	0.41
44:L7:123:THR:O	44:L7:126:LEU:N	2.54	0.41
36:5:2251:G:H2'	36:5:2252:A:O4'	2.21	0.41
36:5:1152:G:H22	36:5:1200:A:H61	1.69	0.41
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	2.86	0.41
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	2.86	0.41
1:2:999:U:C2'	1:2:1000:C:H5'	2.51	0.41
1:6:1406:A:H2'	1:6:1407:U:H6	1.86	0.41
36:1:2618:G:O4'	65:N9:3:LYS:HE2	2.20	0.41
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.41	0.41
41:L4:210:ALA:HB2	41:L4:254:ALA:N	2.60	0.41
36:1:2510:U:O2'	36:1:2511:A:P	2.78	0.41
14:C2:130:THR:HB	14:C2:131:ASP:H	1.57	0.41
1:6:532:U:C4	1:6:533:U:C5	3.09	0.41
43:L6:171:PRO:C	43:L6:173:MET:H	2.24	0.41
36:5:2805:G:O2'	36:5:2967:A:N1	2.51	0.41
9:S7:116:ARG:HD3	9:S7:116:ARG:HA	4.21	0.41
36:1:643:U:O4	36:1:644:G:C6	2.74	0.41
4:S2:58:LEU:HB3	4:S2:59:HIS:ND1	2.35	0.41
37:7:106:U:H2'	37:7:107:C:O4'	2.20	0.41
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.64	0.41
2:S0:62:ARG:HD3	23:D1:36:VAL:HG12	5.64	0.41
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.21	0.41
1:2:495:C:H3'	1:2:496:G:O4'	2.21	0.41
36:5:2590:A:C4	36:5:2591:A:C8	3.09	0.41
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.56	0.41
40:L3:72:VAL:HA	59:N3:88:ARG:O	2.21	0.41
1:6:484:C:H42	1:6:503:G:H22	1.67	0.41
68:O2:47:ARG:HG2	68:O2:48:GLY:N	2.50	0.41
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.09	0.41
36:5:2751:G:O6	86:5:4157:OHX:N3	2.54	0.41
1:2:1140:G:OP2	86:2:2065:OHX:N6	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4205:OHX:N2	86:8:226:OHX:N1	2.68	0.41
45:L8:94:PHE:CZ	45:L8:200:LEU:HG	2.56	0.41
58:N2:29:ASP:OD1	58:N2:32:SER:N	2.53	0.41
21:C9:4:VAL:HG21	21:C9:140:LEU:HD13	2.02	0.41
65:N9:45:HIS:CE1	36:5:1075:A:C6	194.02	0.41
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.82	0.41
1:2:1615:C:O2'	1:2:1616:G:OP2	2.37	0.41
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	2.02	0.41
71:O5:41:LEU:O	71:O5:44:ILE:HG22	2.48	0.41
53:M7:97:ASN:O	53:M7:100:ALA:HB3	2.52	0.41
40:L3:45:SER:O	40:L3:181:ILE:HD13	2.20	0.41
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.33	0.41
21:C9:23:GLN:HG3	21:C9:55:TYR:CZ	4.06	0.41
1:2:1781:A:OP1	86:2:2052:OHX:N3	2.54	0.41
17:C5:100:LYS:HB3	1:6:1183:A:C2	369.48	0.41
36:1:1083:G:C6	36:1:1084:A:C6	3.09	0.41
7:S5:80:LYS:HE2	7:S5:80:LYS:HB3	4.64	0.41
75:O9:36:ARG:HD3	75:O9:36:ARG:HA	3.95	0.41
63:N7:123:GLN:HG2	63:N7:123:GLN:H	1.60	0.41
59:N3:32:ARG:O	59:N3:32:ARG:HG3	2.16	0.41
38:4:154:C:H2'	38:4:155:A:O4'	2.21	0.41
36:1:2874:G:C6	36:1:2945:G:C8	3.09	0.41
69:O3:103:TYR:HA	69:O3:105:SER:N	2.63	0.41
1:2:1459:C:H4'	17:C5:126:VAL:HG11	2.02	0.41
20:C8:126:ARG:CZ	20:C8:131:LEU:HD13	2.50	0.41
55:M9:101:VAL:HG12	55:M9:102:LEU:N	2.35	0.41
40:L3:5:LYS:HG2	40:L3:6:TYR:CD1	2.57	0.41
21:C9:25:GLN:O	21:C9:27:LYS:N	3.80	0.41
45:L8:111:LYS:HG2	45:L8:112:GLU:N	4.78	0.41
1:2:545:A:OP1	32:E0:31:LYS:HG3	2.20	0.41
52:M6:3:VAL:CG1	52:M6:4:GLU:H	2.21	0.41
36:1:824:C:O2'	36:1:825:U:H5'	2.21	0.41
8:S6:174:LYS:HG3	8:S6:174:LYS:O	2.20	0.41
47:M0:87:LEU:HD23	47:M0:87:LEU:HA	1.91	0.41
1:6:1553:G:N2	1:6:1555:A:H3'	2.35	0.41
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.51	0.41
36:5:419:G:O3'	36:5:420:G:OP2	2.34	0.41
56:N0:143:PHE:HA	56:N0:148:LEU:CD1	4.79	0.41
18:C6:66:ARG:HH21	18:C6:68:ARG:HE	1.67	0.41
40:L3:296:THR:HG21	40:L3:357:LYS:C	2.41	0.41
40:L3:76:VAL:HG11	40:L3:323:MET:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:176:C:OP1	86:6:2096:OHX:N6	2.53	0.41
67:O1:16:LEU:O	67:O1:20:LEU:N	2.51	0.41
40:L3:53:MET:HB3	36:5:3049:A:O4'	237.40	0.41
15:C3:20:ARG:HH11	15:C3:20:ARG:HG2	4.29	0.41
63:N7:90:GLU:O	63:N7:93:LYS:HB2	2.29	0.41
27:D5:38:HIS:CE1	27:D5:39:ALA:HB2	2.56	0.41
27:D5:41:ILE:HG13	27:D5:42:LEU:H	1.85	0.41
57:N1:127:GLN:HG2	36:5:1095:U:N3	259.73	0.41
36:1:2748:A:C2	42:L5:35:ARG:HB3	2.55	0.41
36:1:1128:U:H5'	47:M0:4:ARG:HH22	1.85	0.41
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.21	0.41
45:L8:181:LYS:HB2	45:L8:181:LYS:HE3	3.92	0.41
36:5:2278:C:C2	36:5:2307:G:C2	3.09	0.41
53:M7:26:PHE:CE1	53:M7:120:ASN:HA	2.56	0.41
41:L4:315:LYS:HE3	36:5:609:G:OP2	238.44	0.41
1:6:1255:G:HO2'	1:6:1256:A:H8	1.69	0.41
1:2:948:G:H2'	1:2:949:C:O4'	2.20	0.41
11:S9:6:ARG:HA	11:S9:6:ARG:HD2	1.82	0.41
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	2.85	0.41
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	2.01	0.41
2:S0:41:ARG:HE	2:S0:45:VAL:CG2	2.34	0.41
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.35	0.41
34:SR:216:LYS:HA	34:SR:239:GLU:CG	2.66	0.41
26:D4:8:ARG:CZ	1:6:780:A:H2	436.99	0.41
1:6:271:A:H5'	1:6:272:U:P	2.61	0.41
52:M6:25:LYS:HD3	52:M6:25:LYS:HA	2.18	0.41
48:M1:8:PRO:HD2	48:M1:10:ARG:HG2	2.17	0.41
28:D6:28:LYS:NZ	1:6:1770:U:O4	312.77	0.41
7:S5:203:LYS:O	7:S5:205:SER:N	3.12	0.41
1:6:1525:A:H2'	1:6:1526:A:O4'	2.20	0.41
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	1.75	0.41
36:1:2700:G:OP1	57:N1:17:ARG:HB2	2.21	0.41
21:C9:87:GLY:C	21:C9:89:ARG:H	2.56	0.41
36:1:319:A:H4'	51:M5:51:LEU:HD23	2.01	0.41
43:L6:40:LEU:HD13	43:L6:84:VAL:CG1	2.51	0.41
36:1:1750:A:H4'	36:1:1751:G:H5'	2.03	0.41
49:M3:4:SER:HB3	36:5:965:A:H5"	175.23	0.41
6:S4:193:GLY:O	6:S4:194:THR:OG1	2.38	0.41
44:L7:233:GLU:OE2	56:N0:35:VAL:HG22	3.01	0.41
10:S8:31:ARG:NH2	10:S8:48:THR:HG22	2.70	0.41
23:D1:36:VAL:HG12	23:D1:51:VAL:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3288:G:O2'	36:5:3289:G:OP2	2.31	0.41
1:6:809:A:C6	1:6:810:G:O6	2.73	0.41
20:C8:46:VAL:O	20:C8:49:LYS:HB2	2.20	0.41
39:L2:66:PRO:HB2	39:L2:67:TYR:CD2	2.59	0.41
1:2:248:U:OP1	86:2:2093:OHX:N6	2.53	0.41
36:5:1547:G:H2'	36:5:1548:C:C6	2.55	0.41
61:N5:109:LYS:HB2	61:N5:109:LYS:NZ	3.61	0.41
36:5:1338:C:H2'	36:5:1339:C:H6	1.85	0.41
36:1:674:G:O2'	41:L4:116:ASN:ND2	2.29	0.41
52:M6:130:LYS:HA	52:M6:131:PRO:HD3	1.92	0.41
36:1:2922:G:C2	36:1:2952:G:H1'	2.56	0.41
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.65	0.41
1:2:474:A:O2'	11:S9:37:LYS:HE2	2.20	0.41
38:8:108:C:H2'	38:8:109:A:O4'	2.21	0.41
42:L5:246:ALA:HA	42:L5:249:ALA:HB3	2.79	0.41
46:L9:181:VAL:O	76:Q0:85:LEU:HD21	3.09	0.41
51:M5:99:ARG:O	51:M5:103:GLU:HG3	2.21	0.41
1:2:407:A:O2'	1:2:1671:A:N3	2.44	0.41
36:5:715:A:H4'	36:5:716:A:OP1	2.20	0.41
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	4.09	0.41
26:D4:111:LYS:NZ	26:D4:115:ASP:OD2	6.99	0.41
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	3.23	0.41
36:5:731:U:O5'	36:5:731:U:H6	2.03	0.41
36:5:286:U:H2'	36:5:287:G:C8	2.56	0.41
36:5:3060:C:H2'	36:5:3061:G:O4'	2.21	0.41
35:SM:60:ALA:O	35:SM:63:ASP:HB3	2.78	0.41
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.21	0.41
11:S9:116:LEU:HD12	11:S9:116:LEU:HA	2.31	0.41
42:L5:5:LYS:HE2	42:L5:5:LYS:HA	2.03	0.41
68:O2:79:VAL:HG13	68:O2:111:ARG:HG2	2.02	0.41
53:M7:86:LYS:HE3	36:5:2354:C:OP1	135.74	0.41
36:1:618:C:H2'	36:1:619:A:O4'	2.21	0.41
69:O3:60:ARG:HB2	69:O3:60:ARG:CZ	2.51	0.41
53:M7:169:THR:CG2	69:O3:60:ARG:HH11	2.34	0.41
1:2:1544:U:H4'	20:C8:132:ARG:CZ	2.50	0.41
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.20	0.41
36:1:1899:G:N7	86:1:3927:OHX:N3	2.69	0.41
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.36	0.41
36:1:880:G:H8	36:1:882:A:OP2	2.04	0.41
36:1:1362:G:H21	44:L7:158:LYS:NZ	2.19	0.41
7:S5:25:LEU:N	7:S5:25:LEU:HD22	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.68	0.41
4:S2:56:ILE:HD12	4:S2:56:ILE:H	2.83	0.41
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.36	0.41
45:L8:45:ASN:OD1	61:N5:26:VAL:HA	2.20	0.41
46:L9:112:ILE:HD13	46:L9:112:ILE:HG21	1.82	0.41
48:M1:95:ASN:OD1	48:M1:95:ASN:N	2.61	0.41
75:O9:21:ARG:NH1	75:O9:24:PRO:HD3	3.84	0.41
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.51	0.41
8:S6:31:ARG:HD2	8:S6:34:GLN:NE2	2.36	0.41
8:S6:31:ARG:HH11	8:S6:34:GLN:HE22	1.69	0.41
36:5:2233:A:H2'	36:5:2234:G:O4'	2.21	0.41
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.31	0.41
1:2:1555:A:P	17:C5:47:ARG:NH2	2.94	0.41
36:1:1588:A:C6	75:O9:4:GLN:HG3	2.56	0.41
51:M5:10:LEU:HD13	51:M5:19:LEU:HD11	3.74	0.41
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.52	0.41
1:6:119:A:H1'	1:6:397:A:C4	2.56	0.41
42:L5:256:THR:HG23	37:7:119:U:OP1	293.15	0.41
36:5:1648:A:H2'	36:5:1649:U:O4'	2.21	0.41
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.21	0.41
1:2:906:A:H2'	1:2:907:A:C8	2.55	0.41
24:D2:126:LEU:HA	24:D2:126:LEU:HD23	1.87	0.41
5:S3:84:ILE:HD13	5:S3:85:VAL:N	2.50	0.41
56:N0:50:LYS:HD3	56:N0:50:LYS:HA	1.86	0.41
67:O1:40:ALA:O	67:O1:41:LYS:C	3.18	0.41
36:1:1635:G:OP2	63:N7:107:ARG:NH2	2.54	0.41
1:2:802:G:O6	86:2:2054:OHX:N3	2.53	0.41
86:3:220:OHX:N3	86:3:225:OHX:N5	2.69	0.41
40:L3:211:GLN:HE21	40:L3:284:ARG:HA	1.86	0.41
8:S6:22:HIS:CE1	8:S6:25:ARG:NH2	3.82	0.41
36:5:3364:C:H2'	36:5:3365:U:C6	2.55	0.41
8:S6:25:ARG:HA	8:S6:28:PHE:CD1	2.56	0.41
11:S9:126:ARG:O	11:S9:129:ILE:N	2.92	0.41
1:2:1071:U:O2'	29:D7:19:HIS:HD2	2.04	0.41
41:L4:180:LYS:C	41:L4:181:VAL:O	2.57	0.41
41:L4:3:ARG:HB2	41:L4:21:PRO:HB2	3.42	0.41
22:D0:22:ILE:HG22	22:D0:93:LEU:H	1.86	0.41
22:D0:93:LEU:HD23	22:D0:93:LEU:HA	2.15	0.41
27:D5:65:LEU:HD23	27:D5:65:LEU:HA	1.94	0.41
1:2:498:G:C4	1:2:499:U:N3	2.88	0.41
1:2:152:U:H1'	8:S6:13:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:127:LYS:H	26:D4:127:LYS:HG3	1.63	0.41
41:L4:73:ARG:HD3	41:L4:73:ARG:HH11	1.72	0.41
49:M3:161:ASP:C	49:M3:163:GLY:N	3.01	0.41
36:1:1711:C:H2'	36:1:1712:G:O4'	2.21	0.41
9:S7:50:ASP:OD1	9:S7:56:LYS:HE2	3.93	0.41
36:1:1093:A:C2	36:1:1096:U:N3	2.89	0.41
1:2:702:G:HO2'	1:2:703:G:H8	1.61	0.41
1:2:1482:C:O2	1:2:1525:A:N6	2.53	0.41
36:1:1507:G:N7	53:M7:129:THR:CG2	2.83	0.41
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.94	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:C	2.40	0.41
1:2:1477:G:H5"	21:C9:45:MET:O	2.20	0.41
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	2.12	0.41
36:5:2335:G:C2	36:5:2340:U:C4	3.09	0.41
36:1:2298:U:O4	36:1:2923:U:C5	2.65	0.41
6:S4:246:LEU:HD21	6:S4:254:ARG:HD2	2.01	0.41
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.68	0.41
73:O7:72:ARG:HB3	73:O7:72:ARG:HE	2.35	0.41
54:M8:71:LEU:HD23	54:M8:71:LEU:HA	2.29	0.41
1:2:226:A:C2'	1:2:227:U:H5'	2.50	0.41
1:2:830:U:O2'	1:2:831:U:OP2	2.34	0.41
16:C4:84:ARG:HH11	16:C4:84:ARG:HD3	2.17	0.41
35:SM:76:VAL:HG12	35:SM:77:THR:O	2.21	0.41
4:S2:38:VAL:O	4:S2:39:THR:OG1	2.23	0.41
11:S9:53:ARG:O	11:S9:57:ARG:HG3	3.13	0.41
3:S1:23:PRO:O	3:S1:26:ARG:HB3	2.80	0.41
1:6:463:U:H2'	1:6:464:A:C8	2.56	0.41
36:5:3128:G:OP2	86:5:4161:OHX:N5	2.53	0.41
18:C6:6:SER:OG	18:C6:7:VAL:N	4.11	0.41
27:D5:61:SER:H	27:D5:64:VAL:CB	2.83	0.41
36:5:2616:C:H2'	36:5:2617:U:H5'	2.03	0.41
42:L5:233:ALA:O	42:L5:236:LEU:HB2	2.58	0.41
51:M5:112:ASN:OD1	38:8:141:C:H1'	104.00	0.41
2:S0:54:TRP:O	2:S0:57:LEU:N	2.96	0.41
55:M9:20:ARG:NH1	36:5:1873:U:OP2	147.98	0.41
1:2:755:A:HO2'	1:2:756:A:P	2.43	0.41
3:S1:116:LYS:HE2	3:S1:117:TRP:HZ3	1.86	0.41
36:5:1456:A:H4'	36:5:1457:U:O5'	2.21	0.41
73:O7:25:ARG:NH1	36:5:360:G:OP1	125.88	0.41
1:2:720:G:H1'	1:2:721:U:H5"	2.03	0.41
39:L2:181:LYS:HD3	79:Q3:18:TYR:OH	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:76:ARG:HA	41:L4:87:GLN:O	2.21	0.41
36:1:365:A:OP1	41:L4:84:ARG:HD3	2.21	0.41
36:5:212:G:C6	36:5:222:A:C5	3.09	0.41
7:S5:27:THR:CG2	18:C6:30:LYS:HE3	2.50	0.41
69:O3:80:VAL:HG12	69:O3:81:VAL:H	2.16	0.41
1:2:990:C:O2'	16:C4:127:ARG:HG2	2.20	0.41
36:5:171:G:H1	36:5:247:C:H41	1.68	0.41
48:M1:89:TYR:HB3	48:M1:169:ALA:HA	2.01	0.41
1:6:1237:G:H2'	1:6:1238:A:C8	2.56	0.41
45:L8:211:LEU:HD22	45:L8:211:LEU:HA	4.36	0.41
21:C9:87:GLY:O	21:C9:89:ARG:N	3.32	0.41
48:M1:34:SER:HA	48:M1:67:VAL:HG11	3.80	0.41
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.35	0.41
2:S0:110:TYR:HA	2:S0:115:PHE:CD2	3.06	0.41
2:S0:18:LEU:HD21	19:C7:106:THR:OG1	6.92	0.41
25:D3:9:LEU:HD23	25:D3:9:LEU:HA	2.52	0.41
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.36	0.41
71:O5:27:GLU:O	71:O5:30:GLU:HB3	4.01	0.41
86:6:2126:OHX:N5	86:6:2150:OHX:N3	2.69	0.41
15:C3:64:ARG:HG3	15:C3:70:LYS:HD2	6.05	0.41
61:N5:73:MET:O	61:N5:77:GLU:HG3	3.73	0.41
18:C6:83:GLN:NE2	18:C6:118:ILE:O	2.54	0.41
36:5:1742:U:H2'	36:5:1743:G:H8	1.84	0.41
36:1:3163:A:O2'	36:1:3164:C:H5'	2.21	0.41
49:M3:144:THR:HG21	71:O5:118:ILE:HG21	2.02	0.41
1:6:1514:U:H5"	1:6:1515:A:O4'	2.20	0.41
1:2:685:A:HO2'	1:2:686:C:P	2.43	0.41
41:L4:312:VAL:HG21	36:5:610:G:C8	222.30	0.41
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.21	0.41
23:D1:46:ILE:H	23:D1:46:ILE:HG13	1.75	0.41
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	4.12	0.41
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.61	0.41
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.87	0.41
1:2:1157:A:O2'	1:2:1158:C:OP1	2.31	0.41
4:S2:84:LYS:HA	4:S2:85:PRO:HD3	1.96	0.41
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.24	0.41
36:1:1339:C:H5'	68:O2:60:ASN:HA	2.03	0.41
36:5:3078:U:H4'	36:5:3079:U:OP2	2.20	0.41
36:1:1558:A:H1'	61:N5:34:LEU:HB2	2.03	0.41
56:N0:117:ARG:H	56:N0:117:ARG:HG2	2.29	0.41
36:1:256:G:N7	86:1:4158:OHX:N4	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:941:G:O4'	36:1:1435:A:H1'	2.21	0.41
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	1.75	0.41
34:SR:13:LEU:HD12	34:SR:310:ILE:HG21	3.32	0.41
36:5:888:A:H2'	36:5:889:U:O4'	2.20	0.41
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.60	0.41
36:1:3199:G:C2	36:1:3200:G:C8	3.09	0.41
36:1:728:G:H21	54:M8:138:LEU:HD23	1.86	0.41
51:M5:49:ARG:HD3	36:5:115:A:OP1	104.48	0.41
10:S8:65:PHE:O	10:S8:109:PHE:HZ	2.04	0.41
36:1:278:U:H2'	36:1:279:U:O4'	2.20	0.41
36:1:2536:A:H2'	36:1:2537:U:C5	2.56	0.41
36:1:2534:G:H1	36:1:2545:C:H42	1.67	0.41
38:8:6:U:H2'	38:8:7:U:H6	1.85	0.41
40:L3:322:ILE:HD12	40:L3:322:ILE:HG23	1.84	0.41
36:1:1121:U:C4	36:1:1122:U:C4	3.09	0.41
36:1:1618:G:H4'	38:4:129:C:H1'	2.03	0.41
43:L6:18:LEU:HB3	36:5:591:G:N2	219.61	0.41
36:1:3099:C:O2'	36:1:3100:U:H5'	2.21	0.41
17:C5:31:GLU:HG3	17:C5:32:ASP:N	2.36	0.41
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	2.54	0.41
41:L4:346:LYS:HA	41:L4:346:LYS:HD2	4.64	0.41
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.34	0.41
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	2.93	0.41
10:S8:194:ARG:HH11	10:S8:195:ARG:HH22	8.03	0.41
36:1:3282:U:H2'	36:1:3283:U:O4'	2.21	0.41
36:5:352:A:H61	36:5:365:A:H5"	1.85	0.41
36:1:696:C:HO2'	36:1:697:A:H8	1.66	0.41
74:O8:30:LYS:HD2	74:O8:40:GLN:NE2	2.82	0.41
36:5:518:G:O6	86:5:4075:OHX:N3	2.54	0.41
1:6:1438:G:H2'	1:6:1439:C:C6	2.56	0.41
25:D3:110:LYS:HE3	1:6:19:A:OP1	349.53	0.41
1:2:1351:G:C2	1:2:1375:A:C2	3.08	0.41
36:5:3366:G:C6	36:5:3367:C:N4	2.89	0.41
38:8:92:A:H2'	38:8:93:U:O4'	2.21	0.41
42:L5:278:SER:O	42:L5:280:GLU:N	3.17	0.41
36:1:2564:G:H2'	36:1:2565:U:O4'	2.20	0.41
20:C8:62:THR:OG1	20:C8:64:GLU:HB2	4.33	0.41
30:D8:33:LEU:HA	30:D8:33:LEU:HD23	1.83	0.41
48:M1:87:LYS:HD3	48:M1:87:LYS:HA	3.66	0.41
36:1:2759:U:O5'	36:1:2759:U:H6	2.04	0.41
42:L5:23:ARG:NH2	36:5:2703:A:OP2	283.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.56	0.41
36:5:1312:C:H2'	36:5:1313:G:O4'	2.20	0.41
1:2:251:A:O2'	6:S4:130:GLN:HG2	2.20	0.41
41:L4:241:GLY:O	41:L4:242:ALA:HB3	2.66	0.41
36:1:966:U:N3	36:1:967:A:N7	2.69	0.41
42:L5:69:ILE:HD13	57:N1:28:SER:HB2	2.02	0.41
56:N0:44:PHE:O	56:N0:48:LEU:HG	2.97	0.41
36:5:917:A:C6	36:5:918:C:C4	3.09	0.41
86:2:2083:OHX:N3	86:2:2085:OHX:N1	2.69	0.41
36:5:392:G:O6	86:5:4069:OHX:N3	2.54	0.41
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.80	0.41
57:N1:106:LEU:HA	57:N1:106:LEU:HD12	1.90	0.41
1:6:1193:A:H8	1:6:1193:A:OP1	2.03	0.41
30:D8:5:THR:O	30:D8:7:VAL:HG23	2.72	0.41
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	2.33	0.41
1:2:1201:G:N2	1:2:1600:A:H5'	2.36	0.41
86:5:4191:OHX:N1	86:5:4193:OHX:N2	2.69	0.41
36:1:1614:C:H2'	36:1:1615:C:C6	2.56	0.41
4:S2:52:THR:OG1	4:S2:54:GLU:HG2	2.41	0.41
3:S1:70:LEU:HD22	3:S1:74:GLN:HB2	2.02	0.41
47:M0:175:ASN:CG	47:M0:176:LEU:H	4.95	0.41
65:N9:24:PRO:HD2	65:N9:25:LYS:H	3.77	0.41
8:S6:106:LEU:HG	8:S6:106:LEU:H	2.15	0.41
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.78	0.41
36:1:2180:G:O6	86:1:4018:OHX:N1	2.54	0.41
1:2:1357:A:C6	1:2:1367:G:C6	3.09	0.41
86:2:2095:OHX:N4	86:2:2108:OHX:N1	2.68	0.41
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.36	0.41
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.20	0.41
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.54	0.41
2:S0:56:LYS:HZ2	2:S0:158:VAL:HA	3.15	0.41
13:C1:101:GLU:OE1	25:D3:16:ARG:NH2	2.54	0.41
8:S6:145:PHE:HB2	8:S6:147:LEU:CD1	2.73	0.41
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	2.03	0.41
66:O0:100:ILE:HD12	66:O0:101:LEU:H	1.86	0.41
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.34	0.41
72:O6:50:LEU:HD21	72:O6:93:ILE:HD13	5.69	0.41
41:L4:39:PHE:O	41:L4:42:VAL:N	3.10	0.41
41:L4:44:LYS:CB	41:L4:47:ARG:HH11	3.61	0.41
1:2:72:A:C2	1:2:73:U:C4	3.08	0.41
22:D0:31:VAL:O	22:D0:35:GLU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:31:SER:O	9:S7:33:GLU:N	4.03	0.41
36:1:1246:G:H1'	36:1:1264:G:H2'	2.02	0.41
36:5:1424:C:H2'	36:5:1425:U:O4'	2.21	0.41
1:2:301:A:C5	1:2:302:U:C4	3.09	0.41
1:2:1487:A:H2'	1:2:1488:G:H8	1.85	0.41
35:SM:101:ASP:O	35:SM:102:THR:HB	2.21	0.41
15:C3:16:ILE:CD1	1:6:959:U:H4'	347.11	0.41
55:M9:28:GLU:HG3	55:M9:49:THR:HB	5.30	0.41
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.48	0.41
36:5:2101:C:H2'	36:5:2102:U:H6	1.86	0.41
36:5:2520:A:H2'	36:5:2521:U:H6	1.83	0.41
36:5:678:G:H2'	36:5:679:U:O4'	2.21	0.41
36:1:2662:G:H2'	36:1:2663:G:H8	1.86	0.41
5:S3:76:ARG:HA	5:S3:76:ARG:HD2	4.20	0.41
74:O8:3:ARG:NH2	36:5:1824:U:OP1	149.45	0.41
13:C1:53:TYR:CG	13:C1:113:PRO:HG2	2.56	0.41
43:L6:52:VAL:CG1	43:L6:65:ILE:HG23	5.02	0.41
47:M0:117:GLY:O	86:M0:304:OHX:N3	2.54	0.41
49:M3:25:HIS:CD2	51:M5:200:TRP:CD2	3.37	0.41
71:O5:26:LYS:O	71:O5:29:ALA:HB3	2.30	0.41
36:1:3053:G:H2'	36:1:3054:U:O4'	2.21	0.41
1:6:1697:G:H2'	1:6:1697:G:N3	2.36	0.41
44:L7:232:ARG:O	44:L7:235:PHE:HB2	2.20	0.41
58:N2:98:THR:HG21	58:N2:104:ARG:HE	5.77	0.41
36:5:872:U:H2'	36:5:873:C:C6	2.56	0.41
17:C5:56:PHE:CE1	17:C5:60:LEU:HD11	5.59	0.41
1:2:889:U:O5'	1:2:889:U:H6	2.03	0.41
44:L7:55:TYR:CD1	44:L7:55:TYR:N	3.23	0.41
52:M6:55:HIS:HA	52:M6:58:LEU:HB2	2.03	0.41
25:D3:46:SER:OG	25:D3:78:LYS:NZ	2.87	0.41
34:SR:13:LEU:HB3	34:SR:45:TRP:CZ3	4.25	0.41
40:L3:121:ASN:HB2	36:5:3296:A:OP2	190.70	0.41
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	2.03	0.41
86:5:4131:OHX:N3	86:5:4148:OHX:N1	2.69	0.41
58:N2:31:ALA:O	58:N2:34:ALA:N	3.29	0.41
36:1:2191:U:H2'	36:1:2192:C:O4'	2.21	0.41
67:O1:6:ASP:O	67:O1:7:VAL:HB	2.20	0.41
38:4:98:U:H2'	38:4:99:C:H5'	2.03	0.41
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.56	0.41
1:6:1122:G:O6	86:6:2162:OHX:N6	2.53	0.41
36:1:1687:U:C5	58:N2:42:LYS:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:67:HIS:NE2	36:5:71:A:OP2	118.86	0.41
1:2:599:A:H5'	25:D3:123:LYS:NZ	2.36	0.41
16:C4:103:ARG:HH12	28:D6:48:ALA:HB1	3.08	0.41
36:1:1165:A:H2'	36:1:1166:G:O4'	2.21	0.41
58:N2:74:LYS:HA	58:N2:74:LYS:HD2	4.55	0.41
17:C5:26:LEU:HA	17:C5:26:LEU:HD12	1.87	0.41
56:N0:158:LYS:HB3	56:N0:158:LYS:HE2	1.32	0.41
8:S6:212:LEU:HA	8:S6:212:LEU:HD23	1.95	0.41
36:5:3282:U:H5'	36:5:3283:U:OP2	2.21	0.41
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.21	0.41
1:2:1172:G:C6	1:2:1173:C:C4	3.10	0.40
20:C8:132:ARG:H	20:C8:132:ARG:HG2	1.72	0.40
1:2:1542:G:H22	1:2:1568:C:H1'	1.85	0.40
47:M0:76:MET:HB3	47:M0:85:PHE:CZ	2.56	0.40
47:M0:142:ASP:C	47:M0:144:ASN:H	2.24	0.40
34:SR:37:SER:C	34:SR:39:ASP:H	2.24	0.40
36:5:565:U:H2'	36:5:566:G:O4'	2.21	0.40
12:C0:43:ILE:O	12:C0:47:GLN:HB3	2.73	0.40
36:1:34:A:O2'	36:1:810:A:O2'	2.31	0.40
67:O1:12:TYR:CE1	67:O1:43:HIS:ND1	2.87	0.40
64:N8:74:ASN:ND2	64:N8:113:LEU:HB2	2.36	0.40
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.67	0.40
64:N8:52:TYR:HD2	64:N8:53:PHE:CD1	2.40	0.40
13:C1:100:TYR:CD2	13:C1:100:TYR:N	2.88	0.40
36:5:912:G:H8	36:5:912:G:O5'	2.04	0.40
1:2:1680:G:C2	1:2:1720:G:C2	3.09	0.40
27:D5:41:ILE:HD12	27:D5:41:ILE:HA	1.98	0.40
36:5:1093:A:H4'	36:5:1093:A:OP1	2.21	0.40
36:1:2746:A:H2'	36:1:2747:A:O4'	2.20	0.40
36:5:3242:G:H5"	36:5:3245:A:H8	1.81	0.40
40:L3:150:ARG:CG	40:L3:150:ARG:HH11	3.36	0.40
1:2:706:A:C6	1:2:734:A:N6	2.89	0.40
11:S9:133:HIS:HE1	1:6:512:A:O2'	446.84	0.40
1:2:738:G:H2'	1:2:739:G:C8	2.56	0.40
1:2:71:A:N1	1:2:72:A:C6	2.89	0.40
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.52	0.40
1:6:829:A:HO2'	1:6:830:U:P	2.44	0.40
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.22	0.40
1:6:1679:G:O6	86:6:2189:OHX:N3	2.54	0.40
36:1:3268:A:O2'	36:1:3269:U:O2	2.37	0.40
42:L5:184:ASP:OD2	42:L5:187:THR:HG23	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:21:THR:HA	7:S5:22:PRO:HD3	1.78	0.40
1:2:856:A:H1'	9:S7:64:VAL:HG11	2.02	0.40
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.20	0.40
52:M6:137:THR:HG22	52:M6:138:LEU:N	2.36	0.40
61:N5:106:ASP:O	61:N5:127:THR:HG23	2.27	0.40
2:S0:110:TYR:HA	2:S0:115:PHE:CE1	2.56	0.40
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.53	0.40
41:L4:208:VAL:HG12	41:L4:254:ALA:HB1	2.03	0.40
1:6:1081:A:N1	1:6:1091:A:C2	2.89	0.40
49:M3:14:PHE:HB3	49:M3:18:TRP:CD1	2.76	0.40
36:1:1355:A:H1'	36:1:1356:U:OP2	2.21	0.40
59:N3:128:ARG:HD2	59:N3:128:ARG:N	2.36	0.40
45:L8:116:VAL:HG13	45:L8:123:GLN:H	1.86	0.40
1:2:1116:A:P	77:Q1:17:ARG:HH21	2.42	0.40
9:S7:126:LEU:HD12	9:S7:126:LEU:HA	2.32	0.40
1:2:693:U:H5'	1:2:694:U:C5'	2.50	0.40
67:O1:55:LEU:O	67:O1:59:ILE:HG13	2.34	0.40
51:M5:73:ARG:HA	51:M5:74:PRO:HD3	1.94	0.40
5:S3:219:ALA:HB1	5:S3:220:PRO:HD2	2.04	0.40
36:5:1455:U:C4	36:5:3078:U:O2	2.74	0.40
36:5:1335:C:H2'	36:5:1336:U:C6	2.57	0.40
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	2.26	0.40
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.56	0.40
64:N8:71:PRO:HB2	64:N8:109:TYR:HA	2.03	0.40
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.20	0.40
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.03	0.40
86:5:4036:OHX:N1	86:5:4121:OHX:N4	2.69	0.40
1:2:432:G:H2'	1:2:433:C:O4'	2.21	0.40
36:5:601:U:H2'	36:5:602:A:O4'	2.21	0.40
1:2:844:A:H2'	1:2:845:G:H8	1.85	0.40
18:C6:87:LYS:HE2	18:C6:87:LYS:HB3	2.24	0.40
36:1:3393:U:H2'	36:1:3394:U:H6	1.86	0.40
1:6:1469:A:H2'	1:6:1470:C:C6	2.56	0.40
36:1:997:A:H2'	36:1:998:A:O4'	2.22	0.40
61:N5:42:ARG:HD2	36:5:14:U:O3'	104.30	0.40
36:1:3046:A:H2'	36:1:3047:U:O4'	2.20	0.40
40:L3:275:ARG:HH11	40:L3:275:ARG:HD2	1.75	0.40
36:1:639:G:OP1	68:O2:37:GLY:HA3	2.21	0.40
36:5:2358:A:H2'	36:5:2359:C:O4'	2.20	0.40
36:5:3011:A:N3	36:5:3012:A:H1'	2.36	0.40
65:N9:33:LYS:NZ	36:5:2722:U:OP1	203.16	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1491:A:H5'	73:O7:12:HIS:O	2.21	0.40
36:1:2166:A:OP2	51:M5:76:PRO:HA	2.21	0.40
36:1:1057:A:C5	36:1:1058:U:C5	3.09	0.40
1:2:1143:A:O2'	1:2:1144:U:H5'	2.20	0.40
26:D4:98:GLU:OE1	26:D4:99:LYS:N	5.87	0.40
11:S9:140:ILE:HG13	26:D4:65:GLY:HA3	2.02	0.40
36:1:667:C:H6	36:1:667:C:H5"	1.87	0.40
45:L8:106:LYS:HB3	45:L8:106:LYS:HE3	1.84	0.40
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.53	0.40
74:O8:33:LYS:HD3	74:O8:33:LYS:HA	1.84	0.40
65:N9:41:ARG:HE	65:N9:41:ARG:HB2	1.67	0.40
36:5:725:G:H5"	36:5:725:G:H8	1.87	0.40
47:M0:115:MET:O	47:M0:115:MET:HG3	2.22	0.40
34:SR:144:LEU:HA	34:SR:144:LEU:HD23	4.49	0.40
1:2:1334:U:H4'	31:D9:55:PHE:HB3	2.02	0.40
67:O1:54:GLU:HA	67:O1:57:GLN:HG3	3.13	0.40
28:D6:97:PRO:HG3	1:6:1798:U:H5'	341.02	0.40
36:5:948:C:H2'	36:5:949:C:H6	1.86	0.40
34:SR:44:SER:O	34:SR:58:VAL:HG13	4.96	0.40
36:1:437:G:O2'	36:1:438:A:H5'	2.21	0.40
17:C5:128:HIS:HB3	1:6:1460:A:N7	328.59	0.40
36:1:2940:A:C8	40:L3:2:SER:N	2.88	0.40
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.36	0.40
36:1:371:G:H4'	36:1:396:A:N1	2.36	0.40
59:N3:87:ARG:HG2	59:N3:121:GLU:OE2	2.21	0.40
36:5:1236:G:N2	36:5:1244:A:OP1	2.41	0.40
36:5:2148:U:H2'	36:5:2149:A:C4	2.56	0.40
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.53	0.40
36:1:3356:G:C6	36:1:3357:U:C4	3.09	0.40
37:3:112:G:H2'	37:3:113:C:H6	1.84	0.40
67:O1:10:ARG:NH1	67:O1:12:TYR:OH	3.13	0.40
6:S4:36:HIS:HD2	6:S4:83:PRO:O	2.84	0.40
1:2:1342:C:H5"	34:SR:102:ARG:NH1	2.35	0.40
36:1:1255:C:H2'	36:1:1256:G:C8	2.56	0.40
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	2.02	0.40
67:O1:35:GLU:O	67:O1:38:LYS:HB3	2.22	0.40
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.21	0.40
73:O7:36:SER:O	73:O7:45:ARG:HB3	2.21	0.40
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	2.04	0.40
27:D5:46:LYS:HG2	27:D5:70:LYS:HD2	2.02	0.40
40:L3:187:SER:OG	40:L3:190:GLU:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2573:G:H2'	36:5:2574:G:O4'	2.21	0.40
40:L3:150:ARG:HH11	40:L3:150:ARG:HD2	1.75	0.40
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.20	0.40
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.41	0.40
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	2.03	0.40
42:L5:64:ILE:HD13	42:L5:144:VAL:HG21	2.99	0.40
1:2:1042:G:C2	1:2:1043:A:C8	3.09	0.40
6:S4:54:TYR:CG	26:D4:17:LEU:HD12	4.71	0.40
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.97	0.40
36:1:1724:U:H1'	36:1:1725:C:C5	2.56	0.40
1:6:1372:U:H2'	1:6:1373:C:C6	2.55	0.40
34:SR:50:ASP:H	34:SR:54:PHE:HA	2.22	0.40
51:M5:112:ASN:O	51:M5:138:GLN:NE2	2.52	0.40
36:1:160:G:H1	36:1:261:U:H3	1.68	0.40
56:N0:155:ARG:HG3	56:N0:155:ARG:O	2.21	0.40
36:1:1456:A:N1	36:1:1476:G:O2'	2.45	0.40
18:C6:28:LEU:C	18:C6:29:ILE:HG12	2.40	0.40
59:N3:3:GLY:HA3	59:N3:40:LYS:HB3	4.58	0.40
34:SR:246:SER:O	34:SR:248:ASN:N	3.78	0.40
36:5:59:G:H4'	36:5:60:A:H4'	2.02	0.40
45:L8:186:LEU:O	45:L8:190:VAL:HG23	5.78	0.40
44:L7:89:ILE:HA	44:L7:89:ILE:HD13	1.68	0.40
27:D5:58:ARG:O	27:D5:102:THR:HG22	2.21	0.40
36:1:612:U:C2	36:1:613:G:C8	3.10	0.40
45:L8:50:VAL:HG22	45:L8:52:TRP:CD2	2.79	0.40
25:D3:72:VAL:O	25:D3:84:THR:HA	2.71	0.40
36:5:2093:A:O2'	36:5:2094:C:O4'	2.38	0.40
36:5:1251:A:H2'	36:5:1252:A:O4'	2.22	0.40
49:M3:18:TRP:C	49:M3:20:GLU:N	2.74	0.40
34:SR:128:ASP:O	34:SR:130:THR:HG23	2.21	0.40
41:L4:219:LEU:O	41:L4:220:ARG:C	2.60	0.40
1:2:1737:G:C6	1:2:1738:U:C4	3.09	0.40
36:1:1768:U:H2'	36:1:1769:G:O4'	2.20	0.40
44:L7:233:GLU:CD	56:N0:35:VAL:HG22	2.58	0.40
36:5:2948:C:H6	36:5:2948:C:O5'	2.04	0.40
36:5:89:A:N6	36:5:98:G:C2	2.89	0.40
1:6:586:G:C6	1:6:587:C:C4	3.09	0.40
1:2:1491:U:H5"	1:2:1491:U:O2	2.21	0.40
36:1:855:U:H2'	36:1:856:G:O4'	2.21	0.40
34:SR:201:THR:HB	34:SR:242:SER:HA	2.02	0.40
43:L6:68:PRO:HG2	43:L6:71:VAL:CG2	3.17	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:356:G:OP2	86:6:2075:OHX:N5	2.54	0.40
36:1:3190:C:H2'	36:1:3191:G:H8	1.86	0.40
1:2:61:A:H8	1:2:269:G:O2'	2.04	0.40
41:L4:264:SER:C	41:L4:266:THR:N	2.74	0.40
50:M4:96:ALA:O	50:M4:101:LYS:HE3	2.32	0.40
1:6:670:U:H2'	1:6:670:U:H6	1.75	0.40
2:S0:125:ASP:HA	2:S0:126:PRO:HD2	1.92	0.40
5:S3:43:PRO:O	5:S3:44:THR:HG22	4.78	0.40
1:6:997:G:H2'	1:6:998:A:O4'	2.22	0.40
36:1:324:A:H2'	36:1:325:A:C8	2.56	0.40
36:1:348:A:H4'	36:1:367:A:H62	1.85	0.40
36:5:1348:U:C5	36:5:1355:A:N7	2.89	0.40
86:5:4037:OHX:N4	86:5:4240:OHX:N2	2.69	0.40
46:L9:84:LYS:HA	46:L9:188:THR:HG23	2.03	0.40
6:S4:199:GLU:HG3	6:S4:207:LEU:HB2	2.03	0.40
39:L2:14:SER:OG	39:L2:15:ILE:N	2.69	0.40
1:6:1577:A:H2'	1:6:1578:U:O4'	2.22	0.40
36:1:1696:A:OP2	86:1:4157:OHX:N3	2.54	0.40
5:S3:225:TYR:HD2	34:SR:188:ILE:HG13	1.85	0.40
36:1:1316:C:N4	52:M6:131:PRO:HD3	2.36	0.40
36:5:731:U:H2'	36:5:732:C:H6	1.85	0.40
55:M9:175:GLN:O	55:M9:179:GLU:HG3	2.47	0.40
39:L2:29:LEU:O	39:L2:123:ARG:NH2	3.04	0.40
36:1:1301:A:H4'	36:1:1302:A:H5"	2.02	0.40
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.51	0.40
39:L2:4:VAL:CG1	39:L2:8:GLN:HB2	2.51	0.40
36:1:1327:C:O2'	69:O3:76:GLY:HA2	2.20	0.40
36:1:246:U:O2'	36:1:247:C:H5'	2.21	0.40
36:1:985:U:H5"	44:L7:98:LYS:HD3	2.03	0.40
1:6:1376:C:O2'	1:6:1377:U:H5'	2.21	0.40
36:5:2892:A:OP1	86:5:4130:OHX:N6	2.54	0.40
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	6.63	0.40
78:Q2:66:LYS:HE3	78:Q2:66:LYS:HB2	4.57	0.40
15:C3:83:GLU:H	15:C3:83:GLU:HG2	1.52	0.40
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.26	0.40
39:L2:246:LEU:O	39:L2:247:ARG:HB2	4.79	0.40
1:6:675:U:H2'	1:6:676:G:C8	2.57	0.40
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	2.03	0.40
2:S0:139:VAL:HG22	2:S0:139:VAL:O	2.49	0.40
86:5:4191:OHX:N5	86:5:4193:OHX:N2	2.69	0.40
53:M7:67:ILE:HD13	53:M7:67:ILE:H	4.01	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:124:HIS:CD2	1:6:479:C:H5'	451.42	0.40
8:S6:173:PRO:HG3	1:6:66:U:C5	333.93	0.40
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	2.99	0.40
28:D6:42:ARG:O	28:D6:66:LYS:HB3	2.21	0.40
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.21	0.40
48:M1:62:ASN:O	78:Q2:103:ALA:HB2	2.22	0.40
5:S3:48:VAL:HG23	5:S3:84:ILE:HD11	2.03	0.40
67:O1:108:VAL:HG12	67:O1:110:GLU:OE1	3.23	0.40
6:S4:102:VAL:HG22	6:S4:103:TYR:H	1.93	0.40
6:S4:174:LYS:HE3	6:S4:175:PHE:N	3.97	0.40
3:S1:110:LEU:O	3:S1:113:MET:N	2.55	0.40
39:L2:65:ASP:HB2	39:L2:70:ARG:HG2	3.78	0.40
52:M6:12:LYS:HD3	52:M6:37:ARG:NH2	2.36	0.40
11:S9:149:ARG:NE	1:6:765:G:N7	428.90	0.40
22:D0:41:ILE:HG12	22:D0:103:ILE:HD12	3.34	0.40
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.37	0.40
4:S2:170:ILE:HA	4:S2:171:PRO:HD3	1.96	0.40
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.46	0.40
37:7:92:A:H5"	37:7:93:C:OP2	2.21	0.40
40:L3:62:ARG:N	40:L3:68:HIS:HD1	2.11	0.40
8:S6:79:LYS:HB3	8:S6:79:LYS:HE3	1.91	0.40
1:2:1230:A:C2'	1:2:1258:U:H5	2.34	0.40
1:2:72:A:N7	8:S6:169:TYR:HE2	2.20	0.40
51:M5:84:PRO:HA	51:M5:87:GLN:HB2	2.64	0.40
45:L8:64:ILE:O	45:L8:68:ARG:HG2	2.85	0.40
42:L5:293:LEU:HD22	47:M0:210:ILE:HG21	2.02	0.40
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.88	0.40
1:2:1132:A:OP1	25:D3:30:LYS:NZ	2.48	0.40
1:2:1430:U:H1'	22:D0:72:ASN:OD1	2.22	0.40
1:2:830:U:O2'	1:2:831:U:P	2.79	0.40
17:C5:22:LEU:HD23	17:C5:23:GLU:H	5.41	0.40
1:2:639:U:OP1	9:S7:117:THR:OG1	2.40	0.40
66:O0:30:THR:HG21	66:O0:89:VAL:HG13	2.28	0.40
36:5:1658:G:O6	86:5:4199:OHX:N4	2.54	0.40
10:S8:149:SER:O	13:C1:24:LYS:NZ	2.49	0.40
79:Q3:83:ILE:HD13	79:Q3:83:ILE:HA	1.91	0.40
46:L9:27:VAL:HG12	46:L9:82:VAL:HG11	2.02	0.40
52:M6:25:LYS:HG2	36:5:1175:C:H5"	252.96	0.40
43:L6:131:LYS:O	43:L6:135:VAL:HG23	3.10	0.40
36:1:2971:A:N3	36:1:2971:A:H3'	2.37	0.40
36:1:1498:A:OP1	55:M9:6:THR:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.52	0.40
1:6:291:G:H2'	1:6:292:U:C6	2.56	0.40
5:S3:113:LEU:HD13	5:S3:117:ARG:HD2	2.04	0.40
45:L8:49:TYR:HD2	36:5:2587:U:H4'	177.69	0.40
46:L9:13:PRO:HD3	46:L9:79:ILE:HG21	2.03	0.40
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.86	0.40
44:L7:236:ILE:HD12	44:L7:236:ILE:HA	1.88	0.40
36:5:1261:G:H5"	36:5:1262:G:OP1	2.21	0.40
36:5:2966:G:C6	36:5:2967:A:N6	2.89	0.40
45:L8:159:PRO:HG3	51:M5:43:THR:O	3.74	0.40
13:C1:125:VAL:HB	13:C1:137:PHE:HB3	2.67	0.40
13:C1:86:ILE:HD13	13:C1:86:ILE:HG21	2.35	0.40
36:1:1916:U:H2'	36:1:1917:C:C6	2.57	0.40
4:S2:59:HIS:NE2	4:S2:236:PRO:HB2	2.87	0.40
40:L3:88:GLY:HA2	40:L3:199:PHE:CE1	2.96	0.40
1:6:207:U:H2'	1:6:208:U:H6	1.85	0.40
1:2:1130:G:OP2	86:2:2074:OHX:N2	2.54	0.40
36:5:628:A:H2'	36:5:629:U:O4'	2.22	0.40
2:S0:62:ARG:CD	23:D1:36:VAL:HG12	6.20	0.40
9:S7:150:GLN:HB2	9:S7:181:ILE:HD12	2.04	0.40
45:L8:237:ILE:HG13	45:L8:237:ILE:H	1.74	0.40
36:1:2224:A:N1	36:1:2783:U:O2'	2.47	0.40
36:1:1794:G:C6	39:L2:187:HIS:CD2	3.09	0.40
1:6:1267:G:H2'	1:6:1268:G:C8	2.56	0.40
1:6:1716:C:O2'	1:6:1717:G:O5'	2.37	0.40
66:O0:45:ALA:O	66:O0:48:THR:OG1	4.89	0.40
1:2:252:U:H2'	1:2:253:A:C8	2.56	0.40
36:1:3290:G:C6	36:1:3291:G:C5	3.10	0.40
36:1:274:G:O6	86:1:3988:OHX:N2	2.53	0.40
50:M4:127:LYS:O	50:M4:131:VAL:HG23	2.64	0.40
36:1:2400:G:OP1	86:1:4087:OHX:N2	2.54	0.40
1:6:17:C:O2'	1:6:1137:A:N1	2.43	0.40
36:5:2224:A:N7	36:5:2225:U:H1'	2.36	0.40
10:S8:170:SER:OG	10:S8:181:GLY:HA2	2.22	0.40
36:1:3392:U:H2'	36:1:3393:U:H6	1.86	0.40
62:N6:56:VAL:HG13	62:N6:104:LEU:HD22	2.21	0.40
36:1:3045:G:H2'	36:1:3046:A:O4'	2.21	0.40
40:L3:122:TRP:CH2	40:L3:127:LYS:HG2	2.56	0.40
42:L5:79:TYR:CG	42:L5:81:HIS:CE1	3.71	0.40
86:2:2083:OHX:N6	86:2:2085:OHX:N2	2.70	0.40
36:5:423:A:C6	36:5:424:G:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:699:U:O2	1:6:739:G:N2	2.44	0.40
13:C1:14:GLN:HB3	13:C1:54:ILE:HG13	4.10	0.40
36:5:2927:C:H2'	36:5:2928:C:C6	2.56	0.40
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.78	0.40
36:1:711:A:N7	36:1:712:G:H1'	2.36	0.40
36:5:1666:G:H2'	36:5:1667:A:C8	2.56	0.40
6:S4:64:ILE:HG21	6:S4:64:ILE:HD13	2.12	0.40
68:O2:8:LYS:HB3	68:O2:8:LYS:HE2	4.17	0.40
55:M9:165:LYS:HB3	55:M9:165:LYS:HE3	1.67	0.40
6:S4:244:ILE:HA	6:S4:244:ILE:HD12	3.04	0.40
10:S8:123:LYS:HB3	10:S8:123:LYS:HE3	1.95	0.40
1:6:1361:U:OP1	1:6:1361:U:H4'	2.20	0.40
31:D9:31:ILE:HD13	31:D9:31:ILE:HA	1.88	0.40
36:1:197:G:C8	36:1:395:A:O4'	2.75	0.40
37:7:31:U:O2'	37:7:32:U:H5'	2.22	0.40
36:1:3238:G:N2	36:1:3250:U:H1'	2.37	0.40
51:M5:118:SER:HB3	51:M5:132:VAL:HG13	2.03	0.40
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.76	0.40
18:C6:44:LEU:HA	18:C6:44:LEU:HD23	1.90	0.40
18:C6:36:ILE:HD11	18:C6:48:VAL:HG22	2.39	0.40
18:C6:49:TYR:O	18:C6:53:LEU:HG	2.21	0.40
1:2:1546:G:N7	20:C8:134:ARG:NH2	2.68	0.40
1:2:542:A:H8	1:2:543:C:H3'	1.86	0.40
63:N7:41:ALA:O	63:N7:43:VAL:HG13	3.73	0.40
46:L9:52:LEU:HA	46:L9:52:LEU:HD23	1.94	0.40
30:D8:61:ARG:HH12	30:D8:63:ALA:HB2	3.89	0.40
17:C5:47:ARG:NH2	1:6:1555:A:OP2	403.40	0.40
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.30	0.40
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.15	0.40
36:5:848:A:C5	36:5:849:C:H1'	2.57	0.40
2:S0:157:ASP:O	2:S0:158:VAL:C	2.77	0.40
67:O1:14:ILE:HG13	67:O1:19:ARG:NH1	2.37	0.40
41:L4:141:ARG:HA	41:L4:141:ARG:HD3	2.33	0.40
38:4:15:G:C6	38:4:16:G:N1	2.90	0.40
22:D0:45:ALA:HB1	22:D0:50:LEU:HD22	2.03	0.40
22:D0:22:ILE:CG2	22:D0:93:LEU:HB2	2.51	0.40
40:L3:95:THR:O	40:L3:97:ARG:N	2.54	0.40
41:L4:64:SER:CA	41:L4:75:PRO:HA	2.51	0.40
1:2:400:A:O5'	10:S8:25:ARG:HD3	2.21	0.40
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.51	0.40
36:1:412:G:H1'	53:M7:120:ASN:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:154:PRO:HA	51:M5:157:LYS:HD2	2.03	0.40
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.60	0.40
13:C1:67:ARG:N	13:C1:67:ARG:HD3	2.50	0.40
36:5:2951:G:C2'	36:5:2952:G:H5'	2.51	0.40
1:6:543:C:O4'	1:6:543:C:O2	2.39	0.40
1:6:1363:U:O2'	1:6:1364:G:H5'	2.21	0.40
22:D0:27:THR:HA	22:D0:87:HIS:O	2.37	0.40
16:C4:84:ARG:HB3	16:C4:118:VAL:HG23	3.18	0.40
19:C7:7:LYS:O	19:C7:11:ARG:N	2.36	0.40
1:2:1238:A:H2'	1:2:1239:U:O4'	2.22	0.40
36:1:1686:U:O2	36:1:1688:U:H1'	2.21	0.40
34:SR:216:LYS:C	34:SR:218:GLY:H	2.41	0.40
39:L2:96:LEU:HD23	39:L2:96:LEU:HA	3.62	0.40
36:1:2241:U:O2'	39:L2:243:THR:HG22	2.21	0.40
1:6:158:U:O2'	1:6:160:C:OP2	2.19	0.40
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.57	0.40
1:6:647:G:N2	1:6:688:G:N3	2.70	0.40
1:2:1527:C:H2'	1:2:1528:U:H6	1.86	0.40
1:2:794:U:H1'	1:2:795:U:OP1	2.21	0.40
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.38	0.40
36:1:1079:A:N6	36:1:1080:A:N1	2.68	0.40
17:C5:86:VAL:O	17:C5:89:MET:HG2	2.20	0.40
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.16	0.40
64:N8:100:PRO:HG2	64:N8:123:VAL:HG12	4.42	0.40
15:C3:114:ARG:HG3	1:6:952:A:O2'	299.60	0.40
36:1:1807:G:C6	36:1:1808:G:C6	3.10	0.40
15:C3:89:TYR:CZ	15:C3:150:VAL:HG13	2.56	0.40
36:5:1252:A:H2	36:5:1263:A:C2	2.39	0.40
1:6:1347:U:C2	1:6:1517:U:C5	3.09	0.40
36:5:113:C:C5	36:5:154:U:C2	3.09	0.40
66:O0:18:ILE:HG12	66:O0:81:VAL:O	2.20	0.40
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.90	0.40
25:D3:133:LEU:HD22	25:D3:133:LEU:HA	2.50	0.40
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	2.03	0.40
17:C5:77:ARG:HA	17:C5:95:GLY:HA3	2.58	0.40
36:1:501:A:H2'	36:1:502:U:C6	2.56	0.40
1:6:1620:C:H2'	1:6:1621:U:C6	2.56	0.40
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	2.60	0.40
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	2.03	0.40
1:2:425:A:C8	1:2:425:A:H5'	2.56	0.40
40:L3:340:LYS:NZ	40:L3:340:LYS:HB3	4.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2689:A:C8	36:5:2702:A:N6	2.89	0.40
76:Q0:104:PRO:HA	76:Q0:105:PRO:HD3	1.92	0.40
36:5:994:G:H22	36:5:1053:A:H2'	1.86	0.40
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	2.03	0.40
42:L5:15:ARG:HD3	42:L5:15:ARG:HH11	1.75	0.40
56:N0:48:LEU:HA	56:N0:48:LEU:HD23	1.80	0.40
36:5:917:A:OP2	86:5:4226:OHX:N3	2.54	0.40
50:M4:85:TRP:CH2	50:M4:90:VAL:HG11	4.28	0.40
36:5:795:G:O2'	36:5:796:U:H5'	2.22	0.40
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.03	0.40
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	3.61	0.40
8:S6:84:TYR:OH	8:S6:91:GLU:HG2	3.24	0.40
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.48	0.40
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.48	0.40
1:2:1039:A:O2'	1:2:1040:G:OP2	2.30	0.40
36:1:1423:C:H2'	36:1:1424:C:C6	2.56	0.40
69:O3:10:LYS:O	69:O3:33:GLU:HB2	3.00	0.40
1:6:1662:G:O6	86:6:2063:OHX:N6	2.54	0.40
1:2:1431:C:H3'	1:2:1432:U:H5'	2.04	0.40
36:5:3278:C:H6	36:5:3278:C:O5'	2.05	0.40
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	3.95	0.40
55:M9:31:GLU:HG3	55:M9:31:GLU:O	2.16	0.40
64:N8:62:HIS:O	64:N8:62:HIS:CG	2.79	0.40
51:M5:13:LYS:N	51:M5:13:LYS:HD3	2.69	0.40
36:5:2314:U:OP2	36:5:2314:U:H4'	2.21	0.40
6:S4:98:ASN:HB2	6:S4:114:ILE:O	2.21	0.40
36:1:780:A:N6	54:M8:173:GLU:O	2.54	0.40
1:6:1207:C:H42	1:6:1456:C:H5	1.68	0.40
1:2:36:C:H2'	1:2:37:U:O4'	2.22	0.40
86:1:4079:OHX:N2	86:1:4149:OHX:N5	2.70	0.40
36:5:2396:G:OP1	36:5:2397:A:H4'	2.22	0.40
40:L3:4:ARG:O	40:L3:5:LYS:CB	2.69	0.40
53:M7:25:SER:CB	53:M7:28:ASN:HB2	2.56	0.40
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.91	0.40
11:S9:124:HIS:CD2	1:6:478:A:O2'	449.52	0.40
36:1:92:G:O2'	78:Q2:55:LYS:HD3	2.22	0.40
57:N1:96:ILE:HA	57:N1:96:ILE:HD12	2.09	0.40
36:5:2211:U:H2'	36:5:2212:C:O4'	2.21	0.40
30:D8:8:THR:HB	30:D8:56:LEU:HD12	4.28	0.40
7:S5:143:ARG:HA	7:S5:167:ARG:HD3	2.10	0.40
75:O9:3:ALA:O	75:O9:5:LYS:HE2	4.98	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:85:TRP:N	34:SR:85:TRP:CD1	2.90	0.40
39:L2:129:ALA:O	39:L2:130:SER:C	2.72	0.40
5:S3:64:ARG:NH2	5:S3:65:ARG:HD2	7.03	0.40
36:5:2147:A:H2'	36:5:2148:U:O4'	2.22	0.40
37:3:13:A:O4'	37:3:112:G:C8	2.75	0.40
3:S1:208:GLN:HG2	3:S1:209:ASN:HB2	4.90	0.40
29:D7:53:ALA:HB1	29:D7:62:ILE:HD11	2.66	0.40
63:N7:12:VAL:HG22	63:N7:22:LYS:HG2	2.03	0.40
37:7:4:U:H4'	37:7:26:C:C4'	2.52	0.40
1:2:3:U:H5'	4:S2:198:THR:O	2.21	0.40
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.02	0.40
46:L9:23:ARG:HD2	46:L9:23:ARG:HH21	1.75	0.40
40:L3:53:MET:HE1	40:L3:327:CYS:HB3	2.34	0.40
20:C8:29:VAL:CG2	20:C8:44:ASN:HA	4.69	0.40
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	3.93	0.40
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.43	0.40
42:L5:146:LEU:HB3	36:5:2746:A:H2	258.92	0.40
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.08	0.40
11:S9:133:HIS:CE1	1:6:512:A:O2'	446.59	0.40
1:6:1565:C:H2'	1:6:1566:U:O4'	2.22	0.40
53:M7:69:ARG:NH2	36:5:2991:A:C2	194.17	0.40
5:S3:109:LEU:HD21	5:S3:115:ILE:HA	2.04	0.40
39:L2:204:MET:HG3	39:L2:208:ASP:HB2	3.22	0.40
36:1:3268:A:O2'	43:L6:130:ILE:HD11	2.22	0.40
1:2:1214:U:OP1	1:2:1246:C:H1'	2.22	0.40
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.47	0.40
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.61	0.40
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.86	0.40
46:L9:151:VAL:O	46:L9:155:SER:OG	2.26	0.40
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.83	0.40
36:5:1622:U:H2'	36:5:1623:G:C8	2.56	0.40
71:O5:31:LEU:HD13	71:O5:47:VAL:HG11	2.04	0.40
46:L9:75:VAL:O	46:L9:79:ILE:HG13	2.21	0.40
1:2:1174:C:H2'	1:2:1175:U:O4'	2.20	0.40
1:6:1080:U:O2'	1:6:1081:A:H5'	2.22	0.40
3:S1:228:LEU:O	3:S1:231:LEU:HB3	3.08	0.40
36:1:1184:A:C2	36:1:1323:G:C4	3.10	0.40
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.21	0.40
57:N1:103:GLN:HG2	57:N1:104:GLU:N	2.33	0.40
70:O4:57:LEU:HG	70:O4:62:TYR:CE1	3.43	0.40
4:S2:116:LYS:HG3	4:S2:117:THR:N	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.03	0.40
2:S0:58:VAL:O	2:S0:62:ARG:HB2	2.37	0.40
36:1:1539:A:H2'	36:1:1540:U:H5'	2.04	0.40
1:2:1473:U:HO2'	1:2:1474:G:P	2.43	0.40
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.34	0.40
1:6:696:C:H4'	1:6:697:C:H6	1.86	0.40
69:O3:8:TYR:CZ	69:O3:99:ARG:HG2	2.57	0.40
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.36	0.40
1:2:1603:U:O2'	1:2:1604:U:H5'	2.21	0.40
36:5:378:A:C8	36:5:379:C:C5	3.10	0.40
54:M8:138:LEU:HA	54:M8:138:LEU:HD23	1.92	0.40
36:1:955:U:H2'	36:1:956:U:C6	2.57	0.40
1:6:592:A:H2'	1:6:593:U:O4'	2.21	0.40
36:5:518:G:N2	36:5:518:G:OP2	2.39	0.40
1:2:1142:A:H2'	1:2:1143:A:C8	2.56	0.40
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.37	0.40
41:L4:69:ARG:O	41:L4:70:ALA:HB3	2.38	0.40
28:D6:12:LYS:HB3	28:D6:13:LYS:H	4.35	0.40
36:5:3025:C:H2'	36:5:3026:G:O4'	2.22	0.40
46:L9:102:ASN:HA	46:L9:136:PHE:CZ	2.56	0.40
34:SR:265:LEU:HA	34:SR:268:GLN:HG2	2.02	0.40
36:1:2340:U:H2'	36:1:2341:A:H8	1.87	0.40
36:1:401:U:H4'	36:1:403:C:C2	2.56	0.40
36:1:692:A:C4	36:1:693:A:C8	3.10	0.40
36:1:1232:C:H41	36:1:1261:G:H2'	1.87	0.40
36:5:34:A:H3'	36:5:35:A:H8	1.86	0.40
36:5:2124:G:C2	36:5:2330:C:C2	3.10	0.40
41:L4:51:ALA:HA	41:L4:103:THR:OG1	2.22	0.40
45:L8:36:ILE:HD13	45:L8:36:ILE:HG21	1.77	0.40
36:5:3389:U:OP2	36:5:3389:U:H2'	2.22	0.40
36:5:32:U:O5'	36:5:32:U:H6	2.05	0.40
65:N9:52:LYS:HB2	65:N9:52:LYS:HE3	1.89	0.40
1:2:606:A:H5'	1:2:606:A:N3	2.36	0.40
46:L9:21:LYS:HA	50:M4:8:LYS:HG3	2.04	0.40
1:6:946:U:H2'	1:6:947:U:O4'	2.22	0.40
6:S4:68:ARG:HB3	6:S4:76:VAL:HG11	2.04	0.40
36:5:2623:G:C4	36:5:2624:G:C8	3.10	0.40

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

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

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	c0	92/105 (88%)	66 (72%)	11 (12%)	15 (16%)	0	1
13	C1	153/155 (99%)	118 (77%)	17 (11%)	18 (12%)	0	3
13	c1	144/155 (93%)	114 (79%)	24 (17%)	6 (4%)	3	26
14	C2	122/142 (86%)	75 (62%)	21 (17%)	26 (21%)	0	0
14	c2	122/142 (86%)	71 (58%)	31 (25%)	20 (16%)	0	1
15	C3	148/150 (99%)	123 (83%)	12 (8%)	13 (9%)	1	5
15	c3	148/150 (99%)	115 (78%)	22 (15%)	11 (7%)	1	9
16	C4	125/136 (92%)	95 (76%)	15 (12%)	15 (12%)	0	2
16	c4	126/136 (93%)	104 (82%)	16 (13%)	6 (5%)	3	22
17	C5	122/141 (86%)	81 (66%)	28 (23%)	13 (11%)	0	3
17	c5	133/141 (94%)	90 (68%)	26 (20%)	17 (13%)	0	2
18	C6	139/142 (98%)	109 (78%)	20 (14%)	10 (7%)	1	10
18	c6	140/142 (99%)	112 (80%)	16 (11%)	12 (9%)	1	6
19	C7	116/136 (85%)	82 (71%)	25 (22%)	9 (8%)	1	8
19	c7	113/136 (83%)	87 (77%)	14 (12%)	12 (11%)	0	3
20	C8	143/145 (99%)	115 (80%)	15 (10%)	13 (9%)	1	5
20	c8	143/145 (99%)	117 (82%)	20 (14%)	6 (4%)	3	26
21	C9	141/143 (99%)	115 (82%)	20 (14%)	6 (4%)	3	25
21	c9	141/143 (99%)	115 (82%)	22 (16%)	4 (3%)	6	37
22	D0	105/120 (88%)	82 (78%)	20 (19%)	3 (3%)	6	36
22	d0	108/120 (90%)	84 (78%)	14 (13%)	10 (9%)	1	5
23	D1	85/87 (98%)	64 (75%)	15 (18%)	6 (7%)	1	10
23	d1	85/87 (98%)	70 (82%)	8 (9%)	7 (8%)	1	7
24	D2	127/129 (98%)	105 (83%)	20 (16%)	2 (2%)	12	54
24	d2	127/129 (98%)	113 (89%)	13 (10%)	1 (1%)	24	69
25	D3	142/144 (99%)	115 (81%)	14 (10%)	13 (9%)	1	5
25	d3	142/144 (99%)	123 (87%)	13 (9%)	6 (4%)	3	26
26	D4	132/134 (98%)	107 (81%)	19 (14%)	6 (4%)	3	24
26	d4	132/134 (98%)	100 (76%)	21 (16%)	11 (8%)	1	7
27	D5	68/107 (64%)	45 (66%)	13 (19%)	10 (15%)	0	1
27	d5	67/107 (63%)	52 (78%)	12 (18%)	3 (4%)	3	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	D6	95/97 (98%)	61 (64%)	17 (18%)	17 (18%)	0	0
28	d6	95/97 (98%)	71 (75%)	16 (17%)	8 (8%)	1	6
29	D7	79/81 (98%)	62 (78%)	11 (14%)	6 (8%)	1	9
29	d7	79/81 (98%)	59 (75%)	15 (19%)	5 (6%)	2	13
30	D8	61/66 (92%)	45 (74%)	11 (18%)	5 (8%)	1	7
30	d8	61/66 (92%)	46 (75%)	10 (16%)	5 (8%)	1	7
31	D9	51/55 (93%)	41 (80%)	7 (14%)	3 (6%)	2	16
31	d9	51/55 (93%)	37 (72%)	8 (16%)	6 (12%)	0	3
32	E0	58/60 (97%)	42 (72%)	12 (21%)	4 (7%)	1	10
33	E1	69/76 (91%)	34 (49%)	11 (16%)	24 (35%)	0	0
33	e1	74/76 (97%)	34 (46%)	22 (30%)	18 (24%)	0	0
34	SR	316/318 (99%)	238 (75%)	56 (18%)	22 (7%)	1	10
34	sR	316/318 (99%)	261 (83%)	39 (12%)	16 (5%)	2	20
35	SM	155/273 (57%)	109 (70%)	26 (17%)	20 (13%)	0	2
35	sM	98/273 (36%)	61 (62%)	23 (24%)	14 (14%)	0	1
39	L2	250/253 (99%)	218 (87%)	22 (9%)	10 (4%)	4	27
39	l2	250/253 (99%)	209 (84%)	26 (10%)	15 (6%)	2	16
40	L3	384/386 (100%)	333 (87%)	34 (9%)	17 (4%)	3	24
40	l3	384/386 (100%)	339 (88%)	32 (8%)	13 (3%)	5	31
41	L4	359/361 (99%)	302 (84%)	40 (11%)	17 (5%)	3	22
41	l4	359/361 (99%)	293 (82%)	40 (11%)	26 (7%)	1	10
42	L5	294/296 (99%)	239 (81%)	34 (12%)	21 (7%)	1	10
42	l5	292/296 (99%)	252 (86%)	32 (11%)	8 (3%)	6	39
43	L6	152/175 (87%)	134 (88%)	16 (10%)	2 (1%)	15	59
43	l6	153/175 (87%)	127 (83%)	23 (15%)	3 (2%)	9	48
44	L7	220/243 (90%)	195 (89%)	19 (9%)	6 (3%)	6	39
44	l7	221/243 (91%)	193 (87%)	23 (10%)	5 (2%)	8	44
45	L8	231/255 (91%)	188 (81%)	36 (16%)	7 (3%)	5	35
45	l8	229/255 (90%)	181 (79%)	31 (14%)	17 (7%)	1	9
46	L9	189/191 (99%)	156 (82%)	25 (13%)	8 (4%)	3	26
46	l9	189/191 (99%)	162 (86%)	23 (12%)	4 (2%)	9	46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	M0	207/220 (94%)	172 (83%)	21 (10%)	14 (7%)	1	11
47	m0	209/220 (95%)	165 (79%)	30 (14%)	14 (7%)	1	12
48	M1	167/173 (96%)	127 (76%)	24 (14%)	16 (10%)	1	5
48	m1	167/173 (96%)	142 (85%)	10 (6%)	15 (9%)	1	5
49	M3	191/198 (96%)	156 (82%)	23 (12%)	12 (6%)	2	13
49	m3	192/198 (97%)	149 (78%)	25 (13%)	18 (9%)	1	5
50	M4	134/137 (98%)	115 (86%)	12 (9%)	7 (5%)	2	19
50	m4	135/137 (98%)	120 (89%)	13 (10%)	2 (2%)	13	55
51	M5	201/203 (99%)	179 (89%)	17 (8%)	5 (2%)	7	41
51	m5	201/203 (99%)	175 (87%)	17 (8%)	9 (4%)	3	24
52	M6	195/198 (98%)	176 (90%)	14 (7%)	5 (3%)	7	40
52	m6	195/198 (98%)	170 (87%)	18 (9%)	7 (4%)	4	30
53	M7	181/183 (99%)	150 (83%)	22 (12%)	9 (5%)	3	21
53	m7	153/183 (84%)	136 (89%)	12 (8%)	5 (3%)	5	32
54	M8	183/185 (99%)	157 (86%)	20 (11%)	6 (3%)	5	32
54	m8	183/185 (99%)	158 (86%)	23 (13%)	2 (1%)	17	62
55	M9	186/188 (99%)	158 (85%)	23 (12%)	5 (3%)	6	39
55	m9	186/188 (99%)	165 (89%)	20 (11%)	1 (0%)	34	78
56	N0	170/172 (99%)	150 (88%)	17 (10%)	3 (2%)	11	51
56	n0	170/172 (99%)	154 (91%)	15 (9%)	1 (1%)	30	75
57	N1	157/159 (99%)	132 (84%)	19 (12%)	6 (4%)	4	28
57	n1	157/159 (99%)	143 (91%)	13 (8%)	1 (1%)	30	75
58	N2	98/120 (82%)	77 (79%)	17 (17%)	4 (4%)	3	27
58	n2	96/120 (80%)	76 (79%)	14 (15%)	6 (6%)	2	13
59	N3	134/136 (98%)	120 (90%)	12 (9%)	2 (2%)	13	55
59	n3	134/136 (98%)	122 (91%)	9 (7%)	3 (2%)	8	45
60	N4	96/155 (62%)	69 (72%)	17 (18%)	10 (10%)	1	4
60	n4	133/155 (86%)	106 (80%)	17 (13%)	10 (8%)	1	9
61	N5	119/141 (84%)	103 (87%)	10 (8%)	6 (5%)	3	21
61	n5	118/141 (84%)	94 (80%)	15 (13%)	9 (8%)	1	9
62	N6	124/126 (98%)	110 (89%)	11 (9%)	3 (2%)	7	43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
62	n6	124/126 (98%)	112 (90%)	7 (6%)	5 (4%)	4	27
63	N7	133/135 (98%)	108 (81%)	12 (9%)	13 (10%)	1	4
63	n7	133/135 (98%)	101 (76%)	21 (16%)	11 (8%)	1	7
64	N8	146/148 (99%)	120 (82%)	19 (13%)	7 (5%)	3	22
64	n8	146/148 (99%)	117 (80%)	21 (14%)	8 (6%)	2	18
65	N9	56/58 (97%)	47 (84%)	5 (9%)	4 (7%)	1	10
65	n9	56/58 (97%)	37 (66%)	13 (23%)	6 (11%)	0	3
66	O0	95/104 (91%)	86 (90%)	8 (8%)	1 (1%)	17	62
66	o0	98/104 (94%)	88 (90%)	9 (9%)	1 (1%)	19	65
67	O1	107/112 (96%)	96 (90%)	5 (5%)	6 (6%)	2	18
67	o1	107/112 (96%)	84 (78%)	15 (14%)	8 (8%)	1	9
68	O2	125/129 (97%)	106 (85%)	14 (11%)	5 (4%)	4	27
68	o2	125/129 (97%)	105 (84%)	15 (12%)	5 (4%)	4	27
69	O3	104/106 (98%)	94 (90%)	6 (6%)	4 (4%)	4	28
69	o3	104/106 (98%)	94 (90%)	7 (7%)	3 (3%)	6	36
70	O4	110/120 (92%)	90 (82%)	19 (17%)	1 (1%)	21	67
70	o4	110/120 (92%)	97 (88%)	10 (9%)	3 (3%)	6	39
71	O5	117/119 (98%)	104 (89%)	10 (8%)	3 (3%)	7	40
71	o5	117/119 (98%)	100 (86%)	14 (12%)	3 (3%)	7	40
72	O6	97/99 (98%)	72 (74%)	17 (18%)	8 (8%)	1	7
72	o6	97/99 (98%)	81 (84%)	11 (11%)	5 (5%)	2	19
73	O7	85/87 (98%)	72 (85%)	12 (14%)	1 (1%)	16	60
73	o7	85/87 (98%)	68 (80%)	12 (14%)	5 (6%)	2	16
74	O8	75/77 (97%)	61 (81%)	12 (16%)	2 (3%)	6	39
74	o8	75/77 (97%)	64 (85%)	8 (11%)	3 (4%)	4	27
75	O9	48/50 (96%)	42 (88%)	5 (10%)	1 (2%)	9	46
75	o9	48/50 (96%)	40 (83%)	8 (17%)	0	100	100
76	Q0	50/52 (96%)	44 (88%)	4 (8%)	2 (4%)	4	27
76	q0	50/52 (96%)	49 (98%)	0	1 (2%)	9	48
77	Q1	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
77	q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
78	Q2	103/105 (98%)	76 (74%)	19 (18%)	8 (8%)	1 8
78	q2	103/105 (98%)	86 (84%)	14 (14%)	3 (3%)	6 36
79	Q3	89/91 (98%)	76 (85%)	10 (11%)	3 (3%)	5 31
79	q3	89/91 (98%)	81 (91%)	7 (8%)	1 (1%)	17 62
80	e0	60/62 (97%)	44 (73%)	8 (13%)	8 (13%)	0 1
81	p0	139/311 (45%)	110 (79%)	21 (15%)	8 (6%)	2 17
All	All	22333/24143 (92%)	18176 (81%)	2788 (12%)	1369 (6%)	2 15

All (1369) Ramachandran outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.3.2 Protein sidechains (i)

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

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

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

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

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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
49	m3	154/158 (98%)	124 (80%)	30 (20%)	2 9
50	M4	107/108 (99%)	87 (81%)	20 (19%)	2 10
50	m4	108/108 (100%)	81 (75%)	27 (25%)	1 2
51	M5	175/175 (100%)	143 (82%)	32 (18%)	2 10
51	m5	175/175 (100%)	142 (81%)	33 (19%)	2 10
52	M6	160/161 (99%)	141 (88%)	19 (12%)	6 28
52	m6	160/161 (99%)	130 (81%)	30 (19%)	2 10
53	M7	140/145 (97%)	107 (76%)	33 (24%)	1 4
53	m7	125/145 (86%)	100 (80%)	25 (20%)	1 8
54	M8	150/150 (100%)	126 (84%)	24 (16%)	3 14
54	m8	150/150 (100%)	122 (81%)	28 (19%)	2 10
55	M9	153/153 (100%)	121 (79%)	32 (21%)	1 7
55	m9	153/153 (100%)	123 (80%)	30 (20%)	1 9
56	N0	156/156 (100%)	127 (81%)	29 (19%)	2 10
56	n0	156/156 (100%)	122 (78%)	34 (22%)	1 6
57	N1	136/136 (100%)	111 (82%)	25 (18%)	2 10
57	n1	136/136 (100%)	108 (79%)	28 (21%)	1 7
58	N2	87/106 (82%)	70 (80%)	17 (20%)	2 9
58	n2	85/106 (80%)	70 (82%)	15 (18%)	2 11
59	N3	104/104 (100%)	87 (84%)	17 (16%)	3 14
59	n3	104/104 (100%)	89 (86%)	15 (14%)	4 19
60	N4	57/129 (44%)	51 (90%)	6 (10%)	8 35
60	n4	100/129 (78%)	82 (82%)	18 (18%)	2 11
61	N5	104/117 (89%)	84 (81%)	20 (19%)	2 10
61	n5	104/117 (89%)	82 (79%)	22 (21%)	1 7
62	N6	109/109 (100%)	85 (78%)	24 (22%)	1 6
62	n6	109/109 (100%)	86 (79%)	23 (21%)	1 7
63	N7	115/115 (100%)	93 (81%)	22 (19%)	2 10
63	n7	115/115 (100%)	89 (77%)	26 (23%)	1 5
64	N8	118/118 (100%)	95 (80%)	23 (20%)	2 9
64	n8	118/118 (100%)	99 (84%)	19 (16%)	3 14

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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
81	p0	105/253 (42%)	85 (81%)	20 (19%)	2 10
All	All	18728/20241 (92%)	15006 (80%)	3722 (20%)	1 8

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type
41	l4	295	ILE
41	l4	299	ILE
41	l4	300	ARG
41	l4	301	PRO
41	l4	304	GLN
41	l4	306	THR
41	l4	307	GLN
41	l4	313	LEU
41	l4	316	ASN
41	l4	319	LYS
41	l4	323	VAL
41	l4	327	LEU
41	l4	333	VAL
41	l4	339	LEU
41	l4	345	GLU
41	l4	346	LYS
41	l4	347	THR
41	l4	356	THR
41	l4	360	LYS
42	l5	4	GLN
42	l5	9	SER
42	l5	10	SER
42	l5	13	SER
42	l5	15	ARG
42	l5	34	LYS
42	l5	35	ARG
42	l5	51	LEU
42	l5	57	ASN
42	l5	61	ILE
42	l5	64	ILE
42	l5	70	THR
42	l5	74	VAL
42	l5	75	LEU
42	l5	79	TYR
42	l5	89	THR
42	l5	109	THR
42	l5	110	LEU
42	l5	112	LYS
42	l5	113	LEU
42	l5	118	THR
42	l5	120	LYS
42	l5	128	GLU

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Mol	Chain	Res	Type
42	l5	131	LEU
42	l5	132	THR
42	l5	133	GLU
42	l5	135	VAL
42	l5	136	GLU
42	l5	140	ARG
42	l5	146	LEU
42	l5	151	GLN
42	l5	152	ARG
42	l5	154	THR
42	l5	155	THR
42	l5	158	ARG
42	l5	185	PHE
42	l5	194	LEU
42	l5	196	ARG
42	l5	211	LEU
42	l5	227	LEU
42	l5	239	ILE
42	l5	241	THR
42	l5	254	LYS
42	l5	257	GLU
42	l5	258	LYS
42	l5	259	LYS
42	l5	268	GLU
42	l5	271	LYS
42	l5	273	ARG
42	l5	280	GLU
42	l5	281	GLU
42	l5	297	GLN
43	l6	4	GLN
43	l6	8	LYS
43	l6	14	ASP
43	l6	15	VAL
43	l6	20	LYS
43	l6	21	THR
43	l6	31	ARG
43	l6	50	LYS
43	l6	64	LEU
43	l6	65	ILE
43	l6	76	LEU
43	l6	78	ARG
43	l6	89	THR

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Mol	Chain	Res	Type
43	l6	91	VAL
43	l6	93	VAL
43	l6	98	VAL
43	l6	109	GLU
43	l6	131	LYS
43	l6	133	GLU
43	l6	143	LYS
43	l6	151	LYS
43	l6	152	THR
43	l6	155	LEU
44	l7	40	LYS
44	l7	45	LEU
44	l7	46	GLU
44	l7	56	GLU
44	l7	60	ARG
44	l7	62	ILE
44	l7	82	LYS
44	l7	83	LEU
44	l7	98	LYS
44	l7	113	SER
44	l7	119	VAL
44	l7	124	LEU
44	l7	128	LYS
44	l7	150	LYS
44	l7	156	ILE
44	l7	157	ASN
44	l7	158	LYS
44	l7	159	GLN
44	l7	175	LYS
44	l7	178	ILE
44	l7	179	LEU
44	l7	181	ILE
44	l7	184	LEU
44	l7	196	LYS
44	l7	206	LYS
44	l7	219	LYS
44	l7	224	ILE
44	l7	229	PHE
44	l7	239	LEU
45	l8	26	LEU
45	l8	41	GLN
45	l8	46	LEU

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Mol	Chain	Res	Type
45	l8	50	VAL
45	l8	55	TYR
45	l8	63	LYS
45	l8	64	ILE
45	l8	65	LEU
45	l8	67	ILE
45	l8	68	ARG
45	l8	74	THR
45	l8	77	GLN
45	l8	79	GLN
45	l8	93	LEU
45	l8	95	ASN
45	l8	101	THR
45	l8	111	LYS
45	l8	132	VAL
45	l8	134	TYR
45	l8	136	LEU
45	l8	146	LYS
45	l8	149	LYS
45	l8	150	LEU
45	l8	160	ILE
45	l8	163	VAL
45	l8	172	LYS
45	l8	190	VAL
45	l8	211	LEU
45	l8	213	LYS
45	l8	214	LEU
45	l8	222	PHE
45	l8	224	ASP
45	l8	238	LEU
45	l8	241	LYS
45	l8	245	LYS
45	l8	248	LYS
46	l9	1	MET
46	l9	5	GLN
46	l9	6	THR
46	l9	16	VAL
46	l9	17	THR
46	l9	18	VAL
46	l9	19	SER
46	l9	24	ILE
46	l9	28	VAL

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Mol	Chain	Res	Type
46	l9	31	ARG
46	l9	33	THR
46	l9	34	LEU
46	l9	37	ASN
46	l9	39	LYS
46	l9	44	THR
46	l9	46	THR
46	l9	47	LYS
46	l9	48	VAL
46	l9	52	LEU
46	l9	55	VAL
46	l9	62	ARG
46	l9	68	LEU
46	l9	69	ARG
46	l9	70	THR
46	l9	71	VAL
46	l9	80	THR
46	l9	82	VAL
46	l9	91	ARG
46	l9	92	TYR
46	l9	105	GLU
46	l9	106	LYS
46	l9	107	ASP
46	l9	113	GLU
46	l9	128	VAL
46	l9	129	ARG
46	l9	130	ASP
46	l9	133	THR
46	l9	138	THR
46	l9	143	GLU
46	l9	144	ILE
46	l9	149	ASN
46	l9	151	VAL
46	l9	157	ASN
46	l9	162	GLN
46	l9	163	GLN
46	l9	166	ARG
46	l9	177	ASP
46	l9	188	THR
47	m0	22	TYR
47	m0	24	ARG
47	m0	26	VAL

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Mol	Chain	Res	Type
47	m0	39	LYS
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	57	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	74	LYS
47	m0	77	THR
47	m0	78	THR
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	113	GLN
47	m0	116	ARG
47	m0	139	ARG
47	m0	143	SER
47	m0	144	ASN
47	m0	153	ARG
47	m0	156	ARG
47	m0	169	LYS
47	m0	170	LYS
47	m0	177	ASP
47	m0	178	ARG
47	m0	182	LEU
47	m0	197	VAL
47	m0	200	LEU
47	m0	206	LEU
47	m0	208	ASN
47	m0	211	ARG
47	m0	217	PHE
48	m1	6	GLN
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	14	ILE
48	m1	16	LYS
48	m1	17	LEU
48	m1	23	VAL
48	m1	30	LEU
48	m1	35	LYS

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Mol	Chain	Res	Type
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	54	VAL
48	m1	56	THR
48	m1	71	VAL
48	m1	80	LEU
48	m1	106	ILE
48	m1	107	ASP
48	m1	108	GLU
48	m1	112	LEU
48	m1	130	VAL
48	m1	140	ARG
48	m1	145	LYS
48	m1	152	HIS
48	m1	156	LYS
48	m1	158	ASP
48	m1	159	THR
48	m1	160	VAL
48	m1	161	SER
48	m1	166	LYS
49	m3	36	ARG
49	m3	53	LEU
49	m3	54	LEU
49	m3	58	VAL
49	m3	59	ARG
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	75	PHE
49	m3	76	THR
49	m3	80	VAL
49	m3	100	ARG
49	m3	104	ARG
49	m3	107	GLU
49	m3	113	VAL
49	m3	118	GLU
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR

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Mol	Chain	Res	Type
49	m3	154	VAL
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	171	ARG
49	m3	172	LEU
49	m3	183	ARG
49	m3	184	GLU
49	m3	194	GLU
50	m4	2	SER
50	m4	3	THR
50	m4	8	LYS
50	m4	12	TRP
50	m4	15	VAL
50	m4	16	GLU
50	m4	20	VAL
50	m4	28	SER
50	m4	53	VAL
50	m4	55	ARG
50	m4	62	GLN
50	m4	63	VAL
50	m4	64	VAL
50	m4	66	THR
50	m4	74	ARG
50	m4	80	THR
50	m4	82	SER
50	m4	85	TRP
50	m4	103	ILE
50	m4	107	GLU
50	m4	108	ARG
50	m4	113	THR
50	m4	123	LEU
50	m4	124	ARG
50	m4	128	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	12	ARG
51	m5	18	VAL
51	m5	24	ARG
51	m5	49	ARG

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Mol	Chain	Res	Type
51	m5	50	ARG
51	m5	54	LYS
51	m5	56	LYS
51	m5	73	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	87	GLN
51	m5	92	LEU
51	m5	96	ARG
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL
51	m5	109	ARG
51	m5	138	GLN
51	m5	142	ILE
51	m5	153	ASP
51	m5	155	VAL
51	m5	159	ARG
51	m5	165	THR
51	m5	171	SER
51	m5	176	LYS
51	m5	182	ASN
51	m5	183	THR
51	m5	184	LYS
51	m5	190	THR
51	m5	199	LEU
52	m6	12	LYS
52	m6	22	VAL
52	m6	41	LEU
52	m6	49	ARG
52	m6	58	LEU
52	m6	66	LYS
52	m6	67	THR
52	m6	78	ARG
52	m6	79	ILE
52	m6	85	ARG
52	m6	87	MET
52	m6	94	ARG
52	m6	100	GLU
52	m6	101	ARG
52	m6	106	GLU

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Mol	Chain	Res	Type
52	m6	108	ILE
52	m6	116	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	144	SER
52	m6	152	VAL
52	m6	166	GLU
52	m6	170	LYS
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	184	THR
52	m6	194	LEU
52	m6	197	LEU
53	m7	7	THR
53	m7	9	THR
53	m7	16	SER
53	m7	23	ARG
53	m7	24	VAL
53	m7	29	THR
53	m7	32	THR
53	m7	41	LEU
53	m7	42	THR
53	m7	47	TYR
53	m7	52	LEU
53	m7	53	ASP
53	m7	69	ARG
53	m7	70	THR
53	m7	78	VAL
53	m7	79	THR
53	m7	86	LYS
53	m7	94	LEU
53	m7	105	LYS
53	m7	114	VAL
53	m7	119	VAL
53	m7	121	GLN
53	m7	128	ARG
53	m7	138	LYS
53	m7	144	SER
54	m8	3	ILE
54	m8	7	SER

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Mol	Chain	Res	Type
54	m8	12	ARG
54	m8	22	ASP
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	46	LYS
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	69	ARG
54	m8	74	GLU
54	m8	80	THR
54	m8	81	VAL
54	m8	82	VAL
54	m8	93	ILE
54	m8	135	GLN
54	m8	138	LEU
54	m8	147	ARG
54	m8	150	VAL
54	m8	159	LYS
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	178	ARG
54	m8	180	ARG
55	m9	5	ARG
55	m9	6	THR
55	m9	7	GLN
55	m9	8	LYS
55	m9	9	ARG
55	m9	10	LEU
55	m9	20	ARG
55	m9	29	THR
55	m9	31	GLU
55	m9	36	ASN
55	m9	37	SER
55	m9	38	ARG
55	m9	49	THR
55	m9	52	LYS
55	m9	63	THR
55	m9	88	ARG

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Mol	Chain	Res	Type
55	m9	94	VAL
55	m9	98	ARG
55	m9	99	LEU
55	m9	116	ASP
55	m9	126	GLU
55	m9	138	LEU
55	m9	146	LYS
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	163	ARG
55	m9	166	ASN
55	m9	173	ARG
55	m9	177	VAL
56	n0	13	ARG
56	n0	16	THR
56	n0	45	LEU
56	n0	50	LYS
56	n0	52	LYS
56	n0	61	ILE
56	n0	63	GLN
56	n0	70	THR
56	n0	73	LYS
56	n0	79	VAL
56	n0	80	ARG
56	n0	87	THR
56	n0	89	ASN
56	n0	96	ASP
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	106	LEU
56	n0	115	ARG
56	n0	117	ARG
56	n0	120	SER
56	n0	123	ILE
56	n0	130	GLU
56	n0	132	THR
56	n0	137	ARG
56	n0	148	LEU
56	n0	149	LYS
56	n0	155	ARG

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Mol	Chain	Res	Type
56	n0	160	THR
56	n0	162	THR
56	n0	167	ARG
56	n0	170	THR
56	n0	171	PHE
56	n0	172	TYR
57	n1	12	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	36	VAL
57	n1	68	THR
57	n1	71	SER
57	n1	75	ILE
57	n1	78	LYS
57	n1	80	VAL
57	n1	83	ARG
57	n1	88	ARG
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	103	GLN
57	n1	104	GLU
57	n1	122	GLN
57	n1	124	VAL
57	n1	126	VAL
57	n1	127	GLN
57	n1	129	LYS
57	n1	139	ARG
57	n1	141	VAL
57	n1	143	THR
57	n1	150	THR
57	n1	151	LEU
57	n1	158	THR
58	n2	19	VAL
58	n2	21	SER
58	n2	27	VAL
58	n2	43	VAL
58	n2	47	VAL
58	n2	57	THR
58	n2	62	VAL
58	n2	63	VAL

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Mol	Chain	Res	Type
58	n2	74	LYS
58	n2	75	TYR
58	n2	85	LYS
58	n2	90	ARG
58	n2	94	ARG
58	n2	96	VAL
58	n2	100	THR
59	n3	7	GLN
59	n3	13	ILE
59	n3	40	LYS
59	n3	45	ARG
59	n3	48	ARG
59	n3	58	VAL
59	n3	70	ARG
59	n3	73	VAL
59	n3	79	VAL
59	n3	88	ARG
59	n3	91	VAL
59	n3	93	LEU
59	n3	102	ILE
59	n3	106	LYS
59	n3	115	THR
60	n4	1	MET
60	n4	5	ILE
60	n4	39	LEU
60	n4	41	LYS
60	n4	54	LEU
60	n4	57	LYS
60	n4	59	HIS
60	n4	63	ILE
60	n4	82	ILE
60	n4	87	LEU
60	n4	89	LEU
60	n4	93	ARG
60	n4	96	LEU
60	n4	97	LYS
60	n4	100	VAL
60	n4	104	ASN
60	n4	105	ARG
60	n4	127	LYS
61	n5	24	LEU
61	n5	27	ARG

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Mol	Chain	Res	Type
61	n5	34	LEU
61	n5	37	THR
61	n5	42	ARG
61	n5	52	PRO
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	70	GLU
61	n5	71	THR
61	n5	75	LYS
61	n5	78	ASP
61	n5	86	VAL
61	n5	87	SER
61	n5	108	LEU
61	n5	109	LYS
61	n5	114	VAL
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	135	ILE
62	n6	4	GLN
62	n6	5	SER
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	17	LYS
62	n6	37	LYS
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	52	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	63	LYS
62	n6	66	GLN
62	n6	69	LYS
62	n6	71	SER
62	n6	74	TYR
62	n6	83	ASP
62	n6	90	VAL
62	n6	94	SER
62	n6	99	LEU

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Mol	Chain	Res	Type
62	n6	120	GLN
63	n7	3	LYS
63	n7	17	ARG
63	n7	28	PRO
63	n7	31	GLU
63	n7	33	SER
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	47	GLU
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	77	TYR
63	n7	81	LEU
63	n7	83	THR
63	n7	90	GLU
63	n7	93	LYS
63	n7	95	VAL
63	n7	97	SER
63	n7	99	GLU
63	n7	106	GLN
63	n7	113	VAL
63	n7	120	GLU
63	n7	123	GLN
63	n7	134	LEU
63	n7	135	ARG
64	n8	8	THR
64	n8	10	LYS
64	n8	15	VAL
64	n8	25	HIS
64	n8	26	ARG
64	n8	34	MET
64	n8	42	ARG
64	n8	60	TYR
64	n8	73	LEU
64	n8	91	LEU
64	n8	98	THR
64	n8	123	VAL
64	n8	128	ARG
64	n8	131	SER
64	n8	132	LYS

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Mol	Chain	Res	Type
64	n8	133	LEU
64	n8	135	GLU
64	n8	139	ARG
64	n8	148	ILE
65	n9	3	LYS
65	n9	13	THR
65	n9	14	ARG
65	n9	19	ASN
65	n9	21	ILE
65	n9	22	LYS
65	n9	26	THR
65	n9	28	LYS
65	n9	33	LYS
65	n9	38	LYS
65	n9	42	ASN
65	n9	54	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	10	ILE
66	o0	19	LYS
66	o0	32	LYS
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	48	THR
66	o0	61	MET
66	o0	66	LYS
66	o0	68	TYR
66	o0	74	ASN
66	o0	79	THR
66	o0	86	ARG
66	o0	99	ASP
66	o0	101	LEU
66	o0	103	THR
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	41	LYS
67	o1	44	MET
67	o1	46	THR

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Mol	Chain	Res	Type
67	o1	54	GLU
67	o1	55	LEU
67	o1	57	GLN
67	o1	62	ARG
67	o1	64	VAL
67	o1	76	SER
67	o1	82	GLU
67	o1	83	GLU
67	o1	84	ASP
67	o1	91	SER
67	o1	94	GLU
67	o1	96	VAL
67	o1	98	VAL
67	o1	100	SER
67	o1	102	LYS
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
67	o1	112	ASP
68	o2	4	LEU
68	o2	5	PRO
68	o2	14	THR
68	o2	15	LYS
68	o2	21	HIS
68	o2	24	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	36	LYS
68	o2	41	VAL
68	o2	51	SER
68	o2	62	LYS
68	o2	64	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	87	MET
68	o2	89	THR
68	o2	91	THR
68	o2	95	GLU
68	o2	101	SER

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Mol	Chain	Res	Type
68	o2	109	LEU
68	o2	111	ARG
68	o2	123	LYS
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	19	SER
69	o3	31	LYS
69	o3	42	GLN
69	o3	49	ILE
69	o3	56	SER
69	o3	57	LYS
69	o3	59	VAL
69	o3	63	LYS
69	o3	70	LYS
69	o3	74	THR
69	o3	84	THR
69	o3	93	THR
69	o3	98	VAL
69	o3	107	ILE
70	o4	5	VAL
70	o4	20	ILE
70	o4	22	VAL
70	o4	24	LYS
70	o4	33	GLN
70	o4	35	VAL
70	o4	37	LYS
70	o4	40	THR
70	o4	47	CYS
70	o4	57	LEU
70	o4	58	ARG
70	o4	71	THR
70	o4	79	SER
70	o4	83	ASN
70	o4	87	GLU
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
71	o5	4	VAL
71	o5	11	THR
71	o5	15	GLU
71	o5	20	GLN

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Mol	Chain	Res	Type
71	o5	21	LEU
71	o5	27	GLU
71	o5	30	GLU
71	o5	36	LEU
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	53	CYS
71	o5	62	GLN
71	o5	69	LEU
71	o5	80	LEU
71	o5	81	ARG
71	o5	86	ARG
71	o5	89	ARG
71	o5	90	ARG
71	o5	94	LYS
71	o5	101	THR
71	o5	107	LYS
71	o5	113	GLN
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	11	LEU
72	o6	15	LYS
72	o6	21	THR
72	o6	26	ILE
72	o6	27	SER
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	62	ARG
72	o6	66	GLU
72	o6	67	LYS

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Mol	Chain	Res	Type
72	o6	68	ARG
72	o6	71	LYS
72	o6	74	LYS
72	o6	76	ARG
72	o6	81	THR
72	o6	88	GLU
72	o6	94	ILE
72	o6	98	ARG
73	o7	3	LYS
73	o7	17	THR
73	o7	19	CYS
73	o7	21	ARG
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	55	ARG
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	74	PHE
73	o7	75	LYS
74	o8	12	LEU
74	o8	13	GLU
74	o8	17	ARG
74	o8	27	ILE
74	o8	38	PHE
74	o8	41	THR
74	o8	46	ARG
74	o8	50	SER
74	o8	53	THR
74	o8	54	LEU
74	o8	61	LYS
74	o8	63	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	72	THR
75	o9	4	GLN
75	o9	15	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	27	ILE

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Mol	Chain	Res	Type
75	o9	28	ARG
75	o9	29	LEU
75	o9	47	THR
76	q0	79	GLU
76	q0	85	LEU
76	q0	88	LYS
76	q0	93	LYS
76	q0	94	SER
76	q0	99	CYS
76	q0	106	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
76	q0	128	LYS
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	11	ARG
77	q1	13	LEU
77	q1	21	ARG
77	q1	23	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	18	ARG
78	q2	22	GLN
78	q2	45	ARG
78	q2	46	LYS
78	q2	61	LYS
78	q2	71	ARG
78	q2	78	LYS
78	q2	83	LEU
78	q2	85	LEU
78	q2	93	LEU
78	q2	98	LYS
78	q2	99	GLN
79	q3	3	LYS
79	q3	16	VAL
79	q3	20	SER
79	q3	33	GLN

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Mol	Chain	Res	Type
79	q3	40	SER
79	q3	42	CYS
79	q3	45	LYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	59	CYS
79	q3	70	THR
79	q3	81	SER
79	q3	84	ARG
79	q3	90	VAL
81	p0	4	ILE
81	p0	5	ARG
81	p0	15	LEU
81	p0	30	VAL
81	p0	31	ASP
81	p0	39	HIS
81	p0	42	ARG
81	p0	43	LYS
81	p0	48	ARG
81	p0	52	LEU
81	p0	55	LYS
81	p0	57	THR
81	p0	67	LEU
81	p0	70	LEU
81	p0	76	LEU
81	p0	93	LEU
81	p0	94	THR
81	p0	97	LYS
81	p0	101	VAL
81	p0	104	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (45) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	209	ASN
3	S1	232	HIS
4	S2	152	HIS
12	C0	58	GLN
13	C1	110	HIS
13	C1	118	GLN

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Mol	Chain	Res	Type
18	C6	77	GLN
20	C8	75	ASN
20	C8	78	HIS
22	D0	48	HIS
23	D1	74	GLN
24	D2	56	HIS
25	D3	79	ASN
40	L3	139	GLN
42	L5	40	HIS
42	L5	264	GLN
43	L6	28	GLN
44	L7	244	ASN
46	L9	49	ASN
47	M0	144	ASN
53	M7	179	GLN
58	N2	87	ASN
62	N6	120	GLN
64	N8	74	ASN
69	O3	26	ASN
70	O4	3	GLN
75	O9	50	ASN
11	s9	110	GLN
11	s9	124	HIS
20	c8	89	GLN
24	d2	15	ASN
24	d2	24	GLN
24	d2	56	HIS
26	d4	22	GLN
29	d7	19	HIS
40	l3	184	ASN
44	l7	80	GLN
45	l8	192	GLN
47	m0	51	HIS
47	m0	144	ASN
55	m9	7	GLN
62	n6	4	GLN
63	n7	57	HIS
68	o2	88	HIS
72	o6	63	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	509 (29%)	56 (3%)
1	6	1793/1800 (99%)	472 (26%)	48 (2%)
36	1	3145/3396 (92%)	704 (22%)	78 (2%)
36	5	3145/3396 (92%)	688 (21%)	76 (2%)
37	3	120/121 (99%)	17 (14%)	2 (1%)
37	7	120/121 (99%)	24 (20%)	2 (1%)
38	4	157/158 (99%)	36 (22%)	5 (3%)
38	8	157/158 (99%)	38 (24%)	2 (1%)
All	All	10384/10950 (94%)	2488 (23%)	269 (2%)

All (2488) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	40	A
1	2	41	A
1	2	47	A
1	2	57	G
1	2	60	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	100	A
1	2	104	A
1	2	114	C
1	2	116	U
1	2	125	U
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C

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Mol	Chain	Res	Type
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	152	U
1	2	153	G
1	2	158	U
1	2	159	U
1	2	169	A
1	2	178	U
1	2	185	U
1	2	186	C
1	2	187	G
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	212	U
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U

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Mol	Chain	Res	Type
1	2	249	U
1	2	250	C
1	2	256	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	270	C
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	308	C
1	2	313	U
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	337	G
1	2	338	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	363	G
1	2	368	U
1	2	369	A
1	2	381	C
1	2	387	A
1	2	390	G
1	2	393	C
1	2	397	A

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Mol	Chain	Res	Type
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	452	A
1	2	454	U
1	2	464	A
1	2	468	A
1	2	471	A
1	2	480	G
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U

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Mol	Chain	Res	Type
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	516	G
1	2	518	A
1	2	519	C
1	2	520	A
1	2	524	U
1	2	527	A
1	2	534	A
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U
1	2	547	U
1	2	548	G
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	578	U
1	2	579	A
1	2	580	A
1	2	582	U
1	2	585	A
1	2	594	A
1	2	595	G
1	2	597	G
1	2	598	U
1	2	606	A
1	2	609	U
1	2	610	G

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Mol	Chain	Res	Type
1	2	619	A
1	2	620	A
1	2	622	A
1	2	623	A
1	2	630	A
1	2	639	U
1	2	640	U
1	2	648	G
1	2	649	U
1	2	650	U
1	2	653	C
1	2	654	C
1	2	656	G
1	2	658	C
1	2	677	G
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	708	C
1	2	709	C
1	2	710	U
1	2	711	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G

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Mol	Chain	Res	Type
1	2	721	U
1	2	722	G
1	2	723	G
1	2	724	C
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	753	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	758	U
1	2	759	U
1	2	765	G
1	2	766	U
1	2	768	C
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	783	G
1	2	784	C
1	2	787	G
1	2	789	A
1	2	790	U
1	2	793	A
1	2	794	U
1	2	795	U
1	2	807	A
1	2	812	A

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Mol	Chain	Res	Type
1	2	814	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	838	G
1	2	840	U
1	2	846	G
1	2	848	C
1	2	854	U
1	2	860	U
1	2	861	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	865	A
1	2	876	G
1	2	886	U
1	2	892	A
1	2	898	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	915	A
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	951	A
1	2	960	U
1	2	961	U
1	2	966	A

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Mol	Chain	Res	Type
1	2	971	A
1	2	982	U
1	2	992	A
1	2	993	A
1	2	995	A
1	2	1002	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1020	A
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1057	U
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1066	C
1	2	1067	C
1	2	1073	G
1	2	1074	G
1	2	1081	A
1	2	1082	C
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1101	G
1	2	1109	G
1	2	1111	G
1	2	1138	A
1	2	1139	A
1	2	1150	G
1	2	1151	A
1	2	1155	G

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Mol	Chain	Res	Type
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1164	G
1	2	1167	G
1	2	1168	U
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
1	2	1208	A
1	2	1212	G
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1258	U
1	2	1262	U
1	2	1276	U
1	2	1284	C
1	2	1286	U
1	2	1290	U
1	2	1314	U
1	2	1315	U
1	2	1319	A
1	2	1320	U
1	2	1321	A
1	2	1338	C
1	2	1339	C
1	2	1340	U

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Mol	Chain	Res	Type
1	2	1341	A
1	2	1342	C
1	2	1344	A
1	2	1345	A
1	2	1354	G
1	2	1355	C
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1378	U
1	2	1383	G
1	2	1384	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1424	A
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1432	U
1	2	1445	G
1	2	1446	A
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1478	G
1	2	1481	C
1	2	1482	C
1	2	1485	C
1	2	1486	G

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Mol	Chain	Res	Type
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1503	A
1	2	1506	G
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1542	G
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1619	C
1	2	1631	A
1	2	1634	C
1	2	1639	C
1	2	1657	U
1	2	1658	G
1	2	1663	G
1	2	1680	G
1	2	1681	A
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1731	A

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Mol	Chain	Res	Type
1	2	1747	G
1	2	1756	A
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1770	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1789	G
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	15	C
36	1	16	A
36	1	18	G
36	1	26	A
36	1	40	A
36	1	45	A
36	1	49	A
36	1	54	C
36	1	57	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	74	G
36	1	76	G
36	1	83	U
36	1	85	A
36	1	87	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	102	C
36	1	103	G

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Mol	Chain	Res	Type
36	1	105	C
36	1	109	A
36	1	110	G
36	1	111	C
36	1	120	G
36	1	121	A
36	1	122	A
36	1	126	U
36	1	133	U
36	1	135	C
36	1	136	G
36	1	142	C
36	1	147	U
36	1	156	G
36	1	157	A
36	1	163	C
36	1	166	C
36	1	169	U
36	1	170	G
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	210	U
36	1	211	A
36	1	218	G
36	1	219	A
36	1	235	A
36	1	239	G
36	1	240	U
36	1	243	G
36	1	245	U
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	256	G
36	1	269	G
36	1	283	G
36	1	286	U
36	1	295	A

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Mol	Chain	Res	Type
36	1	296	A
36	1	305	U
36	1	323	A
36	1	329	U
36	1	339	C
36	1	344	A
36	1	349	A
36	1	350	C
36	1	351	A
36	1	352	A
36	1	376	G
36	1	397	A
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	420	G
36	1	421	G
36	1	422	A
36	1	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	503	C
36	1	507	U
36	1	520	U
36	1	521	A
36	1	531	G
36	1	532	A
36	1	533	A
36	1	535	G
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	551	A
36	1	552	G
36	1	553	U
36	1	555	U
36	1	557	A
36	1	558	U
36	1	559	A

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Mol	Chain	Res	Type
36	1	569	A
36	1	578	A
36	1	579	G
36	1	592	A
36	1	593	C
36	1	601	U
36	1	604	G
36	1	607	A
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	625	G
36	1	636	C
36	1	638	C
36	1	647	A
36	1	649	A
36	1	660	A
36	1	661	G
36	1	667	C
36	1	677	A
36	1	681	U
36	1	683	U
36	1	691	A
36	1	692	A
36	1	699	A
36	1	705	A
36	1	708	G
36	1	712	G
36	1	715	A
36	1	716	A
36	1	718	G
36	1	719	U
36	1	725	G
36	1	744	A
36	1	763	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	776	U

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Mol	Chain	Res	Type
36	1	777	U
36	1	780	A
36	1	781	G
36	1	785	G
36	1	792	G
36	1	804	C
36	1	806	A
36	1	817	A
36	1	828	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	878	G
36	1	879	U
36	1	882	A
36	1	883	A
36	1	890	C
36	1	896	A
36	1	897	U
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	919	U
36	1	921	A
36	1	923	C
36	1	924	G
36	1	926	A
36	1	937	G
36	1	938	C
36	1	944	C
36	1	959	C
36	1	960	U
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	994	G
36	1	1001	G
36	1	1002	A

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Mol	Chain	Res	Type
36	1	1006	A
36	1	1010	G
36	1	1014	U
36	1	1015	U
36	1	1016	C
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1041	U
36	1	1047	A
36	1	1049	C
36	1	1051	U
36	1	1063	G
36	1	1064	A
36	1	1065	A
36	1	1069	C
36	1	1070	U
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1117	G
36	1	1129	A
36	1	1131	G
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1160	C

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Mol	Chain	Res	Type
36	1	1161	G
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1197	A
36	1	1201	C
36	1	1209	G
36	1	1212	A
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1218	U
36	1	1221	A
36	1	1222	G
36	1	1225	A
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1258	U
36	1	1259	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A

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Mol	Chain	Res	Type
36	1	1278	A
36	1	1279	C
36	1	1285	G
36	1	1287	A
36	1	1292	C
36	1	1298	C
36	1	1303	A
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1310	G
36	1	1313	G
36	1	1330	A
36	1	1331	U
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1379	G
36	1	1386	A
36	1	1392	G
36	1	1398	U
36	1	1399	A
36	1	1400	G
36	1	1419	A
36	1	1421	G
36	1	1431	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1438	U
36	1	1446	A
36	1	1450	G
36	1	1481	A
36	1	1482	A
36	1	1485	G

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Mol	Chain	Res	Type
36	1	1508	C
36	1	1523	U
36	1	1527	C
36	1	1528	G
36	1	1533	U
36	1	1535	A
36	1	1536	G
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1558	A
36	1	1560	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1572	U
36	1	1576	G
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1606	U
36	1	1607	U
36	1	1612	A
36	1	1620	U
36	1	1621	A
36	1	1628	C
36	1	1629	U
36	1	1639	C
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1658	G

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Mol	Chain	Res	Type
36	1	1683	A
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1742	U
36	1	1749	A
36	1	1750	A
36	1	1751	G
36	1	1761	C
36	1	1762	C
36	1	1764	U
36	1	1765	U
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1776	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1801	U
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1815	U
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1839	A
36	1	1840	U
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1850	A
36	1	1851	G
36	1	1855	U
36	1	1866	C
36	1	1871	U
36	1	1879	A

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Mol	Chain	Res	Type
36	1	1880	U
36	1	1886	A
36	1	1906	G
36	1	1911	A
36	1	1912	U
36	1	1931	U
36	1	1935	G
36	1	1950	U
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2139	A
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2169	G
36	1	2177	G
36	1	2205	U
36	1	2206	G
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2239	G
36	1	2244	A
36	1	2245	C
36	1	2246	G
36	1	2249	G
36	1	2254	U
36	1	2255	A
36	1	2256	A

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Mol	Chain	Res	Type
36	1	2263	C
36	1	2264	U
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2279	A
36	1	2280	A
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2286	U
36	1	2298	U
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2331	C
36	1	2334	U
36	1	2336	U
36	1	2339	C
36	1	2343	C
36	1	2361	A
36	1	2366	C
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2393	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2435	G
36	1	2437	G
36	1	2444	C
36	1	2445	A

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Mol	Chain	Res	Type
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2511	A
36	1	2514	U
36	1	2515	A
36	1	2519	A
36	1	2520	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2534	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	2546	C
36	1	2547	A
36	1	2549	G
36	1	2550	U
36	1	2551	U
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
36	1	2562	A
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2581	U
36	1	2582	C
36	1	2585	G
36	1	2586	G
36	1	2593	A

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Mol	Chain	Res	Type
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2652	U
36	1	2656	A
36	1	2657	A
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2706	G
36	1	2712	U
36	1	2714	G
36	1	2719	U
36	1	2720	G
36	1	2727	A
36	1	2728	G
36	1	2729	U
36	1	2737	C
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C

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Mol	Chain	Res	Type
36	1	2815	G
36	1	2817	A
36	1	2818	U
36	1	2829	U
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2853	A
36	1	2856	G
36	1	2860	U
36	1	2863	G
36	1	2871	G
36	1	2872	A
36	1	2873	U
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2898	G
36	1	2899	C
36	1	2914	G
36	1	2923	U
36	1	2935	U
36	1	2936	A
36	1	2937	G
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2951	G
36	1	2955	U
36	1	2971	A
36	1	2974	U
36	1	2977	G
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3002	C
36	1	3006	A
36	1	3012	A

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Mol	Chain	Res	Type
36	1	3040	A
36	1	3054	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3070	A
36	1	3076	C
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3104	U
36	1	3113	A
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3136	G
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3153	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3168	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3185	U
36	1	3187	A
36	1	3190	C
36	1	3191	G
36	1	3196	U
36	1	3206	C

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Mol	Chain	Res	Type
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3229	G
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3269	U
36	1	3270	U
36	1	3272	C
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3304	U
36	1	3313	U
36	1	3316	A
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3346	U
36	1	3347	A
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3360	C

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Mol	Chain	Res	Type
36	1	3363	U
36	1	3368	U
36	1	3369	G
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
37	3	7	G
37	3	13	A
37	3	14	U
37	3	21	G
37	3	22	A
37	3	44	C
37	3	45	A
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	89	G
37	3	91	G
37	3	95	A
37	3	102	A
37	3	112	G
37	3	121	U
38	4	2	A
38	4	9	A
38	4	21	C
38	4	26	U
38	4	34	U
38	4	35	C
38	4	43	A
38	4	52	A
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C

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Mol	Chain	Res	Type
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	148	G
38	4	152	G
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	6	G
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	47	A
1	6	50	C
1	6	57	G
1	6	60	U
1	6	61	A
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	80	A
1	6	103	A
1	6	104	A

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Mol	Chain	Res	Type
1	6	114	C
1	6	115	G
1	6	125	U
1	6	129	U
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	144	U
1	6	145	A
1	6	158	U
1	6	159	U
1	6	161	U
1	6	166	C
1	6	177	U
1	6	178	U
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	196	G
1	6	199	G
1	6	200	A
1	6	215	A
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G

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Mol	Chain	Res	Type
1	6	240	U
1	6	241	U
1	6	242	U
1	6	249	U
1	6	250	C
1	6	257	A
1	6	260	U
1	6	261	U
1	6	265	A
1	6	269	G
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	277	U
1	6	278	U
1	6	280	U
1	6	285	G
1	6	287	G
1	6	299	A
1	6	308	C
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	337	G
1	6	338	C
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	362	G
1	6	369	A
1	6	370	A
1	6	390	G
1	6	397	A
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G

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Mol	Chain	Res	Type
1	6	416	A
1	6	418	G
1	6	421	A
1	6	424	C
1	6	425	A
1	6	426	G
1	6	429	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	454	U
1	6	468	A
1	6	470	A
1	6	475	A
1	6	477	A
1	6	480	G
1	6	484	C
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	492	A
1	6	493	U
1	6	494	U
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	515	A
1	6	519	C
1	6	525	A
1	6	527	A
1	6	538	A

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Mol	Chain	Res	Type
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	606	A
1	6	609	U
1	6	610	G
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	632	U
1	6	634	G
1	6	637	C
1	6	639	U
1	6	640	U
1	6	648	G
1	6	650	U
1	6	652	G
1	6	653	C
1	6	658	C
1	6	659	C
1	6	661	A

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Mol	Chain	Res	Type
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	695	U
1	6	696	C
1	6	697	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	730	G
1	6	743	U
1	6	745	U
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	762	A
1	6	764	U
1	6	765	G
1	6	766	U
1	6	767	U
1	6	774	A
1	6	775	G

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Mol	Chain	Res	Type
1	6	777	C
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	798	C
1	6	803	A
1	6	808	U
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	824	G
1	6	825	U
1	6	826	U
1	6	828	U
1	6	829	A
1	6	830	U
1	6	831	U
1	6	832	U
1	6	834	G
1	6	835	U
1	6	847	A
1	6	863	A
1	6	873	U
1	6	876	G
1	6	881	A
1	6	898	A
1	6	908	U
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U

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Mol	Chain	Res	Type
1	6	942	G
1	6	959	U
1	6	960	U
1	6	970	A
1	6	971	A
1	6	983	A
1	6	988	A
1	6	992	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1008	G
1	6	1010	C
1	6	1018	U
1	6	1020	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1071	U
1	6	1072	C
1	6	1073	G
1	6	1076	A
1	6	1081	A
1	6	1082	C
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1101	G
1	6	1109	G
1	6	1137	A
1	6	1138	A

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Mol	Chain	Res	Type
1	6	1146	G
1	6	1150	G
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1227	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1238	A
1	6	1239	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1276	U
1	6	1286	U
1	6	1294	G
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1343	U

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Mol	Chain	Res	Type
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1349	G
1	6	1354	G
1	6	1355	C
1	6	1360	A
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1377	U
1	6	1388	A
1	6	1390	U
1	6	1396	U
1	6	1397	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1412	G
1	6	1413	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1469	A
1	6	1471	A
1	6	1474	G
1	6	1478	G
1	6	1482	C
1	6	1489	U

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Mol	Chain	Res	Type
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1531	G
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1576	A
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1615	C
1	6	1616	G
1	6	1619	C
1	6	1621	U
1	6	1635	A
1	6	1637	C
1	6	1638	G
1	6	1639	C
1	6	1657	U
1	6	1658	G
1	6	1681	A
1	6	1682	U

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Mol	Chain	Res	Type
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1703	C
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1742	U
1	6	1760	G
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1789	G
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	16	A
36	5	21	G
36	5	26	A
36	5	40	A
36	5	43	A
36	5	44	U
36	5	49	A
36	5	58	G
36	5	59	G
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A

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Mol	Chain	Res	Type
36	5	72	C
36	5	73	C
36	5	76	G
36	5	82	C
36	5	83	U
36	5	86	G
36	5	92	G
36	5	93	C
36	5	96	G
36	5	99	A
36	5	105	C
36	5	109	A
36	5	110	G
36	5	111	C
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	126	U
36	5	127	G
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	156	G
36	5	157	A
36	5	165	A
36	5	166	C
36	5	169	U
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	179	C
36	5	180	C
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C

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Mol	Chain	Res	Type
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	224	C
36	5	225	C
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	244	G
36	5	247	C
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	259	C
36	5	265	A
36	5	269	G
36	5	270	U
36	5	284	A
36	5	286	U
36	5	295	A
36	5	309	U
36	5	323	A
36	5	329	U
36	5	339	C
36	5	349	A
36	5	350	C
36	5	370	U
36	5	375	A
36	5	376	G
36	5	395	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C

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Mol	Chain	Res	Type
36	5	421	G
36	5	422	A
36	5	436	A
36	5	437	G
36	5	439	C
36	5	440	A
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	498	A
36	5	507	U
36	5	510	G
36	5	520	U
36	5	521	A
36	5	523	A
36	5	531	G
36	5	535	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	555	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	592	A
36	5	600	G
36	5	604	G
36	5	607	A
36	5	608	A
36	5	609	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	636	C
36	5	649	A
36	5	651	G
36	5	660	A
36	5	677	A

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Mol	Chain	Res	Type
36	5	681	U
36	5	683	U
36	5	691	A
36	5	705	A
36	5	708	G
36	5	711	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	725	G
36	5	726	G
36	5	727	G
36	5	758	C
36	5	764	U
36	5	765	C
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	826	G
36	5	830	A
36	5	859	G
36	5	861	C
36	5	874	U
36	5	879	U
36	5	882	A
36	5	890	C
36	5	891	G
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	913	A
36	5	914	A
36	5	916	G
36	5	917	A

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Mol	Chain	Res	Type
36	5	921	A
36	5	924	G
36	5	937	G
36	5	944	C
36	5	959	C
36	5	960	U
36	5	964	G
36	5	979	U
36	5	980	A
36	5	983	A
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1006	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1017	C
36	5	1019	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1028	U
36	5	1029	G
36	5	1032	C
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1083	G
36	5	1088	U
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1096	U

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Mol	Chain	Res	Type
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1117	G
36	5	1131	G
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1161	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1201	C
36	5	1202	A
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1233	G
36	5	1235	U
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1254	C
36	5	1258	U
36	5	1259	A
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1285	G
36	5	1292	C

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Mol	Chain	Res	Type
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1311	G
36	5	1313	G
36	5	1329	U
36	5	1330	A
36	5	1331	U
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1354	G
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1380	G
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1455	U
36	5	1465	A
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1502	C
36	5	1503	A
36	5	1508	C
36	5	1517	G
36	5	1519	G
36	5	1527	C
36	5	1533	U

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Mol	Chain	Res	Type
36	5	1536	G
36	5	1539	A
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1566	A
36	5	1567	U
36	5	1569	U
36	5	1570	U
36	5	1571	A
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1581	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1612	A
36	5	1620	U
36	5	1629	U
36	5	1633	C
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1658	G
36	5	1683	A
36	5	1687	U
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1735	G

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Mol	Chain	Res	Type
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1770	G
36	5	1780	G
36	5	1781	C
36	5	1793	C
36	5	1797	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1821	U
36	5	1839	A
36	5	1842	A
36	5	1845	G
36	5	1846	C
36	5	1849	C
36	5	1864	A
36	5	1866	C
36	5	1873	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1881	A
36	5	1893	A
36	5	1906	G
36	5	1907	C
36	5	1922	A
36	5	1926	C
36	5	1935	G
36	5	1947	G
36	5	1953	G
36	5	2097	U

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Mol	Chain	Res	Type
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2144	A
36	5	2155	G
36	5	2158	A
36	5	2169	G
36	5	2187	G
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2209	U
36	5	2210	G
36	5	2219	A
36	5	2223	A
36	5	2225	U
36	5	2244	A
36	5	2246	G
36	5	2250	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2261	G
36	5	2264	U
36	5	2270	A
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2288	G
36	5	2299	A
36	5	2303	A
36	5	2307	G

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Mol	Chain	Res	Type
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2319	U
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2367	A
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2382	G
36	5	2385	G
36	5	2393	G
36	5	2397	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2405	C
36	5	2406	C
36	5	2410	U
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2436	U
36	5	2437	G
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2511	A
36	5	2514	U

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Mol	Chain	Res	Type
36	5	2515	A
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2529	A
36	5	2530	G
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2544	U
36	5	2550	U
36	5	2552	C
36	5	2554	A
36	5	2555	G
36	5	2562	A
36	5	2564	G
36	5	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2574	G
36	5	2584	G
36	5	2585	G
36	5	2586	G
36	5	2587	U
36	5	2588	U
36	5	2593	A
36	5	2606	G
36	5	2607	G
36	5	2608	G
36	5	2609	A
36	5	2610	G
36	5	2614	G
36	5	2628	A
36	5	2636	A
36	5	2638	C

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Mol	Chain	Res	Type
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2675	C
36	5	2676	A
36	5	2677	G
36	5	2689	A
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2706	G
36	5	2713	U
36	5	2714	G
36	5	2716	U
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2740	A
36	5	2748	A
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2781	U
36	5	2783	U
36	5	2796	G
36	5	2797	C
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2829	U
36	5	2843	U

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Mol	Chain	Res	Type
36	5	2845	A
36	5	2849	C
36	5	2853	A
36	5	2856	G
36	5	2865	U
36	5	2871	G
36	5	2872	A
36	5	2875	U
36	5	2876	C
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2914	G
36	5	2921	U
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2947	G
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2980	U
36	5	2982	A
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3028	G
36	5	3030	G
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3069	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3094	A
36	5	3102	G

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Mol	Chain	Res	Type
36	5	3119	U
36	5	3122	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3148	U
36	5	3150	A
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3166	C
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3178	A
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3197	G
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3245	A
36	5	3246	G

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Mol	Chain	Res	Type
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3263	G
36	5	3270	U
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3281	U
36	5	3282	U
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3295	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3350	C
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3355	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3377	G
36	5	3378	C
36	5	3382	U
36	5	3383	G
36	5	3389	U

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Mol	Chain	Res	Type
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	33	U
37	7	38	U
37	7	49	G
37	7	50	U
37	7	51	A
37	7	53	U
37	7	54	U
37	7	57	G
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	92	A
37	7	93	C
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	104	A
37	7	112	G
37	7	121	U
38	8	21	C
38	8	34	U
38	8	35	C
38	8	38	U
38	8	48	A
38	8	49	G
38	8	52	A
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C

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Mol	Chain	Res	Type
38	8	84	C
38	8	86	U
38	8	87	G
38	8	89	A
38	8	90	U
38	8	95	G
38	8	96	A
38	8	97	A
38	8	98	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	122	U
38	8	125	U
38	8	126	A
38	8	138	A
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

All (269) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	25	C
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	136	C
1	2	139	C
1	2	158	U
1	2	192	U
1	2	218	A
1	2	240	U
1	2	277	U
1	2	278	U

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Mol	Chain	Res	Type
1	2	280	U
1	2	321	C
1	2	400	A
1	2	417	A
1	2	468	A
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	512	A
1	2	555	A
1	2	558	U
1	2	606	A
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	794	U
1	2	829	A
1	2	1058	U
1	2	1150	G
1	2	1157	A
1	2	1196	A
1	2	1207	C
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1517	U
1	2	1568	C
1	2	1573	A
1	2	1600	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	43	A
36	1	66	A

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Mol	Chain	Res	Type
36	1	93	C
36	1	99	A
36	1	169	U
36	1	210	U
36	1	217	U
36	1	239	G
36	1	282	G
36	1	369	A
36	1	397	A
36	1	547	G
36	1	594	U
36	1	637	C
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	1160	C
36	1	1181	U
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1329	U
36	1	1331	U
36	1	1352	A
36	1	1355	A
36	1	1419	A
36	1	1481	A
36	1	1484	U
36	1	1554	U
36	1	1562	C
36	1	1582	C
36	1	1589	A
36	1	1716	U
36	1	1751	G
36	1	1820	U

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Mol	Chain	Res	Type
36	1	1842	A
36	1	1846	C
36	1	2101	C
36	1	2112	U
36	1	2121	G
36	1	2209	U
36	1	2372	A
36	1	2374	C
36	1	2418	G
36	1	2522	G
36	1	2537	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2644	C
36	1	2704	A
36	1	2728	G
36	1	2772	C
36	1	2818	U
36	1	2842	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3195	U
36	1	3218	A
36	1	3228	C
36	1	3242	G
36	1	3269	U
36	1	3275	U
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
37	3	13	A
37	3	49	G
38	4	59	A
38	4	79	A
38	4	82	U
38	4	85	G
38	4	111	A
1	6	2	A

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Mol	Chain	Res	Type
1	6	25	C
1	6	66	U
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	400	A
1	6	417	A
1	6	454	U
1	6	542	A
1	6	555	A
1	6	557	G
1	6	558	U
1	6	609	U
1	6	664	U
1	6	678	A
1	6	697	C
1	6	717	C
1	6	755	A
1	6	815	G
1	6	829	A
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1098	U
1	6	1241	G
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1535	U
1	6	1568	C
1	6	1573	A
1	6	1574	G
1	6	1615	C

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Mol	Chain	Res	Type
1	6	1620	C
1	6	1657	U
1	6	1696	G
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	210	U
36	5	238	A
36	5	557	A
36	5	588	G
36	5	647	A
36	5	659	G
36	5	715	A
36	5	765	C
36	5	816	A
36	5	873	C
36	5	896	A
36	5	916	G
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1093	A
36	5	1152	G
36	5	1181	U
36	5	1192	C
36	5	1236	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	1507	G
36	5	1554	U
36	5	1560	G
36	5	1589	A
36	5	1643	A
36	5	1716	U

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Mol	Chain	Res	Type
36	5	1751	G
36	5	1816	A
36	5	1841	A
36	5	1846	C
36	5	1878	G
36	5	2101	C
36	5	2112	U
36	5	2116	G
36	5	2121	G
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2257	C
36	5	2305	G
36	5	2372	A
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2539	C
36	5	2586	G
36	5	2728	G
36	5	2772	C
36	5	2818	U
36	5	2887	A
36	5	2971	A
36	5	3056	U
36	5	3078	U
36	5	3121	U
36	5	3154	C
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3275	U
36	5	3289	G
36	5	3340	G
36	5	3341	U
36	5	3354	U
36	5	3357	U
37	7	49	G
37	7	111	U
38	8	89	A

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Mol	Chain	Res	Type
38	8	111	A

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

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

5.5 Carbohydrates (i)

There are no carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 2559 ligands modelled in this entry, 1426 are monoatomic - leaving 1133 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	3861	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3862	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3863	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3864	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3865	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	3K8	2	2179	-	32,32,32	0.74	1 (3%)	45,47,47	0.82	1 (2%)
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	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	3K8	6	2205	-	32,32,32	0.54	0	45,47,47	0.70	1 (2%)
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O1	201	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	OHX	O2	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3861	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3862	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3863	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3864	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
87	3K8	2	2179	-	-	0/6/25/25	0/5/5/5
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	222	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
87	3K8	6	2205	-	-	0/6/25/25	0/5/5/5
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	215	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	8	231	-	-	0/0/0/0	0/0/0/0
86	OHX	C1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	304	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	207	-	-	0/0/0/0	0/0/0/0
86	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O2	202	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	105	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	106	-	-	0/0/0/0	0/0/0/0
86	OHX	O9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s9	201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	2	2179	3K8	C8-C7	3.18	1.42	1.37

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
87	2	2179	3K8	C15-C7-C4	-3.29	116.14	120.52
87	6	2205	3K8	C20-C19-C18	-2.13	117.97	120.11

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

485 monomers are involved in 748 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3862	OHX	1	0
86	1	3863	OHX	1	0
86	1	3865	OHX	1	0
86	1	3869	OHX	1	0
86	1	3871	OHX	1	0
86	1	3873	OHX	2	0
86	1	3875	OHX	1	0
86	1	3876	OHX	1	0
86	1	3877	OHX	1	0
86	1	3878	OHX	3	0
86	1	3879	OHX	1	0
86	1	3880	OHX	2	0
86	1	3881	OHX	1	0
86	1	3883	OHX	1	0
86	1	3884	OHX	1	0
86	1	3885	OHX	1	0
86	1	3887	OHX	1	0
86	1	3889	OHX	1	0
86	1	3897	OHX	1	0
86	1	3902	OHX	1	0
86	1	3908	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3921	OHX	1	0
86	1	3923	OHX	2	0
86	1	3927	OHX	2	0
86	1	3929	OHX	2	0
86	1	3930	OHX	1	0
86	1	3936	OHX	1	0
86	1	3942	OHX	1	0
86	1	3943	OHX	1	0
86	1	3944	OHX	1	0
86	1	3947	OHX	1	0
86	1	3950	OHX	1	0
86	1	3953	OHX	2	0
86	1	3954	OHX	4	0
86	1	3956	OHX	3	0
86	1	3959	OHX	1	0
86	1	3961	OHX	1	0
86	1	3962	OHX	1	0
86	1	3964	OHX	1	0
86	1	3968	OHX	7	0
86	1	3969	OHX	1	0
86	1	3971	OHX	2	0
86	1	3972	OHX	1	0
86	1	3973	OHX	4	0
86	1	3974	OHX	2	0
86	1	3975	OHX	1	0
86	1	3978	OHX	1	0
86	1	3979	OHX	1	0
86	1	3980	OHX	2	0
86	1	3981	OHX	1	0
86	1	3986	OHX	1	0
86	1	3988	OHX	2	0
86	1	3992	OHX	1	0
86	1	3994	OHX	1	0
86	1	3996	OHX	1	0
86	1	3998	OHX	1	0
86	1	3999	OHX	1	0
86	1	4000	OHX	8	0
86	1	4003	OHX	2	0
86	1	4005	OHX	1	0
86	1	4007	OHX	1	0
86	1	4010	OHX	2	0
86	1	4012	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4014	OHX	1	0
86	1	4016	OHX	1	0
86	1	4018	OHX	1	0
86	1	4020	OHX	1	0
86	1	4024	OHX	1	0
86	1	4025	OHX	6	0
86	1	4027	OHX	1	0
86	1	4029	OHX	5	0
86	1	4030	OHX	1	0
86	1	4031	OHX	1	0
86	1	4035	OHX	2	0
86	1	4036	OHX	2	0
86	1	4037	OHX	1	0
86	1	4038	OHX	1	0
86	1	4041	OHX	4	0
86	1	4042	OHX	7	0
86	1	4043	OHX	1	0
86	1	4045	OHX	2	0
86	1	4053	OHX	6	0
86	1	4054	OHX	5	0
86	1	4055	OHX	2	0
86	1	4057	OHX	1	0
86	1	4060	OHX	2	0
86	1	4061	OHX	1	0
86	1	4062	OHX	1	0
86	1	4064	OHX	1	0
86	1	4065	OHX	1	0
86	1	4066	OHX	1	0
86	1	4072	OHX	1	0
86	1	4074	OHX	1	0
86	1	4079	OHX	5	0
86	1	4081	OHX	1	0
86	1	4083	OHX	5	0
86	1	4084	OHX	2	0
86	1	4087	OHX	2	0
86	1	4089	OHX	1	0
86	1	4094	OHX	1	0
86	1	4095	OHX	1	0
86	1	4097	OHX	2	0
86	1	4098	OHX	1	0
86	1	4099	OHX	1	0
86	1	4106	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4109	OHX	1	0
86	1	4113	OHX	1	0
86	1	4117	OHX	1	0
86	1	4119	OHX	1	0
86	1	4121	OHX	2	0
86	1	4124	OHX	1	0
86	1	4127	OHX	1	0
86	1	4134	OHX	1	0
86	1	4137	OHX	1	0
86	1	4138	OHX	3	0
86	1	4139	OHX	3	0
86	1	4140	OHX	1	0
86	1	4142	OHX	3	0
86	1	4145	OHX	7	0
86	1	4146	OHX	1	0
86	1	4148	OHX	1	0
86	1	4149	OHX	5	0
86	1	4153	OHX	3	0
86	1	4154	OHX	4	0
86	1	4155	OHX	6	0
86	1	4157	OHX	1	0
86	1	4158	OHX	1	0
86	1	4162	OHX	5	0
86	1	4163	OHX	2	0
86	1	4164	OHX	1	0
86	1	4165	OHX	1	0
86	1	4166	OHX	2	0
86	1	4167	OHX	1	0
86	1	4171	OHX	10	0
86	1	4173	OHX	1	0
86	1	4174	OHX	1	0
86	1	4179	OHX	1	0
86	1	4180	OHX	3	0
86	1	4182	OHX	1	0
86	1	4183	OHX	1	0
86	1	4187	OHX	1	0
86	1	4193	OHX	1	0
86	1	4194	OHX	1	0
86	1	4196	OHX	6	0
86	1	4197	OHX	1	0
86	1	4201	OHX	3	0
86	1	4202	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4204	OHX	1	0
86	2	2023	OHX	1	0
86	2	2024	OHX	1	0
86	2	2026	OHX	2	0
86	2	2031	OHX	7	0
86	2	2033	OHX	1	0
86	2	2034	OHX	1	0
86	2	2035	OHX	1	0
86	2	2036	OHX	2	0
86	2	2038	OHX	1	0
86	2	2039	OHX	2	0
86	2	2042	OHX	1	0
86	2	2044	OHX	7	0
86	2	2045	OHX	1	0
86	2	2046	OHX	1	0
86	2	2047	OHX	1	0
86	2	2048	OHX	1	0
86	2	2051	OHX	1	0
86	2	2052	OHX	1	0
86	2	2054	OHX	2	0
86	2	2058	OHX	1	0
86	2	2062	OHX	1	0
86	2	2064	OHX	1	0
86	2	2065	OHX	1	0
86	2	2070	OHX	2	0
86	2	2073	OHX	1	0
86	2	2074	OHX	2	0
86	2	2075	OHX	6	0
86	2	2076	OHX	1	0
86	2	2078	OHX	1	0
86	2	2082	OHX	2	0
86	2	2083	OHX	2	0
86	2	2084	OHX	1	0
86	2	2085	OHX	2	0
86	2	2086	OHX	1	0
86	2	2089	OHX	5	0
86	2	2090	OHX	5	0
86	2	2091	OHX	1	0
86	2	2092	OHX	1	0
86	2	2093	OHX	2	0
86	2	2095	OHX	2	0
86	2	2096	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2098	OHX	7	0
86	2	2103	OHX	1	0
86	2	2104	OHX	1	0
86	2	2105	OHX	1	0
86	2	2107	OHX	1	0
86	2	2108	OHX	2	0
86	2	2109	OHX	1	0
86	2	2110	OHX	3	0
86	2	2114	OHX	1	0
86	2	2120	OHX	1	0
86	2	2125	OHX	1	0
86	2	2127	OHX	1	0
86	2	2129	OHX	1	0
86	2	2130	OHX	1	0
86	2	2131	OHX	7	0
86	2	2132	OHX	1	0
86	2	2134	OHX	1	0
86	2	2136	OHX	1	0
86	2	2138	OHX	1	0
86	2	2141	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	7	0
86	2	2148	OHX	1	0
86	2	2154	OHX	1	0
86	2	2156	OHX	1	0
86	2	2158	OHX	1	0
86	2	2159	OHX	1	0
86	2	2161	OHX	6	0
86	2	2167	OHX	1	0
86	2	2168	OHX	1	0
86	2	2171	OHX	1	0
87	2	2179	3K8	4	0
86	3	216	OHX	1	0
86	3	218	OHX	1	0
86	3	220	OHX	1	0
86	3	221	OHX	1	0
86	3	225	OHX	2	0
86	4	222	OHX	1	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	227	OHX	1	0
86	4	228	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	4	231	OHX	2	0
86	5	3901	OHX	2	0
86	5	3903	OHX	1	0
86	5	3907	OHX	1	0
86	5	3909	OHX	3	0
86	5	3912	OHX	1	0
86	5	3914	OHX	2	0
86	5	3917	OHX	1	0
86	5	3918	OHX	2	0
86	5	3921	OHX	2	0
86	5	3926	OHX	1	0
86	5	3927	OHX	1	0
86	5	3938	OHX	1	0
86	5	3944	OHX	7	0
86	5	3947	OHX	1	0
86	5	3950	OHX	1	0
86	5	3955	OHX	1	0
86	5	3956	OHX	1	0
86	5	3958	OHX	1	0
86	5	3959	OHX	2	0
86	5	3960	OHX	1	0
86	5	3961	OHX	1	0
86	5	3962	OHX	1	0
86	5	3964	OHX	4	0
86	5	3971	OHX	1	0
86	5	3974	OHX	2	0
86	5	3975	OHX	6	0
86	5	3978	OHX	1	0
86	5	3980	OHX	9	0
86	5	3984	OHX	1	0
86	5	3986	OHX	1	0
86	5	3989	OHX	1	0
86	5	3991	OHX	1	0
86	5	3993	OHX	3	0
86	5	3998	OHX	1	0
86	5	4003	OHX	6	0
86	5	4004	OHX	4	0
86	5	4005	OHX	1	0
86	5	4007	OHX	1	0
86	5	4009	OHX	2	0
86	5	4010	OHX	1	0
86	5	4011	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4013	OHX	6	0
86	5	4015	OHX	1	0
86	5	4016	OHX	1	0
86	5	4017	OHX	1	0
86	5	4019	OHX	1	0
86	5	4021	OHX	2	0
86	5	4022	OHX	6	0
86	5	4025	OHX	3	0
86	5	4026	OHX	2	0
86	5	4028	OHX	1	0
86	5	4029	OHX	1	0
86	5	4030	OHX	1	0
86	5	4031	OHX	1	0
86	5	4032	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	5	0
86	5	4036	OHX	3	0
86	5	4037	OHX	5	0
86	5	4041	OHX	2	0
86	5	4048	OHX	1	0
86	5	4051	OHX	1	0
86	5	4052	OHX	1	0
86	5	4053	OHX	1	0
86	5	4056	OHX	1	0
86	5	4057	OHX	6	0
86	5	4068	OHX	7	0
86	5	4069	OHX	1	0
86	5	4070	OHX	1	0
86	5	4074	OHX	1	0
86	5	4075	OHX	1	0
86	5	4076	OHX	1	0
86	5	4077	OHX	1	0
86	5	4083	OHX	5	0
86	5	4090	OHX	2	0
86	5	4091	OHX	1	0
86	5	4093	OHX	6	0
86	5	4094	OHX	1	0
86	5	4095	OHX	1	0
86	5	4096	OHX	2	0
86	5	4099	OHX	1	0
86	5	4100	OHX	2	0
86	5	4102	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4104	OHX	1	0
86	5	4105	OHX	2	0
86	5	4108	OHX	1	0
86	5	4110	OHX	1	0
86	5	4114	OHX	1	0
86	5	4120	OHX	1	0
86	5	4121	OHX	2	0
86	5	4122	OHX	1	0
86	5	4123	OHX	1	0
86	5	4129	OHX	1	0
86	5	4130	OHX	1	0
86	5	4131	OHX	2	0
86	5	4133	OHX	1	0
86	5	4134	OHX	1	0
86	5	4140	OHX	1	0
86	5	4141	OHX	1	0
86	5	4144	OHX	1	0
86	5	4146	OHX	6	0
86	5	4147	OHX	1	0
86	5	4148	OHX	2	0
86	5	4149	OHX	1	0
86	5	4155	OHX	1	0
86	5	4157	OHX	1	0
86	5	4161	OHX	2	0
86	5	4163	OHX	1	0
86	5	4164	OHX	1	0
86	5	4170	OHX	1	0
86	5	4174	OHX	1	0
86	5	4179	OHX	1	0
86	5	4182	OHX	1	0
86	5	4183	OHX	1	0
86	5	4186	OHX	1	0
86	5	4187	OHX	1	0
86	5	4189	OHX	1	0
86	5	4191	OHX	6	0
86	5	4192	OHX	1	0
86	5	4193	OHX	6	0
86	5	4194	OHX	1	0
86	5	4195	OHX	1	0
86	5	4197	OHX	1	0
86	5	4199	OHX	2	0
86	5	4200	OHX	11	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4201	OHX	7	0
86	5	4202	OHX	7	0
86	5	4203	OHX	3	0
86	5	4205	OHX	5	0
86	5	4213	OHX	1	0
86	5	4219	OHX	8	0
86	5	4221	OHX	1	0
86	5	4223	OHX	1	0
86	5	4225	OHX	1	0
86	5	4226	OHX	1	0
86	5	4228	OHX	1	0
86	5	4230	OHX	1	0
86	5	4231	OHX	1	0
86	5	4236	OHX	6	0
86	5	4239	OHX	1	0
86	5	4240	OHX	5	0
86	5	4241	OHX	1	0
86	5	4242	OHX	1	0
86	5	4245	OHX	7	0
86	5	4249	OHX	1	0
86	5	4250	OHX	1	0
86	5	4251	OHX	2	0
86	6	2048	OHX	1	0
86	6	2050	OHX	2	0
86	6	2055	OHX	1	0
86	6	2056	OHX	1	0
86	6	2058	OHX	1	0
86	6	2060	OHX	7	0
86	6	2062	OHX	2	0
86	6	2063	OHX	1	0
86	6	2066	OHX	1	0
86	6	2067	OHX	2	0
86	6	2069	OHX	1	0
86	6	2071	OHX	1	0
86	6	2072	OHX	2	0
86	6	2075	OHX	1	0
86	6	2076	OHX	1	0
86	6	2078	OHX	1	0
86	6	2084	OHX	1	0
86	6	2087	OHX	1	0
86	6	2089	OHX	1	0
86	6	2092	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2093	OHX	1	0
86	6	2094	OHX	1	0
86	6	2096	OHX	1	0
86	6	2097	OHX	1	0
86	6	2101	OHX	3	0
86	6	2103	OHX	1	0
86	6	2104	OHX	1	0
86	6	2106	OHX	1	0
86	6	2108	OHX	2	0
86	6	2109	OHX	1	0
86	6	2110	OHX	1	0
86	6	2112	OHX	1	0
86	6	2113	OHX	1	0
86	6	2115	OHX	1	0
86	6	2118	OHX	1	0
86	6	2120	OHX	1	0
86	6	2121	OHX	8	0
86	6	2122	OHX	1	0
86	6	2123	OHX	1	0
86	6	2124	OHX	2	0
86	6	2125	OHX	1	0
86	6	2126	OHX	3	0
86	6	2127	OHX	2	0
86	6	2129	OHX	1	0
86	6	2131	OHX	2	0
86	6	2137	OHX	1	0
86	6	2138	OHX	2	0
86	6	2139	OHX	1	0
86	6	2144	OHX	1	0
86	6	2146	OHX	1	0
86	6	2147	OHX	7	0
86	6	2149	OHX	1	0
86	6	2150	OHX	2	0
86	6	2151	OHX	1	0
86	6	2154	OHX	2	0
86	6	2159	OHX	1	0
86	6	2160	OHX	1	0
86	6	2162	OHX	1	0
86	6	2165	OHX	1	0
86	6	2168	OHX	1	0
86	6	2171	OHX	8	0
86	6	2175	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2176	OHX	1	0
86	6	2178	OHX	1	0
86	6	2179	OHX	1	0
86	6	2182	OHX	1	0
86	6	2183	OHX	1	0
86	6	2186	OHX	1	0
86	6	2188	OHX	1	0
86	6	2189	OHX	3	0
86	6	2190	OHX	1	0
86	6	2192	OHX	1	0
86	6	2195	OHX	1	0
86	6	2196	OHX	1	0
86	6	2201	OHX	1	0
86	6	2202	OHX	1	0
86	6	2204	OHX	1	0
87	6	2205	3K8	1	0
86	7	219	OHX	7	0
86	7	220	OHX	2	0
86	7	222	OHX	1	0
86	7	226	OHX	6	0
86	8	215	OHX	1	0
86	8	216	OHX	7	0
86	8	217	OHX	1	0
86	8	218	OHX	1	0
86	8	220	OHX	1	0
86	8	223	OHX	1	0
86	8	225	OHX	6	0
86	8	226	OHX	4	0
86	8	230	OHX	2	0
86	C3	201	OHX	1	0
86	C5	201	OHX	5	0
86	D9	102	OHX	1	0
86	L3	404	OHX	1	0
86	L3	405	OHX	1	0
86	M0	304	OHX	1	0
86	M5	302	OHX	1	0
86	M7	206	OHX	1	0
86	M7	207	OHX	1	0
86	N1	201	OHX	2	0
86	O1	201	OHX	6	0
86	O3	201	OHX	1	0
86	O7	105	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	O7	106	OHX	1	0
86	O9	101	OHX	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data (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.