Full wwPDB X-ray Structure Validation Report ⓘ

May 15, 2020 – 08:11 pm BST

PDB ID	:	4WZO
Title	:	Complex of 70S ribosome with tRNA-fMet and mRNA
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2014-11-20
Resolution	:	3.30 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

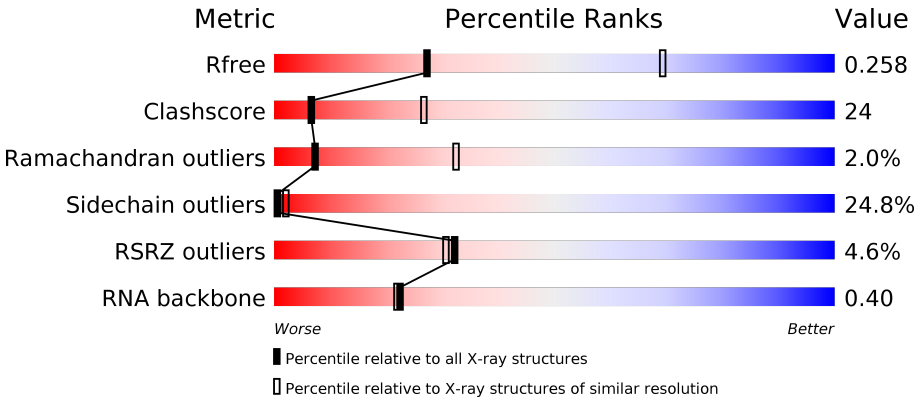
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

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 3.30 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))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117 (3.70-2.90)

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 respectively. 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.

Mol	Chain	Length	Quality of chain
1	13	1522	24% 45% 24% 5%
1	1G	1522	24% 49% 21%
2	12	256	17% 32% 42% 17% 7%
2	1E	256	5% 38% 40% 15% 7%

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Mol	Chain	Length	Quality of chain
3	22	239	15% 33% 41% 12% 14%
3	2E	239	9% 47% 32% 6% 14%
4	32	209	10% 45% 40% 14%
4	3E	209	8% 40% 49% 10%
5	42	162	4% 29% 50% 14% 7%
5	4E	162	10% 41% 39% 13% 7%
6	52	101	2% 51% 39% 10%
6	5E	101	2% 45% 41% 14%
7	62	156	7% 45% 41% 8% 6%
7	6E	156	9% 47% 45% 7%
8	72	138	4% 43% 45% 12%
8	7E	138	16% 43% 44% 12%
9	82	128	3% 36% 52% 10%
9	8E	128	% 35% 47% 17%
10	1A	105	5% 29% 26% 8% 37%
10	1I	105	19% 39% 40% 15% 6%
11	2A	129	22% 42% 38% 10% 10%
11	2I	129	6% 42% 43% 7% 8%
12	3A	132	7% 43% 35% 14% 8%
12	3I	132	3% 46% 35% 11% 8%
13	4A	126	17% 40% 33% 20% 7%
13	4I	126	3% 36% 43% 14% 7%
14	5A	61	10% 30% 44% 10% 15%
14	5I	61	3% 41% 48% 10%
15	6A	89	45% 45% 9%

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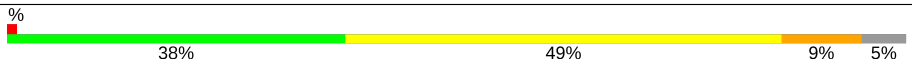
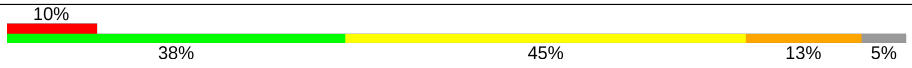
Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
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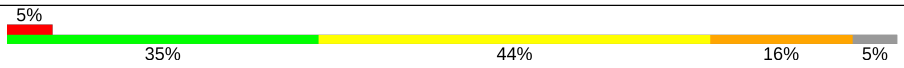
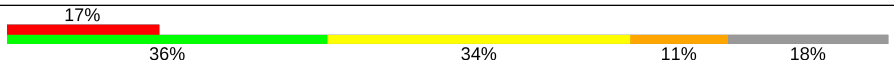
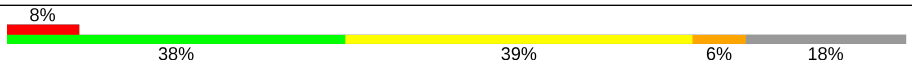
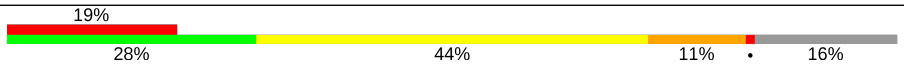
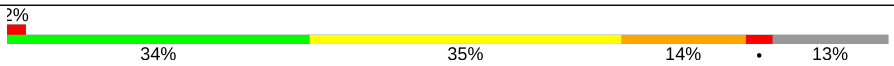
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
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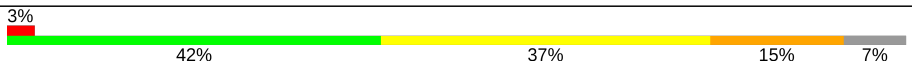
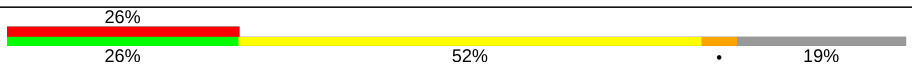
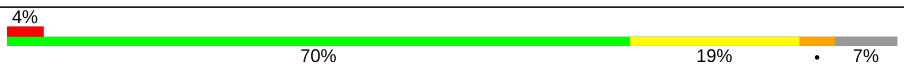
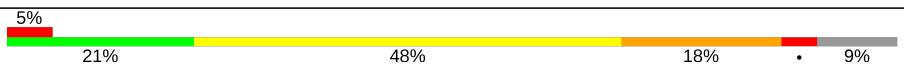
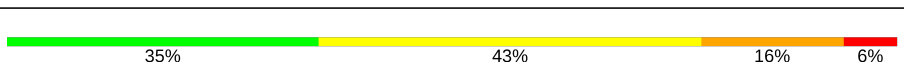
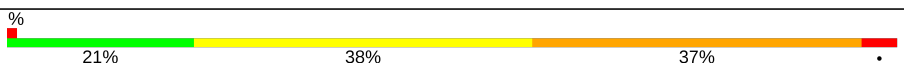
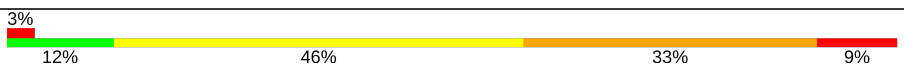
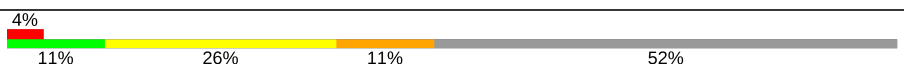
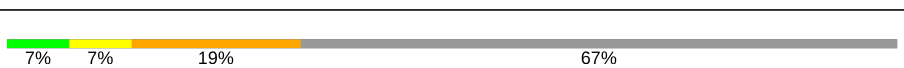
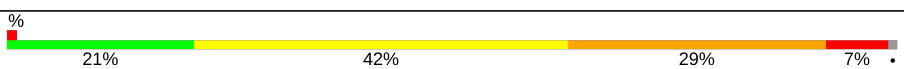
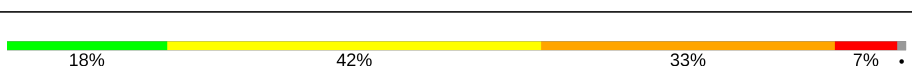
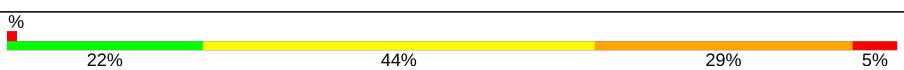
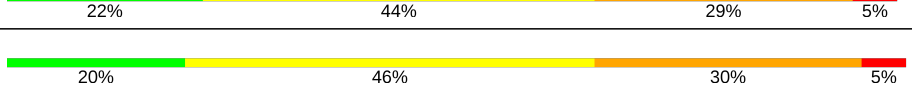
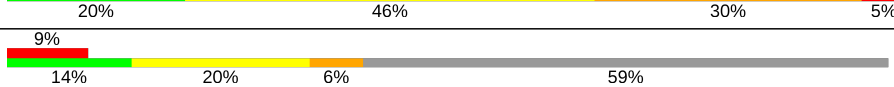
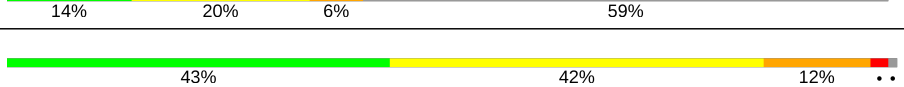
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	77	
23	2K	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	
28	71	229	
29	11	276	

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Mol	Chain	Length	Quality of chain
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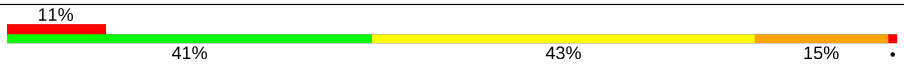
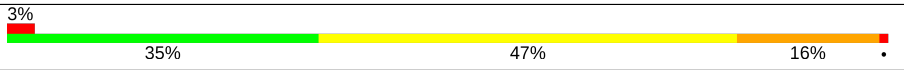
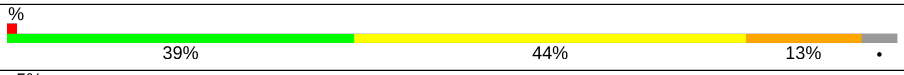
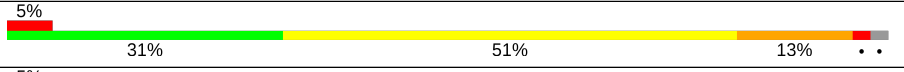
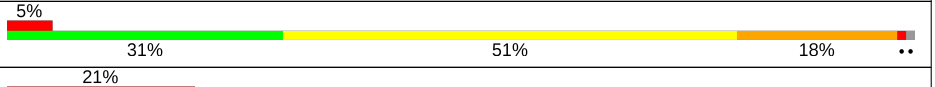
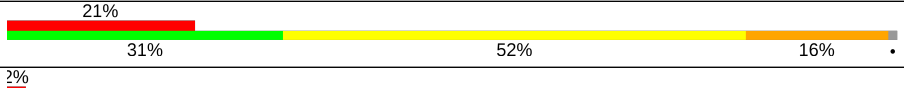
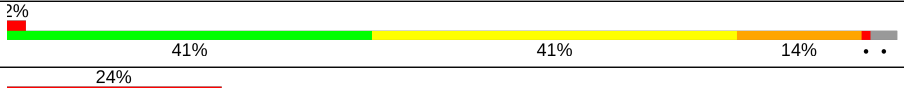
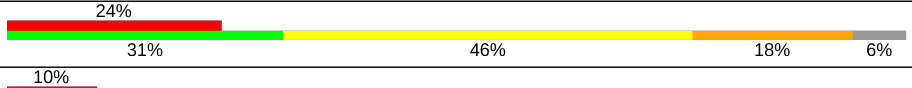
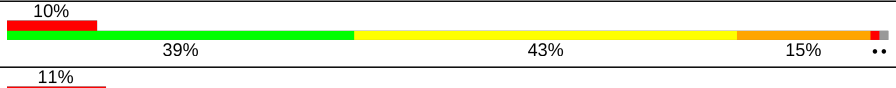
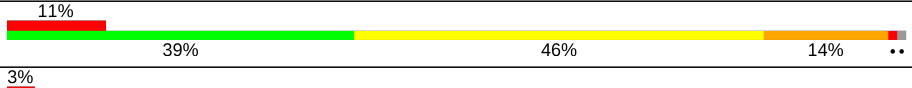
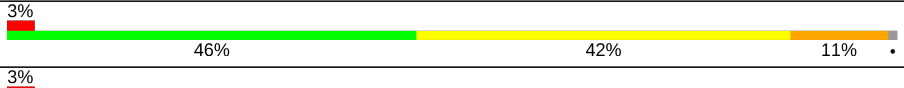
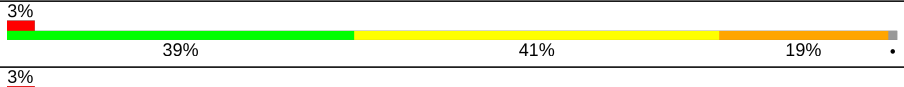
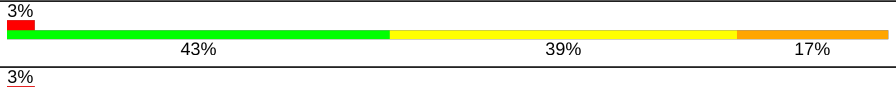
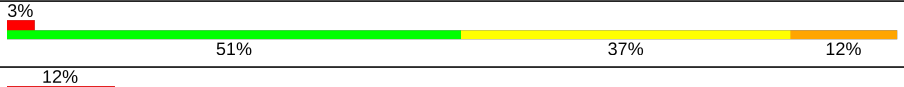
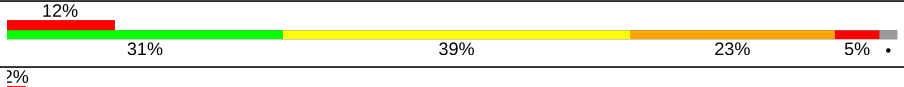
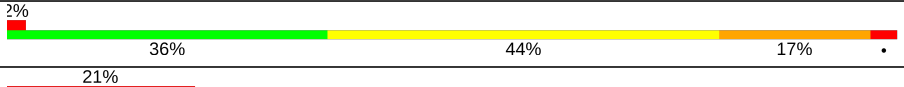
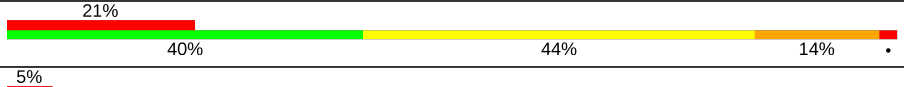
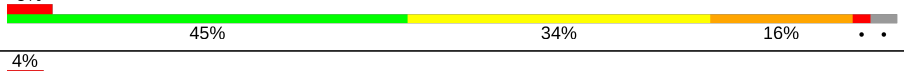
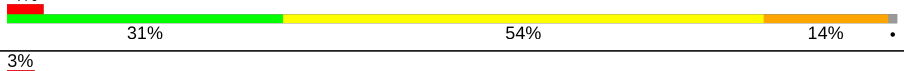
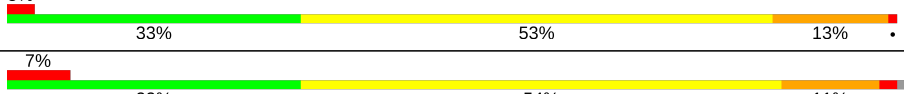
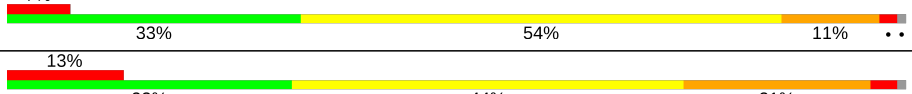
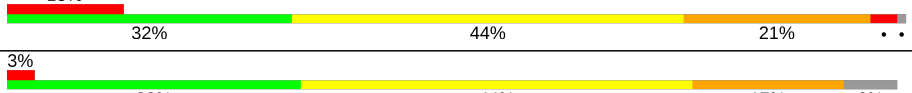
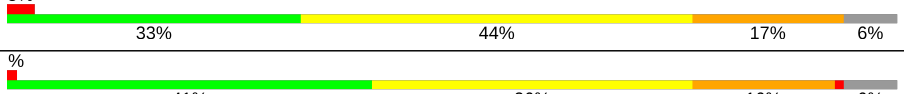
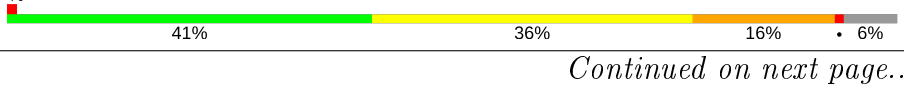
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	
40	A8	112	
41	75	146	
41	B8	146	

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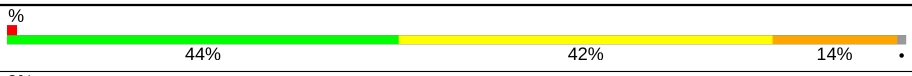
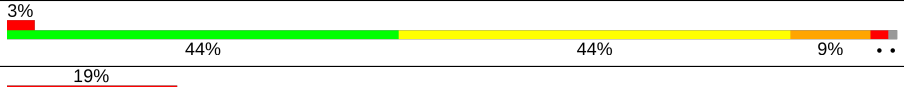
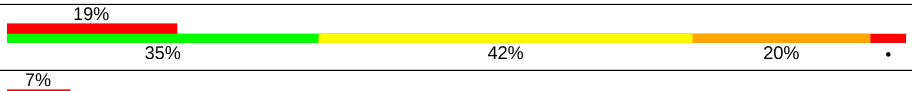
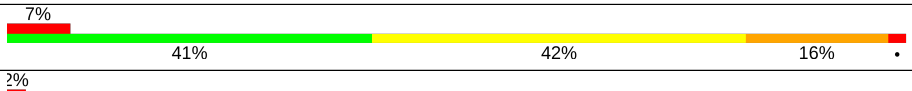
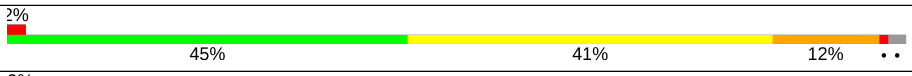
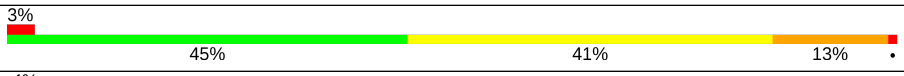
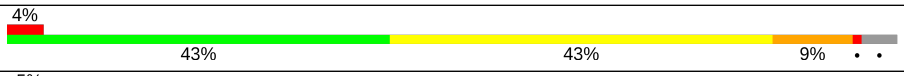
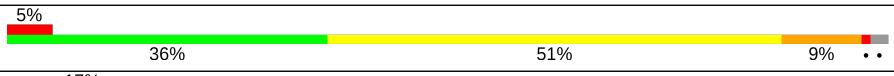
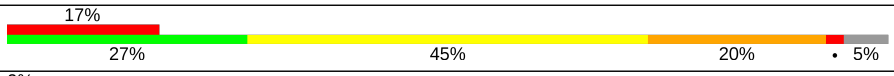
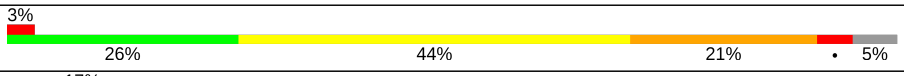
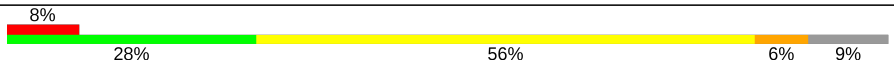
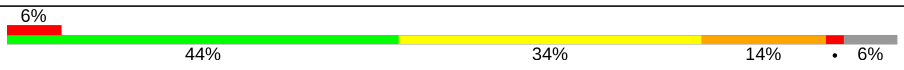
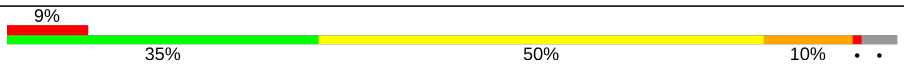
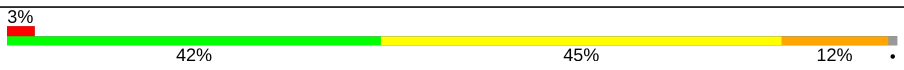
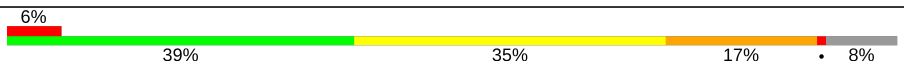
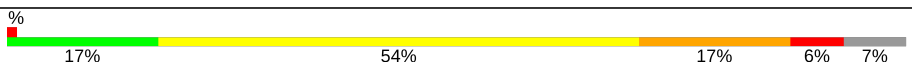
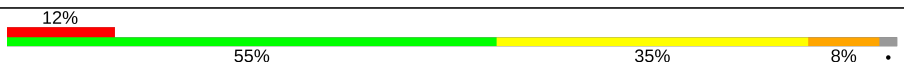
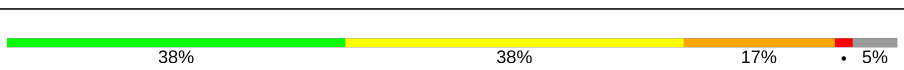
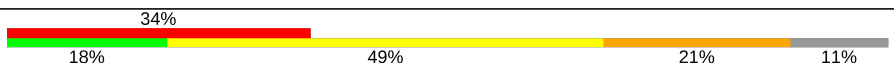
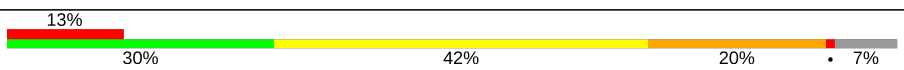
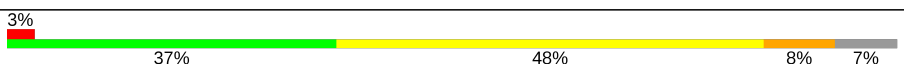
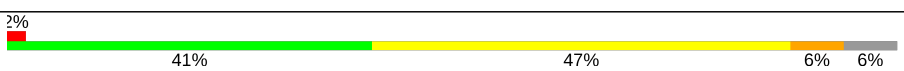
Mol	Chain	Length	Quality of chain
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	I5	71	
52	M8	71	
53	J5	60	
53	N8	60	
54	L5	49	

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Mol	Chain	Length	Quality of chain
54	P8	49	55% 33% 8%
55	M5	65	5% 38% 32% 17% 5% 8%
55	Q8	65	12% 34% 35% 11% 8%
56	2L	77	26% 48% 18% 8%

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
57	MG	13	1626	-	-	-	X
57	MG	13	1642	-	-	-	X
57	MG	13	1659	-	-	-	X
57	MG	13	1661	-	-	-	X
57	MG	13	1662	-	-	-	X
57	MG	13	1664	-	-	-	X
57	MG	13	1671	-	-	-	X
57	MG	14	3069	-	-	-	X
57	MG	14	3086	-	-	-	X
57	MG	14	3094	-	-	-	X
57	MG	14	3102	-	-	-	X
57	MG	14	3124	-	-	-	X
57	MG	14	3156	-	-	-	X
57	MG	14	3164	-	-	-	X
57	MG	14	3166	-	-	-	X
57	MG	14	3170	-	-	-	X
57	MG	14	3174	-	-	-	X
57	MG	14	3176	-	-	-	X
57	MG	14	3179	-	-	-	X
57	MG	14	3201	-	-	-	X
57	MG	14	3211	-	-	-	X
57	MG	14	3212	-	-	-	X
57	MG	14	3213	-	-	-	X
57	MG	14	3216	-	-	-	X
57	MG	14	3218	-	-	-	X
57	MG	1G	1621	-	-	-	X
57	MG	1G	1635	-	-	-	X
57	MG	1G	1651	-	-	-	X
57	MG	1H	3053	-	-	-	X
57	MG	1H	3162	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	1H	3169	-	-	-	X
57	MG	1H	3170	-	-	-	X
57	MG	1H	3188	-	-	-	X
57	MG	1H	3198	-	-	-	X
57	MG	1H	3204	-	-	-	X
57	MG	1H	3224	-	-	-	X
57	MG	1H	3225	-	-	-	X
57	MG	1H	3230	-	-	-	X
57	MG	1H	3242	-	-	-	X
57	MG	1H	3244	-	-	-	X
57	MG	1H	3252	-	-	-	X
57	MG	1H	3261	-	-	-	X
57	MG	1H	3262	-	-	-	X
57	MG	1H	3271	-	-	-	X
57	MG	1H	3277	-	-	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 295920 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 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1497	Total	C	N	O	P	0	0	0
			32185	14324	5968	10396	1497			
1	1G	1497	Total	C	N	O	P	0	0	0
			32182	14324	5968	10394	1496			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	12	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	42	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			
7	62	147	Total	C	N	O	S	0	0	0
			1194	744	237	207	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	7E	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			
8	72	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	8E	127	Total	C	N	O	0	0	0
			1009	639	197	173			
9	82	127	Total	C	N	O	0	0	0
			1009	639	197	173			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1A	66	Total	C	N	O	S	0	0	0
			522	327	99	95	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	119	Total	C	N	O	S	0	0	0
			884	549	168	164	3			
11	2A	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	3I	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
12	3A	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			
13	4A	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			
14	5A	52	Total	C	N	O	S	0	0	0
			418	262	90	62	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			
15	6A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	7A	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	8I	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	8A	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	72	Total	C	N	O	0	0	0
			590	376	117	97			
18	9A	72	Total	C	N	O	0	0	0
			590	376	117	97			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	81	Total	C	N	O	S	0	0	0
			647	413	119	113	2			
19	AA	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	25	Total 217	C 134	N 52	O 31	0	0	0
21	1B	22	Total 188	C 116	N 44	O 28	0	0	0

- Molecule 22 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	70	Total 1497	C 669	N 274	O 485	P 69	0	0	0

- Molecule 23 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total 1646	C 735	N 298	O 535	P 77	S 1	0	0	0

- Molecule 24 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
24	3K	76	Total 1627	C 730	N 290	O 530	P 75	S 2	0	0	0
24	3L	76	Total 1627	C 730	N 290	O 530	P 75	S 2	0	0	0

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	13	Total 285	C 129	N 62	O 81	P 13	0	0	0
25	4L	9	Total 197	C 89	N 42	O 57	P 9	0	0	0

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2902	Total 62497	C 27816	N 11684	O 20095	P 2902	0	0	0
26	14	2877	Total 61968	C 27579	N 11594	O 19918	P 2877	0	0	0

- Molecule 27 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	16	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
27	1J	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 28 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	71	93	Total	C	N	O	0	0	0
			737	465	139	133			

- Molecule 29 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
29	19	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

- Molecule 30 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
30	29	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 31 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
31	39	206	Total	C	N	O	S	0	0	0
			1610	1026	301	281	2			

- Molecule 32 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			
32	49	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			

- Molecule 33 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			
33	59	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 34 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
34	69	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 35 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
35	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 36 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
36	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	78	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			
37	35	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	137	Total	C	N	O	S	0	0	0
			1077	688	206	177	6			
38	45	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
39	55	117	Total	C	N	O		0	0	0
			959	599	202	158				

- Molecule 40 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	A8	111	Total	C	N	O	0	0	0
			881	556	176	149			
40	65	111	Total	C	N	O	0	0	0
			881	556	176	149			

- Molecule 41 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
41	75	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 42 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	C8	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			
42	85	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			

- Molecule 43 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	D8	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	95	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			

- Molecule 44 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			
44	A5	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			
45	B5	92	Total	C	N	O		0	0	0
			725	471	131	123				

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	104	Total	C	N	O	S	0	0	0
			791	510	149	127	5			
46	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 47 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	H8	135	Total	C	N	O	S	0	0	0
			1110	714	202	192	2			
47	D5	137	Total	C	N	O	S	0	0	0
			1126	725	202	197	2			

- Molecule 48 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	80	Total	C	N	O	S	0	0	0
			626	388	132	105	1			
48	E5	77	Total	C	N	O	S	0	0	0
			612	379	129	103	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I8	6	ALA	GLY	conflict	UNP P60493
I8	8	ALA	GLY	conflict	UNP P60493
E5	6	ALA	GLY	conflict	UNP P60493
E5	8	ALA	GLY	conflict	UNP P60493

- Molecule 49 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	J8	97	Total	C	N	O	S	0	0	0
			762	481	150	130	1			
49	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

- Molecule 50 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	K8	67	Total	C	N	O	S	0	0	0
			563	349	114	99	1			
50	G5	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

- Molecule 51 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	L8	57	Total	C	N	O	0	0	0
			452	288	88	76			
51	H5	59	Total	C	N	O	0	0	0
			468	298	90	80			

- Molecule 52 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M8	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
52	I5	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 53 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	54	Total	C	N	O	S	0	0	0
			422	264	85	68	5			
53	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
54	L5	46	Total	C	N	O	S	0	0	0
			398	245	98	53	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
55	M5	60	Total	C	N	O	S	0	0	0
			477	303	98	74	2			

- Molecule 56 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
56	2L	77	Total	C	N	O	P	S	0	0	0
			1645	734	298	535	77	1			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	98	1	Total	Mg	0	0
			1	1		
57	45	1	Total	Mg	0	0
			1	1		
57	P8	1	Total	Mg	0	0
			1	1		
57	13	99	Total	Mg	0	0
			99	99		
57	1J	3	Total	Mg	0	0
			3	3		
57	35	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	16	11	Total Mg 11 11	0	0
57	25	1	Total Mg 1 1	0	0
57	M5	1	Total Mg 1 1	0	0
57	2K	2	Total Mg 2 2	0	0
57	L8	1	Total Mg 1 1	0	0
57	4I	1	Total Mg 1 1	0	0
57	I8	2	Total Mg 2 2	0	0
57	68	2	Total Mg 2 2	0	0
57	29	2	Total Mg 2 2	0	0
57	78	2	Total Mg 2 2	0	0
57	J8	2	Total Mg 2 2	0	0
57	1G	72	Total Mg 72 72	0	0
57	4E	1	Total Mg 1 1	0	0
57	11	3	Total Mg 3 3	0	0
57	1H	444	Total Mg 444 444	0	0
57	88	1	Total Mg 1 1	0	0
57	14	327	Total Mg 327 327	0	0
57	3E	1	Total Mg 1 1	0	0
57	55	1	Total Mg 1 1	0	0
57	3L	2	Total Mg 2 2	0	0
57	41	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2L	2	Total Mg 2 2	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	32	1	Total Zn 1 1	0	0
58	3E	1	Total Zn 1 1	0	0
58	5I	1	Total Zn 1 1	0	0
58	5A	1	Total Zn 1 1	0	0
58	G8	1	Total Zn 1 1	0	0
58	C5	1	Total Zn 1 1	0	0

- Molecule 59 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	13	144	Total O 144 144	0	0
59	3E	2	Total O 2 2	0	0
59	1I	1	Total O 1 1	0	0
59	3I	2	Total O 2 2	0	0
59	5I	2	Total O 2 2	0	0
59	2K	6	Total O 6 6	0	0
59	4K	2	Total O 2 2	0	0
59	1H	933	Total O 933 933	0	0
59	16	22	Total O 22 22	0	0
59	11	11	Total O 11 11	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	21	3	Total O 3 3	0	0
59	31	9	Total O 9 9	0	0
59	78	6	Total O 6 6	0	0
59	D8	1	Total O 1 1	0	0
59	F8	2	Total O 2 2	0	0
59	G8	2	Total O 2 2	0	0
59	I8	5	Total O 5 5	0	0
59	J8	1	Total O 1 1	0	0
59	L8	1	Total O 1 1	0	0
59	P8	2	Total O 2 2	0	0
59	Q8	1	Total O 1 1	0	0
59	1G	48	Total O 48 48	0	0
59	14	592	Total O 592 592	0	0
59	19	8	Total O 8 8	0	0
59	29	5	Total O 5 5	0	0
59	39	4	Total O 4 4	0	0
59	25	6	Total O 6 6	0	0
59	35	2	Total O 2 2	0	0
59	55	3	Total O 3 3	0	0
59	75	1	Total O 1 1	0	0
59	A5	1	Total O 1 1	0	0

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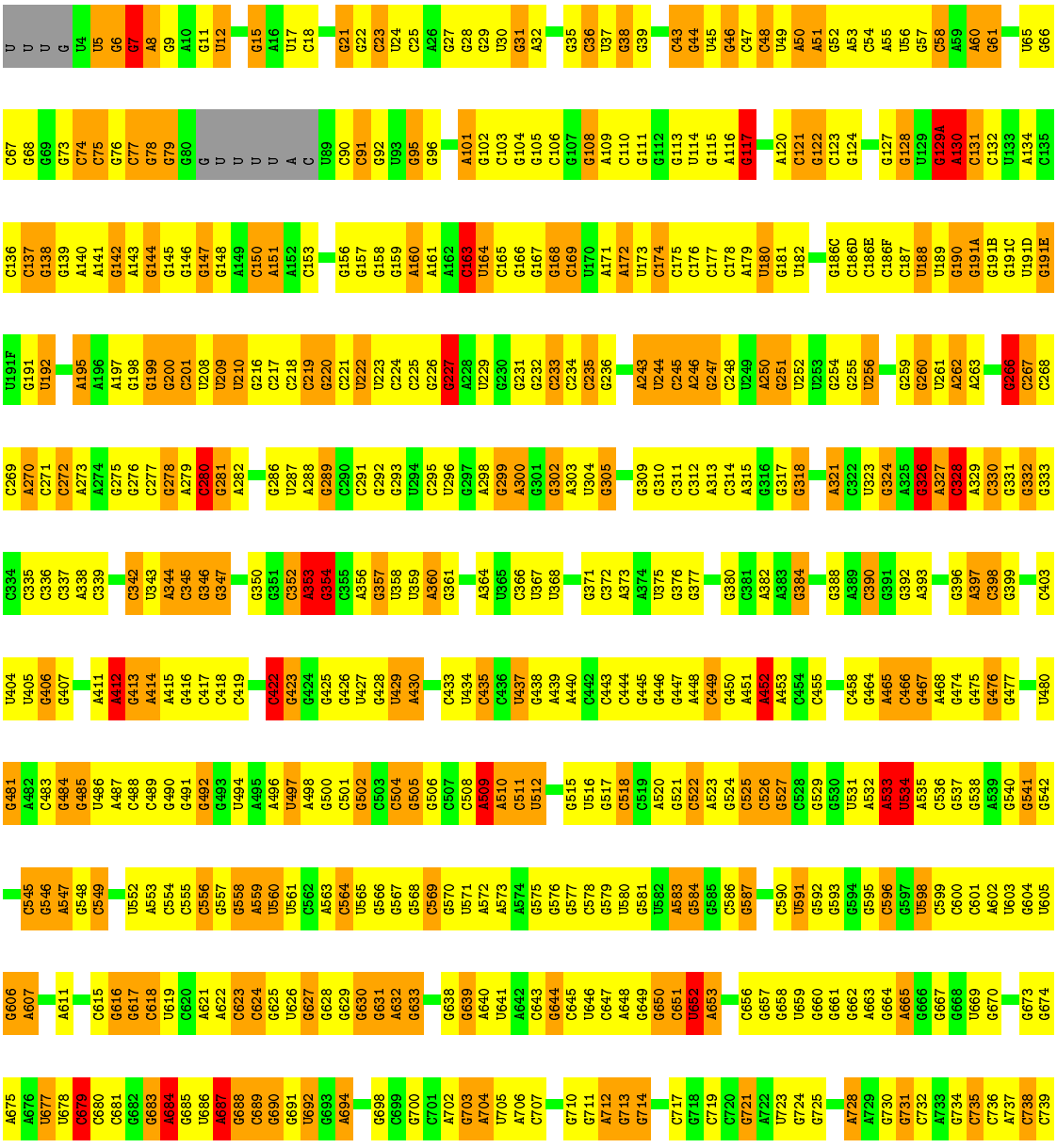
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	H5	2	Total O 2 2	0	0
59	L5	1	Total O 1 1	0	0
59	M5	1	Total O 1 1	0	0

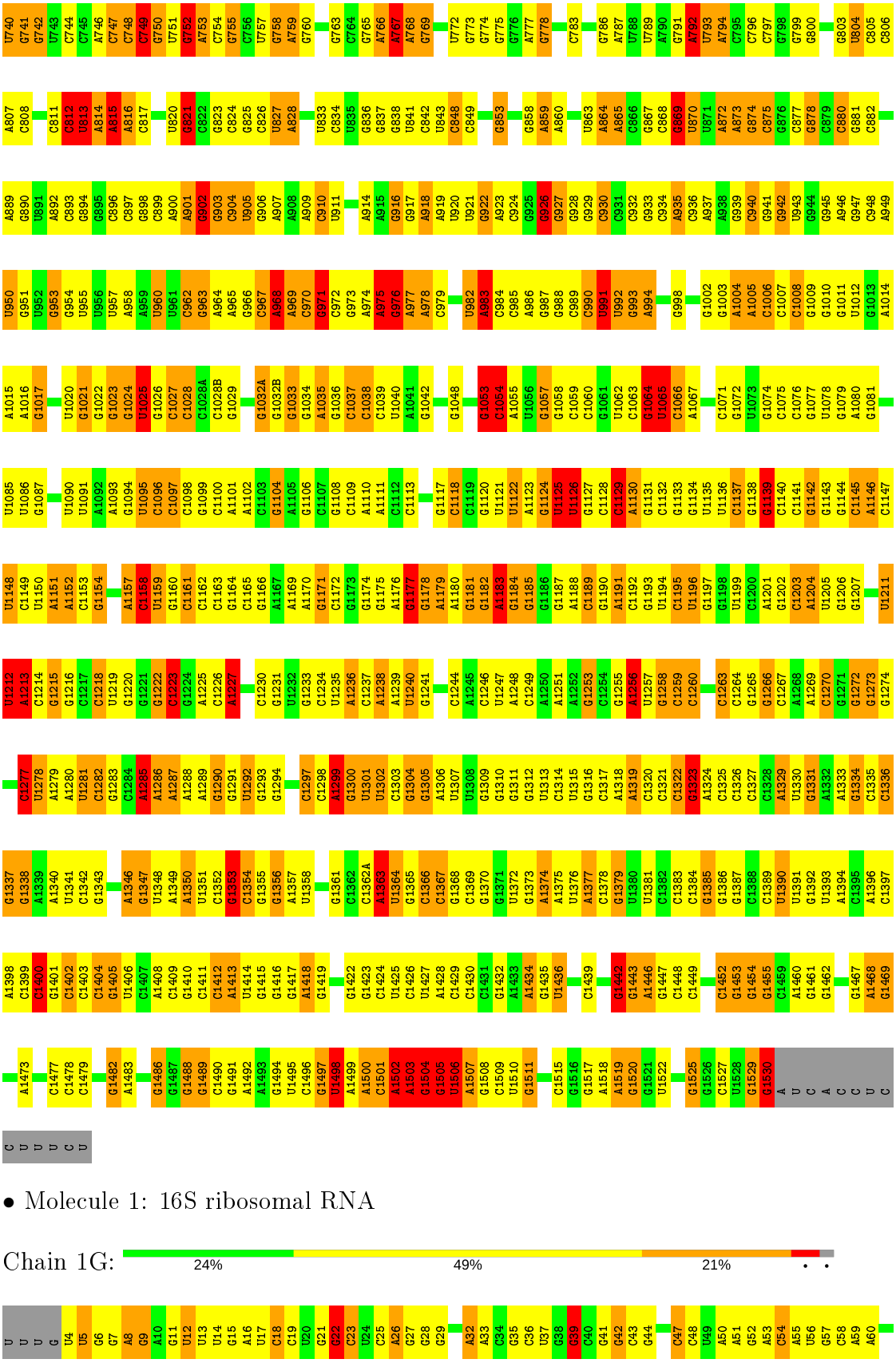
3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 16S ribosomal RNA

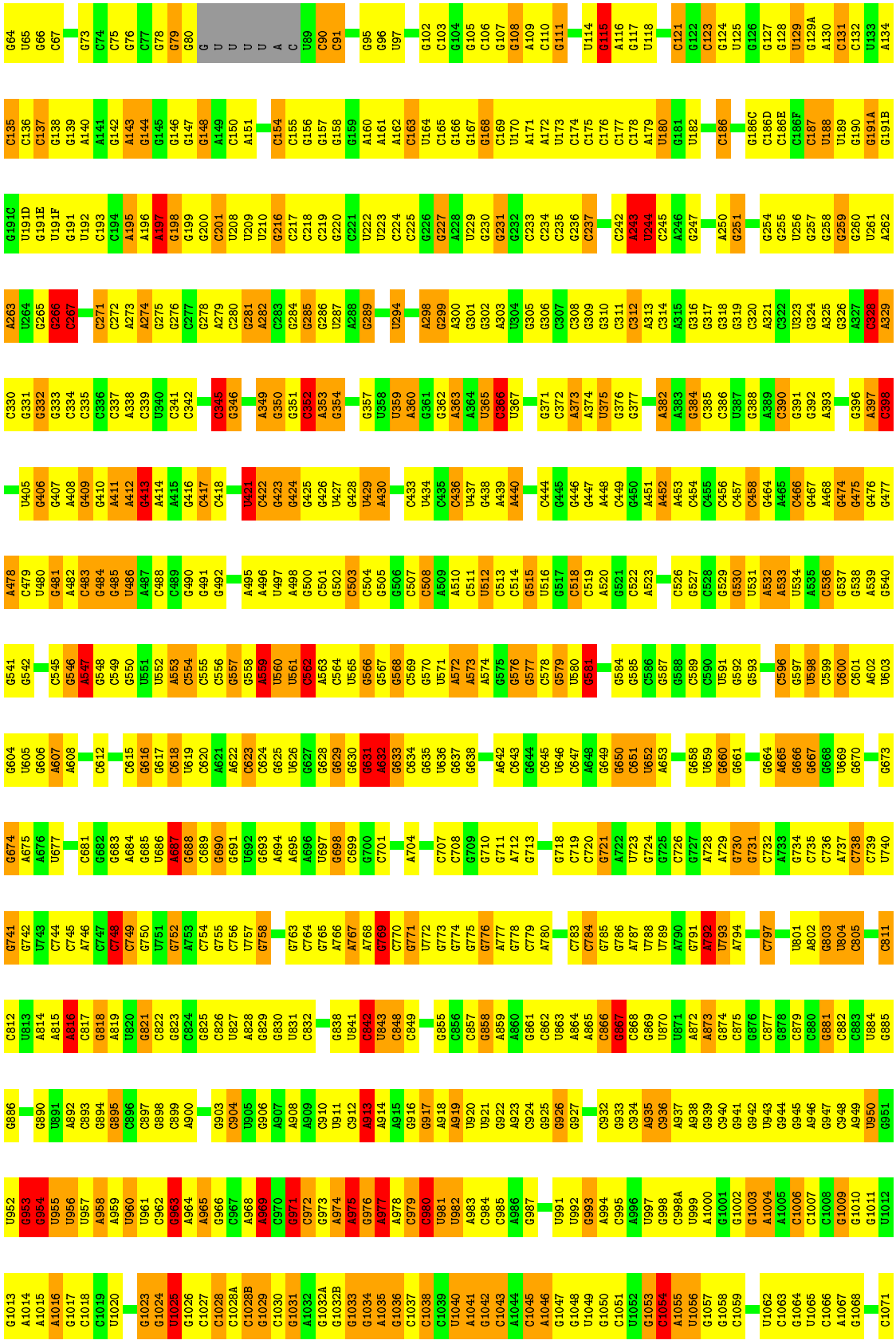
Chain 13:





• Molecule 1: 16S ribosomal RNA

Chain 1G: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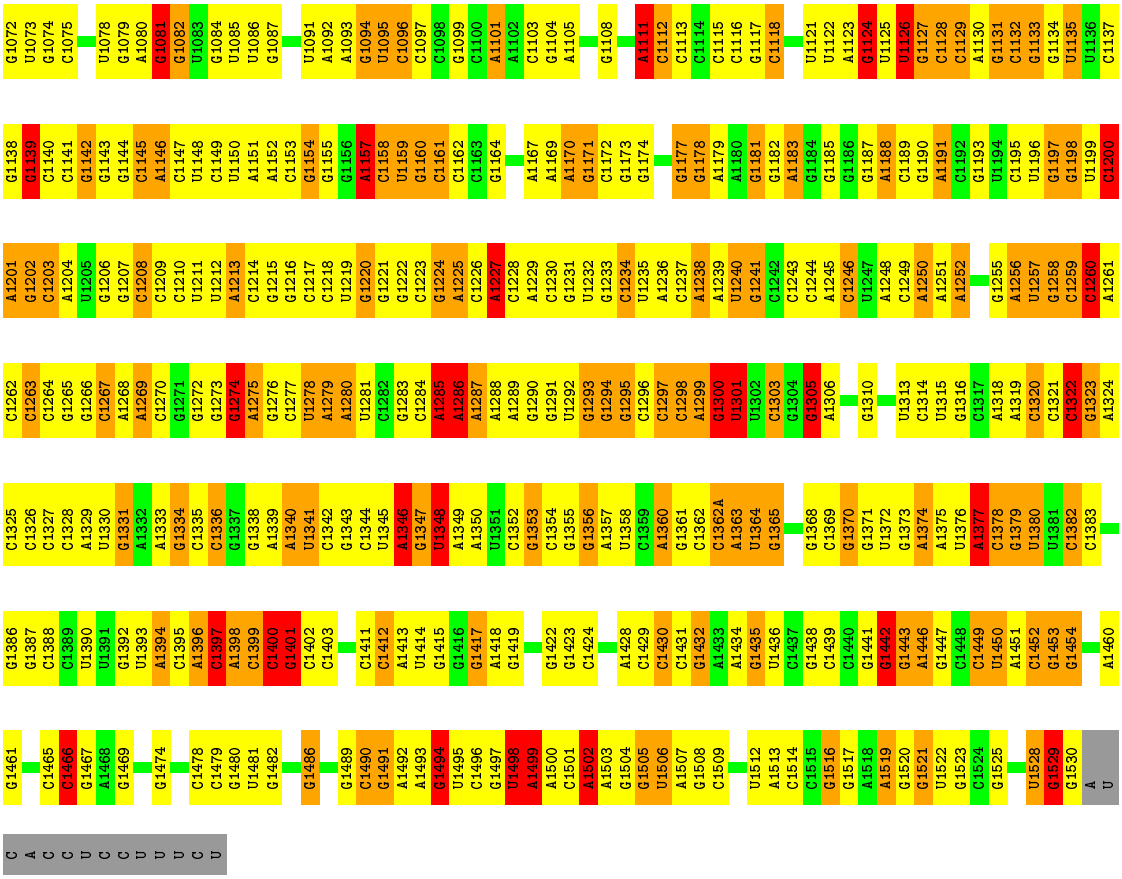
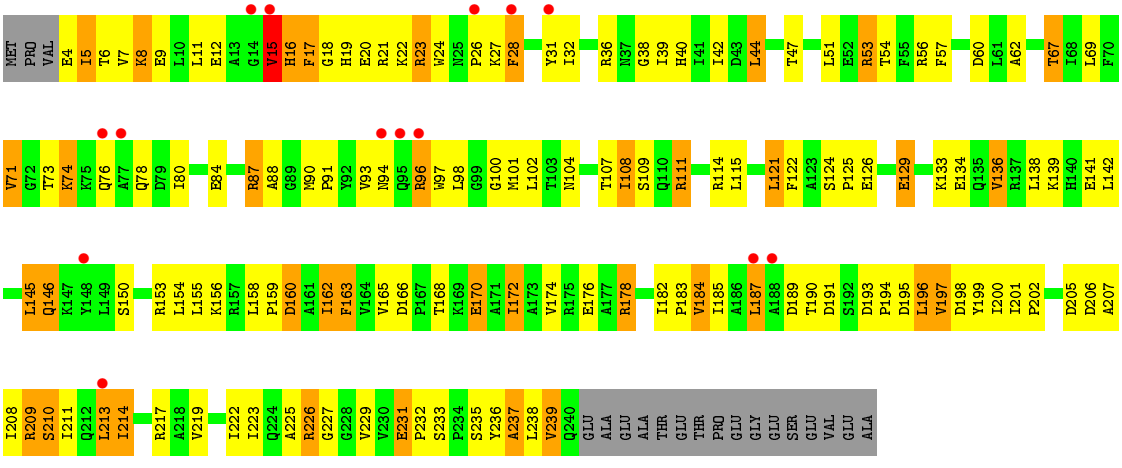
C135 C136 C137 G138 G139 A140 A141 G142 A143 G144 G145 G146 G147 G148 A149 C150 A151 C154 C155 G156 G157 G158 G159 A160 A161 A162 C163 U164 C165 G166 G167 G168 C169 U170 A171 A172 U173 C174 C175 C176 C177 C178 A179 U180 G181 U182 C186 G186C C186D C186E C186F C187 U188 U189 G190 G191A G191B
G191C U191D G191E U191F G191 U192 C193 C194 A195 A196 A197 G198 G199 G200 C201 U208 U209 U210 G216 C217 C218 C219 G220 C221 U222 U223 C224 C225 G226 G227 A228 U229 G230 G231 G232 C233 C234 C235 G236 C237 C242 A243 U244 C245 A246 G247 A250 G251 G254 G255 U256 G257 G258 G259 G260 U261 A262
A263 U264 G265 G266 C267 C271 C272 A273 A274 G275 G276 C277 G278 A279 C280 G281 A282 C283 G284 G285 G286 U287 A288 G289 U294 A298 G299 A300 G301 G302 A303 U304 G305 G306 C307 C308 G309 G310 C311 C312 A313 C314 A315 G316 G317 G318 G319 C320 A321 C322 U323 G324 A325 G326 A327 C328 A329
C330 G331 G332 G333 C334 C335 C336 C337 A338 C339 U340 C341 C342 G345 G346 A349 G350 G351 G352 A353 G354 G357 U358 U359 A360 G361 G362 A363 A364 U365 C366 U367 G371 C372 A373 A374 U375 G376 G377 A382 A383 G384 C385 C386 U387 G388 A389 C390 G391 G392 A393 G396 A397 G398
U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 A415 G416 C417 C418 U421 C422 G423 G424 G425 G426 U427 G428 U429 A430 C433 U434 G435 C436 U437 G438 A439 A440 C444 G445 G446 G447 A448 C449 G450 A451 A452 A453 C454 G455 C456 C457 C458 G464 A465 C466 G467 A468 G474 G475 G476 G477
A478 C479 U480 G481 A482 C483 G484 G485 U486 A487 C488 G489 G490 G491 G492 A495 A496 U497 A498 G500 C501 G502 C503 C504 G505 G506 C507 C508 A509 A510 C511 U512 C513 C514 G515 U516 G517 C518 C519 A520 G521 C522 A523 C526 G527 G528 G529 G530 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540
G541 G542 C545 G546 A547 G548 G549 G550 U551 U552 A553 G554 C555 C556 G557 G558 A559 U560 U561 C562 A563 C564 U565 G566 G567 G568 C569 G570 U571 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581 C584 G585 C586 G587 G588 C589 C590 U591 G592 G593 C596 G597 U598 C599 G600 C601 A602 U603
G604 U605 G606 A607 A608 C612 C615 G616 G617 G618 U619 C620 A621 A622 G623 G624 G625 U626 G627 G628 G629 G630 G631 A632 G633 C634 G635 U636 G637 G638 A642 C643 G644 C645 U646 C647 A648 G649 G650 C651 U652 A653 G658 U659 G660 G661 G664 A665 G666 G667 G668 U669 G670 G673
G674 A675 A676 U677 C681 G682 G683 A684 G685 U686 A687 G688 C689 G690 G691 U692 G693 A694 A695 A696 U697 G698 C699 G700 C701 A704 C707 C708 G709 G710 G711 A712 G713 G718 C719 C720 G721 A722 U723 G724 G725 G726 G727 A728 A729 G730 G731 C732 A733 G734 C735 C736 A737 G738 C739 U740
G741 G742 U743 C744 C745 A746 C747 G748 G749 G750 U751 G752 A753 C754 G755 C756 U757 G758 G763 C764 G765 A766 A767 A768 G769 C770 G771 U772 G773 G774 G775 G776 A777 G778 C779 A780 C783 C784 G785 G786 A787 U788 U789 A790 G791 A792 U793 A794 C797 U801 A802 G803 U804 C805 C811
C812 U813 A814 A815 A816 C817 G818 A819 U820 G821 C822 G823 C824 G825 C826 U827 A828 G829 G830 U831 C832 G838 U841 C842 U843 C848 C849 G855 C856 C857 G858 A859 A860 G861 C862 U863 A864 A865 C866 G867 C868 G869 U870 U871 A872 A873 G874 C875 G876 C877 G878 C879 C880 G881 C882 C883 U884 G885
G886 G890 U891 A892 C893 G894 G895 C896 C897 G898 C899 A900 G903 C904 U905 G906 A907 A908 A909 C910 U911 C912 A913 A914 A915 G916 G917 A918 A919 U920 U921 G922 A923 C924 G925 G926 G927 C932 G933 C934 A935 C936 A937 A938 G939 C940 G941 G942 U943 G944 G945 A946 G947 C948 A949 U950 G951
U952 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 A964 A965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 G987 U991 U992 G993 A994 C995 A996 U997 G998 C998A U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1011 U1012
G1013 A1014 A1015 A1016 G1017 C1018 C1019 U1020 G1023 G1024 U1025 G1026 C1027 C1028 C1028A C1028B G1029 C1030 G1031 A1032 G1032A G1032B G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 A1046 G1047 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1071



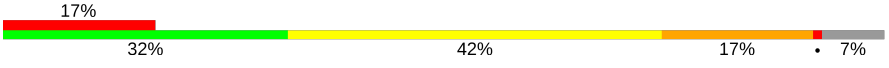
• Molecule 2: 30S ribosomal protein S2

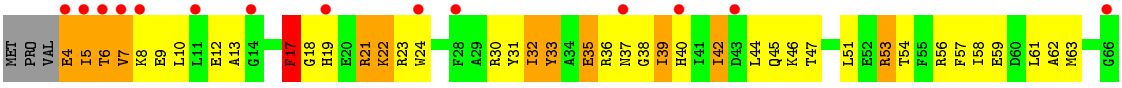
Chain 1E:

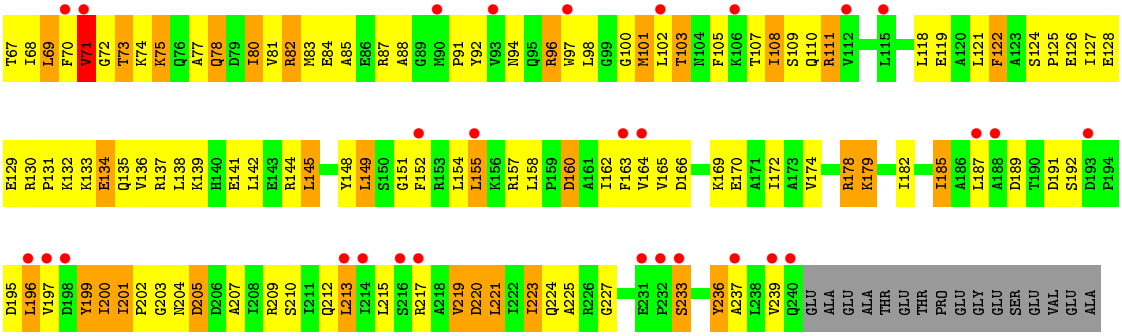


• Molecule 2: 30S ribosomal protein S2

Chain 12:

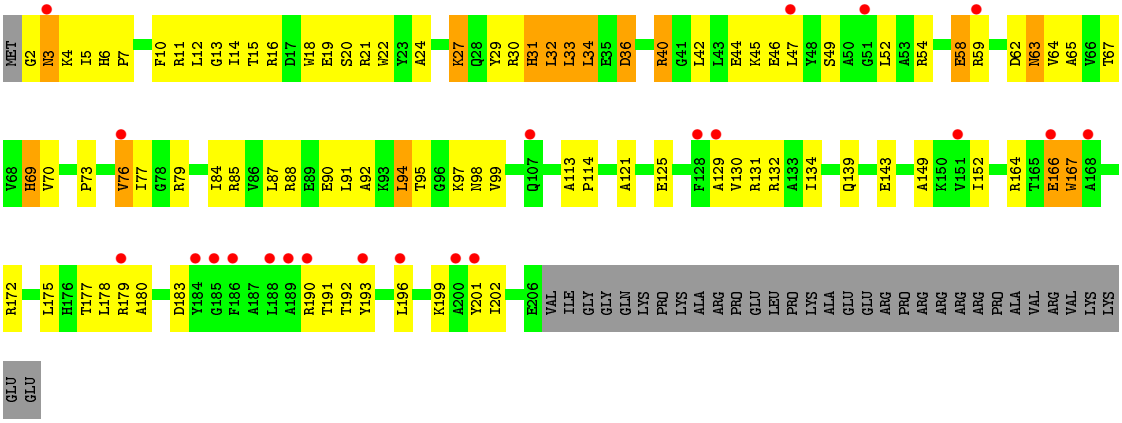






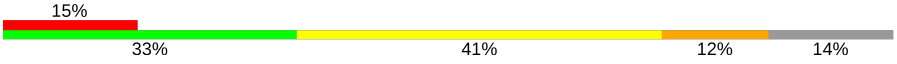
• Molecule 3: 30S ribosomal protein S3

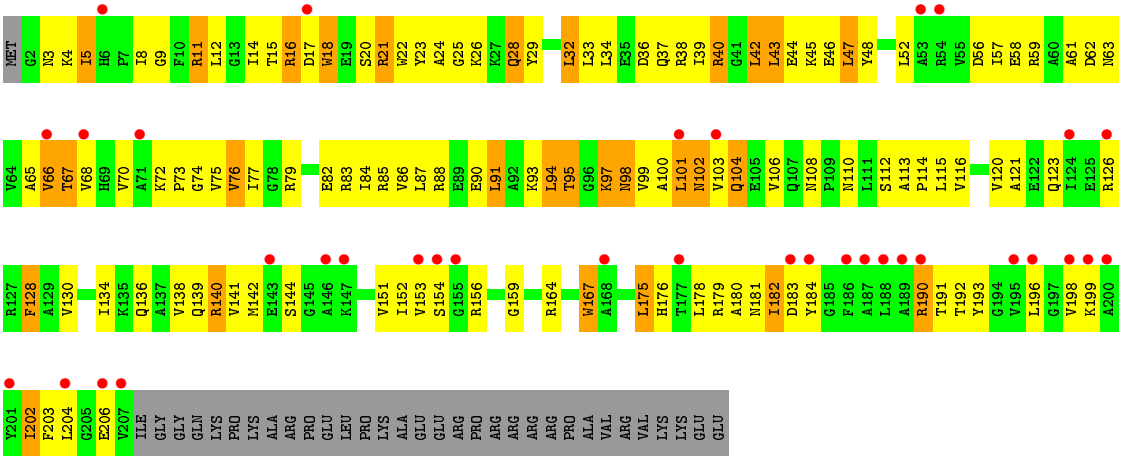
Chain 2E:



• Molecule 3: 30S ribosomal protein S3

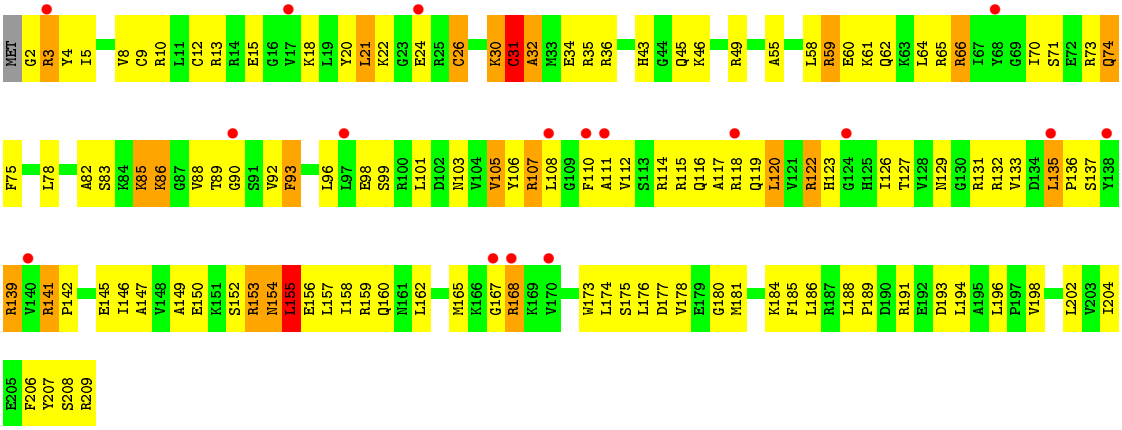
Chain 22:





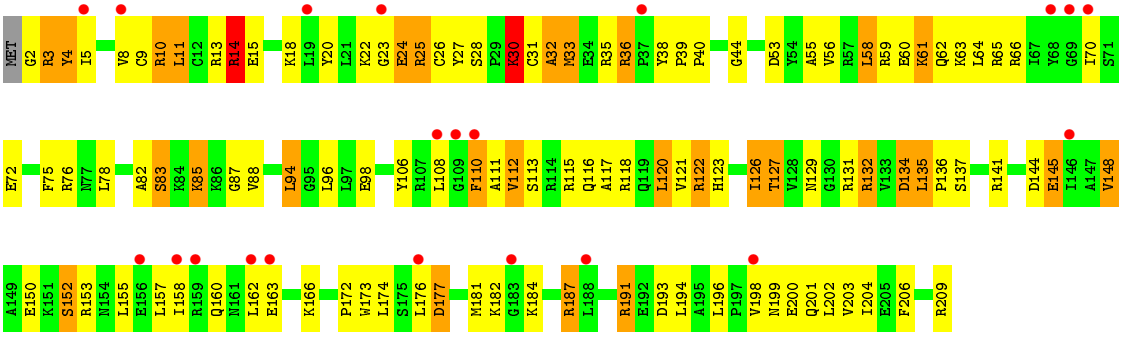
• Molecule 4: 30S ribosomal protein S4

Chain 3E:



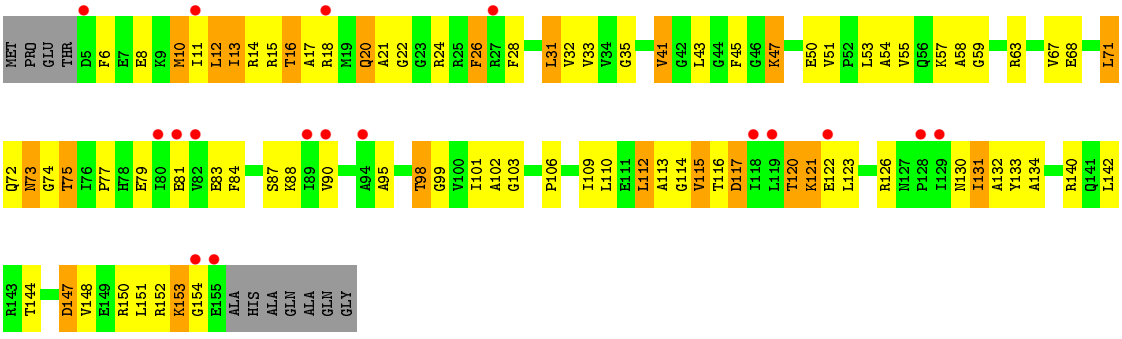
- Molecule 4: 30S ribosomal protein S4

Chain 32:



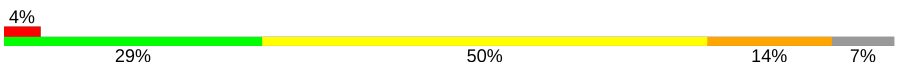
- Molecule 5: 30S ribosomal protein S5

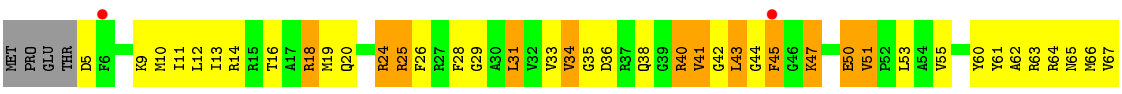
Chain 4E:

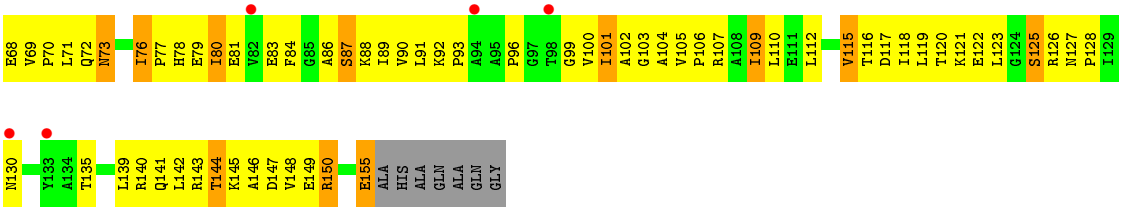


- Molecule 5: 30S ribosomal protein S5

Chain 42:

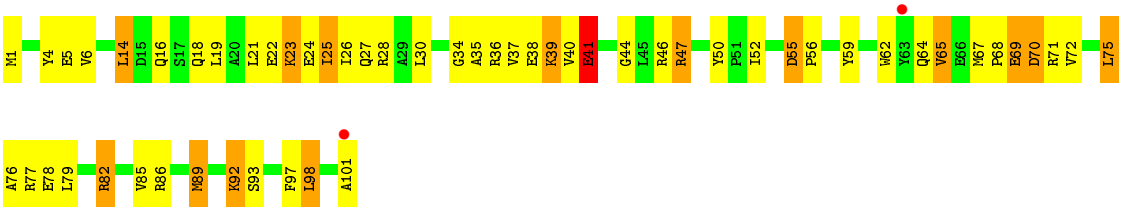






• Molecule 6: 30S ribosomal protein S6

Chain 5E:

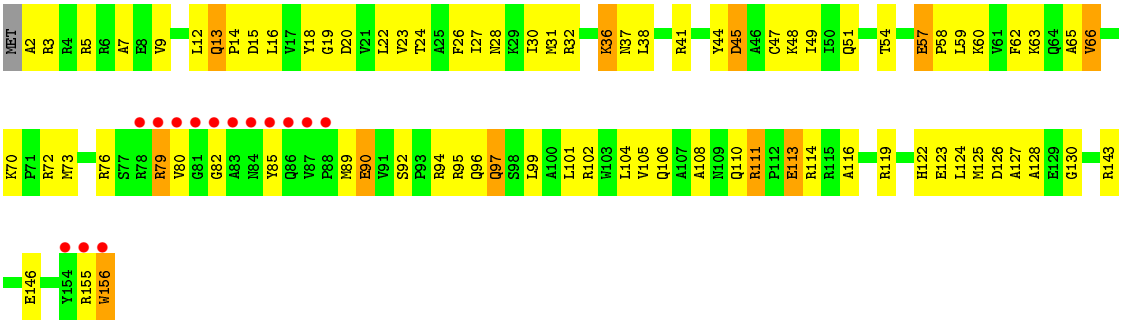


• Molecule 6: 30S ribosomal protein S6

Chain 52:

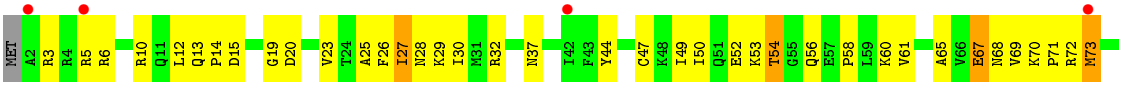
• Molecule 7: 30S ribosomal protein S7

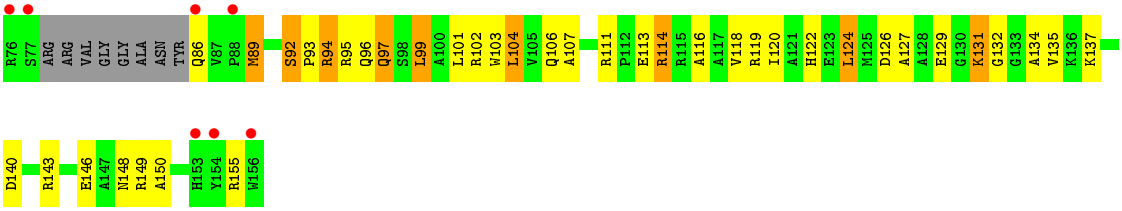
Chain 6E:



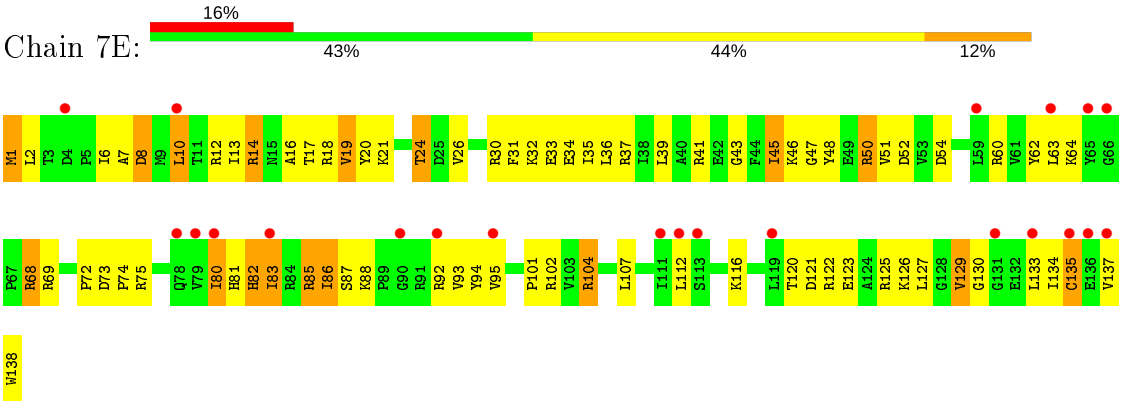
• Molecule 7: 30S ribosomal protein S7

Chain 62:

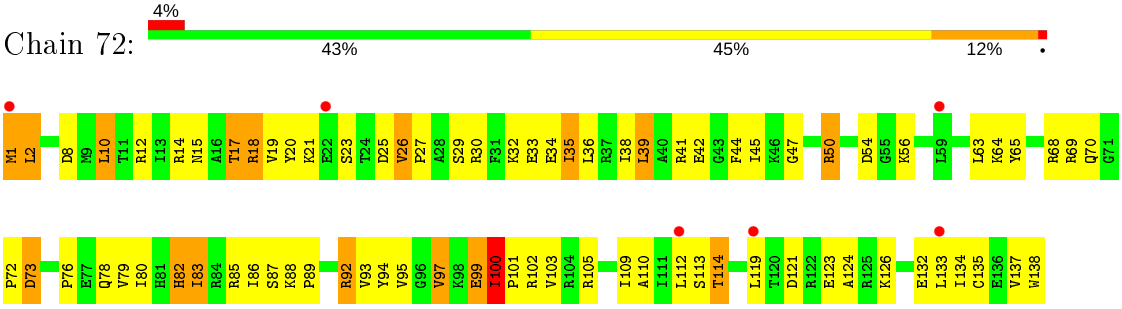




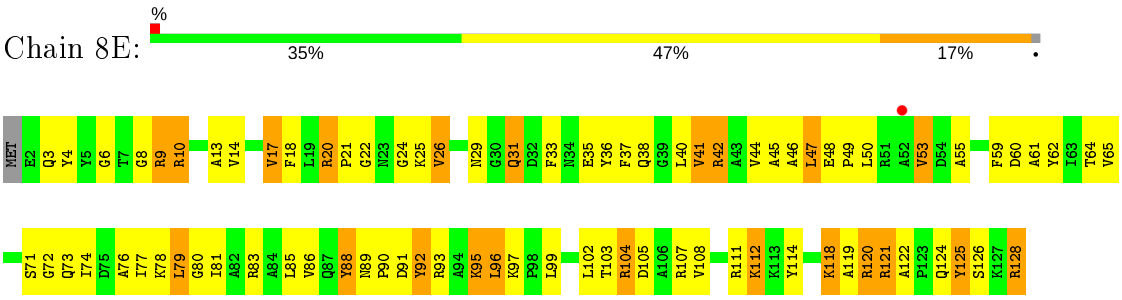
• Molecule 8: 30S ribosomal protein S8



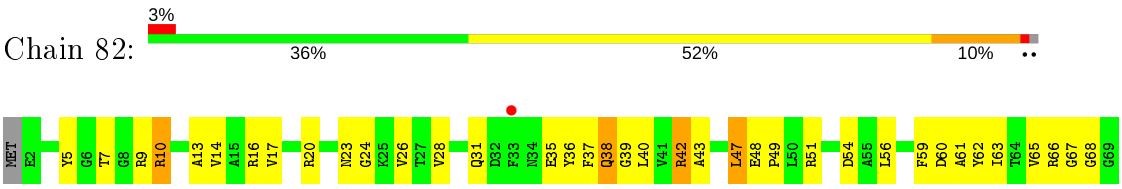
• Molecule 8: 30S ribosomal protein S8

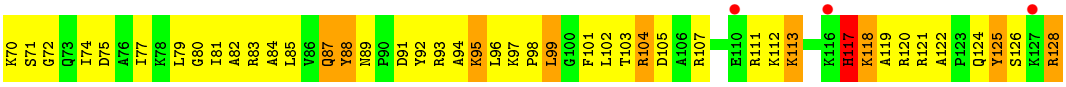


• Molecule 9: 30S ribosomal protein S9



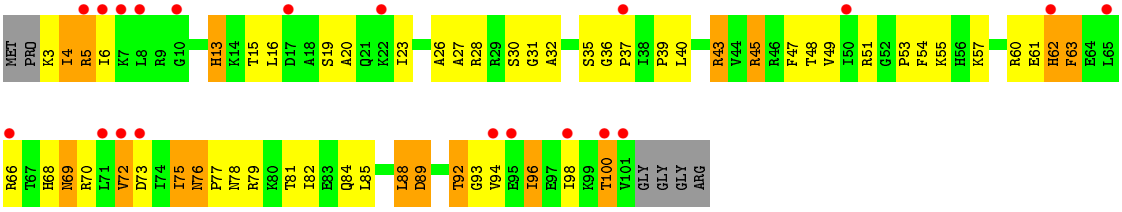
• Molecule 9: 30S ribosomal protein S9





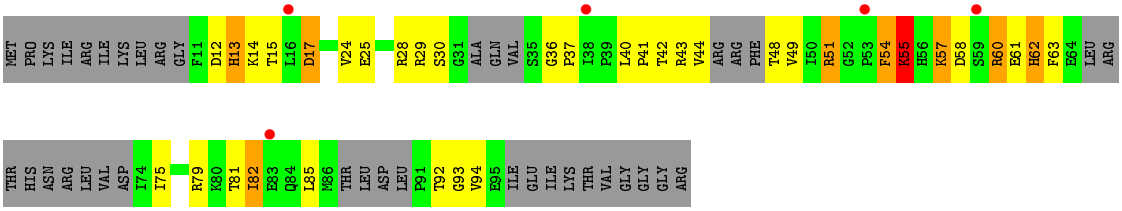
- Molecule 10: 30S ribosomal protein S10

Chain 1I:



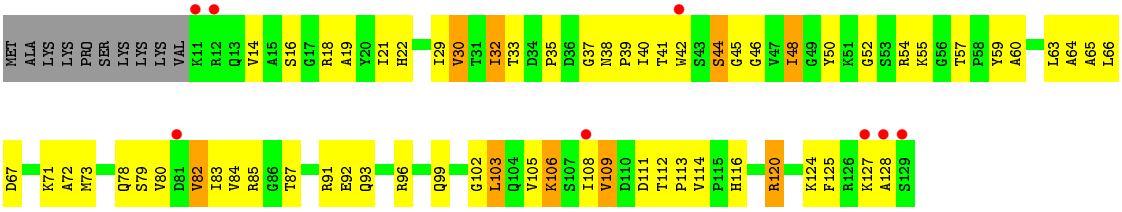
- Molecule 10: 30S ribosomal protein S10

Chain 1A:



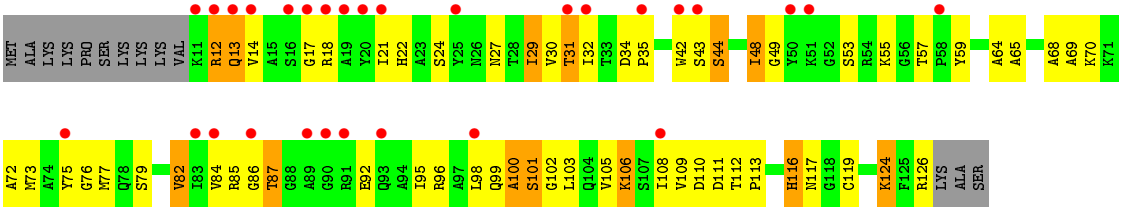
- Molecule 11: 30S ribosomal protein S11

Chain 2I:



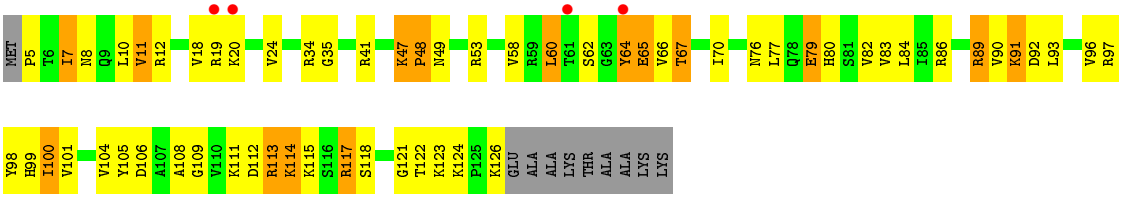
- Molecule 11: 30S ribosomal protein S11

Chain 2A:



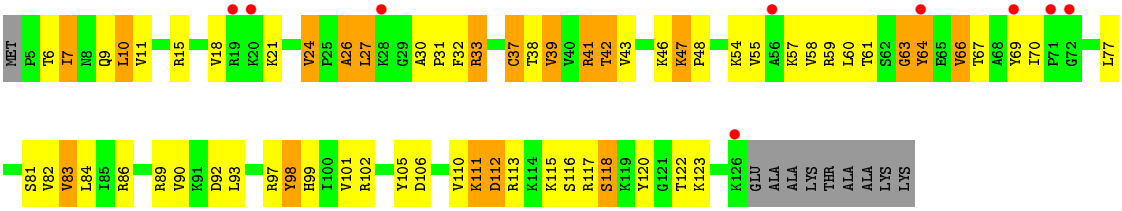
- Molecule 12: 30S ribosomal protein S12

Chain 3I:



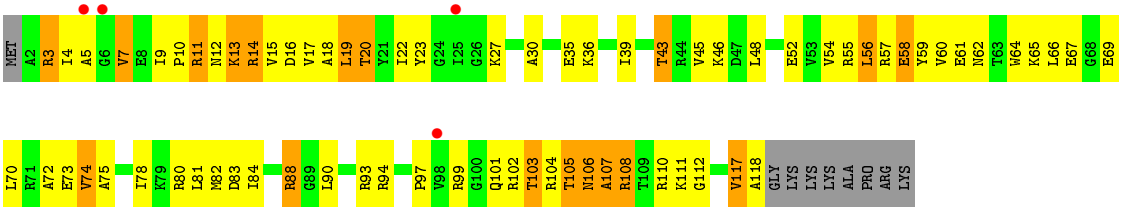
- Molecule 12: 30S ribosomal protein S12

Chain 3A:



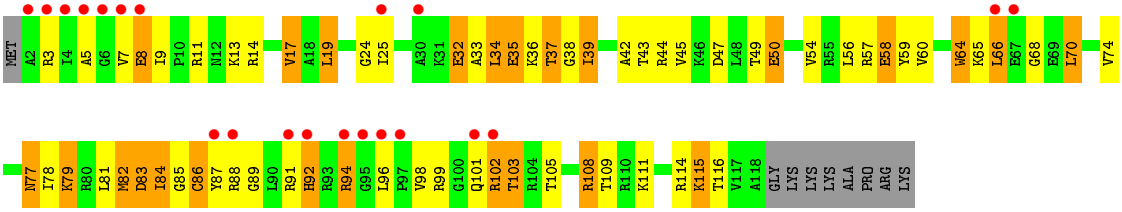
- Molecule 13: 30S ribosomal protein S13

Chain 4I:



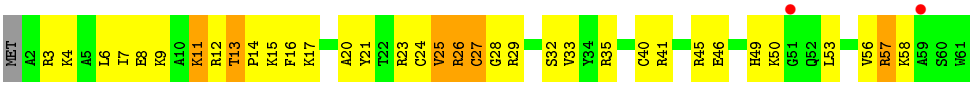
- Molecule 13: 30S ribosomal protein S13

Chain 4A:



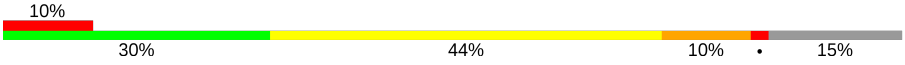
- Molecule 14: 30S ribosomal protein S14 type Z

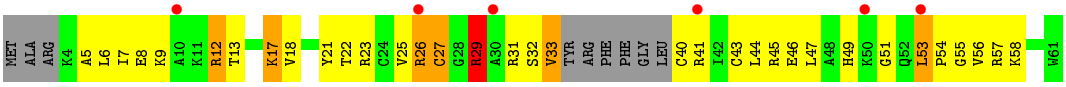
Chain 5I:



- Molecule 14: 30S ribosomal protein S14 type Z

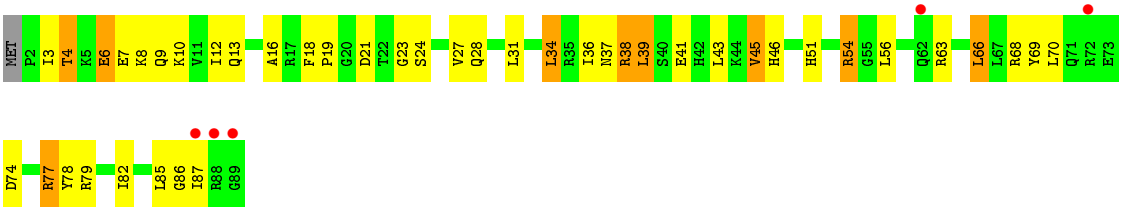
Chain 5A:





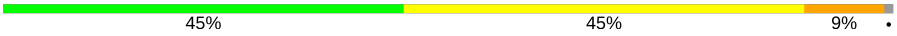
- Molecule 15: 30S ribosomal protein S15

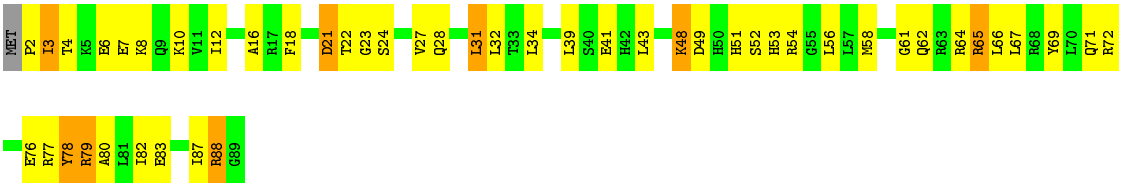
Chain 6I:



- Molecule 15: 30S ribosomal protein S15

Chain 6A:



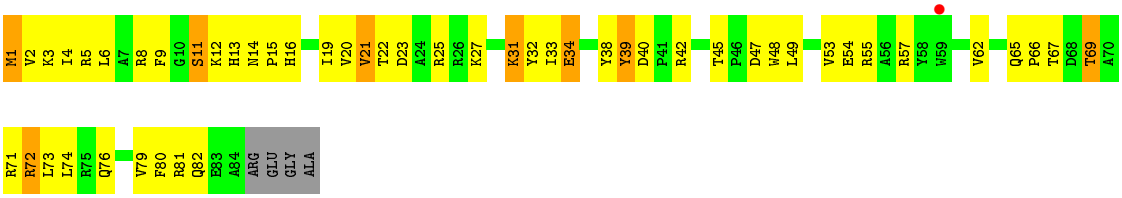


- Molecule 16: 30S ribosomal protein S16

Chain 7I:

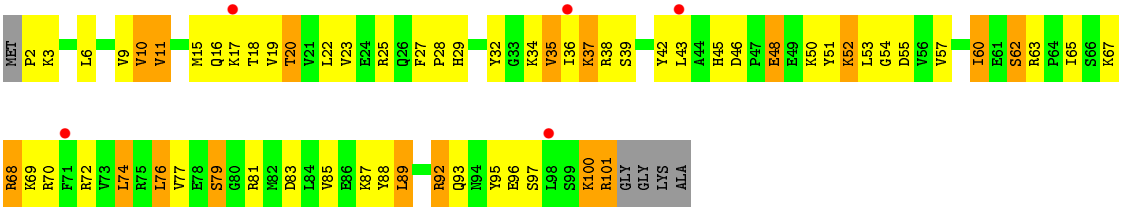
- Molecule 16: 30S ribosomal protein S16

Chain 7A:



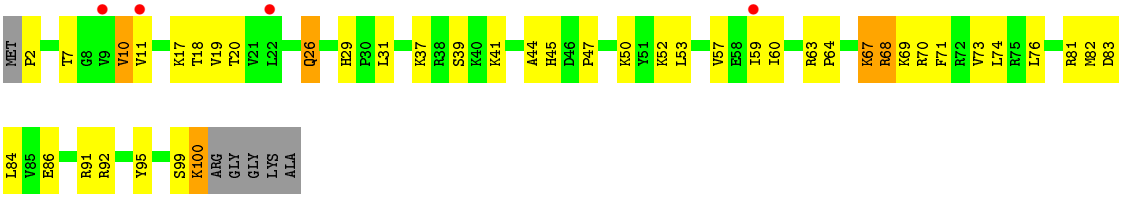
- Molecule 17: 30S ribosomal protein S17

Chain 8I:



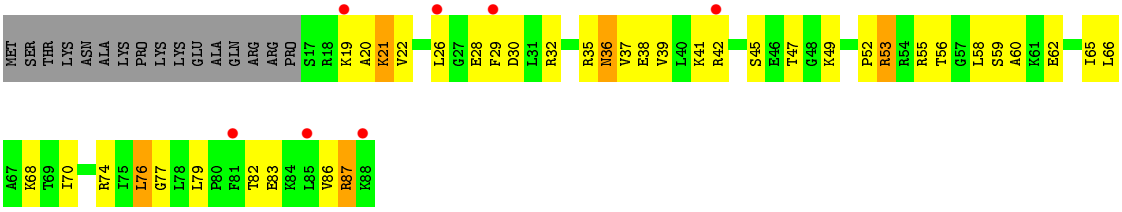
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



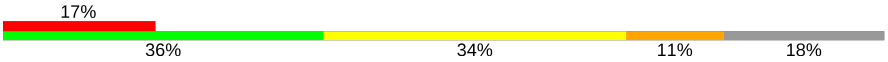
• Molecule 18: 30S ribosomal protein S18

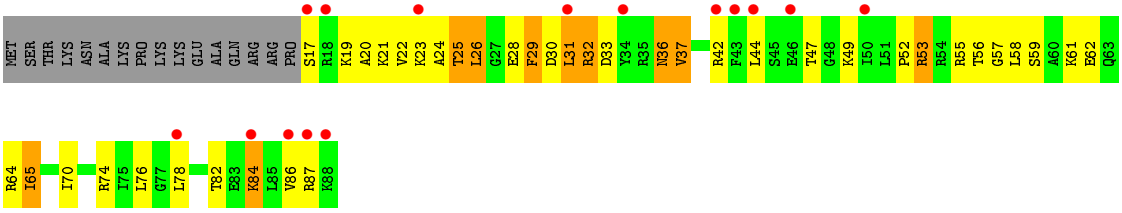
Chain 9I:



• Molecule 18: 30S ribosomal protein S18

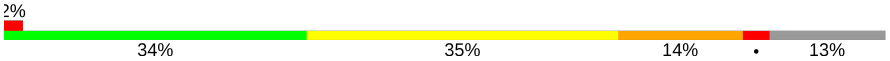
Chain 9A:

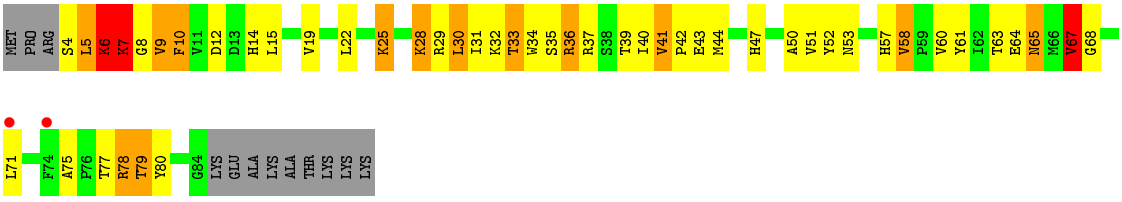




• Molecule 19: 30S ribosomal protein S19

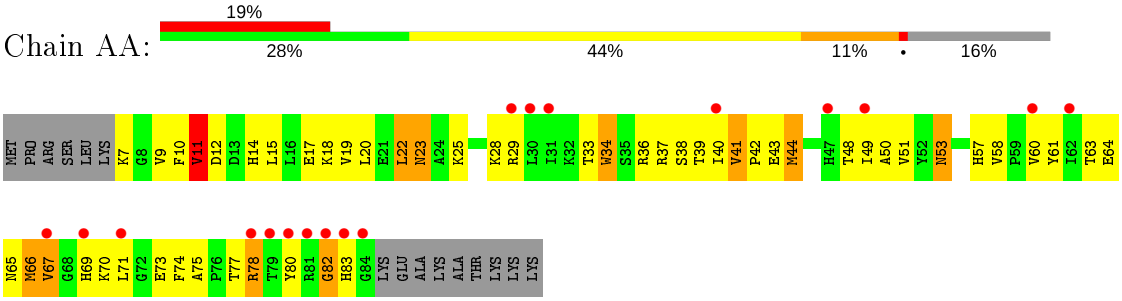
Chain AI:





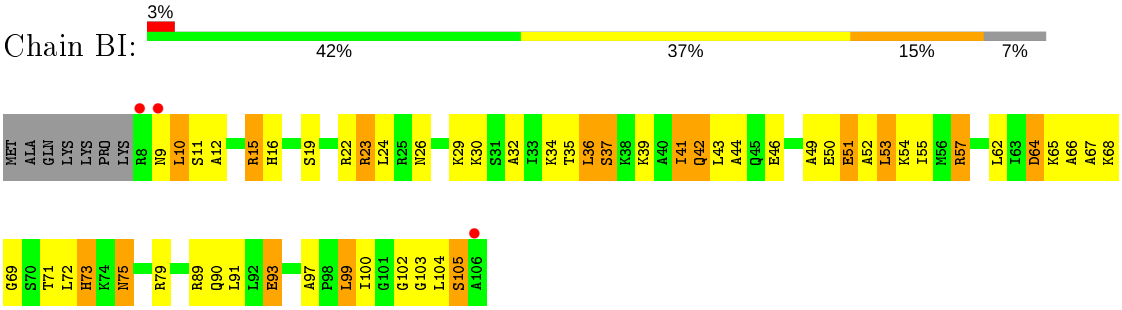
• Molecule 19: 30S ribosomal protein S19

Chain AA:



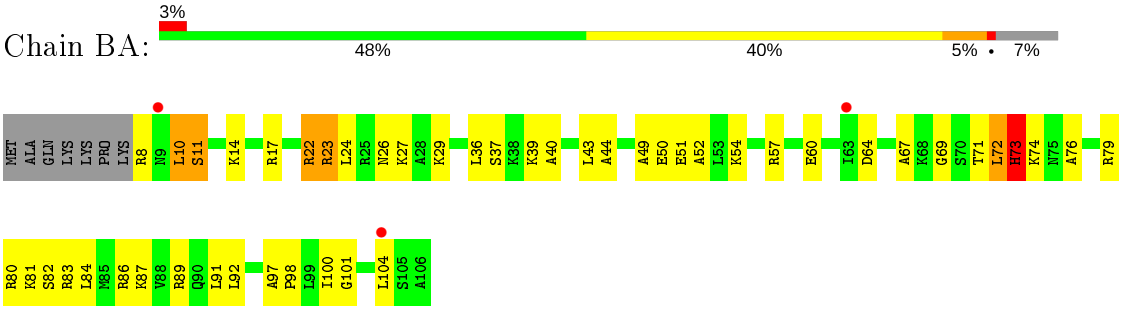
• Molecule 20: 30S ribosomal protein S20

Chain BI:



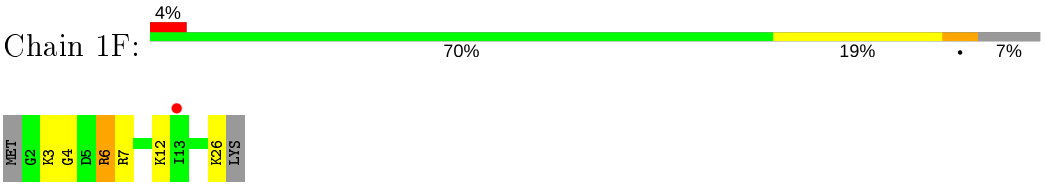
• Molecule 20: 30S ribosomal protein S20

Chain BA:



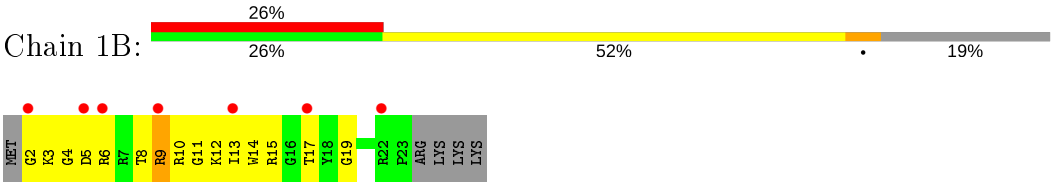
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



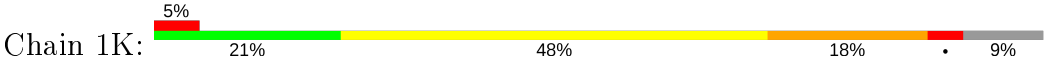
• Molecule 21: 30S ribosomal protein Thx

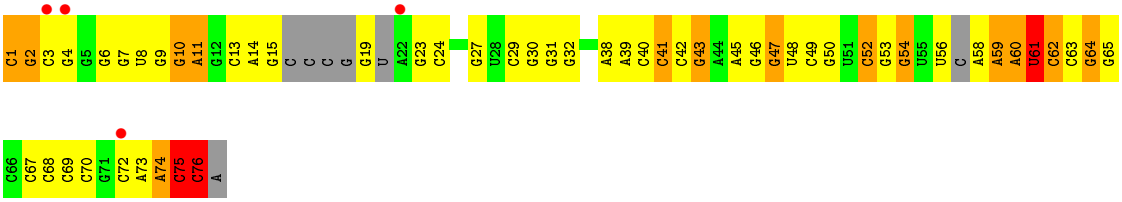
Chain 1B:



• Molecule 22: tRNA-fMet

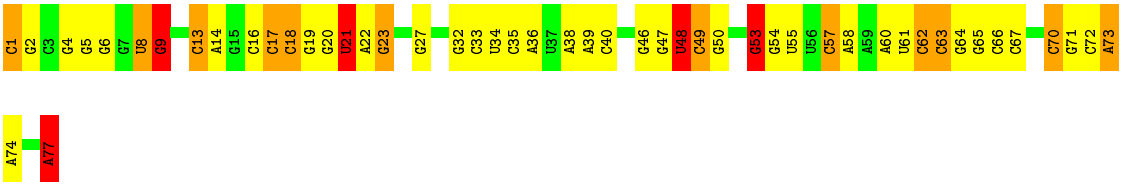
Chain 1K:





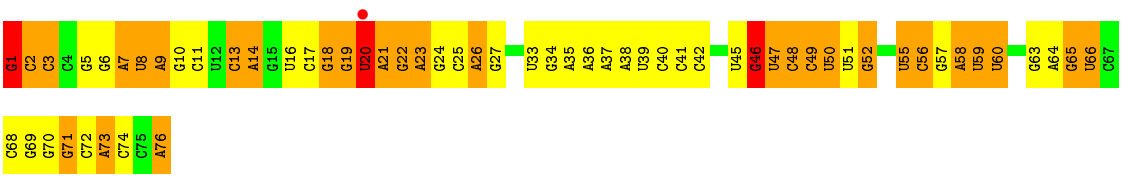
• Molecule 23: tRNA-fMet

Chain 2K:



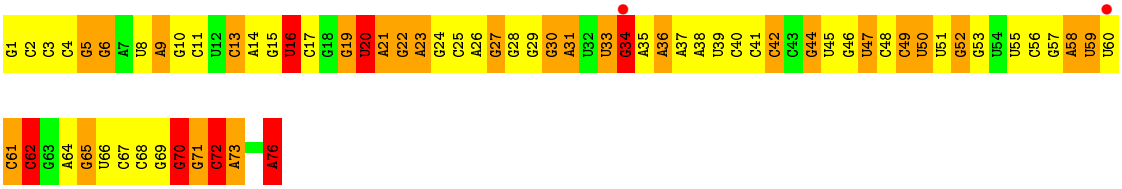
• Molecule 24: tRNA-Phe

Chain 3K:



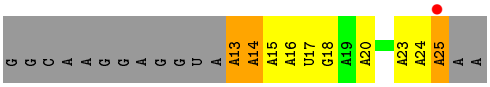
• Molecule 24: tRNA-Phe

Chain 3L:



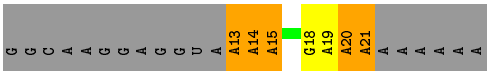
• Molecule 25: mRNA

Chain 4K:



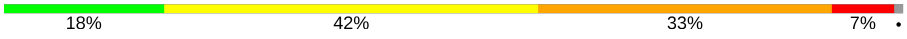
• Molecule 25: mRNA

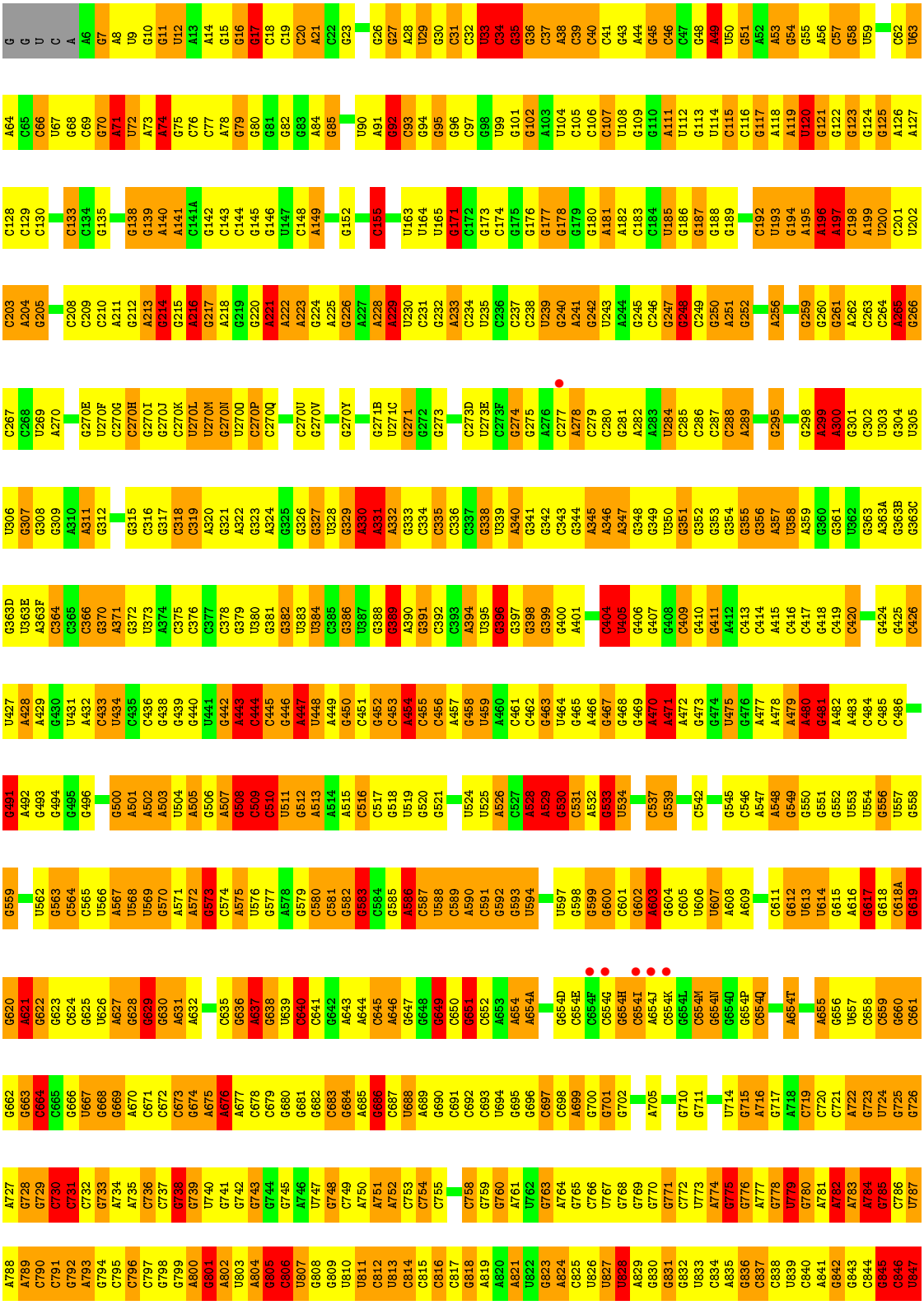
Chain 4L:

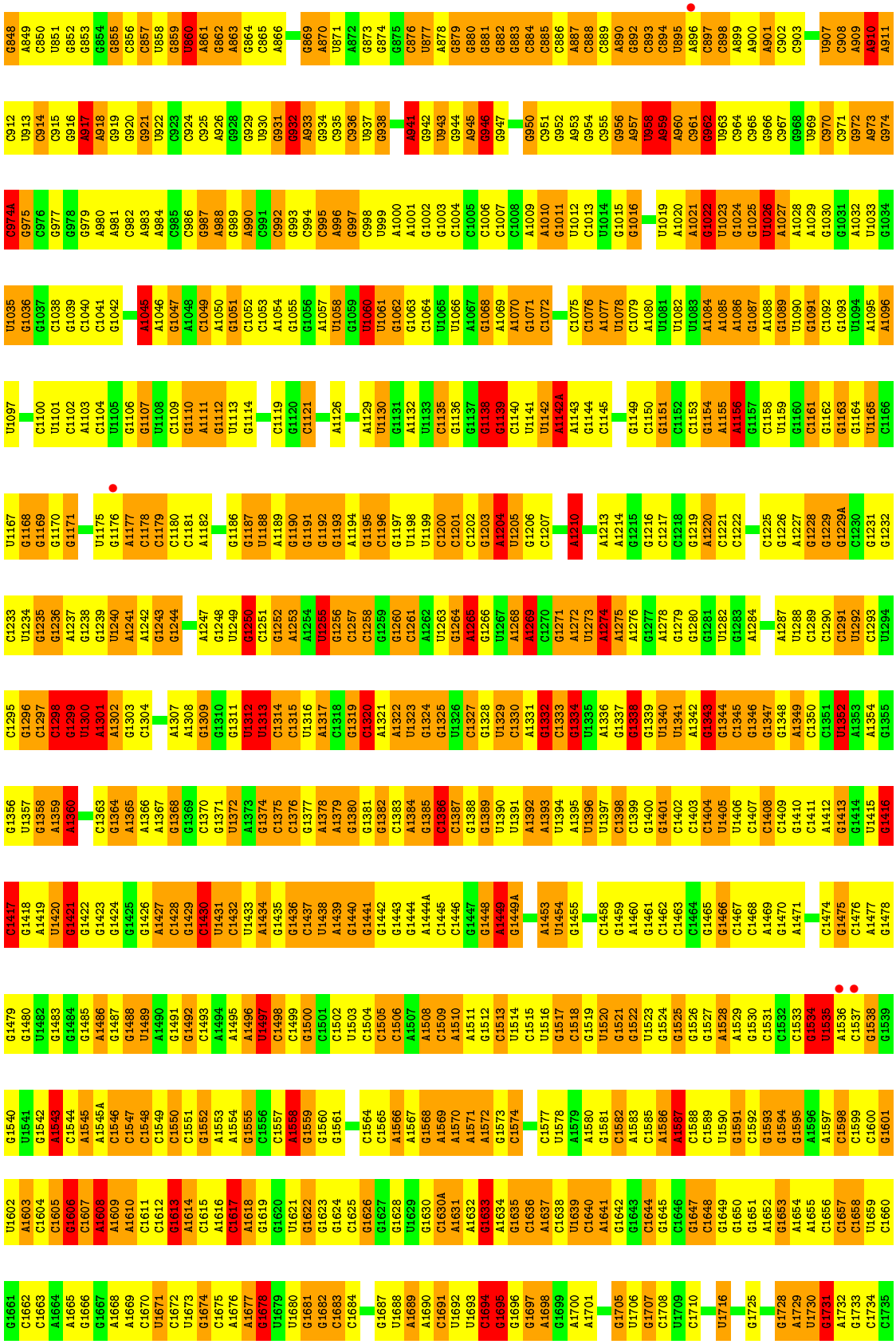


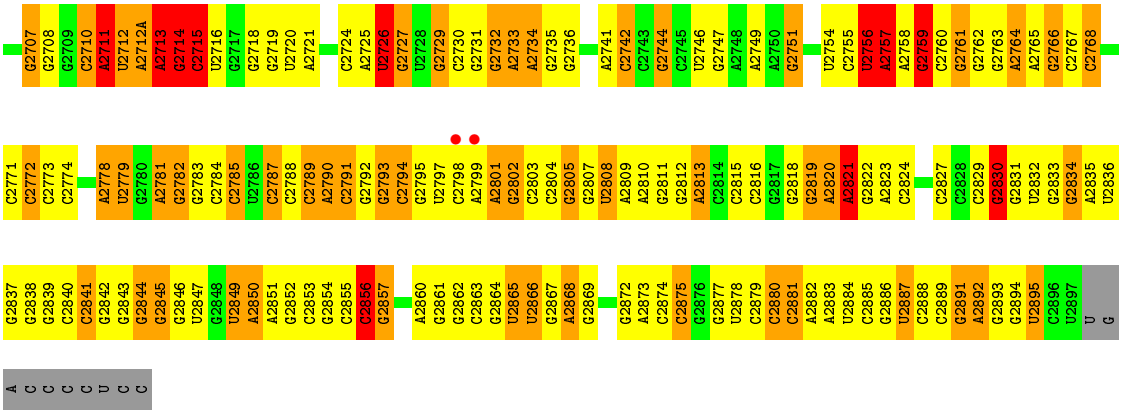
- Molecule 26: 23S ribosomal RNA

Chain 1H:



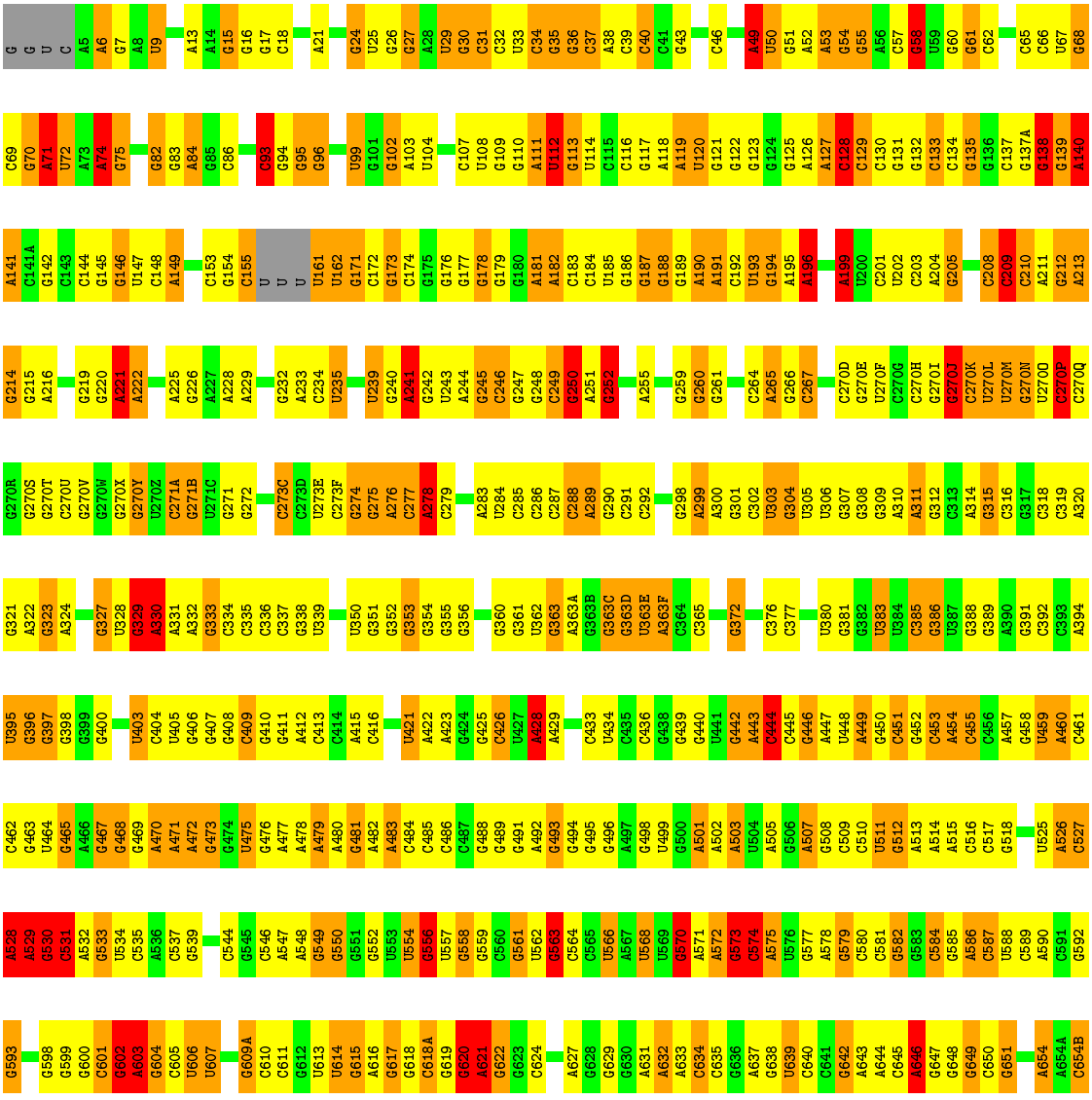


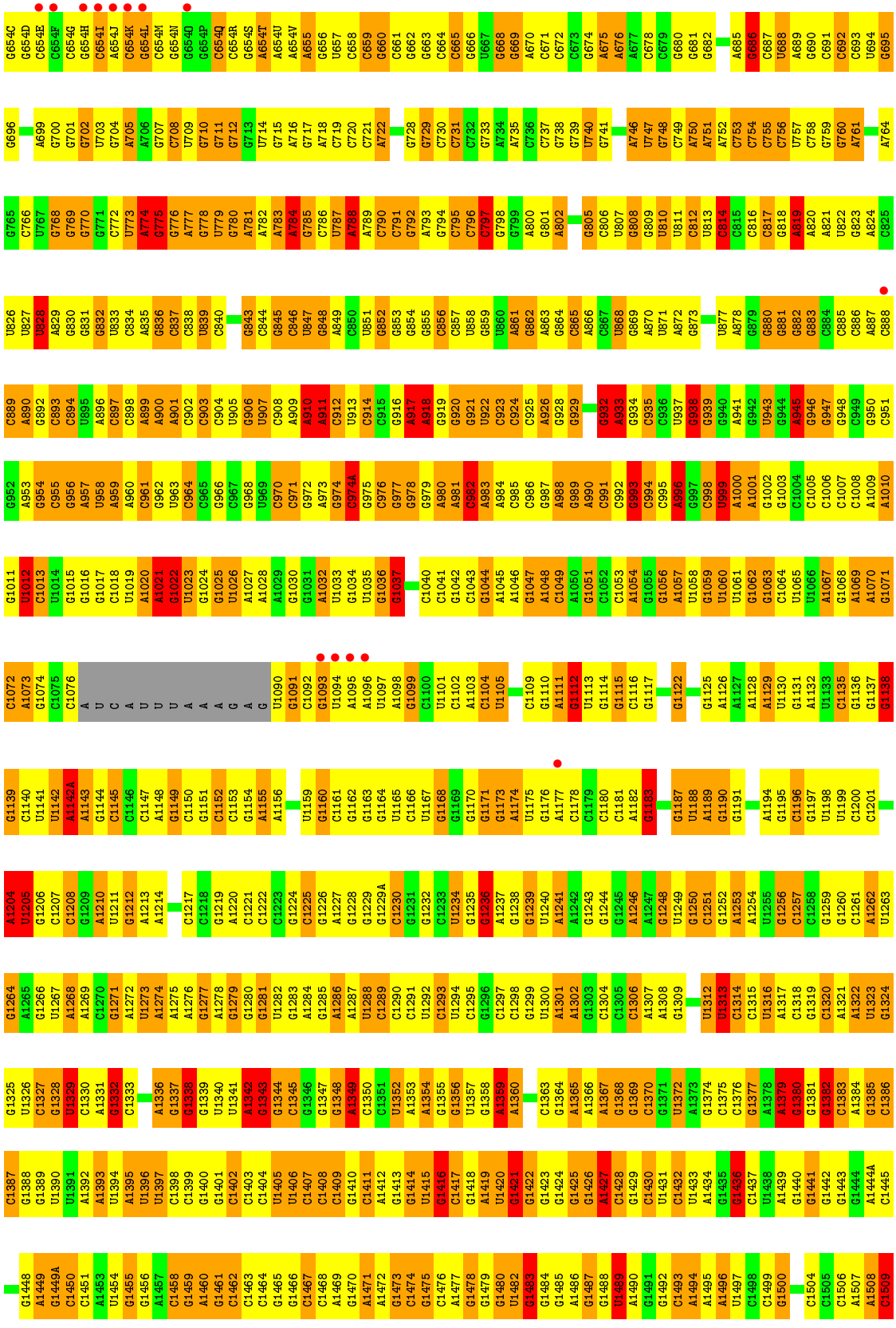


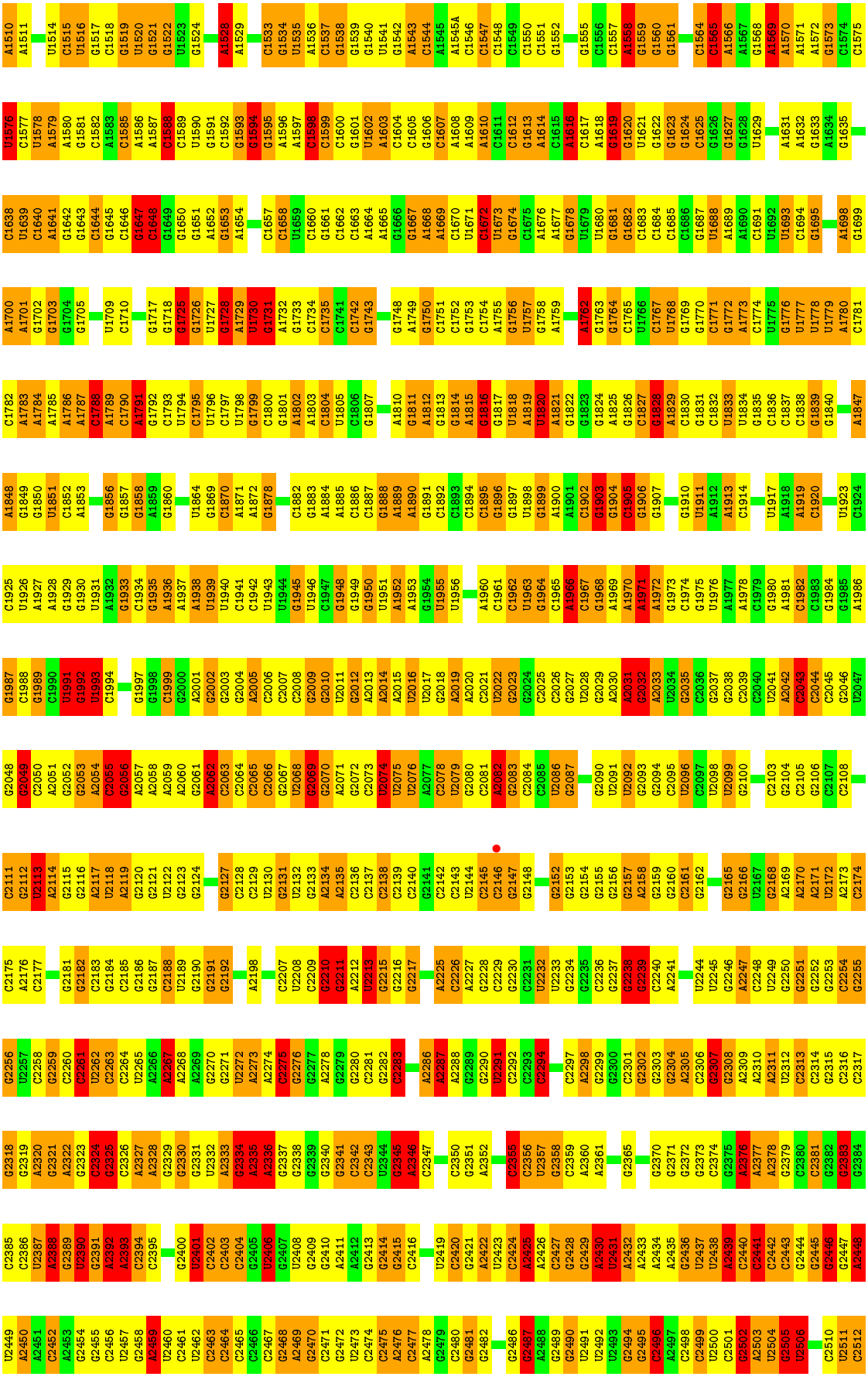


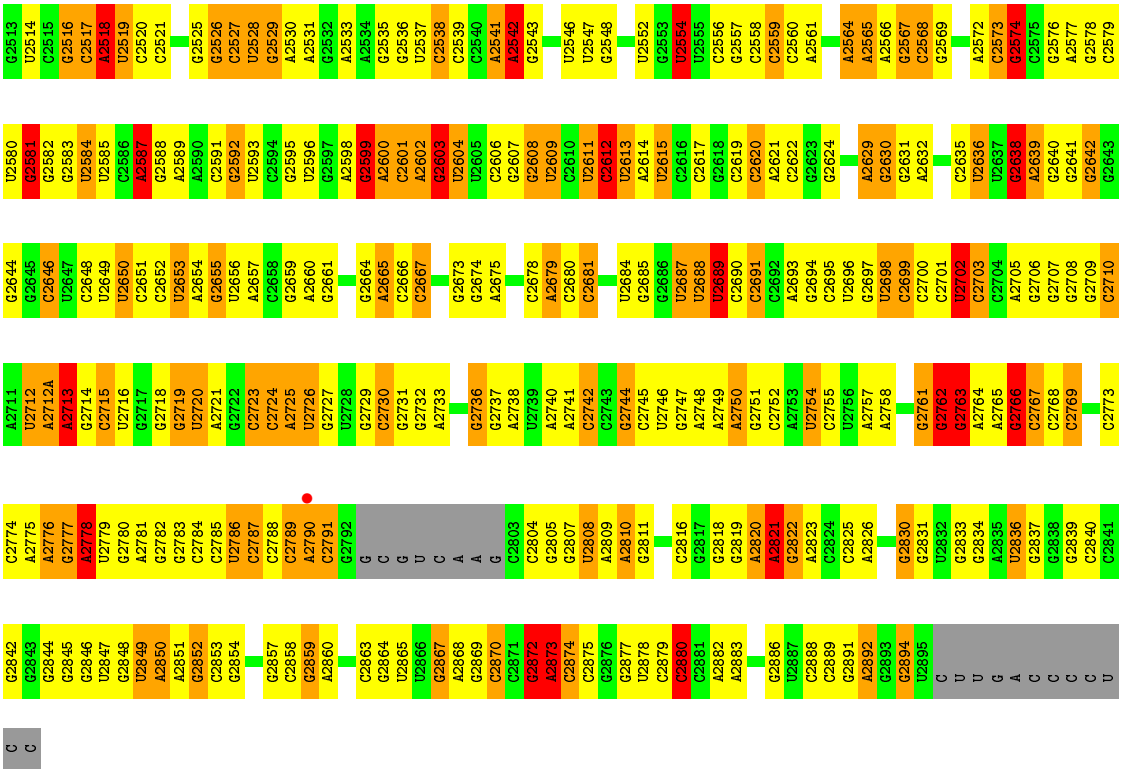
• Molecule 26: 23S ribosomal RNA

Chain 14:



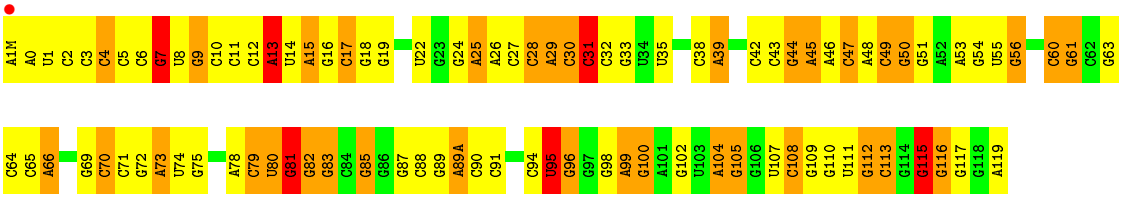






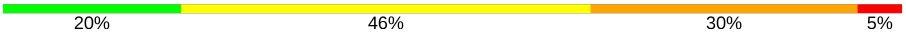
• Molecule 27: 5S ribosomal RNA

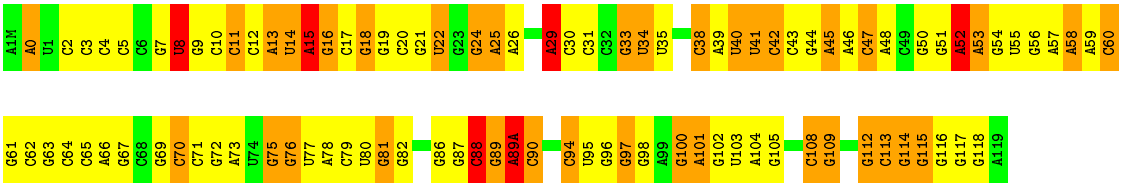
Chain 16:



• Molecule 27: 5S ribosomal RNA

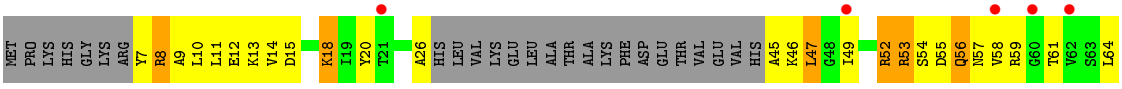
Chain 1J:

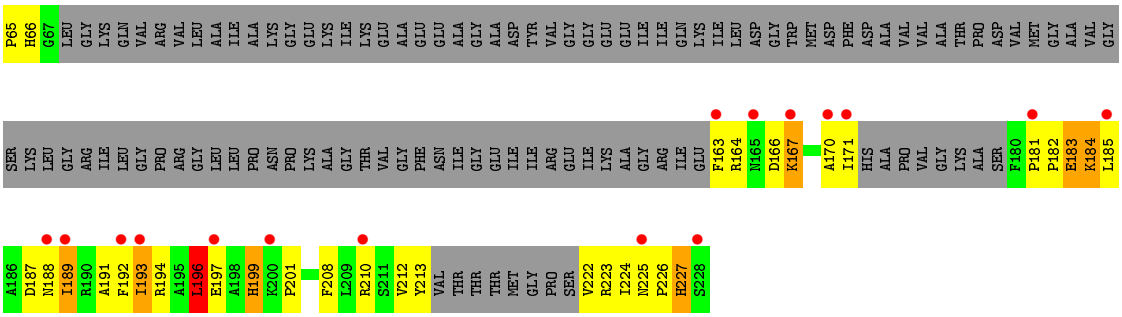




• Molecule 28: 50S ribosomal protein L1

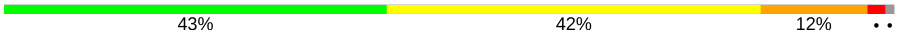
Chain 71:

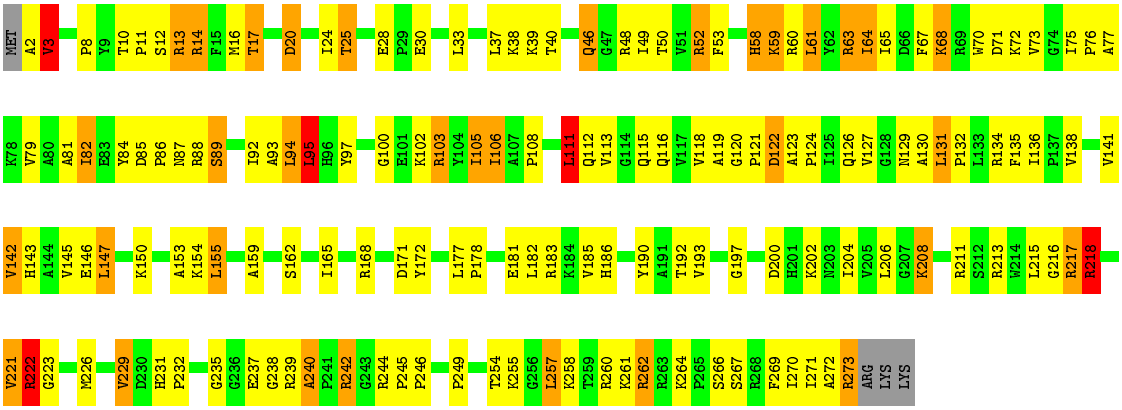




• Molecule 29: 50S ribosomal protein L2

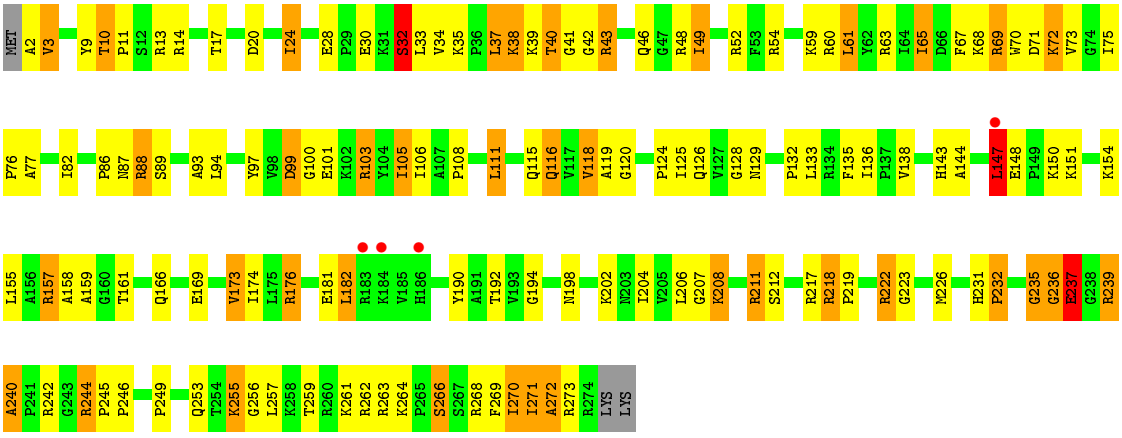
Chain 11:





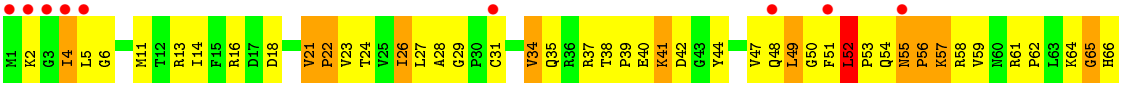
• Molecule 29: 50S ribosomal protein L2

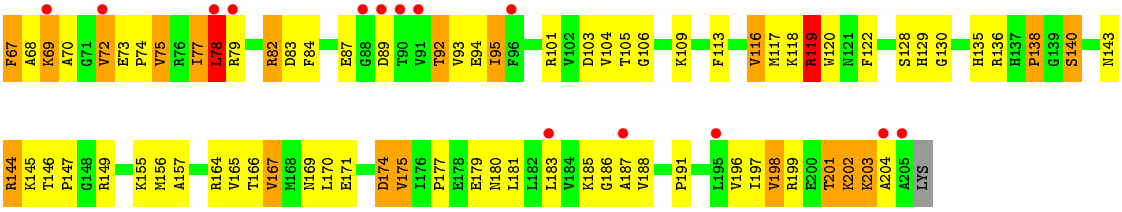
Chain 19:



• Molecule 30: 50S ribosomal protein L3

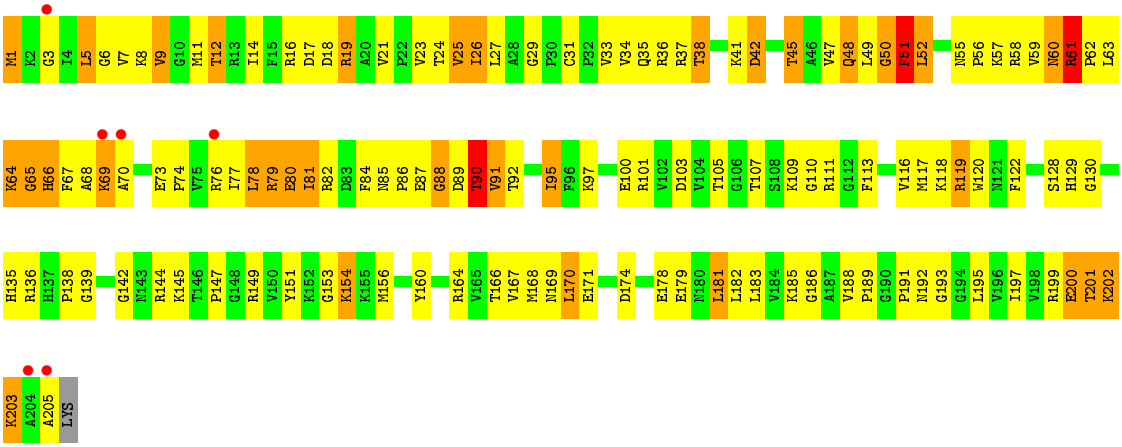
Chain 21:





• Molecule 30: 50S ribosomal protein L3

Chain 29:

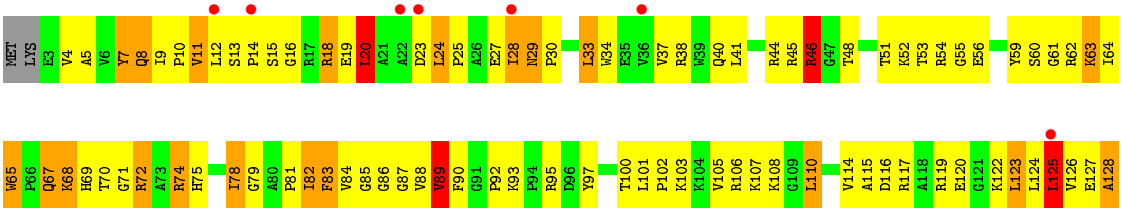


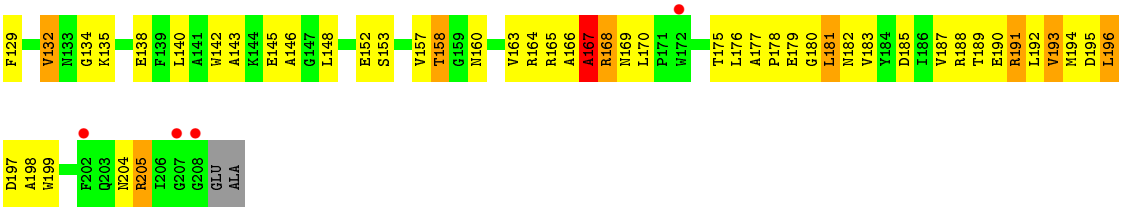
• Molecule 31: 50S ribosomal protein L4

Chain 31:

• Molecule 31: 50S ribosomal protein L4

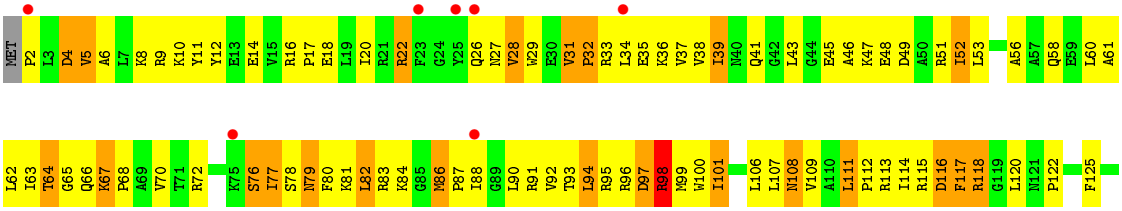
Chain 39:

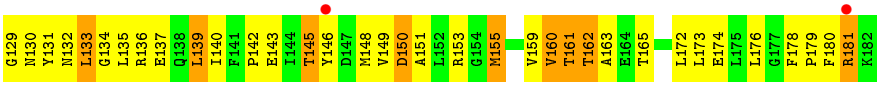




• Molecule 32: 50S ribosomal protein L5

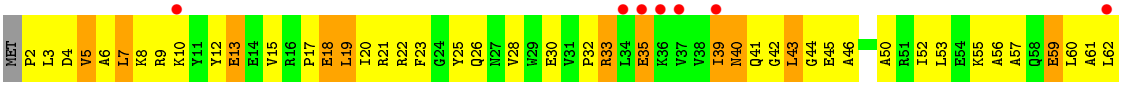
Chain 41:

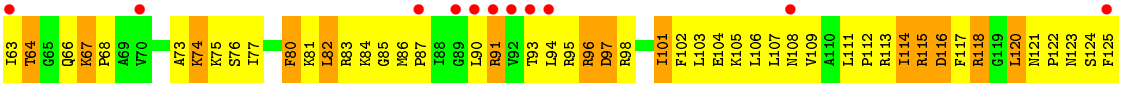


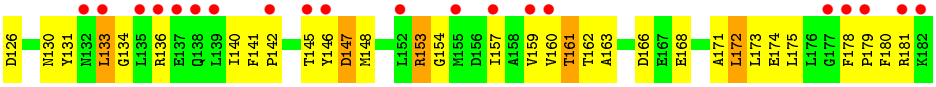


• Molecule 32: 50S ribosomal protein L5

Chain 49:

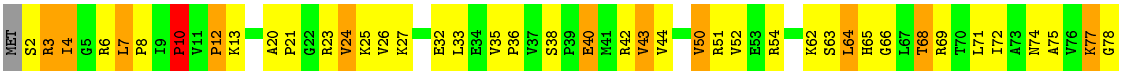


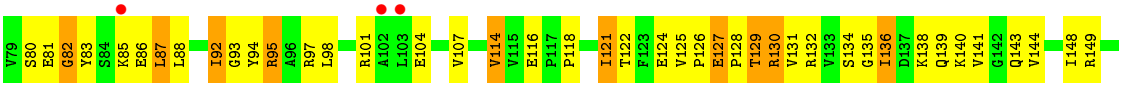


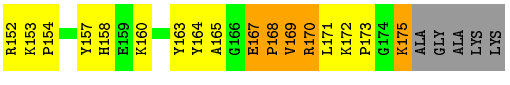


• Molecule 33: 50S ribosomal protein L6

Chain 51:

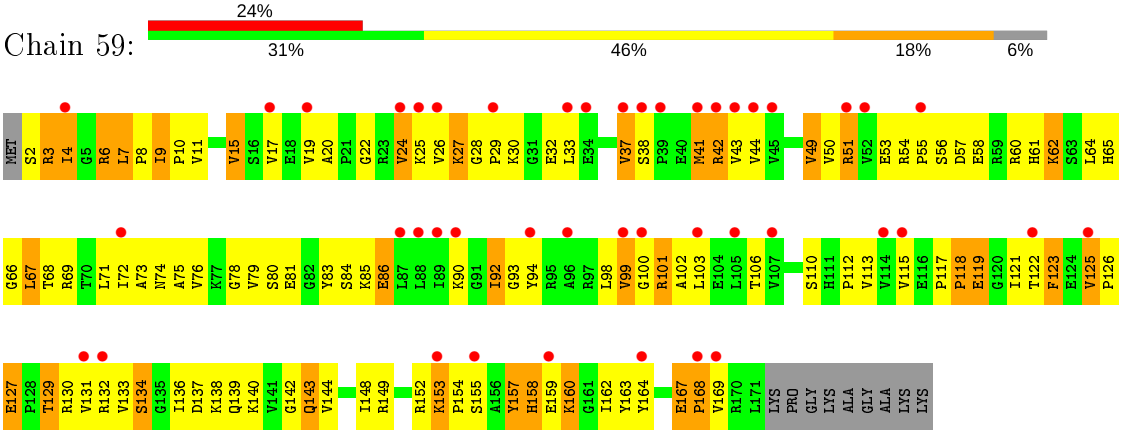






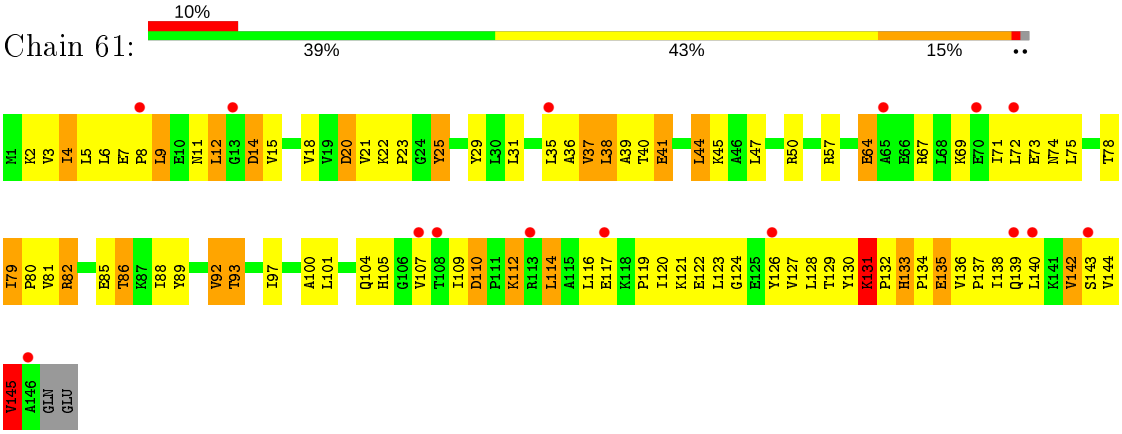
• Molecule 33: 50S ribosomal protein L6

Chain 59:



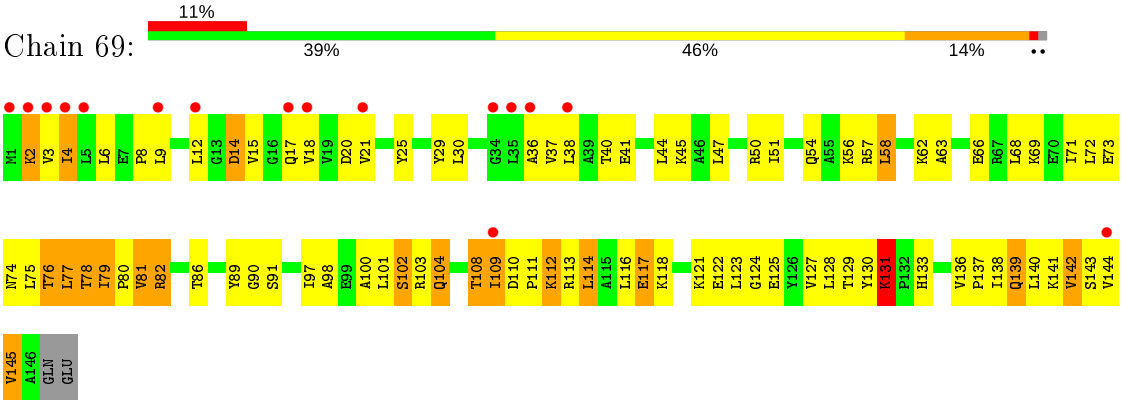
- Molecule 34: 50S ribosomal protein L9

Chain 61:



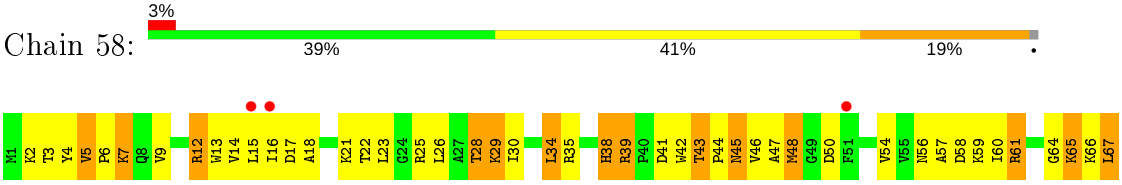
- Molecule 34: 50S ribosomal protein L9

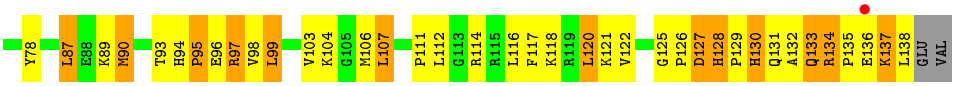
Chain 69:



- Molecule 35: 50S ribosomal protein L13

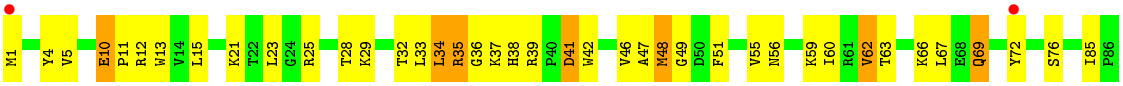
Chain 58:

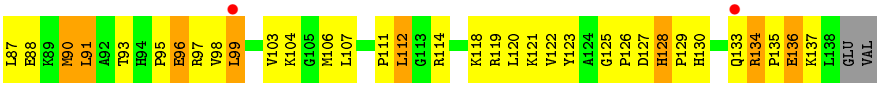




• Molecule 35: 50S ribosomal protein L13

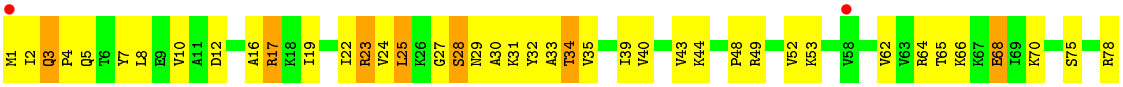
Chain 15:

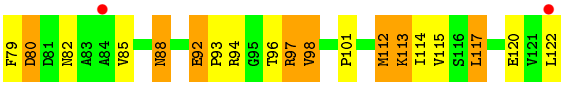




• Molecule 36: 50S ribosomal protein L14

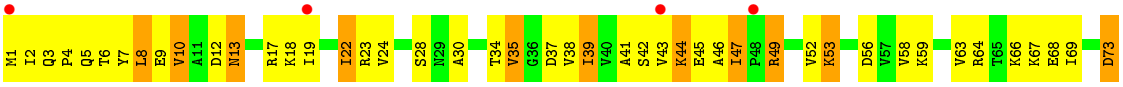
Chain 68:





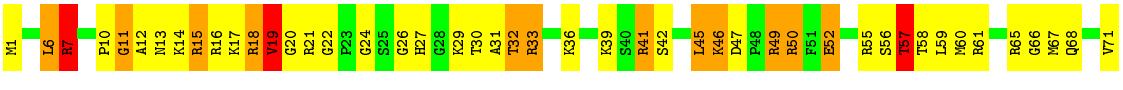
• Molecule 36: 50S ribosomal protein L14

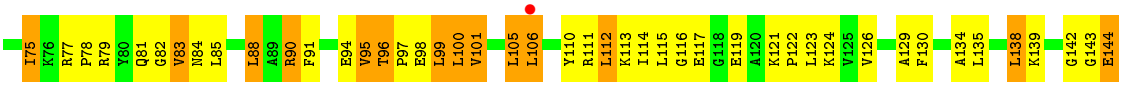
Chain 25:

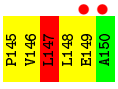


• Molecule 37: 50S ribosomal protein L15

Chain 78:

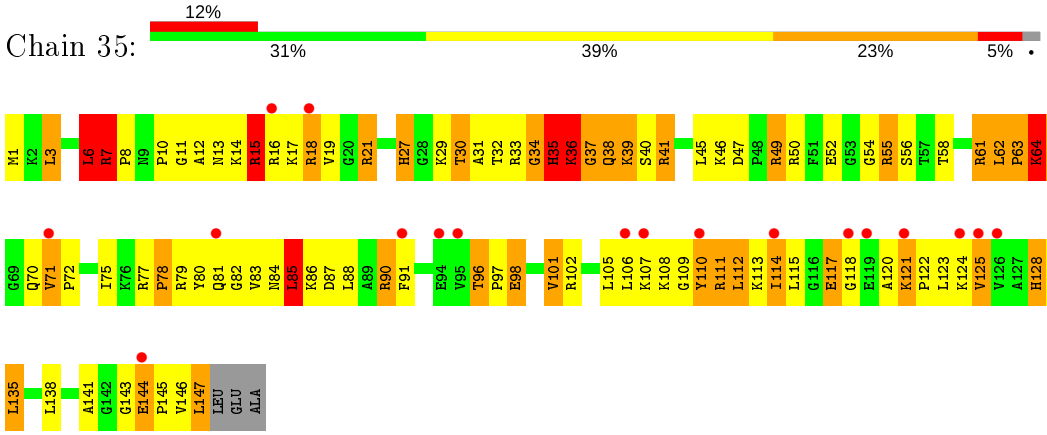






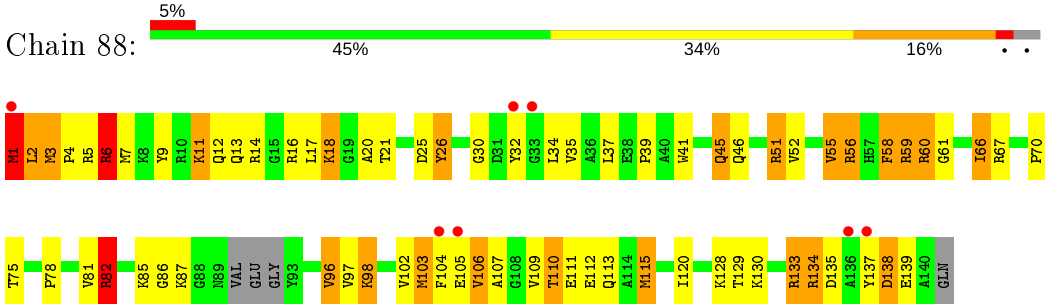
• Molecule 37: 50S ribosomal protein L15

Chain 35:



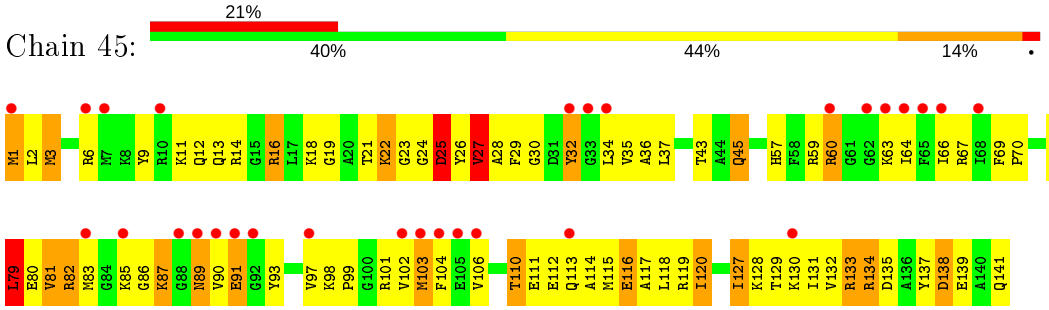
• Molecule 38: 50S ribosomal protein L16

Chain 88:



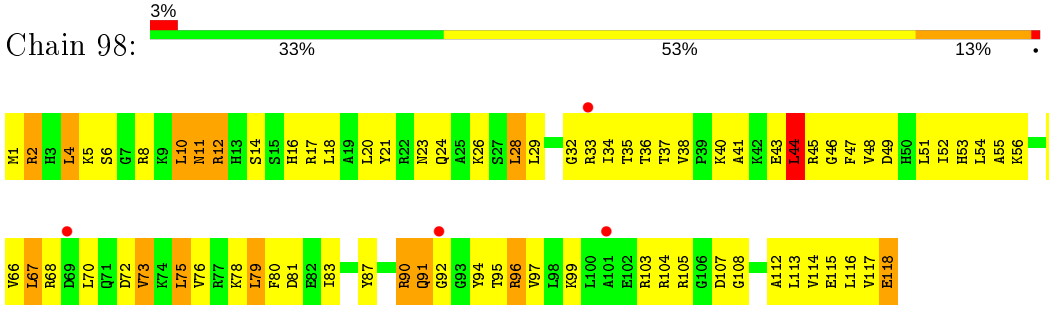
• Molecule 38: 50S ribosomal protein L16

Chain 45:



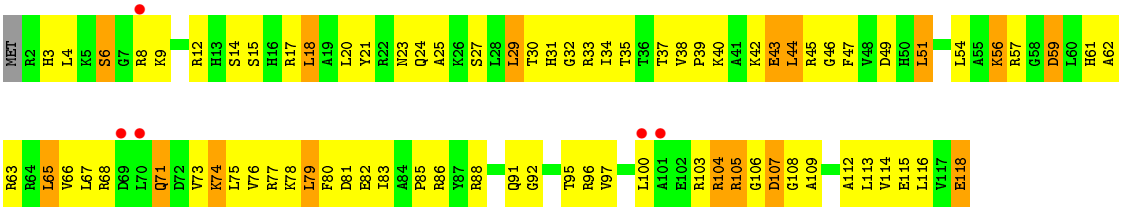
• Molecule 39: 50S ribosomal protein L17

Chain 98:



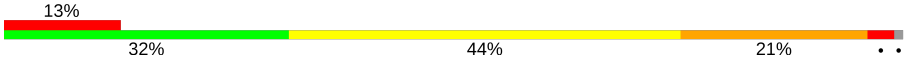
• Molecule 39: 50S ribosomal protein L17

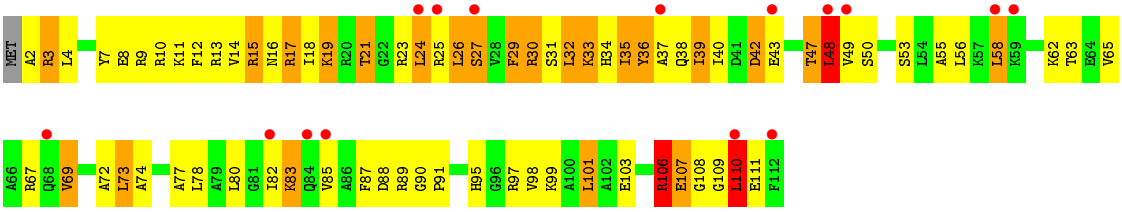
Chain 55:



• Molecule 40: 50S ribosomal protein L18

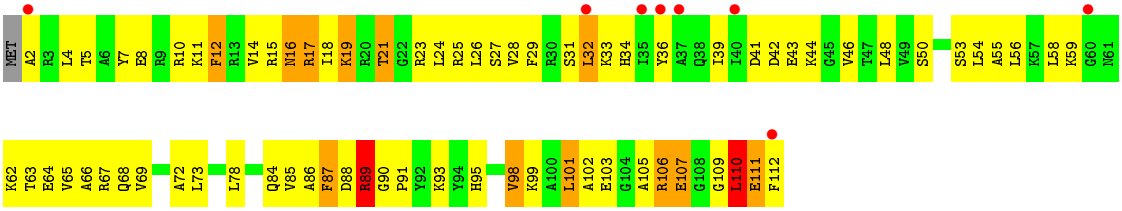
Chain A8:





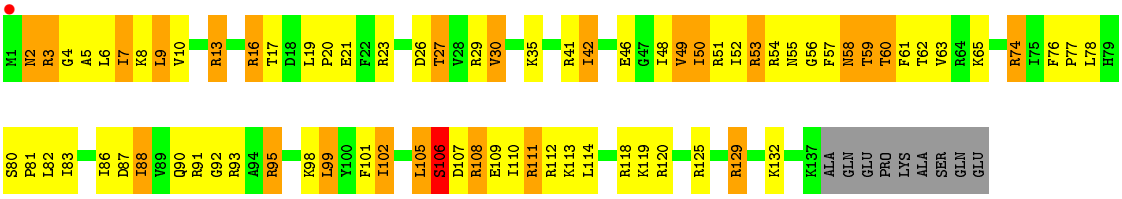
• Molecule 40: 50S ribosomal protein L18

Chain 65:



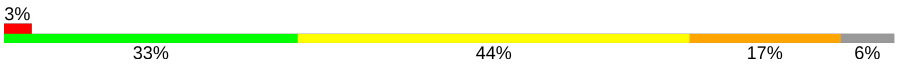
• Molecule 41: 50S ribosomal protein L19

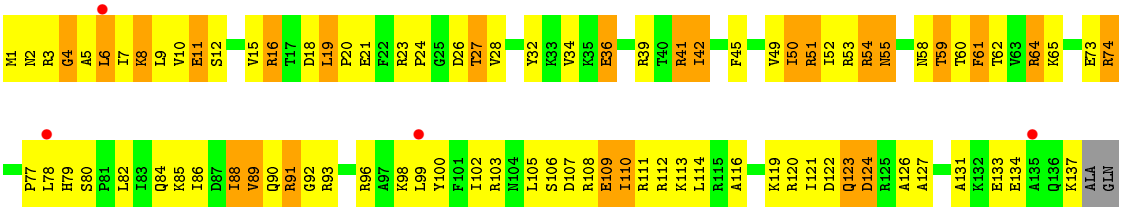
Chain B8:



• Molecule 41: 50S ribosomal protein L19

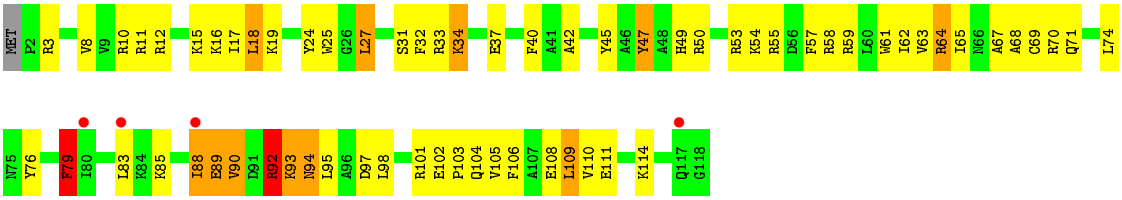
Chain 75:





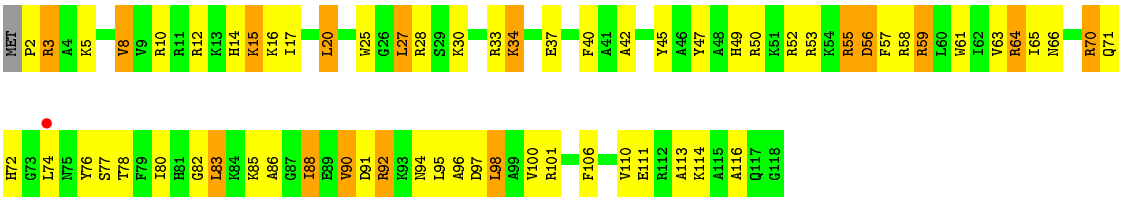
• Molecule 42: 50S ribosomal protein L20

Chain C8:



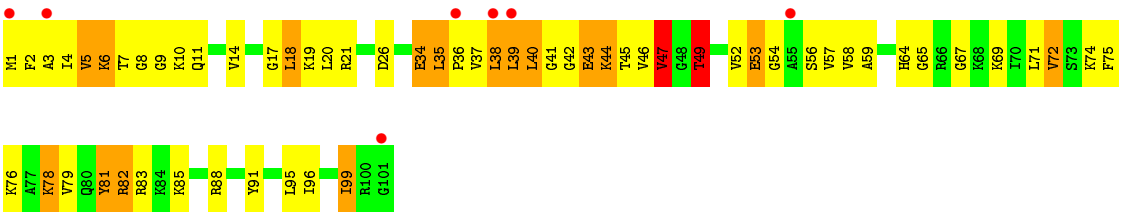
• Molecule 42: 50S ribosomal protein L20

Chain 85:



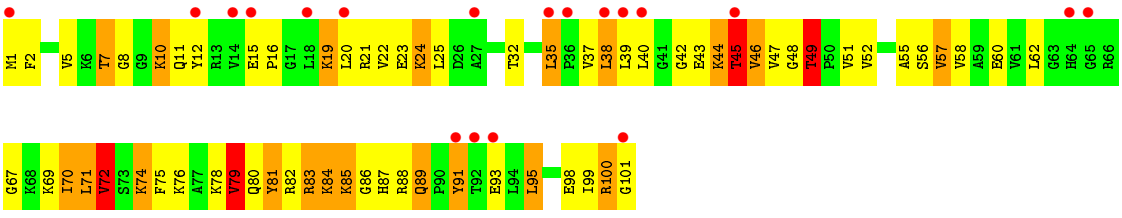
• Molecule 43: 50S ribosomal protein L21

Chain D8:



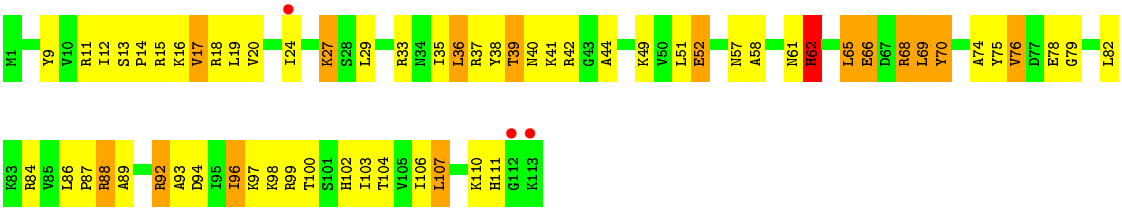
• Molecule 43: 50S ribosomal protein L21

Chain 95:

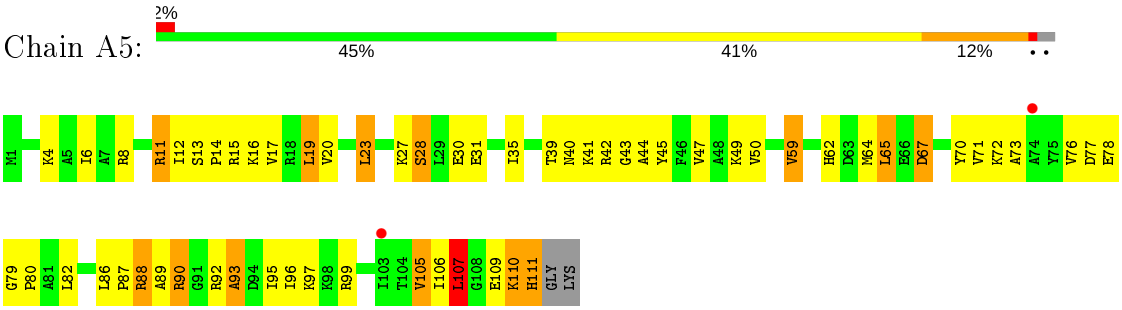


• Molecule 44: 50S ribosomal protein L22

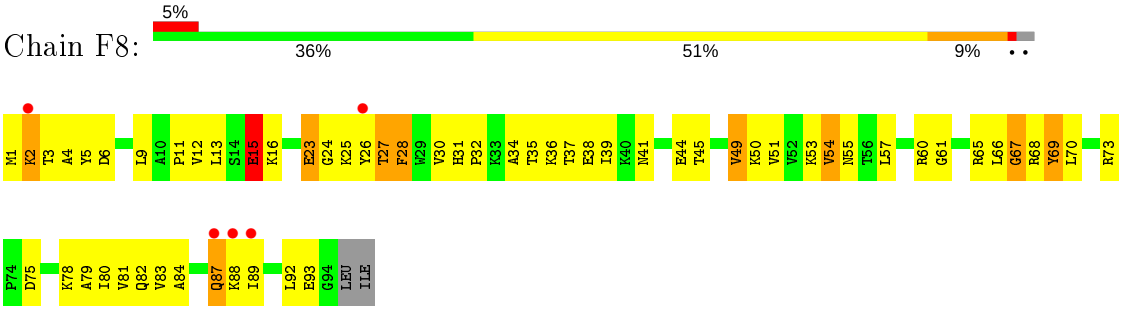
Chain E8:



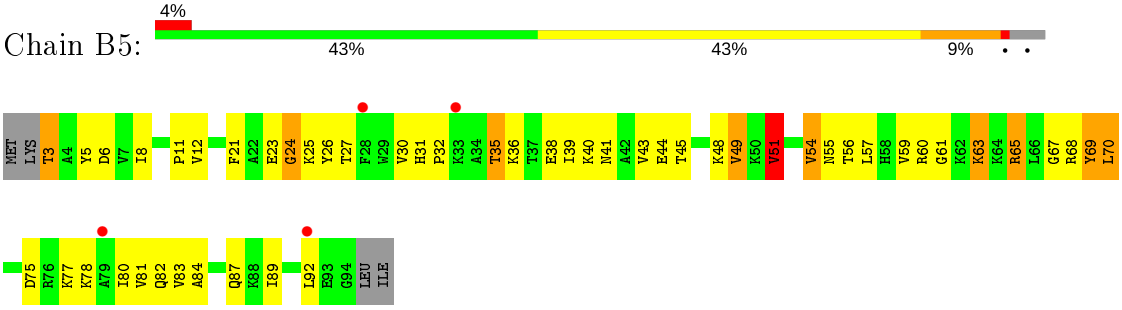
• Molecule 44: 50S ribosomal protein L22



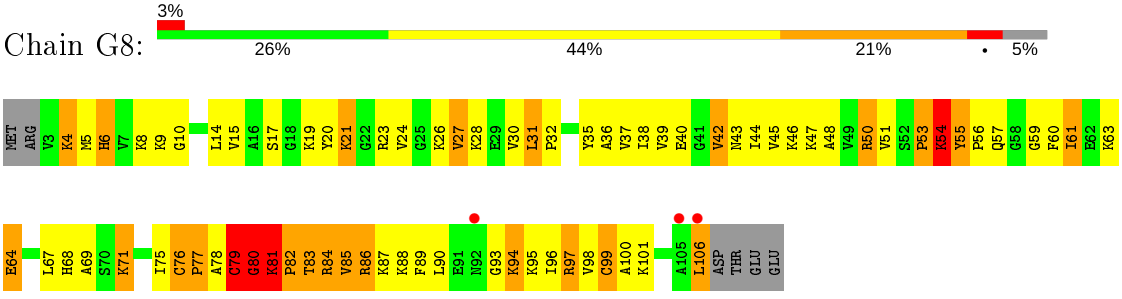
• Molecule 45: 50S ribosomal protein L23



• Molecule 45: 50S ribosomal protein L23

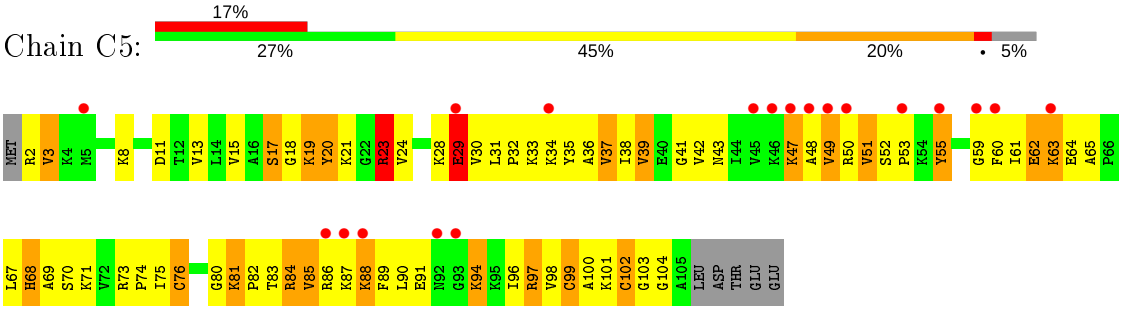


• Molecule 46: 50S ribosomal protein L24



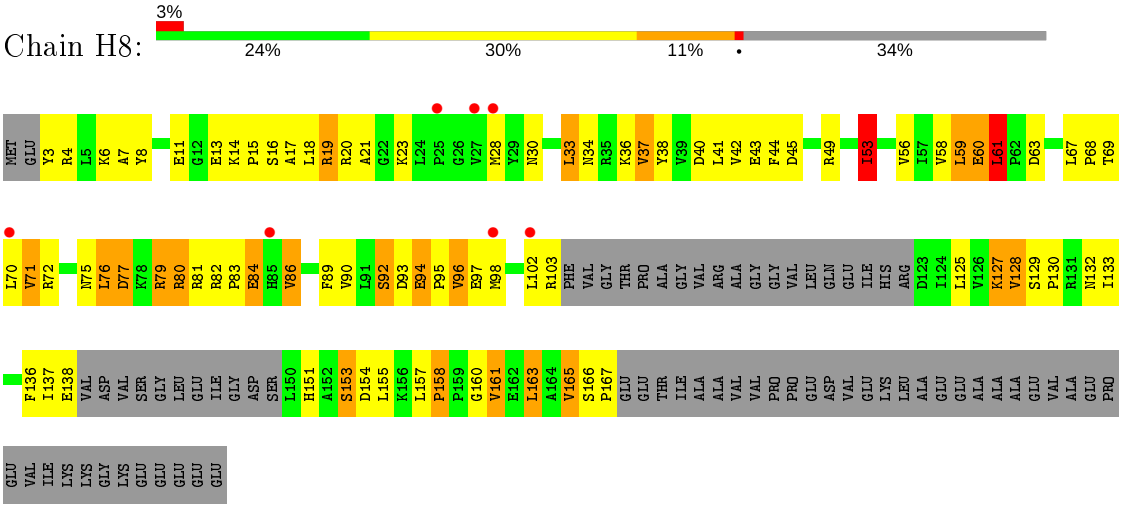
• Molecule 46: 50S ribosomal protein L24

Chain C5:



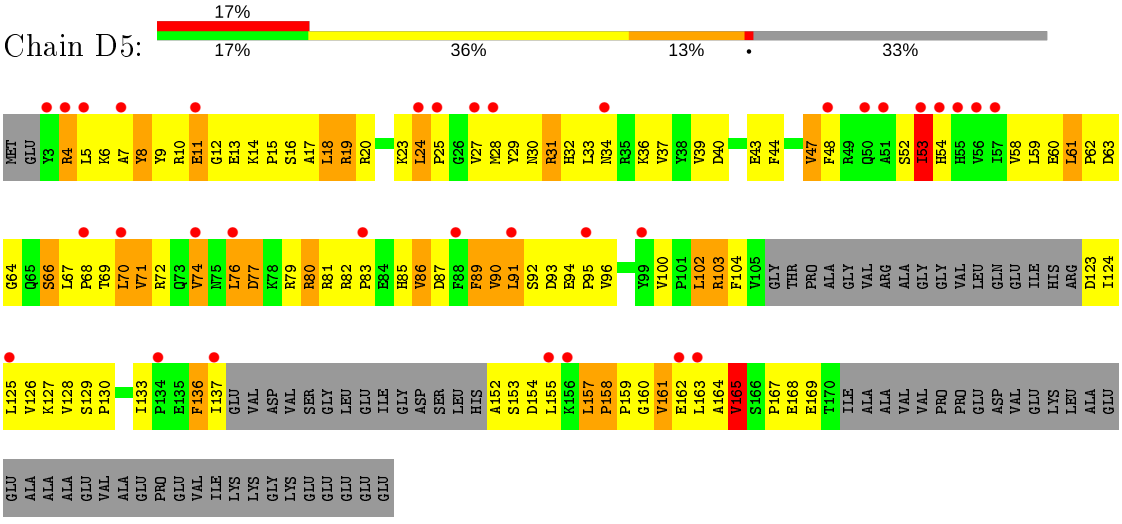
• Molecule 47: 50S ribosomal protein L25

Chain H8:



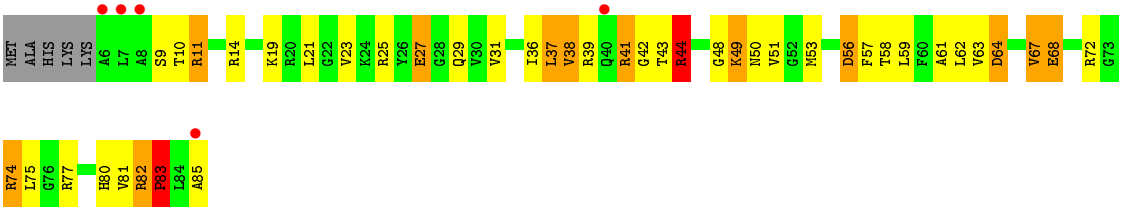
• Molecule 47: 50S ribosomal protein L25

Chain D5:



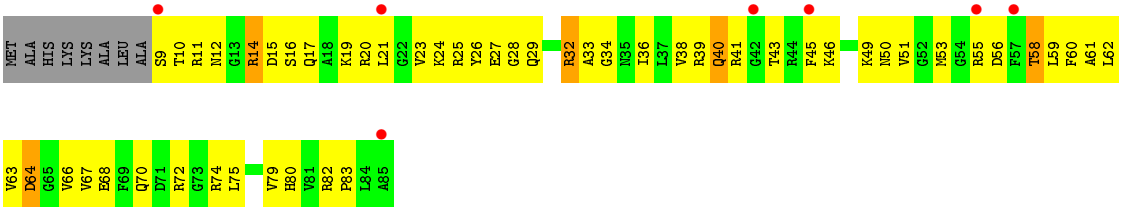
• Molecule 48: 50S ribosomal protein L27

Chain I8:



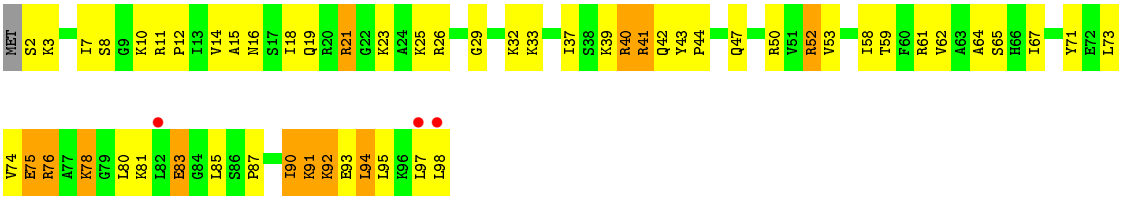
• Molecule 48: 50S ribosomal protein L27

Chain E5:



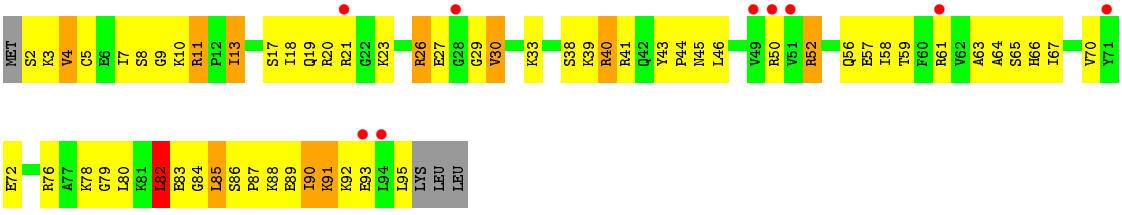
• Molecule 49: 50S ribosomal protein L28

Chain J8:



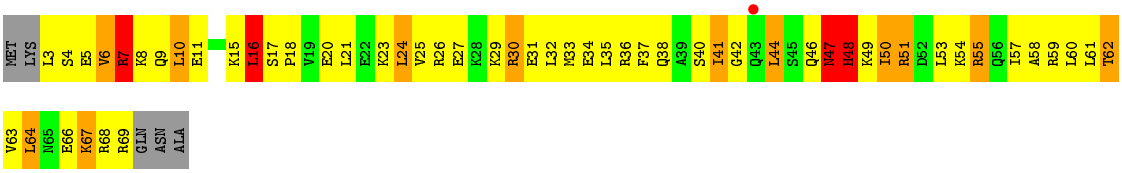
• Molecule 49: 50S ribosomal protein L28

Chain F5:



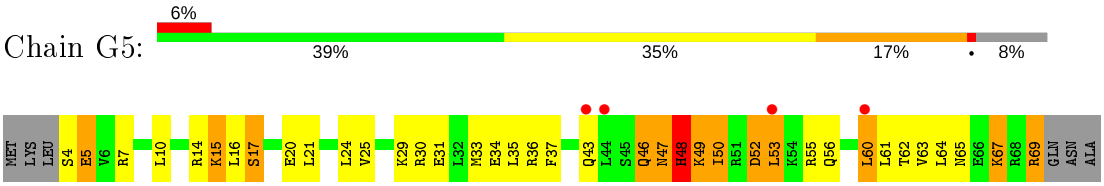
• Molecule 50: 50S ribosomal protein L29

Chain K8:



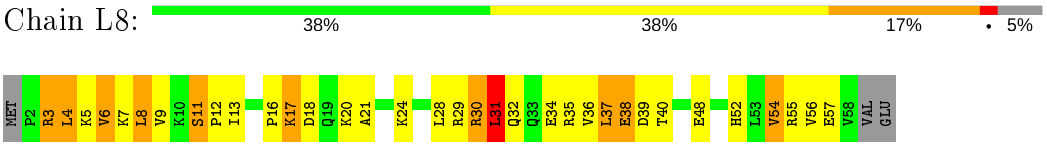
• Molecule 50: 50S ribosomal protein L29

Chain G5:



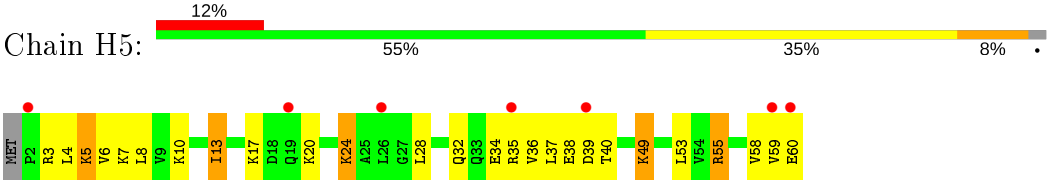
• Molecule 51: 50S ribosomal protein L30

Chain L8:



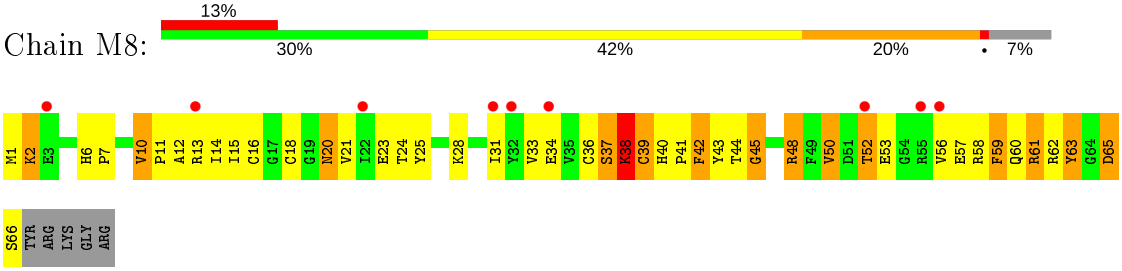
• Molecule 51: 50S ribosomal protein L30

Chain H5:



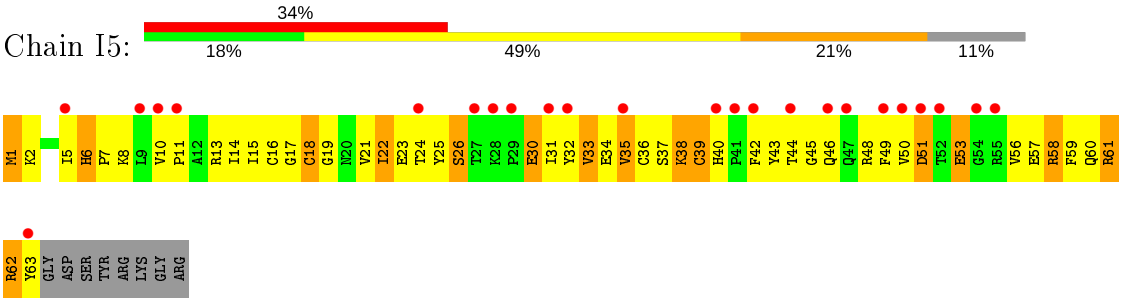
• Molecule 52: 50S ribosomal protein L31

Chain M8:



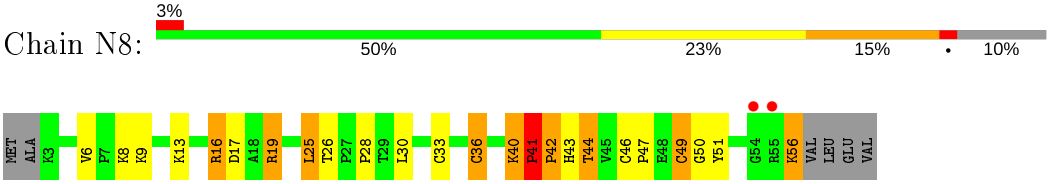
• Molecule 52: 50S ribosomal protein L31

Chain I5:



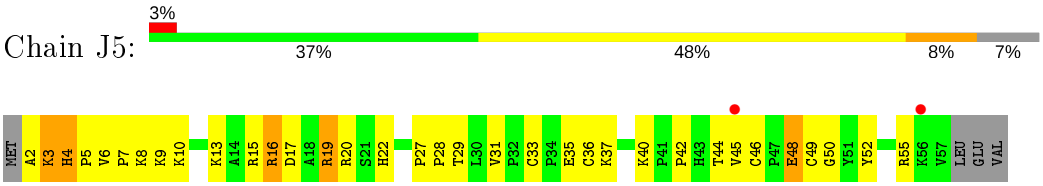
• Molecule 53: 50S ribosomal protein L32

Chain N8:



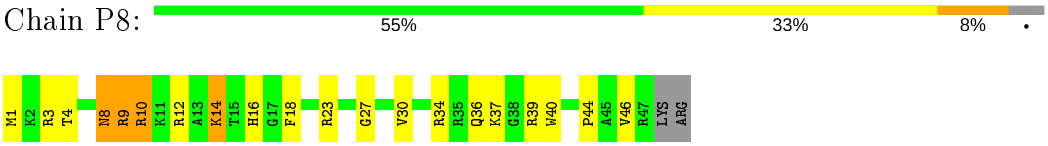
• Molecule 53: 50S ribosomal protein L32

Chain J5:



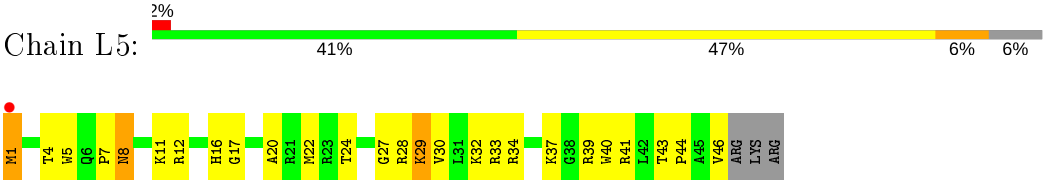
• Molecule 54: 50S ribosomal protein L34

Chain P8:



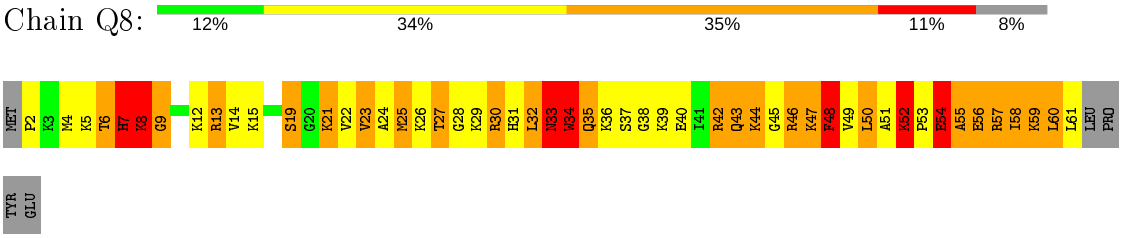
• Molecule 54: 50S ribosomal protein L34

Chain L5:



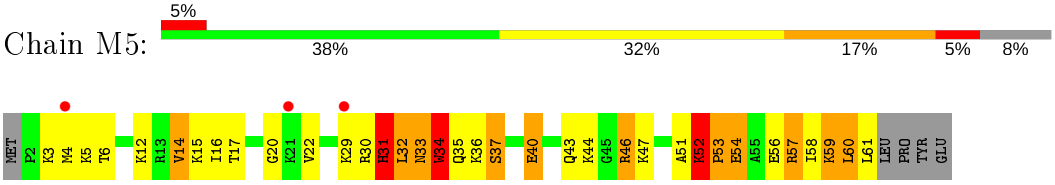
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



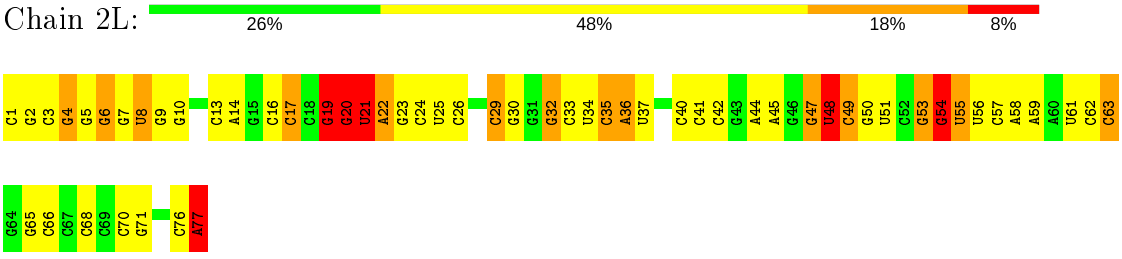
• Molecule 55: 50S ribosomal protein L35

Chain M5:



• Molecule 56: tRNA-fMet

Chain 2L:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.20Å 448.80Å 621.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.41 – 3.30 153.41 – 3.30	Depositor EDS
% Data completeness (in resolution range)	99.9 (153.41-3.30) 92.6 (153.41-3.30)	Depositor EDS
R_{merge}	0.46	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.96 (at 3.33Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.191 , 0.258 0.191 , 0.258	Depositor DCC
R_{free} test set	2000 reflections (0.23%)	wwPDB-VP
Wilson B-factor (Å^2)	96.5	Xtriage
Anisotropy	0.268	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 88.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	295920	wwPDB-VP
Average B, all atoms (Å^2)	115.0	wwPDB-VP

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

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: OMC, 5MU, ZN, MIA, MG, 4SU, 7MG, PSU

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	13	0.84	15/36028 (0.0%)	1.50	521/56231 (0.9%)
1	1G	0.74	0/36025	1.40	370/56227 (0.7%)
2	12	0.43	0/1959	0.71	3/2642 (0.1%)
2	1E	0.46	0/1959	0.74	1/2642 (0.0%)
3	22	0.43	0/1636	0.67	1/2205 (0.0%)
3	2E	0.54	0/1629	0.72	0/2195
4	32	0.50	0/1732	0.76	0/2318
4	3E	0.58	0/1732	0.77	2/2318 (0.1%)
5	42	0.54	0/1171	0.75	0/1576
5	4E	0.57	0/1171	0.74	0/1576
6	52	0.55	0/855	0.70	0/1154
6	5E	0.59	0/855	0.72	0/1154
7	62	0.47	0/1211	0.64	0/1622
7	6E	0.53	0/1275	0.64	0/1709
8	72	0.48	0/1135	0.69	0/1527
8	7E	0.56	0/1135	0.79	0/1527
9	82	0.44	0/1028	0.69	0/1379
9	8E	0.49	0/1028	0.72	0/1379
10	1A	0.48	0/529	0.70	0/706
10	1I	0.46	0/814	0.71	0/1095
11	2A	0.49	0/879	0.72	0/1187
11	2I	0.61	0/899	0.83	1/1213 (0.1%)
12	3A	0.60	0/972	0.81	0/1301
12	3I	0.67	0/972	0.87	0/1301
13	4A	0.41	0/943	0.66	0/1265
13	4I	0.55	0/943	0.76	0/1265
14	5A	0.52	0/423	0.75	0/560
14	5I	0.75	1/500 (0.2%)	0.74	0/664
15	6A	0.53	0/744	0.70	0/992
15	6I	0.63	0/744	0.81	0/992
16	7A	0.49	0/721	0.73	0/970
16	7I	0.48	0/721	0.74	1/970 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.54	0/836	0.70	0/1117
17	8I	0.62	0/847	0.76	0/1131
18	9A	0.51	0/595	0.71	0/790
18	9I	0.57	0/595	0.79	0/790
19	AA	0.42	0/638	0.70	1/860 (0.1%)
19	AI	0.55	0/661	0.88	1/890 (0.1%)
20	BA	0.47	0/764	0.77	0/1007
20	BI	0.44	0/764	0.70	0/1007
21	1B	0.55	0/192	0.71	0/252
21	1F	0.51	0/221	0.76	0/288
22	1K	0.73	1/1623 (0.1%)	1.34	22/2521 (0.9%)
23	2K	1.17	6/1721 (0.3%)	1.62	36/2682 (1.3%)
24	3K	0.98	11/1669 (0.7%)	1.28	13/2599 (0.5%)
24	3L	1.00	11/1669 (0.7%)	1.37	33/2599 (1.3%)
25	4K	0.96	0/322	1.53	8/500 (1.6%)
25	4L	0.85	0/222	1.36	2/344 (0.6%)
26	14	1.00	78/69405 (0.1%)	1.72	1985/108348 (1.8%)
26	1H	1.21	256/69998 (0.4%)	1.93	3118/109276 (2.9%)
27	16	0.93	2/2928 (0.1%)	1.75	90/4568 (2.0%)
27	1J	0.75	0/2928	1.52	41/4568 (0.9%)
28	71	0.82	0/749	0.80	0/1004
29	11	0.89	3/2165 (0.1%)	1.04	7/2919 (0.2%)
29	19	0.76	0/2170	0.95	3/2926 (0.1%)
30	21	0.73	0/1601	0.98	5/2160 (0.2%)
30	29	0.70	0/1601	0.99	5/2160 (0.2%)
31	31	0.81	1/1620 (0.1%)	0.93	3/2194 (0.1%)
31	39	0.67	1/1645 (0.1%)	0.94	2/2228 (0.1%)
32	41	0.62	0/1498	0.82	2/2016 (0.1%)
32	49	0.45	0/1498	0.73	0/2016
33	51	0.66	0/1362	0.89	3/1841 (0.2%)
33	59	0.48	0/1332	0.84	1/1802 (0.1%)
34	61	0.59	0/1151	0.86	0/1558
34	69	0.53	0/1151	0.77	2/1558 (0.1%)
35	15	0.56	0/1131	0.80	0/1525
35	58	0.69	0/1131	0.94	0/1525
36	25	0.68	0/942	0.82	0/1269
36	68	0.76	0/942	0.82	0/1269
37	35	0.66	0/1139	1.01	6/1514 (0.4%)
37	78	0.75	0/1161	1.05	1/1544 (0.1%)
38	45	0.69	0/1142	0.94	3/1527 (0.2%)
38	88	0.86	0/1097	1.10	3/1466 (0.2%)
39	55	0.69	0/973	0.93	1/1302 (0.1%)
39	98	0.65	0/981	0.96	2/1312 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
40	65	0.57	0/891	0.96	2/1187 (0.2%)
40	A8	0.78	0/891	1.02	4/1187 (0.3%)
41	75	0.65	0/1155	0.82	1/1542 (0.1%)
41	B8	0.73	0/1155	0.94	1/1542 (0.1%)
42	85	0.60	0/981	0.79	1/1306 (0.1%)
42	C8	0.80	0/981	0.98	3/1306 (0.2%)
43	95	0.65	0/789	0.90	1/1057 (0.1%)
43	D8	0.73	0/789	0.94	2/1057 (0.2%)
44	A5	0.74	0/897	0.88	1/1204 (0.1%)
44	E8	0.77	0/910	0.92	1/1220 (0.1%)
45	B5	0.78	0/739	0.86	0/993
45	F8	0.92	2/756 (0.3%)	1.00	1/1014 (0.1%)
46	C5	0.73	0/807	1.03	3/1076 (0.3%)
46	G8	0.79	0/804	1.09	5/1073 (0.5%)
47	D5	0.46	0/1151	0.74	0/1557
47	H8	0.60	0/1135	0.88	0/1535
48	E5	0.67	0/620	0.87	0/827
48	I8	0.80	0/634	1.00	0/847
49	F5	0.63	0/744	0.92	1/989 (0.1%)
49	J8	0.83	0/769	1.00	0/1022
50	G5	0.61	0/560	0.82	0/741
50	K8	0.82	0/565	1.01	1/748 (0.1%)
51	H5	0.59	0/473	0.74	0/635
51	L8	0.74	0/457	1.04	1/613 (0.2%)
52	I5	0.52	0/527	0.92	0/709
52	M8	0.58	0/545	0.96	1/733 (0.1%)
53	J5	0.73	0/448	0.93	0/606
53	N8	0.65	0/436	0.87	0/589
54	L5	0.75	0/406	0.95	0/536
54	P8	0.88	0/417	0.99	0/550
55	M5	0.96	1/483 (0.2%)	1.14	3/634 (0.5%)
55	Q8	1.27	3/486 (0.6%)	1.65	9/638 (1.4%)
56	2L	1.26	13/1742 (0.7%)	1.51	30/2712 (1.1%)
All	All	0.92	405/318291 (0.1%)	1.52	6371/476619 (1.3%)

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	12	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	2
4	32	0	3
4	3E	0	1
6	5E	0	1
9	82	0	1
10	1A	0	1
11	2A	0	1
12	3A	0	1
13	4A	0	1
13	4I	0	1
14	5A	0	1
19	AI	0	2
20	BA	0	3
29	11	0	2
29	19	0	5
30	21	0	4
30	29	0	5
31	31	0	1
31	39	0	4
32	41	0	1
32	49	0	1
33	59	0	1
34	61	0	4
34	69	0	1
35	15	0	1
36	25	0	1
37	35	0	3
37	78	0	2
38	45	0	5
38	88	0	3
39	98	0	1
40	65	0	1
40	A8	0	2
41	75	0	2
41	B8	0	2
42	85	0	3
42	C8	0	2
43	95	0	1
44	A5	0	2
45	B5	0	2
46	C5	0	3
46	G8	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
47	D5	0	2
47	H8	0	3
48	E5	0	1
48	I8	0	2
49	J8	0	1
50	G5	0	2
50	K8	0	3
52	I5	0	2
52	M8	0	1
53	N8	0	1
55	M5	0	2
55	Q8	0	7
All	All	0	116

All (405) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	2L	55	U	N1-C2	22.39	1.58	1.38
23	2K	21	U	C5-C6	18.80	1.51	1.34
56	2L	21	U	C5-C6	18.33	1.50	1.34
24	3L	20	U	C5-C6	17.50	1.49	1.34
24	3K	16	U	C5-C6	17.45	1.49	1.34
24	3K	20	U	C5-C6	17.39	1.49	1.34
24	3L	16	U	C5-C6	17.17	1.49	1.34
56	2L	55	U	C2-N3	15.76	1.48	1.37
23	2K	21	U	C2-N3	12.49	1.46	1.37
56	2L	55	U	N3-C4	-12.21	1.27	1.38
26	1H	774	A	N9-C4	-11.41	1.31	1.37
24	3L	20	U	C2-N3	11.41	1.45	1.37
56	2L	21	U	C2-N3	11.21	1.45	1.37
56	2L	55	U	N1-C6	11.12	1.48	1.38
26	1H	2430	A	N9-C4	-11.08	1.31	1.37
24	3L	16	U	C2-N3	10.92	1.45	1.37
24	3K	20	U	C2-N3	10.54	1.45	1.37
56	2L	55	U	C4-C5	10.53	1.53	1.43
24	3K	16	U	C2-N3	10.35	1.45	1.37
26	1H	783	A	N9-C4	-10.29	1.31	1.37
26	1H	783	A	N7-C5	-9.97	1.33	1.39
14	5I	27	CYS	CB-SG	-9.42	1.66	1.82
23	2K	21	U	N1-C2	9.28	1.47	1.38
26	1H	2346	A	N3-C4	-9.28	1.29	1.34
26	1H	1614	A	N9-C4	-8.98	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	783	A	N7-C5	-8.95	1.33	1.39
26	14	783	A	N9-C4	-8.92	1.32	1.37
56	2L	21	U	N1-C2	8.85	1.46	1.38
26	1H	1698	A	N3-C4	-8.82	1.29	1.34
23	2K	21	U	C4-C5	8.81	1.51	1.43
1	13	792	A	N9-C4	-8.79	1.32	1.37
26	1H	1899	G	N9-C4	-8.66	1.31	1.38
1	13	792	A	C5-C6	-8.65	1.33	1.41
26	1H	1021	A	N9-C4	-8.62	1.32	1.37
26	1H	2713	A	N9-C4	-8.49	1.32	1.37
56	2L	21	U	C4-C5	8.46	1.51	1.43
26	1H	2032	G	N7-C5	-8.39	1.34	1.39
24	3K	20	U	C4-C5	8.36	1.51	1.43
26	1H	1142(A)	A	N9-C4	-8.34	1.32	1.37
26	1H	783	A	N3-C4	-8.31	1.29	1.34
26	1H	783	A	C5-C6	-8.22	1.33	1.41
26	14	774	A	N9-C4	-8.06	1.33	1.37
24	3K	16	U	C4-C5	8.05	1.50	1.43
26	14	2581	G	N7-C5	-8.05	1.34	1.39
24	3L	20	U	N1-C2	7.88	1.45	1.38
24	3L	16	U	C4-C5	7.77	1.50	1.43
26	14	2287	A	N9-C4	-7.72	1.33	1.37
26	14	783	A	C5-C6	-7.67	1.34	1.41
26	1H	2490	G	C5-C6	-7.62	1.34	1.42
26	1H	2430	A	C5-C6	-7.61	1.34	1.41
26	1H	828	U	N3-C4	-7.57	1.31	1.38
26	1H	1375	C	N1-C6	-7.47	1.32	1.37
26	1H	2490	G	N9-C4	-7.45	1.31	1.38
26	1H	784	A	C6-N1	-7.44	1.30	1.35
26	1H	772	C	N1-C6	-7.40	1.32	1.37
26	14	2346	A	N3-C4	-7.38	1.30	1.34
26	1H	955	C	N1-C6	-7.38	1.32	1.37
26	1H	965	C	N1-C6	-7.33	1.32	1.37
26	14	1142(A)	A	N3-C4	-7.29	1.30	1.34
24	3L	20	U	C4-C5	7.26	1.50	1.43
26	1H	676	A	N9-C8	7.22	1.43	1.37
26	1H	2502	G	N9-C8	-7.21	1.32	1.37
26	1H	2438	U	N1-C6	-7.18	1.31	1.38
26	14	955	C	N3-C4	-7.17	1.28	1.33
26	1H	122	G	N9-C4	-7.17	1.32	1.38
29	11	28	GLU	CG-CD	7.15	1.62	1.51
26	1H	751	A	N9-C4	-7.14	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	140	A	C5-C6	-7.13	1.34	1.41
23	2K	21	U	N3-C4	7.09	1.44	1.38
26	1H	1678	G	N9-C4	-7.08	1.32	1.38
26	1H	676	A	C5-C4	7.08	1.43	1.38
26	1H	693	C	N3-C4	-7.04	1.29	1.33
26	1H	1204	A	N9-C4	-7.02	1.33	1.37
55	Q8	34	TRP	CB-CG	6.93	1.62	1.50
26	1H	2051	A	N7-C5	-6.92	1.35	1.39
26	1H	201	C	N1-C6	-6.90	1.33	1.37
26	14	1278	A	N9-C4	-6.89	1.33	1.37
26	14	793	A	N9-C4	-6.88	1.33	1.37
26	1H	1571	A	N9-C4	-6.85	1.33	1.37
26	1H	679	C	N1-C6	-6.83	1.33	1.37
26	14	2062	A	N7-C5	6.83	1.43	1.39
26	1H	1332	G	N9-C4	-6.78	1.32	1.38
1	13	1418	A	N9-C4	-6.77	1.33	1.37
26	14	2062	A	N3-C4	6.77	1.39	1.34
26	1H	775	G	N7-C5	-6.75	1.35	1.39
26	14	774	A	C5-C6	-6.75	1.34	1.41
26	1H	528	A	N9-C4	-6.73	1.33	1.37
26	1H	2271	G	C5-C4	-6.68	1.33	1.38
26	14	676	A	N9-C4	-6.66	1.33	1.37
26	1H	2438	U	C2-N3	-6.64	1.33	1.37
1	13	1503	A	N9-C4	6.63	1.41	1.37
26	1H	2346	A	N9-C4	-6.59	1.33	1.37
26	1H	2451	A	N3-C4	-6.58	1.30	1.34
26	1H	735	A	C5-C4	-6.58	1.34	1.38
26	1H	1950	G	N9-C8	6.57	1.42	1.37
26	1H	784	A	N3-C4	-6.53	1.30	1.34
26	14	2062	A	C6-N1	6.52	1.40	1.35
26	1H	2297	C	N3-C4	-6.51	1.29	1.33
26	1H	572	A	N3-C4	-6.50	1.30	1.34
26	14	2873	A	N7-C5	-6.50	1.35	1.39
26	1H	1829	A	C5-C4	-6.49	1.34	1.38
26	14	1204	A	N9-C4	-6.47	1.33	1.37
26	1H	1966	A	C5-C4	-6.46	1.34	1.38
23	2K	21	U	N1-C6	6.45	1.43	1.38
26	1H	621	A	N9-C4	-6.43	1.33	1.37
26	1H	1786	A	N9-C4	-6.43	1.33	1.37
26	14	1786	A	N9-C4	-6.42	1.33	1.37
26	1H	2442	C	N1-C6	-6.41	1.33	1.37
26	14	1890	A	N9-C4	-6.41	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1678	G	N9-C4	-6.40	1.32	1.38
45	F8	15	GLU	CB-CG	6.39	1.64	1.52
26	14	1142(A)	A	N9-C4	-6.39	1.34	1.37
26	14	1616	A	N9-C4	-6.39	1.34	1.37
29	11	122	ASP	CB-CG	6.38	1.65	1.51
26	1H	2621	A	C6-N1	-6.37	1.31	1.35
26	1H	140	A	N7-C5	-6.37	1.35	1.39
26	1H	722	A	N9-C4	-6.37	1.34	1.37
26	1H	1989	G	N3-C4	-6.37	1.30	1.35
26	14	74	A	N9-C4	-6.36	1.34	1.37
26	1H	686	G	N7-C5	-6.35	1.35	1.39
26	1H	2273	A	N9-C4	-6.34	1.34	1.37
26	1H	2392	A	N9-C4	-6.32	1.34	1.37
55	Q8	54	GLU	CG-CD	6.31	1.61	1.51
26	1H	129	C	N1-C6	-6.31	1.33	1.37
26	1H	2430	A	N3-C4	-6.29	1.31	1.34
26	1H	300	A	N7-C5	-6.29	1.35	1.39
26	1H	2590	A	N9-C4	-6.27	1.34	1.37
26	1H	735	A	N3-C4	-6.27	1.31	1.34
26	1H	1434	A	N9-C4	-6.27	1.34	1.37
26	1H	138	G	N9-C8	6.26	1.42	1.37
26	1H	829	A	N9-C4	-6.24	1.34	1.37
26	1H	2059	A	N9-C4	-6.23	1.34	1.37
26	14	783	A	N3-C4	-6.23	1.31	1.34
26	1H	945	A	N7-C5	-6.22	1.35	1.39
26	14	676	A	C5-C6	-6.22	1.35	1.41
31	31	65	TRP	CB-CG	-6.21	1.39	1.50
45	F8	15	GLU	CG-CD	6.20	1.61	1.51
26	1H	1829	A	N3-C4	-6.17	1.31	1.34
26	1H	1434	A	N7-C5	-6.16	1.35	1.39
26	1H	1607	C	N1-C2	6.16	1.46	1.40
26	1H	945	A	C5-C6	-6.12	1.35	1.41
26	14	196	A	N9-C4	-6.12	1.34	1.37
26	1H	1365	A	N9-C4	-6.12	1.34	1.37
26	1H	552	G	N9-C4	-6.11	1.33	1.38
26	14	795	C	N3-C4	-6.10	1.29	1.33
26	1H	917	A	C5-C6	-6.10	1.35	1.41
1	13	894	G	N9-C4	-6.10	1.33	1.38
26	1H	1626	G	C2-N3	-6.08	1.27	1.32
26	1H	1791	A	N3-C4	-6.08	1.31	1.34
26	14	828	U	N3-C4	-6.08	1.32	1.38
26	1H	917	A	C2-N3	-6.06	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	74	A	N9-C4	-6.05	1.34	1.37
26	1H	785	G	N9-C8	-6.04	1.33	1.37
26	1H	1967	C	N1-C6	-6.04	1.33	1.37
26	1H	597	U	N1-C2	-6.03	1.33	1.38
26	1H	945	A	N3-C4	-6.03	1.31	1.34
26	1H	661	C	C4-C5	-6.03	1.38	1.43
26	1H	1251	C	N1-C6	-6.03	1.33	1.37
26	1H	1817	G	C6-N1	-6.03	1.35	1.39
26	1H	1899	G	N3-C4	-6.01	1.31	1.35
55	Q8	48	PHE	CB-CG	-6.00	1.41	1.51
26	14	528	A	N9-C4	-6.00	1.34	1.37
26	1H	503	A	N3-C4	-5.99	1.31	1.34
26	1H	933	A	N3-C4	-5.98	1.31	1.34
24	3K	16	U	N1-C2	5.98	1.44	1.38
26	1H	1902	C	N1-C2	-5.97	1.34	1.40
26	1H	181	A	N7-C5	-5.95	1.35	1.39
26	14	777	A	N3-C4	-5.94	1.31	1.34
26	14	2251	G	N7-C5	-5.94	1.35	1.39
24	3K	20	U	N3-C4	5.94	1.43	1.38
1	13	792	A	N7-C5	-5.93	1.35	1.39
56	2L	21	U	N1-C6	5.93	1.43	1.38
26	14	751	A	N3-C4	-5.91	1.31	1.34
26	14	838	C	N1-C6	-5.90	1.33	1.37
26	1H	516	C	C4-C5	-5.89	1.38	1.43
26	1H	793	A	N7-C5	-5.89	1.35	1.39
26	1H	2328	A	N9-C4	-5.89	1.34	1.37
26	1H	187	G	C8-N7	-5.86	1.27	1.30
26	1H	2247	A	N7-C5	-5.86	1.35	1.39
26	1H	778	G	C5-C4	-5.85	1.34	1.38
26	1H	793	A	C5-C6	-5.82	1.35	1.41
26	1H	1300	U	N1-C2	-5.81	1.33	1.38
26	1H	1349	A	C5-C4	5.81	1.42	1.38
26	14	1307	A	C6-N1	-5.81	1.31	1.35
26	14	2082	A	N7-C5	-5.80	1.35	1.39
26	1H	2392	A	C5-C4	5.79	1.42	1.38
26	1H	821	A	N7-C5	-5.78	1.35	1.39
26	14	2057	A	N9-C4	-5.78	1.34	1.37
26	1H	453	C	N1-C6	-5.78	1.33	1.37
26	1H	798	G	N9-C4	-5.78	1.33	1.38
26	14	778	G	C6-N1	-5.77	1.35	1.39
26	1H	965	C	C4-C5	-5.77	1.38	1.43
26	14	2502	G	N7-C5	-5.77	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1210	A	N9-C4	-5.76	1.34	1.37
24	3L	16	U	N1-C2	5.75	1.43	1.38
26	1H	225	A	N9-C4	-5.74	1.34	1.37
26	1H	676	A	N9-C4	-5.74	1.34	1.37
26	1H	795	C	N1-C6	-5.73	1.33	1.37
26	1H	2198	A	N9-C4	-5.73	1.34	1.37
26	14	2725	A	N9-C4	-5.73	1.34	1.37
56	2L	36	A	N9-C4	-5.72	1.34	1.37
26	14	590	A	N9-C4	-5.72	1.34	1.37
26	1H	2688	U	N3-C4	-5.72	1.33	1.38
56	2L	21	U	N3-C4	5.71	1.43	1.38
26	1H	1621	U	N1-C2	-5.71	1.33	1.38
26	14	768	G	N7-C5	-5.69	1.35	1.39
26	1H	1815	A	N9-C4	-5.69	1.34	1.37
26	1H	2082	A	C5-C4	-5.67	1.34	1.38
26	1H	2430	A	N7-C5	-5.67	1.35	1.39
1	13	815	A	N9-C4	-5.67	1.34	1.37
26	1H	53	A	N3-C4	-5.67	1.31	1.34
26	1H	127	A	C5-C6	-5.66	1.35	1.41
26	14	2247	A	N7-C5	-5.65	1.35	1.39
26	1H	502	A	N3-C4	-5.64	1.31	1.34
26	1H	2346	A	N7-C5	-5.64	1.35	1.39
26	1H	587	C	N1-C6	-5.63	1.33	1.37
24	3L	16	U	N3-C4	5.63	1.43	1.38
26	1H	609	A	C5-C6	-5.62	1.35	1.41
26	14	572	A	N3-C4	-5.61	1.31	1.34
26	14	1698	A	N9-C4	-5.61	1.34	1.37
26	1H	2689	U	N3-C4	-5.60	1.33	1.38
26	14	1429	G	C6-N1	-5.59	1.35	1.39
26	1H	2067	G	C6-N1	-5.57	1.35	1.39
26	1H	1621	U	C4-C5	-5.56	1.38	1.43
26	14	1950	G	C5-C4	5.56	1.42	1.38
26	14	1308	A	N3-C4	-5.55	1.31	1.34
26	1H	679	C	N1-C2	-5.55	1.34	1.40
26	1H	1669	A	N3-C4	-5.55	1.31	1.34
1	13	1515	C	N3-C4	-5.54	1.30	1.33
26	1H	1827	C	N3-C4	-5.54	1.30	1.33
26	1H	1698	A	N9-C4	-5.54	1.34	1.37
26	1H	189	G	N9-C4	-5.54	1.33	1.38
26	1H	729	G	N7-C5	-5.54	1.35	1.39
26	1H	1571	A	N3-C4	-5.54	1.31	1.34
26	1H	786	C	N3-C4	-5.53	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2077	A	N9-C4	-5.53	1.34	1.37
26	1H	1969	A	C6-N1	-5.53	1.31	1.35
1	13	1515	C	N1-C6	-5.52	1.33	1.37
26	14	1825	A	N3-C4	-5.51	1.31	1.34
26	1H	2287	A	N9-C4	-5.51	1.34	1.37
26	1H	1623	G	N9-C8	-5.50	1.33	1.37
26	1H	2438	U	N3-C4	-5.50	1.33	1.38
26	1H	2621	A	N3-C4	-5.50	1.31	1.34
26	1H	2764	A	N9-C4	-5.50	1.34	1.37
26	1H	1899	G	N9-C8	5.50	1.41	1.37
26	1H	680	G	C6-N1	-5.50	1.35	1.39
26	1H	2073	C	N1-C6	-5.49	1.33	1.37
26	1H	677	A	N3-C4	-5.49	1.31	1.34
26	1H	1311	G	N9-C4	-5.48	1.33	1.38
26	1H	2063	C	N1-C6	-5.48	1.33	1.37
26	1H	990	A	C5-C6	-5.47	1.36	1.41
26	14	693	C	N3-C4	-5.47	1.30	1.33
1	13	1408	A	N3-C4	-5.46	1.31	1.34
26	1H	774	A	N3-C4	-5.45	1.31	1.34
24	3L	20	U	N3-C4	5.44	1.43	1.38
26	1H	795	C	N3-C4	-5.44	1.30	1.33
26	1H	123	G	C5-C4	-5.44	1.34	1.38
26	1H	693	C	N1-C6	-5.44	1.33	1.37
26	1H	577	G	C6-N1	-5.43	1.35	1.39
26	14	1204	A	N3-C4	-5.43	1.31	1.34
26	14	1786	A	N3-C4	-5.43	1.31	1.34
26	1H	763	G	C6-N1	-5.43	1.35	1.39
26	1H	1854	A	N3-C4	-5.43	1.31	1.34
26	1H	204	A	N3-C4	-5.42	1.31	1.34
26	1H	734	A	N9-C4	-5.42	1.34	1.37
26	1H	1621	U	N1-C6	-5.41	1.33	1.38
1	13	694	A	N9-C4	-5.41	1.34	1.37
26	1H	772	C	N1-C2	-5.40	1.34	1.40
26	1H	1422	G	N7-C5	-5.40	1.36	1.39
26	14	2393	A	C6-N1	-5.39	1.31	1.35
26	1H	1993	U	N1-C2	-5.39	1.33	1.38
27	16	89(A)	A	N9-C4	-5.39	1.34	1.37
26	14	1991	U	C2-N3	-5.39	1.33	1.37
26	1H	1613	G	C6-N1	-5.38	1.35	1.39
26	1H	51	G	N9-C8	-5.38	1.34	1.37
26	14	2600	A	N3-C4	-5.38	1.31	1.34
1	13	1518	A	N3-C4	-5.37	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	759	G	C5-C4	-5.37	1.34	1.38
26	1H	1902	C	C4-C5	-5.37	1.38	1.43
26	1H	933	A	C6-N1	-5.37	1.31	1.35
26	1H	981	A	N9-C4	-5.37	1.34	1.37
26	1H	2328	A	N3-C4	-5.37	1.31	1.34
26	1H	1264	G	N3-C4	-5.36	1.31	1.35
26	1H	2448	A	C5-C4	-5.36	1.34	1.38
26	1H	988	A	N7-C5	-5.36	1.36	1.39
26	1H	1616	A	C5-C6	-5.36	1.36	1.41
26	1H	193	U	N1-C6	-5.36	1.33	1.38
26	1H	2229	C	N1-C6	-5.35	1.33	1.37
26	1H	2042	A	N9-C4	-5.35	1.34	1.37
26	1H	2448	A	C5-C6	-5.34	1.36	1.41
29	11	237	GLU	CG-CD	5.34	1.59	1.51
26	14	1241	A	N9-C4	-5.34	1.34	1.37
26	14	2506	U	N1-C2	5.34	1.43	1.38
26	14	2506	U	C2-N3	5.34	1.41	1.37
26	1H	471	A	N3-C4	-5.33	1.31	1.34
26	1H	768	G	N7-C5	-5.33	1.36	1.39
26	1H	1611	C	N1-C6	-5.32	1.33	1.37
26	1H	1392	A	N9-C4	5.32	1.41	1.37
26	1H	451	C	N1-C6	-5.32	1.33	1.37
26	1H	1313	U	C4-C5	-5.32	1.38	1.43
26	14	2211	G	N3-C4	-5.32	1.31	1.35
26	1H	197	A	N3-C4	-5.31	1.31	1.34
26	1H	221	A	N3-C4	-5.31	1.31	1.34
26	1H	698	C	N1-C6	-5.30	1.33	1.37
26	1H	1815	A	C5-C4	-5.30	1.35	1.38
26	1H	1918	A	N9-C4	-5.30	1.34	1.37
26	14	70	G	C6-N1	-5.30	1.35	1.39
24	3K	16	U	N3-C4	5.30	1.43	1.38
26	1H	701	G	N7-C5	-5.30	1.36	1.39
26	1H	1969	A	N3-C4	-5.30	1.31	1.34
26	14	479	A	C5-C4	-5.30	1.35	1.38
26	1H	2392	A	N9-C8	5.29	1.42	1.37
26	1H	2422	A	N9-C4	-5.29	1.34	1.37
26	1H	829	A	N7-C5	-5.28	1.36	1.39
26	14	1021	A	N3-C4	-5.28	1.31	1.34
26	1H	677	A	N9-C4	-5.28	1.34	1.37
26	1H	1902	C	N1-C6	-5.28	1.33	1.37
26	1H	2621	A	N9-C4	-5.28	1.34	1.37
26	1H	2032	G	N3-C4	-5.27	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	73	A	C5-C4	-5.27	1.35	1.38
26	1H	2360	A	N7-C5	-5.25	1.36	1.39
26	1H	789	A	N9-C4	-5.25	1.34	1.37
26	1H	1638	C	N1-C6	-5.25	1.34	1.37
26	1H	638	G	N7-C5	-5.25	1.36	1.39
26	1H	772	C	C4-C5	-5.24	1.38	1.43
26	1H	1612	C	N1-C6	-5.23	1.34	1.37
26	1H	2068	U	C2-O2	5.23	1.27	1.22
26	1H	2073	C	N3-C4	-5.23	1.30	1.33
26	1H	1566	A	N9-C4	-5.23	1.34	1.37
26	1H	2225	A	N9-C4	-5.23	1.34	1.37
26	1H	803	U	N1-C2	-5.22	1.33	1.38
26	1H	2286	A	N9-C4	5.22	1.41	1.37
26	1H	2524	G	C5-C4	-5.22	1.34	1.38
26	1H	1605	C	N1-C6	-5.22	1.34	1.37
26	1H	2327	A	N3-C4	-5.22	1.31	1.34
26	1H	2058	A	C5-C6	-5.21	1.36	1.41
26	1H	2461	C	N3-C4	-5.21	1.30	1.33
26	1H	1333	C	C4-C5	-5.20	1.38	1.43
26	1H	1698	A	C5-C6	-5.20	1.36	1.41
26	1H	1977	A	C6-N1	-5.19	1.31	1.35
26	1H	444	C	N1-C6	-5.19	1.34	1.37
26	14	1776	G	N7-C5	-5.19	1.36	1.39
55	M5	54	GLU	CG-CD	5.19	1.59	1.51
26	1H	1252	G	N3-C4	-5.18	1.31	1.35
26	1H	909	A	C5-C4	-5.17	1.35	1.38
26	1H	2032	G	C5-C6	-5.17	1.37	1.42
26	1H	2761	G	N9-C4	-5.17	1.33	1.38
56	2L	77	A	N9-C4	-5.17	1.34	1.37
26	14	1698	A	N7-C5	-5.17	1.36	1.39
26	1H	686	G	C5-C6	-5.17	1.37	1.42
26	14	194	G	N7-C5	-5.17	1.36	1.39
26	1H	798	G	N3-C4	-5.17	1.31	1.35
26	1H	838	C	N1-C6	-5.17	1.34	1.37
26	1H	1314	C	N1-C6	-5.16	1.34	1.37
26	1H	2518	A	C5-C6	-5.16	1.36	1.41
26	1H	2331	G	N9-C4	-5.15	1.33	1.38
27	16	46	A	N9-C4	-5.15	1.34	1.37
26	1H	1648	C	N1-C6	-5.14	1.34	1.37
26	14	1302	A	N3-C4	-5.14	1.31	1.34
26	14	2287	A	N3-C4	-5.14	1.31	1.34
26	1H	2588	G	C5-C4	-5.13	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	53	A	N3-C4	-5.13	1.31	1.34
26	14	2249	U	C4-O4	5.13	1.27	1.23
26	1H	1332	G	N3-C4	-5.12	1.31	1.35
24	3L	20	U	N1-C6	5.12	1.42	1.38
26	1H	2019	A	N7-C5	-5.12	1.36	1.39
26	1H	754	C	N1-C6	-5.12	1.34	1.37
26	1H	2518	A	N9-C4	-5.12	1.34	1.37
26	1H	2639	A	C5-C6	-5.11	1.36	1.41
26	1H	2505	G	N3-C4	-5.11	1.31	1.35
26	1H	799	G	N3-C4	-5.11	1.31	1.35
26	1H	467	G	C5-C4	-5.10	1.34	1.38
22	1K	75	C	C2-N3	5.10	1.39	1.35
26	14	768	G	N9-C8	-5.10	1.34	1.37
26	1H	1021	A	C5-C6	-5.10	1.36	1.41
26	1H	2501	C	N1-C6	-5.10	1.34	1.37
26	1H	122	G	N3-C4	-5.09	1.31	1.35
26	1H	1936	A	C6-N6	-5.09	1.29	1.33
26	1H	2490	G	N9-C8	5.09	1.41	1.37
26	1H	2589	A	C5-C4	-5.08	1.35	1.38
26	1H	1190	G	C6-N1	-5.08	1.35	1.39
26	14	2599	G	N9-C8	-5.07	1.34	1.37
26	14	1021	A	N9-C4	-5.07	1.34	1.37
26	1H	2320	A	N9-C4	5.06	1.40	1.37
1	13	865	A	N7-C5	-5.05	1.36	1.39
26	1H	791	C	N1-C6	-5.05	1.34	1.37
26	14	1353	A	N3-C4	-5.05	1.31	1.34
24	3K	16	U	N1-C6	5.05	1.42	1.38
26	1H	1768	U	N1-C2	-5.05	1.34	1.38
31	39	65	TRP	CB-CG	-5.04	1.41	1.50
26	1H	262	A	N7-C5	-5.04	1.36	1.39
26	14	752	A	N9-C4	-5.04	1.34	1.37
26	14	1347	G	C5-C4	-5.04	1.34	1.38
26	1H	766	C	N1-C6	-5.04	1.34	1.37
1	13	690	G	C5-C4	5.03	1.41	1.38
26	14	2502	G	N9-C8	-5.03	1.34	1.37
26	1H	1949	G	N3-C4	-5.03	1.31	1.35
26	1H	1349	A	N9-C8	5.02	1.41	1.37
26	1H	16	G	C6-O6	5.02	1.28	1.24
26	14	2056	G	C2-N3	-5.01	1.28	1.32
26	14	1645	G	C5-C4	-5.01	1.34	1.38
26	1H	2509	G	C5-C4	-5.01	1.34	1.38
1	13	787	A	N3-C4	-5.01	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	3K	20	U	N1-C2	5.00	1.43	1.38
26	1H	2588	G	N9-C8	-5.00	1.34	1.37

All (6371) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-22.03	112.78	126.00
26	1H	2430	A	C2-N3-C4	-19.32	100.94	110.60
26	1H	783	A	C5-N7-C8	-17.81	94.99	103.90
26	1H	774	A	C2-N3-C4	-17.32	101.94	110.60
26	1H	2430	A	N1-C6-N6	16.97	128.78	118.60
26	1H	1899	G	C2-N3-C4	-16.84	103.48	111.90
26	1H	1899	G	N3-C4-C5	16.83	137.01	128.60
26	1H	945	A	N1-C6-N6	16.47	128.48	118.60
26	1H	945	A	C6-C5-N7	-16.33	120.87	132.30
26	1H	783	A	N7-C8-N9	15.99	121.79	113.80
26	1H	2490	G	C4-C5-N7	15.73	117.09	110.80
26	1H	2712	U	C2-N1-C1'	15.69	136.53	117.70
26	14	828	U	C5-C4-O4	15.23	135.04	125.90
26	14	774	A	C2-N3-C4	-15.02	103.09	110.60
26	1H	1950	G	C5-N7-C8	-14.97	96.81	104.30
26	1H	783	A	C8-N9-C4	-14.95	99.82	105.80
26	1H	828	U	C5-C4-O4	14.90	134.84	125.90
26	14	783	A	C2-N3-C4	-14.83	103.19	110.60
26	1H	783	A	C2-N3-C4	-14.77	103.22	110.60
26	1H	1786	A	C2-N3-C4	-14.73	103.24	110.60
26	1H	917	A	C2-N3-C4	-14.71	103.25	110.60
26	1H	1332	G	C2-N3-C4	-14.59	104.61	111.90
26	14	746	A	O5'-P-OP1	-14.48	92.67	105.70
26	1H	2238	G	O5'-P-OP2	-14.35	92.78	105.70
26	1H	1678	G	C2-N3-C4	-14.27	104.77	111.90
26	1H	2518	A	N1-C6-N6	14.12	127.07	118.60
26	14	783	A	C5-N7-C8	-14.08	96.86	103.90
26	1H	676	A	C5-N7-C8	-14.03	96.89	103.90
26	1H	917	A	N1-C6-N6	14.03	127.02	118.60
26	1H	806	C	O5'-P-OP1	-13.98	93.12	105.70
26	1H	621	A	C2-N3-C4	-13.96	103.62	110.60
26	1H	945	A	C4-C5-C6	13.95	123.98	117.00
26	1H	1614	A	C2-N3-C4	-13.94	103.63	110.60
26	1H	140	A	N1-C6-N6	13.81	126.88	118.60
26	1H	1950	G	C4-C5-N7	13.75	116.30	110.80
26	1H	1784	A	N1-C6-N6	-13.71	110.38	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1678	G	N3-C4-C5	13.69	135.44	128.60
26	1H	2490	G	C5-N7-C8	-13.65	97.48	104.30
1	13	792	A	N1-C6-N6	13.55	126.73	118.60
26	1H	783	A	C6-C5-N7	-13.48	122.86	132.30
26	14	676	A	C5-N7-C8	-13.47	97.17	103.90
56	2L	55	U	N3-C4-C5	13.42	122.65	114.60
26	1H	203	C	N1-C2-O2	-13.41	110.86	118.90
26	1H	784	A	N1-C6-N6	-13.32	110.61	118.60
26	1H	1950	G	N7-C8-N9	13.28	119.74	113.10
26	1H	2392	A	C5-N7-C8	-13.14	97.33	103.90
26	1H	1021	A	C2-N3-C4	-13.12	104.04	110.60
26	1H	1829	A	O5'-P-OP1	-13.07	93.93	105.70
26	14	74	A	C2-N3-C4	-12.98	104.11	110.60
26	14	1984	G	O5'-P-OP2	-12.97	94.03	105.70
26	1H	1789	A	N1-C6-N6	-12.95	110.83	118.60
26	1H	129	C	C6-N1-C2	12.90	125.46	120.30
26	1H	1759	A	O5'-P-OP1	-12.84	94.14	105.70
26	1H	917	A	C5-C6-N1	-12.83	111.28	117.70
26	1H	1899	G	N3-C2-N2	-12.71	111.01	119.90
26	1H	1573	G	C8-N9-C4	12.64	111.46	106.40
26	1H	1786	A	N1-C2-N3	12.63	135.62	129.30
26	1H	456	C	C6-N1-C2	12.59	125.34	120.30
26	14	783	A	N1-C6-N6	12.55	126.13	118.60
26	14	1786	A	C2-N3-C4	-12.54	104.33	110.60
26	1H	2068	U	N1-C2-N3	-12.51	107.40	114.90
26	1H	46	C	O5'-P-OP2	-12.50	94.45	105.70
26	1H	1989	G	N1-C6-O6	12.49	127.39	119.90
26	1H	2490	G	N3-C4-C5	12.48	134.84	128.60
26	14	2518	A	N1-C6-N6	12.44	126.06	118.60
26	1H	2430	A	C5-C6-N1	-12.43	111.49	117.70
26	1H	783	A	C4-C5-N7	12.42	116.91	110.70
26	14	1829	A	O5'-P-OP1	-12.41	94.53	105.70
26	1H	1332	G	C5-N7-C8	-12.37	98.12	104.30
24	3L	16	U	C5-C4-O4	-12.33	118.50	125.90
26	14	2374	C	C6-N1-C2	12.33	125.23	120.30
26	1H	2712	U	C6-N1-C1'	-12.30	103.98	121.20
26	14	1648	C	C6-N1-C2	-12.19	115.43	120.30
26	14	2443	C	O5'-P-OP1	-12.05	94.85	105.70
26	1H	1344	G	N1-C6-O6	12.04	127.12	119.90
26	14	1787	A	O5'-P-OP1	-12.04	94.87	105.70
26	14	2287	A	C2-N3-C4	-12.03	104.58	110.60
26	1H	676	A	N7-C8-N9	12.01	119.81	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N9-C4-C5	12.00	110.20	105.40
56	2L	55	U	C2-N3-C4	-11.97	119.82	127.00
26	14	530	G	C6-C5-N7	-11.96	123.22	130.40
26	1H	1021	A	N1-C6-N6	11.91	125.75	118.60
26	14	1332	G	C6-C5-N7	-11.91	123.25	130.40
26	14	2873	A	N1-C6-N6	11.91	125.75	118.60
27	16	81	G	C4-C5-N7	11.84	115.54	110.80
26	14	786	C	O5'-P-OP2	-11.76	95.12	105.70
26	1H	2518	A	C5-N7-C8	-11.75	98.03	103.90
26	1H	140	A	C6-C5-N7	-11.72	124.10	132.30
26	14	746	A	O5'-P-OP2	11.71	124.76	110.70
26	1H	945	A	O4'-C1'-N9	11.70	117.56	108.20
26	14	2062	A	C8-N9-C4	11.70	110.48	105.80
26	1H	2392	A	N7-C8-N9	11.69	119.65	113.80
26	14	1204	A	C2-N3-C4	-11.69	104.76	110.60
26	1H	2601	C	C6-N1-C2	-11.68	115.63	120.30
26	1H	2518	A	C4-C5-N7	11.68	116.54	110.70
26	1H	470	A	O5'-P-OP1	-11.65	95.21	105.70
26	1H	129	C	C5-C6-N1	-11.64	115.18	121.00
26	1H	2448	A	C5-C6-N6	-11.63	114.40	123.70
1	13	792	A	C4-C5-N7	11.63	116.51	110.70
26	1H	609	A	N1-C6-N6	11.62	125.58	118.60
26	1H	140	A	C5-N7-C8	-11.60	98.10	103.90
26	14	2688	U	C5-C6-N1	-11.59	116.91	122.70
26	14	783	A	C6-C5-N7	-11.57	124.20	132.30
26	1H	2247	A	O5'-P-OP1	-11.56	95.29	105.70
26	14	511	U	N1-C2-O2	-11.54	114.72	122.80
26	1H	2713	A	C2-N3-C4	-11.54	104.83	110.60
26	1H	1787	A	O5'-P-OP1	-11.50	95.35	105.70
26	1H	2329	G	C8-N9-C4	11.48	110.99	106.40
24	3L	20	U	C5-C4-O4	-11.41	119.05	125.90
26	14	783	A	N7-C8-N9	11.39	119.49	113.80
26	1H	2712	U	O4'-C1'-N1	11.35	117.28	108.20
26	14	788	A	O5'-P-OP1	-11.34	95.49	105.70
26	14	1965	C	O5'-P-OP1	-11.34	95.50	105.70
26	1H	2448	A	N1-C6-N6	11.34	125.40	118.60
24	3K	16	U	C5-C4-O4	-11.28	119.13	125.90
26	1H	1678	G	N1-C6-O6	11.28	126.67	119.90
26	1H	409	C	C6-N1-C2	11.28	124.81	120.30
26	14	806	C	O5'-P-OP1	-11.24	95.59	105.70
26	1H	1786	A	N7-C8-N9	11.23	119.42	113.80
26	1H	2330	G	C8-N9-C4	11.21	110.89	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	510	C	O5'-P-OP2	-11.20	95.62	105.70
26	14	676	A	C4-C5-N7	11.20	116.30	110.70
26	1H	774	A	O5'-P-OP2	-11.19	95.63	105.70
26	1H	796	C	C6-N1-C2	11.19	124.78	120.30
26	1H	784	A	N9-C4-C5	11.18	110.27	105.80
26	1H	2413	G	N1-C6-O6	11.17	126.60	119.90
24	3K	16	U	N3-C4-C5	11.17	121.30	114.60
26	1H	140	A	C4-C5-N7	11.16	116.28	110.70
26	1H	2430	A	C5-N7-C8	-11.15	98.32	103.90
1	13	738	C	C6-N1-C2	-11.15	115.84	120.30
26	14	783	A	C4-C5-N7	11.12	116.26	110.70
26	1H	74	A	C2-N3-C4	-11.07	105.06	110.60
26	1H	586	A	O5'-P-OP1	-11.07	95.74	105.70
26	1H	456	C	C5-C6-N1	-11.05	115.47	121.00
26	14	1332	G	N1-C6-O6	11.05	126.53	119.90
26	1H	71	A	C5-N7-C8	-11.03	98.39	103.90
1	13	880	C	C6-N1-C2	11.02	124.71	120.30
24	3K	20	U	C5-C4-O4	-11.02	119.29	125.90
26	14	2873	A	C6-C5-N7	-11.02	124.59	132.30
26	1H	1698	A	C2-N3-C4	-11.01	105.09	110.60
26	1H	828	U	N3-C4-O4	-11.01	111.69	119.40
24	3K	16	U	C2-N3-C4	-11.00	120.40	127.00
26	1H	1771	C	C6-N1-C2	-11.00	115.90	120.30
26	1H	783	A	N1-C6-N6	10.99	125.19	118.60
1	13	328	C	C2-N1-C1'	10.97	130.87	118.80
26	1H	1786	A	C5-N7-C8	-10.96	98.42	103.90
26	1H	1496	A	C5-N7-C8	-10.95	98.42	103.90
26	14	1786	A	N7-C8-N9	10.91	119.25	113.80
26	1H	2468	G	O4'-C1'-N9	10.90	116.92	108.20
26	14	945	A	C2-N3-C4	-10.89	105.16	110.60
26	14	194	G	N1-C6-O6	10.89	126.43	119.90
26	14	1021	A	C2-N3-C4	-10.86	105.17	110.60
26	1H	2392	A	C2-N3-C4	-10.82	105.19	110.60
26	14	2490	G	N3-C4-N9	-10.82	119.51	126.00
26	14	774	A	N3-C4-C5	10.82	134.38	126.80
26	14	783	A	C5-C6-N1	-10.81	112.29	117.70
26	1H	1021	A	C5-N7-C8	-10.80	98.50	103.90
26	1H	1950	G	C8-N9-C4	-10.79	102.08	106.40
26	1H	2346	A	C2-N3-C4	-10.78	105.21	110.60
26	1H	1332	G	N1-C6-O6	10.75	126.35	119.90
24	3L	16	U	C2-N3-C4	-10.75	120.55	127.00
26	14	1786	A	C5-N7-C8	-10.73	98.54	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2401	U	C5-C6-N1	10.73	128.06	122.70
26	1H	1817	G	C5-C6-O6	10.72	135.03	128.60
26	14	676	A	N1-C6-N6	10.71	125.03	118.60
26	1H	788	A	O5'-P-OP1	-10.71	96.06	105.70
26	14	2079	U	O5'-P-OP1	-10.70	96.07	105.70
26	1H	815	C	C6-N1-C2	10.70	124.58	120.30
24	3L	16	U	N3-C4-C5	10.68	121.01	114.60
26	1H	2287	A	C2-N3-C4	-10.66	105.27	110.60
26	1H	259	G	N1-C6-O6	10.65	126.29	119.90
56	2L	21	U	C5-C4-O4	-10.65	119.51	125.90
26	1H	676	A	C2-N3-C4	-10.62	105.29	110.60
26	1H	1142(A)	A	C2-N3-C4	-10.60	105.30	110.60
23	2K	21	U	C5-C4-O4	-10.57	119.56	125.90
26	1H	452	G	N1-C6-O6	-10.57	113.56	119.90
26	1H	2050	C	C6-N1-C2	-10.56	116.08	120.30
26	1H	2430	A	C6-C5-N7	-10.54	124.92	132.30
26	14	2443	C	O5'-P-OP2	10.54	123.35	110.70
26	14	774	A	N1-C6-N6	10.52	124.91	118.60
26	1H	945	A	C4-N9-C1'	10.51	145.22	126.30
26	14	189	G	N1-C6-O6	10.49	126.19	119.90
26	1H	1942	C	N1-C2-O2	10.44	125.16	118.90
26	14	2612	C	O5'-P-OP2	-10.43	96.31	105.70
26	14	1646	C	O5'-P-OP1	-10.43	96.31	105.70
26	14	1625	C	N3-C2-O2	-10.40	114.62	121.90
26	1H	660	G	N1-C6-O6	10.39	126.14	119.90
26	1H	1678	G	N3-C4-N9	-10.38	119.77	126.00
26	1H	2430	A	C4-C5-N7	10.38	115.89	110.70
26	1H	657	U	O5'-P-OP2	-10.37	96.37	105.70
26	1H	945	A	N7-C8-N9	10.37	118.98	113.80
26	1H	2688	U	C5-C4-O4	10.37	132.12	125.90
26	14	2873	A	N1-C2-N3	10.37	134.48	129.30
26	1H	1496	A	N7-C8-N9	10.36	118.98	113.80
1	13	328	C	N1-C2-O2	10.34	125.10	118.90
26	14	2712	U	C5-C4-O4	10.32	132.09	125.90
26	1H	966	G	O5'-P-OP2	-10.32	96.41	105.70
26	14	2873	A	C2-N3-C4	-10.32	105.44	110.60
26	1H	1607	C	N1-C2-O2	10.31	125.09	118.90
26	1H	945	A	C5-N7-C8	-10.31	98.74	103.90
26	14	530	G	C4-C5-N7	10.31	114.92	110.80
26	14	917	A	O5'-P-OP1	-10.31	96.42	105.70
26	14	1616	A	C2-N3-C4	-10.30	105.45	110.60
26	1H	127	A	N1-C6-N6	10.30	124.78	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	461	C	N1-C2-O2	-10.28	112.73	118.90
26	1H	2689	U	C5-C4-O4	10.28	132.07	125.90
27	16	81	G	C6-C5-N7	-10.25	124.25	130.40
26	14	2324	C	C6-N1-C2	10.25	124.40	120.30
56	2L	21	U	N3-C4-C5	10.25	120.75	114.60
26	1H	1631	A	O5'-P-OP2	-10.24	96.48	105.70
24	3K	20	U	C2-N3-C4	-10.23	120.86	127.00
26	1H	2430	A	N3-C4-C5	10.23	133.96	126.80
26	1H	2607	G	C6-C5-N7	-10.23	124.26	130.40
26	14	2048	G	C8-N9-C4	-10.23	102.31	106.40
26	14	1376	C	O5'-P-OP1	-10.22	96.50	105.70
26	14	676	A	N7-C8-N9	10.20	118.90	113.80
26	1H	248	G	C5-C6-O6	-10.18	122.49	128.60
26	1H	2584	U	N3-C2-O2	-10.17	115.08	122.20
1	1G	305	G	C5-C6-O6	10.17	134.70	128.60
26	14	2778	A	O5'-P-OP2	-10.17	96.55	105.70
26	14	828	U	N3-C2-O2	-10.16	115.09	122.20
26	14	1678	G	C2-N3-C4	-10.13	106.83	111.90
26	1H	1332	G	N3-C4-C5	10.13	133.66	128.60
26	1H	138	G	C4-C5-N7	10.11	114.84	110.80
24	3K	20	U	N3-C4-C5	10.09	120.65	114.60
26	1H	1376	C	C6-N1-C2	-10.08	116.27	120.30
22	1K	1	C	N1-C2-O2	10.07	124.94	118.90
26	1H	1313	U	C5-C6-N1	10.07	127.73	122.70
26	14	1612	C	C6-N1-C2	10.07	124.33	120.30
1	13	792	A	C5-N7-C8	-10.06	98.87	103.90
26	1H	1786	A	O5'-P-OP2	-10.06	96.65	105.70
26	1H	2490	G	C2-N3-C4	-10.05	106.88	111.90
26	14	2873	A	C5-N7-C8	-10.04	98.88	103.90
1	13	792	A	C6-C5-N7	-10.02	125.28	132.30
1	1G	811	C	N1-C2-O2	-10.01	112.89	118.90
26	14	1678	G	N3-C4-C5	10.01	133.60	128.60
26	14	828	U	N3-C4-O4	-9.99	112.41	119.40
26	14	774	A	O5'-P-OP2	-9.99	96.71	105.70
26	1H	248	G	N1-C6-O6	9.99	125.89	119.90
26	14	686	G	O5'-P-OP2	-9.99	96.71	105.70
26	1H	659	C	C6-N1-C2	9.99	124.29	120.30
26	1H	1210	A	C5-N7-C8	-9.98	98.91	103.90
26	14	789	A	O5'-P-OP1	-9.97	96.73	105.70
26	1H	2518	A	C5-C6-N6	-9.96	115.73	123.70
26	1H	138	G	C5-C6-O6	-9.96	122.62	128.60
26	1H	1372	U	N3-C4-O4	9.95	126.36	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	193	U	C4-C5-C6	9.94	125.66	119.70
1	1G	866	C	C6-N1-C2	-9.93	116.33	120.30
26	1H	1698	A	N1-C2-N3	9.93	134.26	129.30
26	1H	395	U	N3-C2-O2	-9.92	115.26	122.20
26	1H	1784	A	C5-C6-N6	9.88	131.60	123.70
26	1H	71	A	N7-C8-N9	9.87	118.74	113.80
26	14	2712	U	N3-C4-O4	-9.87	112.49	119.40
26	1H	1315	C	N3-C2-O2	-9.85	115.00	121.90
26	1H	676	A	C4-C5-N7	9.84	115.62	110.70
26	14	1382	G	O5'-P-OP2	-9.84	96.84	105.70
26	1H	59	U	N3-C4-C5	-9.83	108.70	114.60
26	14	2518	A	C6-C5-N7	-9.82	125.43	132.30
26	14	1342	A	N1-C6-N6	9.82	124.49	118.60
26	1H	2503	A	O5'-P-OP2	-9.81	96.87	105.70
26	14	769	G	C8-N9-C4	9.81	110.32	106.40
26	1H	2689	U	N3-C4-O4	-9.80	112.54	119.40
26	1H	2441	C	C4-C5-C6	9.80	122.30	117.40
26	1H	912	C	C6-N1-C2	-9.79	116.38	120.30
26	1H	528	A	C2-N3-C4	-9.79	105.71	110.60
26	1H	1698	A	C6-C5-N7	-9.77	125.46	132.30
26	14	209	C	O5'-P-OP2	-9.77	96.91	105.70
26	14	945	A	N1-C6-N6	9.77	124.46	118.60
27	1J	60	C	C6-N1-C2	-9.76	116.40	120.30
26	1H	1899	G	C8-N9-C4	-9.76	102.50	106.40
1	13	792	A	C2-N3-C4	-9.75	105.72	110.60
26	1H	120	U	C4-C5-C6	9.75	125.55	119.70
26	1H	1678	G	N3-C2-N2	-9.74	113.08	119.90
26	14	574	C	C6-N1-C2	9.74	124.20	120.30
26	1H	201	C	C6-N1-C2	9.72	124.19	120.30
26	1H	1204	A	C2-N3-C4	-9.72	105.74	110.60
56	2L	55	U	C5-C6-N1	-9.72	117.84	122.70
26	14	2464	C	C6-N1-C2	9.72	124.19	120.30
26	1H	1341	U	C5-C4-O4	-9.71	120.07	125.90
26	14	2873	A	N7-C8-N9	9.71	118.66	113.80
26	1H	782	A	C6-N1-C2	-9.71	112.78	118.60
26	1H	1786	A	C6-C5-N7	-9.71	125.51	132.30
26	1H	2424	C	OP1-P-OP2	9.68	134.12	119.60
26	1H	1387	C	C6-N1-C2	-9.67	116.43	120.30
26	1H	1332	G	N7-C8-N9	9.66	117.93	113.10
26	14	1377	G	N3-C4-C5	-9.64	123.78	128.60
26	1H	1405	U	O5'-P-OP2	-9.64	97.03	105.70
1	1G	345	C	C6-N1-C2	-9.64	116.44	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1376	C	O5'-P-OP1	-9.63	97.03	105.70
26	14	1899	G	C6-C5-N7	-9.62	124.63	130.40
26	14	801	G	N1-C6-O6	-9.61	114.13	119.90
26	14	781	A	C8-N9-C4	-9.60	101.96	105.80
26	14	1307	A	C2-N3-C4	-9.60	105.80	110.60
26	1H	1950	G	O4'-C1'-N9	9.60	115.88	108.20
26	14	2490	G	N3-C4-C5	9.60	133.40	128.60
26	1H	635	C	O5'-P-OP2	-9.59	97.07	105.70
26	14	1671	U	O5'-P-OP1	-9.59	97.07	105.70
26	14	2713	A	N1-C6-N6	9.59	124.35	118.60
26	1H	231	C	C4-C5-C6	9.58	122.19	117.40
23	2K	17	C	N1-C2-O2	9.58	124.65	118.90
23	2K	77	A	N1-C6-N6	9.58	124.35	118.60
26	1H	2298	A	O5'-P-OP2	-9.57	97.09	105.70
27	16	60	C	C5-C6-N1	9.57	125.78	121.00
26	14	2612	C	N1-C2-O2	9.56	124.64	118.90
26	1H	774	A	N1-C2-N3	9.56	134.08	129.30
26	14	582	G	N1-C6-O6	9.55	125.63	119.90
26	1H	805	G	O5'-P-OP1	-9.55	97.10	105.70
56	2L	55	U	C5-C4-O4	-9.55	120.17	125.90
26	14	2713	A	C5-N7-C8	-9.54	99.13	103.90
26	1H	1771	C	N1-C2-O2	-9.54	113.18	118.90
26	14	1776	G	C6-C5-N7	-9.53	124.68	130.40
26	1H	2417	C	O5'-P-OP2	-9.53	97.13	105.70
26	1H	2869	G	C8-N9-C4	-9.52	102.59	106.40
26	14	465	G	O5'-P-OP2	9.52	122.12	110.70
26	14	672	C	O5'-P-OP1	9.50	122.10	110.70
26	14	1804	C	C6-N1-C2	-9.50	116.50	120.30
26	1H	2319	G	O5'-P-OP2	-9.50	97.15	105.70
26	1H	193	U	N3-C4-O4	9.49	126.04	119.40
26	1H	1838	C	C6-N1-C2	9.49	124.09	120.30
26	1H	1496	A	C4-C5-N7	9.48	115.44	110.70
26	1H	14	A	O5'-P-OP1	-9.47	97.17	105.70
26	1H	1332	G	C4-C5-N7	9.46	114.58	110.80
26	14	988	A	N1-C6-N6	9.46	124.28	118.60
26	1H	729	G	C8-N9-C4	-9.46	102.62	106.40
26	1H	693	C	O5'-P-OP2	-9.46	97.19	105.70
26	1H	2346	A	N1-C2-N3	9.45	134.03	129.30
26	1H	661	C	C5-C4-N4	-9.44	113.59	120.20
26	1H	2503	A	O5'-P-OP1	9.42	122.00	110.70
26	1H	2503	A	N1-C6-N6	9.41	124.25	118.60
26	14	1142	U	N1-C2-O2	9.41	129.39	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	194	G	C8-N9-C4	9.40	110.16	106.40
1	13	1505	G	O5'-P-OP2	9.40	121.98	110.70
26	1H	1321	A	C8-N9-C4	9.37	109.55	105.80
26	1H	340	A	O5'-P-OP1	-9.37	97.27	105.70
26	1H	2374	C	C6-N1-C2	9.37	124.05	120.30
26	14	1786	A	N1-C2-N3	9.36	133.98	129.30
26	1H	2311	A	N1-C2-N3	9.33	133.97	129.30
26	1H	1616	A	C5-N7-C8	-9.32	99.24	103.90
26	14	774	A	C4-C5-N7	9.32	115.36	110.70
26	1H	2430	A	N1-C2-N3	9.31	133.96	129.30
26	14	1021	A	N1-C2-N3	9.31	133.96	129.30
1	13	865	A	N1-C6-N6	9.31	124.18	118.60
26	1H	930	U	C5-C4-O4	9.30	131.48	125.90
26	1H	180	G	N1-C6-O6	9.30	125.48	119.90
26	1H	1611	C	C6-N1-C2	9.30	124.02	120.30
26	1H	2688	U	N3-C2-O2	-9.28	115.71	122.20
26	14	141	A	N1-C6-N6	9.28	124.17	118.60
26	1H	404	C	C6-N1-C2	9.27	124.01	120.30
26	1H	2017	U	N3-C4-O4	9.27	125.89	119.40
26	1H	1403	C	C6-N1-C2	-9.25	116.60	120.30
26	1H	2327	A	N1-C6-N6	-9.25	113.05	118.60
1	13	1195	C	C6-N1-C2	-9.24	116.60	120.30
26	1H	2392	A	C4-C5-N7	9.24	115.32	110.70
26	1H	621	A	C5-N7-C8	-9.21	99.29	103.90
26	14	1762	A	C2-N3-C4	-9.21	105.99	110.60
26	1H	2689	U	C5-C6-N1	-9.21	118.10	122.70
26	14	783	A	C8-N9-C4	-9.21	102.12	105.80
26	14	1204	A	N1-C2-N3	9.20	133.90	129.30
26	1H	1525	G	N1-C6-O6	-9.20	114.38	119.90
26	14	2622	C	C6-N1-C2	9.20	123.98	120.30
26	1H	2330	G	N9-C4-C5	-9.19	101.72	105.40
26	14	2032	G	C4-C5-N7	9.19	114.47	110.80
26	1H	2490	G	N1-C6-O6	9.18	125.41	119.90
1	13	1266	G	N3-C4-N9	-9.18	120.49	126.00
26	1H	2346	A	O4'-C1'-N9	9.16	115.53	108.20
26	1H	1489	U	C5-C4-O4	9.15	131.39	125.90
26	1H	2272	U	O5'-P-OP2	-9.15	97.46	105.70
26	1H	1979	C	C6-N1-C2	-9.14	116.64	120.30
26	1H	602	G	C6-C5-N7	-9.14	124.92	130.40
26	1H	1786	A	N1-C6-N6	9.14	124.08	118.60
1	1G	328	C	N1-C2-O2	9.14	124.38	118.90
26	1H	2331	G	C8-N9-C4	9.13	110.05	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1971	A	C2-N3-C4	9.12	115.16	110.60
26	14	1780	A	O5'-P-OP2	-9.12	97.49	105.70
26	14	793	A	O5'-P-OP2	-9.11	97.50	105.70
1	13	687	A	P-O3'-C3'	9.10	130.62	119.70
26	1H	1210	A	N1-C6-N6	9.10	124.06	118.60
26	1H	138	G	C5-N7-C8	-9.10	99.75	104.30
26	14	856	C	C6-N1-C2	-9.10	116.66	120.30
1	1G	251	G	N1-C6-O6	9.09	125.36	119.90
26	1H	645	C	N1-C2-O2	9.09	124.35	118.90
26	14	1328	G	C5-C6-O6	-9.09	123.15	128.60
26	14	2436	G	N1-C6-O6	9.08	125.35	119.90
26	1H	1241	A	C5-C6-N1	-9.07	113.16	117.70
26	1H	140	A	N7-C8-N9	9.07	118.33	113.80
26	14	391	G	N1-C6-O6	9.06	125.34	119.90
1	13	690	G	O4'-C1'-N9	9.06	115.45	108.20
26	1H	193	U	N3-C4-C5	-9.06	109.16	114.60
26	1H	1437	C	C6-N1-C2	-9.06	116.67	120.30
26	14	1678	G	N3-C4-N9	-9.05	120.57	126.00
26	1H	187	G	C8-N9-C1'	-9.05	115.23	127.00
26	1H	189	G	C8-N9-C4	9.05	110.02	106.40
26	14	1355	G	C8-N9-C4	-9.04	102.78	106.40
26	1H	828	U	N3-C2-O2	-9.04	115.87	122.20
26	1H	945	A	C5-C6-N6	-9.04	116.47	123.70
26	14	2592	G	O5'-P-OP2	-9.04	97.56	105.70
1	13	902	G	O5'-P-OP2	-9.03	97.57	105.70
26	14	2688	U	N3-C2-O2	-9.03	115.88	122.20
26	14	1602	U	O5'-P-OP2	9.03	121.53	110.70
26	1H	1932	A	O5'-P-OP1	-9.03	97.58	105.70
1	1G	690	G	C8-N9-C4	-9.02	102.79	106.40
1	1G	690	G	N7-C8-N9	9.01	117.61	113.10
26	1H	1323	U	C6-N1-C2	-9.00	115.60	121.00
26	1H	1742	C	C6-N1-C2	-9.00	116.70	120.30
26	1H	1614	A	N1-C2-N3	9.00	133.80	129.30
29	11	222	ARG	NE-CZ-NH1	-8.99	115.80	120.30
26	14	1348	G	O5'-P-OP2	8.99	121.48	110.70
26	1H	1021	A	C4-C5-N7	8.98	115.19	110.70
26	14	1332	G	C4-C5-N7	8.98	114.39	110.80
26	14	1237	A	N1-C6-N6	-8.97	113.22	118.60
1	13	792	A	N9-C4-C5	-8.97	102.21	105.80
26	14	1328	G	N9-C4-C5	-8.96	101.81	105.40
1	1G	1305	G	N3-C2-N2	-8.96	113.63	119.90
26	1H	2029	G	O5'-P-OP1	-8.96	97.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	124	G	C5-C6-O6	-8.95	123.23	128.60
26	1H	793	A	N1-C6-N6	8.95	123.97	118.60
26	1H	2429	G	OP2-P-O3'	8.95	124.89	105.20
26	1H	621	A	N1-C6-N6	8.95	123.97	118.60
56	2L	21	U	C2-N3-C4	-8.94	121.64	127.00
26	14	2430	A	C5-C6-N1	-8.92	113.24	117.70
26	1H	1573	G	N3-C4-C5	8.91	133.06	128.60
26	1H	443	A	O5'-P-OP2	-8.90	97.69	105.70
26	14	801	G	O5'-P-OP2	-8.90	97.69	105.70
26	14	1497	U	O5'-P-OP1	-8.89	97.70	105.70
26	14	2249	U	N3-C4-C5	-8.89	109.26	114.60
26	1H	1368	G	OP1-P-OP2	8.89	132.94	119.60
26	1H	141	A	C5-N7-C8	-8.89	99.46	103.90
26	1H	31	C	O5'-P-OP1	-8.88	97.70	105.70
26	1H	2782	G	C6-C5-N7	-8.88	125.07	130.40
1	13	792	A	O4'-C1'-N9	8.88	115.31	108.20
26	1H	945	A	C4-C5-N7	8.88	115.14	110.70
26	14	2307	G	O4'-C1'-N9	8.87	115.30	108.20
26	1H	16	G	C5-C6-N1	-8.86	107.07	111.50
26	1H	860	U	C5-C6-N1	-8.86	118.27	122.70
26	14	775	G	N1-C6-O6	-8.86	114.58	119.90
26	1H	2438	U	C5-C6-N1	-8.86	118.27	122.70
26	14	856	C	C5-C6-N1	8.85	125.42	121.00
26	1H	621	A	N1-C2-N3	8.84	133.72	129.30
26	1H	2368	C	O5'-P-OP1	-8.84	97.75	105.70
26	14	828	U	N1-C2-O2	8.84	128.99	122.80
26	14	1402	C	C6-N1-C2	-8.84	116.77	120.30
26	14	2062	A	N9-C4-C5	-8.83	102.27	105.80
1	13	586	C	C6-N1-C2	8.83	123.83	120.30
26	1H	630	G	N3-C4-C5	8.83	133.01	128.60
26	1H	945	A	C8-N9-C1'	-8.82	111.82	127.70
1	1G	320	C	C6-N1-C2	8.82	123.83	120.30
26	1H	1649	G	N3-C4-C5	-8.81	124.19	128.60
27	16	81	G	C5-N7-C8	-8.81	99.89	104.30
24	3L	20	U	N3-C4-C5	8.81	119.89	114.60
26	1H	2507	C	C6-N1-C2	-8.81	116.78	120.30
26	14	1191	G	O5'-P-OP2	-8.80	97.78	105.70
26	1H	609	A	C5-C6-N6	-8.80	116.66	123.70
26	1H	936	C	C6-N1-C2	8.80	123.82	120.30
26	14	508	G	O5'-P-OP1	-8.80	97.78	105.70
26	14	1786	A	C6-C5-N7	-8.79	126.14	132.30
26	1H	127	A	N9-C4-C5	-8.79	102.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1614	A	C5-N7-C8	-8.79	99.50	103.90
26	1H	2441	C	C5-C6-N1	-8.79	116.61	121.00
26	1H	728	G	C8-N9-C4	8.78	109.91	106.40
26	1H	1698	A	C5-N7-C8	-8.78	99.51	103.90
26	1H	2555	U	N1-C2-O2	-8.78	116.66	122.80
26	14	2275	C	C5-C6-N1	8.78	125.39	121.00
26	1H	247	G	C8-N9-C4	8.76	109.91	106.40
26	1H	1971	A	C5-C6-N1	8.76	122.08	117.70
26	14	611	C	C6-N1-C2	8.76	123.80	120.30
26	14	856	C	C2-N1-C1'	8.76	128.43	118.80
26	14	2609	U	O5'-P-OP2	-8.76	97.82	105.70
26	1H	1950	G	C6-C5-N7	-8.75	125.15	130.40
26	1H	1969	A	N1-C6-N6	-8.74	113.36	118.60
26	1H	113	G	N3-C4-C5	8.74	132.97	128.60
26	14	1241	A	C5-C6-N1	-8.74	113.33	117.70
26	1H	602	G	C8-N9-C1'	-8.73	115.65	127.00
1	13	656	C	C5-C6-N1	8.73	125.36	121.00
26	1H	789	A	O5'-P-OP1	-8.72	97.85	105.70
23	2K	21	U	N3-C4-C5	8.70	119.82	114.60
26	14	2259	G	O5'-P-OP2	8.70	121.14	110.70
26	1H	1332	G	C6-C5-N7	-8.70	125.18	130.40
26	1H	1488	G	C5-C6-N1	-8.70	107.15	111.50
26	14	741	G	O5'-P-OP1	-8.70	97.87	105.70
26	1H	2332	U	C5-C6-N1	-8.69	118.35	122.70
1	1G	317	G	N1-C6-O6	8.69	125.11	119.90
26	1H	2710	C	C5-C6-N1	-8.69	116.66	121.00
26	1H	1899	G	N1-C2-N3	8.68	129.11	123.90
26	14	2518	A	O4'-C1'-N9	-8.68	101.26	108.20
26	1H	1817	G	N1-C6-O6	-8.67	114.70	119.90
26	1H	830	G	N3-C2-N2	-8.66	113.84	119.90
26	1H	1616	A	N1-C6-N6	8.66	123.80	118.60
26	1H	2241	A	N1-C2-N3	8.65	133.63	129.30
26	1H	848	G	O5'-P-OP2	-8.65	97.92	105.70
26	1H	1376	C	N3-C4-C5	-8.65	118.44	121.90
26	1H	461	C	N3-C2-O2	8.63	127.94	121.90
26	1H	431	U	N3-C4-O4	8.63	125.44	119.40
26	1H	196	A	C8-N9-C4	8.63	109.25	105.80
26	1H	211	A	O5'-P-OP2	-8.63	97.94	105.70
26	1H	262	A	N1-C6-N6	8.63	123.78	118.60
26	1H	1698	A	N1-C6-N6	8.63	123.78	118.60
26	1H	2621	A	N1-C6-N6	-8.62	113.43	118.60
26	14	201	C	C5-C6-N1	-8.62	116.69	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1151	G	N1-C6-O6	8.61	125.07	119.90
26	1H	774	A	N3-C4-C5	8.61	132.83	126.80
26	1H	2503	A	C5-C6-N6	-8.61	116.82	123.70
26	14	2500	U	O5'-P-OP2	-8.60	97.96	105.70
26	1H	129	C	C4-C5-C6	8.60	121.70	117.40
26	1H	2068	U	C2-N3-C4	8.60	132.16	127.00
26	1H	2827	C	C5-C4-N4	-8.60	114.18	120.20
24	3K	16	U	N1-C2-N3	8.59	120.06	114.90
26	1H	1616	A	C4-C5-N7	8.59	115.00	110.70
26	14	1304	C	N3-C4-C5	8.59	125.34	121.90
26	14	1962	C	N1-C2-O2	8.59	124.05	118.90
1	13	690	G	C6-C5-N7	-8.59	125.25	130.40
26	1H	962	G	O5'-P-OP1	-8.58	97.97	105.70
1	13	353	A	C8-N9-C4	-8.58	102.37	105.80
26	1H	1404	C	C6-N1-C2	8.57	123.73	120.30
26	1H	2830	G	C8-N9-C4	-8.57	102.97	106.40
26	14	945	A	C6-C5-N7	-8.57	126.30	132.30
1	13	1390	U	N3-C4-C5	-8.56	109.46	114.60
26	1H	1261	C	C6-N1-C2	8.55	123.72	120.30
26	1H	338	G	N3-C4-N9	8.55	131.13	126.00
26	14	676	A	C2-N3-C4	-8.55	106.33	110.60
1	13	827	U	N3-C2-O2	-8.55	116.22	122.20
26	1H	216	A	O5'-P-OP1	-8.54	98.02	105.70
1	1G	690	G	C5-N7-C8	-8.54	100.03	104.30
26	1H	1972	A	O5'-P-OP2	-8.53	98.02	105.70
26	1H	2598	A	O5'-P-OP1	-8.53	98.02	105.70
26	1H	333	G	N1-C6-O6	8.53	125.02	119.90
1	1G	554	C	C6-N1-C2	-8.52	116.89	120.30
26	1H	1573	G	N9-C4-C5	-8.52	101.99	105.40
26	14	473	G	O5'-P-OP2	-8.52	98.03	105.70
26	1H	59	U	C6-N1-C2	-8.52	115.89	121.00
26	1H	2053	G	N1-C6-O6	8.52	125.01	119.90
26	14	1241	A	C2-N3-C4	-8.52	106.34	110.60
26	14	1616	A	C5-N7-C8	-8.51	99.64	103.90
26	1H	599	G	O5'-P-OP2	-8.51	98.04	105.70
26	1H	1616	A	N7-C8-N9	8.50	118.05	113.80
26	14	992	C	C6-N1-C2	-8.50	116.90	120.30
26	1H	2688	U	N3-C4-O4	-8.50	113.45	119.40
1	13	328	C	C6-N1-C1'	-8.49	110.61	120.80
26	1H	1497	U	C5-C4-O4	-8.49	120.80	125.90
26	14	1332	G	C8-N9-C1'	-8.49	115.97	127.00
1	13	541	G	N1-C6-O6	8.48	124.99	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2598	A	O5'-P-OP2	8.48	120.88	110.70
26	1H	2448	A	C4-C5-N7	8.48	114.94	110.70
26	1H	1021	A	C5-C6-N1	-8.48	113.46	117.70
26	1H	2591	C	O5'-P-OP1	-8.47	98.08	105.70
26	1H	1235	G	C8-N9-C1'	-8.46	116.00	127.00
24	3L	20	U	N1-C2-N3	8.46	119.97	114.90
26	1H	1603	A	C5-N7-C8	-8.46	99.67	103.90
26	1H	1235	G	C4-N9-C1'	8.46	137.49	126.50
26	14	769	G	N7-C8-N9	-8.45	108.87	113.10
26	14	330	A	N1-C6-N6	8.45	123.67	118.60
26	1H	2591	C	O5'-P-OP2	8.45	120.84	110.70
1	13	970	C	N1-C2-O2	8.44	123.96	118.90
26	1H	2607	G	N1-C2-N2	-8.44	108.61	116.20
26	14	2494	G	N1-C6-O6	8.43	124.96	119.90
26	1H	1899	G	C8-N9-C1'	8.43	137.96	127.00
26	1H	1992	G	C4-C5-N7	8.43	114.17	110.80
26	1H	974	G	O5'-P-OP2	-8.43	98.12	105.70
26	14	530	G	C4-N9-C1'	8.43	137.45	126.50
26	14	2767	C	C6-N1-C2	-8.42	116.93	120.30
26	1H	201	C	C5-C6-N1	-8.42	116.79	121.00
26	1H	329	G	O5'-P-OP2	-8.42	98.12	105.70
26	1H	774	A	N1-C6-N6	8.41	123.65	118.60
26	1H	2379	G	C8-N9-C4	8.41	109.76	106.40
26	1H	212	G	C8-N9-C4	8.40	109.76	106.40
26	1H	594	U	C5-C6-N1	-8.40	118.50	122.70
26	14	74	A	N1-C6-N6	8.40	123.64	118.60
26	1H	2318	G	C5-N7-C8	-8.40	100.10	104.30
24	3K	20	U	N1-C2-N3	8.39	119.94	114.90
26	1H	2490	G	C6-C5-N7	-8.39	125.37	130.40
26	1H	676	A	O4'-C1'-N9	8.39	114.91	108.20
24	3L	16	U	N1-C2-N3	8.38	119.93	114.90
26	14	2287	A	N1-C2-N3	8.38	133.49	129.30
26	1H	74	A	C5-N7-C8	-8.38	99.71	103.90
26	1H	2712	U	C5-C4-O4	-8.38	120.88	125.90
26	14	606	U	C5-C4-O4	8.38	130.93	125.90
26	1H	2275	C	N1-C2-O2	-8.37	113.88	118.90
26	1H	1663	C	C6-N1-C2	-8.37	116.95	120.30
26	1H	2312	U	O5'-P-OP1	-8.37	98.17	105.70
26	14	1313	U	C6-N1-C2	-8.36	115.98	121.00
26	14	1332	G	C4-N9-C1'	8.36	137.37	126.50
26	1H	1789	A	N9-C4-C5	8.36	109.14	105.80
26	1H	502	A	N1-C2-N3	8.36	133.48	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	676	A	C6-C5-N7	-8.36	126.45	132.30
26	1H	2601	C	N3-C2-O2	-8.36	116.05	121.90
1	1G	413	G	C4-N9-C1'	-8.36	115.64	126.50
27	16	85	G	N1-C6-O6	8.35	124.91	119.90
1	1G	691	G	N1-C6-O6	8.35	124.91	119.90
26	1H	1644	C	N3-C4-C5	8.34	125.24	121.90
22	1K	1	C	C2-N1-C1'	8.34	127.97	118.80
26	14	2447	G	O4'-C1'-N9	8.34	114.87	108.20
26	1H	1130	U	N3-C2-O2	-8.33	116.37	122.20
22	1K	1	C	N3-C2-O2	-8.32	116.07	121.90
26	1H	1429	G	O5'-P-OP2	-8.32	98.21	105.70
26	1H	2518	A	C6-C5-N7	-8.32	126.48	132.30
26	14	1614	A	N1-C6-N6	8.31	123.59	118.60
26	14	785	G	N1-C6-O6	-8.31	114.91	119.90
26	14	1658	C	O5'-P-OP1	-8.31	98.22	105.70
26	1H	1558	A	C2-N3-C4	-8.31	106.44	110.60
26	1H	2779	U	C2-N1-C1'	8.30	127.67	117.70
24	3L	20	U	C2-N3-C4	-8.31	122.02	127.00
26	1H	210	C	N3-C4-C5	8.30	125.22	121.90
26	14	1509	C	C2-N1-C1'	8.30	127.93	118.80
26	1H	133	C	C6-N1-C2	8.30	123.62	120.30
26	1H	758	C	C6-N1-C2	8.29	123.62	120.30
26	14	768	G	O5'-P-OP2	-8.29	98.24	105.70
26	1H	1434	A	C2-N3-C4	-8.28	106.46	110.60
55	Q8	52	LYS	C-N-CD	-8.27	102.40	120.60
26	1H	618(A)	C	C6-N1-C2	8.27	123.61	120.30
26	1H	1198	U	N3-C2-O2	-8.27	116.41	122.20
26	1H	2394	C	O5'-P-OP2	-8.27	98.26	105.70
26	14	530	G	N3-C4-N9	8.27	130.96	126.00
26	14	1828	G	C8-N9-C4	-8.27	103.09	106.40
26	1H	782	A	N1-C2-N3	8.26	133.43	129.30
26	1H	196	A	OP1-P-OP2	8.26	131.99	119.60
26	1H	2346	A	C5-C6-N1	-8.26	113.57	117.70
26	14	133	C	C2-N3-C4	-8.26	115.77	119.90
26	1H	2050	C	C2-N1-C1'	8.26	127.89	118.80
26	1H	2712	U	N3-C2-O2	-8.26	116.42	122.20
26	1H	2327	A	N9-C4-C5	8.26	109.10	105.80
26	14	1698	A	C5-N7-C8	-8.25	99.77	103.90
26	14	1332	G	C5-N7-C8	-8.25	100.18	104.30
26	1H	335	C	C6-N1-C2	-8.24	117.00	120.30
26	14	1332	G	C2-N3-C4	-8.24	107.78	111.90
26	1H	2376	A	C8-N9-C4	8.24	109.10	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2053	G	C5-C6-O6	-8.23	123.66	128.60
26	1H	1210	A	C4-C5-N7	8.23	114.81	110.70
26	1H	839	U	C5-C4-O4	8.23	130.84	125.90
27	16	30	C	C6-N1-C2	-8.23	117.01	120.30
26	14	1772	G	C8-N9-C4	8.23	109.69	106.40
26	1H	2699	C	C6-N1-C2	8.22	123.59	120.30
26	1H	839	U	C5-C6-N1	-8.22	118.59	122.70
26	1H	241	A	O5'-P-OP2	-8.21	98.31	105.70
26	14	1377	G	C8-N9-C4	-8.21	103.11	106.40
26	1H	636	G	O5'-P-OP1	-8.21	98.31	105.70
22	1K	75	C	C2-N1-C1'	8.21	127.83	118.80
26	14	575	A	O5'-P-OP1	-8.20	98.32	105.70
26	14	1950	G	C8-N9-C4	-8.20	103.12	106.40
26	1H	71	A	C4-C5-N7	8.20	114.80	110.70
26	1H	664	C	C5-C6-N1	-8.20	116.90	121.00
26	14	582	G	C5-C6-O6	-8.19	123.68	128.60
26	1H	1429	G	C5-C6-O6	8.19	133.51	128.60
26	1H	1360	A	N1-C6-N6	8.19	123.51	118.60
26	14	2622	C	C5-C6-N1	-8.19	116.91	121.00
29	19	272	ALA	N-CA-C	8.19	133.10	111.00
26	1H	1496	A	C8-N9-C4	-8.18	102.53	105.80
26	14	1950	G	N7-C8-N9	8.18	117.19	113.10
26	14	203	C	C6-N1-C2	8.18	123.57	120.30
26	14	1623	G	C8-N9-C4	-8.18	103.13	106.40
26	1H	2054	A	C8-N9-C4	-8.17	102.53	105.80
26	1H	1931	U	N3-C2-O2	-8.17	116.48	122.20
26	14	2413	G	O5'-P-OP2	-8.17	98.35	105.70
26	1H	140	A	C5-C6-N6	-8.16	117.17	123.70
26	1H	729	G	N7-C8-N9	8.16	117.18	113.10
1	13	336	C	N3-C2-O2	8.15	127.61	121.90
26	1H	1903	G	C5-C6-O6	8.15	133.49	128.60
26	1H	1323	U	C5-C6-N1	8.15	126.78	122.70
26	14	2502	G	N3-C4-N9	8.14	130.89	126.00
26	1H	71	A	N1-C6-N6	8.14	123.48	118.60
27	1J	60	C	C5-C6-N1	8.14	125.07	121.00
26	1H	1341	U	N3-C4-O4	8.13	125.09	119.40
26	1H	124	G	N1-C6-O6	8.13	124.78	119.90
26	1H	2307	G	N1-C6-O6	8.13	124.78	119.90
26	1H	2516	G	O5'-P-OP2	-8.12	98.39	105.70
26	14	1489	U	C5-C4-O4	8.12	130.77	125.90
26	14	1899	G	N1-C2-N2	-8.12	108.89	116.20
26	1H	845	G	N3-C4-C5	8.12	132.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2607	G	N3-C2-N2	8.12	125.58	119.90
26	14	2045	C	C6-N1-C2	8.12	123.55	120.30
1	13	328	C	N3-C2-O2	-8.11	116.22	121.90
26	14	2443	C	C6-N1-C2	-8.11	117.06	120.30
26	1H	946	G	C8-N9-C4	8.11	109.64	106.40
26	1H	1989	G	C5-C6-N1	-8.11	107.44	111.50
26	14	2518	A	C5-N7-C8	-8.11	99.84	103.90
26	14	2873	A	C4-C5-N7	8.11	114.75	110.70
23	2K	77	A	C4-C5-N7	8.11	114.75	110.70
26	14	1304	C	N1-C2-O2	8.11	123.76	118.90
26	1H	1021	A	N3-C4-C5	8.10	132.47	126.80
26	1H	2404	C	N1-C2-O2	-8.10	114.04	118.90
26	14	141	A	C4-C5-N7	8.10	114.75	110.70
1	13	1266	G	C4-N9-C1'	-8.10	115.97	126.50
26	1H	973	A	C2-N3-C4	-8.09	106.55	110.60
26	14	784	A	C2-N3-C4	-8.09	106.55	110.60
26	1H	970	C	N1-C2-O2	-8.09	114.05	118.90
26	1H	2031	A	C5-C6-N6	-8.08	117.24	123.70
26	1H	2579	C	O5'-P-OP2	-8.08	98.43	105.70
26	14	330	A	C2-N3-C4	-8.08	106.56	110.60
26	1H	71	A	O4'-C1'-N9	-8.07	101.74	108.20
26	1H	789	A	C2-N3-C4	-8.07	106.57	110.60
26	1H	1603	A	N7-C8-N9	8.06	117.83	113.80
26	14	624	C	C6-N1-C2	8.06	123.52	120.30
26	1H	452	G	C2-N3-C4	8.05	115.93	111.90
26	1H	784	A	C5-C6-N6	8.05	130.14	123.70
26	14	468	G	O5'-P-OP2	8.05	120.36	110.70
26	1H	1616	A	C6-C5-N7	-8.05	126.67	132.30
26	1H	2427	C	N1-C2-O2	-8.05	114.07	118.90
26	14	1999	C	C6-N1-C2	8.04	123.52	120.30
1	13	1434	A	C8-N9-C4	8.04	109.02	105.80
26	1H	688	U	N1-C2-N3	8.04	119.72	114.90
26	1H	2074	U	O5'-P-OP1	-8.04	98.47	105.70
26	14	1359	A	N1-C6-N6	8.04	123.42	118.60
22	1K	75	C	C5-C6-N1	8.03	125.02	121.00
26	1H	2688	U	N1-C2-N3	8.03	119.72	114.90
26	1H	613	U	N1-C2-N3	8.03	119.72	114.90
26	1H	1272	A	C8-N9-C4	8.03	109.01	105.80
26	14	2346	A	O4'-C1'-N9	8.03	114.62	108.20
26	14	511	U	N3-C2-O2	8.02	127.82	122.20
26	1H	509	C	C6-N1-C2	-8.02	117.09	120.30
26	14	910	A	O5'-P-OP2	-8.02	98.48	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1428	C	C6-N1-C2	8.02	123.51	120.30
26	14	1187	G	C4-N9-C1'	8.02	136.92	126.50
1	13	907	A	N1-C6-N6	8.01	123.41	118.60
26	1H	16	G	N1-C6-O6	8.01	124.71	119.90
26	1H	839	U	N1-C2-N3	8.01	119.71	114.90
26	1H	1323	U	N3-C4-C5	-8.01	109.79	114.60
26	1H	787	U	O5'-P-OP2	-8.01	98.49	105.70
26	14	559	G	C5-C6-N1	-8.01	107.49	111.50
26	14	2067	G	O5'-P-OP1	-8.01	98.50	105.70
26	14	2644	G	N1-C6-O6	8.01	124.70	119.90
26	1H	1564	C	N3-C2-O2	-8.00	116.30	121.90
26	1H	2241	A	C6-N1-C2	-8.00	113.80	118.60
26	1H	330	A	C2-N3-C4	-8.00	106.60	110.60
26	14	2495	G	N1-C6-O6	8.00	124.70	119.90
26	1H	2583	G	C8-N9-C4	-8.00	103.20	106.40
26	1H	2713	A	C5-N7-C8	-8.00	99.90	103.90
26	1H	2075	U	C4-C5-C6	7.99	124.49	119.70
26	1H	2782	G	C4-N9-C1'	7.99	136.89	126.50
26	14	189	G	C8-N9-C4	7.99	109.60	106.40
26	1H	676	A	N3-C4-C5	7.99	132.39	126.80
26	1H	2054	A	N7-C8-N9	7.99	117.79	113.80
26	1H	226	G	O4'-C1'-N9	7.98	114.59	108.20
26	1H	613	U	N3-C2-O2	-7.98	116.61	122.20
26	1H	2311	A	C2-N3-C4	-7.98	106.61	110.60
26	1H	144	C	C5-C6-N1	-7.98	117.01	121.00
1	13	1374	A	C2-N3-C4	-7.97	106.61	110.60
26	1H	2607	G	C4-N9-C1'	7.97	136.85	126.50
26	14	1304	C	N3-C4-N4	-7.96	112.43	118.00
26	1H	2490	G	C5-C6-O6	-7.96	123.82	128.60
26	1H	2287	A	C5-C6-N1	-7.95	113.72	117.70
55	Q8	25	MET	N-CA-C	7.95	132.47	111.00
26	14	246	C	C6-N1-C2	7.95	123.48	120.30
26	14	1204	A	O4'-C1'-N9	7.94	114.56	108.20
26	1H	124	G	O5'-P-OP1	7.94	120.23	110.70
26	1H	2279	G	C5-C6-O6	7.94	133.36	128.60
26	14	2644	G	C6-C5-N7	-7.94	125.64	130.40
26	1H	701	G	C6-C5-N7	-7.93	125.64	130.40
26	14	796	C	N3-C4-C5	7.93	125.07	121.90
26	14	797	C	N3-C4-C5	-7.93	118.73	121.90
23	2K	21	U	N3-C2-O2	-7.93	116.65	122.20
26	1H	2856	C	C6-N1-C2	-7.93	117.13	120.30
26	1H	602	G	C4-N9-C1'	7.93	136.80	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2247	A	C8-N9-C4	-7.93	102.63	105.80
26	14	2516	G	C8-N9-C4	-7.93	103.23	106.40
26	1H	694	U	O5'-P-OP2	-7.91	98.58	105.70
26	14	2012	G	C6-C5-N7	-7.91	125.66	130.40
37	35	62	LEU	N-CA-C	7.91	132.35	111.00
22	1K	61	U	O4'-C1'-N1	7.90	114.52	108.20
26	1H	859	G	N3-C4-C5	7.90	132.55	128.60
26	1H	1943	U	O5'-P-OP1	-7.90	98.59	105.70
26	14	796	C	C2-N3-C4	-7.90	115.95	119.90
26	1H	1189	A	N1-C6-N6	7.90	123.34	118.60
26	14	467	G	O5'-P-OP2	-7.90	98.59	105.70
26	1H	16	G	C4-C5-C6	7.89	123.54	118.80
26	1H	53	A	N1-C2-N3	7.89	133.25	129.30
26	1H	755	C	N3-C4-C5	-7.89	118.74	121.90
26	14	2276	G	O5'-P-OP2	-7.89	98.60	105.70
1	13	1203	C	C6-N1-C2	-7.89	117.14	120.30
26	14	2444	G	N1-C6-O6	-7.89	115.17	119.90
26	1H	1830	C	N1-C2-O2	-7.88	114.17	118.90
26	14	74	A	C5-C6-N1	-7.88	113.76	117.70
26	14	2021	C	O5'-P-OP1	-7.87	98.62	105.70
26	14	2438	U	O5'-P-OP2	-7.87	98.62	105.70
26	1H	1204	A	O4'-C1'-N9	7.87	114.49	108.20
26	1H	2713	A	N3-C4-C5	7.87	132.31	126.80
24	3L	71	G	C4-C5-N7	-7.87	107.65	110.80
26	1H	1967	C	N3-C4-C5	-7.86	118.75	121.90
26	1H	763	G	N1-C6-O6	-7.86	115.18	119.90
26	1H	783	A	N1-C2-N3	7.86	133.23	129.30
26	14	141	A	C5-N7-C8	-7.86	99.97	103.90
26	14	775	G	N3-C4-C5	-7.86	124.67	128.60
26	14	2062	A	N1-C2-N3	-7.85	125.37	129.30
26	14	2048	G	N7-C8-N9	7.85	117.02	113.10
26	1H	1603	A	C8-N9-C4	-7.84	102.66	105.80
26	1H	1938	A	O4'-C1'-N9	7.84	114.47	108.20
26	14	837	C	C2-N1-C1'	7.84	127.43	118.80
26	14	775	G	C4-C5-N7	-7.84	107.66	110.80
1	13	1227	A	N7-C8-N9	7.84	117.72	113.80
26	14	2321	G	C8-N9-C4	-7.84	103.27	106.40
26	1H	259	G	C2-N3-C4	-7.83	107.98	111.90
26	1H	671	C	C2-N3-C4	-7.83	115.98	119.90
26	1H	1891	G	N1-C6-O6	7.83	124.60	119.90
26	1H	2209	C	N3-C4-C5	7.83	125.03	121.90
26	14	2249	U	C6-N1-C2	-7.83	116.30	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	409	C	C6-N1-C2	7.83	123.43	120.30
26	1H	783	A	C5-C6-N1	-7.83	113.79	117.70
26	1H	2346	A	C8-N9-C4	-7.83	102.67	105.80
26	14	1314	C	N1-C2-O2	7.83	123.60	118.90
26	1H	651	G	C8-N9-C4	-7.82	103.27	106.40
1	13	700	G	N3-C4-C5	-7.82	124.69	128.60
26	14	2702	U	C2-N1-C1'	7.82	127.09	117.70
26	1H	1429	G	N1-C6-O6	-7.82	115.21	119.90
26	1H	818	G	OP2-P-O3'	7.82	122.39	105.20
26	1H	2688	U	C5-C6-N1	-7.81	118.79	122.70
26	14	1807	G	C8-N9-C4	7.81	109.53	106.40
26	1H	1621	U	N3-C2-O2	7.81	127.67	122.20
40	65	110	LEU	CA-CB-CG	7.81	133.26	115.30
1	13	529	G	N1-C6-O6	7.81	124.58	119.90
1	13	1266	G	C8-N9-C1'	7.81	137.15	127.00
26	1H	585	G	OP1-P-O3'	7.81	122.37	105.20
26	1H	2827	C	N3-C2-O2	7.81	127.36	121.90
26	1H	1854	A	N1-C6-N6	-7.80	113.92	118.60
26	14	796	C	C6-N1-C2	7.80	123.42	120.30
26	1H	657	U	C5-C6-N1	-7.80	118.80	122.70
26	1H	1317	A	C5-C6-N6	-7.80	117.46	123.70
26	14	2012	G	N1-C6-O6	7.79	124.58	119.90
26	1H	141	A	O4'-C1'-N9	7.79	114.43	108.20
26	1H	2721	A	N1-C6-N6	7.79	123.27	118.60
26	14	1489	U	C2-N1-C1'	-7.79	108.35	117.70
26	14	1629	U	N3-C4-O4	7.79	124.85	119.40
26	1H	330	A	N1-C2-N3	7.79	133.19	129.30
26	1H	1616	A	O4'-C1'-N9	7.79	114.43	108.20
26	1H	1657	C	N3-C2-O2	-7.78	116.45	121.90
26	1H	2447	G	N3-C4-N9	7.78	130.67	126.00
26	1H	2392	A	O5'-P-OP1	-7.78	98.70	105.70
26	1H	2607	G	C4-C5-C6	7.78	123.47	118.80
38	88	82	ARG	N-CA-C	7.78	132.00	111.00
26	14	945	A	N1-C2-N3	7.78	133.19	129.30
26	1H	974	G	OP1-P-OP2	7.78	131.26	119.60
26	1H	1330	C	C6-N1-C2	-7.78	117.19	120.30
26	1H	231	C	N3-C4-C5	-7.77	118.79	121.90
26	14	558	G	C8-N9-C4	7.77	109.51	106.40
26	1H	1187	G	N1-C6-O6	7.77	124.56	119.90
26	1H	580	C	C6-N1-C2	-7.76	117.19	120.30
26	14	265	A	C2-N3-C4	-7.76	106.72	110.60
26	1H	113	G	N1-C6-O6	7.76	124.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	795	C	O5'-P-OP2	-7.75	98.72	105.70
56	2L	5	G	C8-N9-C4	7.75	109.50	106.40
26	1H	1252	G	O4'-C1'-N9	-7.75	102.00	108.20
26	1H	2017	U	N3-C4-C5	-7.75	109.95	114.60
26	14	1320	C	N1-C2-O2	-7.75	114.25	118.90
26	14	1489	U	C6-N1-C1'	7.75	132.05	121.20
26	14	2502	G	N3-C4-C5	-7.75	124.72	128.60
26	1H	2330	G	N1-C6-O6	7.75	124.55	119.90
26	1H	622	G	C8-N9-C4	7.75	109.50	106.40
26	1H	831	G	C8-N9-C4	7.75	109.50	106.40
26	1H	1799	G	N3-C4-N9	7.73	130.64	126.00
26	1H	2392	A	C8-N9-C4	-7.73	102.71	105.80
26	1H	2422	A	C8-N9-C4	7.73	108.89	105.80
26	1H	627	A	C8-N9-C4	7.73	108.89	105.80
26	14	1396	U	N3-C2-O2	-7.73	116.79	122.20
26	14	2346	A	N1-C2-N3	7.73	133.17	129.30
26	1H	1307	A	O5'-P-OP1	-7.73	98.75	105.70
26	1H	74	A	N1-C6-N6	7.72	123.23	118.60
26	1H	980	A	N1-C6-N6	-7.72	113.97	118.60
26	1H	660	G	C5-C6-N1	-7.71	107.64	111.50
1	1G	305	G	N1-C6-O6	-7.71	115.27	119.90
26	14	2850	A	N1-C6-N6	7.71	123.23	118.60
26	1H	2330	G	C5-C6-O6	-7.71	123.97	128.60
26	14	396	G	N1-C6-O6	7.71	124.53	119.90
26	14	1496	A	C8-N9-C4	-7.71	102.72	105.80
1	1G	1519	A	N9-C4-C5	7.70	108.88	105.80
1	13	656	C	C6-N1-C2	-7.70	117.22	120.30
26	14	2013	A	C8-N9-C4	7.70	108.88	105.80
26	1H	358	U	O5'-P-OP1	-7.70	98.77	105.70
26	1H	2503	A	N9-C4-C5	-7.69	102.72	105.80
26	1H	139	G	O5'-P-OP1	-7.69	98.78	105.70
26	14	2007	C	N1-C2-O2	-7.69	114.28	118.90
26	1H	1772	G	C8-N9-C1'	7.69	137.00	127.00
26	1H	2056	G	C6-C5-N7	-7.69	125.79	130.40
1	1G	345	C	C5-C6-N1	7.69	124.84	121.00
26	14	1812	A	O5'-P-OP2	-7.69	98.78	105.70
26	14	1585	C	N1-C2-O2	7.68	123.51	118.90
26	14	1152	C	C6-N1-C2	-7.68	117.23	120.30
26	1H	672	C	O5'-P-OP1	7.68	119.92	110.70
26	1H	1573	G	C2-N3-C4	-7.68	108.06	111.90
1	13	1025	U	C5-C6-N1	7.68	126.54	122.70
26	1H	589	C	O5'-P-OP2	-7.68	98.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1669	A	N1-C6-N6	-7.68	113.99	118.60
26	1H	2616	C	N3-C4-C5	7.68	124.97	121.90
26	1H	676	A	N1-C6-N6	7.68	123.20	118.60
26	14	2401	U	C6-N1-C2	-7.68	116.39	121.00
26	1H	1594	G	O5'-P-OP1	-7.67	98.80	105.70
26	1H	2518	A	N9-C4-C5	-7.67	102.73	105.80
26	1H	621	A	C4-C5-N7	7.67	114.53	110.70
26	1H	1344	G	N3-C2-N2	-7.67	114.53	119.90
26	14	1355	G	N7-C8-N9	7.67	116.93	113.10
26	1H	582	G	C6-C5-N7	-7.66	125.80	130.40
26	1H	664	C	C6-N1-C2	7.66	123.36	120.30
26	1H	830	G	C8-N9-C4	-7.66	103.33	106.40
1	13	235	C	C6-N1-C2	7.66	123.36	120.30
26	1H	210	C	OP2-P-O3'	7.66	122.05	105.20
26	1H	917	A	C6-C5-N7	-7.66	126.94	132.30
26	1H	1786	A	C5-C6-N1	-7.66	113.87	117.70
26	1H	512	G	O4'-C1'-N9	7.66	114.33	108.20
26	14	2430	A	C4-C5-C6	7.66	120.83	117.00
26	1H	1558	A	P-O3'-C3'	7.66	128.89	119.70
26	1H	431	U	N3-C4-C5	-7.66	110.01	114.60
26	14	1653	G	N3-C4-C5	-7.65	124.78	128.60
26	1H	1202	C	N3-C4-C5	-7.65	118.84	121.90
26	1H	1660	C	N3-C4-C5	7.65	124.96	121.90
26	1H	1808	U	C5-C4-O4	-7.64	121.31	125.90
26	1H	1204	A	C5-C6-N1	-7.64	113.88	117.70
1	1G	1054	C	C6-N1-C2	-7.64	117.24	120.30
26	14	671	C	C2-N3-C4	-7.64	116.08	119.90
26	14	1899	G	C2-N3-C4	-7.64	108.08	111.90
26	14	298	G	N1-C6-O6	7.64	124.48	119.90
26	14	1555	G	C5-C6-O6	-7.63	124.02	128.60
26	1H	1989	G	C2-N3-C4	-7.63	108.08	111.90
26	1H	2340	G	C8-N9-C4	7.63	109.45	106.40
26	1H	2490	G	N3-C4-N9	-7.62	121.42	126.00
26	1H	1323	U	N3-C4-O4	7.62	124.73	119.40
26	1H	198	C	C2-N3-C4	-7.62	116.09	119.90
26	1H	676	A	C8-N9-C4	-7.62	102.75	105.80
26	1H	839	U	C4-C5-C6	7.62	124.27	119.70
26	1H	1344	G	N3-C4-C5	7.61	132.41	128.60
56	2L	55	U	N1-C2-N3	7.61	119.47	114.90
26	14	856	C	O5'-P-OP1	-7.61	98.85	105.70
26	1H	531	C	N1-C2-O2	-7.61	114.33	118.90
26	14	129	C	C6-N1-C2	7.61	123.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2054	A	OP2-P-O3'	7.61	121.93	105.20
26	14	2713	A	C4-C5-N7	7.61	114.50	110.70
26	1H	731	C	N3-C4-N4	7.60	123.32	118.00
26	14	704	G	N1-C6-O6	7.60	124.46	119.90
1	13	690	G	N1-C6-O6	7.60	124.46	119.90
26	1H	124	G	O5'-P-OP2	-7.60	98.86	105.70
26	1H	144	C	C6-N1-C2	7.59	123.34	120.30
26	1H	1321	A	N7-C8-N9	-7.59	110.00	113.80
26	14	672	C	O5'-P-OP2	-7.59	98.86	105.70
26	14	1899	G	C4-C5-N7	7.59	113.84	110.80
26	1H	2199	A	C8-N9-C4	-7.58	102.77	105.80
26	1H	1555	G	O5'-P-OP2	7.58	119.80	110.70
23	2K	77	A	C5-N7-C8	-7.58	100.11	103.90
26	14	796	C	C5-C6-N1	-7.58	117.21	121.00
1	13	541	G	C4-C5-N7	7.58	113.83	110.80
26	1H	1311	G	N3-C4-C5	7.58	132.39	128.60
26	1H	2351	G	N3-C4-N9	7.58	130.55	126.00
26	14	1681	G	N3-C4-C5	7.58	132.39	128.60
26	14	2517	C	C2-N3-C4	-7.58	116.11	119.90
26	1H	1548	C	C6-N1-C2	-7.58	117.27	120.30
26	1H	793	A	C5-C6-N6	-7.58	117.64	123.70
26	14	566	U	C5-C6-N1	-7.58	118.91	122.70
26	1H	1626	G	N3-C2-N2	-7.57	114.60	119.90
1	1G	413	G	C6-C5-N7	7.57	134.94	130.40
26	1H	735	A	C8-N9-C4	7.57	108.83	105.80
26	1H	1607	C	C2-N1-C1'	7.57	127.12	118.80
26	1H	120	U	C5-C6-N1	-7.56	118.92	122.70
26	1H	2275	C	N3-C4-C5	-7.56	118.87	121.90
26	1H	2250	G	O5'-P-OP2	-7.56	98.90	105.70
26	14	752	A	C5-N7-C8	-7.56	100.12	103.90
26	14	2457	U	N3-C2-O2	-7.56	116.91	122.20
26	1H	2330	G	C2-N3-C4	-7.56	108.12	111.90
26	1H	1156	A	O5'-P-OP2	-7.55	98.90	105.70
26	1H	445	C	O5'-P-OP1	-7.54	98.91	105.70
26	1H	958	U	C6-N1-C2	-7.54	116.47	121.00
26	14	1496	A	N7-C8-N9	7.54	117.57	113.80
26	14	1772	G	N1-C6-O6	7.54	124.42	119.90
1	13	1409	C	C6-N1-C2	-7.54	117.28	120.30
26	1H	446	G	N1-C6-O6	7.54	124.42	119.90
22	1K	75	C	O4'-C1'-N1	7.54	114.23	108.20
26	1H	1332	G	N3-C4-N9	-7.54	121.48	126.00
26	1H	53	A	C8-N9-C4	-7.53	102.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	683	C	N3-C4-C5	7.53	124.91	121.90
26	1H	2329	G	N9-C4-C5	-7.53	102.39	105.40
26	14	2358	G	C5-C6-O6	7.53	133.12	128.60
26	1H	679	C	N1-C2-O2	-7.53	114.38	118.90
24	3L	71	G	O4'-C1'-N9	7.52	114.22	108.20
1	13	5	U	P-O3'-C3'	7.52	128.72	119.70
26	1H	2318	G	N7-C8-N9	7.52	116.86	113.10
26	1H	2376	A	N7-C8-N9	-7.52	110.04	113.80
1	1G	533	A	C8-N9-C4	7.52	108.81	105.80
26	14	817	C	C5-C6-N1	7.52	124.76	121.00
29	11	111	LEU	CA-CB-CG	7.52	132.59	115.30
26	14	1328	G	C8-N9-C4	7.52	109.41	106.40
26	1H	54	G	O5'-P-OP1	-7.51	98.94	105.70
26	1H	2610	C	O5'-P-OP1	-7.51	98.94	105.70
26	1H	1333	C	C5-C4-N4	-7.51	114.94	120.20
1	13	713	G	C6-C5-N7	-7.51	125.89	130.40
26	14	686	G	N9-C4-C5	-7.51	102.40	105.40
1	1G	352	C	C2-N1-C1'	7.51	127.06	118.80
26	14	530	G	C8-N9-C1'	-7.50	117.25	127.00
26	14	1284	A	O5'-P-OP2	-7.50	98.95	105.70
1	13	1506	U	C5-C4-O4	-7.50	121.40	125.90
26	14	1647	G	O5'-P-OP1	-7.50	98.95	105.70
26	1H	529	A	N7-C8-N9	7.50	117.55	113.80
26	14	1962	C	C2-N1-C1'	7.49	127.04	118.80
26	1H	917	A	C4-C5-N7	7.49	114.44	110.70
1	1G	816	A	C8-N9-C4	-7.49	102.81	105.80
26	1H	2689	U	P-O3'-C3'	7.49	128.68	119.70
26	14	2338	G	N1-C6-O6	7.48	124.39	119.90
26	14	773	U	C5-C6-N1	-7.48	118.96	122.70
1	13	894	G	C8-N9-C4	7.48	109.39	106.40
26	1H	1332	G	N1-C2-N3	7.48	128.39	123.90
26	1H	2575	C	N1-C2-O2	-7.48	114.41	118.90
26	1H	2275	C	OP1-P-O3'	7.48	121.65	105.20
26	1H	1311	G	C8-N9-C4	7.47	109.39	106.40
26	1H	1636	C	N3-C2-O2	7.47	127.13	121.90
26	1H	2324	C	C6-N1-C2	7.47	123.29	120.30
26	14	31	C	C6-N1-C2	-7.47	117.31	120.30
26	14	2870	C	C6-N1-C2	-7.47	117.31	120.30
1	1G	285	G	N1-C6-O6	7.47	124.38	119.90
1	1G	1519	A	N1-C6-N6	-7.47	114.12	118.60
26	14	2275	C	C6-N1-C2	-7.47	117.31	120.30
26	1H	930	U	N3-C4-O4	-7.46	114.17	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1668	A	O5'-P-OP1	7.46	119.66	110.70
26	1H	693	C	C5-C6-N1	-7.46	117.27	121.00
26	1H	1942	C	N3-C2-O2	-7.46	116.68	121.90
26	1H	1989	G	C6-C5-N7	-7.46	125.92	130.40
26	14	1643	G	OP2-P-O3'	7.46	121.62	105.20
26	1H	34	C	O5'-P-OP1	-7.46	98.99	105.70
26	14	780	G	N1-C6-O6	7.46	124.38	119.90
26	14	1520	U	C5-C4-O4	7.46	130.38	125.90
56	2L	21	U	N1-C2-N3	7.46	119.37	114.90
11	2I	102	GLY	N-CA-C	-7.45	94.47	113.10
26	1H	1678	G	C5-N7-C8	-7.45	100.57	104.30
26	1H	1895	C	N1-C2-O2	-7.45	114.43	118.90
26	14	1786	A	N1-C6-N6	7.45	123.07	118.60
26	1H	2199	A	O5'-P-OP1	-7.45	99.00	105.70
26	14	1450	C	O5'-P-OP2	-7.45	99.00	105.70
26	1H	2447	G	C5-C6-O6	-7.45	124.13	128.60
26	14	1616	A	O5'-P-OP1	-7.45	99.00	105.70
26	1H	2318	G	N3-C4-C5	7.44	132.32	128.60
26	14	1994	C	O5'-P-OP2	-7.44	99.00	105.70
26	14	2581	G	C6-C5-N7	-7.44	125.94	130.40
26	1H	141	A	C4-C5-N7	7.44	114.42	110.70
1	1G	1356	G	C8-N9-C4	-7.44	103.42	106.40
26	1H	2581	G	N1-C2-N2	-7.44	109.51	116.20
26	14	1489	U	N3-C4-C5	-7.43	110.14	114.60
26	1H	180	G	C5-C6-O6	-7.43	124.14	128.60
26	14	2068	U	O5'-P-OP1	-7.43	99.01	105.70
24	3L	20	U	C2-N1-C1'	7.43	126.61	117.70
56	2L	40	C	C6-N1-C2	-7.43	117.33	120.30
26	1H	248	G	N3-C2-N2	-7.42	114.70	119.90
26	14	1772	G	N9-C4-C5	-7.42	102.43	105.40
26	1H	1379	A	C5-N7-C8	-7.42	100.19	103.90
26	1H	734	A	C2-N3-C4	-7.42	106.89	110.60
26	1H	1742	C	C5-C6-N1	7.42	124.71	121.00
26	14	2688	U	C2-N3-C4	-7.42	122.55	127.00
26	14	676	A	O4'-C1'-N9	7.42	114.14	108.20
26	1H	575	A	O5'-P-OP1	-7.42	99.02	105.70
26	1H	846	C	O5'-P-OP1	-7.42	99.02	105.70
26	1H	1308	A	N1-C6-N6	-7.42	114.15	118.60
26	14	737	C	N3-C2-O2	7.41	127.09	121.90
26	1H	2304	G	N3-C4-N9	-7.41	121.55	126.00
26	14	783	A	N3-C4-C5	7.41	131.99	126.80
1	13	1498	U	P-O3'-C3'	7.41	128.59	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	552	G	N3-C4-C5	7.41	132.30	128.60
26	1H	2050	C	N3-C4-C5	-7.41	118.94	121.90
1	1G	1139	G	N3-C4-C5	7.41	132.30	128.60
26	1H	1317	A	N1-C6-N6	7.41	123.04	118.60
26	14	774	A	C5-N7-C8	-7.41	100.20	103.90
26	1H	586	A	N1-C6-N6	-7.40	114.16	118.60
26	1H	140	A	C2-N3-C4	-7.40	106.90	110.60
26	1H	1401	G	C4-C5-N7	7.40	113.76	110.80
26	1H	452	G	N3-C4-C5	-7.40	124.90	128.60
56	2L	55	U	C6-N1-C2	-7.40	116.56	121.00
26	14	2328	A	C6-N1-C2	-7.40	114.16	118.60
23	2K	77	A	C6-C5-N7	-7.39	127.12	132.30
26	1H	1798	U	C5-C4-O4	-7.39	121.47	125.90
26	14	1685	C	C6-N1-C2	7.39	123.26	120.30
1	13	1266	G	N3-C4-C5	7.39	132.29	128.60
26	1H	1566	A	N1-C6-N6	-7.39	114.17	118.60
1	1G	413	G	N3-C4-N9	-7.38	121.57	126.00
26	1H	214	G	C5-C6-O6	-7.38	124.17	128.60
26	14	774	A	N9-C4-C5	-7.38	102.85	105.80
26	1H	2055	C	O5'-P-OP1	-7.38	99.06	105.70
26	14	861	A	C8-N9-C4	-7.38	102.85	105.80
26	1H	1334	G	C6-C5-N7	-7.38	125.97	130.40
26	14	1251	C	OP1-P-OP2	7.38	130.67	119.60
26	1H	774	A	C5-N7-C8	-7.38	100.21	103.90
1	1G	748	C	P-O3'-C3'	7.38	128.55	119.70
26	14	1304	C	N3-C2-O2	-7.38	116.74	121.90
26	1H	331	A	C8-N9-C4	-7.37	102.85	105.80
26	1H	2688	U	C4-C5-C6	7.37	124.12	119.70
26	1H	664	C	C2-N3-C4	-7.37	116.21	119.90
26	14	133	C	C5-C6-N1	-7.37	117.32	121.00
26	1H	698	C	C6-N1-C2	7.37	123.25	120.30
24	3L	71	G	C4-N9-C1'	-7.37	116.92	126.50
26	14	1904	G	N1-C6-O6	-7.37	115.48	119.90
26	14	2608	G	N3-C2-N2	-7.37	114.75	119.90
23	2K	21	U	C2-N3-C4	-7.36	122.58	127.00
26	1H	2286	A	N1-C6-N6	7.36	123.02	118.60
1	13	714	G	O5'-P-OP1	-7.36	99.08	105.70
26	14	1022	G	C8-N9-C4	-7.36	103.46	106.40
26	14	1326	U	N3-C2-O2	-7.36	117.05	122.20
26	1H	71	A	C8-N9-C4	-7.36	102.86	105.80
26	1H	2490	G	N7-C8-N9	7.36	116.78	113.10
26	14	1639	U	N3-C2-O2	-7.36	117.05	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2076	U	O5'-P-OP2	-7.36	99.08	105.70
26	1H	2451	A	N9-C4-C5	7.36	108.74	105.80
27	16	29	A	N1-C6-N6	7.36	123.01	118.60
1	1G	1200	C	N1-C2-O2	7.36	123.31	118.90
26	14	2712	U	C5-C6-N1	-7.36	119.02	122.70
46	G8	81	LYS	N-CA-C	-7.35	91.15	111.00
26	14	780	G	C5-C6-O6	-7.35	124.19	128.60
26	1H	645	C	C5-C6-N1	7.35	124.67	121.00
26	1H	2607	G	C8-N9-C1'	-7.35	117.45	127.00
27	16	60	C	C2-N3-C4	7.35	123.57	119.90
26	14	1142(A)	A	C2-N3-C4	-7.35	106.93	110.60
19	AI	25	LYS	N-CA-C	-7.34	91.17	111.00
26	1H	529	A	C5-N7-C8	-7.34	100.23	103.90
26	1H	2288	A	N1-C6-N6	7.34	123.01	118.60
26	1H	673	C	C6-N1-C2	7.34	123.24	120.30
26	1H	2392	A	C5-C6-N1	-7.34	114.03	117.70
26	1H	1273	U	OP2-P-O3'	7.34	121.35	105.20
26	1H	1790	C	C5-C4-N4	-7.34	115.06	120.20
26	14	530	G	C5-C6-O6	-7.34	124.19	128.60
26	14	2406	U	N3-C2-O2	-7.34	117.06	122.20
26	1H	208	C	OP2-P-O3'	7.34	121.34	105.20
26	1H	681	G	C8-N9-C4	7.34	109.33	106.40
26	1H	1489	U	C6-N1-C1'	7.33	131.47	121.20
26	14	621	A	C5-C6-N1	-7.33	114.03	117.70
26	1H	699	A	N1-C6-N6	7.33	123.00	118.60
26	1H	917	A	N3-C4-C5	7.33	131.93	126.80
26	14	468	G	OP1-P-OP2	-7.33	108.61	119.60
26	14	2376	A	C8-N9-C4	7.33	108.73	105.80
26	1H	2585	U	C2-N1-C1'	7.32	126.49	117.70
27	16	85	G	C5-C6-O6	-7.32	124.21	128.60
26	14	2592	G	C8-N9-C4	-7.32	103.47	106.40
1	13	1502	A	C6-C5-N7	-7.32	127.18	132.30
26	14	2873	A	C4-C5-C6	7.32	120.66	117.00
26	1H	1272	A	N1-C6-N6	7.31	122.99	118.60
1	13	422	C	P-O3'-C3'	7.31	128.47	119.70
26	1H	1927	A	O5'-P-OP2	-7.31	99.12	105.70
26	1H	755	C	C4-C5-C6	7.30	121.05	117.40
26	14	2062	A	C4-C5-C6	-7.30	113.35	117.00
26	1H	1496	A	N1-C6-N6	7.30	122.98	118.60
1	13	1281	U	N3-C2-O2	-7.30	117.09	122.20
26	14	1658	C	C6-N1-C2	-7.30	117.38	120.30
26	1H	35	G	O5'-P-OP2	-7.30	99.13	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1591	G	N1-C6-O6	-7.30	115.52	119.90
26	1H	74	A	C5-C6-N1	-7.29	114.05	117.70
26	1H	418	G	C8-N9-C4	7.29	109.32	106.40
26	14	1142	U	N3-C2-O2	-7.29	117.09	122.20
26	1H	814	C	C5-C6-N1	-7.29	117.35	121.00
26	14	1597	A	O5'-P-OP2	-7.29	99.14	105.70
26	1H	462	C	O5'-P-OP2	-7.29	99.14	105.70
26	1H	1942	C	C5-C6-N1	7.29	124.64	121.00
26	14	1518	C	O5'-P-OP1	-7.29	99.14	105.70
1	13	336	C	C2-N1-C1'	-7.29	110.79	118.80
26	14	429	A	C8-N9-C4	-7.29	102.89	105.80
1	13	1473	A	N1-C6-N6	7.28	122.97	118.60
26	1H	259	G	C5-C6-N1	-7.28	107.86	111.50
26	14	822	U	N3-C2-O2	-7.28	117.10	122.20
26	1H	2224	G	N1-C6-O6	7.28	124.27	119.90
26	1H	1363	C	O5'-P-OP2	-7.28	99.15	105.70
1	1G	691	G	C5-C6-O6	-7.28	124.23	128.60
26	1H	593	G	N1-C2-N3	7.28	128.27	123.90
26	1H	1026	U	O4'-C1'-N1	7.28	114.02	108.20
26	14	1939	U	C5-C6-N1	-7.28	119.06	122.70
26	14	2492	U	O5'-P-OP2	7.28	119.43	110.70
26	1H	1825	A	N1-C6-N6	-7.27	114.24	118.60
26	14	1328	G	C4-C5-N7	7.27	113.71	110.80
26	14	1555	G	N1-C6-O6	7.27	124.26	119.90
26	1H	831	G	C5-C6-O6	7.27	132.96	128.60
26	1H	1332	G	C5-C6-N1	-7.27	107.87	111.50
26	1H	1779	U	O5'-P-OP1	-7.27	99.16	105.70
1	1G	547	A	C8-N9-C4	7.27	108.71	105.80
26	14	472	A	O5'-P-OP2	-7.27	99.16	105.70
26	1H	1187	G	C5-C6-N1	-7.26	107.87	111.50
26	1H	1409	C	C6-N1-C2	7.26	123.20	120.30
1	1G	596	C	C6-N1-C2	7.26	123.20	120.30
26	1H	1049	C	N1-C2-O2	7.26	123.26	118.90
1	1G	328	C	N3-C2-O2	-7.26	116.82	121.90
26	1H	2581	G	N3-C2-N2	7.26	124.98	119.90
1	13	1260	C	C6-N1-C2	-7.26	117.40	120.30
26	1H	1989	G	N3-C2-N2	-7.26	114.82	119.90
27	16	98	G	N9-C4-C5	-7.26	102.50	105.40
1	1G	1417	G	C5-C6-N1	-7.25	107.87	111.50
26	1H	2326	C	O5'-P-OP1	-7.25	99.17	105.70
26	1H	200	U	O5'-P-OP1	-7.25	99.18	105.70
26	1H	1606	G	C5-C6-O6	-7.25	124.25	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2374	C	N3-C4-C5	7.24	124.80	121.90
26	14	530	G	C5-N7-C8	-7.24	100.68	104.30
26	1H	1241	A	C6-N1-C2	7.24	122.94	118.60
23	2K	21	U	N1-C2-N3	7.24	119.24	114.90
26	1H	463	G	N9-C4-C5	-7.24	102.50	105.40
26	1H	1798	U	C2-N3-C4	-7.24	122.66	127.00
27	16	81	G	N9-C4-C5	-7.24	102.50	105.40
26	14	1625	C	N1-C2-O2	7.24	123.24	118.90
26	1H	29	U	C5-C4-O4	-7.24	121.56	125.90
26	1H	1210	A	C2-N3-C4	-7.24	106.98	110.60
26	1H	945	A	N1-C2-N3	7.23	132.92	129.30
26	1H	2085	C	N3-C4-N4	7.23	123.06	118.00
26	1H	1593	G	OP1-P-O3'	7.23	121.11	105.20
26	1H	699	A	C5-C6-N6	-7.23	117.92	123.70
26	1H	982	C	C6-N1-C2	-7.23	117.41	120.30
26	1H	1820	U	O5'-P-OP2	-7.23	99.19	105.70
26	1H	922	U	N1-C2-O2	-7.22	117.75	122.80
26	1H	2392	A	N3-C4-C5	7.22	131.85	126.80
26	14	1252	G	O4'-C1'-N9	-7.22	102.42	108.20
26	14	2688	U	C4-C5-C6	7.22	124.03	119.70
33	59	153	LYS	C-N-CD	7.22	143.56	128.40
1	1G	413	G	C8-N9-C1'	7.21	136.38	127.00
26	1H	1235	G	C6-C5-N7	-7.21	126.07	130.40
26	14	201	C	C6-N1-C2	7.21	123.19	120.30
26	1H	738	G	N9-C4-C5	-7.21	102.52	105.40
26	1H	979	G	N1-C6-O6	7.21	124.23	119.90
26	14	1598	C	OP1-P-OP2	-7.21	108.79	119.60
26	14	2449	U	O5'-P-OP1	-7.21	99.22	105.70
26	1H	1902	C	O5'-P-OP1	-7.20	99.22	105.70
1	13	713	G	N1-C6-O6	7.20	124.22	119.90
26	1H	1190	G	O5'-P-OP1	-7.20	99.22	105.70
26	1H	1786	A	C4-C5-C6	7.20	120.60	117.00
1	13	738	C	N3-C4-C5	-7.20	119.02	121.90
26	14	391	G	C8-N9-C1'	-7.20	117.65	127.00
26	1H	124	G	N3-C4-C5	7.19	132.20	128.60
26	1H	411	G	N3-C4-C5	-7.19	125.00	128.60
26	1H	842	G	N1-C6-O6	7.19	124.21	119.90
26	1H	1969	A	N9-C4-C5	7.19	108.67	105.80
1	1G	1260	C	C5-C6-N1	7.19	124.59	121.00
26	1H	77	C	N3-C4-N4	7.18	123.03	118.00
26	1H	2343	C	C6-N1-C2	7.18	123.17	120.30
26	14	194	G	C6-C5-N7	-7.18	126.09	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	35	147	LEU	CA-CB-CG	7.18	131.82	115.30
26	1H	141	A	N7-C8-N9	7.18	117.39	113.80
26	1H	2318	G	N3-C4-N9	-7.18	121.69	126.00
26	14	74	A	N3-C4-C5	7.18	131.83	126.80
26	1H	138	G	N7-C8-N9	7.18	116.69	113.10
22	1K	75	C	C6-N1-C1'	-7.18	112.19	120.80
26	1H	1387	C	N3-C2-O2	-7.18	116.88	121.90
26	14	1142	U	C2-N1-C1'	7.18	126.31	117.70
26	1H	2032	G	C6-C5-N7	-7.18	126.09	130.40
1	13	1227	A	C5-N7-C8	-7.17	100.31	103.90
1	13	1473	A	C5-C6-N6	-7.17	117.96	123.70
26	1H	247	G	N9-C4-C5	-7.17	102.53	105.40
1	1G	815	A	C8-N9-C4	7.17	108.67	105.80
26	1H	832	G	C5-N7-C8	-7.17	100.71	104.30
26	1H	2656	U	N1-C2-O2	-7.17	117.78	122.80
26	1H	1683	C	N1-C2-O2	-7.17	114.60	118.90
26	1H	1954	G	N9-C4-C5	-7.17	102.53	105.40
26	14	2045	C	C5-C6-N1	-7.17	117.42	121.00
26	14	750	A	C8-N9-C4	-7.16	102.94	105.80
26	1H	1235	G	C4-C5-C6	7.15	123.09	118.80
1	1G	623	C	C6-N1-C2	-7.15	117.44	120.30
1	13	894	G	C4-N9-C1'	-7.15	117.21	126.50
26	1H	121	G	C4-N9-C1'	7.15	135.79	126.50
26	1H	590	A	C8-N9-C4	-7.15	102.94	105.80
26	1H	2334	G	C4-C5-N7	-7.15	107.94	110.80
26	14	1422	G	N1-C6-O6	7.15	124.19	119.90
26	14	2430	A	N1-C6-N6	7.14	122.89	118.60
1	13	738	C	C5-C6-N1	7.14	124.57	121.00
26	1H	945	A	C8-N9-C4	-7.14	102.94	105.80
27	16	70	C	C6-N1-C2	-7.14	117.44	120.30
26	14	155	C	N1-C2-O2	7.14	123.19	118.90
26	14	2211	G	N3-C4-N9	-7.14	121.72	126.00
26	1H	1021	A	C6-C5-N7	-7.14	127.30	132.30
26	1H	1142(A)	A	N3-C4-N9	-7.14	121.69	127.40
26	1H	1602	U	O5'-P-OP2	7.14	119.27	110.70
26	1H	96	G	N1-C6-O6	7.14	124.18	119.90
26	1H	2585	U	N3-C4-O4	7.14	124.39	119.40
26	1H	2782	G	N1-C6-O6	7.14	124.18	119.90
1	1G	1498	U	P-O3'-C3'	7.14	128.26	119.70
26	1H	331	A	N7-C8-N9	7.13	117.37	113.80
26	1H	1356	G	O5'-P-OP1	-7.13	99.28	105.70
26	1H	1633	G	OP2-P-O3'	7.13	120.89	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2448	A	C5-N7-C8	-7.13	100.33	103.90
1	13	1500	A	N1-C6-N6	-7.13	114.32	118.60
26	1H	2621	A	C2-N3-C4	-7.13	107.03	110.60
26	1H	1930	G	O5'-P-OP1	-7.13	99.28	105.70
26	14	2217	G	N1-C6-O6	7.13	124.18	119.90
26	1H	2615	U	N1-C2-N3	-7.13	110.62	114.90
26	1H	2822	G	N1-C6-O6	7.13	124.18	119.90
26	14	703	U	C5-C4-O4	7.13	130.18	125.90
26	1H	1517	G	OP1-P-O3'	7.12	120.88	105.20
26	14	1792	G	C5-C6-O6	-7.12	124.33	128.60
26	1H	2311	A	O4'-C1'-N9	7.12	113.90	108.20
26	14	498	G	C5-C6-O6	-7.12	124.33	128.60
26	1H	908	C	C5-C6-N1	-7.12	117.44	121.00
26	1H	1813	G	O5'-P-OP1	-7.12	99.29	105.70
26	14	2032	G	C5-N7-C8	-7.12	100.74	104.30
26	1H	2544	G	N1-C6-O6	7.12	124.17	119.90
26	1H	737	C	N1-C2-O2	-7.12	114.63	118.90
27	16	50	G	OP2-P-O3'	7.12	120.85	105.20
1	1G	598	U	N1-C2-O2	-7.12	117.82	122.80
26	1H	1204	A	C5-N7-C8	-7.11	100.34	103.90
26	1H	2070	G	N1-C2-N3	7.11	128.17	123.90
26	14	2463	C	C6-N1-C2	7.11	123.15	120.30
26	1H	220	G	N1-C6-O6	7.11	124.17	119.90
26	1H	2408	U	C5-C6-N1	-7.11	119.14	122.70
26	1H	2502	G	N3-C4-C5	-7.11	125.04	128.60
26	1H	203	C	N3-C2-O2	7.11	126.88	121.90
26	14	189	G	C5-C6-O6	-7.11	124.33	128.60
27	1J	38	C	C6-N1-C2	-7.11	117.46	120.30
26	1H	122	G	N3-C4-C5	7.11	132.15	128.60
26	1H	751	A	OP1-P-OP2	-7.11	108.94	119.60
26	1H	2412	A	C6-N1-C2	-7.11	114.33	118.60
26	1H	71	A	C6-C5-N7	-7.11	127.32	132.30
26	1H	774	A	C5-C6-N1	-7.11	114.15	117.70
26	1H	1243	G	N1-C6-O6	7.10	124.16	119.90
1	13	233	C	C6-N1-C2	-7.10	117.46	120.30
26	1H	1431	U	C5-C6-N1	7.10	126.25	122.70
1	13	712	A	C8-N9-C4	-7.10	102.96	105.80
26	1H	1888	G	N3-C4-N9	7.10	130.26	126.00
26	14	2880	C	C6-N1-C2	-7.10	117.46	120.30
26	1H	66	C	O5'-P-OP2	-7.09	99.31	105.70
26	1H	145	G	C4-C5-C6	7.09	123.06	118.80
26	1H	1421	G	N1-C6-O6	7.09	124.16	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1469	G	N1-C6-O6	7.09	124.16	119.90
26	1H	351	G	N3-C4-C5	-7.09	125.06	128.60
26	1H	1272	A	N9-C4-C5	-7.09	102.96	105.80
1	1G	691	G	C6-C5-N7	-7.09	126.15	130.40
26	14	113	G	N1-C6-O6	7.09	124.15	119.90
26	1H	2436	G	N3-C2-N2	-7.09	114.94	119.90
26	1H	528	A	N3-C4-C5	7.08	131.76	126.80
26	1H	2596	U	O5'-P-OP2	-7.08	99.33	105.70
26	1H	74	A	C6-C5-N7	-7.08	127.34	132.30
26	1H	847	U	N3-C2-O2	-7.08	117.25	122.20
26	1H	2713	A	N1-C6-N6	7.08	122.85	118.60
40	A8	110	LEU	CA-CB-CG	7.08	131.58	115.30
26	14	1853	A	O5'-P-OP1	-7.08	99.33	105.70
26	1H	1698	A	N7-C8-N9	7.08	117.34	113.80
26	14	2392	A	C5-C6-N1	-7.08	114.16	117.70
26	1H	791	C	C6-N1-C2	7.08	123.13	120.30
26	14	1950	G	O4'-C1'-N9	7.08	113.86	108.20
26	14	2011	U	O5'-P-OP1	-7.08	99.33	105.70
26	1H	2387	U	OP2-P-O3'	7.07	120.76	105.20
26	14	1135	C	N1-C2-O2	7.07	123.14	118.90
1	1G	674	G	N1-C6-O6	7.07	124.14	119.90
26	14	837	C	N3-C4-N4	7.07	122.95	118.00
26	14	2430	A	C2-N3-C4	-7.07	107.06	110.60
1	13	792	A	N9-C1'-C2'	7.07	123.19	114.00
26	14	945	A	C5-N7-C8	-7.07	100.37	103.90
23	2K	21	U	C2-N1-C1'	7.07	126.18	117.70
26	14	970	C	C2-N1-C1'	-7.07	111.03	118.80
26	1H	1903	G	N1-C6-O6	-7.07	115.66	119.90
26	1H	2607	G	N3-C4-N9	7.07	130.24	126.00
26	1H	738	G	C4-C5-N7	7.06	113.62	110.80
26	14	2427	C	N3-C4-N4	7.06	122.94	118.00
26	14	2600	A	C8-N9-C4	-7.06	102.97	105.80
26	14	1678	G	C5-N7-C8	-7.06	100.77	104.30
1	1G	1139	G	N3-C4-N9	-7.06	121.76	126.00
1	13	1113	C	C6-N1-C2	-7.06	117.48	120.30
26	14	2048	G	N9-C4-C5	7.06	108.22	105.40
26	1H	593	G	C2-N3-C4	-7.06	108.37	111.90
26	1H	1372	U	C5-C4-O4	-7.05	121.67	125.90
26	1H	1799	G	N3-C4-C5	-7.05	125.07	128.60
26	1H	1965	C	N3-C4-C5	7.05	124.72	121.90
26	1H	1142(A)	A	N3-C4-C5	7.05	131.74	126.80
26	14	133	C	O5'-P-OP1	7.05	119.16	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	825	C	OP1-P-O3'	7.05	120.71	105.20
26	1H	1235	G	N1-C6-O6	7.05	124.13	119.90
26	14	837	C	C6-N1-C2	-7.05	117.48	120.30
26	1H	1297	C	N3-C4-C5	7.04	124.72	121.90
26	1H	2553	G	OP1-P-O3'	7.04	120.69	105.20
26	14	2518	A	C4-C5-N7	7.04	114.22	110.70
26	1H	198	C	C6-N1-C2	7.04	123.11	120.30
26	14	572	A	C6-N1-C2	-7.04	114.38	118.60
26	14	2713	A	C2-N3-C4	-7.04	107.08	110.60
26	1H	828	U	N1-C2-O2	7.04	127.72	122.80
26	1H	1327	C	C4-C5-C6	7.04	120.92	117.40
26	14	127	A	O5'-P-OP2	-7.04	99.37	105.70
26	1H	975	G	C6-C5-N7	7.03	134.62	130.40
26	1H	1269	A	N1-C6-N6	7.03	122.82	118.60
26	1H	1594	G	O5'-P-OP2	7.03	119.14	110.70
26	1H	1817	G	C4-C5-N7	-7.03	107.99	110.80
26	14	1607	C	N1-C2-O2	7.03	123.12	118.90
26	14	2502	G	C6-C5-N7	-7.03	126.18	130.40
1	1G	244	U	N1-C2-N3	-7.03	110.68	114.90
26	1H	914	C	C5-C4-N4	7.03	125.12	120.20
26	1H	2332	U	C6-N1-C2	7.03	125.22	121.00
26	1H	1926	U	C2-N1-C1'	-7.03	109.27	117.70
26	14	2842	G	N1-C6-O6	7.03	124.12	119.90
26	1H	1694	C	OP2-P-O3'	7.03	120.66	105.20
26	1H	1767	C	C5-C4-N4	-7.03	115.28	120.20
26	1H	2509	G	O5'-P-OP1	-7.03	99.38	105.70
26	1H	767	U	C5-C4-O4	7.02	130.11	125.90
1	13	1233	G	O5'-P-OP2	-7.02	99.38	105.70
1	13	1404	C	N3-C2-O2	7.02	126.81	121.90
26	1H	318	C	O5'-P-OP1	-7.02	99.38	105.70
26	1H	1697	G	N1-C6-O6	7.02	124.11	119.90
26	1H	842	G	N3-C4-C5	7.02	132.11	128.60
26	1H	1614	A	C4-C5-N7	7.02	114.21	110.70
26	14	737	C	N1-C2-O2	-7.02	114.69	118.90
26	1H	186	G	C6-N1-C2	-7.02	120.89	125.10
26	1H	990	A	N1-C6-N6	7.02	122.81	118.60
26	1H	1528	A	O4'-C1'-N9	7.02	113.81	108.20
1	1G	137	C	C6-N1-C2	7.02	123.11	120.30
26	14	2058	A	C8-N9-C4	-7.02	102.99	105.80
26	1H	1776	G	C4-C5-N7	7.02	113.61	110.80
26	1H	1573	G	N7-C8-N9	-7.01	109.59	113.10
26	14	2013	A	N1-C6-N6	7.01	122.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	187	G	N3-C4-N9	7.01	130.21	126.00
26	1H	691	C	C6-N1-C2	7.01	123.10	120.30
26	1H	1502	C	C6-N1-C2	-7.01	117.50	120.30
1	1G	690	G	O4'-C1'-N9	7.01	113.81	108.20
26	1H	1789	A	C5-C6-N6	7.01	129.31	123.70
1	13	690	G	N7-C8-N9	7.01	116.60	113.10
26	1H	141	A	C2-N3-C4	-7.01	107.10	110.60
26	1H	784	A	C8-N9-C4	-7.01	103.00	105.80
26	1H	2505	G	C8-N9-C4	-7.01	103.60	106.40
26	14	2689	U	N3-C4-O4	-7.01	114.50	119.40
26	1H	229	A	P-O3'-C3'	7.00	128.11	119.70
26	1H	463	G	C8-N9-C4	7.00	109.20	106.40
26	1H	127	A	C8-N9-C4	7.00	108.60	105.80
26	1H	1769	G	O5'-P-OP2	-7.00	99.40	105.70
26	14	2517	C	N1-C2-O2	-7.00	114.70	118.90
26	1H	2031	A	C5-C6-N1	7.00	121.20	117.70
26	14	1999	C	N3-C4-C5	7.00	124.70	121.90
23	2K	21	U	C4-C5-C6	-7.00	115.50	119.70
26	1H	383	U	C5-C4-O4	7.00	130.10	125.90
26	1H	259	G	C4-C5-N7	7.00	113.60	110.80
26	1H	853	G	C8-N9-C4	7.00	109.20	106.40
26	14	232	G	C8-N9-C4	7.00	109.20	106.40
26	14	1816	G	O5'-P-OP1	-7.00	99.40	105.70
26	1H	113	G	N3-C4-N9	-6.99	121.80	126.00
24	3L	76	A	C5-N7-C8	-6.99	100.40	103.90
55	M5	57	ARG	NE-CZ-NH1	-6.99	116.80	120.30
26	1H	1695	G	C6-C5-N7	-6.99	126.20	130.40
26	14	1925	C	N1-C2-O2	-6.99	114.70	118.90
26	1H	2413	G	C5-C6-O6	-6.99	124.41	128.60
26	14	2518	A	N7-C8-N9	6.99	117.30	113.80
1	13	813	U	O5'-P-OP2	-6.99	99.41	105.70
26	14	852	G	O5'-P-OP2	-6.99	99.41	105.70
26	14	1857	G	C5-C6-N1	-6.99	108.01	111.50
26	1H	2762	G	C2-N3-C4	-6.99	108.41	111.90
26	14	189	G	N9-C4-C5	-6.99	102.61	105.40
26	14	2440	C	C2-N1-C1'	-6.99	111.11	118.80
27	1J	102	G	C8-N9-C4	6.99	109.19	106.40
26	1H	1428	C	C5-C6-N1	-6.98	117.51	121.00
26	1H	2094	G	O5'-P-OP2	-6.98	99.42	105.70
26	1H	2401	U	C5-C6-N1	6.98	126.19	122.70
26	14	1786	A	C8-N9-C4	-6.98	103.01	105.80
1	1G	366	C	C6-N1-C2	6.98	123.09	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1395	C	O5'-P-OP1	-6.98	99.42	105.70
26	14	1776	G	C4-N9-C1'	6.98	135.57	126.50
26	1H	121	G	C8-N9-C1'	-6.97	117.93	127.00
26	1H	659	C	C5-C6-N1	-6.97	117.51	121.00
26	14	787	U	O5'-P-OP1	6.97	119.06	110.70
26	14	1473	G	C5-C6-N1	-6.97	108.02	111.50
26	14	2281	C	N3-C4-C5	-6.97	119.11	121.90
26	1H	187	G	C4-N9-C1'	6.97	135.56	126.50
26	1H	335	C	C2-N1-C1'	6.97	126.47	118.80
26	1H	516	C	C5-C6-N1	6.97	124.48	121.00
26	1H	629	G	O5'-P-OP2	-6.97	99.43	105.70
1	1G	12	U	N3-C2-O2	-6.97	117.32	122.20
26	14	49	A	P-O3'-C3'	6.97	128.06	119.70
26	1H	1669	A	C8-N9-C4	-6.97	103.01	105.80
26	1H	2261	C	N3-C4-C5	-6.96	119.11	121.90
26	1H	2552	U	C5-C6-N1	-6.96	119.22	122.70
27	16	81	G	C5-C6-O6	-6.96	124.42	128.60
26	1H	2420	C	O5'-P-OP1	-6.96	99.43	105.70
25	4K	18	G	N3-C4-N9	-6.96	121.82	126.00
26	1H	1833	U	C5-C6-N1	6.96	126.18	122.70
27	16	45	A	C8-N9-C4	-6.96	103.02	105.80
26	1H	74	A	N7-C8-N9	6.96	117.28	113.80
26	1H	1022	G	C4-C5-N7	-6.96	108.02	110.80
26	14	912	C	C6-N1-C2	-6.96	117.52	120.30
26	14	1379	A	C5-N7-C8	-6.96	100.42	103.90
26	14	1404	C	C5-C6-N1	-6.96	117.52	121.00
26	14	2012	G	N9-C4-C5	-6.96	102.62	105.40
1	13	1506	U	N3-C4-O4	6.96	124.27	119.40
26	14	1682	G	O5'-P-OP2	-6.96	99.44	105.70
1	13	757	U	N1-C2-O2	6.95	127.67	122.80
26	1H	857	C	N1-C2-O2	-6.95	114.73	118.90
26	14	2702	U	C5-C6-N1	6.95	126.18	122.70
26	1H	1681	G	C4-C5-N7	6.95	113.58	110.80
26	1H	475	U	N3-C4-C5	-6.95	110.43	114.60
26	1H	1573	G	N1-C6-O6	6.95	124.07	119.90
1	13	690	G	C4-N9-C1'	6.95	135.53	126.50
26	1H	832	G	C8-N9-C4	-6.95	103.62	106.40
26	1H	1489	U	C2-N1-C1'	-6.95	109.36	117.70
26	14	1237	A	N9-C4-C5	6.94	108.58	105.80
1	13	875	C	C6-N1-C2	-6.94	117.52	120.30
26	1H	772	C	N3-C2-O2	6.94	126.76	121.90
27	1J	81	G	C4-C5-N7	6.94	113.58	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	81	G	N7-C8-N9	6.94	116.57	113.10
1	1G	244	U	C5-C4-O4	-6.94	121.74	125.90
26	1H	2431	U	C5-C6-N1	-6.94	119.23	122.70
26	1H	1767	C	N3-C4-C5	6.94	124.67	121.90
26	14	784	A	O5'-P-OP2	-6.94	99.46	105.70
26	14	1989	G	N3-C2-N2	-6.94	115.05	119.90
26	1H	180	G	C8-N9-C4	6.93	109.17	106.40
26	1H	686	G	C5-C6-O6	-6.93	124.44	128.60
26	14	74	A	C5-N7-C8	-6.93	100.43	103.90
26	14	2346	A	O5'-P-OP1	-6.93	99.46	105.70
26	1H	990	A	C5-N7-C8	-6.93	100.44	103.90
22	1K	75	C	C5-C4-N4	-6.93	115.35	120.20
26	1H	1403	C	N3-C2-O2	-6.93	117.05	121.90
26	1H	1315	C	N1-C2-O2	6.92	123.05	118.90
26	1H	1327	C	N3-C4-C5	-6.92	119.13	121.90
26	14	1776	G	N3-C4-N9	6.92	130.16	126.00
26	1H	947	G	N1-C6-O6	6.92	124.05	119.90
26	1H	1751	C	C6-N1-C2	6.92	123.07	120.30
26	14	396	G	C6-C5-N7	-6.92	126.25	130.40
26	1H	251	A	O5'-P-OP1	-6.92	99.47	105.70
26	1H	2034	U	O5'-P-OP2	-6.92	99.47	105.70
26	1H	2869	G	N7-C8-N9	6.92	116.56	113.10
27	16	95	U	C2-N1-C1'	-6.92	109.40	117.70
26	1H	829	A	C2-N3-C4	-6.92	107.14	110.60
26	1H	117	G	C5-C6-N1	6.91	114.96	111.50
26	1H	384	U	O5'-P-OP2	-6.91	99.48	105.70
26	1H	821	A	C4-C5-C6	6.91	120.46	117.00
26	14	130	C	N3-C4-C5	6.91	124.67	121.90
26	14	1022	G	N9-C4-C5	6.91	108.17	105.40
26	1H	1372	U	N1-C2-O2	-6.91	117.96	122.80
26	1H	1657	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	2504	U	N1-C2-O2	6.91	127.64	122.80
1	1G	197	A	N7-C8-N9	6.91	117.25	113.80
26	14	2057	A	C5-N7-C8	-6.91	100.44	103.90
26	14	388	G	N3-C4-N9	-6.91	121.85	126.00
26	1H	2286	A	C8-N9-C4	-6.90	103.04	105.80
26	14	1257	C	N3-C4-C5	-6.90	119.14	121.90
26	14	2713	A	N7-C8-N9	6.90	117.25	113.80
26	1H	1151	G	C5-C6-O6	-6.90	124.46	128.60
1	1G	1519	A	C8-N9-C4	-6.90	103.04	105.80
26	14	666	G	O5'-P-OP1	6.90	118.98	110.70
27	1J	81	G	C6-C5-N7	-6.90	126.26	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	53	A	C6-N1-C2	-6.90	114.46	118.60
26	1H	645	C	C2-N1-C1'	6.90	126.39	118.80
26	1H	2646	C	OP2-P-O3'	6.90	120.38	105.20
27	16	29	A	C5-N7-C8	-6.89	100.45	103.90
26	14	1336	A	N1-C6-N6	-6.89	114.46	118.60
26	1H	121	G	C6-C5-N7	-6.89	126.27	130.40
26	1H	1142(A)	A	C5-N7-C8	-6.89	100.45	103.90
26	14	686	G	C4-C5-N7	6.89	113.56	110.80
26	1H	580	C	N3-C4-C5	-6.89	119.14	121.90
26	1H	2552	U	N1-C2-O2	-6.89	117.98	122.80
27	16	85	G	C4-C5-N7	6.88	113.55	110.80
26	1H	2599	G	C8-N9-C4	6.88	109.15	106.40
26	14	2338	G	N9-C4-C5	-6.88	102.65	105.40
26	1H	593	G	C6-C5-N7	-6.88	126.27	130.40
26	14	751	A	OP1-P-OP2	-6.88	109.28	119.60
26	14	1661	G	C8-N9-C4	6.88	109.15	106.40
26	1H	1559	G	N1-C6-O6	6.88	124.03	119.90
26	1H	2466	C	C6-N1-C2	6.88	123.05	120.30
26	1H	2600	A	N9-C4-C5	6.88	108.55	105.80
26	14	462	C	O5'-P-OP2	-6.88	99.51	105.70
26	14	780	G	C6-C5-N7	-6.88	126.27	130.40
26	14	808	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	199	A	C8-N9-C4	6.88	108.55	105.80
26	14	2600	A	N9-C4-C5	6.88	108.55	105.80
1	13	1299	A	C2-N3-C4	-6.88	107.16	110.60
26	14	686	G	OP1-P-OP2	6.88	129.91	119.60
1	13	1505	G	O5'-P-OP1	-6.87	99.51	105.70
26	14	766	C	N1-C2-O2	-6.87	114.78	118.90
26	1H	967	C	O5'-P-OP2	-6.87	99.52	105.70
26	1H	1570	A	C8-N9-C4	6.87	108.55	105.80
26	1H	1698	A	C4-C5-N7	6.87	114.14	110.70
26	1H	2539	C	C6-N1-C2	6.87	123.05	120.30
26	1H	832	G	N7-C8-N9	6.87	116.53	113.10
26	1H	1193	G	N1-C6-O6	6.87	124.02	119.90
27	16	29	A	N7-C8-N9	6.87	117.23	113.80
1	1G	811	C	N3-C2-O2	6.87	126.71	121.90
46	C5	23	ARG	NE-CZ-NH1	6.87	123.73	120.30
26	1H	1021	A	N7-C8-N9	6.87	117.23	113.80
26	1H	2422	A	N7-C8-N9	-6.87	110.37	113.80
26	1H	2715	C	N3-C4-C5	6.87	124.65	121.90
26	1H	1989	G	N1-C2-N3	6.86	128.02	123.90
26	14	686	G	C8-N9-C4	6.86	109.15	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	193	U	N1-C2-O2	-6.86	118.00	122.80
26	14	528	A	C2-N3-C4	-6.86	107.17	110.60
26	1H	1628	G	C5-C6-N1	-6.86	108.07	111.50
26	1H	2229	C	C6-N1-C2	6.86	123.04	120.30
26	1H	1899	G	C5-C6-N1	-6.86	108.07	111.50
26	14	187	G	C8-N9-C4	6.86	109.14	106.40
26	14	391	G	C4-N9-C1'	6.86	135.41	126.50
1	1G	1519	A	C5-C6-N6	6.85	129.18	123.70
26	14	989	G	O5'-P-OP1	-6.85	99.53	105.70
1	13	46	G	N1-C6-O6	6.85	124.01	119.90
1	13	280	C	C6-N1-C2	6.85	123.04	120.30
26	14	685	A	N1-C2-N3	-6.85	125.88	129.30
26	14	837	C	C5-C4-N4	-6.85	115.41	120.20
26	1H	528	A	O4'-C1'-N9	-6.85	102.72	108.20
26	1H	21	A	N1-C6-N6	-6.85	114.49	118.60
26	1H	2224	G	C5-C6-N1	-6.85	108.08	111.50
26	1H	743	G	N3-C4-C5	-6.84	125.18	128.60
27	1J	55	U	O5'-P-OP1	-6.84	99.54	105.70
26	1H	2331	G	C5-C6-O6	-6.84	124.49	128.60
26	1H	1755	A	C8-N9-C4	-6.84	103.06	105.80
26	14	2425	A	OP2-P-O3'	6.84	120.25	105.20
26	1H	2331	G	N9-C4-C5	-6.84	102.66	105.40
26	14	1318	C	O5'-P-OP2	6.84	118.91	110.70
26	14	1784	A	OP1-P-O3'	6.84	120.25	105.20
1	13	1518	A	C5-C6-N6	6.84	129.17	123.70
26	1H	691	C	C5-C4-N4	-6.84	115.42	120.20
26	1H	1607	C	N3-C2-O2	-6.84	117.11	121.90
24	3K	20	U	C4-C5-C6	-6.83	115.60	119.70
26	14	252	G	N1-C6-O6	-6.83	115.80	119.90
26	1H	1678	G	C4-C5-N7	6.83	113.53	110.80
1	13	767	A	C2-N3-C4	-6.83	107.19	110.60
26	1H	120	U	N3-C2-O2	-6.83	117.42	122.20
56	2L	21	U	N3-C2-O2	-6.83	117.42	122.20
1	13	1227	A	C8-N9-C4	-6.83	103.07	105.80
26	1H	2374	C	C5-C6-N1	-6.83	117.58	121.00
26	14	2056	G	N3-C2-N2	-6.83	115.12	119.90
26	1H	1463	C	C6-N1-C2	-6.83	117.57	120.30
26	14	1289	C	O5'-P-OP1	-6.83	99.56	105.70
26	14	2723	C	C6-N1-C2	-6.83	117.57	120.30
26	1H	2505	G	C5-C6-N1	-6.83	108.09	111.50
26	1H	2506	U	N3-C2-O2	-6.83	117.42	122.20
26	14	1786	A	C4-C5-N7	6.83	114.11	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	815	C	N3-C4-C5	6.82	124.63	121.90
26	1H	1695	G	C4-C5-N7	6.82	113.53	110.80
1	13	311	C	C5-C6-N1	6.82	124.41	121.00
26	1H	1764	G	N1-C6-O6	-6.82	115.81	119.90
26	14	1633	G	C8-N9-C4	-6.82	103.67	106.40
26	14	2502	G	O5'-P-OP1	-6.82	99.56	105.70
1	13	541	G	C5-C6-O6	-6.82	124.51	128.60
26	1H	640	C	N1-C2-O2	-6.82	114.81	118.90
26	1H	2068	U	N3-C2-O2	6.82	126.97	122.20
26	1H	516	C	N1-C2-O2	6.82	122.99	118.90
26	1H	2065	C	C6-N1-C2	-6.82	117.57	120.30
26	1H	2367	G	C6-C5-N7	-6.82	126.31	130.40
26	1H	600	G	N1-C6-O6	6.81	123.99	119.90
1	1G	397	A	C8-N9-C4	-6.81	103.07	105.80
26	1H	827	U	O5'-P-OP2	-6.81	99.57	105.70
26	1H	2602	A	O4'-C1'-N9	6.81	113.65	108.20
24	3L	20	U	N3-C2-O2	-6.81	117.43	122.20
26	14	1966	A	N1-C6-N6	-6.81	114.51	118.60
26	1H	655	A	C5-N7-C8	-6.81	100.50	103.90
26	1H	2782	G	C8-N9-C1'	-6.81	118.15	127.00
26	14	1616	A	O4'-C1'-N9	6.81	113.65	108.20
26	1H	2291	U	N3-C4-C5	-6.81	110.52	114.60
26	1H	2518	A	N7-C8-N9	6.81	117.20	113.80
1	13	1177	G	O5'-P-OP1	6.81	118.87	110.70
26	14	816	C	N3-C4-C5	6.81	124.62	121.90
26	1H	1698	A	C4-C5-C6	6.80	120.40	117.00
1	1G	950	U	O5'-P-OP2	6.80	118.86	110.70
26	14	2431	U	C5-C6-N1	-6.80	119.30	122.70
26	14	1772	G	C5-C6-O6	-6.80	124.52	128.60
27	16	47	C	C6-N1-C2	6.80	123.02	120.30
1	13	792	A	C5-C6-N6	-6.80	118.26	123.70
26	14	748	G	C4-C5-N7	-6.80	108.08	110.80
26	1H	2280	G	OP1-P-OP2	-6.79	109.41	119.60
26	1H	1776	G	C5-N7-C8	-6.79	100.90	104.30
27	16	98	G	C6-C5-N7	-6.79	126.32	130.40
1	13	758	G	C4-C5-N7	6.79	113.52	110.80
26	1H	16	G	C6-C5-N7	-6.79	126.33	130.40
26	1H	1338	G	N1-C6-O6	6.79	123.97	119.90
26	14	2518	A	C5-C6-N6	-6.79	118.27	123.70
26	1H	1570	A	C2-N3-C4	-6.79	107.20	110.60
26	1H	863	A	O5'-P-OP2	-6.79	99.59	105.70
26	1H	2845	G	N1-C6-O6	6.79	123.97	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2328	A	C8-N9-C4	6.78	108.51	105.80
26	14	2338	G	C5-C6-O6	-6.78	124.53	128.60
26	1H	752	A	P-O3'-C3'	6.78	127.84	119.70
1	1G	1286	A	C8-N9-C4	-6.78	103.09	105.80
26	1H	728	G	C5-C6-N1	-6.78	108.11	111.50
26	1H	2350	C	C6-N1-C2	-6.78	117.59	120.30
27	16	98	G	C4-C5-N7	6.78	113.51	110.80
26	1H	1800	C	C5-C4-N4	6.78	124.94	120.20
26	14	676	A	C5-C6-N6	-6.78	118.28	123.70
26	1H	2451	A	N1-C6-N6	-6.78	114.53	118.60
26	1H	2829	C	C6-N1-C2	6.78	123.01	120.30
26	14	1604	C	N1-C2-O2	-6.77	114.84	118.90
26	1H	2246	G	N3-C4-N9	6.77	130.06	126.00
1	1G	251	G	C5-C6-O6	-6.77	124.54	128.60
26	14	1237	A	C5-C6-N6	6.77	129.12	123.70
26	1H	1785	A	C2-N3-C4	6.77	113.98	110.60
26	1H	2467	C	C6-N1-C2	6.77	123.01	120.30
26	14	391	G	C5-C6-N1	-6.77	108.12	111.50
26	14	982	C	N3-C4-C5	-6.77	119.19	121.90
26	1H	265	A	C2-N3-C4	-6.76	107.22	110.60
26	1H	1975	G	C6-C5-N7	-6.76	126.34	130.40
26	14	148	C	C6-N1-C2	6.76	123.01	120.30
26	14	2573	C	C5-C6-N1	6.76	124.38	121.00
26	1H	931	G	N1-C6-O6	-6.76	115.84	119.90
26	1H	2741	A	C8-N9-C4	6.76	108.50	105.80
26	14	2542	A	O5'-P-OP2	-6.76	99.61	105.70
26	1H	2286	A	C6-C5-N7	-6.76	127.57	132.30
26	14	776	G	C8-N9-C4	-6.76	103.69	106.40
26	14	2573	C	C6-N1-C2	-6.76	117.60	120.30
26	1H	1386	C	C6-N1-C2	-6.76	117.60	120.30
1	13	789	U	C5-C4-O4	6.75	129.95	125.90
26	14	2445	G	N3-C4-C5	-6.75	125.22	128.60
26	1H	383	U	C2-N1-C1'	-6.75	109.59	117.70
26	14	579	G	C5-C6-O6	-6.75	124.55	128.60
26	1H	122	G	C2-N3-C4	-6.75	108.52	111.90
26	1H	823	G	C8-N9-C1'	-6.75	118.22	127.00
26	1H	2443	C	N3-C4-N4	6.75	122.73	118.00
1	1G	47	C	C2-N1-C1'	-6.75	111.37	118.80
1	1G	785	G	N1-C6-O6	6.75	123.95	119.90
26	14	2031	A	C8-N9-C4	-6.75	103.10	105.80
26	1H	2518	A	O5'-P-OP1	-6.75	99.62	105.70
1	13	1065	U	P-O3'-C3'	6.75	127.80	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1344	G	C5-C6-N1	-6.75	108.13	111.50
26	14	2762	G	C4-C5-N7	6.75	113.50	110.80
26	1H	2830	G	N7-C8-N9	6.75	116.47	113.10
26	14	1616	A	N7-C8-N9	6.75	117.17	113.80
26	1H	531	C	N3-C4-C5	-6.75	119.20	121.90
26	1H	2607	G	C5-C6-N1	-6.74	108.13	111.50
26	14	298	G	C5-C6-O6	-6.74	124.55	128.60
1	13	1505	G	OP1-P-OP2	-6.74	109.49	119.60
26	1H	1598	C	OP1-P-O3'	6.74	120.03	105.20
26	1H	472	A	O5'-P-OP2	-6.74	99.63	105.70
26	1H	627	A	N7-C8-N9	-6.74	110.43	113.80
26	1H	1625	C	C6-N1-C2	6.74	123.00	120.30
26	1H	2205	C	C6-N1-C2	6.74	123.00	120.30
1	1G	352	C	C6-N1-C2	-6.74	117.60	120.30
26	1H	446	G	N9-C4-C5	-6.74	102.70	105.40
26	14	2620	C	N1-C2-O2	-6.74	114.86	118.90
26	14	2624	G	C5-C6-O6	-6.74	124.56	128.60
1	1G	1486	G	C8-N9-C4	6.74	109.09	106.40
26	1H	533	G	C5-C6-O6	6.73	132.64	128.60
26	1H	1614	A	N1-C6-N6	6.73	122.64	118.60
1	1G	1286	A	N7-C8-N9	6.73	117.17	113.80
1	1G	1305	G	N3-C4-N9	-6.73	121.96	126.00
26	14	921	G	C8-N9-C4	-6.73	103.71	106.40
26	14	2341	G	C5-C6-N1	-6.73	108.13	111.50
26	1H	959	A	C8-N9-C4	6.73	108.49	105.80
26	1H	2880	C	N3-C4-C5	-6.73	119.21	121.90
1	13	768	A	N1-C6-N6	-6.72	114.56	118.60
26	1H	572	A	N1-C2-N3	6.72	132.66	129.30
26	1H	2646	C	O5'-P-OP2	-6.72	99.65	105.70
26	14	2005	A	O5'-P-OP2	-6.72	99.65	105.70
26	1H	2569	G	C8-N9-C1'	-6.72	118.26	127.00
26	1H	577	G	N3-C4-N9	6.72	130.03	126.00
26	1H	2380	C	C5-C6-N1	-6.72	117.64	121.00
26	14	1812	A	C8-N9-C4	-6.72	103.11	105.80
26	1H	2819	G	C8-N9-C4	6.72	109.09	106.40
26	1H	2272	U	O5'-P-OP1	6.71	118.76	110.70
26	1H	443	A	OP1-P-O3'	6.71	119.97	105.20
26	1H	933	A	N9-C4-C5	6.71	108.48	105.80
26	1H	2757	A	O5'-P-OP2	-6.71	99.66	105.70
26	1H	1210	A	N7-C8-N9	6.71	117.16	113.80
26	1H	2583	G	N9-C4-C5	6.71	108.08	105.40
26	1H	62	C	C6-N1-C2	6.71	122.98	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2068	U	C6-N1-C2	6.71	125.02	121.00
26	14	1903	G	O5'-P-OP2	-6.71	99.66	105.70
1	13	1488	G	N1-C6-O6	6.70	123.92	119.90
26	1H	195	A	O5'-P-OP1	6.70	118.74	110.70
26	14	2518	A	C4-C5-C6	6.70	120.35	117.00
26	14	945	A	C4-C5-N7	6.70	114.05	110.70
26	14	2032	G	C2-N3-C4	-6.70	108.55	111.90
1	13	584	G	N3-C4-C5	-6.70	125.25	128.60
26	1H	395	U	N1-C2-O2	6.70	127.49	122.80
26	1H	1199	U	C5-C6-N1	-6.70	119.35	122.70
26	14	2511	U	N3-C2-O2	-6.70	117.51	122.20
1	13	227	G	C8-N9-C4	6.70	109.08	106.40
1	13	963	G	N1-C2-N2	-6.70	110.17	116.20
26	1H	1771	C	N3-C4-N4	6.70	122.69	118.00
26	1H	1800	C	C6-N1-C1'	6.70	128.84	120.80
26	1H	638	G	C6-C5-N7	-6.70	126.38	130.40
26	1H	2370	G	O5'-P-OP1	-6.70	99.67	105.70
26	1H	1192	G	O5'-P-OP2	-6.70	99.67	105.70
26	1H	1617	C	N1-C2-O2	-6.70	114.88	118.90
26	1H	2034	U	N1-C2-O2	-6.70	118.11	122.80
26	14	988	A	C5-C6-N6	-6.70	118.34	123.70
26	14	1616	A	C6-C5-N7	-6.70	127.61	132.30
26	1H	1606	G	C5-C6-N1	6.69	114.85	111.50
26	1H	1681	G	C5-C6-O6	-6.69	124.58	128.60
26	1H	2275	C	C6-N1-C1'	6.69	128.83	120.80
1	13	962	C	C5-C6-N1	-6.69	117.66	121.00
1	13	1335	C	C6-N1-C2	6.69	122.98	120.30
26	1H	201	C	C2-N3-C4	-6.69	116.56	119.90
26	14	1544	C	N1-C2-O2	6.69	122.91	118.90
26	14	2442	C	C5-C6-N1	-6.69	117.66	121.00
1	13	721	G	N3-C4-N9	6.69	130.01	126.00
26	14	1332	G	N9-C4-C5	-6.68	102.73	105.40
26	1H	739	G	C8-N9-C4	6.68	109.07	106.40
26	1H	772	C	N1-C2-O2	-6.68	114.89	118.90
27	16	44	G	C4-N9-C1'	-6.68	117.81	126.50
26	14	1601	G	C6-C5-N7	-6.68	126.39	130.40
26	1H	737	C	C2-N1-C1'	-6.68	111.45	118.80
26	14	1758	G	O5'-P-OP1	-6.68	99.69	105.70
26	1H	2085	C	O5'-P-OP2	-6.68	99.69	105.70
26	1H	2360	A	N1-C6-N6	6.68	122.61	118.60
26	14	1786	A	C5-C6-N1	-6.68	114.36	117.70
26	1H	569	U	C5-C6-N1	-6.68	119.36	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	917	A	N1-C2-N3	6.68	132.64	129.30
26	1H	446	G	C5-C6-O6	-6.67	124.59	128.60
26	14	2595	G	O5'-P-OP1	-6.67	99.69	105.70
26	14	2642	G	C8-N9-C4	6.67	109.07	106.40
26	1H	1789	A	O5'-P-OP1	-6.67	99.69	105.70
26	1H	1261	C	N3-C4-C5	6.67	124.57	121.90
26	14	1660	C	N1-C2-O2	6.67	122.90	118.90
26	14	1698	A	N7-C8-N9	6.67	117.14	113.80
26	1H	2582	G	N1-C6-O6	-6.67	115.90	119.90
26	14	2065	C	C6-N1-C2	-6.67	117.63	120.30
26	1H	480	A	N1-C6-N6	6.67	122.60	118.60
26	1H	1338	G	C5-C6-O6	-6.67	124.60	128.60
26	14	1237	A	C4-C5-N7	-6.67	107.37	110.70
26	1H	456	C	C2-N3-C4	-6.66	116.57	119.90
26	1H	2575	C	O5'-P-OP2	-6.66	99.70	105.70
26	1H	1940	U	N1-C2-N3	6.66	118.90	114.90
26	14	939	G	N1-C6-O6	6.66	123.90	119.90
26	1H	1912	A	C8-N9-C4	6.66	108.46	105.80
26	1H	2247	A	C4-C5-C6	6.66	120.33	117.00
1	13	880	C	N3-C2-O2	6.66	126.56	121.90
26	1H	1752	C	C6-N1-C2	6.66	122.96	120.30
26	14	1379	A	C8-N9-C4	-6.66	103.14	105.80
26	1H	193	U	N1-C2-N3	6.66	118.89	114.90
26	1H	259	G	N3-C4-C5	6.66	131.93	128.60
26	1H	776	G	N3-C2-N2	-6.66	115.24	119.90
26	1H	1022	G	N9-C4-C5	6.66	108.06	105.40
26	1H	2592	G	C8-N9-C4	-6.66	103.74	106.40
27	16	61	G	C8-N9-C4	-6.66	103.74	106.40
26	14	1328	G	N1-C6-O6	6.66	123.89	119.90
1	13	814	A	C2-N3-C4	-6.65	107.27	110.60
1	13	1266	G	C6-C5-N7	6.65	134.39	130.40
26	1H	1525	G	N3-C4-C5	-6.65	125.27	128.60
26	1H	1773	A	N1-C6-N6	6.65	122.59	118.60
26	1H	2465	C	N1-C2-O2	-6.65	114.91	118.90
26	1H	2501	C	C6-N1-C2	6.65	122.96	120.30
29	11	218	ARG	NE-CZ-NH2	-6.65	116.97	120.30
26	1H	1332	G	N3-C2-N2	-6.65	115.25	119.90
26	1H	1192	G	N1-C6-O6	6.65	123.89	119.90
26	1H	1984	G	C5-N7-C8	6.65	107.62	104.30
24	3L	71	G	C6-C5-N7	6.65	134.39	130.40
26	14	2441	C	O5'-P-OP1	-6.65	99.72	105.70
26	1H	145	G	C6-C5-N7	-6.65	126.41	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	908	C	C6-N1-C2	6.65	122.96	120.30
26	1H	49	A	C5-N7-C8	6.64	107.22	103.90
26	14	1379	A	N7-C8-N9	6.64	117.12	113.80
26	1H	237	C	N1-C2-O2	-6.64	114.92	118.90
26	1H	917	A	N9-C4-C5	-6.64	103.14	105.80
26	14	1781	C	C2-N3-C4	-6.64	116.58	119.90
26	14	2440	C	C6-N1-C1'	6.64	128.76	120.80
1	1G	1260	C	C6-N1-C2	-6.64	117.64	120.30
26	1H	371	A	N1-C6-N6	6.63	122.58	118.60
26	1H	860	U	C4-C5-C6	6.63	123.68	119.70
26	1H	1323	U	OP1-P-OP2	-6.63	109.65	119.60
26	14	1409	C	O5'-P-OP2	-6.63	99.73	105.70
26	14	1429	G	N3-C4-C5	-6.63	125.28	128.60
26	1H	2297	C	N3-C4-N4	-6.63	113.36	118.00
26	14	2294	C	C6-N1-C2	-6.63	117.65	120.30
26	1H	1334	G	C4-N9-C1'	6.63	135.12	126.50
26	14	1765	C	C2-N1-C1'	6.63	126.09	118.80
26	1H	785	G	C4-C5-N7	-6.63	108.15	110.80
26	1H	1269	A	C6-C5-N7	-6.63	127.66	132.30
1	1G	944	G	N3-C4-C5	-6.63	125.28	128.60
26	1H	395	U	C2-N1-C1'	6.63	125.65	117.70
26	1H	793	A	C6-C5-N7	-6.63	127.66	132.30
26	1H	1769	G	C5-C6-N1	-6.63	108.19	111.50
26	1H	2449	U	N3-C4-O4	6.63	124.04	119.40
26	1H	1906	G	O5'-P-OP2	-6.62	99.74	105.70
26	14	1326	U	N1-C2-O2	6.62	127.44	122.80
26	1H	2062	A	C8-N9-C4	6.62	108.45	105.80
26	14	779	U	N3-C4-C5	6.62	118.57	114.60
26	14	2054	A	C8-N9-C4	-6.62	103.15	105.80
26	1H	256	A	N9-C4-C5	-6.62	103.15	105.80
1	13	962	C	C6-N1-C2	6.62	122.95	120.30
26	14	2581	G	C4-N9-C1'	6.62	135.10	126.50
1	13	792	A	C3'-C2'-C1'	-6.62	96.21	101.50
26	1H	39	C	C2-N1-C1'	-6.62	111.52	118.80
26	1H	661	C	N3-C4-N4	6.62	122.63	118.00
26	1H	1760	A	N1-C6-N6	6.62	122.57	118.60
26	14	138	G	N7-C8-N9	6.62	116.41	113.10
26	14	1992	G	C8-N9-C4	6.62	109.05	106.40
26	14	1379	A	C4-C5-N7	6.61	114.01	110.70
26	1H	2365	G	C5-C6-O6	-6.61	124.63	128.60
26	14	1703	G	C4-C5-N7	6.61	113.44	110.80
26	14	2358	G	C4-C5-N7	-6.61	108.16	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	791	C	N3-C4-C5	6.61	124.54	121.90
24	3K	16	U	C4-C5-C6	-6.61	115.73	119.70
26	1H	459	U	C2-N1-C1'	6.61	125.62	117.70
26	1H	475	U	N3-C4-O4	6.61	124.03	119.40
26	1H	944	G	N7-C8-N9	6.61	116.40	113.10
26	1H	2523	G	C6-C5-N7	-6.61	126.44	130.40
26	1H	2346	A	N7-C8-N9	6.60	117.10	113.80
26	1H	2584	U	N1-C2-O2	6.60	127.42	122.80
1	1G	276	G	C8-N9-C4	6.60	109.04	106.40
26	1H	809	G	C5-C6-O6	-6.60	124.64	128.60
26	14	260	G	N1-C6-O6	-6.60	115.94	119.90
26	1H	2280	G	C2-N3-C4	6.60	115.20	111.90
26	1H	2516	G	O5'-P-OP1	6.60	118.62	110.70
1	1G	697	U	C6-N1-C2	6.60	124.96	121.00
22	1K	76	C	C6-N1-C2	-6.60	117.66	120.30
1	1G	1356	G	N7-C8-N9	6.60	116.40	113.10
1	13	1455	G	C8-N9-C4	6.59	109.04	106.40
23	2K	77	A	C5-C6-N6	-6.59	118.42	123.70
26	14	189	G	C6-C5-N7	-6.59	126.44	130.40
26	1H	632	A	O5'-P-OP2	6.59	118.61	110.70
26	1H	186	G	C5-C6-N1	6.59	114.80	111.50
26	1H	245	G	C5-C6-O6	-6.59	124.64	128.60
1	1G	1301	U	N3-C2-O2	-6.59	117.59	122.20
26	14	2446	G	O5'-P-OP2	-6.59	99.77	105.70
1	13	690	G	C2-N3-C4	-6.59	108.61	111.90
26	1H	961	C	N1-C2-O2	6.59	122.85	118.90
26	1H	2007	C	C4-C5-C6	6.59	120.69	117.40
26	1H	2742	C	C6-N1-C2	6.59	122.94	120.30
26	14	741	G	C5-C6-O6	-6.59	124.65	128.60
26	1H	1758	G	N1-C6-O6	6.59	123.85	119.90
26	1H	1300	U	N3-C4-C5	-6.59	110.65	114.60
26	1H	1480	G	N7-C8-N9	6.59	116.39	113.10
26	1H	2453	A	N1-C6-N6	-6.59	114.65	118.60
26	1H	467	G	O5'-P-OP2	-6.58	99.77	105.70
1	13	651	C	N1-C2-O2	6.58	122.85	118.90
26	1H	203	C	O5'-P-OP1	-6.58	99.78	105.70
26	1H	736	C	N3-C2-O2	6.58	126.51	121.90
26	1H	974	G	C5-C6-O6	-6.58	124.65	128.60
26	14	929	G	C6-C5-N7	-6.58	126.45	130.40
1	13	863	U	C5-C4-O4	6.58	129.85	125.90
1	13	1282	C	O5'-P-OP1	-6.58	99.78	105.70
26	1H	2463	C	N3-C2-O2	6.58	126.51	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	990	C	C6-N1-C2	-6.58	117.67	120.30
55	Q8	28	GLY	N-CA-C	6.58	129.55	113.10
26	1H	1825	A	O5'-P-OP1	6.58	118.59	110.70
19	AA	82	GLY	N-CA-C	6.58	129.54	113.10
26	14	2392	A	C2-N3-C4	-6.58	107.31	110.60
1	13	758	G	C5-C6-O6	-6.58	124.65	128.60
26	1H	811	U	N1-C2-O2	-6.58	118.20	122.80
26	1H	1024	G	O5'-P-OP1	-6.58	99.78	105.70
26	14	1558	A	P-O3'-C3'	6.58	127.59	119.70
26	1H	645	C	C6-N1-C2	-6.57	117.67	120.30
26	1H	2819	G	N1-C6-O6	6.57	123.84	119.90
1	1G	197	A	P-O3'-C3'	6.57	127.59	119.70
26	14	582	G	C4-C5-N7	6.57	113.43	110.80
26	14	1422	G	C5-C6-N1	-6.57	108.21	111.50
26	1H	107	C	N3-C2-O2	6.57	126.50	121.90
56	2L	55	U	C4-C5-C6	6.57	123.64	119.70
26	14	685	A	C2-N3-C4	6.57	113.89	110.60
1	13	769	G	OP1-P-OP2	-6.57	109.75	119.60
26	1H	104	U	N1-C2-O2	-6.57	118.20	122.80
26	1H	127	A	C5-C6-N6	-6.57	118.44	123.70
26	14	2006	C	C4-C5-C6	-6.57	114.12	117.40
26	14	2092	U	C5-C4-O4	6.57	129.84	125.90
26	1H	1799	G	N3-C2-N2	6.56	124.50	119.90
26	14	601	C	N1-C2-N3	6.56	123.79	119.20
26	14	1788	C	O5'-P-OP1	-6.56	99.79	105.70
26	1H	256	A	C6-N1-C2	6.56	122.53	118.60
26	1H	874	G	O5'-P-OP2	-6.56	99.80	105.70
26	14	204	A	C2-N3-C4	-6.56	107.32	110.60
26	14	410	G	C5-C6-O6	-6.56	124.66	128.60
1	13	336	C	C6-N1-C2	6.56	122.92	120.30
26	1H	2712	U	N3-C4-O4	6.56	123.99	119.40
26	14	96	G	C6-C5-N7	-6.56	126.47	130.40
26	1H	130	C	C5-C4-N4	-6.56	115.61	120.20
26	1H	1368	G	C8-N9-C4	-6.56	103.78	106.40
26	14	21	A	N1-C6-N6	-6.56	114.67	118.60
26	14	729	G	C8-N9-C4	-6.56	103.78	106.40
26	14	2439	A	P-O3'-C3'	6.56	127.57	119.70
26	14	2576	G	C2-N3-C4	6.55	115.18	111.90
26	1H	383	U	C6-N1-C1'	6.55	130.37	121.20
26	1H	194	G	N7-C8-N9	-6.55	109.82	113.10
26	1H	944	G	C4-N9-C1'	6.55	135.02	126.50
26	1H	1344	G	C4-C5-N7	6.55	113.42	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1819	A	C5-C6-N1	6.55	120.98	117.70
26	1H	2318	G	O4'-C1'-N9	6.55	113.44	108.20
26	14	2078	C	C6-N1-C2	-6.55	117.68	120.30
26	1H	2346	A	C4-C5-C6	6.55	120.27	117.00
26	14	702	G	N3-C4-C5	-6.55	125.33	128.60
26	14	953	A	N1-C2-N3	-6.55	126.03	129.30
26	14	1616	A	C4-C5-N7	6.55	113.97	110.70
26	14	1938	A	C8-N9-C4	6.55	108.42	105.80
26	14	2259	G	OP1-P-OP2	-6.55	109.78	119.60
26	1H	593	G	N1-C2-N2	-6.55	110.31	116.20
26	1H	812	C	N1-C2-O2	-6.55	114.97	118.90
26	1H	1835	G	C4-C5-N7	6.55	113.42	110.80
26	1H	2525	G	N1-C6-O6	6.54	123.83	119.90
26	14	410	G	N1-C6-O6	6.54	123.83	119.90
26	14	1396	U	C2-N1-C1'	6.54	125.55	117.70
26	1H	2714	G	OP2-P-O3'	6.54	119.59	105.20
1	1G	866	C	N3-C2-O2	-6.54	117.32	121.90
26	14	2437	U	C5-C4-O4	6.54	129.83	125.90
26	1H	1660	C	N3-C4-N4	-6.54	113.42	118.00
1	1G	576	G	C4-N9-C1'	6.54	135.00	126.50
26	14	1294	U	N1-C2-O2	-6.54	118.22	122.80
26	1H	477	A	O5'-P-OP2	-6.54	99.81	105.70
26	1H	954	G	O5'-P-OP1	-6.54	99.81	105.70
26	1H	121	G	N3-C4-N9	6.54	129.92	126.00
26	1H	1187	G	C6-C5-N7	-6.54	126.48	130.40
26	1H	2639	A	N1-C6-N6	6.54	122.52	118.60
1	13	1502	A	N1-C6-N6	6.54	122.52	118.60
1	13	1390	U	C6-N1-C2	-6.53	117.08	121.00
26	1H	621	A	N3-C4-C5	6.53	131.37	126.80
1	1G	421	U	P-O3'-C3'	6.53	127.54	119.70
26	14	330	A	C6-C5-N7	-6.53	127.73	132.30
26	1H	790	C	N1-C2-O2	-6.53	114.98	118.90
26	1H	2283	C	N1-C2-O2	-6.53	114.98	118.90
26	14	1694	C	C6-N1-C2	6.53	122.91	120.30
26	14	1762	A	N1-C2-N3	6.53	132.56	129.30
1	13	1503	A	C8-N9-C4	-6.53	103.19	105.80
26	1H	786	C	C5-C6-N1	-6.53	117.74	121.00
26	1H	2512	C	C6-N1-C2	6.53	122.91	120.30
1	1G	197	A	C8-N9-C4	-6.53	103.19	105.80
1	13	690	G	C4-C5-N7	6.53	113.41	110.80
26	14	1332	G	C5-C6-O6	-6.53	124.69	128.60
1	13	300	A	O5'-P-OP1	-6.52	99.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	750	A	N7-C8-N9	6.52	117.06	113.80
26	1H	529	A	N1-C6-N6	6.52	122.51	118.60
26	1H	1673	U	OP2-P-O3'	6.52	119.55	105.20
26	14	2612	C	N3-C2-O2	-6.52	117.34	121.90
26	1H	931	G	N3-C4-C5	-6.52	125.34	128.60
26	14	2239	G	N3-C4-N9	6.52	129.91	126.00
1	13	21	G	N3-C4-C5	-6.52	125.34	128.60
26	1H	2231	C	N1-C2-O2	-6.52	114.99	118.90
27	16	29	A	C4-C5-N7	6.52	113.96	110.70
26	14	128	C	O5'-P-OP2	-6.52	99.83	105.70
26	14	613	U	N3-C2-O2	-6.52	117.64	122.20
24	3L	72	C	C6-N1-C2	-6.51	117.69	120.30
26	14	1914	C	N1-C2-O2	6.51	122.81	118.90
24	3L	16	U	C4-C5-C6	-6.51	115.79	119.70
1	13	690	G	C5-N7-C8	-6.51	101.05	104.30
24	3L	76	A	O4'-C1'-N9	6.51	113.41	108.20
26	1H	1768	U	C2-N1-C1'	-6.51	109.89	117.70
26	1H	1343	G	N3-C4-C5	-6.51	125.35	128.60
26	1H	2199	A	OP2-P-O3'	6.51	119.52	105.20
26	14	391	G	C6-C5-N7	-6.51	126.50	130.40
26	14	1792	G	N1-C6-O6	6.51	123.80	119.90
26	14	2272	U	O5'-P-OP1	6.51	118.51	110.70
1	1G	1203	C	C6-N1-C2	6.50	122.90	120.30
1	13	1222	G	C5-C6-N1	-6.50	108.25	111.50
26	14	2581	G	N3-C4-C5	-6.50	125.35	128.60
1	13	1367	C	C6-N1-C2	-6.50	117.70	120.30
1	1G	886	G	C5-C6-N1	-6.50	108.25	111.50
26	14	1980	G	C8-N9-C4	-6.50	103.80	106.40
26	14	2275	C	C4-C5-C6	-6.50	114.15	117.40
26	1H	808	G	N3-C4-C5	-6.50	125.35	128.60
26	1H	1236	G	C5-C6-N1	-6.50	108.25	111.50
23	2K	4	G	C4-C5-N7	-6.50	108.20	110.80
26	1H	1300	U	N1-C2-O2	-6.50	118.25	122.80
26	1H	1614	A	N3-C4-C5	6.50	131.35	126.80
26	1H	2056	G	N1-C6-O6	6.50	123.80	119.90
26	1H	2358	G	N3-C4-N9	-6.50	122.10	126.00
26	14	563	G	C5-N7-C8	-6.50	101.05	104.30
26	14	1698	A	C4-C5-N7	6.50	113.95	110.70
26	1H	1344	G	C2-N3-C4	-6.49	108.65	111.90
26	1H	1671	U	N3-C4-O4	6.49	123.94	119.40
27	16	79	C	N1-C2-O2	6.49	122.80	118.90
26	14	1790	C	N3-C4-N4	-6.49	113.45	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1379	A	C4-C5-N7	6.49	113.95	110.70
26	14	805	G	OP1-P-O3'	6.49	119.48	105.20
26	1H	1026	U	C2-N1-C1'	-6.49	109.92	117.70
26	1H	1957	C	OP1-P-OP2	-6.49	109.87	119.60
1	1G	792	A	C8-N9-C4	6.49	108.39	105.80
1	1G	980	C	N3-C2-O2	-6.49	117.36	121.90
26	14	530	G	N9-C4-C5	-6.49	102.81	105.40
26	14	1342	A	C4-C5-N7	6.49	113.94	110.70
26	14	1731	G	O4'-C1'-N9	6.48	113.39	108.20
1	13	738	C	C2-N1-C1'	6.48	125.93	118.80
26	1H	853	G	O5'-P-OP2	-6.48	99.87	105.70
26	14	1359	A	N9-C4-C5	-6.48	103.21	105.80
26	14	2444	G	C5-C6-O6	6.48	132.49	128.60
26	14	2287	A	C5-C6-N1	-6.48	114.46	117.70
56	2L	21	U	C4-C5-C6	-6.48	115.81	119.70
1	13	893	C	N1-C2-O2	6.48	122.79	118.90
26	1H	676	A	C5-C6-N1	-6.48	114.46	117.70
26	1H	1376	C	C5-C6-N1	6.48	124.24	121.00
26	1H	2499	C	N1-C2-O2	-6.48	115.02	118.90
26	14	2291	U	C5-C4-O4	6.48	129.78	125.90
4	3E	32	ALA	N-CA-C	-6.47	93.52	111.00
26	1H	1158	C	C5-C6-N1	-6.47	117.76	121.00
1	13	689	C	C6-N1-C2	-6.47	117.71	120.30
1	13	1313	U	C5-C6-N1	6.47	125.94	122.70
26	1H	504	U	C2-N1-C1'	6.47	125.47	117.70
26	1H	787	U	OP1-P-O3'	6.47	119.44	105.20
26	1H	1626	G	N3-C4-N9	-6.47	122.12	126.00
24	3L	20	U	C4-C5-C6	-6.47	115.82	119.70
23	2K	40	C	C6-N1-C2	-6.47	117.71	120.30
26	1H	1313	U	C2-N1-C1'	6.47	125.46	117.70
26	1H	2209	C	C6-N1-C2	6.47	122.89	120.30
26	14	945	A	C5-C6-N1	-6.47	114.47	117.70
26	1H	481	G	O5'-P-OP2	-6.47	99.88	105.70
26	14	918	A	C8-N9-C4	-6.47	103.21	105.80
26	14	2429	G	O5'-P-OP2	-6.47	99.88	105.70
26	1H	528	A	N3-C4-N9	-6.46	122.23	127.40
26	14	2581	G	C8-N9-C4	-6.46	103.81	106.40
26	1H	1899	G	C5-N7-C8	-6.46	101.07	104.30
26	1H	914	C	N3-C4-C5	-6.46	119.31	121.90
26	14	530	G	N7-C8-N9	6.46	116.33	113.10
26	14	866	A	N9-C4-C5	-6.46	103.22	105.80
26	1H	1989	G	C4-C5-C6	6.46	122.68	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	212	G	N7-C8-N9	-6.46	109.87	113.10
26	14	2715	C	C6-N1-C2	6.46	122.88	120.30
26	1H	1924	C	N1-C2-O2	-6.46	115.03	118.90
26	1H	1942	C	C6-N1-C2	-6.46	117.72	120.30
37	78	50	ARG	NE-CZ-NH2	6.46	123.53	120.30
26	14	1963	U	N3-C2-O2	-6.46	117.68	122.20
26	1H	453	C	N3-C4-N4	6.46	122.52	118.00
26	1H	830	G	N9-C4-C5	6.46	107.98	105.40
26	1H	1543	A	N1-C6-N6	6.46	122.47	118.60
26	14	659	C	C5-C6-N1	-6.45	117.77	121.00
26	1H	796	C	N3-C4-C5	6.45	124.48	121.90
49	F5	82	LEU	CA-CB-CG	6.45	130.14	115.30
1	13	894	G	N3-C4-C5	6.45	131.82	128.60
26	1H	213	A	C8-N9-C4	6.45	108.38	105.80
26	1H	783	A	C4-C5-C6	6.45	120.22	117.00
26	14	1509	C	C6-N1-C1'	-6.45	113.06	120.80
1	1G	337	C	C6-N1-C2	-6.45	117.72	120.30
26	14	1605	C	O5'-P-OP1	-6.45	99.90	105.70
23	2K	74	A	N1-C6-N6	-6.44	114.73	118.60
26	1H	1839	G	N9-C4-C5	-6.44	102.82	105.40
1	1G	1059	C	C6-N1-C2	-6.44	117.72	120.30
26	14	731	C	C6-N1-C2	6.44	122.88	120.30
26	14	1379	A	N1-C6-N6	6.44	122.47	118.60
26	14	1463	C	C6-N1-C2	-6.44	117.72	120.30
26	14	2237	G	O5'-P-OP2	-6.44	99.90	105.70
26	1H	959	A	C2-N3-C4	-6.44	107.38	110.60
26	1H	1614	A	C6-C5-N7	-6.44	127.79	132.30
26	1H	1904	G	OP2-P-O3'	6.44	119.37	105.20
26	1H	1950	G	C2-N3-C4	-6.44	108.68	111.90
26	14	792	G	N3-C2-N2	6.44	124.41	119.90
26	14	966	G	O5'-P-OP2	-6.44	99.90	105.70
26	14	1547	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	1813	G	N3-C2-N2	-6.44	115.39	119.90
26	1H	751	A	C8-N9-C4	6.44	108.38	105.80
26	14	1601	G	N3-C4-N9	6.44	129.86	126.00
26	14	1971	A	C2-N3-C4	6.44	113.82	110.60
26	1H	1939	U	O5'-P-OP1	-6.43	99.91	105.70
26	14	2763	G	N3-C4-N9	6.43	129.86	126.00
26	1H	509	C	OP2-P-O3'	6.43	119.35	105.20
26	1H	2782	G	N7-C8-N9	6.43	116.32	113.10
39	98	4	LEU	CA-CB-CG	-6.43	100.50	115.30
24	3L	76	A	N7-C8-N9	6.43	117.02	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1489	U	O4'-C1'-N1	6.43	113.35	108.20
26	14	2505	G	N1-C6-O6	-6.43	116.04	119.90
26	14	1639	U	O5'-P-OP2	-6.43	99.91	105.70
27	1J	72	G	C8-N9-C4	6.43	108.97	106.40
1	13	1390	U	C5-C4-O4	6.43	129.76	125.90
26	1H	124	G	C4-C5-N7	6.43	113.37	110.80
26	1H	974	G	N1-C6-O6	6.43	123.76	119.90
26	1H	1758	G	C4-C5-N7	6.42	113.37	110.80
1	1G	1397	C	C6-N1-C2	-6.42	117.73	120.30
26	14	1624	G	C5-C6-O6	-6.42	124.75	128.60
26	1H	831	G	N7-C8-N9	-6.42	109.89	113.10
26	1H	1678	G	C5-C6-N1	-6.42	108.29	111.50
26	1H	2463	C	N1-C2-O2	-6.42	115.05	118.90
26	14	155	C	C2-N1-C1'	6.42	125.86	118.80
26	14	1256	G	C4-N9-C1'	6.42	134.85	126.50
1	1G	691	G	C4-C5-N7	6.42	113.37	110.80
1	13	1502	A	C4-C5-N7	6.42	113.91	110.70
26	1H	222	A	P-O3'-C3'	6.41	127.40	119.70
26	1H	1772	G	C4-N9-C1'	-6.41	118.16	126.50
26	14	2046	G	N3-C4-N9	6.41	129.85	126.00
26	14	2850	A	C6-C5-N7	-6.41	127.81	132.30
1	13	892	A	C2-N3-C4	-6.41	107.39	110.60
26	1H	1344	G	C5-C6-O6	-6.41	124.75	128.60
26	1H	831	G	N1-C6-O6	-6.41	116.05	119.90
26	1H	1574	C	C6-N1-C2	6.41	122.86	120.30
26	1H	1825	A	O5'-P-OP2	-6.41	99.93	105.70
26	1H	2389	G	C8-N9-C4	-6.41	103.84	106.40
26	14	530	G	N1-C6-O6	6.41	123.75	119.90
26	1H	1217	C	C6-N1-C2	6.41	122.86	120.30
26	14	71	A	C5-N7-C8	-6.41	100.70	103.90
26	14	1787	A	C6-C5-N7	-6.41	127.82	132.30
26	14	433	C	N1-C2-O2	-6.40	115.06	118.90
1	13	136	C	C6-N1-C2	6.40	122.86	120.30
26	1H	1606	G	C8-N9-C4	6.40	108.96	106.40
26	1H	2075	U	C5-C6-N1	-6.40	119.50	122.70
26	1H	338	G	N3-C2-N2	6.40	124.38	119.90
26	1H	786	C	N3-C4-N4	-6.40	113.52	118.00
26	1H	1393	A	O4'-C1'-N9	6.40	113.32	108.20
26	14	797	C	O5'-P-OP2	-6.40	99.94	105.70
29	19	235	GLY	N-CA-C	6.40	129.10	113.10
1	13	1096	C	C5-C6-N1	6.40	124.20	121.00
26	14	1416	G	C8-N9-C4	6.40	108.96	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	789	U	C6-N1-C2	-6.40	117.16	121.00
26	1H	366	C	C2-N1-C1'	-6.40	111.76	118.80
26	14	141	A	C6-C5-N7	-6.40	127.82	132.30
26	14	2029	G	O5'-P-OP2	6.40	118.38	110.70
26	1H	1344	G	C5-N7-C8	-6.39	101.10	104.30
1	13	1486	G	N1-C6-O6	6.39	123.74	119.90
26	1H	796	C	C5-C6-N1	-6.39	117.80	121.00
26	1H	1396	U	O5'-P-OP1	-6.39	99.95	105.70
26	14	1787	A	N7-C8-N9	6.39	117.00	113.80
1	13	564	C	N3-C4-C5	-6.39	119.34	121.90
26	1H	752	A	C8-N9-C4	-6.39	103.24	105.80
26	1H	821	A	OP1-P-OP2	6.39	129.19	119.60
26	14	1377	G	C4-N9-C1'	6.39	134.81	126.50
26	1H	462	C	C6-N1-C2	-6.39	117.75	120.30
26	1H	2025	C	C2-N1-C1'	6.39	125.83	118.80
1	13	360	A	N1-C6-N6	6.39	122.43	118.60
26	1H	2565	A	C8-N9-C4	6.39	108.36	105.80
56	2L	48	U	P-O3'-C3'	6.39	127.36	119.70
26	1H	609	A	C4-C5-N7	6.38	113.89	110.70
26	1H	1229	G	N1-C6-O6	-6.38	116.07	119.90
26	1H	1496	A	C5-C6-N6	-6.38	118.59	123.70
26	1H	2503	A	C8-N9-C4	6.38	108.35	105.80
26	14	2330	G	C8-N9-C4	6.38	108.95	106.40
1	13	1502	A	O5'-P-OP2	-6.38	99.95	105.70
26	1H	2701	C	N1-C2-O2	-6.38	115.07	118.90
26	1H	1834	U	C6-N1-C2	-6.38	117.17	121.00
41	B8	4	GLY	N-CA-C	-6.38	97.15	113.10
26	14	333	G	C4-N9-C1'	6.38	134.79	126.50
26	14	686	G	C5-C6-O6	-6.38	124.77	128.60
1	13	684	A	C8-N9-C4	-6.38	103.25	105.80
26	1H	688	U	C6-N1-C2	-6.38	117.17	121.00
26	1H	770	G	C4-C5-N7	6.38	113.35	110.80
26	1H	1121	C	C6-N1-C2	-6.38	117.75	120.30
1	13	865	A	C5-N7-C8	-6.38	100.71	103.90
23	2K	9	G	C2-N3-C4	6.38	115.09	111.90
26	1H	1969	A	N3-C4-C5	-6.38	122.34	126.80
26	1H	2360	A	C5-C6-N1	-6.38	114.51	117.70
1	1G	317	G	C6-C5-N7	-6.38	126.57	130.40
26	14	113	G	C5-C6-O6	-6.38	124.77	128.60
26	1H	1398	C	OP2-P-O3'	6.38	119.22	105.20
1	1G	1303	C	C6-N1-C2	-6.37	117.75	120.30
26	1H	582	G	C4-C5-C6	6.37	122.62	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1911	U	N3-C2-O2	-6.37	117.74	122.20
1	1G	1234	C	N1-C2-O2	6.37	122.72	118.90
26	14	1187	G	C8-N9-C1'	-6.37	118.72	127.00
26	14	1598	C	C5-C4-N4	-6.37	115.74	120.20
26	1H	1610	A	N1-C6-N6	6.37	122.42	118.60
26	14	1022	G	N3-C4-C5	-6.37	125.42	128.60
26	1H	577	G	N3-C4-C5	-6.37	125.42	128.60
26	1H	2424	C	N1-C2-O2	6.37	122.72	118.90
1	13	502	G	N1-C6-O6	6.37	123.72	119.90
26	1H	1786	A	C4-C5-N7	6.37	113.88	110.70
26	1H	2426	A	O5'-P-OP2	-6.37	99.97	105.70
26	1H	2600	A	N1-C6-N6	-6.37	114.78	118.60
26	14	1968	G	C8-N9-C4	-6.37	103.85	106.40
26	1H	77	C	C5-C4-N4	-6.36	115.75	120.20
26	14	429	A	N7-C8-N9	6.36	116.98	113.80
26	14	1348	G	N1-C6-O6	6.36	123.72	119.90
26	14	1644	C	O5'-P-OP2	-6.36	99.97	105.70
26	14	2251	G	C4-N9-C1'	6.36	134.77	126.50
26	1H	2351	G	N3-C4-C5	-6.36	125.42	128.60
26	1H	2610	C	O5'-P-OP2	6.36	118.33	110.70
26	1H	2360	A	C6-C5-N7	-6.36	127.85	132.30
26	14	671	C	C5-C6-N1	-6.36	117.82	121.00
26	14	2346	A	C8-N9-C4	-6.36	103.26	105.80
26	1H	2532	G	C6-C5-N7	-6.35	126.59	130.40
26	14	114	U	C5-C4-O4	-6.35	122.09	125.90
26	1H	198	C	C5-C6-N1	-6.35	117.83	121.00
26	1H	481	G	O4'-C1'-N9	6.35	113.28	108.20
26	1H	2509	G	C4-C5-N7	6.35	113.34	110.80
26	14	1984	G	O5'-P-OP1	6.35	118.32	110.70
23	2K	5	G	C8-N9-C4	6.35	108.94	106.40
26	1H	165	U	C2-N1-C1'	6.35	125.32	117.70
26	1H	528	A	C5-C6-N1	-6.35	114.53	117.70
26	1H	2442	C	C5-C4-N4	-6.35	115.75	120.20
26	1H	1196	C	OP2-P-O3'	6.35	119.16	105.20
26	1H	1313	U	N3-C4-C5	-6.35	110.79	114.60
26	14	1781	C	N3-C2-O2	-6.35	117.46	121.90
26	14	2622	C	N1-C2-O2	-6.35	115.09	118.90
26	1H	115	C	C5-C4-N4	-6.34	115.76	120.20
26	1H	198	C	C5-C4-N4	-6.34	115.76	120.20
26	1H	530	G	N1-C2-N2	-6.34	110.49	116.20
26	1H	835	A	C6-N1-C2	-6.34	114.79	118.60
26	1H	1401	G	C6-C5-N7	-6.34	126.59	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1888	G	N9-C4-C5	-6.34	102.86	105.40
26	14	210	C	C6-N1-C2	6.34	122.84	120.30
26	14	1820	U	C6-N1-C2	6.34	124.81	121.00
26	1H	960	A	O5'-P-OP1	-6.34	99.99	105.70
26	14	2519	U	C5-C6-N1	-6.34	119.53	122.70
26	1H	375	C	O5'-P-OP1	6.34	118.31	110.70
26	1H	444	C	N3-C2-O2	-6.34	117.46	121.90
26	1H	2639	A	C2-N3-C4	-6.34	107.43	110.60
26	14	141	A	N7-C8-N9	6.34	116.97	113.80
26	1H	690	G	N1-C6-O6	6.34	123.70	119.90
26	1H	944	G	C8-N9-C4	-6.34	103.86	106.40
26	1H	2347	C	O5'-P-OP2	-6.34	100.00	105.70
26	1H	2622	C	C6-N1-C2	6.34	122.83	120.30
26	14	1521	G	N3-C2-N2	6.34	124.34	119.90
26	14	2079	U	O5'-P-OP2	6.34	118.30	110.70
26	14	2702	U	C6-N1-C1'	-6.34	112.33	121.20
26	1H	913	U	O5'-P-OP2	-6.33	100.00	105.70
26	14	2821	A	O5'-P-OP2	-6.33	100.00	105.70
26	1H	1967	C	O5'-P-OP2	-6.33	100.00	105.70
26	1H	2335	A	N1-C6-N6	-6.33	114.80	118.60
27	16	29	A	C6-C5-N7	-6.33	127.87	132.30
26	1H	801	G	O5'-P-OP2	-6.33	100.00	105.70
26	1H	1969	A	C8-N9-C4	-6.33	103.27	105.80
26	14	1489	U	C4-C5-C6	6.33	123.50	119.70
1	1G	769	G	C4-N9-C1'	6.33	134.73	126.50
1	13	1488	G	C6-C5-N7	-6.33	126.60	130.40
26	1H	2039	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	2611	U	OP2-P-O3'	6.33	119.12	105.20
26	14	955	C	C4-C5-C6	6.33	120.56	117.40
26	14	1337	G	OP1-P-O3'	6.33	119.12	105.20
26	1H	2727	G	N1-C6-O6	6.33	123.70	119.90
26	14	929	G	N3-C4-N9	6.33	129.80	126.00
26	14	1933	G	C5-C6-N1	-6.33	108.34	111.50
26	14	2338	G	C6-C5-N7	-6.33	126.60	130.40
26	1H	2461	C	C6-N1-C2	-6.33	117.77	120.30
26	14	1899	G	C4-N9-C1'	6.33	134.72	126.50
26	14	2066	C	OP1-P-O3'	6.33	119.11	105.20
26	1H	74	A	C4-C5-N7	6.32	113.86	110.70
26	1H	1379	A	N1-C6-N6	6.32	122.39	118.60
26	1H	729	G	C6-C5-N7	-6.32	126.61	130.40
26	1H	1941	C	O5'-P-OP1	-6.32	100.01	105.70
26	14	155	C	N3-C2-O2	-6.32	117.47	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1509	C	N1-C2-O2	6.32	122.69	118.90
27	1J	22	U	C5-C6-N1	6.32	125.86	122.70
26	1H	145	G	C8-N9-C1'	-6.32	118.78	127.00
1	13	1158	C	C2-N1-C1'	6.32	125.75	118.80
1	1G	890	G	O4'-C1'-N9	6.32	113.25	108.20
22	1K	75	C	N3-C4-N4	6.32	122.42	118.00
26	1H	459	U	O5'-P-OP2	-6.32	100.02	105.70
26	1H	992	C	C5-C6-N1	6.32	124.16	121.00
26	1H	2422	A	O4'-C1'-N9	6.32	113.25	108.20
1	13	700	G	N1-C6-O6	-6.31	116.11	119.90
26	1H	856	C	O5'-P-OP1	-6.31	100.02	105.70
26	1H	2642	G	C8-N9-C4	6.31	108.92	106.40
27	16	53	A	N7-C8-N9	6.31	116.96	113.80
26	14	1264	G	C5-C6-O6	6.31	132.39	128.60
26	14	1326	U	C2-N1-C1'	6.31	125.28	117.70
26	14	1601	G	OP1-P-O3'	6.31	119.09	105.20
26	14	1802	A	C6-N1-C2	-6.31	114.81	118.60
26	1H	1346	G	N1-C6-O6	-6.31	116.11	119.90
26	1H	2362	G	OP2-P-O3'	6.31	119.08	105.20
1	1G	186	C	C6-N1-C2	-6.31	117.78	120.30
26	14	1566	A	O4'-C1'-N9	-6.31	103.15	108.20
26	14	2724	C	C2-N1-C1'	-6.31	111.86	118.80
26	1H	2066	C	N3-C4-C5	-6.31	119.38	121.90
26	1H	2566	A	P-O3'-C3'	6.31	127.27	119.70
26	1H	2698	U	C5-C6-N1	-6.31	119.55	122.70
27	16	81	G	C4-N9-C1'	6.31	134.70	126.50
27	1J	8	U	O5'-P-OP2	-6.31	100.02	105.70
1	13	767	A	O5'-P-OP1	-6.31	100.02	105.70
26	1H	120	U	C5-C4-O4	6.31	129.68	125.90
26	1H	203	C	O5'-P-OP2	6.31	118.27	110.70
26	1H	1819	A	C5-C6-N6	-6.31	118.65	123.70
1	1G	1220	G	N1-C6-O6	6.31	123.68	119.90
26	1H	73	A	C2-N3-C4	6.31	113.75	110.60
26	1H	127	A	C6-C5-N7	-6.30	127.89	132.30
26	1H	450	G	O5'-P-OP1	-6.30	100.03	105.70
26	1H	463	G	C5-C6-O6	-6.30	124.82	128.60
26	1H	2761	G	N3-C4-N9	-6.30	122.22	126.00
1	1G	267	C	O5'-P-OP1	-6.30	100.03	105.70
26	1H	2286	A	N7-C8-N9	6.30	116.95	113.80
26	1H	2426	A	O5'-P-OP1	6.30	118.26	110.70
26	1H	2509	G	C5-C6-O6	-6.30	124.82	128.60
26	14	819	A	C2-N3-C4	6.30	113.75	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	921	G	C8-N9-C4	-6.30	103.88	106.40
26	1H	1610	A	C5-N7-C8	-6.30	100.75	103.90
26	14	1342	A	C6-C5-N7	-6.30	127.89	132.30
26	14	1948	G	N1-C6-O6	-6.30	116.12	119.90
30	29	78	LEU	CA-CB-CG	6.30	129.79	115.30
38	45	82	ARG	N-CA-C	6.30	128.01	111.00
26	1H	635	C	O5'-P-OP1	6.30	118.26	110.70
26	1H	2252	G	O5'-P-OP2	-6.30	100.03	105.70
26	1H	2396	G	C8-N9-C4	6.30	108.92	106.40
26	14	1277	G	C8-N9-C4	6.30	108.92	106.40
1	13	7	G	C8-N9-C4	6.30	108.92	106.40
26	1H	138	G	C5-C6-N1	6.30	114.65	111.50
26	1H	1683	C	N1-C2-N3	6.30	123.61	119.20
26	1H	1731	G	N1-C6-O6	6.29	123.68	119.90
27	16	111	U	C5-C6-N1	-6.29	119.55	122.70
26	14	812	C	N3-C4-C5	-6.29	119.38	121.90
26	14	2457	U	OP2-P-O3'	6.29	119.05	105.20
26	1H	1439	A	N1-C2-N3	6.29	132.44	129.30
26	1H	2690	C	N3-C4-C5	-6.29	119.38	121.90
26	14	1827	C	C6-N1-C2	-6.29	117.78	120.30
26	14	2012	G	C5-C6-O6	-6.29	124.83	128.60
26	1H	1297	C	OP1-P-O3'	6.29	119.04	105.20
26	1H	1550	C	N3-C4-C5	6.29	124.42	121.90
1	13	1260	C	C5-C6-N1	6.29	124.14	121.00
26	1H	613	U	C5-C4-O4	6.29	129.67	125.90
1	1G	674	G	C5-C6-O6	-6.29	124.83	128.60
26	14	977	G	O5'-P-OP1	-6.29	100.04	105.70
26	14	2346	A	N7-C8-N9	6.29	116.94	113.80
26	1H	638	G	N1-C6-O6	6.29	123.67	119.90
26	14	465	G	OP1-P-OP2	-6.29	110.17	119.60
26	1H	330	A	C6-C5-N7	-6.29	127.90	132.30
26	1H	1773	A	O5'-P-OP2	-6.29	100.04	105.70
1	1G	953	G	N3-C4-N9	6.29	129.77	126.00
26	14	681	G	N1-C2-N3	6.29	127.67	123.90
26	1H	580	C	N3-C4-N4	6.28	122.40	118.00
26	14	780	G	C4-C5-N7	6.28	113.31	110.80
26	14	1787	A	C5-N7-C8	-6.28	100.76	103.90
26	14	1246	A	N1-C6-N6	-6.28	114.83	118.60
26	14	2414	G	O4'-C1'-N9	-6.28	103.17	108.20
1	13	742	G	C8-N9-C4	6.28	108.91	106.40
26	1H	548	A	N7-C8-N9	6.28	116.94	113.80
26	14	1695	G	N3-C4-N9	6.28	129.77	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2497	A	C5-C6-N1	6.28	120.84	117.70
26	14	1225	C	C6-N1-C2	6.28	122.81	120.30
26	1H	2502	G	N3-C4-N9	6.28	129.77	126.00
26	14	964	C	C5-C4-N4	-6.28	115.81	120.20
26	1H	155	C	C5-C6-N1	6.28	124.14	121.00
26	1H	602	G	N1-C2-N2	-6.28	110.55	116.20
1	1G	474	G	N3-C4-C5	6.28	131.74	128.60
26	14	964	C	C5-C6-N1	6.28	124.14	121.00
26	14	1332	G	O4'-C1'-N9	-6.28	103.18	108.20
1	13	571	U	C6-N1-C2	-6.27	117.24	121.00
26	14	2430	A	N1-C2-N3	6.27	132.44	129.30
26	1H	602	G	N9-C4-C5	-6.27	102.89	105.40
26	1H	1302	A	N1-C6-N6	-6.27	114.84	118.60
26	1H	2768	C	C5-C6-N1	-6.27	117.86	121.00
26	1H	1891	G	C6-C5-N7	-6.27	126.64	130.40
26	14	199	A	C2-N3-C4	6.27	113.73	110.60
26	14	2013	A	N9-C4-C5	-6.27	103.29	105.80
26	14	2574	G	C5-C6-O6	-6.27	124.84	128.60
26	1H	1340	U	O5'-P-OP1	-6.27	100.06	105.70
26	1H	2367	G	N1-C6-O6	6.27	123.66	119.90
26	14	37	C	C6-N1-C2	-6.27	117.79	120.30
26	14	974(A)	C	N1-C2-O2	6.27	122.66	118.90
26	14	1725	G	C8-N9-C4	-6.27	103.89	106.40
27	1J	100	G	C8-N9-C4	6.27	108.91	106.40
1	1G	345	C	P-O3'-C3'	6.27	127.22	119.70
26	14	992	C	C5-C6-N1	6.27	124.13	121.00
26	14	1339	G	O5'-P-OP2	6.27	118.22	110.70
26	14	2720	U	C2-N3-C4	6.27	130.76	127.00
1	13	58	C	N1-C2-O2	6.26	122.66	118.90
22	1K	76	C	N3-C2-O2	-6.26	117.52	121.90
26	1H	583	G	C8-N9-C4	-6.26	103.90	106.40
26	1H	2602	A	C8-N9-C4	-6.26	103.30	105.80
1	1G	18	C	C6-N1-C2	-6.26	117.80	120.30
1	1G	121	C	C6-N1-C1'	-6.26	113.29	120.80
26	14	1698	A	N1-C6-N6	6.26	122.36	118.60
26	14	2327	A	C8-N9-C4	6.26	108.31	105.80
26	14	2501	C	OP2-P-O3'	6.26	118.98	105.20
26	1H	391	G	N3-C2-N2	-6.26	115.52	119.90
26	14	2012	G	C4-C5-N7	6.26	113.30	110.80
26	1H	2375	G	O5'-P-OP2	-6.26	100.07	105.70
26	1H	2413	G	C2-N3-C4	-6.26	108.77	111.90
1	13	449	C	N3-C2-O2	-6.26	117.52	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	187	G	N9-C4-C5	-6.26	102.90	105.40
26	1H	782	A	C4-C5-N7	-6.26	107.57	110.70
26	1H	2585	U	C5-C4-O4	-6.26	122.15	125.90
26	1H	2715	C	O5'-P-OP1	-6.26	100.07	105.70
27	1J	114	G	C8-N9-C4	6.26	108.90	106.40
1	13	15	G	C4-N9-C1'	6.25	134.63	126.50
26	1H	1284	A	O5'-P-OP2	-6.25	100.07	105.70
26	1H	468	G	N1-C6-O6	6.25	123.65	119.90
1	1G	1494	G	C8-N9-C4	-6.25	103.90	106.40
26	14	695	G	C5-C6-N1	-6.25	108.38	111.50
26	14	1962	C	N3-C2-O2	-6.25	117.52	121.90
26	1H	2589	A	N1-C2-N3	-6.25	126.17	129.30
26	1H	530	G	C5-N7-C8	-6.25	101.18	104.30
26	1H	679	C	C6-N1-C2	6.25	122.80	120.30
26	14	2059	A	C5-C6-N1	6.25	120.83	117.70
1	13	907	A	C5-C6-N6	-6.25	118.70	123.70
26	1H	239	U	C5-C6-N1	-6.25	119.58	122.70
26	1H	513	A	C8-N9-C4	-6.25	103.30	105.80
26	1H	2448	A	N9-C4-C5	-6.25	103.30	105.80
26	1H	2713	A	N3-C4-N9	-6.25	122.40	127.40
26	14	512	G	N1-C6-O6	-6.25	116.15	119.90
26	14	1404	C	C6-N1-C2	6.25	122.80	120.30
26	1H	2255	G	C5-C6-O6	6.25	132.35	128.60
1	13	1494	G	OP1-P-O3'	6.24	118.94	105.20
26	1H	1372	U	C4-C5-C6	6.24	123.45	119.70
26	1H	2388	A	O4'-C1'-N9	6.24	113.19	108.20
26	1H	2409	G	C6-C5-N7	-6.24	126.65	130.40
26	14	974(A)	C	N3-C2-O2	-6.24	117.53	121.90
26	14	2072	G	N3-C2-N2	6.24	124.27	119.90
26	1H	382	G	C6-C5-N7	-6.24	126.66	130.40
26	1H	786	C	C2-N3-C4	-6.24	116.78	119.90
26	14	752	A	N7-C8-N9	6.24	116.92	113.80
1	13	1503	A	N1-C6-N6	-6.24	114.86	118.60
1	1G	55	A	C8-N9-C4	-6.24	103.30	105.80
26	14	1241	A	C6-N1-C2	6.24	122.34	118.60
26	1H	851	U	N1-C2-O2	-6.24	118.43	122.80
26	1H	2598	A	C8-N9-C4	6.24	108.30	105.80
26	1H	1785	A	O4'-C1'-N9	6.24	113.19	108.20
26	1H	2881	C	C6-N1-C2	-6.24	117.81	120.30
26	14	204	A	N1-C2-N3	6.24	132.42	129.30
26	14	1037	G	N3-C4-C5	6.24	131.72	128.60
26	14	1668	A	N1-C6-N6	-6.24	114.86	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2447	G	P-O3'-C3'	6.24	127.18	119.70
26	1H	225	A	C8-N9-C4	6.23	108.29	105.80
26	1H	187	G	C6-C5-N7	-6.23	126.66	130.40
26	1H	1035	U	C5-C4-O4	6.23	129.64	125.90
26	1H	1431	U	N1-C2-O2	6.23	127.16	122.80
26	1H	1786	A	C4-N9-C1'	6.23	137.52	126.30
26	1H	511	U	N1-C2-O2	-6.23	118.44	122.80
27	16	83	G	N1-C6-O6	6.23	123.64	119.90
1	1G	244	U	C6-N1-C1'	-6.23	112.48	121.20
1	1G	398	C	N1-C2-O2	6.23	122.64	118.90
26	14	1309	G	C8-N9-C4	6.23	108.89	106.40
26	1H	39	C	N1-C2-O2	-6.23	115.16	118.90
26	1H	767	U	O5'-P-OP2	-6.23	100.09	105.70
26	1H	1130	U	C5-C6-N1	-6.23	119.59	122.70
26	1H	1340	U	C6-N1-C2	6.23	124.74	121.00
26	1H	2018	G	C8-N9-C4	-6.23	103.91	106.40
26	14	2492	U	C5-C6-N1	6.23	125.81	122.70
26	1H	1313	U	N3-C4-O4	6.23	123.76	119.40
26	1H	2615	U	N1-C2-O2	6.22	127.16	122.80
26	14	772	C	N3-C4-C5	-6.22	119.41	121.90
26	1H	660	G	C6-C5-N7	-6.22	126.67	130.40
26	1H	988	A	O5'-P-OP1	-6.22	100.10	105.70
26	14	1768	U	C5-C4-O4	6.22	129.63	125.90
26	1H	330	A	OP1-P-O3'	6.22	118.89	105.20
26	1H	576	U	N3-C4-O4	6.22	123.75	119.40
26	1H	821	A	N1-C2-N3	6.22	132.41	129.30
26	1H	931	G	C2-N3-C4	6.22	115.01	111.90
26	1H	2254	C	OP2-P-O3'	6.22	118.88	105.20
1	1G	27	G	N1-C6-O6	6.22	123.63	119.90
26	14	680	G	C5-C6-N1	-6.22	108.39	111.50
26	14	1323	U	C5-C6-N1	6.22	125.81	122.70
1	13	192	U	O5'-P-OP1	-6.22	100.10	105.70
26	14	133	C	O5'-P-OP2	-6.22	100.10	105.70
26	1H	768	G	OP1-P-OP2	6.22	128.93	119.60
26	1H	1308	A	N9-C4-C5	6.22	108.29	105.80
26	1H	2516	G	C5-C6-O6	-6.22	124.87	128.60
26	14	112	U	O5'-P-OP1	-6.22	100.11	105.70
26	14	1695	G	C6-C5-N7	-6.22	126.67	130.40
26	1H	559	G	C5-C6-N1	-6.21	108.39	111.50
26	1H	1800	C	N3-C4-C5	-6.21	119.41	121.90
1	1G	47	C	C6-N1-C1'	6.21	128.26	120.80
26	14	1318	C	C6-N1-C2	-6.21	117.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1189	A	OP1-P-OP2	-6.21	110.28	119.60
26	1H	774	A	N3-C4-N9	-6.21	122.43	127.40
26	1H	1653	G	N3-C4-N9	6.21	129.73	126.00
26	1H	2582	G	C5-C6-O6	6.21	132.33	128.60
26	14	1204	A	N1-C6-N6	6.21	122.33	118.60
26	1H	701	G	N1-C2-N3	6.21	127.63	123.90
26	1H	813	U	N1-C2-N3	6.21	118.63	114.90
26	1H	1379	A	C5-C6-N6	-6.21	118.73	123.70
26	14	777	A	C6-N1-C2	-6.21	114.88	118.60
26	1H	537	C	N3-C4-C5	6.21	124.38	121.90
26	1H	671	C	C5-C6-N1	-6.21	117.90	121.00
26	1H	1572	A	C8-N9-C4	6.21	108.28	105.80
1	1G	687	A	P-O3'-C3'	6.21	127.15	119.70
26	14	748	G	N1-C6-O6	-6.21	116.18	119.90
26	14	796	C	N1-C2-O2	-6.21	115.18	118.90
26	14	2689	U	C5-C4-O4	6.21	129.62	125.90
26	1H	1354	A	C4-C5-N7	6.21	113.80	110.70
1	13	1025	U	C2-N1-C1'	6.20	125.14	117.70
26	1H	122	G	C8-N9-C4	6.20	108.88	106.40
26	1H	740	U	O5'-P-OP1	6.20	118.14	110.70
26	1H	603	A	O4'-C1'-N9	6.20	113.16	108.20
26	1H	1783	A	N1-C6-N6	-6.20	114.88	118.60
27	16	85	G	C6-C5-N7	-6.20	126.68	130.40
26	14	2449	U	C6-N1-C2	-6.20	117.28	121.00
26	14	2842	G	C5-C6-O6	-6.20	124.88	128.60
1	13	1461	G	N1-C6-O6	6.20	123.62	119.90
1	13	1495	U	N1-C2-O2	6.20	127.14	122.80
26	1H	530	G	C4-C5-N7	6.20	113.28	110.80
26	1H	1675	C	N3-C4-C5	-6.20	119.42	121.90
1	1G	121	C	N1-C2-O2	6.20	122.62	118.90
26	14	2516	G	N7-C8-N9	6.20	116.20	113.10
1	13	865	A	C6-C5-N7	-6.20	127.96	132.30
26	1H	1241	A	N1-C6-N6	6.20	122.32	118.60
26	1H	2374	C	N1-C2-O2	6.20	122.62	118.90
26	14	2620	C	N3-C4-N4	6.20	122.34	118.00
31	39	125	LEU	CA-CB-CG	6.20	129.55	115.30
1	13	571	U	C5-C6-N1	6.20	125.80	122.70
1	13	1468	A	N1-C6-N6	6.20	122.32	118.60
26	1H	1413	G	C8-N9-C4	-6.20	103.92	106.40
26	1H	2026	C	O5'-P-OP2	-6.19	100.13	105.70
26	14	1326	U	O5'-P-OP1	-6.19	100.12	105.70
26	14	2494	G	C6-C5-N7	-6.19	126.68	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2442	C	OP1-P-OP2	-6.19	110.31	119.60
1	1G	121	C	C2-N1-C1'	6.19	125.61	118.80
26	14	1032	A	N1-C6-N6	6.19	122.31	118.60
26	1H	1298	C	C5-C6-N1	6.19	124.10	121.00
27	16	53	A	C8-N9-C4	-6.19	103.32	105.80
26	1H	2029	G	O5'-P-OP2	6.19	118.13	110.70
26	14	1780	A	N1-C2-N3	6.19	132.40	129.30
26	14	2032	G	N3-C4-C5	6.19	131.69	128.60
1	13	652	U	C5-C6-N1	6.19	125.79	122.70
26	1H	2443	C	C6-N1-C2	-6.19	117.83	120.30
26	14	2261	C	C6-N1-C2	6.19	122.78	120.30
26	14	2723	C	N3-C2-O2	-6.19	117.57	121.90
26	1H	664	C	N3-C4-C5	6.19	124.37	121.90
25	4K	18	G	N1-C2-N2	6.18	121.77	116.20
26	1H	681	G	N7-C8-N9	-6.18	110.01	113.10
26	1H	1251	C	N1-C2-O2	-6.18	115.19	118.90
26	14	140	A	C5-N7-C8	-6.18	100.81	103.90
26	1H	63	U	C2-N1-C1'	-6.18	110.28	117.70
26	1H	860	U	C2-N3-C4	-6.18	123.29	127.00
1	1G	1499	A	C8-N9-C4	6.18	108.27	105.80
26	14	2644	G	C5-C6-N1	-6.18	108.41	111.50
26	1H	1256	G	C8-N9-C1'	-6.18	118.96	127.00
26	1H	1969	A	C2-N3-C4	6.18	113.69	110.60
26	1H	1555	G	O5'-P-OP1	-6.18	100.14	105.70
26	1H	1568	G	N1-C6-O6	6.18	123.61	119.90
26	1H	2371	G	N1-C6-O6	6.18	123.61	119.90
26	14	535	C	C5-C6-N1	-6.18	117.91	121.00
26	14	991	C	C6-N1-C2	-6.18	117.83	120.30
26	14	2679	A	C8-N9-C4	6.18	108.27	105.80
26	1H	655	A	C2-N3-C4	-6.18	107.51	110.60
26	1H	754	C	C5-C4-N4	-6.18	115.88	120.20
26	1H	795	C	N1-C2-O2	-6.18	115.19	118.90
26	14	194	G	C5-C6-O6	-6.18	124.89	128.60
26	14	817	C	C6-N1-C2	-6.18	117.83	120.30
26	14	2087	G	N9-C4-C5	-6.18	102.93	105.40
26	1H	1300	U	N1-C2-N3	6.18	118.61	114.90
26	1H	2297	C	N3-C2-O2	-6.18	117.58	121.90
26	14	1603	A	C5-N7-C8	-6.18	100.81	103.90
26	14	1646	C	OP1-P-O3'	6.18	118.79	105.20
26	1H	464	U	C4-C5-C6	6.17	123.41	119.70
26	14	2574	G	N3-C4-N9	6.17	129.71	126.00
1	13	926	G	O5'-P-OP1	-6.17	100.14	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1383	C	C5-C6-N1	6.17	124.09	121.00
26	14	948	G	N1-C6-O6	6.17	123.60	119.90
26	14	1279	G	N1-C6-O6	-6.17	116.20	119.90
26	1H	284	U	O5'-P-OP1	-6.17	100.15	105.70
1	13	28	G	N1-C6-O6	6.17	123.60	119.90
26	1H	394	A	C8-N9-C4	-6.17	103.33	105.80
26	14	586	A	C8-N9-C4	6.17	108.27	105.80
1	13	721	G	C6-C5-N7	-6.17	126.70	130.40
26	1H	1597	A	O4'-C1'-N9	6.17	113.13	108.20
26	1H	837	C	O5'-P-OP1	-6.16	100.15	105.70
1	1G	1346	A	P-O3'-C3'	6.16	127.10	119.70
26	14	2646	C	C5-C6-N1	6.16	124.08	121.00
26	14	1313	U	N1-C2-N3	6.16	118.60	114.90
1	13	220	G	C4-N9-C1'	6.16	134.51	126.50
1	13	1205	U	N1-C2-N3	6.16	118.59	114.90
26	1H	92	G	C5-C6-O6	-6.16	124.91	128.60
26	1H	1244	G	C4-C5-N7	6.16	113.26	110.80
26	1H	1691	C	N3-C4-C5	-6.16	119.44	121.90
26	1H	2515	C	O5'-P-OP1	6.16	118.09	110.70
27	16	79	C	OP2-P-O3'	6.16	118.75	105.20
26	14	1776	G	C4-C5-N7	6.16	113.26	110.80
26	14	2386	C	C6-N1-C2	6.16	122.76	120.30
26	1H	1832	C	N3-C4-C5	-6.16	119.44	121.90
26	1H	2447	G	N1-C6-O6	6.16	123.59	119.90
26	14	1688	U	C6-N1-C1'	6.16	129.82	121.20
1	13	1223	C	O5'-P-OP1	6.15	118.08	110.70
26	1H	1489	U	N1-C2-N3	6.15	118.59	114.90
26	14	2504	U	N1-C2-O2	6.15	127.11	122.80
26	1H	861	A	C2-N3-C4	-6.15	107.52	110.60
26	1H	1352	U	C5-C6-N1	-6.15	119.62	122.70
26	1H	1612	C	N3-C4-N4	6.15	122.31	118.00
26	1H	1634	A	O5'-P-OP2	-6.15	100.16	105.70
26	1H	2378	A	C8-N9-C4	6.15	108.26	105.80
26	14	1603	A	C8-N9-C4	-6.15	103.34	105.80
1	13	1097	C	N1-C2-O2	6.15	122.59	118.90
26	1H	1244	G	C5-C6-O6	-6.15	124.91	128.60
26	14	496	G	N1-C6-O6	-6.15	116.21	119.90
26	14	2078	C	N3-C4-C5	-6.15	119.44	121.90
26	1H	745	G	C6-C5-N7	-6.15	126.71	130.40
27	16	75	G	N1-C6-O6	6.15	123.59	119.90
1	1G	317	G	C5-C6-O6	-6.15	124.91	128.60
26	14	681	G	C6-N1-C2	-6.15	121.41	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	41	34	LEU	CA-CB-CG	6.15	129.44	115.30
1	1G	320	C	C5-C6-N1	-6.15	117.93	121.00
26	14	245	G	N7-C8-N9	6.15	116.17	113.10
26	14	786	C	OP1-P-OP2	6.15	128.82	119.60
26	14	2409	G	C6-C5-N7	-6.15	126.71	130.40
26	14	2009	G	O5'-P-OP2	-6.15	100.17	105.70
26	14	2346	A	C4-N9-C1'	6.15	137.36	126.30
26	1H	917	A	C6-N1-C2	6.14	122.29	118.60
26	1H	1559	G	N3-C4-C5	6.14	131.67	128.60
26	1H	2057	A	OP1-P-O3'	6.14	118.72	105.20
26	14	141	A	C2-N3-C4	-6.14	107.53	110.60
26	14	239	U	OP2-P-O3'	6.14	118.72	105.20
26	14	2699	C	C6-N1-C2	6.14	122.76	120.30
26	1H	600	G	C5-C6-O6	-6.14	124.91	128.60
1	13	220	G	N3-C4-N9	6.14	129.68	126.00
26	1H	2726	U	C5-C6-N1	-6.14	119.63	122.70
27	16	18	G	N1-C6-O6	6.14	123.58	119.90
1	13	644	G	C8-N9-C4	6.14	108.86	106.40
26	1H	609	A	N9-C4-C5	-6.14	103.34	105.80
26	14	955	C	N3-C2-O2	-6.14	117.60	121.90
26	14	2494	G	C5-C6-O6	-6.14	124.92	128.60
26	1H	2438	U	N3-C2-O2	-6.14	117.90	122.20
26	1H	1838	C	N1-C2-N3	-6.14	114.90	119.20
26	14	2246	G	N1-C6-O6	6.14	123.58	119.90
26	1H	2343	C	C5-C6-N1	-6.13	117.93	121.00
26	1H	2590	A	C2-N3-C4	-6.13	107.53	110.60
26	14	74	A	C4-C5-N7	6.13	113.77	110.70
26	14	2516	G	C6-C5-N7	-6.13	126.72	130.40
26	1H	217	G	C5-C6-O6	6.13	132.28	128.60
26	1H	2711	A	OP1-P-O3'	6.13	118.69	105.20
26	1H	1325	G	C6-C5-N7	-6.13	126.72	130.40
26	1H	910	A	O5'-P-OP2	-6.13	100.18	105.70
26	1H	758	C	C5-C6-N1	-6.13	117.94	121.00
26	14	1799	G	O5'-P-OP2	-6.13	100.18	105.70
1	13	752	G	N3-C4-N9	6.13	129.68	126.00
1	13	863	U	C6-N1-C1'	6.13	129.78	121.20
1	13	1488	G	C5-C6-O6	-6.13	124.92	128.60
26	1H	516	C	C5-C4-N4	-6.13	115.91	120.20
26	1H	1210	A	C6-C5-N7	-6.13	128.01	132.30
26	14	836	G	C8-N9-C4	-6.13	103.95	106.40
26	14	2499	C	C6-N1-C2	-6.13	117.85	120.30
26	14	2516	G	N3-C4-C5	-6.13	125.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1446	C	C6-N1-C2	-6.12	117.85	120.30
26	1H	990	A	C5-C6-N6	-6.12	118.80	123.70
26	1H	1628	G	N1-C6-O6	6.12	123.57	119.90
26	1H	2264	C	C6-N1-C2	-6.12	117.85	120.30
26	14	1971	A	OP1-P-O3'	6.12	118.67	105.20
1	13	853	G	C2-N3-C4	-6.12	108.84	111.90
26	1H	964	C	N3-C4-C5	6.12	124.35	121.90
26	1H	2391	G	OP1-P-O3'	6.12	118.67	105.20
26	1H	2712	U	N1-C2-O2	6.12	127.08	122.80
1	1G	1480	G	O5'-P-OP1	-6.12	100.19	105.70
26	14	531	C	O5'-P-OP1	-6.12	100.19	105.70
26	1H	128	C	C6-N1-C2	6.12	122.75	120.30
26	1H	1628	G	C4-N9-C1'	6.12	134.46	126.50
26	1H	2857	G	O5'-P-OP1	-6.12	100.19	105.70
26	14	210	C	O5'-P-OP1	6.12	118.04	110.70
26	14	2346	A	C4-C5-C6	6.12	120.06	117.00
1	13	1442	G	C6-C5-N7	-6.12	126.73	130.40
26	1H	693	C	C2-N3-C4	-6.12	116.84	119.90
26	1H	2427	C	N3-C2-O2	6.12	126.18	121.90
1	1G	18	C	C5-C6-N1	6.12	124.06	121.00
26	14	681	G	N3-C4-N9	6.12	129.67	126.00
26	14	1396	U	N1-C2-O2	6.12	127.08	122.80
26	1H	502	A	C6-N1-C2	-6.11	114.93	118.60
26	1H	950	G	C8-N9-C4	6.11	108.84	106.40
26	14	1306	C	C6-N1-C2	-6.11	117.85	120.30
26	14	1960	A	N1-C2-N3	6.11	132.36	129.30
26	1H	602	G	C4-C5-C6	6.11	122.47	118.80
26	1H	1966	A	C2-N3-C4	6.11	113.66	110.60
26	1H	53	A	N7-C8-N9	6.11	116.86	113.80
26	14	2083	G	C4-C5-N7	6.11	113.24	110.80
26	1H	307	G	N3-C4-N9	6.11	129.66	126.00
26	1H	1413	G	O5'-P-OP2	6.11	118.03	110.70
26	1H	1633	G	P-O3'-C3'	6.11	127.03	119.70
26	1H	2595	G	N7-C8-N9	6.11	116.15	113.10
26	14	1902	C	N3-C4-C5	6.11	124.34	121.90
26	1H	943	U	C2-N1-C1'	-6.10	110.38	117.70
26	1H	2779	U	O4'-C1'-N1	6.10	113.08	108.20
26	1H	808	G	C4-N9-C1'	6.10	134.43	126.50
26	1H	1475	G	N3-C2-N2	-6.10	115.63	119.90
56	2L	19	G	OP1-P-O3'	6.10	118.62	105.20
26	14	1963	U	N1-C2-O2	6.10	127.07	122.80
26	14	2387	U	C5-C6-N1	-6.10	119.65	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	725	G	O5'-P-OP1	-6.10	100.21	105.70
26	1H	2291	U	N1-C2-O2	-6.10	118.53	122.80
26	1H	2367	G	C2-N3-C4	-6.10	108.85	111.90
22	1K	62	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	1271	G	N9-C4-C5	-6.10	102.96	105.40
26	1H	2377	A	N1-C6-N6	6.10	122.26	118.60
1	1G	1112	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	1358	G	C8-N9-C1'	-6.09	119.08	127.00
26	1H	1610	A	C4-C5-N7	6.09	113.75	110.70
1	1G	1322	C	C2-N1-C1'	6.09	125.50	118.80
26	14	188	G	OP1-P-OP2	6.09	128.74	119.60
26	14	2232	U	N3-C4-C5	-6.09	110.94	114.60
26	14	2723	C	N1-C2-N3	6.09	123.47	119.20
26	1H	113	G	C2-N3-C4	-6.09	108.85	111.90
26	1H	2680	C	C5-C6-N1	-6.09	117.95	121.00
26	14	1183	G	N1-C6-O6	6.09	123.56	119.90
26	14	189	G	O5'-P-OP1	-6.09	100.22	105.70
26	1H	1187	G	C2-N3-C4	-6.09	108.86	111.90
26	1H	2199	A	N7-C8-N9	6.09	116.84	113.80
1	1G	581	G	N1-C6-O6	6.09	123.55	119.90
26	14	2055	C	C6-N1-C2	-6.09	117.86	120.30
26	14	1695	G	C8-N9-C1'	-6.09	119.09	127.00
26	1H	177	G	N3-C4-C5	-6.09	125.56	128.60
26	14	1332	G	N7-C8-N9	6.09	116.14	113.10
26	14	1496	A	O4'-C1'-N9	6.09	113.07	108.20
26	1H	529	A	C6-C5-N7	-6.08	128.04	132.30
26	1H	1669	A	C6-N1-C2	-6.08	114.95	118.60
26	14	620	G	C8-N9-C4	-6.08	103.97	106.40
26	14	2494	G	O5'-P-OP1	-6.08	100.22	105.70
1	13	721	G	C4-N9-C1'	6.08	134.41	126.50
26	1H	2552	U	C4-C5-C6	6.08	123.35	119.70
1	13	970	C	N3-C2-O2	-6.08	117.64	121.90
26	1H	1272	A	C5-C6-N6	-6.08	118.84	123.70
26	1H	1387	C	C2-N1-C1'	6.08	125.49	118.80
26	1H	1616	A	C8-N9-C4	-6.08	103.37	105.80
1	1G	254	G	O5'-P-OP1	-6.08	100.23	105.70
26	14	1343	G	C8-N9-C4	-6.08	103.97	106.40
26	14	1142	U	C6-N1-C1'	-6.08	112.69	121.20
26	1H	2575	C	C5-C6-N1	-6.08	117.96	121.00
26	1H	2841	C	N3-C4-C5	6.08	124.33	121.90
26	14	1903	G	C4-C5-N7	-6.08	108.37	110.80
26	1H	735	A	N7-C8-N9	-6.08	110.76	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1518	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	1925	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	2297	C	O5'-P-OP1	-6.08	100.23	105.70
26	14	2439	A	C8-N9-C4	-6.08	103.37	105.80
26	1H	2325	G	C8-N9-C4	-6.07	103.97	106.40
27	16	61	G	N7-C8-N9	6.07	116.14	113.10
26	14	27	G	O5'-P-OP2	-6.07	100.23	105.70
26	1H	669	G	C8-N9-C4	-6.07	103.97	106.40
26	14	2429	G	OP2-P-O3'	6.07	118.55	105.20
26	1H	2241	A	C4-C5-C6	6.07	120.03	117.00
1	13	971	G	N1-C6-O6	6.07	123.54	119.90
1	13	1369	C	O5'-P-OP2	-6.07	100.24	105.70
1	13	1498	U	C2-N1-C1'	6.07	124.98	117.70
26	1H	1204	A	N3-C4-C5	6.07	131.05	126.80
26	1H	2436	G	C5-C6-O6	-6.07	124.96	128.60
26	14	1827	C	OP1-P-O3'	6.07	118.55	105.20
26	1H	96	G	C6-C5-N7	-6.07	126.76	130.40
26	1H	628	G	C8-N9-C4	6.07	108.83	106.40
26	1H	1564	C	N1-C2-O2	6.07	122.54	118.90
26	1H	1956	U	OP1-P-O3'	6.07	118.54	105.20
26	1H	2575	C	O5'-P-OP1	6.07	117.98	110.70
1	1G	1224	G	O5'-P-OP1	6.07	117.98	110.70
26	14	676	A	C8-N9-C4	-6.07	103.37	105.80
1	1G	1096	C	C6-N1-C2	-6.06	117.87	120.30
26	14	710	G	C5-C6-O6	-6.06	124.96	128.60
26	1H	1625	C	C5-C6-N1	-6.06	117.97	121.00
27	1J	115	G	N9-C4-C5	-6.06	102.97	105.40
23	2K	62	C	C6-N1-C2	-6.06	117.88	120.30
26	14	1613	G	O5'-P-OP1	6.06	117.97	110.70
1	13	38	G	N1-C6-O6	6.06	123.54	119.90
1	13	117	G	C4-C5-N7	6.06	113.22	110.80
26	1H	2595	G	N1-C2-N3	6.06	127.54	123.90
26	14	470	A	O5'-P-OP1	-6.06	100.25	105.70
26	1H	127	A	C4-C5-N7	6.06	113.73	110.70
26	1H	204	A	C6-N1-C2	-6.06	114.97	118.60
26	1H	446	G	C6-C5-N7	-6.06	126.77	130.40
26	1H	2601	C	C2-N1-C1'	6.06	125.46	118.80
26	14	2681	C	C5-C6-N1	-6.06	117.97	121.00
26	1H	63	U	C6-N1-C1'	6.05	129.68	121.20
26	1H	250	G	C5-C6-O6	6.05	132.23	128.60
26	1H	859	G	N3-C4-N9	-6.05	122.37	126.00
26	14	1397	U	N3-C2-O2	-6.05	117.96	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1815	A	OP1-P-O3'	6.05	118.52	105.20
26	14	2066	C	OP1-P-OP2	-6.05	110.52	119.60
26	1H	1236	G	C8-N9-C4	6.05	108.82	106.40
1	1G	721	G	C6-C5-N7	-6.05	126.77	130.40
26	14	114	U	N3-C4-O4	6.05	123.64	119.40
26	14	528	A	O4'-C1'-N9	-6.05	103.36	108.20
26	14	2457	U	N1-C2-N3	6.05	118.53	114.90
26	1H	1653	G	C5-N7-C8	6.05	107.33	104.30
26	1H	2083	G	N1-C6-O6	6.05	123.53	119.90
27	1J	81	G	O5'-P-OP1	-6.05	100.25	105.70
1	13	1335	C	C2-N1-C1'	-6.05	112.15	118.80
26	1H	2505	G	N9-C4-C5	6.05	107.82	105.40
26	14	1728	G	C2-N3-C4	6.05	114.92	111.90
3	22	196	LEU	CA-CB-CG	6.05	129.21	115.30
1	13	1383	C	C6-N1-C2	-6.05	117.88	120.30
26	1H	673	C	C5-C4-N4	-6.05	115.97	120.20
26	1H	845	G	N3-C4-N9	-6.05	122.37	126.00
26	1H	2245	U	N3-C2-O2	-6.05	117.97	122.20
26	1H	2307	G	C4-C5-N7	6.05	113.22	110.80
26	1H	2330	G	C6-C5-N7	-6.05	126.77	130.40
26	14	398	G	N1-C6-O6	6.05	123.53	119.90
26	14	1616	A	N1-C2-N3	6.05	132.32	129.30
26	14	1653	G	C5-N7-C8	6.05	107.32	104.30
26	1H	641	C	O5'-P-OP1	-6.04	100.26	105.70
1	13	816	A	C8-N9-C4	-6.04	103.38	105.80
1	13	865	A	C4-C5-N7	6.04	113.72	110.70
26	1H	30	G	C8-N9-C4	-6.04	103.98	106.40
26	1H	781	A	OP1-P-OP2	6.04	128.66	119.60
26	1H	1543	A	C2-N3-C4	-6.04	107.58	110.60
26	1H	2621	A	C5-C6-N6	6.04	128.53	123.70
26	14	759	G	C5-C6-O6	-6.04	124.97	128.60
26	14	843	G	N1-C6-O6	6.04	123.52	119.90
26	14	1694	C	N1-C2-O2	6.04	122.53	118.90
26	1H	982	C	C5-C6-N1	6.04	124.02	121.00
26	1H	1929	G	C8-N9-C4	6.04	108.82	106.40
26	1H	2246	G	N3-C4-C5	-6.04	125.58	128.60
26	14	793	A	N1-C6-N6	6.04	122.22	118.60
26	14	980	A	N1-C6-N6	-6.04	114.98	118.60
26	14	2450	A	C4-C5-C6	6.04	120.02	117.00
26	1H	722	A	C2-N3-C4	-6.04	107.58	110.60
26	14	1601	G	N3-C2-N2	6.04	124.13	119.90
26	1H	410	G	N1-C6-O6	6.04	123.52	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1372	U	N3-C4-O4	6.04	123.63	119.40
26	1H	835	A	C2-N3-C4	6.04	113.62	110.60
26	1H	2844	G	C4-N9-C1'	6.04	134.35	126.50
26	1H	573	G	C2-N3-C4	6.03	114.92	111.90
26	1H	1086	A	O4'-C1'-N9	6.03	113.03	108.20
26	1H	1587	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	2620	C	N3-C4-N4	6.03	122.22	118.00
1	1G	962	C	N1-C2-O2	6.03	122.52	118.90
26	14	130	C	C6-N1-C2	6.03	122.71	120.30
1	13	1412	C	C6-N1-C2	6.03	122.71	120.30
26	14	671	C	N1-C2-N3	6.03	123.42	119.20
1	13	1142	G	C4-N9-C1'	-6.03	118.66	126.50
26	1H	823	G	C6-C5-N7	-6.03	126.78	130.40
26	1H	1688	U	O5'-P-OP2	-6.03	100.27	105.70
26	1H	2467	C	C5-C6-N1	-6.03	117.98	121.00
26	14	1792	G	N3-C2-N2	-6.03	115.68	119.90
26	14	2338	G	C4-C5-N7	6.03	113.21	110.80
26	1H	187	G	C8-N9-C4	6.03	108.81	106.40
26	14	568	U	C6-N1-C2	6.03	124.62	121.00
26	14	659	C	C6-N1-C2	6.03	122.71	120.30
26	14	2294	C	N3-C2-O2	-6.03	117.68	121.90
1	13	787	A	O5'-P-OP2	-6.03	100.28	105.70
16	7I	74	LEU	CA-CB-CG	-6.03	101.44	115.30
26	1H	515	A	C2-N3-C4	6.03	113.61	110.60
26	1H	1340	U	C5-C4-O4	-6.03	122.28	125.90
27	16	29	A	C8-N9-C4	-6.03	103.39	105.80
26	14	70	G	N3-C4-C5	-6.03	125.59	128.60
1	13	1406	U	O5'-P-OP2	-6.03	100.28	105.70
26	1H	389	G	C8-N9-C4	6.03	108.81	106.40
26	1H	965	C	N3-C4-N4	6.03	122.22	118.00
26	1H	1363	C	O5'-P-OP1	6.03	117.93	110.70
26	1H	2218	G	N1-C6-O6	6.03	123.52	119.90
26	1H	2261	C	O5'-P-OP2	-6.03	100.28	105.70
26	1H	2430	A	N3-C4-N9	-6.03	122.58	127.40
26	14	1254	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	602	G	N3-C4-N9	6.02	129.62	126.00
26	1H	1640	C	C2-N1-C1'	-6.02	112.17	118.80
26	1H	2595	G	C5-N7-C8	-6.02	101.29	104.30
26	14	685	A	C5-C6-N1	6.02	120.71	117.70
26	1H	115	C	N3-C2-O2	6.02	126.11	121.90
26	1H	654(H)	G	C2-N3-C4	6.02	114.91	111.90
26	1H	1649	G	N3-C4-N9	6.02	129.61	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1289	C	N1-C2-O2	-6.02	115.29	118.90
26	1H	839	U	O5'-P-OP2	-6.02	100.28	105.70
26	14	2087	G	C8-N9-C4	6.02	108.81	106.40
26	14	2355	C	C2-N1-C1'	6.02	125.42	118.80
26	1H	621	A	O4'-C1'-N9	6.02	113.02	108.20
26	1H	1256	G	C4-N9-C1'	6.02	134.32	126.50
26	1H	2412	A	N1-C2-N3	6.02	132.31	129.30
1	1G	337	C	C5-C6-N1	6.02	124.01	121.00
1	1G	945	G	C8-N9-C4	-6.02	103.99	106.40
22	1K	72	C	C6-N1-C2	-6.02	117.89	120.30
26	1H	760	G	C4-N9-C1'	6.02	134.32	126.50
26	14	1347	G	OP1-P-O3'	6.02	118.44	105.20
1	13	1502	A	C5-N7-C8	-6.01	100.89	103.90
26	1H	2258	C	C6-N1-C2	-6.01	117.89	120.30
46	G8	79	CYS	N-CA-C	6.01	127.24	111.00
26	14	30	G	C8-N9-C4	-6.01	103.99	106.40
26	14	675	A	N9-C4-C5	-6.01	103.39	105.80
26	14	1204	A	C5-C6-N1	-6.01	114.69	117.70
26	14	1381	G	OP2-P-O3'	6.01	118.43	105.20
26	14	1603	A	N7-C8-N9	6.01	116.81	113.80
1	13	898	G	C6-C5-N7	6.01	134.01	130.40
26	1H	2311	A	N7-C8-N9	6.01	116.81	113.80
26	14	1283	G	N3-C4-C5	-6.01	125.59	128.60
26	14	2270	G	C6-C5-N7	-6.01	126.79	130.40
1	13	918	A	C8-N9-C4	-6.01	103.40	105.80
26	1H	2778	A	C2-N3-C4	-6.01	107.59	110.60
26	14	511	U	C4-C5-C6	6.01	123.31	119.70
26	14	2577	A	N1-C6-N6	6.01	122.20	118.60
1	13	792	A	N3-C4-C5	6.01	131.01	126.80
26	1H	1205	U	N1-C2-N3	6.01	118.50	114.90
1	13	1530	G	C4-N9-C1'	6.01	134.31	126.50
26	1H	333	G	C6-C5-N7	-6.01	126.80	130.40
26	14	1776	G	N3-C4-C5	-6.01	125.60	128.60
26	1H	2779	U	N3-C2-O2	-6.00	118.00	122.20
1	13	1530	G	N3-C4-N9	6.00	129.60	126.00
26	1H	771	G	N3-C2-N2	-6.00	115.70	119.90
26	1H	783	A	N9-C1'-C2'	-6.00	105.40	112.00
26	1H	1364	G	N3-C4-N9	6.00	129.60	126.00
1	1G	266	G	N3-C4-C5	-6.00	125.60	128.60
26	14	510	C	OP1-P-OP2	6.00	128.61	119.60
26	14	1187	G	C5-C6-N1	-6.00	108.50	111.50
1	13	1227	A	N1-C6-N6	6.00	122.20	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1432	G	C6-C5-N7	-6.00	126.80	130.40
26	1H	383	U	OP2-P-O3'	6.00	118.40	105.20
26	1H	666	G	C2-N3-C4	-6.00	108.90	111.90
26	1H	845	G	C4-C5-C6	-6.00	115.20	118.80
26	1H	1496	A	O4'-C1'-N9	6.00	113.00	108.20
26	14	2383	G	N3-C4-N9	6.00	129.60	126.00
1	13	623	C	C5-C6-N1	6.00	124.00	121.00
1	13	721	G	C8-N9-C1'	-6.00	119.20	127.00
26	14	477	A	C2-N3-C4	-6.00	107.60	110.60
26	14	1273	U	O5'-P-OP1	-6.00	100.30	105.70
26	1H	528	A	C5-N7-C8	-6.00	100.90	103.90
26	1H	2450	A	O5'-P-OP2	-6.00	100.30	105.70
27	16	113	C	C6-N1-C2	6.00	122.70	120.30
26	14	133	C	C6-N1-C2	6.00	122.70	120.30
26	1H	178	G	C8-N9-C4	6.00	108.80	106.40
26	1H	205	G	N3-C2-N2	6.00	124.10	119.90
26	1H	1298	C	C6-N1-C2	-6.00	117.90	120.30
26	1H	2360	A	C4-C5-C6	6.00	120.00	117.00
26	14	1648	C	N3-C4-C5	-6.00	119.50	121.90
40	65	32	LEU	CA-CB-CG	6.00	129.09	115.30
26	1H	870	A	C5-C6-N1	5.99	120.70	117.70
26	1H	1191	G	C6-N1-C2	-5.99	121.50	125.10
26	1H	1334	G	O4'-C1'-N9	-5.99	103.41	108.20
26	1H	2502	G	C4-C5-C6	5.99	122.40	118.80
26	1H	2782	G	N3-C4-N9	5.99	129.60	126.00
26	14	2573	C	C2-N1-C1'	5.99	125.39	118.80
26	14	1271	G	C6-C5-N7	-5.99	126.81	130.40
26	14	2713	A	C6-C5-N7	-5.99	128.10	132.30
26	1H	205	G	N3-C4-N9	5.99	129.59	126.00
26	1H	410	G	C5-C6-O6	-5.99	125.01	128.60
26	1H	667	U	N1-C2-O2	-5.99	118.61	122.80
26	1H	1954	G	N3-C4-N9	5.99	129.59	126.00
26	14	1427	A	P-O3'-C3'	5.99	126.89	119.70
26	14	2581	G	N3-C4-N9	5.99	129.59	126.00
1	13	522	C	C6-N1-C2	5.99	122.69	120.30
26	1H	1413	G	N7-C8-N9	5.99	116.09	113.10
26	1H	1497	U	N3-C4-O4	5.99	123.59	119.40
26	1H	2502	G	C8-N9-C1'	-5.99	119.22	127.00
24	3L	71	G	C8-N9-C1'	5.99	134.79	127.00
26	14	1688	U	C2-N1-C1'	-5.99	110.52	117.70
26	14	2459	A	C8-N9-C4	-5.99	103.41	105.80
26	14	1614	A	C6-C5-N7	-5.99	128.11	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	331	G	N1-C6-O6	5.99	123.49	119.90
26	1H	1854	A	N9-C4-C5	5.98	108.19	105.80
26	1H	2554	U	C5-C4-O4	-5.98	122.31	125.90
52	M8	45	GLY	N-CA-C	-5.98	98.14	113.10
1	13	246	A	N1-C6-N6	5.98	122.19	118.60
26	1H	745	G	C4-C5-N7	5.98	113.19	110.80
1	1G	294	U	O5'-P-OP1	-5.98	100.31	105.70
26	14	512	G	C4-N9-C1'	-5.98	118.72	126.50
26	14	1698	A	C6-C5-N7	-5.98	128.11	132.30
26	14	2329	G	C5-C6-N1	5.98	114.49	111.50
26	1H	1445	C	C6-N1-C2	-5.98	117.91	120.30
1	13	1285	A	C8-N9-C4	-5.98	103.41	105.80
1	13	713	G	C5-C6-O6	-5.98	125.01	128.60
26	1H	145	G	C4-N9-C1'	5.98	134.27	126.50
26	1H	434	U	N1-C2-O2	-5.98	118.62	122.80
26	1H	2056	G	N3-C4-N9	5.98	129.59	126.00
26	1H	2569	G	C4-N9-C1'	5.98	134.27	126.50
26	1H	2079	U	N1-C2-O2	-5.98	118.62	122.80
26	14	2699	C	N3-C4-C5	5.98	124.29	121.90
26	1H	196	A	N9-C4-C5	-5.97	103.41	105.80
26	1H	1931	U	N1-C2-N3	5.97	118.48	114.90
26	1H	2824	C	N3-C4-N4	-5.97	113.82	118.00
26	14	126	A	OP2-P-O3'	5.97	118.35	105.20
26	14	208	C	OP2-P-O3'	5.97	118.34	105.20
26	14	2249	U	C5-C6-N1	5.97	125.69	122.70
26	14	2321	G	N7-C8-N9	5.97	116.09	113.10
26	1H	1364	G	N3-C2-N2	5.97	124.08	119.90
43	D8	49	THR	C-N-CD	5.97	140.94	128.40
26	14	2002	G	C4-C5-N7	5.97	113.19	110.80
26	1H	816	C	N3-C4-N4	5.97	122.18	118.00
26	1H	1669	A	N9-C4-C5	5.97	108.19	105.80
26	1H	2553	G	O4'-C1'-N9	-5.97	103.42	108.20
1	1G	312	C	N1-C2-N3	5.97	123.38	119.20
1	13	1139	G	C5-C6-O6	-5.97	125.02	128.60
26	1H	582	G	C5-C6-N1	-5.97	108.52	111.50
26	1H	686	G	C6-C5-N7	-5.97	126.82	130.40
26	1H	1614	A	C5-C6-N1	-5.97	114.72	117.70
26	14	137	C	C6-N1-C2	-5.97	117.91	120.30
26	14	2456	C	N3-C4-C5	-5.97	119.51	121.90
26	1H	77	C	N1-C2-O2	-5.97	115.32	118.90
26	1H	827	U	O5'-P-OP1	5.97	117.86	110.70
1	1G	774	G	O5'-P-OP2	-5.97	100.33	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1377	A	C8-N9-C4	-5.97	103.41	105.80
26	14	669	G	N3-C4-C5	-5.97	125.62	128.60
26	1H	2042	A	OP2-P-O3'	5.97	118.33	105.20
26	14	584	C	N1-C2-O2	-5.97	115.32	118.90
26	14	2688	U	N3-C4-O4	-5.97	115.22	119.40
1	13	1503	A	N9-C4-C5	5.96	108.19	105.80
26	1H	785	G	N1-C2-N3	5.96	127.48	123.90
26	1H	941	A	N1-C6-N6	5.96	122.18	118.60
26	1H	990	A	C6-C5-N7	-5.96	128.12	132.30
26	1H	1313	U	C6-N1-C2	-5.96	117.42	121.00
26	1H	2234	G	C8-N9-C4	5.96	108.79	106.40
1	1G	576	G	C4-C5-C6	5.96	122.38	118.80
26	14	786	C	N3-C4-C5	5.96	124.29	121.90
26	1H	735	A	N1-C6-N6	5.96	122.18	118.60
26	1H	754	C	OP2-P-O3'	5.96	118.32	105.20
26	1H	1417	C	C6-N1-C2	-5.96	117.92	120.30
1	13	863	U	O4'-C1'-N1	5.96	112.97	108.20
1	13	910	C	N1-C2-O2	-5.96	115.32	118.90
26	1H	2602	A	O5'-P-OP1	-5.96	100.33	105.70
26	14	1938	A	N9-C4-C5	-5.96	103.42	105.80
26	14	2062	A	C6-N1-C2	5.96	122.18	118.60
26	1H	256	A	N1-C6-N6	5.96	122.17	118.60
26	1H	1214	A	OP2-P-O3'	5.96	118.31	105.20
26	1H	1308	A	C4-C5-N7	-5.96	107.72	110.70
26	14	459	U	N3-C2-O2	-5.96	118.03	122.20
26	14	970	C	N1-C2-O2	-5.96	115.33	118.90
26	1H	1269	A	C5-N7-C8	-5.96	100.92	103.90
26	1H	2079	U	C5-C4-O4	-5.96	122.33	125.90
1	1G	615	C	C6-N1-C2	-5.96	117.92	120.30
26	14	2413	G	N1-C6-O6	5.96	123.47	119.90
26	14	1253	A	N1-C2-N3	-5.96	126.32	129.30
26	1H	2578	G	OP2-P-O3'	5.95	118.30	105.20
26	1H	1255	U	O5'-P-OP1	-5.95	100.34	105.70
26	1H	1383	C	N1-C2-O2	5.95	122.47	118.90
27	16	115	G	C4-C5-N7	5.95	113.18	110.80
26	1H	760	G	C4-C5-C6	5.95	122.37	118.80
26	1H	990	A	C4-C5-N7	5.95	113.67	110.70
26	1H	1615	C	O5'-P-OP1	-5.95	100.35	105.70
26	1H	2277	G	N3-C4-C5	-5.95	125.62	128.60
26	1H	2288	A	N9-C4-C5	-5.95	103.42	105.80
26	1H	2622	C	C5-C6-N1	-5.95	118.03	121.00
26	1H	2225	A	N1-C6-N6	-5.95	115.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1429	G	C4-N9-C1'	5.95	134.23	126.50
26	14	2587	A	N1-C6-N6	5.95	122.17	118.60
26	1H	48	G	N9-C4-C5	5.95	107.78	105.40
26	1H	270(L)	U	N1-C2-O2	5.95	126.96	122.80
26	1H	1520	U	C5-C4-O4	5.95	129.47	125.90
33	51	82	GLY	N-CA-C	5.95	127.96	113.10
1	1G	1259	C	C5-C6-N1	5.95	123.97	121.00
26	14	809	G	N3-C4-C5	-5.95	125.63	128.60
26	14	1787	A	N1-C6-N6	5.95	122.17	118.60
26	1H	1410	G	N3-C4-C5	5.94	131.57	128.60
26	14	2328	A	N7-C8-N9	-5.94	110.83	113.80
30	29	80	GLU	N-CA-C	5.94	127.05	111.00
1	13	533	A	C2-N3-C4	-5.94	107.63	110.60
26	1H	679	C	C5-C6-N1	-5.94	118.03	121.00
26	14	1776	G	N7-C8-N9	5.94	116.07	113.10
27	1J	18	G	N3-C4-C5	5.94	131.57	128.60
1	13	1519	A	C8-N9-C4	-5.94	103.42	105.80
26	1H	783	A	OP1-P-OP2	5.94	128.51	119.60
27	16	53	A	C5-N7-C8	-5.94	100.93	103.90
26	14	775	G	C5-N7-C8	5.94	107.27	104.30
26	14	1555	G	N3-C2-N2	-5.94	115.74	119.90
26	14	2449	U	C5-C6-N1	5.94	125.67	122.70
26	14	2727	G	C8-N9-C4	5.94	108.78	106.40
26	1H	1489	U	N3-C4-C5	-5.94	111.04	114.60
26	1H	1229(A)	G	O5'-P-OP2	-5.94	100.36	105.70
26	1H	2408	U	C2-N3-C4	-5.94	123.44	127.00
27	16	9	G	O5'-P-OP1	5.94	117.82	110.70
26	14	809	G	C6-N1-C2	-5.94	121.54	125.10
26	14	2473	U	C2-N1-C1'	5.94	124.82	117.70
1	13	1139	G	N9-C4-C5	-5.93	103.03	105.40
1	1G	1390	U	C5-C4-O4	5.93	129.46	125.90
1	1G	1529	G	C4-N9-C1'	5.93	134.22	126.50
26	14	710	G	N1-C6-O6	5.93	123.46	119.90
26	14	2092	U	N1-C2-N3	5.93	118.46	114.90
26	14	2850	A	C5-C6-N6	-5.93	118.95	123.70
26	1H	1229	G	C5-C6-O6	5.93	132.16	128.60
27	16	100	G	N3-C2-N2	5.93	124.05	119.90
26	14	37	C	OP2-P-O3'	5.93	118.25	105.20
26	1H	845	G	C4-N9-C1'	-5.93	118.79	126.50
26	1H	1785	A	OP2-P-O3'	5.93	118.25	105.20
26	14	1308	A	N1-C2-N3	5.93	132.26	129.30
1	13	1053	G	P-O3'-C3'	5.93	126.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	115	C	N1-C2-O2	-5.93	115.34	118.90
26	1H	1678	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	2638	G	N9-C4-C5	-5.93	103.03	105.40
26	14	1588	C	C6-N1-C2	-5.93	117.93	120.30
26	14	1895	C	O5'-P-OP1	-5.93	100.36	105.70
26	1H	1028	A	N1-C6-N6	-5.93	115.04	118.60
26	1H	2311	A	C5-N7-C8	-5.93	100.94	103.90
26	14	1332	G	C4-C5-C6	5.93	122.36	118.80
26	14	1421	G	N3-C2-N2	-5.93	115.75	119.90
26	14	2595	G	C5-N7-C8	-5.93	101.34	104.30
26	1H	204	A	N9-C4-C5	5.92	108.17	105.80
26	1H	371	A	C6-C5-N7	-5.92	128.15	132.30
26	1H	2297	C	C5-C4-N4	5.92	124.35	120.20
1	13	27	G	O5'-P-OP1	-5.92	100.37	105.70
1	13	968	A	C8-N9-C4	5.92	108.17	105.80
26	1H	99	U	C2-N1-C1'	5.92	124.81	117.70
26	1H	138	G	N9-C1'-C2'	5.92	121.70	114.00
26	1H	148	C	C5-C6-N1	-5.92	118.04	121.00
26	1H	431	U	C5-C6-N1	5.92	125.66	122.70
26	1H	1839	G	C5-C6-O6	-5.92	125.05	128.60
26	14	2502	G	C4-C5-C6	5.92	122.35	118.80
26	1H	909	A	OP2-P-O3'	5.92	118.22	105.20
26	1H	2575	C	C2-N1-C1'	-5.92	112.29	118.80
26	14	203	C	N3-C2-O2	5.92	126.04	121.90
1	13	266	G	C6-C5-N7	-5.92	126.85	130.40
26	1H	71	A	C5-C6-N6	-5.92	118.97	123.70
26	14	1313	U	N3-C4-C5	-5.92	111.05	114.60
1	13	1227	A	C6-C5-N7	-5.92	128.16	132.30
26	1H	621	A	C5-C6-N1	-5.92	114.74	117.70
26	1H	824	A	C8-N9-C4	-5.92	103.43	105.80
26	1H	871	U	N3-C2-O2	5.92	126.34	122.20
26	1H	1367	A	O5'-P-OP1	-5.92	100.38	105.70
26	1H	2484	G	O5'-P-OP2	-5.92	100.38	105.70
26	14	2409	G	N1-C6-O6	5.92	123.45	119.90
27	1J	115	G	C4-C5-N7	5.92	113.17	110.80
26	1H	2355	C	O5'-P-OP1	-5.92	100.38	105.70
51	L8	31	LEU	CA-CB-CG	5.92	128.90	115.30
26	1H	785	G	N3-C4-C5	-5.91	125.64	128.60
1	1G	1346	A	OP2-P-O3'	5.91	118.21	105.20
26	14	1276	A	C5-N7-C8	-5.91	100.94	103.90
26	14	1784	A	N1-C6-N6	-5.91	115.05	118.60
26	14	2014	A	C8-N9-C4	5.91	108.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2430	A	C6-C5-N7	-5.91	128.16	132.30
26	1H	117	G	N1-C6-O6	-5.91	116.35	119.90
26	1H	256	A	C8-N9-C4	5.91	108.17	105.80
26	1H	674	G	C5-C6-O6	-5.91	125.05	128.60
26	1H	729	G	C5-N7-C8	-5.91	101.34	104.30
26	14	397	G	C2-N3-C4	-5.91	108.94	111.90
1	13	121	C	N1-C2-O2	5.91	122.45	118.90
1	13	422	C	O5'-P-OP2	-5.91	100.38	105.70
1	13	1520	G	C4-C5-N7	5.91	113.16	110.80
46	G8	81	LYS	C-N-CD	-5.91	107.60	120.60
26	14	2272	U	O5'-P-OP2	-5.91	100.38	105.70
26	1H	676	A	N3-C4-N9	-5.91	122.67	127.40
1	1G	632	A	P-O3'-C3'	5.91	126.79	119.70
26	1H	2064	C	N1-C2-O2	-5.91	115.36	118.90
26	1H	2406	U	O5'-P-OP1	-5.91	100.38	105.70
26	14	686	G	N1-C6-O6	5.91	123.44	119.90
1	13	898	G	O5'-P-OP1	-5.91	100.39	105.70
26	1H	330	A	C5-N7-C8	-5.91	100.95	103.90
26	1H	568	U	C5-C4-O4	5.91	129.44	125.90
26	1H	1764	G	C5-C6-O6	5.91	132.14	128.60
26	14	1623	G	N7-C8-N9	5.91	116.05	113.10
25	4K	20	A	C8-N9-C4	-5.90	103.44	105.80
26	14	1236	G	C8-N9-C4	5.90	108.76	106.40
26	1H	1498	C	C4-C5-C6	5.90	120.35	117.40
26	1H	1777	U	C4-C5-C6	5.90	123.24	119.70
1	1G	965	A	C8-N9-C4	5.90	108.16	105.80
1	1G	1246	C	C6-N1-C2	-5.90	117.94	120.30
56	2L	17	C	C2-N1-C1'	5.90	125.29	118.80
26	14	945	A	N7-C8-N9	5.90	116.75	113.80
26	14	1307	A	N1-C2-N3	5.90	132.25	129.30
26	14	1769	G	C8-N9-C1'	-5.90	119.33	127.00
26	14	2168	G	C4-N9-C1'	5.90	134.17	126.50
1	13	677	U	C6-N1-C2	-5.90	117.46	121.00
26	1H	825	C	N1-C2-O2	-5.90	115.36	118.90
26	1H	2573	C	C2-N1-C1'	5.90	125.29	118.80
26	14	988	A	C4-C5-N7	5.90	113.65	110.70
26	14	1853	A	N1-C6-N6	-5.90	115.06	118.60
26	1H	789	A	N3-C4-N9	-5.90	122.68	127.40
1	13	1305	G	N1-C2-N2	-5.89	110.89	116.20
26	1H	1441	G	C8-N9-C4	5.89	108.76	106.40
26	1H	1950	G	C4-N9-C1'	5.89	134.16	126.50
26	1H	2732	G	N3-C4-C5	-5.89	125.65	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2287	A	N1-C2-N3	5.89	132.25	129.30
1	1G	953	G	N1-C2-N2	-5.89	110.90	116.20
26	14	1145	C	N1-C2-O2	-5.89	115.36	118.90
26	14	2054	A	N7-C8-N9	5.89	116.75	113.80
1	13	812	C	P-O3'-C3'	5.89	126.77	119.70
1	13	1158	C	N1-C2-O2	5.89	122.44	118.90
1	1G	971	G	O4'-C1'-N9	5.89	112.91	108.20
26	14	806	C	C6-N1-C2	-5.89	117.94	120.30
1	13	953	G	N3-C2-N2	5.89	124.02	119.90
1	13	1504	G	P-O3'-C3'	5.89	126.77	119.70
26	14	642	G	N7-C8-N9	5.89	116.05	113.10
26	14	2263	C	OP1-P-O3'	5.89	118.16	105.20
26	1H	146	G	C4-C5-N7	5.89	113.16	110.80
26	1H	1130	U	N1-C2-O2	5.89	126.92	122.80
26	14	183	C	OP2-P-O3'	5.89	118.15	105.20
26	14	1731	G	C4-N9-C1'	5.89	134.16	126.50
26	1H	845	G	C5-N7-C8	-5.89	101.36	104.30
26	1H	862	G	N3-C4-C5	-5.89	125.66	128.60
26	1H	1566	A	C4-C5-C6	-5.89	114.06	117.00
26	1H	2573	C	C6-N1-C2	-5.89	117.94	120.30
26	14	149	A	C2-N3-C4	-5.89	107.66	110.60
26	14	1899	G	N1-C2-N3	5.89	127.43	123.90
26	1H	335	C	N3-C4-N4	5.88	122.12	118.00
26	1H	804	A	C6-N1-C2	-5.88	115.07	118.60
26	14	2742	C	C6-N1-C2	5.88	122.65	120.30
26	1H	2318	G	C8-N9-C4	-5.88	104.05	106.40
55	Q8	60	LEU	CB-CG-CD2	5.88	121.00	111.00
26	14	1253	A	C5-C6-N6	-5.88	118.99	123.70
1	13	545	C	N3-C2-O2	-5.88	117.78	121.90
26	1H	305	U	C6-N1-C2	-5.88	117.47	121.00
26	1H	630	G	C2-N3-C4	-5.88	108.96	111.90
26	1H	1912	A	N7-C8-N9	-5.88	110.86	113.80
26	1H	2544	G	C5-C6-O6	-5.88	125.07	128.60
1	1G	121	C	C5-C4-N4	-5.88	116.08	120.20
26	14	2444	G	C4-C5-N7	-5.88	108.45	110.80
26	1H	1926	U	C6-N1-C1'	5.88	129.43	121.20
1	1G	243	A	P-O3'-C3'	5.88	126.76	119.70
1	13	1468	A	C5-C6-N6	-5.88	119.00	123.70
22	1K	1	C	C6-N1-C1'	-5.88	113.75	120.80
26	1H	1835	G	O5'-P-OP1	-5.88	100.41	105.70
26	1H	2050	C	C5-C6-N1	5.88	123.94	121.00
26	1H	805	G	C2-N3-C4	-5.88	108.96	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	115	G	C6-C5-N7	-5.88	126.87	130.40
26	1H	559	G	N1-C6-O6	5.88	123.42	119.90
1	13	1519	A	C4-C5-C6	5.87	119.94	117.00
26	1H	760	G	C6-C5-N7	-5.87	126.88	130.40
26	1H	1241	A	C2-N3-C4	-5.87	107.66	110.60
26	1H	1492	G	N1-C6-O6	5.87	123.42	119.90
26	1H	1798	U	N3-C4-C5	5.87	118.12	114.60
26	1H	1806	C	N3-C4-C5	5.87	124.25	121.90
26	1H	1955	U	OP1-P-OP2	5.87	128.41	119.60
1	13	1338	G	N1-C6-O6	-5.87	116.38	119.90
1	13	1473	A	N9-C4-C5	-5.87	103.45	105.80
26	1H	930	U	N3-C2-O2	-5.87	118.09	122.20
26	1H	2543	G	C8-N9-C4	5.87	108.75	106.40
1	1G	328	C	P-O3'-C3'	5.87	126.75	119.70
26	14	2328	A	N1-C2-N3	5.87	132.24	129.30
1	1G	1246	C	C5-C6-N1	5.87	123.94	121.00
26	14	460	A	N1-C6-N6	5.87	122.12	118.60
1	13	15	G	C8-N9-C1'	-5.87	119.37	127.00
26	1H	552	G	C4-N9-C1'	-5.87	118.87	126.50
26	1H	855	G	C8-N9-C4	-5.87	104.05	106.40
26	1H	1261	C	C5-C4-N4	-5.87	116.09	120.20
26	1H	1426	G	N3-C4-C5	-5.87	125.67	128.60
26	1H	1432	C	C6-N1-C2	5.87	122.65	120.30
26	14	36	G	OP2-P-O3'	5.87	118.11	105.20
26	14	265	A	C5-N7-C8	-5.87	100.97	103.90
26	14	2247	A	C4-C5-C6	5.87	119.93	117.00
34	69	131	LYS	C-N-CD	-5.87	107.69	120.60
1	13	821	G	C8-N9-C4	5.87	108.75	106.40
26	1H	1682	G	N3-C2-N2	-5.87	115.79	119.90
26	1H	853	G	N7-C8-N9	-5.87	110.17	113.10
26	14	2211	G	N3-C2-N2	-5.87	115.79	119.90
26	14	2267	A	OP1-P-OP2	5.87	128.40	119.60
26	1H	750	A	C5-N7-C8	-5.86	100.97	103.90
26	14	2046	G	C8-N9-C1'	-5.86	119.38	127.00
26	1H	2760	C	C6-N1-C2	5.86	122.64	120.30
24	3L	62	C	C2-N1-C1'	5.86	125.25	118.80
26	14	954	G	C4-C5-N7	-5.86	108.45	110.80
26	14	1964	G	N1-C6-O6	-5.86	116.38	119.90
1	13	749	C	C2-N1-C1'	5.86	125.25	118.80
26	1H	736	C	O5'-P-OP2	5.86	117.73	110.70
26	1H	2346	A	C4-N9-C1'	5.86	136.85	126.30
26	1H	2438	U	C2-N3-C4	-5.86	123.48	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2458	G	C5-C6-N1	-5.86	108.57	111.50
1	1G	285	G	C6-C5-N7	-5.86	126.88	130.40
1	13	21	G	N3-C4-N9	5.86	129.52	126.00
26	1H	299	A	C2-N3-C4	5.86	113.53	110.60
26	1H	1796	U	C5-C4-O4	5.86	129.42	125.90
26	1H	2430	A	N9-C4-C5	-5.86	103.46	105.80
26	1H	1940	U	O5'-P-OP2	-5.86	100.43	105.70
1	13	690	G	C8-N9-C1'	-5.86	119.39	127.00
1	13	894	G	N7-C8-N9	-5.86	110.17	113.10
26	1H	651	G	N7-C8-N9	5.86	116.03	113.10
26	1H	1777	U	N3-C4-C5	-5.86	111.09	114.60
26	1H	2056	G	C5-C6-O6	-5.86	125.09	128.60
26	14	570	G	C5-C6-O6	5.86	132.11	128.60
26	14	2612	C	O5'-P-OP1	5.86	117.73	110.70
26	1H	2261	C	C6-N1-C2	-5.85	117.96	120.30
26	1H	2782	G	C4-C5-C6	5.85	122.31	118.80
1	13	1529	G	C4-N9-C1'	5.85	134.11	126.50
1	1G	1301	U	N1-C2-O2	5.85	126.90	122.80
26	14	954	G	N3-C4-C5	-5.85	125.67	128.60
26	14	2346	A	C6-C5-N7	-5.85	128.20	132.30
26	14	1142(A)	A	N1-C2-N3	5.85	132.22	129.30
1	13	901	A	OP2-P-O3'	5.85	118.07	105.20
26	1H	628	G	N1-C6-O6	-5.85	116.39	119.90
26	1H	819	A	OP2-P-O3'	5.85	118.07	105.20
26	1H	1603	A	C4-C5-N7	5.85	113.62	110.70
26	1H	2731	G	C5-C6-O6	-5.85	125.09	128.60
26	14	74	A	N1-C2-N3	5.85	132.22	129.30
26	14	271(A)	C	C6-N1-C2	-5.85	117.96	120.30
26	14	1429	G	N1-C2-N2	-5.85	110.94	116.20
26	14	2644	G	C4-N9-C1'	5.85	134.11	126.50
26	1H	621	A	C6-C5-N7	-5.85	128.21	132.30
26	14	1210	A	C5-N7-C8	-5.85	100.98	103.90
26	14	1631	A	N1-C6-N6	5.85	122.11	118.60
26	14	1814	G	C8-N9-C4	-5.85	104.06	106.40
1	13	122	G	N1-C6-O6	5.84	123.41	119.90
1	13	863	U	C2-N1-C1'	-5.84	110.69	117.70
4	3E	12	CYS	CA-CB-SG	5.84	124.52	114.00
26	1H	231	C	N1-C2-N3	5.84	123.29	119.20
26	1H	1313	U	C2-N3-C4	5.84	130.51	127.00
26	1H	2286	A	C4-C5-C6	5.84	119.92	117.00
26	14	2006	C	N1-C2-N3	-5.84	115.11	119.20
1	13	584	G	N1-C2-N2	-5.84	110.94	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	590	A	N7-C8-N9	5.84	116.72	113.80
26	1H	1691	C	O5'-P-OP1	-5.84	100.44	105.70
26	1H	2279	G	N1-C6-O6	-5.84	116.39	119.90
26	1H	2875	C	C6-N1-C2	5.84	122.64	120.30
26	1H	728	G	N7-C8-N9	-5.84	110.18	113.10
24	3L	76	A	N1-C6-N6	5.84	122.11	118.60
26	14	2642	G	N9-C4-C5	-5.84	103.06	105.40
26	1H	80	G	C8-N9-C4	-5.84	104.06	106.40
26	1H	401	A	N1-C2-N3	5.84	132.22	129.30
26	1H	734	A	OP1-P-OP2	5.84	128.36	119.60
26	14	122	G	C8-N9-C4	5.84	108.74	106.40
26	14	1232	G	C4-N9-C1'	-5.84	118.91	126.50
23	2K	35	C	C2-N1-C1'	5.84	125.22	118.80
26	1H	1236	G	N1-C6-O6	5.84	123.40	119.90
26	1H	2704	C	C6-N1-C2	5.84	122.64	120.30
26	1H	491	G	O5'-P-OP1	-5.84	100.45	105.70
26	1H	814	C	C6-N1-C2	5.84	122.64	120.30
26	1H	1500	G	C4-C5-N7	5.84	113.14	110.80
26	1H	2333	A	OP1-P-O3'	5.84	118.04	105.20
26	1H	2824	C	N3-C2-O2	-5.84	117.81	121.90
26	14	1483	G	C8-N9-C4	-5.84	104.07	106.40
26	14	2644	G	C8-N9-C1'	-5.84	119.41	127.00
26	1H	2441	C	C2-N3-C4	-5.83	116.98	119.90
26	1H	1669	A	N1-C2-N3	5.83	132.22	129.30
26	1H	2595	G	N3-C4-N9	5.83	129.50	126.00
1	1G	738	C	C6-N1-C2	-5.83	117.97	120.30
24	3L	71	G	C5-C6-O6	5.83	132.10	128.60
26	14	603	A	N7-C8-N9	5.83	116.72	113.80
26	14	964	C	N3-C4-N4	5.83	122.08	118.00
26	14	1795	C	C6-N1-C2	5.83	122.63	120.30
26	1H	398	G	N1-C2-N3	5.83	127.40	123.90
26	1H	914	C	C6-N1-C1'	5.83	127.80	120.80
26	1H	1637	A	N1-C6-N6	-5.83	115.10	118.60
26	1H	2617	C	C6-N1-C2	5.83	122.63	120.30
26	14	2387	U	C2-N3-C4	-5.83	123.50	127.00
26	14	2442	C	C2-N3-C4	-5.83	116.98	119.90
38	45	79	LEU	CA-CB-CG	5.83	128.71	115.30
26	1H	508	G	C6-C5-N7	-5.83	126.90	130.40
26	1H	651	G	C2-N3-C4	5.83	114.81	111.90
26	1H	954	G	N3-C2-N2	-5.83	115.82	119.90
26	1H	1201	C	N3-C2-O2	5.83	125.98	121.90
26	1H	2085	C	N3-C2-O2	5.83	125.98	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2672	G	C4-N9-C1'	5.83	134.08	126.50
26	1H	57	C	N3-C4-N4	-5.83	113.92	118.00
26	1H	1299	G	N3-C4-N9	5.83	129.50	126.00
26	1H	1401	G	C5-N7-C8	-5.83	101.39	104.30
26	1H	2358	G	N9-C4-C5	5.83	107.73	105.40
26	14	208	C	C5-C4-N4	-5.83	116.12	120.20
1	13	740	U	O5'-P-OP2	-5.83	100.45	105.70
27	16	100	G	N3-C4-N9	5.83	129.50	126.00
26	14	2776	A	C8-N9-C4	-5.83	103.47	105.80
1	13	1354	C	C6-N1-C2	-5.83	117.97	120.30
26	1H	396	G	N1-C6-O6	5.83	123.39	119.90
26	1H	398	G	C2-N3-C4	-5.83	108.99	111.90
26	1H	452	G	C5-C6-N1	5.83	114.41	111.50
26	1H	1258	C	OP2-P-O3'	5.83	118.02	105.20
26	1H	1291	C	C6-N1-C2	-5.83	117.97	120.30
26	1H	1559	G	C2-N3-C4	-5.83	108.99	111.90
26	1H	1602	U	O5'-P-OP1	-5.83	100.46	105.70
26	1H	1790	C	N3-C4-N4	5.83	122.08	118.00
26	1H	2573	C	N3-C2-O2	-5.83	117.82	121.90
26	1H	20	C	C2-N1-C1'	-5.82	112.39	118.80
26	1H	217	G	C8-N9-C4	-5.82	104.07	106.40
26	1H	1616	A	C5-C6-N6	-5.82	119.04	123.70
26	1H	2037	G	N3-C4-N9	5.82	129.49	126.00
26	14	475	U	C6-N1-C2	-5.82	117.51	121.00
26	14	2457	U	C6-N1-C2	-5.82	117.51	121.00
1	13	993	G	C4-N9-C1'	5.82	134.07	126.50
26	14	494	G	N1-C6-O6	5.82	123.39	119.90
26	14	754	C	C2-N1-C1'	5.82	125.20	118.80
26	14	1699	G	C8-N9-C4	-5.82	104.07	106.40
26	1H	1201	C	N1-C2-O2	-5.82	115.41	118.90
26	1H	2841	C	C6-N1-C2	5.82	122.63	120.30
27	16	7	G	N1-C6-O6	5.82	123.39	119.90
30	21	49	LEU	CA-CB-CG	-5.82	101.91	115.30
26	14	398	G	C6-C5-N7	-5.82	126.91	130.40
26	14	784	A	C6-N1-C2	5.82	122.09	118.60
26	1H	259	G	C5-N7-C8	-5.82	101.39	104.30
26	1H	652	C	C5-C6-N1	5.82	123.91	121.00
26	1H	1987	G	N3-C2-N2	-5.82	115.83	119.90
26	1H	2307	G	C5-C6-O6	-5.82	125.11	128.60
26	1H	141	A	N1-C6-N6	5.82	122.09	118.60
26	1H	1418	G	N1-C6-O6	-5.82	116.41	119.90
26	1H	1994	C	C2-N1-C1'	5.82	125.20	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2553	G	C8-N9-C1'	-5.82	119.44	127.00
1	1G	956	U	C6-N1-C2	-5.82	117.51	121.00
1	13	50	A	C8-N9-C4	-5.82	103.47	105.80
26	1H	577	G	N1-C2-N2	-5.82	110.97	116.20
1	1G	503	C	C2-N1-C1'	5.82	125.20	118.80
26	14	1673	U	O5'-P-OP1	-5.82	100.47	105.70
26	1H	1663	C	C5-C6-N1	5.81	123.91	121.00
26	1H	2008	C	O5'-P-OP2	-5.81	100.47	105.70
26	14	203	C	C2-N1-C1'	-5.81	112.41	118.80
26	14	1688	U	C5-C4-O4	5.81	129.39	125.90
1	13	1413	A	C8-N9-C4	-5.81	103.47	105.80
26	1H	1905	C	P-O3'-C3'	5.81	126.67	119.70
26	1H	2548	G	N3-C4-N9	5.81	129.49	126.00
26	14	816	C	C6-N1-C2	5.81	122.62	120.30
1	13	789	U	N3-C2-O2	-5.81	118.13	122.20
26	14	923	C	O5'-P-OP1	-5.81	100.47	105.70
26	1H	1839	G	N3-C4-N9	5.81	129.49	126.00
26	1H	2446	G	N1-C6-O6	5.81	123.39	119.90
27	16	45	A	N7-C8-N9	5.81	116.70	113.80
27	16	112	G	C8-N9-C4	5.81	108.72	106.40
26	14	211	A	N1-C6-N6	5.81	122.08	118.60
26	14	468	G	O5'-P-OP1	-5.81	100.47	105.70
26	14	1993	U	OP2-P-O3'	5.81	117.98	105.20
26	14	2025	C	N3-C2-O2	5.81	125.97	121.90
26	14	2595	G	C5-C6-O6	-5.81	125.11	128.60
26	1H	447	A	C8-N9-C4	-5.81	103.48	105.80
26	1H	1422	G	C8-N9-C4	-5.81	104.08	106.40
26	1H	1918	A	C8-N9-C4	5.81	108.12	105.80
1	1G	634	C	C6-N1-C2	-5.81	117.98	120.30
26	14	193	U	O5'-P-OP2	-5.81	100.47	105.70
26	1H	186	G	N1-C2-N2	-5.81	110.97	116.20
26	1H	657	U	C4-C5-C6	5.81	123.18	119.70
26	14	1377	G	N3-C4-N9	5.81	129.48	126.00
26	14	2002	G	C5-C6-N1	5.81	114.40	111.50
26	1H	1681	G	N1-C6-O6	5.80	123.38	119.90
26	14	770	G	O5'-P-OP1	-5.80	100.48	105.70
26	14	1818	U	O5'-P-OP2	-5.80	100.48	105.70
26	14	2622	C	C2-N3-C4	-5.80	117.00	119.90
26	1H	845	G	C8-N9-C1'	5.80	134.54	127.00
26	14	770	G	O5'-P-OP2	5.80	117.66	110.70
26	14	922	U	C6-N1-C2	-5.80	117.52	121.00
26	14	1480	G	N1-C6-O6	5.80	123.38	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1614	A	O5'-P-OP1	-5.80	100.48	105.70
26	14	1777	U	C4-C5-C6	5.80	123.18	119.70
26	1H	338	G	N3-C4-C5	-5.80	125.70	128.60
26	1H	2452	C	OP1-P-OP2	5.80	128.30	119.60
1	1G	413	G	C4-C5-N7	-5.80	108.48	110.80
26	14	783	A	N3-C4-N9	-5.80	122.76	127.40
26	14	2487	G	N1-C6-O6	5.80	123.38	119.90
23	2K	53	G	N1-C6-O6	5.80	123.38	119.90
26	1H	576	U	N3-C2-O2	5.80	126.26	122.20
26	14	768	G	C4-C5-C6	5.80	122.28	118.80
26	1H	773	U	C5-C4-O4	5.80	129.38	125.90
26	1H	1358	G	N3-C4-N9	5.80	129.48	126.00
1	1G	305	G	N9-C4-C5	5.80	107.72	105.40
1	1G	1234	C	C5-C6-N1	5.80	123.90	121.00
26	14	556	G	C8-N9-C1'	-5.80	119.47	127.00
26	14	1648	C	C5-C6-N1	5.80	123.90	121.00
26	14	209	C	O5'-P-OP1	5.79	117.65	110.70
26	14	573	G	C4-N9-C1'	5.79	134.03	126.50
1	13	452	A	C8-N9-C4	5.79	108.12	105.80
26	1H	933	A	N1-C6-N6	-5.79	115.12	118.60
26	1H	1636	C	N1-C2-O2	-5.79	115.42	118.90
26	14	1363	C	N3-C4-C5	5.79	124.22	121.90
26	1H	120	U	N1-C2-N3	5.79	118.38	114.90
26	14	711	G	N1-C6-O6	5.79	123.38	119.90
26	1H	186	G	N1-C6-O6	-5.79	116.43	119.90
26	1H	508	G	C4-C5-N7	5.79	113.12	110.80
26	1H	785	G	N1-C6-O6	-5.79	116.43	119.90
26	1H	1340	U	N3-C2-O2	5.79	126.25	122.20
26	1H	1821	A	N1-C2-N3	5.79	132.19	129.30
26	14	822	U	N3-C4-O4	-5.79	115.35	119.40
1	13	700	G	C2-N3-C4	5.79	114.79	111.90
1	13	816	A	N9-C4-C5	5.79	108.11	105.80
26	1H	917	A	C5-N7-C8	-5.79	101.01	103.90
26	1H	990	A	C8-N9-C4	-5.79	103.49	105.80
26	1H	1834	U	N3-C2-O2	-5.79	118.15	122.20
40	A8	48	LEU	CA-CB-CG	5.79	128.61	115.30
26	1H	240	G	OP1-P-OP2	-5.78	110.92	119.60
26	1H	309	G	C6-C5-N7	-5.78	126.93	130.40
26	1H	2431	U	N3-C4-O4	-5.78	115.35	119.40
26	1H	2510	C	O5'-P-OP2	-5.78	100.49	105.70
26	14	252	G	C5-N7-C8	5.78	107.19	104.30
26	14	956	G	N1-C6-O6	5.78	123.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1596	A	N1-C6-N6	-5.78	115.13	118.60
26	14	93	C	C5-C6-N1	5.78	123.89	121.00
23	2K	4	G	C5-C6-O6	5.78	132.07	128.60
26	1H	1786	A	OP1-P-O3'	5.78	117.92	105.20
29	11	95	LEU	CA-CB-CG	5.78	128.60	115.30
1	1G	121	C	N3-C4-N4	5.78	122.05	118.00
26	14	702	G	C4-C5-C6	5.78	122.27	118.80
26	14	774	A	N3-C4-N9	-5.78	122.78	127.40
1	13	354	G	C4-N9-C1'	5.78	134.01	126.50
26	1H	972	G	N9-C4-C5	-5.78	103.09	105.40
1	1G	911	U	C5-C4-O4	5.78	129.37	125.90
26	14	1601	G	C4-C5-N7	5.78	113.11	110.80
26	14	2763	G	N3-C4-C5	-5.78	125.71	128.60
26	1H	687	C	C5-C6-N1	5.78	123.89	121.00
26	1H	1011	G	O5'-P-OP1	-5.78	100.50	105.70
26	1H	1189	A	N9-C4-C5	-5.78	103.49	105.80
26	1H	1840	G	N3-C2-N2	-5.78	115.86	119.90
26	1H	1899	G	OP2-P-O3'	5.78	117.91	105.20
26	1H	2580	U	OP2-P-O3'	5.78	117.91	105.20
26	1H	2697	G	N3-C4-N9	5.78	129.47	126.00
26	1H	2821	A	N1-C6-N6	5.78	122.06	118.60
1	1G	881	G	C6-C5-N7	-5.78	126.94	130.40
26	14	260	G	C5-C6-O6	5.78	132.06	128.60
26	1H	1535	U	N3-C2-O2	-5.77	118.16	122.20
26	14	1302	A	N1-C6-N6	-5.77	115.14	118.60
26	14	1771	C	N1-C2-O2	-5.77	115.44	118.90
1	13	584	G	N1-C6-O6	-5.77	116.44	119.90
1	13	789	U	N1-C2-N3	5.77	118.36	114.90
26	1H	1309	G	N1-C2-N2	-5.77	111.00	116.20
26	1H	1528	A	C8-N9-C4	-5.77	103.49	105.80
26	1H	1694	C	C6-N1-C2	5.77	122.61	120.30
26	14	735	A	C8-N9-C4	5.77	108.11	105.80
26	14	2499	C	N3-C2-O2	-5.77	117.86	121.90
26	1H	1950	G	N3-C4-C5	5.77	131.49	128.60
1	1G	474	G	N3-C4-N9	-5.77	122.54	126.00
26	14	1115	G	N3-C4-C5	5.77	131.49	128.60
1	13	525	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	987	G	C8-N9-C4	-5.77	104.09	106.40
26	14	563	G	C4-C5-N7	5.77	113.11	110.80
26	1H	701	G	C4-C5-C6	5.77	122.26	118.80
26	1H	788	A	OP2-P-O3'	5.77	117.89	105.20
26	1H	865	C	C6-N1-C2	5.77	122.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2873	A	C5-C6-N1	-5.77	114.82	117.70
26	1H	112	U	N3-C4-O4	5.77	123.44	119.40
26	1H	575	A	C8-N9-C4	5.77	108.11	105.80
26	1H	1936	A	C5-C6-N1	5.77	120.58	117.70
26	1H	2307	G	C6-C5-N7	-5.77	126.94	130.40
26	14	582	G	C6-C5-N7	-5.77	126.94	130.40
26	14	1022	G	P-O3'-C3'	5.77	126.62	119.70
26	14	1354	A	C5-N7-C8	-5.77	101.02	103.90
27	1J	97	G	O5'-P-OP2	-5.77	100.51	105.70
26	1H	1389	G	C8-N9-C4	-5.76	104.09	106.40
26	1H	1683	C	C2-N3-C4	-5.76	117.02	119.90
26	1H	1936	A	C5-C6-N6	-5.76	119.09	123.70
26	1H	2053	G	C4-C5-N7	5.76	113.11	110.80
26	1H	2216	G	C5-C6-N1	-5.76	108.62	111.50
26	1H	2328	A	N1-C6-N6	5.76	122.06	118.60
1	1G	352	C	N3-C2-O2	-5.76	117.86	121.90
1	1G	944	G	N3-C4-N9	5.76	129.46	126.00
26	14	2346	A	C2-N3-C4	-5.76	107.72	110.60
26	1H	2028	U	O5'-P-OP1	-5.76	100.51	105.70
26	14	1329	U	N1-C2-N3	5.76	118.36	114.90
26	14	2414	G	C8-N9-C1'	-5.76	119.51	127.00
26	1H	842	G	C2-N3-C4	-5.76	109.02	111.90
1	1G	1126	U	P-O3'-C3'	5.76	126.61	119.70
1	1G	1466	C	C6-N1-C2	-5.76	118.00	120.30
26	14	710	G	N9-C4-C5	-5.76	103.09	105.40
1	13	38	G	C6-C5-N7	-5.76	126.94	130.40
26	1H	823	G	N1-C6-O6	5.76	123.36	119.90
26	1H	2503	A	OP1-P-OP2	-5.76	110.96	119.60
1	1G	1502	A	N1-C2-N3	5.76	132.18	129.30
26	14	1783	A	C5-C6-N6	5.76	128.31	123.70
26	1H	2595	G	C6-C5-N7	-5.76	126.94	130.40
26	14	138	G	C8-N9-C4	-5.76	104.10	106.40
26	14	2719	G	C6-C5-N7	-5.76	126.94	130.40
26	1H	2458	G	N3-C2-N2	-5.76	115.87	119.90
26	14	333	G	C6-C5-N7	-5.76	126.95	130.40
1	1G	266	G	O4'-C1'-N9	-5.75	103.60	108.20
26	1H	768	G	C6-C5-N7	-5.75	126.95	130.40
26	1H	1758	G	C5-C6-O6	-5.75	125.15	128.60
26	1H	2611	U	P-O3'-C3'	5.75	126.61	119.70
1	1G	1322	C	N1-C2-O2	5.75	122.35	118.90
26	14	298	G	C4-C5-N7	5.75	113.10	110.80
26	14	1757	U	OP1-P-O3'	5.75	117.86	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	220	G	N3-C4-C5	-5.75	125.72	128.60
1	13	1281	U	C6-N1-C2	-5.75	117.55	121.00
26	1H	145	G	N1-C6-O6	5.75	123.35	119.90
26	1H	1304	C	N3-C4-C5	5.75	124.20	121.90
26	1H	1566	A	N3-C4-N9	-5.75	122.80	127.40
26	1H	2297	C	OP1-P-OP2	5.75	128.23	119.60
26	1H	2845	G	C5-C6-N1	-5.75	108.62	111.50
26	1H	2060	A	P-O3'-C3'	5.75	126.60	119.70
26	14	954	G	N1-C6-O6	-5.75	116.45	119.90
26	1H	763	G	C5-C6-O6	5.75	132.05	128.60
26	1H	1653	G	N3-C4-C5	-5.75	125.73	128.60
26	1H	1770	G	C5-C6-N1	-5.75	108.63	111.50
1	1G	977	A	C8-N9-C4	-5.75	103.50	105.80
26	14	705	A	C8-N9-C4	5.75	108.10	105.80
26	14	929	G	N3-C4-C5	-5.75	125.73	128.60
1	13	526	C	N3-C2-O2	5.75	125.92	121.90
26	1H	101	G	N9-C4-C5	-5.75	103.10	105.40
26	1H	1677	A	O5'-P-OP1	-5.75	100.53	105.70
26	1H	1829	A	O5'-P-OP2	5.75	117.60	110.70
26	1H	2329	G	C2-N3-C4	-5.75	109.03	111.90
1	1G	953	G	N3-C2-N2	5.75	123.92	119.90
26	1H	2251	G	C8-N9-C4	-5.74	104.10	106.40
26	1H	2350	C	N3-C2-O2	-5.74	117.88	121.90
29	11	52	ARG	NE-CZ-NH2	5.74	123.17	120.30
1	1G	979	C	C4-C5-C6	5.74	120.27	117.40
26	1H	1202	C	C4-C5-C6	5.74	120.27	117.40
26	14	2072	G	N9-C4-C5	-5.74	103.10	105.40
26	1H	818	G	C2-N3-C4	-5.74	109.03	111.90
26	1H	2245	U	N1-C2-O2	5.74	126.82	122.80
26	1H	2506	U	N1-C2-O2	5.74	126.82	122.80
26	14	397	G	N3-C4-C5	5.74	131.47	128.60
26	14	1770	G	C8-N9-C4	-5.74	104.10	106.40
26	14	1807	G	OP1-P-O3'	5.74	117.83	105.20
26	1H	1408	C	N1-C2-O2	-5.74	115.46	118.90
1	1G	956	U	C2-N1-C1'	5.74	124.59	117.70
26	14	2702	U	C5-C4-O4	-5.74	122.46	125.90
26	1H	231	C	N1-C2-O2	-5.74	115.46	118.90
26	1H	2413	G	C4-C5-N7	5.74	113.09	110.80
26	1H	2504	U	O5'-P-OP1	5.74	117.58	110.70
26	1H	2687	U	N3-C4-C5	-5.74	111.16	114.60
26	14	1489	U	N1-C2-N3	5.74	118.34	114.90
26	14	2595	G	C4-C5-N7	5.74	113.09	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1989	G	C5-C6-O6	-5.73	125.16	128.60
26	1H	2012	G	C6-C5-N7	-5.73	126.96	130.40
1	13	354	G	N3-C4-N9	5.73	129.44	126.00
26	1H	113	G	N3-C2-N2	-5.73	115.89	119.90
26	1H	726	G	N1-C6-O6	5.73	123.34	119.90
26	1H	956	G	OP1-P-O3'	5.73	117.81	105.20
1	1G	150	C	C6-N1-C2	-5.73	118.01	120.30
26	14	1205	U	N3-C2-O2	-5.73	118.19	122.20
26	14	2502	G	C5-C6-O6	-5.73	125.16	128.60
1	1G	529	G	C5-C6-O6	-5.73	125.16	128.60
26	14	444	C	C2-N1-C1'	-5.73	112.50	118.80
26	14	1914	C	N3-C2-O2	-5.73	117.89	121.90
26	14	2603	G	O5'-P-OP1	-5.73	100.54	105.70
26	1H	338	G	C6-C5-N7	-5.73	126.96	130.40
26	1H	933	A	C5-C6-N6	5.73	128.28	123.70
26	1H	1956	U	N3-C2-O2	-5.73	118.19	122.20
26	14	2867	G	O4'-C1'-N9	5.73	112.78	108.20
26	1H	631	A	N7-C8-N9	-5.73	110.94	113.80
26	1H	1191	G	C8-N9-C4	5.73	108.69	106.40
26	1H	1784	A	N9-C4-C5	5.73	108.09	105.80
26	1H	1898	U	N3-C2-O2	-5.73	118.19	122.20
26	1H	2308	G	C6-N1-C2	5.73	128.54	125.10
27	16	28	C	O5'-P-OP1	5.73	117.57	110.70
26	14	1972	A	N3-C4-C5	-5.73	122.79	126.80
1	13	1409	C	N3-C4-N4	5.72	122.01	118.00
26	1H	609	A	C6-C5-N7	-5.72	128.29	132.30
26	1H	783	A	N3-C4-N9	-5.72	122.82	127.40
26	1H	2501	C	C5-C6-N1	-5.72	118.14	121.00
41	75	99	LEU	CA-CB-CG	-5.72	102.13	115.30
26	1H	270(H)	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	823	G	N9-C4-C5	-5.72	103.11	105.40
26	1H	1401	G	N7-C8-N9	5.72	115.96	113.10
26	14	2719	G	C8-N9-C1'	-5.72	119.56	127.00
1	1G	769	G	C8-N9-C1'	-5.72	119.56	127.00
24	3L	71	G	C5-N7-C8	5.72	107.16	104.30
26	14	1978	A	OP2-P-O3'	5.72	117.78	105.20
1	13	412	A	P-O3'-C3'	5.72	126.56	119.70
26	1H	571	A	N1-C6-N6	-5.72	115.17	118.60
26	1H	784	A	P-O3'-C3'	5.72	126.56	119.70
26	14	768	G	C6-C5-N7	-5.72	126.97	130.40
26	1H	204	A	N1-C2-N3	5.72	132.16	129.30
26	1H	502	A	C4-C5-C6	5.72	119.86	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	2L	36	A	C2-N3-C4	-5.72	107.74	110.60
1	13	1404	C	N1-C2-O2	-5.71	115.47	118.90
26	1H	452	G	C5-C6-O6	5.71	132.03	128.60
26	1H	1935	G	C2-N3-C4	-5.71	109.04	111.90
26	14	304	G	C8-N9-C4	-5.71	104.11	106.40
26	14	1955	U	N1-C2-N3	5.71	118.33	114.90
26	14	2622	C	C2-N1-C1'	-5.71	112.51	118.80
26	14	992	C	N1-C2-O2	5.71	122.33	118.90
26	1H	2050	C	O5'-P-OP2	-5.71	100.56	105.70
26	14	265	A	N7-C8-N9	5.71	116.66	113.80
26	14	1279	G	C5-C6-O6	5.71	132.03	128.60
26	14	1367	A	C2-N3-C4	-5.71	107.74	110.60
26	14	1482	U	N3-C4-C5	-5.71	111.17	114.60
26	14	1619	G	C5-C6-N1	5.71	114.36	111.50
26	14	1961	C	N3-C2-O2	5.71	125.90	121.90
26	1H	411	G	N3-C4-N9	5.71	129.43	126.00
26	1H	823	G	C4-N9-C1'	5.71	133.92	126.50
26	1H	1628	G	C8-N9-C1'	-5.71	119.58	127.00
26	14	2872	G	N9-C4-C5	5.71	107.68	105.40
26	1H	2609	U	C4-C5-C6	5.71	123.12	119.70
26	14	278	A	OP1-P-O3'	5.71	117.76	105.20
26	14	811	U	O5'-P-OP1	-5.71	100.56	105.70
26	14	1318	C	O5'-P-OP1	-5.71	100.56	105.70
1	13	690	G	C5-C6-N1	-5.71	108.65	111.50
26	1H	2732	G	N3-C4-N9	5.71	129.42	126.00
26	1H	502	A	N9-C4-C5	5.71	108.08	105.80
26	1H	1521	G	C8-N9-C4	-5.71	104.12	106.40
26	1H	1841	U	O5'-P-OP1	5.71	117.55	110.70
26	14	1950	G	C4-N9-C1'	5.71	133.92	126.50
1	13	1467	G	O5'-P-OP2	-5.70	100.57	105.70
26	1H	417	C	O5'-P-OP2	5.70	117.54	110.70
26	1H	826	U	OP2-P-O3'	5.70	117.75	105.20
26	1H	2351	G	C4-N9-C1'	5.70	133.91	126.50
26	14	502	A	N1-C2-N3	5.70	132.15	129.30
26	14	561	G	N3-C2-N2	-5.70	115.91	119.90
26	14	1703	G	N1-C6-O6	5.70	123.32	119.90
26	14	2726	U	N3-C2-O2	-5.70	118.21	122.20
26	1H	1268	A	C2-N3-C4	-5.70	107.75	110.60
26	1H	1984	G	N7-C8-N9	-5.70	110.25	113.10
26	14	2325	G	O5'-P-OP1	-5.70	100.57	105.70
26	14	2495	G	N3-C4-C5	5.70	131.45	128.60
26	1H	824	A	N1-C6-N6	-5.70	115.18	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1401	G	N1-C6-O6	5.70	123.32	119.90
26	1H	1427	A	C6-N1-C2	-5.70	115.18	118.60
26	14	988	A	C5-N7-C8	-5.70	101.05	103.90
26	14	2445	G	C8-N9-C4	-5.70	104.12	106.40
26	1H	465	G	O5'-P-OP2	5.70	117.54	110.70
26	1H	834	C	C4-C5-C6	5.70	120.25	117.40
26	1H	2708	G	C8-N9-C1'	-5.70	119.59	127.00
26	1H	2724	C	N3-C4-C5	-5.70	119.62	121.90
26	14	1349	A	C8-N9-C4	-5.70	103.52	105.80
26	14	442	G	N7-C8-N9	5.70	115.95	113.10
27	1J	75	G	N3-C4-N9	5.70	129.42	126.00
26	1H	526	A	N1-C6-N6	-5.70	115.18	118.60
26	1H	1322	A	OP2-P-O3'	5.70	117.73	105.20
26	1H	1630(A)	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	2521	C	N3-C4-N4	-5.70	114.01	118.00
26	1H	2521	C	C5-C6-N1	-5.70	118.15	121.00
27	16	49	C	N3-C2-O2	5.70	125.89	121.90
26	14	988	A	C6-C5-N7	-5.70	128.31	132.30
26	14	2516	G	C4-N9-C1'	5.70	133.90	126.50
27	1J	70	C	O5'-P-OP1	-5.70	100.57	105.70
1	13	1353	G	C4-N9-C1'	5.69	133.90	126.50
26	1H	2606	C	OP1-P-O3'	5.69	117.73	105.20
1	13	1527	C	C6-N1-C2	-5.69	118.02	120.30
26	1H	774	A	C6-C5-N7	-5.69	128.32	132.30
26	1H	1617	C	O5'-P-OP2	5.69	117.53	110.70
26	1H	1668	A	C8-N9-C4	5.69	108.08	105.80
26	1H	2621	A	N1-C2-N3	5.69	132.15	129.30
27	1J	15	A	C8-N9-C4	5.69	108.08	105.80
26	1H	104	U	N3-C2-O2	5.69	126.18	122.20
26	1H	1488	G	C2-N3-C4	-5.69	109.06	111.90
26	1H	1505	C	C6-N1-C2	-5.69	118.02	120.30
26	14	1022	G	C4-C5-N7	-5.69	108.52	110.80
26	14	1815	A	N1-C6-N6	-5.69	115.19	118.60
56	2L	13	C	C5-C6-N1	5.69	123.84	121.00
26	14	1187	G	C4-C5-C6	5.69	122.21	118.80
26	1H	1314	C	C6-N1-C2	-5.69	118.03	120.30
26	1H	2032	G	N1-C6-O6	5.69	123.31	119.90
26	1H	2334	G	C8-N9-C4	5.69	108.67	106.40
31	31	170	LEU	CA-CB-CG	5.69	128.38	115.30
26	1H	446	G	C4-C5-N7	5.69	113.07	110.80
26	1H	977	G	N3-C4-N9	5.69	129.41	126.00
26	1H	2821	A	C5-C6-N6	-5.69	119.15	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	835	A	O5'-P-OP2	-5.69	100.58	105.70
26	14	2010	G	O5'-P-OP1	-5.69	100.58	105.70
1	13	740	U	C2-N1-C1'	-5.68	110.88	117.70
26	1H	1894	C	C5-C6-N1	5.68	123.84	121.00
24	3L	71	G	N7-C8-N9	-5.68	110.26	113.10
26	14	1273	U	P-O3'-C3'	5.68	126.52	119.70
26	14	1614	A	O4'-C1'-N9	5.68	112.75	108.20
26	1H	11	G	N1-C6-O6	5.68	123.31	119.90
26	1H	583	G	OP1-P-O3'	5.68	117.70	105.20
26	1H	1499	C	O5'-P-OP1	-5.68	100.59	105.70
26	1H	2063	C	OP2-P-O3'	5.68	117.70	105.20
26	1H	2466	C	N3-C4-C5	5.68	124.17	121.90
26	14	2689	U	P-O3'-C3'	5.68	126.52	119.70
1	13	1185	G	N1-C6-O6	5.68	123.31	119.90
26	1H	2281	C	N3-C4-C5	5.68	124.17	121.90
26	14	1703	G	N9-C4-C5	-5.68	103.13	105.40
26	1H	2287	A	N1-C6-N6	5.68	122.01	118.60
26	14	646	A	C8-N9-C4	-5.68	103.53	105.80
26	1H	1899	G	C5-C6-O6	5.68	132.01	128.60
1	13	260	G	C4-C5-N7	-5.68	108.53	110.80
1	13	1405	G	C2-N3-C4	5.68	114.74	111.90
26	1H	231	C	C5-C4-N4	5.68	124.17	120.20
55	Q8	52	LYS	C-N-CA	5.68	145.84	122.00
1	1G	965	A	N7-C8-N9	-5.68	110.96	113.80
26	14	82	G	N1-C6-O6	5.68	123.31	119.90
26	14	1598	C	C6-N1-C2	-5.68	118.03	120.30
26	14	1769	G	C4-N9-C1'	5.68	133.88	126.50
26	1H	51	G	C4-C5-N7	-5.67	108.53	110.80
26	1H	440	G	C5-C6-N1	5.67	114.34	111.50
26	1H	767	U	N3-C4-C5	-5.67	111.20	114.60
26	1H	1192	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	1698	A	O4'-C1'-N9	5.67	112.74	108.20
26	1H	1796	U	C2-N1-C1'	-5.67	110.89	117.70
26	14	512	G	C8-N9-C1'	5.67	134.38	127.00
26	14	1878	G	C4-N9-C1'	5.67	133.88	126.50
26	14	2270	G	N3-C4-N9	5.67	129.40	126.00
26	1H	185	U	N1-C2-N3	5.67	118.30	114.90
26	1H	1838	C	C5-C4-N4	-5.67	116.23	120.20
26	1H	1920	C	C2-N1-C1'	5.67	125.04	118.80
26	1H	2555	U	N3-C2-O2	5.67	126.17	122.20
26	14	2072	G	C4-C5-N7	5.67	113.07	110.80
26	1H	140	A	O4'-C1'-N9	5.67	112.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	217	G	N3-C4-N9	-5.67	122.60	126.00
26	1H	907	U	OP2-P-O3'	5.67	117.68	105.20
26	1H	1770	G	N1-C6-O6	5.67	123.30	119.90
26	1H	2450	A	N1-C6-N6	-5.67	115.20	118.60
26	14	182	A	OP2-P-O3'	5.67	117.68	105.20
26	14	203	C	N3-C4-C5	5.67	124.17	121.90
26	14	1705	G	C2-N3-C4	-5.67	109.06	111.90
26	14	2049	G	C2-N3-C4	-5.67	109.06	111.90
26	14	2074	U	O5'-P-OP1	-5.67	100.60	105.70
26	14	2413	G	C5-C6-O6	-5.67	125.20	128.60
26	1H	122	G	N1-C6-O6	5.67	123.30	119.90
26	1H	1257	C	N3-C4-C5	-5.67	119.63	121.90
26	1H	1999	C	C6-N1-C2	5.67	122.57	120.30
26	1H	2432	A	C5-C6-N6	-5.67	119.17	123.70
26	14	388	G	N3-C4-C5	5.67	131.44	128.60
26	14	512	G	N3-C4-N9	-5.67	122.60	126.00
1	13	1366	C	C6-N1-C2	-5.67	118.03	120.30
1	13	1496	C	N1-C2-O2	-5.67	115.50	118.90
24	3K	1	G	P-O3'-C3'	5.67	126.50	119.70
26	1H	202	U	O5'-P-OP1	-5.67	100.60	105.70
26	1H	433	C	N3-C4-N4	-5.67	114.03	118.00
26	1H	556	G	N1-C6-O6	5.67	123.30	119.90
26	1H	689	A	O5'-P-OP2	-5.67	100.60	105.70
26	1H	1344	G	N1-C2-N2	5.67	121.30	116.20
26	1H	1500	G	N9-C4-C5	-5.67	103.13	105.40
26	1H	2731	G	OP2-P-O3'	5.67	117.67	105.20
1	1G	917	G	N3-C4-C5	5.67	131.43	128.60
1	1G	953	G	N3-C4-C5	-5.67	125.77	128.60
26	14	1342	A	C5-C6-N1	-5.67	114.87	117.70
1	13	117	G	N1-C6-O6	5.67	123.30	119.90
26	1H	534	U	N1-C2-N3	5.67	118.30	114.90
26	1H	621	A	N7-C8-N9	5.67	116.63	113.80
26	14	138	G	C5-N7-C8	-5.67	101.47	104.30
26	1H	1271	G	C8-N9-C4	5.66	108.67	106.40
26	1H	2071	A	OP1-P-OP2	-5.66	111.10	119.60
26	1H	2238	G	OP1-P-OP2	5.66	128.10	119.60
26	1H	2594	C	C6-N1-C2	-5.66	118.03	120.30
26	14	1870	C	N1-C2-O2	5.66	122.30	118.90
26	1H	214	G	N3-C4-N9	5.66	129.40	126.00
26	1H	342	G	N3-C4-C5	-5.66	125.77	128.60
26	1H	1705	G	N3-C4-C5	-5.66	125.77	128.60
26	1H	1026	U	C6-N1-C1'	5.66	129.13	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1392	A	C2-N3-C4	5.66	113.43	110.60
26	1H	1992	G	C5-N7-C8	-5.66	101.47	104.30
26	14	1811	G	C2-N3-C4	-5.66	109.07	111.90
26	14	2822	G	C6-C5-N7	-5.66	127.00	130.40
1	13	758	G	C5-N7-C8	-5.66	101.47	104.30
26	1H	552	G	C8-N9-C4	5.66	108.66	106.40
26	1H	784	A	O5'-P-OP1	-5.66	100.61	105.70
26	1H	1672	C	N3-C2-O2	5.66	125.86	121.90
26	1H	2666	C	C6-N1-C2	-5.66	118.04	120.30
26	1H	2729	G	N1-C6-O6	5.66	123.30	119.90
27	16	60	C	C6-N1-C2	-5.66	118.04	120.30
1	1G	893	C	C6-N1-C2	5.66	122.56	120.30
1	1G	1252	A	N1-C6-N6	-5.66	115.20	118.60
56	2L	48	U	OP2-P-O3'	5.66	117.65	105.20
26	14	2581	G	C4-C5-C6	5.66	122.19	118.80
26	14	1273	U	OP2-P-O3'	5.66	117.64	105.20
26	1H	1525	G	C5-C6-N1	5.66	114.33	111.50
27	16	81	G	C8-N9-C1'	-5.66	119.65	127.00
1	1G	1285	A	P-O3'-C3'	5.66	126.49	119.70
26	14	193	U	C5-C6-N1	-5.66	119.87	122.70
26	14	1758	G	N1-C6-O6	5.66	123.29	119.90
26	14	194	G	C5-C6-N1	-5.65	108.67	111.50
26	14	429	A	C6-C5-N7	-5.65	128.34	132.30
26	14	561	G	N3-C4-N9	-5.65	122.61	126.00
26	1H	554	U	N3-C4-C5	-5.65	111.21	114.60
26	1H	811	U	O5'-P-OP1	-5.65	100.61	105.70
26	1H	1768	U	OP2-P-O3'	5.65	117.63	105.20
26	1H	2453	A	N9-C4-C5	5.65	108.06	105.80
26	1H	2508	G	N1-C2-N3	5.65	127.29	123.90
27	16	79	C	N3-C2-O2	-5.65	117.94	121.90
26	14	1187	G	OP2-P-O3'	5.65	117.64	105.20
26	14	2516	G	OP2-P-O3'	5.65	117.64	105.20
24	3K	20	U	N1-C2-O2	-5.65	118.84	122.80
26	1H	198	C	N3-C4-C5	5.65	124.16	121.90
26	1H	1028	A	C6-N1-C2	-5.65	115.21	118.60
26	1H	1296	G	N3-C4-N9	5.65	129.39	126.00
26	1H	1363	C	C2-N3-C4	-5.65	117.07	119.90
26	1H	654(A)	A	N1-C2-N3	5.65	132.12	129.30
26	14	1143	A	C8-N9-C4	-5.65	103.54	105.80
26	1H	491	G	N3-C2-N2	-5.65	115.95	119.90
26	1H	1260	G	C4-C5-N7	5.65	113.06	110.80
26	1H	1994	C	N3-C2-O2	-5.65	117.95	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2443	C	OP2-P-O3'	5.65	117.62	105.20
26	14	1781	C	C5-C6-N1	-5.65	118.18	121.00
26	14	2863	C	C6-N1-C2	5.65	122.56	120.30
26	1H	2454	G	N1-C6-O6	-5.65	116.51	119.90
1	1G	752	G	N9-C4-C5	-5.65	103.14	105.40
26	1H	859	G	C4-N9-C1'	-5.64	119.16	126.50
55	Q8	60	LEU	CA-CB-CG	5.64	128.28	115.30
26	14	741	G	N3-C2-N2	-5.64	115.95	119.90
26	14	1598	C	C5-C6-N1	5.64	123.82	121.00
26	14	2255	G	C8-N9-C4	5.64	108.66	106.40
1	13	679	C	C6-N1-C2	-5.64	118.04	120.30
1	13	874	G	C2-N3-C4	5.64	114.72	111.90
1	1G	975	A	O4'-C1'-N9	-5.64	103.69	108.20
26	14	586	A	N7-C8-N9	-5.64	110.98	113.80
26	14	1374	G	C6-C5-N7	-5.64	127.02	130.40
26	14	1660	C	N3-C2-O2	-5.64	117.95	121.90
1	13	892	A	N1-C6-N6	5.64	121.98	118.60
26	1H	241	A	N1-C2-N3	5.64	132.12	129.30
26	1H	2595	G	C6-N1-C2	-5.64	121.72	125.10
1	1G	895	G	C8-N9-C4	-5.64	104.14	106.40
26	14	2406	U	N1-C2-O2	5.64	126.75	122.80
1	13	15	G	N3-C4-N9	5.64	129.38	126.00
1	13	713	G	C4-C5-N7	5.64	113.06	110.80
26	1H	782	A	O4'-C1'-N9	-5.64	103.69	108.20
26	1H	1488	G	N1-C2-N3	5.64	127.28	123.90
26	1H	2259	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	2827	C	N3-C4-N4	5.64	121.95	118.00
26	14	188	G	C8-N9-C4	5.64	108.66	106.40
26	14	2070	G	OP2-P-O3'	5.64	117.61	105.20
26	1H	843	G	N3-C4-C5	5.64	131.42	128.60
26	1H	1274	A	O5'-P-OP2	-5.64	100.62	105.70
26	1H	262	A	C6-C5-N7	-5.64	128.35	132.30
26	1H	593	G	O5'-P-OP2	-5.64	100.63	105.70
26	1H	2612	C	OP1-P-OP2	-5.64	111.15	119.60
26	14	2301	C	C5-C6-N1	5.64	123.82	121.00
26	14	2587	A	C5-N7-C8	-5.64	101.08	103.90
25	4K	18	G	N3-C4-C5	5.63	131.42	128.60
26	1H	1635	G	C5-N7-C8	5.63	107.12	104.30
1	1G	805	C	C5-C6-N1	5.63	123.82	121.00
26	14	410	G	C4-C5-N7	5.63	113.05	110.80
26	14	1204	A	C6-C5-N7	-5.63	128.36	132.30
26	14	1851	U	O5'-P-OP1	-5.63	100.63	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2582	G	C8-N9-C4	-5.63	104.15	106.40
1	1G	1529	G	N3-C4-C5	-5.63	125.78	128.60
26	14	557	U	OP2-P-O3'	5.63	117.59	105.20
26	1H	1300	U	OP1-P-O3'	5.63	117.59	105.20
26	1H	1322	A	N1-C6-N6	5.63	121.98	118.60
26	14	245	G	C8-N9-C4	-5.63	104.15	106.40
26	14	1343	G	C4-N9-C1'	5.63	133.82	126.50
1	13	270	A	C8-N9-C4	-5.63	103.55	105.80
26	1H	2346	A	C6-C5-N7	-5.63	128.36	132.30
1	1G	906	G	N1-C6-O6	5.63	123.28	119.90
26	14	999	U	N3-C2-O2	-5.63	118.26	122.20
26	14	1606	G	OP1-P-O3'	5.63	117.59	105.20
1	13	1227	A	C2-N3-C4	-5.63	107.79	110.60
26	1H	693	C	N1-C2-O2	-5.63	115.52	118.90
26	1H	1228	G	C2-N3-C4	-5.63	109.08	111.90
26	1H	2311	A	C6-C5-N7	-5.63	128.36	132.30
26	1H	2367	G	C5-C6-N1	-5.63	108.69	111.50
1	13	786	G	N1-C6-O6	-5.63	116.52	119.90
1	13	904	C	C6-N1-C2	5.63	122.55	120.30
26	1H	2413	G	N9-C4-C5	-5.63	103.15	105.40
26	1H	2486	G	C8-N9-C4	5.63	108.65	106.40
26	1H	2500	U	OP2-P-O3'	5.63	117.58	105.20
26	1H	2585	U	C6-N1-C1'	-5.63	113.32	121.20
27	16	81	G	O4'-C1'-N9	5.63	112.70	108.20
26	14	1976	U	C5-C6-N1	-5.63	119.89	122.70
26	14	2008	C	O5'-P-OP2	-5.63	100.64	105.70
26	14	2346	A	N9-C1'-C2'	5.63	121.31	114.00
26	14	2596	U	N3-C4-O4	-5.63	115.46	119.40
27	1J	60	C	C2-N1-C1'	5.63	124.99	118.80
26	1H	834	C	O5'-P-OP2	-5.62	100.64	105.70
26	1H	1691	C	C6-N1-C2	-5.62	118.05	120.30
1	13	963	G	N1-C6-O6	-5.62	116.53	119.90
26	1H	733	G	N3-C4-C5	-5.62	125.79	128.60
26	1H	1415	U	N3-C2-O2	-5.62	118.26	122.20
1	1G	768	A	C2-N3-C4	-5.62	107.79	110.60
26	14	2383	G	C6-C5-N7	-5.62	127.03	130.40
26	1H	530	G	N7-C8-N9	5.62	115.91	113.10
26	14	530	G	N3-C2-N2	5.62	123.83	119.90
26	14	1972	A	C4-C5-C6	5.62	119.81	117.00
1	13	953	G	C4-C5-N7	5.62	113.05	110.80
1	1G	1400	C	N1-C2-O2	5.62	122.27	118.90
25	4L	21	A	C8-N9-C4	-5.62	103.55	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	729	G	C2-N3-C4	5.62	114.71	111.90
26	14	1648	C	N1-C2-N3	5.62	123.13	119.20
1	13	918	A	C5-N7-C8	-5.62	101.09	103.90
26	1H	873	G	C8-N9-C4	-5.62	104.15	106.40
1	1G	345	C	C2-N1-C1'	5.62	124.98	118.80
1	1G	1200	C	C2-N1-C1'	5.62	124.98	118.80
26	14	503	A	N9-C4-C5	5.62	108.05	105.80
26	1H	128	C	OP1-P-O3'	-5.61	92.85	105.20
26	1H	2595	G	C4-C5-N7	5.61	113.05	110.80
26	14	141	A	N9-C4-C5	-5.61	103.56	105.80
26	14	660	G	C5-C6-N1	-5.61	108.69	111.50
26	14	1489	U	N1-C2-O2	-5.61	118.87	122.80
26	1H	808	G	N7-C8-N9	5.61	115.91	113.10
26	1H	1945	G	N1-C2-N3	5.61	127.27	123.90
26	14	2724	C	C6-N1-C1'	5.61	127.53	120.80
1	13	907	A	C4-C5-N7	5.61	113.50	110.70
26	1H	623	G	C8-N9-C4	5.61	108.64	106.40
26	1H	686	G	C4-C5-N7	5.61	113.04	110.80
26	1H	2055	C	N3-C4-C5	-5.61	119.66	121.90
26	14	2238	G	C2-N3-C4	5.61	114.70	111.90
26	1H	2583	G	C5-C6-O6	5.61	131.97	128.60
26	1H	117	G	N3-C4-C5	-5.61	125.80	128.60
26	1H	663	G	C8-N9-C1'	-5.61	119.71	127.00
26	1H	2054	A	N1-C2-N3	5.61	132.10	129.30
26	1H	2237	G	O5'-P-OP2	-5.61	100.65	105.70
1	1G	251	G	N9-C4-C5	-5.61	103.16	105.40
26	14	1021	A	C5-C6-N1	-5.61	114.90	117.70
55	M5	57	ARG	NE-CZ-NH2	5.61	123.10	120.30
26	1H	115	C	N3-C4-N4	5.61	121.92	118.00
26	1H	196	A	O5'-P-OP2	-5.61	100.65	105.70
26	1H	784	A	C4-C5-N7	-5.61	107.90	110.70
26	14	202	U	C6-N1-C2	5.61	124.36	121.00
26	14	689	A	N1-C6-N6	5.61	121.96	118.60
26	14	2731	G	C6-C5-N7	-5.61	127.04	130.40
26	1H	1548	C	C2-N1-C1'	5.60	124.96	118.80
29	11	122	ASP	CB-CG-OD2	5.60	123.34	118.30
26	1H	2392	A	C6-C5-N7	-5.60	128.38	132.30
26	1H	2609	U	C5-C6-N1	-5.60	119.90	122.70
26	1H	2779	U	C6-N1-C1'	-5.60	113.36	121.20
26	14	577	G	OP2-P-O3'	5.60	117.53	105.20
26	14	1667	G	N1-C6-O6	5.60	123.26	119.90
26	14	1790	C	C2-N1-C1'	-5.60	112.64	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1971	A	OP1-P-O3'	5.60	117.52	105.20
1	13	266	G	P-O3'-C3'	5.60	126.42	119.70
26	1H	631	A	C5-N7-C8	5.60	106.70	103.90
26	1H	736	C	N1-C2-O2	-5.60	115.54	118.90
26	1H	2558	C	N3-C2-O2	5.60	125.82	121.90
26	14	955	C	C5-C4-N4	5.60	124.12	120.20
26	1H	645	C	C2-N3-C4	5.60	122.70	119.90
26	1H	1368	G	O5'-P-OP2	-5.60	100.66	105.70
26	1H	1854	A	C5-C6-N6	5.60	128.18	123.70
26	14	1681	G	C2-N3-C4	-5.60	109.10	111.90
26	14	2730	C	C6-N1-C2	-5.60	118.06	120.30
26	14	696	G	O5'-P-OP2	5.60	117.42	110.70
26	14	1616	A	C8-N9-C4	-5.60	103.56	105.80
26	1H	471	A	C5-N7-C8	-5.59	101.10	103.90
26	1H	1607	C	C6-N1-C1'	-5.59	114.09	120.80
26	14	194	G	C2-N3-C4	-5.59	109.10	111.90
26	14	1115	G	C4-N9-C1'	-5.59	119.23	126.50
26	14	1476	C	N3-C4-C5	-5.59	119.66	121.90
26	14	1725	G	N3-C4-C5	-5.59	125.80	128.60
26	1H	862	G	N1-C6-O6	-5.59	116.54	119.90
26	1H	2519	U	N3-C4-O4	5.59	123.31	119.40
26	14	459	U	O5'-P-OP2	-5.59	100.67	105.70
26	14	1767	C	N3-C4-C5	5.59	124.14	121.90
26	1H	2359	C	O5'-P-OP1	-5.59	100.67	105.70
26	1H	2689	U	OP1-P-OP2	5.59	127.99	119.60
26	1H	2721	A	C4-C5-N7	5.59	113.50	110.70
26	14	1695	G	C4-N9-C1'	5.59	133.77	126.50
26	14	1768	U	O4'-C1'-N1	5.59	112.67	108.20
26	14	2283	C	N3-C2-O2	5.59	125.81	121.90
26	14	2638	G	C4-N9-C1'	5.59	133.77	126.50
27	1J	81	G	C4-N9-C1'	5.59	133.77	126.50
25	4K	18	G	C4-N9-C1'	-5.59	119.23	126.50
26	1H	738	G	OP1-P-OP2	5.59	127.98	119.60
26	1H	775	G	O4'-C1'-N9	5.59	112.67	108.20
39	98	18	LEU	CA-CB-CG	5.59	128.16	115.30
1	13	814	A	O5'-P-OP2	5.59	117.41	110.70
26	1H	670	A	O4'-C1'-N9	-5.59	103.73	108.20
26	1H	1779	U	C6-N1-C2	5.59	124.35	121.00
26	1H	2759	G	C4-N9-C1'	5.59	133.76	126.50
26	14	1302	A	C4-C5-N7	-5.59	107.91	110.70
26	1H	335	C	C5-C6-N1	5.59	123.79	121.00
26	1H	1614	A	O4'-C1'-N9	5.59	112.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	360	A	C8-N9-C4	5.59	108.03	105.80
1	1G	1401	G	C8-N9-C1'	-5.59	119.74	127.00
26	14	801	G	C5-C6-N1	5.59	114.29	111.50
26	14	1561	G	N3-C4-C5	5.59	131.39	128.60
26	14	2355	C	C6-N1-C1'	-5.59	114.10	120.80
26	14	2624	G	N1-C6-O6	5.59	123.25	119.90
26	14	738	G	O5'-P-OP2	-5.58	100.67	105.70
26	14	1343	G	N7-C8-N9	5.58	115.89	113.10
26	1H	307	G	N3-C4-C5	-5.58	125.81	128.60
26	1H	308	G	N9-C4-C5	-5.58	103.17	105.40
26	1H	2328	A	N1-C2-N3	5.58	132.09	129.30
26	1H	2844	G	OP2-P-O3'	5.58	117.48	105.20
26	14	191	A	OP1-P-O3'	-5.58	92.92	105.20
26	14	1327	C	OP2-P-O3'	5.58	117.48	105.20
26	14	1776	G	C8-N9-C1'	-5.58	119.74	127.00
26	14	2541	A	C8-N9-C4	5.58	108.03	105.80
1	13	853	G	C5-C6-N1	-5.58	108.71	111.50
1	13	953	G	N1-C2-N2	-5.58	111.18	116.20
26	1H	2504	U	N3-C2-O2	-5.58	118.29	122.20
26	1H	2560	C	O5'-P-OP2	-5.58	100.68	105.70
56	2L	17	C	N1-C2-O2	5.58	122.25	118.90
1	13	918	A	N7-C8-N9	5.58	116.59	113.80
26	1H	652	C	C5-C4-N4	-5.58	116.29	120.20
26	1H	697	C	C5-C4-N4	-5.58	116.29	120.20
26	1H	990	A	N7-C8-N9	5.58	116.59	113.80
26	1H	1375	C	C2-N1-C1'	5.58	124.94	118.80
26	1H	338	G	N9-C4-C5	-5.58	103.17	105.40
26	1H	915	C	C6-N1-C2	-5.58	118.07	120.30
26	1H	931	G	C5-C6-N1	5.58	114.29	111.50
26	1H	1415	U	C5-C4-O4	5.58	129.25	125.90
26	1H	1769	G	N1-C6-O6	5.58	123.25	119.90
26	14	1804	C	C5-C6-N1	5.58	123.79	121.00
26	1H	39	C	N3-C2-O2	5.58	125.80	121.90
26	1H	2051	A	C8-N9-C4	-5.58	103.57	105.80
26	1H	2361	A	OP1-P-OP2	5.58	127.97	119.60
26	14	1691	C	C6-N1-C2	-5.58	118.07	120.30
26	14	1787	A	C4-C5-N7	5.58	113.49	110.70
26	1H	19	C	C5-C4-N4	-5.58	116.30	120.20
26	1H	803	U	N1-C2-O2	-5.58	118.90	122.80
26	1H	2267	A	OP1-P-OP2	5.58	127.96	119.60
1	1G	913	A	O5'-P-OP2	-5.58	100.68	105.70
26	14	621	A	C2-N3-C4	-5.58	107.81	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2025	C	N1-C2-O2	-5.58	115.55	118.90
26	14	2713	A	C5-C6-N1	-5.58	114.91	117.70
26	14	2762	G	N1-C6-O6	5.58	123.25	119.90
26	1H	1799	G	N1-C2-N2	-5.57	111.18	116.20
26	1H	2689	U	C2-N1-C1'	-5.57	111.01	117.70
26	14	2490	G	C5-N7-C8	-5.57	101.51	104.30
1	13	752	G	C6-C5-N7	-5.57	127.06	130.40
26	14	383	U	O4'-C1'-N1	5.57	112.66	108.20
26	14	1241	A	N3-C4-C5	5.57	130.70	126.80
26	14	2687	U	O5'-P-OP1	-5.57	100.69	105.70
26	1H	57	C	OP2-P-O3'	5.57	117.45	105.20
26	14	2313	C	O4'-C1'-N1	5.57	112.66	108.20
26	1H	632	A	OP1-P-OP2	-5.57	111.25	119.60
26	1H	1334	G	C4-C5-N7	5.57	113.03	110.80
26	1H	1634	A	C8-N9-C4	5.57	108.03	105.80
26	1H	1677	A	C5-C6-N6	5.57	128.15	123.70
27	16	95	U	C6-N1-C1'	5.57	129.00	121.20
26	1H	410	G	N3-C2-N2	-5.57	116.00	119.90
26	1H	645	C	N3-C2-O2	-5.57	118.00	121.90
26	1H	783	A	N3-C4-C5	5.57	130.69	126.80
26	1H	1544	C	N1-C2-O2	5.57	122.24	118.90
26	1H	1758	G	O5'-P-OP1	-5.57	100.69	105.70
26	1H	1899	G	N7-C8-N9	5.57	115.88	113.10
26	1H	2427	C	C6-N1-C1'	5.57	127.48	120.80
1	1G	1400	C	N3-C2-O2	-5.57	118.00	121.90
1	1G	413	G	N3-C4-C5	5.56	131.38	128.60
26	1H	740	U	OP1-P-OP2	-5.56	111.26	119.60
26	1H	845	G	P-O3'-C3'	5.56	126.38	119.70
26	1H	1639	U	OP1-P-OP2	-5.56	111.26	119.60
26	1H	1771	C	N1-C2-N3	5.56	123.09	119.20
27	16	7	G	C5-C6-O6	-5.56	125.26	128.60
26	14	1518	C	O5'-P-OP2	5.56	117.37	110.70
26	1H	687	C	C6-N1-C2	-5.56	118.08	120.30
26	1H	1631	A	N1-C6-N6	5.56	121.94	118.60
26	1H	2009	G	N1-C6-O6	5.56	123.24	119.90
27	16	17	C	N3-C2-O2	-5.56	118.01	121.90
26	14	1427	A	C8-N9-C4	-5.56	103.58	105.80
1	13	1522	U	N1-C2-O2	5.56	126.69	122.80
26	1H	553	U	OP2-P-O3'	5.56	117.42	105.20
26	1H	785	G	C6-N1-C2	-5.56	121.77	125.10
26	1H	1324	G	N3-C2-N2	-5.56	116.01	119.90
1	1G	913	A	P-O3'-C3'	5.56	126.37	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	252	G	N7-C8-N9	-5.56	110.32	113.10
26	14	1187	G	C8-N9-C4	-5.56	104.18	106.40
26	14	1343	G	N3-C4-C5	-5.56	125.82	128.60
26	14	1480	G	C2-N3-C4	-5.56	109.12	111.90
26	14	1614	A	C4-C5-N7	5.56	113.48	110.70
26	14	2719	G	N3-C4-N9	5.56	129.33	126.00
26	1H	140	A	N9-C4-C5	-5.56	103.58	105.80
26	1H	684	G	N1-C6-O6	-5.56	116.57	119.90
26	1H	2505	G	N3-C4-N9	-5.56	122.67	126.00
26	14	970	C	N3-C2-O2	5.56	125.79	121.90
26	1H	1297	C	N3-C4-N4	-5.55	114.11	118.00
26	1H	1401	G	C5-C6-O6	-5.55	125.27	128.60
26	1H	2542	A	C2-N3-C4	-5.55	107.82	110.60
26	14	372	G	O4'-C1'-N9	5.55	112.64	108.20
26	14	789	A	O4'-C1'-N9	-5.55	103.76	108.20
26	1H	1565	C	OP2-P-O3'	5.55	117.41	105.20
26	1H	1641	A	C8-N9-C4	-5.55	103.58	105.80
26	1H	1947	C	C5-C4-N4	-5.55	116.31	120.20
26	1H	2523	G	N1-C6-O6	5.55	123.23	119.90
26	14	1278	A	OP2-P-O3'	5.55	117.41	105.20
26	1H	513	A	C5-C6-N1	5.55	120.47	117.70
1	1G	237	C	N1-C2-O2	5.55	122.23	118.90
1	1G	1401	G	C4-N9-C1'	5.55	133.72	126.50
26	14	681	G	OP2-P-O3'	5.55	117.41	105.20
26	14	1471	A	C8-N9-C4	-5.55	103.58	105.80
26	14	2276	G	N1-C6-O6	5.55	123.23	119.90
26	1H	259	G	C6-C5-N7	-5.55	127.07	130.40
26	1H	1036	G	N9-C4-C5	-5.55	103.18	105.40
26	14	692	C	N1-C2-O2	-5.55	115.57	118.90
1	13	1363	A	C8-N9-C4	5.55	108.02	105.80
26	1H	1385	G	O4'-C1'-N9	5.55	112.64	108.20
26	1H	2393	A	C8-N9-C4	-5.55	103.58	105.80
26	14	1338	G	N3-C4-N9	5.55	129.33	126.00
26	14	2298	A	C5-C6-N1	5.55	120.47	117.70
26	1H	2264	C	OP1-P-O3'	5.54	117.40	105.20
26	14	2283	C	N1-C2-O2	-5.54	115.57	118.90
26	1H	380	U	OP1-P-OP2	5.54	127.92	119.60
30	29	88	GLY	N-CA-C	5.54	126.96	113.10
26	1H	1518	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	2028	U	C5-C6-N1	-5.54	119.93	122.70
26	1H	2276	G	N3-C2-N2	-5.54	116.02	119.90
26	1H	2329	G	N7-C8-N9	-5.54	110.33	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2081	C	O5'-P-OP2	-5.54	100.71	105.70
23	2K	53	G	C5-C6-O6	-5.54	125.28	128.60
26	1H	508	G	N9-C1'-C2'	5.54	121.20	114.00
26	1H	2432	A	N1-C6-N6	5.54	121.92	118.60
26	14	444	C	N1-C2-O2	-5.54	115.58	118.90
1	13	1277	C	C6-N1-C2	-5.54	118.08	120.30
22	1K	1	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	788	A	N1-C6-N6	5.54	121.92	118.60
26	1H	1770	G	C6-C5-N7	-5.54	127.08	130.40
26	1H	2446	G	C6-C5-N7	-5.54	127.08	130.40
1	1G	1412	C	C6-N1-C2	-5.54	118.08	120.30
26	14	2287	A	N3-C4-C5	5.54	130.68	126.80
26	1H	660	G	C2-N3-C4	-5.54	109.13	111.90
26	1H	2331	G	C2-N3-C4	-5.54	109.13	111.90
26	14	1579	A	N1-C6-N6	5.54	121.92	118.60
1	13	336	C	N1-C2-O2	-5.54	115.58	118.90
1	13	1323	G	N1-C6-O6	5.54	123.22	119.90
1	13	1356	G	C6-C5-N7	-5.54	127.08	130.40
26	1H	59	U	OP2-P-O3'	5.54	117.38	105.20
26	1H	530	G	N3-C2-N2	5.54	123.78	119.90
26	1H	2396	G	N1-C6-O6	5.54	123.22	119.90
1	1G	917	G	N3-C4-N9	-5.54	122.68	126.00
26	14	189	G	C2-N3-C4	-5.54	109.13	111.90
26	14	1899	G	C8-N9-C1'	-5.54	119.80	127.00
26	1H	737	C	C5-C6-N1	-5.53	118.23	121.00
26	1H	912	C	N3-C4-C5	-5.53	119.69	121.90
26	1H	2056	G	C8-N9-C1'	-5.53	119.81	127.00
26	1H	2425	A	O5'-P-OP1	-5.53	100.72	105.70
26	1H	2554	U	N3-C4-O4	5.53	123.27	119.40
27	16	44	G	C8-N9-C1'	5.53	134.19	127.00
1	1G	562	C	C6-N1-C1'	-5.53	114.16	120.80
26	14	590	A	C2-N3-C4	-5.53	107.83	110.60
26	14	2401	U	N3-C4-O4	5.53	123.27	119.40
26	14	570	G	C5-C6-N1	-5.53	108.73	111.50
26	14	971	C	OP2-P-O3'	5.53	117.37	105.20
26	14	2304	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	107	C	N1-C2-O2	-5.53	115.58	118.90
26	1H	758	C	N3-C4-C5	5.53	124.11	121.90
26	1H	784	A	O4'-C1'-N9	5.53	112.62	108.20
26	1H	809	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	1678	G	N1-C2-N3	5.53	127.22	123.90
26	1H	2224	G	C4-C5-C6	5.53	122.12	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2241	A	C4-C5-N7	-5.53	107.94	110.70
27	16	7	G	C4-C5-N7	5.53	113.01	110.80
27	16	75	G	C5-C6-O6	-5.53	125.28	128.60
26	14	938	G	C8-N9-C4	5.53	108.61	106.40
26	14	2852	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	2710	C	C4-C5-C6	5.53	120.16	117.40
26	1H	2819	G	N3-C2-N2	-5.53	116.03	119.90
26	14	711	G	C5-C6-O6	-5.53	125.28	128.60
26	14	1647	G	C6-C5-N7	5.53	133.72	130.40
26	1H	743	G	C8-N9-C4	-5.53	104.19	106.40
26	1H	1301	A	C4-C5-N7	5.53	113.46	110.70
26	1H	2304	G	O5'-P-OP1	-5.53	100.72	105.70
26	1H	2318	G	C4-C5-N7	5.53	113.01	110.80
26	1H	2581	G	N3-C4-N9	5.53	129.32	126.00
26	14	751	A	N1-C2-N3	5.53	132.06	129.30
26	1H	308	G	C8-N9-C1'	-5.53	119.82	127.00
26	1H	436	C	C6-N1-C2	5.53	122.51	120.30
26	1H	750	A	C4-C5-N7	5.53	113.46	110.70
26	1H	1247	A	C5-C6-N1	5.53	120.46	117.70
1	1G	908	A	C2-N3-C4	-5.53	107.84	110.60
26	14	383	U	N3-C2-O2	-5.53	118.33	122.20
26	14	1426	G	N3-C4-C5	-5.53	125.84	128.60
26	14	2464	C	C5-C6-N1	-5.53	118.24	121.00
26	14	2526	G	C5-C6-N1	-5.53	108.74	111.50
26	14	2638	G	C8-N9-C1'	-5.53	119.82	127.00
1	13	741	G	C2-N3-C4	-5.52	109.14	111.90
26	1H	199	A	N1-C2-N3	-5.52	126.54	129.30
26	1H	1228	G	O4'-C1'-N9	-5.52	103.78	108.20
26	1H	1673	U	C5-C6-N1	-5.52	119.94	122.70
26	1H	2236	C	N1-C2-O2	-5.52	115.59	118.90
26	1H	2727	G	C6-C5-N7	-5.52	127.09	130.40
1	1G	783	C	C6-N1-C2	5.52	122.51	120.30
1	1G	858	G	N7-C8-N9	5.52	115.86	113.10
26	14	1612	C	C5-C6-N1	-5.52	118.24	121.00
26	1H	2606	C	N3-C4-C5	5.52	124.11	121.90
26	14	704	G	C5-C6-O6	-5.52	125.29	128.60
26	14	2012	G	N3-C4-N9	5.52	129.31	126.00
26	1H	345	A	O4'-C1'-N9	-5.52	103.78	108.20
26	1H	586	A	OP1-P-O3'	5.52	117.34	105.20
26	1H	1657	C	N1-C2-O2	5.52	122.21	118.90
26	1H	2318	G	C5-C6-N1	-5.52	108.74	111.50
26	1H	2377	A	C8-N9-C4	5.52	108.01	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	922	U	O5'-P-OP1	-5.52	100.73	105.70
26	14	1783	A	C8-N9-C4	-5.52	103.59	105.80
26	1H	27	G	O5'-P-OP2	-5.52	100.73	105.70
26	1H	1628	G	C4-C5-C6	5.52	122.11	118.80
26	14	250	G	O5'-P-OP1	-5.52	100.73	105.70
26	14	929	G	N1-C6-O6	5.52	123.21	119.90
26	14	1316	U	N3-C2-O2	-5.52	118.34	122.20
26	14	2313	C	N3-C2-O2	-5.52	118.04	121.90
26	14	2593	U	O5'-P-OP2	-5.52	100.73	105.70
26	1H	1203	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	2448	A	C6-C5-N7	-5.52	128.44	132.30
27	16	70	C	C2-N1-C1'	5.52	124.87	118.80
1	1G	690	G	N3-C4-N9	-5.52	122.69	126.00
26	14	1405	U	O5'-P-OP2	-5.52	100.74	105.70
26	14	2335	A	O5'-P-OP1	-5.52	100.74	105.70
23	2K	77	A	N7-C8-N9	5.51	116.56	113.80
26	1H	383	U	N1-C2-N3	5.51	118.21	114.90
26	1H	826	U	N1-C2-N3	5.51	118.21	114.90
26	1H	1905	C	C5-C6-N1	5.51	123.76	121.00
26	1H	2764	A	N1-C6-N6	-5.51	115.29	118.60
1	1G	904	C	O5'-P-OP1	-5.51	100.74	105.70
56	2L	10	G	O5'-P-OP1	-5.51	100.74	105.70
26	14	1397	U	N1-C2-N3	5.51	118.21	114.90
26	14	1695	G	N1-C2-N2	-5.51	111.24	116.20
26	14	2500	U	N3-C2-O2	-5.51	118.34	122.20
27	1J	38	C	C5-C6-N1	5.51	123.76	121.00
26	1H	1004	C	C6-N1-C2	-5.51	118.09	120.30
26	1H	1800	C	N1-C2-N3	5.51	123.06	119.20
1	1G	135	C	N1-C2-O2	-5.51	115.59	118.90
26	14	460	A	OP1-P-OP2	-5.51	111.33	119.60
26	14	2256	G	C4-C5-N7	5.51	113.00	110.80
26	1H	613	U	C6-N1-C2	-5.51	117.69	121.00
26	1H	630	G	C8-N9-C4	5.51	108.61	106.40
26	1H	1162	G	O5'-P-OP1	-5.51	100.74	105.70
26	14	666	G	N9-C4-C5	-5.51	103.19	105.40
26	14	756	C	O5'-P-OP1	-5.51	100.74	105.70
26	14	1783	A	N9-C4-C5	5.51	108.00	105.80
26	14	2248	C	N3-C2-O2	-5.51	118.04	121.90
1	13	942	G	C4-N9-C1'	5.51	133.66	126.50
26	1H	62	C	C5-C6-N1	-5.51	118.25	121.00
26	1H	80	G	N9-C4-C5	5.51	107.60	105.40
26	1H	149	A	N1-C6-N6	5.51	121.91	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	383	U	O4'-C1'-N1	5.51	112.61	108.20
26	1H	1301	A	N1-C6-N6	5.51	121.91	118.60
26	1H	2026	C	O5'-P-OP1	5.51	117.31	110.70
26	1H	2451	A	C5-C6-N6	5.51	128.11	123.70
26	14	330	A	C4-C5-N7	5.51	113.45	110.70
26	14	2444	G	O5'-P-OP1	-5.51	100.74	105.70
1	13	1529	G	O4'-C1'-N9	5.51	112.61	108.20
26	1H	974(A)	C	OP1-P-OP2	-5.51	111.34	119.60
26	1H	82	G	N3-C4-C5	-5.51	125.85	128.60
26	1H	869	G	N1-C2-N2	-5.51	111.24	116.20
26	1H	1192	G	O5'-P-OP1	5.51	117.31	110.70
26	1H	1786	A	C8-N9-C4	-5.51	103.60	105.80
26	1H	1835	G	C6-C5-N7	-5.51	127.10	130.40
26	1H	2275	C	C2-N1-C1'	-5.51	112.74	118.80
26	1H	2299	G	N1-C6-O6	5.51	123.20	119.90
26	1H	2449	U	C4-C5-C6	5.51	123.00	119.70
26	1H	2731	G	C4-C5-N7	5.51	113.00	110.80
1	1G	1023	G	OP1-P-O3'	5.51	117.31	105.20
1	13	858	G	C5-C6-O6	5.50	131.90	128.60
26	1H	668	G	N7-C8-N9	5.50	115.85	113.10
30	21	186	GLY	N-CA-C	5.50	126.86	113.10
26	1H	120	U	OP1-P-OP2	-5.50	111.34	119.60
26	1H	752	A	N7-C8-N9	5.50	116.55	113.80
26	1H	1566	A	C6-C5-N7	5.50	136.15	132.30
26	1H	2308	G	C5-C6-N1	-5.50	108.75	111.50
26	14	1779	U	C2-N1-C1'	5.50	124.31	117.70
26	14	1892	C	C6-N1-C2	-5.50	118.10	120.30
22	1K	40	C	C6-N1-C2	-5.50	118.10	120.30
26	1H	338	G	C4-N9-C1'	5.50	133.65	126.50
26	1H	1297	C	OP2-P-O3'	-5.50	93.10	105.20
26	1H	1480	G	C5-N7-C8	-5.50	101.55	104.30
1	1G	227	G	C8-N9-C4	5.50	108.60	106.40
26	1H	1292	U	C6-N1-C2	5.50	124.30	121.00
26	1H	1698	A	C4-N9-C1'	5.50	136.20	126.30
26	1H	1791	A	N1-C6-N6	-5.50	115.30	118.60
26	1H	2243	U	C6-N1-C2	-5.50	117.70	121.00
27	16	79	C	C6-N1-C2	-5.50	118.10	120.30
1	1G	1157	A	P-O3'-C3'	5.50	126.30	119.70
1	13	509	A	P-O3'-C3'	5.50	126.30	119.70
1	13	1145	C	C6-N1-C2	5.50	122.50	120.30
26	1H	1300	U	C6-N1-C2	-5.50	117.70	121.00
26	1H	2058	A	N1-C6-N6	5.50	121.90	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1336	C	C5-C6-N1	5.50	123.75	121.00
26	14	1329	U	N1-C2-O2	-5.50	118.95	122.80
26	14	2574	G	C6-C5-N7	-5.50	127.10	130.40
26	14	2638	G	N3-C4-N9	5.50	129.30	126.00
1	13	302	G	N1-C6-O6	-5.50	116.60	119.90
1	13	422	C	OP2-P-O3'	5.50	117.29	105.20
26	1H	663	G	C4-C5-C6	5.50	122.10	118.80
26	1H	1163	G	N1-C6-O6	5.50	123.20	119.90
26	1H	1759	A	C2-N3-C4	-5.50	107.85	110.60
26	14	2620	C	C5-C4-N4	-5.50	116.35	120.20
1	13	354	G	C8-N9-C1'	-5.49	119.86	127.00
1	13	623	C	C6-N1-C2	-5.49	118.10	120.30
26	1H	1940	U	N3-C4-O4	5.49	123.25	119.40
26	1H	2298	A	C5-C6-N1	5.49	120.45	117.70
26	14	955	C	N3-C4-N4	-5.49	114.16	118.00
26	14	2068	U	OP1-P-O3'	5.49	117.28	105.20
26	1H	475	U	C6-N1-C2	-5.49	117.70	121.00
26	1H	1358	G	C4-N9-C1'	5.49	133.64	126.50
26	14	1268	A	N1-C2-N3	5.49	132.05	129.30
1	13	50	A	N1-C6-N6	-5.49	115.31	118.60
1	13	1129	C	C2-N1-C1'	5.49	124.84	118.80
26	1H	1024	G	C4-N9-C1'	5.49	133.64	126.50
26	1H	2446	G	C5-C6-O6	-5.49	125.31	128.60
1	1G	1113	C	C5-C6-N1	5.49	123.75	121.00
26	14	1598	C	N3-C4-N4	5.49	121.84	118.00
26	14	1807	G	N7-C8-N9	-5.49	110.35	113.10
26	1H	1360	A	C5-C6-N6	-5.49	119.31	123.70
26	1H	2350	C	N1-C2-O2	5.49	122.19	118.90
26	1H	2583	G	N1-C6-O6	-5.49	116.61	119.90
26	1H	2595	G	N1-C2-N2	-5.49	111.26	116.20
26	1H	2721	A	C2-N3-C4	-5.49	107.86	110.60
26	14	1972	A	C4-N9-C1'	5.49	136.18	126.30
26	14	2688	U	C5-C4-O4	5.49	129.19	125.90
23	2K	46	G	C2-N3-C4	-5.49	109.16	111.90
26	1H	2271	G	N3-C4-N9	5.49	129.29	126.00
46	G8	80	GLY	N-CA-C	5.49	126.82	113.10
37	35	62	LEU	CB-CG-CD2	-5.49	101.67	111.00
1	13	502	G	C5-C6-O6	-5.49	125.31	128.60
26	1H	448	U	C5-C4-O4	5.49	129.19	125.90
26	14	138	G	O4'-C1'-N9	5.49	112.59	108.20
26	14	1304	C	C5-C6-N1	-5.49	118.26	121.00
26	14	2275	C	O4'-C1'-N1	-5.49	103.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1468	A	N9-C4-C5	-5.48	103.61	105.80
26	1H	1404	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	1635	G	OP1-P-O3'	5.48	117.27	105.20
26	1H	2224	G	C6-C5-N7	-5.48	127.11	130.40
26	14	1262	A	N9-C4-C5	-5.48	103.61	105.80
1	13	1443	G	C4-C5-N7	5.48	112.99	110.80
1	13	1518	A	C5-C6-N1	-5.48	114.96	117.70
26	1H	427	U	N3-C4-O4	5.48	123.24	119.40
26	1H	649	G	C6-C5-N7	-5.48	127.11	130.40
26	1H	1244	G	N1-C6-O6	5.48	123.19	119.90
26	1H	2494	G	N1-C6-O6	5.48	123.19	119.90
26	14	1342	A	C2-N3-C4	-5.48	107.86	110.60
1	13	169	C	C6-N1-C2	-5.48	118.11	120.30
1	13	1404	C	C4-C5-C6	-5.48	114.66	117.40
23	2K	27	G	N1-C6-O6	5.48	123.19	119.90
26	1H	2360	A	C2-N3-C4	-5.48	107.86	110.60
1	1G	282	A	N1-C6-N6	5.48	121.89	118.60
26	14	503	A	N1-C6-N6	-5.48	115.31	118.60
26	14	2054	A	O5'-P-OP1	-5.48	100.77	105.70
26	14	2600	A	OP2-P-O3'	5.48	117.25	105.20
1	13	549	C	C6-N1-C2	5.48	122.49	120.30
26	1H	2868	A	N1-C6-N6	5.48	121.89	118.60
1	1G	352	C	N1-C2-O2	5.48	122.19	118.90
1	13	248	C	C2-N1-C1'	5.48	124.83	118.80
26	1H	1635	G	N7-C8-N9	-5.48	110.36	113.10
26	14	1770	G	N7-C8-N9	5.48	115.84	113.10
27	1J	11	C	N3-C2-O2	-5.48	118.07	121.90
26	1H	239	U	N3-C4-O4	-5.48	115.57	119.40
26	14	270(J)	G	C4-N9-C1'	5.48	133.62	126.50
1	13	679	C	C5-C6-N1	5.47	123.74	121.00
26	1H	231	C	C6-N1-C2	-5.47	118.11	120.30
26	1H	618(A)	C	N3-C4-C5	5.47	124.09	121.90
26	1H	622	G	N3-C2-N2	5.47	123.73	119.90
26	1H	1710	C	O5'-P-OP2	-5.47	100.77	105.70
26	1H	2271	G	N7-C8-N9	-5.47	110.36	113.10
26	1H	2429	G	N9-C4-C5	5.47	107.59	105.40
26	14	1344	G	C6-C5-N7	-5.47	127.11	130.40
26	14	1653	G	N3-C4-N9	5.47	129.28	126.00
26	14	1777	U	N1-C2-N3	5.47	118.19	114.90
26	14	1804	C	OP1-P-OP2	-5.47	111.39	119.60
26	14	2387	U	C6-N1-C2	5.47	124.28	121.00
1	13	759	A	N9-C4-C5	5.47	107.99	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	839	U	N3-C2-O2	-5.47	118.37	122.20
26	1H	1623	G	N3-C4-C5	-5.47	125.86	128.60
1	1G	612	C	C6-N1-C2	5.47	122.49	120.30
1	1G	784	C	C6-N1-C2	5.47	122.49	120.30
26	14	817	C	C2-N3-C4	5.47	122.64	119.90
22	1K	72	C	N1-C2-O2	5.47	122.18	118.90
26	1H	1430	C	OP1-P-OP2	-5.47	111.39	119.60
26	14	1786	A	C4-C5-C6	5.47	119.74	117.00
26	1H	33	U	OP1-P-O3'	5.47	117.23	105.20
26	1H	217	G	N9-C4-C5	5.47	107.59	105.40
26	1H	692	C	N1-C2-O2	-5.47	115.62	118.90
26	1H	2325	G	C5-N7-C8	-5.47	101.56	104.30
26	1H	2351	G	C8-N9-C1'	-5.47	119.89	127.00
26	14	127	A	N1-C6-N6	-5.47	115.32	118.60
1	13	583	A	O5'-P-OP1	-5.47	100.78	105.70
26	14	1427	A	N1-C2-N3	5.47	132.03	129.30
26	14	1647	G	O4'-C1'-N9	-5.47	103.83	108.20
1	13	880	C	N1-C2-N3	-5.47	115.37	119.20
26	1H	808	G	C8-N9-C4	-5.47	104.21	106.40
26	14	2056	G	C5-N7-C8	-5.47	101.57	104.30
26	14	2826	A	N1-C2-N3	5.47	132.03	129.30
26	1H	676	A	C6-N1-C2	5.46	121.88	118.60
26	1H	789	A	N3-C4-C5	5.46	130.62	126.80
26	1H	793	A	C4-C5-C6	5.46	119.73	117.00
27	16	81	G	N1-C6-O6	5.46	123.18	119.90
46	G8	81	LYS	C-N-CA	5.46	144.95	122.00
26	14	30	G	OP1-P-O3'	5.46	117.22	105.20
26	14	559	G	N1-C6-O6	5.46	123.18	119.90
26	14	1762	A	C5-C6-N1	-5.46	114.97	117.70
26	1H	456	C	C2-N1-C1'	-5.46	112.79	118.80
26	1H	2484	G	OP1-P-OP2	5.46	127.79	119.60
1	1G	866	C	C2-N1-C1'	5.46	124.81	118.80
26	14	397	G	C4-C5-N7	5.46	112.98	110.80
26	1H	1962	C	N3-C2-O2	5.46	125.72	121.90
26	14	70	G	C8-N9-C4	-5.46	104.22	106.40
26	14	753	C	O5'-P-OP2	-5.46	100.78	105.70
26	1H	16	G	N1-C2-N3	5.46	127.18	123.90
27	16	100	G	N1-C2-N2	-5.46	111.29	116.20
26	14	2023	G	O5'-P-OP2	-5.46	100.79	105.70
1	13	545	C	O4'-C1'-N1	5.46	112.57	108.20
26	1H	192	C	C6-N1-C2	5.46	122.48	120.30
26	1H	782	A	C5-N7-C8	5.46	106.63	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1401	G	C8-N9-C4	-5.46	104.22	106.40
26	1H	2620	C	C5-C4-N4	-5.46	116.38	120.20
26	14	189	G	N3-C4-C5	5.46	131.33	128.60
26	14	1115	G	N3-C4-N9	-5.46	122.72	126.00
26	14	1565	C	C6-N1-C2	5.46	122.48	120.30
26	14	2449	U	N3-C4-O4	5.46	123.22	119.40
1	13	492	G	N1-C6-O6	5.46	123.17	119.90
1	13	525	C	C5-C6-N1	5.46	123.73	121.00
26	1H	480	A	C5-C6-N6	-5.46	119.33	123.70
26	1H	945	A	N3-C4-N9	5.46	131.77	127.40
26	1H	1900	A	C2-N3-C4	5.46	113.33	110.60
26	14	792	G	N3-C4-C5	-5.46	125.87	128.60
26	14	1699	G	N3-C4-C5	-5.46	125.87	128.60
26	14	2336	A	O4'-C1'-N9	-5.46	103.83	108.20
26	1H	2537	U	C5-C4-O4	5.46	129.17	125.90
26	14	1571	A	C2-N3-C4	-5.46	107.87	110.60
26	14	2415	G	N1-C2-N3	5.46	127.17	123.90
1	13	520	A	N1-C6-N6	5.45	121.87	118.60
1	13	758	G	N1-C6-O6	5.45	123.17	119.90
1	13	1256	A	C2-N3-C4	-5.45	107.87	110.60
26	1H	1449	A	O5'-P-OP2	-5.45	100.79	105.70
1	1G	8	A	C8-N9-C4	-5.45	103.62	105.80
1	1G	562	C	N1-C2-O2	5.45	122.17	118.90
26	14	759	G	N1-C6-O6	5.45	123.17	119.90
26	14	2766	G	C4-N9-C1'	5.45	133.59	126.50
26	14	983	A	OP2-P-O3'	5.45	117.19	105.20
26	14	1430	C	O5'-P-OP2	-5.45	100.79	105.70
26	14	2436	G	C5-C6-N1	-5.45	108.77	111.50
26	1H	663	G	N1-C2-N3	5.45	127.17	123.90
26	1H	811	U	C2-N1-C1'	-5.45	111.16	117.70
26	1H	1257	C	C6-N1-C2	-5.45	118.12	120.30
56	2L	20	G	O5'-P-OP1	-5.45	100.80	105.70
26	14	639	U	N3-C2-O2	-5.45	118.39	122.20
26	14	933	A	N1-C6-N6	5.45	121.87	118.60
26	1H	681	G	OP2-P-O3'	5.45	117.19	105.20
26	1H	1022	G	N1-C6-O6	-5.45	116.63	119.90
26	1H	1252	G	C8-N9-C4	5.45	108.58	106.40
26	1H	1830	C	C2-N1-C1'	-5.45	112.81	118.80
26	1H	1839	G	C4-C5-N7	5.45	112.98	110.80
26	1H	2292	C	OP2-P-O3'	5.45	117.19	105.20
26	14	1784	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	979	G	N3-C4-C5	5.45	131.32	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	76	A	C4-C5-N7	5.45	113.42	110.70
26	14	148	C	N3-C4-C5	5.45	124.08	121.90
26	1H	338	G	N1-C2-N2	-5.45	111.30	116.20
26	1H	2254	C	C2-N1-C1'	5.45	124.79	118.80
26	1H	2685	G	N1-C6-O6	5.45	123.17	119.90
26	14	2356	C	C2-N3-C4	-5.45	117.18	119.90
1	13	606	G	C2-N3-C4	5.44	114.62	111.90
1	13	1305	G	C4-N9-C1'	5.44	133.58	126.50
26	14	333	G	N7-C8-N9	5.44	115.82	113.10
1	13	752	G	C8-N9-C1'	-5.44	119.93	127.00
26	1H	121	G	N3-C4-C5	-5.44	125.88	128.60
26	1H	582	G	N1-C6-O6	5.44	123.17	119.90
26	1H	971	C	OP2-P-O3'	5.44	117.17	105.20
26	1H	1595	G	OP2-P-O3'	5.44	117.17	105.20
26	1H	1707	G	OP2-P-O3'	5.44	117.17	105.20
26	1H	1767	C	C2-N3-C4	-5.44	117.18	119.90
26	1H	1969	A	C6-N1-C2	-5.44	115.33	118.60
26	14	1891	G	C5-C6-O6	5.44	131.87	128.60
1	13	1374	A	C5-C6-N1	-5.44	114.98	117.70
26	1H	617	G	N1-C2-N2	-5.44	111.30	116.20
26	1H	622	G	N7-C8-N9	-5.44	110.38	113.10
26	1H	1851	U	O5'-P-OP1	-5.44	100.80	105.70
26	1H	1899	G	C4-N9-C1'	-5.44	119.43	126.50
26	1H	2697	G	OP1-P-OP2	5.44	127.76	119.60
26	1H	2713	A	C5-C6-N1	-5.44	114.98	117.70
1	1G	559	A	N1-C6-N6	5.44	121.86	118.60
1	1G	1234	C	C6-N1-C2	-5.44	118.12	120.30
26	14	2420	C	O5'-P-OP2	5.44	117.23	110.70
26	14	2644	G	C4-C5-C6	5.44	122.06	118.80
26	1H	59	U	C2-N3-C4	5.44	130.26	127.00
26	1H	1624	G	N7-C8-N9	-5.44	110.38	113.10
1	1G	954	G	C4-C5-N7	5.44	112.98	110.80
1	13	692	U	N3-C4-O4	5.44	123.21	119.40
26	1H	1438	U	N3-C4-O4	5.44	123.21	119.40
26	1H	1758	G	C6-C5-N7	-5.44	127.14	130.40
26	1H	1972	A	OP2-P-O3'	5.44	117.16	105.20
26	1H	2578	G	N3-C4-C5	-5.44	125.88	128.60
26	14	221	A	O4'-C1'-N9	5.44	112.55	108.20
26	14	861	A	N7-C8-N9	5.44	116.52	113.80
26	14	1616	A	N1-C6-N6	5.44	121.86	118.60
1	13	970	C	O5'-P-OP2	5.44	117.22	110.70
26	14	273(E)	U	N3-C2-O2	-5.44	118.39	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	326	G	C4-C5-N7	-5.43	108.63	110.80
26	1H	1367	A	C2-N3-C4	-5.43	107.88	110.60
26	1H	2056	G	C4-N9-C1'	5.43	133.56	126.50
26	1H	2260	C	OP2-P-O3'	5.43	117.16	105.20
26	1H	2359	C	C6-N1-C2	5.43	122.47	120.30
26	14	1313	U	C5-C6-N1	5.43	125.42	122.70
26	14	1578	U	N3-C2-O2	-5.43	118.40	122.20
26	14	1937	A	C8-N9-C4	5.43	107.97	105.80
26	1H	405	U	N1-C2-O2	5.43	126.60	122.80
26	1H	674	G	C5-C6-N1	5.43	114.22	111.50
26	1H	1705	G	C6-C5-N7	-5.43	127.14	130.40
1	1G	1059	C	C5-C6-N1	5.43	123.72	121.00
26	14	135	G	C5-C6-O6	-5.43	125.34	128.60
26	14	654(B)	C	C5-C6-N1	5.43	123.72	121.00
26	14	1332	G	C5-C6-N1	-5.43	108.78	111.50
26	14	1494	A	C8-N9-C4	-5.43	103.63	105.80
26	14	1999	C	OP2-P-O3'	5.43	117.15	105.20
26	1H	693	C	OP2-P-O3'	5.43	117.15	105.20
26	1H	1151	G	C6-C5-N7	-5.43	127.14	130.40
26	1H	1301	A	N9-C4-C5	-5.43	103.63	105.80
26	14	1473	G	N1-C6-O6	5.43	123.16	119.90
1	13	1139	G	C4-C5-N7	5.43	112.97	110.80
1	13	1482	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	178	G	C5-C6-N1	5.43	114.21	111.50
26	1H	1138	G	O5'-P-OP1	-5.43	100.81	105.70
26	14	768	G	N1-C6-O6	5.43	123.16	119.90
26	14	828	U	C6-N1-C2	-5.43	117.74	121.00
26	14	977	G	N1-C6-O6	-5.43	116.64	119.90
26	14	1234	U	C5-C4-O4	5.43	129.16	125.90
26	14	1348	G	C4-C5-N7	5.43	112.97	110.80
26	1H	1269	A	C4-C5-N7	5.43	113.41	110.70
26	1H	2026	C	N3-C4-C5	-5.43	119.73	121.90
1	1G	111	G	C5-C6-N1	-5.43	108.79	111.50
26	14	2255	G	N7-C8-N9	-5.43	110.39	113.10
1	13	1142	G	C8-N9-C1'	5.42	134.05	127.00
26	1H	614	U	C5-C4-O4	-5.42	122.65	125.90
26	1H	1808	U	N3-C4-O4	5.42	123.20	119.40
26	14	1776	G	C4-C5-C6	5.42	122.06	118.80
26	14	2264	C	O5'-P-OP2	5.42	117.21	110.70
26	14	1904	G	O5'-P-OP2	-5.42	100.82	105.70
26	14	2011	U	N3-C2-O2	5.42	126.00	122.20
26	1H	205	G	N3-C4-C5	-5.42	125.89	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	743	G	C4-N9-C1'	5.42	133.55	126.50
26	1H	812	C	C5-C4-N4	-5.42	116.40	120.20
26	14	961	C	O5'-P-OP1	-5.42	100.82	105.70
26	14	994	C	N1-C2-O2	5.42	122.15	118.90
26	14	2724	C	C4-C5-C6	5.42	120.11	117.40
1	13	130	A	N1-C6-N6	5.42	121.85	118.60
26	1H	121	G	OP1-P-OP2	5.42	127.73	119.60
26	1H	602	G	C5-C6-N1	-5.42	108.79	111.50
26	14	1956	U	N1-C2-N3	5.42	118.15	114.90
1	13	449	C	N1-C2-O2	5.42	122.15	118.90
26	1H	660	G	N3-C2-N2	-5.42	116.11	119.90
26	1H	682	G	O5'-P-OP2	-5.42	100.82	105.70
26	1H	738	G	C8-N9-C4	5.42	108.57	106.40
26	1H	1622	G	N1-C2-N3	5.42	127.15	123.90
26	14	178	G	C8-N9-C4	5.42	108.57	106.40
26	14	181	A	N1-C6-N6	-5.42	115.35	118.60
26	1H	247	G	N7-C8-N9	-5.42	110.39	113.10
26	1H	442	G	O5'-P-OP1	-5.42	100.83	105.70
26	1H	1354	A	N9-C4-C5	-5.42	103.63	105.80
26	1H	1902	C	N3-C2-O2	5.42	125.69	121.90
26	1H	2689	U	OP2-P-O3'	5.42	117.11	105.20
26	14	252	G	O5'-P-OP1	5.42	117.20	110.70
26	14	461	C	O5'-P-OP1	-5.42	100.83	105.70
26	14	754	C	N3-C4-C5	-5.42	119.73	121.90
26	14	837	C	C5-C6-N1	5.42	123.71	121.00
26	14	1487	G	N1-C6-O6	5.42	123.15	119.90
26	14	2503	A	C8-N9-C4	-5.42	103.63	105.80
26	14	2276	G	C5-C6-N1	-5.42	108.79	111.50
23	2K	70	C	C5-C6-N1	5.41	123.71	121.00
26	1H	1698	A	C5-C6-N1	-5.41	114.99	117.70
26	1H	2287	A	O5'-P-OP2	-5.41	100.83	105.70
26	1H	2325	G	N7-C8-N9	5.41	115.81	113.10
24	3L	62	C	N1-C2-O2	5.41	122.15	118.90
26	14	179	G	N3-C2-N2	-5.41	116.11	119.90
26	14	694	U	OP2-P-O3'	5.41	117.11	105.20
26	14	1952	A	C5-C6-N1	5.41	120.41	117.70
26	14	2075	U	C5-C6-N1	-5.41	119.99	122.70
26	1H	683	C	C6-N1-C2	5.41	122.47	120.30
26	14	1923	U	C5-C4-O4	5.41	129.15	125.90
26	14	2700	C	C2-N1-C1'	5.41	124.75	118.80
1	13	1495	U	C5-C6-N1	5.41	125.41	122.70
26	1H	305	U	N3-C4-C5	-5.41	111.35	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	548	A	C8-N9-C4	-5.41	103.64	105.80
26	1H	1168	G	C8-N9-C4	5.41	108.56	106.40
26	1H	1861	G	C8-N9-C4	5.41	108.56	106.40
26	1H	2157	G	N3-C4-N9	-5.41	122.75	126.00
2	12	196	LEU	CA-CB-CG	5.41	127.75	115.30
26	14	784	A	N3-C4-C5	5.41	130.59	126.80
26	14	1313	U	C2-N1-C1'	5.41	124.19	117.70
26	14	2332	U	C5-C6-N1	-5.41	120.00	122.70
1	13	117	G	C6-C5-N7	-5.41	127.16	130.40
1	13	1343	G	O5'-P-OP2	-5.41	100.83	105.70
26	1H	398	G	C8-N9-C4	5.41	108.56	106.40
26	1H	657	U	C5-C4-O4	5.41	129.15	125.90
26	1H	748	G	N1-C6-O6	-5.41	116.65	119.90
26	1H	1446	C	N3-C4-C5	-5.41	119.74	121.90
1	1G	305	G	C4-C5-N7	-5.41	108.64	110.80
1	1G	417	C	C6-N1-C2	-5.41	118.14	120.30
26	14	1338	G	N3-C4-C5	-5.41	125.90	128.60
26	14	2830	G	N3-C4-N9	-5.41	122.76	126.00
44	A5	107	LEU	CA-CB-CG	5.41	127.74	115.30
1	13	1489	G	OP2-P-O3'	5.41	117.09	105.20
26	1H	805	G	OP2-P-O3'	5.41	117.09	105.20
26	1H	1372	U	OP2-P-O3'	5.41	117.09	105.20
26	1H	1936	A	C6-N1-C2	-5.41	115.36	118.60
26	1H	2330	G	N7-C8-N9	-5.41	110.40	113.10
26	1H	2331	G	C4-C5-N7	5.41	112.96	110.80
26	1H	2509	G	N9-C4-C5	-5.41	103.24	105.40
1	1G	893	C	N3-C4-C5	5.41	124.06	121.90
26	14	668	G	C2-N3-C4	-5.41	109.20	111.90
26	14	783	A	N1-C2-N3	5.41	132.00	129.30
26	14	2356	C	C5-C6-N1	-5.41	118.30	121.00
27	1J	89(A)	A	C8-N9-C4	-5.41	103.64	105.80
39	55	79	LEU	CA-CB-CG	5.41	127.73	115.30
26	1H	1954	G	C8-N9-C4	5.40	108.56	106.40
1	1G	1399	C	O5'-P-OP1	-5.40	100.84	105.70
26	14	1805	U	O5'-P-OP1	-5.40	100.84	105.70
26	1H	373	U	C5-C6-N1	-5.40	120.00	122.70
26	1H	417	C	C6-N1-C2	5.40	122.46	120.30
26	1H	1448	G	O5'-P-OP1	-5.40	100.84	105.70
26	1H	1488	G	C4-C5-C6	5.40	122.04	118.80
26	1H	2708	G	C8-N9-C4	5.40	108.56	106.40
26	14	1620	G	O5'-P-OP2	5.40	117.18	110.70
26	1H	127	A	C2-N3-C4	-5.40	107.90	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	214	G	N1-C6-O6	5.40	123.14	119.90
26	1H	2562	U	C5-C6-N1	-5.40	120.00	122.70
1	1G	1336	C	C2-N1-C1'	5.40	124.74	118.80
26	14	2256	G	C5-C6-O6	-5.40	125.36	128.60
26	14	2568	C	C6-N1-C2	-5.40	118.14	120.30
1	13	1338	G	C5-C6-O6	5.40	131.84	128.60
26	1H	562	U	N3-C2-O2	-5.40	118.42	122.20
1	13	975	A	O4'-C1'-N9	-5.40	103.88	108.20
1	13	1236	A	N1-C6-N6	5.40	121.84	118.60
26	1H	1832	C	OP2-P-O3'	5.40	117.07	105.20
26	1H	1894	C	C5-C4-N4	-5.40	116.42	120.20
24	3L	34	G	C4-N9-C1'	5.40	133.52	126.50
26	14	755	C	N1-C2-O2	-5.40	115.66	118.90
26	14	775	G	OP1-P-O3'	5.40	117.08	105.20
26	14	2427	C	C5-C4-N4	-5.40	116.42	120.20
26	1H	945	A	C2-N3-C4	-5.40	107.90	110.60
26	14	1899	G	N3-C2-N2	5.40	123.68	119.90
26	14	2762	G	C5-C6-O6	-5.40	125.36	128.60
26	14	2872	G	C8-N9-C4	-5.40	104.24	106.40
1	13	568	G	C5-C6-O6	-5.39	125.36	128.60
1	13	792	A	C5-C6-N1	-5.39	115.00	117.70
26	1H	2379	G	N7-C8-N9	-5.39	110.40	113.10
26	14	2336	A	N3-C4-C5	-5.39	123.02	126.80
1	13	449	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	256	A	N3-C4-C5	5.39	130.57	126.80
26	1H	576	U	N1-C2-O2	-5.39	119.03	122.80
27	16	108	C	O4'-C1'-N1	5.39	112.51	108.20
40	A8	110	LEU	N-CA-C	5.39	125.56	111.00
1	1G	1494	G	C4-N9-C1'	5.39	133.51	126.50
26	14	1288	U	N3-C2-O2	5.39	125.97	122.20
26	14	2294	C	N1-C2-O2	5.39	122.14	118.90
26	14	2390	U	C6-N1-C2	-5.39	117.76	121.00
26	1H	567	A	O5'-P-OP1	-5.39	100.85	105.70
26	1H	675	A	C2-N3-C4	-5.39	107.91	110.60
26	1H	660	G	N7-C8-N9	5.39	115.79	113.10
26	1H	1800	C	C4-C5-C6	5.39	120.09	117.40
26	1H	2283	C	O5'-P-OP2	-5.39	100.85	105.70
26	1H	2327	A	C5-C6-N6	5.39	128.01	123.70
1	1G	805	C	C6-N1-C2	-5.39	118.14	120.30
26	14	602	G	N9-C4-C5	-5.39	103.24	105.40
26	14	1256	G	C8-N9-C1'	-5.39	119.99	127.00
26	14	1286	A	C8-N9-C4	-5.39	103.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	584	G	C6-N1-C2	-5.39	121.87	125.10
26	1H	729	G	C4-N9-C1'	5.39	133.50	126.50
26	1H	2392	A	N1-C6-N6	5.39	121.83	118.60
27	16	29	A	C5-C6-N6	-5.39	119.39	123.70
26	14	146	G	C5-C6-O6	-5.39	125.37	128.60
26	14	426	C	C6-N1-C2	-5.39	118.14	120.30
26	14	2249	U	N3-C2-O2	-5.39	118.43	122.20
1	13	783	C	C6-N1-C2	5.39	122.45	120.30
1	13	976	G	N1-C6-O6	5.39	123.13	119.90
26	1H	239	U	OP2-P-O3'	5.39	117.05	105.20
26	1H	672	C	O5'-P-OP2	-5.39	100.85	105.70
26	1H	815	C	O5'-P-OP1	5.39	117.16	110.70
26	1H	1389	G	N9-C4-C5	5.39	107.56	105.40
1	1G	576	G	C8-N9-C1'	-5.39	120.00	127.00
26	14	189	G	C4-C5-N7	5.39	112.95	110.80
26	14	688	U	OP2-P-O3'	5.39	117.05	105.20
26	14	2304	G	N3-C4-N9	5.39	129.23	126.00
26	1H	59	U	C4-C5-C6	5.38	122.93	119.70
26	1H	862	G	C4-C5-N7	-5.38	108.65	110.80
26	1H	933	A	C8-N9-C4	-5.38	103.65	105.80
26	1H	1296	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	1787	A	OP1-P-O3'	5.38	117.04	105.20
26	1H	2041	U	O5'-P-OP1	-5.38	100.85	105.70
26	1H	2275	C	C4-C5-C6	5.38	120.09	117.40
26	1H	2541	A	O5'-P-OP1	-5.38	100.86	105.70
1	1G	266	G	C4-N9-C1'	5.38	133.50	126.50
26	14	1376	C	N3-C2-O2	-5.38	118.13	121.90
26	14	2450	A	C8-N9-C4	-5.38	103.65	105.80
1	13	129(A)	G	C4-N9-C1'	5.38	133.50	126.50
27	16	19	G	N3-C4-C5	5.38	131.29	128.60
26	14	203	C	N1-C2-O2	-5.38	115.67	118.90
26	14	428	A	C8-N9-C4	-5.38	103.65	105.80
26	14	1012	U	C5-C6-N1	-5.38	120.01	122.70
1	13	792	A	P-O3'-C3'	5.38	126.16	119.70
26	1H	262	A	C5-C6-N6	-5.38	119.39	123.70
26	1H	655	A	N3-C4-C5	5.38	130.57	126.80
26	1H	1658	C	C2-N1-C1'	5.38	124.72	118.80
26	1H	2392	A	O4'-C1'-N9	5.38	112.50	108.20
26	1H	51	G	C8-N9-C1'	-5.38	120.01	127.00
26	14	2291	U	N3-C4-C5	-5.38	111.37	114.60
26	14	2313	C	C6-N1-C2	-5.38	118.15	120.30
26	14	2724	C	O4'-C1'-N1	5.38	112.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	36	C	C6-N1-C2	-5.38	118.15	120.30
1	13	1205	U	N3-C4-C5	-5.38	111.37	114.60
1	13	1230	C	C4-C5-C6	-5.38	114.71	117.40
23	2K	13	C	O5'-P-OP1	5.38	117.15	110.70
26	1H	1958	C	N3-C2-O2	5.38	125.67	121.90
26	1H	1980	G	C5-C6-N1	5.38	114.19	111.50
26	1H	2761	G	N3-C2-N2	-5.38	116.14	119.90
45	F8	67	GLY	N-CA-C	-5.38	99.66	113.10
26	14	479	A	N9-C4-C5	5.38	107.95	105.80
26	14	1377	G	C4-C5-C6	5.38	122.03	118.80
26	14	1725	G	C4-N9-C1'	5.38	133.49	126.50
1	13	700	G	C8-N9-C4	-5.38	104.25	106.40
1	13	930	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	39	C	N3-C4-C5	5.38	124.05	121.90
26	14	2321	G	C4-N9-C1'	5.38	133.49	126.50
1	13	137	C	C6-N1-C2	5.38	122.45	120.30
27	16	13	A	O5'-P-OP2	-5.38	100.86	105.70
1	13	865	A	C5-C6-N6	-5.37	119.40	123.70
26	1H	57	C	C6-N1-C1'	5.37	127.25	120.80
26	1H	102	G	C8-N9-C4	-5.37	104.25	106.40
26	1H	420	C	C5-C6-N1	-5.37	118.31	121.00
26	1H	2243	U	N3-C4-C5	-5.37	111.38	114.60
26	1H	2334	G	O4'-C1'-N9	-5.37	103.90	108.20
26	1H	2397	G	N7-C8-N9	5.37	115.79	113.10
26	14	1624	G	C4-C5-N7	5.37	112.95	110.80
26	14	2702	U	N3-C4-O4	5.37	123.16	119.40
26	1H	556	G	C5-C6-O6	-5.37	125.38	128.60
26	1H	1985	G	C6-N1-C2	-5.37	121.88	125.10
26	1H	2712	U	O5'-P-OP2	-5.37	100.87	105.70
26	14	1597	A	OP1-P-O3'	5.37	117.02	105.20
26	14	1653	G	C2-N3-C4	5.37	114.58	111.90
27	1J	81	G	N7-C8-N9	5.37	115.79	113.10
26	1H	1694	C	P-O3'-C3'	5.37	126.14	119.70
1	1G	1025	U	C2-N1-C1'	5.37	124.14	117.70
1	1G	1430	C	C5-C4-N4	-5.37	116.44	120.20
1	13	579	G	N1-C6-O6	5.37	123.12	119.90
1	13	1290	G	C4-N9-C1'	5.37	133.48	126.50
26	1H	771	G	N1-C2-N2	5.37	121.03	116.20
26	1H	829	A	OP1-P-OP2	5.37	127.65	119.60
26	1H	830	G	N3-C4-N9	-5.37	122.78	126.00
26	1H	911	A	N1-C6-N6	5.37	121.82	118.60
26	1H	1879	C	C6-N1-C2	-5.37	118.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2392	A	C6-N1-C2	5.37	121.82	118.60
1	1G	1521	G	N1-C6-O6	5.37	123.12	119.90
26	14	403	U	C5-C6-N1	-5.37	120.02	122.70
26	14	475	U	C5-C6-N1	5.37	125.38	122.70
26	14	1257	C	OP2-P-O3'	5.37	117.01	105.20
27	1J	81	G	O4'-C1'-N9	5.37	112.50	108.20
27	1J	114	G	N7-C8-N9	-5.37	110.42	113.10
1	13	1502	A	N9-C4-C5	-5.37	103.65	105.80
26	1H	1822	G	C5-C6-O6	-5.37	125.38	128.60
26	1H	2247	A	N1-C6-N6	5.37	121.82	118.60
26	1H	2710	C	C2-N3-C4	-5.37	117.22	119.90
26	14	1376	C	N1-C2-O2	5.37	122.12	118.90
26	1H	426	C	O5'-P-OP1	-5.37	100.87	105.70
26	1H	1572	A	OP2-P-O3'	5.37	117.00	105.20
26	1H	2275	C	C6-N1-C2	-5.37	118.15	120.30
26	14	929	G	C5-C6-O6	-5.37	125.38	128.60
26	14	1398	C	C5-C6-N1	5.37	123.68	121.00
26	14	1779	U	C5-C4-O4	-5.37	122.68	125.90
26	14	2213	U	C5-C6-N1	5.37	125.38	122.70
26	14	2731	G	C4-N9-C1'	5.37	133.48	126.50
1	13	677	U	N3-C4-C5	-5.36	111.38	114.60
1	13	1253	G	C8-N9-C4	5.36	108.55	106.40
26	1H	38	A	C2-N3-C4	5.36	113.28	110.60
26	1H	226	G	C5-C6-O6	-5.36	125.38	128.60
26	1H	2244	U	N3-C2-O2	-5.36	118.45	122.20
26	1H	2844	G	C8-N9-C1'	-5.36	120.03	127.00
1	1G	730	G	C4-C5-N7	-5.36	108.66	110.80
26	14	512	G	C6-C5-N7	5.36	133.62	130.40
1	13	541	G	C5-N7-C8	-5.36	101.62	104.30
26	1H	515	A	N1-C6-N6	-5.36	115.38	118.60
26	1H	808	G	C6-C5-N7	-5.36	127.18	130.40
27	16	70	C	C5-C6-N1	5.36	123.68	121.00
42	C8	109	LEU	CA-CB-CG	-5.36	102.97	115.30
1	1G	1259	C	C2-N1-C1'	5.36	124.70	118.80
26	14	323	G	OP1-P-O3'	5.36	117.00	105.20
26	14	2210	G	C4-N9-C1'	5.36	133.47	126.50
26	1H	114	U	C2-N1-C1'	5.36	124.13	117.70
26	1H	845	G	C4-C5-N7	5.36	112.94	110.80
26	1H	2318	G	N1-C6-O6	5.36	123.12	119.90
26	14	208	C	N3-C4-N4	5.36	121.75	118.00
26	14	241	A	O5'-P-OP2	-5.36	100.88	105.70
26	14	587	C	O5'-P-OP1	-5.36	100.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2042	A	C8-N9-C4	5.36	107.94	105.80
1	13	1329	A	N1-C6-N6	5.36	121.81	118.60
26	1H	1469	A	OP1-P-O3'	5.36	116.99	105.20
1	1G	562	C	C2-N1-C1'	5.36	124.69	118.80
1	13	275	G	N3-C4-N9	5.36	129.21	126.00
26	1H	463	G	C4-C5-N7	5.36	112.94	110.80
26	1H	931	G	N3-C2-N2	5.36	123.65	119.90
26	1H	1121	C	C2-N1-C1'	5.36	124.69	118.80
1	1G	701	C	N1-C2-O2	5.36	122.11	118.90
26	14	2848	G	N3-C4-N9	5.36	129.21	126.00
26	1H	51	G	N3-C4-C5	-5.36	125.92	128.60
26	14	834	C	C4-C5-C6	5.36	120.08	117.40
26	14	1904	G	C5-C6-O6	5.36	131.81	128.60
26	14	2357	U	OP1-P-OP2	-5.36	111.57	119.60
26	14	2388	A	O5'-P-OP2	-5.36	100.88	105.70
26	1H	333	G	C8-N9-C1'	-5.35	120.04	127.00
26	1H	568	U	N1-C2-O2	-5.35	119.05	122.80
26	1H	1604	C	O5'-P-OP1	-5.35	100.88	105.70
26	14	971	C	C6-N1-C2	-5.35	118.16	120.30
26	14	1379	A	C6-C5-N7	-5.35	128.55	132.30
26	1H	1250	G	C5-C6-O6	-5.35	125.39	128.60
1	1G	129	U	O4'-C1'-N1	5.35	112.48	108.20
26	14	566	U	C6-N1-C2	5.35	124.21	121.00
26	14	1613	G	C6-C5-N7	-5.35	127.19	130.40
26	14	2387	U	N3-C4-C5	5.35	117.81	114.60
26	1H	1379	A	N7-C8-N9	5.35	116.48	113.80
1	13	43	C	C5-C6-N1	5.35	123.67	121.00
1	13	1385	G	C4-C5-N7	5.35	112.94	110.80
26	1H	121	G	C5-C6-O6	-5.35	125.39	128.60
26	1H	1463	C	C5-C6-N1	5.35	123.67	121.00
26	1H	1975	G	N1-C2-N2	-5.35	111.39	116.20
26	1H	2447	G	C6-C5-N7	-5.35	127.19	130.40
26	1H	2462	U	N3-C2-O2	5.35	125.94	122.20
26	1H	2515	C	C6-N1-C2	5.35	122.44	120.30
26	14	205	G	C8-N9-C4	5.35	108.54	106.40
26	14	1569	A	C8-N9-C4	-5.35	103.66	105.80
26	14	1681	G	N3-C4-N9	-5.35	122.79	126.00
37	35	85	LEU	CA-CB-CG	5.35	127.60	115.30
1	13	1212	U	C5-C6-N1	-5.35	120.03	122.70
26	1H	1622	G	C8-N9-C4	-5.35	104.26	106.40
26	14	333	G	C8-N9-C1'	-5.35	120.05	127.00
26	14	1607	C	N3-C2-O2	-5.35	118.16	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1734	C	C6-N1-C2	-5.35	118.16	120.30
26	14	2691	C	O5'-P-OP1	-5.35	100.89	105.70
26	1H	2070	G	C6-N1-C2	-5.35	121.89	125.10
26	14	2719	G	C4-C5-C6	5.35	122.01	118.80
1	13	1177	G	C8-N9-C4	5.34	108.54	106.40
26	1H	31	C	N1-C2-O2	-5.34	115.69	118.90
26	1H	1350	C	C6-N1-C2	5.34	122.44	120.30
26	1H	2245	U	C6-N1-C2	-5.34	117.79	121.00
26	14	1703	G	C5-C6-O6	-5.34	125.39	128.60
26	1H	2523	G	C4-N9-C1'	5.34	133.44	126.50
26	14	943	U	C5-C6-N1	-5.34	120.03	122.70
1	13	516	U	C6-N1-C2	-5.34	117.80	121.00
26	1H	1800	C	C2-N1-C1'	-5.34	112.92	118.80
26	1H	2281	C	C6-N1-C2	5.34	122.44	120.30
26	1H	2351	G	C6-C5-N7	-5.34	127.20	130.40
26	1H	2355	C	C2-N1-C1'	5.34	124.68	118.80
27	16	98	G	C8-N9-C1'	-5.34	120.06	127.00
26	14	593	G	OP2-P-O3'	5.34	116.95	105.20
26	14	1183	G	C5-C6-N1	-5.34	108.83	111.50
26	14	1343	G	O5'-P-OP1	-5.34	100.89	105.70
26	1H	1132	A	N9-C4-C5	5.34	107.94	105.80
26	1H	1601	G	N1-C2-N2	-5.34	111.39	116.20
26	1H	1931	U	C6-N1-C2	-5.34	117.80	121.00
1	1G	328	C	OP2-P-O3'	5.34	116.95	105.20
1	1G	842	C	O4'-C1'-N1	5.34	112.47	108.20
26	14	1573	G	O5'-P-OP1	5.34	117.11	110.70
26	14	2035	G	C4-N9-C1'	-5.34	119.56	126.50
1	13	1489	G	C8-N9-C4	5.34	108.53	106.40
26	1H	945	A	OP1-P-OP2	-5.34	111.59	119.60
1	1G	858	G	C4-N9-C1'	5.34	133.44	126.50
26	14	2006	C	C2-N3-C4	5.34	122.57	119.90
26	1H	586	A	C4-C5-N7	-5.34	108.03	110.70
26	1H	622	G	N1-C2-N2	-5.34	111.40	116.20
26	1H	630	G	C4-N9-C1'	-5.34	119.56	126.50
26	1H	637	A	N1-C6-N6	5.34	121.80	118.60
26	1H	1528	A	N7-C8-N9	5.34	116.47	113.80
26	14	383	U	N1-C2-N3	5.34	118.10	114.90
26	14	2842	G	C4-C5-N7	5.34	112.94	110.80
1	13	991	U	C5-C6-N1	5.33	125.37	122.70
26	14	1356	G	C4-C5-N7	-5.33	108.67	110.80
26	14	2452	C	N3-C4-N4	5.33	121.73	118.00
26	1H	431	U	C2-N1-C1'	5.33	124.10	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	857	C	C5-C6-N1	-5.33	118.33	121.00
26	1H	2009	G	C8-N9-C4	5.33	108.53	106.40
26	1H	2265	U	C4-C5-C6	5.33	122.90	119.70
26	1H	2407	G	O5'-P-OP2	-5.33	100.90	105.70
26	14	2863	C	C2-N1-C1'	-5.33	112.93	118.80
1	13	991	U	C2-N1-C1'	5.33	124.10	117.70
26	1H	203	C	C2-N3-C4	-5.33	117.23	119.90
26	1H	537	C	O5'-P-OP1	5.33	117.10	110.70
26	1H	2475	C	OP1-P-O3'	5.33	116.93	105.20
26	1H	2756	U	C5-C4-O4	-5.33	122.70	125.90
26	14	671	C	N3-C4-N4	-5.33	114.27	118.00
26	14	781	A	N9-C4-C5	5.33	107.93	105.80
26	14	1982	C	C5-C4-N4	-5.33	116.47	120.20
1	13	853	G	N1-C6-O6	5.33	123.10	119.90
1	13	962	C	C2-N3-C4	-5.33	117.23	119.90
26	1H	112	U	N1-C2-O2	-5.33	119.07	122.80
26	1H	807	U	C2-N3-C4	-5.33	123.80	127.00
26	1H	248	G	C6-C5-N7	-5.33	127.20	130.40
26	1H	1926	U	C5-C4-O4	5.33	129.10	125.90
26	1H	2283	C	N3-C2-O2	5.33	125.63	121.90
55	Q8	7	HIS	N-CA-C	5.33	125.39	111.00
26	14	2406	U	O4'-C1'-N1	-5.33	103.94	108.20
26	14	2873	A	C5-C6-N6	-5.33	119.44	123.70
1	13	1231	G	C8-N9-C4	-5.33	104.27	106.40
26	1H	1675	C	OP1-P-O3'	5.33	116.92	105.20
26	1H	1992	G	C5-C6-O6	-5.33	125.40	128.60
26	1H	2708	G	N1-C2-N3	5.33	127.10	123.90
26	14	2301	C	C6-N1-C2	-5.33	118.17	120.30
1	13	1462	G	C4-C5-N7	-5.33	108.67	110.80
26	1H	724	U	C2-N1-C1'	-5.33	111.31	117.70
26	1H	770	G	C5-N7-C8	-5.33	101.64	104.30
26	1H	1352	U	N1-C2-N3	5.33	118.09	114.90
26	1H	1894	C	N3-C4-N4	5.33	121.73	118.00
27	16	99	A	OP1-P-OP2	5.33	127.59	119.60
26	14	1791	A	OP1-P-OP2	-5.33	111.61	119.60
26	14	1971	A	C5-C6-N1	5.33	120.36	117.70
26	14	2334	G	C8-N9-C4	5.33	108.53	106.40
1	13	558	G	C4-C5-C6	5.32	121.99	118.80
26	1H	73	A	C5-C6-N1	5.32	120.36	117.70
26	1H	1837	C	C2-N3-C4	5.32	122.56	119.90
26	1H	2519	U	N1-C2-O2	-5.32	119.07	122.80
26	1H	2532	G	N1-C6-O6	5.32	123.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	704	G	C8-N9-C4	5.32	108.53	106.40
26	14	1585	C	N3-C2-O2	-5.32	118.17	121.90
27	16	7	G	C6-C5-N7	-5.32	127.21	130.40
1	1G	667	G	C5-C6-O6	-5.32	125.41	128.60
26	14	2454	G	N3-C4-N9	5.32	129.19	126.00
1	13	558	G	C4-N9-C1'	5.32	133.42	126.50
26	1H	459	U	N3-C2-O2	-5.32	118.48	122.20
26	1H	1415	U	N3-C4-O4	-5.32	115.67	119.40
26	1H	2310	A	C8-N9-C4	-5.32	103.67	105.80
26	14	776	G	C4-N9-C1'	5.32	133.42	126.50
26	14	1966	A	C5-C6-N1	5.32	120.36	117.70
27	1J	34	U	N3-C2-O2	5.32	125.92	122.20
26	1H	531	C	C4-C5-C6	5.32	120.06	117.40
26	1H	682	G	C5-C6-N1	5.32	114.16	111.50
26	1H	1273	U	P-O3'-C3'	5.32	126.08	119.70
26	14	737	C	C2-N1-C1'	-5.32	112.95	118.80
26	14	1558	A	C2-N3-C4	-5.32	107.94	110.60
26	1H	418	G	N9-C4-C5	-5.32	103.27	105.40
26	1H	1606	G	N9-C4-C5	-5.32	103.27	105.40
26	1H	1798	U	N1-C2-O2	-5.32	119.08	122.80
26	1H	1925	C	OP2-P-O3'	5.32	116.90	105.20
1	1G	1341	U	C5-C6-N1	5.32	125.36	122.70
26	14	1359	A	C4-C5-N7	5.32	113.36	110.70
26	14	1601	G	C8-N9-C1'	-5.32	120.09	127.00
26	14	1962	C	C5-C6-N1	5.32	123.66	121.00
26	1H	1257	C	N1-C2-O2	-5.32	115.71	118.90
1	1G	481	G	N3-C4-C5	-5.32	125.94	128.60
26	14	768	G	OP1-P-OP2	5.32	127.57	119.60
26	14	1620	G	N1-C6-O6	5.32	123.09	119.90
26	14	1758	G	C5-C6-O6	-5.32	125.41	128.60
26	14	2073	C	C6-N1-C2	-5.32	118.17	120.30
26	1H	691	C	N3-C4-N4	5.31	121.72	118.00
26	1H	1421	G	C6-C5-N7	-5.31	127.21	130.40
26	14	1241	A	O4'-C1'-N9	5.31	112.45	108.20
26	1H	366	C	N1-C2-O2	-5.31	115.71	118.90
26	1H	1779	U	N1-C2-N3	-5.31	111.71	114.90
26	1H	1888	G	C8-N9-C1'	-5.31	120.09	127.00
26	1H	1979	C	N3-C4-N4	5.31	121.72	118.00
26	1H	2295	C	C6-N1-C2	-5.31	118.17	120.30
26	1H	2507	C	N3-C2-O2	-5.31	118.18	121.90
26	14	1650	G	C6-C5-N7	-5.31	127.21	130.40
26	14	1825	A	N1-C6-N6	5.31	121.79	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1969	A	OP1-P-O3'	5.31	116.89	105.20
26	14	2496	C	OP1-P-O3'	5.31	116.89	105.20
27	1J	100	G	N7-C8-N9	-5.31	110.44	113.10
26	1H	2403	C	C6-N1-C2	-5.31	118.18	120.30
1	1G	969	A	C2-N3-C4	5.31	113.26	110.60
1	1G	1401	G	O4'-C1'-N9	-5.31	103.95	108.20
26	14	1601	G	C4-N9-C1'	5.31	133.41	126.50
26	14	2725	A	N1-C6-N6	-5.31	115.41	118.60
26	1H	694	U	O5'-P-OP1	5.31	117.07	110.70
26	1H	780	G	OP1-P-OP2	-5.31	111.64	119.60
26	1H	800	A	O5'-P-OP1	-5.31	100.92	105.70
26	1H	1032	A	N1-C6-N6	5.31	121.79	118.60
26	1H	1243	G	C4-C5-N7	5.31	112.92	110.80
26	1H	1974	C	C5-C6-N1	5.31	123.66	121.00
1	1G	259	G	N1-C6-O6	5.31	123.08	119.90
1	1G	752	G	N1-C6-O6	5.31	123.08	119.90
1	1G	1502	A	C2-N3-C4	-5.31	107.94	110.60
26	14	1249	U	N3-C2-O2	5.31	125.92	122.20
26	14	1828	G	N7-C8-N9	5.31	115.75	113.10
27	1J	60	C	C2-N3-C4	5.31	122.55	119.90
26	1H	697	C	C5-C6-N1	5.31	123.65	121.00
26	1H	871	U	N1-C2-O2	-5.31	119.08	122.80
26	1H	1631	A	C5-C6-N6	-5.31	119.45	123.70
1	1G	1474	G	N3-C4-C5	5.31	131.25	128.60
26	14	728	G	C8-N9-C1'	-5.31	120.10	127.00
26	1H	165	U	N1-C2-O2	5.31	126.51	122.80
26	1H	344	G	N3-C4-N9	5.31	129.18	126.00
26	1H	594	U	C6-N1-C2	5.31	124.18	121.00
26	1H	1191	G	C5-C6-N1	5.31	114.15	111.50
26	1H	1320	C	C4-C5-C6	5.31	120.05	117.40
26	1H	2392	A	N3-C4-N9	-5.31	123.16	127.40
31	31	62	ARG	NE-CZ-NH1	-5.31	117.65	120.30
26	14	552	G	N7-C8-N9	-5.31	110.45	113.10
26	14	761	A	N1-C6-N6	-5.31	115.42	118.60
26	14	1348	G	N9-C4-C5	-5.31	103.28	105.40
26	14	1939	U	C2-N3-C4	-5.31	123.82	127.00
1	13	1066	C	O5'-P-OP1	-5.30	100.93	105.70
26	1H	936	C	N3-C2-O2	5.30	125.61	121.90
26	1H	1789	A	C6-C5-N7	5.30	136.01	132.30
26	1H	2050	C	N3-C4-N4	5.30	121.71	118.00
26	1H	2501	C	N3-C4-C5	5.30	124.02	121.90
1	1G	1139	G	C4-N9-C1'	-5.30	119.61	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	212	G	O5'-P-OP2	-5.30	100.93	105.70
26	14	996	A	N1-C6-N6	-5.30	115.42	118.60
26	14	2504	U	N3-C2-O2	-5.30	118.49	122.20
26	14	666	G	C2-N3-C4	-5.30	109.25	111.90
26	14	1354	A	C4-C5-N7	5.30	113.35	110.70
1	13	272	C	N3-C2-O2	-5.30	118.19	121.90
1	13	1183	A	C8-N9-C4	5.30	107.92	105.80
26	1H	500	G	C4-C5-N7	-5.30	108.68	110.80
26	1H	945	A	C5-C6-N1	-5.30	115.05	117.70
26	14	1436	G	N1-C6-O6	-5.30	116.72	119.90
26	14	1833	U	C6-N1-C2	-5.30	117.82	121.00
26	14	2281	C	C6-N1-C2	-5.30	118.18	120.30
27	1J	88	C	OP1-P-O3'	5.30	116.86	105.20
1	13	878	G	N3-C4-N9	5.30	129.18	126.00
26	1H	453	C	C5-C4-N4	-5.30	116.49	120.20
26	1H	2271	G	C2-N3-C4	5.30	114.55	111.90
26	14	2076	U	C6-N1-C2	-5.30	117.82	121.00
26	14	2352	A	O5'-P-OP1	-5.30	100.93	105.70
26	14	2512	C	N3-C4-C5	5.30	124.02	121.90
26	1H	2079	U	N3-C2-O2	5.30	125.91	122.20
26	1H	2446	G	N3-C4-N9	5.30	129.18	126.00
1	1G	22	G	C8-N9-C4	-5.30	104.28	106.40
26	14	754	C	N3-C4-N4	5.30	121.71	118.00
1	13	1432	G	N1-C6-O6	5.30	123.08	119.90
26	1H	462	C	C5-C4-N4	5.30	123.91	120.20
26	1H	660	G	C5-N7-C8	-5.30	101.65	104.30
26	1H	946	G	N7-C8-N9	-5.30	110.45	113.10
26	1H	1382	G	O5'-P-OP1	5.30	117.06	110.70
26	14	780	G	C5-N7-C8	-5.30	101.65	104.30
26	14	1962	C	C6-N1-C2	-5.30	118.18	120.30
26	14	2336	A	C2-N3-C4	5.30	113.25	110.60
1	13	1057	G	C8-N9-C4	-5.29	104.28	106.40
26	1H	505	A	O5'-P-OP1	5.29	117.05	110.70
26	1H	2304	G	N3-C4-C5	5.29	131.25	128.60
26	14	476	G	N1-C6-O6	5.29	123.08	119.90
26	14	479	A	P-O3'-C3'	5.29	126.05	119.70
26	14	812	C	C4-C5-C6	5.29	120.05	117.40
27	1J	81	G	C5-N7-C8	-5.29	101.65	104.30
1	13	712	A	N9-C4-C5	5.29	107.92	105.80
1	13	863	U	N1-C2-N3	5.29	118.08	114.90
26	1H	1284	A	C2-N3-C4	-5.29	107.95	110.60
26	1H	1421	G	C4-C5-N7	5.29	112.92	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2413	G	C6-C5-N7	-5.29	127.22	130.40
26	1H	2513	G	C8-N9-C4	-5.29	104.28	106.40
26	14	945	A	C4-C5-C6	5.29	119.65	117.00
26	14	1001	A	O5'-P-OP1	-5.29	100.94	105.70
26	14	1569	A	N9-C4-C5	5.29	107.92	105.80
26	14	1661	G	C5-C6-O6	-5.29	125.42	128.60
26	14	1772	G	C6-C5-N7	-5.29	127.22	130.40
26	14	2554	U	O5'-P-OP1	-5.29	100.94	105.70
1	13	526	C	N1-C2-O2	-5.29	115.72	118.90
1	13	681	C	OP1-P-O3'	5.29	116.84	105.20
26	1H	1325	G	N3-C4-N9	5.29	129.17	126.00
1	1G	59	A	N1-C6-N6	5.29	121.77	118.60
26	14	2022	U	OP1-P-O3'	5.29	116.84	105.20
26	14	2374	C	N3-C4-C5	5.29	124.02	121.90
26	1H	1437	C	C5-C6-N1	5.29	123.64	121.00
26	1H	1931	U	C5-C4-O4	5.29	129.07	125.90
26	14	493	G	O5'-P-OP2	-5.29	100.94	105.70
26	14	577	G	O5'-P-OP2	5.29	117.05	110.70
26	14	1564	C	C6-N1-C2	-5.29	118.18	120.30
26	1H	338	G	C8-N9-C1'	-5.29	120.12	127.00
26	14	603	A	N9-C1'-C2'	5.29	120.88	114.00
26	14	2700	C	C6-N1-C1'	-5.29	114.45	120.80
1	13	1259	C	C6-N1-C2	-5.29	118.19	120.30
26	1H	349	G	C8-N9-C4	5.29	108.52	106.40
26	1H	2324	C	N3-C4-C5	5.29	124.02	121.90
26	1H	2335	A	P-O3'-C3'	5.29	126.05	119.70
26	1H	2502	G	C4-N9-C1'	5.29	133.37	126.50
26	1H	2603	G	O5'-P-OP1	-5.29	100.94	105.70
26	1H	333	G	C5-C6-O6	-5.29	125.43	128.60
26	1H	391	G	N1-C2-N2	5.29	120.96	116.20
26	1H	2043	C	C2-N1-C1'	5.29	124.61	118.80
26	1H	2751	G	C8-N9-C1'	-5.29	120.13	127.00
26	14	68	G	N1-C6-O6	5.29	123.07	119.90
1	13	278	G	C8-N9-C4	5.28	108.51	106.40
1	13	1494	G	C2-N3-C4	5.28	114.54	111.90
26	1H	327	G	C4-C5-C6	5.28	121.97	118.80
26	1H	995	C	C2-N1-C1'	-5.28	112.99	118.80
26	1H	1811	G	N3-C2-N2	-5.28	116.20	119.90
26	1H	2685	G	C6-C5-N7	-5.28	127.23	130.40
1	1G	1301	U	OP1-P-O3'	5.28	116.83	105.20
26	14	1160	G	O5'-P-OP2	5.28	117.04	110.70
26	14	1345	C	C6-N1-C2	-5.28	118.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1619	G	C5-C6-O6	-5.28	125.43	128.60
26	14	2740	A	OP1-P-OP2	5.28	127.53	119.60
26	1H	2589	A	OP2-P-O3'	5.28	116.82	105.20
27	16	13	A	OP1-P-OP2	5.28	127.52	119.60
56	2L	54	G	O4'-C1'-N9	5.28	112.42	108.20
1	13	872	A	O4'-C1'-N9	5.28	112.42	108.20
1	13	1336	C	P-O3'-C3'	5.28	126.03	119.70
1	13	1494	G	C8-N9-C4	-5.28	104.29	106.40
26	1H	2439	A	C8-N9-C4	-5.28	103.69	105.80
26	1H	2491	U	N3-C2-O2	5.28	125.90	122.20
27	16	53	A	N1-C6-N6	5.28	121.77	118.60
27	16	104	A	C8-N9-C4	5.28	107.91	105.80
1	1G	691	G	N9-C4-C5	-5.28	103.29	105.40
26	14	1601	G	N9-C4-C5	-5.28	103.29	105.40
26	1H	2056	G	C4-C5-C6	5.28	121.97	118.80
30	21	65	GLY	N-CA-C	-5.28	99.90	113.10
1	1G	1259	C	C6-N1-C2	-5.28	118.19	120.30
26	14	1805	U	OP2-P-O3'	5.28	116.81	105.20
34	69	102	SER	N-CA-C	-5.28	96.75	111.00
1	13	1292	U	C5-C6-N1	-5.28	120.06	122.70
26	1H	837	C	C5-C6-N1	5.28	123.64	121.00
26	1H	2424	C	O5'-P-OP1	-5.28	100.95	105.70
26	1H	2687	U	O5'-P-OP1	-5.28	100.95	105.70
1	1G	331	G	C8-N9-C4	-5.28	104.29	106.40
26	14	2239	G	N3-C2-N2	5.28	123.59	119.90
26	1H	529	A	C4-C5-N7	5.28	113.34	110.70
26	1H	1607	C	OP1-P-O3'	5.28	116.81	105.20
26	1H	1825	A	OP2-P-O3'	5.28	116.81	105.20
1	1G	1126	U	N1-C2-N3	-5.28	111.73	114.90
26	14	479	A	C2-N3-C4	5.28	113.24	110.60
26	14	1826	G	OP1-P-O3'	5.28	116.81	105.20
26	14	2059	A	C2-N3-C4	5.28	113.24	110.60
26	14	2542	A	C8-N9-C4	5.28	107.91	105.80
1	13	858	G	N1-C6-O6	-5.27	116.73	119.90
26	1H	501	A	O5'-P-OP2	-5.27	100.95	105.70
26	1H	1630	G	O5'-P-OP1	-5.27	100.95	105.70
26	1H	1689	A	N1-C6-N6	-5.27	115.44	118.60
1	1G	522	C	C5-C6-N1	-5.27	118.36	121.00
1	13	763	G	C4-C5-N7	5.27	112.91	110.80
26	1H	649	G	N1-C6-O6	5.27	123.06	119.90
1	1G	390	C	N3-C4-N4	-5.27	114.31	118.00
1	1G	512	U	N3-C4-O4	5.27	123.09	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	634	C	N3-C4-C5	-5.27	119.79	121.90
26	14	1232	G	C6-C5-N7	5.27	133.56	130.40
27	1J	112	G	N1-C6-O6	5.27	123.06	119.90
1	13	712	A	N1-C6-N6	-5.27	115.44	118.60
23	2K	1	C	O4'-C1'-N1	5.27	112.42	108.20
26	1H	1489	U	O4'-C1'-N1	5.27	112.42	108.20
26	1H	1936	A	C5-N7-C8	-5.27	101.27	103.90
1	1G	1529	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	1660	C	N3-C2-O2	-5.27	118.21	121.90
1	1G	422	C	O4'-C1'-N1	5.27	112.42	108.20
1	1G	508	C	C6-N1-C2	5.27	122.41	120.30
26	14	329	G	C5-C6-N1	5.27	114.13	111.50
26	14	954	G	C5-C6-O6	5.27	131.76	128.60
26	14	1786	A	N9-C1'-C2'	5.27	120.85	114.00
26	14	2281	C	N3-C4-N4	5.27	121.69	118.00
43	95	49	THR	C-N-CD	5.27	139.46	128.40
26	1H	40	C	N1-C2-O2	-5.27	115.74	118.90
26	1H	289	A	C5-C6-N1	-5.27	115.07	117.70
26	1H	936	C	C5-C4-N4	-5.27	116.51	120.20
26	1H	1265	A	C8-N9-C4	-5.27	103.69	105.80
26	1H	1269	A	C2-N3-C4	-5.27	107.97	110.60
26	1H	1347	G	N1-C6-O6	5.27	123.06	119.90
26	1H	1421	G	C5-C6-O6	-5.27	125.44	128.60
26	1H	1486	A	N1-C6-N6	5.27	121.76	118.60
26	14	2584	U	C2-N1-C1'	5.27	124.02	117.70
1	13	942	G	N3-C4-C5	-5.27	125.97	128.60
26	1H	2070	G	OP2-P-O3'	5.27	116.78	105.20
1	13	935	A	N1-C6-N6	-5.26	115.44	118.60
26	1H	1142	U	C2-N1-C1'	5.26	124.02	117.70
26	1H	1364	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	1666	G	N1-C2-N3	5.26	127.06	123.90
26	14	554	U	O5'-P-OP1	-5.26	100.96	105.70
26	1H	1624	G	C8-N9-C4	5.26	108.50	106.40
26	14	728	G	N9-C4-C5	-5.26	103.30	105.40
26	14	2613	U	C5-C4-O4	-5.26	122.74	125.90
1	13	534	U	C5-C6-N1	-5.26	120.07	122.70
26	1H	791	C	C5-C6-N1	-5.26	118.37	121.00
26	1H	1418	G	C5-C6-O6	5.26	131.76	128.60
26	1H	1506	C	C5-C6-N1	5.26	123.63	121.00
26	1H	1716	U	N3-C2-O2	-5.26	118.52	122.20
56	2L	55	U	OP1-P-OP2	5.26	127.49	119.60
26	14	1939	U	O5'-P-OP1	-5.26	100.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	558	G	C6-C5-N7	-5.26	127.24	130.40
26	1H	690	G	C8-N9-C4	5.26	108.50	106.40
26	1H	774	A	C4-C5-N7	5.26	113.33	110.70
26	1H	1771	C	O5'-P-OP1	-5.26	100.97	105.70
26	1H	2502	G	OP2-P-O3'	5.26	116.77	105.20
26	14	1831	G	C8-N9-C4	-5.26	104.30	106.40
26	14	1851	U	O4'-C1'-N1	5.26	112.41	108.20
26	14	1960	A	C2-N3-C4	-5.26	107.97	110.60
1	13	328	C	O5'-P-OP1	-5.26	100.97	105.70
1	13	1385	G	N1-C6-O6	5.26	123.06	119.90
25	4K	13	A	C4-C5-N7	5.26	113.33	110.70
26	14	2538	C	N3-C4-N4	-5.26	114.32	118.00
1	13	506	G	N3-C4-C5	-5.26	125.97	128.60
1	13	821	G	C8-N9-C1'	-5.26	120.17	127.00
1	13	1511	G	C8-N9-C1'	-5.26	120.17	127.00
26	1H	246	C	C4-C5-C6	5.26	120.03	117.40
26	1H	510	C	OP1-P-OP2	5.26	127.48	119.60
26	1H	942	G	C8-N9-C4	-5.26	104.30	106.40
26	1H	2328	A	C2-N3-C4	-5.26	107.97	110.60
1	1G	1501	C	C6-N1-C2	5.26	122.40	120.30
26	14	1853	A	N9-C4-C5	5.26	107.90	105.80
26	14	2414	G	N9-C4-C5	-5.26	103.30	105.40
1	13	1213	A	O4'-C1'-N9	5.25	112.40	108.20
1	13	1400	C	N1-C2-O2	5.25	122.05	118.90
26	1H	92	G	N1-C6-O6	5.25	123.05	119.90
26	1H	245	G	C4-C5-N7	5.25	112.90	110.80
26	1H	682	G	C4-N9-C1'	5.25	133.33	126.50
27	16	89(A)	A	C2-N3-C4	-5.25	107.97	110.60
26	1H	144	C	C2-N3-C4	-5.25	117.27	119.90
26	1H	1192	G	C8-N9-C4	5.25	108.50	106.40
26	1H	1239	G	OP2-P-O3'	5.25	116.76	105.20
26	1H	2048	G	N9-C4-C5	5.25	107.50	105.40
26	1H	2656	U	N3-C2-O2	5.25	125.88	122.20
1	1G	117	G	N3-C4-N9	5.25	129.15	126.00
26	14	2435	A	N1-C2-N3	5.25	131.93	129.30
26	14	2492	U	C6-N1-C2	-5.25	117.85	121.00
1	13	130	A	N9-C4-C5	-5.25	103.70	105.80
26	1H	140	A	C4-C5-C6	5.25	119.63	117.00
26	1H	1387	C	N3-C4-C5	-5.25	119.80	121.90
26	1H	1984	G	OP2-P-O3'	5.25	116.75	105.20
26	1H	2447	G	N3-C4-C5	-5.25	125.97	128.60
26	14	458	G	O4'-C1'-N9	5.25	112.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1602	U	O5'-P-OP1	-5.25	100.97	105.70
1	13	128	G	N3-C2-N2	-5.25	116.22	119.90
26	1H	661	C	N3-C2-O2	5.25	125.58	121.90
30	21	119	ARG	N-CA-C	-5.25	96.83	111.00
26	14	471	A	C8-N9-C4	5.25	107.90	105.80
26	14	2501	C	C6-N1-C2	5.25	122.40	120.30
26	1H	480	A	C6-C5-N7	-5.25	128.63	132.30
26	1H	1833	U	C6-N1-C2	-5.25	117.85	121.00
26	1H	2592	G	N7-C8-N9	5.25	115.72	113.10
26	1H	2764	A	C5-C6-N6	5.25	127.90	123.70
1	13	752	G	C4-N9-C1'	5.25	133.32	126.50
26	1H	452	G	OP1-P-OP2	5.25	127.47	119.60
26	1H	1480	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	2352	A	O5'-P-OP1	-5.25	100.98	105.70
26	1H	2599	G	N7-C8-N9	-5.25	110.48	113.10
1	1G	774	G	N3-C4-C5	5.25	131.22	128.60
1	1G	1354	C	C6-N1-C2	-5.25	118.20	120.30
26	14	113	G	C4-C5-N7	5.25	112.90	110.80
26	14	330	A	N9-C4-C5	-5.25	103.70	105.80
26	14	333	G	N1-C6-O6	5.25	123.05	119.90
26	14	510	C	N3-C4-C5	-5.25	119.80	121.90
26	14	1254	A	C6-N1-C2	-5.25	115.45	118.60
1	13	1530	G	C8-N9-C1'	-5.25	120.18	127.00
26	1H	2500	U	N3-C2-O2	-5.25	118.53	122.20
26	14	511	U	C2-N1-C1'	-5.25	111.41	117.70
26	14	2058	A	N9-C4-C5	5.25	107.90	105.80
26	14	2702	U	O5'-P-OP1	5.25	117.00	110.70
1	13	46	G	C5-C6-O6	-5.24	125.45	128.60
1	13	545	C	N3-C4-N4	-5.24	114.33	118.00
1	13	1405	G	N3-C4-C5	-5.24	125.98	128.60
26	1H	577	G	OP2-P-O3'	5.24	116.73	105.20
26	1H	877	U	C2-N1-C1'	5.24	123.99	117.70
26	1H	1393	A	O5'-P-OP2	-5.24	100.98	105.70
26	1H	1775	U	O5'-P-OP2	-5.24	100.98	105.70
26	1H	1917	U	OP1-P-O3'	5.24	116.73	105.20
26	1H	2007	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	2575	C	N3-C2-O2	5.24	125.57	121.90
26	14	2044	C	O5'-P-OP1	-5.24	100.98	105.70
1	13	907	A	C6-C5-N7	-5.24	128.63	132.30
1	1G	366	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	781	A	C6-N1-C2	-5.24	115.46	118.60
26	1H	782	A	N1-C6-N6	-5.24	115.45	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1240	U	C5-C6-N1	-5.24	120.08	122.70
26	1H	1768	U	C6-N1-C1'	5.24	128.54	121.20
26	1H	2604	U	C6-N1-C2	-5.24	117.86	121.00
27	16	102	G	N1-C6-O6	-5.24	116.75	119.90
26	14	1205	U	N1-C2-N3	5.24	118.05	114.90
26	14	1387	C	C6-N1-C2	-5.24	118.20	120.30
26	14	1506	C	C6-N1-C2	-5.24	118.20	120.30
23	2K	9	G	N3-C4-C5	-5.24	125.98	128.60
26	1H	559	G	C2-N3-C4	-5.24	109.28	111.90
26	1H	686	G	N1-C6-O6	5.24	123.04	119.90
26	1H	1284	A	OP1-P-OP2	5.24	127.46	119.60
26	1H	1312	U	N3-C2-O2	-5.24	118.53	122.20
26	1H	1698	A	C8-N9-C4	-5.24	103.70	105.80
26	1H	2477	C	C5-C6-N1	5.24	123.62	121.00
26	1H	2484	G	O4'-C1'-N9	-5.24	104.01	108.20
27	16	82	G	N1-C6-O6	5.24	123.04	119.90
24	3L	70	G	N1-C6-O6	-5.24	116.76	119.90
26	14	750	A	C5-N7-C8	-5.24	101.28	103.90
26	14	1672	C	N1-C2-O2	-5.24	115.76	118.90
26	14	1821	A	C6-N1-C2	-5.24	115.46	118.60
26	14	2016	U	OP2-P-O3'	5.24	116.72	105.20
26	14	2302	G	C8-N9-C4	-5.24	104.31	106.40
26	14	2351	G	N3-C4-N9	5.24	129.14	126.00
26	14	2776	A	P-O3'-C3'	5.24	125.99	119.70
27	1J	54	G	N1-C6-O6	5.24	123.04	119.90
26	1H	411	G	N1-C2-N2	-5.24	111.49	116.20
26	1H	570	G	C8-N9-C4	-5.24	104.31	106.40
26	1H	1132	A	N1-C6-N6	-5.24	115.46	118.60
26	1H	1189	A	C6-C5-N7	-5.24	128.63	132.30
26	1H	1697	G	C5-C6-O6	-5.24	125.46	128.60
26	1H	1825	A	C5-C6-N1	5.24	120.32	117.70
26	14	1695	G	N9-C4-C5	-5.24	103.31	105.40
26	1H	1626	G	C8-N9-C4	-5.24	104.31	106.40
1	1G	271	C	N1-C2-O2	5.24	122.04	118.90
1	1G	1494	G	N3-C4-C5	-5.24	125.98	128.60
1	13	1525	G	OP1-P-OP2	-5.23	111.75	119.60
2	1E	187	LEU	CA-CB-CG	5.23	127.34	115.30
26	1H	2083	G	C2-N3-C4	-5.23	109.28	111.90
26	1H	2429	G	C8-N9-C4	-5.23	104.31	106.40
1	1G	1322	C	C5-C6-N1	5.23	123.62	121.00
26	14	805	G	N3-C4-N9	5.23	129.14	126.00
26	14	2374	C	C5-C6-N1	-5.23	118.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	619	G	C8-N9-C4	5.23	108.49	106.40
26	1H	1534	G	N3-C4-C5	-5.23	125.98	128.60
26	1H	1677	A	N1-C6-N6	-5.23	115.46	118.60
26	1H	1761	C	N3-C4-N4	5.23	121.66	118.00
26	1H	1972	A	N1-C6-N6	5.23	121.74	118.60
26	1H	2085	C	C5-C4-N4	-5.23	116.54	120.20
26	1H	2233	U	OP2-P-O3'	5.23	116.71	105.20
55	Q8	13	ARG	N-CA-C	5.23	125.13	111.00
1	1G	305	G	C8-N9-C4	-5.23	104.31	106.40
26	14	2463	C	N3-C2-O2	5.23	125.56	121.90
26	1H	572	A	C4-C5-C6	5.23	119.62	117.00
26	1H	911	A	C5-N7-C8	-5.23	101.28	103.90
26	1H	1255	U	N3-C4-O4	5.23	123.06	119.40
26	1H	1466	G	N1-C6-O6	5.23	123.04	119.90
26	1H	1492	G	C4-C5-N7	5.23	112.89	110.80
26	1H	1827	C	C4-C5-C6	5.23	120.02	117.40
26	1H	2271	G	O5'-P-OP2	-5.23	100.99	105.70
27	16	80	U	OP2-P-O3'	5.23	116.70	105.20
1	1G	631	G	C8-N9-C4	-5.23	104.31	106.40
26	14	792	G	N3-C4-N9	5.23	129.14	126.00
26	14	808	G	C8-N9-C1'	-5.23	120.20	127.00
26	1H	552	G	N3-C4-N9	-5.23	122.86	126.00
26	1H	788	A	C8-N9-C4	5.23	107.89	105.80
26	1H	1354	A	N1-C6-N6	5.23	121.74	118.60
1	1G	963	G	N1-C2-N2	-5.23	111.50	116.20
26	14	1658	C	C5-C6-N1	5.23	123.61	121.00
26	14	1840	G	N3-C2-N2	-5.23	116.24	119.90
26	14	2736	G	N1-C6-O6	5.23	123.03	119.90
26	1H	332	A	N1-C2-N3	-5.22	126.69	129.30
26	1H	462	C	N1-C2-N3	5.22	122.86	119.20
26	1H	788	A	C5-C6-N1	-5.22	115.09	117.70
26	1H	2702	U	C6-N1-C2	-5.22	117.86	121.00
1	1G	980	C	N1-C2-O2	5.22	122.03	118.90
26	14	1941	C	C6-N1-C2	-5.22	118.21	120.30
26	14	2404	C	C5-C6-N1	5.22	123.61	121.00
1	13	533	A	N1-C6-N6	5.22	121.73	118.60
26	1H	31	C	C5-C4-N4	-5.22	116.54	120.20
26	1H	2346	A	C5-N7-C8	-5.22	101.29	103.90
1	1G	912	C	OP2-P-O3'	5.22	116.69	105.20
26	14	1000	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	140	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	1779	U	N1-C2-O2	5.22	126.45	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2260	C	C6-N1-C2	-5.22	118.21	120.30
23	2K	40	C	C5-C6-N1	5.22	123.61	121.00
26	1H	666	G	N1-C6-O6	5.22	123.03	119.90
26	1H	842	G	C5-C6-O6	-5.22	125.47	128.60
27	16	116	G	N3-C4-C5	5.22	131.21	128.60
1	1G	282	A	N9-C4-C5	-5.22	103.71	105.80
1	1G	650	G	N3-C2-N2	-5.22	116.25	119.90
1	1G	797	C	N3-C2-O2	5.22	125.55	121.90
26	14	1210	A	C2-N3-C4	-5.22	107.99	110.60
26	14	1281	G	O5'-P-OP2	5.22	116.96	110.70
26	14	2069	G	OP2-P-O3'	5.22	116.68	105.20
37	35	62	LEU	CA-CB-CG	-5.22	103.30	115.30
26	1H	2511	U	O5'-P-OP2	-5.22	101.00	105.70
26	14	1138	G	C4-N9-C1'	5.22	133.28	126.50
26	14	1598	C	C2-N1-C1'	5.22	124.54	118.80
26	14	1899	G	C5-N7-C8	-5.22	101.69	104.30
1	13	880	C	C2-N1-C1'	-5.22	113.06	118.80
26	1H	1778	U	OP1-P-OP2	-5.22	111.77	119.60
33	51	171	LEU	CA-CB-CG	5.22	127.30	115.30
26	1H	593	G	C4-C5-C6	5.21	121.93	118.80
26	1H	663	G	C4-N9-C1'	5.21	133.28	126.50
26	1H	2451	A	N3-C4-N9	-5.21	123.23	127.40
26	1H	2762	G	N1-C2-N3	5.21	127.03	123.90
26	14	1243	G	C6-C5-N7	-5.21	127.27	130.40
26	14	2431	U	C6-N1-C2	5.21	124.13	121.00
26	14	2506	U	C2-N1-C1'	5.21	123.96	117.70
23	2K	48	U	C2-N1-C1'	5.21	123.95	117.70
26	1H	1891	G	C5-C6-N1	-5.21	108.89	111.50
56	2L	29	C	O5'-P-OP2	-5.21	101.01	105.70
26	14	754	C	N1-C2-O2	5.21	122.03	118.90
1	13	579	G	C6-C5-N7	-5.21	127.27	130.40
26	1H	953	A	N1-C2-N3	-5.21	126.69	129.30
26	1H	2426	A	OP1-P-O3'	5.21	116.67	105.20
26	1H	2702	U	O4'-C1'-N1	5.21	112.37	108.20
26	14	556	G	C4-N9-C1'	5.21	133.28	126.50
26	14	838	C	C4-C5-C6	5.21	120.01	117.40
26	14	1415	U	C5-C6-N1	-5.21	120.09	122.70
26	14	2499	C	N1-C2-O2	5.21	122.03	118.90
1	13	918	A	C4-C5-N7	5.21	113.31	110.70
26	1H	626	U	N1-C2-N3	5.21	118.03	114.90
26	1H	1496	A	C6-C5-N7	-5.21	128.65	132.30
1	13	335	C	C2-N1-C1'	-5.21	113.07	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	69	C	C6-N1-C2	5.21	122.38	120.30
26	1H	511	U	N3-C2-O2	5.21	125.85	122.20
26	1H	1358	G	N1-C2-N2	-5.21	111.51	116.20
26	1H	1426	G	C8-N9-C4	-5.21	104.32	106.40
26	1H	2051	A	C6-C5-N7	-5.21	128.65	132.30
1	1G	312	C	C6-N1-C2	-5.21	118.22	120.30
1	1G	1432	G	N1-C6-O6	5.21	123.03	119.90
56	2L	35	C	N1-C2-O2	5.21	122.03	118.90
26	14	1672	C	N3-C2-O2	5.21	125.55	121.90
26	14	2113	U	C2-N1-C1'	5.21	123.95	117.70
26	14	2608	G	N1-C2-N2	5.21	120.89	116.20
26	14	2638	G	N3-C4-C5	-5.21	126.00	128.60
1	13	523	A	N1-C6-N6	5.21	121.72	118.60
1	13	1104	G	N3-C4-C5	-5.21	126.00	128.60
26	1H	715	G	N1-C6-O6	-5.21	116.78	119.90
26	1H	912	C	N3-C2-O2	-5.21	118.26	121.90
26	1H	1275	A	OP1-P-O3'	5.21	116.65	105.20
26	1H	1333	C	N3-C4-C5	5.21	123.98	121.90
26	1H	2157	G	C4-N9-C1'	-5.21	119.73	126.50
26	14	1290	C	O5'-P-OP2	-5.21	101.02	105.70
26	14	1355	G	C5-N7-C8	-5.21	101.70	104.30
26	1H	580	C	C5-C6-N1	5.21	123.60	121.00
26	1H	1623	G	C4-C5-C6	5.21	121.92	118.80
26	14	774	A	C5-C6-N6	-5.21	119.54	123.70
26	1H	471	A	C2-N3-C4	-5.20	108.00	110.60
26	1H	1475	G	N1-C2-N2	5.20	120.88	116.20
26	1H	1791	A	N9-C4-C5	5.20	107.88	105.80
26	1H	2004	G	C8-N9-C4	-5.20	104.32	106.40
1	1G	397	A	N7-C8-N9	5.20	116.40	113.80
1	1G	1124	G	O4'-C1'-N9	5.20	112.36	108.20
26	14	754	C	N3-C2-O2	-5.20	118.26	121.90
26	14	1183	G	C2-N3-C4	-5.20	109.30	111.90
26	14	2249	U	N3-C4-O4	5.20	123.04	119.40
1	13	942	G	N3-C4-N9	5.20	129.12	126.00
26	14	446	G	C6-C5-N7	-5.20	127.28	130.40
26	14	602	G	C6-C5-N7	-5.20	127.28	130.40
26	14	681	G	C5-C6-O6	-5.20	125.48	128.60
26	14	1188	U	OP1-P-OP2	-5.20	111.80	119.60
26	14	1468	C	C6-N1-C2	-5.20	118.22	120.30
1	13	163	C	C6-N1-C2	-5.20	118.22	120.30
24	3K	46	7MG	OP1-P-O3'	5.20	116.64	105.20
26	1H	351	G	N3-C4-N9	5.20	129.12	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	512	G	N3-C4-C5	-5.20	126.00	128.60
26	1H	1314	C	C2-N1-C1'	5.20	124.52	118.80
26	1H	1949	G	C5-C6-O6	5.20	131.72	128.60
26	1H	2824	C	N1-C2-O2	5.20	122.02	118.90
26	14	2062	A	C4-N9-C1'	-5.20	116.94	126.30
26	14	2255	G	N1-C6-O6	-5.20	116.78	119.90
26	14	2304	G	N3-C4-C5	-5.20	126.00	128.60
1	13	128	G	N3-C4-N9	-5.20	122.88	126.00
1	13	1529	G	C5-C6-N1	-5.20	108.90	111.50
26	1H	220	G	C5-C6-N1	-5.20	108.90	111.50
26	1H	693	C	C4-C5-C6	5.20	120.00	117.40
26	1H	1387	C	C4-C5-C6	5.20	120.00	117.40
26	1H	2275	C	C5-C4-N4	5.20	123.84	120.20
26	1H	2329	G	N1-C2-N3	5.20	127.02	123.90
1	1G	620	C	C6-N1-C1'	-5.20	114.56	120.80
26	14	2592	G	N3-C4-C5	-5.20	126.00	128.60
26	1H	830	G	N7-C8-N9	5.20	115.70	113.10
26	1H	2499	C	N3-C2-O2	5.20	125.54	121.90
1	1G	23	C	C5-C6-N1	5.20	123.60	121.00
26	1H	70	G	N3-C4-C5	-5.20	126.00	128.60
26	1H	375	C	N3-C4-C5	5.20	123.98	121.90
26	1H	1130	U	O5'-P-OP1	-5.20	101.02	105.70
26	1H	2017	U	C4-C5-C6	5.20	122.82	119.70
1	1G	1519	A	N1-C2-N3	5.20	131.90	129.30
26	14	794	G	C8-N9-C4	5.20	108.48	106.40
26	14	1352	U	O5'-P-OP2	-5.20	101.02	105.70
26	14	1519	G	C5-C6-N1	-5.20	108.90	111.50
26	1H	465	G	O5'-P-OP1	-5.19	101.03	105.70
26	1H	1299	G	C5-C6-O6	-5.19	125.48	128.60
26	1H	1779	U	OP1-P-OP2	5.19	127.39	119.60
38	88	26	TYR	CA-CB-CG	5.19	123.27	113.40
43	D8	18	LEU	CA-CB-CG	5.19	127.25	115.30
26	14	1914	C	C2-N1-C1'	5.19	124.51	118.80
26	1H	140	A	OP2-P-O3'	5.19	116.62	105.20
26	1H	250	G	C2-N3-C4	-5.19	109.30	111.90
26	1H	2510	C	C2-N1-C1'	-5.19	113.09	118.80
26	14	391	G	C4-C5-C6	5.19	121.92	118.80
26	14	760	G	O5'-P-OP2	5.19	116.93	110.70
26	14	929	G	C4-N9-C1'	5.19	133.25	126.50
26	1H	1161	C	C5-C6-N1	5.19	123.59	121.00
26	1H	1994	C	C6-N1-C1'	-5.19	114.57	120.80
1	1G	697	U	C5-C6-N1	-5.19	120.11	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	796	C	C2-N1-C1'	-5.19	113.09	118.80
26	14	1989	G	C5-C6-O6	-5.19	125.49	128.60
26	1H	507	A	C5-N7-C8	-5.19	101.31	103.90
26	1H	730	C	OP2-P-O3'	5.19	116.61	105.20
1	1G	12	U	N1-C2-O2	5.19	126.43	122.80
26	14	2006	C	C5-C6-N1	5.19	123.59	121.00
26	14	2283	C	N3-C4-N4	5.19	121.63	118.00
26	1H	126	A	OP2-P-O3'	5.19	116.61	105.20
26	1H	952	G	C4-C5-N7	5.19	112.88	110.80
26	1H	1045	A	O4'-C1'-N9	5.19	112.35	108.20
26	1H	2228	G	N1-C2-N2	-5.19	111.53	116.20
26	1H	2453	A	C8-N9-C4	-5.19	103.72	105.80
1	1G	598	U	N3-C4-C5	-5.19	111.49	114.60
26	14	190	A	C8-N9-C4	5.19	107.88	105.80
26	14	558	G	N7-C8-N9	-5.19	110.51	113.10
26	14	1639	U	N1-C2-N3	5.19	118.01	114.90
27	1J	115	G	N1-C6-O6	5.19	123.01	119.90
1	13	353	A	OP2-P-O3'	5.19	116.61	105.20
26	1H	716	A	C8-N9-C4	-5.19	103.73	105.80
26	1H	1963	U	N3-C2-O2	-5.19	118.57	122.20
26	1H	2306	C	N1-C2-O2	5.19	122.01	118.90
26	14	1789	A	N1-C2-N3	5.19	131.89	129.30
26	14	1972	A	N3-C4-N9	5.19	131.55	127.40
26	14	2327	A	C5-C6-N6	-5.19	119.55	123.70
1	13	652	U	N1-C2-O2	5.18	126.43	122.80
1	13	1501	C	N3-C2-O2	5.18	125.53	121.90
26	1H	2638	G	N3-C4-N9	5.18	129.11	126.00
26	14	111	A	OP1-P-O3'	5.18	116.61	105.20
26	14	498	G	C2-N3-C4	5.18	114.49	111.90
26	14	632	A	O5'-P-OP2	5.18	116.92	110.70
26	14	785	G	C5-C6-O6	5.18	131.71	128.60
26	14	1036	G	N3-C4-C5	5.18	131.19	128.60
1	13	505	G	C5-C6-O6	-5.18	125.49	128.60
1	13	778	G	N1-C6-O6	5.18	123.01	119.90
1	13	1305	G	C8-N9-C1'	-5.18	120.26	127.00
26	1H	620	G	N3-C4-N9	-5.18	122.89	126.00
26	1H	790	C	N3-C2-O2	5.18	125.53	121.90
26	1H	1440	G	C4-C5-N7	-5.18	108.73	110.80
1	1G	413	G	OP2-P-O3'	5.18	116.60	105.20
26	14	922	U	C6-N1-C1'	5.18	128.46	121.20
26	14	2604	U	C6-N1-C2	5.18	124.11	121.00
26	1H	591	C	C6-N1-C2	-5.18	118.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	397	G	N1-C6-O6	5.18	123.01	119.90
1	13	858	G	C8-N9-C4	-5.18	104.33	106.40
1	13	1104	G	N3-C4-N9	5.18	129.11	126.00
1	13	1222	G	O5'-P-OP2	-5.18	101.04	105.70
26	1H	673	C	N3-C4-N4	5.18	121.63	118.00
26	1H	779	U	N3-C4-C5	5.18	117.71	114.60
26	1H	931	G	N3-C4-N9	5.18	129.11	126.00
26	1H	2101	G	N3-C4-N9	-5.18	122.89	126.00
26	1H	2372	G	N1-C6-O6	5.18	123.01	119.90
1	1G	1334	G	O5'-P-OP1	-5.18	101.04	105.70
26	14	1601	G	N1-C2-N2	-5.18	111.54	116.20
26	1H	932	G	O4'-C1'-N9	5.18	112.34	108.20
26	1H	1191	G	N7-C8-N9	-5.18	110.51	113.10
1	13	1443	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	1195	G	N1-C2-N3	5.18	127.01	123.90
26	1H	2275	C	N1-C2-N3	5.18	122.82	119.20
26	1H	2494	G	O5'-P-OP1	-5.18	101.04	105.70
1	1G	39	G	C4-N9-C1'	-5.18	119.77	126.50
1	1G	306	G	N3-C4-C5	5.18	131.19	128.60
26	1H	908	C	C2-N3-C4	-5.17	117.31	119.90
26	1H	1210	A	N3-C4-C5	5.17	130.42	126.80
26	1H	1650	G	C4-N9-C1'	5.17	133.23	126.50
1	1G	698	G	C4-C5-N7	5.17	112.87	110.80
26	14	1325	G	N3-C4-N9	5.17	129.10	126.00
26	14	1380	G	C8-N9-C4	5.17	108.47	106.40
1	13	1468	A	C8-N9-C4	5.17	107.87	105.80
26	14	982	C	N1-C2-O2	-5.17	115.80	118.90
26	14	1332	G	N1-C2-N3	5.17	127.00	123.90
1	13	1113	C	C5-C6-N1	5.17	123.58	121.00
26	1H	404	C	P-O3'-C3'	5.17	125.91	119.70
26	1H	1864	U	C5-C4-O4	5.17	129.00	125.90
26	14	802	A	C6-N1-C2	-5.17	115.50	118.60
26	14	955	C	C5-C6-N1	-5.17	118.41	121.00
23	2K	63	C	O5'-P-OP1	-5.17	101.05	105.70
26	1H	17	G	N3-C4-C5	-5.17	126.02	128.60
26	1H	2157	G	C8-N9-C1'	5.17	133.72	127.00
26	1H	2454	G	O5'-P-OP2	-5.17	101.05	105.70
26	1H	14	A	C5-C6-N1	-5.17	115.11	117.70
26	1H	149	A	C4-C5-C6	5.17	119.58	117.00
26	1H	737	C	OP1-P-O3'	-5.17	93.83	105.20
26	1H	1049	C	C2-N3-C4	5.17	122.48	119.90
26	1H	1492	G	C6-C5-N7	-5.17	127.30	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1460	A	OP1-P-O3'	5.17	116.57	105.20
1	13	191(E)	G	N3-C4-N9	5.17	129.10	126.00
26	1H	70	G	C8-N9-C4	-5.17	104.33	106.40
26	1H	74	A	O4'-C1'-N9	-5.17	104.07	108.20
26	1H	74	A	N1-C2-N3	5.17	131.88	129.30
26	1H	452	G	C6-C5-N7	5.17	133.50	130.40
26	1H	2698	U	O5'-P-OP2	-5.17	101.05	105.70
1	1G	118	U	N1-C2-O2	-5.17	119.18	122.80
1	1G	697	U	C2-N1-C1'	-5.17	111.50	117.70
26	14	773	U	C2-N3-C4	-5.17	123.90	127.00
26	14	1322	A	OP2-P-O3'	5.17	116.56	105.20
26	14	2376	A	N9-C4-C5	-5.17	103.73	105.80
27	1J	18	G	N3-C4-N9	-5.17	122.90	126.00
26	14	1411	C	N1-C2-O2	5.17	122.00	118.90
26	14	2239	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	581	C	OP1-P-OP2	-5.16	111.85	119.60
26	1H	1197	G	OP2-P-O3'	5.16	116.56	105.20
26	1H	1649	G	C8-N9-C4	-5.16	104.33	106.40
26	1H	2708	G	N1-C2-N2	-5.16	111.55	116.20
26	14	391	G	O4'-C1'-N9	-5.16	104.07	108.20
26	14	675	A	N1-C6-N6	5.16	121.70	118.60
26	14	704	G	N3-C2-N2	-5.16	116.29	119.90
26	14	1309	G	N1-C6-O6	5.16	123.00	119.90
26	14	1528	A	N7-C8-N9	5.16	116.38	113.80
26	14	2374	C	C2-N1-C1'	-5.16	113.12	118.80
26	1H	1681	G	C5-N7-C8	-5.16	101.72	104.30
1	1G	328	C	C6-N1-C2	-5.16	118.23	120.30
26	14	933	A	C5-N7-C8	-5.16	101.32	103.90
26	14	1267	U	O5'-P-OP2	-5.16	101.05	105.70
26	14	1678	G	C4-C5-N7	5.16	112.86	110.80
42	85	20	LEU	CA-CB-CG	5.16	127.17	115.30
26	1H	327	G	N1-C2-N3	5.16	127.00	123.90
26	1H	676	A	OP1-P-OP2	5.16	127.34	119.60
26	1H	725	G	OP2-P-O3'	5.16	116.55	105.20
26	1H	1800	C	C6-N1-C2	-5.16	118.24	120.30
27	16	107	U	O4'-C1'-N1	5.16	112.33	108.20
1	1G	576	G	N3-C4-C5	-5.16	126.02	128.60
26	14	2357	U	O5'-P-OP1	5.16	116.89	110.70
1	13	748	C	P-O3'-C3'	5.16	125.89	119.70
26	1H	165	U	N3-C2-O2	-5.16	118.59	122.20
1	1G	123	C	C5-C6-N1	-5.16	118.42	121.00
26	14	486	C	N3-C4-N4	5.16	121.61	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1905	C	N1-C2-O2	-5.16	115.81	118.90
26	14	2377	A	C2-N3-C4	-5.16	108.02	110.60
1	13	1281	U	C5-C4-O4	5.16	128.99	125.90
26	1H	1235	G	C5-C6-N1	-5.16	108.92	111.50
26	1H	1811	G	OP2-P-O3'	5.16	116.55	105.20
26	1H	2724	C	C4-C5-C6	5.16	119.98	117.40
1	1G	1132	C	N1-C2-O2	5.16	121.99	118.90
1	1G	1432	G	C5-C6-N1	-5.16	108.92	111.50
26	14	747	U	N3-C2-O2	5.16	125.81	122.20
26	14	813	U	C5-C6-N1	-5.16	120.12	122.70
26	14	998	C	N1-C2-O2	5.16	121.99	118.90
26	14	1360	A	N1-C6-N6	5.16	121.69	118.60
26	14	1375	C	C5-C6-N1	5.16	123.58	121.00
26	14	2390	U	C5-C6-N1	5.16	125.28	122.70
26	14	2432	A	N1-C6-N6	5.16	121.69	118.60
26	1H	141	A	C8-N9-C4	-5.16	103.74	105.80
26	1H	1981	A	N1-C6-N6	5.16	121.69	118.60
1	1G	413	G	P-O3'-C3'	5.16	125.89	119.70
1	1G	944	G	C4-N9-C1'	5.16	133.20	126.50
26	14	58	G	C6-C5-N7	-5.16	127.31	130.40
26	14	149	A	N1-C2-N3	5.16	131.88	129.30
26	1H	861	A	N1-C2-N3	5.15	131.88	129.30
26	14	2014	A	N7-C8-N9	-5.15	111.22	113.80
1	13	1473	A	C4-C5-N7	5.15	113.28	110.70
26	1H	683	C	C2-N3-C4	-5.15	117.32	119.90
26	1H	975	G	N1-C2-N2	5.15	120.84	116.20
26	1H	2051	A	N7-C8-N9	5.15	116.38	113.80
26	1H	2451	A	C8-N9-C4	-5.15	103.74	105.80
26	1H	2761	G	N3-C4-C5	5.15	131.18	128.60
1	1G	244	U	C2-N1-C1'	5.15	123.88	117.70
26	14	188	G	O5'-P-OP2	-5.15	101.06	105.70
26	14	906	G	N3-C4-C5	-5.15	126.02	128.60
26	14	1350	C	C6-N1-C2	5.15	122.36	120.30
26	1H	247	G	C5-C6-O6	-5.15	125.51	128.60
26	1H	1612	C	C5-C4-N4	-5.15	116.59	120.20
1	1G	54	C	C2-N1-C1'	5.15	124.47	118.80
1	1G	741	G	C5-C6-N1	-5.15	108.92	111.50
1	1G	789	U	N1-C2-N3	5.15	117.99	114.90
26	14	759	G	C8-N9-C4	5.15	108.46	106.40
26	14	921	G	N7-C8-N9	5.15	115.67	113.10
1	13	897	C	C5-C4-N4	-5.15	116.60	120.20
26	1H	1409	C	C5-C6-N1	-5.15	118.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1683	C	C6-N1-C2	-5.15	118.24	120.30
42	C8	95	LEU	CB-CG-CD2	5.15	119.75	111.00
26	14	2518	A	N9-C4-C5	-5.15	103.74	105.80
25	4K	20	A	N7-C8-N9	5.15	116.37	113.80
26	1H	832	G	C4-C5-N7	5.15	112.86	110.80
26	1H	1788	C	C6-N1-C1'	-5.15	114.62	120.80
1	1G	115	G	P-O3'-C3'	5.15	125.88	119.70
1	1G	975	A	N7-C8-N9	5.15	116.37	113.80
26	14	624	C	N3-C2-O2	5.15	125.50	121.90
26	14	1698	A	C2-N3-C4	-5.15	108.03	110.60
26	14	2459	A	N7-C8-N9	5.15	116.37	113.80
26	14	2873	A	C8-N9-C4	-5.15	103.74	105.80
26	1H	1806	C	C5-C4-N4	-5.15	116.60	120.20
26	1H	2427	C	C2-N1-C1'	-5.15	113.14	118.80
26	14	2249	U	C2-N3-C4	5.15	130.09	127.00
1	13	983	A	C8-N9-C4	-5.14	103.74	105.80
1	13	1054	C	O5'-P-OP1	-5.14	101.07	105.70
26	1H	12	U	C5-C6-N1	5.14	125.27	122.70
26	1H	823	G	C4-C5-C6	5.14	121.89	118.80
26	1H	1225	C	O5'-P-OP2	-5.14	101.07	105.70
26	1H	1649	G	C4-N9-C1'	5.14	133.19	126.50
26	1H	2004	G	N1-C2-N3	5.14	126.99	123.90
26	1H	2359	C	C5-C6-N1	-5.14	118.43	121.00
26	1H	2772	C	N3-C4-C5	5.14	123.96	121.90
1	1G	954	G	C5-C6-O6	-5.14	125.51	128.60
26	14	912	C	N1-C2-O2	-5.14	115.81	118.90
26	14	1397	U	C5-C4-O4	5.14	128.99	125.90
1	13	1434	A	N9-C4-C5	-5.14	103.74	105.80
26	1H	128	C	OP2-P-O3'	5.14	116.51	105.20
26	1H	242	G	O5'-P-OP2	-5.14	101.07	105.70
26	1H	1697	G	OP1-P-O3'	5.14	116.51	105.20
26	1H	1942	C	C2-N1-C1'	5.14	124.46	118.80
1	1G	559	A	C6-C5-N7	-5.14	128.70	132.30
26	14	561	G	C8-N9-C1'	5.14	133.69	127.00
1	13	21	G	C8-N9-C4	-5.14	104.34	106.40
1	13	827	U	N1-C2-O2	5.14	126.40	122.80
26	14	141	A	C5-C6-N6	-5.14	119.59	123.70
26	14	2035	G	O5'-P-OP2	-5.14	101.07	105.70
1	13	1530	G	C6-C5-N7	-5.14	127.32	130.40
26	1H	954	G	OP2-P-O3'	5.14	116.51	105.20
1	1G	515	G	C6-C5-N7	-5.14	127.32	130.40
1	1G	924	C	C6-N1-C2	-5.14	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1501	C	O5'-P-OP1	-5.14	101.07	105.70
26	14	141	A	O4'-C1'-N9	5.14	112.31	108.20
26	14	809	G	C5-C6-N1	5.14	114.07	111.50
26	14	2426	A	C8-N9-C4	-5.14	103.74	105.80
1	13	878	G	N3-C2-N2	5.14	123.50	119.90
26	1H	702	G	O5'-P-OP2	-5.14	101.08	105.70
26	1H	942	G	N1-C2-N2	5.14	120.82	116.20
26	1H	2638	G	C5-C6-O6	-5.14	125.52	128.60
26	14	741	G	N1-C6-O6	5.14	122.98	119.90
1	13	1518	A	C4-C5-N7	-5.14	108.13	110.70
26	1H	51	G	C5-N7-C8	5.14	106.87	104.30
26	1H	1623	G	OP2-P-O3'	5.14	116.50	105.20
26	1H	2271	G	C8-N9-C1'	-5.14	120.32	127.00
26	1H	2567	G	O5'-P-OP1	-5.14	101.08	105.70
55	Q8	43	GLN	N-CA-C	5.14	124.87	111.00
26	14	40	C	C5-C6-N1	5.14	123.57	121.00
26	14	331	A	C5-C6-N1	-5.14	115.13	117.70
26	14	790	C	O5'-P-OP2	-5.14	101.08	105.70
26	14	2719	G	C4-N9-C1'	5.14	133.18	126.50
26	1H	859	G	OP2-P-O3'	5.13	116.50	105.20
26	1H	2447	G	N9-C4-C5	-5.13	103.35	105.40
42	C8	79	PHE	CB-CG-CD1	5.13	124.39	120.80
26	14	1730	U	O4'-C1'-N1	5.13	112.31	108.20
26	14	1935	G	C4-C5-N7	5.13	112.85	110.80
26	14	2067	G	N7-C8-N9	5.13	115.67	113.10
26	1H	333	G	C4-N9-C1'	5.13	133.17	126.50
1	1G	1442	G	N3-C4-C5	5.13	131.17	128.60
26	14	1694	C	O5'-P-OP1	-5.13	101.08	105.70
1	13	894	G	N3-C4-N9	-5.13	122.92	126.00
26	1H	295	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	1669	A	N7-C8-N9	5.13	116.37	113.80
26	1H	1810	A	C6-N1-C2	-5.13	115.52	118.60
26	1H	2453	A	C6-N1-C2	-5.13	115.52	118.60
26	14	330	A	C5-N7-C8	-5.13	101.33	103.90
26	14	2490	G	C2-N3-C4	-5.13	109.33	111.90
26	14	2608	G	OP1-P-O3'	5.13	116.49	105.20
1	13	437	U	C6-N1-C2	-5.13	117.92	121.00
26	1H	787	U	C2-N1-C1'	-5.13	111.54	117.70
26	1H	860	U	O5'-P-OP1	5.13	116.86	110.70
26	1H	1772	G	C5-C6-N1	5.13	114.06	111.50
26	14	750	A	OP1-P-O3'	5.13	116.49	105.20
1	13	60	A	C8-N9-C4	5.13	107.85	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	652	U	O4'-C1'-N1	5.13	112.30	108.20
1	13	942	G	C6-C5-N7	-5.13	127.32	130.40
22	1K	72	C	C5-C6-N1	5.13	123.56	121.00
26	1H	2065	C	N3-C2-O2	-5.13	118.31	121.90
26	1H	2209	C	C2-N3-C4	-5.13	117.34	119.90
26	14	793	A	C8-N9-C4	5.13	107.85	105.80
26	14	1571	A	N1-C2-N3	5.13	131.86	129.30
26	14	2573	C	N3-C4-C5	-5.13	119.85	121.90
37	35	135	LEU	CA-CB-CG	5.13	127.10	115.30
1	13	518	C	N1-C2-O2	5.13	121.98	118.90
1	13	556	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	120	U	N3-C4-C5	-5.13	111.52	114.60
26	1H	121	G	C4-C5-C6	5.13	121.88	118.80
26	1H	1241	A	C5-N7-C8	-5.13	101.34	103.90
26	1H	1334	G	C5-C6-O6	-5.13	125.53	128.60
26	1H	2281	C	C5-C4-N4	-5.13	116.61	120.20
26	1H	2546	U	C2-N1-C1'	-5.13	111.55	117.70
26	14	939	G	C5-C6-N1	-5.13	108.94	111.50
26	14	1835	G	N3-C2-N2	5.13	123.49	119.90
26	1H	109	G	N1-C6-O6	-5.12	116.83	119.90
26	1H	448	U	C5-C6-N1	-5.12	120.14	122.70
26	1H	760	G	C8-N9-C1'	-5.12	120.34	127.00
26	1H	2058	A	C5-C6-N6	-5.12	119.60	123.70
26	1H	2357	U	OP2-P-O3'	5.12	116.48	105.20
26	1H	2865	U	N3-C2-O2	-5.12	118.61	122.20
30	21	52	LEU	C-N-CD	-5.12	109.33	120.60
38	88	106	VAL	CB-CA-C	-5.12	101.66	111.40
1	1G	867	G	C8-N9-C4	-5.12	104.35	106.40
2	12	17	PHE	N-CA-C	5.12	124.84	111.00
26	14	149	A	C4-C5-C6	5.12	119.56	117.00
26	14	575	A	N7-C8-N9	-5.12	111.24	113.80
1	13	1406	U	C5-C6-N1	-5.12	120.14	122.70
26	1H	427	U	N3-C4-C5	-5.12	111.53	114.60
1	1G	54	C	N3-C2-O2	-5.12	118.31	121.90
1	1G	1081	G	N1-C6-O6	-5.12	116.83	119.90
24	3L	70	G	N3-C4-C5	-5.12	126.04	128.60
26	14	211	A	C5-C6-N6	-5.12	119.60	123.70
26	14	478	A	N1-C6-N6	-5.12	115.53	118.60
26	14	1252	G	C5-C6-N1	5.12	114.06	111.50
26	14	1520	U	OP2-P-O3'	5.12	116.47	105.20
26	14	2048	G	OP2-P-O3'	5.12	116.47	105.20
1	13	894	G	N3-C2-N2	-5.12	116.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	932	C	N3-C2-O2	-5.12	118.31	121.90
26	1H	209	C	OP2-P-O3'	5.12	116.47	105.20
26	1H	851	U	C2-N1-C1'	-5.12	111.55	117.70
26	1H	1269	A	N7-C8-N9	5.12	116.36	113.80
26	1H	1631	A	C8-N9-C4	5.12	107.85	105.80
26	1H	2475	C	P-O3'-C3'	5.12	125.84	119.70
1	1G	26	A	C8-N9-C4	5.12	107.85	105.80
26	14	535	C	N3-C2-O2	-5.12	118.31	121.90
26	14	573	G	C6-C5-N7	-5.12	127.33	130.40
26	14	1629	U	C5-C4-O4	-5.12	122.83	125.90
26	14	1931	U	C5-C4-O4	-5.12	122.83	125.90
26	14	2346	A	C5-N7-C8	-5.12	101.34	103.90
26	14	2769	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	804	A	O4'-C1'-N9	5.12	112.30	108.20
26	1H	1771	C	N3-C4-C5	-5.12	119.85	121.90
26	1H	1942	C	C4-C5-C6	-5.12	114.84	117.40
26	1H	1977	A	C2-N3-C4	-5.12	108.04	110.60
26	1H	2376	A	C5-N7-C8	5.12	106.46	103.90
26	1H	2380	C	C2-N3-C4	-5.12	117.34	119.90
26	1H	2456	C	N3-C4-N4	5.12	121.58	118.00
26	14	2056	G	N1-C2-N2	5.12	120.81	116.20
26	1H	31	C	N3-C2-O2	5.12	125.48	121.90
26	1H	1344	G	N3-C4-N9	-5.12	122.93	126.00
26	1H	2017	U	N1-C2-N3	5.12	117.97	114.90
33	51	87	LEU	CA-CB-CG	5.12	127.07	115.30
1	1G	1159	U	O4'-C1'-N1	5.12	112.30	108.20
26	14	606	U	N3-C4-O4	-5.12	115.82	119.40
26	1H	1060	U	P-O3'-C3'	5.12	125.84	119.70
26	14	1429	G	N3-C4-N9	5.12	129.07	126.00
1	13	963	G	N3-C2-N2	5.12	123.48	119.90
26	1H	23	G	N1-C6-O6	5.12	122.97	119.90
26	1H	171	G	C4-N9-C1'	5.12	133.15	126.50
26	1H	357	A	C8-N9-C4	-5.12	103.75	105.80
26	1H	399	G	C8-N9-C4	5.12	108.45	106.40
26	1H	772	C	OP2-P-O3'	5.12	116.45	105.20
26	1H	1820	U	C5-C6-N1	-5.12	120.14	122.70
1	1G	1197	G	N3-C4-C5	-5.12	126.04	128.60
1	1G	1220	G	C5-C6-N1	-5.12	108.94	111.50
26	14	760	G	C4-N9-C1'	5.12	133.15	126.50
26	14	2438	U	N3-C2-O2	-5.12	118.62	122.20
26	14	2574	G	C4-C5-N7	5.12	112.85	110.80
26	1H	210	C	C2-N3-C4	-5.11	117.34	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	568	U	C2-N1-C1'	-5.11	111.56	117.70
26	1H	1513	C	C5-C6-N1	5.11	123.56	121.00
26	1H	2546	U	N1-C2-O2	-5.11	119.22	122.80
26	14	1379	A	C5-C6-N6	-5.11	119.61	123.70
26	14	2688	U	N1-C2-N3	5.11	117.97	114.90
27	16	111	U	C5-C4-O4	5.11	128.97	125.90
1	1G	360	A	N1-C6-N6	5.11	121.67	118.60
1	13	305	G	C4-C5-N7	-5.11	108.76	110.80
25	4K	18	G	C8-N9-C1'	5.11	133.64	127.00
26	1H	2429	G	N3-C4-N9	-5.11	122.93	126.00
24	3L	71	G	N1-C6-O6	-5.11	116.83	119.90
26	14	113	G	N3-C4-C5	5.11	131.16	128.60
26	14	1964	G	N1-C2-N2	-5.11	111.60	116.20
26	14	2078	C	OP1-P-O3'	5.11	116.44	105.20
26	14	2270	G	N7-C8-N9	5.11	115.66	113.10
26	14	2589	A	OP2-P-O3'	5.11	116.44	105.20
23	2K	17	C	C2-N3-C4	5.11	122.45	119.90
26	1H	763	G	N9-C4-C5	5.11	107.44	105.40
26	1H	1317	A	C6-C5-N7	-5.11	128.72	132.30
26	1H	1366	A	C4-C5-C6	5.11	119.55	117.00
26	1H	2354	G	OP1-P-O3'	5.11	116.44	105.20
26	1H	2759	G	O4'-C1'-N9	-5.11	104.11	108.20
1	1G	982	U	C5-C4-O4	-5.11	122.83	125.90
26	14	2413	G	C6-C5-N7	-5.11	127.33	130.40
26	14	2415	G	N3-C2-N2	-5.11	116.32	119.90
27	1J	14	U	O5'-P-OP2	-5.11	101.10	105.70
26	1H	133	C	O5'-P-OP1	5.11	116.83	110.70
26	1H	638	G	C4-C5-C6	5.11	121.86	118.80
26	1H	655	A	N7-C8-N9	5.11	116.35	113.80
26	1H	2216	G	N3-C2-N2	-5.11	116.32	119.90
26	1H	2353	G	OP1-P-OP2	5.11	127.26	119.60
26	1H	2518	A	O5'-P-OP2	5.11	116.83	110.70
26	1H	2607	G	N3-C4-C5	-5.11	126.05	128.60
26	14	752	A	C2-N3-C4	-5.11	108.05	110.60
26	14	1980	G	N9-C4-C5	5.11	107.44	105.40
26	14	2439	A	N7-C8-N9	5.11	116.35	113.80
26	14	2514	U	O5'-P-OP1	-5.11	101.10	105.70
1	13	312	C	OP2-P-O3'	5.11	116.43	105.20
23	2K	27	G	C5-C6-O6	-5.11	125.54	128.60
26	1H	16	G	C2-N3-C4	-5.11	109.35	111.90
26	1H	737	C	C4-C5-C6	5.11	119.95	117.40
26	1H	2217	G	C5-C6-N1	-5.11	108.95	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1694	C	P-O3'-C3'	5.11	125.83	119.70
26	14	2237	G	OP2-P-O3'	5.11	116.43	105.20
38	45	134	ARG	N-CA-C	5.11	124.79	111.00
26	1H	2713	A	C4-C5-N7	5.10	113.25	110.70
26	14	814	C	C6-N1-C2	5.10	122.34	120.30
26	14	922	U	C5-C6-N1	5.10	125.25	122.70
26	14	1896	G	N1-C6-O6	-5.10	116.84	119.90
26	14	2428	G	P-O3'-C3'	5.10	125.83	119.70
26	1H	842	G	C4-C5-N7	5.10	112.84	110.80
26	1H	1591	G	N3-C2-N2	5.10	123.47	119.90
26	1H	1687	G	OP2-P-O3'	5.10	116.43	105.20
1	1G	201	C	C2-N1-C1'	-5.10	113.19	118.80
26	14	728	G	C8-N9-C4	5.10	108.44	106.40
26	14	1987	G	N3-C2-N2	-5.10	116.33	119.90
26	14	2448	A	N9-C4-C5	5.10	107.84	105.80
27	16	22	U	C6-N1-C2	-5.10	117.94	121.00
27	16	30	C	C5-C6-N1	5.10	123.55	121.00
26	14	74	A	C6-C5-N7	-5.10	128.73	132.30
26	1H	232	G	N9-C4-C5	-5.10	103.36	105.40
26	1H	731	C	N3-C4-C5	-5.10	119.86	121.90
26	1H	1429	G	OP2-P-O3'	5.10	116.42	105.20
26	14	2087	G	N3-C4-N9	5.10	129.06	126.00
27	1J	22	U	C6-N1-C2	-5.10	117.94	121.00
1	13	122	G	C5-C6-N1	-5.10	108.95	111.50
1	13	882	C	C5-C4-N4	-5.10	116.63	120.20
26	1H	678	C	C2-N3-C4	-5.10	117.35	119.90
26	1H	787	U	O5'-P-OP1	5.10	116.82	110.70
26	1H	2334	G	C5-C6-O6	5.10	131.66	128.60
26	14	460	A	C5-C6-N6	-5.10	119.62	123.70
26	14	655	A	N1-C6-N6	-5.10	115.54	118.60
26	14	710	G	C8-N9-C4	5.10	108.44	106.40
26	14	785	G	N9-C4-C5	5.10	107.44	105.40
26	14	918	A	N7-C8-N9	5.10	116.35	113.80
26	14	1022	G	N1-C6-O6	-5.10	116.84	119.90
26	14	1688	U	N1-C2-O2	-5.10	119.23	122.80
26	14	1899	G	N7-C8-N9	5.10	115.65	113.10
26	1H	1265	A	N9-C4-C5	5.10	107.84	105.80
26	14	1429	G	C8-N9-C1'	-5.10	120.38	127.00
1	13	865	A	N7-C8-N9	5.09	116.35	113.80
26	1H	767	U	C4-C5-C6	5.09	122.76	119.70
26	1H	1430	C	N3-C2-O2	-5.09	118.33	121.90
26	1H	2711	A	P-O3'-C3'	5.09	125.81	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	4L	21	A	N7-C8-N9	5.09	116.35	113.80
26	14	140	A	C4-C5-N7	5.09	113.25	110.70
26	14	601	C	C6-N1-C2	-5.09	118.26	120.30
1	13	1205	U	C4-C5-C6	5.09	122.76	119.70
26	14	603	A	C4-N9-C1'	5.09	135.47	126.30
26	14	1312	U	C2-N1-C1'	5.09	123.81	117.70
26	14	1576	U	N3-C2-O2	-5.09	118.64	122.20
1	13	1503	A	N3-C4-C5	-5.09	123.24	126.80
26	1H	788	A	O5'-P-OP2	5.09	116.81	110.70
26	1H	916	G	OP2-P-O3'	5.09	116.40	105.20
26	1H	2499	C	N3-C4-N4	5.09	121.56	118.00
1	1G	359	U	C5-C4-O4	5.09	128.96	125.90
26	14	649	G	O5'-P-OP2	-5.09	101.12	105.70
1	13	1412	C	N1-C2-O2	-5.09	115.85	118.90
26	1H	389	G	C2-N3-C4	-5.09	109.36	111.90
26	1H	831	G	C5-N7-C8	5.09	106.84	104.30
26	1H	972	G	C8-N9-C4	5.09	108.44	106.40
1	1G	1200	C	C6-N1-C1'	-5.09	114.69	120.80
1	1G	1528	U	O5'-P-OP2	-5.09	101.12	105.70
26	14	1520	U	N3-C4-C5	-5.09	111.55	114.60
26	14	1731	G	C8-N9-C1'	-5.09	120.39	127.00
26	14	2083	G	N9-C4-C5	-5.09	103.36	105.40
26	14	2256	G	C6-C5-N7	-5.09	127.35	130.40
30	29	51	PHE	N-CA-C	5.09	124.74	111.00
1	13	1469	G	N7-C8-N9	5.09	115.64	113.10
26	1H	229	A	OP2-P-O3'	5.09	116.39	105.20
26	1H	429	A	OP1-P-O3'	5.09	116.39	105.20
26	1H	512	G	N3-C4-N9	5.09	129.05	126.00
1	1G	954	G	N1-C6-O6	5.09	122.95	119.90
2	12	227	GLY	N-CA-C	-5.09	100.38	113.10
26	1H	225	A	C2-N3-C4	-5.09	108.06	110.60
26	1H	288	C	N3-C4-N4	5.09	121.56	118.00
26	1H	454	A	O5'-P-OP2	-5.09	101.12	105.70
26	1H	461	C	OP2-P-O3'	5.09	116.39	105.20
26	1H	630	G	N1-C6-O6	5.09	122.95	119.90
26	1H	1566	A	C4-N9-C1'	-5.09	117.15	126.30
26	1H	1918	A	N9-C4-C5	-5.09	103.77	105.80
26	1H	1949	G	N9-C4-C5	5.09	107.43	105.40
26	1H	2699	C	C5-C6-N1	-5.09	118.46	121.00
26	1H	2736	G	N3-C4-C5	5.09	131.14	128.60
1	1G	1380	U	C6-N1-C2	5.09	124.05	121.00
26	14	330	A	N1-C2-N3	5.09	131.84	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	642	G	C8-N9-C4	-5.09	104.36	106.40
26	14	1290	C	OP1-P-OP2	5.09	127.23	119.60
26	14	1342	A	C5-N7-C8	-5.09	101.36	103.90
26	14	2446	G	N7-C8-N9	-5.09	110.56	113.10
26	1H	201	C	C6-N1-C1'	-5.08	114.70	120.80
26	1H	533	G	C4-C5-N7	-5.08	108.77	110.80
26	1H	1972	A	C5-C6-N6	-5.08	119.63	123.70
26	1H	2286	A	C4-N9-C1'	5.08	135.45	126.30
26	1H	2601	C	N1-C2-N3	5.08	122.76	119.20
26	14	784	A	P-O3'-C3'	5.08	125.80	119.70
26	14	2653	U	C5-C4-O4	-5.08	122.85	125.90
26	1H	145	G	C5-C6-N1	-5.08	108.96	111.50
26	1H	464	U	N3-C4-C5	-5.08	111.55	114.60
26	1H	809	G	N3-C4-N9	5.08	129.05	126.00
26	1H	1334	G	C8-N9-C1'	-5.08	120.39	127.00
26	1H	1611	C	C5-C6-N1	-5.08	118.46	121.00
26	1H	2010	G	OP1-P-O3'	5.08	116.38	105.20
26	1H	2503	A	C4-C5-N7	5.08	113.24	110.70
32	41	29	TRP	CA-CB-CG	-5.08	104.04	113.70
26	14	1256	G	N1-C6-O6	5.08	122.95	119.90
26	14	1776	G	C5-N7-C8	-5.08	101.76	104.30
1	13	598	U	C5-C6-N1	5.08	125.24	122.70
1	13	1125	U	P-O3'-C3'	5.08	125.80	119.70
26	1H	569	U	O5'-P-OP2	5.08	116.80	110.70
26	1H	990	A	N1-C2-N3	5.08	131.84	129.30
26	1H	1139	G	N3-C2-N2	5.08	123.46	119.90
26	1H	1440	G	C5-N7-C8	5.08	106.84	104.30
26	1H	1808	U	N3-C2-O2	5.08	125.76	122.20
26	1H	2856	C	C2-N1-C1'	5.08	124.39	118.80
24	3L	76	A	C6-C5-N7	-5.08	128.74	132.30
26	14	27	G	OP1-P-O3'	5.08	116.38	105.20
26	14	138	G	C4-C5-N7	5.08	112.83	110.80
26	14	278	A	P-O3'-C3'	5.08	125.80	119.70
26	14	444	C	N3-C2-O2	5.08	125.46	121.90
26	14	530	G	N1-C2-N2	-5.08	111.63	116.20
26	14	1380	G	N1-C6-O6	5.08	122.95	119.90
26	14	1984	G	OP2-P-O3'	5.08	116.38	105.20
26	14	2710	C	N1-C2-O2	-5.08	115.85	118.90
1	13	534	U	N3-C4-O4	-5.08	115.84	119.40
26	1H	852	G	OP2-P-O3'	5.08	116.38	105.20
26	1H	1610	A	C5-C6-N6	-5.08	119.64	123.70
26	1H	2367	G	N7-C8-N9	5.08	115.64	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	31	135	LYS	N-CA-C	-5.08	97.28	111.00
1	1G	1348	U	C5-C4-O4	5.08	128.95	125.90
26	14	235	U	N3-C4-O4	-5.08	115.84	119.40
26	14	530	G	C4-C5-C6	5.08	121.85	118.80
26	14	2211	G	N9-C4-C5	5.08	107.43	105.40
1	13	231	G	N1-C6-O6	5.08	122.95	119.90
26	1H	431	U	C6-N1-C2	-5.08	117.95	121.00
26	1H	659	C	C2-N1-C1'	-5.08	113.21	118.80
26	1H	769	G	OP1-P-O3'	5.08	116.37	105.20
26	1H	889	C	C2-N1-C1'	5.08	124.39	118.80
26	1H	1036	G	C8-N9-C4	5.08	108.43	106.40
26	1H	1377	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	1780	A	O4'-C1'-N9	-5.08	104.14	108.20
26	1H	1858	G	P-O3'-C3'	5.08	125.79	119.70
26	1H	2037	G	N3-C4-C5	-5.08	126.06	128.60
56	2L	35	C	C2-N1-C1'	5.08	124.39	118.80
26	14	911	A	C8-N9-C4	-5.08	103.77	105.80
26	14	1393	A	O5'-P-OP2	-5.08	101.13	105.70
26	14	1441	G	C8-N9-C4	5.08	108.43	106.40
26	14	1471	A	C4-C5-C6	5.08	119.54	117.00
26	14	1937	A	N1-C2-N3	-5.08	126.76	129.30
26	1H	504	U	C6-N1-C1'	-5.08	114.09	121.20
26	1H	676	A	C6-C5-N7	-5.08	128.75	132.30
26	1H	1396	U	N3-C2-O2	-5.08	118.65	122.20
26	1H	1981	A	C5-C6-N6	-5.08	119.64	123.70
26	1H	2241	A	N3-C4-C5	-5.08	123.25	126.80
1	1G	413	G	N7-C8-N9	-5.08	110.56	113.10
1	1G	912	C	C5-C6-N1	-5.08	118.46	121.00
26	14	1316	U	O5'-P-OP1	5.08	116.79	110.70
55	M5	57	ARG	CG-CD-NE	5.08	122.46	111.80
1	13	220	G	C8-N9-C1'	-5.08	120.40	127.00
26	1H	256	A	C4-C5-N7	5.08	113.24	110.70
26	14	62	C	C6-N1-C2	5.08	122.33	120.30
26	14	453	C	C6-N1-C2	5.08	122.33	120.30
26	14	529	A	C4-C5-C6	5.08	119.54	117.00
26	14	573	G	N3-C4-N9	5.08	129.05	126.00
26	14	1112	G	N3-C4-N9	-5.08	122.95	126.00
27	1J	29	A	C5-N7-C8	-5.08	101.36	103.90
1	13	354	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	539	G	N1-C6-O6	5.07	122.94	119.90
26	1H	2742	C	N3-C2-O2	5.07	125.45	121.90
1	1G	557	G	N9-C4-C5	-5.07	103.37	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	789	U	C6-N1-C2	-5.07	117.96	121.00
26	14	668	G	N3-C4-N9	-5.07	122.96	126.00
26	14	783	A	C4-C5-C6	5.07	119.54	117.00
26	14	806	C	C5-C6-N1	5.07	123.54	121.00
26	14	1475	G	N7-C8-N9	5.07	115.64	113.10
26	14	1544	C	C2-N1-C1'	5.07	124.38	118.80
26	14	2378	A	N1-C6-N6	5.07	121.64	118.60
46	C5	39	VAL	N-CA-C	5.07	124.70	111.00
26	1H	196	A	N7-C8-N9	-5.07	111.26	113.80
26	1H	1792	G	N3-C2-N2	-5.07	116.35	119.90
27	16	115	G	C5-N7-C8	-5.07	101.76	104.30
26	14	1627	G	N3-C2-N2	5.07	123.45	119.90
1	13	910	C	C6-N1-C2	5.07	122.33	120.30
1	13	1290	G	C6-C5-N7	-5.07	127.36	130.40
26	1H	2280	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	2303	G	C5-C6-N1	-5.07	108.97	111.50
26	1H	2510	C	N1-C2-O2	-5.07	115.86	118.90
1	1G	1224	G	O5'-P-OP2	-5.07	101.14	105.70
26	14	822	U	N1-C2-O2	5.07	126.35	122.80
26	14	932	G	O5'-P-OP1	5.07	116.78	110.70
26	14	1779	U	C6-N1-C1'	-5.07	114.10	121.20
26	14	1835	G	C4-N9-C1'	5.07	133.09	126.50
26	14	2265	U	C6-N1-C2	-5.07	117.96	121.00
26	14	2424	C	N1-C2-O2	5.07	121.94	118.90
26	1H	782	A	N3-C4-C5	-5.07	123.25	126.80
26	1H	1301	A	C5-C6-N6	-5.07	119.64	123.70
26	14	1594	G	C8-N9-C4	-5.07	104.37	106.40
26	1H	200	U	N3-C2-O2	-5.07	118.65	122.20
26	1H	2088	G	OP2-P-O3'	5.07	116.35	105.20
26	1H	2250	G	C8-N9-C4	-5.07	104.37	106.40
1	1G	6	G	C5-C6-O6	-5.07	125.56	128.60
1	1G	786	G	OP2-P-O3'	5.07	116.35	105.20
26	14	562	U	N1-C2-O2	-5.07	119.25	122.80
26	14	585	G	N3-C4-C5	-5.07	126.07	128.60
26	14	1432	C	N1-C2-O2	-5.07	115.86	118.90
26	14	1458	C	C6-N1-C2	5.07	122.33	120.30
26	14	1544	C	C2-N3-C4	5.07	122.43	119.90
1	13	1142	G	O4'-C1'-N9	5.07	112.25	108.20
26	1H	577	G	N3-C2-N2	5.07	123.44	119.90
26	1H	1391	U	C5-C6-N1	5.07	125.23	122.70
26	1H	2255	G	N1-C2-N3	5.07	126.94	123.90
1	1G	529	G	N1-C6-O6	5.07	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	666	G	C4-N9-C1'	5.07	133.08	126.50
26	14	704	G	N3-C4-C5	5.07	131.13	128.60
26	14	747	U	OP1-P-OP2	5.07	127.20	119.60
26	14	1143	A	N9-C4-C5	5.07	107.83	105.80
26	14	2559	C	N3-C2-O2	-5.07	118.35	121.90
26	1H	611	C	C5-C6-N1	-5.06	118.47	121.00
26	1H	2273	A	O5'-P-OP2	-5.06	101.14	105.70
1	1G	266	G	C2-N3-C4	5.06	114.43	111.90
26	14	270(Y)	G	N9-C4-C5	5.06	107.42	105.40
26	14	535	C	C4-C5-C6	5.06	119.93	117.40
26	14	1752	C	N1-C2-O2	-5.06	115.86	118.90
1	13	422	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	133	C	C5-C6-N1	-5.06	118.47	121.00
26	1H	213	A	N9-C4-C5	-5.06	103.78	105.80
26	1H	917	A	OP1-P-O3'	5.06	116.34	105.20
26	1H	987	G	N9-C4-C5	5.06	107.42	105.40
26	1H	1271	G	N3-C4-N9	5.06	129.04	126.00
26	1H	1319	G	C5-C6-N1	5.06	114.03	111.50
26	1H	1926	U	N1-C2-N3	5.06	117.94	114.90
26	1H	2458	G	C8-N9-C4	-5.06	104.38	106.40
56	2L	4	G	C8-N9-C4	5.06	108.42	106.40
26	14	1778	U	OP2-P-O3'	5.06	116.34	105.20
26	14	2238	G	N3-C4-C5	-5.06	126.07	128.60
1	13	219	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1307	A	OP1-P-OP2	5.06	127.19	119.60
26	1H	1311	G	C2-N3-C4	-5.06	109.37	111.90
26	1H	1666	G	C2-N3-C4	-5.06	109.37	111.90
26	1H	1695	G	N9-C4-C5	-5.06	103.38	105.40
26	1H	2576	G	C8-N9-C4	5.06	108.42	106.40
26	1H	2744	G	OP2-P-O3'	5.06	116.33	105.20
1	1G	1305	G	N1-C2-N2	5.06	120.75	116.20
26	14	1462	C	C6-N1-C2	-5.06	118.28	120.30
1	13	1503	A	C4-C5-N7	-5.06	108.17	110.70
26	1H	39	C	C6-N1-C2	5.06	122.32	120.30
26	1H	684	G	OP2-P-O3'	5.06	116.33	105.20
26	1H	754	C	N3-C4-N4	5.06	121.54	118.00
26	1H	1822	G	N1-C6-O6	5.06	122.94	119.90
26	1H	1975	G	C4-N9-C1'	5.06	133.08	126.50
26	1H	2377	A	N9-C4-C5	-5.06	103.78	105.80
26	1H	2512	C	N3-C2-O2	5.06	125.44	121.90
1	1G	251	G	C4-C5-N7	5.06	112.82	110.80
26	14	135	G	N1-C6-O6	5.06	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	201	C	C4-C5-C6	5.06	119.93	117.40
26	14	363(C)	G	N3-C4-C5	5.06	131.13	128.60
26	14	1239	G	N3-C4-N9	-5.06	122.96	126.00
26	14	1436	G	N3-C2-N2	5.06	123.44	119.90
26	14	2056	G	C8-N9-C4	-5.06	104.38	106.40
1	13	1285	A	P-O3'-C3'	5.06	125.77	119.70
1	13	1520	G	C5-C6-O6	-5.06	125.57	128.60
26	1H	36	G	OP2-P-O3'	5.06	116.33	105.20
26	1H	505	A	C2-N3-C4	-5.06	108.07	110.60
26	1H	1416	G	P-O3'-C3'	5.06	125.77	119.70
1	1G	758	G	C5-N7-C8	-5.06	101.77	104.30
26	14	751	A	C6-N1-C2	-5.06	115.56	118.60
26	14	774	A	C8-N9-C4	5.06	107.82	105.80
26	14	810	U	N3-C2-O2	-5.06	118.66	122.20
26	1H	1204	A	C6-N1-C2	5.06	121.63	118.60
26	14	1972	A	C2-N3-C4	5.06	113.13	110.60
26	1H	411	G	N1-C2-N3	5.05	126.93	123.90
26	1H	2363	C	OP1-P-OP2	-5.05	112.02	119.60
26	1H	2431	U	C6-N1-C2	5.05	124.03	121.00
26	14	315	G	C8-N9-C4	5.05	108.42	106.40
26	1H	452	G	C4-C5-N7	-5.05	108.78	110.80
26	1H	612	G	N3-C4-N9	-5.05	122.97	126.00
26	1H	970	C	N3-C4-N4	5.05	121.54	118.00
26	1H	2435	A	C6-N1-C2	-5.05	115.57	118.60
26	1H	2461	C	C5-C4-N4	5.05	123.74	120.20
1	1G	1374	A	O4'-C1'-N9	5.05	112.24	108.20
26	14	948	G	O5'-P-OP2	5.05	116.76	110.70
26	14	1644	C	N3-C2-O2	-5.05	118.36	121.90
26	14	1989	G	C8-N9-C1'	5.05	133.57	127.00
26	14	2526	G	N1-C6-O6	5.05	122.93	119.90
26	1H	58	G	C2-N3-C4	-5.05	109.37	111.90
26	1H	199	A	N7-C8-N9	-5.05	111.27	113.80
26	1H	1198	U	C2-N3-C4	-5.05	123.97	127.00
26	1H	1360	A	N9-C4-C5	-5.05	103.78	105.80
26	1H	1431	U	C2-N1-C1'	5.05	123.76	117.70
26	1H	2330	G	C4-C5-N7	5.05	112.82	110.80
1	1G	579	G	C6-C5-N7	-5.05	127.37	130.40
26	14	226	G	N1-C6-O6	5.05	122.93	119.90
26	14	676	A	N3-C4-C5	5.05	130.34	126.80
26	14	681	G	N9-C4-C5	-5.05	103.38	105.40
26	14	1831	G	C4-N9-C1'	5.05	133.07	126.50
1	13	1064	G	OP1-P-O3'	5.05	116.31	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	245	G	C6-C5-N7	-5.05	127.37	130.40
26	1H	975	G	C4-C5-N7	-5.05	108.78	110.80
26	1H	1936	A	N7-C8-N9	5.05	116.32	113.80
26	1H	1936	A	O4'-C1'-N9	5.05	112.24	108.20
26	1H	2334	G	C5-N7-C8	5.05	106.82	104.30
26	14	330	A	C5-C6-N1	-5.05	115.17	117.70
26	14	600	G	C8-N9-C4	5.05	108.42	106.40
26	14	729	G	N1-C2-N2	5.05	120.75	116.20
26	14	1971	A	C5-C6-N6	-5.05	119.66	123.70
26	14	2254	C	N1-C2-O2	-5.05	115.87	118.90
1	13	1251	A	C8-N9-C4	5.05	107.82	105.80
26	1H	1468	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	1604	C	N3-C4-N4	5.05	121.53	118.00
26	14	2778	A	O4'-C1'-N9	-5.05	104.16	108.20
26	1H	202	U	C4-C5-C6	-5.05	116.67	119.70
26	1H	600	G	N9-C4-C5	-5.05	103.38	105.40
26	1H	2785	C	C6-N1-C2	-5.05	118.28	120.30
27	16	79	C	C5-C6-N1	5.05	123.52	121.00
26	14	270(Y)	G	C5-C6-O6	5.05	131.63	128.60
26	14	556	G	N3-C4-N9	5.05	129.03	126.00
26	14	600	G	N3-C4-C5	5.05	131.12	128.60
26	14	954	G	O5'-P-OP2	5.05	116.75	110.70
26	14	976	C	C4-C5-C6	5.05	119.92	117.40
26	14	1573	G	C8-N9-C4	5.05	108.42	106.40
26	14	2247	A	N7-C8-N9	5.05	116.32	113.80
26	1H	1154	G	C8-N9-C4	-5.04	104.38	106.40
26	1H	1247	A	C6-N1-C2	-5.04	115.57	118.60
1	1G	690	G	C4-C5-N7	5.04	112.82	110.80
26	14	1828	G	N3-C4-C5	-5.04	126.08	128.60
1	13	584	G	N1-C2-N3	5.04	126.93	123.90
22	1K	61	U	C6-N1-C1'	5.04	128.26	121.20
26	1H	766	C	C2-N3-C4	-5.04	117.38	119.90
26	1H	959	A	C5-C6-N1	-5.04	115.18	117.70
26	1H	1608	A	N1-C6-N6	-5.04	115.57	118.60
26	1H	2424	C	C6-N1-C2	5.04	122.32	120.30
26	14	499	U	N3-C2-O2	-5.04	118.67	122.20
26	14	712	G	C6-C5-N7	-5.04	127.37	130.40
26	14	1923	U	N3-C4-C5	-5.04	111.57	114.60
26	1H	918	A	O5'-P-OP1	-5.04	101.16	105.70
26	1H	2255	G	N1-C6-O6	-5.04	116.88	119.90
26	1H	2261	C	C5-C4-N4	5.04	123.73	120.20
26	1H	2397	G	C5-N7-C8	-5.04	101.78	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2490	G	O4'-C1'-N9	5.04	112.23	108.20
26	14	429	A	N1-C6-N6	5.04	121.62	118.60
26	14	862	G	N9-C4-C5	5.04	107.42	105.40
26	14	1479	G	C5-C6-N1	-5.04	108.98	111.50
26	14	1645	G	C2-N3-C4	5.04	114.42	111.90
1	13	326	G	C5-N7-C8	5.04	106.82	104.30
26	1H	2592	G	N1-C2-N3	5.04	126.92	123.90
26	14	2043	C	O5'-P-OP1	-5.04	101.16	105.70
26	14	2650	U	N1-C2-O2	-5.04	119.27	122.80
1	13	1126	U	P-O3'-C3'	5.04	125.75	119.70
26	1H	146	G	C5-C6-O6	-5.04	125.58	128.60
26	1H	319	C	C6-N1-C2	-5.04	118.28	120.30
26	1H	1534	G	C2-N3-C4	5.04	114.42	111.90
26	1H	1682	G	N1-C2-N3	5.04	126.92	123.90
26	1H	2590	A	C5-N7-C8	-5.04	101.38	103.90
26	1H	2694	G	N1-C6-O6	5.04	122.92	119.90
26	14	1338	G	C4-N9-C1'	5.04	133.05	126.50
26	14	2830	G	N3-C4-C5	5.04	131.12	128.60
1	13	23	C	C5-C6-N1	5.04	123.52	121.00
50	K8	16	LEU	N-CA-C	-5.04	97.40	111.00
26	14	1802	A	N9-C4-C5	5.04	107.81	105.80
26	14	2390	U	N3-C4-O4	5.04	122.93	119.40
26	14	2494	G	N9-C4-C5	-5.04	103.39	105.40
27	16	31	C	N3-C2-O2	-5.04	118.38	121.90
1	1G	308	C	C5-C6-N1	-5.04	118.48	121.00
26	14	785	G	C8-N9-C4	-5.04	104.39	106.40
1	13	571	U	N3-C2-O2	-5.03	118.68	122.20
1	13	869	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	265	A	C8-N9-C4	-5.03	103.79	105.80
26	1H	330	A	N7-C8-N9	5.03	116.32	113.80
26	1H	355	G	C8-N9-C4	5.03	108.41	106.40
26	1H	1705	G	C4-N9-C1'	5.03	133.04	126.50
44	E8	62	HIS	N-CA-C	-5.03	97.41	111.00
26	14	210	C	N3-C4-C5	5.03	123.91	121.90
26	14	668	G	N3-C4-C5	5.03	131.12	128.60
26	14	1283	G	C4-C5-C6	5.03	121.82	118.80
26	14	1773	A	O5'-P-OP1	5.03	116.74	110.70
26	14	1852	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	784	A	C6-N1-C2	-5.03	115.58	118.60
26	1H	1437	C	N3-C2-O2	-5.03	118.38	121.90
1	1G	1435	G	C2-N3-C4	-5.03	109.38	111.90
26	14	187	G	C8-N9-C1'	-5.03	120.46	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	839	U	C5-C4-O4	5.03	128.92	125.90
26	14	1241	A	C5-N7-C8	-5.03	101.38	103.90
1	13	542	G	N7-C8-N9	5.03	115.62	113.10
1	13	1341	U	N1-C2-N3	5.03	117.92	114.90
26	1H	934	G	N1-C6-O6	5.03	122.92	119.90
26	1H	1614	A	N7-C8-N9	5.03	116.32	113.80
40	A8	24	LEU	CA-CB-CG	5.03	126.87	115.30
1	1G	568	G	O5'-P-OP1	-5.03	101.17	105.70
26	14	1667	G	C5-C6-O6	-5.03	125.58	128.60
26	14	2724	C	C5-C6-N1	-5.03	118.48	121.00
26	1H	784	A	OP1-P-O3'	5.03	116.27	105.20
26	1H	1833	U	C2-N1-C1'	5.03	123.73	117.70
26	1H	2643	G	N1-C2-N3	5.03	126.92	123.90
26	14	993	G	N7-C8-N9	5.03	115.61	113.10
1	13	404	U	C5-C6-N1	5.03	125.21	122.70
1	13	1290	G	N7-C8-N9	5.03	115.61	113.10
26	1H	121	G	N1-C6-O6	5.03	122.92	119.90
26	1H	944	G	C5-C6-N1	-5.03	108.99	111.50
26	1H	1921	G	O5'-P-OP1	-5.03	101.18	105.70
26	1H	2207	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	2435	A	N1-C2-N3	5.03	131.81	129.30
1	1G	251	G	C6-C5-N7	-5.03	127.38	130.40
1	1G	266	G	P-O3'-C3'	5.03	125.73	119.70
26	14	526	A	C8-N9-C4	-5.03	103.79	105.80
26	14	1407	C	OP1-P-O3'	5.03	116.26	105.20
30	29	50	GLY	N-CA-C	5.03	125.67	113.10
26	1H	74	A	N3-C4-C5	5.03	130.32	126.80
26	1H	1235	G	N3-C4-N9	5.03	129.01	126.00
26	1H	1931	U	C4-C5-C6	5.03	122.72	119.70
26	1H	2702	U	N1-C2-N3	5.03	117.92	114.90
1	1G	481	G	N3-C4-N9	5.03	129.01	126.00
1	1G	581	G	C6-C5-N7	-5.03	127.39	130.40
26	14	292	C	C6-N1-C2	5.03	122.31	120.30
26	14	2168	G	C8-N9-C1'	-5.03	120.47	127.00
26	14	2270	G	C4-C5-N7	5.03	112.81	110.80
26	1H	1344	G	C6-C5-N7	-5.02	127.39	130.40
26	1H	2301	C	N3-C4-C5	-5.02	119.89	121.90
1	1G	180	U	C2-N1-C1'	5.02	123.73	117.70
26	14	2345	G	N9-C4-C5	5.02	107.41	105.40
26	14	2440	C	N3-C4-C5	-5.02	119.89	121.90
1	13	754	C	C2-N1-C1'	5.02	124.32	118.80
23	2K	4	G	N1-C6-O6	-5.02	116.89	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	840	C	C5-C6-N1	-5.02	118.49	121.00
26	1H	2721	A	N9-C4-C5	-5.02	103.79	105.80
1	1G	148	G	N1-C6-O6	5.02	122.91	119.90
1	1G	1516	G	N9-C4-C5	-5.02	103.39	105.40
26	14	71	A	C4-C5-N7	5.02	113.21	110.70
26	14	335	C	OP1-P-O3'	5.02	116.25	105.20
26	14	584	C	N3-C4-N4	5.02	121.52	118.00
26	14	633	A	O5'-P-OP2	5.02	116.73	110.70
26	14	1695	G	N3-C2-N2	5.02	123.42	119.90
26	14	2592	G	OP2-P-O3'	5.02	116.25	105.20
26	14	2852	G	N1-C6-O6	5.02	122.91	119.90
26	1H	456	C	N3-C4-C5	5.02	123.91	121.90
26	1H	2217	G	C4-C5-C6	5.02	121.81	118.80
26	1H	2822	G	N9-C4-C5	-5.02	103.39	105.40
26	1H	2869	G	OP1-P-OP2	-5.02	112.07	119.60
26	14	1293	C	C5-C4-N4	-5.02	116.69	120.20
26	14	1962	C	C6-N1-C1'	-5.02	114.78	120.80
1	13	967	C	N3-C4-C5	5.02	123.91	121.90
22	1K	75	C	C4-C5-C6	-5.02	114.89	117.40
26	1H	366	C	C6-N1-C1'	5.02	126.82	120.80
26	1H	767	U	C2-N1-C1'	-5.02	111.68	117.70
26	1H	1000	A	OP2-P-O3'	5.02	116.24	105.20
26	1H	2413	G	C5-C6-N1	-5.02	108.99	111.50
26	1H	2525	G	C4-C5-N7	5.02	112.81	110.80
26	1H	2891	G	C5-C6-O6	-5.02	125.59	128.60
29	11	63	ARG	NE-CZ-NH2	-5.02	117.79	120.30
26	14	29	U	C6-N1-C2	-5.02	117.99	121.00
26	14	943	U	C2-N1-C1'	-5.02	111.68	117.70
26	14	1312	U	C6-N1-C2	-5.02	117.99	121.00
26	14	2051	A	N1-C2-N3	5.02	131.81	129.30
26	1H	49	A	N7-C8-N9	-5.02	111.29	113.80
26	1H	57	C	C2-N1-C1'	-5.02	113.28	118.80
26	1H	79	G	N3-C2-N2	-5.02	116.39	119.90
26	1H	186	G	N3-C2-N2	5.02	123.41	119.90
26	1H	382	G	C4-C5-N7	5.02	112.81	110.80
26	1H	1190	G	C8-N9-C4	5.02	108.41	106.40
26	1H	1671	U	N3-C4-C5	-5.02	111.59	114.60
26	14	68	G	N9-C4-C5	-5.02	103.39	105.40
26	14	582	G	C5-N7-C8	-5.02	101.79	104.30
26	14	761	A	OP1-P-O3'	5.02	116.24	105.20
26	14	1282	U	N1-C2-O2	-5.02	119.29	122.80
26	14	1878	G	C6-C5-N7	-5.02	127.39	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	802	A	OP2-P-O3'	5.02	116.23	105.20
26	1H	2413	G	N3-C4-C5	5.02	131.11	128.60
26	14	2138	C	N1-C2-O2	5.02	121.91	118.90
26	1H	125	G	N1-C2-N2	-5.01	111.69	116.20
26	1H	1343	G	OP2-P-O3'	5.01	116.23	105.20
26	1H	1593	G	C5-C6-N1	5.01	114.01	111.50
1	1G	357	G	N1-C6-O6	5.01	122.91	119.90
26	14	29	U	N1-C2-N3	5.01	117.91	114.90
26	14	1470	G	OP2-P-O3'	5.01	116.23	105.20
26	14	2059	A	C5-C6-N6	-5.01	119.69	123.70
26	14	2638	G	P-O3'-C3'	5.01	125.72	119.70
1	13	75	C	C5-C6-N1	5.01	123.51	121.00
1	1G	1111	A	N7-C8-N9	5.01	116.31	113.80
26	14	270(P)	C	C6-N1-C2	-5.01	118.30	120.30
26	14	2262	U	OP1-P-O3'	5.01	116.23	105.20
1	13	816	A	OP1-P-O3'	5.01	116.22	105.20
26	1H	213	A	O5'-P-OP2	-5.01	101.19	105.70
26	1H	245	G	C4-N9-C1'	5.01	133.01	126.50
26	1H	308	G	N3-C4-N9	5.01	129.01	126.00
26	1H	1368	G	C6-N1-C2	-5.01	122.09	125.10
26	1H	1645	G	N3-C4-C5	-5.01	126.09	128.60
26	1H	1763	G	OP1-P-OP2	-5.01	112.08	119.60
26	1H	2288	A	C5-C6-N6	-5.01	119.69	123.70
26	1H	2638	G	C4-C5-N7	5.01	112.80	110.80
1	1G	1227	A	C2-N3-C4	-5.01	108.09	110.60
26	14	1617	C	C6-N1-C2	-5.01	118.30	120.30
26	14	1762	A	C5-N7-C8	-5.01	101.39	103.90
27	1J	52	A	P-O3'-C3'	5.01	125.71	119.70
1	13	1434	A	N1-C6-N6	5.01	121.61	118.60
26	1H	2329	G	C8-N9-C1'	-5.01	120.49	127.00
27	16	53	A	C6-C5-N7	-5.01	128.79	132.30
27	16	105	G	C8-N9-C4	-5.01	104.40	106.40
1	1G	1274	G	N1-C6-O6	5.01	122.91	119.90
26	14	473	G	OP1-P-OP2	5.01	127.11	119.60
26	14	2565	A	O5'-P-OP2	5.01	116.71	110.70
26	1H	668	G	C5-N7-C8	-5.01	101.80	104.30
26	1H	1650	G	C8-N9-C1'	-5.01	120.49	127.00
26	1H	1962	C	O4'-C1'-N1	-5.01	104.19	108.20
26	14	246	C	C5-C6-N1	-5.01	118.50	121.00
26	14	501	A	O5'-P-OP2	-5.01	101.19	105.70
26	14	1370	C	C6-N1-C2	5.01	122.30	120.30
26	14	2247	A	C6-C5-N7	-5.01	128.79	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	522	C	C2-N1-C1'	-5.01	113.29	118.80
1	13	731	G	C5-C6-O6	-5.01	125.60	128.60
26	1H	1436	G	C8-N9-C4	-5.01	104.40	106.40
26	1H	1967	C	OP1-P-OP2	5.01	127.11	119.60
1	1G	111	G	C6-C5-N7	-5.01	127.40	130.40
1	1G	263	A	C5-N7-C8	-5.01	101.40	103.90
1	1G	1300	G	P-O3'-C3'	5.01	125.71	119.70
26	14	1369	G	C8-N9-C4	5.01	108.40	106.40
26	14	1509	C	C5-C6-N1	5.01	123.50	121.00
26	14	2459	A	N1-C6-N6	5.01	121.60	118.60
46	C5	82	PRO	N-CA-C	5.01	125.12	112.10
1	13	136	C	C5-C6-N1	-5.00	118.50	121.00
26	1H	270(H)	C	C5-C6-N1	5.00	123.50	121.00
26	1H	656	G	OP2-P-O3'	5.00	116.21	105.20
26	1H	1309	G	N3-C2-N2	5.00	123.40	119.90
26	1H	690	G	C5-C6-O6	-5.00	125.60	128.60
26	1H	729	G	N1-C6-O6	5.00	122.90	119.90
26	1H	914	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	1257	C	N1-C2-N3	5.00	122.70	119.20
26	1H	2247	A	C6-C5-N7	-5.00	128.80	132.30
1	1G	797	C	N1-C2-O2	-5.00	115.90	118.90
26	14	179	G	C2-N3-C4	-5.00	109.40	111.90
26	14	1253	A	C2-N3-C4	5.00	113.10	110.60
26	14	1398	C	C2-N1-C1'	5.00	124.30	118.80
26	14	2477	C	C2-N1-C1'	5.00	124.31	118.80
29	19	147	LEU	CA-CB-CG	5.00	126.81	115.30
31	39	46	ARG	NE-CZ-NH1	5.00	122.80	120.30
1	13	12	U	C6-N1-C2	-5.00	118.00	121.00
26	1H	628	G	N7-C8-N9	-5.00	110.60	113.10
26	1H	692	C	C4-C5-C6	5.00	119.90	117.40
1	1G	169	C	N1-C2-O2	5.00	121.90	118.90
1	1G	263	A	N1-C6-N6	5.00	121.60	118.60
26	14	603	A	C5-N7-C8	-5.00	101.40	103.90
26	14	1126	A	C8-N9-C4	5.00	107.80	105.80
26	14	2386	C	N3-C4-N4	5.00	121.50	118.00

There are no chirality outliers.

All (116) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	197	GLY	Peptide
29	11	235	GLY	Peptide

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Mol	Chain	Res	Type	Group
2	12	19	HIS	Peptide
2	12	199	TYR	Peptide
35	15	41	ASP	Peptide
29	19	236	GLY	Peptide
29	19	237	GLU	Peptide
29	19	270	ILE	Peptide
29	19	32	SER	Peptide
29	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
2	1E	15	VAL	Peptide
2	1E	237	ALA	Peptide
30	21	56	PRO	Peptide
30	21	57	LYS	Peptide
30	21	77	ILE	Peptide
30	21	78	LEU	Peptide
36	25	47	ILE	Peptide
30	29	139	GLY	Peptide
30	29	203	LYS	Peptide
30	29	61	ARG	Peptide
30	29	65	GLY	Peptide
30	29	66	HIS	Peptide
11	2A	49	GLY	Peptide
31	31	196	LEU	Peptide
4	32	152	SER	Peptide
4	32	30	LYS	Peptide
4	32	33	MET	Peptide
37	35	36	LYS	Peptide
37	35	37	GLY	Peptide
37	35	64	LYS	Peptide
31	39	166	ALA	Peptide
31	39	167	ALA	Peptide
31	39	20	LEU	Peptide
31	39	82	ILE	Peptide
12	3A	63	GLY	Peptide
4	3E	31	CYS	Peptide
32	41	95	ARG	Peptide
38	45	135	ASP	Peptide
38	45	25	ASP	Peptide
38	45	27	VAL	Peptide
38	45	79	LEU	Peptide
38	45	87	LYS	Peptide
32	49	13	GLU	Peptide

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Mol	Chain	Res	Type	Group
13	4A	115	LYS	Peptide
13	4I	107	ALA	Peptide
33	59	90	LYS	Peptide
14	5A	29	ARG	Peptide
6	5E	41	GLU	Peptide
34	61	11	ASN	Peptide
34	61	134	PRO	Peptide
34	61	143	SER	Peptide
34	61	82	ARG	Peptide
40	65	59	LYS	Peptide
34	69	112	LYS	Peptide
41	75	12	SER	Peptide
41	75	4	GLY	Peptide
37	78	11	GLY	Peptide
37	78	147	LEU	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
38	88	1	MET	Peptide
38	88	21	THR	Peptide
38	88	78	PRO	Peptide
43	95	78	LYS	Peptide
39	98	44	LEU	Peptide
44	A5	43	GLY	Peptide
44	A5	93	ALA	Peptide
40	A8	106	ARG	Peptide
40	A8	110	LEU	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	24	GLY	Peptide
45	B5	61	GLY	Peptide
41	B8	2	ASN	Peptide
41	B8	3	ARG	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
46	C5	100	ALA	Peptide
46	C5	103	GLY	Peptide
46	C5	81	LYS	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide

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Mol	Chain	Res	Type	Group
47	D5	136	PHE	Peptide
47	D5	61	LEU	Peptide
48	E5	32	ARG	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	80	GLY	Peptide
47	H8	158	PRO	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
52	I5	31	ILE	Peptide
52	I5	51	ASP	Peptide
48	I8	83	PRO	Peptide
48	I8	9	SER	Peptide
49	J8	75	GLU	Peptide
50	K8	16	LEU	Peptide
50	K8	17	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	33	ASN	Peptide
55	M5	40	GLU	Peptide
52	M8	38	LYS	Peptide
53	N8	41	PRO	Peptide
55	Q8	19	SER	Peptide
55	Q8	27	THR	Peptide
55	Q8	48	PHE	Peptide
55	Q8	56	GLU	Peptide
55	Q8	6	THR	Peptide
55	Q8	7	HIS	Peptide
55	Q8	9	GLY	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	13	32185	0	16244	1069	0
1	1G	32182	0	16244	1090	0
2	12	1924	0	1975	113	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	1E	1924	0	1975	127	0
3	22	1612	0	1677	111	0
3	2E	1605	0	1668	60	0
4	32	1702	0	1763	110	0
4	3E	1702	0	1762	110	0
5	42	1155	0	1213	83	0
5	4E	1155	0	1213	68	0
6	52	842	0	857	35	0
6	5E	842	0	857	47	0
7	62	1194	0	1234	58	0
7	6E	1256	0	1296	61	0
8	72	1115	0	1177	59	0
8	7E	1115	0	1177	68	0
9	82	1009	0	1037	81	0
9	8E	1009	0	1037	78	0
10	1A	522	0	530	31	0
10	1I	801	0	849	54	0
11	2A	864	0	881	52	0
11	2I	884	0	904	44	0
12	3A	956	0	1046	56	0
12	3I	956	0	1046	48	0
13	4A	933	0	992	62	0
13	4I	933	0	992	60	0
14	5A	418	0	456	36	0
14	5I	491	0	529	38	0
15	6A	733	0	771	40	0
15	6I	733	0	771	43	0
16	7A	705	0	725	36	0
16	7I	705	0	725	57	0
17	8A	823	0	891	27	0
17	8I	834	0	904	63	0
18	9A	590	0	662	27	0
18	9I	590	0	662	31	0
19	AA	624	0	636	51	0
19	AI	647	0	665	46	0
20	BA	762	0	861	41	0
20	BI	762	0	861	51	0
21	1B	188	0	195	16	0
21	1F	217	0	234	7	0
22	1K	1497	0	770	36	0
23	2K	1646	0	845	38	0
24	3K	1627	0	838	64	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	3L	1627	0	838	78	0
25	4K	285	0	143	16	0
25	4L	197	0	99	6	0
26	14	61968	0	31239	1915	0
26	1H	62497	0	31504	1930	2
27	16	2617	0	1328	93	0
27	1J	2617	0	1328	122	0
28	71	737	0	743	64	0
29	11	2115	0	2195	124	0
29	19	2120	0	2197	121	0
30	21	1568	0	1634	105	0
30	29	1568	0	1634	131	0
31	31	1585	0	1632	108	0
31	39	1610	0	1655	144	0
32	41	1473	0	1535	107	0
32	49	1473	0	1535	101	0
33	51	1336	0	1418	96	0
33	59	1307	0	1382	93	0
34	61	1136	0	1223	70	0
34	69	1136	0	1223	59	0
35	15	1104	0	1180	54	0
35	58	1104	0	1180	74	0
36	25	932	0	996	59	0
36	68	932	0	996	45	0
37	35	1122	0	1206	121	0
37	78	1144	0	1228	111	0
38	45	1121	0	1179	91	0
38	88	1077	0	1121	77	0
39	55	959	0	1021	70	0
39	98	967	0	1033	76	0
40	65	881	0	943	73	0
40	A8	881	0	943	70	0
41	75	1141	0	1202	71	0
41	B8	1141	0	1202	77	0
42	85	963	0	1022	69	0
42	C8	963	0	1022	63	0
43	95	778	0	852	81	0
43	D8	778	0	852	56	0
44	A5	886	0	948	40	0
44	E8	899	0	964	50	0
45	B5	725	0	778	33	0
45	F8	742	0	803	47	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	C5	794	0	884	67	0
46	G8	791	0	881	66	0
47	D5	1126	0	1154	92	0
47	H8	1110	0	1141	75	0
48	E5	612	0	633	42	0
48	I8	626	0	642	41	0
49	F5	737	0	813	35	0
49	J8	762	0	848	41	0
50	G5	558	0	610	26	1
50	K8	563	0	612	52	0
51	H5	468	0	518	15	1
51	L8	452	0	503	29	0
52	I5	515	0	514	60	0
52	M8	533	0	526	54	0
53	J5	434	0	454	33	0
53	N8	422	0	440	27	0
54	L5	398	0	441	25	0
54	P8	409	0	454	14	0
55	M5	477	0	540	47	0
55	Q8	480	0	549	104	0
56	2L	1645	0	843	40	0
57	11	3	0	0	0	0
57	13	99	0	0	0	0
57	14	327	0	0	0	0
57	16	11	0	0	0	0
57	1G	72	0	0	0	0
57	1H	444	0	0	0	0
57	1J	3	0	0	0	0
57	25	1	0	0	0	0
57	29	2	0	0	0	0
57	2K	2	0	0	0	0
57	2L	2	0	0	0	0
57	35	1	0	0	0	0
57	3E	1	0	0	0	0
57	3L	2	0	0	0	0
57	41	2	0	0	0	0
57	45	1	0	0	0	0
57	4E	1	0	0	0	0
57	4I	1	0	0	0	0
57	55	1	0	0	0	0
57	68	2	0	0	0	0
57	78	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	88	1	0	0	0	0
57	98	1	0	0	0	0
57	I8	2	0	0	0	0
57	J8	2	0	0	0	0
57	L8	1	0	0	0	0
57	M5	1	0	0	0	0
57	P8	1	0	0	0	0
58	32	1	0	0	0	0
58	3E	1	0	0	0	0
58	5A	1	0	0	0	0
58	5I	1	0	0	0	0
58	C5	1	0	0	0	0
58	G8	1	0	0	0	0
59	11	11	0	0	1	0
59	13	144	0	0	30	0
59	14	592	0	0	151	0
59	16	22	0	0	0	0
59	19	8	0	0	1	0
59	1G	48	0	0	9	0
59	1H	933	0	0	316	0
59	1I	1	0	0	0	0
59	21	3	0	0	1	0
59	25	6	0	0	1	0
59	29	5	0	0	2	0
59	2K	6	0	0	0	0
59	31	9	0	0	0	0
59	35	2	0	0	0	0
59	39	4	0	0	0	0
59	3E	2	0	0	1	0
59	3I	2	0	0	0	0
59	4K	2	0	0	0	0
59	55	3	0	0	2	0
59	5I	2	0	0	0	0
59	75	1	0	0	0	0
59	78	6	0	0	2	0
59	A5	1	0	0	0	0
59	D8	1	0	0	0	0
59	F8	2	0	0	0	0
59	G8	2	0	0	0	0
59	H5	2	0	0	1	0
59	I8	5	0	0	2	0
59	J8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	L5	1	0	0	0	0
59	L8	1	0	0	1	0
59	M5	1	0	0	0	0
59	P8	2	0	0	0	0
59	Q8	1	0	0	0	0
All	All	295920	0	197803	11212	2

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 24.

All (11212) 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)
26:1H:270(L):U:H3	34:61:50:ARG:HG2	1.19	1.06
26:1H:2714:G:OP2	59:1H:3574:HOH:O	1.71	1.06
26:1H:2781:A:H5'	26:1H:2782:G:H5'	1.35	1.06
26:1H:741:G:OP1	59:1H:3910:HOH:O	1.74	1.05
26:1H:1614:A:OP1	59:1H:3862:HOH:O	1.75	1.04
5:4E:99:GLY:H	5:4E:117:ASP:HB3	1.21	1.04
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.39	1.03
26:14:1658:C:OP1	59:14:3509:HOH:O	1.76	1.02
26:14:1647:G:OP2	59:14:3555:HOH:O	1.77	1.01
26:14:1771:C:HO2'	26:14:1786:A:H8	1.05	1.01
26:1H:1332:G:OP1	59:1H:3885:HOH:O	1.78	1.00
53:N8:41:PRO:HD2	53:N8:44:THR:HG21	1.42	1.00
43:95:85:LYS:HD2	43:95:86:GLY:H	1.23	0.99
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.00	0.98
26:14:1614:A:OP1	59:14:3410:HOH:O	1.79	0.98
26:1H:2432:A:OP2	59:1H:3843:HOH:O	1.78	0.98
26:14:2505:G:O6	59:14:3719:HOH:O	1.80	0.98
26:1H:2573:C:OP1	59:1H:4377:HOH:O	1.82	0.98
29:11:60:ARG:HD3	29:11:86:PRO:HB2	1.46	0.98
26:1H:298:G:N7	59:1H:4106:HOH:O	1.95	0.98
26:1H:751:A:OP1	59:1H:3864:HOH:O	1.80	0.97
55:Q8:34:TRP:HZ3	55:Q8:39:LYS:HB3	1.27	0.97
26:14:2821:A:OP2	59:14:3922:HOH:O	1.83	0.97
26:1H:620:G:H4'	26:1H:621:A:H5"	1.45	0.97
26:1H:862:G:OP2	59:1H:3933:HOH:O	1.84	0.96
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.44	0.96
26:1H:945:A:OP2	59:1H:4058:HOH:O	1.84	0.96
37:35:64:LYS:HB2	55:M5:30:ARG:HH22	1.29	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2068:U:H3	26:1H:2430:A:H2	0.97	0.95
26:1H:943:U:OP2	59:1H:4352:HOH:O	1.83	0.95
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.49	0.94
1:1G:1127:G:H22	1:1G:1144:G:H1	1.12	0.94
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.48	0.94
26:1H:450:G:O6	59:1H:3834:HOH:O	1.85	0.94
26:1H:1776:G:OP2	59:1H:3560:HOH:O	1.85	0.94
26:14:1757:U:H3	26:14:1762:A:H2	1.05	0.94
26:1H:2308:G:H1	26:1H:2311:A:H2	1.12	0.94
55:M5:53:PRO:O	55:M5:57:ARG:NH1	1.99	0.94
26:1H:1601:G:N7	59:1H:3966:HOH:O	2.01	0.94
26:1H:1265:A:OP2	59:1H:3517:HOH:O	1.85	0.94
26:1H:511:U:OP2	59:1H:4387:HOH:O	1.86	0.94
40:65:85:VAL:H	40:65:110:LEU:HB3	1.32	0.94
1:13:595:G:H1	1:13:641:U:HO2'	1.15	0.93
26:1H:1997:G:OP2	59:1H:3946:HOH:O	1.86	0.93
26:14:1188:U:H4'	43:95:79:VAL:HG11	1.48	0.93
26:1H:2035:G:OP1	59:1H:3710:HOH:O	1.85	0.93
26:14:2056:G:H1	53:J5:4:HIS:HB3	1.34	0.93
35:15:42:TRP:O	42:85:64:ARG:NH2	2.02	0.93
26:1H:763:G:OP1	59:1H:3601:HOH:O	1.87	0.93
43:95:69:LYS:HB3	43:95:86:GLY:HA3	1.52	0.92
34:61:7:GLU:HA	34:61:15:VAL:HG22	1.51	0.92
1:1G:1316:G:H22	1:1G:1319:A:H5"	1.36	0.91
26:14:819:A:OP2	26:14:1187:G:N2	2.03	0.91
30:21:24:THR:HG21	30:21:188:VAL:HG21	1.53	0.91
1:13:737:A:H2'	1:13:738:C:H6	1.35	0.91
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.53	0.91
26:1H:1828:G:OP2	59:1H:4366:HOH:O	1.87	0.91
26:1H:945:A:N3	59:1H:3799:HOH:O	2.02	0.91
26:14:751:A:OP1	59:14:3409:HOH:O	1.89	0.91
26:1H:1153:C:OP2	59:1H:3944:HOH:O	1.89	0.91
49:J8:92:LYS:HG3	49:J8:95:LEU:HD12	1.53	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.53	0.91
26:1H:761:A:OP1	59:1H:3599:HOH:O	1.87	0.91
55:M5:14:VAL:HG11	55:M5:22:VAL:HG12	1.53	0.91
26:1H:1190:G:N7	59:1H:3812:HOH:O	2.04	0.91
30:29:151:TYR:HD2	30:29:154:LYS:HZ2	1.19	0.90
1:1G:895:G:H1	1:1G:904:C:H42	1.15	0.90
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.03	0.90
26:14:1019:U:HO2'	26:14:1021:A:H2	0.94	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:607:U:H3	26:1H:621:A:H2	0.95	0.90
26:14:2074:U:OP1	59:14:3403:HOH:O	1.90	0.90
26:14:2393:A:H4'	37:35:62:LEU:H	1.36	0.90
1:1G:1376:U:H2'	1:1G:1377:A:H8	1.34	0.90
59:14:3922:HOH:O	30:29:110:GLY:O	1.87	0.90
26:1H:2575:C:OP2	59:1H:4375:HOH:O	1.90	0.89
26:1H:2791:C:H42	26:1H:2805:G:H1	1.19	0.89
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.05	0.89
26:1H:810:U:OP1	59:1H:3629:HOH:O	1.89	0.89
26:14:593:G:H4'	55:M5:60:LEU:HD22	1.54	0.89
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.52	0.89
26:1H:2131:G:H5"	26:1H:2133:G:H4'	1.54	0.89
26:14:1327:C:OP2	59:14:3566:HOH:O	1.91	0.89
26:14:1219:G:H1	26:14:1230:C:H42	1.21	0.89
26:14:1689:A:H62	26:14:1698:A:H2	1.20	0.89
26:1H:2615:U:OP1	59:1H:3517:HOH:O	1.89	0.89
26:1H:760:G:OP1	59:1H:3754:HOH:O	1.90	0.89
26:1H:2583:G:OP2	59:1H:3737:HOH:O	1.89	0.88
50:K8:47:ASN:O	50:K8:49:LYS:N	2.04	0.88
35:15:56:ASN:H	35:15:125:GLY:HA3	1.35	0.88
26:14:906:G:OP1	38:45:141:GLN:NE2	2.05	0.88
26:1H:2032:G:H21	30:21:146:THR:HG23	1.36	0.88
4:32:26:CYS:HA	4:32:31:CYS:HB3	1.53	0.88
51:L8:13:ILE:O	59:L8:201:HOH:O	1.91	0.88
12:3I:7:ILE:HD11	17:8I:32:TYR:HB3	1.55	0.88
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.56	0.88
26:1H:730:C:OP2	59:1H:3599:HOH:O	1.90	0.88
26:1H:846:C:O2'	59:1H:3667:HOH:O	1.91	0.88
26:14:527:C:OP1	59:14:3935:HOH:O	1.92	0.88
26:1H:1951:U:O4	59:1H:3952:HOH:O	1.92	0.88
26:1H:1187:G:OP2	59:1H:3818:HOH:O	1.90	0.88
44:E8:88:ARG:HB3	44:E8:92:ARG:HB2	1.53	0.87
26:14:2681:C:H5	26:14:2725:A:H62	1.21	0.87
26:14:2415:G:H4'	37:35:67:MET:H	1.38	0.87
1:1G:147:G:H1	1:1G:175:C:H42	1.22	0.87
26:14:2210:G:O5'	26:14:2211:G:N2	2.06	0.87
30:21:55:ASN:HB3	30:21:58:ARG:H	1.39	0.87
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.40	0.87
26:1H:2701:C:H3'	26:1H:2702:U:H5"	1.54	0.87
26:1H:1007:C:OP2	59:1H:4114:HOH:O	1.91	0.87
4:32:23:GLY:H	4:32:26:CYS:HB2	1.36	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:812:C:N3	59:13:1809:HOH:O	2.07	0.87
20:BA:51:GLU:HA	20:BA:54:LYS:HB3	1.57	0.87
26:14:67:U:H3	26:14:74:A:H2	1.22	0.86
1:13:975:A:H4'	1:13:976:G:H5"	1.54	0.86
1:1G:998:G:N2	1:1G:1043:C:N3	2.22	0.86
26:1H:1639:U:OP2	59:1H:3548:HOH:O	1.93	0.86
26:1H:731:C:OP2	59:1H:3597:HOH:O	1.93	0.86
26:14:2210:G:H3'	26:14:2211:G:C2	2.10	0.86
26:14:602:G:O2'	26:14:604:G:O2'	1.93	0.86
5:4E:83:GLU:HB2	5:4E:88:LYS:HE3	1.55	0.86
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.55	0.86
26:1H:195:A:N7	59:1H:4369:HOH:O	2.07	0.86
1:13:137:C:N4	1:13:226:G:O6	2.07	0.86
26:1H:2074:U:OP1	59:1H:3594:HOH:O	1.92	0.86
26:14:2028:U:O4	59:14:3947:HOH:O	1.94	0.86
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.58	0.86
26:1H:510:C:OP1	59:1H:4387:HOH:O	1.93	0.86
55:Q8:34:TRP:CZ3	55:Q8:39:LYS:HB3	2.10	0.86
26:14:277:C:OP2	26:14:278:A:N6	2.08	0.86
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.39	0.86
33:59:159:GLU:O	33:59:163:TYR:OH	1.94	0.86
1:13:578:C:OP1	59:13:1929:HOH:O	1.92	0.85
26:14:1060:U:H4'	26:14:1061:U:H5"	1.58	0.85
26:14:1729:A:H2'	26:14:1731:G:H22	1.39	0.85
26:1H:1632:A:N7	59:1H:4384:HOH:O	2.08	0.85
26:14:2448:A:OP1	59:14:3602:HOH:O	1.94	0.85
27:1J:15:A:H5'	27:1J:16:G:H8	1.38	0.85
26:14:1771:C:OP1	59:14:3498:HOH:O	1.93	0.85
26:14:2588:G:OP2	59:14:3489:HOH:O	1.94	0.85
26:1H:2588:G:OP1	59:1H:3857:HOH:O	1.91	0.85
1:13:1133:G:N2	1:13:1141:C:N3	2.22	0.85
26:14:193:U:OP2	59:14:3623:HOH:O	1.92	0.85
26:14:802:A:OP1	59:14:3873:HOH:O	1.94	0.85
26:14:848:G:H2'	26:14:849:A:H8	1.42	0.85
26:1H:999:U:OP2	59:1H:3940:HOH:O	1.94	0.85
40:65:99:LYS:NZ	40:65:103:GLU:OE1	2.09	0.85
36:68:17:ARG:HH11	36:68:17:ARG:HA	1.40	0.85
34:69:139:GLN:OE1	34:69:141:LYS:NZ	2.09	0.85
1:1G:1502:A:H2	1:1G:1505:G:H1	1.24	0.85
26:1H:2452:C:OP1	59:1H:4291:HOH:O	1.95	0.85
26:14:2256:G:N7	59:14:3981:HOH:O	2.09	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:676:A:H8	26:14:2069:G:H21	1.22	0.85
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.12	0.85
26:1H:2576:G:OP1	59:1H:3722:HOH:O	1.94	0.85
26:14:1262:A:N3	53:J5:10:LYS:NZ	2.25	0.85
1:1G:458:C:N3	1:1G:474:G:N2	2.23	0.85
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.16	0.85
26:1H:49:A:N7	26:1H:120:U:H5	1.74	0.85
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.09	0.84
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.09	0.84
1:13:1226:C:H2'	13:4I:103:THR:HB	1.59	0.84
26:1H:1968:G:OP1	59:1H:4405:HOH:O	1.94	0.84
26:1H:2593:U:O4	59:1H:3587:HOH:O	1.93	0.84
24:3L:76:A:O2'	26:14:2394:C:N3	2.08	0.84
26:1H:761:A:N7	59:1H:4011:HOH:O	2.10	0.84
1:13:963:G:N3	10:1I:55:LYS:NZ	2.26	0.84
33:51:83:TYR:HB3	33:51:135:GLY:H	1.42	0.84
26:14:2873:A:H8	39:55:6:SER:H	1.21	0.84
26:14:1228:G:OP2	42:85:16:LYS:NZ	2.11	0.84
26:14:1680:U:N3	26:14:1764:G:OP2	2.10	0.84
26:14:2123:G:H2'	26:14:2124:G:H8	1.43	0.84
27:1J:18:G:H1	27:1J:65:C:H42	1.20	0.84
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.39	0.84
1:13:1508:G:OP1	59:13:1802:HOH:O	1.94	0.84
26:14:2267:A:OP2	59:14:3820:HOH:O	1.96	0.84
26:14:2784:C:O2	30:29:37:ARG:NH2	2.09	0.84
26:1H:2712(A):A:OP2	59:1H:3574:HOH:O	1.96	0.84
37:35:138:LEU:HD12	37:35:144:GLU:HG3	1.60	0.84
26:1H:2875:C:H1'	41:B8:5:ALA:HB2	1.59	0.84
26:1H:974(A):C:OP1	59:1H:4143:HOH:O	1.96	0.84
30:29:66:HIS:NE2	30:29:73:GLU:OE1	2.10	0.84
37:35:19:VAL:HG13	37:35:21:ARG:H	1.40	0.84
26:14:259:G:H21	26:14:621:A:H8	1.21	0.84
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.43	0.84
1:13:1110:A:OP2	59:13:1916:HOH:O	1.94	0.84
26:14:2002:G:N7	59:14:3793:HOH:O	2.11	0.84
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.58	0.84
33:59:6:ARG:H	33:59:6:ARG:HD2	1.40	0.84
26:1H:31:C:OP1	59:1H:3699:HOH:O	1.95	0.84
26:1H:259:G:O2'	26:1H:621:A:O2'	1.92	0.84
47:D5:4:ARG:HA	47:D5:58:VAL:HB	1.59	0.84
1:13:1004:A:O5'	1:13:1025:U:N3	2.10	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.11	0.83
26:14:972:G:O2'	59:14:3969:HOH:O	1.96	0.83
47:D5:157:LEU:HA	47:D5:161:VAL:HG11	1.59	0.83
55:Q8:27:THR:HG22	55:Q8:29:LYS:HB3	1.58	0.83
26:1H:187:G:OP2	59:1H:4283:HOH:O	1.95	0.83
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.11	0.83
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.10	0.83
26:14:1022:G:O2'	26:14:1023:U:OP2	1.96	0.83
26:14:839:U:H3	26:14:939:G:H1	1.24	0.83
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.60	0.83
55:Q8:53:PRO:HA	55:Q8:55:ALA:N	1.92	0.83
26:1H:16:G:H2'	26:1H:17:G:H8	1.42	0.83
26:14:1365:A:O2'	49:F5:11:ARG:NH2	2.12	0.83
26:1H:801:G:OP2	59:1H:4137:HOH:O	1.95	0.83
27:1J:48:A:H4'	40:65:95:HIS:HD2	1.44	0.83
26:14:1364:G:OP2	49:F5:2:SER:N	2.12	0.83
26:1H:450:G:OP2	59:1H:3831:HOH:O	1.97	0.83
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.12	0.83
52:I5:56:VAL:HG22	52:I5:57:GLU:HG3	1.60	0.83
32:41:67:LYS:HE2	52:M8:6:HIS:CE1	2.14	0.83
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.61	0.83
26:14:1992:G:N7	59:14:3517:HOH:O	2.12	0.83
26:1H:2591:C:O3'	59:1H:4409:HOH:O	1.96	0.83
26:1H:428:A:OP1	59:1H:3693:HOH:O	1.97	0.83
11:2I:32:ILE:HD13	11:2I:72:ALA:HB2	1.58	0.83
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.59	0.83
29:11:12:SER:HB2	29:11:208:LYS:HB3	1.60	0.82
34:69:112:LYS:HA	34:69:114:LEU:H	1.43	0.82
8:72:17:THR:O	8:72:78:GLN:NE2	2.11	0.82
26:14:2017:U:OP1	59:14:3586:HOH:O	1.96	0.82
26:14:2033:A:OP1	59:14:3947:HOH:O	1.97	0.82
26:1H:195:A:N7	59:1H:4367:HOH:O	2.12	0.82
26:1H:2243:U:OP1	59:1H:3623:HOH:O	1.95	0.82
26:1H:2594:C:N4	59:1H:3587:HOH:O	2.12	0.82
26:1H:563:G:OP2	59:1H:3534:HOH:O	1.95	0.82
33:59:81:GLU:O	33:59:138:LYS:NZ	2.12	0.82
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.59	0.82
1:1G:156:G:N2	1:1G:165:C:O2	2.10	0.82
26:1H:654(G):C:O2	26:1H:654(N):G:N2	2.11	0.82
1:13:21:G:OP1	59:13:1836:HOH:O	1.96	0.82
1:1G:1028:C:H42	1:1G:1033:G:H1	1.27	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.43	0.82
39:55:57:ARG:HD2	39:55:59:ASP:HB3	1.59	0.82
1:13:1129:C:H4'	1:13:1130:A:H5'	1.61	0.82
1:13:74:C:H42	1:13:96:G:H1	1.23	0.82
26:14:1592:C:H2'	26:14:1593:G:H8	1.44	0.82
24:3L:71:G:O2'	26:14:1851:U:O2'	1.88	0.82
26:14:252:G:OP2	37:35:50:ARG:NH2	2.13	0.82
26:1H:607:U:N3	26:1H:621:A:H2	1.76	0.82
49:J8:83:GLU:HG2	49:J8:85:LEU:H	1.45	0.82
27:1J:86:G:N2	27:1J:90:C:O2	2.10	0.82
32:41:112:PRO:HB3	52:M8:37:SER:H	1.45	0.82
1:1G:584:G:H5'	17:8A:91:ARG:HH12	1.45	0.82
32:41:122:PRO:HB3	32:41:180:PHE:HD2	1.44	0.82
1:13:1436:U:OP1	20:BI:23:ARG:NH2	2.13	0.81
26:1H:1676:A:OP2	59:1H:3615:HOH:O	1.96	0.81
39:55:104:ARG:HD2	39:55:109:ALA:HB3	1.62	0.81
26:14:450:G:O6	59:14:3641:HOH:O	1.98	0.81
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.62	0.81
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.28	0.81
26:1H:1569:A:H5'	29:11:61:LEU:HD21	1.62	0.81
27:1J:18:G:N2	27:1J:65:C:N3	2.27	0.81
1:13:972:C:OP1	59:13:1829:HOH:O	1.97	0.81
35:58:12:ARG:NE	35:58:50:ASP:OD1	2.11	0.81
26:14:993:G:H1'	43:95:87:HIS:CE1	2.15	0.81
1:13:766:A:OP2	59:13:1810:HOH:O	1.97	0.81
26:1H:946:G:OP2	59:1H:4061:HOH:O	1.99	0.81
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.62	0.81
26:1H:198:C:OP2	59:1H:4367:HOH:O	1.97	0.81
24:3L:13:C:H2'	24:3L:14:A:H8	1.44	0.81
32:49:95:ARG:HG2	32:49:96:ARG:H	1.45	0.81
33:51:101:ARG:NH2	33:51:121:ILE:O	2.13	0.81
1:13:1177:G:OP1	1:13:1177:G:H4'	1.79	0.81
26:14:1168:G:O6	26:14:1181:C:N4	2.13	0.81
26:14:1900:A:OP2	59:14:3475:HOH:O	1.98	0.81
26:1H:509:C:O3'	59:1H:4389:HOH:O	1.99	0.81
30:29:25:VAL:HG12	30:29:26:ILE:H	1.46	0.81
26:1H:1636:C:OP2	59:1H:3510:HOH:O	1.96	0.81
26:1H:2005:A:OP1	59:1H:4362:HOH:O	1.99	0.81
41:B8:27:THR:HG23	41:B8:90:GLN:HB3	1.63	0.81
29:11:242:ARG:O	59:11:404:HOH:O	1.98	0.81
43:95:85:LYS:HE3	43:95:88:ARG:H	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.62	0.81
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.63	0.81
1:13:1305:G:H21	1:13:1331:G:H2'	1.45	0.81
1:13:1500:A:OP1	59:13:1804:HOH:O	1.98	0.81
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.16	0.81
33:59:137:ASP:HB3	33:59:140:LYS:HB2	1.63	0.81
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.62	0.81
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.13	0.81
26:14:2392:A:H2	26:14:2424:C:H42	1.29	0.81
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.46	0.81
26:1H:860:U:H5	26:1H:917:A:C2	1.98	0.81
26:1H:1656:C:H5"	30:21:136:ARG:HB2	1.62	0.81
1:13:680:C:O2	1:13:710:G:N2	2.14	0.80
26:14:196:A:OP2	37:35:46:LYS:NZ	2.13	0.80
1:13:1286:A:H5"	21:1F:26:LYS:HG2	1.61	0.80
26:1H:1315:C:OP2	59:1H:3888:HOH:O	1.99	0.80
26:14:2701:C:H3'	26:14:2702:U:H5"	1.61	0.80
26:1H:197:A:OP1	59:1H:4367:HOH:O	1.98	0.80
26:1H:2270:G:OP2	59:1H:4195:HOH:O	1.98	0.80
13:4I:108:ARG:HG3	13:4I:108:ARG:HH11	1.44	0.80
26:1H:2576:G:OP1	59:1H:3724:HOH:O	1.98	0.80
27:1J:40:U:O2	27:1J:45:A:N6	2.14	0.80
55:Q8:34:TRP:HE1	55:Q8:36:LYS:HZ2	1.28	0.80
1:13:1312:G:H5'	19:AI:6:LYS:HD3	1.63	0.80
26:1H:2255:G:OP2	59:1H:4071:HOH:O	1.98	0.80
24:3K:10:G:H22	24:3K:25:C:H42	1.29	0.80
26:1H:566:U:OP1	37:78:29:LYS:NZ	2.14	0.80
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.64	0.80
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.47	0.80
27:1J:5:C:H42	27:1J:115:G:H1	1.26	0.80
45:B5:55:ASN:HB2	45:B5:80:ILE:HG13	1.64	0.80
1:13:158:G:N1	1:13:163:C:O2	2.14	0.80
26:1H:1314:C:OP1	59:1H:3885:HOH:O	1.99	0.80
26:1H:1639:U:OP1	59:1H:3580:HOH:O	2.00	0.80
26:1H:2296:U:OP2	40:A8:9:ARG:NH1	2.15	0.80
22:1K:1:C:H5'	22:1K:2:G:H5'	1.64	0.80
28:71:20:TYR:HB2	28:71:224:ILE:HG22	1.63	0.80
50:G5:35:LEU:HD21	50:G5:49:LYS:HB3	1.64	0.80
26:14:749:C:OP2	59:14:3674:HOH:O	2.00	0.80
31:39:101:LEU:O	31:39:106:ARG:NH1	2.14	0.80
26:1H:2099:U:N3	26:1H:2190:G:O6	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:933:A:OP1	51:L8:24:LYS:NZ	2.14	0.80
31:31:179:GLU:OE1	31:31:179:GLU:N	2.14	0.80
26:14:2255:G:OP2	59:14:3976:HOH:O	1.99	0.80
26:1H:2058:A:N6	59:1H:3520:HOH:O	2.14	0.80
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.61	0.80
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.46	0.80
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.64	0.80
26:1H:1622:G:OP2	59:1H:4222:HOH:O	2.00	0.80
26:1H:2392:A:OP2	55:Q8:30:ARG:NH2	2.15	0.80
30:21:57:LYS:HG3	30:21:59:VAL:HB	1.64	0.80
37:35:39:LYS:HB2	37:35:45:LEU:HD21	1.62	0.80
12:3A:27:LEU:HB3	12:3A:33:ARG:HD3	1.64	0.80
24:3K:13:C:H2'	24:3K:14:A:H8	1.45	0.80
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.64	0.80
38:88:59:ARG:HH11	38:88:59:ARG:H	1.29	0.80
2:1E:198:ASP:HA	8:7E:68:ARG:HH22	1.46	0.79
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.47	0.79
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.12	0.79
48:I8:64:ASP:HB2	48:I8:85:ALA:HB1	1.63	0.79
26:14:1434:A:H61	26:14:1558:A:N6	1.80	0.79
26:14:2239:G:OP2	59:14:3404:HOH:O	2.00	0.79
1:1G:1162:C:H42	1:1G:1174:G:H1	1.30	0.79
31:31:130:ALA:H	31:31:132:VAL:HG13	1.47	0.79
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.62	0.79
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.64	0.79
56:2L:65:G:OP1	48:E5:11:ARG:NH2	2.16	0.79
29:11:71:ASP:HB2	29:11:103:ARG:HH22	1.47	0.79
1:13:1321:C:H3'	1:13:1322:C:H5"	1.64	0.79
26:14:1828:G:OP2	59:14:3422:HOH:O	1.98	0.79
1:1G:1411:C:O2	1:1G:1489:G:N2	2.15	0.79
1:1G:979:C:H3'	1:1G:980:C:H5"	1.62	0.79
26:1H:2056:G:OP2	59:1H:3525:HOH:O	1.99	0.79
26:1H:2711:A:OP2	59:1H:3579:HOH:O	1.99	0.79
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.15	0.79
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.63	0.79
27:1J:80:U:H2'	27:1J:81:G:H21	1.46	0.79
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.47	0.79
26:14:568:U:O4	59:14:3963:HOH:O	2.00	0.79
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.14	0.79
26:1H:973:A:OP2	59:1H:3809:HOH:O	2.00	0.79
26:1H:2313:C:H4'	32:41:91:ARG:HG3	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:101:ILE:O	5:42:120:THR:OG1	2.00	0.79
38:45:25:ASP:HB3	38:45:102:VAL:HG23	1.63	0.79
7:62:68:ASN:ND2	7:62:127:ALA:O	2.16	0.79
26:14:1975:G:OP2	59:14:3497:HOH:O	2.00	0.79
26:1H:567:A:OP1	59:1H:3505:HOH:O	2.01	0.79
4:32:14:ARG:HG3	4:32:14:ARG:HH11	1.45	0.79
28:71:49:ILE:HG22	28:71:56:GLN:HG2	1.65	0.79
26:1H:295:G:N2	26:1H:343:C:O2	2.12	0.79
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.16	0.79
1:13:649:G:H2'	1:13:650:G:H8	1.47	0.79
26:1H:452:G:OP2	59:1H:3829:HOH:O	2.01	0.79
26:14:1616:A:O2'	59:14:3557:HOH:O	2.01	0.79
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.63	0.79
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.17	0.79
26:1H:442:G:H1'	31:31:48:THR:HG21	1.65	0.79
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.66	0.78
26:1H:2597:G:O3'	59:1H:3555:HOH:O	2.01	0.78
26:1H:2298:A:H62	26:1H:2318:G:H8	1.29	0.78
31:39:185:ASP:OD1	31:39:188:ARG:NH2	2.14	0.78
33:51:101:ARG:HH22	33:51:122:THR:HA	1.47	0.78
1:13:975:A:HO2'	14:5I:32:SER:HG	1.25	0.78
45:B5:27:THR:HG22	45:B5:80:ILE:HG22	1.65	0.78
26:1H:883:G:O6	26:1H:893:C:N4	2.15	0.78
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.15	0.78
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.29	0.78
26:1H:1265:A:O5'	59:1H:3519:HOH:O	2.00	0.78
41:75:92:GLY:HA2	41:75:116:ALA:HA	1.64	0.78
50:K8:20:GLU:HA	50:K8:23:LYS:HB3	1.63	0.78
26:1H:10:G:H2'	26:1H:11:G:H8	1.48	0.78
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.66	0.78
26:14:2361:A:N7	59:14:3988:HOH:O	2.15	0.78
26:1H:2574:G:OP1	59:1H:4374:HOH:O	2.02	0.78
34:69:2:LYS:HA	34:69:20:ASP:HA	1.63	0.78
1:13:662:G:O2'	1:13:836:G:OP1	2.02	0.78
26:14:1382:G:N7	59:14:3693:HOH:O	2.17	0.78
26:14:2250:G:C4	38:45:82:ARG:HG3	2.18	0.78
1:1G:580:U:H2'	1:1G:581:G:C8	2.18	0.78
26:1H:1253:A:N7	59:1H:3626:HOH:O	2.15	0.78
27:1J:52:A:O2'	27:1J:53:A:N7	2.15	0.78
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.17	0.78
1:13:806:C:H2'	1:13:807:A:H8	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1337:G:H2'	26:14:1338:G:H8	1.49	0.78
26:14:1676:A:OP2	59:14:3437:HOH:O	2.02	0.78
26:14:31:C:OP1	59:14:3734:HOH:O	2.01	0.78
1:1G:975:A:H5'	1:1G:975:A:H8	1.49	0.78
26:1H:1309:G:O6	59:1H:4183:HOH:O	2.00	0.78
26:1H:2248:C:OP2	59:1H:3638:HOH:O	2.02	0.78
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.11	0.78
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.49	0.78
26:1H:2068:U:N3	26:1H:2430:A:H2	1.79	0.78
30:29:181:LEU:HD11	41:75:7:ILE:HD11	1.65	0.78
26:1H:1314:C:OP1	59:1H:3888:HOH:O	2.01	0.78
26:1H:1994:C:OP1	59:1H:3947:HOH:O	2.02	0.78
3:22:95:THR:HB	3:22:97:LYS:HG2	1.64	0.78
1:13:486:U:H2'	1:13:487:A:H8	1.48	0.77
26:14:848:G:H2'	26:14:849:A:C8	2.18	0.77
26:1H:2210:G:H5'	26:1H:2211:G:N7	1.99	0.77
33:51:86:GLU:HG3	33:51:165:ALA:H	1.49	0.77
52:M8:57:GLU:O	52:M8:61:ARG:NH1	2.16	0.77
26:14:2448:A:O5'	59:14:3600:HOH:O	2.02	0.77
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.19	0.77
1:1G:359:U:H2'	1:1G:360:A:C8	2.20	0.77
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.49	0.77
17:8I:11:VAL:HG23	17:8I:20:THR:HB	1.66	0.77
1:13:201:C:N4	1:13:209:U:O2	2.18	0.77
1:1G:157:G:H1	1:1G:164:U:H3	1.33	0.77
26:1H:1689:A:H62	26:1H:1698:A:H2	1.32	0.77
30:29:56:PRO:HD2	30:29:58:ARG:HB2	1.66	0.77
29:11:79:VAL:HG21	29:11:111:LEU:HD11	1.66	0.77
26:14:2131:G:H5'	26:14:2158:A:H61	1.47	0.77
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.49	0.77
27:1J:44:G:O2'	27:1J:48:A:N6	2.17	0.77
30:29:55:ASN:O	30:29:57:LYS:NZ	2.17	0.77
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.66	0.77
31:39:20:LEU:HG	31:39:199:TRP:HH2	1.50	0.77
37:78:95:VAL:HA	37:78:99:LEU:HD11	1.65	0.77
52:I5:62:ARG:HG3	52:I5:62:ARG:HH11	1.50	0.77
52:M8:38:LYS:NZ	52:M8:44:THR:OG1	2.17	0.77
1:13:501:C:H2'	1:13:502:G:C8	2.20	0.77
26:14:571:A:OP2	59:14:3961:HOH:O	2.02	0.77
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.15	0.77
26:1H:1670:C:OP1	59:1H:3571:HOH:O	2.02	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1899:G:H22	26:1H:1902:C:N4	1.82	0.77
26:1H:674:G:H1'	31:31:74:ARG:HE	1.49	0.77
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.64	0.77
1:13:1506:U:O2'	59:13:1803:HOH:O	2.02	0.77
1:1G:78:G:N2	1:1G:91:C:O2	2.17	0.77
26:1H:2249:U:O4	59:1H:3640:HOH:O	2.01	0.77
4:3E:22:LYS:HB2	4:3E:26:CYS:HB2	1.67	0.77
38:45:81:VAL:O	38:45:82:ARG:NH1	2.17	0.77
32:49:109:VAL:HG11	32:49:142:PRO:HG3	1.67	0.77
33:51:54:ARG:HD3	33:51:65:HIS:ND1	2.00	0.77
15:6I:18:PHE:HB2	15:6I:19:PRO:HD2	1.65	0.77
26:1H:1327:C:OP2	59:1H:3541:HOH:O	2.01	0.77
26:14:1952:A:C6	36:25:22:ILE:HD11	2.19	0.77
32:49:114:ILE:HG12	32:49:140:ILE:HG21	1.64	0.77
33:51:4:ILE:HG13	33:51:6:ARG:HB2	1.67	0.77
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.17	0.77
2:12:178:ARG:NH1	2:12:196:LEU:O	2.17	0.77
26:1H:1417:C:H42	26:1H:1581:G:H1	1.31	0.77
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.00	0.77
26:1H:1828:G:OP1	59:1H:4393:HOH:O	2.02	0.77
26:1H:2577:A:OP1	59:1H:3727:HOH:O	2.02	0.77
12:3I:49:ASN:ND2	12:3I:92:ASP:OD2	2.17	0.77
7:6E:73:MET:HG2	7:6E:90:GLU:HA	1.66	0.77
1:1G:1349:A:OP1	9:82:118:LYS:NZ	2.18	0.77
26:14:1772:G:OP1	59:14:3460:HOH:O	2.03	0.77
26:14:2062:A:N6	26:14:2503:A:N7	2.33	0.77
26:1H:1828:G:OP1	59:1H:4395:HOH:O	2.02	0.77
13:4A:57:ARG:HH12	52:I5:17:GLY:HA3	1.48	0.77
33:51:169:VAL:O	33:51:170:ARG:NE	2.18	0.77
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.16	0.77
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.18	0.77
1:1G:666:G:H5'	1:1G:726:C:H1'	1.67	0.77
26:1H:2758:A:OP2	59:1H:4324:HOH:O	2.02	0.77
1:13:1300:G:N7	59:13:1927:HOH:O	2.17	0.76
26:14:2105:C:H42	26:14:2184:G:H1	1.28	0.76
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.67	0.76
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.20	0.76
1:1G:826:C:H5'	8:72:12:ARG:HH21	1.48	0.76
26:1H:910:A:H62	38:88:12:GLN:HA	1.47	0.76
26:14:1614:A:H62	44:A5:93:ALA:HB2	1.50	0.76
1:13:1212:U:H4'	1:13:1213:A:C8	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:396:G:O2'	1:13:398:C:OP1	2.02	0.76
1:13:490:G:OP2	4:3E:132:ARG:NH2	2.17	0.76
26:14:581:C:H2'	26:14:582:G:H8	1.49	0.76
26:1H:602:G:H21	26:1H:655:A:H8	1.32	0.76
26:1H:943:U:OP2	59:1H:4353:HOH:O	2.00	0.76
6:5E:25:ILE:HG21	6:5E:82:ARG:HD3	1.67	0.76
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.67	0.76
42:C8:92:ARG:O	42:C8:94:ASN:N	2.18	0.76
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.18	0.76
26:14:1997:G:OP2	59:14:3511:HOH:O	2.01	0.76
1:1G:255:G:N2	1:1G:271:C:O2	2.18	0.76
26:1H:1382:G:O6	59:1H:4418:HOH:O	2.04	0.76
26:1H:929:G:O6	59:1H:3668:HOH:O	2.03	0.76
52:I5:22:ILE:HG12	52:I5:23:GLU:H	1.50	0.76
1:13:444:C:H2'	1:13:445:G:H8	1.50	0.76
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.18	0.76
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.49	0.76
1:1G:659:U:OP2	15:6A:8:LYS:NZ	2.15	0.76
26:1H:2496:C:OP1	38:88:82:ARG:HD3	1.84	0.76
22:1K:23:G:O6	22:1K:47:G:N2	2.18	0.76
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.67	0.76
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.19	0.76
1:13:345:C:O2'	1:13:346:G:N2	2.18	0.76
26:14:2062:A:O2'	26:14:2063:C:OP1	2.03	0.76
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.68	0.76
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.15	0.76
1:1G:396:G:O2'	1:1G:398:C:OP1	2.01	0.76
26:1H:606:U:OP2	31:31:104:LYS:NZ	2.18	0.76
38:45:32:TYR:HB3	38:45:133:ARG:HA	1.66	0.76
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.67	0.76
26:14:1416:G:H1	26:14:1582:C:H42	1.33	0.76
26:14:2499:C:OP1	59:14:3602:HOH:O	2.03	0.76
26:14:900:A:H3'	26:14:901:A:H8	1.49	0.76
1:1G:877:C:H5"	8:72:88:LYS:HD3	1.68	0.76
26:1H:1091:G:N2	26:1H:1100:C:O2	2.18	0.76
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.48	0.76
26:14:2635:C:O2'	30:29:48:GLN:NE2	2.19	0.76
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.18	0.76
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.19	0.76
26:14:2134:A:O2'	26:14:2159:G:N2	2.18	0.76
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.66	0.76
55:M5:29:LYS:HB2	55:M5:44:LYS:HB3	1.67	0.76
52:M8:6:HIS:HD1	52:M8:7:PRO:HD2	1.50	0.76
26:14:2439:A:O2'	59:14:3487:HOH:O	2.04	0.76
26:14:2541:A:OP2	59:14:3956:HOH:O	2.03	0.76
27:16:60:C:H2'	27:16:61:G:H8	1.49	0.76
1:1G:408:A:N7	59:1G:1730:HOH:O	2.18	0.76
26:1H:1465:G:H2'	26:1H:1466:G:H8	1.50	0.76
24:3K:13:C:N4	24:3K:22:G:O6	2.16	0.76
33:51:77:LYS:NZ	33:51:82:GLY:O	2.17	0.76
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.68	0.76
53:N8:42:PRO:O	53:N8:44:THR:HB	1.86	0.76
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.66	0.76
1:13:1027:C:N4	1:13:1032(A):G:O6	2.19	0.76
26:1H:197:A:OP1	59:1H:4371:HOH:O	2.04	0.76
1:13:1505:G:OP1	59:13:1804:HOH:O	2.03	0.76
26:14:570:G:O6	59:14:3602:HOH:O	2.02	0.76
26:14:770:G:OP2	59:14:3807:HOH:O	2.04	0.76
26:1H:1534:G:H22	26:1H:1538:G:H22	1.34	0.76
26:1H:2121:G:H1	26:1H:2177:C:H42	1.34	0.76
26:1H:2792:G:N2	26:1H:2804:C:O2	2.18	0.76
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.18	0.76
26:14:1163:G:OP1	43:95:24:LYS:NZ	2.19	0.76
1:13:1314:C:N4	19:AI:4:SER:O	2.19	0.76
20:BA:82:SER:HB3	20:BA:86:ARG:HH22	1.49	0.76
2:12:125:PRO:HA	2:12:127:ILE:HG12	1.67	0.75
1:1G:538:G:O6	59:1G:1731:HOH:O	2.04	0.75
1:1G:838:G:H1	1:1G:848:C:H42	1.32	0.75
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.50	0.75
26:1H:2253:G:OP1	59:1H:3640:HOH:O	2.04	0.75
26:1H:271(B):G:H1	26:1H:404:C:H42	1.34	0.75
26:14:2037:G:H2'	26:14:2038:G:H8	1.51	0.75
26:14:2302:G:N2	26:14:2314:C:O2	2.19	0.75
1:1G:591:U:H2'	1:1G:592:G:C8	2.22	0.75
26:1H:882:G:N2	26:1H:895:U:O4	2.19	0.75
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.51	0.75
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.50	0.75
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.16	0.75
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.66	0.75
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.51	0.75
26:14:581:C:H2'	26:14:582:G:C8	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:129:THR:HB	33:59:130:ARG:HG3	1.68	0.75
38:88:66:ILE:O	38:88:104:PHE:N	2.18	0.75
1:13:413:G:O2'	1:13:428:G:N2	2.19	0.75
1:13:501:C:H2'	1:13:502:G:H8	1.51	0.75
24:3K:76:A:O2'	26:1H:2394:C:N3	2.20	0.75
26:1H:2588:G:OP1	59:1H:3855:HOH:O	2.04	0.75
26:1H:446:G:OP2	59:1H:3612:HOH:O	2.04	0.75
26:1H:646:A:H2'	26:1H:647:G:O4'	1.86	0.75
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.66	0.75
26:14:1725:G:O6	26:14:1735:C:N4	2.20	0.75
26:1H:1652:A:OP1	39:98:8:ARG:NH1	2.20	0.75
26:1H:733:G:N7	59:1H:4009:HOH:O	2.20	0.75
36:25:13:ASN:HD21	36:25:97:ARG:H	1.34	0.75
31:39:123:LEU:O	31:39:125:LEU:N	2.17	0.75
47:D5:5:LEU:HD12	47:D5:47:VAL:HG21	1.66	0.75
45:F8:3:THR:HB	45:F8:6:ASP:HB2	1.69	0.75
1:13:1071:C:H2'	1:13:1072:G:H8	1.49	0.75
26:14:654(B):C:O2	26:14:654(S):G:N2	2.20	0.75
26:1H:1200:C:OP2	59:1H:3704:HOH:O	2.04	0.75
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.49	0.75
5:42:146:ALA:HA	5:42:149:GLU:HB2	1.69	0.75
32:49:75:LYS:HE3	32:49:77:ILE:HB	1.68	0.75
35:58:132:ALA:O	35:58:134:ARG:NH2	2.19	0.75
35:58:96:GLU:O	35:58:98:VAL:N	2.17	0.75
1:13:767:A:OP2	59:13:1840:HOH:O	2.04	0.75
26:14:397:G:N7	59:14:3886:HOH:O	2.20	0.75
26:1H:330:A:O2'	26:1H:331:A:H8	1.68	0.75
40:A8:34:HIS:HB2	40:A8:36:TYR:HE1	1.50	0.75
26:14:945:A:OP1	59:14:3681:HOH:O	2.04	0.75
26:14:958:U:OP2	38:45:14:ARG:NH1	2.19	0.75
26:1H:2684:U:OP2	41:B8:53:ARG:NH1	2.20	0.75
30:21:38:THR:HG23	30:21:41:LYS:H	1.51	0.75
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.52	0.75
45:F8:11:PRO:HA	45:F8:28:PHE:HB3	1.69	0.75
1:13:339:C:OP2	36:68:97:ARG:NH1	2.19	0.74
26:14:1676:A:OP2	59:14:3433:HOH:O	2.05	0.74
2:1E:15:VAL:HG21	2:1E:209:ARG:HB3	1.69	0.74
1:1G:199:G:O6	1:1G:218:C:N4	2.20	0.74
26:1H:2138:C:N4	26:1H:2153:G:O6	2.20	0.74
26:1H:409:C:OP1	59:1H:3663:HOH:O	2.03	0.74
2:12:21:ARG:HA	2:12:39:ILE:HA	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1007:C:H42	1:13:1022:G:H1	1.33	0.74
2:1E:73:THR:O	2:1E:78:GLN:NE2	2.20	0.74
26:1H:1210:A:H8	26:1H:1210:A:H5'	1.51	0.74
26:1H:357:A:H2'	26:1H:358:U:H6	1.51	0.74
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.67	0.74
33:59:83:TYR:OH	33:59:132:ARG:NH1	2.21	0.74
26:14:1664:A:OP2	59:14:3514:HOH:O	2.05	0.74
26:14:2468:G:OP1	38:45:119:ARG:NH2	2.20	0.74
26:14:2518:A:OP2	59:14:3953:HOH:O	2.05	0.74
26:14:403:U:H4'	26:14:404:C:H5'	1.69	0.74
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.70	0.74
26:1H:1479:G:N7	26:1H:1510:A:N6	2.36	0.74
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.69	0.74
1:1G:1117:G:H4'	9:82:104:ARG:HH11	1.52	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.21	0.74
1:13:664:G:H22	1:13:741:G:H1	1.34	0.74
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.69	0.74
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.70	0.74
27:1J:15:A:H5'	27:1J:16:G:C8	2.21	0.74
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.68	0.74
46:C5:75:ILE:HG13	46:C5:80:GLY:HA2	1.69	0.74
52:I5:15:ILE:HD13	52:I5:30:GLU:HG2	1.68	0.74
26:14:1729:A:H2'	26:14:1731:G:N2	2.01	0.74
26:14:1492:G:OP1	26:14:2210:G:N2	2.20	0.74
26:1H:784:A:OP1	59:1H:3859:HOH:O	2.05	0.74
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.70	0.74
26:14:322:A:P	31:39:169:ASN:HD22	2.11	0.74
26:14:400:G:N7	59:14:3706:HOH:O	2.20	0.74
1:1G:405:U:O4	4:32:2:GLY:N	2.19	0.74
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.18	0.74
26:1H:945:A:OP1	59:1H:4068:HOH:O	2.05	0.74
37:78:79:ARG:HE	37:78:110:TYR:HE1	1.35	0.74
52:M8:48:ARG:HH11	52:M8:48:ARG:HA	1.53	0.74
26:14:1864:U:OP1	26:14:2410:G:O2'	2.04	0.74
26:14:273(F):C:N4	26:14:363:G:O6	2.20	0.74
27:16:71:C:H2'	27:16:72:G:H8	1.51	0.74
1:1G:279:A:OP2	17:8A:95:TYR:OH	2.04	0.74
1:1G:534:U:O3'	59:1G:1733:HOH:O	2.05	0.74
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.52	0.74
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.69	0.74
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:71:LEU:H	43:95:86:GLY:HA2	1.52	0.74
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.69	0.74
1:1G:1133:G:N2	1:1G:1141:C:O2	2.19	0.74
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.01	0.74
1:1G:56:U:H2'	1:1G:57:G:C8	2.22	0.74
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.70	0.74
26:1H:846:C:O3'	59:1H:3670:HOH:O	2.06	0.74
26:1H:987:G:OP2	59:1H:3935:HOH:O	2.05	0.74
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.53	0.74
26:14:1341:U:OP2	26:14:1394:U:O2'	2.06	0.74
26:14:1899:G:H21	26:14:1902:C:N4	1.86	0.74
26:14:2781:A:H5"	26:14:2782:G:H5'	1.68	0.74
1:1G:272:C:H2'	1:1G:273:A:H8	1.53	0.74
26:1H:2074:U:OP1	59:1H:3593:HOH:O	2.05	0.74
12:3A:39:VAL:HG23	12:3A:57:LYS:HD3	1.68	0.74
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.70	0.74
51:L8:9:VAL:HG22	51:L8:54:VAL:HA	1.69	0.74
1:13:509:A:OP2	59:13:1922:HOH:O	2.06	0.74
26:14:1174:A:N6	26:14:1176:G:O2'	2.20	0.74
26:14:2062:A:OP1	59:14:3676:HOH:O	2.05	0.74
26:14:774:A:O2'	26:14:775:G:O5'	2.06	0.74
1:1G:1245:A:H61	1:1G:1292:U:H3	1.33	0.74
26:1H:2345:G:H1'	26:1H:2382:G:H5'	1.68	0.74
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.04	0.74
26:14:1111:A:O2'	33:59:2:SER:OG	2.05	0.73
26:14:2580:U:OP2	59:14:3718:HOH:O	2.04	0.73
1:1G:1158:C:O2'	2:12:133:LYS:NZ	2.17	0.73
26:1H:796:C:H2'	26:1H:797:C:C6	2.23	0.73
46:G8:87:LYS:HB3	46:G8:94:LYS:HG2	1.68	0.73
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.53	0.73
2:12:87:ARG:HH21	2:12:233:SER:HB2	1.52	0.73
26:14:67:U:H2'	26:14:68:G:H8	1.51	0.73
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.70	0.73
26:1H:1269:A:OP2	59:1H:4362:HOH:O	2.04	0.73
26:1H:2507:C:OP1	59:1H:4378:HOH:O	2.06	0.73
26:1H:2575:C:OP2	59:1H:4377:HOH:O	2.05	0.73
26:1H:567:A:OP1	59:1H:3507:HOH:O	2.04	0.73
56:2L:22:A:H61	56:2L:47:7MG:H2'	1.54	0.73
49:J8:91:LYS:O	49:J8:94:LEU:N	2.20	0.73
55:Q8:57:ARG:O	55:Q8:57:ARG:NE	2.21	0.73
26:14:654(C):G:N2	26:14:654(R):C:O2	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1189:C:OP1	10:1A:51:ARG:NH2	2.21	0.73
26:1H:1301:A:OP1	59:1H:3509:HOH:O	2.05	0.73
30:29:109:LYS:HE2	30:29:191:PRO:HA	1.70	0.73
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.53	0.73
46:G8:100:ALA:HB1	46:G8:101:LYS:HB2	1.69	0.73
26:14:1048:A:N6	26:14:1112:G:O2'	2.18	0.73
1:1G:1123:A:O2'	10:1A:37:PRO:O	2.06	0.73
1:1G:1213:A:N6	1:1G:1215:G:N3	2.36	0.73
26:1H:1249:U:OP1	59:1H:3825:HOH:O	2.06	0.73
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.21	0.73
26:1H:2127:G:H1	26:1H:2162:G:H1'	1.54	0.73
26:1H:2607:G:O3'	59:1H:3908:HOH:O	2.07	0.73
1:13:1366:C:O3'	10:1I:60:ARG:NH2	2.22	0.73
31:39:182:ASN:ND2	31:39:185:ASP:OD2	2.16	0.73
4:3E:31:CYS:SG	4:3E:32:ALA:N	2.61	0.73
26:14:2037:G:H2'	26:14:2038:G:C8	2.24	0.73
26:14:2579:C:OP1	59:14:3721:HOH:O	2.06	0.73
26:1H:2070:G:OP1	59:1H:4080:HOH:O	2.04	0.73
26:1H:583:G:N7	59:1H:3673:HOH:O	2.20	0.73
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.53	0.73
37:78:138:LEU:HD12	37:78:144:GLU:HG3	1.70	0.73
18:9I:26:LEU:HD22	18:9I:42:ARG:HH22	1.51	0.73
46:G8:76:CYS:O	46:G8:78:ALA:N	2.20	0.73
53:J5:49:CYS:SG	53:J5:50:GLY:N	2.62	0.73
26:14:2720:U:H3	26:14:2873:A:H2	1.35	0.73
26:14:760:G:OP1	59:14:3975:HOH:O	2.06	0.73
26:1H:1140:C:OP1	35:58:23:LEU:HB3	1.89	0.73
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.70	0.73
26:1H:270(L):U:N3	34:61:50:ARG:HG2	1.99	0.73
34:69:80:PRO:HA	34:69:143:SER:HA	1.71	0.73
40:A8:35:ILE:HG22	40:A8:97:ARG:HH21	1.54	0.73
41:B8:3:ARG:HB2	41:B8:6:LEU:H	1.53	0.73
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.70	0.73
1:13:352:C:O2'	1:13:354:G:OP1	2.05	0.73
1:13:917:G:H2'	1:13:918:A:C8	2.23	0.73
26:14:1436:G:O2'	26:14:1477:A:H4'	1.88	0.73
26:14:2134:A:HO2'	26:14:2159:G:N2	1.87	0.73
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.71	0.73
33:59:41:MET:SD	33:59:41:MET:N	2.61	0.73
26:14:2074:U:OP1	59:14:3405:HOH:O	2.07	0.73
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.72	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:116:ASP:OD2	37:35:1:MET:N	2.19	0.73
24:3K:50:U:O4	24:3K:64:A:N6	2.19	0.73
33:51:83:TYR:HB3	33:51:135:GLY:N	2.03	0.73
51:L8:38:GLU:N	51:L8:38:GLU:OE2	2.14	0.73
29:19:60:ARG:NH1	29:19:86:PRO:O	2.21	0.73
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.04	0.73
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.23	0.73
26:1H:111:A:H5'	50:K8:69:ARG:HH12	1.54	0.73
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.19	0.73
26:1H:731:C:OP2	59:1H:3599:HOH:O	2.06	0.73
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.52	0.73
1:13:1111:A:N1	3:2E:177:THR:OG1	2.22	0.73
32:49:40:ASN:HB2	32:49:91:ARG:HG3	1.71	0.73
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.21	0.73
52:I5:57:GLU:O	52:I5:61:ARG:NH2	2.21	0.73
52:M8:56:VAL:O	52:M8:60:GLN:NE2	2.22	0.73
26:14:1040:C:O2	26:14:1115:G:N2	2.15	0.73
26:14:1279:G:N2	26:14:1291:C:O2	2.20	0.73
26:14:578:A:OP2	59:14:3584:HOH:O	2.07	0.73
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.71	0.73
38:45:11:LYS:NZ	38:45:86:GLY:O	2.22	0.73
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.54	0.73
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.21	0.72
26:14:1450:C:H2'	26:14:1451:C:C6	2.24	0.72
26:14:1455:G:OP2	59:14:3914:HOH:O	2.06	0.72
26:14:38:A:H1'	31:39:48:THR:HB	1.70	0.72
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.24	0.72
26:1H:1153:C:OP2	59:1H:3943:HOH:O	2.06	0.72
26:1H:963:U:OP1	59:1H:3791:HOH:O	2.07	0.72
31:31:66:PRO:O	31:31:67:GLN:HB3	1.88	0.72
4:3E:15:GLU:OE2	4:3E:59:ARG:NH2	2.21	0.72
7:6E:143:ARG:NH1	24:3K:41:C:O3'	2.22	0.72
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.69	0.72
49:J8:87:PRO:HA	49:J8:90:ILE:HG13	1.71	0.72
52:M8:38:LYS:H	52:M8:38:LYS:HD2	1.54	0.72
26:14:2324:C:H5"	26:14:2325:G:H5'	1.69	0.72
26:14:328:U:H4'	46:C5:68:HIS:CD2	2.24	0.72
26:1H:1187:G:OP2	59:1H:3820:HOH:O	2.06	0.72
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.54	0.72
26:1H:187:G:N7	59:1H:4279:HOH:O	2.22	0.72
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:33:VAL:HG12	30:29:89:ASP:HB3	1.69	0.72
31:31:8:GLN:CD	31:31:8:GLN:H	1.91	0.72
26:1H:2178:C:H5'	28:71:46:LYS:HD3	1.70	0.72
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.56	0.72
2:12:204:ASN:HD22	2:12:207:ALA:HB3	1.54	0.72
26:14:2139:C:N4	26:14:2152:G:O6	2.22	0.72
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.54	0.72
26:14:2035:G:OP1	59:14:3611:HOH:O	2.08	0.72
27:16:95:U:H2'	27:16:96:G:H8	1.53	0.72
27:1J:7:G:H5"	27:1J:7:G:H8	1.55	0.72
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	1.70	0.72
1:13:1244:C:H42	1:13:1293:G:H1	1.37	0.72
1:13:352:C:OP1	59:13:1878:HOH:O	2.06	0.72
26:14:2469:A:H2	26:14:2481:G:H21	1.37	0.72
26:1H:1042:G:N2	26:1H:1113:U:O2	2.20	0.72
26:1H:1900:A:C8	26:1H:1900:A:H5'	2.25	0.72
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.22	0.72
1:1G:1382:C:O2'	24:3L:34:G:N7	2.19	0.72
41:75:54:ARG:HA	41:75:59:THR:HB	1.71	0.72
47:D5:24:LEU:HD21	47:D5:44:PHE:HD2	1.54	0.72
52:I5:61:ARG:CZ	52:I5:61:ARG:HA	2.20	0.72
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.24	0.72
26:14:1110:G:H2'	26:14:1111:A:H8	1.54	0.72
5:42:50:GLU:HB3	5:42:53:LEU:HD13	1.72	0.72
26:1H:1243:G:O2'	37:78:7:ARG:NH2	2.22	0.72
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.72	0.72
26:14:1579:A:H2'	26:14:1580:A:C8	2.24	0.72
26:14:943:U:OP2	37:35:36:LYS:NZ	2.18	0.72
30:29:135:HIS:NE2	59:29:402:HOH:O	2.22	0.72
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.71	0.72
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.71	0.72
38:88:12:GLN:HG2	38:88:73:PRO:HD2	1.69	0.72
26:14:1204:A:O2'	26:14:1205:U:OP2	2.08	0.72
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.24	0.72
26:1H:1835:G:OP2	59:1H:3916:HOH:O	2.06	0.72
26:1H:2878:U:O4	59:1H:4198:HOH:O	2.05	0.72
26:1H:399:G:OP2	59:1H:3983:HOH:O	2.07	0.72
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.71	0.72
26:14:2882:A:H5'	39:55:96:ARG:HG3	1.70	0.72
38:88:18:LYS:O	38:88:98:LYS:NZ	2.22	0.72
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:41:ALA:O	39:98:44:LEU:N	2.18	0.72
26:14:1062:G:OP1	26:14:1064:C:N4	2.22	0.72
26:14:889:C:H2'	26:14:890:A:H4'	1.70	0.72
26:1H:2057:A:OP2	59:1H:3521:HOH:O	2.07	0.72
33:51:86:GLU:HG2	33:51:87:LEU:H	1.54	0.72
1:13:711:G:H2'	1:13:712:A:H8	1.54	0.72
26:14:2528:U:O3'	26:14:2529:G:N2	2.23	0.72
26:1H:1975:G:OP2	59:1H:3928:HOH:O	2.08	0.72
26:1H:732:C:OP2	59:1H:4012:HOH:O	2.08	0.72
31:39:4:VAL:HA	31:39:19:GLU:HB3	1.72	0.72
34:61:39:ALA:HB1	34:61:44:LEU:HD23	1.72	0.72
1:13:1077:G:N2	1:13:1080:A:OP2	2.21	0.71
1:13:352:C:OP2	59:13:1874:HOH:O	2.07	0.71
1:13:659:U:H2'	1:13:660:G:C8	2.24	0.71
26:14:1448:G:O2'	26:14:1528:A:N6	2.22	0.71
26:14:1569:A:H5'	29:19:61:LEU:HD21	1.71	0.71
26:14:1717:G:H1	26:14:1742:C:H42	1.37	0.71
26:14:2297:C:O2	26:14:2321:G:N2	2.17	0.71
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.71	0.71
31:31:8:GLN:O	31:31:8:GLN:NE2	2.23	0.71
4:3E:96:LEU:HD12	4:3E:139:ARG:HH11	1.55	0.71
8:72:119:LEU:HD12	8:72:124:ALA:HA	1.72	0.71
43:95:85:LYS:HB3	43:95:87:HIS:H	1.55	0.71
26:14:2777:G:H5"	26:14:2778:A:H5'	1.71	0.71
26:1H:779:U:O4	59:1H:4014:HOH:O	2.05	0.71
30:29:81:ILE:HG22	30:29:82:ARG:H	1.54	0.71
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.25	0.71
26:14:1221:C:N4	26:14:1229(A):G:O6	2.18	0.71
26:14:1962:C:O2'	26:14:1964:G:OP2	2.08	0.71
26:14:2689:U:H5"	26:14:2713:A:H2	1.54	0.71
39:98:55:ALA:HA	39:98:80:PHE:HE1	1.55	0.71
55:Q8:39:LYS:HG2	55:Q8:40:GLU:H	1.55	0.71
1:1G:1004:A:C6	1:1G:1025:U:H1'	2.26	0.71
26:1H:2126:A:N7	26:1H:2127:G:N2	2.38	0.71
26:1H:2308:G:N1	26:1H:2311:A:H2	1.87	0.71
26:1H:557:U:H2'	26:1H:558:G:H8	1.56	0.71
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.72	0.71
38:88:51:ARG:HH12	38:88:52:VAL:HG23	1.56	0.71
26:14:2502:G:H5"	26:14:2503:A:H5"	1.72	0.71
26:14:96:G:H4'	50:G5:48:HIS:CE1	2.25	0.71
31:31:67:GLN:HG3	31:31:67:GLN:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:130:TYR:HB3	34:69:136:VAL:HG13	1.72	0.71
41:75:26:ASP:OD1	41:75:120:ARG:NH2	2.23	0.71
26:14:1260:G:H2'	26:14:1261:C:H6	1.55	0.71
26:14:453:C:OP1	59:14:3646:HOH:O	2.06	0.71
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.24	0.71
26:1H:2254:C:OP2	59:1H:4073:HOH:O	2.07	0.71
28:71:183:GLU:H	28:71:183:GLU:CD	1.93	0.71
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.06	0.71
50:G5:47:ASN:O	50:G5:49:LYS:N	2.23	0.71
26:14:526:A:OP1	59:14:3937:HOH:O	2.07	0.71
1:1G:426:G:OP1	4:32:38:TYR:OH	2.07	0.71
32:41:64:THR:HG22	32:41:66:GLN:H	1.55	0.71
33:59:26:VAL:HG12	33:59:33:LEU:H	1.55	0.71
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.55	0.71
26:14:1456:G:OP2	59:14:3915:HOH:O	2.07	0.71
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.26	0.71
1:1G:200:G:H1	1:1G:217:C:H42	1.35	0.71
26:1H:10:G:H2'	26:1H:11:G:C8	2.25	0.71
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.14	0.71
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.55	0.71
26:1H:2635:C:H5"	30:21:78:LEU:HA	1.72	0.71
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.71	0.71
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.26	0.71
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.71	0.71
51:H5:13:ILE:O	59:H5:101:HOH:O	2.09	0.71
2:12:35:GLU:HG3	2:12:38:GLY:HA2	1.73	0.71
26:14:1423:G:N7	59:14:3759:HOH:O	2.23	0.71
26:14:2228:G:O6	59:14:3858:HOH:O	2.08	0.71
26:14:2878:U:O4	59:14:3833:HOH:O	2.07	0.71
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.26	0.71
26:1H:1756:G:OP2	59:1H:4329:HOH:O	2.09	0.71
26:1H:2431:U:OP2	59:1H:3846:HOH:O	2.09	0.71
37:35:84:ASN:HB3	37:35:86:LYS:HG2	1.73	0.71
38:45:110:THR:OG1	38:45:112:GLU:OE2	2.07	0.71
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.73	0.71
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.24	0.71
1:13:1372:U:H5"	9:8E:71:SER:HB2	1.72	0.71
26:14:2127:G:O6	26:14:2161:C:N4	2.15	0.71
27:16:1(M):A:H61	27:16:119:A:H62	1.39	0.71
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.23	0.71
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:448:A:OP2	1:1G:485:G:N2	2.19	0.71
26:1H:1631:A:OP1	59:1H:4382:HOH:O	2.08	0.71
26:1H:307:G:N7	59:1H:4231:HOH:O	2.24	0.71
25:4K:13:A:O2'	25:4K:14:A:OP1	2.09	0.71
26:1H:1022:G:O6	35:58:66:LYS:NZ	2.24	0.71
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.19	0.70
26:14:249:C:OP1	59:14:3412:HOH:O	2.09	0.70
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.22	0.70
26:1H:1899:G:H22	26:1H:1902:C:H41	1.38	0.70
26:1H:2574:G:OP1	59:1H:4377:HOH:O	2.08	0.70
26:1H:2758:A:OP2	59:1H:4321:HOH:O	2.06	0.70
30:29:55:ASN:O	30:29:57:LYS:N	2.24	0.70
39:98:91:GLN:O	39:98:91:GLN:NE2	2.24	0.70
1:13:592:G:H2'	1:13:593:G:H8	1.54	0.70
26:14:1022:G:H22	26:14:1142(A):A:H2	1.38	0.70
26:14:1537:C:H2'	26:14:1538:G:C8	2.26	0.70
26:14:974:G:O2'	26:14:975:G:N7	2.24	0.70
1:1G:5:U:H3	4:32:87:GLY:H	1.37	0.70
26:1H:120:U:OP2	59:1H:4083:HOH:O	2.08	0.70
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.26	0.70
34:61:120:ILE:HG12	34:61:126:TYR:CE2	2.26	0.70
34:69:129:THR:HG22	34:69:137:PRO:HB3	1.72	0.70
37:78:18:ARG:O	37:78:19:VAL:HG13	1.92	0.70
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.24	0.70
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.24	0.70
1:1G:272:C:H2'	1:1G:273:A:C8	2.26	0.70
1:1G:56:U:O4	1:1G:352:C:N4	2.24	0.70
1:1G:547:A:OP1	59:1G:1704:HOH:O	2.08	0.70
26:14:662:G:H5'	37:35:15:ARG:HA	1.73	0.70
6:52:83:ASP:N	6:52:83:ASP:OD1	2.24	0.70
33:59:6:ARG:HH11	33:59:6:ARG:N	1.90	0.70
26:14:2232:U:OP2	49:F5:40:ARG:NH2	2.23	0.70
2:12:189:ASP:H	2:12:192:SER:HB2	1.56	0.70
26:14:1056:G:O2'	26:14:1103:A:N6	2.22	0.70
26:14:1828:G:OP1	59:14:3463:HOH:O	2.09	0.70
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.19	0.70
26:1H:1417:C:OP2	59:1H:3972:HOH:O	2.09	0.70
36:25:8:LEU:HD12	36:25:84:ALA:HB2	1.74	0.70
4:3E:106:TYR:HE1	4:3E:107:ARG:HH11	1.39	0.70
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	1.74	0.70
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1023:G:H3'	1:13:1024:G:H5"	1.73	0.70
26:14:2032:G:H4'	59:14:3952:HOH:O	1.90	0.70
26:14:617:G:OP1	31:39:40:GLN:NE2	2.24	0.70
27:1J:11:C:OP2	27:1J:12:C:N4	2.20	0.70
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.73	0.70
24:3L:15:G:N2	24:3L:21:A:O2'	2.25	0.70
9:82:40:LEU:HB3	9:82:43:ALA:HB2	1.72	0.70
39:98:12:ARG:HD3	39:98:16:HIS:CG	2.25	0.70
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.22	0.70
1:13:186(E):C:H42	1:13:191(B):G:H1	1.39	0.70
27:16:15:A:H5'	27:16:16:G:C8	2.26	0.70
26:1H:1622:G:OP2	59:1H:4220:HOH:O	2.08	0.70
26:1H:1633:G:O6	59:1H:4381:HOH:O	2.06	0.70
26:1H:2016:U:OP1	59:1H:4189:HOH:O	2.10	0.70
27:1J:62:C:H2'	27:1J:63:G:H8	1.55	0.70
3:2E:16:ARG:NH1	3:2E:183:ASP:OD1	2.25	0.70
33:59:125:VAL:HG22	33:59:126:PRO:HA	1.72	0.70
2:12:10:LEU:HD13	2:12:13:ALA:HB3	1.71	0.70
1:13:649:G:H2'	1:13:650:G:C8	2.27	0.70
1:13:859:A:H2'	1:13:860:A:C8	2.27	0.70
26:14:1260:G:H2'	26:14:1261:C:C6	2.27	0.70
1:1G:572:A:OP1	59:1G:1723:HOH:O	2.08	0.70
26:1H:1676:A:OP2	59:1H:3614:HOH:O	2.09	0.70
26:1H:330:A:HO2'	26:1H:331:A:H8	1.39	0.70
26:1H:910:A:N7	38:88:13:GLN:HG3	2.05	0.70
24:3K:49:C:O2'	24:3K:65:G:N2	2.25	0.70
32:41:173:LEU:HB3	32:41:178:PHE:HD2	1.57	0.70
38:45:26:TYR:O	38:45:28:ALA:N	2.24	0.70
33:51:7:LEU:HD12	33:51:7:LEU:H	1.56	0.70
43:95:15:GLU:HG2	43:95:16:PRO:HD2	1.74	0.70
39:98:117:VAL:HG22	39:98:118:GLU:H	1.56	0.70
29:11:72:LYS:HD2	29:11:75:ILE:HD12	1.72	0.70
1:13:1348:U:H3	1:13:1374:A:H2	1.35	0.70
1:13:838:G:H1	1:13:848:C:N4	1.90	0.70
1:1G:1493:A:H2'	26:14:1913:A:H61	1.57	0.70
26:14:2358:G:H2'	26:14:2359:C:H6	1.55	0.70
26:14:910:A:H62	38:45:12:GLN:HA	1.57	0.70
26:1H:2549:G:O6	59:1H:4289:HOH:O	2.08	0.70
26:1H:298:G:OP2	59:1H:4102:HOH:O	2.08	0.70
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.57	0.70
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1122:U:O4	1:13:1123:A:N6	2.25	0.70
1:13:730:G:C5	1:13:731:G:H1'	2.27	0.70
26:14:395:U:H2'	26:14:396:G:N7	2.07	0.70
26:1H:972:G:O3'	59:1H:3811:HOH:O	2.09	0.70
30:21:77:ILE:O	30:21:79:ARG:N	2.25	0.70
3:22:25:GLY:H	3:22:28:GLN:HE22	1.38	0.70
31:31:149:ASP:OD1	31:31:149:ASP:N	2.19	0.70
32:41:97:ASP:O	32:41:100:TRP:N	2.25	0.70
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.56	0.70
26:14:1828:G:OP1	59:14:3461:HOH:O	2.09	0.70
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.39	0.70
26:1H:463:G:N7	59:1H:3739:HOH:O	2.24	0.70
26:1H:654:A:H2'	26:1H:654(A):A:H8	1.56	0.70
11:2A:100:ALA:O	11:2A:102:GLY:N	2.25	0.70
40:65:106:ARG:O	40:65:106:ARG:NH1	2.24	0.70
26:1H:598:G:H5'	37:78:11:GLY:HA3	1.73	0.70
52:I5:36:CYS:SG	52:I5:39:CYS:HB3	2.32	0.70
1:13:659:U:H2'	1:13:660:G:H8	1.57	0.69
26:14:1665:A:N6	59:14:3518:HOH:O	2.19	0.69
2:1E:158:LEU:HD13	2:1E:182:ILE:HD11	1.73	0.69
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.26	0.69
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.57	0.69
26:1H:433:C:H2'	26:1H:434:U:C6	2.26	0.69
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.73	0.69
26:14:2393:A:H5'	37:35:62:LEU:HD13	1.74	0.69
31:39:157:VAL:HB	31:39:194:MET:HB3	1.73	0.69
33:59:9:ILE:HG22	33:59:51:ARG:HB3	1.73	0.69
43:95:71:LEU:N	43:95:86:GLY:HA2	2.07	0.69
44:A5:4:LYS:HB2	44:A5:106:ILE:HG22	1.73	0.69
46:C5:87:LYS:HB2	46:C5:96:ILE:HD11	1.73	0.69
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.74	0.69
1:13:1003:G:N2	1:13:1037:C:O2	2.22	0.69
29:19:166:GLN:OE1	29:19:166:GLN:HA	1.91	0.69
31:31:181:LEU:HD11	31:31:194:MET:HE1	1.72	0.69
4:32:25:ARG:HH11	4:32:31:CYS:HA	1.57	0.69
26:14:872:A:H4'	38:45:66:ILE:HD11	1.73	0.69
32:49:104:GLU:O	32:49:108:ASN:ND2	2.25	0.69
33:59:81:GLU:HG3	33:59:83:TYR:H	1.57	0.69
26:1H:2820:A:OP2	39:98:2:ARG:NH2	2.25	0.69
26:14:527:C:OP2	59:14:3940:HOH:O	2.09	0.69
30:29:97:LYS:N	30:29:100:GLU:OE1	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2121:G:H4'	28:71:167:LYS:HD2	1.72	0.69
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.74	0.69
52:I5:22:ILE:HG12	52:I5:23:GLU:N	2.07	0.69
53:N8:50:GLY:H	53:N8:56:LYS:HG3	1.58	0.69
26:14:39:C:H2'	26:14:40:C:H6	1.58	0.69
26:14:654(I):C:N4	26:14:654(L):G:O6	2.25	0.69
29:19:24:ILE:HA	29:19:82:ILE:HG22	1.74	0.69
26:1H:1203:G:H3'	26:1H:1204:A:H5"	1.74	0.69
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.25	0.69
26:14:2330:G:O2'	48:E5:41:ARG:O	2.08	0.69
55:Q8:7:HIS:O	55:Q8:7:HIS:ND1	2.25	0.69
26:1H:2027:G:N7	59:1H:4001:HOH:O	2.25	0.69
26:1H:877:U:H3	26:1H:899:A:H2	1.38	0.69
12:3A:47:LYS:HG2	12:3A:48:PRO:HD2	1.74	0.69
28:71:59:ARG:HB2	28:71:164:ARG:HG3	1.73	0.69
26:14:1210:A:H5'	26:14:1212:G:H5'	1.74	0.69
26:14:2262:U:H2'	26:14:2263:C:H6	1.57	0.69
26:14:511:U:H5	26:14:512:G:C4	2.11	0.69
26:14:547:A:N7	26:14:548:A:N6	2.41	0.69
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.10	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.90	0.69
26:1H:409:C:OP1	59:1H:3659:HOH:O	2.09	0.69
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.25	0.69
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.73	0.69
38:45:117:ALA:HA	38:45:120:ILE:HB	1.73	0.69
25:4L:20:A:H2'	25:4L:21:A:C8	2.27	0.69
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.74	0.69
2:12:58:ILE:O	2:12:62:ALA:N	2.25	0.69
1:13:1062:U:H2'	1:13:1063:C:C6	2.28	0.69
26:14:1970:A:OP1	59:14:3467:HOH:O	2.11	0.69
26:14:2238:G:N7	59:14:3615:HOH:O	2.25	0.69
1:1G:158:G:H1	1:1G:163:C:H42	1.38	0.69
30:21:29:GLY:H	30:21:51:PHE:HE1	1.40	0.69
3:22:141:VAL:HA	3:22:144:SER:HB3	1.73	0.69
3:22:70:VAL:HG12	3:22:72:LYS:H	1.58	0.69
32:49:114:ILE:HG22	32:49:117:PHE:HB2	1.75	0.69
26:14:1111:A:H4'	33:59:3:ARG:HD3	1.74	0.69
27:1J:9:G:H5'	40:65:25:ARG:HH12	1.58	0.69
45:F8:44:GLU:HG3	45:F8:51:VAL:HG23	1.73	0.69
19:AA:9:VAL:HG13	52:I5:63:TYR:HE1	1.58	0.69
1:13:1023:G:OP2	1:13:1024:G:N2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1034:G:N2	1:13:1035:A:N7	2.39	0.69
26:14:1971:A:OP1	59:14:3466:HOH:O	2.09	0.69
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.28	0.69
26:1H:586:A:OP2	59:1H:3821:HOH:O	2.09	0.69
37:78:39:LYS:HG3	37:78:45:LEU:HD22	1.74	0.69
1:13:1124:G:O2'	1:13:1145:C:N4	2.25	0.69
1:13:736:C:H2'	1:13:737:A:C8	2.27	0.69
26:14:592:G:H1	26:14:665:C:H42	1.39	0.69
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.23	0.69
26:1H:2712(A):A:OP2	59:1H:3576:HOH:O	2.10	0.69
26:1H:2792:G:N1	26:1H:2804:C:N3	2.40	0.69
26:1H:722:A:H2'	26:1H:723:G:C8	2.27	0.69
26:1H:778:G:O6	59:1H:4021:HOH:O	2.09	0.69
30:29:11:MET:HA	30:29:24:THR:HA	1.74	0.69
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.26	0.69
24:3L:53:G:N2	24:3L:61:C:N3	2.40	0.69
5:4E:99:GLY:N	5:4E:117:ASP:HB3	2.01	0.69
38:88:59:ARG:C	38:88:61:GLY:H	1.95	0.69
38:88:85:LYS:HG3	38:88:86:GLY:N	2.07	0.69
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.75	0.69
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.75	0.69
1:13:1071:C:H2'	1:13:1072:G:C8	2.28	0.69
1:13:673:G:H2'	1:13:674:G:C8	2.28	0.69
1:13:711:G:H2'	1:13:712:A:C8	2.27	0.69
26:14:2518:A:OP2	59:14:3955:HOH:O	2.09	0.69
27:16:8:U:O2	27:16:112:G:N1	2.20	0.69
29:19:255:LYS:CE	29:19:255:LYS:H	2.06	0.69
11:2I:78:GLN:O	11:2I:103:LEU:HA	1.92	0.69
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.75	0.69
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.75	0.69
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.23	0.69
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.74	0.69
26:14:120:U:OP2	59:14:3923:HOH:O	2.10	0.69
26:14:30:G:N1	26:14:511:U:O2	2.26	0.69
35:15:13:TRP:O	35:15:135:PRO:HD2	1.93	0.69
1:1G:1086:U:H3	1:1G:1099:G:H22	1.39	0.69
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.28	0.69
1:1G:838:G:N2	1:1G:849:C:N3	2.41	0.69
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.28	0.69
26:1H:2502:G:OP2	59:1H:3531:HOH:O	2.10	0.69
26:1H:2582:G:OP2	59:1H:3736:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:6:VAL:N	31:31:24:LEU:O	2.25	0.69
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.26	0.69
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.18	0.69
24:3L:20:U:O2'	24:3L:21:A:OP2	2.11	0.69
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.73	0.69
9:8E:42:ARG:NH1	9:8E:71:SER:O	2.26	0.69
53:N8:30:LEU:HD23	53:N8:41:PRO:HA	1.73	0.69
1:13:223:U:H2'	1:13:224:C:H6	1.58	0.68
1:13:661:G:H1	1:13:744:C:H42	1.41	0.68
26:14:1225:C:O3'	43:95:85:LYS:HA	1.93	0.68
26:14:2098:U:N3	26:14:2191:G:O6	2.20	0.68
1:1G:328:C:O2	1:1G:328:C:H2'	1.90	0.68
1:1G:444:C:O2	1:1G:490:G:N2	2.14	0.68
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.57	0.68
26:1H:2685:G:N7	59:1H:4036:HOH:O	2.25	0.68
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.75	0.68
26:1H:882:G:H22	26:1H:894:C:H42	1.42	0.68
26:14:586:A:H5'	31:39:89:VAL:HG21	1.74	0.68
1:13:8:A:N7	4:3E:208:SER:HB3	2.08	0.68
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	1.75	0.68
38:88:66:ILE:HG22	38:88:67:ARG:H	1.58	0.68
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.24	0.68
26:14:861:A:N3	27:1J:79:C:O2'	2.27	0.68
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.11	0.68
38:45:89:ASN:O	38:45:89:ASN:ND2	2.24	0.68
33:59:30:LYS:HB3	33:59:79:VAL:O	1.93	0.68
6:5E:27:GLN:HA	6:5E:30:LEU:HD12	1.75	0.68
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.75	0.68
29:19:182:LEU:H	29:19:272:ALA:HB2	1.58	0.68
2:1E:16:HIS:HE1	2:1E:213:LEU:HD13	1.58	0.68
1:1G:1346:A:H5"	1:1G:1348:U:H1'	1.74	0.68
1:1G:167:G:H2'	1:1G:168:G:H8	1.59	0.68
26:1H:751:A:OP1	59:1H:3863:HOH:O	2.10	0.68
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.25	0.68
34:61:38:LEU:HD12	34:61:38:LEU:H	1.57	0.68
40:65:85:VAL:N	40:65:110:LEU:HB3	2.08	0.68
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.74	0.68
46:C5:19:LYS:HG3	46:C5:20:TYR:H	1.56	0.68
1:13:1503:A:O2'	25:4K:13:A:N1	2.24	0.68
1:13:728:A:N7	15:6I:54:ARG:HD2	2.08	0.68
29:19:32:SER:O	29:19:33:LEU:HB2	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.56	0.68
1:1G:1182:G:H5'	1:1G:1183:A:H5'	1.75	0.68
1:1G:1226:C:O2'	13:4A:111:LYS:NZ	2.22	0.68
1:1G:1454:G:OP1	20:BA:39:LYS:NZ	2.26	0.68
26:1H:1021:A:OP2	35:58:65:LYS:NZ	2.23	0.68
26:1H:10:G:N2	26:1H:2801:A:O2'	2.26	0.68
3:22:75:VAL:O	3:22:83:ARG:NH2	2.26	0.68
15:6A:62:GLN:HA	15:6A:65:ARG:HD2	1.74	0.68
55:Q8:9:GLY:HA2	55:Q8:12:LYS:HB2	1.74	0.68
26:14:1590:U:H2'	26:14:1591:G:H8	1.59	0.68
26:1H:326:G:N7	59:1H:3762:HOH:O	2.26	0.68
56:2L:33:OMC:HM22	56:2L:34:U:H5'	1.74	0.68
34:61:37:VAL:HG22	34:61:38:LEU:HD12	1.76	0.68
40:65:28:VAL:HG11	40:65:98:VAL:HG12	1.76	0.68
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.74	0.68
1:13:446:G:H1	1:13:488:C:H42	1.41	0.68
26:14:1059:G:H5"	26:14:1060:U:H5"	1.74	0.68
26:14:1486:A:H2'	26:14:1487:G:C8	2.29	0.68
26:14:511:U:H5	26:14:512:G:C5	2.11	0.68
1:1G:456:C:H42	1:1G:476:G:H1	1.40	0.68
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.27	0.68
13:4I:93:ARG:HH22	26:1H:888:C:H5	1.41	0.68
37:78:19:VAL:HG12	37:78:21:ARG:H	1.57	0.68
7:6E:37:ASN:OD1	9:8E:41:VAL:HG23	1.94	0.68
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.74	0.68
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.57	0.68
43:D8:34:GLU:HB2	43:D8:58:VAL:HG22	1.74	0.68
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.07	0.68
1:13:1007:C:N4	1:13:1022:G:H1	1.92	0.68
1:13:1483:A:HO2'	26:1H:1947:C:HO2'	1.41	0.68
26:1H:2801:A:H5'	26:1H:2895:U:H1'	1.76	0.68
26:1H:357:A:H2'	26:1H:358:U:C6	2.29	0.68
24:3L:16:U:H2'	24:3L:60:U:O2	1.94	0.68
41:75:51:ARG:HG2	41:75:98:LYS:HD2	1.76	0.68
42:85:92:ARG:CZ	43:95:11:GLN:H	2.06	0.68
52:M8:65:ASP:N	52:M8:65:ASP:OD1	2.26	0.68
26:14:1428:C:N4	26:14:1570:A:OP2	2.25	0.68
26:14:1824:G:OP1	29:19:52:ARG:NH1	2.27	0.68
26:14:2709:G:N3	59:14:3438:HOH:O	2.27	0.68
1:1G:1151:A:O2'	1:1G:1152:A:O4'	2.11	0.68
1:1G:596:C:H2'	1:1G:597:G:H8	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.59	0.68
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.28	0.68
26:1H:226:G:H21	26:1H:228:A:H2	1.39	0.68
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.75	0.68
32:41:106:LEU:HG	32:41:111:LEU:HD11	1.74	0.68
32:41:139:LEU:HD13	32:41:146:TYR:HD2	1.58	0.68
35:58:94:HIS:HB2	35:58:97:ARG:HD2	1.75	0.68
8:72:64:LYS:HB3	8:72:79:VAL:HG21	1.76	0.68
26:1H:2250:G:C4	38:88:82:ARG:HG2	2.28	0.68
27:16:91:C:H5"	47:H8:79:ARG:NH2	2.09	0.68
51:L8:56:VAL:HG12	51:L8:57:GLU:H	1.59	0.68
1:13:1121:U:H3	1:13:1152:A:H61	1.41	0.68
26:14:1485:G:H1	26:14:1504:C:H42	1.40	0.68
26:14:1997:G:H5"	59:14:3511:HOH:O	1.93	0.68
26:14:2127:G:N1	26:14:2161:C:N3	2.38	0.68
29:19:40:THR:OG1	29:19:41:GLY:N	2.27	0.68
26:1H:2249:U:O4	59:1H:3638:HOH:O	2.08	0.68
26:1H:2419:U:O4	55:Q8:29:LYS:NZ	2.17	0.68
26:1H:714:U:O2'	26:1H:716:A:N7	2.26	0.68
22:1K:58:A:C5	22:1K:59:A:H2	2.12	0.68
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.27	0.68
38:45:85:LYS:HG2	38:45:86:GLY:H	1.59	0.68
33:59:19:VAL:HG12	33:59:20:ALA:H	1.58	0.68
1:13:1145:C:H4'	1:13:1146:A:H5'	1.76	0.68
26:14:587:C:OP2	37:35:21:ARG:NH2	2.27	0.68
26:1H:2271:G:N7	59:1H:4193:HOH:O	2.27	0.68
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.41	0.68
32:41:111:LEU:HD12	32:41:111:LEU:H	1.56	0.68
32:41:122:PRO:HD3	32:41:181:ARG:HB3	1.75	0.68
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.26	0.68
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.42	0.68
46:G8:30:VAL:HG13	46:G8:37:VAL:HG12	1.74	0.68
26:14:2018:G:OP1	53:J5:9:LYS:NZ	2.26	0.68
55:Q8:53:PRO:HA	55:Q8:54:GLU:C	2.12	0.68
1:13:1218:C:H2'	1:13:1219:U:C6	2.29	0.67
1:13:617:G:H5'	16:7I:45:THR:HG23	1.75	0.67
26:14:1342:A:H2	26:14:1602:U:H3	1.42	0.67
26:14:2123:G:H2'	26:14:2124:G:C8	2.28	0.67
26:14:563:G:OP2	59:14:3934:HOH:O	2.10	0.67
29:19:17:THR:O	29:19:211:ARG:NH2	2.26	0.67
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1329:A:H2'	1:1G:1330:U:O4'	1.94	0.67
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.27	0.67
26:1H:241:A:H5"	59:1H:4217:HOH:O	1.93	0.67
31:39:192:LEU:HD23	31:39:193:VAL:H	1.59	0.67
38:45:34:LEU:HB2	38:45:118:LEU:HD22	1.77	0.67
19:AI:78:ARG:HH11	19:AI:79:THR:HA	1.59	0.67
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.11	0.67
47:H8:13:GLU:HB3	47:H8:18:LEU:HD11	1.74	0.67
1:1G:979:C:OP1	1:1G:1223:C:N4	2.27	0.67
1:1G:377:G:H1	1:1G:386:C:H42	1.42	0.67
1:1G:963:G:H21	10:1A:55:LYS:NZ	1.92	0.67
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.75	0.67
26:1H:1728:G:H3'	26:1H:1729:A:H5"	1.76	0.67
26:1H:589:C:H2'	26:1H:590:A:H8	1.59	0.67
28:71:20:TYR:O	28:71:225:ASN:N	2.21	0.67
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.75	0.67
20:BI:89:ARG:HD2	20:BI:104:LEU:HD21	1.76	0.67
47:H8:163:LEU:HD12	47:H8:165:VAL:HG12	1.77	0.67
32:41:112:PRO:HB3	52:M8:37:SER:N	2.08	0.67
1:13:1159:U:O4'	1:13:1182:G:N2	2.27	0.67
1:13:1352:C:OP1	21:1F:3:LYS:NZ	2.21	0.67
26:14:1268:A:H2'	26:14:1269:A:O4'	1.94	0.67
12:3A:55:VAL:HG23	12:3A:69:TYR:HA	1.74	0.67
13:4I:5:ALA:HB2	13:4I:61:GLU:HG3	1.75	0.67
33:59:106:THR:HG22	33:59:112:PRO:HB3	1.77	0.67
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.77	0.67
7:62:67:GLU:OE2	7:62:70:LYS:NZ	2.25	0.67
26:14:1021:A:H62	26:14:1141:U:H3	1.42	0.67
26:14:270(K):C:H42	26:14:270(M):U:H1'	1.59	0.67
26:14:619:G:H5"	26:14:620:G:N2	2.08	0.67
27:16:3:C:H2'	27:16:4:C:H6	1.59	0.67
21:1B:9:ARG:HE	21:1B:10:ARG:HG3	1.58	0.67
26:1H:2406:U:OP1	59:1H:3642:HOH:O	2.11	0.67
30:21:116:VAL:O	30:21:117:MET:HB3	1.94	0.67
30:21:94:GLU:OE2	30:21:177:PRO:HB3	1.94	0.67
6:5E:39:LYS:NZ	6:5E:39:LYS:HB2	2.10	0.67
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.75	0.67
42:C8:88:ILE:O	42:C8:90:VAL:N	2.28	0.67
53:N8:40:LYS:HG3	53:N8:47:PRO:HD2	1.76	0.67
1:13:422:C:O2'	1:13:423:G:OP2	2.11	0.67
26:14:1137:G:H2'	26:14:1138:G:H8	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:945:A:H2	59:14:3690:HOH:O	1.77	0.67
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.30	0.67
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.29	0.67
1:1G:804:U:H5"	1:1G:805:C:OP2	1.94	0.67
26:1H:2592:G:OP1	59:1H:4405:HOH:O	2.13	0.67
26:1H:997:G:OP1	42:C8:93:LYS:HG3	1.95	0.67
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.76	0.67
4:32:141:ARG:N	4:32:144:ASP:OD2	2.23	0.67
4:32:60:GLU:OE2	4:32:199:ASN:N	2.27	0.67
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.77	0.67
46:G8:94:LYS:HZ2	46:G8:94:LYS:HA	1.59	0.67
1:13:1149:C:H2'	1:13:1150:U:H6	1.59	0.67
1:13:153:C:H42	1:13:168:G:H1	1.43	0.67
1:13:146:G:N2	1:13:176:C:O2	2.27	0.67
26:14:1786:A:OP1	59:14:3456:HOH:O	2.12	0.67
26:14:1869:G:N2	26:14:1872:A:OP2	2.27	0.67
1:1G:108:G:H5'	1:1G:109:A:H5"	1.76	0.67
1:1G:424:G:H2'	1:1G:425:G:H8	1.59	0.67
30:21:82:ARG:O	30:21:84:PHE:N	2.28	0.67
44:E8:65:LEU:HD12	44:E8:68:ARG:HH11	1.59	0.67
26:14:2400:G:H3'	26:14:2401:U:H6	1.60	0.67
1:1G:352:C:O2'	1:1G:354:G:OP1	2.11	0.67
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.30	0.67
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.29	0.67
26:1H:1828:G:OP2	59:1H:4363:HOH:O	2.13	0.67
26:1H:2210:G:H5'	26:1H:2211:G:C8	2.29	0.67
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.27	0.67
32:41:64:THR:HG22	32:41:66:GLN:N	2.10	0.67
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.26	0.67
49:F5:56:GLN:NE2	49:F5:84:GLY:H	1.92	0.67
47:H8:128:VAL:HG23	47:H8:161:VAL:HG21	1.77	0.67
53:N8:42:PRO:HB2	53:N8:43:HIS:ND1	2.09	0.67
26:14:144:C:H2'	26:14:145:G:H8	1.58	0.67
26:14:646:A:H2'	26:14:647:G:O4'	1.94	0.67
1:1G:1263:C:N3	1:1G:1273:G:N2	2.42	0.67
1:1G:457:C:H2'	1:1G:458:C:C6	2.29	0.67
26:1H:483:A:OP1	46:G8:50:ARG:NH2	2.28	0.67
26:1H:880:G:N2	26:1H:881:G:N7	2.40	0.67
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.77	0.67
32:49:4:ASP:OD1	32:49:9:ARG:NH2	2.26	0.67
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.29	0.67
1:13:1263:C:H2'	1:13:1264:C:H6	1.57	0.67
1:13:546:G:HO2'	1:13:548:G:HO2'	1.42	0.67
26:14:1997:G:OP2	59:14:3512:HOH:O	2.13	0.67
26:14:731:C:OP1	59:14:3974:HOH:O	2.12	0.67
1:1G:501:C:H2'	1:1G:502:G:H8	1.59	0.67
1:1G:938:A:N3	1:1G:1376:U:O2'	2.22	0.67
26:1H:2108:C:O2	26:1H:2181:G:N2	2.26	0.67
26:1H:860:U:C5	26:1H:917:A:H2	2.13	0.67
12:3A:89:ARG:HG3	12:3A:97:ARG:HA	1.77	0.67
35:58:90:MET:HG2	35:58:98:VAL:HG12	1.76	0.67
34:61:47:LEU:HA	34:61:50:ARG:HD3	1.77	0.67
47:D5:155:LEU:HD12	47:D5:163:LEU:HD13	1.77	0.67
29:11:68:LYS:HB3	29:11:70:TRP:CH2	2.30	0.67
1:13:1452:C:O2'	1:13:1453:G:OP2	2.09	0.67
1:13:688:G:H2'	1:13:689:C:H6	1.59	0.67
26:14:1292:U:H2'	26:14:1293:C:C6	2.29	0.67
26:14:1451:C:H42	26:14:1459:G:H1	1.41	0.67
26:14:2667:C:N3	33:59:110:SER:OG	2.24	0.67
1:1G:32:A:H2'	1:1G:33:A:C8	2.29	0.67
26:1H:1639:U:OP2	59:1H:3546:HOH:O	2.13	0.67
26:1H:1772:G:OP1	59:1H:4394:HOH:O	2.13	0.67
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.58	0.67
26:1H:1845:G:OP1	29:11:258:LYS:NZ	2.29	0.67
26:1H:2409:G:N7	59:1H:3646:HOH:O	2.27	0.67
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.30	0.67
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.77	0.67
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.27	0.67
28:71:182:PRO:HA	28:71:185:LEU:HD12	1.77	0.67
26:1H:855:G:O2'	48:I8:27:GLU:OE2	2.12	0.67
26:14:1222:C:O2	26:14:1229:G:N2	2.25	0.66
26:14:1388:G:H2'	26:14:1389:G:H8	1.60	0.66
26:14:1520:U:H2'	26:14:1521:G:O4'	1.95	0.66
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.66
26:1H:350:U:H2'	26:1H:351:G:C8	2.30	0.66
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.76	0.66
26:14:587:C:O2	37:35:33:ARG:NH1	2.28	0.66
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.77	0.66
35:58:57:ALA:C	35:58:59:LYS:H	1.99	0.66
8:7E:51:VAL:HG21	8:7E:60:ARG:HD2	1.77	0.66
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1334:G:N7	59:13:1927:HOH:O	2.27	0.66
26:14:1210:A:H5'	26:14:1212:G:C5'	2.26	0.66
26:14:127:A:H5"	26:14:128:C:C6	2.30	0.66
29:19:33:LEU:HD21	29:19:103:ARG:HA	1.77	0.66
1:1G:740:U:H2'	1:1G:741:G:H8	1.60	0.66
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.61	0.66
16:7A:22:THR:HA	16:7A:33:ILE:HG12	1.77	0.66
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.75	0.66
18:9I:19:LYS:HG2	18:9I:55:ARG:HD3	1.77	0.66
20:BA:69:GLY:O	20:BA:73:HIS:NE2	2.28	0.66
52:M8:37:SER:OG	52:M8:42:PHE:O	2.12	0.66
1:13:1347:G:H5"	9:8E:107:ARG:HG2	1.77	0.66
1:13:674:G:H2'	1:13:675:A:H8	1.60	0.66
26:14:1190:G:OP1	37:35:32:THR:HA	1.96	0.66
1:1G:862:C:H2'	1:1G:863:U:H6	1.60	0.66
26:1H:1315:C:OP2	59:1H:3884:HOH:O	2.14	0.66
26:1H:2402:C:H5	26:1H:2415:G:H22	1.41	0.66
26:1H:831:G:N7	59:1H:4064:HOH:O	2.28	0.66
26:1H:860:U:H5	26:1H:917:A:H2	1.39	0.66
11:2I:18:ARG:NH2	11:2I:35:PRO:O	2.27	0.66
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.78	0.66
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.78	0.66
41:75:106:SER:HA	41:75:110:ILE:HD12	1.76	0.66
38:88:66:ILE:HG22	38:88:67:ARG:N	2.10	0.66
26:1H:779:U:OP1	29:11:49:ILE:HG13	1.95	0.66
1:13:371:G:O2'	1:13:373:A:N7	2.28	0.66
26:14:2392:A:OP2	55:M5:32:LEU:HD22	1.95	0.66
26:14:453:C:OP1	59:14:3643:HOH:O	2.13	0.66
29:19:223:GLY:HA3	29:19:231:HIS:CE1	2.31	0.66
1:1G:536:C:OP2	59:1G:1732:HOH:O	2.12	0.66
26:1H:1670:C:OP1	59:1H:3573:HOH:O	2.13	0.66
26:1H:780:G:H21	26:1H:783:A:H62	1.42	0.66
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.78	0.66
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.77	0.66
33:59:83:TYR:HA	33:59:134:SER:HB3	1.77	0.66
41:75:36:GLU:OE1	41:75:41:ARG:NH1	2.29	0.66
26:1H:2318:G:H22	40:A8:2:ALA:N	1.92	0.66
42:C8:110:VAL:O	42:C8:114:LYS:N	2.22	0.66
46:G8:10:GLY:HA3	46:G8:106:LEU:HD22	1.78	0.66
1:13:1128:C:O2	1:13:1144:G:N2	2.29	0.66
1:13:179:A:H2'	1:13:180:U:H6	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:376:C:OP1	59:1H:3664:HOH:O	2.11	0.66
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.77	0.66
31:31:63:LYS:HE2	31:31:67:GLN:HB2	1.76	0.66
24:3K:5:G:N2	24:3K:68:C:N3	2.43	0.66
16:7I:8:ARG:HB3	16:7I:28:ARG:NH1	2.09	0.66
51:L8:7:LYS:HG3	51:L8:34:GLU:HG2	1.76	0.66
1:13:1004:A:H1'	1:13:1036:G:H22	1.59	0.66
26:14:1011:G:OP2	42:85:66:ASN:ND2	2.25	0.66
26:14:1423:G:H2'	26:14:1424:G:H8	1.60	0.66
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.61	0.66
26:14:539:G:H1	26:14:554:U:H3	1.43	0.66
26:14:67:U:H2'	26:14:68:G:C8	2.31	0.66
1:1G:1079:G:H5"	5:42:45:PHE:HZ	1.61	0.66
1:1G:829:G:N2	1:1G:857:C:O2	2.22	0.66
26:1H:1253:A:C8	59:1H:3629:HOH:O	2.48	0.66
30:29:66:HIS:HB3	30:29:68:ALA:HB2	1.77	0.66
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.78	0.66
34:69:77:LEU:HD22	34:69:141:LYS:HD2	1.77	0.66
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.78	0.66
37:78:49:ARG:HG3	55:Q8:57:ARG:HH11	1.61	0.66
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.30	0.66
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.25	0.66
26:14:2431:U:OP1	59:14:3414:HOH:O	2.13	0.66
1:1G:456:C:N3	1:1G:476:G:N2	2.42	0.66
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.78	0.66
26:14:534:U:H5'	42:85:42:ALA:HB1	1.78	0.66
26:14:674:G:O2'	31:39:74:ARG:HG3	1.95	0.66
1:1G:111:G:O5'	1:1G:111:G:H8	1.78	0.66
1:1G:1292:U:H2'	1:1G:1293:G:H8	1.61	0.66
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.60	0.66
26:1H:817:C:OP2	59:1H:3815:HOH:O	2.13	0.66
4:32:14:ARG:NH1	4:32:14:ARG:HG3	2.11	0.66
4:32:177:ASP:OD2	4:32:182:LYS:NZ	2.28	0.66
24:3L:26:A:N6	24:3L:44:G:O6	2.29	0.66
50:K8:31:GLU:O	50:K8:35:LEU:HD12	1.96	0.66
1:13:330:C:O2	59:13:1879:HOH:O	2.11	0.66
1:13:517:G:N1	1:13:533:A:OP2	2.29	0.66
1:13:918:A:H2'	1:13:919:A:C8	2.30	0.66
26:14:548:A:C6	26:14:549:G:H1'	2.31	0.66
2:1E:184:VAL:N	2:1E:198:ASP:OD2	2.22	0.66
32:49:133:LEU:HD11	32:49:157:ILE:HD12	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:14:SER:HA	39:55:17:ARG:NH1	2.11	0.66
8:72:110:ALA:HB3	8:72:121:ASP:HB3	1.78	0.66
37:78:19:VAL:HG21	37:78:27:HIS:ND1	2.11	0.66
37:78:66:GLY:O	37:78:68:GLN:NE2	2.28	0.66
38:88:138:ASP:OD1	38:88:138:ASP:N	2.26	0.66
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.78	0.66
26:14:2415:G:H4'	37:35:67:MET:N	2.11	0.66
26:14:2468:G:H3'	26:14:2476:A:N1	2.11	0.66
26:14:2849:U:H4'	26:14:2868:A:C2	2.31	0.66
26:14:796:C:H2'	26:14:797:C:C6	2.30	0.66
26:14:984:A:H5"	26:14:985:C:H5	1.61	0.66
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.09	0.66
26:1H:861:A:N3	27:16:79:C:O2'	2.27	0.66
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.28	0.66
3:22:65:ALA:HA	3:22:100:ALA:HB3	1.76	0.66
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.77	0.66
30:29:8:LYS:HB3	30:29:193:GLY:H	1.61	0.66
14:5I:27:CYS:HB2	14:5I:29:ARG:H	1.61	0.66
34:69:124:GLY:H	34:69:142:VAL:HG12	1.61	0.66
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.77	0.66
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.29	0.66
46:C5:13:VAL:HG12	46:C5:74:PRO:HA	1.77	0.66
29:11:112:GLN:O	29:11:115:GLN:HG3	1.95	0.65
29:11:182:LEU:H	29:11:272:ALA:HB3	1.61	0.65
26:14:1538:G:H2'	26:14:1539:G:H8	1.60	0.65
26:1H:107:C:H2'	26:1H:108:U:H6	1.62	0.65
26:1H:1988:C:H2'	26:1H:1989:G:H8	1.60	0.65
11:2A:21:ILE:HB	11:2A:84:VAL:HG12	1.78	0.65
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.31	0.65
33:59:86:GLU:HB2	33:59:132:ARG:HA	1.77	0.65
49:J8:73:LEU:HD11	49:J8:95:LEU:HD21	1.78	0.65
55:Q8:50:LEU:C	55:Q8:52:LYS:H	1.99	0.65
55:Q8:21:LYS:HG3	55:Q8:53:PRO:HD3	1.78	0.65
1:13:422:C:H6	1:13:422:C:H5"	1.61	0.65
26:14:1849:G:H2'	26:14:1850:G:H8	1.58	0.65
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.31	0.65
1:1G:316:G:OP2	1:1G:351:G:O2'	2.12	0.65
30:21:31:CYS:HB3	30:21:49:LEU:HG	1.78	0.65
18:9I:53:ARG:HH21	18:9I:60:ALA:N	1.94	0.65
26:14:748:G:C8	44:A5:89:ALA:HB1	2.30	0.65
47:H8:4:ARG:NH1	47:H8:60:GLU:OE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1064:G:H4'	1:13:1065:U:OP1	1.96	0.65
1:13:1306:A:H61	1:13:1331:G:H1'	1.62	0.65
26:14:2650:U:H2'	26:14:2651:C:H6	1.60	0.65
26:14:2655:G:O2'	26:14:2664:G:O6	2.12	0.65
1:1G:1430:C:H2'	1:1G:1431:C:C6	2.32	0.65
26:1H:1678:G:H22	26:1H:1989:G:H22	1.44	0.65
56:2L:19:G:N2	56:2L:59:A:O4'	2.30	0.65
12:3A:41:ARG:HH11	12:3A:41:ARG:HB3	1.60	0.65
28:71:15:ASP:O	28:71:20:TYR:OH	2.14	0.65
17:8I:100:LYS:HB3	17:8I:101:ARG:HE	1.62	0.65
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.60	0.65
1:13:159:G:O2'	1:13:161:A:N7	2.26	0.65
1:13:160:A:H1'	1:13:344:A:H8	1.62	0.65
26:14:1056:G:HO2'	26:14:1103:A:N6	1.95	0.65
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.62	0.65
1:1G:352:C:OP2	59:1G:1713:HOH:O	2.13	0.65
1:1G:587:G:N2	1:1G:754:C:OP2	2.29	0.65
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.61	0.65
26:1H:524:U:H2'	26:1H:525:U:C6	2.31	0.65
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.31	0.65
31:31:9:ILE:HG12	31:31:10:PRO:HD2	1.77	0.65
31:39:25:PRO:HB2	31:39:27:GLU:HB2	1.77	0.65
32:49:6:ALA:N	52:I5:23:GLU:OE2	2.30	0.65
7:6E:5:ARG:NE	7:6E:7:ALA:HA	2.11	0.65
8:7E:121:ASP:OD2	8:7E:125:ARG:NH2	2.28	0.65
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.78	0.65
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.78	0.65
46:C5:48:ALA:HB3	46:C5:59:GLY:O	1.96	0.65
50:K8:6:VAL:O	50:K8:7:ARG:HB3	1.97	0.65
26:14:287:C:H2'	26:14:288:C:C6	2.32	0.65
1:1G:757:U:O2'	1:1G:879:C:O2	2.15	0.65
1:1G:823:G:H21	8:72:1:MET:HE2	1.62	0.65
26:1H:2502:G:OP2	59:1H:3527:HOH:O	2.14	0.65
26:1H:456:C:C5	45:F8:69:TYR:CE1	2.85	0.65
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.11	0.65
31:39:20:LEU:HG	31:39:199:TRP:CH2	2.32	0.65
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.79	0.65
32:49:124:SER:HB2	32:49:131:TYR:CE2	2.32	0.65
40:65:106:ARG:NH1	40:65:107:GLU:OE1	2.29	0.65
37:78:50:ARG:HD3	55:Q8:7:HIS:NE2	2.11	0.65
43:95:1:MET:HG2	43:95:42:GLY:HA3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:102:ILE:HB	41:B8:110:ILE:HD11	1.79	0.65
46:C5:19:LYS:HG3	46:C5:20:TYR:HD1	1.61	0.65
43:D8:3:ALA:HB3	43:D8:14:VAL:HG22	1.78	0.65
1:13:1002:G:H2'	1:13:1003:G:H8	1.62	0.65
26:14:1776:G:OP2	59:14:3429:HOH:O	2.13	0.65
26:14:1778:U:H2'	26:14:1784:A:N6	2.11	0.65
1:1G:259:G:H1	1:1G:267:C:H42	1.43	0.65
26:1H:1016:G:N7	59:1H:4209:HOH:O	2.29	0.65
4:32:14:ARG:HB2	4:32:40:PRO:HD2	1.79	0.65
24:3L:21:A:N6	24:3L:47:U:O2	2.19	0.65
7:62:26:PHE:O	7:62:30:ILE:HG13	1.96	0.65
34:69:73:GLU:HG3	34:69:136:VAL:HG23	1.77	0.65
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.96	0.65
47:H8:157:LEU:HD21	47:H8:163:LEU:HD23	1.77	0.65
1:13:1392:G:H2'	1:13:1393:U:H6	1.62	0.65
1:13:772:U:H2'	1:13:773:G:H8	1.62	0.65
26:14:1264:G:OP1	53:J5:19:ARG:NH1	2.22	0.65
26:14:1757:U:N3	26:14:1762:A:H2	1.87	0.65
26:14:2262:U:H2'	26:14:2263:C:C6	2.31	0.65
1:1G:975:A:H5'	1:1G:975:A:C8	2.32	0.65
4:32:58:LEU:HD22	4:32:62:GLN:HG2	1.79	0.65
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.78	0.65
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	1.77	0.65
55:M5:51:ALA:O	55:M5:52:LYS:HD3	1.96	0.65
1:13:179:A:H2'	1:13:180:U:C6	2.32	0.65
1:13:939:G:H2'	1:13:940:C:C6	2.32	0.65
26:14:2153:G:N2	26:14:2154:G:O6	2.30	0.65
26:14:2557:G:H2'	26:14:2558:C:C6	2.32	0.65
1:1G:136:C:O2'	16:7A:65:GLN:OE1	2.15	0.65
1:1G:740:U:H2'	1:1G:741:G:C8	2.31	0.65
26:1H:1914:C:H2'	26:1H:1915:U:O4'	1.95	0.65
33:51:92:ILE:HD11	33:51:160:LYS:NZ	2.12	0.65
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.79	0.65
1:13:1086:U:H3	1:13:1099:G:H22	1.43	0.65
26:14:1430:C:H2'	26:14:1431:U:C6	2.32	0.65
26:1H:1417:C:OP2	59:1H:3968:HOH:O	2.14	0.65
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.78	0.65
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.61	0.65
26:1H:2712:U:O2'	26:1H:2713:A:H5'	1.97	0.65
30:21:18:ASP:HB3	41:B8:82:LEU:HD21	1.79	0.65
26:14:2786:U:H5'	30:29:65:GLY:HA2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:59:ARG:O	4:32:63:LYS:N	2.21	0.65
4:3E:18:LYS:HG3	4:3E:31:CYS:SG	2.37	0.65
5:42:61:TYR:HA	5:42:64:ARG:HB3	1.79	0.65
13:4A:82:MET:SD	13:4A:83:ASP:N	2.70	0.65
35:58:4:TYR:O	42:C8:64:ARG:NH1	2.28	0.65
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	1.78	0.65
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.11	0.65
26:14:1970:A:OP1	59:14:3469:HOH:O	2.15	0.65
26:14:528:A:OP2	35:15:114:ARG:NH1	2.30	0.65
34:61:120:ILE:HG12	34:61:126:TYR:HE2	1.61	0.65
26:14:2294:C:OP2	40:65:89:ARG:NH2	2.30	0.65
28:71:66:HIS:HD2	28:71:184:LYS:O	1.79	0.65
38:88:82:ARG:HD2	38:88:82:ARG:N	2.12	0.65
47:D5:124:ILE:HD11	47:D5:165:VAL:HG11	1.77	0.65
47:H8:130:PRO:HA	47:H8:133:ILE:HD11	1.78	0.65
2:12:5:ILE:HG12	2:12:6:THR:HG22	1.79	0.64
26:14:1973:G:H2'	26:14:1974:C:C6	2.32	0.64
26:14:2232:U:P	49:F5:40:ARG:HH22	2.20	0.64
26:14:955:C:OP1	38:45:85:LYS:NZ	2.30	0.64
29:19:71:ASP:OD2	29:19:103:ARG:NH1	2.29	0.64
1:1G:957:U:H1'	1:1G:960:U:C5	2.32	0.64
1:1G:979:C:H5	1:1G:980:C:C6	2.16	0.64
26:1H:2747:G:O6	26:1H:2755:C:H5"	1.96	0.64
26:1H:992:C:H2'	26:1H:993:G:H8	1.62	0.64
31:39:63:LYS:NZ	31:39:75:HIS:O	2.30	0.64
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.29	0.64
24:3K:18:G:N2	24:3K:55:PSU:HN3	1.95	0.64
32:41:37:VAL:HG22	32:41:159:VAL:HG12	1.79	0.64
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.79	0.64
13:4A:84:ILE:HG22	13:4A:86:CYS:HB3	1.80	0.64
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.78	0.64
37:78:1:MET:HE1	37:78:6:LEU:HA	1.79	0.64
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.78	0.64
29:11:232:PRO:HB3	29:11:244:ARG:NH1	2.12	0.64
26:14:1141:U:OP2	35:15:63:THR:OG1	2.13	0.64
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.62	0.64
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.30	0.64
1:1G:341:C:H2'	1:1G:342:C:H6	1.62	0.64
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.79	0.64
37:78:36:LYS:O	59:78:303:HOH:O	2.14	0.64
46:C5:33:LYS:HE2	46:C5:34:LYS:HE3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:2:PHE:H	43:D8:42:GLY:HA3	1.62	0.64
46:G8:76:CYS:SG	46:G8:97:ARG:HG2	2.37	0.64
51:L8:8:LEU:HB2	51:L8:28:LEU:HD13	1.78	0.64
1:13:1028:C:H42	1:13:1033:G:H1	1.43	0.64
35:15:15:LEU:HD12	35:15:136:GLU:HB2	1.77	0.64
26:1H:1253:A:N7	59:1H:3629:HOH:O	2.30	0.64
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.32	0.64
26:1H:2257:U:O2'	26:1H:2258:C:H5'	1.97	0.64
26:1H:2533:A:H2'	26:1H:2534:A:O4'	1.98	0.64
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.80	0.64
23:2K:62:C:H2'	23:2K:63:C:H6	1.63	0.64
37:35:64:LYS:HB2	55:M5:30:ARG:NH2	2.10	0.64
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.63	0.64
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.79	0.64
9:8E:128:ARG:NH1	23:2K:34:U:OP2	2.29	0.64
52:I5:40:HIS:HA	52:I5:44:THR:HB	1.79	0.64
50:K8:23:LYS:O	50:K8:27:GLU:HG3	1.96	0.64
50:K8:5:GLU:HB3	50:K8:8:LYS:HB3	1.79	0.64
37:78:60:MET:HA	55:Q8:13:ARG:NH1	2.13	0.64
1:13:1005:A:H5'	1:13:1038:C:H1'	1.79	0.64
26:14:1667:G:H2'	59:14:3910:HOH:O	1.96	0.64
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.79	0.64
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.33	0.64
1:1G:559:A:H4'	1:1G:560:U:H5"	1.78	0.64
26:1H:730:C:OP2	59:1H:3601:HOH:O	2.14	0.64
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.80	0.64
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.79	0.64
4:32:26:CYS:HA	4:32:31:CYS:CB	2.25	0.64
37:35:15:ARG:HH22	37:35:17:LYS:HE3	1.61	0.64
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.98	0.64
4:3E:149:ALA:O	4:3E:153:ARG:HG2	1.98	0.64
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.30	0.64
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.80	0.64
44:A5:110:LYS:HE3	44:A5:111:HIS:HB3	1.77	0.64
40:A8:49:VAL:HG11	40:A8:77:ALA:HB2	1.79	0.64
55:Q8:34:TRP:HZ3	55:Q8:39:LYS:CB	2.08	0.64
1:13:601:C:H2'	1:13:602:A:C8	2.33	0.64
1:13:807:A:H2'	1:13:808:C:C6	2.33	0.64
26:14:172:C:H2'	26:14:173:G:H8	1.63	0.64
1:1G:474:G:H2'	1:1G:475:G:C8	2.32	0.64
26:1H:1210:A:C8	26:1H:1210:A:H5'	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:59:ARG:HH22	4:32:66:ARG:NH1	1.95	0.64
31:39:59:TYR:HD2	31:39:78:ILE:HG12	1.63	0.64
24:3L:8:4SU:H5"	24:3L:49:C:H5'	1.80	0.64
38:45:22:LYS:N	38:45:23:GLY:HA3	2.13	0.64
32:49:97:ASP:O	32:49:101:ILE:HG23	1.98	0.64
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.78	0.64
13:4A:3:ARG:HB2	52:I5:34:GLU:HG3	1.79	0.64
2:12:166:ASP:OD2	2:12:169:LYS:HB2	1.97	0.64
26:14:1093:G:O2'	26:14:1099:G:N2	2.29	0.64
27:16:88:C:H2'	27:16:89:G:O4'	1.97	0.64
1:1G:223:U:H2'	1:1G:224:C:H6	1.62	0.64
1:1G:376:G:H5"	16:7A:5:ARG:HB2	1.79	0.64
26:1H:1314:C:H5"	59:1H:3888:HOH:O	1.97	0.64
26:1H:1491:G:H2'	26:1H:1492:G:H8	1.63	0.64
26:1H:2710:C:OP1	59:1H:3575:HOH:O	2.14	0.64
26:1H:399:G:OP2	59:1H:3982:HOH:O	2.14	0.64
28:71:46:LYS:HE3	28:71:210:ARG:HB3	1.79	0.64
1:13:674:G:H2'	1:13:675:A:C8	2.33	0.64
26:14:1327:C:OP2	59:14:3571:HOH:O	2.15	0.64
26:14:2557:G:H2'	26:14:2558:C:H6	1.62	0.64
26:14:882:G:H1	26:14:894:C:H42	1.46	0.64
1:1G:1200:C:O2'	1:1G:1201:A:OP2	2.16	0.64
1:1G:79:G:O6	1:1G:91:C:N4	2.31	0.64
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.30	0.64
26:1H:1828:G:N7	59:1H:4364:HOH:O	2.30	0.64
26:1H:2241:A:O2'	26:1H:2242:G:H5'	1.98	0.64
26:1H:322:A:P	31:31:168:ARG:HH21	2.21	0.64
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.78	0.64
26:14:1348:G:H2'	26:14:1349:A:H5"	1.80	0.64
26:14:882:G:H2'	26:14:883:G:H8	1.63	0.64
1:1G:973:G:OP1	10:1A:57:LYS:NZ	2.30	0.64
1:1G:365:U:H5"	1:1G:366:C:OP1	1.98	0.64
10:1I:6:ILE:HG22	10:1I:98:ILE:HG12	1.79	0.64
43:95:85:LYS:HD2	43:95:86:GLY:N	2.05	0.64
20:BI:49:ALA:O	20:BI:52:ALA:N	2.31	0.64
46:C5:68:HIS:HB3	46:C5:71:LYS:HE2	1.78	0.64
52:M8:40:HIS:CG	52:M8:45:GLY:HA3	2.32	0.64
55:Q8:6:THR:H	55:Q8:59:LYS:NZ	1.95	0.64
2:12:102:LEU:HD12	2:12:102:LEU:H	1.62	0.64
1:13:114:U:H2'	1:13:115:G:C8	2.33	0.64
26:14:580:C:H2'	26:14:581:C:H6	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.79	0.64
32:41:135:LEU:HD23	32:41:140:ILE:HD11	1.79	0.64
35:58:93:THR:HG22	35:58:94:HIS:ND1	2.12	0.64
46:G8:85:VAL:O	46:G8:86:ARG:HD3	1.98	0.64
48:I8:53:MET:HG3	48:I8:59:LEU:HD23	1.79	0.64
26:1H:784:A:C5	29:11:229:VAL:HG21	2.33	0.64
26:14:2068:U:H3	26:14:2430:A:H2	1.44	0.64
26:14:2537:U:H2'	26:14:2538:C:C6	2.33	0.64
26:14:574:C:OP1	59:14:3945:HOH:O	2.15	0.64
26:14:739:G:OP1	59:14:3652:HOH:O	2.15	0.64
26:1H:2502:G:H5"	26:1H:2503:A:H5"	1.79	0.64
26:1H:994:C:O2'	26:1H:996:A:OP1	2.06	0.64
27:1J:15:A:H1'	27:1J:109:G:C4	2.33	0.64
31:39:164:ARG:O	31:39:167:ALA:HB3	1.98	0.64
12:3A:37:CYS:SG	12:3A:81:SER:HB3	2.38	0.64
32:49:19:LEU:HD11	32:49:172:LEU:HB2	1.80	0.64
40:65:5:THR:O	40:65:8:GLU:N	2.30	0.64
36:68:19:ILE:HG22	36:68:43:VAL:HA	1.79	0.64
1:13:1506:U:H2'	59:13:1805:HOH:O	1.98	0.63
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.30	0.63
26:14:2439:A:C8	26:14:2439:A:H5'	2.33	0.63
26:14:635:C:O2'	26:14:639:U:OP1	2.06	0.63
2:1E:74:LYS:NZ	2:1E:206:ASP:OD1	2.31	0.63
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.46	0.63
26:1H:2028:U:O4	59:1H:4001:HOH:O	2.11	0.63
26:1H:453:C:OP1	59:1H:3833:HOH:O	2.14	0.63
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.31	0.63
26:1H:76:C:O2'	50:K8:62:THR:HG21	1.98	0.63
31:31:65:TRP:CZ3	31:31:72:ARG:HB2	2.33	0.63
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.63	0.63
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.63	0.63
12:3I:58:VAL:O	12:3I:65:GLU:HA	1.98	0.63
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.79	0.63
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.79	0.63
2:12:220:ASP:OD1	2:12:220:ASP:N	2.29	0.63
1:13:7:G:H5'	1:13:298:A:O4'	1.98	0.63
26:14:2581:G:O6	59:14:3720:HOH:O	2.13	0.63
1:1G:999:U:O2	1:1G:1042:G:N2	2.31	0.63
26:1H:518:G:H2'	26:1H:519:U:C6	2.32	0.63
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.80	0.63
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:90:GLY:O	34:69:121:LYS:HD2	1.98	0.63
39:98:56:LYS:NZ	39:98:90:ARG:O	2.32	0.63
47:H8:30:ASN:HA	47:H8:89:PHE:HE1	1.63	0.63
52:I5:37:SER:HB3	52:I5:39:CYS:HB2	1.79	0.63
1:13:1346:A:N1	1:13:1374:A:H5"	2.14	0.63
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.33	0.63
1:1G:1347:G:C8	9:82:107:ARG:HB3	2.33	0.63
1:1G:243:A:H4'	1:1G:244:U:O5'	1.96	0.63
26:1H:152:G:H1	26:1H:174:C:H42	1.45	0.63
26:1H:2319:G:N1	26:1H:2334:G:OP2	2.31	0.63
3:2E:13:GLY:HA3	14:5I:57:ARG:CZ	2.28	0.63
26:14:322:A:H3'	31:39:169:ASN:HD21	1.63	0.63
33:51:149:ARG:NH2	33:51:167:GLU:OE2	2.29	0.63
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.79	0.63
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.81	0.63
18:9I:36:ASN:HD22	18:9I:39:VAL:HG21	1.64	0.63
19:AA:20:LEU:O	19:AA:23:ASN:ND2	2.27	0.63
45:B5:26:TYR:CD2	45:B5:89:ILE:HD12	2.33	0.63
29:11:145:VAL:HG12	29:11:146:GLU:O	1.99	0.63
1:13:486:U:H2'	1:13:487:A:C8	2.32	0.63
26:14:1499:C:H2'	26:14:1500:G:H8	1.63	0.63
26:14:162:U:H4'	26:14:171:G:C4	2.34	0.63
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.63	0.63
26:14:973:A:OP2	59:14:3962:HOH:O	2.16	0.63
1:1G:1028(A):C:H5	1:1G:1029:G:C5	2.15	0.63
1:1G:501:C:H2'	1:1G:502:G:C8	2.33	0.63
1:1G:979:C:H3'	1:1G:980:C:C5'	2.28	0.63
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.33	0.63
26:1H:57:C:H2'	26:1H:58:G:O4'	1.99	0.63
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.79	0.63
28:71:54:SER:HA	28:71:57:ASN:HB2	1.80	0.63
37:78:115:LEU:HA	37:78:134:ALA:HB2	1.80	0.63
18:9I:52:PRO:O	18:9I:56:THR:HG23	1.99	0.63
41:B8:2:ASN:O	41:B8:3:ARG:HG2	1.99	0.63
47:D5:77:ASP:OD1	47:D5:80:ARG:N	2.23	0.63
2:12:132:LYS:HA	2:12:135:GLN:HB2	1.80	0.63
1:13:1022:G:H2'	1:13:1023:G:H8	1.64	0.63
1:13:917:G:H2'	1:13:918:A:H8	1.63	0.63
26:14:83:G:N2	26:14:103:A:OP2	2.30	0.63
26:14:1664:A:OP1	59:14:3523:HOH:O	2.15	0.63
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:25:C:H2'	1:1G:26:A:H8	1.62	0.63
26:1H:259:G:H21	26:1H:621:A:H8	1.47	0.63
26:1H:33:U:H4'	26:1H:34:C:OP1	1.97	0.63
27:1J:62:C:H2'	27:1J:63:G:C8	2.32	0.63
22:1K:4:G:N2	22:1K:70:C:O2	2.29	0.63
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.80	0.63
28:71:193:ILE:O	28:71:197:GLU:HG2	1.99	0.63
19:AI:67:VAL:HG11	52:M8:60:GLN:HE21	1.62	0.63
46:C5:67:LEU:HG	46:C5:71:LYS:HE3	1.80	0.63
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.79	0.63
1:13:1366:C:H2'	1:13:1367:C:H6	1.64	0.63
1:13:60:A:H4'	1:13:61:G:H5'	1.80	0.63
26:14:1647:G:H2'	59:14:3555:HOH:O	1.98	0.63
26:14:548:A:C5	26:14:549:G:H1'	2.34	0.63
1:1G:978:A:O2'	1:1G:1322:C:N3	2.27	0.63
26:1H:1298:C:OP2	59:1H:3545:HOH:O	2.16	0.63
26:1H:16:G:H2'	26:1H:17:G:C8	2.30	0.63
26:1H:2074:U:P	59:1H:3593:HOH:O	2.56	0.63
26:1H:2638:G:OP1	30:21:82:ARG:NH2	2.32	0.63
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.79	0.63
27:1J:3:C:H2'	27:1J:4:C:C6	2.33	0.63
3:2E:73:PRO:O	3:2E:76:VAL:HG13	1.99	0.63
1:13:707:C:OP1	11:2I:85:ARG:NH1	2.32	0.63
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.32	0.63
1:13:108:G:H5"	1:13:109:A:H5"	1.81	0.63
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.63
27:16:95:U:H2'	27:16:96:G:C8	2.33	0.63
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.80	0.63
26:1H:2815:C:H2'	26:1H:2816:C:H6	1.62	0.63
56:2L:24:C:H2'	56:2L:25:U:H6	1.64	0.63
1:13:35:G:O2'	12:3I:118:SER:O	2.09	0.63
35:58:133:GLN:HG2	35:58:134:ARG:H	1.62	0.63
26:14:1499:C:H2'	26:14:1500:G:C8	2.34	0.63
26:14:603:A:H8	26:14:604:G:H1'	1.64	0.63
26:1H:1474:C:H2'	26:1H:1475:G:H8	1.64	0.63
26:1H:176:G:O2'	26:1H:177:G:H5'	1.98	0.63
31:31:8:GLN:HA	31:31:21:ALA:HA	1.81	0.63
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.81	0.63
45:F8:2:LYS:HG2	50:K8:26:ARG:HE	1.64	0.63
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.13	0.63
26:14:210:C:OP2	54:L5:29:LYS:NZ	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1336:A:H2'	26:14:1337:G:C8	2.34	0.63
26:14:2315:G:H2'	26:14:2316:C:C6	2.34	0.63
26:14:854:G:H2'	26:14:855:G:C8	2.34	0.63
1:1G:825:G:H1	1:1G:875:C:H42	1.45	0.63
26:1H:1600:C:H2'	26:1H:1601:G:H8	1.64	0.63
26:1H:2213:U:O2'	26:1H:2215:G:OP1	2.14	0.63
26:1H:2685:G:O6	59:1H:4033:HOH:O	2.16	0.63
26:1H:844:C:H2'	26:1H:845:G:O4'	1.98	0.63
27:1J:104:A:H2'	27:1J:105:G:O4'	1.99	0.63
23:2K:47:7MG:H81	23:2K:48:U:H5	1.62	0.63
38:45:34:LEU:HD11	38:45:129:THR:HB	1.81	0.63
34:69:4:ILE:HG23	34:69:18:VAL:HG22	1.81	0.63
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.63	0.63
51:H5:4:LEU:N	51:H5:37:LEU:O	2.31	0.63
47:H8:8:TYR:HB2	47:H8:38:TYR:CE1	2.33	0.63
52:M8:60:GLN:HB2	52:M8:61:ARG:CZ	2.29	0.63
44:E8:38:TYR:OH	53:N8:47:PRO:HG3	1.99	0.63
55:Q8:30:ARG:CZ	55:Q8:30:ARG:HB2	2.28	0.63
1:13:1238:A:N3	1:13:1241:G:O2'	2.26	0.62
1:1G:877:C:OP1	8:72:88:LYS:NZ	2.27	0.62
26:1H:1298:C:H5"	26:1H:1299:G:OP2	1.98	0.62
26:1H:1678:G:N2	26:1H:1989:G:H22	1.97	0.62
26:1H:192:C:P	59:1H:3624:HOH:O	2.57	0.62
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.33	0.62
33:59:71:LEU:HA	33:59:74:ASN:HB2	1.80	0.62
29:11:206:LEU:HD23	29:11:211:ARG:HG2	1.81	0.62
1:13:157:G:H2'	1:13:158:G:H8	1.63	0.62
26:14:1970:A:OP2	59:14:3472:HOH:O	2.16	0.62
26:14:2104:G:H2'	26:14:2105:C:C6	2.34	0.62
1:1G:1157:A:H8	1:1G:1158:C:C5	2.17	0.62
1:1G:1057:G:H1	1:1G:1203:C:H42	1.45	0.62
1:1G:373:A:H2'	1:1G:374:A:H8	1.62	0.62
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.42	0.62
26:1H:470:A:OP1	59:1H:3698:HOH:O	2.16	0.62
11:2I:99:GLN:HG2	11:2I:105:VAL:HG11	1.80	0.62
1:1G:619:U:C6	4:32:135:LEU:HD21	2.34	0.62
37:35:37:GLY:O	37:35:39:LYS:N	2.32	0.62
24:3L:33:U:N3	24:3L:36:A:OP2	2.32	0.62
7:62:113:GLU:O	7:62:119:ARG:HD3	1.99	0.62
15:6I:82:ILE:O	15:6I:86:GLY:N	2.32	0.62
41:75:23:ARG:HG3	41:75:120:ARG:NH1	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.34	0.62
20:BI:53:LEU:O	20:BI:57:ARG:NH1	2.32	0.62
49:F5:87:PRO:HA	49:F5:90:ILE:HB	1.81	0.62
1:13:1148:U:H2'	1:13:1149:C:O4'	1.98	0.62
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.34	0.62
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.30	0.62
1:1G:1277:C:HO2'	1:1G:1279:A:H8	1.44	0.62
1:1G:1490:C:H2'	1:1G:1491:G:O4'	1.98	0.62
1:1G:688:G:H2'	1:1G:689:C:H6	1.63	0.62
26:1H:2033:A:OP1	59:1H:4000:HOH:O	2.16	0.62
26:1H:2277:G:OP1	38:88:85:LYS:HB3	1.99	0.62
26:1H:70:G:H21	26:1H:71:A:N6	1.97	0.62
24:3L:20:U:H1'	24:3L:21:A:O5'	1.99	0.62
33:51:4:ILE:HB	33:51:6:ARG:HG3	1.81	0.62
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.14	0.62
26:1H:910:A:C5	38:88:13:GLN:HG3	2.33	0.62
18:9I:66:LEU:O	18:9I:70:ILE:HG13	1.99	0.62
1:13:111:G:H5"	16:7I:27:LYS:HG2	1.81	0.62
26:14:39:C:H2'	26:14:40:C:C6	2.34	0.62
26:14:768:G:O2'	26:14:1379:A:N6	2.32	0.62
1:1G:1055:A:N7	1:1G:1200:C:N4	2.47	0.62
1:1G:448:A:P	1:1G:485:G:H22	2.21	0.62
1:1G:897:C:H2'	1:1G:898:G:H8	1.65	0.62
30:21:104:VAL:HG22	30:21:198:VAL:HG13	1.81	0.62
3:22:183:ASP:HB3	3:22:202:ILE:HG13	1.80	0.62
36:25:89:ASN:N	36:25:89:ASN:OD1	2.32	0.62
26:1H:674:G:H1'	31:31:74:ARG:NE	2.13	0.62
31:39:53:THR:N	31:39:56:GLU:OE1	2.25	0.62
13:4A:34:LEU:O	13:4A:38:GLY:N	2.31	0.62
33:51:125:VAL:HG12	33:51:127:GLU:O	1.99	0.62
28:71:20:TYR:HE2	28:71:222:VAL:HG13	1.64	0.62
8:72:99:GLU:OE2	8:72:100:ILE:N	2.32	0.62
9:8E:48:GLU:HB2	9:8E:78:LYS:HE3	1.81	0.62
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.20	0.62
26:1H:2364:C:H4'	48:I8:56:ASP:OD2	1.99	0.62
1:13:151:A:N6	1:13:171:A:N7	2.47	0.62
1:13:21:G:H2'	1:13:22:G:C8	2.34	0.62
1:13:323:U:H2'	1:13:324:G:O4'	2.00	0.62
1:13:665:A:N3	1:13:732:C:H2'	2.15	0.62
26:14:1024:G:H3'	26:14:1025:G:H5"	1.80	0.62
26:14:1011:G:H1	26:14:1150:C:H42	1.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1327:C:OP2	59:1H:3539:HOH:O	2.16	0.62
26:1H:185:U:H4'	26:1H:218:A:H4'	1.81	0.62
26:1H:2062:A:H62	26:1H:2503:A:H62	1.45	0.62
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.35	0.62
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.30	0.62
37:35:62:LEU:HD12	37:35:63:PRO:HD2	1.82	0.62
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.63	0.62
24:3L:23:A:H2'	24:3L:24:G:C8	2.35	0.62
7:6E:45:ASP:O	7:6E:49:ILE:HG12	1.98	0.62
19:AI:63:THR:OG1	19:AI:64:GLU:N	2.30	0.62
55:Q8:34:TRP:HE1	55:Q8:36:LYS:NZ	1.97	0.62
26:14:1056:G:HO2'	26:14:1103:A:H61	1.47	0.62
26:14:2746:U:OP1	33:59:85:LYS:NZ	2.26	0.62
26:14:38:A:H2'	26:14:39:C:C6	2.35	0.62
1:1G:1289:A:OP1	21:1B:10:ARG:NE	2.32	0.62
1:1G:475:G:OP1	16:7A:81:ARG:NH1	2.30	0.62
26:1H:1417:C:N3	26:1H:1581:G:N2	2.35	0.62
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.00	0.62
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.31	0.62
39:55:78:LYS:O	39:55:83:ILE:HG13	1.99	0.62
33:59:117:PRO:HB3	33:59:121:ILE:HB	1.82	0.62
34:61:79:ILE:HD11	34:61:100:ALA:HB1	1.82	0.62
1:13:255:G:H4'	17:8I:17:LYS:HD2	1.81	0.62
55:Q8:27:THR:O	55:Q8:29:LYS:HA	1.99	0.62
1:13:1298:C:OP2	7:6E:114:ARG:NH2	2.27	0.62
26:14:566:U:H5"	37:35:29:LYS:HE3	1.82	0.62
26:14:601:C:O2	26:14:605:C:H4'	1.99	0.62
1:1G:1246:C:O2	1:1G:1291:G:N2	2.26	0.62
26:1H:1010:A:OP2	59:1H:4112:HOH:O	2.16	0.62
26:1H:1169:G:H1	26:1H:1180:C:H42	1.48	0.62
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.64	0.62
26:1H:1729:A:C6	26:1H:1731:G:C2	2.87	0.62
32:49:6:ALA:O	32:49:10:LYS:N	2.21	0.62
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.63	0.62
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.33	0.62
38:88:20:ALA:HB3	47:H8:79:ARG:CZ	2.30	0.62
38:88:17:LEU:HD21	38:88:96:VAL:HG12	1.81	0.62
44:A5:67:ASP:N	44:A5:67:ASP:OD1	2.33	0.62
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.81	0.62
48:E5:38:VAL:HG12	48:E5:40:GLN:HG2	1.81	0.62
55:Q8:23:VAL:HG13	55:Q8:46:ARG:HG3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.28	0.62
26:14:1005:C:O2'	35:15:28:THR:HG21	1.99	0.62
26:14:1434:A:H61	26:14:1558:A:H62	1.46	0.62
26:14:270(K):C:O2	26:14:270(N):G:N2	2.26	0.62
1:1G:539:A:H2'	1:1G:540:G:C8	2.34	0.62
1:1G:540:G:H2'	1:1G:541:G:O4'	2.00	0.62
1:1G:843:U:H3'	1:1G:848:C:O4'	2.00	0.62
26:1H:2591:C:H2'	26:1H:2592:G:H8	1.64	0.62
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.25	0.62
27:1J:103:U:O2'	47:D5:29:TYR:OH	2.15	0.62
27:1J:2:C:H2'	27:1J:3:C:C6	2.34	0.62
30:29:116:VAL:HG23	30:29:120:TRP:HB2	1.80	0.62
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.81	0.62
31:39:24:LEU:HD13	31:39:25:PRO:HD2	1.81	0.62
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.65	0.62
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.33	0.62
45:F8:55:ASN:HB2	45:F8:80:ILE:HG13	1.82	0.62
45:F8:5:TYR:CZ	50:K8:30:ARG:HB2	2.35	0.62
29:11:223:GLY:HA3	29:11:231:HIS:CE1	2.35	0.62
1:13:21:G:H2'	1:13:22:G:H8	1.65	0.62
26:14:849:A:H2	51:H5:24:LYS:HB3	1.65	0.62
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.00	0.62
1:1G:872:A:O2'	1:1G:873:A:H5"	2.00	0.62
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.35	0.62
26:1H:1858:G:H2'	26:1H:1883:G:N2	2.15	0.62
26:1H:2127:G:H22	26:1H:2162:G:H1'	1.65	0.62
26:1H:2404:C:OP2	59:1H:4167:HOH:O	2.16	0.62
26:1H:520:G:H2'	26:1H:521:G:C8	2.35	0.62
30:21:119:ARG:HD2	30:21:120:TRP:CE2	2.35	0.62
31:31:12:LEU:O	31:31:127:GLU:N	2.32	0.62
38:45:110:THR:HG23	38:45:113:GLN:HB2	1.82	0.62
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.64	0.62
17:8A:57:VAL:HG12	17:8A:76:LEU:HA	1.81	0.62
17:8I:55:ASP:HB3	17:8I:57:VAL:HG13	1.81	0.62
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.64	0.62
44:E8:57:ASN:HA	44:E8:61:ASN:HD22	1.65	0.62
26:14:2103:C:H2'	26:14:2104:G:C8	2.34	0.62
26:14:2736:G:H1	26:14:2768:C:H42	1.47	0.62
26:14:29:U:H2'	26:14:30:G:C8	2.34	0.62
1:1G:1342:C:H2'	1:1G:1343:G:H8	1.65	0.62
1:1G:17:U:H2'	1:1G:18:C:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1213:A:N3	26:1H:1238:G:O2'	2.32	0.62
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.34	0.62
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.82	0.62
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.33	0.62
26:1H:582:G:H1	26:1H:1258:C:H42	1.47	0.62
3:22:45:LYS:HG3	3:22:46:GLU:HG2	1.82	0.62
24:3K:46:7MG:H4'	24:3K:47:U:OP1	1.99	0.62
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.81	0.62
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.80	0.62
15:6A:76:GLU:HA	15:6A:79:ARG:HD2	1.80	0.62
41:B8:16:ARG:HH21	41:B8:19:LEU:HD21	1.64	0.62
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.82	0.62
26:1H:1252:G:O4'	42:C8:33:ARG:HD3	2.00	0.62
52:I5:34:GLU:HG2	52:I5:35:VAL:H	1.65	0.62
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.82	0.61
1:1G:408:A:H2'	1:1G:409:G:O4'	1.99	0.61
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.64	0.61
26:1H:557:U:H2'	26:1H:558:G:C8	2.34	0.61
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.81	0.61
24:3K:24:G:H2'	24:3K:25:C:C6	2.35	0.61
46:G8:20:TYR:CE1	46:G8:43:ASN:HA	2.35	0.61
1:13:1124:G:HO2'	1:13:1145:C:N4	1.98	0.61
1:13:142:G:H2'	1:13:143:A:C8	2.34	0.61
1:13:736:C:H2'	1:13:737:A:H8	1.64	0.61
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.64	0.61
26:14:1568:G:P	29:19:63:ARG:HH12	2.22	0.61
26:1H:1255:U:O2	59:1H:4188:HOH:O	2.12	0.61
26:1H:1990:C:OP2	59:1H:4024:HOH:O	2.15	0.61
26:1H:205:G:O6	49:J8:39:LYS:NZ	2.33	0.61
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.65	0.61
26:1H:804:A:H5"	26:1H:805:G:OP1	1.99	0.61
30:21:70:ALA:O	30:21:73:GLU:N	2.33	0.61
4:32:108:LEU:HD13	4:32:174:LEU:HD22	1.82	0.61
4:32:24:GLU:OE2	4:32:24:GLU:N	2.32	0.61
5:42:121:LYS:NZ	5:42:122:GLU:O	2.33	0.61
35:58:45:ASN:N	35:58:45:ASN:OD1	2.33	0.61
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.65	0.61
9:82:17:VAL:HG13	9:82:63:ILE:HD11	1.81	0.61
38:88:81:VAL:O	38:88:82:ARG:HB2	1.98	0.61
44:A5:14:PRO:HG2	44:A5:78:GLU:HG3	1.82	0.61
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1542:G:H3'	26:14:1543:A:H5"	1.81	0.61
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.35	0.61
1:1G:60:A:N6	1:1G:110:C:N3	2.49	0.61
26:1H:1309:G:OP1	59:1H:3778:HOH:O	2.16	0.61
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.64	0.61
26:1H:529:A:H8	26:1H:530:G:C6	2.18	0.61
26:1H:869:G:H1	26:1H:908:C:H42	1.46	0.61
3:22:74:GLY:HA2	3:22:77:ILE:HD12	1.82	0.61
30:29:8:LYS:HB3	30:29:193:GLY:N	2.14	0.61
30:29:8:LYS:HG2	30:29:192:ASN:HA	1.83	0.61
12:3A:84:LEU:HD23	12:3A:105:TYR:HE2	1.65	0.61
12:3I:90:VAL:O	12:3I:91:LYS:HB3	1.98	0.61
24:3L:27:G:H2'	24:3L:28:G:C8	2.34	0.61
27:1J:90:C:P	38:45:16:ARG:HH21	2.23	0.61
13:4A:84:ILE:C	13:4A:86:CYS:H	2.03	0.61
5:4E:147:ASP:HA	5:4E:150:ARG:HH12	1.66	0.61
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.80	0.61
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.35	0.61
43:95:85:LYS:CD	43:95:86:GLY:H	2.07	0.61
40:A8:38:GLN:HB2	40:A8:47:THR:HG21	1.82	0.61
26:14:851:U:H5'	51:H5:49:LYS:HD2	1.82	0.61
1:13:200:G:N2	1:13:218:C:O2	2.33	0.61
26:14:675:A:OP2	59:14:3874:HOH:O	2.16	0.61
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.82	0.61
1:1G:371:G:H1	1:1G:390:C:H42	1.48	0.61
9:8E:128:ARG:HH21	23:2K:36:A:P	2.23	0.61
37:35:101:VAL:HA	37:35:105:LEU:O	2.00	0.61
31:39:7:TYR:HD1	31:39:18:ARG:H	1.49	0.61
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.00	0.61
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.32	0.61
32:49:52:ILE:HD11	32:49:153:ARG:HH12	1.66	0.61
46:C5:63:LYS:HA	46:C5:63:LYS:NZ	2.15	0.61
46:G8:82:PRO:HG3	46:G8:97:ARG:HG3	1.82	0.61
2:12:30:ARG:NH2	2:12:195:ASP:OD2	2.34	0.61
1:13:444:C:H2'	1:13:445:G:C8	2.34	0.61
1:13:563:A:N6	59:13:1833:HOH:O	2.33	0.61
26:14:1688:U:H2'	26:14:1698:A:N6	2.15	0.61
26:14:2121:G:H1	26:14:2177:C:H42	1.48	0.61
26:14:2130:U:H2'	26:14:2158:A:C6	2.35	0.61
1:1G:1255:G:H22	1:1G:1276:G:H22	1.47	0.61
26:1H:51:G:O2'	26:1H:119:A:N1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1530:G:O6	26:1H:1542:G:N2	2.33	0.61
26:1H:331:A:N1	59:1H:3769:HOH:O	2.31	0.61
26:1H:69:C:H2'	26:1H:70:G:C8	2.35	0.61
27:1J:56:G:H4'	27:1J:57:A:C8	2.36	0.61
26:1H:2773:C:H5"	30:21:164:ARG:HG2	1.82	0.61
23:2K:63:C:H2'	23:2K:64:G:H8	1.65	0.61
12:3I:82:VAL:HG12	12:3I:106:ASP:OD2	2.01	0.61
1:1G:922:G:H4'	5:42:20:GLN:HA	1.81	0.61
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.65	0.61
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.34	0.61
46:C5:87:LYS:CG	46:C5:88:LYS:H	2.14	0.61
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.81	0.61
1:13:17:U:H2'	1:13:18:C:C6	2.35	0.61
1:13:426:G:H2'	1:13:427:U:C6	2.36	0.61
1:13:600:C:H2'	1:13:601:C:C6	2.35	0.61
26:14:1754:C:H2'	26:14:1755:A:C8	2.35	0.61
1:1G:1053:G:O6	1:1G:1199:U:H2'	1.99	0.61
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.83	0.61
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.01	0.61
26:1H:449:A:N7	59:1H:3832:HOH:O	2.31	0.61
26:1H:731:C:OP1	59:1H:3753:HOH:O	2.16	0.61
30:29:29:GLY:H	30:29:51:PHE:HE1	1.47	0.61
23:2K:21:U:O2	23:2K:21:U:H2'	2.00	0.61
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.35	0.61
26:14:943:U:OP2	37:35:36:LYS:HG3	2.00	0.61
4:3E:115:ARG:NH2	59:3E:402:HOH:O	2.33	0.61
32:49:125:PHE:CD1	32:49:166:ASP:HB2	2.36	0.61
32:49:57:ALA:HA	32:49:90:LEU:HD21	1.83	0.61
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.35	0.61
43:95:38:LEU:HB3	43:95:52:VAL:HB	1.83	0.61
19:AI:78:ARG:HD2	19:AI:78:ARG:C	2.21	0.61
48:E5:64:ASP:OD1	48:E5:64:ASP:N	2.33	0.61
26:14:2674:G:H2'	26:14:2675:A:C8	2.36	0.61
26:14:360:G:H2'	26:14:361:G:H8	1.66	0.61
35:15:10:GLU:HG3	35:15:11:PRO:HD2	1.81	0.61
29:19:69:ARG:NH2	29:19:128:GLY:O	2.33	0.61
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.35	0.61
26:1H:363(A):A:H2'	26:1H:363(B):G:C8	2.36	0.61
37:78:98:GLU:O	37:78:101:VAL:HG13	2.01	0.61
16:7A:14:ASN:OD1	16:7A:16:HIS:NE2	2.34	0.61
9:82:121:ARG:NH1	9:82:122:ALA:O	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:80:SER:HB3	41:B8:83:ILE:HG13	1.81	0.61
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.33	0.61
29:11:267:SER:HA	29:11:270:ILE:HD12	1.81	0.61
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.00	0.61
26:14:2105:C:H2'	26:14:2106:G:O4'	2.01	0.61
26:14:2638:G:O2'	26:14:2639:A:O5'	2.17	0.61
27:16:112:G:H2'	27:16:113:C:C6	2.36	0.61
2:1E:219:VAL:HA	2:1E:222:ILE:HD12	1.82	0.61
26:1H:2186:G:H2'	26:1H:2187:G:H8	1.66	0.61
26:1H:673:C:H5"	31:31:81:PRO:HD2	1.83	0.61
34:61:8:PRO:HA	34:61:14:ASP:HA	1.82	0.61
30:29:18:ASP:HB3	41:75:82:LEU:HD11	1.83	0.61
52:I5:16:CYS:HA	52:I5:33:VAL:HG13	1.82	0.61
29:11:147:LEU:HD13	29:11:155:LEU:HD21	1.82	0.61
26:14:1688:U:O2	26:14:1700:A:H5'	2.01	0.61
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.66	0.61
26:14:877:U:O4	26:14:899:A:N6	2.34	0.61
26:14:981:A:H8	26:14:982:C:C5	2.18	0.61
35:15:66:LYS:O	35:15:87:LEU:HD12	2.01	0.61
1:1G:559:A:H4'	1:1G:560:U:C5'	2.31	0.61
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.83	0.61
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.34	0.61
37:78:100:LEU:HD12	37:78:105:LEU:HD13	1.83	0.61
19:AA:41:VAL:HG22	19:AA:42:PRO:HD2	1.82	0.61
47:D5:58:VAL:HG12	47:D5:60:GLU:HB3	1.82	0.61
43:D8:17:GLY:N	43:D8:96:ILE:O	2.26	0.61
50:G5:52:ASP:N	50:G5:52:ASP:OD1	2.32	0.61
26:14:141:A:C8	26:14:1408:C:H1'	2.35	0.61
26:14:2114:A:N6	26:14:2119:A:N7	2.49	0.61
26:14:2298:A:H1'	26:14:2321:G:N2	2.15	0.61
26:14:2393:A:H4'	37:35:62:LEU:N	2.13	0.61
26:14:93:C:H5'	26:14:94:G:OP2	2.01	0.61
1:1G:735:C:H2'	1:1G:736:C:H6	1.66	0.61
26:1H:248:G:H5'	26:1H:250:G:N7	2.16	0.61
3:22:139:GLN:NE2	3:22:142:MET:SD	2.73	0.61
8:7E:10:LEU:HB3	8:7E:83:ILE:HD11	1.83	0.61
1:13:1505:G:P	59:13:1804:HOH:O	2.57	0.60
1:13:651:C:H2'	1:13:652:U:C6	2.36	0.60
26:1H:676:A:H8	26:1H:2069:G:H21	1.48	0.60
26:1H:2131:G:C5'	26:1H:2133:G:H4'	2.31	0.60
26:1H:2685:G:C5	59:1H:4036:HOH:O	2.53	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.83	0.60
4:32:24:GLU:HG2	4:32:25:ARG:H	1.65	0.60
5:42:121:LYS:HZ2	5:42:123:LEU:HD23	1.65	0.60
40:A8:14:VAL:HG21	40:A8:89:ARG:HE	1.64	0.60
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.01	0.60
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.66	0.60
26:14:710:G:H2'	26:14:711:G:C8	2.35	0.60
26:14:833:U:O2	37:35:55:ARG:NH1	2.34	0.60
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.36	0.60
26:1H:69:C:H2'	26:1H:70:G:H8	1.66	0.60
22:1K:31:G:H2'	22:1K:32:G:H8	1.66	0.60
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.01	0.60
35:58:15:LEU:HB2	35:58:134:ARG:HB3	1.83	0.60
33:59:152:ARG:HG3	33:59:153:LYS:HB2	1.83	0.60
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.83	0.60
34:61:2:LYS:HA	34:61:20:ASP:HB2	1.83	0.60
7:6E:62:PHE:HD2	7:6E:124:LEU:HD11	1.66	0.60
1:13:1378:C:O2	7:6E:76:ARG:NH1	2.34	0.60
41:75:26:ASP:O	41:75:49:VAL:HG22	2.01	0.60
9:82:102:LEU:O	9:82:103:THR:OG1	2.20	0.60
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.00	0.60
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.66	0.60
47:D5:136:PHE:O	47:D5:137:ILE:HG13	2.01	0.60
52:I5:49:PHE:HD2	52:I5:50:VAL:HG22	1.65	0.60
1:13:443:C:H2'	1:13:444:C:H6	1.65	0.60
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.34	0.60
1:13:806:C:H2'	1:13:807:A:C8	2.32	0.60
26:14:1041:C:H42	26:14:1114:G:H1	1.49	0.60
26:14:2602:A:H4'	26:14:2603:G:O5'	2.00	0.60
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.34	0.60
26:14:468:G:H5"	26:14:469:G:OP2	2.01	0.60
1:1G:972:C:O2'	10:1A:55:LYS:HB3	2.01	0.60
1:1G:19:C:H1'	1:1G:917:G:N2	2.16	0.60
1:1G:409:G:N7	59:1G:1725:HOH:O	2.32	0.60
1:1G:939:G:H21	1:1G:1375:A:H2	1.49	0.60
26:1H:2653:U:OP2	26:1H:2654:A:O2'	2.14	0.60
26:1H:588:U:H2'	26:1H:589:C:C6	2.37	0.60
26:1H:654(E):C:O2	26:1H:654(P):G:N2	2.35	0.60
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.84	0.60
32:49:25:TYR:OH	32:49:168:GLU:OE2	2.18	0.60
26:14:2745:C:O2	33:59:139:GLN:NE2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:34:GLY:HA3	6:5E:71:ARG:HH21	1.67	0.60
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.82	0.60
52:M8:38:LYS:O	52:M8:39:CYS:HB3	2.00	0.60
52:M8:60:GLN:OE1	52:M8:61:ARG:NH1	2.34	0.60
26:14:1138:G:C2	26:14:1139:G:H1'	2.36	0.60
26:14:2095:C:H2'	26:14:2096:U:O4'	2.02	0.60
26:14:287:C:H2'	26:14:288:C:H6	1.65	0.60
26:14:34:C:O2'	26:14:35:G:OP1	2.16	0.60
26:14:718:A:H3'	26:14:719:C:H6	1.66	0.60
1:1G:1262:C:H2'	1:1G:1263:C:C6	2.35	0.60
1:1G:601:C:H42	1:1G:637:G:H1	1.48	0.60
1:1G:818:G:N2	1:1G:873:A:OP1	2.35	0.60
13:4I:94:ARG:HH22	26:1H:887:A:H3'	1.67	0.60
4:32:172:PRO:HB2	4:32:187:ARG:NH1	2.17	0.60
1:1G:8:A:N6	4:32:209:ARG:HB2	2.16	0.60
13:4I:17:VAL:O	13:4I:20:THR:OG1	2.15	0.60
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.83	0.60
38:88:59:ARG:HH11	38:88:59:ARG:N	1.99	0.60
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.66	0.60
55:Q8:59:LYS:HD2	55:Q8:59:LYS:H	1.65	0.60
26:14:1168:G:H22	26:14:1182:A:H1'	1.67	0.60
26:14:2335:A:C8	26:14:2337:G:C5	2.89	0.60
26:14:2391:G:O6	26:14:2425:A:H8	1.85	0.60
2:1E:76:GLN:NE2	2:1E:207:ALA:H	2.00	0.60
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.18	0.60
1:1G:1355:G:H2'	1:1G:1356:G:C8	2.37	0.60
1:1G:144:G:H1	1:1G:178:C:H42	1.49	0.60
26:1H:1658:C:OP1	59:1H:4413:HOH:O	2.16	0.60
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.65	0.60
26:1H:619:G:H3'	26:1H:620:G:N2	2.16	0.60
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.82	0.60
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.82	0.60
12:3I:86:ARG:HB2	12:3I:101:VAL:HG22	1.83	0.60
32:49:83:ARG:HG2	32:49:86:MET:HE3	1.83	0.60
33:51:86:GLU:HG3	33:51:165:ALA:N	2.15	0.60
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.00	0.60
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.84	0.60
8:72:114:THR:HG21	8:72:119:LEU:HG	1.83	0.60
9:82:117:HIS:O	9:82:118:LYS:HB2	2.02	0.60
9:82:24:GLY:HA2	9:82:59:PHE:O	2.00	0.60
41:B8:26:ASP:OD2	41:B8:120:ARG:NH1	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:27:THR:HG23	55:Q8:31:HIS:NE2	2.16	0.60
2:12:221:LEU:HA	2:12:224:GLN:HB3	1.83	0.60
1:13:260:G:H2'	1:13:261:U:C6	2.36	0.60
1:13:625:G:H5'	16:7I:10:GLY:HA2	1.82	0.60
26:14:747:U:OP1	53:J5:3:LYS:HD3	2.00	0.60
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.83	0.60
1:1G:865:A:N3	1:1G:918:A:O2'	2.29	0.60
26:1H:1249:U:OP1	59:1H:3824:HOH:O	2.16	0.60
26:1H:404:C:O2'	26:1H:405:U:OP2	2.14	0.60
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.02	0.60
36:25:4:PRO:O	36:25:5:GLN:HB2	2.00	0.60
26:14:2392:A:H1'	37:35:61:ARG:NH2	2.16	0.60
38:45:43:THR:HB	38:45:45:GLN:HG2	1.83	0.60
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.01	0.60
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.31	0.60
53:J5:46:CYS:SG	53:J5:48:GLU:HG2	2.41	0.60
1:13:279:A:H4'	1:13:280:C:H5"	1.84	0.60
1:13:595:G:N1	1:13:641:U:O2'	2.31	0.60
1:13:717:C:H5"	1:13:717:C:H6	1.66	0.60
26:14:2836:U:H2'	26:14:2837:G:C8	2.37	0.60
1:1G:1129:C:N3	1:1G:1143:G:N2	2.49	0.60
1:1G:1134:G:H2'	1:1G:1135:U:O4'	2.01	0.60
1:1G:749:C:H2'	1:1G:750:G:H8	1.66	0.60
26:1H:1269:A:OP2	59:1H:4357:HOH:O	2.15	0.60
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.19	0.60
26:1H:192:C:OP2	59:1H:3624:HOH:O	2.16	0.60
26:1H:2830:G:H8	26:1H:2830:G:H5"	1.65	0.60
26:1H:520:G:H2'	26:1H:521:G:H8	1.66	0.60
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.02	0.60
4:32:88:VAL:HG22	5:42:96:PRO:HB2	1.83	0.60
31:39:179:GLU:O	31:39:205:ARG:NH2	2.28	0.60
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.14	0.60
43:95:70:ILE:N	43:95:86:GLY:O	2.27	0.60
26:1H:2378:A:H2'	40:A8:21:THR:HG21	1.84	0.60
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.01	0.60
26:1H:2591:C:P	29:11:239:ARG:HG3	2.41	0.60
26:14:329:G:H8	26:14:329:G:OP1	1.85	0.60
1:1G:22:G:H2'	1:1G:23:C:C6	2.37	0.60
1:1G:456:C:N4	1:1G:476:G:H1	1.99	0.60
26:1H:1036:G:H1	26:1H:1119:C:H42	1.50	0.60
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:564:C:H2'	26:1H:565:C:H6	1.65	0.60
26:1H:897:C:H3'	26:1H:898:C:H5"	1.83	0.60
26:1H:950:G:H2'	26:1H:951:C:C6	2.37	0.60
27:1J:101:A:OP2	27:1J:101:A:H8	1.84	0.60
26:14:2831:G:OP1	30:29:58:ARG:NH1	2.31	0.60
3:2E:19:GLU:HG3	3:2E:54:ARG:CZ	2.32	0.60
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.37	0.60
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.83	0.60
12:3I:8:ASN:O	12:3I:11:VAL:HG23	2.02	0.60
7:6E:15:ASP:OD2	7:6E:18:TYR:N	2.35	0.60
37:78:16:ARG:HG2	37:78:17:LYS:N	2.17	0.60
8:7E:81:HIS:N	8:7E:138:TRP:O	2.31	0.60
44:A5:23:LEU:HD11	53:J5:27:PRO:HB3	1.82	0.60
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.34	0.60
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.84	0.60
44:E8:12:ILE:HG13	44:E8:42:ARG:NH1	2.16	0.60
26:14:2056:G:O3'	53:J5:8:LYS:NZ	2.35	0.60
55:M5:52:LYS:NZ	55:M5:53:PRO:HA	2.17	0.60
1:13:1139:G:H4'	1:13:1140:C:H5'	1.82	0.60
1:13:235:C:H2'	1:13:236:G:H8	1.67	0.60
26:14:1486:A:H2'	26:14:1487:G:H8	1.67	0.60
26:14:1999:C:H4'	26:14:2723:C:O2	2.01	0.60
26:14:605:C:O2	26:14:657:U:O2'	2.20	0.60
2:1E:69:LEU:HB3	2:1E:162:ILE:HG22	1.83	0.60
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.83	0.60
1:1G:1095:U:P	1:1G:1108:G:H1	2.24	0.60
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.34	0.60
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.34	0.60
27:1J:64:C:H2'	27:1J:65:C:C6	2.36	0.60
31:31:7:TYR:O	31:31:22:ALA:N	2.33	0.60
32:41:161:THR:HG23	32:41:163:ALA:H	1.66	0.60
6:52:39:LYS:HE2	6:52:62:TRP:HZ3	1.67	0.60
35:58:56:ASN:N	35:58:125:GLY:O	2.25	0.60
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.82	0.60
26:14:1251:C:OP1	42:85:10:ARG:HG3	2.01	0.60
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.83	0.60
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.82	0.60
42:C8:62:ILE:HG23	42:C8:76:TYR:CE2	2.37	0.60
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.82	0.60
26:14:120:U:OP2	59:14:3927:HOH:O	2.16	0.60
26:14:2762:G:H5'	26:14:2763:G:OP2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:801:U:H2'	1:1G:802:A:C8	2.37	0.60
26:1H:2059:A:OP2	59:1H:4186:HOH:O	2.16	0.60
26:1H:602:G:N2	26:1H:655:A:C8	2.67	0.60
26:1H:792:G:H5"	26:1H:793:A:H5'	1.82	0.60
22:1K:52:C:O2	22:1K:65:G:N2	2.34	0.60
4:32:31:CYS:SG	4:32:33:MET:HB2	2.42	0.60
26:14:2358:G:H22	37:35:55:ARG:HH22	1.50	0.60
27:16:42:C:O2'	32:41:67:LYS:O	2.12	0.60
32:49:55:LYS:O	32:49:59:GLU:HB3	2.01	0.60
13:4I:11:ARG:HG3	13:4I:12:ASN:N	2.16	0.60
14:5I:13:THR:HG23	14:5I:20:ALA:HB2	1.84	0.60
19:AA:37:ARG:O	19:AA:70:LYS:NZ	2.26	0.60
41:B8:102:ILE:HA	41:B8:105:LEU:HD22	1.84	0.60
51:H5:7:LYS:HE2	51:H5:32:GLN:HG3	1.84	0.60
1:13:262:A:H2'	1:13:263:A:C8	2.37	0.59
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.37	0.59
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.34	0.59
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.37	0.59
1:1G:1422:G:H2'	1:1G:1423:G:H8	1.67	0.59
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.36	0.59
1:1G:581:G:H8	1:1G:581:G:O5'	1.85	0.59
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.36	0.59
22:1K:6:G:H1	22:1K:68:C:H42	1.49	0.59
3:22:14:ILE:HG12	3:22:15:THR:H	1.67	0.59
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.84	0.59
24:3L:66:U:H2'	24:3L:67:C:O4'	2.02	0.59
24:3L:76:A:N1	26:14:2421:G:H2'	2.17	0.59
33:51:4:ILE:HG13	33:51:6:ARG:NE	2.17	0.59
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.83	0.59
27:16:116:G:H5"	40:A8:55:ALA:HB2	1.83	0.59
26:14:2331:G:O3'	48:E5:43:THR:HG22	2.02	0.59
1:13:1434:A:H2'	1:13:1435:G:O4'	2.03	0.59
1:13:524:G:H2'	1:13:525:C:C6	2.37	0.59
1:13:868:C:H2'	1:13:869:G:O4'	2.01	0.59
26:14:1473:G:H1	26:14:1520:U:H3	1.50	0.59
26:14:34:C:HO2'	26:14:35:G:P	2.24	0.59
26:14:649:G:H2'	26:14:650:C:C6	2.37	0.59
26:14:710:G:H2'	26:14:711:G:H8	1.65	0.59
27:16:6:C:H2'	27:16:7:G:H5"	1.83	0.59
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.66	0.59
1:1G:199:G:H2'	1:1G:200:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1062:G:N2	26:1H:1076:C:O2	2.36	0.59
26:1H:26:G:C6	26:1H:27:G:N1	2.69	0.59
30:21:118:LYS:O	30:21:118:LYS:HG2	2.01	0.59
30:29:171:GLU:HB3	30:29:185:LYS:HG3	1.83	0.59
26:14:2831:G:P	30:29:58:ARG:HH11	2.25	0.59
37:35:34:GLY:O	37:35:36:LYS:HB2	2.02	0.59
24:3L:5:G:O2'	24:3L:69:G:N2	2.35	0.59
5:42:67:VAL:HB	5:42:140:ARG:HH21	1.68	0.59
32:49:125:PHE:HD1	32:49:166:ASP:HB2	1.67	0.59
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.03	0.59
7:62:37:ASN:ND2	9:82:39:GLY:O	2.35	0.59
45:B5:65:ARG:HB3	45:B5:70:LEU:HB3	1.84	0.59
47:D5:40:ASP:HB3	47:D5:43:GLU:HG3	1.83	0.59
13:4I:65:LYS:HZ1	52:M8:52:THR:HG22	1.65	0.59
1:13:1194:U:H2'	1:13:1195:C:C6	2.37	0.59
1:13:127:G:O2'	17:8I:2:PRO:O	2.19	0.59
1:13:376:G:H2'	1:13:377:G:H8	1.66	0.59
26:14:1337:G:H2'	26:14:1338:G:C8	2.33	0.59
1:1G:21:G:OP1	59:1G:1742:HOH:O	2.17	0.59
26:1H:607:U:OP1	31:31:102:PRO:HA	2.02	0.59
26:1H:816:C:OP2	59:1H:3819:HOH:O	2.16	0.59
1:1G:1108:G:H5'	3:22:176:HIS:ND1	2.16	0.59
11:2A:34:ASP:HB2	11:2A:35:PRO:HD2	1.83	0.59
23:2K:63:C:H2'	23:2K:64:G:C8	2.38	0.59
26:14:2250:G:C5	38:45:82:ARG:HG3	2.37	0.59
13:4A:68:GLY:HA3	32:49:116:ASP:OD1	2.02	0.59
39:55:3:HIS:ND1	59:55:303:HOH:O	2.28	0.59
33:59:92:ILE:HD11	33:59:160:LYS:HZ2	1.67	0.59
40:65:10:ARG:O	40:65:14:VAL:HG22	2.01	0.59
41:75:4:GLY:O	41:75:7:ILE:N	2.34	0.59
37:78:96:THR:H	37:78:99:LEU:HD21	1.66	0.59
48:I8:14:ARG:NH1	59:I8:205:HOH:O	2.10	0.59
1:13:920:U:H2'	1:13:921:U:C6	2.37	0.59
26:14:2517:C:O2'	26:14:2519:U:H5	1.84	0.59
26:14:2520:C:H2'	26:14:2521:C:H6	1.67	0.59
26:14:2778:A:H5"	26:14:2778:A:H8	1.67	0.59
26:14:273(C):C:H42	26:14:363(C):G:H1	1.51	0.59
26:14:690:G:O2'	29:19:43:ARG:NH2	2.35	0.59
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.37	0.59
26:1H:2111:C:H2'	26:1H:2118:U:H4'	1.85	0.59
26:1H:2126:A:N1	26:1H:2162:G:N2	2.44	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2562:U:H1'	36:68:23:ARG:HD3	1.84	0.59
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.55	0.59
26:1H:277:C:H3'	26:1H:278:A:O4'	2.02	0.59
26:1H:581:C:H2'	26:1H:582:G:C8	2.37	0.59
30:21:4:ILE:HG12	30:21:28:ALA:HB1	1.84	0.59
30:29:201:THR:HG22	30:29:202:LYS:H	1.67	0.59
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.84	0.59
4:32:110:PHE:H	4:32:110:PHE:HD1	1.50	0.59
32:49:61:ALA:HB2	32:49:68:PRO:HD3	1.84	0.59
13:4A:78:ILE:HA	13:4A:81:LEU:HD12	1.84	0.59
6:5E:18:GLN:HA	6:5E:21:LEU:HD13	1.84	0.59
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.20	0.59
7:6E:63:LYS:O	7:6E:66:VAL:HG12	2.01	0.59
41:75:120:ARG:O	41:75:124:ASP:HB3	2.02	0.59
16:7A:11:SER:O	16:7A:14:ASN:N	2.35	0.59
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.67	0.59
39:98:79:LEU:HD23	39:98:83:ILE:HB	1.83	0.59
45:F8:3:THR:CB	45:F8:6:ASP:HB2	2.31	0.59
26:14:2015:A:N3	53:J5:2:ALA:N	2.51	0.59
29:11:182:LEU:N	29:11:272:ALA:HB3	2.18	0.59
26:14:563:G:OP2	59:14:3930:HOH:O	2.17	0.59
26:14:854:G:H2'	26:14:855:G:H8	1.67	0.59
10:1A:48:THR:CA	10:1A:62:HIS:HB3	2.29	0.59
1:1G:1320:C:H1'	19:AA:73:GLU:HG2	1.84	0.59
1:1G:561:U:O2'	1:1G:562:C:OP2	2.19	0.59
1:1G:841:U:O2'	1:1G:842:C:H5"	2.02	0.59
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.68	0.59
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.37	0.59
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.67	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.86	0.59
10:1I:15:THR:O	10:1I:19:SER:OG	2.14	0.59
27:1J:24:G:H4'	27:1J:25:A:C8	2.37	0.59
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.35	0.59
5:4E:109:ILE:HG22	5:4E:110:LEU:HD23	1.84	0.59
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.36	0.59
9:8E:86:VAL:O	9:8E:90:PRO:HB3	2.02	0.59
26:1H:64:A:C4	45:F8:66:LEU:HD22	2.37	0.59
47:H8:30:ASN:OD1	47:H8:33:LEU:N	2.34	0.59
26:1H:782:A:C2	29:11:226:MET:HG2	2.38	0.59
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.83	0.59
1:13:1366:C:H2'	1:13:1367:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1505:G:H5'	59:13:1801:HOH:O	2.02	0.59
1:13:630:G:H2'	1:13:631:G:O4'	2.03	0.59
26:14:1313:U:H4'	26:14:1332:G:H4'	1.84	0.59
26:14:1425:G:H2'	26:14:1426:G:C8	2.38	0.59
26:14:1590:U:H2'	26:14:1591:G:C8	2.37	0.59
26:14:1992:G:OP2	59:14:3515:HOH:O	2.17	0.59
26:14:2529:G:P	26:14:2529:G:H21	2.25	0.59
26:14:259:G:O2'	26:14:621:A:O2'	2.20	0.59
22:1K:56:U:N3	22:1K:59:A:OP2	2.35	0.59
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.37	0.59
38:45:79:LEU:H	38:45:80:GLU:HG2	1.66	0.59
5:4E:84:PHE:HB2	5:4E:134:ALA:HB2	1.84	0.59
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.85	0.59
26:1H:2329:G:H21	48:I8:41:ARG:HG3	1.67	0.59
26:14:1592:C:H2'	26:14:1593:G:C8	2.34	0.59
26:14:2392:A:H8	37:35:61:ARG:HD2	1.67	0.59
26:14:2738:A:H61	26:14:2766:G:H1	1.49	0.59
26:14:592:G:H1	26:14:665:C:N4	2.01	0.59
26:14:922:U:H2'	26:14:923:C:C6	2.38	0.59
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.37	0.59
1:1G:942:G:H21	9:82:124:GLN:NE2	2.00	0.59
26:1H:1069:A:O2'	26:1H:1072:C:OP2	2.20	0.59
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.20	0.59
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.02	0.59
26:1H:2815:C:O2'	53:N8:42:PRO:HG2	2.03	0.59
26:1H:2730:C:OP1	30:21:101:ARG:NH2	2.36	0.59
31:31:24:LEU:HD21	31:31:114:VAL:HG12	1.85	0.59
4:32:153:ARG:NH1	4:32:181:MET:SD	2.76	0.59
31:39:53:THR:HG22	31:39:56:GLU:CD	2.23	0.59
8:72:45:ILE:HG13	8:72:47:GLY:H	1.66	0.59
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.17	0.59
51:L8:8:LEU:HA	51:L8:54:VAL:HB	1.83	0.59
1:13:1502:A:H5"	1:13:1504:G:N7	2.18	0.59
26:14:686:G:H5"	54:L5:11:LYS:HZ3	1.66	0.59
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.38	0.59
26:1H:1632:A:OP2	59:1H:4380:HOH:O	2.16	0.59
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.38	0.59
3:2E:95:THR:HB	3:2E:97:LYS:HZ3	1.67	0.59
31:39:122:LYS:HB3	31:39:191:ARG:HB2	1.84	0.59
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.59
38:45:132:VAL:HG21	47:D5:81:ARG:HE	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:82:ARG:HD3	48:E5:83:PRO:HD2	1.83	0.59
26:1H:2360:A:OP1	55:Q8:49:VAL:HB	2.01	0.59
29:11:2:ALA:HA	29:11:20:ASP:HB3	1.84	0.59
1:13:376:G:H2'	1:13:377:G:C8	2.37	0.59
26:14:747:U:C6	53:J5:2:ALA:HB3	2.38	0.59
1:1G:412:A:O2'	1:1G:413:G:OP2	2.18	0.59
1:1G:636:U:H2'	1:1G:637:G:H8	1.68	0.59
26:1H:568:U:O4	59:1H:3809:HOH:O	2.15	0.59
36:25:22:ILE:HB	36:25:41:ALA:HA	1.84	0.59
26:1H:321:G:OP2	31:31:135:LYS:HG3	2.03	0.59
37:35:31:ALA:O	37:35:32:THR:OG1	2.21	0.59
5:42:41:VAL:O	5:42:67:VAL:HG12	2.02	0.59
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.37	0.59
39:98:37:THR:OG1	39:98:40:LYS:HE3	2.03	0.59
20:BA:43:LEU:HD13	20:BA:51:GLU:HG3	1.84	0.59
1:13:1024:G:H4'	1:13:1024:G:OP1	2.02	0.59
1:13:1423:G:P	36:68:49:ARG:HH22	2.25	0.59
26:14:1093:G:H1	26:14:1097:U:H5"	1.68	0.59
26:14:288:C:H2'	26:14:289:A:C8	2.38	0.59
1:1G:409:G:O6	1:1G:433:C:N4	2.35	0.59
26:1H:2309:A:C5	26:1H:2310:A:C8	2.91	0.59
1:13:963:G:H21	10:1I:55:LYS:CE	2.14	0.59
30:21:101:ARG:O	30:21:201:THR:OG1	2.20	0.59
30:21:67:PHE:O	30:21:69:LYS:HE2	2.03	0.59
36:25:17:ARG:HB3	36:25:18:LYS:HD2	1.84	0.59
3:2E:130:VAL:O	3:2E:134:ILE:HG13	2.03	0.59
3:2E:79:ARG:NH1	18:9A:87:ARG:HH12	2.01	0.59
37:35:3:LEU:HD12	37:35:3:LEU:H	1.67	0.59
34:61:124:GLY:H	34:61:142:VAL:HG23	1.68	0.59
37:78:85:LEU:HA	37:78:88:LEU:HD22	1.84	0.59
8:7E:1:MET:SD	8:7E:2:LEU:N	2.76	0.59
43:95:67:GLY:O	43:95:88:ARG:HD2	2.03	0.59
41:B8:50:ILE:HG22	41:B8:51:ARG:HG2	1.85	0.59
52:M8:18:CYS:HB3	52:M8:39:CYS:HB2	1.84	0.59
1:13:1311:G:N2	1:13:1326:C:O2	2.32	0.58
1:13:595:G:H1'	1:13:596:C:H5	1.68	0.58
26:14:2038:G:H2'	26:14:2039:C:C6	2.38	0.58
26:14:2130:U:H2'	26:14:2158:A:N1	2.17	0.58
26:14:2496:C:P	38:45:81:VAL:HG12	2.42	0.58
26:14:580:C:H2'	26:14:581:C:C6	2.38	0.58
26:14:963:U:H2'	26:14:964:C:C6	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1349:A:P	9:82:118:LYS:HZ1	2.26	0.58
26:1H:192:C:OP1	59:1H:3619:HOH:O	2.16	0.58
26:1H:2186:G:H2'	26:1H:2187:G:C8	2.38	0.58
26:1H:2431:U:OP2	59:1H:3843:HOH:O	2.17	0.58
26:1H:524:U:H2'	26:1H:525:U:H6	1.68	0.58
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.36	0.58
27:1J:48:A:H4'	40:65:95:HIS:CD2	2.33	0.58
26:1H:2784:C:O2	30:21:37:ARG:NH1	2.35	0.58
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.85	0.58
31:39:25:PRO:HD3	31:39:115:ALA:HB1	1.84	0.58
12:3I:83:VAL:HG21	12:3I:100:ILE:HG12	1.84	0.58
40:65:34:HIS:CD2	40:65:54:LEU:HB2	2.38	0.58
43:D8:43:GLU:HB2	43:D8:44:LYS:HE2	1.84	0.58
2:12:105:PHE:HA	2:12:108:ILE:HB	1.85	0.58
1:13:1435:G:H2'	1:13:1436:U:C6	2.39	0.58
26:14:107:C:H2'	26:14:108:U:H6	1.68	0.58
26:14:975:G:H1'	26:14:990:A:C2	2.39	0.58
2:1E:111:ARG:NH1	2:1E:111:ARG:HG2	2.12	0.58
1:1G:1047:G:H1	1:1G:1210:C:H42	1.49	0.58
1:1G:673:G:H2'	1:1G:674:G:C8	2.37	0.58
26:1H:1614:A:H2	59:1H:3862:HOH:O	1.86	0.58
26:1H:2056:G:C2	26:1H:2057:A:C8	2.91	0.58
26:1H:2062:A:OP1	59:1H:3780:HOH:O	2.17	0.58
3:22:32:LEU:O	3:22:36:ASP:HB2	2.04	0.58
4:3E:15:GLU:OE2	4:3E:66:ARG:NH1	2.33	0.58
4:3E:9:CYS:SG	4:3E:31:CYS:O	2.61	0.58
12:3I:89:ARG:HB2	12:3I:97:ARG:HA	1.86	0.58
5:42:76:ILE:HG23	5:42:77:PRO:HD2	1.85	0.58
5:4E:144:THR:H	5:4E:147:ASP:HB2	1.68	0.58
35:58:99:LEU:O	35:58:103:VAL:HG23	2.02	0.58
28:71:26:ALA:HB2	28:71:189:ILE:HD12	1.84	0.58
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.04	0.58
45:F8:84:ALA:HB3	45:F8:87:GLN:OE1	2.03	0.58
55:Q8:59:LYS:HB2	55:Q8:60:LEU:HG	1.83	0.58
26:14:1204:A:H2	26:14:1241:A:N1	2.01	0.58
26:14:2564:A:OP1	26:14:2648:C:H4'	2.03	0.58
26:14:2791:C:H42	26:14:2805:G:H1	1.52	0.58
26:14:2821:A:H3'	59:14:3920:HOH:O	2.02	0.58
26:14:2808:U:H3	26:14:2892:A:H62	1.51	0.58
26:14:68:G:H2'	26:14:69:C:C6	2.38	0.58
29:19:108:PRO:HG2	29:19:111:LEU:HG	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.03	0.58
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	1.83	0.58
1:1G:1261:A:OP2	1:1G:1262:C:N4	2.36	0.58
1:1G:261:U:OP2	20:BA:80:ARG:NH2	2.37	0.58
1:1G:958:A:N3	1:1G:985:C:O2'	2.35	0.58
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.67	0.58
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.38	0.58
26:1H:2548:G:N7	59:1H:4285:HOH:O	2.32	0.58
27:1J:42:C:O2	32:49:93:THR:N	2.23	0.58
11:2A:12:ARG:NH2	11:2A:13:GLN:O	2.36	0.58
56:2L:24:C:H2'	56:2L:25:U:C6	2.37	0.58
4:3E:22:LYS:HB2	4:3E:26:CYS:CB	2.33	0.58
32:41:129:GLY:O	32:41:161:THR:HG22	2.03	0.58
5:4E:45:PHE:CD2	5:4E:47:LYS:HD2	2.38	0.58
3:22:33:LEU:HD21	14:5A:53:LEU:HD21	1.85	0.58
37:78:57:THR:HB	37:78:59:LEU:H	1.68	0.58
8:7E:10:LEU:HD13	8:7E:83:ILE:HD11	1.85	0.58
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.39	0.58
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.85	0.58
46:C5:3:VAL:HG11	46:C5:32:PRO:HB2	1.85	0.58
44:E8:24:ILE:HG12	44:E8:36:LEU:HD21	1.85	0.58
1:13:1183:A:O2'	1:13:1184:G:OP1	2.15	0.58
1:13:141:A:H1'	1:13:182:U:C2	2.38	0.58
1:13:448:A:P	1:13:485:G:H22	2.25	0.58
26:14:1593:G:H2'	26:14:1594:G:C8	2.39	0.58
26:14:26:G:H1'	26:14:515:A:H61	1.68	0.58
26:14:807:U:H2'	26:14:808:G:H8	1.67	0.58
29:19:206:LEU:HD22	29:19:211:ARG:HG2	1.86	0.58
26:1H:353:G:H2'	26:1H:354:G:H8	1.68	0.58
26:1H:654:A:H2'	26:1H:654(A):A:C8	2.39	0.58
26:1H:945:A:H4'	59:1H:4058:HOH:O	2.03	0.58
27:1J:46:A:H2'	27:1J:47:C:C6	2.38	0.58
27:1J:44:G:H1'	27:1J:47:C:H42	1.68	0.58
4:32:13:ARG:C	4:32:15:GLU:H	2.06	0.58
1:1G:430:A:OP1	4:32:9:CYS:N	2.37	0.58
24:3L:71:G:H2'	24:3L:72:C:H5"	1.84	0.58
34:61:114:LEU:HD22	34:61:114:LEU:H	1.68	0.58
40:65:84:GLN:HA	40:65:110:LEU:HD12	1.86	0.58
40:65:27:SER:HA	40:65:88:ASP:HB2	1.86	0.58
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.85	0.58
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:14:ARG:O	8:7E:18:ARG:HD3	2.02	0.58
42:85:88:ILE:HG22	42:85:90:VAL:HG23	1.85	0.58
55:Q8:50:LEU:O	55:Q8:52:LYS:N	2.34	0.58
1:13:1157:A:N6	1:13:1178:G:H21	2.00	0.58
1:13:1190:G:OP1	3:2E:4:LYS:HA	2.03	0.58
1:13:429:U:H1'	1:13:430:A:H5"	1.85	0.58
26:14:1166:C:H42	26:14:1182:A:H61	1.50	0.58
26:14:2033:A:OP1	59:14:3952:HOH:O	2.17	0.58
26:14:2111:C:H42	26:14:2147:G:H21	1.50	0.58
26:14:2280:G:O2'	26:14:2388:A:N1	2.33	0.58
26:14:2666:C:C2'	26:14:2667:C:H5'	2.34	0.58
26:14:2851:A:H2'	26:14:2852:G:C8	2.39	0.58
26:14:309:G:N3	26:14:329:G:O2'	2.36	0.58
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.38	0.58
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.35	0.58
31:39:192:LEU:HD23	31:39:193:VAL:N	2.18	0.58
6:5E:39:LYS:HB2	6:5E:39:LYS:HZ2	1.66	0.58
7:62:132:GLY:HA3	7:62:135:VAL:HG23	1.84	0.58
7:6E:23:VAL:O	7:6E:27:ILE:HG12	2.03	0.58
7:6E:5:ARG:HE	7:6E:7:ALA:HA	1.69	0.58
28:71:226:PRO:HD2	28:71:227:HIS:CD2	2.38	0.58
18:9A:52:PRO:O	18:9A:56:THR:HG23	2.04	0.58
27:16:50:G:OP1	40:A8:63:THR:HG23	2.02	0.58
20:BA:74:LYS:HG3	20:BA:76:ALA:H	1.68	0.58
43:D8:57:VAL:HG23	43:D8:99:ILE:HG23	1.83	0.58
26:14:190:A:OP2	49:F5:39:LYS:NZ	2.37	0.58
29:11:37:LEU:HB3	29:11:59:LYS:NZ	2.18	0.58
1:13:304:U:H2'	1:13:305:G:C8	2.39	0.58
26:14:51:G:O2'	26:14:119:A:N1	2.36	0.58
26:14:2720:U:N3	26:14:2873:A:H2	2.00	0.58
35:15:51:PHE:CE1	35:15:119:ARG:HD3	2.38	0.58
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.02	0.58
1:1G:1378:C:H5"	1:1G:1379:G:OP2	2.04	0.58
1:1G:631:G:H3'	1:1G:632:A:H8	1.69	0.58
26:1H:1042:G:H1	26:1H:1113:U:H3	1.52	0.58
26:1H:1359:A:C2	26:1H:1372:U:O4	2.57	0.58
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.84	0.58
26:1H:2096:U:H3	26:1H:2193:G:H1	1.51	0.58
26:1H:2316:C:H2'	26:1H:2317:C:C6	2.38	0.58
26:1H:250:G:H2'	26:1H:251:A:C8	2.38	0.58
26:1H:2592:G:P	59:1H:4409:HOH:O	2.60	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2636:U:OP2	30:21:79:ARG:HD2	2.03	0.58
26:1H:960:A:H61	38:88:82:ARG:HH21	1.51	0.58
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.85	0.58
24:3L:3:C:H2'	24:3L:4:C:O4'	2.04	0.58
34:61:110:ASP:OD1	34:61:130:TYR:OH	2.10	0.58
28:71:183:GLU:HG2	28:71:184:LYS:NZ	2.18	0.58
1:13:1342:C:O2'	9:8E:124:GLN:HG2	2.04	0.58
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.34	0.58
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.03	0.58
52:I5:40:HIS:CD2	52:I5:45:GLY:HA3	2.39	0.58
1:13:417:C:H2'	1:13:418:C:H6	1.68	0.58
26:14:2287:A:H5"	26:14:2287:A:H8	1.67	0.58
27:16:116:G:C5'	40:A8:55:ALA:HB2	2.34	0.58
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.84	0.58
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.04	0.58
1:1G:1443:G:O2'	41:75:122:ASP:OD2	2.21	0.58
26:1H:1113:U:H2'	26:1H:1114:G:H8	1.68	0.58
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.38	0.58
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.34	0.58
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.68	0.58
26:1H:1996:C:OP1	36:68:31:LYS:NZ	2.26	0.58
26:1H:2062:A:H5'	59:1H:3783:HOH:O	2.04	0.58
30:29:35:GLN:H	30:29:48:GLN:HB2	1.68	0.58
4:32:31:CYS:C	4:32:33:MET:N	2.56	0.58
37:35:47:ASP:HB3	37:35:49:ARG:N	2.19	0.58
33:59:75:ALA:O	33:59:79:VAL:HG13	2.04	0.58
15:6A:48:LYS:HA	15:6A:48:LYS:NZ	2.19	0.58
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.84	0.58
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.85	0.58
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.52	0.58
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.39	0.58
45:B5:8:ILE:HD12	45:B5:8:ILE:H	1.68	0.58
46:C5:75:ILE:O	46:C5:76:CYS:HB3	2.04	0.58
47:D5:10:ARG:HD2	47:D5:36:LYS:HE2	1.86	0.58
1:13:1203:C:H2'	1:13:1204:A:O4'	2.04	0.58
1:13:774:G:H2'	1:13:775:G:H8	1.68	0.58
26:14:353:G:H2'	26:14:354:G:H8	1.68	0.58
2:1E:11:LEU:O	2:1E:16:HIS:NE2	2.36	0.58
1:1G:1299:A:N1	1:1G:1301:U:N3	2.52	0.58
1:1G:1310:G:OP1	13:4A:77:ASN:ND2	2.33	0.58
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:440:A:H8	1:1G:440:A:OP2	1.87	0.58
26:1H:107:C:H2'	26:1H:108:U:C6	2.39	0.58
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.68	0.58
26:1H:619:G:H5"	26:1H:620:G:OP2	2.04	0.58
26:1H:848:G:H2'	26:1H:849:A:C8	2.38	0.58
56:2L:22:A:N6	56:2L:47:7MG:H2'	2.18	0.58
24:3K:19:G:C6	26:1H:2112:G:H1'	2.38	0.58
24:3L:23:A:H2'	24:3L:24:G:H8	1.67	0.58
5:42:107:ARG:O	5:42:110:LEU:N	2.36	0.58
5:42:42:GLY:HA3	5:42:65:ASN:O	2.03	0.58
34:61:4:ILE:HG21	34:61:47:LEU:HD22	1.85	0.58
26:1H:2359:C:H4'	55:Q8:49:VAL:HG11	1.84	0.58
1:13:114:U:H2'	1:13:115:G:H8	1.68	0.58
1:13:368:U:OP1	34:69:91:SER:OG	2.20	0.58
1:13:51:A:OP2	1:13:52:G:H8	1.86	0.58
26:14:1847:A:O2'	26:14:1848:A:H5'	2.04	0.58
26:14:240:G:O6	59:14:3628:HOH:O	2.17	0.58
26:14:977:G:H2'	26:14:978:G:H8	1.68	0.58
1:1G:1046:A:H61	1:1G:1213:A:H61	1.52	0.58
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.35	0.58
1:1G:260:G:H2'	1:1G:261:U:C6	2.39	0.58
1:1G:353:A:H8	1:1G:353:A:H5'	1.68	0.58
1:1G:574:A:HO2'	1:1G:882:C:HO2'	1.51	0.58
1:1G:960:U:N3	1:1G:1225:A:N3	2.51	0.58
26:1H:1465:G:H2'	26:1H:1466:G:C8	2.35	0.58
26:1H:198:C:H4'	26:1H:2243:U:O2'	2.04	0.58
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.35	0.58
26:1H:2335:A:C8	26:1H:2337:G:C5	2.91	0.58
26:14:1952:A:C5	36:25:22:ILE:HD11	2.39	0.58
31:39:78:ILE:HD13	31:39:78:ILE:H	1.68	0.58
24:3L:76:A:H8	26:14:2394:C:H42	1.52	0.58
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.86	0.58
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.85	0.58
1:13:1525:G:OP1	11:2I:120:ARG:NH2	2.37	0.58
1:13:272:C:H2'	1:13:273:A:C8	2.38	0.58
1:13:321:A:H62	1:13:328:C:H1'	1.69	0.58
26:14:2392:A:H1'	37:35:61:ARG:HH21	1.68	0.58
26:14:2474:C:H3'	26:14:2475:C:H5"	1.84	0.58
26:14:350:U:H2'	26:14:351:G:O4'	2.04	0.58
26:14:654(D):G:N2	26:14:654(Q):C:H42	2.01	0.58
26:14:686:G:H5"	54:L5:11:LYS:NZ	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:851:U:OP1	51:H5:49:LYS:HE2	2.04	0.58
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.17	0.58
1:1G:1252:A:H61	1:1G:1285:A:H61	1.52	0.58
1:1G:545:C:OP1	4:32:61:LYS:NZ	2.37	0.58
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.69	0.58
26:1H:2801:A:H2'	26:1H:2802:G:H4'	1.85	0.58
26:1H:287:C:H2'	26:1H:288:C:H6	1.68	0.58
26:1H:989:G:OP2	51:L8:11:SER:OG	2.21	0.58
22:1K:6:G:H1	22:1K:68:C:N4	2.02	0.58
30:21:203:LYS:HE3	30:21:204:ALA:HB2	1.86	0.58
30:29:68:ALA:C	30:29:70:ALA:H	2.06	0.58
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.85	0.58
35:58:46:VAL:HG11	35:58:48:MET:HG3	1.86	0.58
1:13:1218:C:OP1	14:5I:12:ARG:NH2	2.37	0.58
36:68:101:PRO:HB3	36:68:120:GLU:HB3	1.86	0.58
36:68:17:ARG:NH1	36:68:17:ARG:HA	2.14	0.58
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.39	0.58
41:B8:26:ASP:HB3	41:B8:120:ARG:HH22	1.68	0.58
20:BI:32:ALA:O	20:BI:36:LEU:HB2	2.04	0.58
44:E8:29:LEU:O	44:E8:29:LEU:HD12	2.04	0.58
1:13:474:G:H2'	1:13:475:G:C8	2.38	0.57
1:13:565:U:H3'	1:13:566:G:H2'	1.86	0.57
1:13:581:G:N2	1:13:760:G:N7	2.51	0.57
1:13:859:A:H2'	1:13:860:A:H8	1.68	0.57
26:14:1116:C:H2'	26:14:1117:G:H8	1.69	0.57
26:14:132:G:H1	26:14:147:U:H3	1.50	0.57
26:14:1774:C:OP1	59:14:3458:HOH:O	2.17	0.57
26:14:2650:U:H2'	26:14:2651:C:C6	2.39	0.57
26:14:2809:A:OP2	26:14:2891:G:N1	2.31	0.57
26:14:663:G:O3'	37:35:18:ARG:NH2	2.23	0.57
26:14:820:A:N1	59:14:3965:HOH:O	2.33	0.57
26:14:861:A:C2	26:14:917:A:C4	2.92	0.57
1:1G:433:C:H2'	1:1G:434:U:C6	2.39	0.57
1:1G:57:G:H2'	1:1G:58:C:C6	2.39	0.57
26:1H:1968:G:H5'	59:1H:4408:HOH:O	2.04	0.57
26:1H:2253:G:H2'	26:1H:2254:C:H6	1.67	0.57
26:1H:299:A:C2	26:1H:322:A:C4	2.92	0.57
26:1H:84:A:OP2	46:G8:8:LYS:NZ	2.22	0.57
31:39:46:ARG:HG2	31:39:46:ARG:NH1	2.19	0.57
26:14:39:C:O2	31:39:46:ARG:NH2	2.37	0.57
5:4E:126:ARG:HH11	5:4E:126:ARG:HG3	1.66	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:15:ARG:NH2	25:4K:25:A:OP2	2.35	0.57
33:51:154:PRO:HB3	33:51:163:TYR:CE2	2.39	0.57
7:62:150:ALA:O	11:2A:57:THR:HG21	2.03	0.57
16:7A:5:ARG:HE	16:7A:22:THR:HG23	1.68	0.57
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.04	0.57
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.38	0.57
9:82:17:VAL:HG21	9:82:80:GLY:HA3	1.85	0.57
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.69	0.57
9:8E:49:PRO:O	9:8E:53:VAL:HB	2.03	0.57
18:9I:70:ILE:O	18:9I:74:ARG:HG3	2.03	0.57
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.31	0.57
44:E8:70:TYR:H	44:E8:70:TYR:HD1	1.51	0.57
45:F8:3:THR:HA	45:F8:6:ASP:OD2	2.03	0.57
50:K8:15:LYS:HA	50:K8:67:LYS:HZ1	1.69	0.57
1:13:1003:G:N2	1:13:1004:A:O2'	2.37	0.57
1:13:1118:C:H1'	1:13:1179:A:C4	2.39	0.57
1:13:606:G:H1	1:13:631:G:H5"	1.69	0.57
26:14:2290:G:O6	26:14:2342:C:N4	2.30	0.57
26:14:2402:C:H5	26:14:2415:G:H22	1.51	0.57
26:14:2516:G:C6	26:14:2517:C:N4	2.72	0.57
26:14:2696:U:H2'	26:14:2697:G:C8	2.40	0.57
26:14:2810:A:N6	26:14:2891:G:O2'	2.37	0.57
10:1A:12:ASP:HB3	10:1A:15:THR:OG1	2.04	0.57
1:1G:1349:A:H2'	1:1G:1350:A:C8	2.38	0.57
1:1G:636:U:H2'	1:1G:637:G:C8	2.39	0.57
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.04	0.57
26:1H:1988:C:H2'	26:1H:1989:G:C8	2.39	0.57
26:1H:392:C:OP1	59:1H:3663:HOH:O	2.18	0.57
26:1H:806:C:H5"	26:1H:807:U:OP2	2.04	0.57
27:1J:16:G:H2'	27:1J:17:C:C6	2.39	0.57
27:1J:70:C:H2'	27:1J:71:C:O4'	2.04	0.57
22:1K:59:A:H8	22:1K:62:C:C4	2.22	0.57
37:35:14:LYS:O	37:35:16:ARG:N	2.37	0.57
31:39:18:ARG:HH21	31:39:20:LEU:HD23	1.67	0.57
31:39:65:TRP:CZ3	31:39:72:ARG:HB2	2.39	0.57
13:4I:66:LEU:HA	13:4I:70:LEU:HD12	1.86	0.57
1:13:55:A:H2	34:69:82:ARG:HG2	1.70	0.57
1:13:1117:G:H5"	9:8E:104:ARG:CZ	2.33	0.57
1:1G:664:G:P	18:9A:64:ARG:HH21	2.27	0.57
46:C5:81:LYS:HB2	46:C5:99:CYS:SG	2.43	0.57
44:E8:37:ARG:HD3	44:E8:38:TYR:HE1	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:75:ASN:O	47:H8:84:GLU:N	2.33	0.57
1:13:1352:C:H2'	1:13:1353:G:C8	2.39	0.57
1:13:690:G:H2'	1:13:691:G:O4'	2.03	0.57
26:14:1427:A:H4'	26:14:1428:C:O5'	2.03	0.57
26:14:2210:G:P	26:14:2211:G:H22	2.26	0.57
1:1G:1355:G:H2'	1:1G:1356:G:H8	1.69	0.57
1:1G:165:C:H2'	1:1G:166:G:C8	2.38	0.57
1:1G:234:C:H2'	1:1G:235:C:H6	1.69	0.57
26:1H:1392:A:C6	26:1H:1393:A:N1	2.72	0.57
26:1H:1433:U:O2	26:1H:1561:G:C2	2.58	0.57
26:1H:1301:A:H2	26:1H:1626:G:H21	1.52	0.57
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.40	0.57
3:2E:34:LEU:HD11	14:5I:25:VAL:HG11	1.86	0.57
37:35:124:LYS:HE2	37:35:143:GLY:O	2.04	0.57
39:55:14:SER:HA	39:55:17:ARG:HH12	1.66	0.57
46:C5:19:LYS:HG3	46:C5:20:TYR:N	2.19	0.57
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.37	0.57
52:I5:48:ARG:NH1	52:I5:51:ASP:HB3	2.20	0.57
32:41:65:GLY:HA2	52:M8:7:PRO:HG2	1.84	0.57
55:Q8:35:GLN:C	55:Q8:37:SER:H	2.08	0.57
1:13:1399:C:H4'	1:13:1400:C:H5"	1.85	0.57
1:13:24:U:H2'	1:13:25:C:C6	2.40	0.57
1:13:652:U:O4	1:13:752:G:O2'	2.16	0.57
26:14:2111:C:N4	26:14:2147:G:H21	2.02	0.57
26:14:2327:A:H2'	26:14:2328:A:C8	2.40	0.57
26:14:1971:A:OP2	29:19:242:ARG:NH2	2.37	0.57
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.36	0.57
1:1G:1243:C:O2	1:1G:1295:G:N2	2.37	0.57
26:1H:1833:U:H2'	26:1H:1834:U:C6	2.36	0.57
26:1H:589:C:H2'	26:1H:590:A:C8	2.38	0.57
11:2I:108:ILE:O	18:9I:87:ARG:N	2.37	0.57
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.19	0.57
38:45:138:ASP:N	38:45:138:ASP:OD1	2.37	0.57
35:58:127:ASP:OD1	35:58:127:ASP:N	2.37	0.57
16:7A:15:PRO:HD2	16:7A:42:ARG:HD3	1.85	0.57
39:98:78:LYS:O	39:98:83:ILE:HG13	2.04	0.57
41:B8:111:ARG:H	41:B8:111:ARG:HD3	1.69	0.57
43:D8:46:VAL:HG12	43:D8:47:VAL:H	1.69	0.57
26:1H:1159:U:P	51:L8:30:ARG:HH22	2.27	0.57
52:M8:37:SER:OG	52:M8:42:PHE:HB3	2.04	0.57
2:12:179:LYS:HA	8:72:72:PRO:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:105:G:H2'	1:13:106:C:C6	2.39	0.57
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.05	0.57
1:13:545:C:OP2	4:3E:62:GLN:NE2	2.37	0.57
26:14:1588:C:H5'	26:14:1589:C:OP2	2.03	0.57
26:14:1827:C:OP2	29:19:222:ARG:NH1	2.37	0.57
26:14:2303:G:H1	26:14:2313:C:N4	2.01	0.57
35:15:95:PRO:O	35:15:98:VAL:HG22	2.04	0.57
29:19:246:PRO:HD2	29:19:255:LYS:HD3	1.86	0.57
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.68	0.57
1:1G:1330:U:H5'	13:4A:24:GLY:H	1.69	0.57
26:1H:1050:A:C8	26:1H:2751:G:C5	2.93	0.57
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.03	0.57
26:1H:2179:C:H2'	26:1H:2180:U:C6	2.40	0.57
26:1H:303:U:H2'	26:1H:304:G:H8	1.69	0.57
26:1H:455:C:N3	26:1H:473:G:H5'	2.19	0.57
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.02	0.57
26:1H:2773:C:OP1	30:21:164:ARG:NH1	2.37	0.57
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.84	0.57
4:32:8:VAL:O	4:32:11:LEU:N	2.28	0.57
31:39:30:PRO:O	31:39:33:LEU:N	2.37	0.57
38:88:3:MET:HG2	38:88:4:PRO:O	2.03	0.57
52:I5:13:ARG:HA	52:I5:22:ILE:HB	1.86	0.57
2:12:53:ARG:HH12	2:12:199:TYR:HA	1.69	0.57
1:13:1129:C:N3	1:13:1143:G:N2	2.53	0.57
1:13:323:U:H4'	20:BI:22:ARG:HB3	1.86	0.57
1:13:405:U:O4	4:3E:2:GLY:N	2.37	0.57
1:13:686:U:O4	1:13:703:G:H1'	2.04	0.57
26:14:1607:C:N4	26:14:1622:G:OP2	2.37	0.57
26:14:2415:G:O3'	37:35:66:GLY:HA3	2.05	0.57
26:14:2846:G:N7	59:14:3536:HOH:O	2.32	0.57
26:14:511:U:C5	26:14:512:G:C4	2.92	0.57
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.40	0.57
1:1G:555:C:H2'	1:1G:556:C:C6	2.39	0.57
1:1G:589:C:H42	1:1G:650:G:H1	1.50	0.57
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.39	0.57
26:1H:2788:C:P	30:21:61:ARG:HH22	2.27	0.57
11:2I:67:ASP:O	11:2I:71:LYS:HG3	2.04	0.57
5:42:127:ASN:ND2	5:42:130:ASN:OD1	2.36	0.57
35:58:59:LYS:O	35:58:61:ARG:NH1	2.37	0.57
26:14:2378:A:O2'	40:65:21:THR:HG21	2.04	0.57
28:71:58:VAL:HG13	28:71:199:HIS:CD2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:30:GLY:HA3	38:88:107:ALA:HB2	1.85	0.57
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.86	0.57
55:M5:59:LYS:C	55:M5:60:LEU:HG	2.23	0.57
55:Q8:32:LEU:HG	55:Q8:33:ASN:H	1.69	0.57
2:12:166:ASP:HB2	2:12:205:ASP:OD1	2.04	0.57
1:13:38:G:C2	1:13:397:A:C2	2.93	0.57
26:14:1839:G:C8	26:14:1927:A:H1'	2.39	0.57
26:14:2054:A:H5"	26:14:2055:C:O5'	2.04	0.57
29:19:253:GLN:HB3	29:19:255:LYS:NZ	2.18	0.57
2:1E:12:GLU:HA	2:1E:16:HIS:CD2	2.39	0.57
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.39	0.57
1:1G:195:A:N6	1:1G:196:A:N1	2.52	0.57
1:1G:222:U:H2'	1:1G:223:U:C6	2.39	0.57
1:1G:56:U:H2'	1:1G:57:G:H8	1.67	0.57
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.39	0.57
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.40	0.57
26:1H:2061:G:P	59:1H:3531:HOH:O	2.62	0.57
26:1H:1759:A:H4'	26:1H:2715:C:H1'	1.86	0.57
32:49:60:LEU:O	32:49:64:THR:HG22	2.05	0.57
39:55:45:ARG:HA	39:55:95:THR:HG21	1.87	0.57
34:69:58:LEU:O	34:69:62:LYS:N	2.37	0.57
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.86	0.57
37:35:64:LYS:CB	55:M5:30:ARG:HH22	2.11	0.57
55:Q8:53:PRO:HB3	55:Q8:56:GLU:HG3	1.85	0.57
2:12:149:LEU:HD23	2:12:152:PHE:HB3	1.86	0.57
1:13:403:C:OP1	4:3E:137:SER:OG	2.20	0.57
1:13:592:G:H2'	1:13:593:G:C8	2.38	0.57
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.38	0.57
26:14:1945:G:H2'	26:14:1946:U:H6	1.69	0.57
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.36	0.57
26:14:27:G:N2	26:14:512:G:H1'	2.19	0.57
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.25	0.57
1:1G:660:G:O6	1:1G:745:C:N4	2.37	0.57
1:1G:861:G:H2'	1:1G:862:C:C6	2.40	0.57
1:1G:868:C:H2'	1:1G:869:G:O4'	2.05	0.57
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.21	0.57
26:1H:1417:C:N4	26:1H:1581:G:H1	2.02	0.57
26:1H:1899:G:N2	26:1H:1902:C:H5	2.03	0.57
26:1H:1899:G:N2	26:1H:1902:C:H41	2.01	0.57
26:1H:2467:C:H2'	26:1H:2468:G:H5'	1.85	0.57
26:1H:662:G:P	37:78:15:ARG:HE	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:88:C:H4'	27:1J:89:G:OP1	2.03	0.57
4:32:13:ARG:O	4:32:15:GLU:N	2.33	0.57
33:51:122:THR:HB	33:51:134:SER:HB2	1.85	0.57
15:6A:28:GLN:O	15:6A:32:LEU:HG	2.05	0.57
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.40	0.57
28:71:66:HIS:NE2	28:71:187:ASP:HB2	2.19	0.57
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.04	0.57
46:C5:23:ARG:HH11	46:C5:23:ARG:CB	2.18	0.57
49:F5:3:LYS:H	49:F5:61:ARG:HH12	1.52	0.57
49:F5:92:LYS:O	49:F5:95:LEU:N	2.27	0.57
2:12:92:TYR:CE1	2:12:151:GLY:HA3	2.40	0.57
1:13:464:G:C6	1:13:466:C:H5'	2.40	0.57
1:13:954:G:H21	1:13:1227:A:N6	2.03	0.57
26:14:2656:U:H3	26:14:2665:A:H2	1.52	0.57
26:14:993:G:N3	43:95:89:GLN:NE2	2.46	0.57
27:16:91:C:H5"	47:H8:79:ARG:HH22	1.69	0.57
2:1E:42:ILE:HD11	2:1E:202:PRO:HB2	1.86	0.57
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.70	0.57
1:1G:1224:G:N1	1:1G:1322:C:O2'	2.37	0.57
3:2E:20:SER:OG	3:2E:40:ARG:NH2	2.29	0.57
1:13:684:A:O2'	11:2I:38:ASN:HB3	2.04	0.57
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.39	0.57
32:49:125:PHE:HB3	32:49:166:ASP:OD2	2.04	0.57
6:52:97:PHE:HB2	18:9A:32:ARG:HD3	1.84	0.57
18:9I:19:LYS:HG3	18:9I:20:ALA:H	1.70	0.57
26:14:483:A:H1'	46:C5:60:PHE:CE1	2.40	0.57
46:C5:43:ASN:HB3	46:C5:64:GLU:HA	1.85	0.57
47:D5:126:VAL:HG12	47:D5:163:LEU:HA	1.86	0.57
1:13:1100:C:O2'	1:13:1102:A:OP1	2.23	0.57
1:13:1412:C:H42	1:13:1488:G:H1	1.52	0.57
26:14:123:G:O6	59:14:3928:HOH:O	2.16	0.57
26:14:2400:G:H3'	26:14:2401:U:C6	2.38	0.57
1:1G:1157:A:C8	1:1G:1158:C:C5	2.93	0.57
1:1G:546:G:OP2	4:32:72:GLU:HB3	2.05	0.57
26:1H:1434:A:H61	26:1H:1558:A:H62	1.53	0.57
26:1H:2781:A:C5'	26:1H:2782:G:H5'	2.23	0.57
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.36	0.57
4:3E:30:LYS:H	4:3E:34:GLU:HB2	1.70	0.57
33:51:12:PRO:HG2	33:51:13:LYS:HE2	1.87	0.57
7:62:49:ILE:HG22	7:62:53:LYS:HG3	1.87	0.57
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:212:VAL:O	28:71:224:ILE:HG13	2.05	0.57
1:13:468:A:H4'	16:7I:80:PHE:O	2.04	0.57
43:95:22:VAL:HG22	43:95:23:GLU:H	1.70	0.57
43:95:5:VAL:HB	43:95:37:VAL:CG1	2.35	0.57
45:B5:63:LYS:HZ3	45:B5:63:LYS:H	1.52	0.57
29:11:12:SER:O	29:11:16:MET:HB2	2.05	0.56
1:13:1004:A:H1'	1:13:1036:G:N2	2.20	0.56
1:13:1500:A:P	59:13:1804:HOH:O	2.61	0.56
26:14:1341:U:OP1	26:14:1397:U:N3	2.35	0.56
26:14:2689:U:P	26:14:2719:G:H22	2.28	0.56
27:16:112:G:H2'	27:16:113:C:H6	1.70	0.56
27:16:79:C:H6	27:16:79:C:O5'	1.87	0.56
1:1G:1002:G:H22	1:1G:1038:C:N4	2.03	0.56
1:1G:1157:A:H8	1:1G:1158:C:H5	1.52	0.56
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.17	0.56
26:1H:2685:G:H2'	26:1H:2686:G:H5"	1.87	0.56
26:1H:604:G:C6	26:1H:625:G:C2	2.93	0.56
30:21:16:ARG:O	30:21:16:ARG:HG3	2.05	0.56
30:29:33:VAL:HG12	30:29:89:ASP:CB	2.35	0.56
3:2E:22:TRP:HZ3	3:2E:24:ALA:HB2	1.70	0.56
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.05	0.56
40:65:14:VAL:O	40:65:18:ILE:HD13	2.05	0.56
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.86	0.56
50:G5:31:GLU:HB2	50:G5:53:LEU:HD11	1.86	0.56
48:I8:51:VAL:N	48:I8:62:LEU:HD12	2.20	0.56
55:Q8:5:LYS:H	55:Q8:59:LYS:HZ2	1.53	0.56
1:13:148:G:H1	1:13:174:C:H42	1.52	0.56
1:13:74:C:N4	1:13:96:G:H1	1.99	0.56
26:14:1225:C:H4'	43:95:85:LYS:HG2	1.87	0.56
26:14:134:C:H2'	26:14:135:G:C8	2.40	0.56
26:14:142:G:H5"	26:14:1598:C:O2'	2.04	0.56
26:14:2283:C:C2	26:14:2389:G:C2	2.93	0.56
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.05	0.56
29:19:253:GLN:HB3	29:19:255:LYS:HZ3	1.70	0.56
1:1G:1319:A:O2'	1:1G:1323:G:N7	2.30	0.56
1:1G:1349:A:H2'	1:1G:1350:A:H8	1.70	0.56
1:1G:569:C:O2	1:1G:881:G:N2	2.29	0.56
26:1H:1226:G:OP1	43:D8:69:LYS:NZ	2.29	0.56
26:1H:2296:U:P	40:A8:9:ARG:HH12	2.28	0.56
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.05	0.56
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:654(D):G:H22	26:1H:654(Q):C:H42	1.53	0.56
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.70	0.56
11:2A:87:THR:O	11:2A:87:THR:OG1	2.23	0.56
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.87	0.56
4:3E:105:VAL:HG21	4:3E:126:ILE:HG13	1.87	0.56
5:42:145:LYS:O	5:42:149:GLU:N	2.36	0.56
38:45:25:ASP:HB3	38:45:102:VAL:CG2	2.32	0.56
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.38	0.56
39:55:74:LYS:HE2	39:55:77:ARG:HH21	1.70	0.56
6:5E:70:ASP:N	6:5E:70:ASP:OD1	2.37	0.56
28:71:53:ARG:HG3	28:71:56:GLN:HE21	1.70	0.56
8:7E:46:LYS:HE2	8:7E:63:LEU:O	2.04	0.56
17:8I:62:SER:HB3	17:8I:72:ARG:HE	1.70	0.56
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.04	0.56
47:D5:79:ARG:HD2	47:D5:80:ARG:HH11	1.70	0.56
45:F8:3:THR:OG1	45:F8:4:ALA:HA	2.05	0.56
47:H8:72:ARG:NH2	47:H8:97:GLU:O	2.33	0.56
55:M5:40:GLU:N	55:M5:43:GLN:HB2	2.18	0.56
55:Q8:32:LEU:HG	55:Q8:33:ASN:N	2.20	0.56
1:13:1157:A:N6	1:13:1178:G:N3	2.52	0.56
26:14:1259:G:H2'	26:14:1260:G:C8	2.40	0.56
26:14:1341:U:C5	26:14:1395:A:H2	2.24	0.56
26:14:2105:C:N4	26:14:2184:G:H1	2.01	0.56
26:14:2666:C:H2'	26:14:2667:C:H5'	1.86	0.56
26:14:2681:C:H5	26:14:2725:A:N6	1.98	0.56
26:14:492:A:H2'	26:14:493:G:O4'	2.05	0.56
27:16:3:C:H2'	27:16:4:C:C6	2.40	0.56
2:1E:17:PHE:H	2:1E:17:PHE:HD1	1.52	0.56
1:1G:793:U:O2	1:1G:1516:G:H4'	2.03	0.56
1:1G:766:A:H2'	1:1G:767:A:O4'	2.06	0.56
1:1G:940:C:H2'	1:1G:941:G:H8	1.69	0.56
26:1H:1407:C:H2'	26:1H:1408:C:C6	2.39	0.56
26:1H:1693:U:H1'	29:11:14:ARG:NH2	2.20	0.56
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.21	0.56
26:1H:353:G:H2'	26:1H:354:G:C8	2.40	0.56
26:1H:71:A:H4'	26:1H:72:U:H5"	1.86	0.56
30:21:174:ASP:HB3	30:21:183:LEU:HD23	1.87	0.56
26:14:2786:U:H4'	30:29:64:LYS:C	2.25	0.56
32:41:28:VAL:O	32:41:31:VAL:HG13	2.05	0.56
28:71:212:VAL:HB	28:71:224:ILE:HD11	1.86	0.56
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:135:ASP:HB2	38:88:137:TYR:HB2	1.86	0.56
40:A8:88:ASP:O	40:A8:90:GLY:N	2.38	0.56
46:C5:47:LYS:HG3	46:C5:60:PHE:CZ	2.40	0.56
55:Q8:57:ARG:HB2	55:Q8:59:LYS:HE3	1.87	0.56
1:13:52:G:H2'	1:13:53:A:H8	1.70	0.56
26:14:1161:C:O2'	43:95:8:GLY:HA2	2.06	0.56
26:14:161:U:H5'	26:14:171:G:H21	1.69	0.56
26:14:1832:C:N4	26:14:1833:U:C4	2.74	0.56
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.41	0.56
1:1G:664:G:OP1	18:9A:64:ARG:NH2	2.33	0.56
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.06	0.56
10:1I:48:THR:HA	10:1I:62:HIS:CB	2.36	0.56
3:22:83:ARG:HA	3:22:86:VAL:HG22	1.87	0.56
31:31:64:ILE:HG13	31:31:65:TRP:CD1	2.40	0.56
31:39:37:VAL:HA	31:39:40:GLN:HB3	1.86	0.56
4:3E:167:GLY:HA2	29:19:135:PHE:HE1	1.70	0.56
4:3E:30:LYS:CB	4:3E:35:ARG:HE	2.18	0.56
33:51:128:PRO:HG2	33:51:129:THR:HG22	1.86	0.56
26:1H:64:A:H1'	45:F8:66:LEU:HB2	1.86	0.56
46:G8:15:VAL:HG21	46:G8:42:VAL:HG21	1.87	0.56
2:12:75:LYS:HA	2:12:78:GLN:CB	2.31	0.56
1:1G:223:U:H2'	1:1G:224:C:C6	2.41	0.56
26:1H:1387:C:O2	26:1H:1388:G:C8	2.58	0.56
26:1H:1818:U:O4	29:11:154:LYS:HD3	2.06	0.56
26:1H:2064:C:H2'	26:1H:2065:C:C6	2.40	0.56
26:1H:2294:C:H2'	26:1H:2295:C:H6	1.71	0.56
26:1H:475:U:C4	26:1H:481:G:O6	2.58	0.56
26:1H:667:U:O2	55:Q8:2:PRO:HD2	2.06	0.56
26:1H:878:A:N6	26:1H:899:A:HO2'	2.03	0.56
27:1J:44:G:H1'	27:1J:47:C:N4	2.20	0.56
30:29:16:ARG:O	30:29:19:ARG:HG3	2.06	0.56
4:32:113:SER:O	4:32:117:ALA:N	2.38	0.56
12:3A:111:LYS:HD2	12:3A:111:LYS:H	1.70	0.56
33:59:27:LYS:NZ	33:59:28:GLY:O	2.34	0.56
33:59:6:ARG:HB2	33:59:66:GLY:HA2	1.88	0.56
41:75:107:ASP:OD2	41:75:109:GLU:HB2	2.05	0.56
39:98:96:ARG:HE	39:98:117:VAL:HG23	1.69	0.56
1:13:657:G:C2	1:13:658:G:C8	2.93	0.56
26:14:111:A:H4'	50:G5:69:ARG:NH2	2.21	0.56
26:14:1181:C:H2'	26:14:1182:A:O4'	2.06	0.56
26:14:1329:U:H5"	26:14:1330:C:H5	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2636:U:OP1	30:29:80:GLU:HB2	2.05	0.56
26:14:558:G:H5'	35:15:112:LEU:HD12	1.88	0.56
1:1G:1003:G:N2	1:1G:1037:C:O2	2.32	0.56
1:1G:1132:C:O2'	1:1G:1133:G:H5'	2.04	0.56
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.21	0.56
1:1G:142:G:H2'	1:1G:143:A:H8	1.69	0.56
26:1H:141:A:C8	26:1H:1408:C:H1'	2.39	0.56
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.05	0.56
26:1H:1678:G:N2	26:1H:1989:G:N2	2.54	0.56
26:1H:2438:U:O2'	26:1H:2440:C:OP1	2.18	0.56
26:1H:270(N):G:OP2	34:61:57:ARG:NH2	2.38	0.56
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.06	0.56
26:1H:600:G:N2	26:1H:605:C:O3'	2.39	0.56
26:1H:878:A:N6	26:1H:899:A:O2'	2.37	0.56
31:31:150:GLY:HA2	31:31:172:TRP:CD2	2.40	0.56
31:39:188:ARG:HA	37:35:3:LEU:HD11	1.87	0.56
38:45:138:ASP:HB3	38:45:141:GLN:HG2	1.87	0.56
40:65:67:ARG:HB2	40:65:67:ARG:CZ	2.35	0.56
40:65:85:VAL:HG22	40:65:110:LEU:HG	1.88	0.56
36:68:68:GLU:OE2	36:68:78:ARG:NH1	2.38	0.56
7:6E:111:ARG:HB3	7:6E:111:ARG:HH11	1.70	0.56
15:6I:8:LYS:HG2	15:6I:12:ILE:HD11	1.87	0.56
9:8E:31:GLN:HG2	9:8E:35:GLU:HG2	1.86	0.56
18:9I:36:ASN:N	18:9I:36:ASN:OD1	2.37	0.56
47:H8:97:GLU:HB3	47:H8:125:LEU:HD11	1.85	0.56
26:1H:1613:G:O2'	54:P8:3:ARG:NE	2.38	0.56
55:Q8:6:THR:H	55:Q8:59:LYS:HZ2	1.53	0.56
2:12:155:LEU:HD12	2:12:157:ARG:H	1.70	0.56
26:14:1967:C:H2'	26:14:1968:G:O4'	2.04	0.56
26:14:276:A:N3	26:14:277:C:N4	2.54	0.56
26:14:2875:C:OP1	41:75:3:ARG:NH1	2.38	0.56
26:14:975:G:C5	26:14:976:C:C5	2.94	0.56
1:1G:458:C:H42	1:1G:474:G:H1	1.54	0.56
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.69	0.56
26:1H:2005:A:H5"	59:1H:4360:HOH:O	2.05	0.56
26:1H:2127:G:N1	26:1H:2162:G:H1'	2.20	0.56
26:1H:389:G:H8	26:1H:389:G:O5'	1.88	0.56
22:1K:59:A:H4'	22:1K:60:A:OP1	2.06	0.56
22:1K:75:C:H4'	22:1K:75:C:OP2	2.04	0.56
30:29:79:ARG:HH11	30:29:79:ARG:HG2	1.70	0.56
3:2E:77:ILE:HA	3:2E:84:ILE:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:80:TYR:CD2	37:35:111:ARG:HB3	2.40	0.56
34:69:40:THR:O	34:69:44:LEU:N	2.38	0.56
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.21	0.56
37:78:1:MET:HE1	37:78:6:LEU:HD13	1.88	0.56
8:7E:69:ARG:NH2	8:7E:73:ASP:O	2.39	0.56
9:82:9:ARG:O	9:82:104:ARG:NE	2.35	0.56
42:C8:40:PHE:HB3	43:D8:75:PHE:CD2	2.41	0.56
52:I5:37:SER:HB3	52:I5:39:CYS:H	1.70	0.56
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.46	0.56
1:13:337:C:H2'	1:13:338:A:C8	2.41	0.56
26:14:1040:C:H2'	26:14:1041:C:C6	2.40	0.56
26:14:86:C:O2'	26:14:104:U:O2'	2.19	0.56
29:19:124:PRO:HG2	29:19:129:ASN:ND2	2.20	0.56
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.38	0.56
26:1H:1407:C:H2'	26:1H:1408:C:H6	1.70	0.56
26:1H:607:U:N3	26:1H:621:A:C2	2.62	0.56
26:1H:624:C:OP1	59:1H:4216:HOH:O	2.18	0.56
26:1H:67:U:H3	26:1H:74:A:H2	1.52	0.56
30:29:57:LYS:H	30:29:57:LYS:NZ	2.03	0.56
37:35:50:ARG:HB2	37:35:50:ARG:HH11	1.69	0.56
4:3E:173:TRP:CD2	4:3E:189:PRO:HG3	2.41	0.56
5:42:73:ASN:O	5:42:73:ASN:ND2	2.29	0.56
26:14:960:A:H61	38:45:82:ARG:HH21	1.54	0.56
13:4I:97:PRO:HA	13:4I:110:ARG:HD3	1.87	0.56
7:62:95:ARG:O	7:62:99:LEU:HB2	2.05	0.56
27:1J:50:G:OP1	40:65:63:THR:HG23	2.04	0.56
40:65:64:GLU:O	40:65:68:GLN:HG3	2.06	0.56
15:6I:24:SER:HB2	15:6I:27:VAL:HG23	1.86	0.56
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.34	0.56
38:88:52:VAL:HA	38:88:55:VAL:HG13	1.88	0.56
51:H5:55:ARG:CZ	51:H5:55:ARG:HB3	2.35	0.56
1:13:160:A:H1'	1:13:344:A:C8	2.41	0.56
1:13:186(F):C:H2'	1:13:187:C:O4'	2.06	0.56
1:13:939:G:H5"	7:6E:102:ARG:NH2	2.21	0.56
1:13:986:A:H2'	1:13:987:G:O4'	2.06	0.56
26:14:112:U:H5"	26:14:113:G:OP2	2.05	0.56
26:14:2239:G:P	59:14:3404:HOH:O	2.61	0.56
26:14:986:C:HO2'	26:14:1001:A:HO2'	1.38	0.56
2:1E:21:ARG:HD3	2:1E:38:GLY:C	2.25	0.56
1:1G:171:A:H2'	1:1G:172:A:C8	2.40	0.56
1:1G:689:C:OP1	11:2A:44:SER:OG	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:749:C:O2'	1:1G:750:G:H5'	2.05	0.56
26:1H:705:A:C8	26:1H:727:A:C2	2.94	0.56
31:39:128:ALA:C	31:39:142:TRP:HE1	2.08	0.56
40:65:109:GLY:O	40:65:110:LEU:HD22	2.06	0.56
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.37	0.56
28:71:227:HIS:N	28:71:227:HIS:CD2	2.74	0.56
1:13:825:G:O4'	8:7E:2:LEU:HD21	2.05	0.56
47:H8:45:ASP:OD2	47:H8:49:ARG:NH1	2.39	0.56
51:L8:5:LYS:HD2	51:L8:34:GLU:OE1	2.04	0.56
1:13:141:A:H2'	1:13:142:G:H8	1.71	0.56
1:13:533:A:O2'	1:13:535:A:OP2	2.22	0.56
1:13:812:C:O2	59:13:1807:HOH:O	2.17	0.56
1:13:890:G:O2'	1:13:906:G:O6	2.18	0.56
26:14:1354:A:OP2	59:14:3448:HOH:O	2.18	0.56
26:14:1778:U:H2'	26:14:1784:A:H62	1.70	0.56
26:14:654(V):A:H2'	26:14:655:A:C8	2.40	0.56
26:14:774:A:HO2'	26:14:775:G:P	2.29	0.56
35:15:34:LEU:HD21	35:15:120:LEU:HD13	1.88	0.56
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.41	0.56
1:1G:142:G:H2'	1:1G:143:A:C8	2.41	0.56
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.40	0.56
26:1H:639:U:H3	26:1H:649:G:H1	1.52	0.56
26:1H:778:G:N7	59:1H:4014:HOH:O	2.33	0.56
27:1J:13:A:N1	27:1J:69:G:O2'	2.29	0.56
3:22:67:THR:HG23	3:22:102:ASN:HB2	1.88	0.56
4:32:59:ARG:HA	4:32:62:GLN:HB2	1.86	0.56
4:3E:188:LEU:HD23	4:3E:189:PRO:HD2	1.88	0.56
1:13:36:C:OP1	12:3I:123:LYS:NZ	2.39	0.56
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.41	0.56
3:22:18:TRP:HE1	14:5A:55:GLY:N	2.03	0.56
16:7A:39:TYR:HB2	16:7A:49:LEU:HD13	1.88	0.56
44:A5:110:LYS:HG3	44:A5:111:HIS:CG	2.40	0.56
46:C5:29:GLU:N	46:C5:29:GLU:OE1	2.38	0.56
47:D5:44:PHE:CE1	47:D5:48:PHE:HB2	2.41	0.56
53:J5:16:ARG:HG3	53:J5:17:ASP:N	2.21	0.56
1:13:618:C:H5"	1:13:619:U:H5"	1.88	0.56
1:13:967:C:HO2'	9:8E:125:TYR:HH	1.47	0.56
26:14:1416:G:HO2'	26:14:1417:C:H6	1.53	0.56
26:14:1449:A:H5'	26:14:1449(A):G:OP2	2.05	0.56
26:14:1942:C:OP2	26:14:1943:U:O2'	2.16	0.56
26:14:2168:G:N2	26:14:2170:A:OP2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:71:VAL:HA	2:1E:93:VAL:O	2.06	0.56
1:1G:1240:U:O2'	1:1G:1241:G:OP1	2.22	0.56
1:1G:913:A:H8	1:1G:913:A:OP2	1.88	0.56
26:1H:1167:U:H2'	26:1H:1168:G:C8	2.41	0.56
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.70	0.56
26:1H:2756:U:O2'	59:1H:4322:HOH:O	2.18	0.56
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.88	0.56
1:1G:695:A:OP2	11:2A:53:SER:OG	2.24	0.56
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.41	0.56
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.88	0.56
4:3E:74:GLN:O	4:3E:78:LEU:HD13	2.05	0.56
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.87	0.56
32:41:115:ARG:HB3	32:41:115:ARG:NH1	2.20	0.56
32:49:12:TYR:O	32:49:17:PRO:HD3	2.05	0.56
13:4I:15:VAL:O	13:4I:19:LEU:HD22	2.06	0.56
33:51:144:VAL:O	33:51:148:ILE:HG12	2.05	0.56
1:13:1317:C:C6	14:5I:16:PHE:HD2	2.24	0.56
14:5I:9:LYS:HD2	14:5I:12:ARG:HH21	1.71	0.56
34:61:21:VAL:HG22	34:61:22:LYS:H	1.70	0.56
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.88	0.56
16:7A:71:ARG:HB2	16:7A:71:ARG:HH11	1.71	0.56
46:C5:43:ASN:N	46:C5:43:ASN:OD1	2.38	0.56
47:D5:60:GLU:HB2	47:D5:66:SER:OG	2.06	0.56
44:E8:70:TYR:O	44:E8:107:LEU:HD12	2.05	0.56
47:H8:93:ASP:HA	47:H8:130:PRO:HG2	1.88	0.56
1:13:11:G:C5	1:13:12:U:C5	2.94	0.55
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.39	0.55
26:14:1418:G:O5'	26:14:1418:G:H8	1.89	0.55
26:14:2165:G:H2'	26:14:2166:G:H5'	1.88	0.55
26:14:2777:G:OP2	26:14:2781:A:O2'	2.16	0.55
27:16:15:A:H5'	27:16:16:G:H8	1.71	0.55
2:1E:62:ALA:HB2	2:1E:222:ILE:HG23	1.88	0.55
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.40	0.55
26:1H:2116:G:O6	26:1H:2172:U:N3	2.39	0.55
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.71	0.55
26:1H:382:G:H1	26:1H:392:C:H42	1.54	0.55
26:1H:491:G:O6	44:E8:49:LYS:NZ	2.31	0.55
27:1J:94:C:H2'	27:1J:95:U:C6	2.41	0.55
30:21:128:SER:OG	30:21:129:HIS:N	2.39	0.55
30:29:25:VAL:HG12	30:29:26:ILE:N	2.19	0.55
31:39:95:ARG:HB2	31:39:97:TYR:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:158:ILE:O	4:3E:162:LEU:N	2.32	0.55
32:41:41:GLN:HG2	32:41:155:MET:HB3	1.87	0.55
38:45:74:TYR:O	38:45:89:ASN:HB2	2.06	0.55
5:4E:148:VAL:HA	5:4E:151:LEU:HD12	1.88	0.55
39:55:21:TYR:HB3	39:55:47:PHE:CD2	2.41	0.55
40:65:34:HIS:HD2	40:65:54:LEU:N	2.04	0.55
36:68:117:LEU:HD23	36:68:117:LEU:N	2.22	0.55
1:1G:135:C:O2	16:7A:1:MET:HB3	2.06	0.55
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.38	0.55
43:95:35:LEU:C	43:95:37:VAL:HG13	2.26	0.55
43:95:85:LYS:CB	43:95:87:HIS:H	2.18	0.55
47:D5:158:PRO:HB2	47:D5:159:PRO:HD2	1.87	0.55
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.59	0.55
44:E8:14:PRO:O	44:E8:18:ARG:HB2	2.06	0.55
44:E8:24:ILE:HA	44:E8:27:LYS:HD2	1.88	0.55
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.21	0.55
19:AI:41:VAL:O	52:M8:63:TYR:OH	2.23	0.55
1:13:1305:G:O2'	1:13:1331:G:N2	2.39	0.55
26:14:1788:C:H2'	26:14:1789:A:H8	1.71	0.55
2:1E:22:LYS:H	2:1E:40:HIS:CE1	2.24	0.55
26:1H:1024:G:H3'	26:1H:1025:G:H5"	1.87	0.55
26:1H:1171:G:N2	26:1H:1178:C:N3	2.46	0.55
26:1H:2885:C:N3	26:1H:2886:G:H1'	2.21	0.55
26:1H:742:G:H2'	26:1H:743:G:H8	1.71	0.55
26:1H:994:C:OP2	42:C8:54:LYS:NZ	2.38	0.55
27:1J:2:C:O2	27:1J:118:G:N2	2.38	0.55
27:1J:4:C:H42	27:1J:116:G:H1	1.53	0.55
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.21	0.55
12:3I:47:LYS:HB2	12:3I:48:PRO:HA	1.88	0.55
32:41:131:TYR:O	32:41:159:VAL:HG22	2.06	0.55
38:45:97:VAL:HG21	38:45:103:MET:HE2	1.88	0.55
13:4A:19:LEU:HB2	13:4A:25:ILE:HG21	1.88	0.55
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.71	0.55
1:1G:1188:A:H5"	14:5A:58:LYS:HE3	1.87	0.55
6:5E:38:GLU:HB2	6:5E:64:GLN:HB3	1.89	0.55
15:6I:6:GLU:OE1	15:6I:7:GLU:N	2.40	0.55
37:78:97:PRO:HA	37:78:100:LEU:HD23	1.88	0.55
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.07	0.55
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.06	0.55
39:98:52:ILE:O	39:98:55:ALA:N	2.36	0.55
19:AI:50:ALA:HA	19:AI:58:VAL:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:128:VAL:HG22	47:D5:129:SER:H	1.70	0.55
51:H5:59:VAL:HG12	51:H5:60:GLU:H	1.72	0.55
1:13:31:G:O2'	1:13:48:C:N4	2.39	0.55
1:13:591:U:H2'	1:13:592:G:H8	1.70	0.55
26:14:1683:C:H2'	26:14:1684:C:C6	2.41	0.55
26:14:2402:C:O2'	26:14:2403:C:OP1	2.24	0.55
26:14:1638:C:H5"	26:14:2710:C:O2	2.06	0.55
26:14:661:C:H1'	37:35:12:ALA:HA	1.88	0.55
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.38	0.55
26:1H:960:A:C8	26:1H:962:G:C8	2.94	0.55
30:21:169:ASN:OD1	30:21:201:THR:HG21	2.06	0.55
31:31:32:LEU:HB3	31:31:112:MET:HE1	1.87	0.55
1:1G:619:U:C5	4:32:135:LEU:HD11	2.41	0.55
4:3E:142:PRO:HA	4:3E:185:PHE:HD2	1.70	0.55
32:41:33:ARG:O	32:41:162:THR:HG23	2.06	0.55
32:49:33:ARG:CZ	32:49:162:THR:HG21	2.36	0.55
5:4E:54:ALA:HA	5:4E:57:LYS:HG2	1.87	0.55
33:51:95:ARG:HB3	33:51:95:ARG:NH1	2.22	0.55
2:12:178:ARG:HH21	8:72:68:ARG:HH22	1.54	0.55
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.06	0.55
40:A8:78:LEU:HD12	40:A8:108:GLY:HA3	1.87	0.55
19:AI:6:LYS:O	19:AI:7:LYS:NZ	2.37	0.55
47:H8:18:LEU:H	47:H8:18:LEU:HD12	1.71	0.55
55:Q8:4:MET:HE2	55:Q8:59:LYS:HE2	1.87	0.55
1:13:280:C:H3'	1:13:281:G:H5'	1.88	0.55
1:13:451:A:C6	1:13:480:U:H2'	2.41	0.55
1:13:977:A:H1'	1:13:982:U:O4	2.07	0.55
26:14:172:C:H2'	26:14:173:G:C8	2.41	0.55
26:14:1820:U:H4'	26:14:1821:A:OP2	2.06	0.55
1:1G:865:A:H2	1:1G:918:A:H4'	1.71	0.55
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.72	0.55
26:1H:1797:C:H4'	29:11:257:LEU:O	2.05	0.55
26:1H:2120:G:H2'	26:1H:2121:G:C8	2.41	0.55
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.21	0.55
27:1J:80:U:H2'	27:1J:81:G:N2	2.20	0.55
3:22:190:ARG:H	3:22:190:ARG:HD2	1.71	0.55
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.89	0.55
4:3E:101:LEU:O	4:3E:105:VAL:HB	2.07	0.55
24:3K:39:PSU:O2	24:3K:40:C:N4	2.40	0.55
35:58:107:LEU:HD13	35:58:117:PHE:HB2	1.87	0.55
14:5A:26:ARG:NH1	14:5A:47:LEU:HD21	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:120:GLU:HG2	36:68:122:LEU:HG	1.89	0.55
41:75:53:ARG:NH1	41:75:60:THR:HG23	2.22	0.55
1:1G:136:C:H1'	16:7A:1:MET:HE3	1.88	0.55
42:85:88:ILE:HA	43:95:49:THR:O	2.06	0.55
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.88	0.55
43:D8:34:GLU:HG3	43:D8:56:SER:HB3	1.87	0.55
29:11:53:PHE:C	29:11:218:ARG:HG3	2.27	0.55
2:12:18:GLY:HA2	2:12:42:ILE:HG22	1.89	0.55
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.21	0.55
1:13:186(E):C:N3	1:13:191(B):G:N2	2.45	0.55
1:13:474:G:H5"	16:7I:81:ARG:CZ	2.35	0.55
26:14:1047:G:H2'	26:14:1110:G:H1	1.72	0.55
26:14:817:C:H2'	26:14:818:G:O4'	2.06	0.55
35:15:13:TRP:N	35:15:133:GLN:OE1	2.35	0.55
1:1G:607:A:H2'	1:1G:608:A:O4'	2.07	0.55
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.21	0.55
1:1G:977:A:H8	1:1G:982:U:O4	1.90	0.55
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.05	0.55
26:1H:1394:U:C5	26:1H:1395:A:C5	2.94	0.55
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.05	0.55
26:1H:2155:G:H2'	26:1H:2156:G:H5'	1.89	0.55
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.06	0.55
26:1H:2865:U:H5"	26:1H:2866:U:OP2	2.06	0.55
27:1J:113:C:H4'	40:65:46:VAL:HG22	1.89	0.55
11:2A:86:GLY:H	11:2A:112:THR:HG23	1.70	0.55
56:2L:29:C:H2'	56:2L:30:G:C8	2.41	0.55
12:3A:24:VAL:O	12:3A:26:ALA:N	2.40	0.55
4:3E:114:ARG:HA	4:3E:117:ALA:HB3	1.89	0.55
28:71:53:ARG:HG3	28:71:56:GLN:NE2	2.22	0.55
45:F8:34:ALA:HA	45:F8:38:GLU:OE1	2.07	0.55
1:13:1078:U:O2	5:4E:130:ASN:ND2	2.34	0.55
1:13:1301:U:O2'	1:13:1302:U:H5'	2.06	0.55
1:13:663:A:H2'	1:13:664:G:O4'	2.07	0.55
26:14:1054:A:H62	26:14:1104:C:H42	1.54	0.55
26:14:2122:U:H2'	26:14:2123:G:O4'	2.06	0.55
1:1G:1346:A:OP2	1:1G:1346:A:H3'	2.07	0.55
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.55
26:1H:1352:U:O2	26:1H:1570:A:H2	1.89	0.55
26:1H:2099:U:H2'	26:1H:2100:G:C8	2.41	0.55
26:1H:216:A:H2'	26:1H:217:G:H8	1.70	0.55
26:1H:654(P):G:H2'	26:1H:654(Q):C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:44:G:H5"	27:1J:45:A:OP1	2.06	0.55
23:2K:9:G:H1'	23:2K:47:7MG:H5'	1.88	0.55
37:35:79:ARG:HG3	37:35:110:TYR:HB2	1.89	0.55
32:41:115:ARG:NH2	32:41:137:GLU:OE2	2.39	0.55
13:4I:117:VAL:HG12	13:4I:118:ALA:H	1.72	0.55
13:4I:3:ARG:HH12	13:4I:7:VAL:HG13	1.71	0.55
13:4I:65:LYS:NZ	13:4I:73:GLU:OE2	2.33	0.55
9:82:10:ARG:HD3	9:82:75:ASP:HB3	1.89	0.55
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.40	0.55
20:BA:36:LEU:O	20:BA:40:ALA:N	2.34	0.55
44:E8:110:LYS:HG3	44:E8:111:HIS:H	1.71	0.55
47:H8:28:MET:HB2	47:H8:37:VAL:HG11	1.88	0.55
49:J8:76:ARG:HB3	49:J8:94:LEU:HD11	1.87	0.55
51:L8:3:ARG:HB3	51:L8:38:GLU:HA	1.89	0.55
1:13:167:G:H2'	1:13:168:G:C8	2.42	0.55
26:14:1015:G:H2'	26:14:1016:G:H8	1.71	0.55
26:14:2538:C:H2'	26:14:2539:C:H6	1.72	0.55
26:14:2789:C:H2'	26:14:2790:A:O4'	2.07	0.55
26:14:674:G:OP2	59:14:3870:HOH:O	2.18	0.55
26:14:1006:C:H1'	35:15:106:MET:HB3	1.88	0.55
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.40	0.55
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.70	0.55
1:1G:1224:G:H1	1:1G:1322:C:HO2'	1.50	0.55
26:1H:1153:C:H2'	26:1H:1154:G:C8	2.42	0.55
26:1H:2236:C:H2'	26:1H:2237:G:O4'	2.07	0.55
26:1H:2467:C:C2'	26:1H:2468:G:H5'	2.37	0.55
26:1H:841:A:H2'	26:1H:842:G:C8	2.41	0.55
3:22:61:ALA:C	3:22:63:ASN:H	2.09	0.55
3:22:88:ARG:HA	3:22:101:LEU:HD13	1.87	0.55
3:2E:113:ALA:N	3:2E:183:ASP:OD2	2.40	0.55
56:2L:65:G:H2'	56:2L:66:C:C6	2.42	0.55
32:41:134:GLY:C	32:41:135:LEU:HD12	2.27	0.55
32:49:7:LEU:HB2	32:49:104:GLU:OE1	2.07	0.55
33:51:130:ARG:HB3	33:51:130:ARG:NH1	2.21	0.55
33:51:4:ILE:HD13	33:51:4:ILE:H	1.71	0.55
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.05	0.55
34:61:144:VAL:HG22	34:61:145:VAL:HG23	1.89	0.55
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.42	0.55
50:K8:33:MET:HG2	50:K8:37:PHE:CE1	2.41	0.55
50:K8:42:GLY:C	50:K8:44:LEU:H	2.08	0.55
55:Q8:52:LYS:HA	55:Q8:54:GLU:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1160:G:H1	1:13:1177:G:H22	1.53	0.55
26:14:1002:G:C2	26:14:1003:G:H1'	2.41	0.55
26:14:1019:U:H2'	26:14:1020:A:H8	1.72	0.55
26:14:1786:A:H2	26:14:2606:C:H1'	1.71	0.55
26:14:2533:A:H8	26:14:2533:A:O5'	1.90	0.55
26:14:1007:C:H5"	35:15:35:ARG:NH1	2.22	0.55
27:16:1(M):A:H61	27:16:119:A:N6	2.04	0.55
2:1E:16:HIS:N	2:1E:16:HIS:CD2	2.74	0.55
1:1G:22:G:H2'	1:1G:23:C:H6	1.70	0.55
1:1G:548:G:H2'	1:1G:549:C:C6	2.42	0.55
1:1G:669:U:H2'	1:1G:670:G:H8	1.71	0.55
26:1H:1386:C:C2	26:1H:1387:C:C5	2.95	0.55
22:1K:76:C:O2	26:1H:2507:C:O2'	2.23	0.55
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.87	0.55
39:55:86:ARG:NH2	39:55:118:GLU:HA	2.22	0.55
39:55:62:ALA:O	39:55:66:VAL:HG23	2.06	0.55
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.89	0.55
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.07	0.55
45:F8:27:THR:HB	45:F8:80:ILE:HG22	1.88	0.55
26:1H:64:A:C5	45:F8:66:LEU:HD22	2.42	0.55
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.21	0.55
26:14:1794:U:H2'	26:14:1795:C:C6	2.42	0.55
26:14:2055:C:H4'	26:14:2056:G:H5"	1.89	0.55
26:14:2079:U:H2'	26:14:2080:G:O4'	2.07	0.55
26:14:221:A:C4	26:14:266:G:N7	2.75	0.55
26:14:68:G:H2'	26:14:69:C:H6	1.72	0.55
26:14:962:G:H2'	26:14:963:U:H6	1.71	0.55
1:1G:1126:U:C4	1:1G:1281:U:C6	2.95	0.55
1:1G:447:G:N1	1:1G:485:G:H2'	2.22	0.55
1:1G:624:C:H2'	1:1G:625:G:H8	1.72	0.55
26:1H:1510:A:N3	26:1H:1510:A:H2'	2.21	0.55
24:3K:56:C:N4	26:1H:2112:G:H1	2.05	0.55
26:1H:2168:G:OP1	26:1H:2168:G:H4'	2.06	0.55
26:1H:2689:U:P	26:1H:2719:G:H22	2.30	0.55
26:1H:53:A:C8	26:1H:54:G:C8	2.94	0.55
26:1H:732:C:H3'	59:1H:4008:HOH:O	2.06	0.55
10:1I:20:ALA:HA	10:1I:23:ILE:HD12	1.89	0.55
31:39:8:GLN:HA	31:39:15:SER:HA	1.89	0.55
5:42:18:ARG:HH21	5:42:25:ARG:HB3	1.70	0.55
38:45:2:LEU:HB3	38:45:3:MET:HE3	1.89	0.55
33:51:3:ARG:NH2	33:51:7:LEU:HD11	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.88	0.55
34:61:127:VAL:HA	34:61:138:ILE:O	2.07	0.55
37:78:88:LEU:HD12	37:78:95:VAL:HG11	1.88	0.55
16:7I:21:VAL:O	16:7I:33:ILE:N	2.39	0.55
9:82:82:ALA:HB1	9:82:96:LEU:HD21	1.88	0.55
27:16:90:C:H5'	38:88:18:LYS:HA	1.89	0.55
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.40	0.55
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.89	0.55
47:D5:163:LEU:HD12	47:D5:165:VAL:HG23	1.88	0.55
48:I8:42:GLY:O	48:I8:57:PHE:HD2	1.90	0.55
50:K8:4:SER:HB3	50:K8:5:GLU:OE1	2.06	0.55
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.07	0.55
26:1H:2061:G:H5"	26:1H:2503:A:C2	2.42	0.55
26:1H:2173:A:C8	26:1H:2174:C:H5	2.25	0.55
26:1H:2785:C:O2'	30:21:64:LYS:HD3	2.07	0.55
31:39:53:THR:HG23	31:39:55:GLY:H	1.71	0.55
31:39:74:ARG:HG2	31:39:74:ARG:O	2.06	0.55
4:3E:173:TRP:CG	4:3E:189:PRO:HG3	2.42	0.55
26:1H:2305:A:H5"	32:41:134:GLY:HA3	1.88	0.55
32:41:120:LEU:HB2	32:41:179:PRO:O	2.07	0.55
26:14:1454:U:OP1	39:55:77:ARG:NH1	2.40	0.55
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.89	0.55
34:69:6:LEU:HB2	34:69:36:ALA:HA	1.89	0.55
16:7I:19:ILE:HD11	16:7I:39:TYR:HB2	1.88	0.55
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.72	0.55
26:14:857:C:H4'	48:E5:23:VAL:HG21	1.88	0.55
52:I5:38:LYS:O	52:I5:40:HIS:ND1	2.39	0.55
1:13:652:U:C4	1:13:752:G:N3	2.75	0.54
1:13:749:C:H2'	1:13:750:G:H8	1.71	0.54
26:14:1009:A:H5'	42:85:59:ARG:HD3	1.88	0.54
26:14:1187:G:O5'	59:14:3597:HOH:O	2.18	0.54
26:14:2747:G:O6	26:14:2755:C:H5"	2.07	0.54
27:16:71:C:H2'	27:16:72:G:C8	2.39	0.54
1:1G:910:C:OP2	12:3A:21:LYS:NZ	2.31	0.54
1:1G:977:A:O2'	1:1G:981:U:N3	2.40	0.54
26:1H:2179:C:H2'	26:1H:2180:U:H6	1.71	0.54
26:1H:2062:A:N6	26:1H:2503:A:H62	2.05	0.54
26:1H:1759:A:H4'	26:1H:2715:C:C1'	2.37	0.54
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.07	0.54
26:1H:542:C:H42	26:1H:551:G:H1	1.54	0.54
26:1H:639:U:H2'	26:1H:640:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:719:C:H2'	26:1H:720:C:H6	1.71	0.54
23:2K:17:C:H5'	23:2K:62:C:OP1	2.07	0.54
23:2K:8:4SU:H6	23:2K:8:4SU:O5'	2.07	0.54
6:52:79:LEU:HB3	6:52:88:VAL:HG21	1.89	0.54
7:62:111:ARG:CZ	7:62:122:HIS:HB3	2.37	0.54
38:88:112:GLU:OE2	38:88:112:GLU:N	2.29	0.54
43:95:71:LEU:O	43:95:72:VAL:HG12	2.07	0.54
47:D5:91:LEU:HD22	47:D5:130:PRO:HG3	1.88	0.54
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	1.89	0.54
46:G8:95:LYS:HE2	46:G8:97:ARG:HH22	1.72	0.54
26:1H:850:C:H5"	51:L8:18:ASP:HB2	1.89	0.54
52:M8:39:CYS:SG	52:M8:41:PRO:HD3	2.47	0.54
1:13:1079:G:C6	1:13:1080:A:N6	2.75	0.54
1:13:994:A:N7	1:13:1216:G:H4'	2.22	0.54
1:13:46:G:H2'	1:13:366:C:H41	1.73	0.54
1:13:632:A:H8	1:13:633:G:C8	2.25	0.54
26:14:110:G:C2	26:14:111:A:C8	2.95	0.54
26:14:1219:G:H1	26:14:1230:C:N4	1.98	0.54
26:14:747:U:O2	26:14:2014:A:H1'	2.07	0.54
27:16:15:A:H3'	27:16:16:G:H5'	1.89	0.54
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.90	0.54
1:1G:191:G:H1'	20:BA:104:LEU:O	2.07	0.54
1:1G:259:G:OP2	20:BA:83:ARG:NE	2.41	0.54
1:1G:406:G:H1	1:1G:436:C:H42	1.53	0.54
1:1G:677:U:H3	1:1G:713:G:H22	1.55	0.54
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.42	0.54
26:1H:731:C:H5"	59:1H:3752:HOH:O	2.07	0.54
36:25:91:LEU:HB3	59:25:305:HOH:O	2.07	0.54
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.47	0.54
1:1G:438:G:C4'	4:32:123:HIS:HD2	2.19	0.54
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.89	0.54
32:49:5:VAL:HG21	32:49:101:ILE:HG22	1.90	0.54
13:4A:13:LYS:HG2	13:4A:14:ARG:H	1.73	0.54
33:59:149:ARG:HG3	33:59:162:ILE:HG22	1.88	0.54
37:78:144:GLU:N	37:78:144:GLU:OE2	2.40	0.54
39:98:103:ARG:HD2	39:98:108:GLY:O	2.07	0.54
41:B8:88:ILE:HD13	41:B8:91:ARG:HD3	1.89	0.54
43:D8:65:GLY:N	43:D8:91:TYR:O	2.39	0.54
1:13:1014:A:H4'	19:AI:14:HIS:ND1	2.21	0.54
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.40	0.54
1:13:1428:A:H2'	1:13:1429:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:638:G:H2'	1:13:639:G:O4'	2.08	0.54
26:14:1515:C:O2'	26:14:1516:U:O5'	2.22	0.54
26:14:2275:C:H6	26:14:2275:C:H5'	1.72	0.54
1:1G:841:U:H4'	1:1G:842:C:C6	2.42	0.54
26:1H:1359:A:H2	26:1H:1372:U:O4	1.90	0.54
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.73	0.54
26:1H:1528:A:H2	26:1H:1542:G:C2	2.25	0.54
26:1H:320:A:H5"	26:1H:321:G:OP1	2.08	0.54
26:1H:857:C:OP1	48:I8:77:ARG:NH2	2.38	0.54
11:2A:18:ARG:NH2	11:2A:35:PRO:O	2.39	0.54
4:32:20:TYR:HA	4:32:26:CYS:HB3	1.89	0.54
26:14:2820:A:H1'	39:55:3:HIS:CD2	2.42	0.54
33:59:139:GLN:NE2	33:59:143:GLN:HG3	2.21	0.54
1:1G:1316:G:H5"	14:5A:17:LYS:NZ	2.22	0.54
15:6I:63:ARG:HH12	15:6I:87:ILE:HD13	1.72	0.54
38:88:59:ARG:C	38:88:61:GLY:N	2.61	0.54
26:1H:1653:G:O6	39:98:11:ASN:ND2	2.40	0.54
50:K8:7:ARG:H	50:K8:10:LEU:H	1.55	0.54
29:11:59:LYS:HD2	29:11:60:ARG:H	1.72	0.54
1:13:332:G:H2'	1:13:333:G:H8	1.72	0.54
26:14:1336:A:H2'	26:14:1337:G:H8	1.72	0.54
26:14:1382:G:C2'	26:14:1383:C:H5'	2.37	0.54
26:14:1935:G:H1'	26:14:1964:G:N2	2.22	0.54
26:14:2390:U:O2'	26:14:2391:G:H5'	2.08	0.54
2:1E:100:GLY:O	2:1E:104:ASN:N	2.37	0.54
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.42	0.54
1:1G:1411:C:N3	1:1G:1489:G:N1	2.51	0.54
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.07	0.54
1:1G:127:G:N2	1:1G:234:C:O2	2.31	0.54
1:1G:862:C:O2'	1:1G:863:U:H5'	2.06	0.54
26:1H:2485:G:OP1	38:88:46:GLN:NE2	2.31	0.54
10:1I:4:ILE:HG12	10:1I:100:THR:HA	1.89	0.54
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.40	0.54
26:1H:2784:C:O2'	30:21:42:ASP:OD2	2.21	0.54
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.89	0.54
3:22:70:VAL:HG12	3:22:72:LYS:N	2.22	0.54
36:25:77:ILE:HG12	36:25:78:ARG:N	2.21	0.54
31:39:117:ARG:NH1	31:39:120:GLU:OE1	2.41	0.54
5:42:110:LEU:O	5:42:115:VAL:HG23	2.07	0.54
8:72:19:VAL:HG23	8:72:21:LYS:HB2	1.90	0.54
9:8E:59:PHE:HZ	9:8E:88:TYR:HD2	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:566:U:O4	43:D8:78:LYS:HD3	2.06	0.54
47:H8:18:LEU:O	47:H8:21:ALA:HB3	2.08	0.54
2:12:220:ASP:O	2:12:224:GLN:N	2.31	0.54
2:12:73:THR:HG21	2:12:97:TRP:H	1.73	0.54
2:12:98:LEU:O	2:12:101:MET:HG2	2.07	0.54
1:13:1179:A:O3'	9:8E:103:THR:OG1	2.23	0.54
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.11	0.54
1:13:603:U:H2'	1:13:604:G:C8	2.43	0.54
26:14:1420:U:O2'	26:14:1421:G:OP1	2.26	0.54
26:14:912:C:C6	26:14:913:U:H5	2.26	0.54
2:1E:198:ASP:HA	8:7E:68:ARG:NH2	2.19	0.54
1:1G:278:G:O6	17:8A:92:ARG:NH2	2.40	0.54
1:1G:468:A:H4'	16:7A:80:PHE:O	2.08	0.54
1:1G:536:C:H2'	1:1G:537:G:C8	2.42	0.54
1:1G:589:C:N3	1:1G:650:G:N2	2.35	0.54
1:1G:79:G:N3	1:1G:79:G:H2'	2.23	0.54
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.31	0.54
26:1H:2145:C:H3'	26:1H:2146:C:H5'	1.90	0.54
26:1H:2239:G:P	59:1H:3595:HOH:O	2.66	0.54
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.08	0.54
26:1H:2789:C:HO2'	26:1H:2892:A:H2	1.53	0.54
26:1H:511:U:C5	26:1H:512:G:C5	2.96	0.54
22:1K:59:A:C8	22:1K:62:C:C4	2.96	0.54
34:69:71:ILE:O	34:69:74:ASN:ND2	2.40	0.54
8:72:36:LEU:HA	8:72:39:LEU:HD22	1.89	0.54
37:78:19:VAL:HB	37:78:20:GLY:HA2	1.88	0.54
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.38	0.54
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.89	0.54
40:A8:12:PHE:O	40:A8:16:ASN:ND2	2.40	0.54
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.88	0.54
47:D5:70:LEU:O	47:D5:89:PHE:N	2.38	0.54
46:G8:40:GLU:HA	46:G8:42:VAL:N	2.23	0.54
55:Q8:50:LEU:C	55:Q8:52:LYS:N	2.61	0.54
1:13:611:A:H61	1:13:629:G:H1	1.54	0.54
26:14:134:C:H2'	26:14:135:G:H8	1.71	0.54
26:14:2745:C:H2'	26:14:2746:U:O4'	2.07	0.54
26:14:192:C:O2'	26:14:802:A:N3	2.36	0.54
26:14:959:A:C6	26:14:960:A:N1	2.75	0.54
35:15:121:LYS:HB3	35:15:123:TYR:HE2	1.71	0.54
26:1H:2077:A:H2'	26:1H:2078:C:H6	1.73	0.54
26:1H:240:G:O6	59:1H:4308:HOH:O	2.17	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:49:A:N7	26:1H:120:U:C5	2.65	0.54
26:1H:784:A:H5'	26:1H:785:G:OP1	2.07	0.54
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.43	0.54
31:31:127:GLU:HA	31:31:127:GLU:OE2	2.06	0.54
31:31:197:ASP:O	31:31:199:TRP:N	2.40	0.54
38:45:110:THR:OG1	38:45:111:GLU:N	2.41	0.54
38:45:25:ASP:OD1	38:45:25:ASP:N	2.40	0.54
59:14:3922:HOH:O	39:55:3:HIS:CE1	2.60	0.54
34:69:14:ASP:OD1	34:69:15:VAL:N	2.41	0.54
28:71:8:ARG:HA	28:71:11:LEU:HB3	1.90	0.54
8:72:10:LEU:HD13	8:72:83:ILE:HD11	1.88	0.54
41:75:5:ALA:O	41:75:9:LEU:N	2.32	0.54
42:85:52:ARG:HA	42:85:55:ARG:HD3	1.90	0.54
38:88:51:ARG:HH11	38:88:51:ARG:HB3	1.73	0.54
38:88:41:TRP:CD1	38:88:96:VAL:HG13	2.43	0.54
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.87	0.54
48:I8:68:GLU:OE2	48:I8:82:ARG:NH1	2.32	0.54
1:13:1234:C:H1'	1:13:1364:U:O2	2.07	0.54
1:13:156:G:H1	1:13:165:C:H42	1.54	0.54
26:14:1000:A:C6	26:14:1001:A:N1	2.76	0.54
26:14:1090:U:N3	26:14:1102:C:H1'	2.22	0.54
26:14:1814:G:H5"	29:19:54:ARG:NH1	2.23	0.54
26:14:802:A:H4'	59:14:3633:HOH:O	2.07	0.54
26:14:836:G:H2'	26:14:837:C:C6	2.43	0.54
29:19:159:ALA:HB1	29:19:198:ASN:O	2.07	0.54
2:1E:236:TYR:HA	2:1E:239:VAL:HG21	1.90	0.54
1:1G:1028:C:H2'	1:1G:1028(A):C:O4'	2.07	0.54
1:1G:1127:G:N2	1:1G:1144:G:H22	2.06	0.54
1:1G:1379:G:H2'	1:1G:1380:U:H6	1.73	0.54
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.42	0.54
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.43	0.54
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.54
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.08	0.54
4:32:78:LEU:HD22	4:32:96:LEU:HB3	1.89	0.54
36:68:27:GLY:H	36:68:30:ALA:HB2	1.72	0.54
8:72:29:SER:H	8:72:32:LYS:HB2	1.71	0.54
37:78:19:VAL:HB	37:78:27:HIS:HB3	1.90	0.54
44:A5:72:LYS:HB3	44:A5:106:ILE:HD12	1.88	0.54
47:H8:151:HIS:ND1	47:H8:167:PRO:O	2.40	0.54
50:K8:15:LYS:HD3	50:K8:67:LYS:NZ	2.23	0.54
2:12:47:THR:HG23	2:12:202:PRO:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:51:LEU:HA	2:12:201:ILE:HD12	1.90	0.54
1:13:425:G:C6	1:13:426:G:N7	2.75	0.54
1:13:616:G:O2'	1:13:617:G:O5'	2.18	0.54
1:13:991:U:C4	1:13:1212:U:H1'	2.43	0.54
26:14:1542:G:O6	26:14:1543:A:N6	2.41	0.54
26:14:2680:C:H5'	30:29:189:PRO:HA	1.89	0.54
26:14:892:G:C2	26:14:893:C:H1'	2.43	0.54
1:1G:999:U:O2	1:1G:1000:A:N6	2.37	0.54
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.72	0.54
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.43	0.54
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.42	0.54
26:1H:2312:U:H5'	32:41:88:ILE:HD12	1.88	0.54
26:1H:2529:G:H5"	26:1H:2530:A:H5"	1.89	0.54
26:1H:2773:C:H2'	26:1H:2774:C:H6	1.72	0.54
26:1H:287:C:H2'	26:1H:288:C:C6	2.43	0.54
26:1H:302:C:H2'	26:1H:303:U:C6	2.43	0.54
27:1J:21:G:H1	27:1J:62:C:H42	1.56	0.54
31:39:63:LYS:CE	31:39:67:GLN:HB3	2.37	0.54
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.89	0.54
32:49:111:LEU:HB2	32:49:112:PRO:HD3	1.90	0.54
39:55:103:ARG:HB3	39:55:108:GLY:HA2	1.88	0.54
26:14:2318:G:H22	40:65:2:ALA:HA	1.73	0.54
36:68:88:ASN:ND2	36:68:92:GLU:H	2.06	0.54
9:82:95:LYS:NZ	9:82:96:LEU:HD13	2.23	0.54
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.88	0.54
39:98:26:LYS:HE2	39:98:70:LEU:O	2.07	0.54
18:9A:31:LEU:H	18:9A:31:LEU:HD23	1.72	0.54
41:B8:55:ASN:H	41:B8:59:THR:HB	1.73	0.54
42:C8:101:ARG:O	42:C8:103:PRO:HD3	2.08	0.54
47:H8:127:LYS:O	47:H8:161:VAL:HB	2.07	0.54
26:14:2056:G:N1	53:J5:4:HIS:HB3	2.15	0.54
55:M5:30:ARG:O	55:M5:32:LEU:N	2.40	0.54
1:13:737:A:C4	1:13:738:C:C5	2.95	0.54
1:13:970:C:H42	9:8E:128:ARG:C	2.11	0.54
26:14:1750:G:O2'	26:14:1751:C:H5'	2.08	0.54
26:14:1493:C:O4'	26:14:2210:G:N2	2.41	0.54
26:14:2816:C:H42	26:14:2830:G:H1	1.56	0.54
27:16:1(M):A:N6	27:16:119:A:H62	2.05	0.54
1:1G:518:C:H5"	1:1G:519:C:C6	2.43	0.54
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.08	0.54
26:1H:858:U:O2	26:1H:2268:A:H2'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:774:A:H2	26:1H:787:U:HO2'	1.54	0.54
27:1J:3:C:H2'	27:1J:4:C:H6	1.73	0.54
13:4I:14:ARG:HB3	13:4I:16:ASP:OD1	2.08	0.54
6:5E:76:ALA:HA	6:5E:79:LEU:HD12	1.90	0.54
26:1H:1250:G:OP2	37:78:18:ARG:NH1	2.40	0.54
1:13:1453:G:C8	20:BI:39:LYS:HE2	2.43	0.54
42:C8:47:TYR:CE2	43:D8:74:LYS:HE3	2.43	0.54
52:I5:14:ILE:CG1	52:I5:33:VAL:HG11	2.38	0.54
26:14:686:G:N7	54:L5:5:TRP:CH2	2.76	0.54
55:Q8:39:LYS:HG3	55:Q8:42:ARG:O	2.07	0.54
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.38	0.54
2:12:141:GLU:O	2:12:145:LEU:HB2	2.08	0.54
1:13:735:C:H2'	1:13:736:C:H6	1.71	0.54
1:13:791:G:C6	1:13:792:A:C2	2.95	0.54
1:13:8:A:H62	4:3E:208:SER:HB2	1.72	0.54
26:14:2004:G:OP1	59:14:3740:HOH:O	2.19	0.54
26:14:2183:C:H2'	26:14:2184:G:H8	1.73	0.54
26:14:2311:A:N7	32:49:44:GLY:HA3	2.22	0.54
26:14:273(C):C:N4	26:14:363(C):G:H1	2.05	0.54
2:1E:11:LEU:HB2	2:1E:213:LEU:HD21	1.90	0.54
1:1G:1131:G:C8	1:1G:1132:C:H5	2.25	0.54
1:1G:617:G:H1	1:1G:623:C:H42	1.54	0.54
1:1G:940:C:H2'	1:1G:941:G:C8	2.42	0.54
1:1G:952:U:H4'	1:1G:964:A:N1	2.23	0.54
26:1H:2107:C:H2'	26:1H:2108:C:O4'	2.08	0.54
26:1H:306:U:O2	26:1H:312:G:N2	2.41	0.54
26:1H:569:U:C4	26:1H:570:G:C6	2.96	0.54
26:1H:612:G:N2	26:1H:616:A:O2'	2.39	0.54
30:21:39:PRO:HA	30:21:44:TYR:N	2.23	0.54
36:25:49:ARG:HA	36:25:53:LYS:NZ	2.23	0.54
36:25:67:LYS:HE3	36:25:68:GLU:OE1	2.08	0.54
30:29:63:LEU:HD23	30:29:63:LEU:H	1.72	0.54
24:3L:34:G:N2	24:3L:35:A:C8	2.76	0.54
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.43	0.54
33:59:15:VAL:HG11	33:59:29:PRO:HD3	1.89	0.54
40:65:66:ALA:O	40:65:69:VAL:HG12	2.07	0.54
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.43	0.54
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.90	0.54
48:I8:50:ASN:C	48:I8:62:LEU:HD12	2.28	0.54
55:Q8:38:GLY:HA2	55:Q8:39:LYS:C	2.29	0.54
2:12:67:THR:H	2:12:160:ASP:HB2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.43	0.53
1:13:1090:U:H2'	1:13:1091:U:C6	2.43	0.53
1:13:1367:C:H5"	9:8E:114:TYR:HA	1.88	0.53
1:13:398:C:H2'	1:13:399:G:H8	1.73	0.53
1:13:458:C:H2'	1:13:464:G:O4'	2.08	0.53
1:13:509:A:H3'	59:13:1918:HOH:O	2.08	0.53
26:14:1681:G:H21	26:14:1762:A:H3'	1.72	0.53
26:14:2320:A:N6	26:14:2333:A:H2'	2.23	0.53
26:14:2471:C:N4	26:14:2476:A:O2'	2.33	0.53
26:14:2688:U:H5	26:14:2720:U:OP2	1.91	0.53
26:14:588:U:H2'	26:14:589:C:C6	2.43	0.53
26:14:643:A:H2'	26:14:644:A:C8	2.42	0.53
26:14:755:C:H2'	26:14:756:C:C6	2.43	0.53
26:14:770:G:P	59:14:3807:HOH:O	2.66	0.53
26:14:962:G:H2'	26:14:963:U:C6	2.43	0.53
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.43	0.53
29:19:255:LYS:H	29:19:255:LYS:HE3	1.73	0.53
1:1G:103:C:P	20:BA:17:ARG:HH21	2.31	0.53
1:1G:983:A:N1	1:1G:1222:G:N2	2.56	0.53
1:1G:474:G:H2'	1:1G:475:G:H8	1.71	0.53
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.24	0.53
26:1H:2053:G:OP1	59:1H:3726:HOH:O	2.19	0.53
26:1H:2880:C:O2'	39:98:90:ARG:NH1	2.41	0.53
26:1H:821:A:H2'	26:1H:946:G:H5"	1.90	0.53
26:1H:990:A:N6	26:1H:1186:G:H1'	2.23	0.53
27:1J:14:U:H4'	27:1J:70:C:O2	2.08	0.53
26:1H:2674:G:O2'	36:68:29:ASN:OD1	2.09	0.53
8:7E:17:THR:HG21	8:7E:80:ILE:HG13	1.89	0.53
19:AA:41:VAL:HG13	19:AA:43:GLU:H	1.73	0.53
45:F8:1:MET:O	45:F8:3:THR:HG23	2.08	0.53
26:1H:1309:G:OP1	54:P8:9:ARG:HB2	2.08	0.53
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.07	0.53
1:13:1106:G:H5"	3:2E:172:ARG:HG3	1.90	0.53
1:13:1212:U:H5"	1:13:1213:A:O5'	2.08	0.53
1:13:156:G:H1	1:13:165:C:N4	2.05	0.53
1:13:288:A:H2'	1:13:289:G:H4'	1.90	0.53
1:13:433:C:H2'	1:13:434:U:C6	2.42	0.53
1:13:49:U:C2	1:13:361:G:N2	2.76	0.53
26:14:1889:A:H2'	26:14:1890:A:C8	2.43	0.53
26:14:2688:U:C5	26:14:2720:U:OP2	2.61	0.53
26:14:902:C:H2'	26:14:903:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:29:A:OP2	40:A8:31:SER:HB2	2.08	0.53
2:1E:21:ARG:HG3	2:1E:22:LYS:HG2	1.90	0.53
1:1G:373:A:H2'	1:1G:374:A:C8	2.42	0.53
1:1G:548:G:H2'	1:1G:549:C:H6	1.74	0.53
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.27	0.53
22:1K:19:G:H1'	22:1K:61:U:C4	2.43	0.53
32:41:39:ILE:HD11	32:41:94:LEU:HD11	1.89	0.53
33:51:101:ARG:NH2	33:51:122:THR:HA	2.22	0.53
40:65:11:LYS:O	40:65:15:ARG:HG2	2.07	0.53
41:75:8:LYS:HZ2	41:75:8:LYS:CA	2.21	0.53
26:1H:559:G:H22	42:C8:49:HIS:CE1	2.26	0.53
46:G8:76:CYS:HB2	46:G8:82:PRO:HD3	1.90	0.53
53:N8:40:LYS:CE	53:N8:46:CYS:HB3	2.38	0.53
55:Q8:34:TRP:CE2	55:Q8:36:LYS:HA	2.43	0.53
55:Q8:42:ARG:HG2	55:Q8:42:ARG:O	2.07	0.53
1:13:1442:G:C6	1:13:1446:A:C6	2.96	0.53
1:13:660:G:H2'	1:13:661:G:H8	1.71	0.53
26:14:1028:A:N6	26:14:1125:G:H2'	2.24	0.53
26:14:141:A:H8	26:14:1595:G:H21	1.55	0.53
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.41	0.53
26:14:1945:G:H2'	26:14:1946:U:C6	2.44	0.53
26:14:2115:G:H2'	26:14:2116:G:C8	2.44	0.53
26:14:2262:U:H4'	26:14:2328:A:H2	1.73	0.53
26:14:2462:U:H2'	26:14:2463:C:C6	2.44	0.53
26:14:2660:A:H2'	26:14:2661:G:O4'	2.08	0.53
26:14:863:A:H2'	26:14:864:G:H8	1.74	0.53
1:1G:963:G:H21	10:1A:55:LYS:CE	2.22	0.53
1:1G:123:C:H2'	1:1G:124:G:C8	2.43	0.53
1:1G:1275:A:H2'	1:1G:1276:G:H8	1.73	0.53
26:1H:1274:A:N1	26:1H:1644:C:O2'	2.26	0.53
26:1H:1295:C:O4'	39:98:23:ASN:ND2	2.33	0.53
26:1H:2768:C:O2'	35:58:89:LYS:HE2	2.07	0.53
26:1H:432:A:H2'	26:1H:433:C:C6	2.43	0.53
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.43	0.53
22:1K:56:U:C2	22:1K:58:A:H5"	2.43	0.53
22:1K:73:A:H2'	22:1K:74:A:C8	2.43	0.53
3:22:57:ILE:HG12	3:22:66:VAL:HG13	1.90	0.53
32:41:83:ARG:N	32:41:86:MET:SD	2.80	0.53
6:52:8:ILE:HG13	6:52:88:VAL:HG22	1.90	0.53
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.08	0.53
35:58:57:ALA:O	35:58:59:LYS:N	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:144:VAL:O	33:59:148:ILE:HG12	2.08	0.53
26:1H:2177:C:HO2'	28:71:45:ALA:N	2.05	0.53
26:1H:1191:G:OP1	37:78:32:THR:OG1	2.27	0.53
9:8E:59:PHE:HZ	9:8E:88:TYR:CD2	2.26	0.53
18:9A:59:SER:HB2	18:9A:62:GLU:H	1.73	0.53
45:B5:30:VAL:HG11	45:B5:39:ILE:HD11	1.90	0.53
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.72	0.53
55:Q8:24:ALA:O	55:Q8:46:ARG:HG2	2.09	0.53
29:11:213:ARG:O	29:11:216:GLY:N	2.33	0.53
26:14:1731:G:H2'	26:14:1732:A:O4'	2.08	0.53
26:14:2134:A:N7	26:14:2157:G:H1'	2.23	0.53
26:14:2286:A:C8	26:14:2287:A:C6	2.96	0.53
26:14:2345:G:N3	26:14:2381:C:H2'	2.23	0.53
26:14:2578:G:OP1	26:14:2614:A:N6	2.41	0.53
26:14:2724:C:OP1	30:29:118:LYS:NZ	2.40	0.53
26:14:362:U:H3'	26:14:363:G:H5"	1.89	0.53
26:14:389:G:N1	37:35:71:VAL:HG12	2.23	0.53
2:1E:31:TYR:O	2:1E:42:ILE:HG13	2.08	0.53
1:1G:1053:G:H4'	1:1G:1054:C:H5'	1.91	0.53
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.43	0.53
1:1G:186(D):C:H2'	1:1G:186(E):C:H6	1.73	0.53
1:1G:458:C:H2'	1:1G:464:G:O4'	2.08	0.53
3:22:37:GLN:O	3:22:40:ARG:HG3	2.08	0.53
11:2A:13:GLN:HA	11:2A:75:TYR:O	2.08	0.53
32:41:108:ASN:OD1	32:41:108:ASN:N	2.40	0.53
13:4A:84:ILE:O	13:4A:86:CYS:N	2.41	0.53
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.08	0.53
6:52:11:ASN:HB3	6:52:14:LEU:HB3	1.90	0.53
6:52:15:ASP:O	6:52:19:LEU:N	2.42	0.53
35:58:28:THR:HA	35:58:106:MET:HE2	1.91	0.53
34:61:69:LYS:O	34:61:73:GLU:HB2	2.09	0.53
34:69:81:VAL:HG23	34:69:143:SER:HB2	1.90	0.53
1:13:1298:C:P	7:6E:114:ARG:HH22	2.31	0.53
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.90	0.53
8:7E:36:LEU:HA	8:7E:39:LEU:HD23	1.89	0.53
8:7E:46:LYS:HD2	8:7E:62:TYR:HB3	1.88	0.53
39:98:10:LEU:O	39:98:12:ARG:HG2	2.08	0.53
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.41	0.53
2:12:63:MET:SD	2:12:225:ALA:HB1	2.48	0.53
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.22	0.53
1:13:1151:A:O2'	1:13:1152:A:H8	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1206:G:C6	1:13:1207:G:C5	2.97	0.53
1:13:611:A:N1	1:13:629:G:N2	2.57	0.53
26:14:1288:U:H4'	26:14:1289:C:OP2	2.09	0.53
26:14:1515:C:H2'	26:14:1516:U:H6	1.74	0.53
26:14:1612:C:H42	26:14:1619:G:H1	1.56	0.53
26:14:1759:A:H4'	26:14:2715:C:O4'	2.09	0.53
26:14:1815:A:C5	26:14:1817:G:C6	2.96	0.53
26:14:2340:G:H2'	26:14:2341:G:C8	2.43	0.53
27:16:44:G:H1'	27:16:47:C:H42	1.73	0.53
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.38	0.53
1:1G:1195:C:O2	1:1G:1197:G:H1'	2.08	0.53
1:1G:230:G:N2	1:1G:231:G:C4	2.77	0.53
26:1H:1138:G:H21	35:58:106:MET:HE3	1.74	0.53
26:1H:1168:G:C2	26:1H:1182:A:C2	2.96	0.53
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.09	0.53
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.24	0.53
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.44	0.53
26:1H:483:A:O2'	46:G8:59:GLY:HA2	2.08	0.53
26:1H:805:G:OP2	37:78:41:ARG:HG2	2.08	0.53
23:2K:1:C:H2'	23:2K:2:G:H8	1.74	0.53
31:31:158:THR:OG1	31:31:159:GLY:N	2.41	0.53
4:32:55:ALA:O	4:32:59:ARG:HG2	2.09	0.53
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.44	0.53
38:45:69:PHE:CD1	38:45:70:PRO:HD2	2.44	0.53
13:4A:14:ARG:HA	13:4A:43:THR:O	2.07	0.53
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.08	0.53
33:51:92:ILE:HD12	33:51:93:GLY:H	1.73	0.53
15:6A:16:ALA:HA	15:6A:27:VAL:HG22	1.89	0.53
1:13:939:G:H5"	7:6E:102:ARG:HH22	1.73	0.53
40:A8:32:LEU:O	40:A8:62:LYS:HE2	2.09	0.53
55:Q8:14:VAL:O	55:Q8:15:LYS:HD3	2.08	0.53
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.23	0.53
1:13:198:G:N7	1:13:220:G:N2	2.56	0.53
1:13:225:C:H2'	1:13:226:G:O4'	2.08	0.53
26:14:2461:C:H2'	26:14:2462:U:C6	2.43	0.53
26:14:1462:C:H4'	26:14:2703:C:H5'	1.90	0.53
1:1G:1086:U:H2'	1:1G:1087:G:O4'	2.08	0.53
1:1G:520:A:N1	1:1G:536:C:H1'	2.22	0.53
1:1G:604:G:H2'	1:1G:605:U:O4'	2.09	0.53
26:1H:1312:U:O3'	59:1H:3897:HOH:O	2.18	0.53
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1444:G:O6	59:1H:3654:HOH:O	2.19	0.53
26:1H:1889:A:H2'	26:1H:1890:A:O4'	2.09	0.53
26:1H:97:C:H5"	50:K8:3:LEU:HA	1.89	0.53
30:21:167:VAL:HG21	30:21:187:ALA:CB	2.39	0.53
30:21:78:LEU:O	30:21:79:ARG:HB2	2.09	0.53
4:3E:93:PHE:HA	4:3E:96:LEU:HD23	1.90	0.53
32:41:151:ALA:HB3	32:41:153:ARG:NH1	2.24	0.53
13:4A:66:LEU:HA	13:4A:70:LEU:HG	1.90	0.53
5:4E:95:ALA:O	5:4E:98:THR:OG1	2.26	0.53
33:59:42:ARG:HH12	33:59:55:PRO:HD3	1.74	0.53
15:6I:63:ARG:NH1	15:6I:87:ILE:HD13	2.24	0.53
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.40	0.53
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.07	0.53
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.08	0.53
46:G8:85:VAL:HG23	46:G8:96:ILE:HB	1.91	0.53
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.09	0.53
55:M5:57:ARG:HD3	55:M5:57:ARG:H	1.74	0.53
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.91	0.53
1:13:68:G:H5'	1:13:171:A:H1'	1.89	0.53
26:14:1421:G:C2	26:14:1422:G:N7	2.77	0.53
26:14:1709:U:H2'	26:14:1710:C:C6	2.43	0.53
26:14:2086:U:H2'	26:14:2087:G:C8	2.44	0.53
26:14:2698:U:H2'	26:14:2699:C:C6	2.44	0.53
26:14:67:U:N3	26:14:74:A:H2	2.00	0.53
27:16:44:G:C2	27:16:48:A:C2	2.96	0.53
1:1G:1075:C:H5'	2:12:103:THR:HG21	1.89	0.53
1:1G:468:A:C5	1:1G:474:G:H1'	2.44	0.53
26:1H:445:C:O2'	26:1H:446:G:H5'	2.09	0.53
26:1H:492:A:H2'	26:1H:493:G:O4'	2.08	0.53
26:1H:710:G:H2'	26:1H:711:G:C8	2.44	0.53
26:1H:902:C:H2'	26:1H:903:C:C6	2.43	0.53
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.91	0.53
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.43	0.53
26:14:662:G:OP1	37:35:15:ARG:NH1	2.42	0.53
12:3I:66:VAL:HG22	12:3I:67:THR:N	2.23	0.53
24:3L:9:A:H8	24:3L:11:C:H41	1.56	0.53
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.73	0.53
38:45:34:LEU:HD12	38:45:130:LYS:O	2.09	0.53
26:14:910:A:C5	38:45:13:GLN:HG3	2.43	0.53
38:45:32:TYR:CD1	38:45:32:TYR:N	2.76	0.53
26:14:960:A:H61	38:45:82:ARG:NH2	2.05	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:2:ARG:HE	6:52:69:GLU:HB3	1.74	0.53
33:59:163:TYR:CE1	33:59:169:VAL:HG21	2.43	0.53
36:25:73:ASP:OD2	41:75:32:TYR:OH	2.26	0.53
42:85:47:TYR:HA	42:85:50:ARG:NH2	2.24	0.53
40:A8:35:ILE:HG12	40:A8:35:ILE:O	2.05	0.53
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.42	0.53
47:D5:128:VAL:HG23	47:D5:160:GLY:HA3	1.90	0.53
2:12:9:GLU:HB2	2:12:217:ARG:HH22	1.74	0.53
2:12:53:ARG:NH1	2:12:199:TYR:HA	2.24	0.53
1:13:1028:C:N3	1:13:1033:G:N2	2.57	0.53
1:13:24:U:H2'	1:13:25:C:H6	1.74	0.53
26:14:1131:G:N2	26:14:1132:A:N3	2.57	0.53
26:14:1533:C:H42	26:14:1538:G:H1	1.57	0.53
26:14:2607:G:H2'	26:14:2608:G:O4'	2.09	0.53
26:14:639:U:H3	26:14:649:G:H1	1.55	0.53
26:14:654(D):G:H22	26:14:654(Q):C:H42	1.56	0.53
26:14:994:C:OP1	42:85:53:ARG:NH2	2.41	0.53
35:15:99:LEU:O	35:15:103:VAL:HG23	2.09	0.53
2:1E:18:GLY:N	2:1E:42:ILE:HG22	2.23	0.53
1:1G:1004:A:H2	1:1G:1024:G:C8	2.26	0.53
1:1G:1082:G:H8	1:1G:1082:G:OP2	1.91	0.53
1:1G:102:G:O2'	1:1G:151:A:N3	2.40	0.53
1:1G:255:G:H2'	1:1G:256:U:C6	2.44	0.53
1:1G:332:G:OP2	20:BA:10:LEU:HD12	2.08	0.53
1:1G:512:U:H2'	1:1G:513:C:C6	2.43	0.53
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.42	0.53
26:1H:1952:A:OP1	36:68:44:LYS:NZ	2.41	0.53
26:1H:748:G:C8	44:E8:89:ALA:HB1	2.44	0.53
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.90	0.53
31:39:95:ARG:HB2	31:39:97:TYR:HE1	1.72	0.53
5:42:109:ILE:HG22	5:42:110:LEU:HD23	1.91	0.53
38:45:118:LEU:HD13	38:45:131:ILE:HG23	1.91	0.53
32:49:20:ILE:HA	32:49:25:TYR:HB2	1.90	0.53
6:52:15:ASP:OD1	6:52:16:GLN:N	2.41	0.53
35:58:46:VAL:CG1	35:58:48:MET:HG3	2.39	0.53
36:68:75:SER:CB	41:B8:74:ARG:HH12	2.22	0.53
28:71:13:LYS:HB2	28:71:14:VAL:HG23	1.90	0.53
37:78:49:ARG:HG3	55:Q8:57:ARG:HD3	1.91	0.53
42:85:111:GLU:OE1	42:85:114:LYS:HD3	2.08	0.53
42:85:92:ARG:C	42:85:94:ASN:H	2.10	0.53
38:88:34:LEU:HD23	38:88:104:PHE:HD2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:30:ASP:O	18:9A:33:ASP:HB3	2.09	0.53
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.08	0.53
41:B8:56:GLY:O	41:B8:59:THR:HG22	2.08	0.53
43:D8:5:VAL:HG23	43:D8:6:LYS:N	2.23	0.53
46:G8:14:LEU:HD12	46:G8:23:ARG:O	2.08	0.53
46:G8:28:LYS:HD2	46:G8:40:GLU:HG2	1.90	0.53
2:12:12:GLU:HB3	2:12:213:LEU:HD22	1.91	0.53
2:12:127:ILE:HA	2:12:130:ARG:HG3	1.90	0.53
1:13:1090:U:H2'	1:13:1091:U:H6	1.74	0.53
1:13:1234:C:O2'	1:13:1235:U:H5'	2.09	0.53
1:13:1244:C:N4	1:13:1293:G:H1	2.03	0.53
1:13:484:G:O2'	1:13:485:G:OP2	2.21	0.53
1:13:979:C:N4	59:13:1827:HOH:O	2.42	0.53
26:14:2343:C:O2'	26:14:2373:G:O2'	2.09	0.53
26:14:2438:U:O3'	26:14:2439:A:H3'	2.09	0.53
35:15:42:TRP:HA	35:15:48:MET:HE1	1.90	0.53
27:16:71:C:O2'	27:16:72:G:H5'	2.09	0.53
1:1G:345:C:O2'	1:1G:346:G:OP2	2.24	0.53
1:1G:632:A:H1'	1:1G:633:G:OP2	2.07	0.53
26:1H:1264:G:OP1	53:N8:19:ARG:NH1	2.40	0.53
26:1H:586:A:P	59:1H:3821:HOH:O	2.66	0.53
10:1I:6:ILE:HG12	10:1I:72:VAL:O	2.09	0.53
27:1J:78:A:H2'	27:1J:79:C:O4'	2.08	0.53
22:1K:52:C:H42	22:1K:64:G:H1	1.56	0.53
30:21:5:LEU:HD22	30:21:197:ILE:HG22	1.91	0.53
36:25:10:VAL:HG13	36:25:17:ARG:O	2.09	0.53
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.09	0.53
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.90	0.53
32:41:98:ARG:HA	32:41:101:ILE:HG23	1.91	0.53
33:51:86:GLU:HG3	33:51:165:ALA:HB3	1.91	0.53
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.09	0.53
15:6I:66:LEU:O	15:6I:69:TYR:HB3	2.09	0.53
8:7E:14:ARG:HG3	8:7E:83:ILE:HG23	1.91	0.53
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.08	0.53
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.91	0.53
47:D5:17:ALA:HA	47:D5:20:ARG:HD2	1.90	0.53
46:G8:94:LYS:NZ	46:G8:95:LYS:H	2.07	0.53
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.09	0.53
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.90	0.53
29:11:25:THR:HG22	29:11:82:ILE:H	1.74	0.53
1:13:468:A:H3'	1:13:474:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1412:A:H2'	26:14:1413:G:C8	2.43	0.53
26:14:870:A:OP1	38:45:6:ARG:HD2	2.09	0.53
27:16:13:A:O2'	27:16:14:U:H3'	2.09	0.53
2:1E:51:LEU:HD23	2:1E:201:ILE:HD12	1.90	0.53
1:1G:160:A:H2'	1:1G:161:A:O4'	2.09	0.53
1:1G:661:G:H1	1:1G:744:C:H42	1.57	0.53
26:1H:1240:U:O2'	26:1H:1241:A:H5'	2.09	0.53
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.39	0.53
26:1H:2416:C:H5"	37:78:65:ARG:NH1	2.24	0.53
26:1H:742:G:H2'	26:1H:743:G:C8	2.43	0.53
10:1I:81:THR:O	10:1I:85:LEU:HG	2.09	0.53
1:1G:1191:A:H5"	3:22:4:LYS:HD3	1.91	0.53
36:25:68:GLU:HB3	36:25:78:ARG:HH11	1.74	0.53
30:29:136:ARG:HH11	30:29:136:ARG:HG2	1.73	0.53
30:29:14:ILE:O	30:29:21:VAL:N	2.25	0.53
37:35:85:LEU:HA	37:35:88:LEU:HB3	1.90	0.53
4:3E:111:ALA:HB2	4:3E:120:LEU:HD11	1.89	0.53
32:41:150:ASP:OD1	32:41:150:ASP:N	2.34	0.53
32:41:84:LYS:O	32:41:84:LYS:HG3	2.09	0.53
33:59:19:VAL:HA	33:59:24:VAL:HG12	1.90	0.53
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.44	0.53
6:5E:52:ILE:O	6:5E:55:ASP:HB2	2.09	0.53
27:1J:29:A:OP2	40:65:31:SER:HB2	2.09	0.53
40:65:41:ASP:OD1	40:65:44:LYS:HB2	2.08	0.53
28:71:226:PRO:HD2	28:71:227:HIS:NE2	2.24	0.53
37:78:58:THR:HG21	55:Q8:52:LYS:HD3	1.91	0.53
52:I5:18:CYS:SG	52:I5:19:GLY:HA2	2.49	0.53
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.08	0.53
50:K8:7:ARG:HA	50:K8:10:LEU:HB2	1.90	0.53
55:Q8:57:ARG:HA	55:Q8:58:ILE:C	2.30	0.53
29:11:95:LEU:HD12	29:11:103:ARG:O	2.09	0.52
2:12:136:VAL:HG13	2:12:139:LYS:HD3	1.91	0.52
1:13:1319:A:OP2	19:AI:5:LEU:HD22	2.09	0.52
1:13:1372:U:OP1	9:8E:72:GLY:N	2.42	0.52
1:13:356:A:H2'	1:13:357:G:H8	1.74	0.52
1:13:37:U:O2'	1:13:500:G:H4'	2.10	0.52
26:14:1759:A:C8	26:14:2696:U:H1'	2.43	0.52
26:14:796:C:H2'	26:14:797:C:H6	1.71	0.52
27:16:44:G:H1'	27:16:47:C:N4	2.24	0.52
26:1H:1053:C:N3	26:1H:1107:G:N2	2.57	0.52
26:1H:1298:C:P	59:1H:3549:HOH:O	2.67	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2257:U:H2'	26:1H:2258:C:C6	2.44	0.52
26:1H:303:U:H2'	26:1H:304:G:C8	2.43	0.52
26:1H:500:G:N1	26:1H:503:A:OP2	2.41	0.52
30:21:93:VAL:HG21	30:21:177:PRO:HA	1.91	0.52
3:22:136:GLN:O	3:22:140:ARG:N	2.41	0.52
3:22:87:LEU:HA	3:22:90:GLU:HG2	1.91	0.52
33:51:86:GLU:CG	33:51:165:ALA:H	2.18	0.52
26:1H:1141:U:C5	35:58:64:GLY:HA3	2.43	0.52
40:65:110:LEU:HD23	40:65:112:PHE:CZ	2.45	0.52
34:69:127:VAL:HA	34:69:138:ILE:O	2.09	0.52
37:78:52:GLU:HG3	37:78:57:THR:HA	1.91	0.52
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	1.90	0.52
39:98:53:HIS:HB2	39:98:94:TYR:CE2	2.44	0.52
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.39	0.52
55:Q8:34:TRP:CZ2	55:Q8:36:LYS:HD3	2.44	0.52
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.44	0.52
1:13:129(A):G:H4'	1:13:130:A:H5"	1.91	0.52
1:13:1508:G:H2'	1:13:1509:C:C6	2.44	0.52
1:13:163:C:O2	1:13:164:U:N3	2.41	0.52
1:13:75:C:H6	1:13:75:C:O5'	1.92	0.52
26:14:1594:G:H5"	26:14:1595:G:OP2	2.09	0.52
26:14:353:G:H2'	26:14:354:G:C8	2.44	0.52
26:14:747:U:C5	53:J5:2:ALA:HB3	2.44	0.52
26:14:956:G:H2'	26:14:957:A:H2'	1.91	0.52
27:16:89:G:C6	27:16:89(A):A:C6	2.98	0.52
2:1E:121:LEU:HA	2:1E:124:SER:OG	2.09	0.52
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.08	0.52
1:1G:476:G:H2'	1:1G:477:G:H8	1.75	0.52
1:1G:925:G:H5"	1:1G:926:G:OP1	2.10	0.52
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.44	0.52
26:1H:986:C:H3'	59:1H:3937:HOH:O	2.10	0.52
30:21:52:LEU:O	30:21:75:VAL:HG23	2.09	0.52
3:22:102:ASN:OD1	3:22:102:ASN:N	2.43	0.52
56:2L:20:G:C2	56:2L:58:A:N3	2.78	0.52
56:2L:8:4SU:H6	56:2L:8:4SU:O5'	2.10	0.52
26:1H:321:G:O3'	31:31:168:ARG:NH2	2.42	0.52
4:32:65:ARG:HD2	4:32:72:GLU:HA	1.90	0.52
37:35:50:ARG:HB2	37:35:50:ARG:NH1	2.24	0.52
32:49:113:ARG:HH11	32:49:142:PRO:HB3	1.74	0.52
13:4I:72:ALA:O	13:4I:75:ALA:HB3	2.09	0.52
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.44	0.52
34:61:114:LEU:HD22	34:61:114:LEU:N	2.24	0.52
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.91	0.52
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.90	0.52
9:82:20:ARG:O	9:82:60:ASP:HB2	2.09	0.52
42:85:10:ARG:HG2	42:85:14:HIS:CD2	2.45	0.52
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.57	0.52
17:8I:10:VAL:HG12	17:8I:53:LEU:HA	1.90	0.52
26:1H:2837:G:H21	39:98:45:ARG:NH2	2.06	0.52
47:D5:103:ARG:HD3	47:D5:136:PHE:CD2	2.44	0.52
47:D5:93:ASP:N	47:D5:130:PRO:HG2	2.24	0.52
55:M5:40:GLU:HA	55:M5:43:GLN:HB2	1.90	0.52
55:M5:52:LYS:HE2	55:M5:52:LYS:O	2.09	0.52
55:Q8:45:GLY:CA	55:Q8:46:ARG:C	2.77	0.52
1:13:109:A:C6	1:13:326:G:C6	2.97	0.52
1:13:1259:C:H1'	1:13:1283:G:H21	1.74	0.52
26:14:1053:C:H2'	26:14:1054:A:O4'	2.10	0.52
26:14:1200:C:H5'	59:14:3700:HOH:O	2.09	0.52
26:14:2171:A:H2'	26:14:2172:U:O4'	2.09	0.52
26:14:2469:A:H5'	26:14:2470:G:C8	2.44	0.52
26:14:760:G:OP1	59:14:3973:HOH:O	2.19	0.52
26:14:972:G:H3'	26:14:973:A:H2'	1.91	0.52
35:15:66:LYS:HA	35:15:69:GLN:HB3	1.91	0.52
1:1G:418:C:H42	1:1G:425:G:H1	1.56	0.52
1:1G:484:G:C8	1:1G:486:U:N3	2.77	0.52
1:1G:532:A:H2	3:22:156:ARG:HH22	1.57	0.52
1:1G:957:U:H2'	1:1G:959:A:OP2	2.09	0.52
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.45	0.52
26:1H:1553:A:C6	26:1H:1555:G:H1'	2.44	0.52
26:1H:1678:G:H22	26:1H:1989:G:N2	2.07	0.52
26:1H:218:A:OP2	59:1H:3689:HOH:O	2.18	0.52
26:1H:247:G:O2'	26:1H:250:G:N7	2.37	0.52
26:1H:2564:A:OP1	26:1H:2648:C:H4'	2.10	0.52
30:29:6:GLY:O	30:29:195:LEU:HD12	2.08	0.52
11:2I:85:ARG:NE	11:2I:111:ASP:OD2	2.32	0.52
31:31:108:LYS:HB3	31:31:108:LYS:NZ	2.24	0.52
37:35:111:ARG:HG3	37:35:128:HIS:CG	2.44	0.52
31:39:64:ILE:HG13	31:39:65:TRP:CD1	2.45	0.52
24:3K:58:A:O2'	24:3K:59:U:OP1	2.25	0.52
32:49:95:ARG:HG2	32:49:96:ARG:HG2	1.91	0.52
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:76:THR:HG23	34:69:77:LEU:H	1.74	0.52
20:BI:90:GLN:HA	20:BI:93:GLU:HB2	1.89	0.52
43:D8:38:LEU:HD21	43:D8:40:LEU:O	2.09	0.52
50:K8:15:LYS:H	50:K8:67:LYS:HE2	1.75	0.52
27:16:43:C:H5"	52:M8:1:MET:HG2	1.90	0.52
55:Q8:45:GLY:N	55:Q8:46:ARG:O	2.42	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.45	0.52
26:14:1315:C:O2'	26:14:1392:A:N3	2.40	0.52
26:14:241:A:OP1	26:14:243:U:H1'	2.09	0.52
26:14:270(M):U:H4'	26:14:270(N):G:C2	2.45	0.52
1:1G:993:G:H1	1:1G:1045:C:H42	1.57	0.52
1:1G:1369:C:H2'	1:1G:1370:G:O4'	2.09	0.52
1:1G:229:U:H2'	1:1G:230:G:H8	1.75	0.52
1:1G:57:G:H2'	1:1G:58:C:H6	1.75	0.52
1:1G:624:C:H2'	1:1G:625:G:C8	2.43	0.52
26:1H:1024:G:H8	26:1H:1024:G:O5'	1.92	0.52
26:1H:1050:A:N6	26:1H:1051:G:O6	2.43	0.52
26:1H:2212:A:O2'	26:1H:2213:U:OP2	2.26	0.52
26:1H:2243:U:H2'	26:1H:2244:U:H6	1.72	0.52
27:1J:115:G:H8	27:1J:115:G:OP2	1.92	0.52
37:35:30:THR:HG21	37:35:35:HIS:H	1.74	0.52
26:14:2445:G:OP1	31:39:74:ARG:NH2	2.43	0.52
24:3K:51:U:H2'	24:3K:52:G:C8	2.44	0.52
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.73	0.52
43:95:1:MET:HG3	43:95:43:GLU:HG2	1.90	0.52
1:13:177:C:P	20:BI:65:LYS:HZ3	2.32	0.52
46:C5:52:SER:HA	46:C5:55:TYR:O	2.09	0.52
26:1H:1252:G:N3	42:C8:33:ARG:HD2	2.24	0.52
53:J5:4:HIS:O	53:J5:6:VAL:HG23	2.09	0.52
1:13:1133:G:H1'	1:13:1142:G:N2	2.25	0.52
1:13:1376:U:H2'	1:13:1377:A:C8	2.45	0.52
1:13:522:C:H42	1:13:527:G:H1	1.55	0.52
1:13:606:G:N1	1:13:631:G:H5"	2.24	0.52
1:13:692:U:O2'	1:13:694:A:N7	2.30	0.52
1:13:821:G:C2	1:13:880:C:N3	2.78	0.52
26:14:120:U:C2	26:14:149:A:C6	2.97	0.52
26:14:2115:G:H2'	26:14:2116:G:N7	2.25	0.52
26:14:2226:C:H5"	59:14:3859:HOH:O	2.09	0.52
26:14:2419:U:H2'	26:14:2420:C:C6	2.44	0.52
27:16:10:C:H42	27:16:110:G:H1	1.56	0.52
10:1A:92:THR:H	10:1A:94:VAL:HG23	1.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:6:ARG:HD3	21:1B:15:ARG:NH2	2.25	0.52
2:1E:9:GLU:O	2:1E:12:GLU:HB2	2.10	0.52
1:1G:1027:C:H3'	1:1G:1028:C:H5"	1.92	0.52
1:1G:1250:A:H5'	9:82:67:GLY:HA2	1.92	0.52
1:1G:9:G:C6	1:1G:26:A:N6	2.78	0.52
1:1G:593:G:H1	1:1G:646:U:H3	1.57	0.52
1:1G:673:G:O3'	6:52:87:ARG:NH2	2.43	0.52
26:1H:1993:U:C5	26:1H:1994:C:C5	2.98	0.52
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.42	0.52
26:1H:2442:C:O2'	26:1H:2443:C:H5'	2.09	0.52
30:21:167:VAL:HG21	30:21:187:ALA:HB3	1.91	0.52
25:4K:23:A:C6	25:4K:24:A:N6	2.77	0.52
26:14:2839:G:H5'	39:55:46:GLY:HA2	1.92	0.52
6:5E:75:LEU:HD22	6:5E:79:LEU:CD1	2.39	0.52
36:68:34:THR:OG1	36:68:35:VAL:N	2.42	0.52
15:6I:38:ARG:HH11	15:6I:38:ARG:HG2	1.75	0.52
26:1H:250:G:P	37:78:60:MET:HE1	2.50	0.52
42:85:53:ARG:HA	42:85:56:ASP:HB2	1.90	0.52
19:AA:40:ILE:HG12	19:AA:71:LEU:HD23	1.91	0.52
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.24	0.52
47:D5:30:ASN:ND2	47:D5:90:VAL:HB	2.25	0.52
26:14:2334:G:O6	48:E5:75:LEU:HD21	2.10	0.52
52:I5:17:GLY:N	52:I5:33:VAL:O	2.43	0.52
54:L5:37:LYS:HE3	54:L5:39:ARG:HD3	1.91	0.52
53:N8:40:LYS:NZ	53:N8:46:CYS:HB3	2.24	0.52
55:Q8:34:TRP:C	55:Q8:34:TRP:CD1	2.83	0.52
2:12:73:THR:HB	2:12:96:ARG:H	1.75	0.52
1:13:1124:G:H5'	10:1I:35:SER:HB2	1.91	0.52
1:13:1502:A:H2	1:13:1505:G:H1	1.58	0.52
1:13:443:C:H2'	1:13:444:C:C6	2.45	0.52
1:13:56:U:H4'	34:69:82:ARG:HH21	1.73	0.52
26:14:1018:C:H2'	26:14:1019:U:H6	1.74	0.52
26:14:1159:U:O2'	26:14:1160:G:H5'	2.09	0.52
26:14:1533:C:N3	26:14:1534:G:O2'	2.37	0.52
26:14:1569:A:H5'	29:19:61:LEU:CD2	2.37	0.52
26:14:176:G:O2'	26:14:177:G:H5'	2.10	0.52
26:14:1821:A:H2'	26:14:1822:G:H8	1.75	0.52
26:14:2069:G:H2'	26:14:2070:G:H5'	1.92	0.52
26:14:2693:A:H2'	26:14:2694:G:C8	2.44	0.52
26:14:2852:G:H2'	26:14:2853:C:C6	2.44	0.52
1:1G:1145:C:H1'	1:1G:1146:A:N7	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1452:C:H4'	1:1G:1453:G:O5'	2.10	0.52
1:1G:452:A:O2'	1:1G:453:A:O5'	2.27	0.52
1:1G:605:U:H2'	1:1G:606:G:O4'	2.09	0.52
1:1G:736:C:H2'	1:1G:737:A:C8	2.44	0.52
26:1H:1389:G:C2	26:1H:1390:U:C2	2.98	0.52
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.09	0.52
26:1H:1936:A:C8	26:1H:1940:U:O2	2.62	0.52
26:1H:216:A:H2'	26:1H:217:G:C8	2.44	0.52
26:1H:528:A:C2	26:1H:2043:C:H4'	2.45	0.52
27:1J:40:U:H1'	27:1J:46:A:N1	2.24	0.52
31:39:34:TRP:CE2	37:35:8:PRO:HB3	2.45	0.52
31:39:143:ALA:HB1	31:39:148:LEU:CB	2.40	0.52
31:39:165:ARG:HG2	31:39:168:ARG:NH1	2.25	0.52
31:39:178:PRO:HG2	31:39:179:GLU:OE1	2.10	0.52
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.91	0.52
32:41:173:LEU:HB3	32:41:178:PHE:CD2	2.41	0.52
13:4I:39:ILE:HD12	13:4I:56:LEU:HD22	1.91	0.52
26:1H:1111:A:H5'	33:51:3:ARG:HD3	1.92	0.52
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.43	0.52
43:95:21:ARG:HG3	43:95:93:GLU:HB2	1.90	0.52
45:F8:1:MET:HG2	45:F8:2:LYS:H	1.74	0.52
26:14:95:G:O2'	50:G5:48:HIS:HB3	2.10	0.52
47:H8:58:VAL:O	47:H8:60:GLU:N	2.42	0.52
48:I8:23:VAL:HG13	48:I8:38:VAL:CG2	2.40	0.52
1:13:1278:U:H5"	1:13:1279:A:O4'	2.10	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.74	0.52
1:13:342:C:H2'	1:13:343:U:O4'	2.10	0.52
26:14:51:G:N3	26:14:119:A:C2	2.78	0.52
26:14:239:U:H2'	26:14:240:G:O4'	2.09	0.52
26:14:2702:U:O4'	26:14:2702:U:OP1	2.27	0.52
26:14:958:U:O2	27:1J:89(A):A:O2'	2.23	0.52
27:16:60:C:H2'	27:16:61:G:C8	2.37	0.52
29:19:37:LEU:HA	29:19:38:LYS:CG	2.39	0.52
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.10	0.52
1:1G:1512:U:H3	1:1G:1523:G:H1	1.56	0.52
1:1G:280:C:H3'	1:1G:281:G:H5'	1.91	0.52
1:1G:569:C:H5"	1:1G:570:G:OP1	2.10	0.52
26:1H:1504:C:O2'	26:1H:1505:C:H5'	2.08	0.52
3:22:43:LEU:HD12	3:22:68:VAL:HG21	1.92	0.52
31:31:183:VAL:O	31:31:187:VAL:HG23	2.08	0.52
31:31:198:ALA:O	31:31:201:VAL:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:30:LYS:HB2	4:32:35:ARG:HH11	1.74	0.52
4:3E:20:TYR:HA	4:3E:26:CYS:SG	2.50	0.52
24:3L:8:4SU:O5'	24:3L:8:4SU:H6	2.09	0.52
32:49:113:ARG:NH1	32:49:142:PRO:HB3	2.24	0.52
7:62:50:ILE:O	7:62:54:THR:HG23	2.09	0.52
9:8E:31:GLN:OE1	9:8E:36:TYR:HB2	2.09	0.52
43:95:12:TYR:OH	43:95:22:VAL:HG23	2.10	0.52
41:B8:26:ASP:O	41:B8:49:VAL:HG12	2.09	0.52
20:BA:44:ALA:HA	20:BA:92:LEU:HD21	1.91	0.52
47:D5:58:VAL:CG1	47:D5:60:GLU:HB3	2.39	0.52
26:1H:748:G:OP2	44:E8:88:ARG:HG3	2.10	0.52
52:I5:60:GLN:HB2	52:I5:62:ARG:HD2	1.92	0.52
2:12:77:ALA:O	2:12:81:VAL:HG23	2.09	0.52
1:13:1002:G:H1	1:13:1038:C:H42	1.56	0.52
1:13:1356:G:H2'	1:13:1357:A:C8	2.45	0.52
1:13:625:G:H4'	16:7I:16:HIS:CG	2.44	0.52
26:14:1259:G:H2'	26:14:1260:G:H8	1.74	0.52
26:14:1366:A:H2'	26:14:1367:A:O4'	2.10	0.52
26:14:1419:A:H2'	26:14:1421:G:N7	2.24	0.52
26:14:1678:G:N2	26:14:1989:G:H22	2.08	0.52
26:14:2392:A:H2	26:14:2424:C:N4	2.04	0.52
26:14:978:G:H5"	26:14:979:G:OP2	2.09	0.52
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	1.90	0.52
2:1E:69:LEU:O	2:1E:163:PHE:N	2.42	0.52
1:1G:1139:G:H4'	1:1G:1140:C:H5'	1.91	0.52
1:1G:1225:A:OP2	1:1G:1225:A:H8	1.93	0.52
1:1G:791:G:C6	1:1G:792:A:N7	2.78	0.52
1:1G:864:A:H2'	1:1G:865:A:C8	2.45	0.52
26:1H:1491:G:H2'	26:1H:1492:G:C8	2.44	0.52
26:1H:1742:C:H2'	26:1H:1743:G:O4'	2.10	0.52
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.42	0.52
26:1H:2885:C:O5'	26:1H:2885:C:H6	1.93	0.52
26:1H:771:G:OP1	54:P8:10:ARG:NH1	2.43	0.52
26:1H:880:G:HO2'	26:1H:881:G:P	2.32	0.52
30:21:52:LEU:O	30:21:75:VAL:N	2.31	0.52
30:29:51:PHE:CE2	30:29:52:LEU:HD23	2.45	0.52
31:39:59:TYR:N	31:39:59:TYR:CD1	2.73	0.52
4:3E:112:VAL:N	4:3E:116:GLN:OE1	2.27	0.52
24:3L:35:A:H2	25:4L:14:A:N6	2.08	0.52
15:6A:61:GLY:O	15:6A:64:ARG:HB3	2.10	0.52
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:76:LYS:HD2	43:95:80:GLN:O	2.10	0.52
47:H8:77:ASP:N	47:H8:84:GLU:HG2	2.24	0.52
32:49:108:ASN:O	52:I5:37:SER:HA	2.09	0.52
32:49:67:LYS:H	52:I5:6:HIS:CD2	2.28	0.52
19:AI:68:GLY:HA3	52:M8:59:PHE:CZ	2.45	0.52
1:13:1149:C:H2'	1:13:1150:U:C6	2.42	0.52
26:14:1069:A:H2'	26:14:1073:A:N7	2.25	0.52
26:14:1147:C:H2'	26:14:1148:A:H8	1.75	0.52
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.10	0.52
26:14:1399:C:H2'	26:14:1400:G:H8	1.75	0.52
26:14:2033:A:H8	59:14:3947:HOH:O	1.91	0.52
26:14:2147:G:C4	26:14:2148:G:H1'	2.45	0.52
26:14:2291:U:H3	26:14:2341:G:H1	1.56	0.52
26:14:302:C:OP2	46:C5:73:ARG:NH1	2.35	0.52
26:14:753:C:H2'	26:14:754:C:H6	1.74	0.52
26:14:755:C:H2'	26:14:756:C:H6	1.74	0.52
26:14:824:A:H1'	26:14:2358:G:N7	2.24	0.52
35:15:35:ARG:HB2	35:15:42:TRP:CH2	2.45	0.52
29:19:181:GLU:HA	29:19:272:ALA:HB1	1.92	0.52
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.44	0.52
1:1G:1264:C:O2	1:1G:1272:G:N2	2.43	0.52
1:1G:1350:A:OP2	9:82:118:LYS:HE3	2.10	0.52
1:1G:334:C:H2'	1:1G:335:C:C6	2.45	0.52
1:1G:536:C:H2'	1:1G:537:G:H8	1.75	0.52
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.25	0.52
26:1H:1389:G:N2	26:1H:1390:U:O2	2.42	0.52
26:1H:1438:U:O2'	26:1H:1439:A:H5'	2.10	0.52
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.44	0.52
1:13:1418:A:H2	26:1H:1948:G:N3	2.07	0.52
26:1H:2749:A:H1'	33:51:63:SER:OG	2.08	0.52
30:29:101:ARG:HD2	30:29:169:ASN:ND2	2.25	0.52
30:29:179:GLU:HB2	30:29:181:LEU:HD22	1.92	0.52
30:29:31:CYS:HB2	30:29:49:LEU:HB3	1.92	0.52
3:2E:31:HIS:HA	3:2E:34:LEU:HB2	1.91	0.52
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.73	0.52
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.10	0.52
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.92	0.52
37:35:6:LEU:O	37:35:7:ARG:HG2	2.10	0.52
24:3K:34:G:H2'	24:3K:35:A:C8	2.45	0.52
38:45:79:LEU:HD12	38:45:80:GLU:OE1	2.10	0.52
13:4I:82:MET:O	13:4I:84:ILE:N	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:83:TYR:CG	33:51:134:SER:HA	2.45	0.52
35:58:42:TRP:HA	35:58:48:MET:CE	2.40	0.52
14:5I:9:LYS:HG3	14:5I:12:ARG:HE	1.73	0.52
34:61:104:GLN:HG2	34:61:105:HIS:NE2	2.24	0.52
34:61:129:THR:HG22	34:61:137:PRO:HB3	1.92	0.52
40:65:86:ALA:O	40:65:87:PHE:HB2	2.10	0.52
34:69:77:LEU:HD12	34:69:78:THR:H	1.75	0.52
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.91	0.52
1:13:1292:U:P	7:6E:41:ARG:HH22	2.33	0.52
16:7I:39:TYR:HD1	16:7I:49:LEU:HD13	1.74	0.52
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.92	0.52
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.10	0.52
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.91	0.52
18:9I:53:ARG:HE	18:9I:60:ALA:HA	1.75	0.52
32:41:109:VAL:HG13	52:M8:33:VAL:HG11	1.92	0.52
1:13:452:A:O2'	1:13:453:A:O4'	2.27	0.52
1:13:947:G:C5	1:13:948:C:C4	2.98	0.52
1:13:990:C:H2'	1:13:991:U:C6	2.45	0.52
26:14:1163:G:H2'	26:14:1164:G:H8	1.75	0.52
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.42	0.52
26:14:2286:A:N3	26:14:2286:A:H5'	2.25	0.52
26:14:2648:C:H2'	26:14:2649:U:C6	2.45	0.52
26:14:270(Q):C:H5"	34:69:45:LYS:HE3	1.90	0.52
26:14:2844:G:H3'	26:14:2845:G:H8	1.75	0.52
26:14:920:G:H2'	26:14:921:G:C8	2.45	0.52
26:14:973:A:OP2	59:14:3959:HOH:O	2.19	0.52
35:15:34:LEU:O	35:15:49:GLY:HA3	2.10	0.52
1:1G:826:C:H5'	8:72:12:ARG:NH2	2.21	0.52
26:1H:1102:C:H2'	26:1H:1103:A:H8	1.74	0.52
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.39	0.52
26:1H:1534:G:N2	26:1H:1538:G:H22	2.05	0.52
26:1H:1050:A:H1'	26:1H:2751:G:C8	2.45	0.52
30:21:48:GLN:OE1	30:21:77:ILE:HG21	2.10	0.52
4:32:126:ILE:HG22	4:32:127:THR:H	1.74	0.52
31:39:165:ARG:HA	31:39:168:ARG:HD2	1.92	0.52
24:3L:19:G:N1	26:14:2112:G:H4'	2.25	0.52
5:42:11:ILE:HB	5:42:31:LEU:HB3	1.91	0.52
26:14:907:U:O2'	38:45:101:ARG:NH2	2.43	0.52
38:45:132:VAL:HG21	47:D5:81:ARG:NE	2.24	0.52
32:49:43:LEU:HD12	32:49:45:GLU:CD	2.30	0.52
6:5E:39:LYS:HB3	6:5E:62:TRP:CZ3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:8:GLU:O	14:5I:11:LYS:HG3	2.10	0.52
15:6A:3:ILE:H	15:6A:3:ILE:HD13	1.74	0.52
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.92	0.52
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.10	0.52
9:82:87:GLN:OE1	9:82:88:TYR:N	2.43	0.52
38:88:2:LEU:HB3	38:88:70:PRO:HG3	1.91	0.52
19:AA:66:MET:N	19:AA:67:VAL:HB	2.25	0.52
45:B5:55:ASN:HB2	45:B5:80:ILE:CG1	2.39	0.52
43:D8:43:GLU:HB2	43:D8:44:LYS:CE	2.40	0.52
44:E8:65:LEU:HD12	44:E8:68:ARG:HD3	1.92	0.52
51:L8:31:LEU:HB3	51:L8:32:GLN:OE1	2.09	0.52
26:1H:2360:A:OP1	55:Q8:46:ARG:NH2	2.43	0.52
1:13:1410:G:C4	1:13:1491:G:N2	2.79	0.51
1:13:772:U:H2'	1:13:773:G:C8	2.42	0.51
1:13:778:G:H8	1:13:778:G:O5'	1.93	0.51
26:14:1147:C:H2'	26:14:1148:A:C8	2.45	0.51
26:14:1410:G:H2'	26:14:1411:C:C6	2.45	0.51
26:14:1423:G:C4	26:14:1424:G:C8	2.99	0.51
26:14:1425:G:N2	26:14:1573:G:N7	2.59	0.51
26:14:1599:C:H2'	26:14:1600:C:H6	1.73	0.51
26:14:161:U:H5'	26:14:171:G:N2	2.25	0.51
26:14:1785:A:H4'	26:14:1982:C:O2'	2.09	0.51
26:14:1786:A:H4'	26:14:1787:A:OP2	2.10	0.51
26:14:2331:G:H4'	48:E5:43:THR:H	1.75	0.51
26:14:2850:A:C2	26:14:2851:A:C4	2.98	0.51
26:14:488:G:H1'	26:14:492:A:N6	2.25	0.51
26:14:654(M):C:H2'	26:14:654(N):G:C8	2.45	0.51
35:15:36:GLY:O	35:15:39:ARG:N	2.40	0.51
10:1A:30:SER:OG	10:1A:81:THR:HG22	2.10	0.51
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.93	0.51
1:1G:9:G:N1	1:1G:26:A:N6	2.58	0.51
1:1G:313:A:H2'	1:1G:314:C:C6	2.45	0.51
1:1G:935:A:H2'	1:1G:936:C:C6	2.44	0.51
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.45	0.51
26:1H:2244:U:O2'	26:1H:2245:U:H5'	2.10	0.51
26:1H:972:G:OP2	26:1H:973:A:O2'	2.21	0.51
27:1J:9:G:OP1	40:65:25:ARG:NH2	2.43	0.51
22:1K:52:C:N4	22:1K:53:G:O6	2.43	0.51
30:29:38:THR:HG23	30:29:41:LYS:HG2	1.92	0.51
4:32:23:GLY:N	4:32:26:CYS:HB2	2.16	0.51
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:6:G:N2	24:3K:68:C:H1'	2.25	0.51
33:51:33:LEU:HD21	33:51:136:ILE:HB	1.91	0.51
14:5A:12:ARG:HD3	14:5A:13:THR:H	1.75	0.51
9:8E:89:ASN:O	9:8E:91:ASP:N	2.42	0.51
47:D5:5:LEU:HD23	47:D5:7:ALA:H	1.74	0.51
48:I8:37:LEU:HD11	48:I8:61:ALA:N	2.24	0.51
26:1H:728:G:H4'	29:11:13:ARG:HD3	1.92	0.51
1:13:1352:C:H2'	1:13:1353:G:H8	1.74	0.51
1:13:1396:A:H4'	1:13:1397:C:H5"	1.92	0.51
1:13:186(E):C:N4	1:13:191(B):G:H1	2.06	0.51
1:13:77:C:H2'	1:13:78:G:H5"	1.92	0.51
26:14:1027:A:C5'	27:1J:88:C:H41	2.22	0.51
26:14:1681:G:N2	26:14:1762:A:H3'	2.26	0.51
26:14:2358:G:H2'	26:14:2359:C:C6	2.42	0.51
26:14:863:A:H2'	26:14:864:G:C8	2.44	0.51
26:14:880:G:N2	26:14:897:C:O2	2.36	0.51
1:1G:1342:C:H2'	1:1G:1343:G:C8	2.45	0.51
1:1G:1481:U:H2'	1:1G:1482:G:H8	1.75	0.51
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.44	0.51
26:1H:945:A:C4	26:1H:2448:A:C2	2.99	0.51
26:1H:270(E):G:H1	26:1H:270(U):C:N4	2.08	0.51
26:1H:507:A:H5"	26:1H:508:G:H5'	1.92	0.51
26:1H:675:A:C8	26:1H:804:A:C6	2.99	0.51
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.09	0.51
26:14:1665:A:H1'	36:25:1:MET:HG2	1.92	0.51
31:31:9:ILE:HG13	31:31:123:LEU:HG	1.92	0.51
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.91	0.51
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.45	0.51
15:6I:18:PHE:HB2	15:6I:19:PRO:CD	2.38	0.51
16:7I:69:THR:OG1	16:7I:69:THR:O	2.27	0.51
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.25	0.51
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.09	0.51
46:C5:19:LYS:HG3	46:C5:20:TYR:CD1	2.43	0.51
45:F8:26:TYR:CD1	45:F8:92:LEU:HD12	2.45	0.51
50:G5:33:MET:O	50:G5:37:PHE:HD1	1.93	0.51
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.45	0.51
49:J8:78:LYS:H	49:J8:78:LYS:HE3	1.76	0.51
50:K8:24:LEU:HD13	50:K8:60:LEU:HD13	1.91	0.51
50:K8:64:LEU:O	50:K8:68:ARG:HG3	2.09	0.51
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.57	0.51
1:13:1177:G:O2'	1:13:1178:G:O4'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:650:G:C2	1:13:651:C:C6	2.99	0.51
26:14:1641:A:H5"	26:14:1642:G:OP2	2.10	0.51
26:14:1676:A:H8	26:14:1676:A:O5'	1.93	0.51
26:14:1742:C:H5'	26:14:1743:G:OP2	2.09	0.51
26:14:310:A:O3'	26:14:311:A:H2'	2.10	0.51
29:19:11:PRO:C	29:19:13:ARG:H	2.13	0.51
1:1G:1231:G:O3'	9:82:126:SER:OG	2.24	0.51
1:1G:155:C:H2'	1:1G:156:G:H8	1.75	0.51
1:1G:596:C:H2'	1:1G:597:G:C8	2.41	0.51
1:1G:881:G:H2'	1:1G:882:C:O4'	2.10	0.51
26:1H:1266:G:O4'	44:E8:15:ARG:NH2	2.43	0.51
26:1H:1477:A:C6	26:1H:1517:G:N1	2.78	0.51
26:1H:2128:C:H2'	26:1H:2129:C:H6	1.74	0.51
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.11	0.51
26:1H:282:A:H2'	26:1H:282:A:N3	2.26	0.51
26:1H:548:A:O5'	26:1H:548:A:H8	1.93	0.51
26:1H:580:C:H2'	26:1H:581:C:H6	1.76	0.51
26:1H:760:G:H4'	26:1H:1776:G:OP1	2.11	0.51
26:1H:876:C:H2'	26:1H:877:U:O4'	2.09	0.51
10:1I:96:ILE:H	10:1I:96:ILE:HD13	1.75	0.51
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.26	0.51
37:35:90:ARG:HG3	37:35:91:PHE:CD2	2.45	0.51
32:49:52:ILE:HD11	32:49:153:ARG:NH1	2.25	0.51
13:4I:66:LEU:C	13:4I:70:LEU:HB2	2.31	0.51
13:4I:69:GLU:HG3	32:41:118:ARG:HH22	1.75	0.51
8:72:27:PRO:O	8:72:32:LYS:HD3	2.09	0.51
8:7E:6:ILE:HD12	8:7E:6:ILE:H	1.76	0.51
16:7I:26:ARG:HH21	16:7I:31:LYS:HB3	1.75	0.51
1:13:227:G:N2	16:7I:62:VAL:O	2.41	0.51
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.09	0.51
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.09	0.51
45:F8:24:GLY:O	45:F8:83:VAL:HG22	2.09	0.51
1:13:131:C:H2'	1:13:132:C:C6	2.46	0.51
1:13:1404:C:H2'	1:13:1405:G:C8	2.45	0.51
1:13:273:A:H1'	17:8I:16:GLN:HE21	1.74	0.51
1:13:902:G:O2'	1:13:903:G:H5'	2.10	0.51
26:14:1198:U:H2'	26:14:1199:U:C6	2.45	0.51
26:14:1933:G:H22	26:14:1968:G:H1'	1.75	0.51
26:14:2065:C:O2'	26:14:2066:C:H5'	2.11	0.51
26:14:2215:G:H8	26:14:2215:G:O5'	1.93	0.51
26:14:654(J):A:H5'	26:14:654(K):C:OP2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:37:LEU:HD12	29:19:37:LEU:O	2.10	0.51
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.10	0.51
26:1H:376:C:P	59:1H:3664:HOH:O	2.68	0.51
26:1H:780:G:H21	26:1H:783:A:N6	2.08	0.51
1:1G:1206:G:O2'	3:22:192:THR:O	2.16	0.51
36:25:64:ARG:NH1	36:25:83:ALA:HB2	2.25	0.51
56:2L:48:U:O2'	56:2L:49:C:OP2	2.21	0.51
4:3E:92:VAL:HG12	4:3E:96:LEU:CD2	2.40	0.51
1:13:552:U:H4'	12:3I:86:ARG:HG2	1.93	0.51
13:4I:108:ARG:HG3	13:4I:108:ARG:NH1	2.19	0.51
33:51:87:LEU:HD11	33:51:148:ILE:HB	1.92	0.51
39:55:33:ARG:HG3	39:55:115:GLU:HB2	1.91	0.51
40:65:69:VAL:O	40:65:72:ALA:HB3	2.10	0.51
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.93	0.51
43:95:21:ARG:HE	43:95:91:TYR:HB3	1.75	0.51
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.25	0.51
45:B5:63:LYS:O	45:B5:63:LYS:HD2	2.10	0.51
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.44	0.51
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.93	0.51
52:I5:61:ARG:H	52:I5:62:ARG:CZ	2.23	0.51
26:14:2019:A:N7	53:J5:9:LYS:HE3	2.25	0.51
1:13:1048:G:H5"	14:5I:3:ARG:HG3	1.92	0.51
1:13:1226:C:H4'	1:13:1227:A:OP1	2.10	0.51
1:13:129(A):G:N2	1:13:188:U:HO2'	2.09	0.51
1:13:51:A:C6	1:13:353:A:C2	2.99	0.51
1:13:664:G:N2	1:13:741:G:H1	2.04	0.51
1:13:79:G:H2'	1:13:79:G:N3	2.26	0.51
26:14:1405:U:H2'	26:14:1406:U:C6	2.46	0.51
26:14:1510:A:H2'	26:14:1511:A:H8	1.74	0.51
26:14:1813:G:O2'	29:19:42:GLY:O	2.28	0.51
26:14:301:G:C4	26:14:302:C:C5	2.99	0.51
26:14:330:A:H2	26:14:1210:A:HO2'	1.58	0.51
1:1G:748:C:H4'	1:1G:749:C:O5'	2.10	0.51
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.10	0.51
24:3K:71:G:O2'	26:1H:1851:U:O3'	2.23	0.51
26:1H:1952:A:C6	36:68:22:ILE:HD12	2.46	0.51
26:1H:2626:C:H2'	26:1H:2627:G:O4'	2.09	0.51
26:1H:2850:A:C2	26:1H:2851:A:C4	2.98	0.51
26:1H:2852:G:C6	26:1H:2853:C:C4	2.99	0.51
1:13:1059:C:O2	10:1I:53:PRO:HG3	2.11	0.51
31:31:164:ARG:HG3	31:31:175:THR:OG1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:173:TRP:HZ3	4:32:193:ASP:HB3	1.75	0.51
31:39:143:ALA:O	31:39:148:LEU:HB2	2.10	0.51
31:39:152:GLU:HA	31:39:190:GLU:OE2	2.11	0.51
12:3I:79:GLU:OE2	12:3I:80:HIS:NE2	2.44	0.51
24:3L:70:G:H2'	24:3L:71:G:O4'	2.11	0.51
5:42:61:TYR:HA	5:42:64:ARG:CB	2.40	0.51
38:45:19:GLY:O	38:45:98:LYS:HB3	2.10	0.51
13:4I:11:ARG:HG3	13:4I:12:ASN:H	1.75	0.51
13:4I:54:VAL:HG22	13:4I:57:ARG:HH22	1.75	0.51
34:61:131:LYS:HD3	34:61:131:LYS:N	2.25	0.51
40:65:16:ASN:H	40:65:16:ASN:ND2	2.09	0.51
26:14:2845:G:H5"	41:75:54:ARG:O	2.10	0.51
38:88:39:PRO:HA	38:88:97:VAL:O	2.10	0.51
43:95:21:ARG:HA	43:95:93:GLU:HA	1.91	0.51
39:98:81:ASP:OD1	39:98:81:ASP:N	2.43	0.51
18:9A:19:LYS:HG3	18:9A:20:ALA:H	1.76	0.51
18:9I:59:SER:OG	18:9I:60:ALA:N	2.42	0.51
47:D5:152:ALA:N	47:D5:167:PRO:O	2.43	0.51
44:E8:17:VAL:HG22	44:E8:76:VAL:HG11	1.91	0.51
53:J5:4:HIS:O	53:J5:5:PRO:C	2.47	0.51
50:K8:41:ILE:HD12	50:K8:44:LEU:HG	1.93	0.51
55:Q8:21:LYS:HZ2	55:Q8:21:LYS:C	2.14	0.51
55:Q8:22:VAL:HG22	55:Q8:47:LYS:NZ	2.26	0.51
55:Q8:39:LYS:HG2	55:Q8:40:GLU:N	2.24	0.51
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.51
26:14:1033:U:H6	26:14:1033:U:H3'	1.76	0.51
26:14:1188:U:O2'	26:14:1189:A:H5'	2.10	0.51
26:14:2360:A:H2'	26:14:2361:A:O4'	2.11	0.51
26:14:814:C:N3	26:14:1194:A:C2	2.78	0.51
35:15:121:LYS:HB3	35:15:123:TYR:CE2	2.44	0.51
2:1E:8:LYS:HE2	2:1E:8:LYS:H	1.75	0.51
1:1G:1053:G:O2'	1:1G:1054:C:P	2.69	0.51
1:1G:1160:G:N7	1:1G:1181:G:N1	2.47	0.51
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.45	0.51
1:1G:216:G:O2'	1:1G:217:C:O4'	2.20	0.51
26:1H:193:U:H5	59:1H:3624:HOH:O	1.94	0.51
26:1H:195:A:H4'	26:1H:251:A:O2'	2.10	0.51
26:1H:78:A:H2'	26:1H:79:G:H8	1.75	0.51
23:2K:70:C:H2'	23:2K:71:G:O4'	2.10	0.51
31:39:25:PRO:HG3	31:39:28:ILE:HG23	1.92	0.51
32:41:2:PRO:HG2	52:M8:25:TYR:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:174:GLU:HB2	32:49:180:PHE:HE2	1.75	0.51
34:69:112:LYS:CA	34:69:114:LEU:H	2.20	0.51
36:25:104:ARG:NH1	41:75:36:GLU:HB3	2.25	0.51
37:78:16:ARG:HG2	37:78:17:LYS:H	1.75	0.51
41:B8:3:ARG:O	41:B8:3:ARG:HG3	2.10	0.51
41:B8:3:ARG:HG3	41:B8:7:ILE:HG13	1.93	0.51
46:C5:87:LYS:HB2	46:C5:96:ILE:CD1	2.41	0.51
47:D5:152:ALA:HB2	47:D5:169:GLU:O	2.10	0.51
47:D5:79:ARG:HD2	47:D5:80:ARG:NH1	2.26	0.51
43:D8:53:GLU:HG3	43:D8:54:GLY:N	2.24	0.51
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.25	0.51
49:J8:87:PRO:O	49:J8:91:LYS:N	2.42	0.51
1:13:406:G:H2'	1:13:407:G:H8	1.74	0.51
1:13:437:U:H5'	4:3E:155:LEU:HD21	1.92	0.51
1:13:534:U:H5"	1:13:535:A:OP2	2.09	0.51
1:13:540:G:H2'	1:13:541:G:O4'	2.11	0.51
26:14:1110:G:O2'	26:14:1111:A:O4'	2.16	0.51
26:14:144:C:H2'	26:14:145:G:C8	2.43	0.51
26:14:2120:G:H2'	26:14:2121:G:C8	2.46	0.51
26:14:2693:A:H2'	26:14:2694:G:H8	1.75	0.51
26:14:2696:U:H2'	26:14:2697:G:H8	1.76	0.51
26:14:2736:G:H2'	26:14:2737:G:H8	1.76	0.51
26:14:273(F):C:H3'	26:14:274:G:C5'	2.39	0.51
26:14:32:C:O2'	26:14:33:U:H5'	2.10	0.51
26:14:718:A:H3'	26:14:719:C:C6	2.46	0.51
26:14:800:A:H8	26:14:800:A:OP1	1.94	0.51
1:1G:1134:G:C6	1:1G:1135:U:C2	2.98	0.51
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.28	0.51
1:1G:44:G:H1	1:1G:398:C:H42	1.57	0.51
1:1G:622:A:H2'	1:1G:623:C:O4'	2.11	0.51
26:1H:273(D):C:H2'	26:1H:273(E):U:C6	2.45	0.51
26:1H:581:C:H2'	26:1H:582:G:H8	1.74	0.51
26:1H:620:G:P	26:1H:620:G:H21	2.33	0.51
4:32:134:ASP:O	4:32:136:PRO:HD3	2.10	0.51
4:32:63:LYS:HD2	4:32:198:VAL:HG12	1.93	0.51
37:35:107:LYS:O	37:35:109:GLY:N	2.43	0.51
31:39:178:PRO:HB3	31:39:198:ALA:HB1	1.93	0.51
5:42:106:PRO:O	5:42:110:LEU:HG	2.11	0.51
5:4E:101:ILE:O	5:4E:120:THR:HG23	2.10	0.51
7:62:71:PRO:HD3	7:62:103:TRP:HZ3	1.76	0.51
7:62:92:SER:HB2	7:62:95:ARG:H	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:9:G:P	40:65:25:ARG:HH22	2.34	0.51
34:69:3:VAL:HG12	34:69:38:LEU:HA	1.93	0.51
28:71:52:ARG:HD2	28:71:52:ARG:H	1.76	0.51
37:78:96:THR:O	37:78:98:GLU:N	2.43	0.51
9:82:48:GLU:HG3	9:82:101:PHE:HE2	1.76	0.51
26:14:1226:G:H4'	43:95:83:ARG:HB3	1.93	0.51
43:95:87:HIS:ND1	43:95:87:HIS:O	2.44	0.51
19:AI:40:ILE:HG12	19:AI:41:VAL:N	2.25	0.51
26:1H:2875:C:C1'	41:B8:5:ALA:HB2	2.37	0.51
46:G8:54:LYS:O	46:G8:55:TYR:CG	2.64	0.51
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.11	0.51
52:I5:37:SER:OG	52:I5:38:LYS:N	2.43	0.51
1:13:1162:C:H2'	1:13:1163:C:C6	2.46	0.51
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.40	0.51
1:13:833:U:H3	1:13:853:G:H1	1.59	0.51
26:14:986:C:O2'	26:14:1001:A:O2'	2.13	0.51
26:14:1789:A:H2'	26:14:1790:C:O4'	2.10	0.51
26:14:177:G:H3'	26:14:178:G:C8	2.46	0.51
26:14:2323:G:HO2'	26:14:2337:G:HO2'	1.59	0.51
26:14:2853:C:O2'	26:14:2854:G:H5'	2.10	0.51
27:16:63:G:C2	27:16:64:C:C2	2.99	0.51
26:14:705:A:H1'	29:19:9:TYR:CD2	2.46	0.51
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.11	0.51
1:1G:1161:C:O2'	1:1G:1162:C:H5'	2.10	0.51
1:1G:458:C:H2'	1:1G:464:G:H8	1.76	0.51
1:1G:571:U:H3	1:1G:864:A:H61	1.59	0.51
26:1H:1640:C:H2'	26:1H:1641:A:C8	2.46	0.51
26:1H:2033:A:H8	59:1H:3998:HOH:O	1.92	0.51
26:1H:2852:G:C6	26:1H:2853:C:N3	2.79	0.51
26:1H:355:G:H2'	26:1H:356:G:C8	2.46	0.51
26:1H:547:A:C5	26:1H:548:A:N6	2.79	0.51
26:1H:686:G:H1	54:P8:16:HIS:CD2	2.28	0.51
30:21:51:PHE:O	30:21:74:PRO:HB2	2.11	0.51
3:22:91:LEU:O	3:22:95:THR:OG1	2.23	0.51
30:29:5:LEU:HD21	30:29:49:LEU:HB2	1.93	0.51
12:3A:11:VAL:HG22	17:8A:29:HIS:CD2	2.44	0.51
4:3E:162:LEU:O	4:3E:165:MET:HB3	2.11	0.51
12:3I:76:ASN:ND2	12:3I:108:ALA:HB2	2.25	0.51
33:59:154:PRO:HB3	33:59:162:ILE:O	2.11	0.51
14:5A:43:CYS:HA	14:5A:46:GLU:OE2	2.10	0.51
14:5I:6:LEU:HD22	14:5I:23:ARG:HH22	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:81:VAL:HG21	34:61:88:ILE:HD13	1.93	0.51
34:61:89:TYR:O	34:61:121:LYS:NZ	2.44	0.51
7:6E:108:ALA:O	7:6E:119:ARG:HB3	2.10	0.51
26:1H:390:A:C6	37:78:71:VAL:HG21	2.46	0.51
8:7E:122:ARG:O	8:7E:126:LYS:HG2	2.10	0.51
9:82:48:GLU:HG3	9:82:101:PHE:CE2	2.45	0.51
42:85:83:LEU:HD23	42:85:88:ILE:HD12	1.93	0.51
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.41	0.51
45:B5:12:VAL:HG13	45:B5:27:THR:O	2.11	0.51
2:12:17:PHE:CZ	2:12:203:GLY:HA2	2.46	0.51
1:13:994:A:C8	1:13:1216:G:H4'	2.46	0.51
1:13:1285:A:H4'	1:13:1286:A:C5'	2.41	0.51
1:13:735:C:H2'	1:13:736:C:C6	2.45	0.51
26:14:1322:A:N1	26:14:1333:C:O2'	2.37	0.51
26:14:1572:A:H8	26:14:1572:A:O5'	1.94	0.51
26:14:2510:C:H2'	26:14:2511:U:C6	2.46	0.51
26:14:29:U:H2'	26:14:30:G:H8	1.74	0.51
26:14:322:A:O5'	31:39:169:ASN:ND2	2.43	0.51
1:1G:832:C:N3	1:1G:855:G:C6	2.79	0.51
1:1G:980:C:H3'	1:1G:981:U:C6	2.46	0.51
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.46	0.51
26:1H:1791:A:C8	26:1H:1792:G:C8	2.99	0.51
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.11	0.51
26:1H:94:G:H2'	26:1H:95:G:O4'	2.11	0.51
30:29:105:THR:HG21	30:29:164:ARG:CZ	2.40	0.51
4:32:150:GLU:C	4:32:152:SER:H	2.13	0.51
4:32:30:LYS:CB	4:32:35:ARG:HD2	2.41	0.51
4:3E:62:GLN:HB3	4:3E:66:ARG:NH1	2.26	0.51
32:41:38:VAL:HG22	32:41:93:THR:HG23	1.93	0.51
13:4A:94:ARG:HH22	19:AA:78:ARG:HH12	1.58	0.51
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	1.92	0.51
46:C5:63:LYS:HA	46:C5:63:LYS:HZ3	1.75	0.51
42:C8:34:LYS:HA	42:C8:34:LYS:HE3	1.93	0.51
42:C8:47:TYR:C	42:C8:47:TYR:CD1	2.84	0.51
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.92	0.51
48:E5:23:VAL:HG13	48:E5:38:VAL:HG22	1.92	0.51
46:G8:40:GLU:HA	46:G8:42:VAL:H	1.76	0.51
26:1H:1825:A:O4'	29:11:254:THR:HG21	2.10	0.51
1:13:1315:U:H2'	1:13:1316:G:O4'	2.11	0.51
1:13:792:A:H4'	1:13:793:U:O5'	2.10	0.51
1:13:823:G:C2	1:13:878:G:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:946:A:O2'	1:13:1333:A:H2'	2.11	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.46	0.51
26:14:1819:A:H4'	26:14:1820:U:O5'	2.10	0.51
26:14:360:G:H2'	26:14:361:G:C8	2.46	0.51
26:14:662:G:H5'	37:35:15:ARG:CA	2.41	0.51
27:16:78:A:C2	27:16:99:A:C4	2.99	0.51
1:1G:1157:A:H61	1:1G:1178:G:H21	1.59	0.51
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.76	0.51
1:1G:143:A:H5"	1:1G:144:G:H5'	1.92	0.51
1:1G:352:C:O2	1:1G:352:C:H2'	2.11	0.51
1:1G:973:G:H3'	1:1G:974:A:H5"	1.92	0.51
26:1H:1260:G:C6	26:1H:1261:C:C4	2.99	0.51
26:1H:1319:G:C2'	26:1H:1320:C:H5'	2.41	0.51
26:1H:1887:C:H2'	26:1H:1888:G:H5'	1.92	0.51
26:1H:1983:C:OP1	59:1H:3906:HOH:O	2.20	0.51
26:1H:2025:C:N4	59:1H:3706:HOH:O	2.44	0.51
26:1H:20:C:H2'	26:1H:21:A:H8	1.76	0.51
26:1H:2302:G:C6	26:1H:2315:G:C6	2.99	0.51
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.10	0.51
26:1H:2682:U:C6	30:21:11:MET:HE2	2.46	0.51
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.27	0.51
26:1H:32:C:O2'	26:1H:33:U:H5'	2.10	0.51
26:1H:71:A:OP1	26:1H:72:U:H2'	2.11	0.51
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.71	0.51
30:21:105:THR:HG22	30:21:106:GLY:H	1.75	0.51
3:22:8:ILE:HD11	3:22:184:TYR:HB3	1.93	0.51
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.46	0.51
4:32:82:ALA:HA	4:32:85:LYS:HB2	1.91	0.51
26:14:601:C:OP1	31:39:108:LYS:HE2	2.10	0.51
32:49:35:GLU:OE2	32:49:160:VAL:HB	2.11	0.51
32:49:161:THR:HG22	32:49:163:ALA:H	1.76	0.51
33:51:23:ARG:HH22	33:51:25:LYS:NZ	2.09	0.51
35:58:137:LYS:HG3	35:58:138:LEU:N	2.25	0.51
26:14:1113:U:H5'	33:59:2:SER:HA	1.92	0.51
6:5E:75:LEU:HD22	6:5E:79:LEU:HD11	1.93	0.51
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.51
19:AA:11:VAL:HG13	19:AA:39:THR:HB	1.93	0.51
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.93	0.51
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.09	0.51
52:I5:48:ARG:NH1	52:I5:49:PHE:O	2.44	0.51
49:J8:41:ARG:NH1	49:J8:43:TYR:HE1	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:189:ASP:HB3	2:12:203:GLY:O	2.11	0.50
1:13:828:A:N7	1:13:859:A:C8	2.78	0.50
26:14:1011:G:OP2	42:85:70:ARG:NH2	2.44	0.50
26:14:1728:G:N1	26:14:1730:U:OP2	2.44	0.50
26:14:1860:G:H8	26:14:1860:G:O5'	1.94	0.50
26:14:2258:C:H4'	26:14:2259:G:OP2	2.11	0.50
26:14:2535:G:H2'	26:14:2536:G:H8	1.76	0.50
35:15:55:VAL:HB	35:15:126:PRO:HA	1.94	0.50
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.44	0.50
1:1G:1310:G:OP2	13:4A:88:ARG:NH2	2.34	0.50
1:1G:464:G:C6	1:1G:466:C:H5'	2.46	0.50
1:1G:946:A:H2'	1:1G:947:G:C8	2.45	0.50
1:1G:963:G:N2	1:1G:972:C:N3	2.52	0.50
26:1H:195:A:C8	59:1H:4369:HOH:O	2.60	0.50
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.75	0.50
26:1H:2213:U:HO2'	26:1H:2215:G:P	2.34	0.50
27:1J:0:A:H3'	27:1J:0:A:OP2	2.10	0.50
3:22:123:GLN:HA	3:22:126:ARG:HB2	1.92	0.50
36:25:64:ARG:HB2	36:25:83:ALA:HB3	1.93	0.50
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.94	0.50
37:35:15:ARG:NH1	37:35:15:ARG:HB2	2.26	0.50
1:13:537:G:P	12:3I:113:ARG:HH22	2.33	0.50
24:3K:23:A:C6	24:3K:24:G:C6	3.00	0.50
32:41:79:ASN:N	32:41:79:ASN:OD1	2.43	0.50
32:41:83:ARG:HB2	32:41:86:MET:HG2	1.91	0.50
32:41:8:LYS:O	32:41:11:TYR:HB3	2.11	0.50
5:42:145:LYS:O	5:42:148:VAL:HB	2.11	0.50
5:42:81:GLU:HA	5:42:89:ILE:O	2.11	0.50
38:45:112:GLU:N	38:45:112:GLU:OE2	2.44	0.50
32:49:147:ASP:N	32:49:147:ASP:OD1	2.44	0.50
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.11	0.50
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.38	0.50
26:14:2094:G:H5'	34:69:25:TYR:CD1	2.46	0.50
37:78:19:VAL:HG11	37:78:27:HIS:HB2	1.92	0.50
9:82:70:LYS:O	9:82:74:ILE:HG13	2.11	0.50
9:82:89:ASN:O	9:82:92:TYR:HB2	2.11	0.50
44:A5:59:VAL:HG23	44:A5:65:LEU:N	2.26	0.50
47:D5:100:VAL:N	47:D5:124:ILE:O	2.28	0.50
1:13:1132:C:H2'	1:13:1133:G:H8	1.76	0.50
1:13:1256:A:C2	1:13:1277:C:C4	3.00	0.50
1:13:490:G:H2'	1:13:491:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2228:G:C6	26:14:2229:C:C4	3.00	0.50
26:14:2564:A:N7	26:14:2565:A:N6	2.58	0.50
26:14:389:G:H1	37:35:70:GLN:HB3	1.76	0.50
26:14:781:A:H2	26:14:1776:G:N3	2.08	0.50
26:14:959:A:N6	26:14:960:A:N1	2.58	0.50
26:14:960:A:C8	26:14:962:G:C8	2.99	0.50
29:19:270:ILE:O	29:19:271:ILE:HG23	2.11	0.50
1:1G:114:U:H2'	1:1G:115:G:C8	2.46	0.50
1:1G:1378:C:H3'	1:1G:1379:G:H5"	1.91	0.50
1:1G:453:A:H4'	16:7A:72:ARG:HB2	1.92	0.50
1:1G:683:G:N2	1:1G:707:C:O2	2.35	0.50
26:1H:1026:U:H1'	26:1H:1027:A:P	2.51	0.50
26:1H:1557:C:H5"	26:1H:1558:A:OP2	2.12	0.50
26:1H:2352:A:C4	26:1H:2366:A:C2	2.99	0.50
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.33	0.50
26:1H:723:G:H2'	26:1H:724:U:O4'	2.11	0.50
10:1I:84:GLN:HG3	10:1I:88:LEU:HD23	1.92	0.50
30:21:73:GLU:HG3	30:21:74:PRO:HD2	1.93	0.50
30:29:36:ARG:HG2	30:29:85:ASN:HD21	1.76	0.50
31:31:13:SER:HA	31:31:127:GLU:HB3	1.92	0.50
37:35:120:ALA:O	37:35:121:LYS:HE3	2.11	0.50
37:35:96:THR:OG1	37:35:97:PRO:O	2.30	0.50
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.51	0.50
34:61:40:THR:O	34:61:44:LEU:HB2	2.10	0.50
1:1G:1375:A:H4'	7:62:29:LYS:CE	2.41	0.50
26:14:2378:A:H4'	40:65:23:ARG:NH1	2.26	0.50
34:69:9:LEU:HD12	34:69:12:LEU:HD22	1.92	0.50
15:6I:74:ASP:OD1	15:6I:77:ARG:N	2.35	0.50
17:8A:20:THR:HG21	17:8A:41:LYS:HD2	1.93	0.50
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.23	0.50
47:D5:157:LEU:CA	47:D5:161:VAL:HG11	2.34	0.50
44:E8:9:TYR:H	44:E8:102:HIS:CD2	2.30	0.50
44:E8:79:GLY:HA3	44:E8:100:THR:HG22	1.93	0.50
55:Q8:39:LYS:CG	55:Q8:40:GLU:H	2.23	0.50
26:1H:1814:G:P	29:11:40:THR:HG21	2.51	0.50
2:12:10:LEU:HA	2:12:13:ALA:HB3	1.92	0.50
2:12:71:VAL:HG23	2:12:163:PHE:O	2.11	0.50
1:13:1023:G:H3'	1:13:1024:G:C5'	2.40	0.50
1:13:1273:G:H3'	1:13:1274:G:H8	1.76	0.50
1:13:138:G:H1	1:13:225:C:H42	1.59	0.50
1:13:451:A:N6	1:13:480:U:H2'	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:491:G:H2'	1:13:492:G:H8	1.76	0.50
26:14:1312:U:H4'	26:14:1313:U:O5'	2.11	0.50
26:14:1385:G:H1'	26:14:1386:C:C6	2.47	0.50
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.44	0.50
26:14:2778:A:C8	26:14:2778:A:H5"	2.45	0.50
26:14:572:A:H5"	26:14:573:G:OP2	2.11	0.50
26:14:906:G:OP1	38:45:26:TYR:OH	2.16	0.50
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.75	0.50
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.11	0.50
1:1G:1261:A:C2	1:1G:1262:C:H1'	2.47	0.50
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.77	0.50
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.45	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.79	0.50
1:1G:371:G:O2'	1:1G:373:A:N7	2.44	0.50
1:1G:410:G:C2	1:1G:429:U:C2	3.00	0.50
1:1G:547:A:OP2	4:32:2:GLY:HA2	2.12	0.50
1:1G:577:G:H2'	1:1G:578:C:H6	1.77	0.50
1:1G:920:U:H2'	1:1G:921:U:C6	2.45	0.50
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.76	0.50
26:1H:1997:G:H5"	59:1H:3946:HOH:O	2.11	0.50
26:1H:2114:A:H5"	26:1H:2117:A:OP2	2.11	0.50
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.41	0.50
26:1H:363(A):A:H2'	26:1H:363(B):G:H8	1.76	0.50
26:1H:580:C:C2	26:1H:581:C:C5	2.98	0.50
26:1H:736:C:H5"	59:1H:4221:HOH:O	2.11	0.50
26:1H:747:U:O2	26:1H:2014:A:H1'	2.10	0.50
26:1H:775:G:C5	26:1H:794:G:C8	2.99	0.50
22:1K:73:A:H2'	22:1K:74:A:H8	1.77	0.50
26:14:2621:A:P	30:29:119:ARG:HH22	2.34	0.50
4:32:64:LEU:HD22	4:32:198:VAL:HG21	1.94	0.50
24:3L:25:C:H2'	24:3L:26:A:O4'	2.11	0.50
27:16:42:C:H4'	32:41:67:LYS:HD2	1.94	0.50
32:49:50:ALA:HB2	32:49:87:PRO:HG3	1.93	0.50
33:59:54:ARG:NE	33:59:57:ASP:OD1	2.44	0.50
33:59:69:ARG:HA	33:59:72:ILE:HD12	1.92	0.50
7:62:126:ASP:HB3	7:62:131:LYS:O	2.12	0.50
40:65:62:LYS:O	40:65:65:VAL:HG12	2.12	0.50
40:65:26:LEU:O	40:65:88:ASP:HB2	2.10	0.50
41:75:123:GLN:HA	41:75:126:ALA:HB3	1.93	0.50
37:78:13:ASN:OD1	37:78:15:ARG:HD3	2.11	0.50
8:7E:127:LEU:HB2	8:7E:129:VAL:HG22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:47:LEU:HD12	9:82:51:ARG:HH21	1.76	0.50
38:88:59:ARG:N	38:88:59:ARG:HD2	2.26	0.50
17:8I:76:LEU:HD12	17:8I:77:VAL:C	2.32	0.50
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.25	0.50
41:B8:81:PRO:HG2	41:B8:82:LEU:HD12	1.92	0.50
41:B8:30:VAL:HG23	41:B8:83:ILE:HG23	1.93	0.50
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.91	0.50
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.45	0.50
1:13:1240:U:OP2	7:6E:116:ALA:N	2.44	0.50
1:13:153:C:N4	1:13:168:G:H1	2.08	0.50
1:13:896:C:H5"	17:8I:101:ARG:HD3	1.94	0.50
26:14:108:U:H2'	26:14:109:G:C8	2.46	0.50
26:14:1356:G:C6	26:14:1357:U:N3	2.78	0.50
26:14:1450:C:H2'	26:14:1451:C:H6	1.77	0.50
26:14:2064:C:H2'	26:14:2065:C:C6	2.46	0.50
26:14:2065:C:H2'	26:14:2066:C:C6	2.46	0.50
26:14:2259:G:C2	26:14:2282:G:N1	2.80	0.50
26:14:455:C:N3	26:14:472:A:H2'	2.27	0.50
26:14:719:C:H2'	26:14:720:C:C6	2.46	0.50
26:14:899:A:H5'	26:14:900:A:OP2	2.11	0.50
26:14:932:G:H4'	26:14:933:A:O5'	2.12	0.50
1:1G:1030:C:O2	1:1G:1031:G:N1	2.45	0.50
1:1G:1378:C:H3'	1:1G:1379:G:C5'	2.42	0.50
1:1G:451:A:OP1	1:1G:481:G:N2	2.37	0.50
1:1G:584:G:H5'	17:8A:91:ARG:NH1	2.18	0.50
26:1H:1746:G:H2'	26:1H:1747:G:H8	1.76	0.50
26:1H:2316:C:H2'	26:1H:2317:C:H6	1.76	0.50
26:1H:2802:G:OP2	26:1H:2802:G:H8	1.94	0.50
26:1H:2830:G:C8	26:1H:2830:G:H5"	2.46	0.50
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.76	0.50
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.10	0.50
26:1H:306:U:C5	26:1H:307:G:C5	2.99	0.50
26:1H:400:G:N7	59:1H:3981:HOH:O	2.33	0.50
26:1H:774:A:H2	26:1H:787:U:O2'	1.94	0.50
27:1J:18:G:H1	27:1J:65:C:N4	2.00	0.50
30:21:65:GLY:HA2	30:21:70:ALA:HB2	1.93	0.50
11:2A:29:ILE:HG22	11:2A:44:SER:CB	2.34	0.50
4:32:126:ILE:HG22	4:32:127:THR:N	2.26	0.50
31:39:67:GLN:O	31:39:67:GLN:HG3	2.11	0.50
4:3E:82:ALA:O	4:3E:85:LYS:HB3	2.10	0.50
4:3E:9:CYS:HB3	4:3E:32:ALA:CB	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:145:LYS:O	5:42:149:GLU:HG2	2.12	0.50
33:51:130:ARG:HB3	33:51:130:ARG:CZ	2.40	0.50
39:55:73:VAL:O	39:55:76:VAL:HG12	2.11	0.50
6:5E:35:ALA:HB1	6:5E:65:VAL:HG21	1.94	0.50
40:65:34:HIS:HD2	40:65:54:LEU:H	1.58	0.50
40:65:7:TYR:CZ	40:65:91:PRO:HG3	2.46	0.50
15:6A:69:TYR:HD1	15:6A:72:ARG:NH2	2.09	0.50
7:6E:70:LYS:HG2	7:6E:96:GLN:HB3	1.93	0.50
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.93	0.50
16:7I:5:ARG:O	16:7I:20:VAL:HG12	2.11	0.50
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.94	0.50
20:BI:97:ALA:O	20:BI:99:LEU:N	2.44	0.50
1:13:814:A:N7	1:13:816:A:C4	2.80	0.50
26:14:1188:U:H4'	43:95:79:VAL:CG1	2.33	0.50
26:14:1403:C:OP1	26:14:1522:G:N2	2.30	0.50
26:14:1753:G:N1	26:14:1756:G:C2	2.80	0.50
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.39	0.50
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.93	0.50
26:14:1970:A:P	59:14:3472:HOH:O	2.70	0.50
26:14:2761:G:H1'	33:59:143:GLN:OE1	2.12	0.50
26:14:30:G:C2	26:14:511:U:O2	2.64	0.50
29:19:39:LYS:NZ	29:19:39:LYS:HB3	2.26	0.50
1:1G:1002:G:H1	1:1G:1038:C:H42	1.60	0.50
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.25	0.50
1:1G:236:G:H2'	1:1G:237:C:O4'	2.12	0.50
1:1G:515:G:C6	1:1G:516:U:C4	2.99	0.50
1:1G:735:C:H2'	1:1G:736:C:C6	2.46	0.50
26:1H:1533:C:H2'	26:1H:1534:G:C4	2.47	0.50
26:1H:194:G:N7	59:1H:4369:HOH:O	2.35	0.50
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.79	0.50
11:2A:13:GLN:HG3	11:2A:76:GLY:HA3	1.92	0.50
3:2E:33:LEU:HA	3:2E:36:ASP:HB2	1.93	0.50
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.27	0.50
24:3L:9:A:O2'	24:3L:10:G:N7	2.34	0.50
42:85:98:LEU:HA	42:85:100:VAL:O	2.11	0.50
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.12	0.50
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.12	0.50
47:D5:10:ARG:HB2	47:D5:37:VAL:HA	1.94	0.50
47:D5:125:LEU:HD23	47:D5:164:ALA:HB3	1.94	0.50
45:F8:3:THR:CB	45:F8:4:ALA:HA	2.41	0.50
48:I8:48:GLY:HA3	48:I8:80:HIS:ND1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.12	0.50
55:M5:22:VAL:HG21	55:M5:53:PRO:HG2	1.93	0.50
1:13:677:U:H3	1:13:713:G:N2	2.09	0.50
1:13:963:G:H1	1:13:972:C:H42	1.60	0.50
26:14:1161:C:H2'	26:14:1162:G:H8	1.77	0.50
26:14:1225:C:O2'	43:95:85:LYS:N	2.45	0.50
26:14:1352:U:O2	26:14:1570:A:H2	1.94	0.50
26:14:1461:G:O5'	26:14:1461:G:H8	1.95	0.50
26:14:1926:U:H2'	26:14:1928:A:OP2	2.11	0.50
26:14:415:A:H61	26:14:2408:U:H3	1.60	0.50
26:14:305:U:H2'	26:14:306:U:C6	2.46	0.50
26:14:445:C:O2'	26:14:446:G:H5'	2.12	0.50
26:14:614:U:H1'	26:14:615:G:H5"	1.94	0.50
1:1G:1013:G:O2'	1:1G:1014:A:N7	2.33	0.50
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.46	0.50
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.76	0.50
1:1G:616:G:C2	1:1G:617:G:C8	3.00	0.50
26:1H:1021:A:C3'	26:1H:1021:A:C8	2.92	0.50
26:1H:550:G:O2'	26:1H:1220:A:N3	2.41	0.50
26:1H:1228:G:H5"	26:1H:1228:G:H8	1.76	0.50
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.29	0.50
26:1H:2431:U:O2	26:1H:2433:A:C8	2.64	0.50
26:1H:2655:G:O2'	26:1H:2656:U:OP2	2.30	0.50
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.12	0.50
26:1H:631:A:OP2	55:Q8:44:LYS:NZ	2.32	0.50
22:1K:67:C:H2'	22:1K:68:C:C6	2.46	0.50
30:29:23:VAL:HG11	30:29:183:LEU:HD23	1.93	0.50
30:29:200:GLU:OE1	30:29:200:GLU:N	2.44	0.50
30:29:81:ILE:O	30:29:82:ARG:HB2	2.12	0.50
31:31:39:TRP:CH2	31:31:106:ARG:HD2	2.47	0.50
31:31:192:LEU:HD21	31:31:194:MET:CE	2.42	0.50
37:35:15:ARG:NH2	37:35:17:LYS:HE3	2.27	0.50
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.77	0.50
24:3K:24:G:C6	24:3K:25:C:N4	2.79	0.50
24:3K:52:G:N1	24:3K:63:G:O6	2.45	0.50
13:4A:54:VAL:O	13:4A:58:GLU:HB3	2.11	0.50
35:58:15:LEU:HD13	35:58:16:ILE:N	2.27	0.50
33:59:158:HIS:ND1	33:59:158:HIS:O	2.41	0.50
34:61:86:THR:HA	34:61:123:LEU:HD13	1.94	0.50
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.12	0.50
8:7E:87:SER:CB	8:7E:93:VAL:H	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:118:LYS:O	9:82:118:LYS:NZ	2.42	0.50
1:1G:1250:A:H4'	9:82:68:GLY:N	2.26	0.50
17:8A:17:LYS:HD3	17:8A:47:PRO:HA	1.93	0.50
42:85:90:VAL:HA	43:95:39:LEU:HD23	1.94	0.50
40:A8:48:LEU:HD22	40:A8:82:ILE:HD11	1.94	0.50
46:G8:47:LYS:HB3	46:G8:61:ILE:HG22	1.93	0.50
49:J8:92:LYS:HA	49:J8:95:LEU:CB	2.40	0.50
55:Q8:49:VAL:HG13	55:Q8:50:LEU:O	2.12	0.50
1:13:1347:G:C8	9:8E:107:ARG:HB3	2.47	0.50
1:13:1503:A:N3	25:4K:13:A:N6	2.59	0.50
1:13:190:G:HO2'	1:13:191(A):G:P	2.34	0.50
1:13:450:G:N7	1:13:481:G:C6	2.80	0.50
1:13:491:G:H2'	1:13:492:G:C8	2.47	0.50
1:13:827:U:C5	1:13:870:U:C4	2.99	0.50
26:14:1131:G:C2	26:14:1132:A:C4	2.99	0.50
26:14:1316:U:H2'	26:14:1317:A:H8	1.77	0.50
26:14:1439:A:H2'	26:14:1440:G:O4'	2.11	0.50
26:14:1795:C:H2'	26:14:1796:U:H6	1.77	0.50
26:14:2525:G:N2	26:14:2539:C:C2	2.79	0.50
26:14:2580:U:H5"	30:29:130:GLY:O	2.11	0.50
26:14:270(L):U:O2'	26:14:270(M):U:OP1	2.28	0.50
26:14:544:C:N3	26:14:550:G:N2	2.59	0.50
26:14:642:G:H3'	26:14:642:G:C8	2.46	0.50
26:14:756:C:H2'	26:14:757:U:H5'	1.94	0.50
26:14:913:U:H4'	26:14:914:C:OP1	2.11	0.50
27:16:24:G:N7	27:16:56:G:H2'	2.26	0.50
2:1E:104:ASN:HD21	2:1E:107:THR:HB	1.75	0.50
1:1G:1124:G:P	10:1A:36:GLY:HA3	2.51	0.50
1:1G:1396:A:H4'	1:1G:1397:C:OP2	2.12	0.50
1:1G:234:C:H2'	1:1G:235:C:C6	2.47	0.50
1:1G:54:C:N4	1:1G:353:A:OP2	2.44	0.50
26:1H:1092:C:H2'	26:1H:1093:G:H5'	1.93	0.50
26:1H:1143:A:OP1	35:58:25:ARG:NH2	2.42	0.50
26:1H:1439:A:C2	26:1H:1553:A:C4	2.99	0.50
26:1H:152:G:H1	26:1H:174:C:N4	2.09	0.50
26:1H:2120:G:H2'	26:1H:2121:G:H8	1.77	0.50
26:1H:2361:A:H4'	55:Q8:26:LYS:HE3	1.92	0.50
26:1H:2595:G:N7	59:1H:3921:HOH:O	2.35	0.50
26:1H:355:G:H2'	26:1H:356:G:H8	1.75	0.50
26:1H:2053:G:OP1	30:21:144:ARG:HD3	2.12	0.50
56:2L:19:G:C2	56:2L:59:A:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:443:A:N7	31:31:45:ARG:HG2	2.26	0.50
13:4I:13:LYS:HZ3	13:4I:13:LYS:HA	1.77	0.50
33:51:38:SER:OG	33:51:40:GLU:HG3	2.12	0.50
14:5I:53:LEU:HB3	14:5I:56:VAL:HG21	1.94	0.50
9:82:84:ALA:O	9:82:87:GLN:HB3	2.12	0.50
42:85:110:VAL:HG12	42:85:114:LYS:HD2	1.93	0.50
38:88:133:ARG:O	38:88:134:ARG:HB2	2.12	0.50
39:98:72:ASP:OD2	39:98:75:LEU:HB2	2.11	0.50
48:E5:32:ARG:O	48:E5:34:GLY:N	2.38	0.50
55:M5:34:TRP:CD1	55:M5:35:GLN:N	2.74	0.50
26:1H:1500:G:O2'	29:11:100:GLY:O	2.24	0.50
29:11:70:TRP:CH2	29:11:150:LYS:HA	2.46	0.50
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.12	0.50
29:11:2:ALA:C	29:11:3:VAL:HG23	2.32	0.50
1:13:1125:U:H5'	1:13:1126:U:C5	2.47	0.50
1:13:1151:A:O2'	1:13:1152:A:O5'	2.19	0.50
1:13:233:C:H2'	1:13:234:C:H6	1.76	0.50
26:14:1324:G:C2	26:14:1331:A:C2	2.99	0.50
26:14:1821:A:H2'	26:14:1822:G:C8	2.46	0.50
26:14:2207:C:O2	29:19:151:LYS:NZ	2.34	0.50
26:14:2394:C:H2'	26:14:2395:C:H6	1.75	0.50
26:14:2547:U:O2'	26:14:2548:G:H5'	2.12	0.50
26:14:2744:G:N2	33:59:143:GLN:OE1	2.45	0.50
35:15:90:MET:HE1	35:15:97:ARG:HB2	1.92	0.50
1:1G:281:G:OP2	1:1G:281:G:H8	1.94	0.50
1:1G:19:C:H1'	1:1G:917:G:H22	1.77	0.50
1:1G:983:A:H2	1:1G:984:C:C6	2.30	0.50
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.12	0.50
26:1H:135:G:N7	59:1H:4100:HOH:O	2.33	0.50
26:1H:1553:A:N1	26:1H:1555:G:H1'	2.26	0.50
26:1H:2108:C:N3	26:1H:2181:G:N1	2.50	0.50
26:1H:2328:A:H2'	26:1H:2329:G:C8	2.47	0.50
27:1J:10:C:C4	27:1J:11:C:C5	3.00	0.50
30:29:34:VAL:HG21	30:29:78:LEU:HD22	1.94	0.50
11:2A:73:MET:O	11:2A:76:GLY:N	2.31	0.50
37:35:15:ARG:CZ	37:35:15:ARG:HB2	2.42	0.50
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.93	0.50
31:39:83:PHE:C	31:39:85:GLY:H	2.15	0.50
5:42:121:LYS:NZ	5:42:123:LEU:HD23	2.27	0.50
13:4A:91:ARG:HD2	13:4A:96:LEU:HB3	1.93	0.50
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:31:LEU:HD21	34:61:38:LEU:HG	1.93	0.50
9:8E:83:ARG:O	9:8E:86:VAL:HG12	2.12	0.50
45:B5:3:THR:O	45:B5:6:ASP:HB2	2.12	0.50
47:D5:52:SER:O	47:D5:54:HIS:N	2.44	0.50
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.94	0.50
52:I5:14:ILE:HG22	52:I5:22:ILE:HA	1.94	0.50
53:J5:2:ALA:O	53:J5:3:LYS:NZ	2.43	0.50
50:K8:20:GLU:O	50:K8:24:LEU:HB2	2.10	0.50
52:M8:10:VAL:HG22	52:M8:11:PRO:HD2	1.93	0.50
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.93	0.50
26:14:1285:G:N2	26:14:1329:U:OP1	2.43	0.50
26:14:1341:U:H2'	26:14:1397:U:O2	2.11	0.50
26:14:1357:U:H2'	26:14:1358:G:O4'	2.12	0.50
26:14:2528:U:O2'	26:14:2530:A:OP1	2.21	0.50
26:14:2636:U:H1'	26:14:2783:G:N2	2.26	0.50
26:14:2630:G:N3	26:14:2894:G:N1	2.60	0.50
26:14:852:G:H2'	26:14:853:G:C8	2.46	0.50
1:1G:561:U:HO2'	1:1G:562:C:P	2.35	0.50
1:1G:984:C:H2'	1:1G:985:C:H6	1.77	0.50
26:1H:1049:C:N3	26:1H:2751:G:O6	2.45	0.50
26:1H:469:G:O6	54:P8:39:ARG:NH1	2.45	0.50
59:14:3871:HOH:O	31:39:54:ARG:NH2	2.45	0.50
4:3E:147:ALA:HA	4:3E:181:MET:O	2.11	0.50
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.93	0.50
38:45:27:VAL:HG21	38:45:137:TYR:H	1.77	0.50
5:4E:103:GLY:O	5:4E:106:PRO:HD2	2.11	0.50
59:14:3922:HOH:O	39:55:3:HIS:HE1	1.94	0.50
40:65:34:HIS:NE2	40:65:54:LEU:HD13	2.27	0.50
16:7I:57:ARG:O	16:7I:60:LEU:N	2.45	0.50
18:9A:29:PHE:HD1	18:9A:29:PHE:N	2.09	0.50
41:B8:58:ASN:HD22	41:B8:58:ASN:C	2.14	0.50
41:B8:93:ARG:HG3	41:B8:93:ARG:HH11	1.76	0.50
1:13:1292:U:H2'	1:13:1293:G:C8	2.46	0.49
1:13:165:C:H2'	1:13:166:G:H8	1.77	0.49
26:14:1389:G:H2'	26:14:1390:U:C6	2.47	0.49
26:14:1599:C:H2'	26:14:1600:C:C6	2.47	0.49
26:14:639:U:H2'	26:14:640:C:C6	2.46	0.49
26:14:721:C:H2'	26:14:722:A:C8	2.47	0.49
26:14:748:G:H3'	59:14:3672:HOH:O	2.12	0.49
26:14:751:A:H5'	44:A5:90:ARG:HA	1.93	0.49
26:14:1138:G:H21	35:15:106:MET:HE3	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:54:G:H2'	27:16:55:U:H6	1.76	0.49
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.77	0.49
1:1G:1079:G:H5"	5:42:45:PHE:CZ	2.44	0.49
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.74	0.49
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.46	0.49
1:1G:1345:U:O2	1:1G:1377:A:N6	2.44	0.49
1:1G:345:C:H5"	1:1G:345:C:C6	2.47	0.49
1:1G:375:U:OP1	16:7A:69:THR:OG1	2.22	0.49
26:1H:1387:C:H2'	26:1H:1387:C:O2	2.11	0.49
26:1H:2052:G:H4'	30:21:143:ASN:O	2.12	0.49
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.47	0.49
27:1J:116:G:C2	27:1J:117:G:H1'	2.47	0.49
30:21:34:VAL:HG22	30:21:48:GLN:HB3	1.94	0.49
30:29:61:ARG:HG2	30:29:63:LEU:HD22	1.94	0.49
37:35:11:GLY:C	37:35:13:ASN:H	2.15	0.49
38:45:66:ILE:HG13	38:45:67:ARG:H	1.76	0.49
32:49:120:LEU:HG	32:49:179:PRO:O	2.12	0.49
33:51:92:ILE:CD1	33:51:93:GLY:H	2.25	0.49
6:52:6:VAL:HG22	6:52:90:VAL:HG22	1.94	0.49
6:5E:89:MET:HG3	18:9I:76:LEU:CD2	2.42	0.49
15:6A:4:THR:H	15:6A:7:GLU:HG2	1.77	0.49
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.12	0.49
38:88:32:TYR:CE2	38:88:111:GLU:HA	2.46	0.49
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.47	0.49
20:BA:98:PRO:HA	20:BA:100:ILE:HD13	1.94	0.49
47:D5:74:VAL:HA	47:D5:86:VAL:HG23	1.93	0.49
48:E5:15:ASP:OD1	48:E5:16:SER:N	2.36	0.49
44:E8:78:GLU:OE1	44:E8:99:ARG:HD3	2.12	0.49
49:F5:8:SER:HB3	49:F5:66:HIS:CD2	2.47	0.49
47:H8:30:ASN:HA	47:H8:89:PHE:CE1	2.45	0.49
54:L5:43:THR:HG22	54:L5:44:PRO:O	2.12	0.49
52:M8:43:TYR:CE2	52:M8:44:THR:HG23	2.46	0.49
55:Q8:46:ARG:CZ	55:Q8:46:ARG:HA	2.42	0.49
55:Q8:54:GLU:O	55:Q8:56:GLU:N	2.45	0.49
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.77	0.49
2:12:142:LEU:HD23	2:12:142:LEU:O	2.12	0.49
1:13:1239:A:H62	1:13:1299:A:H62	1.59	0.49
1:13:160:A:H61	1:13:347:G:H1'	1.77	0.49
26:14:2536:G:C2	26:14:2537:U:C2	2.99	0.49
26:14:946:G:H2'	26:14:947:G:H8	1.76	0.49
2:1E:94:ASN:OD1	2:1E:94:ASN:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1002:G:H22	1:1G:1038:C:H42	1.59	0.49
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.45	0.49
1:1G:711:G:O2'	1:1G:712:A:H5'	2.12	0.49
1:1G:942:G:C2	1:1G:943:U:C6	3.00	0.49
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.47	0.49
26:1H:1358:G:O2'	26:1H:1359:A:H5"	2.12	0.49
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.91	0.49
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.47	0.49
26:1H:1607:C:N4	26:1H:1622:G:OP2	2.36	0.49
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.19	0.49
27:1J:7:G:H5"	27:1J:7:G:C8	2.43	0.49
36:25:107:ARG:HB3	36:25:115:VAL:HG21	1.93	0.49
36:25:2:ILE:HG23	36:25:6:THR:HB	1.94	0.49
30:29:135:HIS:CE1	59:29:402:HOH:O	2.61	0.49
30:29:9:VAL:HG23	30:29:26:ILE:O	2.12	0.49
31:31:36:VAL:HG11	31:31:183:VAL:HG11	1.94	0.49
37:35:86:LYS:HD3	37:35:117:GLU:HG2	1.93	0.49
12:3A:84:LEU:HD23	12:3A:105:TYR:CE2	2.46	0.49
6:5E:39:LYS:HB3	6:5E:62:TRP:HZ3	1.78	0.49
7:62:102:ARG:O	7:62:106:GLN:HG3	2.12	0.49
31:31:33:LEU:HD23	37:78:1:MET:HG3	1.93	0.49
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.45	0.49
1:13:229:U:O2'	16:7I:23:ASP:OD2	2.22	0.49
9:82:16:ARG:O	9:82:63:ILE:HG23	2.13	0.49
9:8E:47:LEU:HD22	9:8E:47:LEU:H	1.76	0.49
19:AI:28:LYS:HB3	19:AI:47:HIS:CE1	2.47	0.49
49:F5:87:PRO:O	49:F5:91:LYS:N	2.29	0.49
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.12	0.49
46:G8:89:PHE:HE2	46:G8:94:LYS:HD3	1.76	0.49
55:Q8:34:TRP:CZ3	55:Q8:39:LYS:CB	2.89	0.49
2:12:237:ALA:C	2:12:239:VAL:H	2.14	0.49
1:13:1263:C:O2'	1:13:1264:C:H5'	2.13	0.49
1:13:396:G:C2	1:13:398:C:C4	3.01	0.49
1:13:413:G:N2	1:13:428:G:H1'	2.27	0.49
1:13:692:U:H2'	1:13:694:A:OP2	2.13	0.49
1:13:864:A:H2'	1:13:865:A:C8	2.47	0.49
26:14:1162:G:H1'	43:95:23:GLU:OE2	2.11	0.49
26:14:1204:A:C2	26:14:1206:G:C2	3.01	0.49
26:14:1488:G:C2'	26:14:1489:U:H5'	2.42	0.49
26:14:1858:G:H2'	26:14:1883:G:H22	1.76	0.49
26:14:2517:C:C2	26:14:2542:A:N1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1010:G:C2	1:1G:1020:U:H1'	2.48	0.49
1:1G:1268:A:H2'	1:1G:1269:A:H8	1.75	0.49
1:1G:769:G:OP2	1:1G:803:G:O2'	2.28	0.49
26:1H:2056:G:O2'	53:N8:8:LYS:HD2	2.13	0.49
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.12	0.49
26:1H:2600:A:C6	26:1H:2601:C:N4	2.80	0.49
26:1H:317:G:N2	26:1H:318:C:C2	2.81	0.49
26:1H:847:U:C5	26:1H:933:A:N1	2.80	0.49
26:1H:992:C:H2'	26:1H:993:G:C8	2.45	0.49
3:22:21:ARG:NH1	3:22:21:ARG:HB3	2.27	0.49
3:2E:22:TRP:CZ3	3:2E:24:ALA:HB2	2.47	0.49
11:2I:57:THR:HG22	11:2I:59:TYR:N	2.26	0.49
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.47	0.49
24:3L:1:G:H2'	24:3L:1:G:N3	2.27	0.49
24:3L:8:4SU:HN3	24:3L:14:A:N6	2.11	0.49
32:41:133:LEU:HD12	32:41:135:LEU:HD11	1.94	0.49
32:49:111:LEU:HB3	32:49:117:PHE:CZ	2.47	0.49
33:51:157:TYR:CE1	33:51:172:LYS:HB2	2.46	0.49
33:59:102:ALA:HB1	33:59:115:VAL:O	2.13	0.49
7:62:69:VAL:HG21	7:62:104:LEU:HD11	1.93	0.49
7:62:49:ILE:HD12	7:62:118:VAL:HA	1.95	0.49
7:6E:15:ASP:OD1	7:6E:44:TYR:OH	2.30	0.49
8:72:21:LYS:N	8:72:65:TYR:OH	2.42	0.49
1:1G:229:U:O2'	16:7A:23:ASP:OD2	2.29	0.49
40:A8:7:TYR:CE1	40:A8:91:PRO:HG3	2.48	0.49
41:B8:3:ARG:HG3	41:B8:7:ILE:N	2.27	0.49
43:D8:72:VAL:HG23	43:D8:85:LYS:HB3	1.92	0.49
29:11:37:LEU:HB3	29:11:59:LYS:HZ1	1.76	0.49
1:13:1285:A:H8	1:13:1285:A:O5'	1.95	0.49
1:13:129(A):G:N2	1:13:188:U:O2'	2.45	0.49
1:13:1303:C:N4	1:13:1304:G:C6	2.81	0.49
1:13:685:G:O2'	1:13:686:U:H5'	2.12	0.49
26:14:1426:G:H5"	26:14:1427:A:OP2	2.12	0.49
26:14:1814:G:H5"	29:19:54:ARG:HH11	1.77	0.49
26:14:2253:G:H2'	26:14:2254:C:O4'	2.12	0.49
26:14:2538:C:H2'	26:14:2539:C:C6	2.47	0.49
26:14:2601:C:H2'	26:14:2603:G:C8	2.48	0.49
26:14:2694:G:C5	26:14:2695:C:C5	3.00	0.49
26:14:36:G:C6	26:14:37:C:C4	3.01	0.49
26:14:871:U:H4'	38:45:69:PHE:CE2	2.46	0.49
35:15:136:GLU:O	35:15:137:LYS:NZ	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	1.94	0.49
2:1E:172:ILE:O	2:1E:176:GLU:HG3	2.13	0.49
1:1G:197:A:C8	1:1G:198:G:H1'	2.47	0.49
1:1G:426:G:H2'	1:1G:427:U:C6	2.48	0.49
26:1H:1346:G:C6	26:1H:1601:G:C6	3.00	0.49
26:1H:2470:G:OP1	38:88:56:ARG:NH1	2.46	0.49
26:1H:2593:U:O2'	26:1H:2594:C:H5'	2.13	0.49
26:1H:2756:U:O5'	26:1H:2756:U:H6	1.94	0.49
26:1H:2852:G:C5	26:1H:2853:C:C4	3.01	0.49
26:1H:458:G:C8	54:P8:37:LYS:HG2	2.47	0.49
26:1H:563:G:H5'	26:1H:572:A:H4'	1.94	0.49
26:1H:590:A:H2'	26:1H:591:C:C6	2.46	0.49
26:1H:719:C:H2'	26:1H:720:C:C6	2.47	0.49
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.95	0.49
23:2K:54:G:H3'	23:2K:55:5MU:H71	1.94	0.49
1:13:406:G:N2	4:3E:119:GLN:OE1	2.42	0.49
24:3K:9:A:H62	24:3K:23:A:H62	1.60	0.49
24:3L:76:A:H8	26:14:2394:C:N4	2.09	0.49
5:42:61:TYR:O	5:42:65:ASN:N	2.45	0.49
13:4A:3:ARG:HE	13:4A:9:ILE:HG12	1.77	0.49
5:4E:84:PHE:CB	5:4E:134:ALA:HB2	2.42	0.49
6:52:28:ARG:O	6:52:31:GLU:HB3	2.13	0.49
26:14:2882:A:P	39:55:96:ARG:HE	2.35	0.49
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.10	0.49
7:6E:102:ARG:O	7:6E:106:GLN:HG3	2.12	0.49
7:6E:113:GLU:HG2	7:6E:119:ARG:HG2	1.95	0.49
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.94	0.49
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.47	0.49
9:82:77:ILE:O	9:82:81:ILE:HG12	2.12	0.49
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.39	0.49
44:E8:17:VAL:O	44:E8:19:LEU:N	2.45	0.49
46:G8:54:LYS:HA	46:G8:56:PRO:HG3	1.93	0.49
52:I5:43:TYR:O	52:I5:43:TYR:CG	2.65	0.49
50:K8:25:VAL:O	50:K8:29:LYS:HG3	2.12	0.49
26:1H:1266:G:OP2	53:N8:19:ARG:HD2	2.12	0.49
55:Q8:21:LYS:NZ	55:Q8:22:VAL:N	2.61	0.49
1:13:1145:C:H5"	1:13:1146:A:OP1	2.12	0.49
1:13:1191:A:H5"	1:13:1192:C:OP2	2.11	0.49
1:13:1256:A:H4'	1:13:1258:G:C4	2.48	0.49
1:13:1508:G:P	59:13:1803:HOH:O	2.71	0.49
26:14:987:G:O2'	26:14:1000:A:N3	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1340:U:C2	26:14:1603:A:O4'	2.65	0.49
26:14:1894:C:H2'	26:14:1895:C:H6	1.77	0.49
26:14:415:A:H2'	26:14:416:C:H6	1.77	0.49
26:14:443:A:H1'	26:14:1201:C:O4'	2.12	0.49
26:14:469:G:C6	54:L5:39:ARG:NH1	2.81	0.49
26:14:783:A:H8	26:14:784:A:H4'	1.78	0.49
27:16:69:G:H2'	27:16:70:C:H6	1.77	0.49
2:1E:166:ASP:C	2:1E:168:THR:H	2.16	0.49
1:1G:229:U:H2'	1:1G:230:G:C8	2.48	0.49
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.77	0.49
26:1H:1534:G:H22	26:1H:1538:G:N2	2.08	0.49
26:1H:2056:G:N2	26:1H:2057:A:C8	2.80	0.49
26:1H:2447:G:OP2	59:1H:3787:HOH:O	2.20	0.49
26:1H:2536:G:C6	26:1H:2537:U:C4	3.00	0.49
26:1H:2761:G:H1'	33:51:143:GLN:OE1	2.12	0.49
26:1H:485:C:H2'	26:1H:486:C:C6	2.47	0.49
11:2I:57:THR:HG22	11:2I:60:ALA:H	1.77	0.49
4:3E:191:ARG:HH12	4:3E:196:LEU:H	1.61	0.49
24:3K:5:G:O5'	24:3K:5:G:H8	1.95	0.49
24:3L:22:G:C6	24:3L:23:A:C6	3.00	0.49
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.78	0.49
39:55:34:ILE:HG22	39:55:114:VAL:HB	1.94	0.49
35:58:18:ALA:HA	35:58:21:LYS:HG2	1.94	0.49
34:61:64:GLU:O	34:61:67:ARG:N	2.43	0.49
7:62:92:SER:O	7:62:96:GLN:HG3	2.12	0.49
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.95	0.49
9:8E:92:TYR:HE1	9:8E:95:LYS:HZ3	1.61	0.49
17:8I:20:THR:HG23	17:8I:43:LEU:HD23	1.93	0.49
42:C8:34:LYS:NZ	42:C8:37:GLU:OE1	2.35	0.49
47:D5:69:THR:HG22	47:D5:90:VAL:HA	1.94	0.49
55:Q8:47:LYS:H	55:Q8:47:LYS:HZ2	1.60	0.49
29:11:239:ARG:O	29:11:240:ALA:HB3	2.12	0.49
1:13:1414:U:H2'	1:13:1415:G:H8	1.76	0.49
1:13:219:C:C4	1:13:220:G:N7	2.81	0.49
1:13:948:C:O2'	1:13:949:A:H5'	2.13	0.49
26:14:1058:U:N3	26:14:1059:G:N7	2.61	0.49
26:14:1067:A:H2'	26:14:1067:A:N3	2.28	0.49
26:14:2124:G:N1	26:14:2174:C:N3	2.58	0.49
26:14:2745:C:H1'	33:59:143:GLN:HG2	1.95	0.49
26:14:829:A:N7	26:14:2247:A:O2'	2.41	0.49
27:16:10:C:C4	27:16:11:C:C5	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:223:ILE:HA	2:1E:226:ARG:HG2	1.93	0.49
1:1G:1004:A:C5	1:1G:1025:U:H1'	2.47	0.49
1:1G:266:G:H2'	1:1G:266:G:N3	2.28	0.49
1:1G:300:A:C5	1:1G:301:G:H1'	2.48	0.49
26:1H:2127:G:N2	26:1H:2162:G:H1'	2.27	0.49
26:1H:2320:A:H8	26:1H:2321:G:O6	1.95	0.49
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.48	0.49
26:1H:2431:U:P	59:1H:3846:HOH:O	2.70	0.49
26:1H:2687:U:H2'	26:1H:2688:U:O4'	2.13	0.49
26:1H:36:G:C5	26:1H:37:C:C5	3.01	0.49
26:1H:512:G:C8	59:1H:4390:HOH:O	2.55	0.49
26:1H:547:A:H2'	26:1H:548:A:C8	2.47	0.49
26:1H:658:C:H2'	26:1H:659:C:C6	2.48	0.49
26:1H:946:G:P	59:1H:4058:HOH:O	2.70	0.49
26:1H:969:U:OP1	51:L8:17:LYS:HD3	2.12	0.49
27:1J:29:A:C2	27:1J:56:G:C2	3.00	0.49
3:22:130:VAL:O	3:22:134:ILE:HG12	2.13	0.49
31:31:53:THR:HG23	31:31:56:GLU:CD	2.33	0.49
26:14:664:C:P	37:35:18:ARG:HH21	2.35	0.49
32:41:142:PRO:HG2	32:41:143:GLU:OE2	2.12	0.49
5:42:79:GLU:HG3	5:42:93:PRO:HD2	1.95	0.49
32:49:101:ILE:HG13	32:49:102:PHE:N	2.28	0.49
33:51:107:VAL:HG21	33:51:152:ARG:HB2	1.93	0.49
1:1G:673:G:H5"	6:52:87:ARG:NH1	2.28	0.49
33:59:19:VAL:HG13	33:59:43:VAL:HG21	1.94	0.49
33:59:10:PRO:O	33:59:49:VAL:HG12	2.12	0.49
7:62:94:ARG:O	7:62:97:GLN:HB3	2.10	0.49
34:69:77:LEU:HD13	34:69:141:LYS:HB2	1.95	0.49
7:6E:62:PHE:CD2	7:6E:124:LEU:HD11	2.46	0.49
7:6E:57:GLU:O	7:6E:60:LYS:N	2.44	0.49
1:13:750:G:N3	15:6I:23:GLY:HA3	2.27	0.49
41:75:84:GLN:OE1	41:75:85:LYS:HG2	2.13	0.49
16:7I:77:ALA:HB1	16:7I:79:VAL:HG23	1.94	0.49
9:82:111:ARG:HG2	9:82:112:LYS:H	1.77	0.49
43:95:85:LYS:HG3	43:95:87:HIS:HA	1.94	0.49
39:98:87:TYR:OH	39:98:116:LEU:HB3	2.13	0.49
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.53	0.49
19:AA:63:THR:HG23	19:AA:74:PHE:HE2	1.77	0.49
48:E5:39:ARG:HD3	48:E5:58:THR:HG23	1.95	0.49
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.12	0.49
26:14:686:G:H8	54:L5:7:PRO:HA	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:58:ILE:O	55:M5:58:ILE:HG22	2.12	0.49
55:Q8:25:MET:HE3	55:Q8:46:ARG:HH11	1.76	0.49
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.31	0.49
26:14:1473:G:C2	26:14:1474:C:C2	3.00	0.49
26:14:1858:G:H2'	26:14:1883:G:N2	2.28	0.49
26:14:2387:U:H1'	48:E5:41:ARG:HD2	1.94	0.49
26:14:2736:G:H2'	26:14:2737:G:C8	2.47	0.49
26:14:479:A:N3	26:14:481:G:H5"	2.27	0.49
26:14:52:A:H2'	26:14:53:A:C8	2.48	0.49
26:14:618:G:H2'	26:14:618(A):C:O4'	2.13	0.49
26:14:869:G:H5'	38:45:6:ARG:NH1	2.28	0.49
27:16:115:G:OP2	27:16:115:G:H8	1.95	0.49
1:1G:1009:G:C2	1:1G:1010:G:C8	3.01	0.49
1:1G:103:C:OP2	20:BA:17:ARG:NH2	2.45	0.49
1:1G:1430:C:H2'	1:1G:1431:C:H6	1.75	0.49
1:1G:233:C:H2'	1:1G:234:C:H6	1.78	0.49
1:1G:42:G:H2'	1:1G:43:C:O4'	2.12	0.49
26:1H:1533:C:C2	26:1H:1534:G:N2	2.81	0.49
26:1H:2080:G:H5'	49:J8:19:GLN:HG2	1.94	0.49
26:1H:2270:G:OP2	59:1H:4191:HOH:O	2.19	0.49
26:1H:2277:G:H5"	38:88:85:LYS:HG2	1.94	0.49
26:1H:2432:A:C4	49:J8:33:LYS:HG2	2.47	0.49
26:1H:2877:G:C2	26:1H:2878:U:C2	3.00	0.49
26:1H:880:G:H4'	26:1H:881:G:OP1	2.11	0.49
27:1J:46:A:H2'	27:1J:47:C:H6	1.78	0.49
4:32:26:CYS:HA	4:32:31:CYS:SG	2.53	0.49
4:32:70:ILE:HG23	4:32:75:PHE:HB2	1.95	0.49
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.95	0.49
32:41:107:LEU:HD21	32:41:178:PHE:CE1	2.47	0.49
33:51:42:ARG:HG2	33:51:44:VAL:HG23	1.94	0.49
35:58:7:LYS:H	35:58:7:LYS:NZ	2.10	0.49
33:59:10:PRO:HD3	33:59:50:VAL:O	2.13	0.49
33:59:4:ILE:HG22	33:59:54:ARG:HH22	1.77	0.49
40:65:34:HIS:CD2	40:65:53:SER:OG	2.66	0.49
41:75:88:ILE:HD13	41:75:91:ARG:HG2	1.94	0.49
41:75:8:LYS:HZ2	41:75:8:LYS:CB	2.26	0.49
37:78:122:PRO:HA	37:78:142:GLY:CA	2.42	0.49
37:78:78:PRO:HB3	37:78:111:ARG:HD2	1.93	0.49
37:78:78:PRO:HB3	37:78:111:ARG:HH21	1.78	0.49
44:A5:59:VAL:HA	44:A5:64:MET:H	1.78	0.49
19:AA:29:ARG:NH1	19:AA:48:THR:H	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:29:LYS:HD2	20:BI:66:ALA:HB2	1.93	0.49
43:D8:43:GLU:HB2	43:D8:44:LYS:NZ	2.28	0.49
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.12	0.49
2:12:5:ILE:CG1	2:12:6:THR:HG22	2.41	0.49
2:12:84:GLU:HB3	2:12:219:VAL:HG11	1.93	0.49
1:13:91:C:N4	1:13:92:G:O6	2.46	0.49
26:14:1389:G:H2'	26:14:1390:U:H6	1.78	0.49
26:14:1488:G:H2'	26:14:1489:U:H5'	1.95	0.49
26:14:177:G:H3'	26:14:178:G:H8	1.77	0.49
26:14:191:A:H2'	26:14:192:C:C6	2.48	0.49
26:14:1952:A:C6	26:14:1953:A:N1	2.80	0.49
26:14:2294:C:H5"	40:65:10:ARG:HD2	1.94	0.49
26:14:2299:G:N2	26:14:2317:C:O2	2.34	0.49
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.48	0.49
26:14:640:C:H42	26:14:648:G:H1	1.61	0.49
35:15:96:GLU:HB2	35:15:122:VAL:HG12	1.95	0.49
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.78	0.49
1:1G:1153:C:N4	1:1G:1154:G:O6	2.46	0.49
1:1G:1164:G:H1	1:1G:1172:C:H42	1.61	0.49
1:1G:1441:G:H8	1:1G:1441:G:O5'	1.95	0.49
1:1G:278:G:O4'	1:1G:282:A:H1'	2.13	0.49
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.43	0.49
1:1G:458:C:H2'	1:1G:464:G:C8	2.47	0.49
1:1G:35:G:C2	1:1G:550:G:C2	3.01	0.49
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.13	0.49
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.48	0.49
26:1H:1357:U:H2'	26:1H:1358:G:C8	2.48	0.49
26:1H:1443:G:C2	26:1H:1549:C:N3	2.81	0.49
26:1H:2061:G:H5'	59:1H:3531:HOH:O	2.11	0.49
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.40	0.49
26:1H:606:U:H4'	26:1H:658:C:H4'	1.93	0.49
30:21:101:ARG:CZ	30:21:171:GLU:HB2	2.43	0.49
30:29:51:PHE:CD2	30:29:52:LEU:HB2	2.46	0.49
26:1H:443:A:C5	31:31:45:ARG:HD2	2.48	0.49
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	1.95	0.49
4:3E:61:LYS:HD3	4:3E:206:PHE:CE2	2.47	0.49
24:3L:25:C:C2	24:3L:26:A:C8	3.01	0.49
5:42:104:ALA:HA	5:42:107:ARG:HH12	1.78	0.49
26:14:873:G:O3'	38:45:63:LYS:NZ	2.45	0.49
13:4A:35:GLU:OE2	13:4A:36:LYS:HG2	2.13	0.49
5:4E:110:LEU:HB3	5:4E:115:VAL:HG21	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:54:ALA:O	5:4E:58:ALA:N	2.46	0.49
33:51:149:ARG:NH2	33:51:154:PRO:HG2	2.27	0.49
38:88:112:GLU:H	38:88:112:GLU:CD	2.16	0.49
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.41	0.49
1:13:277:C:P	17:8I:68:ARG:HH12	2.35	0.49
43:95:87:HIS:CE1	43:95:89:GLN:HB2	2.47	0.49
40:A8:69:VAL:HA	40:A8:72:ALA:HB3	1.95	0.49
46:C5:96:ILE:HD12	46:C5:96:ILE:N	2.28	0.49
47:D5:17:ALA:O	47:D5:20:ARG:HB2	2.13	0.49
44:E8:40:ASN:O	44:E8:41:LYS:HG2	2.12	0.49
29:11:181:GLU:HG3	29:11:182:LEU:N	2.27	0.49
1:13:1179:A:H2'	1:13:1180:A:O4'	2.13	0.49
1:13:1412:C:H2'	1:13:1413:A:C8	2.48	0.49
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.48	0.49
1:13:296:U:O2'	1:13:556:C:O2'	2.08	0.49
26:14:1019:U:H3	26:14:1142(A):A:H62	1.60	0.49
26:14:1883:G:HO2'	26:14:1884:A:H8	1.59	0.49
26:14:1906:G:C2	26:14:1907:G:C8	3.00	0.49
26:14:2001:A:H2'	26:14:2002:G:C8	2.47	0.49
26:14:2262:U:H4'	26:14:2328:A:C2	2.48	0.49
26:14:2494:G:H2'	26:14:2495:G:H8	1.77	0.49
26:14:249:C:H4'	26:14:250:G:O5'	2.13	0.49
26:14:2659:G:H2'	26:14:2661:G:OP2	2.13	0.49
26:14:2811:G:H1	26:14:2889:C:H42	1.59	0.49
29:19:223:GLY:HA3	29:19:231:HIS:ND1	2.27	0.49
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.94	0.49
1:1G:1040:U:H2'	1:1G:1041:A:H8	1.78	0.49
1:1G:1067:A:H1'	1:1G:1068:G:C8	2.48	0.49
1:1G:1434:A:H61	1:1G:1467:G:H1'	1.78	0.49
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.95	0.49
26:1H:1026:U:H1'	26:1H:1027:A:O5'	2.13	0.49
26:1H:1268:A:H3'	59:1H:4357:HOH:O	2.11	0.49
26:1H:1439:A:H2'	26:1H:1440:G:O4'	2.12	0.49
26:1H:2313:C:C2'	26:1H:2314:C:H5'	2.42	0.49
26:1H:2801:A:H5'	26:1H:2895:U:C1'	2.42	0.49
26:1H:2807:G:H3'	26:1H:2808:U:C5'	2.41	0.49
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.48	0.49
26:1H:288:C:H2'	26:1H:289:A:H8	1.77	0.49
26:1H:582:G:H2'	26:1H:583:G:C8	2.48	0.49
30:21:117:MET:O	30:21:118:LYS:HB3	2.13	0.49
3:22:40:ARG:O	3:22:44:GLU:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:20:G:C2	23:2K:58:A:N3	2.80	0.49
56:2L:25:U:H2'	56:2L:26:C:C6	2.48	0.49
24:3K:64:A:C2	24:3K:65:G:H1'	2.48	0.49
24:3K:69:G:H2'	24:3K:70:G:O4'	2.12	0.49
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.28	0.49
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.13	0.49
26:14:1652:A:OP1	39:55:8:ARG:NH1	2.44	0.49
6:5E:5:GLU:N	6:5E:93:SER:OG	2.45	0.49
34:61:8:PRO:HG3	34:61:14:ASP:HB2	1.94	0.49
34:69:128:LEU:O	34:69:138:ILE:HG22	2.12	0.49
7:6E:122:HIS:HA	7:6E:125:MET:HB2	1.95	0.49
41:75:98:LYS:HB3	41:75:100:TYR:CE2	2.48	0.49
37:78:124:LYS:HA	37:78:143:GLY:O	2.13	0.49
17:8I:76:LEU:HD11	17:8I:79:SER:H	1.78	0.49
43:95:52:VAL:CG1	43:95:55:ALA:HB3	2.43	0.49
44:E8:96:ILE:HD13	44:E8:96:ILE:H	1.78	0.49
49:F5:85:LEU:CA	49:F5:87:PRO:HD2	2.41	0.49
55:M5:57:ARG:CD	55:M5:57:ARG:N	2.76	0.49
29:11:131:LEU:HD22	29:11:136:ILE:HD13	1.94	0.49
2:12:73:THR:HG21	2:12:97:TRP:N	2.28	0.49
1:13:123:C:H2'	1:13:124:G:O4'	2.12	0.49
1:13:244:U:H4'	1:13:245:C:O5'	2.12	0.49
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.48	0.49
26:14:1816:G:O6	29:19:35:LYS:NZ	2.42	0.49
26:14:2708:G:H5'	39:55:68:ARG:HB2	1.94	0.49
26:14:355:G:H2'	26:14:356:G:C8	2.48	0.49
26:14:978:G:H2'	26:14:978:G:N3	2.28	0.49
2:1E:174:VAL:O	2:1E:178:ARG:HB2	2.12	0.49
1:1G:1004:A:OP1	1:1G:1024:G:N1	2.46	0.49
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.77	0.49
1:1G:197:A:OP2	1:1G:197:A:H3'	2.12	0.49
1:1G:300:A:H1'	1:1G:565:U:O2	2.12	0.49
1:1G:433:C:H2'	1:1G:434:U:H6	1.77	0.49
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.48	0.49
26:1H:2881:C:H2'	26:1H:2882:A:C8	2.48	0.49
26:1H:405:U:H2'	26:1H:405:U:O2	2.12	0.49
26:1H:68:G:H2'	26:1H:69:C:C6	2.48	0.49
26:1H:771:G:N7	59:1H:4277:HOH:O	2.35	0.49
10:1I:6:ILE:HD11	10:1I:72:VAL:HB	1.94	0.49
36:25:88:ASN:HB3	36:25:94:ARG:HD3	1.95	0.49
23:2K:48:U:H4'	23:2K:49:C:H5'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:153:ARG:HH12	4:32:181:MET:HB2	1.78	0.49
31:39:7:TYR:CD1	31:39:18:ARG:HB3	2.47	0.49
31:39:158:THR:HA	31:39:195:ASP:HB2	1.94	0.49
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.95	0.49
7:6E:15:ASP:HB2	7:6E:23:VAL:HB	1.95	0.49
28:71:65:PRO:HB2	28:71:66:HIS:CE1	2.47	0.49
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.77	0.49
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.43	0.49
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.94	0.49
18:9A:29:PHE:CD1	18:9A:29:PHE:N	2.79	0.49
40:A8:34:HIS:HB3	40:A8:53:SER:OG	2.13	0.49
40:A8:74:ALA:HB1	40:A8:107:GLU:O	2.13	0.49
41:B8:16:ARG:NH2	41:B8:83:ILE:O	2.46	0.49
50:G5:15:LYS:H	50:G5:67:LYS:NZ	2.11	0.49
52:I5:62:ARG:HD2	52:I5:62:ARG:H	1.78	0.49
53:J5:3:LYS:NZ	53:J5:3:LYS:HA	2.28	0.49
51:L8:4:LEU:HD11	51:L8:39:ASP:HA	1.95	0.49
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.28	0.49
29:11:30:GLU:O	29:11:33:LEU:N	2.41	0.48
2:12:4:GLU:N	2:12:59:GLU:OE2	2.46	0.48
1:13:1053:G:O6	1:13:1199:U:H2'	2.12	0.48
1:13:1206:G:C6	1:13:1207:G:C6	3.01	0.48
1:13:1347:G:H22	1:13:1374:A:P	2.37	0.48
1:13:1389:C:H2'	1:13:1390:U:O4'	2.12	0.48
1:13:1394:A:C6	1:13:1501:C:H4'	2.48	0.48
1:13:46:G:H2'	1:13:366:C:H5	1.78	0.48
26:14:1534:G:H3'	26:14:1535:U:C5'	2.43	0.48
26:14:2003:G:H8	26:14:2003:G:O5'	1.96	0.48
26:14:2062:A:HO2'	26:14:2063:C:P	2.34	0.48
26:14:2244:U:O2'	26:14:2245:U:H5'	2.12	0.48
26:14:2256:G:O6	59:14:3977:HOH:O	2.17	0.48
26:14:2869:G:H2'	26:14:2870:C:O4'	2.13	0.48
26:14:868:U:C2	26:14:869:G:C8	3.01	0.48
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.28	0.48
1:1G:1124:G:OP1	10:1A:36:GLY:HA3	2.13	0.48
1:1G:1269:A:H5"	1:1G:1270:C:OP2	2.13	0.48
1:1G:421:U:O2'	1:1G:423:G:N7	2.45	0.48
1:1G:980:C:H5'	1:1G:981:U:C5	2.47	0.48
26:1H:1313:U:H4'	26:1H:1332:G:H4'	1.94	0.48
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.38	0.48
26:1H:300:A:N3	26:1H:319:C:H1'	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:620:G:N2	26:1H:620:G:OP2	2.40	0.48
26:1H:2575:C:O2'	30:21:140:SER:HB2	2.13	0.48
36:25:68:GLU:HB3	36:25:78:ARG:HB3	1.95	0.48
31:31:9:ILE:HG12	31:31:10:PRO:CD	2.42	0.48
4:32:18:LYS:HD3	4:32:31:CYS:SG	2.53	0.48
4:32:9:CYS:SG	4:32:22:LYS:HD2	2.53	0.48
37:35:64:LYS:HD2	55:M5:30:ARG:NH1	2.28	0.48
1:1G:552:U:O2'	12:3A:86:ARG:O	2.30	0.48
24:3K:40:C:H2'	24:3K:41:C:H6	1.78	0.48
38:45:114:ALA:O	38:45:118:LEU:HB2	2.13	0.48
38:45:3:MET:HB2	38:45:93:TYR:CD1	2.48	0.48
32:49:171:ALA:O	32:49:175:LEU:N	2.33	0.48
35:58:13:TRP:O	35:58:135:PRO:HD2	2.13	0.48
33:59:22:GLY:O	33:59:37:VAL:HG12	2.13	0.48
34:61:138:ILE:HG12	34:61:139:GLN:H	1.77	0.48
5:42:92:LYS:HE2	8:72:105:ARG:HH21	1.76	0.48
41:75:113:LYS:O	41:75:114:LEU:HD23	2.13	0.48
41:75:64:ARG:NH1	41:75:103:ARG:HA	2.27	0.48
38:88:34:LEU:HD23	38:88:104:PHE:CD2	2.48	0.48
41:B8:110:ILE:HG22	41:B8:111:ARG:HD3	1.95	0.48
42:C8:102:GLU:HG3	43:D8:2:PHE:CZ	2.48	0.48
43:D8:19:LYS:HG3	43:D8:95:LEU:HD23	1.94	0.48
44:E8:88:ARG:HB3	44:E8:92:ARG:CB	2.37	0.48
55:Q8:45:GLY:HA2	55:Q8:46:ARG:C	2.33	0.48
29:11:71:ASP:CB	29:11:103:ARG:HH22	2.21	0.48
1:13:221:C:H2'	1:13:222:U:H6	1.76	0.48
1:13:688:G:H2'	1:13:689:C:C6	2.45	0.48
26:14:1071:G:O2'	26:14:1090:U:OP1	2.30	0.48
26:14:1109:C:H2'	26:14:1110:G:C4	2.48	0.48
26:14:1287:A:C5	26:14:1288:U:C4	3.01	0.48
26:14:1388:G:H2'	26:14:1389:G:C8	2.44	0.48
26:14:2287:A:C8	26:14:2287:A:H5"	2.48	0.48
26:14:2774:C:H2'	26:14:2775:A:H8	1.79	0.48
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.60	0.48
26:1H:1287:A:C8	39:98:107:ASP:HB2	2.48	0.48
26:1H:1411:C:H2'	26:1H:1412:A:C8	2.48	0.48
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.48	0.48
26:1H:2489:G:OP2	59:1H:4151:HOH:O	2.20	0.48
26:1H:529:A:C8	26:1H:530:G:C6	3.00	0.48
27:1J:24:G:H4'	27:1J:25:A:H8	1.77	0.48
30:29:47:VAL:HG21	30:29:85:ASN:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:59:TYR:CD2	31:39:78:ILE:HG12	2.47	0.48
12:3A:58:VAL:N	12:3A:66:VAL:O	2.32	0.48
24:3K:10:G:C2	24:3K:26:A:C5	3.01	0.48
24:3L:6:G:N2	24:3L:67:C:O2	2.37	0.48
32:49:76:SER:OG	32:49:84:LYS:N	2.45	0.48
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.14	0.48
33:51:68:THR:O	33:51:72:ILE:HD12	2.14	0.48
36:68:75:SER:HB2	41:B8:74:ARG:HH12	1.78	0.48
8:72:99:GLU:CD	8:72:100:ILE:H	2.16	0.48
16:7I:23:ASP:O	16:7I:26:ARG:HB2	2.13	0.48
42:85:82:GLY:O	42:85:86:ALA:N	2.39	0.48
46:G8:68:HIS:HB3	46:G8:71:LYS:HG2	1.94	0.48
29:11:108:PRO:HG3	29:11:143:HIS:HE1	1.77	0.48
1:13:1448:C:H42	1:13:1455:G:H1	1.60	0.48
1:13:255:G:C2'	1:13:256:U:H5'	2.43	0.48
1:13:957:U:H1'	1:13:960:U:N3	2.28	0.48
1:13:983:A:OP1	14:5I:3:ARG:NH2	2.45	0.48
26:14:1187:G:OP2	59:14:3597:HOH:O	2.20	0.48
26:14:1448:G:H1'	26:14:1528:A:H62	1.78	0.48
26:14:1810:A:H2'	26:14:1811:G:O4'	2.13	0.48
26:14:2119:A:C2	26:14:2171:A:H1'	2.48	0.48
26:14:2227:A:O3'	29:19:261:LYS:NZ	2.45	0.48
26:14:2689:U:H5"	26:14:2713:A:C2	2.43	0.48
26:14:845:G:HO2'	26:14:846:C:H5	1.59	0.48
2:1E:56:ARG:HB2	2:1E:56:ARG:NH1	2.29	0.48
1:1G:1084:G:C5	1:1G:1085:U:C4	3.01	0.48
1:1G:179:A:H2'	1:1G:180:U:C6	2.47	0.48
1:1G:756:C:H2'	1:1G:757:U:O4'	2.12	0.48
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.94	0.48
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.12	0.48
26:1H:1956:U:H1'	26:1H:2552:U:OP1	2.13	0.48
26:1H:2259:G:C2	26:1H:2282:G:C6	3.01	0.48
26:1H:2488:A:OP2	59:1H:4153:HOH:O	2.20	0.48
26:1H:730:C:H3'	59:1H:3597:HOH:O	2.12	0.48
27:1J:14:U:H5"	27:1J:70:C:O2'	2.13	0.48
3:22:126:ARG:HB3	3:22:128:PHE:HD1	1.76	0.48
36:25:104:ARG:HH12	41:75:36:GLU:HB3	1.78	0.48
30:29:89:ASP:OD1	30:29:90:THR:N	2.47	0.48
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.95	0.48
4:32:31:CYS:C	4:32:33:MET:H	2.15	0.48
31:39:28:ILE:HD13	31:39:119:ARG:NH2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:151:ALA:HB3	32:41:153:ARG:HH12	1.77	0.48
6:52:39:LYS:HE2	6:52:62:TRP:CZ3	2.46	0.48
26:14:2723:C:OP1	39:55:3:HIS:CD2	2.66	0.48
33:59:60:ARG:O	33:59:64:LEU:HG	2.12	0.48
15:6A:10:LYS:HD2	15:6A:10:LYS:HA	1.55	0.48
8:72:85:ARG:NH1	8:72:134:ILE:HG23	2.28	0.48
41:75:27:THR:HG23	41:75:90:GLN:HB3	1.95	0.48
37:78:46:LYS:O	37:78:47:ASP:HB3	2.13	0.48
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.94	0.48
39:98:10:LEU:O	39:98:12:ARG:N	2.46	0.48
40:A8:26:LEU:CD2	40:A8:87:PHE:HD1	2.27	0.48
19:AA:9:VAL:HG13	52:I5:63:TYR:CE1	2.41	0.48
20:BI:41:ILE:HD12	20:BI:42:GLN:N	2.28	0.48
47:D5:28:MET:O	47:D5:34:ASN:HA	2.12	0.48
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.41	0.48
2:12:45:GLN:OE1	2:12:46:LYS:NZ	2.25	0.48
1:13:1287:A:H2'	1:13:1288:A:C8	2.48	0.48
26:14:117:G:C6	26:14:119:A:C6	3.01	0.48
26:14:1204:A:HO2'	26:14:1205:U:P	2.35	0.48
26:14:1528:A:N6	26:14:1529:A:N1	2.62	0.48
26:14:2467:C:H2'	26:14:2468:G:O4'	2.13	0.48
26:14:828:U:H4'	26:14:831:G:N1	2.28	0.48
1:1G:1046:A:H3'	1:1G:1047:G:C8	2.48	0.48
1:1G:1528:U:H5'	1:1G:1529:G:H21	1.79	0.48
1:1G:838:G:O5'	1:1G:838:G:H8	1.95	0.48
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.49	0.48
26:1H:1301:A:C8	26:1H:1303:G:C8	3.01	0.48
26:1H:155:C:H5"	26:1H:155:C:H6	1.78	0.48
26:1H:1693:U:H4'	26:1H:1694:C:OP2	2.13	0.48
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.13	0.48
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.48	0.48
26:1H:2711:A:P	59:1H:3576:HOH:O	2.71	0.48
26:1H:699:A:H2'	26:1H:700:G:O4'	2.14	0.48
26:1H:863:A:N7	59:1H:3929:HOH:O	2.33	0.48
3:22:61:ALA:O	3:22:63:ASN:N	2.44	0.48
26:14:2773:C:OP1	30:29:164:ARG:NE	2.46	0.48
11:2A:43:SER:OG	11:2A:44:SER:N	2.46	0.48
1:13:797:C:OP1	11:2I:124:LYS:HE2	2.13	0.48
23:2K:47:7MG:H81	23:2K:48:U:C5	2.45	0.48
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.27	0.48
24:3L:35:A:H2'	24:3L:36:A:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:125:PHE:HA	32:41:130:ASN:O	2.13	0.48
32:41:173:LEU:HD22	32:41:178:PHE:HE2	1.79	0.48
13:4I:60:VAL:HG12	13:4I:66:LEU:HD11	1.94	0.48
6:5E:50:TYR:CE2	18:9I:77:GLY:HA2	2.48	0.48
34:61:93:THR:HA	34:61:119:PRO:HB3	1.94	0.48
36:68:113:LYS:NZ	36:68:117:LEU:HD21	2.28	0.48
7:6E:18:TYR:CD1	7:6E:59:LEU:HD12	2.48	0.48
28:71:47:LEU:HB2	28:71:170:ALA:HA	1.96	0.48
1:1G:642:A:C2'	8:72:113:SER:HG	2.27	0.48
8:72:44:PHE:HD1	8:72:80:ILE:HG13	1.78	0.48
9:82:10:ARG:HA	9:82:104:ARG:HH21	1.77	0.48
38:88:58:PHE:HZ	38:88:106:VAL:HG11	1.79	0.48
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.14	0.48
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.94	0.48
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.48
47:D5:11:GLU:OE2	47:D5:12:GLY:N	2.46	0.48
45:F8:67:GLY:O	45:F8:69:TYR:N	2.44	0.48
52:I5:37:SER:O	52:I5:44:THR:HG21	2.12	0.48
50:K8:5:GLU:HG3	50:K8:7:ARG:HD3	1.95	0.48
1:13:1501:C:N4	1:13:1504:G:C2	2.81	0.48
1:13:165:C:H2'	1:13:166:G:C8	2.49	0.48
1:13:234:C:H2'	1:13:235:C:C6	2.49	0.48
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.32	0.48
1:13:426:G:H2'	1:13:427:U:H6	1.75	0.48
1:13:439:A:H3'	1:13:440:A:H8	1.79	0.48
1:13:481:G:O2'	1:13:483:C:N4	2.41	0.48
1:13:615:C:C2	1:13:616:G:C8	3.02	0.48
1:13:947:G:C6	1:13:948:C:N3	2.82	0.48
1:13:953:G:N7	13:4I:104:ARG:NH2	2.49	0.48
1:13:968:A:H4'	1:13:969:A:OP2	2.13	0.48
1:13:963:G:N2	1:13:972:C:N3	2.47	0.48
1:13:977:A:C8	1:13:1223:C:C4	3.01	0.48
26:14:1495:A:O2'	26:14:1496:A:H5'	2.13	0.48
26:14:1533:C:C4	26:14:1534:G:H1'	2.48	0.48
26:14:1639:U:C2'	26:14:1640:C:H5'	2.44	0.48
26:14:2092:U:H4'	26:14:2093:G:O5'	2.13	0.48
26:14:2259:G:N2	26:14:2282:G:C2	2.82	0.48
26:14:245:G:C2	26:14:246:C:C6	3.01	0.48
26:14:2468:G:N2	26:14:2481:G:O2'	2.28	0.48
26:14:2533:A:O4'	26:14:2664:G:H4'	2.13	0.48
26:14:2694:G:C4	26:14:2695:C:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2697:G:H2'	26:14:2698:U:O4'	2.13	0.48
26:14:442:G:C6	26:14:444:C:N4	2.81	0.48
26:14:459:U:H2'	26:14:460:A:H8	1.78	0.48
26:14:864:G:H1'	26:14:914:C:N4	2.29	0.48
26:14:954:G:C5	26:14:955:C:C5	3.01	0.48
27:16:11:C:OP2	27:16:12:C:N4	2.41	0.48
1:1G:1325:C:H5"	21:1B:17:THR:HG21	1.96	0.48
1:1G:579:G:O3'	15:6A:54:ARG:NH2	2.46	0.48
1:1G:244:U:C5	1:1G:894:G:C2	3.01	0.48
26:1H:141:A:H8	26:1H:1408:C:H1'	1.78	0.48
26:1H:1543:A:C2	26:1H:1545:A:C4	3.02	0.48
26:1H:1674:G:N2	26:1H:1677:A:N1	2.53	0.48
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.79	0.48
26:1H:2598:A:P	59:1H:3555:HOH:O	2.71	0.48
26:1H:945:A:C2	26:1H:2448:A:C6	3.01	0.48
30:21:38:THR:CG2	30:21:41:LYS:H	2.25	0.48
23:2K:62:C:H2'	23:2K:63:C:C6	2.46	0.48
4:32:116:GLN:O	4:32:120:LEU:HG	2.13	0.48
4:32:32:ALA:O	4:32:35:ARG:HB2	2.13	0.48
4:32:94:LEU:O	4:32:98:GLU:N	2.43	0.48
26:14:2416:C:OP1	37:35:64:LYS:HG3	2.13	0.48
4:3E:165:MET:HA	4:3E:168:ARG:HG3	1.96	0.48
32:49:41:GLN:NE2	32:49:154:GLY:O	2.26	0.48
13:4A:86:CYS:SG	13:4A:88:ARG:HB3	2.53	0.48
7:62:15:ASP:O	7:62:19:GLY:HA2	2.14	0.48
26:1H:2122:U:H1'	28:71:166:ASP:HB3	1.96	0.48
28:71:45:ALA:HA	28:71:212:VAL:HA	1.96	0.48
48:E5:26:TYR:N	48:E5:29:GLN:OE1	2.46	0.48
44:E8:17:VAL:C	44:E8:19:LEU:H	2.16	0.48
44:E8:41:LYS:HE3	53:N8:25:LEU:HD23	1.94	0.48
51:L8:21:ALA:O	51:L8:24:LYS:HB2	2.13	0.48
26:1H:467:G:OP2	54:P8:34:ARG:NH1	2.46	0.48
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.95	0.48
1:13:1111:A:O5'	1:13:1111:A:H8	1.97	0.48
1:13:1128:C:O2'	1:13:1139:G:O6	2.31	0.48
1:13:1285:A:H4'	1:13:1286:A:H5'	1.96	0.48
1:13:538:G:OP2	12:3I:115:LYS:HG3	2.13	0.48
26:14:1144:G:C2	26:14:1145:C:C2	3.02	0.48
26:14:1348:G:C2'	26:14:1349:A:H5"	2.43	0.48
26:14:1678:G:H22	26:14:1989:G:H1	1.60	0.48
26:14:2056:G:N3	26:14:2056:G:H2'	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2113:U:O4	26:14:2168:G:O2'	2.30	0.48
26:14:2305:A:H2'	26:14:2306:C:O4'	2.13	0.48
26:14:380:U:H5'	49:F5:18:ILE:HD12	1.94	0.48
26:14:563:G:H2'	26:14:564:C:H6	1.79	0.48
2:1E:126:GLU:HA	2:1E:129:GLU:HG2	1.95	0.48
2:1E:80:ILE:H	2:1E:80:ILE:HD12	1.79	0.48
1:1G:1173:G:H2'	1:1G:1174:G:O4'	2.13	0.48
26:1H:1016:G:O6	59:1H:4211:HOH:O	2.20	0.48
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.14	0.48
26:1H:1339:G:N2	26:1H:1340:U:O4	2.46	0.48
26:1H:1411:C:H2'	26:1H:1412:A:H8	1.78	0.48
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.44	0.48
26:1H:2253:G:H2'	26:1H:2254:C:C6	2.48	0.48
26:1H:2319:G:N7	40:A8:3:ARG:HB3	2.28	0.48
26:1H:2359:C:H2'	26:1H:2360:A:C8	2.48	0.48
27:1J:113:C:O2'	40:65:46:VAL:HG13	2.13	0.48
36:25:93:PRO:CD	36:25:113:LYS:HG3	2.43	0.48
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.14	0.48
27:16:42:C:O2'	32:41:67:LYS:HE3	2.13	0.48
5:4E:83:GLU:HG3	5:4E:88:LYS:HG3	1.96	0.48
33:51:3:ARG:HH21	33:51:7:LEU:HD11	1.78	0.48
26:14:1287:A:OP2	39:55:104:ARG:HB3	2.13	0.48
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.46	0.48
37:78:31:ALA:O	37:78:32:THR:HG22	2.12	0.48
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.77	0.48
19:AI:32:LYS:HB3	19:AI:50:ALA:HB3	1.95	0.48
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.28	0.48
48:E5:45:PHE:O	48:E5:59:LEU:HD11	2.13	0.48
46:G8:31:LEU:HD12	46:G8:36:ALA:O	2.13	0.48
52:I5:23:GLU:HG3	52:I5:24:THR:H	1.79	0.48
55:Q8:33:ASN:O	55:Q8:34:TRP:CD1	2.67	0.48
1:13:1108:G:C5	1:13:1109:C:C5	3.01	0.48
1:13:1222:G:H2'	1:13:1223:C:O4'	2.12	0.48
1:13:295:C:H2'	1:13:296:U:O4'	2.12	0.48
1:13:824:C:H4'	8:7E:1:MET:HG3	1.96	0.48
26:14:1167:U:O2	26:14:1183:G:N2	2.45	0.48
26:14:1295:C:O4'	39:55:23:ASN:ND2	2.40	0.48
26:14:1288:U:C2	26:14:1327:C:O2	2.66	0.48
26:14:1377:G:O5'	26:14:1377:G:H8	1.96	0.48
26:14:2572:A:OP1	26:14:2574:G:O2'	2.31	0.48
26:14:2748:A:H2'	26:14:2749:A:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2857:G:N2	26:14:2859:G:H3'	2.29	0.48
26:14:443:A:H5"	26:14:444:C:OP1	2.13	0.48
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.94	0.48
29:19:231:HIS:CD2	29:19:232:PRO:HD2	2.48	0.48
2:1E:101:MET:HA	2:1E:108:ILE:HG13	1.96	0.48
2:1E:62:ALA:HB3	2:1E:225:ALA:HB3	1.95	0.48
1:1G:1493:A:H2'	26:14:1913:A:N6	2.27	0.48
1:1G:284:G:H2'	1:1G:285:G:H8	1.79	0.48
1:1G:109:A:C6	1:1G:326:G:C6	3.01	0.48
1:1G:359:U:H2'	1:1G:360:A:H8	1.72	0.48
26:1H:1024:G:O6	26:1H:1025:G:N1	2.47	0.48
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.49	0.48
26:1H:1186:G:H2'	26:1H:1187:G:O4'	2.14	0.48
26:1H:1309:G:P	59:1H:3778:HOH:O	2.71	0.48
26:1H:1665:A:N7	59:1H:4031:HOH:O	2.35	0.48
26:1H:1992:G:C2	26:1H:1997:G:C5	3.01	0.48
26:1H:2726:U:O2'	26:1H:2727:G:H8	1.96	0.48
26:1H:586:A:P	59:1H:3823:HOH:O	2.71	0.48
26:1H:780:G:C2	26:1H:782:A:C2	3.02	0.48
26:1H:879:G:O6	26:1H:898:C:N4	2.46	0.48
26:1H:902:C:H2'	26:1H:903:C:H6	1.78	0.48
27:1J:80:U:C2	27:1J:81:G:N2	2.81	0.48
22:1K:10:G:H2'	22:1K:11:A:C8	2.48	0.48
11:2A:82:VAL:HG13	11:2A:108:ILE:HG12	1.95	0.48
56:2L:36:A:H2'	56:2L:37:U:H6	1.78	0.48
4:32:39:PRO:O	4:32:44:GLY:HA3	2.12	0.48
31:39:135:LYS:HD2	31:39:135:LYS:HA	1.64	0.48
24:3K:21:A:N6	24:3K:48:C:O2	2.47	0.48
26:14:2839:G:C5'	39:55:46:GLY:HA2	2.43	0.48
39:55:86:ARG:HH21	39:55:118:GLU:HA	1.79	0.48
7:62:25:ALA:HA	7:62:28:ASN:ND2	2.29	0.48
40:65:88:ASP:OD2	40:65:90:GLY:N	2.46	0.48
41:75:3:ARG:HG2	41:75:4:GLY:N	2.28	0.48
17:8A:26:GLN:HB3	17:8A:37:LYS:HG2	1.95	0.48
39:98:53:HIS:HB2	39:98:94:TYR:HE2	1.79	0.48
11:2A:111:ASP:OD1	18:9A:84:LYS:HD3	2.14	0.48
46:C5:19:LYS:CG	46:C5:20:TYR:H	2.24	0.48
47:D5:10:ARG:HB3	47:D5:36:LYS:HG3	1.95	0.48
53:N8:46:CYS:H	53:N8:50:GLY:HA2	1.79	0.48
1:13:1064:G:OP1	1:13:1386:G:H4'	2.14	0.48
1:13:113:G:O4'	1:13:354:G:H4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:414:A:H2'	1:13:415:A:O4'	2.13	0.48
1:13:449:C:H5	16:7I:42:ARG:HH11	1.62	0.48
1:13:652:U:HO2'	1:13:653:A:P	2.36	0.48
1:13:74:C:H2'	1:13:75:C:O4'	2.14	0.48
1:13:793:U:H5'	1:13:794:A:H5"	1.95	0.48
1:13:815:A:OP2	1:13:816:A:H5"	2.14	0.48
26:14:1291:C:H2'	26:14:1292:U:C6	2.48	0.48
26:14:139:G:H1'	26:14:140:A:C2	2.49	0.48
26:14:1575:C:O2'	26:14:1576:U:H5'	2.14	0.48
26:14:1860:G:H1	26:14:1882:C:H42	1.61	0.48
26:14:1986:A:H2'	26:14:1987:G:H8	1.79	0.48
26:14:2120:G:H2'	26:14:2121:G:H8	1.78	0.48
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.48
26:14:2142:C:H2'	26:14:2143:C:C6	2.49	0.48
26:14:2749:A:O3'	33:59:62:LYS:NZ	2.38	0.48
26:14:315:G:H2'	26:14:316:C:C6	2.49	0.48
26:14:768:G:H2'	26:14:769:G:H8	1.77	0.48
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.95	0.48
1:1G:1010:G:H2'	1:1G:1011:G:O4'	2.14	0.48
1:1G:1277:C:HO2'	1:1G:1279:A:H1'	1.79	0.48
1:1G:1260:C:OP1	1:1G:1284:C:H4'	2.14	0.48
1:1G:1362:C:H2'	1:1G:1362(A):C:H5"	1.96	0.48
1:1G:631:G:C3'	1:1G:632:A:H8	2.26	0.48
26:1H:1138:G:H21	35:58:106:MET:CE	2.26	0.48
26:1H:1216:G:P	42:C8:12:ARG:HH21	2.37	0.48
26:1H:1333:C:OP2	59:1H:3889:HOH:O	2.20	0.48
26:1H:1394:U:C5	26:1H:1395:A:C4	3.02	0.48
26:1H:1636:C:P	59:1H:3508:HOH:O	2.72	0.48
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.13	0.48
26:1H:483:A:H5"	46:G8:50:ARG:HE	1.79	0.48
26:1H:639:U:O2'	26:1H:640:C:H5'	2.13	0.48
27:1J:117:G:C2	27:1J:118:G:C5	3.02	0.48
27:1J:38:C:O5'	27:1J:38:C:H6	1.97	0.48
30:21:109:LYS:HE2	30:21:191:PRO:HA	1.95	0.48
3:22:33:LEU:O	3:22:36:ASP:N	2.47	0.48
3:22:91:LEU:HD12	3:22:99:VAL:HB	1.96	0.48
23:2K:60:A:H2'	23:2K:61:U:H5'	1.95	0.48
31:31:192:LEU:HD21	31:31:194:MET:HE3	1.96	0.48
31:31:7:TYR:O	31:31:21:ALA:HA	2.14	0.48
12:3A:6:THR:OG1	12:3A:9:GLN:HG3	2.14	0.48
12:3I:93:LEU:O	12:3I:96:VAL:HG12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:63:ILE:HD12	32:49:141:PHE:CD2	2.49	0.48
39:55:20:LEU:O	39:55:24:GLN:HG3	2.12	0.48
33:59:92:ILE:HD11	33:59:160:LYS:NZ	2.29	0.48
34:69:117:GLU:OE1	34:69:118:LYS:HG2	2.13	0.48
28:71:66:HIS:HB2	28:71:188:ASN:ND2	2.29	0.48
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.14	0.48
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.77	0.48
38:88:109:VAL:CG1	38:88:113:GLN:HB3	2.40	0.48
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.73	0.48
39:98:96:ARG:HD2	39:98:115:GLU:CG	2.44	0.48
19:AA:50:ALA:HA	19:AA:58:VAL:O	2.14	0.48
48:E5:38:VAL:HB	48:E5:59:LEU:HD12	1.95	0.48
50:G5:63:VAL:O	50:G5:67:LYS:HB2	2.14	0.48
26:1H:2329:G:N2	48:I8:41:ARG:HG3	2.29	0.48
26:1H:2085:C:O3'	29:11:262:ARG:HD3	2.12	0.48
1:13:1246:C:C4	1:13:1247:U:C4	3.02	0.48
1:13:1273:G:H3'	1:13:1274:G:C8	2.49	0.48
1:13:1390:U:H2'	1:13:1391:U:C6	2.49	0.48
1:13:1410:G:H2'	1:13:1411:C:C6	2.48	0.48
1:13:143:A:H2	1:13:220:G:H22	1.61	0.48
1:13:49:U:C4	1:13:364:A:C6	3.02	0.48
26:14:83:G:N2	26:14:102:G:H2'	2.29	0.48
26:14:1728:G:C6	26:14:1730:U:OP2	2.67	0.48
26:14:1849:G:H2'	26:14:1850:G:C8	2.45	0.48
26:14:1971:A:H5"	59:14:3466:HOH:O	2.12	0.48
26:14:2002:G:C5	59:14:3793:HOH:O	2.65	0.48
26:14:2074:U:H2'	26:14:2075:U:C6	2.49	0.48
26:14:242:G:C8	55:M5:5:LYS:HG2	2.49	0.48
26:14:363:G:H2'	26:14:363(A):A:H8	1.78	0.48
26:14:49:A:H5"	26:14:51:G:O4'	2.14	0.48
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.14	0.48
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.49	0.48
1:1G:897:C:H2'	1:1G:898:G:C8	2.47	0.48
26:1H:1203:G:OP2	26:1H:1204:A:H2'	2.14	0.48
26:1H:1728:G:H8	26:1H:1732:A:H62	1.62	0.48
26:1H:2228:G:H2'	26:1H:2229:C:C6	2.49	0.48
26:1H:270(J):G:H2'	26:1H:270(K):C:O4'	2.14	0.48
26:1H:2734:A:H3'	26:1H:2735:G:H8	1.78	0.48
26:1H:415:A:H2'	26:1H:416:C:O4'	2.14	0.48
26:1H:40:C:H2'	26:1H:41:C:C6	2.48	0.48
26:1H:507:A:H5"	26:1H:508:G:H3'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:725:G:C6	26:1H:726:G:N1	2.82	0.48
26:1H:751:A:C6	26:1H:789:A:C5	3.02	0.48
30:21:92:THR:HB	30:21:94:GLU:HG2	1.95	0.48
3:22:179:ARG:NE	3:22:206:GLU:OE2	2.47	0.48
36:25:22:ILE:HA	36:25:22:ILE:HD12	1.47	0.48
1:13:1192:C:OP2	3:2E:4:LYS:NZ	2.47	0.48
4:32:18:LYS:HD2	4:32:20:TYR:CE1	2.48	0.48
37:35:82:GLY:HA2	37:35:113:LYS:O	2.13	0.48
31:39:143:ALA:HB1	31:39:148:LEU:HB3	1.95	0.48
4:3E:62:GLN:O	4:3E:66:ARG:HD3	2.14	0.48
4:3E:96:LEU:HD12	4:3E:139:ARG:NH1	2.25	0.48
24:3K:20:U:H5"	24:3K:20:U:H6	1.79	0.48
32:41:172:LEU:O	32:41:176:LEU:HD12	2.14	0.48
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.14	0.48
33:51:4:ILE:C	33:51:6:ARG:H	2.17	0.48
27:1J:50:G:OP1	40:65:62:LYS:HB2	2.14	0.48
15:6I:8:LYS:O	15:6I:12:ILE:HG13	2.13	0.48
8:72:82:HIS:HB3	8:72:138:TRP:CE3	2.48	0.48
37:78:84:ASN:HA	37:78:115:LEU:O	2.13	0.48
8:7E:8:ASP:OD2	8:7E:12:ARG:HD2	2.13	0.48
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.79	0.48
42:85:52:ARG:NH1	42:85:56:ASP:OD2	2.46	0.48
43:95:52:VAL:HG11	43:95:55:ALA:HB3	1.96	0.48
42:85:47:TYR:HD2	43:95:74:LYS:HD3	1.79	0.48
39:98:21:TYR:HB3	39:98:47:PHE:CD2	2.49	0.48
26:1H:2881:C:O2'	39:98:96:ARG:HA	2.14	0.48
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.14	0.48
19:AA:51:VAL:HB	19:AA:75:ALA:HB3	1.96	0.48
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.44	0.48
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.79	0.48
47:D5:19:ARG:HB2	47:D5:19:ARG:HE	1.40	0.48
46:G8:35:TYR:CD2	46:G8:69:ALA:HB3	2.49	0.48
47:H8:14:LYS:HA	47:H8:15:PRO:HD2	1.72	0.48
51:L8:7:LYS:HA	51:L8:34:GLU:HA	1.96	0.48
52:M8:59:PHE:O	52:M8:63:TYR:HB2	2.14	0.48
29:11:24:ILE:HA	29:11:82:ILE:HG22	1.95	0.48
1:13:1037:C:H2'	1:13:1038:C:C6	2.49	0.48
1:13:1161:C:H2'	1:13:1162:C:C6	2.49	0.48
1:13:1263:C:H2'	1:13:1264:C:C6	2.44	0.48
1:13:198:G:C2	1:13:199:G:C8	3.01	0.48
1:13:648:A:C6	1:13:649:G:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1443:G:H1	26:14:1548:C:H42	1.60	0.48
26:14:274:G:H2'	26:14:275:G:H4'	1.96	0.48
26:14:380:U:H2'	26:14:381:G:H8	1.79	0.48
26:14:446:G:OP2	59:14:3699:HOH:O	2.20	0.48
26:14:544:C:C2	26:14:550:G:N2	2.82	0.48
26:14:72:U:OP2	50:G5:29:LYS:NZ	2.46	0.48
26:14:847:U:H5'	26:14:929:G:H1	1.79	0.48
26:14:1820:U:O2	29:19:202:LYS:N	2.47	0.48
26:14:1971:A:P	29:19:242:ARG:HH22	2.37	0.48
29:19:77:ALA:HB2	29:19:97:TYR:CD2	2.49	0.48
1:1G:446:G:H1	1:1G:488:C:H42	1.62	0.48
1:1G:948:C:P	13:4A:109:THR:HG1	2.37	0.48
26:1H:1024:G:O6	26:1H:1025:G:C2	2.67	0.48
26:1H:1386:C:C2	26:1H:1387:C:H5	2.31	0.48
26:1H:1486:A:C4	26:1H:1487:G:C8	3.02	0.48
26:1H:1858:G:O6	59:1H:4304:HOH:O	2.19	0.48
26:1H:1858:G:N2	26:1H:1883:G:H2'	2.29	0.48
26:1H:242:G:H5'	55:Q8:60:LEU:HD13	1.95	0.48
10:1I:89:ASP:N	10:1I:89:ASP:OD1	2.46	0.48
3:22:88:ARG:HB2	3:22:101:LEU:HD22	1.96	0.48
3:22:12:LEU:HD22	3:22:18:TRP:CZ3	2.49	0.48
31:39:135:LYS:HB3	31:39:138:GLU:HG3	1.96	0.48
12:3A:10:LEU:HA	12:3A:10:LEU:HD22	1.74	0.48
24:3L:72:C:H3'	24:3L:73:A:H5"	1.95	0.48
32:41:137:GLU:HB2	32:41:139:LEU:HD23	1.95	0.48
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.95	0.48
32:49:114:ILE:HG12	32:49:140:ILE:HD13	1.94	0.48
13:4I:13:LYS:HA	13:4I:13:LYS:NZ	2.29	0.48
33:51:35:VAL:HA	33:51:36:PRO:HD2	1.73	0.48
6:52:48:LEU:HD13	6:52:52:ILE:HB	1.95	0.48
39:55:67:LEU:HD13	39:55:76:VAL:HG11	1.96	0.48
33:59:74:ASN:O	33:59:78:GLY:N	2.47	0.48
14:5I:26:ARG:NH1	14:5I:46:GLU:OE2	2.47	0.48
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.96	0.48
36:68:10:VAL:HG11	36:68:16:ALA:HB3	1.96	0.48
34:69:129:THR:HA	34:69:137:PRO:HA	1.95	0.48
1:1G:1342:C:H1'	9:82:124:GLN:OE1	2.14	0.48
9:82:95:LYS:HZ3	9:82:96:LEU:HB2	1.78	0.48
38:88:138:ASP:OD2	47:H8:81:ARG:NH2	2.47	0.48
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.96	0.48
19:AI:9:VAL:HG21	52:M8:63:TYR:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.37	0.48
48:I8:49:LYS:HE3	48:I8:68:GLU:OE2	2.13	0.48
48:I8:64:ASP:OD1	48:I8:64:ASP:N	2.47	0.48
55:Q8:23:VAL:O	55:Q8:44:LYS:HB2	2.14	0.48
29:11:77:ALA:HB2	29:11:97:TYR:HA	1.96	0.47
2:12:6:THR:HG21	2:12:217:ARG:HB3	1.96	0.47
2:12:32:ILE:HD13	2:12:40:HIS:HB3	1.96	0.47
1:13:1234:C:H2'	1:13:1235:U:H6	1.78	0.47
1:13:1427:U:H2'	1:13:1428:A:C8	2.49	0.47
26:14:1019:U:H2'	26:14:1020:A:C8	2.49	0.47
26:14:139:G:H1'	26:14:140:A:H2	1.78	0.47
26:14:186:G:H2'	26:14:187:G:H8	1.79	0.47
26:14:2190:G:H2'	26:14:2191:G:O4'	2.14	0.47
26:14:2536:G:C5	26:14:2537:U:C4	3.02	0.47
26:14:2648:C:H2'	26:14:2649:U:H6	1.78	0.47
26:14:2851:A:H2'	26:14:2852:G:H8	1.77	0.47
26:14:489:G:N7	44:A5:49:LYS:NZ	2.59	0.47
26:14:654(Q):C:O5'	26:14:654(Q):C:H6	1.97	0.47
26:14:70:G:H2'	26:14:113:G:O2'	2.13	0.47
26:14:918:A:C5	26:14:919:G:H1'	2.49	0.47
26:14:988:A:O5'	26:14:988:A:H8	1.96	0.47
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.95	0.47
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.96	0.47
1:1G:1386:G:H2'	1:1G:1387:G:H8	1.78	0.47
1:1G:191(A):G:H2'	1:1G:191(B):G:H5'	1.96	0.47
1:1G:374:A:H2'	1:1G:374:A:N3	2.28	0.47
1:1G:600:C:H2'	1:1G:601:C:C6	2.49	0.47
1:1G:841:U:H4'	1:1G:842:C:H6	1.78	0.47
1:1G:867:G:O2'	1:1G:868:C:H5'	2.13	0.47
26:1H:1163:G:N2	26:1H:1164:G:C4	2.82	0.47
26:1H:1551:C:C2'	26:1H:1552:G:H5'	2.43	0.47
26:1H:1654:A:H1'	26:1H:2823:A:H5'	1.96	0.47
26:1H:2035:G:O6	59:1H:3717:HOH:O	2.19	0.47
26:1H:2056:G:N2	26:1H:2057:A:N9	2.62	0.47
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.49	0.47
26:1H:2841:C:H2'	26:1H:2842:G:H8	1.79	0.47
10:1I:32:ALA:HB1	10:1I:76:ASN:OD1	2.14	0.47
27:1J:14:U:O2'	27:1J:15:A:OP1	2.29	0.47
27:1J:62:C:C2	27:1J:63:G:C8	3.02	0.47
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.13	0.47
36:25:63:VAL:HB	36:25:102:VAL:HG12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:18:TRP:HB3	3:2E:20:SER:O	2.14	0.47
37:35:105:LEU:O	37:35:106:LEU:HB3	2.14	0.47
31:39:4:VAL:HA	31:39:19:GLU:CB	2.43	0.47
5:42:76:ILE:HA	5:42:76:ILE:HD13	1.71	0.47
27:1J:42:C:O2'	32:49:67:LYS:O	2.22	0.47
32:49:80:PHE:O	32:49:82:LEU:HB2	2.13	0.47
13:4A:32:GLU:OE2	13:4A:33:ALA:N	2.47	0.47
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.96	0.47
25:4K:14:A:H3'	25:4K:15:A:H8	1.79	0.47
37:78:39:LYS:HB3	59:78:304:HOH:O	2.13	0.47
42:C8:11:ARG:O	42:C8:15:LYS:HG3	2.14	0.47
47:D5:52:SER:C	47:D5:54:HIS:H	2.17	0.47
43:D8:83:ARG:HD3	43:D8:83:ARG:HA	1.66	0.47
46:G8:94:LYS:HZ1	46:G8:95:LYS:H	1.61	0.47
50:K8:63:VAL:HA	50:K8:66:GLU:HB2	1.95	0.47
2:12:69:LEU:O	2:12:163:PHE:N	2.47	0.47
1:13:160:A:C6	1:13:161:A:C6	3.02	0.47
1:13:950:U:C5	13:4I:102:ARG:NH1	2.82	0.47
26:14:1035:U:H2'	26:14:1036:G:C8	2.49	0.47
26:14:1161:C:H2'	26:14:1162:G:C8	2.49	0.47
26:14:1480:G:C6	26:14:1482:U:N3	2.82	0.47
26:14:2018:G:O2'	42:85:34:LYS:HE3	2.13	0.47
26:14:528:A:H2	26:14:2043:C:H4'	1.79	0.47
26:14:2420:C:OP1	55:M5:34:TRP:HB3	2.14	0.47
26:14:2431:U:O2	26:14:2433:A:C8	2.67	0.47
26:14:2757:A:N1	33:59:67:LEU:HD23	2.28	0.47
26:14:773:U:OP1	59:14:3855:HOH:O	2.20	0.47
26:14:996:A:C5	26:14:1160:G:C2	3.02	0.47
29:19:133:LEU:HA	29:19:136:ILE:HD12	1.96	0.47
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.27	0.47
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.49	0.47
1:1G:164:U:H2'	1:1G:165:C:C6	2.49	0.47
1:1G:176:C:O2'	1:1G:177:C:H5'	2.14	0.47
26:1H:116:C:O2'	26:1H:117:G:H5'	2.14	0.47
26:1H:1204:A:N1	26:1H:1241:A:N1	2.61	0.47
26:1H:1671:U:OP2	59:1H:3569:HOH:O	2.20	0.47
26:1H:177:G:H3'	26:1H:178:G:H8	1.79	0.47
26:1H:2146:C:H4'	26:1H:2147:G:N7	2.28	0.47
26:1H:2241:A:H2'	26:1H:2242:G:C8	2.49	0.47
26:1H:738:G:C6	26:1H:739:G:C2	3.03	0.47
26:1H:828:U:H4'	26:1H:831:G:N1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:931:G:C4	26:1H:933:A:C8	3.02	0.47
1:13:1152:A:OP1	10:1I:13:HIS:HB2	2.14	0.47
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.96	0.47
3:22:167:TRP:O	3:22:167:TRP:CE3	2.67	0.47
36:25:107:ARG:HE	36:25:115:VAL:HG11	1.79	0.47
3:2E:152:ILE:HB	3:2E:199:LYS:HB2	1.96	0.47
4:32:26:CYS:CA	4:32:31:CYS:HB3	2.37	0.47
26:14:2394:C:OP1	37:35:63:PRO:HG2	2.15	0.47
26:14:616:A:C8	31:39:180:GLY:HA3	2.50	0.47
12:3A:117:ARG:HB3	12:3A:122:THR:O	2.14	0.47
24:3K:19:G:O2'	24:3K:57:G:N3	2.47	0.47
32:41:114:ILE:HG22	32:41:115:ARG:O	2.14	0.47
38:45:103:MET:O	38:45:104:PHE:HB2	2.14	0.47
32:49:171:ALA:O	32:49:174:GLU:N	2.47	0.47
5:4E:123:LEU:HA	5:4E:123:LEU:HD23	1.70	0.47
33:51:131:VAL:HG12	33:51:132:ARG:N	2.29	0.47
34:69:63:ALA:HA	34:69:66:GLU:HG2	1.96	0.47
1:13:1373:G:H5"	7:6E:36:LYS:HG3	1.96	0.47
39:98:117:VAL:O	39:98:118:GLU:HB2	2.13	0.47
19:AA:28:LYS:HD3	19:AA:29:ARG:H	1.79	0.47
48:E5:60:PHE:CD1	48:E5:60:PHE:N	2.82	0.47
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.45	0.47
32:49:98:ARG:HH22	52:I5:2:LYS:NZ	2.12	0.47
52:M8:14:ILE:CG2	52:M8:21:VAL:HB	2.45	0.47
1:13:1237:C:O2'	1:13:1300:G:N2	2.46	0.47
1:13:704:A:H5"	1:13:705:U:OP2	2.14	0.47
1:13:834:C:C2	1:13:853:G:C2	3.03	0.47
26:14:1012:U:O4	35:15:25:ARG:HA	2.14	0.47
26:14:1061:U:H4'	26:14:1070:A:H1'	1.96	0.47
26:14:1316:U:H2'	26:14:1317:A:C8	2.48	0.47
26:14:1432:C:H2'	26:14:1433:U:O4'	2.13	0.47
26:14:2135:A:C8	26:14:2156:G:N2	2.82	0.47
26:14:2320:A:H2'	26:14:2333:A:H62	1.80	0.47
26:14:2394:C:H2'	26:14:2395:C:C6	2.49	0.47
26:14:579:G:H2'	26:14:580:C:C6	2.50	0.47
26:14:797:C:H2'	26:14:798:G:O4'	2.15	0.47
35:15:4:TYR:O	42:85:64:ARG:NH1	2.46	0.47
1:1G:12:U:H2'	1:1G:13:U:H5"	1.96	0.47
1:1G:571:U:O2	1:1G:918:A:H5'	2.14	0.47
1:1G:589:C:C2	1:1G:650:G:N2	2.81	0.47
1:1G:90:C:H2'	1:1G:91:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1329:U:H3'	26:1H:1330:C:H6	1.79	0.47
26:1H:1614:A:P	59:1H:3865:HOH:O	2.72	0.47
26:1H:2127:G:H1	26:1H:2162:G:C1'	2.24	0.47
26:1H:2263:C:H2'	26:1H:2264:C:H6	1.80	0.47
26:1H:2313:C:O2'	26:1H:2314:C:H5'	2.14	0.47
26:1H:2812:G:C2	26:1H:2813:A:C4	3.01	0.47
22:1K:31:G:H1	22:1K:41:C:H42	1.62	0.47
3:2E:114:PRO:HD3	3:2E:183:ASP:OD2	2.14	0.47
31:31:125:LEU:HA	31:31:125:LEU:HD23	1.56	0.47
4:32:106:TYR:HE1	4:32:112:VAL:C	2.16	0.47
4:32:148:VAL:O	4:32:152:SER:OG	2.16	0.47
26:14:674:G:O2'	31:39:67:GLN:OE1	2.20	0.47
4:3E:30:LYS:HA	4:3E:35:ARG:HG3	1.96	0.47
24:3L:15:G:H1	24:3L:48:C:H42	1.62	0.47
32:41:11:TYR:OH	32:41:32:PRO:O	2.28	0.47
32:49:25:TYR:HD1	32:49:30:GLU:CD	2.17	0.47
26:14:2312:U:P	32:49:74:LYS:HZ2	2.38	0.47
34:61:41:GLU:O	34:61:45:LYS:HB2	2.14	0.47
40:65:102:ALA:HA	40:65:105:ALA:HB3	1.97	0.47
1:1G:580:U:H5"	15:6A:58:MET:HG2	1.95	0.47
28:71:185:LEU:O	28:71:189:ILE:N	2.40	0.47
9:8E:25:LYS:N	9:8E:60:ASP:OD1	2.46	0.47
26:14:1225:C:H4'	43:95:85:LYS:CG	2.44	0.47
44:A5:28:SER:OG	44:A5:31:GLU:HG2	2.14	0.47
19:AA:66:MET:HG2	19:AA:69:HIS:CE1	2.49	0.47
45:B5:43:VAL:HG23	45:B5:51:VAL:HG21	1.96	0.47
45:B5:57:LEU:N	45:B5:57:LEU:HD23	2.29	0.47
46:C5:17:SER:HB2	46:C5:71:LYS:HD2	1.97	0.47
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.53	0.47
26:1H:592:G:O2'	55:Q8:4:MET:HG3	2.14	0.47
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.29	0.47
1:13:1139:G:H4'	1:13:1140:C:C5'	2.44	0.47
1:13:141:A:H2'	1:13:142:G:C8	2.50	0.47
26:14:1187:G:P	59:14:3597:HOH:O	2.72	0.47
26:14:2393:A:OP1	55:M5:30:ARG:HB3	2.14	0.47
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.50	0.47
26:14:303:U:H2'	26:14:304:G:C8	2.50	0.47
26:14:464:U:H4'	54:L5:5:TRP:CZ3	2.49	0.47
26:14:699:A:H2'	26:14:700:G:O4'	2.13	0.47
26:14:873:G:N2	26:14:905:U:C2	2.82	0.47
2:1E:187:LEU:HD22	2:1E:201:ILE:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:208:ILE:O	2:1E:211:ILE:N	2.47	0.47
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.27	0.47
1:1G:1157:A:H62	1:1G:1177:G:H22	1.61	0.47
1:1G:1275:A:H2'	1:1G:1276:G:C8	2.49	0.47
1:1G:1505:G:H4'	1:1G:1506:U:H5"	1.97	0.47
1:1G:323:U:H2'	1:1G:324:G:O4'	2.14	0.47
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.33	0.47
1:1G:932:C:H2'	1:1G:933:G:C8	2.49	0.47
26:1H:1248:G:C8	42:C8:3:ARG:HB2	2.49	0.47
26:1H:139:G:N3	26:1H:141:A:N1	2.62	0.47
26:1H:1630(A):C:H2'	59:1H:4380:HOH:O	2.14	0.47
26:1H:2469:A:H2	26:1H:2481:G:H21	1.60	0.47
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.15	0.47
26:1H:2886:G:N2	26:1H:2887:U:C2	2.83	0.47
26:1H:624:C:P	59:1H:4216:HOH:O	2.73	0.47
26:1H:67:U:H2'	26:1H:68:G:H8	1.78	0.47
26:1H:988:A:H8	26:1H:988:A:O5'	1.97	0.47
27:1J:10:C:C4	27:1J:11:C:H5	2.33	0.47
27:1J:90:C:OP2	38:45:16:ARG:NH2	2.47	0.47
3:22:103:VAL:HG12	3:22:104:GLN:H	1.79	0.47
30:29:203:LYS:N	30:29:205:ALA:H	2.12	0.47
56:2L:29:C:H2'	56:2L:30:G:H8	1.79	0.47
31:31:14:PRO:HD3	31:31:127:GLU:HB3	1.95	0.47
4:32:163:GLU:HA	4:32:166:LYS:HE3	1.95	0.47
24:3K:65:G:H5"	24:3K:66:U:OP2	2.14	0.47
32:41:60:LEU:HD12	32:41:68:PRO:HG3	1.94	0.47
39:55:3:HIS:CE1	59:55:303:HOH:O	2.67	0.47
35:58:57:ALA:C	35:58:59:LYS:N	2.67	0.47
33:59:118:PRO:HD2	33:59:121:ILE:HG13	1.96	0.47
34:61:110:ASP:H	34:61:130:TYR:HH	1.61	0.47
15:6A:34:LEU:HA	15:6A:34:LEU:HD12	1.59	0.47
26:1H:598:G:H1'	37:78:12:ALA:HB2	1.96	0.47
37:78:31:ALA:C	37:78:33:ARG:H	2.15	0.47
16:7I:50:LYS:HD3	16:7I:51:VAL:N	2.24	0.47
9:82:17:VAL:HG21	9:82:80:GLY:C	2.35	0.47
9:82:17:VAL:HG21	9:82:80:GLY:CA	2.44	0.47
26:1H:911:A:C5	38:88:9:TYR:CD2	3.03	0.47
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.80	0.47
46:C5:23:ARG:CG	46:C5:23:ARG:HH11	2.27	0.47
46:C5:35:TYR:HD2	46:C5:68:HIS:CE1	2.33	0.47
49:F5:57:GLU:O	49:F5:58:ILE:HD13	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:130:A:P	17:8I:63:ARG:HH21	2.37	0.47
1:13:1429:C:H2'	1:13:1430:C:C6	2.50	0.47
1:13:1510:U:H2'	1:13:1511:G:C8	2.50	0.47
1:13:511:C:O2'	1:13:512:U:OP2	2.29	0.47
1:13:752:G:O5'	1:13:752:G:H8	1.98	0.47
1:13:901:A:C5	1:13:902:G:H1'	2.50	0.47
26:14:1011:G:N3	26:14:1151:G:N2	2.63	0.47
26:14:1870:C:H2'	26:14:1871:A:O4'	2.15	0.47
26:14:2185:C:H2'	26:14:2186:G:C8	2.49	0.47
26:14:2287:A:H2	26:14:2346:A:C2	2.31	0.47
26:14:2748:A:N7	26:14:2754:U:O4	2.48	0.47
26:14:2774:C:H2'	26:14:2775:A:C8	2.50	0.47
26:14:290:G:H2'	26:14:291:C:O4'	2.14	0.47
29:19:133:LEU:HD13	29:19:173:VAL:HG21	1.96	0.47
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.49	0.47
1:1G:170:U:H2'	1:1G:171:A:H8	1.79	0.47
1:1G:341:C:H2'	1:1G:342:C:C6	2.46	0.47
1:1G:598:U:H2'	1:1G:599:C:C6	2.50	0.47
1:1G:601:C:H2'	1:1G:602:A:C8	2.49	0.47
1:1G:778:G:H1'	11:2A:119:CYS:HB3	1.97	0.47
1:1G:955:U:H2'	1:1G:956:U:H6	1.80	0.47
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.50	0.47
26:1H:1843:C:H6	26:1H:1843:C:O5'	1.97	0.47
26:1H:330:A:H2	26:1H:1210:A:HO2'	1.62	0.47
26:1H:823:G:H2'	26:1H:824:A:C8	2.50	0.47
3:2E:95:THR:HB	3:2E:97:LYS:NZ	2.30	0.47
11:2I:41:THR:HG21	11:2I:71:LYS:HD3	1.97	0.47
37:35:68:GLN:HG3	55:M5:12:LYS:HD3	1.95	0.47
26:14:2406:U:C2	37:35:72:PRO:HB2	2.49	0.47
31:39:24:LEU:HD11	31:39:119:ARG:HG2	1.95	0.47
31:39:187:VAL:HG12	37:35:3:LEU:HG	1.96	0.47
12:3A:90:VAL:HG11	12:3A:93:LEU:HD12	1.94	0.47
25:4K:14:A:H3'	25:4K:15:A:C8	2.49	0.47
33:51:124:GLU:HB3	33:51:132:ARG:HB3	1.97	0.47
35:58:96:GLU:C	35:58:98:VAL:H	2.13	0.47
14:5A:53:LEU:HD12	14:5A:56:VAL:HG21	1.96	0.47
6:5E:5:GLU:HG2	6:5E:62:TRP:HE1	1.79	0.47
14:5I:24:CYS:HB3	14:5I:28:GLY:H	1.79	0.47
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.95	0.47
28:71:196:LEU:O	28:71:199:HIS:HB2	2.14	0.47
41:75:51:ARG:CG	41:75:98:LYS:HD2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:49:PRO:HB3	9:82:82:ALA:HB2	1.96	0.47
42:85:45:TYR:O	42:85:49:HIS:HB2	2.15	0.47
38:88:11:LYS:HZ2	38:88:86:GLY:HA3	1.79	0.47
38:88:16:ARG:NH2	38:88:18:LYS:HG3	2.29	0.47
43:95:71:LEU:H	43:95:86:GLY:CA	2.26	0.47
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.29	0.47
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.44	0.47
40:A8:42:ASP:O	40:A8:43:GLU:HB2	2.15	0.47
41:B8:5:ALA:O	41:B8:8:LYS:HG2	2.15	0.47
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.17	0.47
47:D5:7:ALA:HB3	47:D5:61:LEU:HA	1.97	0.47
45:F8:61:GLY:HA3	45:F8:73:ARG:O	2.15	0.47
48:I8:27:GLU:HA	48:I8:67:VAL:O	2.14	0.47
1:13:1002:G:H2'	1:13:1003:G:C8	2.46	0.47
1:13:1016:A:H2'	1:13:1017:G:O4'	2.15	0.47
1:13:1292:U:OP2	7:6E:41:ARG:NH1	2.47	0.47
1:13:153:C:H42	1:13:168:G:H22	1.62	0.47
1:13:475:G:H2'	1:13:476:G:C8	2.49	0.47
1:13:719:C:H1'	18:9I:49:LYS:HB3	1.96	0.47
1:13:664:G:N2	1:13:742:G:C2	2.83	0.47
1:13:991:U:O2'	1:13:992:U:O5'	2.24	0.47
26:14:1342:A:H2	26:14:1602:U:N3	2.11	0.47
26:14:1465:G:C4	26:14:1466:G:C8	3.03	0.47
26:14:1814:G:H2'	26:14:1815:A:C8	2.49	0.47
26:14:2078:C:C4	26:14:2079:U:C4	3.03	0.47
26:14:2572:A:N7	30:29:145:LYS:HB2	2.30	0.47
26:14:563:G:H2'	26:14:564:C:C6	2.49	0.47
26:14:829:A:H4'	59:14:3682:HOH:O	2.13	0.47
1:1G:102:G:H2'	1:1G:103:C:H6	1.79	0.47
1:1G:1046:A:H3'	1:1G:1047:G:H8	1.78	0.47
1:1G:1091:U:N3	1:1G:1094:G:OP2	2.39	0.47
1:1G:1187:G:O2'	1:1G:1188:A:H5'	2.14	0.47
1:1G:1293:G:H2'	1:1G:1294:G:O4'	2.14	0.47
1:1G:922:G:C2	1:1G:923:A:C4	3.03	0.47
26:1H:1336:A:H2'	26:1H:1337:G:H8	1.80	0.47
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.49	0.47
26:1H:1689:A:C2	26:1H:1690:A:C5	3.03	0.47
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.50	0.47
26:1H:2199:A:H5'	26:1H:2205:C:OP2	2.15	0.47
26:1H:547:A:C5	26:1H:548:A:C6	3.03	0.47
26:1H:897:C:C3'	26:1H:898:C:H5"	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:9:G:C6	27:1J:10:C:C4	3.02	0.47
3:22:112:SER:O	3:22:116:VAL:HG23	2.15	0.47
37:35:13:ASN:C	37:35:15:ARG:H	2.18	0.47
26:14:452:G:H5'	31:39:59:TYR:HE1	1.79	0.47
4:3E:177:ASP:OD2	4:3E:180:GLY:HA3	2.15	0.47
33:51:83:TYR:CB	33:51:135:GLY:H	2.22	0.47
33:51:24:VAL:HG13	33:51:35:VAL:HB	1.95	0.47
6:52:2:ARG:HE	6:52:69:GLU:CB	2.27	0.47
34:61:4:ILE:HG23	34:61:18:VAL:HG22	1.96	0.47
40:65:73:LEU:HD23	40:65:73:LEU:HA	1.77	0.47
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.14	0.47
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.97	0.47
43:95:35:LEU:O	43:95:37:VAL:HG22	2.14	0.47
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.97	0.47
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.67	0.47
47:D5:94:GLU:CD	47:D5:95:PRO:HD2	2.34	0.47
49:F5:50:ARG:HG2	49:F5:59:THR:OG1	2.15	0.47
50:K8:33:MET:HG2	50:K8:37:PHE:HE1	1.78	0.47
1:13:1121:U:H3	1:13:1152:A:N6	2.09	0.47
1:13:947:G:N2	1:13:1235:U:C2	2.83	0.47
1:13:1236:A:OP1	21:1F:3:LYS:HE3	2.13	0.47
1:13:1258:G:H2'	1:13:1259:C:C6	2.50	0.47
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.97	0.47
1:13:44:G:C6	1:13:45:U:C2	3.03	0.47
1:13:660:G:H2'	1:13:661:G:C8	2.48	0.47
26:14:1058:U:C2	26:14:1059:G:N7	2.83	0.47
26:14:1167:U:C2	26:14:1183:G:N2	2.83	0.47
26:14:247:G:H4'	26:14:386:G:C5	2.49	0.47
26:14:2786:U:H4'	30:29:64:LYS:O	2.13	0.47
26:14:2872:G:C4	26:14:2873:A:C2	3.02	0.47
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.96	0.47
27:16:25:A:H2'	27:16:26:A:O4'	2.15	0.47
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.49	0.47
1:1G:107:G:C2	1:1G:108:G:H1'	2.50	0.47
1:1G:1177:G:OP2	1:1G:1177:G:H8	1.98	0.47
1:1G:1206:G:C6	1:1G:1207:G:C5	3.03	0.47
1:1G:1244:C:O2	1:1G:1293:G:N2	2.46	0.47
1:1G:1348:U:H3	1:1G:1374:A:H2	1.63	0.47
1:1G:457:C:H2'	1:1G:458:C:H6	1.78	0.47
1:1G:688:G:H1	1:1G:699:C:H42	1.63	0.47
1:1G:707:C:H2'	1:1G:708:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:719:C:C5	1:1G:720:C:C4	3.03	0.47
1:1G:665:A:N3	1:1G:732:C:H2'	2.30	0.47
1:1G:935:A:H2'	1:1G:936:C:H6	1.78	0.47
26:1H:1401:G:C6	26:1H:1402:C:C4	3.03	0.47
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.50	0.47
26:1H:194:G:C8	59:1H:4369:HOH:O	2.68	0.47
26:1H:2309:A:C6	26:1H:2310:A:C8	3.03	0.47
26:1H:2519:U:OP2	59:1H:4004:HOH:O	2.20	0.47
26:1H:270(M):U:H4'	26:1H:270(N):G:C4	2.49	0.47
26:1H:481:G:C4	26:1H:507:A:C2	3.03	0.47
36:25:68:GLU:H	36:25:68:GLU:CD	2.18	0.47
30:29:57:LYS:HD3	30:29:57:LYS:HA	1.68	0.47
56:2L:36:A:H2'	56:2L:37:U:C6	2.50	0.47
31:31:176:LEU:HG	31:31:180:GLY:O	2.14	0.47
4:32:172:PRO:HB2	4:32:187:ARG:HH12	1.78	0.47
37:35:41:ARG:HD2	37:35:41:ARG:N	2.28	0.47
37:35:86:LYS:HB3	37:35:118:GLY:HA3	1.96	0.47
13:4A:5:ALA:HB3	13:4A:8:GLU:HB2	1.96	0.47
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.96	0.47
33:59:6:ARG:HG2	33:59:65:HIS:CE1	2.49	0.47
14:5A:26:ARG:HH12	14:5A:47:LEU:HD21	1.79	0.47
34:69:4:ILE:HG21	34:69:47:LEU:HD22	1.97	0.47
41:75:15:VAL:HG23	41:75:79:HIS:CE1	2.49	0.47
37:78:15:ARG:CB	37:78:16:ARG:HB2	2.45	0.47
1:13:376:G:H4'	16:7I:5:ARG:HD2	1.96	0.47
9:82:48:GLU:OE1	9:82:51:ARG:NH1	2.48	0.47
9:8E:73:GLN:O	9:8E:76:ALA:N	2.44	0.47
17:8I:88:TYR:CE1	17:8I:89:LEU:HD23	2.50	0.47
39:98:91:GLN:H	39:98:91:GLN:CD	2.18	0.47
1:1G:1014:A:H4'	19:AA:14:HIS:ND1	2.29	0.47
41:B8:13:ARG:HD3	41:B8:13:ARG:H	1.79	0.47
20:BA:14:LYS:HA	20:BA:17:ARG:NH1	2.30	0.47
20:BI:44:ALA:O	20:BI:91:LEU:HB3	2.14	0.47
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.62	0.47
44:E8:39:THR:HG22	44:E8:44:ALA:HB2	1.97	0.47
45:F8:49:VAL:HG11	45:F8:89:ILE:HD13	1.97	0.47
48:I8:44:ARG:HB2	48:I8:44:ARG:HH11	1.79	0.47
51:L8:4:LEU:HD12	51:L8:37:LEU:O	2.14	0.47
55:Q8:5:LYS:H	55:Q8:59:LYS:NZ	2.12	0.47
29:11:89:SER:HB2	29:11:159:ALA:CB	2.45	0.47
29:11:142:VAL:HG23	29:11:193:VAL:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1132:C:H2'	1:13:1133:G:C8	2.50	0.47
1:13:271:C:H2'	1:13:272:C:H6	1.80	0.47
1:13:476:G:N3	1:13:476:G:H2'	2.29	0.47
26:14:1137:G:H2'	26:14:1138:G:C8	2.46	0.47
26:14:1263:U:C4	26:14:1264:G:C6	3.03	0.47
26:14:1430:C:H2'	26:14:1431:U:H6	1.78	0.47
26:14:2560:C:C2	26:14:2561:A:C8	3.02	0.47
26:14:2049:G:N2	26:14:2620:C:C2	2.82	0.47
26:14:780:G:H21	26:14:783:A:H62	1.62	0.47
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.14	0.47
2:1E:91:PRO:HB3	2:1E:154:LEU:HB2	1.96	0.47
2:1E:162:ILE:HD13	2:1E:183:PRO:O	2.15	0.47
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.49	0.47
1:1G:1497:G:O2'	1:1G:1498:U:H5'	2.15	0.47
1:1G:498:A:N6	1:1G:547:A:O5'	2.47	0.47
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.50	0.47
26:1H:1299:G:H5"	26:1H:1300:U:OP1	2.15	0.47
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.78	0.47
26:1H:1590:U:O2'	26:1H:1591:G:H5'	2.14	0.47
26:1H:1692:U:O2'	26:1H:1693:U:H2'	2.15	0.47
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.15	0.47
26:1H:1849:G:N2	26:1H:1893:C:O2	2.47	0.47
26:1H:1994:C:O2	26:1H:1994:C:H2'	2.15	0.47
26:1H:2250:G:C5	38:88:82:ARG:HG2	2.49	0.47
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.49	0.47
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.14	0.47
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.49	0.47
26:1H:299:A:H5'	26:1H:300:A:OP2	2.14	0.47
26:1H:433:C:H2'	26:1H:434:U:H6	1.76	0.47
26:1H:537:C:H2'	26:1H:539:G:O4'	2.14	0.47
30:21:67:PHE:C	30:21:69:LYS:H	2.16	0.47
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.15	0.47
30:29:67:PHE:CZ	30:29:69:LYS:HD3	2.50	0.47
30:29:73:GLU:HA	30:29:74:PRO:HD2	1.64	0.47
23:2K:65:G:H2'	23:2K:66:C:O4'	2.15	0.47
37:35:49:ARG:HB3	55:M5:58:ILE:HD11	1.97	0.47
26:14:2443:C:OP1	31:39:68:LYS:HG3	2.14	0.47
31:39:83:PHE:O	31:39:85:GLY:N	2.47	0.47
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.48	0.47
24:3K:34:G:OP1	24:3K:34:G:H8	1.98	0.47
24:3K:60:U:H6	24:3K:60:U:O5'	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:36:ALA:HB2	38:45:103:MET:SD	2.54	0.47
32:49:122:PRO:O	32:49:125:PHE:HD2	1.97	0.47
5:4E:150:ARG:NH1	5:4E:150:ARG:HB3	2.29	0.47
33:51:74:ASN:CG	33:51:138:LYS:HE2	2.35	0.47
33:51:92:ILE:HD11	33:51:160:LYS:HZ3	1.78	0.47
6:52:35:ALA:HA	6:52:67:MET:HB3	1.97	0.47
6:52:38:GLU:HB2	6:52:64:GLN:HB3	1.97	0.47
34:69:123:LEU:HD22	34:69:143:SER:HB3	1.97	0.47
1:13:357:G:O2'	34:69:89:TYR:O	2.31	0.47
37:78:1:MET:CE	37:78:6:LEU:HD13	2.44	0.47
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.96	0.47
29:11:46:GLN:C	29:11:48:ARG:H	2.18	0.47
1:13:1175:G:H2'	1:13:1176:A:C8	2.50	0.47
1:13:1219:U:H2'	1:13:1220:G:H8	1.80	0.47
1:13:1320:C:H2'	1:13:1321:C:O4'	2.14	0.47
1:13:1323:G:H2'	1:13:1324:A:C8	2.50	0.47
1:13:713:G:H2'	1:13:714:G:C8	2.50	0.47
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.48	0.47
26:14:177:G:OP2	26:14:177:G:N2	2.45	0.47
26:14:1794:U:H2'	26:14:1795:C:H6	1.78	0.47
26:14:2146:C:H4'	26:14:2147:G:C8	2.49	0.47
26:14:2465:C:O2	26:14:2486:G:C2	2.67	0.47
26:14:2518:A:O5'	26:14:2518:A:H8	1.98	0.47
26:14:566:U:H5"	37:35:29:LYS:CE	2.45	0.47
26:14:695:G:C2	26:14:768:G:C5	3.02	0.47
29:19:37:LEU:HD13	29:19:39:LYS:HG3	1.97	0.47
2:1E:136:VAL:HA	2:1E:139:LYS:HB2	1.97	0.47
1:1G:1046:A:H61	1:1G:1213:A:N6	2.10	0.47
1:1G:195:A:N7	1:1G:196:A:C5	2.83	0.47
1:1G:560:U:O2'	1:1G:561:U:OP2	2.29	0.47
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.47
1:1G:689:C:C2'	1:1G:690:G:H5'	2.45	0.47
1:1G:757:U:H2'	1:1G:758:G:O4'	2.15	0.47
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.50	0.47
26:1H:1466:G:N2	26:1H:1547:C:N3	2.63	0.47
26:1H:2209:C:O2	26:1H:2216:G:C2	2.68	0.47
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.96	0.47
26:1H:2683:C:H5"	41:B8:53:ARG:HH12	1.79	0.47
26:1H:2759:G:OP2	59:1H:4319:HOH:O	2.20	0.47
26:1H:478:A:C6	26:1H:480:A:C6	3.02	0.47
26:1H:528:A:O2'	26:1H:529:A:H5"	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:66:C:C4	26:1H:67:U:C4	3.02	0.47
3:22:15:THR:HG22	3:22:16:ARG:NH1	2.30	0.47
30:29:5:LEU:HB2	30:29:51:PHE:CD1	2.49	0.47
11:2A:24:SER:HB2	11:2A:27:ASN:H	1.80	0.47
3:2E:191:THR:HG21	3:2E:193:TYR:CZ	2.49	0.47
23:2K:33:OMC:H1'	23:2K:33:OMC:HM23	1.77	0.47
24:3L:52:G:H1	24:3L:62:C:H42	1.63	0.47
32:49:95:ARG:HG2	32:49:96:ARG:N	2.23	0.47
33:51:168:PRO:O	33:51:169:VAL:HB	2.14	0.47
35:58:94:HIS:C	35:58:95:PRO:O	2.51	0.47
35:58:96:GLU:HG2	35:58:97:ARG:N	2.30	0.47
3:22:18:TRP:HD1	14:5A:54:PRO:HA	1.79	0.47
15:6I:78:TYR:CE1	15:6I:82:ILE:HD11	2.50	0.47
8:72:89:PRO:HA	8:72:92:ARG:HE	1.80	0.47
40:A8:83:LYS:O	40:A8:109:GLY:HA2	2.13	0.47
40:A8:26:LEU:HD11	40:A8:73:LEU:HD13	1.97	0.47
45:B5:25:LYS:HA	45:B5:81:VAL:O	2.14	0.47
43:D8:35:LEU:HD12	43:D8:35:LEU:O	2.15	0.47
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.96	0.47
26:1H:565:C:OP1	43:D8:82:ARG:NH2	2.48	0.47
48:E5:23:VAL:HG12	48:E5:25:ARG:O	2.14	0.47
46:G8:99:CYS:SG	46:G8:100:ALA:N	2.88	0.47
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.60	0.47
51:L8:12:PRO:HB2	51:L8:20:LYS:HD3	1.97	0.47
54:P8:18:PHE:CD1	54:P8:18:PHE:C	2.88	0.47
1:13:1258:G:H2'	1:13:1259:C:H6	1.80	0.47
1:13:1288:A:H2'	1:13:1289:A:O4'	2.14	0.47
1:13:131:C:O2	1:13:131:C:H2'	2.13	0.47
1:13:235:C:H2'	1:13:236:G:C8	2.47	0.47
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.48	0.47
1:13:329:A:C5	1:13:332:G:C6	3.03	0.47
26:14:1020:A:H4'	26:14:1021:A:H5"	1.97	0.47
26:14:1048:A:H5'	26:14:1049:C:OP2	2.15	0.47
26:14:1196:C:O4'	26:14:1227:A:C2	2.67	0.47
26:14:139:G:N2	26:14:141:A:N1	2.59	0.47
26:14:2176:A:H2'	26:14:2177:C:C6	2.50	0.47
26:14:2324:C:H5"	26:14:2325:G:C5'	2.42	0.47
26:14:2527:C:N4	26:14:2528:U:C4	2.83	0.47
26:14:481:G:C4	26:14:507:A:C2	3.03	0.47
26:14:821:A:H2'	26:14:946:G:H5"	1.97	0.47
26:14:950:G:C6	26:14:951:C:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:15:G:H2'	1:1G:16:A:C8	2.49	0.47
1:1G:446:G:H2'	1:1G:447:G:O4'	2.15	0.47
1:1G:731:G:O2'	1:1G:732:C:H5'	2.15	0.47
26:1H:1077:A:H3'	26:1H:1078:U:H5'	1.97	0.47
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.32	0.47
26:1H:1346:G:H2'	26:1H:1347:G:C8	2.49	0.47
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.14	0.47
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.47	0.47
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.79	0.47
26:1H:2791:C:N4	26:1H:2792:G:O6	2.47	0.47
26:1H:2853:C:H2'	26:1H:2854:G:H8	1.79	0.47
26:1H:567:A:P	59:1H:3507:HOH:O	2.72	0.47
26:1H:710:G:H2'	26:1H:711:G:H8	1.78	0.47
26:1H:950:G:H2'	26:1H:951:C:H6	1.78	0.47
26:1H:993:G:H2'	26:1H:994:C:C6	2.50	0.47
3:22:11:ARG:HB2	3:22:11:ARG:HH11	1.79	0.47
36:25:113:LYS:O	36:25:117:LEU:HB2	2.15	0.47
36:25:10:VAL:HG13	36:25:17:ARG:C	2.35	0.47
11:2A:106:LYS:HD3	11:2A:106:LYS:H	1.78	0.47
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.14	0.47
31:31:7:TYR:HA	31:31:22:ALA:O	2.15	0.47
32:49:18:GLU:O	32:49:22:ARG:N	2.47	0.47
6:52:60:PHE:O	6:52:61:LEU:HD12	2.14	0.47
39:55:33:ARG:HA	39:55:115:GLU:HA	1.97	0.47
42:85:92:ARG:NH1	43:95:11:GLN:H	2.12	0.47
38:88:32:TYR:OH	38:88:111:GLU:OE1	2.33	0.47
39:98:45:ARG:HB3	39:98:46:GLY:H	1.49	0.47
46:C5:61:ILE:HG22	46:C5:62:GLU:OE2	2.15	0.47
47:D5:29:TYR:HA	47:D5:33:LEU:O	2.14	0.47
48:E5:11:ARG:O	48:E5:14:ARG:NH2	2.48	0.47
52:I5:62:ARG:HG3	52:I5:62:ARG:NH1	2.25	0.47
49:J8:18:ILE:HG12	49:J8:37:ILE:HG12	1.95	0.47
50:K8:21:LEU:HA	50:K8:21:LEU:HD23	1.60	0.47
52:M8:39:CYS:C	52:M8:41:PRO:HD3	2.35	0.47
1:13:1060:C:C5	3:2E:2:GLY:HA3	2.50	0.47
1:13:1184:G:H2'	1:13:1185:G:C8	2.50	0.47
1:13:1234:C:H2'	1:13:1235:U:C6	2.50	0.47
1:13:1347:G:O2'	1:13:1348:U:OP2	2.32	0.47
1:13:232:G:H2'	1:13:233:C:H6	1.80	0.47
1:13:468:A:H3'	1:13:474:G:C8	2.49	0.47
1:13:628:G:H2'	1:13:629:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1027:A:H2	26:14:2487:G:O2'	1.98	0.47
26:14:1274:A:N1	26:14:1644:C:O2'	2.42	0.47
26:14:1593:G:H5"	26:14:1594:G:OP2	2.15	0.47
26:14:1885:A:H5'	26:14:1886:C:OP2	2.15	0.47
26:14:2098:U:H2'	26:14:2099:U:O4'	2.14	0.47
26:14:2147:G:H2'	26:14:2148:G:H4'	1.96	0.47
26:14:2640:G:H1	26:14:2774:C:H42	1.63	0.47
35:15:133:GLN:O	35:15:134:ARG:HB3	2.15	0.47
2:1E:22:LYS:HA	2:1E:24:TRP:CD1	2.50	0.47
2:1E:44:LEU:HA	2:1E:47:THR:OG1	2.14	0.47
1:1G:1240:U:C2	7:62:32:ARG:HG3	2.49	0.47
1:1G:1297:C:OP1	13:4A:13:LYS:HG3	2.14	0.47
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.50	0.47
1:1G:537:G:H2'	1:1G:538:G:C8	2.49	0.47
1:1G:600:C:OP1	8:72:97:VAL:HG23	2.15	0.47
1:1G:686:U:H1'	1:1G:687:A:C8	2.50	0.47
1:1G:827:U:C4	1:1G:870:U:C4	3.03	0.47
26:1H:1248:G:C5	42:C8:3:ARG:HB2	2.50	0.47
26:1H:1375:C:H2'	26:1H:1376:C:C6	2.50	0.47
26:1H:1437:C:C2	26:1H:1438:U:C5	3.03	0.47
26:1H:121:G:H4'	26:1H:149:A:H5'	1.96	0.47
26:1H:2024:G:H2'	26:1H:2025:C:H6	1.79	0.47
26:1H:2656:U:C5	26:1H:2664:G:N2	2.83	0.47
26:1H:548:A:C6	26:1H:549:G:H1'	2.50	0.47
26:1H:956:G:N2	26:1H:959:A:H3'	2.30	0.47
26:14:2773:C:OP1	30:29:166:THR:OG1	2.32	0.47
30:29:201:THR:HG22	30:29:202:LYS:N	2.30	0.47
23:2K:72:C:H2'	23:2K:73:A:O4'	2.14	0.47
31:31:24:LEU:HA	31:31:25:PRO:HD2	1.73	0.47
4:32:201:GLN:HA	4:32:204:ILE:HB	1.96	0.47
37:35:111:ARG:HG3	37:35:128:HIS:ND1	2.29	0.47
37:35:70:GLN:OE1	37:35:70:GLN:N	2.48	0.47
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.96	0.47
24:3K:13:C:O2'	24:3K:14:A:H5'	2.15	0.47
32:41:16:ARG:O	32:41:20:ILE:HG13	2.15	0.47
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.24	0.47
25:4K:24:A:H8	25:4K:24:A:O5'	1.98	0.47
39:55:25:ALA:O	39:55:29:LEU:HB2	2.15	0.47
14:5I:29:ARG:HH21	14:5I:41:ARG:NH1	2.13	0.47
34:69:140:LEU:HD12	34:69:140:LEU:HA	1.63	0.47
15:6I:39:LEU:HD22	15:6I:43:LEU:HG	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.48	0.47
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.15	0.47
40:A8:88:ASP:C	40:A8:90:GLY:H	2.19	0.47
47:D5:163:LEU:HD23	47:D5:163:LEU:H	1.79	0.47
44:E8:33:ARG:NE	44:E8:52:GLU:OE1	2.47	0.47
51:L8:4:LEU:HD12	51:L8:4:LEU:H	1.80	0.47
1:13:1086:U:H3	1:13:1099:G:N2	2.12	0.46
1:13:1178:G:N2	1:13:1181:G:C8	2.83	0.46
1:13:1414:U:H2'	1:13:1415:G:C8	2.50	0.46
1:13:45:U:H2'	1:13:46:G:C8	2.50	0.46
1:13:300:A:H1'	1:13:565:U:O2	2.15	0.46
1:13:811:C:N3	59:13:1811:HOH:O	2.36	0.46
1:13:953:G:H2'	1:13:954:G:O4'	2.14	0.46
26:14:99:U:C2	26:14:102:G:N2	2.83	0.46
26:14:1069:A:H2	26:14:1094:U:H3	1.60	0.46
26:14:1465:G:C2	26:14:1466:G:C8	3.02	0.46
26:14:16:G:O2'	26:14:17:G:H5'	2.14	0.46
26:14:191:A:H2'	26:14:192:C:H6	1.78	0.46
26:14:71:A:H5'	26:14:71:A:H8	1.80	0.46
26:14:817:C:O2'	26:14:839:U:H5"	2.15	0.46
26:14:963:U:H2'	26:14:964:C:H6	1.76	0.46
2:1E:17:PHE:N	2:1E:17:PHE:CD1	2.83	0.46
1:1G:693:G:H2'	1:1G:694:A:C8	2.51	0.46
1:1G:984:C:H2'	1:1G:985:C:C6	2.50	0.46
26:1H:1061:U:O3'	26:1H:1070:A:H4'	2.16	0.46
26:1H:11:G:H2'	26:1H:12:U:H5'	1.97	0.46
26:1H:1229:G:C2	26:1H:1229(A):G:H1'	2.50	0.46
26:1H:1853:A:H2'	26:1H:1854:A:C8	2.50	0.46
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.51	0.46
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.49	0.46
26:1H:2530:A:N7	33:51:172:LYS:NZ	2.61	0.46
26:1H:548:A:H3'	26:1H:548:A:C8	2.50	0.46
26:1H:910:A:C6	26:1H:911:A:C6	3.03	0.46
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.15	0.46
30:21:29:GLY:N	30:21:51:PHE:HE1	2.10	0.46
30:29:170:LEU:HD11	30:29:185:LYS:O	2.14	0.46
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.98	0.46
30:29:56:PRO:HD2	30:29:58:ARG:CB	2.40	0.46
11:2I:124:LYS:HD2	11:2I:125:PHE:HE1	1.80	0.46
23:2K:64:G:C2	23:2K:65:G:C8	3.03	0.46
31:31:108:LYS:NZ	31:31:112:MET:SD	2.88	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.16	0.46
12:3I:60:LEU:HD21	12:3I:66:VAL:HG12	1.97	0.46
24:3L:51:U:H2'	24:3L:52:G:C8	2.50	0.46
5:42:142:LEU:HA	5:42:142:LEU:HD23	1.65	0.46
32:49:107:LEU:HD21	32:49:178:PHE:CD1	2.50	0.46
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.15	0.46
33:51:10:PRO:HD2	33:51:50:VAL:O	2.14	0.46
39:55:74:LYS:CE	39:55:77:ARG:HH21	2.28	0.46
10:1A:61:GLU:HG3	14:5A:58:LYS:HZ3	1.79	0.46
34:61:9:LEU:HD21	34:61:35:LEU:HD12	1.96	0.46
7:6E:95:ARG:NH2	7:6E:99:LEU:HD11	2.29	0.46
8:72:29:SER:HB3	8:72:32:LYS:HB2	1.97	0.46
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.15	0.46
1:13:1347:G:H8	9:8E:107:ARG:HB3	1.79	0.46
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.68	0.46
45:B5:67:GLY:C	45:B5:69:TYR:H	2.17	0.46
47:D5:39:VAL:HG23	47:D5:40:ASP:N	2.29	0.46
48:I8:49:LYS:HG3	48:I8:80:HIS:ND1	2.29	0.46
50:K8:5:GLU:HA	50:K8:6:VAL:C	2.36	0.46
29:11:136:ILE:O	29:11:168:ARG:NH2	2.47	0.46
1:13:328:C:H4'	1:13:329:A:H5'	1.97	0.46
1:13:683:G:C6	1:13:684:A:C6	3.04	0.46
1:13:918:A:C2	1:13:919:A:C4	3.03	0.46
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.48	0.46
26:14:1542:G:H3'	26:14:1543:A:C5'	2.43	0.46
26:14:2123:G:N2	26:14:2175:C:N3	2.56	0.46
26:14:2419:U:H2'	26:14:2420:C:H6	1.80	0.46
26:14:2489:G:N7	26:14:2490:G:C6	2.83	0.46
26:14:2615:U:C2	53:J5:7:PRO:HA	2.50	0.46
26:14:2822:G:OP2	59:14:3919:HOH:O	2.20	0.46
26:14:453:C:H4'	26:14:472:A:N6	2.30	0.46
26:14:592:G:H21	55:M5:4:MET:CE	2.27	0.46
26:14:746:A:H2'	26:14:2612:C:H5"	1.96	0.46
26:14:857:C:H2'	26:14:858:U:H6	1.80	0.46
26:14:924:C:N4	26:14:925:C:N4	2.63	0.46
26:14:1006:C:O2'	35:15:106:MET:O	2.28	0.46
1:1G:1015:A:C2	1:1G:1016:A:C4	3.04	0.46
1:1G:1259:C:H42	1:1G:1275:A:H61	1.62	0.46
1:1G:1298:C:H4'	1:1G:1299:A:C8	2.51	0.46
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.80	0.46
1:1G:154:C:H2'	1:1G:155:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:681:C:C2	1:1G:710:G:C2	3.04	0.46
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.47	0.46
26:1H:1528:A:C6	26:1H:1529:A:C6	3.03	0.46
26:1H:1551:C:C5	26:1H:1552:G:N7	2.83	0.46
26:1H:1799:G:H5"	26:1H:1819:A:N6	2.30	0.46
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.96	0.46
26:1H:271:G:H1	26:1H:366:C:H42	1.63	0.46
26:1H:2845:G:H8	26:1H:2845:G:O5'	1.98	0.46
26:1H:638:G:C6	26:1H:639:U:C4	3.03	0.46
26:1H:937:U:H2'	26:1H:938:G:O4'	2.15	0.46
10:1I:57:LYS:HD2	10:1I:60:ARG:HH12	1.79	0.46
36:25:13:ASN:HD21	36:25:97:ARG:N	2.09	0.46
26:14:1993:U:H4'	30:29:128:SER:CB	2.46	0.46
11:2A:100:ALA:C	11:2A:102:GLY:H	2.19	0.46
4:3E:129:ASN:OD1	4:3E:145:GLU:N	2.48	0.46
4:3E:176:LEU:HD23	4:3E:178:VAL:HG22	1.98	0.46
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.97	0.46
32:41:35:GLU:OE1	32:41:36:LYS:N	2.47	0.46
6:52:2:ARG:HH21	6:52:69:GLU:HG3	1.80	0.46
14:5A:53:LEU:HD22	14:5A:53:LEU:HA	1.69	0.46
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.50	0.46
41:75:91:ARG:O	41:75:116:ALA:HA	2.15	0.46
41:75:88:ILE:HD12	41:75:89:VAL:N	2.30	0.46
8:7E:33:GLU:O	8:7E:36:LEU:N	2.49	0.46
40:A8:29:PHE:HD1	40:A8:30:ARG:N	2.13	0.46
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.80	0.46
41:B8:88:ILE:O	41:B8:88:ILE:HG13	2.14	0.46
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.30	0.46
20:BI:50:GLU:HB2	20:BI:100:ILE:HB	1.97	0.46
46:C5:33:LYS:HG2	46:C5:34:LYS:HG3	1.97	0.46
47:D5:14:LYS:HA	47:D5:15:PRO:HD2	1.59	0.46
43:D8:40:LEU:HD13	43:D8:41:GLY:H	1.80	0.46
44:E8:88:ARG:H	44:E8:93:ALA:H	1.63	0.46
49:F5:79:GLY:O	49:F5:80:LEU:HG	2.15	0.46
46:G8:80:GLY:C	46:G8:81:LYS:HG3	2.36	0.46
49:J8:93:GLU:O	49:J8:97:LEU:HB2	2.14	0.46
1:13:1305:G:H21	1:13:1331:G:C2'	2.24	0.46
26:14:993:G:C6	26:14:1162:G:N1	2.84	0.46
26:14:1171:G:O2'	26:14:1173:G:N3	2.29	0.46
26:14:1987:G:N2	26:14:1988:C:C2	2.84	0.46
26:14:2207:C:H42	26:14:2217:G:H1	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2320:A:H61	26:14:2333:A:H2'	1.79	0.46
26:14:2432:A:H2'	26:14:2433:A:C8	2.50	0.46
26:14:2031:A:C6	26:14:2498:C:H1'	2.50	0.46
26:14:707:G:C6	26:14:708:C:C4	3.03	0.46
26:14:750:A:OP2	59:14:3672:HOH:O	2.21	0.46
27:16:71:C:C2	27:16:72:G:C8	3.04	0.46
29:19:97:TYR:HB3	29:19:99:ASP:HB2	1.98	0.46
2:1E:15:VAL:HB	2:1E:210:SER:HB2	1.97	0.46
2:1E:23:ARG:NH1	2:1E:23:ARG:HB3	2.31	0.46
1:1G:1265:G:H2'	1:1G:1266:G:O4'	2.15	0.46
1:1G:698:G:C6	1:1G:699:C:C4	3.03	0.46
1:1G:666:G:N2	1:1G:740:U:O2	2.42	0.46
1:1G:770:C:O2'	1:1G:771:G:H5'	2.15	0.46
1:1G:977:A:O2'	1:1G:979:C:OP2	2.33	0.46
26:1H:1442:G:C2	26:1H:1550:C:O2	2.69	0.46
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.15	0.46
26:1H:17:G:H2'	26:1H:18:C:C6	2.50	0.46
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.14	0.46
26:1H:2176:A:HO2'	28:71:213:TYR:HD2	1.60	0.46
26:1H:2845:G:H5"	41:B8:54:ARG:O	2.16	0.46
27:1J:31:C:H42	27:1J:51:G:H1	1.62	0.46
3:22:3:ASN:H	3:22:3:ASN:ND2	2.12	0.46
11:2A:92:GLU:O	11:2A:95:ILE:N	2.48	0.46
23:2K:38:A:H2'	23:2K:39:A:O4'	2.15	0.46
23:2K:50:G:N2	23:2K:67:C:O2	2.49	0.46
37:35:52:GLU:O	37:35:54:GLY:N	2.47	0.46
24:3L:30:G:C2	24:3L:31:A:C5	3.03	0.46
7:62:143:ARG:NH1	24:3L:41:C:O3'	2.32	0.46
24:3L:55:PSU:H2'	24:3L:57:G:OP2	2.16	0.46
5:4E:71:LEU:HA	5:4E:75:THR:O	2.16	0.46
35:58:96:GLU:O	35:58:98:VAL:HG13	2.16	0.46
33:59:101:ARG:HG3	33:59:102:ALA:N	2.29	0.46
7:62:116:ALA:HA	7:62:119:ARG:HE	1.81	0.46
7:62:120:ILE:O	7:62:124:LEU:HB2	2.15	0.46
40:65:26:LEU:HD12	40:65:39:ILE:HD11	1.97	0.46
15:6I:10:LYS:HD2	15:6I:10:LYS:HA	1.78	0.46
26:1H:2392:A:H8	37:78:61:ARG:HG2	1.81	0.46
8:7E:116:LYS:HG2	8:7E:129:VAL:HG11	1.97	0.46
26:14:996:A:H4'	42:85:92:ARG:CZ	2.45	0.46
17:8I:6:LEU:HD22	17:8I:23:VAL:HG11	1.97	0.46
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:43:GLU:HB2	43:95:44:LYS:HZ2	1.81	0.46
43:95:19:LYS:HB2	43:95:93:GLU:OE2	2.15	0.46
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.14	0.46
48:E5:49:LYS:NZ	48:E5:68:GLU:OE2	2.45	0.46
44:E8:37:ARG:HB3	44:E8:38:TYR:HD1	1.80	0.46
50:G5:49:LYS:HB2	50:G5:49:LYS:HE3	1.77	0.46
44:A5:35:ILE:HG23	53:J5:28:PRO:HD2	1.98	0.46
50:K8:5:GLU:N	50:K8:5:GLU:OE1	2.49	0.46
55:M5:17:THR:OG1	55:M5:20:GLY:N	2.49	0.46
55:Q8:35:GLN:C	55:Q8:37:SER:N	2.68	0.46
55:Q8:56:GLU:O	55:Q8:57:ARG:HG3	2.15	0.46
29:11:33:LEU:O	29:11:64:ILE:HG23	2.15	0.46
2:12:82:ARG:HG3	2:12:92:TYR:OH	2.15	0.46
1:13:1260:C:H6	1:13:1260:C:H3'	1.80	0.46
1:13:1330:U:O4	1:13:1331:G:C2	2.68	0.46
1:13:976:G:H5'	1:13:1358:U:O2'	2.14	0.46
1:13:1507:A:H2'	1:13:1508:G:C8	2.50	0.46
1:13:591:U:H2'	1:13:592:G:C8	2.51	0.46
1:13:683:G:H5"	1:13:684:A:OP2	2.15	0.46
1:13:717:C:H2'	1:13:734:G:OP2	2.15	0.46
1:13:661:G:N2	1:13:744:C:N3	2.42	0.46
1:13:926:G:H5'	1:13:927:G:O5'	2.14	0.46
1:13:936:C:H2'	1:13:937:A:O4'	2.15	0.46
26:14:1394:U:C5	26:14:1395:A:C4	3.04	0.46
26:14:1559:G:O2'	26:14:1560:G:H5'	2.14	0.46
26:14:1654:A:H1'	26:14:2823:A:H5'	1.98	0.46
26:14:265:A:H1'	26:14:266:G:O4'	2.15	0.46
26:14:284:U:H2'	26:14:285:C:C6	2.51	0.46
26:14:2844:G:N2	26:14:2874:C:C2	2.84	0.46
26:14:323:G:O6	26:14:333:G:C5	2.69	0.46
26:14:475:U:O5'	26:14:475:U:H6	1.98	0.46
1:1G:971:G:C6	1:1G:1364:U:O2'	2.68	0.46
1:1G:25:C:H2'	1:1G:26:A:C8	2.48	0.46
1:1G:349:A:H3'	1:1G:350:G:H5"	1.97	0.46
1:1G:424:G:H2'	1:1G:425:G:C8	2.46	0.46
1:1G:515:G:C6	1:1G:516:U:N3	2.83	0.46
1:1G:510:A:H1'	1:1G:542:G:H21	1.80	0.46
26:1H:1177:A:H5"	26:1H:1178:C:C6	2.51	0.46
26:1H:1263:U:H2'	26:1H:1264:G:C8	2.50	0.46
26:1H:1701:A:OP2	59:1H:4267:HOH:O	2.20	0.46
26:1H:1858:G:H1'	26:1H:1884:A:N6	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2581:G:H4'	26:1H:2582:G:C8	2.50	0.46
26:1H:2661:G:H8	26:1H:2661:G:OP2	1.98	0.46
26:1H:518:G:H2'	26:1H:519:U:H6	1.79	0.46
1:13:963:G:H21	10:1I:55:LYS:HE2	1.80	0.46
11:2I:83:ILE:HG23	11:2I:109:VAL:HG23	1.98	0.46
23:2K:57:C:O2'	32:41:78:SER:HB2	2.16	0.46
26:14:322:A:OP2	31:39:169:ASN:HB2	2.16	0.46
24:3K:9:A:O2'	24:3K:46:7MG:H5"	2.15	0.46
24:3L:35:A:C2	25:4L:14:A:N6	2.83	0.46
25:4K:16:A:C2	25:4K:17:U:C2	3.04	0.46
33:59:99:VAL:HG13	33:59:100:GLY:H	1.79	0.46
36:68:64:ARG:HG2	36:68:79:PHE:CD2	2.50	0.46
15:6A:78:TYR:CD1	15:6A:79:ARG:HG3	2.50	0.46
28:71:58:VAL:HG13	28:71:199:HIS:HD2	1.80	0.46
8:72:2:LEU:HD21	8:72:8:ASP:HB2	1.98	0.46
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.15	0.46
39:98:72:ASP:OD1	39:98:73:VAL:N	2.47	0.46
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.83	0.46
19:AA:12:ASP:HB3	19:AA:38:SER:CB	2.45	0.46
46:C5:49:VAL:O	46:C5:51:VAL:HG12	2.16	0.46
43:D8:45:THR:OG1	43:D8:45:THR:O	2.32	0.46
38:88:20:ALA:HB3	47:H8:79:ARG:NH2	2.31	0.46
52:I5:37:SER:C	52:I5:39:CYS:H	2.19	0.46
49:J8:73:LEU:O	49:J8:76:ARG:HB2	2.16	0.46
55:Q8:5:LYS:N	55:Q8:59:LYS:HZ2	2.13	0.46
1:13:153:C:N4	1:13:168:G:H22	2.13	0.46
1:13:439:A:H3'	1:13:440:A:C8	2.51	0.46
1:13:629:G:N2	1:13:630:G:C6	2.84	0.46
26:14:1454:U:H3'	59:14:3916:HOH:O	2.16	0.46
26:14:2031:A:N3	26:14:2455:G:O2'	2.30	0.46
26:14:2441:C:O2'	26:14:2442:C:H5'	2.15	0.46
26:14:2638:G:HO2'	26:14:2639:A:H8	1.62	0.46
26:14:307:G:H2'	26:14:309:G:OP2	2.15	0.46
26:14:321:G:OP1	31:39:135:LYS:NZ	2.37	0.46
26:14:795:C:O2'	26:14:796:C:H5'	2.15	0.46
35:15:29:LYS:O	35:15:33:LEU:HB2	2.15	0.46
29:19:218:ARG:HB3	29:19:219:PRO:HD2	1.98	0.46
29:19:37:LEU:HB3	29:19:38:LYS:HE2	1.97	0.46
1:1G:1127:G:N2	1:1G:1144:G:H1	1.95	0.46
1:1G:1245:A:H2'	1:1G:1246:C:C6	2.50	0.46
1:1G:1340:A:N1	1:1G:1341:U:O2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.15	0.46
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.50	0.46
26:1H:1153:C:C4	26:1H:1154:G:C6	3.04	0.46
26:1H:1359:A:N1	26:1H:1372:U:C4	2.83	0.46
26:1H:1676:A:H2'	26:1H:1677:A:O4'	2.15	0.46
26:1H:1858:G:OP2	26:1H:1858:G:H8	1.98	0.46
26:1H:198:C:P	59:1H:4370:HOH:O	2.73	0.46
26:1H:273(D):C:H2'	26:1H:273(E):U:H6	1.79	0.46
26:1H:339:U:H2'	26:1H:340:A:H8	1.81	0.46
26:1H:247:G:H4'	26:1H:386:G:C5	2.51	0.46
26:1H:649:G:C5	26:1H:650:C:C4	3.04	0.46
26:1H:603:A:C4	26:1H:655:A:N1	2.83	0.46
26:1H:676:A:H2	26:1H:802:A:H61	1.63	0.46
26:1H:910:A:C4	38:88:13:GLN:NE2	2.83	0.46
22:1K:10:G:H2'	22:1K:11:A:H8	1.80	0.46
36:25:104:ARG:HH12	41:75:36:GLU:HG2	1.80	0.46
31:31:24:LEU:HD23	31:31:115:ALA:HA	1.96	0.46
26:14:321:G:N3	31:39:165:ARG:HD3	2.30	0.46
31:39:59:TYR:N	31:39:59:TYR:HD1	2.12	0.46
24:3L:21:A:H5'	24:3L:22:G:OP2	2.15	0.46
32:41:145:THR:OG1	32:41:148:MET:SD	2.73	0.46
32:41:37:VAL:H	32:41:99:MET:HE3	1.81	0.46
5:42:24:ARG:H	5:42:24:ARG:HG2	1.48	0.46
38:45:102:VAL:O	38:45:102:VAL:HG12	2.15	0.46
33:51:129:THR:OG1	33:51:129:THR:O	2.32	0.46
33:59:117:PRO:HA	33:59:118:PRO:HD2	1.74	0.46
14:5A:7:ILE:HG13	14:5A:7:ILE:H	1.62	0.46
14:5I:24:CYS:SG	14:5I:40:CYS:N	2.75	0.46
14:5I:50:LYS:HB3	14:5I:50:LYS:HE2	1.76	0.46
7:6E:79:ARG:NH1	7:6E:82:GLY:O	2.49	0.46
16:7A:3:LYS:O	16:7A:21:VAL:HA	2.16	0.46
8:7E:133:LEU:HD23	8:7E:134:ILE:N	2.31	0.46
1:1G:1231:G:H5'	9:82:128:ARG:O	2.15	0.46
17:8I:76:LEU:HD11	17:8I:79:SER:CB	2.46	0.46
18:9I:35:ARG:HE	18:9I:35:ARG:HB2	1.59	0.46
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.30	0.46
20:BA:73:HIS:O	20:BA:76:ALA:HB3	2.16	0.46
20:BI:16:HIS:O	20:BI:19:SER:N	2.48	0.46
46:C5:86:ARG:O	46:C5:96:ILE:HD13	2.16	0.46
43:D8:9:GLY:O	43:D8:10:LYS:HG3	2.15	0.46
49:F5:4:VAL:HB	49:F5:11:ARG:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:7:ILE:HD11	49:F5:70:VAL:HG22	1.97	0.46
53:J5:6:VAL:HG13	53:J5:7:PRO:HD2	1.98	0.46
54:L5:17:GLY:O	54:L5:20:ALA:HB3	2.16	0.46
32:41:61:ALA:O	52:M8:7:PRO:HG3	2.15	0.46
55:Q8:57:ARG:H	55:Q8:57:ARG:HE	1.63	0.46
26:1H:1567:A:H2'	29:11:86:PRO:HB3	1.96	0.46
1:13:110:C:H2'	1:13:111:G:O4'	2.15	0.46
1:13:134:A:H61	16:7I:25:ARG:NH1	2.14	0.46
1:13:598:U:H2'	1:13:599:C:C6	2.49	0.46
1:13:67:C:H2'	1:13:68:G:C8	2.51	0.46
26:14:1197:G:C2	26:14:1250:G:C6	3.04	0.46
26:14:1793:C:H2'	26:14:1794:U:H6	1.81	0.46
26:14:2069:G:C2'	26:14:2070:G:H5'	2.44	0.46
26:14:2070:G:H2'	26:14:2071:A:O4'	2.16	0.46
26:14:2420:C:N4	55:M5:31:HIS:O	2.48	0.46
26:14:270(E):G:N2	26:14:270(U):C:O2	2.47	0.46
26:14:467:G:OP1	54:L5:33:ARG:NH1	2.49	0.46
26:14:570:G:H5"	59:14:3964:HOH:O	2.15	0.46
26:14:993:G:C4	26:14:994:C:C5	3.04	0.46
2:1E:12:GLU:HG3	2:1E:16:HIS:HB2	1.96	0.46
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.30	0.46
1:1G:1344:C:H5'	9:82:120:ARG:O	2.16	0.46
1:1G:429:U:H1'	1:1G:430:A:H5"	1.98	0.46
1:1G:557:G:C6	1:1G:558:G:C6	3.04	0.46
26:1H:1009:A:OP2	59:1H:4114:HOH:O	2.20	0.46
26:1H:2061:G:C2	26:1H:2063:C:C4	3.04	0.46
26:1H:260:G:C2	26:1H:261:G:H1'	2.51	0.46
26:1H:2789:C:H3'	26:1H:2790:A:H5"	1.97	0.46
26:1H:315:G:C2	26:1H:316:C:C2	3.03	0.46
26:1H:579:G:H2'	26:1H:580:C:C6	2.51	0.46
26:1H:638:G:C5	26:1H:651:G:C2	3.03	0.46
26:1H:884:C:H2'	26:1H:885:C:C6	2.50	0.46
26:1H:970:C:O2'	26:1H:984:A:O2'	2.33	0.46
3:22:108:ASN:O	3:22:110:ASN:N	2.44	0.46
3:22:77:ILE:O	3:22:83:ARG:HB3	2.16	0.46
37:35:30:THR:HG21	37:35:35:HIS:N	2.30	0.46
24:3L:37:MIA:H121	24:3L:37:MIA:H162	1.69	0.46
5:42:28:PHE:O	5:42:47:LYS:HA	2.15	0.46
32:49:107:LEU:HD21	32:49:178:PHE:CE1	2.49	0.46
33:59:127:GLU:O	33:59:129:THR:N	2.49	0.46
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:89:MET:SD	7:6E:156:TRP:HD1	2.38	0.46
28:71:49:ILE:HG21	28:71:201:PRO:HG2	1.96	0.46
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.97	0.46
37:78:19:VAL:HG21	37:78:27:HIS:CG	2.49	0.46
1:1G:625:G:OP1	16:7A:9:PHE:HB3	2.16	0.46
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.16	0.46
17:8I:51:TYR:HD1	17:8I:55:ASP:OD2	1.98	0.46
43:95:48:GLY:HA3	43:95:51:VAL:C	2.36	0.46
40:A8:15:ARG:HD3	40:A8:15:ARG:HA	1.65	0.46
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.16	0.46
42:C8:85:LYS:HA	42:C8:85:LYS:NZ	2.31	0.46
44:E8:17:VAL:C	44:E8:19:LEU:N	2.68	0.46
45:F8:23:GLU:H	45:F8:23:GLU:HG2	1.47	0.46
51:H5:3:ARG:O	51:H5:58:VAL:HG13	2.15	0.46
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.38	0.46
2:12:236:TYR:HB2	2:12:239:VAL:HB	1.98	0.46
1:13:108:G:C2	1:13:109:A:C2	3.04	0.46
1:13:1244:C:N3	1:13:1294:G:N2	2.64	0.46
1:13:1303:C:C4	1:13:1304:G:C5	3.04	0.46
1:13:142:G:H22	1:13:221:C:N4	2.14	0.46
1:13:22:G:H2'	1:13:23:C:C6	2.50	0.46
1:13:292:G:N7	1:13:293:G:H1'	2.30	0.46
1:13:899:C:H2'	1:13:900:A:C8	2.51	0.46
26:14:1003:G:N2	26:14:1153:C:C2	2.83	0.46
26:14:1224:G:N2	26:14:1227:A:OP2	2.34	0.46
26:14:1727:U:H2'	26:14:1728:G:O4'	2.16	0.46
26:14:2273:A:H2'	26:14:2274:A:C8	2.51	0.46
26:14:2694:G:O2'	26:14:2695:C:H5'	2.15	0.46
26:14:363:G:H2'	26:14:363(A):A:C8	2.51	0.46
26:14:459:U:H2'	26:14:460:A:C8	2.51	0.46
26:14:57:C:H2'	26:14:58:G:O4'	2.16	0.46
1:1G:1104:G:C4	1:1G:1105:A:C8	3.03	0.46
1:1G:1127:G:N3	1:1G:1147:C:N4	2.63	0.46
1:1G:1372:U:H5"	9:82:71:SER:HB2	1.98	0.46
1:1G:199:G:H2'	1:1G:200:G:C8	2.49	0.46
1:1G:411:A:N7	1:1G:413:G:N3	2.64	0.46
1:1G:514:C:H2'	1:1G:515:G:H8	1.80	0.46
1:1G:814:A:N7	1:1G:816:A:C4	2.84	0.46
26:1H:1505:C:H2'	26:1H:1506:C:H6	1.78	0.46
26:1H:1567:A:H5"	29:11:58:HIS:ND1	2.31	0.46
26:1H:1729:A:H8	26:1H:1730:U:C5	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.15	0.46
26:1H:2150:U:O5'	26:1H:2150:U:H6	1.99	0.46
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.16	0.46
26:1H:2510:C:H2'	26:1H:2511:U:H6	1.81	0.46
26:1H:2572:A:C8	30:21:144:ARG:NH1	2.83	0.46
26:1H:2725:A:C4	26:1H:2727:G:C8	3.04	0.46
26:1H:995:C:O2	35:58:3:THR:OG1	2.28	0.46
27:1J:116:G:H2'	27:1J:117:G:O4'	2.16	0.46
27:1J:43:C:OP1	52:I5:6:HIS:HE1	1.98	0.46
27:1J:46:A:C5	27:1J:47:C:C4	3.04	0.46
30:21:181:LEU:HD12	30:21:181:LEU:HA	1.80	0.46
36:25:66:LYS:HD2	36:25:80:ASP:O	2.16	0.46
30:29:12:THR:O	30:29:23:VAL:HG22	2.16	0.46
30:29:26:ILE:HG22	30:29:27:LEU:C	2.36	0.46
30:29:50:GLY:HA2	30:29:78:LEU:HB3	1.98	0.46
11:2A:21:ILE:HG12	11:2A:30:VAL:HG12	1.97	0.46
4:3E:30:LYS:HB2	4:3E:35:ARG:HE	1.81	0.46
1:13:412:A:OP2	4:3E:35:ARG:NH2	2.48	0.46
13:4I:82:MET:C	13:4I:84:ILE:H	2.17	0.46
33:51:74:ASN:O	33:51:78:GLY:N	2.47	0.46
6:5E:46:ARG:HD2	6:5E:47:ARG:H	1.80	0.46
34:61:6:LEU:HD13	34:61:36:ALA:HA	1.98	0.46
40:65:67:ARG:HB2	40:65:67:ARG:NH1	2.30	0.46
36:68:12:ASP:HB3	36:68:85:VAL:HG13	1.97	0.46
15:6A:58:MET:HG3	15:6A:58:MET:H	1.53	0.46
7:6E:13:GLN:HA	7:6E:14:PRO:HD3	1.79	0.46
8:72:93:VAL:O	8:72:132:GLU:HA	2.16	0.46
41:75:1:MET:HB3	41:75:6:LEU:HB2	1.97	0.46
59:14:3532:HOH:O	41:75:54:ARG:HD2	2.15	0.46
37:78:121:LYS:O	37:78:123:LEU:N	2.48	0.46
9:82:10:ARG:CA	9:82:104:ARG:HH21	2.29	0.46
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.97	0.46
42:85:47:TYR:HA	42:85:50:ARG:HH22	1.81	0.46
38:88:37:LEU:HD21	38:88:130:LYS:CE	2.45	0.46
40:A8:25:ARG:O	40:A8:39:ILE:HA	2.16	0.46
40:A8:35:ILE:HD11	40:A8:101:LEU:HD22	1.96	0.46
48:E5:72:ARG:HE	48:E5:75:LEU:HD12	1.81	0.46
55:Q8:47:LYS:NZ	55:Q8:47:LYS:HA	2.31	0.46
29:11:102:LYS:C	29:11:103:ARG:HG2	2.36	0.46
1:13:353:A:H5'	1:13:353:A:H8	1.81	0.46
1:13:643:C:H2'	1:13:644:G:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:823:G:H2'	1:13:824:C:O4'	2.16	0.46
26:14:1015:G:C6	26:14:1148:A:C6	3.04	0.46
26:14:1623:G:C2	26:14:1624:G:C8	3.04	0.46
26:14:1663:C:H2'	59:14:3514:HOH:O	2.15	0.46
26:14:1784:A:H4'	26:14:1785:A:C5'	2.46	0.46
26:14:1799:G:N2	26:14:1818:U:O2'	2.49	0.46
26:14:24:G:O2'	44:A5:77:ASP:HB3	2.16	0.46
26:14:270(S):G:C2	26:14:270(T):G:C5	3.04	0.46
26:14:491:G:N2	26:14:492:A:H1'	2.31	0.46
26:14:975:G:C6	26:14:976:C:C5	3.04	0.46
1:1G:109:A:H5'	1:1G:110:C:C5	2.51	0.46
1:1G:1153:C:OP1	10:1A:14:LYS:NZ	2.31	0.46
1:1G:1236:A:H2'	1:1G:1237:C:C6	2.51	0.46
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.81	0.46
1:1G:131:C:H2'	1:1G:132:C:C6	2.50	0.46
1:1G:187:C:H2'	1:1G:188:U:O4'	2.16	0.46
1:1G:262:A:C6	1:1G:263:A:C6	3.04	0.46
1:1G:501:C:OP1	12:3A:117:ARG:NH2	2.48	0.46
1:1G:573:A:H2	1:1G:574:A:C2	2.34	0.46
26:1H:1040:C:H2'	26:1H:1041:C:O4'	2.16	0.46
26:1H:1058:U:H3	26:1H:1080:A:N6	2.14	0.46
26:1H:1242:A:H2'	26:1H:1243:G:O4'	2.15	0.46
26:1H:1478:G:O2'	26:1H:1558:A:H2	1.99	0.46
26:1H:1636:C:H2'	26:1H:1637:A:H8	1.81	0.46
26:1H:1810:A:H2'	26:1H:1811:G:O4'	2.16	0.46
26:1H:1832:C:N4	26:1H:1833:U:C4	2.84	0.46
26:1H:1835:G:H5'	26:1H:1836:C:OP2	2.16	0.46
26:1H:2392:A:H2	26:1H:2424:C:N4	2.13	0.46
26:1H:271(B):G:H1	26:1H:404:C:N4	2.09	0.46
26:1H:920:G:O2'	26:1H:921:G:H5'	2.16	0.46
3:22:91:LEU:HD23	3:22:91:LEU:N	2.30	0.46
36:25:93:PRO:HD3	36:25:113:LYS:HG3	1.98	0.46
36:25:52:VAL:C	36:25:53:LYS:HD2	2.36	0.46
30:29:199:ARG:HB3	30:29:200:GLU:OE1	2.15	0.46
3:2E:92:ALA:HA	3:2E:95:THR:OG1	2.16	0.46
1:1G:1400:C:N4	56:2L:35:C:H1'	2.31	0.46
56:2L:54:G:H3'	56:2L:55:U:OP1	2.15	0.46
26:14:389:G:H1	37:35:71:VAL:HG12	1.81	0.46
26:14:1246:A:H4'	31:39:45:ARG:HH12	1.81	0.46
4:3E:43:HIS:O	4:3E:46:LYS:HG2	2.16	0.46
24:3K:37:MIA:H2'	24:3K:38:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1321:C:H4'	13:4A:87:TYR:CE2	2.51	0.46
5:4E:41:VAL:O	5:4E:67:VAL:HG12	2.16	0.46
6:52:23:LYS:HB3	6:52:23:LYS:HE2	1.79	0.46
33:59:101:ARG:HD2	33:59:123:PHE:CZ	2.51	0.46
33:59:153:LYS:C	33:59:155:SER:H	2.19	0.46
34:61:97:ILE:O	34:61:101:LEU:N	2.35	0.46
7:62:89:MET:CE	7:62:155:ARG:HG3	2.45	0.46
34:69:116:LEU:HD12	34:69:117:GLU:OE2	2.16	0.46
34:69:14:ASP:O	34:69:17:GLN:HB2	2.16	0.46
8:7E:68:ARG:O	8:7E:68:ARG:HG3	2.16	0.46
9:82:37:PHE:CE2	9:82:74:ILE:HG12	2.50	0.46
26:14:1152:C:H4'	42:85:77:SER:HA	1.97	0.46
42:85:92:ARG:HD3	42:85:94:ASN:HB3	1.98	0.46
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.16	0.46
18:9I:47:THR:O	18:9I:83:GLU:N	2.42	0.46
19:AA:66:MET:HA	19:AA:67:VAL:O	2.16	0.46
46:C5:67:LEU:HA	46:C5:67:LEU:HD12	1.82	0.46
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.97	0.46
45:F8:1:MET:C	45:F8:3:THR:H	2.18	0.46
47:H8:30:ASN:HD22	47:H8:90:VAL:HB	1.80	0.46
48:I8:39:ARG:HD3	48:I8:58:THR:OG1	2.16	0.46
19:AI:67:VAL:CG1	52:M8:60:GLN:HE21	2.28	0.46
53:N8:49:CYS:HA	53:N8:56:LYS:HG3	1.97	0.46
29:11:17:THR:O	29:11:211:ARG:NH1	2.43	0.46
1:13:1160:G:H2'	1:13:1160:G:N3	2.30	0.46
1:13:1384:C:H2'	1:13:1385:G:C8	2.51	0.46
1:13:46:G:H2'	1:13:366:C:C5	2.51	0.46
1:13:37:U:H2'	1:13:38:G:H8	1.81	0.46
1:13:465:A:N7	1:13:467:G:N7	2.64	0.46
1:13:639:G:C4	1:13:640:A:C8	3.03	0.46
26:14:1149:G:H2'	26:14:1150:C:H6	1.81	0.46
26:14:1803:A:C8	26:14:1804:C:C5	3.03	0.46
26:14:1933:G:N2	26:14:1968:G:H1'	2.31	0.46
26:14:2111:C:N1	26:14:2118:U:H4'	2.31	0.46
26:14:2469:A:H2	26:14:2481:G:N2	2.10	0.46
26:14:2552:U:C2	26:14:2554:U:H5'	2.50	0.46
26:14:2694:G:H2'	26:14:2695:C:H6	1.79	0.46
26:14:259:G:N2	26:14:621:A:H8	2.01	0.46
26:14:787:U:H5"	26:14:788:A:H5'	1.96	0.46
26:14:868:U:H2'	26:14:869:G:H8	1.81	0.46
2:1E:189:ASP:HB2	2:1E:205:ASP:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:96:ARG:N	2:1E:96:ARG:HD2	2.31	0.46
1:1G:1078:U:H5"	1:1G:1079:G:OP2	2.15	0.46
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.51	0.46
1:1G:1280:A:H5'	1:1G:1281:U:OP2	2.15	0.46
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.51	0.46
1:1G:325:A:H2'	1:1G:326:G:O4'	2.15	0.46
26:1H:1448:G:N2	26:1H:1449:A:N6	2.64	0.46
26:1H:1528:A:N6	26:1H:1545:A:C2	2.84	0.46
26:1H:2032:G:H21	30:21:146:THR:CG2	2.20	0.46
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.31	0.46
26:1H:973:A:P	59:1H:3811:HOH:O	2.74	0.46
10:1I:3:LYS:N	10:1I:75:ILE:HA	2.30	0.46
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.15	0.46
27:1J:15:A:H3'	27:1J:16:G:H5'	1.96	0.46
3:22:72:LYS:HZ1	3:22:75:VAL:HG23	1.81	0.46
23:2K:50:G:N2	23:2K:67:C:C2	2.84	0.46
4:32:122:ARG:HH21	4:32:134:ASP:HB2	1.81	0.46
4:32:129:ASN:OD1	4:32:145:GLU:N	2.45	0.46
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.55	0.46
31:39:33:LEU:O	31:39:37:VAL:HG23	2.16	0.46
4:3E:202:LEU:O	4:3E:206:PHE:N	2.48	0.46
32:49:23:PHE:HD2	32:49:25:TYR:CE2	2.34	0.46
5:4E:43:LEU:HD11	5:4E:132:ALA:HB1	1.98	0.46
33:59:53:GLU:HA	33:59:65:HIS:HE2	1.80	0.46
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.50	0.46
6:5E:14:LEU:HA	6:5E:14:LEU:HD23	1.70	0.46
6:5E:24:GLU:HG3	6:5E:28:ARG:HH12	1.80	0.46
34:61:7:GLU:O	34:61:9:LEU:HD22	2.16	0.46
37:78:19:VAL:CB	37:78:27:HIS:HB3	2.46	0.46
37:78:52:GLU:HB2	37:78:55:ARG:HG3	1.96	0.46
9:82:26:VAL:HG22	9:82:61:ALA:N	2.31	0.46
17:8A:26:GLN:HG2	17:8A:37:LYS:HE3	1.96	0.46
9:8E:79:LEU:HD22	9:8E:83:ARG:HD2	1.97	0.46
43:95:55:ALA:HB1	43:95:101:GLY:HA2	1.98	0.46
39:98:34:ILE:HG22	39:98:114:VAL:HB	1.97	0.46
39:98:97:VAL:HG22	39:98:114:VAL:HG22	1.97	0.46
18:9A:76:LEU:HD23	18:9A:76:LEU:HA	1.64	0.46
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.11	0.46
45:B5:35:THR:HG23	45:B5:38:GLU:HB3	1.98	0.46
47:H8:165:VAL:HB	47:H8:167:PRO:CD	2.38	0.46
47:H8:20:ARG:HH11	47:H8:20:ARG:HG3	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:76:LEU:H	47:H8:76:LEU:HD22	1.80	0.46
47:H8:95:PRO:HB3	47:H8:127:LYS:NZ	2.30	0.46
52:I5:11:PRO:HA	52:I5:25:TYR:HA	1.97	0.46
52:I5:60:GLN:O	52:I5:61:ARG:NH2	2.49	0.46
54:L5:34:ARG:HG2	54:L5:39:ARG:HG3	1.97	0.46
55:M5:6:THR:HG22	55:M5:59:LYS:O	2.16	0.46
29:11:106:ILE:O	29:11:108:PRO:HD3	2.17	0.46
2:12:220:ASP:O	2:12:223:ILE:N	2.49	0.46
1:13:1015:A:H2'	1:13:1016:A:O4'	2.16	0.46
1:13:1211:U:H4'	1:13:1212:U:C5'	2.45	0.46
1:13:1454:G:H5"	20:BI:36:LEU:HD22	1.98	0.46
1:13:406:G:H21	4:3E:119:GLN:CD	2.20	0.46
1:13:522:C:N4	1:13:527:G:H1	2.14	0.46
1:13:669:U:C2	1:13:670:G:C8	3.03	0.46
1:13:848:C:H2'	1:13:849:C:O4'	2.16	0.46
26:14:1168:G:C2	26:14:1182:A:N3	2.84	0.46
26:14:1324:G:C2	26:14:1328:G:C6	3.04	0.46
26:14:1379:A:H1'	26:14:1380:G:OP1	2.16	0.46
26:14:1814:G:H3'	26:14:1815:A:H2'	1.98	0.46
26:14:1910:G:C2'	26:14:1911:U:H5'	2.46	0.46
26:14:2472:G:H1	26:14:2477:C:P	2.39	0.46
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.16	0.46
26:14:276:A:H2'	26:14:277:C:C4	2.51	0.46
26:14:483:A:H3'	26:14:484:C:H6	1.80	0.46
26:14:71:A:H4'	26:14:72:U:H5"	1.98	0.46
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.98	0.46
1:1G:1299:A:C2	1:1G:1301:U:C4	3.04	0.46
1:1G:1442:G:C5	1:1G:1446:A:C6	3.04	0.46
1:1G:129(A):G:C6	1:1G:191(A):G:H1'	2.51	0.46
1:1G:559:A:C8	1:1G:561:U:C5	3.04	0.46
1:1G:730:G:C5	1:1G:731:G:H1'	2.51	0.46
1:1G:821:G:C5	1:1G:822:C:C5	3.03	0.46
26:1H:1063:G:N2	26:1H:1076:C:O2'	2.28	0.46
26:1H:1170:G:N2	26:1H:1180:C:C2	2.84	0.46
26:1H:1613:G:C2	26:1H:1617:C:C2	3.03	0.46
26:1H:2117:A:H2'	26:1H:2118:U:C5	2.51	0.46
26:1H:2139:C:H3'	26:1H:2140:C:H6	1.81	0.46
26:1H:2194:G:H2'	26:1H:2195:C:C6	2.51	0.46
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.81	0.46
26:1H:2093:G:C6	26:1H:2225:A:C8	3.04	0.46
26:1H:2292:C:P	40:A8:17:ARG:HH21	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2682:U:H6	26:1H:2682:U:H5'	1.79	0.46
26:1H:270:A:OP2	26:1H:270(Y):G:N2	2.41	0.46
26:1H:284:U:H2'	26:1H:285:C:H6	1.81	0.46
3:2E:40:ARG:HG3	3:2E:40:ARG:HH11	1.81	0.46
23:2K:17:C:HO2'	23:2K:18:C:H5	1.57	0.46
56:2L:20:G:C2	56:2L:58:A:C2	3.04	0.46
31:39:81:PRO:HB3	31:39:87:GLY:O	2.16	0.46
32:41:109:VAL:O	32:41:113:ARG:HG3	2.16	0.46
5:42:34:VAL:HG11	5:42:63:ARG:HG2	1.97	0.46
33:59:76:VAL:O	33:59:80:SER:OG	2.26	0.46
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.97	0.46
28:71:52:ARG:HD2	28:71:52:ARG:N	2.30	0.46
37:78:45:LEU:HA	37:78:45:LEU:HD12	1.75	0.46
26:14:445:C:OP1	42:85:2:PRO:HA	2.16	0.46
38:88:103:MET:HG2	38:88:103:MET:H	1.45	0.46
9:8E:33:PHE:CE1	9:8E:37:PHE:HD2	2.34	0.46
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.63	0.46
1:1G:1314:C:H41	19:AA:7:LYS:NZ	2.14	0.46
19:AI:6:LYS:HB3	19:AI:6:LYS:HE2	1.54	0.46
20:BA:49:ALA:HA	20:BA:52:ALA:CB	2.45	0.46
46:C5:60:PHE:HD1	46:C5:60:PHE:H	1.64	0.46
47:D5:29:TYR:OH	47:D5:87:ASP:HB3	2.16	0.46
49:F5:52:ARG:HG3	49:F5:56:GLN:C	2.36	0.46
45:F8:15:GLU:HG3	45:F8:16:LYS:N	2.31	0.46
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.15	0.46
2:12:105:PHE:CE1	2:12:109:SER:HB2	2.51	0.45
1:13:1135:U:H2'	1:13:1137:C:N3	2.30	0.45
1:13:978:A:H61	1:13:1316:G:H1'	1.81	0.45
1:13:971:G:N2	1:13:1363:A:OP2	2.36	0.45
1:13:1385:G:H2'	1:13:1386:G:H8	1.80	0.45
1:13:1442:G:C8	1:13:1442:G:H3'	2.52	0.45
1:13:1490:C:O2'	1:13:1491:G:H5'	2.15	0.45
1:13:1392:G:H21	1:13:1502:A:H8	1.63	0.45
1:13:73:G:H2'	1:13:74:C:C6	2.51	0.45
1:13:792:A:O2'	1:13:794:A:N6	2.46	0.45
26:14:1025:G:O2'	26:14:1026:U:OP1	2.31	0.45
26:14:1042:G:H2'	26:14:1043:C:C6	2.51	0.45
26:14:138:G:H5"	26:14:139:G:OP2	2.16	0.45
26:14:146:G:H2'	26:14:147:U:O4'	2.16	0.45
26:14:571:A:H5'	26:14:2030:A:N7	2.31	0.45
26:14:2113:U:N3	26:14:2114:A:O2'	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2506:U:O5'	26:14:2506:U:H6	2.00	0.45
26:14:607:U:OP1	31:39:102:PRO:HA	2.16	0.45
26:14:959:A:C6	26:14:960:A:C6	3.05	0.45
29:19:108:PRO:HB3	29:19:143:HIS:NE2	2.31	0.45
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.98	0.45
29:19:77:ALA:O	29:19:116:GLN:HA	2.17	0.45
2:1E:134:GLU:O	2:1E:138:LEU:HD12	2.16	0.45
2:1E:156:LYS:HD3	2:1E:156:LYS:HA	1.68	0.45
2:1E:187:LEU:HA	2:1E:201:ILE:HB	1.97	0.45
2:1E:26:PRO:C	2:1E:28:PHE:H	2.20	0.45
1:1G:1129:C:N4	1:1G:1139:G:N2	2.64	0.45
1:1G:114:U:O2'	1:1G:115:G:H5'	2.16	0.45
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.99	0.45
1:1G:37:U:O2'	1:1G:500:G:H4'	2.16	0.45
1:1G:831:U:H2'	1:1G:832:C:C6	2.51	0.45
26:1H:1100:C:H2'	26:1H:1101:U:C6	2.51	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.84	0.45
26:1H:2467:C:N4	26:1H:2468:G:C6	2.84	0.45
26:1H:270(G):C:H2'	26:1H:270(H):C:H6	1.81	0.45
26:1H:2843:G:H1	26:1H:2874:C:H42	1.63	0.45
30:21:116:VAL:H	30:21:157:ALA:HB2	1.81	0.45
56:2L:76:C:H2'	56:2L:77:A:C8	2.52	0.45
31:31:129:PHE:O	31:31:130:ALA:HB3	2.16	0.45
4:32:25:ARG:NH1	4:32:31:CYS:HA	2.27	0.45
4:32:3:ARG:HB2	4:32:4:TYR:H	1.46	0.45
31:39:181:LEU:HA	31:39:181:LEU:HD23	1.77	0.45
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.44	0.45
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.17	0.45
12:3I:83:VAL:HG22	12:3I:84:LEU:N	2.31	0.45
38:45:32:TYR:HD1	38:45:32:TYR:H	1.64	0.45
1:1G:1202:G:N2	14:5A:46:GLU:OE1	2.48	0.45
14:5A:9:LYS:HA	14:5A:12:ARG:HD2	1.99	0.45
14:5I:53:LEU:HB3	14:5I:56:VAL:CG2	2.46	0.45
15:6I:70:LEU:HG	15:6I:78:TYR:HB2	1.98	0.45
28:71:163:PHE:CD2	28:71:192:PHE:HE1	2.35	0.45
26:1H:2176:A:H4'	28:71:222:VAL:HG23	1.98	0.45
37:78:139:LYS:HE3	37:78:139:LYS:HB2	1.63	0.45
39:98:14:SER:HA	39:98:17:ARG:NH1	2.31	0.45
26:14:138:G:N2	45:B5:44:GLU:OE2	2.27	0.45
41:B8:19:LEU:HA	41:B8:20:PRO:HD3	1.64	0.45
46:C5:43:ASN:HA	46:C5:63:LYS:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:35:LEU:HA	43:D8:36:PRO:HD3	1.72	0.45
26:14:61:G:H5'	50:G5:50:ILE:HG13	1.97	0.45
52:I5:42:PHE:O	52:I5:43:TYR:HB3	2.16	0.45
51:L8:7:LYS:C	51:L8:54:VAL:HG23	2.37	0.45
55:M5:40:GLU:CA	55:M5:43:GLN:HB2	2.45	0.45
1:13:1007:C:H2'	1:13:1008:C:O4'	2.16	0.45
1:13:1429:C:H2'	1:13:1430:C:H6	1.81	0.45
1:13:1415:G:C6	1:13:1486:G:C6	3.05	0.45
1:13:1489:G:C6	1:13:1490:C:C4	3.05	0.45
1:13:22:G:C6	1:13:23:C:C4	3.04	0.45
1:13:246:A:C2	1:13:282:A:C5	3.04	0.45
1:13:639:G:H2'	1:13:640:A:H8	1.81	0.45
1:13:657:G:O4'	15:6I:28:GLN:NE2	2.47	0.45
26:14:1022:G:HO2'	26:14:1023:U:P	2.36	0.45
26:14:1219:G:N2	26:14:1230:C:N3	2.47	0.45
26:14:1542:G:O5'	26:14:1543:A:H5"	2.17	0.45
26:14:1669:A:H5"	26:14:1670:C:OP2	2.16	0.45
26:14:1687:G:O5'	26:14:1687:G:H8	1.99	0.45
26:14:1732:A:N6	26:14:1733:G:C2	2.84	0.45
26:14:1777:U:O2'	26:14:1778:U:H5'	2.15	0.45
26:14:1788:C:C2	26:14:1789:A:C8	3.04	0.45
1:1G:1418:A:H2	26:14:1948:G:N3	2.14	0.45
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.50	0.45
26:14:2542:A:H5"	26:14:2542:A:N3	2.30	0.45
26:14:563:G:C4	26:14:564:C:C5	3.04	0.45
35:15:36:GLY:N	35:15:42:TRP:HZ3	2.14	0.45
27:16:73:A:C4	27:16:104:A:C2	3.04	0.45
29:19:65:ILE:HD11	29:19:67:PHE:CZ	2.50	0.45
10:1A:25:GLU:O	10:1A:29:ARG:HB2	2.16	0.45
2:1E:196:LEU:HD13	2:1E:197:VAL:HG22	1.98	0.45
1:1G:1199:U:H4'	10:1A:54:PHE:CD2	2.51	0.45
1:1G:1305:G:N2	1:1G:1331:G:N3	2.64	0.45
1:1G:309:G:H1'	1:1G:608:A:C2	2.52	0.45
1:1G:942:G:H21	9:82:124:GLN:HE22	1.63	0.45
26:1H:1635:G:H2'	26:1H:1636:C:C6	2.51	0.45
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.15	0.45
26:1H:2656:U:H5	26:1H:2664:G:N2	2.13	0.45
26:1H:2853:C:H2'	26:1H:2854:G:C8	2.51	0.45
26:1H:286:C:H2'	26:1H:287:C:H6	1.81	0.45
26:1H:2885:C:C2	26:1H:2886:G:H1'	2.50	0.45
27:1J:2:C:H2'	27:1J:3:C:C5	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:81:ILE:HG22	30:29:82:ARG:N	2.27	0.45
11:2I:52:GLY:H	11:2I:55:LYS:HE3	1.81	0.45
31:31:68:LYS:HB3	31:31:69:HIS:CD2	2.51	0.45
4:32:118:ARG:O	4:32:121:VAL:HB	2.16	0.45
37:35:65:ARG:HH12	55:M5:14:VAL:C	2.19	0.45
12:3A:123:LYS:HG2	12:3A:123:LYS:H	1.60	0.45
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.31	0.45
24:3K:7:A:C5	24:3K:49:C:C2	3.04	0.45
5:42:102:ALA:HB3	5:42:107:ARG:HB2	1.97	0.45
32:49:118:ARG:HD2	32:49:118:ARG:N	2.30	0.45
13:4A:13:LYS:HE2	13:4A:17:VAL:HG21	1.98	0.45
39:55:71:GLN:O	39:55:71:GLN:HG3	2.16	0.45
35:58:39:ARG:HH12	35:58:48:MET:HB2	1.81	0.45
34:69:8:PRO:N	34:69:15:VAL:HG22	2.31	0.45
7:6E:51:GLN:HG2	7:6E:58:PRO:HG3	1.98	0.45
28:71:227:HIS:H	28:71:227:HIS:CD2	2.34	0.45
41:75:105:LEU:HG	41:75:107:ASP:OD1	2.16	0.45
41:75:123:GLN:O	41:75:127:ALA:N	2.45	0.45
41:75:4:GLY:O	41:75:7:ILE:HG22	2.16	0.45
1:13:607:A:C2	16:7I:31:LYS:HG3	2.50	0.45
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.97	0.45
43:95:37:VAL:HG21	43:95:57:VAL:HG13	1.98	0.45
39:98:37:THR:OG1	39:98:40:LYS:HB2	2.16	0.45
41:B8:110:ILE:O	41:B8:114:LEU:HB2	2.15	0.45
46:C5:23:ARG:HH11	46:C5:23:ARG:HB2	1.80	0.45
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.76	0.45
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.16	0.45
45:F8:67:GLY:C	45:F8:69:TYR:H	2.20	0.45
48:I8:49:LYS:HE2	48:I8:80:HIS:CD2	2.51	0.45
54:P8:10:ARG:O	54:P8:14:LYS:HB2	2.16	0.45
1:13:1007:C:N3	1:13:1022:G:N2	2.56	0.45
1:13:1333:A:C2	1:13:1334:G:H1'	2.51	0.45
1:13:359:U:H2'	1:13:360:A:C8	2.51	0.45
1:13:825:G:C6	1:13:826:C:C4	3.05	0.45
26:14:1204:A:C2	26:14:1241:A:N1	2.82	0.45
26:14:2646:C:OP2	26:14:2732:G:O2'	2.25	0.45
26:14:30:G:H2'	26:14:31:C:C6	2.52	0.45
26:14:638:G:C5	26:14:651:G:C2	3.05	0.45
2:1E:237:ALA:O	2:1E:239:VAL:N	2.49	0.45
1:1G:1028:C:N3	1:1G:1034:G:N2	2.63	0.45
1:1G:819:A:N7	1:1G:1529:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:803:G:C6	1:1G:804:U:C4	3.04	0.45
1:1G:949:A:N3	1:1G:971:G:O6	2.50	0.45
26:1H:1052:C:H2'	26:1H:1053:C:C6	2.51	0.45
26:1H:1091:G:H2'	26:1H:1092:C:C6	2.52	0.45
26:1H:51:G:N3	26:1H:119:A:C2	2.84	0.45
26:1H:142:G:H2'	26:1H:143:C:C6	2.51	0.45
26:1H:2123:G:H2'	26:1H:2124:G:C8	2.52	0.45
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.16	0.45
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.15	0.45
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.16	0.45
26:1H:2309:A:C6	26:1H:2310:A:N7	2.84	0.45
26:1H:733:G:OP2	59:1H:4008:HOH:O	2.21	0.45
27:1J:24:G:C5	27:1J:56:G:C2	3.04	0.45
30:21:101:ARG:NH1	30:21:171:GLU:HB2	2.31	0.45
3:22:18:TRP:H	3:22:18:TRP:HE3	1.63	0.45
30:29:203:LYS:HG3	30:29:203:LYS:O	2.17	0.45
30:29:51:PHE:O	30:29:74:PRO:HB2	2.16	0.45
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.31	0.45
4:32:191:ARG:NH2	4:32:194:LEU:O	2.45	0.45
31:39:107:LYS:HA	31:39:107:LYS:HD3	1.53	0.45
31:39:52:LYS:HA	31:39:56:GLU:OE1	2.16	0.45
4:3E:114:ARG:O	4:3E:118:ARG:N	2.45	0.45
4:3E:90:GLY:O	4:3E:93:PHE:HB2	2.16	0.45
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.45
38:45:27:VAL:HG12	47:D5:81:ARG:NH2	2.31	0.45
32:49:56:ALA:HB2	32:49:153:ARG:NE	2.31	0.45
33:51:74:ASN:HA	33:51:77:LYS:HD3	1.98	0.45
33:51:92:ILE:HD11	33:51:160:LYS:HZ2	1.79	0.45
33:59:92:ILE:HG22	33:59:93:GLY:N	2.31	0.45
36:68:88:ASN:HD21	36:68:92:GLU:H	1.64	0.45
34:69:41:GLU:O	34:69:45:LYS:HG2	2.17	0.45
7:6E:95:ARG:NH2	7:6E:99:LEU:HD21	2.32	0.45
15:6I:24:SER:O	15:6I:28:GLN:HG3	2.17	0.45
15:6I:4:THR:OG1	15:6I:7:GLU:OE2	2.34	0.45
28:71:213:TYR:HA	28:71:222:VAL:O	2.16	0.45
41:75:4:GLY:N	41:75:7:ILE:HG22	2.31	0.45
1:13:599:C:H4'	8:7E:130:GLY:O	2.15	0.45
8:7E:81:HIS:HB3	8:7E:138:TRP:CZ3	2.51	0.45
9:82:16:ARG:NH2	9:82:66:ARG:HH22	2.13	0.45
43:95:100:ARG:HG2	43:95:100:ARG:H	1.63	0.45
39:98:28:LEU:O	39:98:32:GLY:N	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:A8:56:LEU:HB3	40:A8:58:LEU:HD21	1.99	0.45
47:D5:27:VAL:HG12	47:D5:87:ASP:HA	1.98	0.45
42:C8:47:TYR:HE2	43:D8:74:LYS:HE3	1.81	0.45
50:G5:52:ASP:O	50:G5:56:GLN:HG3	2.16	0.45
47:H8:136:PHE:O	47:H8:137:ILE:HG13	2.17	0.45
47:H8:45:ASP:O	47:H8:49:ARG:HG3	2.17	0.45
48:I8:72:ARG:O	48:I8:75:LEU:HB2	2.17	0.45
49:J8:91:LYS:O	49:J8:93:GLU:N	2.48	0.45
26:14:686:G:C8	54:L5:7:PRO:HA	2.51	0.45
2:12:36:ARG:NH1	2:12:37:ASN:OD1	2.50	0.45
1:13:68:G:H22	1:13:101:A:H2	1.64	0.45
1:13:1264:C:H1'	1:13:1272:G:N2	2.30	0.45
1:13:1504:G:OP1	1:13:1507:A:H4'	2.16	0.45
1:13:276:G:C6	1:13:277:C:C4	3.05	0.45
1:13:447:G:N1	1:13:485:G:H1'	2.32	0.45
1:13:867:G:O2'	1:13:873:A:N6	2.49	0.45
26:14:1138:G:N3	26:14:1139:G:H1'	2.31	0.45
26:14:1221:C:N3	26:14:1229(A):G:N1	2.52	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.14	0.45
26:14:1399:C:H2'	26:14:1400:G:C8	2.51	0.45
26:14:1899:G:H21	26:14:1902:C:H42	1.64	0.45
26:14:208:C:H2'	26:14:209:C:C6	2.50	0.45
26:14:2394:C:H5"	37:35:63:PRO:HG3	1.98	0.45
26:14:260:G:C2	26:14:261:G:H1'	2.51	0.45
26:14:270(J):G:H21	26:14:270(K):C:H1'	1.82	0.45
26:14:2853:C:H2'	26:14:2854:G:H8	1.80	0.45
26:14:451:C:H5'	59:14:3639:HOH:O	2.16	0.45
26:14:661:C:H2'	26:14:662:G:C8	2.51	0.45
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.97	0.45
1:1G:1229:A:H2'	1:1G:1230:C:C6	2.52	0.45
1:1G:148:G:H8	1:1G:148:G:O5'	2.00	0.45
1:1G:451:A:N6	1:1G:480:U:H2'	2.30	0.45
1:1G:689:C:H2'	1:1G:690:G:H5'	1.98	0.45
1:1G:894:G:C6	1:1G:895:G:C5	3.05	0.45
1:1G:941:G:C6	1:1G:1343:G:C6	3.05	0.45
26:1H:2099:U:H2'	26:1H:2100:G:H8	1.80	0.45
26:1H:2355:C:H5"	26:1H:2356:C:OP2	2.16	0.45
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.52	0.45
26:1H:336:C:OP1	46:G8:83:THR:HG23	2.17	0.45
26:1H:340:A:H2'	26:1H:341:G:O4'	2.16	0.45
26:1H:389:G:H1	37:78:71:VAL:HB	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:817:C:H5	59:1H:3817:HOH:O	1.99	0.45
1:13:1059:C:O2'	10:1I:53:PRO:HD3	2.16	0.45
3:22:76:VAL:HA	3:22:83:ARG:HH21	1.82	0.45
1:1G:538:G:OP2	12:3A:115:LYS:HB2	2.16	0.45
24:3K:1:G:HO2'	24:3K:2:C:P	2.39	0.45
32:41:4:ASP:OD1	32:41:9:ARG:NH1	2.49	0.45
5:42:43:LEU:HG	5:42:44:GLY:N	2.28	0.45
32:49:32:PRO:CB	32:49:172:LEU:HD22	2.47	0.45
32:49:68:PRO:HB2	32:49:90:LEU:HD11	1.98	0.45
13:4I:70:LEU:O	13:4I:73:GLU:HB3	2.17	0.45
33:51:83:TYR:CD2	33:51:134:SER:HA	2.52	0.45
33:51:85:LYS:HA	33:51:85:LYS:HD3	1.70	0.45
35:58:46:VAL:O	35:58:47:ALA:HB3	2.15	0.45
35:58:7:LYS:HB3	35:58:7:LYS:HE3	1.80	0.45
33:59:81:GLU:HG3	33:59:83:TYR:HB3	1.99	0.45
34:61:81:VAL:HG11	34:61:88:ILE:HD13	1.97	0.45
7:62:56:GLN:HB3	7:62:61:VAL:HG23	1.98	0.45
8:7E:82:HIS:ND1	8:7E:82:HIS:C	2.70	0.45
38:88:32:TYR:O	38:88:105:GLU:HA	2.17	0.45
26:1H:870:A:H5'	38:88:6:ARG:HB3	1.98	0.45
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.99	0.45
44:A5:14:PRO:HA	44:A5:17:VAL:HG12	1.98	0.45
52:I5:58:ARG:HD2	52:I5:58:ARG:HA	1.74	0.45
29:11:172:TYR:HD1	29:11:185:VAL:C	2.20	0.45
29:11:46:GLN:O	29:11:48:ARG:N	2.49	0.45
1:13:1027:C:H1'	1:13:1028:C:C5	2.51	0.45
1:13:1171:G:O2'	1:13:1172:C:H5'	2.15	0.45
1:13:1182:G:H4'	1:13:1183:A:H5"	1.97	0.45
1:13:122:G:O5'	1:13:122:G:H8	2.00	0.45
1:13:1256:A:C2	1:13:1277:C:C5	3.05	0.45
1:13:1497:G:C2'	1:13:1498:U:H5'	2.46	0.45
1:13:199:G:O6	1:13:218:C:N4	2.50	0.45
1:13:621:A:H2'	1:13:622:A:C8	2.51	0.45
1:13:711:G:C2	1:13:712:A:C5	3.05	0.45
1:13:872:A:C4	1:13:874:G:N7	2.85	0.45
26:14:1757:U:N3	26:14:1762:A:C2	2.72	0.45
26:14:1779:U:C6	26:14:1783:A:N7	2.85	0.45
26:14:1790:C:H5"	26:14:1791:A:OP1	2.17	0.45
26:14:2019:A:C6	26:14:2020:A:C5	3.04	0.45
26:14:2283:C:O2	26:14:2389:G:N2	2.50	0.45
26:14:2320:A:N1	26:14:2333:A:C8	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2567:G:H2'	26:14:2568:C:H6	1.82	0.45
26:14:1654:A:C1'	26:14:2823:A:H5'	2.47	0.45
35:15:36:GLY:O	35:15:38:HIS:N	2.50	0.45
26:14:2591:C:OP1	29:19:239:ARG:HD2	2.16	0.45
21:1B:2:GLY:O	21:1B:4:GLY:N	2.48	0.45
1:1G:1028(A):C:H42	1:1G:1032(B):G:N2	2.14	0.45
1:1G:1286:A:H3'	1:1G:1286:A:C8	2.51	0.45
1:1G:660:G:H2'	1:1G:661:G:O4'	2.16	0.45
1:1G:862:C:H2'	1:1G:863:U:C6	2.47	0.45
26:1H:1288:U:C2	26:1H:1327:C:O2	2.70	0.45
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.16	0.45
26:1H:2057:A:H2'	26:1H:2058:A:C8	2.52	0.45
26:1H:2636:U:P	30:21:79:ARG:HA	2.56	0.45
26:1H:2689:U:H5"	26:1H:2713:A:H2	1.80	0.45
26:1H:34:C:C6	26:1H:34:C:OP2	2.69	0.45
26:1H:604:G:C5	26:1H:625:G:N2	2.85	0.45
26:1H:935:C:H2'	26:1H:936:C:C6	2.51	0.45
30:29:5:LEU:HD22	30:29:5:LEU:H	1.81	0.45
4:32:203:VAL:O	4:32:206:PHE:HB3	2.15	0.45
31:39:11:VAL:HG23	31:39:12:LEU:H	1.82	0.45
4:3E:86:LYS:HD2	4:3E:86:LYS:H	1.81	0.45
24:3K:9:A:H5"	24:3K:11:C:OP2	2.16	0.45
24:3L:25:C:N3	24:3L:26:A:C8	2.85	0.45
32:41:18:GLU:O	32:41:22:ARG:HB2	2.16	0.45
32:41:37:VAL:HG23	32:41:99:MET:CE	2.47	0.45
38:45:27:VAL:HG11	38:45:137:TYR:HB2	1.99	0.45
38:45:27:VAL:HG12	47:D5:81:ARG:CZ	2.47	0.45
26:14:871:U:H4'	38:45:69:PHE:CD2	2.52	0.45
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.16	0.45
32:49:33:ARG:NH2	32:49:162:THR:HG21	2.31	0.45
33:51:26:VAL:HG21	33:51:75:ALA:CB	2.46	0.45
15:6A:53:HIS:ND1	15:6A:53:HIS:O	2.50	0.45
16:7A:4:ILE:HB	16:7A:66:PRO:HA	1.98	0.45
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.17	0.45
17:8I:27:PHE:CE2	17:8I:36:ILE:HD11	2.52	0.45
40:A8:38:GLN:HB2	40:A8:47:THR:CG2	2.46	0.45
46:C5:76:CYS:SG	46:C5:97:ARG:HG3	2.56	0.45
47:D5:102:LEU:HD11	47:D5:123:ASP:N	2.31	0.45
48:E5:82:ARG:HA	48:E5:82:ARG:HD3	1.69	0.45
44:E8:75:TYR:CE1	44:E8:104:THR:HB	2.52	0.45
49:F5:80:LEU:HD23	49:F5:82:LEU:HG	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:G5:4:SER:OG	50:G5:5:GLU:N	2.44	0.45
53:J5:40:LYS:HE2	53:J5:44:THR:O	2.16	0.45
53:J5:31:VAL:HG22	53:J5:42:PRO:HG3	1.97	0.45
29:11:121:PRO:HB3	29:11:135:PHE:CE2	2.51	0.45
2:12:187:LEU:HD11	2:12:203:GLY:HA3	1.99	0.45
1:13:1478:C:H2'	1:13:1479:C:C6	2.52	0.45
1:13:22:G:C2	1:13:23:C:C2	3.03	0.45
1:13:557:G:H2'	1:13:558:G:C8	2.51	0.45
1:13:964:A:N3	1:13:969:A:O2'	2.42	0.45
26:14:1011:G:C6	26:14:1013:C:C4	3.05	0.45
26:14:1234:U:H2'	26:14:1235:G:O4'	2.17	0.45
26:14:2134:A:C4	26:14:2158:A:C8	3.05	0.45
26:14:2157:G:O2'	26:14:2158:A:C8	2.65	0.45
26:14:276:A:H2'	26:14:277:C:C5	2.52	0.45
26:14:2780:G:OP1	35:15:118:LYS:HE2	2.16	0.45
26:14:638:G:C6	26:14:639:U:C4	3.04	0.45
26:14:993:G:C5	26:14:994:C:C5	3.05	0.45
1:1G:1099:G:OP1	2:12:148:TYR:OH	2.32	0.45
1:1G:1127:G:H1'	1:1G:1148:U:C2	2.52	0.45
1:1G:1129:C:OP2	9:82:62:TYR:OH	2.33	0.45
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.52	0.45
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.99	0.45
26:1H:1545(A):A:N7	26:1H:1546:C:C2	2.85	0.45
26:1H:1707:G:H2'	26:1H:1708:C:O4'	2.17	0.45
26:1H:2045:C:H2'	26:1H:2046:G:O4'	2.16	0.45
26:1H:2262:U:H2'	26:1H:2263:C:H6	1.81	0.45
26:1H:2617:C:H2'	26:1H:2618:G:O4'	2.16	0.45
26:1H:890:A:H2'	26:1H:892:G:H5'	1.97	0.45
26:1H:931:G:C5	26:1H:933:A:N7	2.84	0.45
10:1I:27:ALA:O	10:1I:31:GLY:N	2.49	0.45
10:1I:43:ARG:HB3	10:1I:43:ARG:HE	1.39	0.45
27:1J:3:C:H42	27:1J:117:G:H22	1.64	0.45
27:1J:24:G:C8	27:1J:56:G:C4	3.05	0.45
27:1J:87:G:H8	27:1J:87:G:O5'	1.99	0.45
30:21:52:LEU:HA	30:21:53:PRO:HD3	1.83	0.45
26:14:2050:C:H1'	30:29:156:MET:CE	2.47	0.45
26:14:2787:C:O2'	30:29:61:ARG:HD3	2.16	0.45
31:31:192:LEU:HD23	31:31:193:VAL:N	2.32	0.45
5:42:96:PRO:HA	5:42:117:ASP:OD2	2.16	0.45
32:49:15:VAL:HG13	32:49:175:LEU:HB2	1.99	0.45
39:55:57:ARG:HE	39:55:62:ALA:HB2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:51:LEU:HD13	39:55:66:VAL:HG13	1.99	0.45
35:58:35:ARG:O	35:58:42:TRP:HZ3	2.00	0.45
36:68:35:VAL:HA	36:68:62:VAL:HG12	1.97	0.45
28:71:9:ALA:O	28:71:13:LYS:N	2.49	0.45
28:71:8:ARG:O	28:71:12:GLU:HB2	2.16	0.45
41:75:123:GLN:H	41:75:123:GLN:HG3	1.55	0.45
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.16	0.45
40:A8:67:ARG:HB2	40:A8:67:ARG:NH1	2.31	0.45
45:B5:43:VAL:HG21	45:B5:81:VAL:HG11	1.99	0.45
41:B8:132:LYS:HE2	41:B8:132:LYS:HB3	1.81	0.45
41:B8:87:ASP:OD1	41:B8:87:ASP:N	2.47	0.45
26:1H:2849:U:P	41:B8:95:ARG:HH12	2.38	0.45
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.49	0.45
47:D5:153:SER:HB3	47:D5:167:PRO:HB3	1.98	0.45
43:D8:39:LEU:O	43:D8:40:LEU:HD23	2.16	0.45
45:F8:39:ILE:HD13	45:F8:79:ALA:HB2	1.98	0.45
50:G5:56:GLN:O	50:G5:60:LEU:N	2.37	0.45
50:K8:57:ILE:O	50:K8:61:LEU:HD12	2.17	0.45
29:11:38:LYS:HD2	29:11:39:LYS:N	2.32	0.45
1:13:1004:A:P	1:13:1025:U:H3	2.36	0.45
1:13:476:G:N2	1:13:477:G:H1'	2.32	0.45
1:13:575:G:C5	1:13:881:G:C2	3.05	0.45
1:13:962:C:O2'	59:13:1904:HOH:O	2.21	0.45
1:13:983:A:H2	1:13:984:C:C6	2.34	0.45
26:14:2259:G:H1'	26:14:2427:C:C2	2.52	0.45
26:14:654:A:H2'	26:14:654:A:N3	2.32	0.45
26:14:920:G:H2'	26:14:921:G:H8	1.81	0.45
29:19:273:ARG:O	29:19:273:ARG:HG2	2.17	0.45
2:1E:231:GLU:HB2	2:1E:232:PRO:HD2	1.98	0.45
1:1G:1097:C:H1'	1:1G:1169:A:C2	2.51	0.45
1:1G:994:A:N7	1:1G:1216:G:H4'	2.31	0.45
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.51	0.45
1:1G:11:G:C5	1:1G:12:U:C5	3.05	0.45
1:1G:323:U:O3'	20:BA:22:ARG:HD3	2.16	0.45
1:1G:406:G:H1'	1:1G:495:A:N1	2.32	0.45
1:1G:484:G:C8	1:1G:486:U:C2	3.05	0.45
1:1G:558:G:O5'	1:1G:559:A:H3'	2.16	0.45
1:1G:616:G:N3	1:1G:617:G:C8	2.85	0.45
1:1G:664:G:H22	1:1G:741:G:H1	1.64	0.45
1:1G:779:C:O2'	1:1G:780:A:H5'	2.17	0.45
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:173:G:H2'	26:1H:174:C:C6	2.52	0.45
26:1H:2160:G:C2	26:1H:2161:C:H1'	2.51	0.45
26:1H:2261:C:N3	26:1H:2280:G:C2	2.85	0.45
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.16	0.45
26:1H:2573:C:H3'	59:1H:4376:HOH:O	2.16	0.45
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.52	0.45
30:29:136:ARG:NH1	30:29:136:ARG:HG2	2.32	0.45
30:29:154:LYS:HE3	30:29:154:LYS:HA	1.99	0.45
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.59	0.45
3:2E:149:ALA:HA	3:2E:201:TYR:O	2.17	0.45
31:31:39:TRP:CZ3	31:31:106:ARG:HD2	2.51	0.45
4:32:191:ARG:HA	4:32:194:LEU:HD23	1.98	0.45
31:39:123:LEU:O	31:39:193:VAL:HA	2.16	0.45
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.82	0.45
27:16:42:C:O3'	32:41:67:LYS:NZ	2.50	0.45
32:49:95:ARG:HD3	32:49:96:ARG:HH11	1.82	0.45
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.30	0.45
33:51:126:PRO:O	33:51:127:GLU:HB2	2.16	0.45
14:5I:45:ARG:HG3	14:5I:49:HIS:CE1	2.51	0.45
14:5I:46:GLU:O	14:5I:50:LYS:HG3	2.17	0.45
40:65:24:LEU:HB2	40:65:85:VAL:HG12	1.98	0.45
34:69:75:LEU:HD22	34:69:139:GLN:OE1	2.17	0.45
15:6I:66:LEU:HA	15:6I:66:LEU:HD12	1.64	0.45
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.98	0.45
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.99	0.45
37:78:90:ARG:HG2	37:78:91:PHE:CD1	2.51	0.45
8:7E:81:HIS:HB2	8:7E:138:TRP:C	2.36	0.45
42:85:92:ARG:HD2	42:85:95:LEU:HD12	1.99	0.45
17:8A:31:LEU:HA	17:8A:31:LEU:HD12	1.63	0.45
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.16	0.45
17:8I:92:ARG:HA	17:8I:92:ARG:HE	1.82	0.45
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.99	0.45
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.60	0.45
46:C5:51:VAL:C	46:C5:53:PRO:HD3	2.37	0.45
48:E5:14:ARG:HE	48:E5:14:ARG:HB2	1.39	0.45
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.17	0.45
47:H8:67:LEU:HA	47:H8:68:PRO:HD3	1.76	0.45
49:J8:18:ILE:CG1	49:J8:37:ILE:HG12	2.47	0.45
1:13:1008:C:H42	1:13:1021:G:H1	1.64	0.45
1:13:1096:C:H2'	1:13:1097:C:H6	1.81	0.45
1:13:1447:G:C6	1:13:1460:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:405:U:O2'	1:13:497:U:H5'	2.16	0.45
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.99	0.45
26:14:1142:U:H5"	26:14:1142(A):A:H5'	1.98	0.45
26:14:13:A:N1	26:14:525:U:H2'	2.31	0.45
26:14:1919:A:H5"	26:14:1920:C:OP2	2.17	0.45
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.45
26:14:2358:G:C4	26:14:2359:C:C5	3.04	0.45
26:14:2416:C:H6	26:14:2416:C:O5'	1.99	0.45
26:14:2839:G:H2'	26:14:2840:C:O4'	2.17	0.45
26:14:529:A:H4'	26:14:530:G:O5'	2.17	0.45
10:1A:25:GLU:OE2	10:1A:28:ARG:HD2	2.16	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.65	0.45
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.17	0.45
30:21:175:VAL:HG22	30:21:177:PRO:HD3	1.97	0.45
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.52	0.45
31:31:53:THR:O	31:31:55:GLY:N	2.50	0.45
37:35:37:GLY:N	37:35:40:SER:OG	2.50	0.45
37:35:86:LYS:HG3	37:35:87:ASP:H	1.81	0.45
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.82	0.45
4:3E:70:ILE:CG2	4:3E:75:PHE:HB2	2.47	0.45
24:3L:9:A:H2'	24:3L:11:C:H41	1.82	0.45
32:49:42:GLY:O	32:49:43:LEU:HD13	2.16	0.45
5:4E:113:ALA:O	5:4E:115:VAL:HG23	2.16	0.45
39:55:56:LYS:HD2	39:55:88:ARG:HA	1.99	0.45
35:58:137:LYS:HZ2	35:58:138:LEU:H	1.64	0.45
33:59:19:VAL:HG12	33:59:20:ALA:N	2.29	0.45
36:68:112:MET:HA	36:68:115:VAL:HG22	1.98	0.45
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.99	0.45
41:75:16:ARG:HB3	41:75:16:ARG:HE	1.23	0.45
42:85:110:VAL:O	42:85:114:LYS:HG2	2.16	0.45
38:88:17:LEU:HD13	38:88:39:PRO:HB2	1.98	0.45
17:8I:74:LEU:HA	17:8I:74:LEU:HD22	1.63	0.45
43:95:35:LEU:H	43:95:35:LEU:HD23	1.80	0.45
40:A8:26:LEU:HD23	40:A8:87:PHE:HD1	1.82	0.45
47:D5:102:LEU:HB2	47:D5:104:PHE:CE1	2.52	0.45
48:E5:27:GLU:HA	48:E5:67:VAL:O	2.16	0.45
49:F5:26:ARG:HB2	49:F5:26:ARG:CZ	2.42	0.45
46:G8:46:LYS:HG2	46:G8:60:PHE:CD1	2.52	0.45
26:14:686:G:N1	54:L5:16:HIS:NE2	2.58	0.45
52:M8:13:ARG:HB3	52:M8:20:ASN:OD1	2.16	0.45
29:11:8:PRO:HB3	29:11:14:ARG:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:7:VAL:HG22	2:12:8:LYS:H	1.82	0.45
2:12:8:LYS:O	2:12:9:GLU:HB3	2.16	0.45
1:13:1255:G:OP1	10:1I:45:ARG:NH2	2.50	0.45
26:14:1015:G:O6	26:14:1148:A:N6	2.50	0.45
26:14:1358:G:N2	26:14:1372:U:C5	2.84	0.45
26:14:1519:G:H2'	26:14:1520:U:O4'	2.17	0.45
26:14:1306:C:O2	26:14:1623:G:C2	2.70	0.45
26:14:1674:G:N2	26:14:1677:A:N1	2.62	0.45
26:14:1798:U:OP2	29:19:273:ARG:NH1	2.43	0.45
26:14:2129:C:C4	26:14:2130:U:C4	3.05	0.45
26:14:2240:C:O2'	26:14:2241:A:H5'	2.17	0.45
26:14:249:C:OP1	59:14:3415:HOH:O	2.20	0.45
26:14:2715:C:H2'	26:14:2716:U:H6	1.82	0.45
26:14:528:A:N7	26:14:2042:A:C6	2.84	0.45
26:14:614:U:C1'	26:14:615:G:H5"	2.47	0.45
26:14:748:G:OP2	44:A5:88:ARG:HG3	2.16	0.45
26:14:977:G:H2'	26:14:978:G:C8	2.51	0.45
26:14:977:G:C6	26:14:987:G:C5	3.05	0.45
29:19:37:LEU:HD11	29:19:60:ARG:HB2	1.98	0.45
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.16	0.45
1:1G:997:U:H2'	1:1G:998:G:C8	2.52	0.45
26:1H:1314:C:O5'	26:1H:1314:C:H6	1.99	0.45
26:1H:1322:A:C5	26:1H:1323:U:C5	3.04	0.45
26:1H:1337:G:C2	26:1H:1338:G:C4	3.05	0.45
26:1H:1530:G:H2'	26:1H:1531:C:C6	2.52	0.45
26:1H:2373:G:H1	26:1H:2380:C:H42	1.65	0.45
26:1H:2408:U:O2'	26:1H:2409:G:H5'	2.17	0.45
26:1H:2592:G:C6	26:1H:2593:U:C4	3.05	0.45
26:1H:466:A:H2'	26:1H:467:G:H5'	1.99	0.45
26:1H:507:A:C5'	26:1H:508:G:H5'	2.46	0.45
26:1H:618:G:H2'	26:1H:618(A):C:O4'	2.16	0.45
26:1H:975:G:H1'	26:1H:990:A:C2	2.51	0.45
27:1J:87:G:H3'	27:1J:88:C:C5'	2.44	0.45
22:1K:38:A:H2'	22:1K:39:A:O4'	2.17	0.45
3:22:43:LEU:O	3:22:47:LEU:HB2	2.16	0.45
30:29:95:ILE:HG13	30:29:95:ILE:H	1.36	0.45
31:31:101:LEU:HD22	31:31:102:PRO:CD	2.46	0.45
31:31:29:ASN:O	31:31:32:LEU:N	2.50	0.45
37:35:47:ASP:OD1	37:35:49:ARG:HB2	2.17	0.45
31:39:204:ASN:OD1	31:39:204:ASN:N	2.50	0.45
24:3K:2:C:H4'	24:3K:3:C:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:72:C:H2'	24:3K:73:A:O4'	2.17	0.45
24:3L:6:G:N1	24:3L:67:C:N3	2.59	0.45
32:41:115:ARG:HB3	32:41:115:ARG:HH11	1.82	0.45
5:42:35:GLY:HA2	5:42:41:VAL:HG12	1.99	0.45
6:52:77:ARG:HB3	6:52:77:ARG:HH11	1.82	0.45
35:58:9:VAL:HG21	35:58:39:ARG:HH22	1.81	0.45
6:5E:23:LYS:HG2	6:5E:27:GLN:HE22	1.81	0.45
14:5I:15:LYS:HE2	14:5I:16:PHE:HE1	1.81	0.45
34:61:144:VAL:HG22	34:61:145:VAL:CG2	2.47	0.45
15:6A:62:GLN:O	15:6A:65:ARG:HG3	2.17	0.45
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.47	0.45
42:85:76:TYR:CE1	42:85:80:ILE:HD11	2.51	0.45
38:88:37:LEU:HD21	38:88:130:LYS:HE3	1.97	0.45
38:88:6:ARG:HH11	38:88:6:ARG:HB2	1.80	0.45
9:8E:8:GLY:HA3	9:8E:79:LEU:HB3	1.99	0.45
44:A5:20:VAL:CG2	44:A5:47:VAL:HG21	2.47	0.45
19:AA:48:THR:HA	19:AA:61:TYR:HA	1.98	0.45
41:B8:50:ILE:O	41:B8:99:LEU:HD12	2.16	0.45
44:E8:19:LEU:HA	44:E8:19:LEU:HD12	1.58	0.45
44:E8:37:ARG:HD3	44:E8:38:TYR:CE1	2.51	0.45
26:1H:338:G:OP1	46:G8:4:LYS:HD3	2.16	0.45
52:I5:23:GLU:HG3	52:I5:24:THR:N	2.31	0.45
48:I8:50:ASN:HB3	48:I8:63:VAL:HG22	1.99	0.45
50:K8:50:ILE:HD12	50:K8:50:ILE:N	2.31	0.45
51:L8:8:LEU:HD13	51:L8:31:LEU:HA	1.98	0.45
2:12:54:THR:O	2:12:57:PHE:HB3	2.16	0.45
1:13:1196:U:C4	25:4K:23:A:C8	3.05	0.45
1:13:181:G:O2'	1:13:182:U:H6	2.00	0.45
1:13:313:A:H2'	1:13:314:C:C6	2.51	0.45
1:13:448:A:OP2	1:13:485:G:N2	2.44	0.45
1:13:554:C:H2'	1:13:555:C:H6	1.82	0.45
26:14:1011:G:C2	26:14:1151:G:C2	3.04	0.45
26:14:2111:C:C6	26:14:2118:U:H4'	2.51	0.45
26:14:2230:G:H1'	49:F5:45:ASN:OD1	2.17	0.45
26:14:2365:G:H4'	48:E5:60:PHE:CZ	2.52	0.45
26:14:2641:G:O3'	35:15:76:SER:OG	2.34	0.45
26:14:2844:G:C2	26:14:2874:C:N3	2.85	0.45
26:14:222:A:H5"	26:14:421:U:OP1	2.16	0.45
26:14:479:A:HO2'	26:14:481:G:H8	1.60	0.45
26:14:601:C:H5'	31:39:108:LYS:NZ	2.32	0.45
26:14:676:A:H8	26:14:2069:G:N2	2.01	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:60:G:C2	26:14:74:A:C5	3.05	0.45
26:14:760:G:H2'	26:14:761:A:O4'	2.17	0.45
26:14:823:G:H2'	26:14:824:A:C8	2.52	0.45
27:16:87:G:N2	27:16:89(A):A:OP2	2.47	0.45
29:19:232:PRO:HD2	29:19:249:PRO:HA	1.99	0.45
2:1E:91:PRO:HD3	2:1E:155:LEU:HD23	1.99	0.45
1:1G:1097:C:O2'	1:1G:1169:A:N3	2.41	0.45
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.00	0.45
26:1H:1030:G:OP2	38:88:128:LYS:NZ	2.26	0.45
26:1H:1776:G:OP2	59:1H:3562:HOH:O	2.21	0.45
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.32	0.45
26:1H:2027:G:C5	26:1H:2028:U:C5	3.05	0.45
26:1H:2319:G:H22	26:1H:2334:G:P	2.40	0.45
26:1H:2587:A:N6	26:1H:2608:G:H1'	2.31	0.45
26:1H:2815:C:H2'	26:1H:2816:C:C6	2.48	0.45
26:1H:645:C:O2	26:1H:645:C:H2'	2.16	0.45
26:1H:833:U:O2	37:78:55:ARG:NH2	2.47	0.45
26:1H:918:A:H8	26:1H:918:A:O5'	1.99	0.45
36:25:104:ARG:O	36:25:107:ARG:HG2	2.16	0.45
3:2E:32:LEU:HD22	3:2E:32:LEU:HA	1.72	0.45
11:2I:124:LYS:HB3	11:2I:125:PHE:CD1	2.52	0.45
31:31:116:ASP:OD2	37:78:1:MET:HB2	2.17	0.45
31:31:125:LEU:HD11	31:31:199:TRP:CD2	2.52	0.45
4:32:59:ARG:NH2	4:32:66:ARG:NH1	2.65	0.45
37:35:78:PRO:HB3	37:35:111:ARG:NH1	2.32	0.45
4:3E:60:GLU:OE2	4:3E:198:VAL:HA	2.17	0.45
24:3L:14:A:C6	24:3L:22:G:C4	3.05	0.45
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.82	0.45
34:61:131:LYS:HB3	34:61:132:PRO:CA	2.46	0.45
34:69:104:GLN:HB3	34:69:104:GLN:HE21	1.61	0.45
34:69:74:ASN:OD1	34:69:75:LEU:N	2.49	0.45
41:75:52:ILE:HG12	41:75:61:PHE:HB3	1.99	0.45
38:88:133:ARG:HE	38:88:133:ARG:HB2	1.41	0.45
43:95:84:LYS:HA	43:95:84:LYS:HD2	1.51	0.45
39:98:48:VAL:O	39:98:51:LEU:N	2.50	0.45
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.43	0.45
40:A8:101:LEU:HD12	40:A8:101:LEU:O	2.17	0.45
40:A8:27:SER:HA	40:A8:88:ASP:HB3	1.99	0.45
41:B8:107:ASP:CG	41:B8:109:GLU:HG3	2.37	0.45
46:C5:36:ALA:O	46:C5:37:VAL:HG13	2.17	0.45
42:C8:79:PHE:O	42:C8:79:PHE:HD1	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:24:LYS:O	48:E5:25:ARG:HD3	2.17	0.45
51:H5:6:VAL:O	51:H5:34:GLU:HA	2.17	0.45
47:H8:160:GLY:O	47:H8:161:VAL:HG13	2.17	0.45
52:I5:49:PHE:CD2	52:I5:50:VAL:HG22	2.49	0.45
26:14:2615:U:N1	53:J5:7:PRO:HA	2.32	0.45
55:Q8:53:PRO:HB3	55:Q8:56:GLU:N	2.32	0.45
1:13:920:U:O4'	1:13:1080:A:C2	2.71	0.44
1:13:1425:U:H2'	1:13:1426:C:H6	1.81	0.44
1:13:22:G:H2'	1:13:23:C:H6	1.81	0.44
1:13:557:G:C6	1:13:558:G:C6	3.05	0.44
1:13:559:A:H4'	1:13:560:U:H3'	1.98	0.44
26:14:1043:C:C2	26:14:1112:G:N2	2.81	0.44
26:14:1149:G:H2'	26:14:1150:C:C6	2.52	0.44
26:14:1538:G:H2'	26:14:1539:G:C8	2.46	0.44
26:14:1815:A:OP2	29:19:54:ARG:NH2	2.50	0.44
26:14:2062:A:O2'	26:14:2063:C:P	2.74	0.44
26:14:245:G:N3	26:14:246:C:C6	2.85	0.44
26:14:2705:A:H2'	26:14:2706:G:O4'	2.17	0.44
26:14:2819:G:C6	26:14:2821:A:C2	3.05	0.44
26:14:451:C:H41	26:14:454:A:H5'	1.81	0.44
26:14:602:G:OP2	26:14:602:G:H8	2.00	0.44
2:1E:28:PHE:O	2:1E:32:ILE:HG22	2.17	0.44
1:1G:1126:U:H5"	1:1G:1280:A:N7	2.32	0.44
1:1G:1157:A:OP1	1:1G:1158:C:H5	2.00	0.44
1:1G:1287:A:H2	1:1G:1353:G:N3	2.15	0.44
1:1G:167:G:H2'	1:1G:168:G:C8	2.46	0.44
1:1G:286:G:C6	1:1G:287:U:C4	3.05	0.44
1:1G:457:C:C2	1:1G:458:C:C5	3.05	0.44
1:1G:861:G:O5'	1:1G:861:G:H8	2.00	0.44
26:1H:1396:U:H2'	26:1H:1396:U:O2	2.16	0.44
26:1H:1465:G:C4	26:1H:1466:G:C8	3.05	0.44
26:1H:155:C:H42	26:1H:171:G:H1	1.64	0.44
26:1H:1833:U:C2	26:1H:1834:U:C5	3.05	0.44
26:1H:2130:U:H2'	26:1H:2131:G:C8	2.51	0.44
26:1H:2156:G:C4	26:1H:2157:G:N2	2.85	0.44
26:1H:2638:G:P	30:21:82:ARG:HH21	2.39	0.44
26:1H:270(I):G:H1	26:1H:270(Q):C:N4	2.15	0.44
26:1H:2860:A:C8	26:1H:2861:G:H1'	2.52	0.44
26:1H:2863:C:H2'	26:1H:2864:G:C8	2.52	0.44
26:1H:289:A:H61	26:1H:351:G:H1'	1.82	0.44
26:1H:485:C:C2	26:1H:496:G:N2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:890:A:H3'	26:1H:892:G:H8	1.81	0.44
26:1H:993:G:H2'	26:1H:994:C:H6	1.82	0.44
30:29:79:ARG:HD2	30:29:79:ARG:N	2.33	0.44
37:35:47:ASP:HB3	37:35:49:ARG:H	1.82	0.44
31:39:116:ASP:OD1	31:39:119:ARG:NH2	2.50	0.44
12:3A:60:LEU:HD23	12:3A:66:VAL:HG23	1.98	0.44
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.17	0.44
24:3K:23:A:H2'	24:3K:24:G:C8	2.52	0.44
32:41:47:LYS:HD3	32:41:81:LYS:CB	2.47	0.44
1:1G:1228:C:H5'	13:4A:114:ARG:HB3	1.99	0.44
5:4E:74:GLY:HA3	5:4E:116:THR:HG23	1.98	0.44
33:51:4:ILE:O	33:51:4:ILE:HG12	2.17	0.44
39:55:61:HIS:O	39:55:65:LEU:HD22	2.17	0.44
28:71:183:GLU:HG2	28:71:184:LYS:HZ3	1.80	0.44
28:71:49:ILE:CG2	28:71:56:GLN:HG2	2.42	0.44
8:72:69:ARG:HG3	8:72:76:PRO:HA	1.99	0.44
41:75:102:ILE:HB	41:75:110:ILE:HD11	1.99	0.44
41:75:18:ASP:OD1	41:75:19:LEU:HG	2.17	0.44
16:7I:72:ARG:HD3	16:7I:73:LEU:HG	1.98	0.44
9:82:112:LYS:CE	9:82:118:LYS:H	2.30	0.44
9:82:79:LEU:HD23	9:82:101:PHE:O	2.16	0.44
39:98:96:ARG:HD2	39:98:115:GLU:HG2	1.99	0.44
45:B5:84:ALA:O	45:B5:87:GLN:HG3	2.17	0.44
20:BA:54:LYS:HA	20:BA:57:ARG:CZ	2.47	0.44
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.17	0.44
47:D5:94:GLU:O	47:D5:129:SER:HA	2.17	0.44
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.47	0.44
45:F8:11:PRO:HG2	45:F8:13:LEU:HD21	1.99	0.44
45:F8:49:VAL:HG21	45:F8:83:VAL:HG12	1.99	0.44
49:J8:21:ARG:HB3	49:J8:21:ARG:HE	1.29	0.44
2:12:157:ARG:HG2	2:12:158:LEU:N	2.32	0.44
1:13:1417:G:N2	1:13:1482:G:H2'	2.33	0.44
1:13:175:C:H2'	1:13:176:C:O4'	2.17	0.44
1:13:343:U:C2	1:13:347:G:N1	2.85	0.44
1:13:526:C:H6	1:13:526:C:O5'	2.00	0.44
1:13:627:G:C4	1:13:628:G:C8	3.05	0.44
26:14:1180:C:H2'	26:14:1181:C:C6	2.52	0.44
26:14:1187:G:OP2	59:14:3592:HOH:O	2.21	0.44
26:14:1464:C:HO2'	26:14:1528:A:H8	1.61	0.44
26:14:2184:G:H2'	26:14:2185:C:C6	2.53	0.44
26:14:2312:U:H5"	32:49:74:LYS:HE3	1.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2600:A:H2'	26:14:2601:C:C6	2.53	0.44
26:14:266:G:H2'	26:14:267:C:O5'	2.17	0.44
26:14:2702:U:O2	26:14:2702:U:H2'	2.16	0.44
26:14:273(F):C:H3'	26:14:274:G:H5"	1.99	0.44
26:14:389:G:O5'	26:14:389:G:H8	2.00	0.44
26:14:547:A:C5	26:14:548:A:N6	2.85	0.44
26:14:607:U:OP1	31:39:103:LYS:N	2.44	0.44
26:14:826:U:H2'	26:14:828:U:O4'	2.16	0.44
29:19:61:LEU:HD13	29:19:61:LEU:HA	1.81	0.44
2:1E:158:LEU:HD12	2:1E:158:LEU:O	2.17	0.44
2:1E:17:PHE:N	2:1E:17:PHE:HD1	2.15	0.44
2:1E:53:ARG:HH12	2:1E:200:ILE:HD12	1.83	0.44
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.18	0.44
1:1G:222:U:N3	1:1G:223:U:C4	2.85	0.44
1:1G:289:G:C2	1:1G:312:C:O2	2.69	0.44
1:1G:413:G:O2'	1:1G:428:G:N2	2.51	0.44
1:1G:567:G:H2'	1:1G:568:G:O4'	2.18	0.44
1:1G:579:G:C4	1:1G:580:U:C5	3.05	0.44
1:1G:686:U:H4'	1:1G:687:A:OP1	2.15	0.44
1:1G:792:A:H4'	1:1G:793:U:O5'	2.18	0.44
26:1H:1010:A:N3	26:1H:1153:C:H1'	2.32	0.44
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.96	0.44
26:1H:1187:G:P	59:1H:3820:HOH:O	2.74	0.44
26:1H:1357:U:C4	26:1H:1358:G:C6	3.05	0.44
26:1H:1419:A:C8	26:1H:1421:G:C6	3.04	0.44
26:1H:1678:G:H8	26:1H:1678:G:OP2	1.98	0.44
26:1H:2839:G:H2'	26:1H:2840:C:C6	2.52	0.44
26:1H:381:G:C4	26:1H:394:A:C2	3.05	0.44
26:1H:512:G:N7	59:1H:4390:HOH:O	2.50	0.44
26:1H:881:G:H2'	26:1H:881:G:N3	2.31	0.44
26:1H:957:A:N1	26:1H:2458:G:H4'	2.32	0.44
27:1J:3:C:H42	27:1J:117:G:N2	2.14	0.44
27:1J:33:G:C6	27:1J:34:U:C4	3.05	0.44
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.80	0.44
30:29:79:ARG:NH1	30:29:79:ARG:HG2	2.32	0.44
11:2A:82:VAL:CG1	11:2A:108:ILE:HG12	2.47	0.44
3:2E:129:ALA:O	3:2E:132:ARG:HB3	2.16	0.44
31:31:152:GLU:OE1	31:31:191:ARG:HD2	2.17	0.44
31:31:178:PRO:HG2	31:31:179:GLU:OE1	2.16	0.44
31:39:51:THR:HB	31:39:88:VAL:HG11	2.00	0.44
4:3E:30:LYS:HB3	4:3E:35:ARG:HE	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:50:GLU:OE2	5:42:51:VAL:HG23	2.17	0.44
38:45:75:THR:HG21	38:45:85:LYS:HE3	1.98	0.44
13:4A:56:LEU:O	13:4A:60:VAL:HG23	2.17	0.44
5:4E:153:LYS:HD3	5:4E:154:GLY:O	2.17	0.44
35:58:54:VAL:HB	35:58:122:VAL:HG22	1.99	0.44
35:58:26:LEU:O	35:58:30:ILE:HG13	2.17	0.44
14:5A:26:ARG:HD3	14:5A:43:CYS:SG	2.57	0.44
7:62:13:GLN:HA	7:62:14:PRO:HD3	1.75	0.44
28:71:64:LEU:HD13	28:71:188:ASN:CG	2.37	0.44
43:95:81:TYR:O	43:95:82:ARG:HG3	2.17	0.44
19:AA:12:ASP:HB3	19:AA:38:SER:HB3	1.99	0.44
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.17	0.44
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.51	0.44
49:F5:41:ARG:HD3	49:F5:43:TYR:HE1	1.82	0.44
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.99	0.44
48:I8:50:ASN:ND2	48:I8:83:PRO:HD3	2.33	0.44
50:K8:15:LYS:HD3	50:K8:67:LYS:HZ1	1.81	0.44
50:K8:50:ILE:HD12	50:K8:51:ARG:H	1.83	0.44
55:Q8:46:ARG:HH21	55:Q8:48:PHE:HA	1.81	0.44
2:12:5:ILE:HA	2:12:221:LEU:HD11	1.98	0.44
1:13:1152:A:H5'	10:1I:13:HIS:CG	2.52	0.44
1:13:122:G:H2'	1:13:123:C:O4'	2.16	0.44
1:13:1301:U:C3'	1:13:1302:U:H5'	2.48	0.44
1:13:407:G:H1	1:13:435:C:H42	1.65	0.44
1:13:628:G:H2'	1:13:629:G:H8	1.82	0.44
1:13:765:G:H5"	1:13:766:A:OP1	2.17	0.44
1:13:774:G:N2	1:13:775:G:H1'	2.32	0.44
26:14:1137:G:C4	26:14:1138:G:C8	3.05	0.44
26:14:1195:G:C2'	26:14:1196:C:H5'	2.47	0.44
26:14:443:A:HO2'	26:14:1200:C:HO2'	1.58	0.44
26:14:1213:A:N3	26:14:1238:G:O2'	2.42	0.44
26:14:2114:A:H61	26:14:2170:A:H61	1.65	0.44
26:14:2209:C:O2	26:14:2216:G:C2	2.70	0.44
26:14:2853:C:H2'	26:14:2854:G:C8	2.52	0.44
26:14:527:C:H4'	26:14:528:A:O5'	2.17	0.44
26:14:634:C:H2'	26:14:635:C:C6	2.52	0.44
26:14:654(S):G:C2	26:14:654(T):A:C6	3.05	0.44
26:14:705:A:H1'	29:19:9:TYR:CE2	2.52	0.44
2:1E:98:LEU:H	2:1E:101:MET:HE3	1.82	0.44
1:13:1074:G:H4'	2:1E:104:ASN:HB2	1.99	0.44
1:1G:17:U:H1'	1:1G:1080:A:N3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1257:U:H5'	1:1G:1258:G:C8	2.51	0.44
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.18	0.44
1:1G:1329:A:O2'	13:4A:24:GLY:HA2	2.17	0.44
1:1G:1352:C:N4	1:1G:1370:G:H1	2.15	0.44
1:1G:1442:G:N7	1:1G:1446:A:C5	2.86	0.44
1:1G:158:G:H1	1:1G:163:C:N4	2.10	0.44
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.18	0.44
26:1H:141:A:H1'	26:1H:1408:C:H1'	1.99	0.44
26:1H:1776:G:C2	26:1H:1777:U:C6	3.05	0.44
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.17	0.44
26:1H:1993:U:C4	26:1H:1994:C:C5	3.05	0.44
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.81	0.44
26:1H:284:U:H2'	26:1H:285:C:C6	2.52	0.44
26:1H:287:C:C2	26:1H:288:C:C6	3.06	0.44
26:1H:49:A:H5"	26:1H:51:G:O4'	2.17	0.44
26:1H:775:G:C4	26:1H:794:G:C8	3.05	0.44
3:22:84:ILE:O	3:22:88:ARG:HB2	2.17	0.44
36:25:43:VAL:HG23	36:25:56:ASP:O	2.16	0.44
36:25:68:GLU:HA	36:25:78:ARG:HB3	1.99	0.44
11:2A:34:ASP:HB2	11:2A:35:PRO:CD	2.47	0.44
23:2K:2:G:N3	23:2K:2:G:H2'	2.31	0.44
31:31:123:LEU:HD12	31:31:124:LEU:N	2.32	0.44
1:1G:407:G:H5"	4:32:115:ARG:HB3	1.99	0.44
12:3A:86:ARG:HB2	12:3A:101:VAL:CG2	2.47	0.44
5:42:88:LYS:HB3	5:42:88:LYS:HE2	1.69	0.44
38:45:57:HIS:NE2	38:45:116:GLU:HB3	2.32	0.44
38:45:138:ASP:CB	38:45:141:GLN:HG2	2.47	0.44
38:45:26:TYR:HE2	38:45:141:GLN:HE22	1.65	0.44
6:52:19:LEU:O	6:52:23:LYS:HG3	2.17	0.44
39:55:12:ARG:O	39:55:17:ARG:NH2	2.50	0.44
35:58:120:LEU:HD22	35:58:121:LYS:N	2.32	0.44
26:14:2749:A:H4'	33:59:62:LYS:HD2	1.98	0.44
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.99	0.44
40:65:12:PHE:HA	40:65:12:PHE:HD1	1.71	0.44
34:69:44:LEU:HD23	34:69:44:LEU:HA	1.64	0.44
8:72:35:ILE:H	8:72:35:ILE:HG13	1.33	0.44
41:75:34:VAL:N	41:75:41:ARG:O	2.48	0.44
39:98:2:ARG:O	39:98:5:LYS:HG2	2.18	0.44
19:AI:7:LYS:O	19:AI:7:LYS:HG2	2.18	0.44
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	2.00	0.44
46:G8:45:VAL:HG22	46:G8:46:LYS:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:I5:13:ARG:HG2	52:I5:22:ILE:HG13	2.00	0.44
48:I8:21:LEU:HD23	48:I8:21:LEU:HA	1.71	0.44
50:K8:34:GLU:O	50:K8:38:GLN:HG3	2.17	0.44
27:16:83:G:H4'	51:L8:52:HIS:CG	2.53	0.44
55:Q8:6:THR:HG22	55:Q8:59:LYS:HD2	1.99	0.44
29:11:67:PHE:HB3	29:11:153:ALA:H	1.82	0.44
29:11:245:PRO:HA	29:11:246:PRO:HD3	1.86	0.44
1:13:1075:C:H2'	1:13:1076:C:H6	1.83	0.44
1:13:1158:C:C2	1:13:1160:G:C8	3.06	0.44
1:13:172:A:OP2	1:13:172:A:H8	2.00	0.44
1:13:29:G:O2'	1:13:30:U:H5'	2.18	0.44
1:13:446:G:N2	1:13:489:C:N3	2.65	0.44
1:13:734:G:C6	1:13:735:C:C4	3.05	0.44
26:14:1408:C:H2'	26:14:1409:C:H6	1.82	0.44
26:14:1416:G:O2'	26:14:1417:C:O5'	2.29	0.44
26:14:1508:A:H5'	26:14:1509:C:OP1	2.18	0.44
26:14:15:G:C2	26:14:16:G:C8	3.05	0.44
26:14:1897:G:H2'	26:14:1898:U:C6	2.53	0.44
26:14:2002:G:O6	59:14:3793:HOH:O	2.20	0.44
26:14:2143:C:H2'	26:14:2144:U:H4'	2.00	0.44
26:14:2359:C:H2'	26:14:2360:A:O4'	2.18	0.44
26:14:251:A:C5	26:14:252:G:H1'	2.53	0.44
26:14:2702:U:O2'	26:14:2703:C:O5'	2.36	0.44
26:14:2718:G:O2'	26:14:2847:U:OP1	2.32	0.44
26:14:581:C:C2	26:14:582:G:C8	3.06	0.44
29:19:239:ARG:HB2	29:19:240:ALA:H	1.68	0.44
26:14:1798:U:H5'	29:19:259:THR:OG1	2.17	0.44
1:1G:1115:C:H2'	1:1G:1116:C:C6	2.53	0.44
1:1G:1129:C:H5	1:1G:1141:C:N4	2.15	0.44
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.18	0.44
1:1G:265:G:H5'	17:8A:64:PRO:O	2.18	0.44
1:1G:271:C:H2'	1:1G:272:C:H6	1.83	0.44
1:1G:298:A:H5"	1:1G:299:G:OP2	2.16	0.44
1:1G:631:G:H2'	1:1G:632:A:C8	2.53	0.44
1:1G:585:G:O2'	1:1G:879:C:H5"	2.17	0.44
26:1H:1682:G:C2	26:1H:1683:C:C2	3.05	0.44
26:1H:1691:C:C4	26:1H:1692:U:C4	3.05	0.44
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.98	0.44
26:1H:2582:G:C2	26:1H:2583:G:C8	3.06	0.44
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.17	0.44
26:1H:270(F):U:H6	26:1H:270(F):U:O5'	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2832:U:O2	26:1H:2834:G:N1	2.51	0.44
26:1H:722:A:H2'	26:1H:723:G:H8	1.79	0.44
30:21:68:ALA:C	30:21:70:ALA:H	2.21	0.44
3:22:21:ARG:HH11	3:22:21:ARG:HB3	1.82	0.44
36:25:98:VAL:CG1	36:25:117:LEU:HB3	2.44	0.44
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.17	0.44
4:3E:9:CYS:SG	4:3E:22:LYS:HG3	2.58	0.44
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.44
32:49:64:THR:OG1	32:49:94:LEU:HD21	2.17	0.44
1:13:1080:A:H5"	5:4E:16:THR:HG21	1.98	0.44
33:51:118:PRO:HD2	33:51:121:ILE:HG21	1.98	0.44
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.81	0.44
33:59:73:ALA:O	33:59:76:VAL:HB	2.17	0.44
6:5E:22:GLU:OE2	6:5E:82:ARG:NE	2.49	0.44
6:5E:23:LYS:CG	6:5E:27:GLN:HE22	2.31	0.44
34:61:109:ILE:HB	34:61:130:TYR:CZ	2.52	0.44
26:1H:1952:A:C5	36:68:22:ILE:HD12	2.53	0.44
15:6A:4:THR:C	15:6A:6:GLU:N	2.70	0.44
1:13:1375:A:P	7:6E:28:ASN:HD22	2.40	0.44
37:78:113:LYS:HA	37:78:129:ALA:O	2.18	0.44
37:78:60:MET:HA	55:Q8:13:ARG:HH12	1.82	0.44
42:85:91:ASP:OD1	42:85:96:ALA:HB2	2.18	0.44
38:88:115:MET:HE2	38:88:115:MET:HB3	1.95	0.44
17:8I:29:HIS:N	17:8I:34:LYS:O	2.44	0.44
1:13:280:C:C2	17:8I:38:ARG:HG3	2.53	0.44
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.51	0.44
20:BI:26:ASN:HD22	20:BI:71:THR:HA	1.83	0.44
46:C5:39:VAL:HG23	46:C5:41:GLY:N	2.33	0.44
44:E8:66:GLU:O	44:E8:68:ARG:N	2.50	0.44
44:E8:70:TYR:N	44:E8:70:TYR:CD1	2.86	0.44
45:F8:9:LEU:O	50:K8:36:ARG:NE	2.43	0.44
51:H5:38:GLU:HG3	51:H5:39:ASP:H	1.82	0.44
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.50	0.44
52:M8:48:ARG:HA	52:M8:48:ARG:HD3	1.55	0.44
53:N8:41:PRO:HB2	53:N8:42:PRO:CD	2.47	0.44
55:Q8:47:LYS:CE	55:Q8:47:LYS:HA	2.36	0.44
26:1H:1805:U:O2	29:11:50:THR:HB	2.17	0.44
2:12:72:GLY:O	2:12:74:LYS:N	2.50	0.44
2:12:7:VAL:HG13	2:12:8:LYS:HG3	2.00	0.44
1:13:1079:G:H2'	1:13:1080:A:C8	2.53	0.44
1:13:1133:G:H2'	1:13:1134:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1151:A:C4	1:13:1152:A:C8	3.06	0.44
1:13:1157:A:H8	1:13:1158:C:N4	2.15	0.44
1:13:1392:G:H2'	1:13:1393:U:C6	2.46	0.44
1:13:286:G:C6	1:13:287:U:C4	3.06	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.47	0.44
26:14:1044:G:H4'	26:14:1048:A:H1'	2.00	0.44
26:14:1153:C:H2'	26:14:1154:G:O4'	2.16	0.44
26:14:1279:G:H5'	39:55:34:ILE:HD11	2.00	0.44
26:14:1701:A:H5"	26:14:1702:G:OP2	2.18	0.44
26:14:1950:G:C2	26:14:1951:U:C5	3.06	0.44
26:14:2320:A:H1'	26:14:2321:G:C6	2.52	0.44
26:14:2340:G:H2'	26:14:2341:G:H8	1.82	0.44
26:14:572:A:C2	26:14:2033:A:C2	3.06	0.44
26:14:701:G:C6	26:14:702:G:N7	2.86	0.44
26:14:733:G:O6	26:14:761:A:C8	2.71	0.44
26:14:959:A:N1	26:14:960:A:C2	2.86	0.44
35:15:62:VAL:HG13	35:15:66:LYS:HE3	2.00	0.44
2:1E:97:TRP:HH2	2:1E:176:GLU:OE2	2.00	0.44
1:1G:1018:C:O5'	1:1G:1018:C:H6	2.00	0.44
1:1G:1049:U:H4'	1:1G:1050:G:H5"	2.00	0.44
1:1G:105:G:C6	1:1G:106:C:C4	3.05	0.44
1:1G:1305:G:OP2	1:1G:1305:G:H8	2.00	0.44
1:1G:186(C):G:C6	1:1G:191(E):G:N1	2.85	0.44
26:1H:1022:G:O2'	26:1H:1023:U:OP2	2.25	0.44
26:1H:1144:G:C6	26:1H:1145:C:N4	2.86	0.44
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.82	0.44
26:1H:1605:C:H2'	26:1H:1606:G:O4'	2.17	0.44
26:1H:1654:A:OP2	39:98:1:MET:N	2.49	0.44
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.48	0.44
26:1H:1993:U:C5	26:1H:1994:C:H5	2.35	0.44
26:1H:2308:G:N3	26:1H:2308:G:H2'	2.32	0.44
26:1H:2378:A:H4'	40:A8:23:ARG:NH1	2.31	0.44
26:1H:654(J):A:N1	26:1H:654(M):C:C4	2.84	0.44
26:1H:70:G:H21	26:1H:71:A:H62	1.66	0.44
26:1H:879:G:C6	26:1H:898:C:N4	2.86	0.44
30:21:201:THR:HG22	30:21:202:LYS:N	2.33	0.44
3:22:23:TYR:CD1	3:22:24:ALA:N	2.86	0.44
1:1G:1190:G:P	3:22:5:ILE:HD12	2.57	0.44
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.47	0.44
3:2E:139:GLN:HG3	3:2E:143:GLU:OE2	2.17	0.44
56:2L:55:U:C4	56:2L:56:PSU:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:101:LEU:O	31:31:106:ARG:NH1	2.50	0.44
31:31:34:TRP:HB2	37:78:6:LEU:HD12	1.99	0.44
4:32:30:LYS:HB3	4:32:35:ARG:HD2	1.99	0.44
31:39:60:SER:OG	31:39:61:GLY:N	2.51	0.44
4:3E:65:ARG:HG3	4:3E:70:ILE:HG22	1.98	0.44
24:3L:14:A:H2'	24:3L:15:G:H5'	1.98	0.44
32:41:181:ARG:HG2	32:41:181:ARG:HH11	1.83	0.44
32:41:53:LEU:HD12	32:41:53:LEU:HA	1.76	0.44
32:41:46:ALA:HB3	32:41:53:LEU:HD13	2.00	0.44
32:41:77:ILE:O	32:41:81:LYS:O	2.35	0.44
5:42:101:ILE:O	5:42:101:ILE:HG12	2.17	0.44
32:49:103:LEU:HD22	32:49:178:PHE:HZ	1.82	0.44
32:49:39:ILE:HG23	32:49:157:ILE:HG12	2.00	0.44
13:4A:81:LEU:HD22	13:4A:88:ARG:HG2	2.00	0.44
35:58:28:THR:HG22	35:58:29:LYS:N	2.32	0.44
6:5E:19:LEU:O	6:5E:23:LYS:HB2	2.18	0.44
34:61:123:LEU:HD23	34:61:142:VAL:O	2.17	0.44
7:6E:51:GLN:NE2	7:6E:58:PRO:HD2	2.32	0.44
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.17	0.44
39:98:113:LEU:HD12	39:98:113:LEU:HA	1.82	0.44
39:98:116:LEU:HD23	39:98:116:LEU:HA	1.73	0.44
19:AI:8:GLY:H	52:M8:66:SER:HB3	1.83	0.44
45:B5:5:TYR:CE2	50:G5:30:ARG:HB2	2.51	0.44
51:H5:5:LYS:HB3	51:H5:5:LYS:HE3	1.51	0.44
47:H8:17:ALA:HA	47:H8:20:ARG:HD2	2.00	0.44
47:H8:94:GLU:O	47:H8:130:PRO:HD3	2.18	0.44
52:I5:1:MET:HG2	52:I5:2:LYS:N	2.31	0.44
26:1H:2086:U:P	29:11:262:ARG:HH11	2.41	0.44
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.51	0.44
1:13:1145:C:C4'	1:13:1146:A:H5'	2.45	0.44
1:13:1162:C:O5'	1:13:1162:C:H6	2.01	0.44
1:13:1187:G:C6	1:13:1188:A:C5	3.06	0.44
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.18	0.44
1:13:1260:C:H4'	1:13:1283:G:O2'	2.17	0.44
1:13:1253:G:H1'	1:13:1355:G:O2'	2.17	0.44
1:13:1402:C:H2'	1:13:1403:C:O4'	2.17	0.44
1:13:1423:G:C6	1:13:1424:C:C4	3.06	0.44
1:13:428:G:O4'	1:13:430:A:C8	2.71	0.44
1:13:515:G:C2	1:13:537:G:C2	3.06	0.44
1:13:991:U:HO2'	1:13:992:U:P	2.38	0.44
26:14:141:A:H8	26:14:1408:C:H1'	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1540:G:C6	26:14:1541:U:C4	3.05	0.44
26:14:1858:G:N2	26:14:1883:G:H2'	2.32	0.44
26:14:2346:A:C2	26:14:2383:G:C2	3.05	0.44
26:14:376:C:H2'	26:14:377:C:C6	2.52	0.44
26:14:839:U:H2'	26:14:840:C:C6	2.53	0.44
27:16:16:G:H2'	27:16:17:C:H6	1.81	0.44
29:19:72:LYS:HE2	29:19:72:LYS:HB3	1.91	0.44
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.42	0.44
2:1E:235:SER:HG	2:1E:236:TYR:HD2	1.64	0.44
1:1G:1000:A:N3	1:1G:1000:A:H2'	2.33	0.44
1:1G:1157:A:C2	1:1G:1181:G:H1'	2.53	0.44
1:1G:987:G:H22	1:1G:1218:C:N4	2.16	0.44
1:1G:1394:A:H61	1:1G:1500:A:HO2'	1.66	0.44
1:1G:452:A:O2'	1:1G:453:A:O4'	2.31	0.44
1:1G:765:G:N1	1:1G:812:C:O2'	2.43	0.44
1:1G:938:A:N6	1:1G:939:G:C5	2.85	0.44
26:1H:1027:A:N6	26:1H:1126:A:C4	2.86	0.44
26:1H:1169:G:N2	26:1H:1181:C:C2	2.86	0.44
26:1H:120:U:H3'	59:1H:4086:HOH:O	2.18	0.44
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.18	0.44
26:1H:1819:A:O4'	26:1H:1821:A:C4	2.71	0.44
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.34	0.44
26:1H:2468:G:H5"	38:88:120:ILE:HD12	1.99	0.44
26:1H:2793:G:H8	26:1H:2793:G:OP2	2.01	0.44
26:1H:2830:G:N3	26:1H:2883:A:H2	2.15	0.44
26:1H:470:A:H2'	26:1H:471:A:C8	2.52	0.44
26:1H:724:U:H2'	26:1H:725:G:O4'	2.17	0.44
26:1H:924:C:H2'	26:1H:925:C:C6	2.53	0.44
27:1J:12:C:OP2	27:1J:12:C:C6	2.71	0.44
22:1K:67:C:H2'	22:1K:68:C:H6	1.82	0.44
11:2A:22:HIS:ND1	11:2A:29:ILE:HD11	2.31	0.44
11:2I:127:LYS:HD3	11:2I:128:ALA:CB	2.47	0.44
37:35:55:ARG:HG2	37:35:56:SER:H	1.83	0.44
4:3E:156:GLU:N	4:3E:156:GLU:OE2	2.51	0.44
5:4E:13:ILE:HA	5:4E:13:ILE:HD12	1.69	0.44
6:5E:55:ASP:HA	6:5E:56:PRO:HD2	1.77	0.44
40:65:42:ASP:O	40:65:43:GLU:HB2	2.18	0.44
34:69:79:ILE:HD11	34:69:140:LEU:HD11	1.99	0.44
8:7E:104:ARG:HB2	8:7E:107:LEU:HB2	1.98	0.44
1:13:449:C:C5	16:7I:42:ARG:HD2	2.53	0.44
42:85:106:PHE:O	42:85:110:VAL:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:533:G:OP1	42:85:28:ARG:HD2	2.17	0.44
17:8I:88:TYR:C	17:8I:88:TYR:CD1	2.91	0.44
19:AA:15:LEU:O	19:AA:19:VAL:HG23	2.18	0.44
20:BA:98:PRO:C	20:BA:100:ILE:H	2.21	0.44
46:C5:19:LYS:C	46:C5:21:LYS:H	2.20	0.44
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.17	0.44
44:E8:13:SER:O	44:E8:16:LYS:N	2.43	0.44
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.86	0.44
38:88:137:TYR:CE1	47:H8:83:PRO:HG3	2.53	0.44
49:J8:94:LEU:HD23	49:J8:94:LEU:HA	1.81	0.44
26:1H:1799:G:N2	29:11:155:LEU:HD12	2.32	0.44
1:13:1133:G:N2	1:13:1141:C:C2	2.85	0.44
1:13:1348:U:C2	1:13:1349:A:C8	3.05	0.44
1:13:356:A:H2'	1:13:357:G:C8	2.51	0.44
1:13:452:A:O2'	16:7I:72:ARG:HG3	2.18	0.44
1:13:706:A:N7	1:13:707:C:H5	2.16	0.44
1:13:973:G:OP2	1:13:974:A:O2'	2.26	0.44
26:14:1021:A:C5	26:14:1023:U:C5	3.06	0.44
26:14:1091:G:H2'	26:14:1092:C:C6	2.53	0.44
26:14:1111:A:O3'	26:14:1112:G:H4'	2.17	0.44
26:14:1297:C:H2'	26:14:1298:C:C6	2.53	0.44
26:14:2019:A:C6	26:14:2020:A:N7	2.86	0.44
26:14:2564:A:C5	26:14:2565:A:C6	3.05	0.44
26:14:2639:A:C2	26:14:2778:A:C8	3.06	0.44
26:14:492:A:H8	26:14:492:A:O5'	2.01	0.44
29:19:76:PRO:HA	29:19:118:VAL:HG23	2.00	0.44
29:19:106:ILE:CD1	29:19:157:ARG:HB3	2.47	0.44
10:1A:61:GLU:HG3	14:5A:58:LYS:NZ	2.33	0.44
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.17	0.44
1:1G:1108:G:OP1	3:22:175:LEU:HD12	2.17	0.44
1:1G:1111:A:O5'	1:1G:1111:A:H8	2.00	0.44
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.18	0.44
1:1G:52:G:H2'	1:1G:53:A:O4'	2.18	0.44
1:1G:78:G:H2'	1:1G:78:G:N3	2.31	0.44
1:1G:814:A:H2'	1:1G:816:A:H5"	2.00	0.44
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.18	0.44
26:1H:1671:U:OP2	59:1H:3573:HOH:O	2.21	0.44
26:1H:1790:C:H2'	26:1H:1791:A:C4	2.53	0.44
26:1H:2077:A:H2'	26:1H:2078:C:C6	2.53	0.44
26:1H:2302:G:H2'	26:1H:2303:G:H8	1.83	0.44
26:1H:2416:C:H5"	37:78:65:ARG:HH12	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:330:A:O2'	26:1H:331:A:C8	2.56	0.44
22:1K:29:C:N4	22:1K:30:G:O6	2.51	0.44
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.33	0.44
30:29:89:ASP:CG	30:29:90:THR:H	2.20	0.44
11:2A:31:THR:HB	11:2A:42:TRP:HB3	2.00	0.44
3:2E:30:ARG:HH11	3:2E:30:ARG:HG3	1.83	0.44
31:31:148:LEU:HA	31:31:148:LEU:HD23	1.72	0.44
31:31:64:ILE:HG13	31:31:65:TRP:NE1	2.32	0.44
31:39:64:ILE:C	31:39:65:TRP:CD1	2.91	0.44
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.82	0.44
4:3E:155:LEU:O	4:3E:157:LEU:N	2.51	0.44
24:3K:6:G:H2'	24:3K:7:A:C8	2.53	0.44
24:3L:8:4SU:HN3	24:3L:14:A:H62	1.64	0.44
5:42:76:ILE:HD12	5:42:77:PRO:HD2	1.99	0.44
13:4I:81:LEU:HD22	13:4I:88:ARG:HB3	1.99	0.44
33:51:20:ALA:HB3	33:51:23:ARG:HB2	1.99	0.44
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.61	0.44
6:5E:23:LYS:HE2	6:5E:23:LYS:HB2	1.61	0.44
34:61:75:LEU:HD23	34:61:105:HIS:CG	2.53	0.44
34:69:113:ARG:O	34:69:131:LYS:HD3	2.16	0.44
16:7I:23:ASP:OD1	16:7I:25:ARG:NH1	2.51	0.44
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.99	0.44
43:95:44:LYS:O	43:95:46:VAL:N	2.45	0.44
44:E8:82:LEU:HA	44:E8:82:LEU:HD23	1.82	0.44
50:G5:7:ARG:HB3	50:G5:7:ARG:HH11	1.83	0.44
47:H8:153:SER:OG	47:H8:167:PRO:HB3	2.17	0.44
52:I5:18:CYS:H	52:I5:19:GLY:HA2	1.82	0.44
26:14:1612:C:O3'	54:L5:5:TRP:HB3	2.18	0.44
55:Q8:47:LYS:HD3	55:Q8:47:LYS:HA	1.30	0.44
55:Q8:53:PRO:HB3	55:Q8:56:GLU:H	1.81	0.44
2:12:111:ARG:HH11	2:12:111:ARG:HG2	1.83	0.44
1:13:1255:G:C2	1:13:1283:G:C2	3.06	0.44
1:13:243:A:H4'	1:13:244:U:H3'	2.00	0.44
1:13:945:G:C6	1:13:1337:G:C5	3.05	0.44
1:13:966:G:H5"	1:13:969:A:N7	2.33	0.44
26:14:1024:G:C3'	26:14:1025:G:H5"	2.46	0.44
26:14:111:A:C2	26:14:112:U:C2	3.06	0.44
26:14:1142:U:H2'	26:14:1142:U:O2	2.18	0.44
26:14:1248:G:C5	42:85:3:ARG:HB2	2.53	0.44
26:14:1472:A:H3'	26:14:1473:G:H8	1.82	0.44
26:14:1557:C:OP2	26:14:1558:A:O2'	2.28	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1827:C:H5'	26:14:1971:A:H4'	2.00	0.44
26:14:479:A:H4'	26:14:480:A:OP1	2.17	0.44
26:14:857:C:H2'	26:14:858:U:C6	2.53	0.44
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.26	0.44
1:1G:1118:C:O4'	1:1G:1179:A:H1'	2.18	0.44
1:1G:1341:U:H6	1:1G:1341:U:H3'	1.81	0.44
1:1G:1460:A:H2'	1:1G:1461:G:O4'	2.17	0.44
1:1G:1403:C:H1'	1:1G:1500:A:N1	2.32	0.44
1:1G:695:A:H2	1:1G:787:A:HO2'	1.63	0.44
1:1G:830:G:C2	1:1G:831:U:O2	2.70	0.44
1:1G:827:U:H3	1:1G:872:A:H62	1.65	0.44
26:1H:1155:A:H2'	26:1H:1156:A:H5"	2.00	0.44
26:1H:274:G:H8	26:1H:274:G:H3'	1.82	0.44
26:1H:2846:G:C5	26:1H:2847:U:C4	3.06	0.44
26:1H:557:U:C2	26:1H:558:G:C8	3.06	0.44
26:1H:638:G:H2'	26:1H:639:U:O4'	2.18	0.44
26:1H:660:G:H21	37:78:12:ALA:HA	1.82	0.44
27:1J:65:C:C4	27:1J:108:C:C5	3.06	0.44
26:1H:2580:U:H4'	30:21:130:GLY:HA3	2.00	0.44
30:21:144:ARG:HH11	30:21:144:ARG:HG3	1.82	0.44
3:22:98:ASN:N	3:22:98:ASN:OD1	2.51	0.44
11:2A:65:ALA:O	11:2A:68:ALA:HB3	2.18	0.44
56:2L:24:C:C2	56:2L:25:U:C5	3.05	0.44
31:31:155:LEU:HD13	31:31:174:VAL:HG22	2.00	0.44
4:32:13:ARG:HD2	4:32:38:TYR:O	2.18	0.44
4:32:150:GLU:C	4:32:152:SER:N	2.71	0.44
31:39:178:PRO:HB3	31:39:198:ALA:CB	2.48	0.44
26:14:1248:G:N7	31:39:92:PRO:HG3	2.33	0.44
31:39:93:LYS:HA	31:39:93:LYS:HD3	1.85	0.44
32:41:83:ARG:O	32:41:86:MET:HG3	2.18	0.44
5:4E:153:LYS:HD3	5:4E:154:GLY:N	2.32	0.44
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.86	0.44
33:51:104:GLU:HG3	33:51:114:VAL:HG13	2.00	0.44
35:58:137:LYS:NZ	35:58:138:LEU:H	2.16	0.44
26:14:1111:A:H5'	33:59:3:ARG:HD3	1.99	0.44
36:68:4:PRO:O	36:68:5:GLN:CB	2.66	0.44
8:72:123:GLU:O	8:72:126:LYS:HB3	2.17	0.44
37:78:15:ARG:HB3	37:78:16:ARG:HB2	1.99	0.44
26:1H:811:U:H3'	37:78:22:GLY:HA2	2.00	0.44
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.53	0.44
44:A5:19:LEU:HD12	44:A5:19:LEU:HA	1.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:78:GLU:OE2	44:A5:99:ARG:HD2	2.17	0.44
26:14:1614:A:H61	44:A5:88:ARG:H	1.66	0.44
19:AA:41:VAL:HG12	19:AA:44:MET:H	1.83	0.44
41:B8:13:ARG:N	41:B8:13:ARG:HD3	2.33	0.44
20:BI:41:ILE:HG13	20:BI:41:ILE:H	1.47	0.44
47:H8:128:VAL:CG2	47:H8:161:VAL:HG21	2.46	0.44
48:I8:75:LEU:HA	48:I8:75:LEU:HD23	1.54	0.44
52:M8:52:THR:OG1	52:M8:53:GLU:N	2.48	0.44
55:Q8:29:LYS:O	55:Q8:30:ARG:HG3	2.18	0.44
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.18	0.44
1:13:1128:C:O2'	1:13:1129:C:H5"	2.18	0.44
1:13:1349:A:H2'	1:13:1350:A:C8	2.52	0.44
1:13:139:G:O6	1:13:140:A:N6	2.50	0.44
1:13:560:U:O5'	1:13:560:U:H6	2.00	0.44
1:13:651:C:N4	1:13:753:A:OP2	2.50	0.44
1:13:947:G:H2'	1:13:948:C:C6	2.53	0.44
26:14:1040:C:N3	26:14:1115:G:N1	2.52	0.44
26:14:1116:C:H2'	26:14:1117:G:C8	2.51	0.44
26:14:1337:G:C4	26:14:1338:G:C8	3.06	0.44
26:14:1421:G:C2	26:14:1422:G:C8	3.06	0.44
26:14:2187:G:C6	26:14:2188:C:N3	2.85	0.44
26:14:2459:A:H5"	26:14:2460:U:OP2	2.18	0.44
26:14:2564:A:H2'	26:14:2565:A:C8	2.53	0.44
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.53	0.44
26:14:363(C):G:H2'	26:14:363(D):G:H8	1.83	0.44
26:14:485:C:H42	26:14:495:G:H1	1.66	0.44
26:14:629:G:H5"	26:14:650:C:O2'	2.17	0.44
27:16:116:G:H2'	27:16:117:G:O4'	2.18	0.44
27:16:69:G:H2'	27:16:70:C:C6	2.52	0.44
29:19:147:LEU:HD23	29:19:155:LEU:HD11	1.99	0.44
29:19:176:ARG:HH11	29:19:176:ARG:HG2	1.83	0.44
1:1G:474:G:C2	1:1G:475:G:N7	2.86	0.44
1:1G:830:G:H2'	1:1G:831:U:O4'	2.17	0.44
1:1G:8:A:C6	4:32:209:ARG:HB2	2.52	0.44
26:1H:1069:A:H4'	26:1H:1070:A:H5"	1.99	0.44
26:1H:1374:G:C6	26:1H:1375:C:C4	3.06	0.44
26:1H:1485:G:C2	26:1H:1486:A:C4	3.06	0.44
26:1H:1600:C:H2'	26:1H:1601:G:C8	2.48	0.44
26:1H:749:C:O2	26:1H:1618:A:H2'	2.18	0.44
26:1H:2443:C:OP1	31:31:68:LYS:HD3	2.18	0.44
26:1H:2641:G:H1	26:1H:2773:C:H42	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.06	0.44
26:1H:318:C:H2'	26:1H:319:C:H6	1.83	0.44
26:1H:796:C:H2'	26:1H:797:C:H6	1.81	0.44
26:1H:987:G:P	59:1H:3939:HOH:O	2.76	0.44
27:1J:34:U:O4	27:1J:44:G:H2'	2.18	0.44
3:22:12:LEU:HD11	14:5A:51:GLY:HA2	2.00	0.44
30:29:11:MET:SD	30:29:24:THR:HG22	2.58	0.44
30:29:5:LEU:HD23	30:29:51:PHE:HB2	2.00	0.44
23:2K:53:G:C6	23:2K:54:G:N7	2.86	0.44
31:31:64:ILE:O	31:31:64:ILE:HD12	2.18	0.44
4:32:53:ASP:OD2	5:42:107:ARG:NH1	2.51	0.44
4:32:56:VAL:O	4:32:59:ARG:N	2.51	0.44
37:35:16:ARG:H	37:35:16:ARG:HG2	1.63	0.44
1:1G:363:A:C6	12:3A:31:PRO:HD2	2.52	0.44
5:4E:153:LYS:HD3	5:4E:154:GLY:H	1.82	0.44
13:4I:52:GLU:HA	13:4I:55:ARG:HB2	2.00	0.44
33:51:164:TYR:N	33:51:167:GLU:OE1	2.47	0.44
35:58:43:THR:HA	35:58:44:PRO:HD2	1.70	0.44
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.33	0.44
15:6I:6:GLU:H	15:6I:6:GLU:CD	2.22	0.44
8:72:38:ILE:HG12	8:72:41:ARG:NH1	2.32	0.44
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.32	0.44
37:78:24:GLY:C	37:78:26:GLY:N	2.70	0.44
9:8E:26:VAL:HG12	9:8E:61:ALA:HB3	2.00	0.44
17:8I:88:TYR:CD1	17:8I:89:LEU:HD23	2.53	0.44
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.15	0.44
19:AI:42:PRO:HG3	52:M8:63:TYR:HE2	1.83	0.44
20:BI:41:ILE:HD12	20:BI:42:GLN:H	1.83	0.44
47:D5:158:PRO:HB2	47:D5:159:PRO:CD	2.48	0.44
47:H8:128:VAL:HA	47:H8:161:VAL:HG11	2.00	0.44
52:I5:48:ARG:CZ	52:I5:51:ASP:HB3	2.47	0.44
55:M5:36:LYS:HB2	55:M5:36:LYS:HE3	1.68	0.44
29:11:97:TYR:CE1	29:11:103:ARG:HG3	2.53	0.43
2:12:136:VAL:O	2:12:139:LYS:HB3	2.17	0.43
2:12:80:ILE:O	2:12:80:ILE:HG13	2.17	0.43
1:13:1100:C:HO2'	1:13:1102:A:P	2.40	0.43
1:13:1117:G:O2'	9:8E:104:ARG:HG2	2.18	0.43
1:13:1157:A:H61	1:13:1178:G:H21	1.66	0.43
1:13:1290:G:C4	1:13:1291:G:C8	3.06	0.43
1:13:1350:A:C5	1:13:1351:U:C4	3.05	0.43
1:13:563:A:C8	1:13:567:G:O4'	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1104:C:H2'	26:14:1105:U:C5	2.53	0.43
26:14:1160:G:C6	26:14:1161:C:C4	3.06	0.43
26:14:1514:U:O2'	26:14:1515:C:H5'	2.18	0.43
26:14:1515:C:H2'	26:14:1516:U:C6	2.53	0.43
26:14:214:G:OP1	26:14:214:G:H4'	2.18	0.43
26:14:2176:A:H2'	26:14:2177:C:H6	1.83	0.43
26:14:2341:G:C6	26:14:2342:C:C4	3.06	0.43
26:14:2389:G:H5"	26:14:2390:U:C5'	2.47	0.43
26:14:2406:U:H2'	26:14:2406:U:H6	1.62	0.43
26:14:1129:A:N6	26:14:2491:U:OP1	2.46	0.43
26:14:270(E):G:C2	26:14:270(F):U:C2	3.06	0.43
26:14:425:G:H2'	26:14:426:C:H6	1.82	0.43
26:14:516:C:P	53:J5:13:LYS:HZ1	2.41	0.43
26:14:729:G:OP2	29:19:13:ARG:NH1	2.50	0.43
26:14:864:G:C6	26:14:865:C:N4	2.85	0.43
27:16:63:G:C6	27:16:64:C:C4	3.06	0.43
2:1E:146:GLN:OE1	2:1E:153:ARG:NH2	2.46	0.43
2:1E:87:ARG:HH11	2:1E:219:VAL:CG1	2.31	0.43
1:1G:1027:C:N4	1:1G:1033:G:O6	2.51	0.43
1:1G:1167:A:C6	1:1G:1169:A:C6	3.06	0.43
1:1G:1233:G:H2'	1:1G:1234:C:C6	2.53	0.43
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.49	0.43
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.40	0.43
1:1G:1348:U:C2	1:1G:1349:A:C8	3.07	0.43
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.53	0.43
1:1G:1494:G:C2	1:1G:1495:U:C6	3.06	0.43
1:1G:289:G:H1	1:1G:311:C:H42	1.66	0.43
1:1G:437:U:C5	1:1G:438:G:C5	3.06	0.43
1:1G:591:U:H2'	1:1G:592:G:H8	1.75	0.43
1:1G:631:G:H5"	1:1G:632:A:C8	2.53	0.43
1:1G:949:A:N1	1:1G:1233:G:C4	2.86	0.43
1:1G:965:A:C2	1:1G:969:A:C2	3.06	0.43
26:1H:1301:A:O2'	26:1H:1302:A:H3'	2.18	0.43
26:1H:1324:G:C4	26:1H:1328:G:O6	2.71	0.43
26:1H:1655:A:C8	26:1H:1656:C:C5	3.06	0.43
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.17	0.43
26:1H:1779:U:C6	26:1H:1783:A:N7	2.86	0.43
26:1H:2337:G:H2'	26:1H:2338:G:H8	1.83	0.43
26:1H:2582:G:N3	26:1H:2582:G:H2'	2.31	0.43
26:1H:259:G:C2	26:1H:260:G:C8	3.05	0.43
26:1H:479:A:HO2'	26:1H:481:G:H8	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:588:U:C2	26:1H:589:C:C5	3.05	0.43
26:1H:624:C:OP1	59:1H:4219:HOH:O	2.19	0.43
26:1H:880:G:O2'	26:1H:881:G:O5'	2.28	0.43
22:1K:1:C:HO2'	22:1K:2:G:H8	1.64	0.43
56:2L:19:G:C6	56:2L:59:A:C6	3.05	0.43
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.32	0.43
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.48	0.43
5:42:24:ARG:HB3	5:42:24:ARG:CZ	2.47	0.43
38:45:75:THR:HB	38:45:86:GLY:HA3	2.00	0.43
32:49:10:LYS:O	32:49:15:VAL:HG23	2.18	0.43
40:65:12:PHE:O	40:65:16:ASN:ND2	2.51	0.43
15:6A:18:PHE:CZ	15:6A:21:ASP:HB2	2.53	0.43
8:72:92:ARG:HB3	8:72:94:TYR:CE2	2.52	0.43
37:78:114:ILE:HD11	37:78:130:PHE:HD2	1.83	0.43
37:78:18:ARG:C	37:78:19:VAL:HG22	2.38	0.43
16:7I:36:ILE:H	16:7I:36:ILE:HG12	1.70	0.43
38:88:75:THR:HA	38:88:87:LYS:O	2.18	0.43
17:8A:82:MET:O	17:8A:86:GLU:HG3	2.17	0.43
17:8I:48:GLU:HG3	17:8I:48:GLU:H	1.57	0.43
17:8I:60:ILE:O	17:8I:62:SER:OG	2.36	0.43
43:95:43:GLU:O	43:95:45:THR:OG1	2.35	0.43
43:95:44:LYS:HG2	43:95:45:THR:HG23	2.00	0.43
43:95:48:GLY:HA3	43:95:52:VAL:N	2.33	0.43
43:95:5:VAL:HB	43:95:37:VAL:HG12	2.00	0.43
42:85:50:ARG:HH22	43:95:72:VAL:HG23	1.82	0.43
18:9I:52:PRO:C	18:9I:56:THR:HG23	2.39	0.43
40:A8:32:LEU:N	40:A8:32:LEU:HD23	2.33	0.43
45:B5:24:GLY:HA3	45:B5:82:GLN:NE2	2.33	0.43
41:B8:29:ARG:HG3	41:B8:46:GLU:HB2	1.99	0.43
41:B8:6:LEU:HA	41:B8:9:LEU:CB	2.41	0.43
41:B8:5:ALA:O	41:B8:9:LEU:HB2	2.18	0.43
47:D5:160:GLY:O	47:D5:162:GLU:HG3	2.18	0.43
47:H8:45:ASP:OD1	47:H8:49:ARG:HD2	2.18	0.43
53:J5:16:ARG:O	53:J5:20:ARG:HG3	2.18	0.43
51:L8:38:GLU:H	51:L8:38:GLU:CD	2.02	0.43
53:N8:50:GLY:N	53:N8:56:LYS:HG3	2.29	0.43
55:Q8:43:GLN:CD	55:Q8:43:GLN:N	2.71	0.43
55:Q8:8:LYS:N	55:Q8:8:LYS:HD2	2.33	0.43
29:11:132:PRO:HD3	29:11:190:TYR:CZ	2.52	0.43
1:13:1189:C:P	10:1I:51:ARG:HH22	2.41	0.43
1:13:1363:A:H1'	1:13:1365:G:N7	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:392:G:OP1	16:7I:13:HIS:N	2.44	0.43
1:13:598:U:H2'	1:13:599:C:H6	1.81	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.52	0.43
1:13:678:U:H2'	1:13:679:C:C6	2.53	0.43
1:13:774:G:OP1	29:11:202:LYS:NZ	2.51	0.43
1:13:991:U:O4	1:13:1212:U:O2'	2.18	0.43
26:14:1090:U:C5	26:14:1091:G:C4	3.06	0.43
26:14:1638:C:H1'	26:14:2698:U:O2'	2.19	0.43
26:14:1651:G:OP1	39:55:40:LYS:HE3	2.18	0.43
26:14:1717:G:N2	26:14:1742:C:N3	2.45	0.43
26:14:2536:G:C6	26:14:2537:U:C4	3.06	0.43
26:14:2784:C:H1'	30:29:37:ARG:NH2	2.32	0.43
26:14:1710:C:H4'	26:14:2858:C:O2	2.17	0.43
26:14:2882:A:OP1	39:55:96:ARG:NE	2.50	0.43
26:14:746:A:HO2'	26:14:2611:U:HO2'	1.65	0.43
29:19:182:LEU:H	29:19:272:ALA:CB	2.26	0.43
26:14:1568:G:O3'	29:19:59:LYS:HD3	2.18	0.43
2:1E:67:THR:HG21	2:1E:155:LEU:CD2	2.48	0.43
21:1F:6:ARG:HG3	21:1F:6:ARG:H	1.40	0.43
1:1G:1030:C:H2'	1:1G:1031:G:C4	2.53	0.43
1:1G:857:C:H2'	1:1G:858:G:O4'	2.18	0.43
1:1G:957:U:H1'	1:1G:960:U:H5	1.79	0.43
26:1H:2173:A:C8	26:1H:2174:C:C5	3.05	0.43
26:1H:2431:U:H3'	59:1H:3843:HOH:O	2.17	0.43
26:1H:2864:G:C6	26:1H:2865:U:C4	3.06	0.43
26:1H:720:C:H2'	26:1H:721:C:C6	2.53	0.43
27:1J:40:U:H3'	27:1J:41:U:H5'	1.99	0.43
3:22:11:ARG:O	3:22:14:ILE:O	2.36	0.43
3:2E:131:ARG:HD3	3:2E:166:GLU:OE2	2.18	0.43
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.68	0.43
56:2L:56:PSU:O4	56:2L:58:A:C8	2.71	0.43
56:2L:20:G:OP1	56:2L:61:U:N3	2.51	0.43
26:14:601:C:H5'	31:39:108:LYS:HZ1	1.83	0.43
32:41:36:LYS:O	32:41:160:VAL:HG23	2.18	0.43
38:45:64:ILE:HA	38:45:106:VAL:HG12	2.00	0.43
25:4L:15:A:O5'	25:4L:15:A:H8	2.01	0.43
26:14:1277:G:O2'	39:55:24:GLN:HG2	2.19	0.43
26:14:1279:G:H4'	39:55:31:HIS:CD2	2.53	0.43
33:59:6:ARG:HG2	33:59:65:HIS:ND1	2.33	0.43
34:61:9:LEU:HA	34:61:9:LEU:HD13	1.82	0.43
7:62:47:CYS:O	7:62:50:ILE:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:2:LYS:HE3	34:69:2:LYS:HB3	1.55	0.43
34:69:71:ILE:HG23	34:69:72:LEU:HG	2.00	0.43
28:71:59:ARG:HD2	28:71:164:ARG:NE	2.33	0.43
28:71:181:PRO:HB2	28:71:184:LYS:HE2	2.00	0.43
8:72:14:ARG:O	8:72:18:ARG:HB2	2.18	0.43
2:12:178:ARG:NH2	8:72:68:ARG:HH22	2.17	0.43
41:75:45:PHE:CE2	41:75:74:ARG:HB2	2.53	0.43
8:7E:35:ILE:HG22	8:7E:36:LEU:N	2.32	0.43
1:1G:1372:U:OP1	9:82:72:GLY:N	2.51	0.43
42:85:65:ILE:HG22	42:85:66:ASN:N	2.33	0.43
18:9A:56:THR:OG1	18:9A:57:GLY:N	2.51	0.43
45:B5:21:PHE:HZ	45:B5:92:LEU:HD22	1.83	0.43
44:E8:29:LEU:HD23	44:E8:69:LEU:HD11	2.00	0.43
46:G8:5:MET:HE1	46:G8:32:PRO:HA	2.00	0.43
53:J5:33:CYS:HG	53:J5:46:CYS:HG	1.61	0.43
26:14:2420:C:N4	55:M5:31:HIS:HB3	2.33	0.43
29:11:67:PHE:HB3	29:11:153:ALA:HB3	2.01	0.43
2:12:54:THR:O	2:12:58:ILE:HG12	2.18	0.43
1:13:1014:A:C2	19:AI:34:TRP:CE2	3.06	0.43
1:13:120:A:H3'	1:13:120:A:H8	1.83	0.43
1:13:1530:G:H8	1:13:1530:G:H5"	1.82	0.43
1:13:246:A:C6	1:13:279:A:C2	3.06	0.43
1:13:438:G:O2'	1:13:494:U:O4	2.33	0.43
1:13:52:G:H2'	1:13:53:A:C8	2.51	0.43
1:13:545:C:O2'	1:13:549:C:OP1	2.36	0.43
1:13:902:G:H2'	1:13:903:G:H8	1.82	0.43
1:13:95:G:H3'	1:13:96:G:H8	1.83	0.43
1:13:990:C:C2	1:13:991:U:C5	3.06	0.43
26:14:1171:G:H1	26:14:1178:C:H42	1.67	0.43
26:14:1259:G:C2	26:14:1260:G:C4	3.06	0.43
26:14:1313:U:H2'	26:14:1610:A:C2	2.54	0.43
26:14:1401:G:H2'	26:14:1402:C:H6	1.82	0.43
26:14:2161:C:H2'	26:14:2162:G:H5'	1.99	0.43
26:14:2184:G:C2	26:14:2185:C:C2	3.07	0.43
26:14:2459:A:C5	26:14:2460:U:C5	3.06	0.43
26:14:2517:C:HO2'	26:14:2519:U:H5	1.65	0.43
26:14:606:U:H4'	26:14:658:C:H4'	1.99	0.43
26:14:712:G:H8	26:14:712:G:O5'	2.01	0.43
26:14:795:C:H2'	26:14:796:C:C6	2.53	0.43
26:14:844:C:C5	26:14:845:G:C6	3.06	0.43
26:14:921:G:C6	26:14:922:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:31:C:H2'	27:16:32:C:C6	2.52	0.43
21:1B:2:GLY:O	21:1B:5:ASP:N	2.34	0.43
1:1G:1240:U:N3	7:62:32:ARG:HG3	2.33	0.43
1:1G:138:G:O6	1:1G:225:C:N4	2.42	0.43
1:1G:233:C:H2'	1:1G:234:C:C6	2.53	0.43
1:1G:848:C:H2'	1:1G:849:C:C6	2.52	0.43
1:1G:872:A:C2	1:1G:874:G:C8	3.06	0.43
1:1G:975:A:H4'	1:1G:976:G:H5"	2.00	0.43
26:1H:115:C:O2'	26:1H:116:C:H5'	2.18	0.43
26:1H:1228:G:C8	26:1H:1228:G:H5"	2.53	0.43
26:1H:1401:G:C5	26:1H:1402:C:C5	3.06	0.43
26:1H:155:C:N4	26:1H:171:G:H1	2.16	0.43
26:1H:2283:C:N3	26:1H:2389:G:C2	2.87	0.43
26:1H:2391:G:O6	26:1H:2425:A:H8	2.00	0.43
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.53	0.43
26:1H:2702:U:H6	26:1H:2702:U:OP1	2.01	0.43
26:1H:397:G:H1'	26:1H:2231:C:O2'	2.19	0.43
26:1H:620:G:H4'	26:1H:621:A:C5'	2.33	0.43
26:1H:654(J):A:H3'	26:1H:654(J):A:N3	2.33	0.43
22:1K:42:C:H2'	22:1K:43:G:C8	2.53	0.43
11:2A:73:MET:HA	11:2A:77:MET:H	1.84	0.43
3:2E:67:THR:HG22	3:2E:69:HIS:CE1	2.53	0.43
56:2L:4:G:H1	56:2L:70:C:H42	1.65	0.43
31:31:23:ASP:CG	31:31:24:LEU:H	2.22	0.43
24:3K:8:4SU:H2'	24:3K:8:4SU:H6	1.81	0.43
32:49:8:LYS:O	32:49:12:TYR:HD1	2.00	0.43
13:4A:79:LYS:HD3	13:4A:82:MET:SD	2.59	0.43
13:4I:3:ARG:HH12	13:4I:7:VAL:HG22	1.83	0.43
33:51:94:TYR:CD1	33:51:94:TYR:N	2.86	0.43
14:5I:58:LYS:HB2	14:5I:58:LYS:HE3	1.73	0.43
34:61:79:ILE:HA	34:61:80:PRO:HD2	1.89	0.43
34:69:117:GLU:CD	34:69:117:GLU:H	2.19	0.43
8:72:89:PRO:HA	8:72:92:ARG:NE	2.34	0.43
41:75:42:ILE:HA	41:75:42:ILE:HD12	1.87	0.43
26:1H:662:G:H1'	37:78:14:LYS:HD3	1.99	0.43
42:85:25:TRP:CD1	42:85:25:TRP:C	2.91	0.43
9:8E:89:ASN:C	9:8E:91:ASP:H	2.21	0.43
39:98:21:TYR:N	39:98:21:TYR:CD1	2.86	0.43
40:A8:99:LYS:O	40:A8:103:GLU:HG2	2.17	0.43
51:H5:4:LEU:O	51:H5:37:LEU:N	2.35	0.43
50:K8:42:GLY:C	50:K8:44:LEU:N	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:89:SER:HB2	29:11:159:ALA:H	1.84	0.43
29:11:206:LEU:O	29:11:211:ARG:HD3	2.19	0.43
2:12:197:VAL:HB	2:12:200:ILE:HG23	1.99	0.43
1:13:1086:U:H2'	1:13:1087:G:O4'	2.19	0.43
1:13:250:A:H4'	1:13:251:G:C5'	2.48	0.43
1:13:280:C:H4'	1:13:281:G:OP2	2.18	0.43
1:13:398:C:H2'	1:13:399:G:C8	2.53	0.43
1:13:425:G:C6	1:13:426:G:C5	3.06	0.43
1:13:580:U:H2'	1:13:581:G:O4'	2.17	0.43
1:13:587:G:C2	1:13:755:G:C5	3.06	0.43
1:13:639:G:N3	1:13:640:A:C8	2.87	0.43
1:13:643:C:H2'	1:13:644:G:C8	2.52	0.43
1:13:922:G:C2	1:13:923:A:C4	3.06	0.43
1:13:965:A:C2	1:13:969:A:C2	3.06	0.43
26:14:1200:C:P	59:14:3730:HOH:O	2.75	0.43
26:14:1221:C:H2'	26:14:1222:C:C6	2.53	0.43
26:14:1344:G:O2'	26:14:1385:G:H2'	2.19	0.43
26:14:1580:A:H2'	26:14:1581:G:O4'	2.18	0.43
26:14:17:G:H2'	26:14:18:C:C6	2.53	0.43
26:14:1952:A:N6	26:14:1953:A:N1	2.66	0.43
26:14:208:C:H2'	26:14:209:C:H6	1.83	0.43
26:14:2228:G:C5	26:14:2229:C:C4	3.06	0.43
26:14:2588:G:P	59:14:3486:HOH:O	2.76	0.43
26:14:1786:A:C2	26:14:2606:C:H1'	2.52	0.43
26:14:300:A:H2'	26:14:334:C:O2'	2.18	0.43
26:14:439:G:N2	26:14:440:G:N3	2.66	0.43
26:14:518:G:N3	26:14:518:G:H2'	2.33	0.43
26:14:533:G:N3	42:85:45:TYR:CE2	2.87	0.43
26:14:564:C:H5"	43:95:75:PHE:HZ	1.84	0.43
29:19:176:ARG:HA	29:19:182:LEU:HD22	2.00	0.43
1:1G:1149:C:H2'	1:1G:1150:U:C6	2.53	0.43
1:1G:1158:C:N3	1:1G:1160:G:C8	2.86	0.43
1:1G:1320:C:C4	1:1G:1321:C:N3	2.87	0.43
1:1G:1345:U:OP1	1:1G:1345:U:H3'	2.19	0.43
1:1G:1449:C:H3'	1:1G:1450:U:H4'	2.00	0.43
1:1G:165:C:H2'	1:1G:166:G:H8	1.82	0.43
1:1G:797:C:OP1	11:2A:124:LYS:NZ	2.36	0.43
1:1G:975:A:H5"	1:1G:1363:A:N6	2.33	0.43
26:1H:1009:A:OP2	59:1H:4112:HOH:O	2.21	0.43
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.43
26:1H:2310:A:N6	32:41:79:ASN:HB2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2583:G:C2'	26:1H:2584:U:H5'	2.48	0.43
26:1H:300:A:H2'	26:1H:334:C:O2'	2.19	0.43
26:1H:38:A:H2'	26:1H:39:C:C6	2.53	0.43
26:1H:414:C:H2'	26:1H:415:A:C8	2.53	0.43
26:1H:528:A:N1	26:1H:2042:A:H2'	2.34	0.43
26:1H:890:A:OP1	26:1H:890:A:H4'	2.18	0.43
26:1H:996:A:C2	26:1H:997:G:C8	3.07	0.43
27:1J:56:G:H4'	27:1J:57:A:H8	1.81	0.43
22:1K:14:A:C5	22:1K:23:G:C2	3.06	0.43
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.19	0.43
3:22:22:TRP:CH2	3:22:32:LEU:HB3	2.53	0.43
36:25:59:LYS:C	36:25:87:ILE:HG22	2.39	0.43
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.17	0.43
31:31:125:LEU:HD21	31:31:199:TRP:HB2	2.00	0.43
31:39:52:LYS:O	31:39:88:VAL:HG13	2.19	0.43
4:3E:4:TYR:O	4:3E:5:ILE:HG13	2.18	0.43
24:3K:25:C:N4	24:3K:26:A:C8	2.87	0.43
24:3K:38:A:H2'	24:3K:39:PSU:O4'	2.17	0.43
5:42:34:VAL:HB	5:42:62:ALA:HB1	1.99	0.43
13:4I:15:VAL:HA	13:4I:45:VAL:HG12	2.00	0.43
33:51:4:ILE:HG21	33:51:6:ARG:HD3	2.00	0.43
35:58:120:LEU:HD21	35:58:122:VAL:HG23	2.01	0.43
33:59:27:LYS:HD2	33:59:32:GLU:CG	2.49	0.43
7:62:107:ALA:CB	7:62:134:ALA:HB2	2.48	0.43
36:68:66:LYS:NZ	36:68:80:ASP:O	2.51	0.43
36:68:64:ARG:O	36:68:82:ASN:HA	2.18	0.43
15:6A:43:LEU:HA	15:6A:43:LEU:HD23	1.66	0.43
28:71:10:LEU:HD13	28:71:13:LYS:CE	2.49	0.43
37:78:6:LEU:O	37:78:7:ARG:HG2	2.18	0.43
8:7E:19:VAL:HB	8:7E:21:LYS:HD3	2.00	0.43
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.84	0.43
42:85:82:GLY:HA3	42:85:113:ALA:HB1	2.00	0.43
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	2.00	0.43
18:9I:26:LEU:HD13	18:9I:42:ARG:NH2	2.33	0.43
19:AA:41:VAL:H	19:AA:44:MET:HB2	1.83	0.43
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	2.00	0.43
20:BA:72:LEU:HG	20:BA:73:HIS:H	1.82	0.43
46:C5:8:LYS:HB2	46:C5:11:ASP:OD2	2.18	0.43
46:C5:90:LEU:HA	46:C5:91:GLU:HA	1.73	0.43
43:D8:67:GLY:O	43:D8:88:ARG:HG2	2.18	0.43
47:H8:129:SER:H	47:H8:161:VAL:HG11	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:I5:6:HIS:HA	52:I5:7:PRO:HD3	1.91	0.43
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.51	0.43
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.39	0.43
1:13:178:C:C4	1:13:179:A:N7	2.87	0.43
1:13:774:G:H2'	1:13:775:G:C8	2.51	0.43
26:14:1328:G:H2'	26:14:1330:C:C5	2.53	0.43
26:14:2275:C:H5'	26:14:2275:C:C6	2.52	0.43
26:14:244:A:C2	26:14:255:A:C4	3.07	0.43
1:1G:1443:G:N2	26:14:2864:G:OP1	2.50	0.43
26:14:768:G:C4	26:14:769:G:C8	3.06	0.43
27:16:29:A:H2'	27:16:30:C:O4'	2.18	0.43
29:19:158:ALA:HB3	29:19:161:THR:HG21	2.00	0.43
10:1A:81:THR:O	10:1A:85:LEU:HG	2.18	0.43
1:1G:1072:G:H2'	1:1G:1073:U:C6	2.53	0.43
1:1G:1167:A:H2'	1:1G:1169:A:O4'	2.18	0.43
1:1G:1276:G:C6	1:1G:1277:C:C4	3.07	0.43
1:1G:1386:G:H2'	1:1G:1387:G:C8	2.53	0.43
1:1G:195:A:N7	1:1G:196:A:C6	2.86	0.43
1:1G:257:G:H2'	1:1G:258:G:O4'	2.19	0.43
1:1G:397:A:O2'	1:1G:398:C:H5"	2.18	0.43
1:1G:637:G:C2	1:1G:638:G:C4	3.07	0.43
1:1G:977:A:HO2'	1:1G:981:U:H3	1.62	0.43
26:1H:1203:G:C3'	26:1H:1204:A:H5"	2.42	0.43
26:1H:1204:A:C2	26:1H:1241:A:N1	2.87	0.43
26:1H:2228:G:C5	26:1H:2229:C:C4	3.06	0.43
26:1H:425:G:N2	26:1H:426:C:C2	2.87	0.43
26:1H:696:G:O2'	26:1H:697:C:H5'	2.17	0.43
27:1J:58:A:N7	27:1J:59:A:C5	2.87	0.43
31:31:120:GLU:HB3	31:31:122:LYS:HG2	2.00	0.43
31:31:32:LEU:O	31:31:32:LEU:HD13	2.18	0.43
37:35:38:GLN:O	37:35:38:GLN:HG2	2.18	0.43
31:39:70:THR:OG1	31:39:71:GLY:N	2.51	0.43
1:13:553:A:H5"	12:3I:24:VAL:HG21	2.00	0.43
24:3K:2:C:N3	24:3K:3:C:N4	2.67	0.43
24:3L:10:G:N2	24:3L:26:A:H1'	2.32	0.43
24:3L:5:G:H2'	24:3L:6:G:C8	2.53	0.43
32:49:105:LYS:NZ	52:I5:26:SER:HA	2.34	0.43
32:49:145:THR:O	32:49:146:TYR:HB3	2.18	0.43
13:4A:108:ARG:HD3	13:4A:114:ARG:HG2	2.01	0.43
35:58:133:GLN:HG2	35:58:134:ARG:N	2.29	0.43
35:58:15:LEU:HD12	35:58:136:GLU:HG2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:136:ILE:HD12	33:59:137:ASP:HB2	2.01	0.43
6:5E:25:ILE:HD13	6:5E:25:ILE:HA	1.81	0.43
34:61:104:GLN:HG2	34:61:105:HIS:CD2	2.54	0.43
34:61:79:ILE:HD13	34:61:79:ILE:HA	1.64	0.43
7:62:50:ILE:HA	7:62:50:ILE:HD13	1.80	0.43
34:69:97:ILE:O	34:69:100:ALA:HB3	2.17	0.43
15:6I:82:ILE:O	15:6I:85:LEU:N	2.52	0.43
9:82:23:ASN:ND2	9:82:60:ASP:OD1	2.50	0.43
9:82:38:GLN:O	9:82:38:GLN:NE2	2.51	0.43
42:85:30:LYS:N	42:85:30:LYS:HD3	2.33	0.43
42:85:8:VAL:HG11	42:85:12:ARG:NH2	2.33	0.43
18:9A:25:THR:HB	18:9A:26:LEU:HD13	2.01	0.43
19:AI:28:LYS:HB3	19:AI:47:HIS:HE1	1.83	0.43
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.18	0.43
48:E5:72:ARG:CB	48:E5:75:LEU:HB2	2.42	0.43
47:H8:28:MET:O	47:H8:34:ASN:HA	2.18	0.43
47:H8:23:LYS:HD3	47:H8:40:ASP:HA	2.01	0.43
37:35:68:GLN:HE21	55:M5:12:LYS:HG2	1.84	0.43
29:11:118:VAL:HG22	29:11:119:ALA:N	2.34	0.43
29:11:217:ARG:H	29:11:217:ARG:HG2	1.67	0.43
1:13:120:A:H3'	1:13:120:A:C8	2.54	0.43
1:13:1265:G:H2'	1:13:1266:G:O4'	2.19	0.43
1:13:1468:A:H8	1:13:1468:A:O5'	2.02	0.43
1:13:146:G:C2	1:13:147:G:C5	3.07	0.43
1:13:1507:A:O3'	59:13:1803:HOH:O	2.21	0.43
1:13:1525:G:P	11:2I:120:ARG:HH22	2.41	0.43
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.52	0.43
1:13:741:G:H2'	1:13:742:G:O4'	2.18	0.43
1:13:983:A:N3	1:13:983:A:H3'	2.34	0.43
26:14:1022:G:C6	26:14:1140:C:C4	3.07	0.43
26:14:1422:G:C1'	26:14:1495:A:H61	2.31	0.43
26:14:1576:U:C2	26:14:1577:C:C5	3.07	0.43
26:14:1788:C:H2'	26:14:1789:A:C8	2.53	0.43
26:14:2002:G:C6	59:14:3793:HOH:O	2.70	0.43
26:14:2460:U:H2'	26:14:2461:C:H6	1.82	0.43
26:14:2511:U:H2'	26:14:2512:C:C6	2.54	0.43
26:14:2516:G:C6	26:14:2517:C:C4	3.06	0.43
26:14:2535:G:N3	26:14:2536:G:C8	2.87	0.43
26:14:264:C:O2'	26:14:265:A:H2'	2.19	0.43
26:14:270(D):C:O2	26:14:270(V):G:N2	2.44	0.43
26:14:2749:A:OP2	26:14:2750:A:H5"	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2808:U:O2'	26:14:2809:A:H5'	2.18	0.43
26:14:455:C:N3	26:14:473:G:H5'	2.33	0.43
26:14:882:G:H2'	26:14:883:G:C8	2.47	0.43
26:14:1500:G:O2'	29:19:100:GLY:O	2.33	0.43
3:22:59:ARG:O	10:1A:93:GLY:HA3	2.18	0.43
2:1E:111:ARG:CG	2:1E:111:ARG:HH11	2.23	0.43
1:1G:429:U:OP1	4:32:13:ARG:NH2	2.41	0.43
1:1G:552:U:H4'	12:3A:86:ARG:HG2	2.01	0.43
1:1G:617:G:C2	1:1G:618:C:C4	3.05	0.43
26:1H:1149:G:H2'	26:1H:1150:C:C6	2.54	0.43
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.18	0.43
26:1H:1950:G:N2	59:1H:3954:HOH:O	2.51	0.43
26:1H:2167:U:O2'	26:1H:2168:G:H4'	2.17	0.43
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.18	0.43
26:1H:2358:G:C5	26:1H:2359:C:C5	3.06	0.43
26:1H:2422:A:C5	26:1H:2424:C:C4	3.07	0.43
26:1H:274:G:C8	26:1H:274:G:H3'	2.53	0.43
26:1H:2793:G:H2'	26:1H:2794:C:C6	2.53	0.43
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.52	0.43
26:1H:378:C:H2'	26:1H:379:G:H5'	2.00	0.43
26:1H:630:G:H4'	26:1H:640:C:H4'	2.01	0.43
26:1H:959:A:C6	26:1H:960:A:N1	2.87	0.43
10:1I:63:PHE:HB3	14:5I:57:ARG:O	2.18	0.43
22:1K:53:G:O2'	22:1K:54:G:H5'	2.19	0.43
3:2E:85:ARG:NH2	3:2E:88:ARG:HD2	2.33	0.43
31:31:201:VAL:O	31:31:205:ARG:N	2.46	0.43
4:32:15:GLU:HG2	4:32:59:ARG:HH21	1.83	0.43
4:32:18:LYS:NZ	4:32:31:CYS:SG	2.79	0.43
37:35:13:ASN:O	37:35:15:ARG:N	2.52	0.43
24:3L:27:G:N1	24:3L:28:G:O6	2.51	0.43
38:45:25:ASP:OD2	38:45:102:VAL:N	2.51	0.43
38:45:29:PHE:HB3	38:45:30:GLY:H	1.55	0.43
5:4E:73:ASN:ND2	5:4E:73:ASN:O	2.37	0.43
33:51:26:VAL:HG21	33:51:75:ALA:HB1	2.00	0.43
40:65:48:LEU:HA	40:65:48:LEU:HD13	1.66	0.43
8:72:64:LYS:O	8:72:79:VAL:HB	2.19	0.43
41:75:91:ARG:HG3	41:75:121:ILE:HG12	1.99	0.43
8:7E:107:LEU:HD23	8:7E:107:LEU:HA	1.77	0.43
1:13:128:G:H4'	17:8I:3:LYS:HG2	2.01	0.43
17:8I:55:ASP:HA	17:8I:79:SER:HA	2.00	0.43
43:95:20:LEU:C	43:95:93:GLU:HG3	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:4:LEU:HA	39:98:4:LEU:HD13	1.58	0.43
26:14:2010:G:H5"	44:A5:42:ARG:HB2	2.01	0.43
19:AA:7:LYS:HE2	19:AA:10:PHE:HE2	1.82	0.43
19:AA:66:MET:HE2	19:AA:67:VAL:O	2.18	0.43
41:B8:95:ARG:HD2	41:B8:95:ARG:HA	1.87	0.43
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.18	0.43
42:C8:105:VAL:HG22	43:D8:45:THR:HG21	2.00	0.43
43:D8:6:LYS:HG3	43:D8:6:LYS:O	2.18	0.43
44:E8:74:ALA:HA	44:E8:104:THR:O	2.18	0.43
44:E8:9:TYR:H	44:E8:102:HIS:HD2	1.64	0.43
46:G8:79:CYS:HB2	46:G8:80:GLY:H	1.69	0.43
48:I8:49:LYS:HE3	48:I8:82:ARG:NH1	2.33	0.43
29:11:206:LEU:HA	29:11:211:ARG:HD3	1.99	0.43
1:13:1120:G:C2	1:13:1154:G:C2	3.06	0.43
1:13:1391:U:H2'	1:13:1392:G:C8	2.53	0.43
1:13:1399:C:C2	1:13:1401:G:C5	3.07	0.43
1:13:150:C:C2	1:13:151:A:C8	3.07	0.43
1:13:346:G:H3'	1:13:346:G:N3	2.34	0.43
1:13:501:C:O4'	1:13:548:G:N2	2.52	0.43
1:13:6:G:N2	5:4E:98:THR:HG23	2.33	0.43
26:14:1057:A:H2'	26:14:1058:U:O4'	2.18	0.43
26:14:1165:U:H2'	26:14:1166:C:C6	2.54	0.43
26:14:1461:G:H2'	26:14:1462:C:C6	2.53	0.43
26:14:1795:C:H2'	26:14:1796:U:C6	2.53	0.43
26:14:2116:G:H2'	26:14:2117:A:C5	2.54	0.43
26:14:2165:G:C2'	26:14:2166:G:H5'	2.49	0.43
26:14:2599:G:C2	26:14:2600:A:C4	3.07	0.43
26:14:270(X):G:C6	26:14:270(Y):G:N1	2.87	0.43
26:14:307:G:N2	26:14:310:A:OP2	2.50	0.43
26:14:65:C:H2'	26:14:66:C:H6	1.84	0.43
26:14:68:G:C2	26:14:69:C:C2	3.06	0.43
26:14:691:C:H2'	26:14:692:C:C6	2.54	0.43
26:14:950:G:C2	26:14:968:G:C2	3.07	0.43
26:14:974(A):C:H2'	26:14:974(A):C:O2	2.19	0.43
26:14:995:C:C5	42:85:57:PHE:CZ	3.07	0.43
35:15:120:LEU:HA	35:15:120:LEU:HD12	1.72	0.43
27:16:99:A:C6	27:16:100:G:C5	3.07	0.43
29:19:143:HIS:HD2	29:19:194:GLY:C	2.21	0.43
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.18	0.43
1:1G:1000:A:N6	1:1G:1041:A:H61	2.16	0.43
1:1G:262:A:N6	1:1G:263:A:N6	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.19	0.43
1:1G:616:G:H2'	1:1G:616:G:N3	2.33	0.43
1:1G:674:G:H2'	1:1G:675:A:C8	2.53	0.43
26:1H:10:G:N3	26:1H:2801:A:H1'	2.34	0.43
26:1H:1154:G:H8	26:1H:1154:G:O5'	2.01	0.43
26:1H:1776:G:H2'	26:1H:1776:G:N3	2.33	0.43
26:1H:213:A:H5"	26:1H:214:G:OP2	2.18	0.43
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.41	0.43
26:1H:346:A:C2	26:1H:347:A:H1'	2.54	0.43
26:1H:901:A:C5	26:1H:902:C:C5	3.06	0.43
30:21:21:VAL:HA	30:21:22:PRO:HD3	1.62	0.43
3:22:120:VAL:HG11	3:22:198:VAL:HG11	2.01	0.43
3:22:159:GLY:HA2	3:22:193:TYR:CD2	2.53	0.43
3:22:21:ARG:O	3:22:58:GLU:HA	2.19	0.43
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.19	0.43
56:2L:62:C:H2'	56:2L:63:C:H6	1.83	0.43
37:35:36:LYS:HB3	37:35:37:GLY:H	1.44	0.43
37:35:85:LEU:HB3	37:35:114:ILE:HD11	2.01	0.43
31:39:10:PRO:HD2	31:39:13:SER:OG	2.18	0.43
31:39:41:LEU:O	31:39:44:ARG:HG2	2.18	0.43
12:3A:84:LEU:HB3	12:3A:101:VAL:HB	2.00	0.43
4:3E:99:SER:HB3	4:3E:139:ARG:HG2	2.01	0.43
24:3L:13:C:H2'	24:3L:14:A:C8	2.36	0.43
32:41:46:ALA:HB2	32:41:52:ILE:HG22	2.00	0.43
32:41:76:SER:OG	32:41:84:LYS:N	2.52	0.43
26:14:1030:G:OP2	38:45:128:LYS:HE2	2.19	0.43
32:49:18:GLU:HG2	32:49:175:LEU:HD13	2.01	0.43
5:4E:90:VAL:HG12	5:4E:121:LYS:O	2.18	0.43
13:4I:36:LYS:HB3	13:4I:59:TYR:CE2	2.53	0.43
26:14:2745:C:H4'	33:59:142:GLY:O	2.18	0.43
33:59:7:LEU:H	33:59:7:LEU:HG	1.61	0.43
34:61:138:ILE:HG12	34:61:139:GLN:N	2.34	0.43
8:72:26:VAL:HA	8:72:27:PRO:HD3	1.88	0.43
42:85:74:LEU:HB2	42:85:78:THR:OG1	2.18	0.43
17:8I:54:GLY:HA2	17:8I:81:ARG:O	2.19	0.43
44:A5:87:PRO:HA	44:A5:93:ALA:HB2	2.01	0.43
19:AI:30:LEU:H	19:AI:30:LEU:HD22	1.83	0.43
1:13:177:C:P	20:BI:65:LYS:NZ	2.91	0.43
42:C8:47:TYR:C	42:C8:47:TYR:HD1	2.22	0.43
47:D5:102:LEU:HB2	47:D5:104:PHE:HE1	1.83	0.43
47:D5:30:ASN:HD22	47:D5:90:VAL:HB	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:5:LEU:HD23	47:D5:6:LYS:N	2.33	0.43
43:D8:43:GLU:HA	43:D8:44:LYS:HA	1.72	0.43
46:G8:4:LYS:HE2	46:G8:4:LYS:HB3	1.81	0.43
49:J8:58:ILE:HG23	49:J8:87:PRO:HG3	2.01	0.43
53:N8:25:LEU:HD12	53:N8:25:LEU:H	1.84	0.43
2:12:24:TRP:CD1	2:12:24:TRP:N	2.85	0.43
1:13:1129:C:C5	1:13:1132:C:N4	2.87	0.43
1:13:1169:A:C6	1:13:1170:A:N1	2.86	0.43
1:13:406:G:H2'	1:13:407:G:C8	2.53	0.43
1:13:739:C:C4	1:13:740:U:C5	3.07	0.43
26:14:1280:G:C6	26:14:1281:G:C5	3.06	0.43
26:14:1904:G:H2'	26:14:1905:C:O4'	2.19	0.43
26:14:1678:G:H22	26:14:1989:G:H22	1.65	0.43
26:14:199:A:N3	26:14:2433:A:C2	2.87	0.43
26:14:2090:G:C6	26:14:2091:U:C4	3.06	0.43
26:14:2341:G:C6	26:14:2342:C:N4	2.87	0.43
26:14:972:G:H2'	26:14:973:A:C8	2.54	0.43
35:15:67:LEU:HG	35:15:88:GLU:HG2	2.00	0.43
27:16:44:G:N1	27:16:48:A:C2	2.87	0.43
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.19	0.43
1:1G:1071:C:H2'	1:1G:1072:G:C8	2.54	0.43
1:1G:310:G:P	16:7A:27:LYS:HD3	2.59	0.43
1:1G:476:G:O2'	1:1G:477:G:H5'	2.17	0.43
1:1G:15:G:H1	1:1G:920:U:H3	1.67	0.43
26:1H:1024:G:C3'	26:1H:1025:G:H5"	2.49	0.43
26:1H:1153:C:OP1	42:C8:76:TYR:OH	2.32	0.43
26:1H:139:G:N2	26:1H:141:A:N1	2.66	0.43
26:1H:1567:A:OP1	29:11:60:ARG:NE	2.43	0.43
26:1H:1716:U:H2'	26:1H:1716:U:O2	2.17	0.43
26:1H:1728:G:C6	26:1H:1730:U:OP2	2.71	0.43
26:1H:2187:G:H2'	26:1H:2188:C:O4'	2.19	0.43
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.18	0.43
26:1H:33:U:C4'	26:1H:34:C:OP1	2.64	0.43
26:1H:419:C:H2'	26:1H:420:C:O4'	2.18	0.43
26:1H:608:A:C4	26:1H:621:A:C6	3.06	0.43
26:14:1027:A:H5"	27:1J:88:C:H41	1.83	0.43
27:1J:86:G:N1	27:1J:90:C:N3	2.37	0.43
30:21:166:THR:CG2	30:21:199:ARG:HH22	2.32	0.43
3:22:76:VAL:HG21	3:22:103:VAL:HG11	2.00	0.43
3:2E:27:LYS:O	3:2E:31:HIS:HE1	2.02	0.43
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:9:ILE:HD11	31:31:125:LEU:H	1.84	0.43
12:3A:102:ARG:HA	12:3A:102:ARG:HD2	1.88	0.43
12:3A:10:LEU:HD11	12:3A:15:ARG:HE	1.83	0.43
12:3A:98:TYR:N	12:3A:98:TYR:CD1	2.86	0.43
4:3E:3:ARG:H	4:3E:3:ARG:HD3	1.83	0.43
24:3L:34:G:N2	24:3L:35:A:N9	2.67	0.43
24:3L:53:G:H1'	24:3L:62:C:O2	2.18	0.43
25:4K:23:A:H3'	25:4K:24:A:C8	2.53	0.43
10:1A:63:PHE:HD1	14:5A:57:ARG:O	2.02	0.43
36:68:2:ILE:HG23	36:68:8:LEU:HD21	2.01	0.43
36:68:70:LYS:HB3	36:68:70:LYS:HE3	1.67	0.43
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.18	0.43
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.46	0.43
42:85:61:TRP:O	42:85:65:ILE:HD12	2.19	0.43
42:85:66:ASN:O	42:85:70:ARG:HB2	2.18	0.43
9:8E:24:GLY:HA2	9:8E:59:PHE:O	2.19	0.43
43:95:35:LEU:O	43:95:37:VAL:HG13	2.19	0.43
39:98:65:LEU:HA	39:98:65:LEU:HD12	1.73	0.43
18:9I:37:VAL:HG12	18:9I:41:LYS:HE3	2.01	0.43
18:9I:59:SER:HB3	18:9I:62:GLU:CG	2.48	0.43
40:A8:110:LEU:CD1	40:A8:111:GLU:H	2.32	0.43
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.31	0.43
20:BA:26:ASN:HB2	20:BA:71:THR:HG23	2.00	0.43
42:C8:97:ASP:O	42:C8:101:ARG:HB2	2.18	0.43
46:G8:97:ARG:HD2	46:G8:97:ARG:N	2.34	0.43
54:L5:27:GLY:HA2	54:L5:30:VAL:HG23	1.99	0.43
55:Q8:21:LYS:HA	55:Q8:21:LYS:HD2	1.69	0.43
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.83	0.43
29:11:222:ARG:HB2	29:11:222:ARG:HE	1.60	0.43
29:11:75:ILE:HG22	29:11:76:PRO:O	2.19	0.43
2:12:118:LEU:HD23	2:12:118:LEU:HA	1.82	0.43
1:13:1144:G:N2	1:13:1145:C:O2	2.52	0.43
1:13:1386:G:C2	1:13:1387:G:C8	3.07	0.43
1:13:1416:G:C5	1:13:1417:G:C5	3.06	0.43
1:13:1497:G:H2'	1:13:1498:U:H5'	2.00	0.43
1:13:186(C):G:H2'	1:13:186(D):C:O4'	2.18	0.43
1:13:411:A:N7	1:13:413:G:C4	2.86	0.43
1:13:684:A:N3	11:2I:39:PRO:HD2	2.34	0.43
1:13:947:G:H2'	1:13:948:C:O4'	2.19	0.43
1:13:953:G:H5'	1:13:965:A:H61	1.84	0.43
1:1G:784:C:H4'	26:14:1837:C:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2191:G:O2'	26:14:2192:G:OP1	2.30	0.43
26:14:2303:G:H2'	26:14:2304:G:H5'	2.00	0.43
26:14:2336:A:H3'	26:14:2337:G:H8	1.84	0.43
26:14:2358:G:C4	26:14:2359:C:C6	3.07	0.43
26:14:2403:C:N3	26:14:2415:G:C2	2.87	0.43
26:14:2537:U:H2'	26:14:2538:C:H6	1.83	0.43
26:14:2674:G:H2'	26:14:2675:A:H8	1.80	0.43
26:14:1662:C:O2'	26:14:2687:U:OP1	2.36	0.43
26:14:2745:C:O2'	33:59:142:GLY:HA3	2.19	0.43
26:14:264:C:H4'	26:14:428:A:C2	2.54	0.43
26:14:526:A:P	59:14:3937:HOH:O	2.75	0.43
26:14:807:U:H2'	26:14:808:G:C8	2.50	0.43
26:14:872:A:C6	26:14:906:G:C2	3.07	0.43
26:14:990:A:H5'	26:14:990:A:H8	1.83	0.43
27:16:31:C:H2'	27:16:32:C:H6	1.84	0.43
1:1G:1243:C:O2	1:1G:1295:G:C2	2.72	0.43
1:1G:1376:U:C2	1:1G:1377:A:N7	2.87	0.43
1:1G:139:G:H2'	1:1G:140:A:H8	1.84	0.43
1:1G:262:A:H2'	1:1G:263:A:C8	2.53	0.43
1:1G:284:G:H2'	1:1G:285:G:C8	2.53	0.43
1:1G:428:G:C8	1:1G:430:A:C4	3.07	0.43
26:1H:1024:G:C6	26:1H:1025:G:C6	3.07	0.43
26:1H:1265:A:H8	26:1H:1265:A:OP1	2.02	0.43
26:1H:1287:A:C5	26:1H:1288:U:C4	3.06	0.43
26:1H:1371:G:H2'	26:1H:1372:U:H5	1.84	0.43
26:1H:1678:G:C8	26:1H:1678:G:OP2	2.72	0.43
26:1H:2502:G:OP2	59:1H:3529:HOH:O	2.21	0.43
26:1H:273:G:H1	26:1H:364:C:H42	1.66	0.43
26:1H:49:A:H4'	26:1H:50:U:H5"	2.00	0.43
11:2A:106:LYS:O	18:9A:87:ARG:NH2	2.51	0.43
11:2I:41:THR:HG22	11:2I:42:TRP:N	2.33	0.43
11:2I:91:ARG:HG2	11:2I:92:GLU:N	2.32	0.43
23:2K:14:A:C4	23:2K:23:G:C2	3.07	0.43
31:31:63:LYS:HE2	31:31:67:GLN:CB	2.46	0.43
12:3A:7:ILE:HA	12:3A:7:ILE:HD13	1.74	0.43
1:13:403:C:H4'	4:3E:122:ARG:HH11	1.83	0.43
24:3K:55:PSU:H5"	24:3K:56:C:OP2	2.18	0.43
24:3L:26:A:H2'	24:3L:27:G:H5'	2.00	0.43
32:41:97:ASP:O	32:41:99:MET:N	2.52	0.43
13:4I:107:ALA:HB3	13:4I:111:LYS:HB2	1.99	0.43
33:51:64:LEU:O	33:51:68:THR:OG1	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:63:ARG:HA	39:55:80:PHE:CZ	2.53	0.43
33:59:152:ARG:HD2	33:59:153:LYS:HG3	2.00	0.43
26:14:2531:A:H5'	33:59:157:TYR:CZ	2.54	0.43
28:71:225:ASN:HA	28:71:226:PRO:HD3	1.69	0.43
37:78:24:GLY:C	37:78:26:GLY:H	2.23	0.43
17:8A:99:SER:OG	17:8A:100:LYS:N	2.51	0.43
19:AI:41:VAL:HB	19:AI:42:PRO:HA	2.01	0.43
41:B8:125:ARG:O	41:B8:129:ARG:N	2.31	0.43
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.47	0.43
20:BI:37:SER:O	20:BI:41:ILE:HG13	2.19	0.43
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.19	0.43
47:D5:91:LEU:HD13	47:D5:130:PRO:HG3	2.01	0.43
45:F8:49:VAL:HG23	45:F8:50:LYS:N	2.34	0.43
55:Q8:21:LYS:C	55:Q8:21:LYS:NZ	2.72	0.43
55:Q8:6:THR:N	55:Q8:59:LYS:HZ2	2.14	0.43
29:11:94:LEU:HD23	29:11:94:LEU:HA	1.65	0.43
2:12:124:SER:C	2:12:126:GLU:H	2.22	0.43
1:13:128:G:H5'	17:8I:2:PRO:O	2.18	0.43
1:13:1269:A:H2	1:13:1312:G:N3	2.17	0.43
1:13:251:G:H4'	1:13:252:U:O5'	2.19	0.43
1:13:313:A:C6	1:13:314:C:N4	2.87	0.43
1:13:342:C:H2'	1:13:343:U:C6	2.54	0.43
1:13:509:A:H5"	4:3E:55:ALA:HB2	2.00	0.43
1:13:525:C:H2'	1:13:526:C:C6	2.54	0.43
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.33	0.43
1:13:77:C:C2'	1:13:78:G:H5"	2.48	0.43
1:13:804:U:H5"	1:13:805:C:OP2	2.19	0.43
1:13:910:C:H2'	1:13:911:U:O4'	2.18	0.43
26:14:1160:G:C5	26:14:1161:C:C4	3.07	0.43
26:14:1750:G:C2	26:14:1751:C:C5	3.07	0.43
26:14:1767:C:H2'	26:14:1768:U:O4'	2.19	0.43
26:14:1838:C:N4	26:14:1898:U:H2'	2.34	0.43
26:14:1919:A:H2'	26:14:1919:A:N3	2.34	0.43
26:14:2115:G:N2	26:14:2172:U:H3	2.17	0.43
26:14:2439:A:H8	26:14:2439:A:H5'	1.84	0.43
26:14:2678:C:H6	26:14:2678:C:O5'	2.01	0.43
26:14:449:A:N7	59:14:3644:HOH:O	2.36	0.43
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.19	0.43
26:14:654(T):A:H2'	26:14:654(U):A:O4'	2.19	0.43
2:1E:28:PHE:HD1	2:1E:194:PRO:HD3	1.83	0.43
2:1E:54:THR:O	2:1E:57:PHE:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1103:C:H2'	1:1G:1104:G:O4'	2.19	0.43
1:1G:1221:G:OP1	1:1G:1320:C:N4	2.50	0.43
1:1G:1244:C:H2'	1:1G:1245:A:C8	2.54	0.43
1:1G:147:G:H21	1:1G:148:G:H1'	1.84	0.43
1:1G:167:G:O2'	1:1G:168:G:H5'	2.19	0.43
1:1G:216:G:O2'	1:1G:217:C:O5'	2.36	0.43
1:1G:578:C:O4'	1:1G:729:A:H1'	2.19	0.43
26:1H:1327:C:P	59:1H:3539:HOH:O	2.77	0.43
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.48	0.43
26:1H:1948:G:C2'	26:1H:1949:G:H5'	2.49	0.43
26:1H:2290:G:C6	26:1H:2291:U:C4	3.07	0.43
26:1H:260:G:N2	26:1H:261:G:H1'	2.34	0.43
26:1H:2690:C:OP2	39:98:14:SER:HB3	2.19	0.43
26:1H:447:A:C2	26:1H:473:G:C8	3.07	0.43
26:1H:574:C:H5'	59:1H:3716:HOH:O	2.18	0.43
26:1H:598:G:H2'	26:1H:599:G:O4'	2.19	0.43
26:1H:849:A:H8	26:1H:849:A:O5'	2.02	0.43
26:1H:863:A:H2'	26:1H:864:G:C8	2.54	0.43
26:1H:882:G:OP1	26:1H:882:G:H4'	2.18	0.43
27:1J:44:G:C2	27:1J:48:A:C2	3.07	0.43
22:1K:58:A:C5	22:1K:59:A:C2	3.01	0.43
3:22:14:ILE:HG23	3:22:15:THR:OG1	2.19	0.43
3:22:73:PRO:HA	3:22:76:VAL:HG13	2.01	0.43
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.63	0.43
31:31:101:LEU:HA	31:31:101:LEU:HD23	1.58	0.43
37:35:144:GLU:N	37:35:144:GLU:CD	2.71	0.43
31:39:140:LEU:HD13	31:39:140:LEU:O	2.19	0.43
12:3I:90:VAL:HG12	12:3I:91:LYS:N	2.34	0.43
5:42:86:ALA:O	5:42:125:SER:HB3	2.19	0.43
38:45:26:TYR:CD2	38:45:26:TYR:O	2.72	0.43
56:2L:1:C:H4'	38:45:87:LYS:HE2	2.01	0.43
32:49:2:PRO:HB2	32:49:3:LEU:H	1.62	0.43
5:4E:41:VAL:HG23	5:4E:67:VAL:HG11	2.00	0.43
1:13:1503:A:O2'	25:4K:13:A:C6	2.70	0.43
26:1H:2531:A:C8	33:51:175:LYS:HG2	2.54	0.43
33:51:32:GLU:O	33:51:33:LEU:HD23	2.18	0.43
39:55:105:ARG:HE	39:55:105:ARG:HB3	1.55	0.43
35:58:5:VAL:HG23	35:58:6:PRO:HD2	2.01	0.43
14:5A:22:THR:OG1	14:5A:33:VAL:HG21	2.19	0.43
34:61:25:TYR:CE1	34:61:29:TYR:CD2	3.07	0.43
36:68:2:ILE:HG22	36:68:3:GLN:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:23:GLY:O	15:6A:28:GLN:NE2	2.42	0.43
28:71:66:HIS:HB2	28:71:188:ASN:HD21	1.84	0.43
30:29:9:VAL:CG1	41:75:8:LYS:HZ3	2.31	0.43
37:78:67:MET:HE2	37:78:67:MET:HB2	1.84	0.43
38:88:52:VAL:O	38:88:56:ARG:HB2	2.18	0.43
9:8E:118:LYS:HE2	9:8E:118:LYS:HB3	1.93	0.43
9:8E:53:VAL:HG12	9:8E:55:ALA:H	1.84	0.43
19:AA:64:GLU:CD	19:AA:64:GLU:H	2.22	0.43
41:B8:99:LEU:H	41:B8:99:LEU:HD12	1.84	0.43
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.19	0.43
47:D5:31:ARG:HB2	47:D5:31:ARG:HE	1.30	0.43
27:1J:104:A:H4'	47:D5:89:PHE:CE1	2.53	0.43
48:E5:14:ARG:O	48:E5:15:ASP:HB2	2.18	0.43
48:E5:20:ARG:HA	48:E5:20:ARG:HD3	1.94	0.43
47:H8:160:GLY:C	47:H8:161:VAL:HG22	2.37	0.43
47:H8:166:SER:HA	47:H8:167:PRO:HD3	1.84	0.43
47:H8:15:PRO:HA	47:H8:18:LEU:HD13	2.00	0.43
50:K8:7:ARG:N	50:K8:10:LEU:HB2	2.34	0.43
55:M5:14:VAL:HG12	55:M5:15:LYS:H	1.84	0.43
37:35:64:LYS:HD2	55:M5:30:ARG:HH12	1.84	0.43
2:12:185:ILE:CG2	2:12:199:TYR:HB2	2.41	0.42
1:13:105:G:C5	1:13:106:C:C4	3.07	0.42
1:13:1124:G:N7	1:13:1145:C:H2'	2.34	0.42
1:13:1144:G:C2	1:13:1145:C:C2	3.07	0.42
1:13:596:C:N3	1:13:645:C:O2	2.52	0.42
1:13:606:G:N3	1:13:606:G:H2'	2.34	0.42
26:14:1036:G:H2'	26:14:1037:G:O4'	2.19	0.42
26:14:1387:C:C2	26:14:1388:G:C8	3.06	0.42
26:14:1889:A:C6	26:14:1890:A:C6	3.07	0.42
26:14:2078:C:H1'	26:14:2434:A:N3	2.34	0.42
26:14:2472:G:H8	26:14:2472:G:O5'	2.02	0.42
26:14:2611:U:H1'	53:J5:3:LYS:HE3	2.01	0.42
26:14:392:C:H5"	26:14:409:C:H5"	2.01	0.42
35:15:130:HIS:HB2	35:15:134:ARG:CZ	2.49	0.42
27:16:4:C:H2'	27:16:5:C:C6	2.53	0.42
1:1G:651:C:H2'	1:1G:652:U:C6	2.54	0.42
1:1G:770:C:O4'	1:1G:900:A:H2	2.02	0.42
1:1G:96:G:C6	1:1G:97:U:C4	3.07	0.42
26:1H:1064:C:N4	26:1H:1070:A:OP1	2.52	0.42
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.19	0.42
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:228:A:O2'	26:1H:229:A:N3	2.47	0.42
26:1H:2325:G:H3'	26:1H:2325:G:OP1	2.18	0.42
26:1H:2470:G:O5'	26:1H:2470:G:H8	2.02	0.42
26:1H:2049:G:N2	26:1H:2620:C:C2	2.87	0.42
27:1J:45:A:C6	27:1J:46:A:C5	3.07	0.42
26:14:1027:A:H5'	27:1J:88:C:H41	1.83	0.42
30:21:170:LEU:HD11	30:21:187:ALA:HB3	2.01	0.42
30:29:77:ILE:C	30:29:78:LEU:HG	2.39	0.42
7:62:149:ARG:HD3	11:2A:59:TYR:CZ	2.54	0.42
23:2K:57:C:H2'	23:2K:58:A:C8	2.55	0.42
23:2K:64:G:C2	23:2K:65:G:N7	2.87	0.42
31:31:53:THR:C	31:31:55:GLY:N	2.71	0.42
12:3I:86:ARG:NH2	12:3I:99:HIS:CG	2.87	0.42
24:3K:18:G:O2'	24:3K:19:G:OP1	2.35	0.42
5:42:103:GLY:C	5:42:106:PRO:HD2	2.39	0.42
5:42:76:ILE:HD12	5:42:142:LEU:HD13	2.01	0.42
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.86	0.42
32:49:73:ALA:HB3	32:49:85:GLY:H	1.84	0.42
13:4I:19:LEU:HA	13:4I:22:ILE:HG13	2.01	0.42
25:4L:13:A:H2'	25:4L:13:A:N3	2.34	0.42
33:51:7:LEU:HD12	33:51:7:LEU:N	2.28	0.42
39:55:18:LEU:HD23	39:55:18:LEU:HA	1.72	0.42
35:58:29:LYS:HG2	35:58:29:LYS:H	1.51	0.42
33:59:119:GLU:C	33:59:140:LYS:HZ1	2.19	0.42
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	2.01	0.42
34:61:129:THR:HA	34:61:137:PRO:HA	2.01	0.42
26:14:2377:A:H4'	40:65:111:GLU:HG2	2.01	0.42
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.54	0.42
38:88:51:ARG:NH1	38:88:52:VAL:HG23	2.28	0.42
6:5E:98:LEU:HA	18:9I:29:PHE:O	2.19	0.42
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	2.00	0.42
19:AA:66:MET:HA	19:AA:67:VAL:C	2.39	0.42
19:AI:78:ARG:HD2	19:AI:79:THR:N	2.34	0.42
41:B8:101:PHE:O	41:B8:105:LEU:HD13	2.18	0.42
41:B8:106:SER:O	41:B8:111:ARG:NH1	2.51	0.42
20:BI:29:LYS:HB2	20:BI:29:LYS:HE3	1.73	0.42
1:13:195:A:H4'	20:BI:68:LYS:HE2	2.01	0.42
43:D8:46:VAL:C	43:D8:47:VAL:HG12	2.39	0.42
26:1H:1567:A:C8	29:11:84:TYR:CE2	3.07	0.42
2:12:162:ILE:HG23	2:12:182:ILE:HG21	1.99	0.42
1:13:1215:G:C6	1:13:1216:G:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1347:G:N2	1:13:1373:G:H2'	2.34	0.42
1:13:1379:G:N7	7:6E:2:ALA:HB3	2.34	0.42
1:13:148:G:H1	1:13:174:C:N4	2.17	0.42
1:13:746:A:H2'	1:13:747:C:H6	1.84	0.42
1:13:929:G:C2	1:13:930:C:C2	3.07	0.42
26:14:107:C:C2	26:14:108:U:C6	3.06	0.42
26:14:993:G:C6	26:14:1162:G:C6	3.07	0.42
26:14:54:G:C6	26:14:117:G:N2	2.87	0.42
26:14:1819:A:H8	26:14:1819:A:O5'	2.02	0.42
26:14:1667:G:O2'	26:14:1991:U:O4	2.29	0.42
26:14:2320:A:C6	26:14:2333:A:C8	3.07	0.42
26:14:2599:G:OP2	29:19:236:GLY:N	2.52	0.42
26:14:2785:C:H2'	26:14:2786:U:O4'	2.18	0.42
26:14:2839:G:H4'	39:55:49:ASP:CB	2.50	0.42
26:14:513:A:C2	26:14:514:A:C5	3.07	0.42
26:14:531:C:OP1	26:14:561:G:N2	2.52	0.42
26:14:6:A:C2	26:14:7:G:C8	3.07	0.42
26:14:711:G:N2	26:14:721:C:O2	2.52	0.42
26:14:729:G:O5'	29:19:208:LYS:NZ	2.53	0.42
26:14:946:G:C2'	26:14:947:G:O5'	2.67	0.42
2:1E:73:THR:OG1	2:1E:170:GLU:OE2	2.27	0.42
1:1G:1128:C:N3	1:1G:1139:G:N1	2.68	0.42
1:1G:1129:C:N4	1:1G:1139:G:H22	2.17	0.42
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.19	0.42
1:1G:1227:A:C8	1:1G:1227:A:H3'	2.54	0.42
1:1G:1316:G:H5"	14:5A:17:LYS:HZ3	1.83	0.42
1:1G:483:C:OP2	1:1G:483:C:H6	2.02	0.42
1:1G:539:A:H2'	1:1G:540:G:H8	1.80	0.42
1:1G:66:G:C2	1:1G:67:C:C6	3.07	0.42
1:1G:775:G:C2'	1:1G:776:G:H5'	2.49	0.42
1:1G:825:G:H2'	1:1G:826:C:O4'	2.20	0.42
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.49	0.42
26:1H:1235:G:C2	26:1H:1236:G:N2	2.88	0.42
26:1H:1394:U:C4	26:1H:1395:A:C6	3.06	0.42
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.84	0.42
26:1H:1998:G:O2'	26:1H:1999:C:H5'	2.19	0.42
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.54	0.42
24:3K:76:A:O2'	26:1H:2394:C:C2	2.71	0.42
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.77	0.42
26:1H:265:A:H1'	26:1H:266:G:O4'	2.19	0.42
26:1H:438:G:H2'	26:1H:439:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:44:A:C2'	26:1H:45:G:H5'	2.49	0.42
26:1H:484:C:H2'	26:1H:485:C:C6	2.54	0.42
26:1H:601:C:O2'	26:1H:605:C:OP1	2.33	0.42
26:1H:67:U:H2'	26:1H:68:G:C8	2.53	0.42
3:2E:6:HIS:O	3:2E:10:PHE:HB2	2.19	0.42
11:2I:44:SER:OG	11:2I:45:GLY:N	2.52	0.42
56:2L:6:G:O6	56:2L:68:C:N4	2.44	0.42
31:31:153:SER:HB2	31:31:189:THR:HG22	2.00	0.42
26:1H:588:U:C2	31:31:90:PHE:CE1	3.07	0.42
31:39:9:ILE:HG12	31:39:14:PRO:HA	2.01	0.42
24:3K:58:A:HO2'	24:3K:59:U:P	2.41	0.42
24:3K:71:G:N3	24:3K:71:G:H2'	2.33	0.42
5:42:40:ARG:HA	5:42:67:VAL:O	2.19	0.42
38:45:116:GLU:O	38:45:117:ALA:HB3	2.19	0.42
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.34	0.42
33:51:101:ARG:NH1	33:51:122:THR:OG1	2.50	0.42
39:55:85:PRO:O	39:55:88:ARG:HB2	2.18	0.42
35:58:112:LEU:HD12	35:58:112:LEU:HA	1.80	0.42
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	2.00	0.42
40:65:88:ASP:HB3	40:65:89:ARG:H	1.43	0.42
36:68:25:LEU:HD21	36:68:40:VAL:HG23	2.01	0.42
26:1H:2392:A:H1'	37:78:61:ARG:HD2	2.01	0.42
9:8E:4:TYR:CE2	9:8E:88:TYR:HB2	2.54	0.42
17:8I:15:MET:HB2	17:8I:18:THR:HB	2.01	0.42
43:95:22:VAL:HG22	43:95:23:GLU:N	2.34	0.42
18:9A:37:VAL:HG13	18:9A:78:LEU:HB3	2.00	0.42
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	2.01	0.42
20:BI:64:ASP:N	20:BI:64:ASP:OD1	2.52	0.42
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	2.01	0.42
1:13:1219:U:H2'	1:13:1220:G:C8	2.54	0.42
1:13:1255:G:P	10:1I:45:ARG:HH22	2.43	0.42
1:13:1355:G:H2'	1:13:1356:G:C8	2.54	0.42
1:13:1507:A:C6	1:13:1530:G:C6	3.07	0.42
1:13:210:U:O2'	1:13:216:G:C8	2.73	0.42
1:13:266:G:O2'	17:8I:67:LYS:HD3	2.19	0.42
1:13:291:C:N4	1:13:309:G:H1	2.17	0.42
26:14:1022:G:H4'	26:14:1023:U:H5'	2.00	0.42
26:14:1101:U:H2'	26:14:1102:C:H6	1.83	0.42
26:14:1109:C:H2'	26:14:1110:G:N9	2.34	0.42
26:14:1000:A:C6	26:14:1155:A:C8	3.08	0.42
26:14:1550:C:OP1	26:14:1727:U:O2'	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1910:G:O2'	26:14:1911:U:H5'	2.18	0.42
26:14:2464:C:H2'	26:14:2465:C:O4'	2.20	0.42
26:14:2619:C:H2'	26:14:2620:C:C6	2.54	0.42
26:14:2872:G:O2'	26:14:2873:A:H5'	2.19	0.42
26:14:2888:C:H2'	26:14:2889:C:O4'	2.19	0.42
26:14:482:A:H5"	26:14:483:A:OP1	2.19	0.42
26:14:482:A:H8	26:14:482:A:O5'	2.02	0.42
26:14:783:A:C8	26:14:784:A:H4'	2.55	0.42
26:14:977:G:C4	26:14:978:G:C8	3.07	0.42
27:16:27:C:C2'	27:16:28:C:H5'	2.49	0.42
27:16:38:C:H2'	27:16:39:A:O4'	2.19	0.42
29:19:70:TRP:C	29:19:70:TRP:CD1	2.91	0.42
1:1G:1169:A:N6	1:1G:1170:A:N1	2.66	0.42
1:1G:1206:G:C4	1:1G:1207:G:C8	3.07	0.42
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.55	0.42
1:1G:728:A:H2'	1:1G:729:A:C8	2.54	0.42
1:1G:921:U:O2'	5:42:18:ARG:HG3	2.19	0.42
26:1H:1084:A:N7	26:1H:1085:A:N7	2.67	0.42
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.54	0.42
26:1H:818:G:N7	26:1H:1187:G:C6	2.87	0.42
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.54	0.42
26:1H:1689:A:C6	26:1H:1700:A:C2	3.07	0.42
26:1H:2131:G:H4'	26:1H:2133:G:H4'	2.00	0.42
26:1H:2439:A:C8	26:1H:2439:A:H5'	2.54	0.42
26:1H:270(U):C:OP1	49:J8:98:LEU:HB2	2.20	0.42
26:1H:301:G:C4	26:1H:302:C:C5	3.07	0.42
26:1H:350:U:H2'	26:1H:351:G:H8	1.80	0.42
26:1H:370:G:H4'	26:1H:371:A:OP2	2.18	0.42
26:1H:442:G:C4	26:1H:444:C:C5	3.07	0.42
26:1H:782:A:N7	29:11:221:VAL:HG11	2.33	0.42
26:1H:881:G:H5'	26:1H:882:G:O5'	2.19	0.42
26:1H:998:C:OP2	42:C8:58:ARG:NH1	2.52	0.42
36:25:45:GLU:HG2	36:25:46:ALA:N	2.34	0.42
36:25:97:ARG:CZ	36:25:99:PHE:HE1	2.32	0.42
30:29:41:LYS:HG3	30:29:42:ASP:H	1.85	0.42
56:2L:65:G:C2	56:2L:66:C:C2	3.07	0.42
4:32:18:LYS:HE2	4:32:33:MET:HB3	2.01	0.42
26:14:604:G:OP2	37:35:90:ARG:NH2	2.52	0.42
31:39:127:GLU:O	31:39:129:PHE:N	2.49	0.42
31:39:185:ASP:HA	31:39:188:ARG:HE	1.85	0.42
31:39:25:PRO:HB2	31:39:27:GLU:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:452:G:H5'	31:39:59:TYR:CE1	2.54	0.42
24:3K:5:G:N1	24:3K:6:G:O6	2.53	0.42
33:51:124:GLU:O	33:51:126:PRO:HD3	2.19	0.42
33:51:12:PRO:HB2	33:51:13:LYS:H	1.62	0.42
6:52:55:ASP:HA	6:52:56:PRO:HD3	1.78	0.42
3:22:18:TRP:NE1	14:5A:55:GLY:N	2.66	0.42
34:61:72:LEU:HD11	34:61:107:VAL:HG11	2.01	0.42
34:61:25:TYR:HE1	34:61:29:TYR:CD2	2.38	0.42
34:69:76:THR:HG23	34:69:77:LEU:N	2.34	0.42
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.34	0.42
6:52:2:ARG:HH22	15:6A:2:PRO:HD3	1.84	0.42
15:6I:9:GLN:O	15:6I:13:GLN:HG3	2.18	0.42
28:71:10:LEU:H	28:71:10:LEU:HD22	1.84	0.42
1:1G:4:U:O4	8:72:105:ARG:HD3	2.20	0.42
26:1H:598:G:C1'	37:78:12:ALA:HB2	2.49	0.42
37:78:57:THR:HB	37:78:60:MET:H	1.85	0.42
16:7A:1:MET:HE3	16:7A:1:MET:HB2	1.59	0.42
16:7A:74:LEU:HA	16:7A:74:LEU:HD13	1.68	0.42
8:7E:14:ARG:HG3	8:7E:83:ILE:CG2	2.49	0.42
16:7I:21:VAL:HG12	16:7I:33:ILE:HB	1.99	0.42
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.19	0.42
1:13:468:A:H5"	16:7I:80:PHE:HB3	2.01	0.42
9:82:95:LYS:HE2	9:82:95:LYS:HB2	1.74	0.42
38:88:66:ILE:CG2	38:88:67:ARG:N	2.82	0.42
9:8E:48:GLU:N	9:8E:49:PRO:CD	2.83	0.42
43:95:24:LYS:O	43:95:25:LEU:HD23	2.19	0.42
43:95:58:VAL:HB	43:95:98:GLU:HB2	2.02	0.42
40:A8:33:LYS:HB3	40:A8:34:HIS:CD2	2.54	0.42
20:BA:26:ASN:HA	20:BA:29:LYS:HG2	2.01	0.42
46:C5:20:TYR:CE2	46:C5:42:VAL:HA	2.55	0.42
42:C8:92:ARG:HD2	43:D8:11:GLN:CB	2.48	0.42
46:G8:19:LYS:HD3	46:G8:20:TYR:CE1	2.54	0.42
47:H8:163:LEU:HD12	47:H8:165:VAL:CG1	2.49	0.42
52:I5:53:GLU:HG3	52:I5:53:GLU:O	2.20	0.42
45:F8:5:TYR:CE2	50:K8:30:ARG:HB2	2.53	0.42
52:M8:12:ALA:HB3	52:M8:24:THR:HB	2.01	0.42
55:Q8:56:GLU:C	55:Q8:57:ARG:HG3	2.40	0.42
26:1H:1799:G:C2	29:11:155:LEU:HD12	2.55	0.42
1:13:1006:C:O2	1:13:1023:G:N2	2.40	0.42
1:13:1129:C:N4	1:13:1139:G:H1	2.15	0.42
1:13:1354:C:O5'	1:13:1354:C:H6	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:266:G:N2	1:13:269:C:C5	2.88	0.42
1:13:358:U:H2'	1:13:359:U:O4'	2.19	0.42
1:13:590:C:H42	1:13:649:G:H1	1.65	0.42
1:13:604:G:C6	1:13:605:U:N3	2.87	0.42
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.53	0.42
26:14:1198:U:H2'	26:14:1199:U:H6	1.85	0.42
26:14:1385:G:C4	26:14:1386:C:C5	3.07	0.42
26:14:1559:G:H5'	26:14:1559:G:N3	2.34	0.42
26:14:1771:C:H1'	26:14:1786:A:C8	2.54	0.42
26:14:2111:C:C2	26:14:2118:U:H4'	2.55	0.42
26:14:2261:C:O2'	26:14:2262:U:H5'	2.19	0.42
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.55	0.42
26:14:2520:C:H41	26:14:2542:A:H62	1.67	0.42
26:14:2749:A:N1	26:14:2750:A:N6	2.68	0.42
26:14:2844:G:H5'	26:14:2845:G:OP2	2.19	0.42
26:14:394:A:H2'	26:14:395:U:O4'	2.20	0.42
26:14:843:G:H1	26:14:935:C:H42	1.65	0.42
26:14:908:C:OP1	38:45:23:GLY:HA2	2.19	0.42
27:16:73:A:H2'	27:16:74:U:O4'	2.20	0.42
2:1E:178:ARG:HH11	2:1E:178:ARG:HG2	1.83	0.42
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.54	0.42
1:1G:994:A:C8	1:1G:1216:G:H4'	2.54	0.42
1:1G:333:G:O2'	1:1G:334:C:H5'	2.20	0.42
1:1G:625:G:C4	1:1G:626:U:C5	3.07	0.42
1:1G:965:A:OP1	1:1G:1198:G:H5"	2.19	0.42
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.20	0.42
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.19	0.42
26:1H:2404:C:C5	26:1H:2405:G:N7	2.88	0.42
26:1H:2510:C:H2'	26:1H:2511:U:C6	2.54	0.42
26:1H:2580:U:C5	26:1H:2581:G:C6	3.07	0.42
26:1H:2746:U:O4	26:1H:2755:C:H4'	2.19	0.42
26:1H:280:C:N3	26:1H:361:G:C2	2.87	0.42
26:1H:817:C:H4'	26:1H:932:G:C5	2.54	0.42
26:1H:818:G:O5'	26:1H:818:G:H8	2.03	0.42
26:1H:919:G:H4'	27:16:81:G:H4'	2.02	0.42
3:22:82:GLU:O	3:22:86:VAL:HG13	2.20	0.42
3:22:91:LEU:H	3:22:91:LEU:HD23	1.84	0.42
26:14:2050:C:H1'	30:29:156:MET:HE1	2.02	0.42
3:2E:58:GLU:N	3:2E:65:ALA:HB3	2.34	0.42
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.75	0.42
31:39:143:ALA:HB1	31:39:148:LEU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:322:A:C3'	31:39:169:ASN:HD21	2.31	0.42
5:42:144:THR:HG23	5:42:147:ASP:HB2	2.01	0.42
5:42:50:GLU:CB	5:42:53:LEU:HD13	2.45	0.42
5:42:76:ILE:O	5:42:93:PRO:HB3	2.19	0.42
38:45:24:GLY:H	38:45:101:ARG:NH1	2.18	0.42
32:49:118:ARG:HB3	32:49:181:ARG:HG3	2.01	0.42
34:61:130:TYR:O	34:61:135:GLU:HB2	2.20	0.42
34:61:4:ILE:HG23	34:61:18:VAL:CG2	2.50	0.42
7:62:102:ARG:HG2	7:62:106:GLN:NE2	2.34	0.42
15:6I:3:ILE:HG21	15:6I:34:LEU:HD23	2.02	0.42
8:72:15:ASN:O	8:72:19:VAL:HG22	2.20	0.42
41:75:127:ALA:O	41:75:131:ALA:HB3	2.19	0.42
41:75:6:LEU:O	41:75:10:VAL:HB	2.19	0.42
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.19	0.42
1:1G:128:G:H5'	17:8A:2:PRO:C	2.40	0.42
39:98:12:ARG:HE	39:98:16:HIS:CE1	2.37	0.42
40:A8:106:ARG:NH2	40:A8:107:GLU:HB2	2.35	0.42
40:A8:35:ILE:C	40:A8:36:TYR:HD1	2.22	0.42
46:G8:6:HIS:N	46:G8:6:HIS:ND1	2.67	0.42
47:H8:77:ASP:OD2	47:H8:80:ARG:HB2	2.19	0.42
52:I5:58:ARG:NE	52:I5:61:ARG:HE	2.18	0.42
29:11:112:GLN:N	29:11:115:GLN:OE1	2.43	0.42
2:12:33:TYR:HA	2:12:33:TYR:HD1	1.70	0.42
1:13:1002:G:C4	1:13:1003:G:C8	3.08	0.42
1:13:1098:C:C2	1:13:1099:G:C8	3.08	0.42
1:13:1291:G:C6	1:13:1292:U:C5	3.07	0.42
1:13:158:G:H22	1:13:163:C:H1'	1.85	0.42
1:13:222:U:C2	1:13:223:U:C5	3.08	0.42
1:13:392:G:H2'	1:13:393:A:O4'	2.20	0.42
1:13:452:A:H2'	1:13:453:A:C8	2.55	0.42
1:13:646:U:H2'	1:13:647:C:C6	2.54	0.42
1:13:942:G:N3	1:13:943:U:C6	2.88	0.42
26:14:1063:G:H1'	26:14:1076:C:N3	2.34	0.42
26:14:1207:C:H2'	26:14:1208:C:H6	1.83	0.42
26:14:1401:G:C5	26:14:1402:C:C5	3.08	0.42
26:14:1632:A:H8	26:14:1632:A:O5'	2.02	0.42
26:14:1834:U:O2	26:14:1834:U:H2'	2.17	0.42
26:14:1902:C:C5	26:14:1903:G:C8	3.08	0.42
26:14:2092:U:C6	26:14:2225:A:O2'	2.72	0.42
26:14:2358:G:C5	26:14:2359:C:C5	3.08	0.42
26:14:2436:G:C6	26:14:2437:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2439:A:C5'	26:14:2439:A:C8	3.02	0.42
26:14:299:A:O2'	26:14:319:C:H4'	2.19	0.42
26:14:395:U:H2'	26:14:396:G:C8	2.55	0.42
21:1B:3:LYS:O	21:1B:14:TRP:CE3	2.72	0.42
2:1E:155:LEU:HD13	2:1E:155:LEU:HA	1.85	0.42
1:1G:1129:C:C4	1:1G:1139:G:N1	2.88	0.42
1:1G:1149:C:H6	1:1G:1149:C:O5'	2.02	0.42
1:1G:219:C:H2'	1:1G:220:G:O4'	2.20	0.42
1:1G:382:A:O5'	1:1G:382:A:H8	2.02	0.42
1:1G:772:U:C4	1:1G:773:G:N7	2.87	0.42
1:1G:866:C:O2'	1:1G:919:A:OP1	2.37	0.42
26:1H:1029:A:H1'	26:1H:2486:G:H1'	2.01	0.42
26:1H:1381:G:H2'	26:1H:1382:G:H5'	2.00	0.42
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.19	0.42
26:1H:1551:C:H2'	26:1H:1552:G:H8	1.84	0.42
26:1H:1706:U:O2	26:1H:1757:U:H5'	2.19	0.42
26:1H:2157:G:N3	26:1H:2158:A:H2	2.18	0.42
26:1H:2497:A:H5"	59:1H:3792:HOH:O	2.19	0.42
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.20	0.42
26:1H:501:A:H2'	26:1H:502:A:C8	2.54	0.42
26:1H:593:G:C6	26:1H:594:U:C4	3.08	0.42
26:1H:731:C:P	59:1H:3597:HOH:O	2.72	0.42
26:1H:761:A:H5"	59:1H:3596:HOH:O	2.19	0.42
26:1H:878:A:OP1	26:1H:878:A:H4'	2.20	0.42
26:1H:90:U:H4'	26:1H:91:A:H5'	2.00	0.42
26:1H:970:C:HO2'	26:1H:984:A:HO2'	1.66	0.42
27:1J:66:A:C2	27:1J:108:C:C4	3.08	0.42
22:1K:53:G:C2	22:1K:54:G:C8	3.07	0.42
30:21:201:THR:HG22	30:21:202:LYS:H	1.85	0.42
3:22:42:LEU:HD12	3:22:42:LEU:HA	1.72	0.42
30:29:109:LYS:HE2	30:29:191:PRO:CA	2.47	0.42
30:29:128:SER:OG	30:29:129:HIS:N	2.52	0.42
4:3E:131:ARG:O	4:3E:133:VAL:HG23	2.19	0.42
24:3K:6:G:C6	24:3K:7:A:N6	2.88	0.42
24:3K:71:G:C2	24:3K:72:C:H1'	2.54	0.42
38:45:25:ASP:CB	38:45:102:VAL:H	2.33	0.42
38:45:37:LEU:O	38:45:99:PRO:HB3	2.20	0.42
5:4E:20:GLN:O	5:4E:22:GLY:N	2.52	0.42
5:4E:28:PHE:O	5:4E:47:LYS:HA	2.19	0.42
33:51:95:ARG:HB3	33:51:95:ARG:HH11	1.85	0.42
6:5E:4:TYR:O	6:5E:6:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:24:VAL:HB	36:68:33:ALA:HB2	2.01	0.42
8:72:50:ARG:HG3	8:72:50:ARG:H	1.48	0.42
16:7A:21:VAL:O	16:7A:33:ILE:HG12	2.19	0.42
17:8A:19:VAL:HG23	17:8A:44:ALA:HB3	2.01	0.42
9:8E:13:ALA:HB1	9:8E:73:GLN:HG2	2.01	0.42
19:AI:33:THR:HG1	19:AI:35:SER:H	1.61	0.42
41:B8:91:ARG:HD2	41:B8:120:ARG:NH1	2.34	0.42
42:C8:92:ARG:HB2	43:D8:11:GLN:NE2	2.34	0.42
26:1H:396:G:O3'	49:J8:44:PRO:HA	2.20	0.42
50:K8:7:ARG:CA	50:K8:10:LEU:HB2	2.49	0.42
13:4I:65:LYS:NZ	52:M8:52:THR:HG22	2.32	0.42
29:11:52:ARG:HD3	29:11:52:ARG:HH11	1.71	0.42
2:12:126:GLU:C	2:12:128:GLU:N	2.72	0.42
1:13:1304:G:C6	1:13:1305:G:N1	2.88	0.42
1:13:43:C:H2'	1:13:44:G:O4'	2.19	0.42
1:13:559:A:H2'	1:13:559:A:N3	2.35	0.42
1:13:706:A:H2'	1:13:707:C:H5'	2.01	0.42
1:13:954:G:H21	1:13:1227:A:H62	1.66	0.42
26:14:996:A:N6	26:14:1160:G:C6	2.87	0.42
26:14:1392:A:N6	26:14:1393:A:N6	2.68	0.42
26:14:1466:G:H5'	26:14:1467:C:OP1	2.19	0.42
26:14:1477:A:H2'	26:14:1478:G:O4'	2.19	0.42
26:14:1748:G:C2	26:14:1749:A:C4	3.07	0.42
26:14:1784:A:H4'	26:14:1785:A:H5"	2.01	0.42
26:14:1796:U:H4'	29:19:256:GLY:N	2.34	0.42
26:14:2134:A:N3	26:14:2159:G:H1'	2.35	0.42
26:14:2022:U:O2'	26:14:2617:C:H5'	2.19	0.42
26:14:327:G:C2	26:14:328:U:C2	3.08	0.42
26:14:383:U:H2'	26:14:385:C:H5	1.84	0.42
35:15:35:ARG:HG2	35:15:35:ARG:H	1.71	0.42
27:16:14:U:OP2	27:16:71:C:H5'	2.20	0.42
27:16:28:C:OP1	40:A8:36:TYR:OH	2.36	0.42
27:16:2:C:H2'	27:16:3:C:C6	2.54	0.42
2:1E:36:ARG:HA	2:1E:36:ARG:HD2	1.82	0.42
1:1G:1275:A:C4	1:1G:1276:G:C8	3.07	0.42
1:1G:1289:A:N6	1:1G:1371:G:HO2'	2.18	0.42
1:1G:552:U:C2'	1:1G:553:A:H5'	2.50	0.42
1:1G:685:G:N1	1:1G:686:U:O4	2.52	0.42
1:1G:78:G:C2	1:1G:79:G:N7	2.87	0.42
1:1G:899:C:H6	1:1G:899:C:O5'	2.02	0.42
1:1G:954:G:H8	1:1G:954:G:O5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1068:G:H1'	26:1H:1096:A:N3	2.35	0.42
26:1H:1072:C:H2'	26:1H:1093:G:O6	2.19	0.42
26:1H:1364:G:N7	49:J8:2:SER:HB3	2.35	0.42
26:1H:1729:A:C4	26:1H:1731:G:C6	3.08	0.42
26:1H:1922:G:H2'	26:1H:1923:U:C6	2.55	0.42
26:1H:2037:G:H2'	26:1H:2038:G:C8	2.54	0.42
26:1H:203:C:O5'	26:1H:203:C:H6	2.03	0.42
26:1H:2088:G:C6	26:1H:2089:U:C4	3.08	0.42
26:1H:2124:G:H2'	26:1H:2125:G:H5'	2.02	0.42
26:1H:2130:U:O2	26:1H:2159:G:N2	2.51	0.42
26:1H:221:A:H5'	26:1H:233:A:O2'	2.19	0.42
26:1H:2257:U:C4	26:1H:2258:C:N4	2.87	0.42
26:1H:2373:G:H1	26:1H:2380:C:N4	2.17	0.42
26:1H:2516:G:C6	26:1H:2517:C:N4	2.88	0.42
26:1H:2820:A:P	39:98:2:ARG:NH2	2.93	0.42
26:1H:424:G:C2	26:1H:425:G:C8	3.07	0.42
26:1H:74:A:H8	26:1H:74:A:C5'	2.33	0.42
26:1H:92:G:H2'	26:1H:93:C:H6	1.84	0.42
10:1I:78:ASN:HB2	10:1I:81:THR:HG23	2.02	0.42
27:1J:12:C:O2	48:E5:74:ARG:NE	2.52	0.42
30:21:49:LEU:HA	30:21:49:LEU:HD12	1.66	0.42
3:22:112:SER:O	3:22:115:LEU:HB2	2.19	0.42
36:25:96:THR:OG1	36:25:97:ARG:N	2.51	0.42
31:31:182:ASN:OD1	31:31:185:ASP:N	2.40	0.42
4:3E:154:ASN:O	4:3E:159:ARG:HG3	2.20	0.42
4:3E:8:VAL:CG1	4:3E:21:LEU:HD13	2.50	0.42
24:3K:50:U:N3	24:3K:65:G:N3	2.66	0.42
27:16:42:C:O2	32:41:92:VAL:HA	2.20	0.42
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.83	0.42
5:42:51:VAL:O	5:42:55:VAL:HG23	2.19	0.42
38:45:69:PHE:HA	38:45:70:PRO:HD2	1.85	0.42
38:45:89:ASN:O	38:45:91:GLU:N	2.52	0.42
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.40	0.42
3:22:9:GLY:N	14:5A:49:HIS:O	2.53	0.42
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.54	0.42
7:62:113:GLU:HB2	7:62:119:ARG:CD	2.49	0.42
1:13:1298:C:N4	7:6E:114:ARG:HB3	2.34	0.42
8:72:82:HIS:H	8:72:138:TRP:C	2.23	0.42
8:72:87:SER:HB2	8:72:93:VAL:HB	2.01	0.42
41:75:8:LYS:O	41:75:11:GLU:N	2.30	0.42
16:7A:31:LYS:HG2	16:7A:32:TYR:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:16:ALA:HB1	8:7E:24:THR:HG21	2.02	0.42
42:85:91:ASP:CG	42:85:96:ALA:HB2	2.39	0.42
43:95:37:VAL:CG2	43:95:57:VAL:H	2.32	0.42
39:98:10:LEU:O	39:98:11:ASN:C	2.58	0.42
40:A8:74:ALA:O	40:A8:77:ALA:N	2.53	0.42
19:AA:7:LYS:HE2	19:AA:10:PHE:CE2	2.55	0.42
42:C8:65:ILE:O	42:C8:68:ALA:N	2.52	0.42
47:D5:9:TYR:HA	47:D5:37:VAL:HG12	2.01	0.42
42:C8:90:VAL:HG22	43:D8:39:LEU:HG	2.01	0.42
26:1H:328:U:O2'	46:G8:71:LYS:HD3	2.20	0.42
46:G8:76:CYS:CB	46:G8:97:ARG:HG2	2.49	0.42
51:H5:28:LEU:HA	51:H5:28:LEU:HD23	1.76	0.42
52:I5:61:ARG:NE	52:I5:61:ARG:HA	2.34	0.42
50:K8:37:PHE:H	50:K8:37:PHE:HD1	1.67	0.42
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.55	0.42
55:M5:57:ARG:CD	55:M5:57:ARG:H	2.33	0.42
2:12:149:LEU:CD2	2:12:152:PHE:HB3	2.48	0.42
2:12:88:ALA:HB2	2:12:219:VAL:HG23	2.00	0.42
1:13:1163:C:H2'	1:13:1164:G:H8	1.84	0.42
1:13:1171:G:H2'	1:13:1172:C:C6	2.54	0.42
1:13:267:C:H2'	1:13:268:C:C6	2.54	0.42
1:13:465:A:N7	1:13:467:G:C5	2.88	0.42
1:13:639:G:C2	1:13:640:A:C8	3.08	0.42
1:13:872:A:C5	1:13:874:G:C8	3.08	0.42
1:13:940:C:H2'	1:13:941:G:C8	2.54	0.42
26:14:1032:A:H2	26:14:1122:G:H22	1.65	0.42
26:14:1884:A:C2	26:14:1885:A:C8	3.07	0.42
26:14:2053:G:H2'	26:14:2053:G:N3	2.34	0.42
26:14:264:C:HO2'	26:14:265:A:H2'	1.84	0.42
26:14:273(C):C:N3	26:14:363(C):G:N2	2.65	0.42
26:14:464:U:H2'	26:14:465:G:O4'	2.19	0.42
35:15:91:LEU:O	35:15:95:PRO:HB3	2.19	0.42
27:16:99:A:C4	27:16:100:G:C8	3.08	0.42
27:16:11:C:O5'	27:16:12:C:H5	2.03	0.42
29:19:245:PRO:HA	29:19:246:PRO:HD3	1.74	0.42
29:19:181:GLU:HG3	29:19:272:ALA:CB	2.50	0.42
2:1E:208:ILE:HA	2:1E:211:ILE:HD12	2.02	0.42
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	2.00	0.42
1:1G:1014:A:P	1:1G:1014:A:H8	2.42	0.42
1:1G:1086:U:O5'	1:1G:1086:U:H6	2.02	0.42
1:1G:1127:G:H1'	1:1G:1148:U:N3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1375:A:H4'	7:62:29:LYS:HZ1	1.83	0.42
1:1G:922:G:N3	1:1G:1398:A:H2	2.18	0.42
1:1G:1399:C:C2	1:1G:1502:A:N6	2.87	0.42
1:1G:720:C:H2'	1:1G:721:G:N7	2.34	0.42
26:1H:105:C:H2'	26:1H:106:C:H6	1.85	0.42
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.20	0.42
26:1H:1542:G:O6	26:1H:1543:A:N6	2.52	0.42
26:1H:1569:A:H5'	29:11:61:LEU:CD2	2.40	0.42
26:1H:1632:A:C8	59:1H:4384:HOH:O	2.63	0.42
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.55	0.42
26:1H:2574:G:H5"	59:1H:4377:HOH:O	2.20	0.42
26:1H:2839:G:C5	26:1H:2840:C:C4	3.07	0.42
26:1H:2862:G:H2'	26:1H:2863:C:C6	2.53	0.42
26:1H:2888:C:O2'	26:1H:2889:C:H5'	2.20	0.42
26:1H:918:A:O2'	27:16:96:G:N2	2.50	0.42
30:21:119:ARG:NH1	30:21:156:MET:O	2.53	0.42
30:21:65:GLY:C	30:21:68:ALA:H	2.23	0.42
31:31:150:GLY:HA2	31:31:172:TRP:CE3	2.54	0.42
32:41:6:ALA:O	32:41:9:ARG:HB2	2.19	0.42
5:42:70:PRO:O	5:42:77:PRO:HD3	2.20	0.42
33:59:68:THR:HG22	33:59:72:ILE:HD11	2.01	0.42
14:5I:6:LEU:HA	14:5I:6:LEU:HD23	1.75	0.42
15:6A:54:ARG:O	15:6A:58:MET:HG3	2.20	0.42
28:71:26:ALA:HB2	28:71:189:ILE:CD1	2.49	0.42
38:88:45:GLN:OE1	38:88:45:GLN:N	2.53	0.42
43:95:21:ARG:HE	43:95:91:TYR:CB	2.32	0.42
44:A5:65:LEU:HA	44:A5:65:LEU:HD23	1.85	0.42
27:16:49:C:OP1	40:A8:97:ARG:HB2	2.19	0.42
19:AA:29:ARG:HD3	19:AA:48:THR:OG1	2.20	0.42
47:D5:74:VAL:HA	47:D5:86:VAL:CG2	2.50	0.42
45:F8:31:HIS:HA	45:F8:32:PRO:HD3	1.81	0.42
47:H8:40:ASP:OD2	47:H8:43:GLU:HG2	2.20	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.44	0.42
55:M5:60:LEU:HB2	55:M5:61:LEU:H	1.41	0.42
52:M8:36:CYS:O	52:M8:41:PRO:HD2	2.19	0.42
55:Q8:21:LYS:HZ3	55:Q8:22:VAL:N	2.18	0.42
29:11:126:GLN:O	29:11:193:VAL:HG22	2.18	0.42
1:13:1010:G:C6	1:13:1011:G:C5	3.08	0.42
1:13:1021:G:H8	1:13:1021:G:OP2	2.02	0.42
1:13:1054:C:H5	1:13:1196:U:HO2'	1.66	0.42
1:13:1372:U:H2'	1:13:1373:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1418:A:C2	1:13:1483:A:C2	3.08	0.42
1:13:262:A:H5"	1:13:263:A:OP2	2.19	0.42
1:13:271:C:O2'	1:13:272:C:H5'	2.20	0.42
26:14:1051:G:H8	26:14:1051:G:OP2	2.03	0.42
26:14:1441:G:H2'	26:14:1442:G:C8	2.55	0.42
26:14:1657:C:H2'	26:14:1658:C:C6	2.54	0.42
26:14:2271:G:C5	26:14:2272:U:C4	3.08	0.42
26:14:2335:A:C8	26:14:2337:G:N7	2.88	0.42
26:14:2641:G:C2	26:14:2642:G:C4	3.08	0.42
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.48	0.42
26:14:318:C:H2'	26:14:319:C:C6	2.55	0.42
26:14:320:A:H5"	26:14:321:G:OP1	2.20	0.42
26:14:328:U:H4'	46:C5:68:HIS:HD2	1.79	0.42
26:14:654(C):G:C2	26:14:654(S):G:C2	3.08	0.42
26:14:777:A:O2'	26:14:778:G:H5'	2.20	0.42
26:14:831:G:H5"	26:14:832:G:OP2	2.20	0.42
27:16:13:A:N1	27:16:69:G:O2'	2.37	0.42
27:16:1(M):A:H2'	27:16:1(M):A:N3	2.34	0.42
27:16:27:C:O3'	40:A8:36:TYR:OH	2.37	0.42
2:1E:57:PHE:O	2:1E:60:ASP:HB2	2.20	0.42
1:1G:1249:C:H41	1:1G:1287:A:H5'	1.85	0.42
1:1G:1329:A:H5"	13:4A:25:ILE:C	2.40	0.42
1:1G:137:C:C2	1:1G:227:G:N2	2.88	0.42
1:1G:1428:A:H2'	1:1G:1429:C:C6	2.55	0.42
1:1G:418:C:N4	1:1G:425:G:H1	2.17	0.42
1:1G:561:U:O2'	1:1G:562:C:P	2.78	0.42
26:1H:1060:U:H5'	26:1H:1061:U:C5	2.55	0.42
26:1H:1221:C:C2	26:1H:1222:C:C5	3.07	0.42
26:1H:1516:U:C2	26:1H:1517:G:C8	3.08	0.42
26:1H:1970:A:OP1	59:1H:4400:HOH:O	2.21	0.42
26:1H:2091:U:O2'	49:J8:47:GLN:HG3	2.19	0.42
26:1H:2143:C:H2'	26:1H:2144:U:O4'	2.20	0.42
26:1H:2075:U:C4	26:1H:2238:G:C6	3.08	0.42
26:1H:2472:G:H2'	26:1H:2475:C:H42	1.85	0.42
26:1H:2707:G:H5"	39:98:68:ARG:HH21	1.85	0.42
26:1H:438:G:H2'	26:1H:439:G:H8	1.85	0.42
26:1H:7:G:H2'	26:1H:8:A:O4'	2.19	0.42
26:1H:847:U:C4	26:1H:933:A:N1	2.87	0.42
27:1J:7:G:H3'	27:1J:8:U:H5"	2.01	0.42
3:22:38:ARG:O	3:22:42:LEU:N	2.27	0.42
30:29:116:VAL:HG11	30:29:138:PRO:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:31:CYS:CB	30:29:49:LEU:HB3	2.50	0.42
31:31:102:PRO:HB2	31:31:105:VAL:HG23	2.02	0.42
31:39:117:ARG:HA	31:39:117:ARG:HD3	1.91	0.42
31:39:126:VAL:HG13	31:39:193:VAL:HG23	2.02	0.42
24:3L:65:G:H2'	24:3L:66:U:C5	2.55	0.42
32:41:12:TYR:HA	32:41:16:ARG:HG3	2.01	0.42
32:41:145:THR:O	32:41:146:TYR:HB3	2.19	0.42
5:42:18:ARG:NH2	5:42:25:ARG:HB3	2.34	0.42
5:42:26:PHE:N	5:42:26:PHE:CD1	2.88	0.42
32:49:7:LEU:HA	32:49:7:LEU:HD23	1.89	0.42
13:4I:94:ARG:HD3	13:4I:94:ARG:HA	1.55	0.42
25:4K:23:A:N1	25:4K:24:A:N6	2.68	0.42
33:51:86:GLU:HG2	33:51:87:LEU:N	2.29	0.42
33:51:92:ILE:H	33:51:92:ILE:HG13	1.42	0.42
6:52:38:GLU:OE1	6:52:64:GLN:HG2	2.17	0.42
35:58:120:LEU:C	35:58:120:LEU:HD22	2.40	0.42
33:59:58:GLU:O	33:59:61:HIS:N	2.53	0.42
14:5A:32:SER:O	14:5A:40:CYS:HA	2.19	0.42
15:6I:4:THR:O	15:6I:8:LYS:N	2.51	0.42
28:71:58:VAL:HG23	28:71:201:PRO:HG3	2.01	0.42
8:72:29:SER:HB3	8:72:32:LYS:H	1.84	0.42
41:75:55:ASN:OD1	41:75:58:ASN:HB2	2.20	0.42
37:78:91:PHE:HE2	37:78:99:LEU:HD12	1.84	0.42
37:78:94:GLU:O	37:78:124:LYS:O	2.37	0.42
16:7I:33:ILE:H	16:7I:33:ILE:HG13	1.47	0.42
39:98:38:VAL:HG22	39:98:112:ALA:HB2	2.02	0.42
40:A8:78:LEU:HD12	40:A8:108:GLY:CA	2.50	0.42
42:C8:83:LEU:HG	42:C8:88:ILE:HB	2.02	0.42
43:D8:79:VAL:HG13	43:D8:81:TYR:HB3	2.01	0.42
45:F8:28:PHE:N	45:F8:28:PHE:CD1	2.86	0.42
47:H8:69:THR:HG22	47:H8:90:VAL:HA	2.02	0.42
49:J8:97:LEU:HG	49:J8:98:LEU:HG	2.02	0.42
50:K8:48:HIS:N	50:K8:50:ILE:HD11	2.35	0.42
26:14:1620:G:O4'	54:L5:1:MET:N	2.51	0.42
52:M8:2:LYS:HA	52:M8:2:LYS:HD3	1.59	0.42
52:M8:42:PHE:O	52:M8:43:TYR:HB3	2.19	0.42
52:M8:58:ARG:O	52:M8:60:GLN:N	2.53	0.42
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.57	0.42
29:11:238:GLY:O	29:11:239:ARG:C	2.57	0.42
29:11:257:LEU:HA	29:11:257:LEU:HD23	1.82	0.42
2:12:61:LEU:HD23	2:12:68:ILE:HD11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1174:G:N1	1:13:1175:G:C5	2.88	0.42
1:13:1393:U:O2'	1:13:1394:A:H2'	2.20	0.42
1:13:189:U:H2'	17:8I:63:ARG:HH22	1.85	0.42
1:13:302:G:C6	1:13:303:A:C5	3.07	0.42
1:13:464:G:O6	1:13:466:C:H4'	2.20	0.42
1:13:536:C:H2'	1:13:537:G:C8	2.54	0.42
1:13:807:A:H2'	1:13:808:C:H6	1.84	0.42
1:13:967:C:O5'	1:13:967:C:H6	2.03	0.42
26:14:1324:G:C2	26:14:1328:G:N1	2.88	0.42
26:14:1903:G:N2	26:14:1904:G:C4	2.88	0.42
26:14:2376:A:H2'	26:14:2377:A:C8	2.54	0.42
26:14:2591:C:C2'	26:14:2592:G:H5'	2.50	0.42
26:14:2877:G:O5'	26:14:2877:G:H8	2.01	0.42
26:14:2630:G:H21	26:14:2894:G:H22	1.66	0.42
26:14:337:C:H2'	26:14:338:G:O4'	2.19	0.42
26:14:862:G:H22	26:14:916:G:H1'	1.84	0.42
26:14:946:G:H2'	26:14:947:G:C8	2.55	0.42
26:14:970:C:H2'	26:14:971:C:H6	1.85	0.42
1:1G:1341:U:C6	1:1G:1341:U:H3'	2.55	0.42
1:1G:1368:G:O2'	1:1G:1369:C:H5'	2.20	0.42
1:1G:1383:C:O4'	24:3L:34:G:C8	2.73	0.42
1:1G:1422:G:O3'	36:25:49:ARG:NH1	2.40	0.42
1:1G:416:G:H2'	1:1G:417:C:C6	2.55	0.42
1:1G:616:G:N2	1:1G:625:G:C4	2.88	0.42
1:1G:675:A:H1'	11:2A:116:HIS:CG	2.55	0.42
1:1G:977:A:H2'	1:1G:978:A:H5"	2.02	0.42
26:1H:1193:G:H2'	26:1H:1194:A:C8	2.55	0.42
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.55	0.42
26:1H:1733:G:H2'	26:1H:1734:C:O4'	2.20	0.42
26:1H:1968:G:P	59:1H:4408:HOH:O	2.77	0.42
26:1H:2144:U:H1'	26:1H:2148:G:N2	2.35	0.42
26:1H:2206:C:H2'	26:1H:2207:C:H6	1.85	0.42
26:1H:256:A:OP2	59:1H:4313:HOH:O	2.22	0.42
26:1H:2747:G:H1	26:1H:2754:U:H2'	1.83	0.42
26:1H:566:U:H2'	26:1H:567:A:O4'	2.18	0.42
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.53	0.42
26:1H:643:A:C2	26:1H:644:A:C4	3.07	0.42
26:1H:729:G:H2'	26:1H:1775:U:O2	2.19	0.42
26:1H:879:G:N1	26:1H:898:C:C4	2.88	0.42
30:29:87:GLU:OE2	30:29:88:GLY:N	2.53	0.42
31:31:117:ARG:HD2	31:31:117:ARG:HA	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:662:G:H5'	37:35:15:ARG:C	2.40	0.42
37:35:98:GLU:O	37:35:102:ARG:HG3	2.20	0.42
31:39:89:VAL:O	31:39:90:PHE:C	2.57	0.42
4:3E:206:PHE:HD2	4:3E:207:TYR:CD1	2.37	0.42
12:3I:60:LEU:HD13	12:3I:60:LEU:HA	1.81	0.42
32:49:121:ASN:HB2	32:49:181:ARG:HH22	1.85	0.42
13:4I:27:LYS:O	13:4I:30:ALA:HB3	2.20	0.42
33:51:136:ILE:HD12	33:51:136:ILE:H	1.85	0.42
33:51:170:ARG:NE	33:51:170:ARG:HA	2.33	0.42
14:5A:26:ARG:O	14:5A:27:CYS:HB3	2.20	0.42
1:1G:974:A:P	14:5A:41:ARG:HH12	2.42	0.42
40:65:8:GLU:O	40:65:12:PHE:HB2	2.20	0.42
26:1H:2562:U:C1'	36:68:23:ARG:HD3	2.50	0.42
36:68:2:ILE:CG2	36:68:8:LEU:HD21	2.49	0.42
34:69:98:ALA:HA	34:69:109:ILE:HD11	2.01	0.42
8:7E:33:GLU:OE2	8:7E:50:ARG:NH2	2.53	0.42
40:A8:25:ARG:NH2	40:A8:40:ILE:HD12	2.34	0.42
26:1H:2319:G:C5	40:A8:3:ARG:HD3	2.55	0.42
19:AA:67:VAL:HG11	52:I5:56:VAL:HG23	2.02	0.42
41:B8:52:ILE:HG13	41:B8:61:PHE:HB3	2.02	0.42
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.49	0.42
46:C5:96:ILE:HG23	46:C5:102:CYS:O	2.20	0.42
43:D8:35:LEU:HB2	43:D8:37:VAL:CG2	2.50	0.42
43:D8:78:LYS:HE3	43:D8:78:LYS:HB2	1.73	0.42
50:G5:17:SER:N	50:G5:20:GLU:OE1	2.36	0.42
50:G5:21:LEU:O	50:G5:25:VAL:HG22	2.20	0.42
50:G5:47:ASN:N	50:G5:47:ASN:ND2	2.68	0.42
48:I8:25:ARG:HD3	48:I8:29:GLN:NE2	2.34	0.42
48:I8:49:LYS:HG3	48:I8:80:HIS:CG	2.55	0.42
2:12:145:LEU:O	2:12:149:LEU:HB2	2.20	0.42
1:13:101:A:OP2	1:13:101:A:H8	2.03	0.42
1:13:1190:G:P	3:2E:4:LYS:HA	2.60	0.42
1:13:1273:G:H5'	1:13:1274:G:OP2	2.20	0.42
1:13:1394:A:C5	1:13:1501:C:H4'	2.55	0.42
1:13:1477:C:H2'	1:13:1478:C:C6	2.55	0.42
1:13:159:G:H2'	1:13:161:A:OP2	2.20	0.42
1:13:15:G:H4'	5:4E:24:ARG:NH1	2.34	0.42
1:13:52:G:C4	1:13:53:A:C8	3.08	0.42
1:13:569:C:H5"	1:13:570:G:OP1	2.20	0.42
26:14:1072:C:O2	26:14:1092:C:H5	2.02	0.42
26:14:1198:U:C2	26:14:1199:U:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1343:G:O2'	26:14:1344:G:H5'	2.20	0.42
26:14:1465:G:C6	26:14:1466:G:N7	2.88	0.42
26:14:1516:U:H2'	26:14:1517:G:C8	2.55	0.42
26:14:1936:A:C8	26:14:1940:U:O2	2.73	0.42
26:14:2652:C:H2'	26:14:2653:U:O4'	2.19	0.42
26:14:2816:C:N4	26:14:2830:G:H1	2.17	0.42
26:14:286:C:H2'	26:14:287:C:C6	2.55	0.42
26:14:463:G:N2	26:14:465:G:H3'	2.33	0.42
26:14:897:C:N4	26:14:898:C:H41	2.17	0.42
29:19:270:ILE:HG12	29:19:270:ILE:H	1.51	0.42
2:1E:153:ARG:HB2	2:1E:153:ARG:HE	1.68	0.42
2:1E:178:ARG:HH12	2:1E:196:LEU:C	2.22	0.42
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.54	0.42
1:1G:1255:G:N2	1:1G:1276:G:H22	2.14	0.42
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.18	0.42
1:1G:18:C:H6	1:1G:18:C:O5'	2.03	0.42
1:1G:192:U:H2'	1:1G:193:C:H6	1.85	0.42
1:1G:491:G:C4	1:1G:492:G:C8	3.08	0.42
1:1G:563:A:C6	1:1G:567:G:N3	2.88	0.42
1:1G:658:G:H2'	1:1G:659:U:C6	2.55	0.42
1:1G:763:G:H2'	1:1G:764:C:H6	1.85	0.42
1:1G:775:G:O2'	1:1G:776:G:H5'	2.20	0.42
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.20	0.42
26:1H:1639:U:H4'	26:1H:2699:C:H4'	2.02	0.42
26:1H:2283:C:C5	26:1H:2284:C:C5	3.07	0.42
26:1H:2501:C:H2'	26:1H:2501:C:H6	1.66	0.42
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.54	0.42
26:1H:315:G:C6	26:1H:316:C:C4	3.08	0.42
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.55	0.42
26:1H:654(H):G:N7	26:1H:654(N):G:N2	2.58	0.42
26:1H:58:G:C2	26:1H:70:G:C6	3.08	0.42
26:1H:97:C:H5"	50:K8:3:LEU:CA	2.50	0.42
1:13:963:G:C2	10:1I:55:LYS:NZ	2.88	0.42
1:13:972:C:H4'	10:1I:57:LYS:HB2	2.01	0.42
27:1J:11:C:H3'	27:1J:12:C:C6	2.55	0.42
22:1K:10:G:C6	22:1K:11:A:N6	2.88	0.42
3:22:108:ASN:C	3:22:110:ASN:H	2.23	0.42
3:22:44:GLU:HA	3:22:52:LEU:HD11	2.01	0.42
23:2K:32:G:H2'	23:2K:33:OMC:H6	1.85	0.42
12:3A:69:TYR:HD2	12:3A:99:HIS:CD2	2.37	0.42
24:3K:34:G:C4	25:4K:14:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:5:G:N2	24:3K:69:G:C5	2.88	0.42
24:3L:36:A:H5'	24:3L:37:MIA:OP2	2.20	0.42
32:41:116:ASP:HB3	32:41:117:PHE:H	1.59	0.42
32:41:72:ARG:HA	32:41:87:PRO:HA	2.02	0.42
13:4A:3:ARG:HG2	13:4A:9:ILE:HG12	2.01	0.42
33:51:26:VAL:HB	33:51:33:LEU:O	2.20	0.42
33:51:6:ARG:HA	33:51:66:GLY:HA2	2.02	0.42
39:55:97:VAL:HA	39:55:113:LEU:O	2.20	0.42
34:61:132:PRO:O	34:61:133:HIS:ND1	2.53	0.42
15:6A:12:ILE:HG13	15:6A:12:ILE:H	1.59	0.42
7:6E:26:PHE:CD2	7:6E:30:ILE:HD11	2.55	0.42
15:6I:74:ASP:CG	15:6I:77:ARG:HG2	2.40	0.42
2:1E:178:ARG:HH21	8:7E:74:PRO:HB3	1.85	0.42
9:82:5:TYR:HA	9:82:17:VAL:O	2.20	0.42
9:82:42:ARG:HB2	9:82:42:ARG:HE	1.13	0.42
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.20	0.42
1:13:967:C:H4'	9:8E:125:TYR:HE1	1.85	0.42
41:B8:50:ILE:HA	41:B8:50:ILE:HD12	1.77	0.42
20:BI:10:LEU:HG	20:BI:11:SER:N	2.34	0.42
42:C8:18:LEU:HD11	42:C8:32:PHE:HA	2.02	0.42
42:C8:59:ARG:O	42:C8:63:VAL:HG23	2.19	0.42
47:D5:54:HIS:NE2	47:D5:123:ASP:OD2	2.52	0.42
43:D8:21:ARG:HB3	43:D8:91:TYR:CD2	2.55	0.42
43:D8:34:GLU:O	43:D8:36:PRO:HD3	2.19	0.42
44:E8:29:LEU:O	44:E8:33:ARG:HB2	2.20	0.42
46:G8:78:ALA:HB3	46:G8:79:CYS:SG	2.60	0.42
54:L5:22:MET:HB3	54:L5:22:MET:HE3	1.82	0.42
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.18	0.42
55:M5:14:VAL:HG11	55:M5:22:VAL:CG1	2.38	0.42
55:M5:46:ARG:HB3	55:M5:46:ARG:HE	1.44	0.42
53:N8:50:GLY:H	53:N8:56:LYS:CG	2.29	0.42
29:11:182:LEU:HA	29:11:182:LEU:HD23	1.79	0.41
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.55	0.41
1:13:1309:G:C6	1:13:1329:A:C2	3.08	0.41
1:13:942:G:C2	1:13:1342:C:C2	3.08	0.41
1:13:397:A:H5'	1:13:398:C:OP1	2.20	0.41
1:13:501:C:H1'	1:13:549:C:H1'	2.02	0.41
1:13:730:G:C6	1:13:731:G:H1'	2.55	0.41
26:14:1259:G:N7	59:14:3844:HOH:O	2.37	0.41
26:14:1274:A:N3	26:14:1297:C:H1'	2.35	0.41
26:14:1483:G:C2	26:14:1484:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1725:G:H5'	26:14:1726:G:OP2	2.20	0.41
26:14:221:A:C5	26:14:266:G:N7	2.88	0.41
26:14:451:C:N4	26:14:454:A:H5'	2.35	0.41
26:14:609(A):G:C6	26:14:610:C:C4	3.07	0.41
26:14:260:G:O4'	26:14:621:A:H1'	2.19	0.41
26:14:643:A:H2'	26:14:644:A:H8	1.85	0.41
27:16:50:G:OP2	40:A8:62:LYS:HB2	2.20	0.41
1:1G:1267:C:H5"	1:1G:1268:A:OP2	2.20	0.41
1:1G:1392:G:H2'	1:1G:1393:U:O4'	2.20	0.41
1:1G:166:G:H2'	1:1G:167:G:C8	2.55	0.41
1:1G:266:G:H5"	1:1G:267:C:C5	2.55	0.41
1:1G:273:A:N6	1:1G:274:A:N6	2.67	0.41
1:1G:491:G:H2'	1:1G:492:G:O4'	2.20	0.41
1:1G:618:C:H5'	1:1G:619:U:H5"	2.01	0.41
1:1G:645:C:C4	1:1G:646:U:C4	3.08	0.41
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.55	0.41
26:1H:1333:C:O2'	26:1H:1334:G:H5'	2.20	0.41
26:1H:1582:C:C2	26:1H:1583:A:C8	3.08	0.41
26:1H:1725:G:C2	26:1H:1741:C:C2	3.08	0.41
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.85	0.41
26:1H:1789:A:OP1	29:11:221:VAL:HA	2.20	0.41
26:1H:1864:U:OP1	26:1H:2410:G:O2'	2.36	0.41
26:1H:758:C:O2	26:1H:1981:A:H2	2.03	0.41
26:1H:2063:C:O2	26:1H:2450:A:N1	2.53	0.41
26:1H:2156:G:H2'	26:1H:2157:G:N3	2.35	0.41
26:1H:2340:G:C2'	26:1H:2341:G:H5'	2.49	0.41
26:1H:2734:A:H3'	26:1H:2735:G:C8	2.54	0.41
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.54	0.41
26:1H:299:A:H62	26:1H:300:A:H61	1.68	0.41
26:1H:533:G:OP1	42:C8:25:TRP:N	2.45	0.41
26:1H:663:G:C6	26:1H:664:C:C4	3.08	0.41
26:1H:684:G:C2	26:1H:774:A:C2	3.08	0.41
27:1J:33:G:C2	27:1J:34:U:C2	3.08	0.41
30:21:35:GLN:HA	30:21:67:PHE:CE2	2.55	0.41
36:25:87:ILE:HG21	36:25:87:ILE:HD13	1.88	0.41
3:2E:27:LYS:HA	3:2E:27:LYS:HD3	1.77	0.41
3:2E:46:GLU:HB2	3:2E:47:LEU:HD12	2.02	0.41
56:2L:19:G:C4	56:2L:59:A:C2	3.07	0.41
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.79	0.41
32:41:82:LEU:HA	32:41:86:MET:SD	2.60	0.41
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:16:THR:OG1	5:4E:17:ALA:N	2.50	0.41
26:14:1653:G:C6	39:55:9:LYS:HB2	2.55	0.41
35:58:129:PRO:O	35:58:134:ARG:NH1	2.53	0.41
7:62:65:ALA:HB3	7:62:124:LEU:HD23	2.01	0.41
9:82:95:LYS:HZ3	9:82:96:LEU:HD13	1.83	0.41
39:98:2:ARG:HA	39:98:5:LYS:HG3	2.01	0.41
40:A8:39:ILE:O	40:A8:39:ILE:HG22	2.20	0.41
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.19	0.41
42:C8:106:PHE:O	42:C8:109:LEU:HB2	2.19	0.41
47:D5:161:VAL:HG23	47:D5:162:GLU:H	1.85	0.41
44:E8:29:LEU:HD21	44:E8:33:ARG:HH21	1.84	0.41
49:F5:18:ILE:HG22	49:F5:20:ARG:HG3	2.01	0.41
45:F8:1:MET:C	45:F8:3:THR:N	2.73	0.41
45:F8:25:LYS:HG3	45:F8:82:GLN:OE1	2.20	0.41
47:H8:98:MET:O	47:H8:125:LEU:HA	2.19	0.41
49:J8:15:ALA:O	49:J8:40:ARG:HG2	2.20	0.41
26:14:2383:G:OP2	55:M5:37:SER:HB3	2.20	0.41
55:Q8:23:VAL:CG2	55:Q8:24:ALA:N	2.82	0.41
1:13:1160:G:H1	1:13:1177:G:N2	2.18	0.41
1:13:584:G:OP2	17:8I:87:LYS:NZ	2.51	0.41
1:13:626:U:C2	1:13:627:G:C8	3.08	0.41
1:13:799:G:C6	1:13:800:G:C4	3.07	0.41
26:14:1005:C:H1'	26:14:1012:U:C2	2.55	0.41
26:14:1324:G:C4	26:14:1328:G:O6	2.73	0.41
26:14:1647:G:C8	26:14:1647:G:H5'	2.55	0.41
26:14:2306:C:N4	26:14:2307:G:C6	2.88	0.41
26:14:2811:G:H8	26:14:2811:G:OP2	2.02	0.41
26:14:65:C:H2'	26:14:66:C:C6	2.55	0.41
26:14:998:C:H2'	26:14:999:U:O4'	2.19	0.41
35:15:91:LEU:HD22	35:15:91:LEU:HA	1.88	0.41
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.79	0.41
1:1G:1131:G:C5	1:1G:1132:C:H5	2.38	0.41
1:1G:1220:G:H5'	19:AA:34:TRP:O	2.20	0.41
1:1G:1298:C:O2'	1:1G:1299:A:C5	2.67	0.41
1:1G:1328:C:H2'	1:1G:1329:A:C8	2.55	0.41
1:1G:1494:G:C2	1:1G:1495:U:C5	3.08	0.41
1:1G:266:G:H5"	1:1G:267:C:H5	1.84	0.41
1:1G:683:G:H2'	1:1G:684:A:O4'	2.20	0.41
1:1G:985:C:N3	1:1G:1220:G:N2	2.58	0.41
26:1H:1477:A:C2	26:1H:1478:G:C4	3.08	0.41
26:1H:1488:G:C6	26:1H:1489:U:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1517:G:H2'	26:1H:1518:C:H6	1.86	0.41
26:1H:1690:A:C8	26:1H:1691:C:C6	3.08	0.41
26:1H:182:A:H2'	26:1H:183:C:C6	2.55	0.41
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.85	0.41
26:1H:238:C:H2'	26:1H:239:U:O4'	2.20	0.41
26:1H:2450:A:C2	26:1H:2451:A:C4	3.08	0.41
26:1H:270(M):U:O2'	26:1H:270(N):G:H3'	2.21	0.41
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.68	0.41
26:1H:581:C:O2'	26:1H:582:G:H5'	2.21	0.41
26:1H:763:G:O2'	26:1H:764:A:H3'	2.19	0.41
26:1H:847:U:P	59:1H:3670:HOH:O	2.78	0.41
10:1I:4:ILE:HD11	10:1I:100:THR:HG23	2.02	0.41
27:1J:100:G:H2'	27:1J:101:A:O4'	2.19	0.41
30:21:170:LEU:HA	30:21:170:LEU:HD23	1.84	0.41
30:21:29:GLY:HA2	30:21:180:ASN:HB3	2.01	0.41
30:29:92:THR:O	30:29:95:ILE:HG13	2.20	0.41
56:2L:14:A:C6	56:2L:23:G:C6	3.08	0.41
37:35:138:LEU:CD1	37:35:144:GLU:HG3	2.41	0.41
26:14:810:U:C2	37:35:29:LYS:O	2.74	0.41
12:3A:112:ASP:N	12:3A:112:ASP:OD1	2.52	0.41
4:3E:167:GLY:C	4:3E:168:ARG:HG2	2.40	0.41
1:13:881:G:P	12:3I:12:ARG:NH2	2.93	0.41
24:3L:56:C:C4	24:3L:57:G:C6	3.08	0.41
24:3L:68:C:H2'	24:3L:69:G:O4'	2.19	0.41
32:41:35:GLU:HG3	32:41:36:LYS:HB2	2.02	0.41
5:42:100:VAL:HG23	5:42:118:ILE:HG22	2.02	0.41
5:42:12:LEU:HA	5:42:12:LEU:HD23	1.91	0.41
5:42:155:GLU:H	5:42:155:GLU:HG2	1.61	0.41
5:42:99:GLY:O	5:42:117:ASP:HA	2.21	0.41
32:49:40:ASN:HB2	32:49:91:ARG:CG	2.47	0.41
33:51:51:ARG:HG2	33:51:52:VAL:N	2.36	0.41
40:65:39:ILE:HD13	40:65:39:ILE:HA	1.92	0.41
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.20	0.41
8:72:34:GLU:O	8:72:38:ILE:HG13	2.20	0.41
39:98:2:ARG:HH11	39:98:2:ARG:HG2	1.85	0.41
18:9A:29:PHE:HD1	18:9A:29:PHE:H	1.67	0.41
18:9I:21:LYS:HD2	18:9I:21:LYS:HA	1.80	0.41
18:9I:74:ARG:HG2	18:9I:79:LEU:HB2	2.02	0.41
47:D5:62:PRO:C	47:D5:64:GLY:H	2.24	0.41
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.93	0.41
50:K8:33:MET:O	50:K8:37:PHE:CD1	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:48:PHE:CE2	55:Q8:52:LYS:HB2	2.55	0.41
1:13:1157:A:H61	1:13:1178:G:N2	2.18	0.41
1:13:1333:A:C6	1:13:1334:G:C4	3.08	0.41
26:14:1064:C:O2	26:14:1074:G:N2	2.53	0.41
26:14:1010:A:N3	26:14:1153:C:H1'	2.36	0.41
26:14:1168:G:N2	26:14:1182:A:H1'	2.33	0.41
26:14:1299:G:H5'	26:14:1301:A:O4'	2.21	0.41
26:14:1411:C:H2'	26:14:1412:A:H8	1.85	0.41
26:14:1420:U:HO2'	26:14:1421:G:P	2.43	0.41
26:14:1856:G:N2	26:14:1886:C:O2	2.54	0.41
26:14:1933:G:H2'	26:14:1934:C:O4'	2.20	0.41
26:14:2291:U:H2'	26:14:2292:C:C6	2.55	0.41
26:14:2298:A:H1'	26:14:2321:G:H21	1.84	0.41
26:14:2729:G:H2'	26:14:2730:C:O4'	2.20	0.41
26:14:2864:G:C6	26:14:2865:U:N3	2.88	0.41
26:14:305:U:H2'	26:14:306:U:C5	2.56	0.41
26:14:485:C:O2	26:14:485:C:H2'	2.21	0.41
26:14:528:A:O2'	26:14:529:A:H5'	2.20	0.41
26:14:729:G:C8	29:19:208:LYS:HD2	2.56	0.41
26:14:845:G:H8	26:14:845:G:O5'	2.03	0.41
26:14:869:G:N1	26:14:909:A:C6	2.88	0.41
26:14:977:G:C5	26:14:987:G:C2	3.08	0.41
26:14:773:U:O2'	29:19:48:ARG:HD3	2.20	0.41
10:1A:82:ILE:H	10:1A:82:ILE:HG12	1.55	0.41
2:1E:19:HIS:CE1	2:1E:206:ASP:HB2	2.55	0.41
2:1E:76:GLN:HA	2:1E:208:ILE:HG12	2.02	0.41
1:1G:1360:A:H2'	1:1G:1361:G:O4'	2.20	0.41
1:1G:1415:G:C4	1:1G:1486:G:N2	2.88	0.41
1:1G:155:C:C2	1:1G:167:G:N2	2.88	0.41
1:1G:21:G:C2	1:1G:22:G:C5	3.09	0.41
1:1G:518:C:C4	1:1G:530:G:C5	3.08	0.41
1:1G:568:G:C6	1:1G:569:C:N4	2.89	0.41
1:1G:981:U:O5'	1:1G:981:U:H6	2.03	0.41
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.20	0.41
26:1H:1992:G:OP2	59:1H:4032:HOH:O	2.22	0.41
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.20	0.41
26:1H:2290:G:C6	26:1H:2291:U:N3	2.89	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.55	0.41
26:1H:2645:G:H3'	26:1H:2646:C:H5'	2.01	0.41
26:1H:266:G:C6	26:1H:267:C:C5	3.08	0.41
26:1H:35:G:C4	26:1H:454:A:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.21	0.41
26:1H:518:G:C2	26:1H:519:U:C4	3.09	0.41
10:1I:63:PHE:HB3	14:5I:58:LYS:HA	2.01	0.41
30:21:135:HIS:CE1	59:21:303:HOH:O	2.72	0.41
3:22:70:VAL:O	3:22:106:VAL:N	2.54	0.41
26:14:2561:A:H2	36:25:23:ARG:HE	1.68	0.41
30:29:117:MET:HB2	30:29:122:PHE:O	2.20	0.41
30:29:116:VAL:HG21	30:29:122:PHE:CD2	2.56	0.41
30:29:11:MET:CA	30:29:24:THR:HA	2.47	0.41
26:14:2787:C:O3'	30:29:61:ARG:NH1	2.54	0.41
11:2A:84:VAL:HG23	11:2A:110:ASP:OD1	2.19	0.41
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.21	0.41
11:2A:98:LEU:O	11:2A:101:SER:OG	2.23	0.41
26:14:2392:A:C8	37:35:61:ARG:HD2	2.51	0.41
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.20	0.41
4:3E:175:SER:HB3	4:3E:186:LEU:HD21	2.01	0.41
24:3L:29:G:C2'	24:3L:30:G:H5'	2.50	0.41
5:42:105:VAL:HG21	5:42:128:PRO:HB3	2.02	0.41
5:42:24:ARG:NH1	5:42:24:ARG:HB3	2.35	0.41
38:45:59:ARG:O	38:45:60:ARG:NH1	2.52	0.41
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	2.02	0.41
35:58:116:LEU:HD23	35:58:116:LEU:HA	1.77	0.41
6:5E:1:MET:HA	6:5E:67:MET:O	2.20	0.41
8:7E:10:LEU:HB3	8:7E:83:ILE:CD1	2.49	0.41
9:82:14:VAL:O	9:82:65:VAL:HG23	2.20	0.41
9:82:49:PRO:HB2	9:82:85:LEU:HD21	2.02	0.41
39:98:99:LYS:HE3	39:98:99:LYS:HB2	1.90	0.41
18:9A:61:LYS:O	18:9A:65:ILE:HG23	2.20	0.41
44:A5:13:SER:HA	44:A5:14:PRO:HD3	1.84	0.41
45:B5:24:GLY:HA3	45:B5:82:GLN:HE21	1.84	0.41
41:B8:108:ARG:O	41:B8:111:ARG:HG2	2.20	0.41
47:D5:24:LEU:HA	47:D5:25:PRO:HD3	1.89	0.41
48:E5:17:GLN:HB2	48:E5:19:LYS:HZ1	1.85	0.41
49:F5:13:ILE:H	49:F5:13:ILE:HG12	1.57	0.41
26:1H:456:C:N4	45:F8:69:TYR:CZ	2.84	0.41
48:I8:57:PHE:N	48:I8:57:PHE:CD1	2.89	0.41
49:J8:7:ILE:HD12	49:J8:7:ILE:N	2.35	0.41
45:F8:5:TYR:HB3	50:K8:33:MET:HB2	2.03	0.41
50:K8:33:MET:O	50:K8:37:PHE:HD1	2.02	0.41
29:11:273:ARG:H	29:11:273:ARG:HG3	1.67	0.41
2:12:107:THR:O	2:12:110:GLN:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1032(A):G:H2'	1:13:1032(B):G:C8	2.55	0.41
1:13:191:G:H1'	20:BI:105:SER:HA	2.02	0.41
1:13:247:G:O6	1:13:278:G:C6	2.74	0.41
1:13:452:A:C6	1:13:453:A:C6	3.08	0.41
1:13:954:G:H2'	1:13:955:U:C6	2.55	0.41
26:14:1410:G:H2'	26:14:1411:C:H6	1.83	0.41
26:14:1519:G:C6	26:14:1520:U:C4	3.08	0.41
26:14:1551:C:C5	26:14:1552:G:N7	2.89	0.41
26:14:740:U:O4'	26:14:1981:A:C4	2.74	0.41
26:14:2308:G:O6	26:14:2311:A:N1	2.54	0.41
26:14:2489:G:N7	26:14:2490:G:N1	2.69	0.41
26:14:2567:G:H2'	26:14:2568:C:C6	2.55	0.41
26:14:270(S):G:N1	26:14:270(T):G:C5	2.88	0.41
26:14:272:G:H1	26:14:365:C:H42	1.67	0.41
26:14:2846:G:H2'	26:14:2847:U:O4'	2.21	0.41
26:14:853:G:H2'	26:14:854:G:H8	1.85	0.41
26:14:911:A:C6	38:45:9:TYR:CD2	3.08	0.41
35:15:96:GLU:CD	35:15:96:GLU:H	2.24	0.41
29:19:133:LEU:HD13	29:19:173:VAL:CG2	2.50	0.41
29:19:143:HIS:HD1	29:19:144:ALA:HB2	1.84	0.41
29:19:2:ALA:O	29:19:3:VAL:HB	2.20	0.41
26:1H:1219:G:OP2	42:C8:19:LYS:HE3	2.20	0.41
26:1H:1949:G:C6	26:1H:1950:G:C6	3.08	0.41
26:1H:1268:A:C2	26:1H:2013:A:C4	3.08	0.41
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.43	0.41
26:1H:2262:U:H2'	26:1H:2263:C:C6	2.54	0.41
26:1H:2369:A:O2'	26:1H:2370:G:H5'	2.21	0.41
26:1H:2387:U:H1'	48:I8:41:ARG:NH2	2.36	0.41
26:1H:2700:C:O2'	26:1H:2701:C:H5'	2.20	0.41
26:1H:503:A:C6	26:1H:506:G:C6	3.09	0.41
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	2.03	0.41
27:1J:45:A:N3	27:1J:45:A:H2'	2.36	0.41
27:1J:97:G:H2'	27:1J:98:G:O4'	2.20	0.41
30:29:116:VAL:HG21	30:29:122:PHE:CE2	2.55	0.41
30:29:203:LYS:H	30:29:205:ALA:H	1.67	0.41
11:2I:73:MET:HG3	11:2I:103:LEU:HD21	2.02	0.41
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.20	0.41
23:2K:77:A:H8	23:2K:77:A:H5'	1.85	0.41
56:2L:41:C:H2'	56:2L:42:C:H6	1.85	0.41
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.86	0.41
31:39:28:ILE:HD13	31:39:119:ARG:HH21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1248:G:C8	31:39:92:PRO:HG3	2.56	0.41
4:3E:62:GLN:HA	4:3E:62:GLN:OE1	2.20	0.41
12:3I:35:GLY:O	12:3I:82:VAL:HG23	2.20	0.41
6:52:22:GLU:OE2	6:52:82:ARG:NE	2.52	0.41
39:55:38:VAL:HG22	39:55:112:ALA:HB2	2.02	0.41
33:59:167:GLU:HA	33:59:168:PRO:HD3	2.00	0.41
6:5E:16:GLN:N	6:5E:16:GLN:OE1	2.53	0.41
34:61:128:LEU:O	34:61:137:PRO:HA	2.21	0.41
34:69:109:ILE:HB	34:69:130:TYR:OH	2.21	0.41
7:6E:126:ASP:O	7:6E:130:GLY:N	2.53	0.41
16:7A:54:GLU:HA	16:7A:57:ARG:HB2	2.02	0.41
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	2.03	0.41
16:7I:77:ALA:CB	16:7I:79:VAL:H	2.34	0.41
42:85:95:LEU:HD11	43:95:11:GLN:O	2.20	0.41
1:13:254:G:O2'	17:8I:16:GLN:O	2.32	0.41
39:98:63:ARG:O	39:98:66:VAL:N	2.53	0.41
44:A5:6:ILE:HG22	44:A5:8:ARG:HG3	2.01	0.41
41:B8:6:LEU:HD13	41:B8:9:LEU:HB3	2.03	0.41
49:F5:44:PRO:HB2	49:F5:46:LEU:CD1	2.49	0.41
45:B5:11:PRO:HD3	50:G5:37:PHE:CD2	2.55	0.41
48:I8:23:VAL:HG13	48:I8:38:VAL:HG23	2.02	0.41
49:J8:8:SER:OG	49:J8:10:LYS:HG3	2.20	0.41
50:K8:59:ARG:O	50:K8:63:VAL:HG23	2.21	0.41
55:M5:56:GLU:HB2	55:M5:57:ARG:NH1	2.35	0.41
52:M8:36:CYS:SG	52:M8:38:LYS:O	2.78	0.41
52:M8:58:ARG:O	52:M8:61:ARG:HD2	2.19	0.41
1:13:1266:G:N2	1:13:1270:C:N3	2.69	0.41
1:13:115:G:C2	1:13:289:G:N7	2.89	0.41
1:13:49:U:C4	1:13:364:A:C5	3.08	0.41
1:13:677:U:H3	1:13:713:G:H22	1.68	0.41
1:13:922:G:N3	1:13:1396:A:C2	2.89	0.41
1:13:924:C:O2'	1:13:1502:A:N6	2.53	0.41
1:13:985:C:H42	1:13:1220:G:H1	1.66	0.41
26:14:1359:A:N7	26:14:1372:U:C4	2.88	0.41
26:14:1414:G:O2'	26:14:1415:U:H5'	2.20	0.41
26:14:1545(A):A:N7	26:14:1546:C:C2	2.88	0.41
26:14:2129:C:H2'	26:14:2130:U:O4'	2.20	0.41
26:14:2631:G:H1	26:14:2787:C:H42	1.67	0.41
26:14:26:G:C2	26:14:27:G:C2	3.09	0.41
26:14:422:A:C6	26:14:423:A:C6	3.08	0.41
26:14:443:A:O2'	26:14:1200:C:O2'	2.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:598:G:C6	26:14:599:G:C5	3.08	0.41
26:14:638:G:H2'	26:14:639:U:O4'	2.20	0.41
35:15:21:LYS:O	35:15:60:ILE:HG13	2.20	0.41
27:16:50:G:H2'	27:16:51:G:O5'	2.21	0.41
27:16:66:A:C2	27:16:108:C:C4	3.08	0.41
29:19:103:ARG:HB3	29:19:103:ARG:HE	1.45	0.41
2:1E:214:ILE:HG12	2:1E:214:ILE:H	1.63	0.41
2:1E:219:VAL:O	2:1E:223:ILE:HG13	2.21	0.41
2:1E:90:MET:HE1	2:1E:226:ARG:HH22	1.85	0.41
1:1G:1285:A:H1'	1:1G:1286:A:OP2	2.20	0.41
1:1G:1314:C:H5	19:AA:7:LYS:HE3	1.85	0.41
1:1G:937:A:H1'	1:1G:1379:G:C2	2.55	0.41
1:1G:1499:A:O2'	1:1G:1500:A:H5'	2.21	0.41
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.85	0.41
1:1G:384:G:H2'	1:1G:385:C:C6	2.56	0.41
1:1G:628:G:N2	1:1G:629:G:C4	2.89	0.41
26:1H:1102:C:H2'	26:1H:1103:A:O4'	2.21	0.41
26:1H:1206:G:C5	26:1H:1207:C:C5	3.07	0.41
26:1H:1416:G:H2'	26:1H:1417:C:C6	2.56	0.41
26:1H:1435:G:C5	26:1H:1436:G:N7	2.88	0.41
26:1H:1647:G:OP2	26:1H:1647:G:H3'	2.20	0.41
26:1H:1728:G:H1'	26:1H:1732:A:N6	2.36	0.41
26:1H:1780:A:H3'	26:1H:1781:C:H2'	2.03	0.41
26:1H:1784:A:H4'	26:1H:1785:A:O5'	2.20	0.41
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.35	0.41
26:1H:1788:C:H2'	26:1H:1789:A:O4'	2.20	0.41
26:1H:1814:G:H2'	26:1H:1815:A:C8	2.56	0.41
26:1H:196:A:N3	26:1H:196:A:H2'	2.35	0.41
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.20	0.41
26:1H:2414:G:H2'	26:1H:2414:G:N3	2.34	0.41
26:1H:2843:G:O2'	26:1H:2844:G:H5'	2.20	0.41
26:1H:363(F):A:H4'	26:1H:364:C:H5'	2.01	0.41
26:1H:483:A:C5'	46:G8:50:ARG:HH21	2.34	0.41
26:1H:813:U:H2'	26:1H:814:C:C6	2.55	0.41
27:1J:70:C:H2'	27:1J:71:C:H6	1.85	0.41
30:21:27:LEU:HG	30:21:180:ASN:O	2.20	0.41
3:22:90:GLU:HA	3:22:93:LYS:HB2	2.03	0.41
26:14:1668:A:OP1	36:25:5:GLN:HG2	2.20	0.41
36:25:9:GLU:O	36:25:83:ALA:HA	2.19	0.41
30:29:64:LYS:HB3	30:29:65:GLY:H	1.56	0.41
3:2E:87:LEU:O	3:2E:90:GLU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	2.02	0.41
31:39:27:GLU:O	31:39:28:ILE:HG12	2.20	0.41
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.35	0.41
12:3I:109:GLY:HA3	12:3I:121:GLY:O	2.20	0.41
26:1H:2314:C:H5"	32:41:38:VAL:HG11	2.01	0.41
26:14:2306:C:N4	32:49:42:GLY:O	2.40	0.41
32:49:43:LEU:O	32:49:46:ALA:HB3	2.21	0.41
5:4E:126:ARG:NH1	5:4E:126:ARG:HG3	2.35	0.41
39:55:100:LEU:HG	39:55:112:ALA:HA	2.01	0.41
6:5E:4:TYR:CD1	6:5E:92:LYS:HA	2.55	0.41
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.56	0.41
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.86	0.41
15:6A:49:ASP:OD2	15:6A:52:SER:OG	2.36	0.41
28:71:182:PRO:O	28:71:185:LEU:HB2	2.19	0.41
8:7E:10:LEU:N	8:7E:10:LEU:HD23	2.36	0.41
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.85	0.41
39:98:54:LEU:O	39:98:62:ALA:HB1	2.20	0.41
41:B8:42:ILE:O	41:B8:42:ILE:HD12	2.20	0.41
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.51	0.41
42:C8:27:LEU:HD22	42:C8:27:LEU:HA	1.90	0.41
47:D5:68:PRO:HD2	47:D5:90:VAL:HG12	2.02	0.41
43:D8:34:GLU:HG3	43:D8:56:SER:CB	2.48	0.41
54:L5:34:ARG:NH1	54:L5:39:ARG:HE	2.18	0.41
2:12:78:GLN:HG2	2:12:94:ASN:O	2.21	0.41
1:13:103:C:C4	1:13:104:G:N7	2.88	0.41
1:13:1124:G:O2'	1:13:1145:C:C4	2.68	0.41
1:13:1404:C:H6	1:13:1404:C:O5'	2.04	0.41
1:13:1416:G:C6	1:13:1417:G:C5	3.08	0.41
1:13:500:G:C6	1:13:501:C:C4	3.07	0.41
1:13:583:A:OP2	15:6I:68:ARG:NH2	2.53	0.41
1:13:837:G:C2	1:13:838:G:C8	3.08	0.41
26:14:1535:U:H2'	26:14:1536:A:O4'	2.20	0.41
26:14:1790:C:H2'	26:14:1791:A:C5	2.56	0.41
26:14:1648:C:H42	26:14:2009:G:H1	1.69	0.41
26:14:2302:G:H2'	26:14:2303:G:O4'	2.21	0.41
26:14:30:G:C6	26:14:31:C:C4	3.09	0.41
26:14:336:C:OP1	46:C5:83:THR:HG23	2.21	0.41
26:14:407:G:H2'	26:14:408:G:H8	1.85	0.41
35:15:72:TYR:HE2	35:15:87:LEU:HD23	1.85	0.41
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.19	0.41
1:1G:1305:G:H5"	21:1B:4:GLY:C	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1286:A:H3'	1:1G:1286:A:H8	1.84	0.41
1:1G:1349:A:P	9:82:118:LYS:NZ	2.88	0.41
1:1G:1415:G:C4	1:1G:1486:G:C2	3.08	0.41
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.55	0.41
1:1G:338:A:H2'	1:1G:339:C:C6	2.56	0.41
26:1H:1278:A:H2'	26:1H:1279:G:C8	2.56	0.41
26:1H:1343:G:H2'	26:1H:1384:A:C2	2.55	0.41
26:1H:1389:G:C2	26:1H:1399:C:O2	2.74	0.41
26:1H:1956:U:H2'	26:1H:1957:C:H5'	2.02	0.41
26:1H:2070:G:P	59:1H:4080:HOH:O	2.77	0.41
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.20	0.41
26:1H:2473:U:H2'	26:1H:2474:C:H6	1.85	0.41
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.20	0.41
26:1H:2645:G:C3'	26:1H:2646:C:H5'	2.51	0.41
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.19	0.41
26:1H:2759:G:OP2	59:1H:4321:HOH:O	2.22	0.41
26:1H:282:A:C8	26:1H:359:A:C6	3.09	0.41
26:1H:332:A:C2	26:1H:335:C:C5	3.08	0.41
26:1H:398:G:H2'	26:1H:399:G:O4'	2.20	0.41
26:1H:908:C:O2'	26:1H:909:A:H5'	2.20	0.41
26:1H:664:C:H4'	26:1H:941:A:OP1	2.19	0.41
26:1H:973:A:OP2	59:1H:3811:HOH:O	2.22	0.41
27:1J:61:G:C6	27:1J:62:C:C4	3.08	0.41
3:22:103:VAL:HG12	3:22:104:GLN:N	2.36	0.41
3:22:121:ALA:HB2	3:22:198:VAL:HG21	2.02	0.41
3:22:20:SER:HB2	3:22:40:ARG:HH12	1.85	0.41
36:25:34:THR:HG22	36:25:37:ASP:OD2	2.20	0.41
30:29:89:ASP:O	30:29:91:VAL:N	2.37	0.41
11:2A:17:GLY:N	11:2A:77:MET:SD	2.94	0.41
11:2A:96:ARG:O	11:2A:99:GLN:N	2.53	0.41
3:2E:12:LEU:HA	3:2E:12:LEU:HD23	1.68	0.41
56:2L:32:G:N3	56:2L:32:G:H2'	2.34	0.41
4:32:13:ARG:C	4:32:15:GLU:N	2.73	0.41
31:39:146:ALA:HB3	31:39:148:LEU:H	1.85	0.41
31:39:15:SER:OG	31:39:16:GLY:N	2.51	0.41
31:39:170:LEU:HA	31:39:170:LEU:HD23	1.78	0.41
31:39:177:ALA:HB1	31:39:178:PRO:HD2	2.03	0.41
1:1G:910:C:P	12:3A:21:LYS:HZ1	2.39	0.41
24:3K:18:G:C5	24:3K:57:G:N1	2.86	0.41
24:3L:50:U:C2	24:3L:65:G:N2	2.89	0.41
32:49:103:LEU:HD22	32:49:178:PHE:CZ	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:84:ILE:C	13:4A:86:CYS:N	2.71	0.41
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.20	0.41
5:4E:68:GLU:HG3	5:4E:68:GLU:O	2.21	0.41
13:4I:74:VAL:O	13:4I:78:ILE:HG13	2.21	0.41
25:4K:24:A:H2'	25:4K:25:A:C8	2.55	0.41
35:58:23:LEU:HA	35:58:23:LEU:HD12	1.67	0.41
33:59:94:TYR:N	33:59:94:TYR:CD1	2.88	0.41
7:62:150:ALA:HA	11:2A:59:TYR:HD2	1.85	0.41
7:6E:57:GLU:HA	7:6E:58:PRO:HD2	1.89	0.41
28:71:9:ALA:O	28:71:13:LYS:HG3	2.21	0.41
28:71:191:ALA:HA	28:71:194:ARG:CZ	2.50	0.41
38:88:82:ARG:HD2	38:88:82:ARG:HH11	1.70	0.41
9:8E:22:GLY:HA3	9:8E:60:ASP:OD2	2.21	0.41
17:8I:55:ASP:HB3	17:8I:57:VAL:CG1	2.48	0.41
17:8I:93:GLN:O	17:8I:96:GLU:HB2	2.21	0.41
39:98:17:ARG:O	39:98:20:LEU:HB3	2.20	0.41
19:AI:78:ARG:NH1	19:AI:79:THR:HA	2.32	0.41
47:D5:30:ASN:HA	47:D5:89:PHE:CE1	2.42	0.41
47:D5:58:VAL:HG12	47:D5:59:LEU:O	2.21	0.41
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.20	0.41
46:G8:51:VAL:O	46:G8:56:PRO:HA	2.21	0.41
47:H8:7:ALA:HB3	47:H8:61:LEU:CB	2.50	0.41
47:H8:94:GLU:O	47:H8:96:VAL:HG12	2.20	0.41
52:I5:40:HIS:CG	52:I5:45:GLY:HA3	2.54	0.41
29:11:106:ILE:HD13	29:11:106:ILE:HG21	1.74	0.41
29:11:25:THR:HG21	29:11:81:ALA:HA	2.01	0.41
2:12:131:PRO:HG2	2:12:134:GLU:HB2	2.01	0.41
2:12:81:VAL:O	2:12:85:ALA:HB2	2.20	0.41
1:13:109:A:C6	1:13:326:G:C5	3.09	0.41
1:13:1118:C:O4'	1:13:1179:A:H1'	2.21	0.41
1:13:177:C:H2'	1:13:178:C:C6	2.56	0.41
1:13:428:G:C8	1:13:430:A:C4	3.09	0.41
1:13:428:G:C8	1:13:430:A:C5	3.09	0.41
1:13:498:A:N6	1:13:547:A:C8	2.89	0.41
1:13:67:C:H2'	1:13:68:G:H8	1.85	0.41
1:13:909:A:H2'	1:13:910:C:O4'	2.21	0.41
1:13:950:U:H2'	1:13:951:G:H8	1.85	0.41
26:14:1206:G:C6	26:14:1207:C:C4	3.09	0.41
26:14:1210:A:C5'	26:14:1212:G:H5'	2.48	0.41
26:14:1217:C:OP1	42:85:15:LYS:HE3	2.20	0.41
26:14:1717:G:H1	26:14:1742:C:N4	2.13	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1903:G:H2'	26:14:1904:G:H8	1.85	0.41
26:14:1945:G:C4	26:14:1946:U:C5	3.08	0.41
26:14:2558:C:C4	26:14:2559:C:C5	3.09	0.41
26:14:2694:G:C6	26:14:2695:C:C4	3.09	0.41
26:14:2741:A:H2'	26:14:2742:C:O4'	2.19	0.41
26:14:2857:G:N2	26:14:2859:G:O3'	2.54	0.41
26:14:314:A:H2'	26:14:315:G:H8	1.85	0.41
26:14:323:G:C6	26:14:333:G:C4	3.09	0.41
26:14:602:G:N2	26:14:655:A:C8	2.89	0.41
26:14:660:G:H21	37:35:12:ALA:CA	2.34	0.41
27:16:4:C:H42	27:16:116:G:H1	1.67	0.41
29:19:223:GLY:HA2	29:19:226:MET:HG3	2.02	0.41
29:19:255:LYS:H	29:19:255:LYS:NZ	2.18	0.41
1:1G:1028:C:N4	1:1G:1033:G:H1	2.04	0.41
1:1G:1131:G:N7	1:1G:1132:C:H5	2.18	0.41
1:1G:142:G:C2	1:1G:143:A:C5	3.08	0.41
1:1G:560:U:H5'	1:1G:566:G:N2	2.35	0.41
1:1G:579:G:C6	1:1G:580:U:C4	3.09	0.41
26:1H:1084:A:C8	26:1H:1085:A:C8	3.08	0.41
26:1H:1087:G:N7	26:1H:1089:G:H1'	2.36	0.41
26:1H:1233:C:H2'	26:1H:1234:U:O4'	2.21	0.41
26:1H:1346:G:C4	26:1H:1347:G:C8	3.08	0.41
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.20	0.41
26:1H:1945:G:O2'	26:1H:1946:U:H5'	2.20	0.41
26:1H:2170:A:OP2	26:1H:2170:A:H8	2.04	0.41
26:1H:2335:A:N7	26:1H:2337:G:C4	2.89	0.41
26:1H:28:A:H1'	26:1H:513:A:C2	2.56	0.41
26:1H:78:A:H2'	26:1H:79:G:C8	2.55	0.41
10:1I:40:LEU:HA	10:1I:40:LEU:HD23	1.83	0.41
30:21:23:VAL:HA	30:21:185:LYS:HA	2.03	0.41
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.20	0.41
37:35:110:TYR:HB3	37:35:111:ARG:H	1.44	0.41
37:35:86:LYS:HG3	37:35:87:ASP:N	2.36	0.41
24:3L:58:A:H4'	24:3L:59:U:H5	1.85	0.41
24:3L:71:G:H1'	26:14:1851:U:H4'	2.03	0.41
32:41:146:TYR:O	32:41:149:VAL:HG22	2.20	0.41
5:42:80:ILE:HG12	5:42:81:GLU:N	2.36	0.41
5:42:9:LYS:HB3	5:42:33:VAL:HB	2.03	0.41
32:49:82:LEU:HA	32:49:86:MET:SD	2.60	0.41
35:58:126:PRO:HB2	35:58:127:ASP:OD1	2.20	0.41
35:58:17:ASP:O	35:58:18:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:83:TYR:CG	33:59:84:SER:N	2.89	0.41
15:6I:45:VAL:HG12	15:6I:46:HIS:CD2	2.56	0.41
37:78:83:VAL:HG11	37:78:112:LEU:HD21	2.03	0.41
37:78:82:GLY:HA2	37:78:113:LYS:O	2.20	0.41
8:7E:104:ARG:O	8:7E:107:LEU:HB2	2.20	0.41
9:82:40:LEU:CB	9:82:43:ALA:HB2	2.47	0.41
9:82:99:LEU:HD12	9:82:101:PHE:HE1	1.86	0.41
42:85:88:ILE:C	42:85:90:VAL:H	2.24	0.41
9:8E:18:PHE:O	9:8E:61:ALA:HA	2.21	0.41
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.19	0.41
43:95:2:PHE:CD1	43:95:42:GLY:HA2	2.56	0.41
26:1H:1276:A:H1'	39:98:16:HIS:NE2	2.35	0.41
44:A5:4:LYS:CB	44:A5:106:ILE:HG22	2.46	0.41
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.36	0.41
42:C8:69:CYS:SG	42:C8:79:PHE:CD2	3.11	0.41
49:F5:5:CYS:HB3	49:F5:10:LYS:H	1.86	0.41
26:14:849:A:C2	51:H5:24:LYS:HB3	2.49	0.41
47:H8:102:LEU:CD2	47:H8:137:ILE:HB	2.50	0.41
55:Q8:23:VAL:C	55:Q8:44:LYS:HB2	2.41	0.41
1:13:1153:C:H2'	1:13:1154:G:O4'	2.20	0.41
1:13:1165:C:H2'	1:13:1166:G:C8	2.56	0.41
1:13:171:A:C2	1:13:172:A:C4	3.09	0.41
1:13:187:C:O2	1:13:191(A):G:C6	2.74	0.41
1:13:558:G:C4	1:13:559:A:H2	2.38	0.41
1:13:605:U:C2	1:13:606:G:C8	3.09	0.41
1:13:746:A:C5	1:13:747:C:C5	3.08	0.41
26:14:1239:G:H2'	26:14:1240:U:O4'	2.20	0.41
26:14:1793:C:H2'	26:14:1794:U:C6	2.56	0.41
26:14:1966:A:H4'	26:14:1967:C:OP1	2.21	0.41
26:14:2010:G:N7	59:14:3561:HOH:O	2.37	0.41
26:14:2322:A:H2'	26:14:2323:G:O4'	2.20	0.41
26:14:234:C:C2	26:14:235:U:C6	3.09	0.41
26:14:307:G:N2	26:14:309:G:H3'	2.36	0.41
26:14:84:A:H61	26:14:102:G:C2'	2.33	0.41
29:19:148:GLU:O	29:19:151:LYS:HB2	2.20	0.41
29:19:71:ASP:OD1	29:19:71:ASP:N	2.53	0.41
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.67	0.41
1:1G:1447:G:O5'	1:1G:1447:G:H8	2.04	0.41
1:1G:144:G:H1	1:1G:178:C:N4	2.16	0.41
1:1G:452:A:C6	1:1G:453:A:C6	3.09	0.41
1:1G:742:G:C5'	15:6A:58:MET:HE1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.56	0.41
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.86	0.41
26:1H:1486:A:C5	26:1H:1487:G:N7	2.88	0.41
26:1H:1523:U:C2	26:1H:1524:G:C8	3.09	0.41
26:1H:1572:A:H8	26:1H:1572:A:O5'	2.04	0.41
26:1H:216:A:C4	26:1H:432:A:C2	3.09	0.41
26:1H:2252:G:H2'	26:1H:2253:G:O4'	2.20	0.41
26:1H:2406:U:N3	37:78:75:ILE:HD13	2.36	0.41
26:1H:2712(A):A:H5"	59:1H:3578:HOH:O	2.20	0.41
26:1H:43:G:N2	26:1H:438:G:C4	2.89	0.41
26:1H:654(H):G:N2	26:1H:654(I):C:H5	2.18	0.41
27:1J:96:G:C6	27:1J:97:G:C5	3.09	0.41
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.21	0.41
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.50	0.41
23:2K:20:G:C2	23:2K:58:A:C4	3.09	0.41
31:31:65:TRP:N	31:31:65:TRP:CD1	2.88	0.41
4:32:108:LEU:HD12	4:32:108:LEU:HA	1.78	0.41
12:3A:11:VAL:HG22	17:8A:29:HIS:HD2	1.86	0.41
4:3E:206:PHE:HD2	4:3E:207:TYR:CE1	2.39	0.41
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	2.03	0.41
4:3E:93:PHE:O	4:3E:96:LEU:HB2	2.21	0.41
1:13:881:G:P	12:3I:12:ARG:HH22	2.44	0.41
12:3I:83:VAL:HG22	12:3I:84:LEU:H	1.86	0.41
12:3I:98:TYR:CD1	12:3I:98:TYR:N	2.88	0.41
24:3L:20:U:O2'	24:3L:21:A:P	2.78	0.41
24:3L:65:G:H2'	24:3L:66:U:C6	2.56	0.41
5:42:13:ILE:HA	5:42:29:GLY:O	2.20	0.41
5:42:36:ASP:HB2	5:42:38:GLN:CG	2.50	0.41
32:49:43:LEU:HD12	32:49:45:GLU:OE1	2.21	0.41
5:4E:101:ILE:HD13	5:4E:101:ILE:HA	1.82	0.41
5:4E:77:PRO:HD2	5:4E:142:LEU:HD13	2.03	0.41
5:4E:15:ARG:HG3	5:4E:26:PHE:HD2	1.85	0.41
5:4E:59:GLY:O	5:4E:63:ARG:HG2	2.21	0.41
33:51:43:VAL:HB	33:51:52:VAL:HG22	2.02	0.41
26:1H:1006:C:O2	35:58:106:MET:HG2	2.20	0.41
14:5A:53:LEU:HA	14:5A:54:PRO:HD3	1.77	0.41
34:61:128:LEU:HD23	34:61:128:LEU:HA	1.66	0.41
34:61:97:ILE:H	34:61:97:ILE:HG12	1.64	0.41
40:65:7:TYR:O	40:65:11:LYS:HB2	2.21	0.41
40:65:5:THR:O	40:65:8:GLU:HB2	2.20	0.41
28:71:45:ALA:CA	28:71:212:VAL:HA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:19:ILE:HD12	16:7A:38:TYR:N	2.35	0.41
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.20	0.41
38:88:18:LYS:HB2	38:88:18:LYS:HE3	1.59	0.41
26:1H:1287:A:N7	39:98:107:ASP:HB2	2.35	0.41
44:A5:73:ALA:H	44:A5:106:ILE:HG13	1.86	0.41
40:A8:15:ARG:O	40:A8:19:LYS:HD2	2.20	0.41
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.20	0.41
46:C5:55:TYR:CD1	46:C5:55:TYR:N	2.89	0.41
47:D5:61:LEU:HB3	47:D5:62:PRO:O	2.20	0.41
26:1H:2359:C:O3'	55:Q8:49:VAL:HG11	2.19	0.41
55:Q8:7:HIS:O	55:Q8:8:LYS:C	2.59	0.41
29:11:120:GLY:N	29:11:130:ALA:O	2.53	0.41
29:11:177:LEU:HD12	29:11:181:GLU:HG2	2.02	0.41
29:11:264:LYS:HG2	29:11:266:SER:HB3	2.01	0.41
29:11:60:ARG:HD3	29:11:86:PRO:CB	2.33	0.41
1:13:1367:C:H5"	9:8E:114:TYR:CB	2.50	0.41
1:13:1483:A:O2'	26:1H:1947:C:O2'	2.17	0.41
1:13:232:G:C5	1:13:233:C:C5	3.08	0.41
1:13:324:G:N2	1:13:327:A:O5'	2.43	0.41
1:13:380:G:C2	1:13:384:G:C6	3.09	0.41
1:13:687:A:C2	1:13:704:A:C5	3.09	0.41
1:13:728:A:N6	15:6I:54:ARG:HG3	2.35	0.41
1:13:827:U:C5	1:13:872:A:N1	2.89	0.41
1:13:988:G:H2'	1:13:989:C:O4'	2.21	0.41
26:14:1054:A:H62	26:14:1104:C:N4	2.16	0.41
26:14:111:A:C6	26:14:112:U:C4	3.09	0.41
26:14:1299:G:C5	26:14:1639:U:C5	3.09	0.41
26:14:1387:C:H5'	26:14:1469:A:H4'	2.03	0.41
26:14:1887:C:H3'	26:14:1888:G:H5"	2.02	0.41
26:14:1949:G:H2'	26:14:1950:G:O4'	2.21	0.41
26:14:2041:U:C2	26:14:2042:A:C8	3.09	0.41
26:14:2233:U:H2'	26:14:2234:G:C8	2.55	0.41
26:14:2299:G:C6	26:14:2318:G:N7	2.89	0.41
26:14:2428:G:H8	26:14:2428:G:O5'	2.03	0.41
26:14:2567:G:C4	26:14:2568:C:C5	3.08	0.41
26:14:380:U:H2'	26:14:381:G:C8	2.56	0.41
26:14:819:A:H2'	26:14:820:A:H5'	2.03	0.41
27:16:63:G:N2	27:16:64:C:C2	2.89	0.41
26:14:1791:A:O2'	29:19:207:GLY:HA2	2.21	0.41
2:1E:23:ARG:HB3	2:1E:23:ARG:CZ	2.51	0.41
1:1G:1093:A:N3	1:1G:1095:U:H5"	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1121:U:H2'	1:1G:1122:U:C6	2.56	0.41
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.86	0.41
1:1G:1261:A:H5'	1:1G:1283:G:O3'	2.21	0.41
1:1G:1417:G:H2'	1:1G:1482:G:N2	2.36	0.41
1:1G:328:C:H4'	1:1G:329:A:H5"	2.02	0.41
1:1G:458:C:C2	1:1G:464:G:C8	3.08	0.41
1:1G:738:C:H2'	1:1G:739:C:C6	2.56	0.41
1:1G:983:A:N3	1:1G:983:A:H3'	2.36	0.41
26:1H:1049:C:H1'	26:1H:1113:U:H4'	2.03	0.41
26:1H:1475:G:N2	26:1H:1476:C:C2	2.88	0.41
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.45	0.41
26:1H:1526:G:C6	26:1H:1527:G:C2	3.09	0.41
26:1H:1408:C:C2	26:1H:1595:G:N2	2.89	0.41
26:1H:1760:A:H2'	26:1H:1761:C:C6	2.55	0.41
26:1H:1900:A:N1	26:1H:1970:A:C6	2.89	0.41
26:1H:2281:C:O2'	26:1H:2282:G:H5'	2.21	0.41
26:1H:2819:G:C6	26:1H:2821:A:C2	3.09	0.41
26:1H:299:A:H62	26:1H:300:A:N6	2.18	0.41
26:1H:722:A:C2	26:1H:723:G:C4	3.08	0.41
26:1H:844:C:C5	26:1H:845:G:C5	3.09	0.41
26:1H:943:U:P	59:1H:4353:HOH:O	2.76	0.41
26:1H:988:A:H4'	26:1H:1155:A:N1	2.36	0.41
3:22:40:ARG:NH1	3:22:57:ILE:HD12	2.36	0.41
3:2E:90:GLU:O	3:2E:94:LEU:HD23	2.21	0.41
11:2I:66:LEU:HD23	11:2I:66:LEU:HA	1.64	0.41
56:2L:44:A:H2'	56:2L:45:A:C8	2.55	0.41
31:31:31:HIS:NE2	31:31:35:GLU:OE2	2.53	0.41
37:35:35:HIS:HB3	37:35:36:LYS:H	1.66	0.41
26:14:659:C:H4'	31:39:100:THR:O	2.21	0.41
4:3E:184:LYS:HG3	4:3E:184:LYS:HZ2	1.74	0.41
32:41:61:ALA:HA	32:41:66:GLN:O	2.20	0.41
32:41:68:PRO:HB3	32:41:92:VAL:HB	2.02	0.41
13:4A:34:LEU:HB2	13:4A:39:ILE:HB	2.02	0.41
13:4A:70:LEU:HD23	13:4A:70:LEU:HA	1.83	0.41
39:55:37:THR:HB	39:55:39:PRO:HD2	2.03	0.41
33:59:30:LYS:HD3	33:59:80:SER:O	2.21	0.41
40:65:69:VAL:HG13	40:65:101:LEU:HD13	2.03	0.41
34:69:41:GLU:H	34:69:41:GLU:HG3	1.60	0.41
34:69:74:ASN:O	34:69:139:GLN:NE2	2.54	0.41
15:6A:48:LYS:HA	15:6A:48:LYS:HZ2	1.81	0.41
7:6E:16:LEU:HD23	7:6E:16:LEU:HA	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:36:ILE:HG22	15:6I:37:ASN:N	2.36	0.41
8:72:44:PHE:CD1	8:72:80:ILE:HG13	2.55	0.41
37:78:100:LEU:O	37:78:105:LEU:HD12	2.20	0.41
37:78:112:LEU:HA	37:78:112:LEU:HD23	1.79	0.41
8:7E:101:PRO:HG2	8:7E:133:LEU:HD11	2.02	0.41
8:7E:121:ASP:O	8:7E:125:ARG:HB2	2.21	0.41
38:88:1:MET:HB3	38:88:2:LEU:H	1.69	0.41
9:8E:6:GLY:O	9:8E:17:VAL:HG23	2.20	0.41
18:9A:22:VAL:C	18:9A:24:ALA:H	2.24	0.41
20:BI:16:HIS:HA	20:BI:19:SER:HB3	2.03	0.41
42:C8:85:LYS:HZ3	42:C8:85:LYS:HA	1.85	0.41
46:G8:31:LEU:CD1	46:G8:36:ALA:HB3	2.51	0.41
46:G8:39:VAL:O	46:G8:39:VAL:HG12	2.21	0.41
47:H8:137:ILE:HG22	47:H8:155:LEU:HD22	2.02	0.41
47:H8:56:VAL:HA	47:H8:70:LEU:HD23	2.03	0.41
52:I5:10:VAL:HA	52:I5:11:PRO:HD2	1.83	0.41
52:M8:14:ILE:HG13	52:M8:31:ILE:HB	2.03	0.41
53:N8:33:CYS:HB3	53:N8:36:CYS:O	2.21	0.41
54:P8:27:GLY:HA2	54:P8:30:VAL:HG23	2.02	0.41
29:11:155:LEU:HD13	29:11:155:LEU:N	2.36	0.41
29:11:33:LEU:HD23	29:11:33:LEU:HA	1.75	0.41
2:12:128:GLU:HG3	2:12:129:GLU:OE1	2.20	0.41
1:13:1093:A:C2	1:13:1095:U:H5'	2.56	0.41
1:13:1053:G:C4	1:13:1199:U:C4	3.09	0.41
1:13:1202:G:H8	1:13:1202:G:O5'	2.04	0.41
1:13:1372:U:H5"	9:8E:71:SER:CB	2.47	0.41
1:13:298:A:H2'	1:13:299:G:C8	2.55	0.41
1:13:55:A:C5	1:13:56:U:C5	3.08	0.41
1:13:689:C:OP1	11:2I:44:SER:OG	2.37	0.41
1:13:750:G:C2	1:13:751:U:C5	3.09	0.41
1:13:749:C:O2	1:13:750:G:C8	2.73	0.41
1:13:916:G:H2'	1:13:917:G:H8	1.85	0.41
26:14:1061:U:H3'	26:14:1062:G:H5'	2.03	0.41
26:14:55:G:O2'	26:14:127:A:N1	2.47	0.41
26:14:1349:A:N6	26:14:1598:C:N4	2.69	0.41
26:14:1411:C:H2'	26:14:1412:A:C8	2.55	0.41
26:14:1465:G:H5'	26:14:1528:A:O2'	2.21	0.41
26:14:1564:C:O2'	26:14:1565:C:H5'	2.20	0.41
26:14:2026:C:C4	26:14:2027:G:N7	2.89	0.41
26:14:2154:G:C6	26:14:2155:G:C5	3.08	0.41
26:14:2208:U:H4'	29:19:151:LYS:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2238:G:N3	26:14:2238:G:H2'	2.36	0.41
26:14:2355:C:H5"	26:14:2356:C:OP2	2.21	0.41
26:14:26:G:C6	26:14:27:G:C6	3.09	0.41
26:14:642:G:C8	26:14:642:G:C3'	3.04	0.41
26:14:926:A:H5"	26:14:928:G:OP2	2.21	0.41
29:19:118:VAL:HG22	29:19:119:ALA:H	1.86	0.41
29:19:235:GLY:C	29:19:237:GLU:HG2	2.42	0.41
2:1E:21:ARG:HB3	2:1E:39:ILE:HD13	2.02	0.41
1:1G:1004:A:H5"	1:1G:1025:U:C4	2.55	0.41
1:1G:1318:A:O2'	19:AA:37:ARG:HG2	2.21	0.41
1:1G:1353:G:H1	1:1G:1369:C:H42	1.68	0.41
1:1G:191:G:C6	1:1G:192:U:C4	3.09	0.41
1:1G:245:C:C2	1:1G:284:G:C2	3.09	0.41
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.41
1:1G:512:U:H2'	1:1G:513:C:H6	1.83	0.41
1:1G:39:G:N7	1:1G:547:A:H2'	2.36	0.41
1:1G:603:U:H2'	1:1G:604:G:C8	2.56	0.41
26:1H:1742:C:O5'	26:1H:1742:C:H6	2.04	0.41
26:1H:1975:G:C6	26:1H:1976:U:N3	2.89	0.41
26:1H:2151:G:O2'	26:1H:2152:G:H5'	2.21	0.41
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.20	0.41
26:1H:234:C:H2'	26:1H:235:U:H6	1.86	0.41
26:1H:2757:A:H5"	59:1H:4324:HOH:O	2.21	0.41
26:1H:526:A:N3	26:1H:2044:C:H1'	2.36	0.41
26:1H:743:G:N2	26:1H:754:C:O2	2.43	0.41
26:1H:836:G:H5"	26:1H:837:C:OP2	2.20	0.41
26:1H:860:U:H5	26:1H:917:A:N1	2.18	0.41
10:1I:26:ALA:C	10:1I:30:SER:HB3	2.41	0.41
27:1J:95:U:N3	27:1J:96:G:N7	2.68	0.41
22:1K:45:A:H8	22:1K:45:A:O5'	2.04	0.41
30:21:166:THR:HG21	30:21:199:ARG:HH22	1.86	0.41
30:21:6:GLY:HA3	30:21:26:ILE:HD11	2.01	0.41
30:29:35:GLN:O	30:29:48:GLN:HB2	2.21	0.41
3:2E:152:ILE:HG13	3:2E:167:TRP:HB2	2.03	0.41
31:39:110:LEU:O	31:39:114:VAL:HG23	2.21	0.41
4:3E:108:LEU:HD12	4:3E:174:LEU:HD13	2.03	0.41
24:3K:5:G:C5	24:3K:6:G:N7	2.89	0.41
32:41:49:ASP:OD2	32:41:51:ARG:HB3	2.20	0.41
32:49:145:THR:OG1	32:49:148:MET:N	2.54	0.41
32:49:166:ASP:OD1	32:49:166:ASP:N	2.46	0.41
35:58:14:VAL:HG12	35:58:15:LEU:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:56:ASN:C	35:58:57:ALA:O	2.58	0.41
6:5E:5:GLU:HG3	6:5E:93:SER:OG	2.21	0.41
7:62:89:MET:HE3	7:62:155:ARG:HG3	2.03	0.41
41:75:27:THR:CG2	41:75:90:GLN:HB3	2.51	0.41
26:1H:661:C:O3'	37:78:15:ARG:NE	2.54	0.41
16:7A:5:ARG:HE	16:7A:22:THR:CG2	2.33	0.41
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.21	0.41
42:85:74:LEU:HD23	42:85:74:LEU:H	1.86	0.41
38:88:37:LEU:HB2	38:88:128:LYS:O	2.21	0.41
9:8E:96:LEU:O	9:8E:99:LEU:HB2	2.21	0.41
17:8I:45:HIS:ND1	17:8I:46:ASP:N	2.69	0.41
39:98:28:LEU:O	39:98:28:LEU:HD22	2.20	0.41
40:A8:65:VAL:O	40:A8:69:VAL:HG12	2.21	0.41
19:AA:50:ALA:HB1	19:AA:57:HIS:C	2.41	0.41
20:BI:34:LYS:HB2	20:BI:34:LYS:HE3	1.92	0.41
47:D5:124:ILE:HA	47:D5:124:ILE:HD12	1.85	0.41
43:D8:35:LEU:HD11	43:D8:57:VAL:HG12	2.03	0.41
50:G5:50:ILE:H	50:G5:50:ILE:HD13	1.86	0.41
49:J8:50:ARG:HG2	49:J8:59:THR:OG1	2.21	0.41
50:K8:18:PRO:O	50:K8:21:LEU:N	2.54	0.41
51:L8:35:ARG:HB3	51:L8:37:LEU:HD22	2.02	0.41
29:11:136:ILE:HG12	29:11:136:ILE:H	1.67	0.41
29:11:59:LYS:HD2	29:11:59:LYS:HA	1.70	0.41
2:12:105:PHE:O	2:12:108:ILE:N	2.54	0.41
1:13:1104:G:H4'	2:1E:111:ARG:NH1	2.36	0.41
1:13:116:A:H2'	1:13:117:G:O4'	2.21	0.41
1:13:1309:G:C6	1:13:1310:G:C5	3.08	0.41
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.20	0.41
1:13:21:G:C2	1:13:22:G:C5	3.09	0.41
1:13:411:A:C8	1:13:413:G:C8	3.09	0.41
1:13:489:C:H2'	1:13:490:G:H8	1.86	0.41
26:14:1168:G:N2	26:14:1182:A:N3	2.69	0.41
26:14:1388:G:N3	26:14:1389:G:C8	2.89	0.41
26:14:1509:C:O2	26:14:1509:C:H2'	2.21	0.41
26:14:1939:U:OP1	26:14:2604:U:O2'	2.34	0.41
26:14:199:A:C4	26:14:2433:A:C2	3.09	0.41
26:14:2600:A:C6	26:14:2601:C:N4	2.89	0.41
26:14:311:A:C6	26:14:328:U:C4	3.09	0.41
26:14:330:A:H2	26:14:1210:A:O2'	2.03	0.41
26:14:449:A:C5	26:14:450:G:N7	2.89	0.41
26:14:880:G:C6	26:14:881:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:9:U:O4	26:14:2629:A:N7	2.54	0.41
27:16:5:C:O2'	27:16:27:C:O2	2.37	0.41
27:16:55:U:O2	27:16:56:G:C8	2.74	0.41
29:19:30:GLU:HG3	29:19:32:SER:O	2.21	0.41
29:19:46:GLN:HG2	29:19:46:GLN:H	1.68	0.41
21:1B:6:ARG:HH11	21:1B:15:ARG:NH1	2.19	0.41
2:1E:69:LEU:HB2	2:1E:159:PRO:HG3	2.03	0.41
2:1E:36:ARG:C	2:1E:38:GLY:H	2.24	0.41
1:1G:1290:G:C5	1:1G:1291:G:N7	2.89	0.41
1:1G:302:G:H2'	1:1G:303:A:O4'	2.21	0.41
1:1G:478:A:C6	1:1G:479:C:C4	3.09	0.41
1:1G:518:C:N3	1:1G:530:G:C6	2.88	0.41
1:1G:309:G:O2'	1:1G:607:A:N1	2.54	0.41
1:1G:669:U:C4	1:1G:670:G:N7	2.89	0.41
1:1G:953:G:H5'	1:1G:965:A:H61	1.84	0.41
1:1G:993:G:N3	1:1G:993:G:H2'	2.36	0.41
26:1H:1301:A:H2'	26:1H:1301:A:N3	2.35	0.41
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.86	0.41
26:1H:1429:G:C5	26:1H:1568:G:C6	3.09	0.41
26:1H:1439:A:C8	26:1H:1440:G:C8	3.09	0.41
26:1H:1534:G:N2	26:1H:1538:G:N2	2.68	0.41
26:1H:1581:G:O5'	26:1H:1581:G:H8	2.04	0.41
26:1H:1725:G:N2	26:1H:1741:C:C2	2.89	0.41
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.21	0.41
26:1H:2335:A:N7	26:1H:2337:G:C5	2.89	0.41
26:1H:2505:G:HO2'	26:1H:2506:U:H6	1.63	0.41
26:1H:2880:C:H2'	26:1H:2881:C:H6	1.86	0.41
26:1H:311:A:C6	26:1H:328:U:C4	3.09	0.41
26:1H:628:G:H2'	26:1H:629:G:C8	2.56	0.41
26:1H:466:A:N3	26:1H:683:C:H1'	2.36	0.41
27:1J:13:A:N1	27:1J:70:C:H5'	2.36	0.41
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.41
26:1H:2512:C:H4'	30:21:122:PHE:CE2	2.56	0.41
3:22:178:LEU:HA	3:22:178:LEU:HD13	1.90	0.41
3:22:43:LEU:HD22	3:22:43:LEU:HA	1.86	0.41
30:29:60:ASN:C	30:29:62:PRO:HD3	2.41	0.41
11:2I:33:THR:HB	11:2I:37:GLY:C	2.41	0.41
23:2K:38:A:C4	23:2K:39:A:C8	3.09	0.41
56:2L:21:U:O2	56:2L:21:U:H2'	2.21	0.41
56:2L:3:C:H42	56:2L:71:G:H1	1.69	0.41
31:31:161:GLU:H	31:31:161:GLU:HG2	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:38:ARG:HG2	31:31:38:ARG:O	2.20	0.41
37:35:85:LEU:HD13	37:35:115:LEU:O	2.21	0.41
37:35:62:LEU:HA	37:35:62:LEU:HD12	1.68	0.41
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	2.03	0.41
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.51	0.41
13:4I:82:MET:HE2	13:4I:93:ARG:HG2	2.03	0.41
33:59:140:LYS:HB3	33:59:140:LYS:HE2	1.87	0.41
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	2.03	0.41
40:65:101:LEU:O	40:65:105:ALA:N	2.51	0.41
36:68:64:ARG:HH11	36:68:64:ARG:HD2	1.77	0.41
15:6I:82:ILE:HG23	15:6I:87:ILE:HB	2.03	0.41
28:71:45:ALA:N	28:71:212:VAL:HA	2.35	0.41
19:AI:30:LEU:HD13	19:AI:30:LEU:H	1.86	0.41
45:B5:31:HIS:HA	45:B5:32:PRO:HD3	1.76	0.41
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.30	0.41
41:B8:95:ARG:HH11	41:B8:95:ARG:HA	1.86	0.41
47:D5:10:ARG:HB2	47:D5:37:VAL:CA	2.50	0.41
43:D8:76:LYS:HG3	43:D8:81:TYR:CE1	2.56	0.41
44:E8:58:ALA:O	44:E8:62:HIS:O	2.38	0.41
55:Q8:57:ARG:N	55:Q8:57:ARG:HE	2.17	0.41
29:11:11:PRO:C	29:11:13:ARG:H	2.24	0.40
29:11:183:ARG:HD2	29:11:269:PHE:O	2.21	0.40
2:12:111:ARG:HA	2:12:111:ARG:HD3	1.86	0.40
1:13:1011:G:H2'	1:13:1012:U:O4'	2.21	0.40
1:13:321:A:C2	1:13:333:G:C2	3.09	0.40
1:13:504:C:P	59:13:1871:HOH:O	2.79	0.40
1:13:652:U:O2'	1:13:653:A:O5'	2.36	0.40
1:13:658:G:C6	1:13:659:U:C4	3.09	0.40
26:14:1287:A:N7	39:55:106:GLY:O	2.53	0.40
26:14:1433:U:O2	26:14:1561:G:C2	2.74	0.40
26:14:1507:A:C2	26:14:1508:A:H1'	2.56	0.40
26:14:1519:G:C6	26:14:1520:U:N3	2.89	0.40
26:14:1683:C:H2'	26:14:1684:C:H6	1.83	0.40
26:14:1728:G:C2	26:14:1730:U:OP2	2.74	0.40
26:14:2181:G:H2'	26:14:2182:G:O4'	2.21	0.40
26:14:2701:C:H3'	26:14:2702:U:C5'	2.43	0.40
26:14:2737:G:H2'	26:14:2738:A:C8	2.56	0.40
26:14:2820:A:O5'	39:55:4:LEU:HD23	2.20	0.40
26:14:449:A:C4	26:14:450:G:C8	3.10	0.40
26:14:27:G:C2	26:14:512:G:N3	2.88	0.40
26:14:50:U:H4'	26:14:51:G:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:687:C:H2'	26:14:688:U:O4'	2.21	0.40
26:14:707:G:H2'	26:14:708:C:O4'	2.21	0.40
26:14:768:G:H2'	26:14:769:G:C8	2.56	0.40
26:14:862:G:N2	26:14:916:G:H1'	2.36	0.40
26:14:96:G:H4'	50:G5:48:HIS:ND1	2.36	0.40
27:16:80:U:O2'	27:16:81:G:H5'	2.21	0.40
2:1E:4:GLU:HB3	2:1E:5:ILE:H	1.66	0.40
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.03	0.40
1:1G:1058:G:O5'	1:1G:1058:G:H8	2.05	0.40
1:1G:1216:G:C2	1:1G:1217:C:C4	3.09	0.40
1:1G:1255:G:H22	1:1G:1276:G:N2	2.14	0.40
1:1G:1264:C:O2	1:1G:1272:G:C2	2.74	0.40
1:1G:1278:U:H5'	1:1G:1279:A:O4'	2.22	0.40
1:1G:452:A:HO2'	1:1G:453:A:C4'	2.34	0.40
1:1G:659:U:O2'	1:1G:660:G:H5'	2.21	0.40
1:1G:812:C:OP1	1:1G:903:G:H1'	2.20	0.40
1:1G:963:G:H1	1:1G:972:C:H42	1.68	0.40
1:1G:976:G:OP1	14:5A:31:ARG:HB3	2.20	0.40
26:1H:1071:G:O5'	26:1H:1071:G:H8	2.04	0.40
26:1H:1196:C:O4'	26:1H:1227:A:C2	2.74	0.40
26:1H:1289:C:H2'	26:1H:1290:C:C6	2.56	0.40
26:1H:1497:U:H3'	26:1H:1498:C:H6	1.86	0.40
26:1H:1844:C:H42	26:1H:1896:G:H1	1.68	0.40
26:1H:2114:A:N6	26:1H:2115:G:C6	2.88	0.40
26:1H:223:A:N1	26:1H:407:G:O2'	2.36	0.40
26:1H:2404:C:N4	26:1H:2405:G:C6	2.89	0.40
26:1H:2551:C:H2'	26:1H:2552:U:C6	2.57	0.40
26:1H:2563:U:H4'	36:68:28:SER:HA	2.03	0.40
26:1H:2715:C:C4	26:1H:2716:U:C5	3.09	0.40
26:1H:347:A:H2'	26:1H:348:G:C8	2.56	0.40
26:1H:533:G:N3	42:C8:45:TYR:CE2	2.89	0.40
26:1H:993:G:C4	26:1H:994:C:C5	3.09	0.40
10:1I:36:GLY:HA2	10:1I:37:PRO:HD3	1.88	0.40
27:1J:101:A:OP2	27:1J:101:A:C8	2.70	0.40
27:1J:76:G:H2'	27:1J:77:U:O4'	2.20	0.40
30:21:117:MET:HA	30:21:122:PHE:N	2.36	0.40
30:29:182:LEU:HD12	30:29:182:LEU:HA	1.72	0.40
11:2I:21:ILE:HB	11:2I:84:VAL:HG12	2.02	0.40
56:2L:53:G:H2'	56:2L:54:G:O4'	2.21	0.40
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.55	0.40
4:32:106:TYR:HA	4:32:111:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:120:LEU:H	4:32:120:LEU:HG	1.63	0.40
31:39:9:ILE:HA	31:39:13:SER:O	2.22	0.40
31:39:9:ILE:HG22	31:39:9:ILE:O	2.21	0.40
12:3A:89:ARG:HG2	12:3A:90:VAL:H	1.87	0.40
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.51	0.40
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.57	0.40
12:3I:86:ARG:HH11	12:3I:86:ARG:HD3	1.70	0.40
24:3L:19:G:C1'	24:3L:57:G:H21	2.34	0.40
32:41:114:ILE:HG12	32:41:140:ILE:HG21	2.04	0.40
32:41:52:ILE:HD13	32:41:52:ILE:HA	1.94	0.40
5:42:60:TYR:HD2	5:42:64:ARG:HH12	1.68	0.40
13:4A:7:VAL:HG21	32:49:115:ARG:CZ	2.52	0.40
13:4I:13:LYS:HB3	13:4I:14:ARG:H	1.51	0.40
33:51:124:GLU:C	33:51:126:PRO:HD3	2.41	0.40
39:55:104:ARG:HG3	39:55:104:ARG:H	1.60	0.40
39:55:30:THR:HG22	39:55:31:HIS:ND1	2.36	0.40
33:59:54:ARG:HD2	33:59:56:SER:O	2.21	0.40
40:65:84:GLN:HA	40:65:110:LEU:CD1	2.50	0.40
7:6E:26:PHE:O	7:6E:30:ILE:HG13	2.21	0.40
28:71:18:LYS:HB3	28:71:18:LYS:HZ2	1.86	0.40
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.22	0.40
37:78:112:LEU:HD22	37:78:113:LYS:N	2.36	0.40
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.21	0.40
16:7A:20:VAL:HG11	16:7A:32:TYR:CE2	2.56	0.40
5:4E:152:ARG:HB3	8:7E:43:GLY:O	2.21	0.40
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.40
9:82:79:LEU:O	9:82:83:ARG:N	2.44	0.40
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.85	0.40
42:85:92:ARG:HG3	42:85:94:ASN:HB3	2.03	0.40
39:98:92:GLY:N	39:98:94:TYR:HE1	2.19	0.40
44:A5:72:LYS:HB3	44:A5:106:ILE:CD1	2.50	0.40
19:AI:15:LEU:O	19:AI:19:VAL:N	2.42	0.40
45:B5:35:THR:HG23	45:B5:38:GLU:CB	2.51	0.40
41:B8:102:ILE:HB	41:B8:110:ILE:CD1	2.50	0.40
20:BI:50:GLU:HB2	20:BI:100:ILE:HD13	2.02	0.40
46:C5:30:VAL:HG12	46:C5:31:LEU:N	2.36	0.40
46:C5:35:TYR:CD2	46:C5:69:ALA:HB3	2.56	0.40
45:F8:44:GLU:HG2	45:F8:49:VAL:O	2.21	0.40
46:G8:64:GLU:HG2	46:G8:64:GLU:H	1.78	0.40
47:H8:18:LEU:N	47:H8:18:LEU:HD12	2.36	0.40
47:H8:36:LYS:HE3	47:H8:36:LYS:HB2	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:I8:49:LYS:O	48:I8:50:ASN:HB2	2.21	0.40
48:I8:53:MET:HG3	48:I8:59:LEU:CD2	2.47	0.40
50:K8:7:ARG:O	50:K8:11:GLU:HB2	2.22	0.40
55:M5:54:GLU:H	55:M5:54:GLU:HG3	1.63	0.40
29:11:63:ARG:HG2	29:11:92:ILE:CD1	2.51	0.40
1:13:1285:A:H4'	1:13:1286:A:O5'	2.21	0.40
1:13:1317:C:C2	14:5I:16:PHE:CE2	3.10	0.40
1:13:142:G:C2	1:13:143:A:C5	3.09	0.40
1:13:303:A:H2'	1:13:304:U:O4'	2.21	0.40
1:13:416:G:C6	1:13:417:C:C4	3.09	0.40
1:13:631:G:C8	1:13:632:A:C2	3.09	0.40
1:13:631:G:H2'	1:13:632:A:C4	2.56	0.40
1:13:812:C:H1'	1:13:813:U:OP2	2.22	0.40
1:13:904:C:C4	1:13:905:U:C4	3.09	0.40
1:13:937:A:H2	1:13:1377:A:O2'	2.04	0.40
1:13:949:A:C6	1:13:950:U:C4	3.10	0.40
1:13:971:G:H22	1:13:1363:A:P	2.43	0.40
26:14:1234:U:C4	26:14:1235:G:C5	3.10	0.40
26:14:1836:C:O2'	26:14:1837:C:H5'	2.21	0.40
26:14:2111:C:C4	26:14:2145:C:N3	2.89	0.40
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.54	0.40
24:3L:76:A:H61	26:14:2422:A:C5'	2.33	0.40
26:14:25:U:C5'	44:A5:79:GLY:HA2	2.52	0.40
26:14:265:A:C8	26:14:266:G:H1'	2.57	0.40
26:14:2684:U:H2'	26:14:2685:G:O4'	2.20	0.40
26:14:2688:U:H1'	26:14:2721:A:N6	2.37	0.40
26:14:2766:G:C2	26:14:2767:C:C6	3.09	0.40
26:14:2867:G:C8	41:75:23:ARG:NH1	2.89	0.40
26:14:621:A:H2'	26:14:622:G:H5'	2.03	0.40
26:14:638:G:C5	26:14:639:U:C5	3.09	0.40
26:14:74:A:H4'	26:14:75:G:O5'	2.21	0.40
26:14:977:G:N3	26:14:978:G:C8	2.89	0.40
27:16:17:C:N4	27:16:108:C:N3	2.68	0.40
2:1E:114:ARG:NH2	2:1E:141:GLU:OE1	2.55	0.40
1:1G:1028(A):C:C4	1:1G:1028(B):C:H5	2.38	0.40
1:1G:102:G:H2'	1:1G:103:C:C6	2.56	0.40
1:1G:1047:G:H8	1:1G:1047:G:O5'	2.05	0.40
1:1G:1074:G:H2'	1:1G:1075:C:C6	2.56	0.40
1:1G:294:U:H6	1:1G:294:U:O5'	2.03	0.40
1:1G:406:G:C2	1:1G:407:G:C8	3.09	0.40
1:1G:866:C:N3	1:1G:867:G:H1'	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1342:A:N6	26:1H:1397:U:C5	2.89	0.40
26:1H:1534:G:N3	26:1H:1534:G:H3'	2.36	0.40
26:1H:1580:A:OP2	26:1H:1580:A:H8	2.04	0.40
26:1H:1586:A:C2	26:1H:1587:A:C5	3.08	0.40
26:1H:1972:A:H5'	59:1H:4393:HOH:O	2.21	0.40
26:1H:2310:A:H62	32:41:79:ASN:HB2	1.86	0.40
26:1H:2396:G:H4'	49:J8:29:GLY:O	2.21	0.40
26:1H:2422:A:C5	26:1H:2424:C:N4	2.89	0.40
26:1H:2461:C:C2	26:1H:2462:U:C5	3.09	0.40
26:1H:2504:U:H5"	59:1H:3523:HOH:O	2.21	0.40
26:1H:2595:G:C5	59:1H:3921:HOH:O	2.73	0.40
26:1H:2607:G:H4'	59:1H:3908:HOH:O	2.21	0.40
26:1H:288:C:C4	26:1H:351:G:N2	2.89	0.40
26:1H:558:G:OP2	35:58:111:PRO:HD2	2.21	0.40
26:1H:602:G:N2	26:1H:655:A:H8	2.10	0.40
26:1H:662:G:OP1	37:78:15:ARG:NE	2.40	0.40
26:1H:972:G:H8	26:1H:972:G:O5'	2.04	0.40
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.51	0.40
30:21:147:PRO:HB2	30:21:149:ARG:CG	2.47	0.40
3:22:94:LEU:HD12	3:22:95:THR:H	1.86	0.40
11:2I:60:ALA:HA	11:2I:63:LEU:HD12	2.04	0.40
31:39:82:ILE:HG22	31:39:82:ILE:O	2.21	0.40
24:3K:9:A:N6	24:3K:22:G:O6	2.55	0.40
24:3K:56:C:H2'	24:3K:57:G:O4'	2.21	0.40
24:3L:10:G:C5	24:3L:26:A:C2	3.10	0.40
32:41:97:ASP:O	32:41:98:ARG:C	2.59	0.40
5:42:41:VAL:O	5:42:67:VAL:N	2.53	0.40
38:45:16:ARG:HE	38:45:16:ARG:HB2	1.28	0.40
13:4A:3:ARG:HB2	52:I5:34:GLU:CG	2.48	0.40
13:4A:58:GLU:HG3	13:4A:59:TYR:N	2.36	0.40
7:62:143:ARG:HH12	24:3L:42:C:P	2.42	0.40
7:62:73:MET:HB2	7:62:73:MET:HE3	1.98	0.40
40:65:15:ARG:O	40:65:19:LYS:HD3	2.20	0.40
34:69:102:SER:HB3	34:69:108:THR:HG23	2.02	0.40
34:69:76:THR:HG21	34:69:139:GLN:O	2.20	0.40
41:75:19:LEU:HA	41:75:20:PRO:HD3	1.93	0.40
37:78:114:ILE:HD11	37:78:130:PHE:CD2	2.56	0.40
26:1H:805:G:P	37:78:41:ARG:HG2	2.61	0.40
37:78:91:PHE:CD1	37:78:91:PHE:N	2.89	0.40
39:98:44:LEU:O	39:98:45:ARG:C	2.60	0.40
18:9A:70:ILE:O	18:9A:74:ARG:HG3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:65:ILE:H	18:9I:65:ILE:HG13	1.69	0.40
44:A5:23:LEU:HA	44:A5:23:LEU:HD13	1.91	0.40
13:4A:94:ARG:NH2	19:AA:78:ARG:HH12	2.19	0.40
45:B5:3:THR:HG22	45:B5:6:ASP:OD2	2.20	0.40
41:B8:114:LEU:HA	41:B8:114:LEU:HD23	1.71	0.40
41:B8:48:ILE:O	41:B8:63:VAL:HA	2.22	0.40
20:BI:57:ARG:CZ	20:BI:102:GLY:HA2	2.51	0.40
47:D5:53:ILE:HA	47:D5:70:LEU:HD22	2.03	0.40
46:G8:17:SER:OG	46:G8:71:LYS:HD2	2.22	0.40
46:G8:44:ILE:HA	46:G8:63:LYS:O	2.21	0.40
53:J5:16:ARG:HG3	53:J5:17:ASP:OD1	2.20	0.40
49:J8:32:LYS:HG3	49:J8:32:LYS:HZ3	1.75	0.40
55:Q8:47:LYS:NZ	55:Q8:47:LYS:CA	2.84	0.40
29:11:105:ILE:HA	29:11:105:ILE:HD12	1.80	0.40
29:11:177:LEU:HB3	29:11:178:PRO:CD	2.51	0.40
26:1H:1844:C:H5"	29:11:258:LYS:HD3	2.03	0.40
2:12:8:LYS:NZ	2:12:213:LEU:HD21	2.37	0.40
2:12:69:LEU:HA	2:12:91:PRO:O	2.21	0.40
1:13:101:A:C4	1:13:102:G:C8	3.10	0.40
1:13:1057:G:C6	1:13:1058:G:C4	3.10	0.40
1:13:1331:G:OP2	13:4I:23:TYR:HD1	2.05	0.40
1:13:232:G:H2'	1:13:233:C:C6	2.57	0.40
1:13:315:A:H5"	1:13:317:G:OP2	2.21	0.40
1:13:317:G:C6	1:13:318:G:C5	3.09	0.40
1:13:329:A:C6	1:13:332:G:C2	3.09	0.40
1:13:397:A:N7	1:13:548:G:C8	2.90	0.40
1:13:872:A:C2	1:13:874:G:C6	3.10	0.40
26:14:1285:G:C5	26:14:1329:U:C4	3.08	0.40
26:14:1322:A:C2'	26:14:1323:U:H5'	2.51	0.40
26:14:1464:C:O2'	26:14:1528:A:C8	2.71	0.40
26:14:141:A:N6	26:14:1595:G:O2'	2.54	0.40
26:14:1672:C:H5"	26:14:1673:U:OP2	2.21	0.40
26:14:2082:A:H2'	26:14:2083:G:O4'	2.22	0.40
26:14:2305:A:H5"	32:49:134:GLY:HA3	2.04	0.40
26:14:621:A:H3'	26:14:622:G:H8	1.87	0.40
26:14:817:C:H6	26:14:817:C:O5'	2.05	0.40
26:14:900:A:H2'	26:14:900:A:N3	2.37	0.40
27:16:10:C:N4	27:16:110:G:H1	2.18	0.40
1:1G:1015:A:H2'	1:1G:1016:A:C8	2.56	0.40
1:1G:1046:A:H5'	1:1G:1047:G:OP2	2.21	0.40
1:1G:1050:G:C6	1:1G:1051:C:N4	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:12:U:H4'	1:1G:526:C:H4'	2.04	0.40
1:1G:1305:G:P	1:1G:1305:G:O4'	2.79	0.40
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.21	0.40
1:1G:1346:A:N1	1:1G:1374:A:H5"	2.36	0.40
1:1G:318:G:H2'	1:1G:319:G:H8	1.87	0.40
1:1G:334:C:H2'	1:1G:335:C:H6	1.85	0.40
1:1G:507:C:OP2	1:1G:508:C:O2'	2.31	0.40
1:1G:617:G:N2	1:1G:618:C:N3	2.69	0.40
1:1G:801:U:H2'	1:1G:802:A:H8	1.86	0.40
26:1H:1280:G:N2	26:1H:1291:C:C2	2.90	0.40
26:1H:1322:A:C2'	26:1H:1323:U:H5'	2.52	0.40
26:1H:1619:G:N3	26:1H:1619:G:H2'	2.36	0.40
26:1H:1690:A:O5'	26:1H:1690:A:H8	2.03	0.40
26:1H:2598:A:OP1	59:1H:3556:HOH:O	2.22	0.40
26:1H:2794:C:N4	26:1H:2802:G:O6	2.54	0.40
26:1H:2810:A:H2'	26:1H:2811:G:O4'	2.21	0.40
26:1H:378:C:C2'	26:1H:379:G:H5'	2.51	0.40
26:1H:414:C:H4'	26:1H:1879:C:O2	2.21	0.40
26:1H:55:G:C2	26:1H:116:C:C2	3.09	0.40
26:1H:7:G:N2	26:1H:8:A:N3	2.70	0.40
26:1H:958:U:O2	27:16:89(A):A:H4'	2.21	0.40
27:1J:66:A:N1	27:1J:108:C:C6	2.89	0.40
27:1J:17:C:H2'	27:1J:18:G:O4'	2.20	0.40
26:1H:2032:G:N2	30:21:146:THR:HG23	2.19	0.40
30:21:202:LYS:HD3	30:21:202:LYS:HA	1.94	0.40
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.57	0.40
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.76	0.40
30:29:1:MET:HA	30:29:84:PHE:HB2	2.03	0.40
3:2E:12:LEU:HB3	3:2E:13:GLY:H	1.59	0.40
11:2I:32:ILE:HG13	11:2I:32:ILE:H	1.76	0.40
23:2K:20:G:C4	23:2K:58:A:C2	3.10	0.40
31:31:130:ALA:C	31:31:132:VAL:H	2.23	0.40
4:32:155:LEU:HA	4:32:155:LEU:HD23	1.90	0.40
31:39:132:VAL:HG23	31:39:163:VAL:HG23	2.03	0.40
31:39:195:ASP:OD1	31:39:196:LEU:N	2.54	0.40
31:39:65:TRP:CD1	31:39:65:TRP:N	2.84	0.40
31:39:68:LYS:HA	31:39:68:LYS:HD3	1.82	0.40
12:3A:30:ALA:HB2	12:3A:33:ARG:HH11	1.85	0.40
24:3L:67:C:H2'	24:3L:68:C:C6	2.57	0.40
5:42:135:THR:O	5:42:139:LEU:HG	2.21	0.40
38:45:1:MET:N	38:45:69:PHE:HE1	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:3:MET:HB2	38:45:93:TYR:CE1	2.56	0.40
32:49:61:ALA:HA	32:49:64:THR:HG23	2.02	0.40
13:4A:13:LYS:HG2	13:4A:14:ARG:N	2.35	0.40
13:4A:14:ARG:NH1	13:4A:42:ALA:HA	2.36	0.40
5:4E:12:LEU:HG	5:4E:13:ILE:N	2.36	0.40
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.86	0.40
13:4I:108:ARG:CG	13:4I:108:ARG:HH11	2.25	0.40
13:4I:90:LEU:O	13:4I:93:ARG:HB2	2.22	0.40
33:51:54:ARG:HE	33:51:62:LYS:HG3	1.85	0.40
33:59:17:VAL:HG23	33:59:25:LYS:O	2.21	0.40
33:59:37:VAL:HG13	33:59:38:SER:O	2.20	0.40
14:5A:12:ARG:HG3	14:5A:12:ARG:H	1.45	0.40
7:62:44:TYR:O	7:62:47:CYS:N	2.55	0.40
1:13:1422:G:H5”	36:68:48:PRO:CB	2.51	0.40
41:75:39:ARG:NH1	41:75:41:ARG:HB3	2.36	0.40
41:75:32:TYR:CE1	41:75:82:LEU:HB3	2.56	0.40
16:7I:43:LYS:HG2	16:7I:48:TRP:CZ3	2.56	0.40
16:7I:4:ILE:HG12	16:7I:21:VAL:HG22	2.03	0.40
42:85:27:LEU:HD22	42:85:27:LEU:HA	1.71	0.40
9:8E:42:ARG:HG2	9:8E:42:ARG:H	1.62	0.40
17:8I:25:ARG:O	17:8I:37:LYS:HA	2.21	0.40
39:98:48:VAL:O	39:98:49:ASP:C	2.59	0.40
20:BI:43:LEU:O	20:BI:46:GLU:N	2.53	0.40
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.19	0.40
47:D5:127:LYS:HB3	47:D5:127:LYS:HE2	1.66	0.40
47:D5:18:LEU:HD12	47:D5:23:LYS:HB2	2.03	0.40
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.21	0.40
48:E5:28:GLY:HA2	48:E5:66:VAL:HG13	2.03	0.40
46:G8:77:PRO:HD2	46:G8:97:ARG:HD3	2.04	0.40
47:H8:128:VAL:CB	47:H8:161:VAL:HG21	2.51	0.40
47:H8:16:SER:HB2	47:H8:20:ARG:NH1	2.36	0.40
48:I8:14:ARG:HD3	59:I8:205:HOH:O	2.21	0.40
49:J8:16:ASN:HB3	49:J8:37:ILE:HG23	2.03	0.40
51:L8:30:ARG:H	51:L8:30:ARG:HG3	1.65	0.40
52:M8:14:ILE:HG21	52:M8:14:ILE:HD13	1.87	0.40
32:41:112:PRO:HG3	52:M8:38:LYS:HD2	2.03	0.40
55:Q8:9:GLY:H	55:Q8:12:LYS:H	1.68	0.40
55:Q8:22:VAL:HG22	55:Q8:47:LYS:HZ2	1.86	0.40
55:Q8:8:LYS:H	55:Q8:8:LYS:HD2	1.85	0.40
29:11:172:TYR:CD1	29:11:186:HIS:HA	2.56	0.40
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:60:ARG:HD2	29:11:87:ASN:ND2	2.37	0.40
2:12:54:THR:HG21	2:12:201:ILE:HD11	2.03	0.40
1:13:1413:A:H2'	1:13:1414:U:O4'	2.21	0.40
1:13:1439:C:H6	1:13:1439:C:O5'	2.05	0.40
1:13:1442:G:C8	1:13:1442:G:C3'	3.04	0.40
1:13:145:G:H1	1:13:177:C:H42	1.70	0.40
1:13:236:G:H5"	17:8I:42:TYR:OH	2.20	0.40
1:13:259:G:C6	1:13:260:G:C4	3.10	0.40
1:13:262:A:C6	1:13:263:A:C6	3.10	0.40
1:13:598:U:H4'	8:7E:94:TYR:CG	2.57	0.40
26:14:120:U:P	59:14:3927:HOH:O	2.80	0.40
26:14:1235:G:C6	26:14:1236:G:N1	2.89	0.40
26:14:1349:A:N6	26:14:1598:C:H42	2.19	0.40
26:14:171:G:H2'	26:14:172:C:C6	2.56	0.40
26:14:1783:A:C2	26:14:2587:A:C5	3.09	0.40
26:14:1975:G:H5"	59:14:3497:HOH:O	2.21	0.40
26:14:2015:A:H8	26:14:2015:A:O5'	2.04	0.40
26:14:2138:C:C2	26:14:2154:G:N1	2.90	0.40
26:14:2213:U:H2'	26:14:2215:G:H5'	2.03	0.40
26:14:2321:G:N3	26:14:2321:G:H2'	2.36	0.40
26:14:2370:G:H2'	26:14:2371:G:O4'	2.22	0.40
26:14:2445:G:C2'	26:14:2446:G:H5'	2.52	0.40
26:14:2646:C:O5'	26:14:2646:C:H6	2.04	0.40
26:14:581:C:C2	26:14:582:G:N7	2.90	0.40
26:14:631:A:H2'	26:14:632:A:O4'	2.22	0.40
26:14:659:C:H2'	26:14:660:G:H8	1.86	0.40
26:14:714:U:O2	26:14:716:A:C8	2.74	0.40
26:14:902:C:H2'	26:14:903:C:C5	2.57	0.40
27:16:94:C:C4	27:16:95:U:C5	3.09	0.40
29:19:232:PRO:HA	59:19:301:HOH:O	2.22	0.40
1:1G:1004:A:H5'	1:1G:1024:G:O6	2.22	0.40
1:1G:1014:A:H5'	19:AA:15:LEU:HG	2.03	0.40
1:1G:1065:U:C5	1:1G:1190:G:N3	2.89	0.40
1:1G:1157:A:H1'	1:1G:1158:C:OP2	2.22	0.40
1:1G:1177:G:O2'	1:1G:1178:G:C8	2.66	0.40
1:1G:1227:A:H8	1:1G:1227:A:H3'	1.86	0.40
1:1G:124:G:C6	1:1G:125:U:N3	2.90	0.40
1:1G:1268:A:O2'	21:1B:19:GLY:HA2	2.22	0.40
1:1G:1379:G:OP2	7:62:6:ARG:NH1	2.54	0.40
1:1G:1438:G:C6	1:1G:1439:C:C4	3.09	0.40
1:1G:649:G:H2'	1:1G:650:G:H8	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:689:C:O2	1:1G:689:C:H2'	2.21	0.40
1:1G:933:G:OP2	7:62:3:ARG:HB2	2.22	0.40
26:1H:1078:U:H6	26:1H:1078:U:OP2	2.04	0.40
26:1H:1169:G:N2	26:1H:1181:C:N3	2.68	0.40
26:1H:141:A:H1'	26:1H:1408:C:C1'	2.51	0.40
26:1H:1794:U:H1'	26:1H:1900:A:N3	2.36	0.40
26:1H:2650:U:H2'	26:1H:2651:C:C6	2.56	0.40
26:1H:2663:G:C6	26:1H:2664:G:C4	3.10	0.40
26:1H:2696:U:H2'	26:1H:2697:G:C8	2.56	0.40
26:1H:1462:C:H4'	26:1H:2703:C:O4'	2.22	0.40
26:1H:2766:G:C2	26:1H:2767:C:C6	3.10	0.40
10:1I:57:LYS:HD2	10:1I:60:ARG:NH1	2.36	0.40
27:1J:13:A:H5"	27:1J:15:A:N6	2.36	0.40
26:1H:2634:G:N2	30:21:37:ARG:HH22	2.19	0.40
30:21:67:PHE:O	30:21:69:LYS:N	2.55	0.40
3:22:62:ASP:O	3:22:97:LYS:HB2	2.21	0.40
30:29:31:CYS:O	30:29:91:VAL:HG22	2.22	0.40
56:2L:20:G:O2'	56:2L:21:U:H5'	2.21	0.40
31:31:10:PRO:O	31:31:124:LEU:HD12	2.22	0.40
31:31:28:ILE:O	31:31:28:ILE:HD12	2.21	0.40
4:32:108:LEU:HD21	4:32:184:LYS:N	2.37	0.40
31:39:110:LEU:HD21	31:39:181:LEU:HD13	2.01	0.40
31:39:63:LYS:HE2	31:39:67:GLN:HB3	2.02	0.40
4:3E:20:TYR:HE1	6:52:16:GLN:NE2	2.19	0.40
4:3E:4:TYR:CG	4:3E:5:ILE:N	2.90	0.40
12:3I:82:VAL:HG13	12:3I:105:TYR:HB3	2.02	0.40
24:3K:70:G:C6	24:3K:71:G:C5	3.10	0.40
24:3L:48:C:H5"	24:3L:59:U:H5'	2.03	0.40
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.87	0.40
38:45:79:LEU:N	38:45:80:GLU:HG2	2.36	0.40
32:49:94:LEU:HD23	32:49:94:LEU:HA	1.80	0.40
33:59:27:LYS:HD2	33:59:32:GLU:HG3	2.03	0.40
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.36	0.40
7:62:126:ASP:O	7:62:129:GLU:HG2	2.20	0.40
7:62:92:SER:HB3	7:62:94:ARG:HG2	2.04	0.40
40:65:33:LYS:HE2	40:65:34:HIS:HE1	1.86	0.40
15:6I:79:ARG:HG2	15:6I:79:ARG:O	2.21	0.40
37:78:135:LEU:HD22	37:78:139:LYS:HE2	2.03	0.40
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.37	0.40
9:82:26:VAL:HG13	9:82:61:ALA:O	2.21	0.40
9:82:48:GLU:N	9:82:49:PRO:HD2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:94:ALA:O	9:82:98:PRO:HG2	2.22	0.40
1:13:1179:A:H5'	9:8E:102:LEU:O	2.20	0.40
17:8I:68:ARG:O	17:8I:68:ARG:HG3	2.21	0.40
17:8I:92:ARG:O	17:8I:95:TYR:HB2	2.21	0.40
39:98:44:LEU:HD22	39:98:48:VAL:HG13	2.02	0.40
18:9A:55:ARG:HG3	18:9A:55:ARG:HH11	1.87	0.40
40:A8:8:GLU:HA	40:A8:11:LYS:HB3	2.04	0.40
40:A8:7:TYR:HA	40:A8:10:ARG:HH21	1.87	0.40
46:C5:28:LYS:HG2	46:C5:29:GLU:HG2	2.04	0.40
46:C5:62:GLU:HG3	46:C5:62:GLU:H	1.63	0.40
35:58:41:ASP:O	42:C8:64:ARG:NH2	2.54	0.40
49:F5:5:CYS:O	49:F5:9:GLY:HA2	2.21	0.40
47:H8:18:LEU:CD1	47:H8:18:LEU:H	2.34	0.40
34:61:38:LEU:HD21	49:J8:71:TYR:HB3	2.03	0.40
51:L8:6:VAL:HG12	51:L8:54:VAL:HG22	2.03	0.40
32:41:145:THR:HG23	52:M8:28:LYS:HZ3	1.86	0.40
54:P8:10:ARG:HD3	54:P8:10:ARG:HH11	1.66	0.40
2:12:131:PRO:O	2:12:135:GLN:N	2.55	0.40
1:13:1026:G:H1	1:13:1035:A:H61	1.67	0.40
1:13:1151:A:O2'	1:13:1152:A:O4'	2.39	0.40
1:13:143:A:H5"	1:13:144:G:O5'	2.21	0.40
1:13:605:U:C2	1:13:606:G:H8	2.40	0.40
1:13:719:C:H6	1:13:719:C:O5'	2.05	0.40
1:13:928:G:H2'	1:13:929:G:C8	2.57	0.40
26:14:1416:G:H1	26:14:1582:C:N4	2.09	0.40
26:14:1612:C:N4	26:14:1619:G:H1	2.19	0.40
26:14:162:U:H5'	26:14:171:G:O4'	2.22	0.40
26:14:184:C:H2'	26:14:185:U:C6	2.56	0.40
26:14:1895:C:C2	26:14:1896:G:C8	3.09	0.40
26:14:2027:G:C5	26:14:2028:U:C5	3.10	0.40
26:14:219:G:H2'	26:14:220:G:O4'	2.20	0.40
26:14:2343:C:O2'	26:14:2373:G:H4'	2.22	0.40
26:14:2282:G:H5'	26:14:2389:G:H1'	2.03	0.40
26:14:2582:G:C2	26:14:2583:G:C8	3.09	0.40
26:14:554:U:O2'	26:14:556:G:OP2	2.34	0.40
26:14:668:G:H2'	26:14:670:A:H62	1.87	0.40
26:14:807:U:C2	26:14:808:G:C8	3.09	0.40
26:14:937:U:H2'	26:14:938:G:O4'	2.22	0.40
26:14:94:G:H2'	26:14:95:G:O4'	2.21	0.40
26:14:977:G:C6	26:14:987:G:C6	3.10	0.40
26:14:993:G:OP1	42:85:50:ARG:NH2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:266:SER:O	29:19:269:PHE:HB2	2.21	0.40
1:1G:1123:A:H5"	10:1A:37:PRO:HD2	2.04	0.40
1:13:1074:G:C4'	2:1E:104:ASN:HB2	2.52	0.40
1:1G:1035:A:H3'	1:1G:1036:G:H5"	2.03	0.40
1:1G:1056:U:O4	1:1G:1200:C:C6	2.74	0.40
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.56	0.40
1:1G:1223:C:OP2	1:1G:1224:G:H2'	2.22	0.40
1:1G:1333:A:H2'	1:1G:1334:G:O4'	2.21	0.40
1:1G:142:G:O5'	1:1G:142:G:H8	2.04	0.40
1:1G:28:G:C6	1:1G:29:G:C5	3.10	0.40
1:1G:565:U:H3'	1:1G:566:G:H2'	2.03	0.40
1:1G:574:A:O2'	1:1G:882:C:O2'	2.23	0.40
1:1G:811:C:C5	1:1G:812:C:C4	3.10	0.40
1:1G:950:U:C5	13:4A:102:ARG:NH1	2.90	0.40
1:1G:954:G:H3'	1:1G:955:U:C6	2.57	0.40
26:1H:1163:G:C2	26:1H:1164:G:C8	3.09	0.40
26:1H:1574:C:H6	26:1H:1574:C:O5'	2.04	0.40
26:1H:1815:A:O4'	26:1H:1817:G:C8	2.75	0.40
26:1H:1842:G:H2'	26:1H:1843:C:C6	2.56	0.40
26:1H:2053:G:N2	26:1H:2054:A:C4	2.90	0.40
26:1H:2287:A:C2	26:1H:2346:A:C2	3.09	0.40
26:1H:2319:G:H4'	26:1H:2320:A:OP1	2.21	0.40
26:1H:2335:A:C8	26:1H:2337:G:C6	3.10	0.40
26:1H:2552:U:C2	26:1H:2554:U:H5"	2.57	0.40
26:1H:2801:A:OP2	26:1H:2895:U:H1'	2.22	0.40
26:1H:2838:G:C6	26:1H:2839:G:C5	3.10	0.40
26:1H:2886:G:N3	26:1H:2886:G:H2'	2.37	0.40
26:1H:2885:C:H2'	26:1H:2886:G:O4'	2.21	0.40
26:1H:330:A:H2	26:1H:1210:A:O2'	2.05	0.40
26:1H:391:G:N3	26:1H:391:G:H2'	2.37	0.40
26:1H:688:U:O5'	26:1H:688:U:H6	2.04	0.40
26:1H:846:C:C2	26:1H:847:U:C5	3.09	0.40
26:1H:919:G:C6	26:1H:920:G:C5	3.09	0.40
27:1J:8:U:H3	27:1J:112:G:H1	1.68	0.40
22:1K:19:G:H1'	22:1K:61:U:N3	2.37	0.40
30:21:4:ILE:C	30:21:5:LEU:HD23	2.42	0.40
3:22:18:TRP:HE3	3:22:18:TRP:N	2.19	0.40
36:25:86:ILE:HG12	36:25:86:ILE:H	1.60	0.40
30:29:153:GLY:O	30:29:154:LYS:C	2.58	0.40
30:29:97:LYS:HD2	30:29:97:LYS:N	2.37	0.40
3:2E:193:TYR:HE1	3:2E:196:LEU:HD21	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:50:TYR:HD2	11:2I:54:ARG:HB3	1.85	0.40
31:31:81:PRO:HB3	31:31:89:VAL:HG22	2.04	0.40
26:14:389:G:N1	37:35:70:GLN:HB3	2.36	0.40
31:39:132:VAL:C	31:39:134:GLY:H	2.25	0.40
4:3E:176:LEU:HA	4:3E:176:LEU:HD12	1.86	0.40
24:3L:8:4SU:H5"	24:3L:49:C:C5'	2.50	0.40
5:42:84:PHE:N	5:42:87:SER:O	2.46	0.40
26:14:907:U:O5'	38:45:24:GLY:HA2	2.21	0.40
1:13:926:G:N2	25:4K:15:A:OP2	2.51	0.40
1:1G:674:G:P	6:52:87:ARG:HH22	2.44	0.40
39:55:107:ASP:C	39:55:107:ASP:OD1	2.60	0.40
35:58:130:HIS:C	35:58:134:ARG:HH22	2.25	0.40
35:58:78:TYR:N	35:58:78:TYR:CD1	2.89	0.40
33:59:81:GLU:HG3	33:59:83:TYR:N	2.29	0.40
34:61:93:THR:O	34:61:97:ILE:HG12	2.22	0.40
7:62:65:ALA:CB	7:62:124:LEU:HD23	2.52	0.40
15:6A:31:LEU:HA	15:6A:31:LEU:HD12	1.78	0.40
8:72:100:ILE:HA	8:72:101:PRO:HD3	1.91	0.40
8:72:114:THR:CG2	8:72:119:LEU:HG	2.50	0.40
41:75:107:ASP:N	41:75:107:ASP:OD1	2.54	0.40
26:14:2845:G:H5"	41:75:55:ASN:HA	2.02	0.40
37:78:144:GLU:HA	37:78:145:PRO:HD3	1.93	0.40
37:78:147:LEU:HA	37:78:147:LEU:HD12	1.97	0.40
5:4E:148:VAL:HG21	8:7E:107:LEU:HD22	2.04	0.40
8:7E:2:LEU:HD23	8:7E:2:LEU:HA	1.68	0.40
35:15:4:TYR:CD2	42:85:100:VAL:HG11	2.57	0.40
43:95:60:GLU:HB3	43:95:95:LEU:HB3	2.04	0.40
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.03	0.40
49:F5:92:LYS:HB3	49:F5:93:GLU:H	1.77	0.40
46:G8:21:LYS:HE3	46:G8:21:LYS:HB3	1.69	0.40
47:H8:137:ILE:HG22	47:H8:138:GLU:N	2.36	0.40
55:Q8:48:PHE:HE2	55:Q8:52:LYS:HB2	1.87	0.40

All (2) 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)
26:1H:654(H):G:O2'	51:H5:55:ARG:NH2[2_464]	2.11	0.09
26:1H:277:C:O2'	50:G5:49:LYS:NZ[2_564]	2.16	0.04

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	12	235/256 (92%)	192 (82%)	37 (16%)	6 (3%)	5 27
2	1E	235/256 (92%)	193 (82%)	39 (17%)	3 (1%)	12 40
3	22	204/239 (85%)	182 (89%)	22 (11%)	0	100 100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	180 (87%)	22 (11%)	4 (2%)	8 34
4	3E	206/209 (99%)	190 (92%)	13 (6%)	3 (2%)	10 38
5	42	149/162 (92%)	135 (91%)	13 (9%)	1 (1%)	22 54
5	4E	149/162 (92%)	139 (93%)	9 (6%)	1 (1%)	22 54
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	5E	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
7	62	143/156 (92%)	135 (94%)	7 (5%)	1 (1%)	22 54
7	6E	153/156 (98%)	143 (94%)	10 (6%)	0	100 100
8	72	136/138 (99%)	124 (91%)	10 (7%)	2 (2%)	10 38
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	22 54
9	82	125/128 (98%)	112 (90%)	12 (10%)	1 (1%)	19 51
9	8E	125/128 (98%)	106 (85%)	18 (14%)	1 (1%)	19 51
10	1A	56/105 (53%)	48 (86%)	8 (14%)	0	100 100
10	1I	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	15 46
11	2A	114/129 (88%)	101 (89%)	10 (9%)	3 (3%)	5 27
11	2I	117/129 (91%)	100 (86%)	16 (14%)	1 (1%)	17 48
12	3A	120/132 (91%)	101 (84%)	14 (12%)	5 (4%)	3 17
12	3I	120/132 (91%)	103 (86%)	17 (14%)	0	100 100
13	4A	115/126 (91%)	97 (84%)	16 (14%)	2 (2%)	9 35
13	4I	115/126 (91%)	95 (83%)	19 (16%)	1 (1%)	17 48
14	5A	48/61 (79%)	38 (79%)	9 (19%)	1 (2%)	7 31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	5I	58/61 (95%)	45 (78%)	11 (19%)	2 (3%)	3 22
15	6A	86/89 (97%)	74 (86%)	12 (14%)	0	100 100
15	6I	86/89 (97%)	75 (87%)	11 (13%)	0	100 100
16	7A	82/88 (93%)	76 (93%)	6 (7%)	0	100 100
16	7I	82/88 (93%)	76 (93%)	5 (6%)	1 (1%)	13 42
17	8A	97/105 (92%)	92 (95%)	5 (5%)	0	100 100
17	8I	98/105 (93%)	93 (95%)	5 (5%)	0	100 100
18	9A	70/88 (80%)	61 (87%)	9 (13%)	0	100 100
18	9I	70/88 (80%)	62 (89%)	7 (10%)	1 (1%)	11 38
19	AA	76/93 (82%)	59 (78%)	14 (18%)	3 (4%)	3 18
19	AI	79/93 (85%)	65 (82%)	10 (13%)	4 (5%)	2 13
20	BA	97/106 (92%)	85 (88%)	11 (11%)	1 (1%)	15 46
20	BI	97/106 (92%)	83 (86%)	14 (14%)	0	100 100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100 100
21	1F	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
28	71	83/229 (36%)	79 (95%)	2 (2%)	2 (2%)	6 28
29	11	270/276 (98%)	253 (94%)	13 (5%)	4 (2%)	10 38
29	19	271/276 (98%)	248 (92%)	18 (7%)	5 (2%)	8 35
30	21	203/206 (98%)	160 (79%)	33 (16%)	10 (5%)	2 14
30	29	203/206 (98%)	149 (73%)	45 (22%)	9 (4%)	2 16
31	31	200/210 (95%)	180 (90%)	19 (10%)	1 (0%)	29 61
31	39	204/210 (97%)	163 (80%)	34 (17%)	7 (3%)	3 22
32	41	179/182 (98%)	155 (87%)	20 (11%)	4 (2%)	6 30
32	49	179/182 (98%)	150 (84%)	28 (16%)	1 (1%)	25 57
33	51	172/180 (96%)	146 (85%)	19 (11%)	7 (4%)	3 17
33	59	168/180 (93%)	125 (74%)	35 (21%)	8 (5%)	2 14
34	61	144/148 (97%)	119 (83%)	21 (15%)	4 (3%)	5 25
34	69	144/148 (97%)	115 (80%)	26 (18%)	3 (2%)	7 31
35	15	136/140 (97%)	119 (88%)	15 (11%)	2 (2%)	10 38
35	58	136/140 (97%)	114 (84%)	18 (13%)	4 (3%)	4 24
36	25	120/122 (98%)	111 (92%)	8 (7%)	1 (1%)	19 51

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	68	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	19 51
37	35	145/150 (97%)	110 (76%)	26 (18%)	9 (6%)	1 10
37	78	148/150 (99%)	117 (79%)	26 (18%)	5 (3%)	3 22
38	45	139/141 (99%)	109 (78%)	27 (19%)	3 (2%)	6 30
38	88	133/141 (94%)	110 (83%)	19 (14%)	4 (3%)	4 24
39	55	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	17 48
39	98	116/118 (98%)	99 (85%)	16 (14%)	1 (1%)	17 48
40	65	109/112 (97%)	85 (78%)	20 (18%)	4 (4%)	3 20
40	A8	109/112 (97%)	87 (80%)	20 (18%)	2 (2%)	8 35
41	75	135/146 (92%)	117 (87%)	17 (13%)	1 (1%)	22 54
41	B8	135/146 (92%)	114 (84%)	20 (15%)	1 (1%)	22 54
42	85	115/118 (98%)	99 (86%)	16 (14%)	0	100 100
42	C8	115/118 (98%)	102 (89%)	11 (10%)	2 (2%)	9 35
43	95	99/101 (98%)	79 (80%)	16 (16%)	4 (4%)	3 18
43	D8	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	7 32
44	A5	109/113 (96%)	97 (89%)	9 (8%)	3 (3%)	5 25
44	E8	111/113 (98%)	98 (88%)	13 (12%)	0	100 100
45	B5	90/96 (94%)	80 (89%)	8 (9%)	2 (2%)	6 30
45	F8	92/96 (96%)	83 (90%)	8 (9%)	1 (1%)	14 45
46	C5	102/110 (93%)	75 (74%)	20 (20%)	7 (7%)	1 8
46	G8	102/110 (93%)	80 (78%)	15 (15%)	7 (7%)	1 8
47	D5	131/206 (64%)	101 (77%)	24 (18%)	6 (5%)	2 15
47	H8	129/206 (63%)	104 (81%)	19 (15%)	6 (5%)	2 14
48	E5	75/85 (88%)	65 (87%)	9 (12%)	1 (1%)	12 40
48	I8	78/85 (92%)	67 (86%)	9 (12%)	2 (3%)	5 27
49	F5	92/98 (94%)	84 (91%)	7 (8%)	1 (1%)	14 45
49	J8	95/98 (97%)	85 (90%)	8 (8%)	2 (2%)	7 31
50	G5	64/72 (89%)	58 (91%)	4 (6%)	2 (3%)	4 23
50	K8	65/72 (90%)	56 (86%)	5 (8%)	4 (6%)	1 10
51	H5	57/60 (95%)	50 (88%)	7 (12%)	0	100 100
51	L8	55/60 (92%)	50 (91%)	4 (7%)	1 (2%)	8 35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
52	I5	61/71 (86%)	33 (54%)	25 (41%)	3 (5%)	2 14
52	M8	64/71 (90%)	39 (61%)	22 (34%)	3 (5%)	2 14
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100 100
53	N8	52/60 (87%)	43 (83%)	7 (14%)	2 (4%)	3 19
54	L5	44/49 (90%)	43 (98%)	1 (2%)	0	100 100
54	P8	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
55	M5	58/65 (89%)	46 (79%)	9 (16%)	3 (5%)	2 13
55	Q8	58/65 (89%)	36 (62%)	15 (26%)	7 (12%)	0 2
All	All	11153/12175 (92%)	9578 (86%)	1350 (12%)	225 (2%)	7 32

All (225) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
18	9I	22	VAL
30	21	78	LEU
30	21	83	ASP
33	51	169	VAL
37	78	57	THR
42	C8	89	GLU
50	K8	6	VAL
50	K8	48	HIS
53	N8	42	PRO
55	Q8	51	ALA
55	Q8	55	ALA
9	82	118	LYS
11	2A	48	ILE
20	BA	73	HIS
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
38	45	27	VAL
39	55	107	ASP
47	D5	53	ILE
47	D5	165	VAL
49	F5	30	VAL
13	4I	83	ASP
16	7I	51	VAL
30	21	82	ARG
35	58	128	HIS

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Mol	Chain	Res	Type
37	78	19	VAL
38	88	6	ARG
38	88	66	ILE
42	C8	93	LYS
47	H8	60	GLU
47	H8	165	VAL
51	L8	54	VAL
52	M8	50	VAL
53	N8	41	PRO
2	12	7	VAL
11	2A	100	ALA
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
12	3A	63	GLY
19	AA	11	VAL
29	19	239	ARG
30	29	81	ILE
31	39	89	VAL
31	39	124	LEU
31	39	128	ALA
37	35	15	ARG
40	65	89	ARG
50	G5	47	ASN
52	I5	5	ILE
55	M5	31	HIS
4	3E	30	LYS
8	7E	86	ILE
14	5I	13	THR
29	11	122	ASP
30	21	22	PRO
33	51	168	PRO
34	61	133	HIS
34	61	145	VAL
35	58	97	ARG
38	88	60	ARG
46	G8	54	LYS
47	H8	6	LYS
50	K8	47	ASN
52	M8	34	GLU
55	Q8	8	LYS
55	Q8	33	ASN

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Mol	Chain	Res	Type
14	5A	29	ARG
29	19	237	GLU
30	29	90	THR
33	59	92	ILE
37	35	35	HIS
44	A5	44	ALA
46	C5	17	SER
46	C5	20	TYR
47	D5	161	VAL
48	E5	33	ALA
50	G5	48	HIS
55	M5	34	TRP
4	3E	155	LEU
19	AI	7	LYS
30	21	21	VAL
33	51	10	PRO
34	61	12	LEU
35	58	22	THR
35	58	95	PRO
37	78	42	SER
45	F8	68	ARG
46	G8	83	THR
47	H8	59	LEU
48	I8	44	ARG
49	J8	75	GLU
49	J8	76	ARG
52	M8	63	TYR
55	Q8	44	LYS
2	12	6	THR
4	32	32	ALA
30	29	9	VAL
30	29	26	ILE
30	29	51	PHE
31	39	132	VAL
34	69	145	VAL
36	25	12	ASP
37	35	108	LYS
40	65	87	PHE
40	65	110	LEU
41	75	2	ASN
43	95	45	THR
44	A5	45	TYR

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Mol	Chain	Res	Type
45	B5	68	ARG
47	D5	8	TYR
52	I5	26	SER
2	1E	238	LEU
14	5I	14	PRO
19	AI	67	VAL
28	71	196	LEU
30	21	55	ASN
32	41	5	VAL
32	41	96	ARG
32	41	97	ASP
32	41	98	ARG
33	51	167	GLU
36	68	97	ARG
39	98	11	ASN
40	A8	4	LEU
40	A8	13	ARG
41	B8	106	SER
46	G8	84	ARG
55	Q8	50	LEU
2	12	73	THR
4	32	14	ARG
4	32	83	SER
7	62	97	GLN
19	AA	17	GLU
29	19	32	SER
30	29	45	THR
35	15	23	LEU
35	15	128	HIS
37	35	38	GLN
37	35	58	THR
40	65	111	GLU
46	C5	101	LYS
2	1E	133	LYS
4	3E	13	ARG
10	1I	28	ARG
11	2I	82	VAL
29	11	123	ALA
30	21	72	VAL
31	31	24	LEU
33	51	12	PRO
43	D8	49	THR

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Mol	Chain	Res	Type
46	G8	76	CYS
48	I8	83	PRO
50	K8	7	ARG
8	72	73	ASP
12	3A	47	LYS
12	3A	83	VAL
31	39	167	ALA
34	69	111	PRO
37	35	6	LEU
46	C5	29	GLU
46	C5	85	VAL
47	D5	47	VAL
52	I5	33	VAL
19	AI	41	VAL
29	11	240	ALA
30	21	56	PRO
38	88	3	MET
46	G8	53	PRO
13	4A	84	ILE
29	19	3	VAL
30	29	59	VAL
33	59	8	PRO
43	95	72	VAL
46	C5	76	CYS
55	M5	52	LYS
5	4E	115	VAL
30	21	52	LEU
37	78	7	ARG
46	G8	81	LYS
2	12	32	ILE
32	49	5	VAL
33	59	131	VAL
33	59	168	PRO
37	35	63	PRO
38	45	78	PRO
19	AI	9	VAL
33	51	127	GLU
37	78	95	VAL
46	G8	77	PRO
2	12	39	ILE
13	4A	85	GLY
19	AA	67	VAL

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Mol	Chain	Res	Type
30	29	91	VAL
33	59	99	VAL
33	59	167	GLU
34	69	144	VAL
37	35	7	ARG
38	45	127	ILE
43	95	79	VAL
44	A5	12	ILE
45	B5	51	VAL
47	D5	158	PRO
2	1E	239	VAL
28	71	189	ILE
29	11	3	VAL
2	12	71	VAL
8	72	100	ILE
29	19	240	ALA
37	35	34	GLY
43	95	99	ILE
46	C5	3	VAL
9	8E	41	VAL
30	21	4	ILE
34	61	131	LYS
43	D8	47	VAL
47	H8	53	ILE
47	H8	61	LEU
55	Q8	58	ILE
4	32	158	ILE
5	42	109	ILE
33	59	4	ILE
33	59	118	PRO
33	51	173	PRO

5.3.2 Protein sidechains (i)

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

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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	12	205/220 (93%)	148 (72%)	57 (28%)	0 1
2	1E	205/220 (93%)	158 (77%)	47 (23%)	1 3
3	22	160/188 (85%)	121 (76%)	39 (24%)	0 2
3	2E	159/188 (85%)	128 (80%)	31 (20%)	1 5
4	32	180/181 (99%)	140 (78%)	40 (22%)	1 3
4	3E	180/181 (99%)	146 (81%)	34 (19%)	1 6
5	42	116/123 (94%)	80 (69%)	36 (31%)	0 1
5	4E	116/123 (94%)	86 (74%)	30 (26%)	0 2
6	52	90/90 (100%)	73 (81%)	17 (19%)	1 6
6	5E	90/90 (100%)	70 (78%)	20 (22%)	1 3
7	62	121/127 (95%)	97 (80%)	24 (20%)	1 5
7	6E	126/127 (99%)	98 (78%)	28 (22%)	1 3
8	72	119/119 (100%)	91 (76%)	28 (24%)	1 3
8	7E	119/119 (100%)	93 (78%)	26 (22%)	1 4
9	82	98/99 (99%)	77 (79%)	21 (21%)	1 4
9	8E	98/99 (99%)	71 (72%)	27 (28%)	0 1
10	1A	58/92 (63%)	43 (74%)	15 (26%)	0 2
10	1I	89/92 (97%)	68 (76%)	21 (24%)	1 3
11	2A	88/99 (89%)	72 (82%)	16 (18%)	1 7
11	2I	90/99 (91%)	73 (81%)	17 (19%)	1 6
12	3A	103/109 (94%)	81 (79%)	22 (21%)	1 4
12	3I	103/109 (94%)	80 (78%)	23 (22%)	1 3
13	4A	94/101 (93%)	60 (64%)	34 (36%)	0 0
13	4I	94/101 (93%)	71 (76%)	23 (24%)	0 2
14	5A	43/50 (86%)	33 (77%)	10 (23%)	1 3
14	5I	49/50 (98%)	42 (86%)	7 (14%)	3 15
15	6A	79/80 (99%)	64 (81%)	15 (19%)	1 6
15	6I	79/80 (99%)	68 (86%)	11 (14%)	3 16
16	7A	72/74 (97%)	53 (74%)	19 (26%)	0 1
16	7I	72/74 (97%)	56 (78%)	16 (22%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
17	8A	94/97 (97%)	80 (85%)	14 (15%)	3 13
17	8I	95/97 (98%)	73 (77%)	22 (23%)	1 3
18	9A	63/77 (82%)	44 (70%)	19 (30%)	0 1
18	9I	63/77 (82%)	53 (84%)	10 (16%)	2 11
19	AA	67/80 (84%)	54 (81%)	13 (19%)	1 5
19	AI	70/80 (88%)	45 (64%)	25 (36%)	0 0
20	BA	76/82 (93%)	66 (87%)	10 (13%)	4 17
20	BI	76/82 (93%)	55 (72%)	21 (28%)	0 1
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19 49
21	1F	20/22 (91%)	19 (95%)	1 (5%)	24 55
28	71	77/181 (42%)	58 (75%)	19 (25%)	0 2
29	11	214/218 (98%)	162 (76%)	52 (24%)	0 2
29	19	214/218 (98%)	162 (76%)	52 (24%)	0 2
30	21	165/166 (99%)	130 (79%)	35 (21%)	1 4
30	29	165/166 (99%)	128 (78%)	37 (22%)	1 3
31	31	161/166 (97%)	123 (76%)	38 (24%)	1 3
31	39	163/166 (98%)	125 (77%)	38 (23%)	1 3
32	41	155/156 (99%)	109 (70%)	46 (30%)	0 1
32	49	155/156 (99%)	112 (72%)	43 (28%)	0 1
33	51	145/148 (98%)	112 (77%)	33 (23%)	1 3
33	59	142/148 (96%)	108 (76%)	34 (24%)	0 2
34	61	122/124 (98%)	89 (73%)	33 (27%)	0 1
34	69	122/124 (98%)	87 (71%)	35 (29%)	0 1
35	15	117/119 (98%)	93 (80%)	24 (20%)	1 4
35	58	117/119 (98%)	85 (73%)	32 (27%)	0 1
36	25	100/100 (100%)	72 (72%)	28 (28%)	0 1
36	68	100/100 (100%)	78 (78%)	22 (22%)	1 3
37	35	114/116 (98%)	70 (61%)	44 (39%)	0 0
37	78	116/116 (100%)	79 (68%)	37 (32%)	0 1
38	45	111/111 (100%)	85 (77%)	26 (23%)	1 3
38	88	103/111 (93%)	73 (71%)	30 (29%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	55	100/101 (99%)	78 (78%)	22 (22%)	1 3
39	98	101/101 (100%)	80 (79%)	21 (21%)	1 4
40	65	87/88 (99%)	68 (78%)	19 (22%)	1 4
40	A8	87/88 (99%)	58 (67%)	29 (33%)	0 1
41	75	120/127 (94%)	83 (69%)	37 (31%)	0 1
41	B8	120/127 (94%)	85 (71%)	35 (29%)	0 1
42	85	93/94 (99%)	71 (76%)	22 (24%)	1 2
42	C8	93/94 (99%)	73 (78%)	20 (22%)	1 4
43	95	82/82 (100%)	53 (65%)	29 (35%)	0 0
43	D8	82/82 (100%)	56 (68%)	26 (32%)	0 1
44	A5	91/92 (99%)	65 (71%)	26 (29%)	0 1
44	E8	92/92 (100%)	68 (74%)	24 (26%)	0 2
45	B5	74/78 (95%)	57 (77%)	17 (23%)	1 3
45	F8	76/78 (97%)	56 (74%)	20 (26%)	0 2
46	C5	85/91 (93%)	60 (71%)	25 (29%)	0 1
46	G8	85/91 (93%)	57 (67%)	28 (33%)	0 1
47	D5	126/179 (70%)	95 (75%)	31 (25%)	0 2
47	H8	124/179 (69%)	96 (77%)	28 (23%)	1 3
48	E5	62/67 (92%)	48 (77%)	14 (23%)	1 3
48	I8	61/67 (91%)	44 (72%)	17 (28%)	0 1
49	F5	79/83 (95%)	56 (71%)	23 (29%)	0 1
49	J8	82/83 (99%)	61 (74%)	21 (26%)	0 2
50	G5	62/67 (92%)	41 (66%)	21 (34%)	0 1
50	K8	62/67 (92%)	44 (71%)	18 (29%)	0 1
51	H5	51/52 (98%)	38 (74%)	13 (26%)	0 2
51	L8	49/52 (94%)	33 (67%)	16 (33%)	0 1
52	I5	57/63 (90%)	40 (70%)	17 (30%)	0 1
52	M8	59/63 (94%)	43 (73%)	16 (27%)	0 1
53	J5	48/52 (92%)	34 (71%)	14 (29%)	0 1
53	N8	47/52 (90%)	35 (74%)	12 (26%)	0 2
54	L5	39/42 (93%)	31 (80%)	8 (20%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
54	P8	40/42 (95%)	31 (78%)	9 (22%)	1 3
55	M5	49/55 (89%)	36 (74%)	13 (26%)	0 1
55	Q8	50/55 (91%)	33 (66%)	17 (34%)	0 1
All	All	9429/10075 (94%)	7093 (75%)	2336 (25%)	0 2

All (2336) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	5	ILE
2	1E	8	LYS
2	1E	15	VAL
2	1E	16	HIS
2	1E	17	PHE
2	1E	23	ARG
2	1E	28	PHE
2	1E	44	LEU
2	1E	53	ARG
2	1E	67	THR
2	1E	71	VAL
2	1E	74	LYS
2	1E	87	ARG
2	1E	96	ARG
2	1E	102	LEU
2	1E	108	ILE
2	1E	109	SER
2	1E	111	ARG
2	1E	121	LEU
2	1E	122	PHE
2	1E	129	GLU
2	1E	136	VAL
2	1E	142	LEU
2	1E	145	LEU
2	1E	146	GLN
2	1E	150	SER
2	1E	160	ASP
2	1E	162	ILE
2	1E	163	PHE
2	1E	170	GLU
2	1E	172	ILE
2	1E	178	ARG
2	1E	184	VAL

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Mol	Chain	Res	Type
2	1E	190	THR
2	1E	193	ASP
2	1E	195	ASP
2	1E	196	LEU
2	1E	197	VAL
2	1E	209	ARG
2	1E	210	SER
2	1E	213	LEU
2	1E	214	ILE
2	1E	217	ARG
2	1E	226	ARG
2	1E	229	VAL
2	1E	231	GLU
2	1E	233	SER
3	2E	3	ASN
3	2E	5	ILE
3	2E	14	ILE
3	2E	21	ARG
3	2E	27	LYS
3	2E	29	TYR
3	2E	31	HIS
3	2E	32	LEU
3	2E	33	LEU
3	2E	34	LEU
3	2E	36	ASP
3	2E	40	ARG
3	2E	42	LEU
3	2E	45	LYS
3	2E	49	SER
3	2E	58	GLU
3	2E	62	ASP
3	2E	63	ASN
3	2E	64	VAL
3	2E	69	HIS
3	2E	76	VAL
3	2E	94	LEU
3	2E	98	ASN
3	2E	164	ARG
3	2E	166	GLU
3	2E	167	TRP
3	2E	175	LEU
3	2E	179	ARG

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Mol	Chain	Res	Type
3	2E	190	ARG
3	2E	192	THR
3	2E	202	ILE
4	3E	3	ARG
4	3E	10	ARG
4	3E	21	LEU
4	3E	24	GLU
4	3E	26	CYS
4	3E	31	CYS
4	3E	45	GLN
4	3E	58	LEU
4	3E	59	ARG
4	3E	66	ARG
4	3E	71	SER
4	3E	74	GLN
4	3E	85	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	93	PHE
4	3E	105	VAL
4	3E	107	ARG
4	3E	120	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	139	ARG
4	3E	141	ARG
4	3E	146	ILE
4	3E	150	GLU
4	3E	152	SER
4	3E	153	ARG
4	3E	154	ASN
4	3E	155	LEU
4	3E	160	GLN
4	3E	168	ARG
4	3E	193	ASP
4	3E	209	ARG
5	4E	6	PHE
5	4E	10	MET
5	4E	12	LEU
5	4E	13	ILE
5	4E	14	ARG

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Mol	Chain	Res	Type
5	4E	16	THR
5	4E	18	ARG
5	4E	20	GLN
5	4E	26	PHE
5	4E	31	LEU
5	4E	41	VAL
5	4E	47	LYS
5	4E	50	GLU
5	4E	53	LEU
5	4E	71	LEU
5	4E	72	GLN
5	4E	73	ASN
5	4E	75	THR
5	4E	79	GLU
5	4E	87	SER
5	4E	98	THR
5	4E	112	LEU
5	4E	117	ASP
5	4E	120	THR
5	4E	121	LYS
5	4E	131	ILE
5	4E	133	TYR
5	4E	140	ARG
5	4E	147	ASP
5	4E	153	LYS
6	5E	14	LEU
6	5E	23	LYS
6	5E	25	ILE
6	5E	37	VAL
6	5E	39	LYS
6	5E	40	VAL
6	5E	41	GLU
6	5E	47	ARG
6	5E	55	ASP
6	5E	65	VAL
6	5E	69	GLU
6	5E	70	ASP
6	5E	75	LEU
6	5E	77	ARG
6	5E	78	GLU
6	5E	82	ARG
6	5E	86	ARG

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Mol	Chain	Res	Type
6	5E	89	MET
6	5E	92	LYS
6	5E	98	LEU
7	6E	3	ARG
7	6E	9	VAL
7	6E	12	LEU
7	6E	13	GLN
7	6E	22	LEU
7	6E	24	THR
7	6E	32	ARG
7	6E	36	LYS
7	6E	38	LEU
7	6E	45	ASP
7	6E	47	CYS
7	6E	48	LYS
7	6E	54	THR
7	6E	57	GLU
7	6E	66	VAL
7	6E	72	ARG
7	6E	79	ARG
7	6E	80	VAL
7	6E	85	TYR
7	6E	90	GLU
7	6E	97	GLN
7	6E	104	LEU
7	6E	110	GLN
7	6E	111	ARG
7	6E	113	GLU
7	6E	146	GLU
7	6E	155	ARG
7	6E	156	TRP
8	7E	1	MET
8	7E	8	ASP
8	7E	10	LEU
8	7E	14	ARG
8	7E	19	VAL
8	7E	24	THR
8	7E	26	VAL
8	7E	30	ARG
8	7E	31	PHE
8	7E	32	LYS
8	7E	45	ILE

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Mol	Chain	Res	Type
8	7E	48	TYR
8	7E	50	ARG
8	7E	52	ASP
8	7E	54	ASP
8	7E	68	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	85	ARG
8	7E	95	VAL
8	7E	102	ARG
8	7E	104	ARG
8	7E	112	LEU
8	7E	129	VAL
8	7E	135	CYS
9	8E	9	ARG
9	8E	10	ARG
9	8E	17	VAL
9	8E	20	ARG
9	8E	26	VAL
9	8E	31	GLN
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	47	LEU
9	8E	53	VAL
9	8E	64	THR
9	8E	79	LEU
9	8E	88	TYR
9	8E	92	TYR
9	8E	93	ARG
9	8E	95	LYS
9	8E	96	LEU
9	8E	104	ARG
9	8E	108	VAL
9	8E	111	ARG
9	8E	112	LYS
9	8E	118	LYS
9	8E	120	ARG
9	8E	121	ARG
9	8E	125	TYR
9	8E	128	ARG

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Mol	Chain	Res	Type
10	1I	4	ILE
10	1I	5	ARG
10	1I	13	HIS
10	1I	43	ARG
10	1I	45	ARG
10	1I	47	PHE
10	1I	62	HIS
10	1I	63	PHE
10	1I	66	ARG
10	1I	68	HIS
10	1I	69	ASN
10	1I	70	ARG
10	1I	72	VAL
10	1I	75	ILE
10	1I	76	ASN
10	1I	82	ILE
10	1I	88	LEU
10	1I	89	ASP
10	1I	92	THR
10	1I	96	ILE
10	1I	100	THR
11	2I	14	VAL
11	2I	16	SER
11	2I	30	VAL
11	2I	32	ILE
11	2I	40	ILE
11	2I	44	SER
11	2I	48	ILE
11	2I	80	VAL
11	2I	87	THR
11	2I	93	GLN
11	2I	96	ARG
11	2I	103	LEU
11	2I	106	LYS
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	120	ARG
12	3I	7	ILE
12	3I	11	VAL
12	3I	18	VAL
12	3I	19	ARG

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Mol	Chain	Res	Type
12	3I	20	LYS
12	3I	34	ARG
12	3I	41	ARG
12	3I	47	LYS
12	3I	48	PRO
12	3I	60	LEU
12	3I	64	TYR
12	3I	65	GLU
12	3I	67	THR
12	3I	79	GLU
12	3I	89	ARG
12	3I	91	LYS
12	3I	100	ILE
12	3I	104	VAL
12	3I	113	ARG
12	3I	114	LYS
12	3I	117	ARG
12	3I	124	LYS
12	3I	126	LYS
13	4I	3	ARG
13	4I	7	VAL
13	4I	11	ARG
13	4I	13	LYS
13	4I	14	ARG
13	4I	19	LEU
13	4I	20	THR
13	4I	35	GLU
13	4I	43	THR
13	4I	46	LYS
13	4I	48	LEU
13	4I	56	LEU
13	4I	58	GLU
13	4I	64	TRP
13	4I	67	GLU
13	4I	74	VAL
13	4I	88	ARG
13	4I	99	ARG
13	4I	103	THR
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	117	VAL

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Mol	Chain	Res	Type
14	5I	11	LYS
14	5I	17	LYS
14	5I	25	VAL
14	5I	26	ARG
14	5I	33	VAL
14	5I	35	ARG
14	5I	57	ARG
15	6I	4	THR
15	6I	6	GLU
15	6I	31	LEU
15	6I	34	LEU
15	6I	38	ARG
15	6I	39	LEU
15	6I	41	GLU
15	6I	45	VAL
15	6I	54	ARG
15	6I	66	LEU
15	6I	77	ARG
16	7I	1	MET
16	7I	2	VAL
16	7I	8	ARG
16	7I	11	SER
16	7I	13	HIS
16	7I	19	ILE
16	7I	33	ILE
16	7I	36	ILE
16	7I	38	TYR
16	7I	45	THR
16	7I	50	LYS
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	82	GLN
16	7I	83	GLU
17	8I	9	VAL
17	8I	10	VAL
17	8I	11	VAL
17	8I	19	VAL
17	8I	20	THR
17	8I	35	VAL
17	8I	37	LYS
17	8I	39	SER

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Mol	Chain	Res	Type
17	8I	48	GLU
17	8I	52	LYS
17	8I	60	ILE
17	8I	62	SER
17	8I	68	ARG
17	8I	74	LEU
17	8I	76	LEU
17	8I	79	SER
17	8I	85	VAL
17	8I	89	LEU
17	8I	92	ARG
17	8I	97	SER
17	8I	100	LYS
17	8I	101	ARG
18	9I	21	LYS
18	9I	32	ARG
18	9I	36	ASN
18	9I	45	SER
18	9I	53	ARG
18	9I	68	LYS
18	9I	76	LEU
18	9I	82	THR
18	9I	86	VAL
18	9I	87	ARG
19	AI	5	LEU
19	AI	6	LYS
19	AI	7	LYS
19	AI	10	PHE
19	AI	12	ASP
19	AI	22	LEU
19	AI	25	LYS
19	AI	28	LYS
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	33	THR
19	AI	36	ARG
19	AI	37	ARG
19	AI	43	GLU
19	AI	53	ASN
19	AI	58	VAL
19	AI	60	VAL

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Mol	Chain	Res	Type
19	AI	61	TYR
19	AI	65	ASN
19	AI	67	VAL
19	AI	71	LEU
19	AI	77	THR
19	AI	78	ARG
19	AI	79	THR
20	BI	9	ASN
20	BI	10	LEU
20	BI	15	ARG
20	BI	23	ARG
20	BI	24	LEU
20	BI	36	LEU
20	BI	37	SER
20	BI	41	ILE
20	BI	42	GLN
20	BI	51	GLU
20	BI	53	LEU
20	BI	54	LYS
20	BI	55	ILE
20	BI	57	ARG
20	BI	62	LEU
20	BI	64	ASP
20	BI	73	HIS
20	BI	75	ASN
20	BI	93	GLU
20	BI	99	LEU
20	BI	105	SER
21	1F	6	ARG
28	71	7	TYR
28	71	8	ARG
28	71	18	LYS
28	71	47	LEU
28	71	52	ARG
28	71	53	ARG
28	71	55	ASP
28	71	56	GLN
28	71	61	THR
28	71	167	LYS
28	71	171	ILE
28	71	183	GLU
28	71	184	LYS

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Mol	Chain	Res	Type
28	71	193	ILE
28	71	196	LEU
28	71	199	HIS
28	71	208	PHE
28	71	223	ARG
28	71	227	HIS
29	11	3	VAL
29	11	13	ARG
29	11	14	ARG
29	11	17	THR
29	11	20	ASP
29	11	25	THR
29	11	46	GLN
29	11	58	HIS
29	11	59	LYS
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	68	LYS
29	11	73	VAL
29	11	82	ILE
29	11	89	SER
29	11	94	LEU
29	11	95	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	113	VAL
29	11	116	GLN
29	11	127	VAL
29	11	131	LEU
29	11	134	ARG
29	11	138	VAL
29	11	141	VAL
29	11	142	VAL
29	11	147	LEU
29	11	155	LEU
29	11	162	SER
29	11	165	ILE
29	11	171	ASP
29	11	192	THR

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Mol	Chain	Res	Type
29	11	200	ASP
29	11	204	ILE
29	11	208	LYS
29	11	215	LEU
29	11	217	ARG
29	11	218	ARG
29	11	221	VAL
29	11	222	ARG
29	11	229	VAL
29	11	242	ARG
29	11	257	LEU
29	11	260	ARG
29	11	261	LYS
29	11	262	ARG
29	11	271	ILE
29	11	273	ARG
30	21	13	ARG
30	21	14	ILE
30	21	26	ILE
30	21	34	VAL
30	21	40	GLU
30	21	41	LYS
30	21	47	VAL
30	21	54	GLN
30	21	66	HIS
30	21	67	PHE
30	21	69	LYS
30	21	72	VAL
30	21	75	VAL
30	21	78	LEU
30	21	87	GLU
30	21	89	ASP
30	21	92	THR
30	21	95	ILE
30	21	113	PHE
30	21	116	VAL
30	21	119	ARG
30	21	138	PRO
30	21	140	SER
30	21	144	ARG
30	21	155	LYS
30	21	165	VAL

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Mol	Chain	Res	Type
30	21	167	VAL
30	21	174	ASP
30	21	175	VAL
30	21	179	GLU
30	21	196	VAL
30	21	198	VAL
30	21	201	THR
30	21	202	LYS
30	21	203	LYS
31	31	8	GLN
31	31	9	ILE
31	31	13	SER
31	31	15	SER
31	31	18	ARG
31	31	33	LEU
31	31	36	VAL
31	31	37	VAL
31	31	52	LYS
31	31	53	THR
31	31	56	GLU
31	31	57	VAL
31	31	67	GLN
31	31	68	LYS
31	31	70	THR
31	31	72	ARG
31	31	78	ILE
31	31	82	ILE
31	31	88	VAL
31	31	89	VAL
31	31	101	LEU
31	31	108	LYS
31	31	117	ARG
31	31	145	GLU
31	31	149	ASP
31	31	151	SER
31	31	152	GLU
31	31	156	LEU
31	31	158	THR
31	31	161	GLU
31	31	164	ARG
31	31	165	ARG
31	31	170	LEU

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Mol	Chain	Res	Type
31	31	174	VAL
31	31	176	LEU
31	31	189	THR
31	31	194	MET
31	31	204	ASN
32	41	4	ASP
32	41	10	LYS
32	41	14	GLU
32	41	22	ARG
32	41	26	GLN
32	41	27	ASN
32	41	28	VAL
32	41	31	VAL
32	41	32	PRO
32	41	39	ILE
32	41	43	LEU
32	41	45	GLU
32	41	48	GLU
32	41	52	ILE
32	41	58	GLN
32	41	63	ILE
32	41	64	THR
32	41	67	LYS
32	41	70	VAL
32	41	76	SER
32	41	77	ILE
32	41	79	ASN
32	41	80	PHE
32	41	82	LEU
32	41	86	MET
32	41	90	LEU
32	41	94	LEU
32	41	98	ARG
32	41	101	ILE
32	41	108	ASN
32	41	111	LEU
32	41	116	ASP
32	41	117	PHE
32	41	118	ARG
32	41	132	ASN
32	41	133	LEU
32	41	139	LEU

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Mol	Chain	Res	Type
32	41	145	THR
32	41	150	ASP
32	41	155	MET
32	41	160	VAL
32	41	161	THR
32	41	162	THR
32	41	165	THR
32	41	174	GLU
32	41	181	ARG
33	51	3	ARG
33	51	4	ILE
33	51	7	LEU
33	51	10	PRO
33	51	24	VAL
33	51	27	LYS
33	51	40	GLU
33	51	43	VAL
33	51	50	VAL
33	51	64	LEU
33	51	68	THR
33	51	71	LEU
33	51	77	LYS
33	51	80	SER
33	51	81	GLU
33	51	88	LEU
33	51	92	ILE
33	51	95	ARG
33	51	97	ARG
33	51	98	LEU
33	51	114	VAL
33	51	116	GLU
33	51	121	ILE
33	51	129	THR
33	51	130	ARG
33	51	136	ILE
33	51	139	GLN
33	51	140	LYS
33	51	141	VAL
33	51	153	LYS
33	51	158	HIS
33	51	170	ARG
33	51	175	LYS

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Mol	Chain	Res	Type
34	61	4	ILE
34	61	5	LEU
34	61	9	LEU
34	61	12	LEU
34	61	14	ASP
34	61	20	ASP
34	61	23	PRO
34	61	25	TYR
34	61	37	VAL
34	61	38	LEU
34	61	41	GLU
34	61	44	LEU
34	61	64	GLU
34	61	71	ILE
34	61	74	ASN
34	61	78	THR
34	61	79	ILE
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	92	VAL
34	61	93	THR
34	61	110	ASP
34	61	112	LYS
34	61	114	LEU
34	61	116	LEU
34	61	117	GLU
34	61	122	GLU
34	61	131	LYS
34	61	135	GLU
34	61	140	LEU
34	61	142	VAL
34	61	145	VAL
35	58	2	LYS
35	58	5	VAL
35	58	7	LYS
35	58	12	ARG
35	58	28	THR
35	58	29	LYS
35	58	34	LEU
35	58	38	HIS
35	58	39	ARG

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Mol	Chain	Res	Type
35	58	43	THR
35	58	45	ASN
35	58	48	MET
35	58	58	ASP
35	58	60	ILE
35	58	61	ARG
35	58	65	LYS
35	58	67	LEU
35	58	87	LEU
35	58	90	MET
35	58	99	LEU
35	58	104	LYS
35	58	107	LEU
35	58	114	ARG
35	58	118	LYS
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	130	HIS
35	58	131	GLN
35	58	133	GLN
35	58	134	ARG
35	58	137	LYS
36	68	1	MET
36	68	3	GLN
36	68	17	ARG
36	68	23	ARG
36	68	25	LEU
36	68	28	SER
36	68	32	TYR
36	68	34	THR
36	68	39	ILE
36	68	52	VAL
36	68	53	LYS
36	68	65	THR
36	68	68	GLU
36	68	80	ASP
36	68	88	ASN
36	68	92	GLU
36	68	94	ARG
36	68	96	THR
36	68	98	VAL

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Mol	Chain	Res	Type
36	68	112	MET
36	68	113	LYS
36	68	117	LEU
37	78	6	LEU
37	78	7	ARG
37	78	10	PRO
37	78	15	ARG
37	78	18	ARG
37	78	19	VAL
37	78	30	THR
37	78	32	THR
37	78	33	ARG
37	78	41	ARG
37	78	45	LEU
37	78	46	LYS
37	78	49	ARG
37	78	52	GLU
37	78	56	SER
37	78	57	THR
37	78	75	ILE
37	78	81	GLN
37	78	83	VAL
37	78	88	LEU
37	78	90	ARG
37	78	96	THR
37	78	99	LEU
37	78	100	LEU
37	78	101	VAL
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	117	GLU
37	78	119	GLU
37	78	126	VAL
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
37	78	147	LEU
37	78	148	LEU
37	78	149	GLU
38	88	1	MET
38	88	2	LEU

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Mol	Chain	Res	Type
38	88	5	ARG
38	88	6	ARG
38	88	7	MET
38	88	11	LYS
38	88	18	LYS
38	88	25	ASP
38	88	26	TYR
38	88	35	VAL
38	88	45	GLN
38	88	51	ARG
38	88	55	VAL
38	88	56	ARG
38	88	58	PHE
38	88	59	ARG
38	88	60	ARG
38	88	72	LYS
38	88	82	ARG
38	88	96	VAL
38	88	98	LYS
38	88	102	VAL
38	88	103	MET
38	88	110	THR
38	88	115	MET
38	88	129	THR
38	88	133	ARG
38	88	134	ARG
38	88	138	ASP
38	88	139	GLU
39	98	2	ARG
39	98	6	SER
39	98	10	LEU
39	98	12	ARG
39	98	24	GLN
39	98	28	LEU
39	98	29	LEU
39	98	33	ARG
39	98	35	THR
39	98	44	LEU
39	98	65	LEU
39	98	67	LEU
39	98	73	VAL
39	98	75	LEU

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Mol	Chain	Res	Type
39	98	79	LEU
39	98	90	ARG
39	98	91	GLN
39	98	95	THR
39	98	96	ARG
39	98	105	ARG
39	98	118	GLU
40	A8	3	ARG
40	A8	15	ARG
40	A8	17	ARG
40	A8	18	ILE
40	A8	19	LYS
40	A8	21	THR
40	A8	26	LEU
40	A8	27	SER
40	A8	29	PHE
40	A8	30	ARG
40	A8	32	LEU
40	A8	33	LYS
40	A8	35	ILE
40	A8	36	TYR
40	A8	39	ILE
40	A8	42	ASP
40	A8	47	THR
40	A8	48	LEU
40	A8	50	SER
40	A8	58	LEU
40	A8	69	VAL
40	A8	73	LEU
40	A8	80	LEU
40	A8	83	LYS
40	A8	95	HIS
40	A8	98	VAL
40	A8	101	LEU
40	A8	106	ARG
40	A8	107	GLU
41	B8	7	ILE
41	B8	9	LEU
41	B8	10	VAL
41	B8	13	ARG
41	B8	16	ARG
41	B8	17	THR

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Mol	Chain	Res	Type
41	B8	21	GLU
41	B8	27	THR
41	B8	30	VAL
41	B8	35	LYS
41	B8	41	ARG
41	B8	42	ILE
41	B8	49	VAL
41	B8	50	ILE
41	B8	53	ARG
41	B8	58	ASN
41	B8	59	THR
41	B8	60	THR
41	B8	62	THR
41	B8	65	LYS
41	B8	74	ARG
41	B8	86	ILE
41	B8	88	ILE
41	B8	95	ARG
41	B8	98	LYS
41	B8	99	LEU
41	B8	102	ILE
41	B8	105	LEU
41	B8	106	SER
41	B8	108	ARG
41	B8	111	ARG
41	B8	112	ARG
41	B8	113	LYS
41	B8	118	ARG
41	B8	129	ARG
42	C8	17	ILE
42	C8	18	LEU
42	C8	27	LEU
42	C8	31	SER
42	C8	34	LYS
42	C8	47	TYR
42	C8	55	ARG
42	C8	57	PHE
42	C8	64	ARG
42	C8	70	ARG
42	C8	74	LEU
42	C8	79	PHE
42	C8	88	ILE

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Mol	Chain	Res	Type
42	C8	89	GLU
42	C8	92	ARG
42	C8	94	ASN
42	C8	98	LEU
42	C8	104	GLN
42	C8	108	GLU
42	C8	111	GLU
43	D8	1	MET
43	D8	4	ILE
43	D8	5	VAL
43	D8	6	LYS
43	D8	7	THR
43	D8	18	LEU
43	D8	20	LEU
43	D8	26	ASP
43	D8	34	GLU
43	D8	35	LEU
43	D8	38	LEU
43	D8	39	LEU
43	D8	40	LEU
43	D8	43	GLU
43	D8	44	LYS
43	D8	47	VAL
43	D8	49	THR
43	D8	52	VAL
43	D8	53	GLU
43	D8	64	HIS
43	D8	71	LEU
43	D8	72	VAL
43	D8	78	LYS
43	D8	81	TYR
43	D8	82	ARG
43	D8	99	ILE
44	E8	11	ARG
44	E8	17	VAL
44	E8	20	VAL
44	E8	27	LYS
44	E8	36	LEU
44	E8	39	THR
44	E8	51	LEU
44	E8	52	GLU
44	E8	62	HIS

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Mol	Chain	Res	Type
44	E8	65	LEU
44	E8	66	GLU
44	E8	68	ARG
44	E8	69	LEU
44	E8	70	TYR
44	E8	76	VAL
44	E8	84	ARG
44	E8	88	ARG
44	E8	92	ARG
44	E8	96	ILE
44	E8	97	LYS
44	E8	98	LYS
44	E8	103	ILE
44	E8	106	ILE
44	E8	107	LEU
45	F8	2	LYS
45	F8	15	GLU
45	F8	23	GLU
45	F8	27	THR
45	F8	28	PHE
45	F8	30	VAL
45	F8	35	THR
45	F8	49	VAL
45	F8	53	LYS
45	F8	54	VAL
45	F8	57	LEU
45	F8	60	ARG
45	F8	65	ARG
45	F8	69	TYR
45	F8	70	LEU
45	F8	78	LYS
45	F8	81	VAL
45	F8	87	GLN
45	F8	88	LYS
45	F8	93	GLU
46	G8	4	LYS
46	G8	6	HIS
46	G8	21	LYS
46	G8	24	VAL
46	G8	26	LYS
46	G8	27	VAL
46	G8	31	LEU

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Mol	Chain	Res	Type
46	G8	42	VAL
46	G8	50	ARG
46	G8	54	LYS
46	G8	55	TYR
46	G8	57	GLN
46	G8	61	ILE
46	G8	64	GLU
46	G8	67	LEU
46	G8	71	LYS
46	G8	75	ILE
46	G8	79	CYS
46	G8	82	PRO
46	G8	84	ARG
46	G8	85	VAL
46	G8	86	ARG
46	G8	88	LYS
46	G8	94	LYS
46	G8	97	ARG
46	G8	98	VAL
46	G8	99	CYS
46	G8	106	LEU
47	H8	11	GLU
47	H8	19	ARG
47	H8	33	LEU
47	H8	37	VAL
47	H8	41	LEU
47	H8	42	VAL
47	H8	53	ILE
47	H8	61	LEU
47	H8	71	VAL
47	H8	76	LEU
47	H8	77	ASP
47	H8	79	ARG
47	H8	80	ARG
47	H8	82	ARG
47	H8	84	GLU
47	H8	86	VAL
47	H8	92	SER
47	H8	94	GLU
47	H8	96	VAL
47	H8	103	ARG
47	H8	127	LYS

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Mol	Chain	Res	Type
47	H8	128	VAL
47	H8	132	ASN
47	H8	153	SER
47	H8	154	ASP
47	H8	158	PRO
47	H8	161	VAL
47	H8	163	LEU
48	I8	10	THR
48	I8	11	ARG
48	I8	27	GLU
48	I8	31	VAL
48	I8	36	ILE
48	I8	37	LEU
48	I8	38	VAL
48	I8	41	ARG
48	I8	44	ARG
48	I8	49	LYS
48	I8	56	ASP
48	I8	64	ASP
48	I8	67	VAL
48	I8	68	GLU
48	I8	74	ARG
48	I8	81	VAL
48	I8	82	ARG
49	J8	11	ARG
49	J8	14	VAL
49	J8	21	ARG
49	J8	25	LYS
49	J8	26	ARG
49	J8	40	ARG
49	J8	41	ARG
49	J8	42	GLN
49	J8	52	ARG
49	J8	61	ARG
49	J8	62	VAL
49	J8	65	SER
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	83	GLU
49	J8	90	ILE

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Mol	Chain	Res	Type
49	J8	91	LYS
49	J8	92	LYS
49	J8	94	LEU
50	K8	7	ARG
50	K8	9	GLN
50	K8	10	LEU
50	K8	16	LEU
50	K8	24	LEU
50	K8	30	ARG
50	K8	40	SER
50	K8	41	ILE
50	K8	44	LEU
50	K8	47	ASN
50	K8	48	HIS
50	K8	50	ILE
50	K8	51	ARG
50	K8	53	LEU
50	K8	55	ARG
50	K8	62	THR
50	K8	64	LEU
50	K8	67	LYS
51	L8	3	ARG
51	L8	4	LEU
51	L8	6	VAL
51	L8	8	LEU
51	L8	11	SER
51	L8	16	PRO
51	L8	17	LYS
51	L8	29	ARG
51	L8	30	ARG
51	L8	31	LEU
51	L8	36	VAL
51	L8	37	LEU
51	L8	38	GLU
51	L8	40	THR
51	L8	48	GLU
51	L8	55	ARG
52	M8	2	LYS
52	M8	10	VAL
52	M8	15	ILE
52	M8	16	CYS
52	M8	20	ASN

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Mol	Chain	Res	Type
52	M8	37	SER
52	M8	38	LYS
52	M8	39	CYS
52	M8	42	PHE
52	M8	48	ARG
52	M8	50	VAL
52	M8	52	THR
52	M8	59	PHE
52	M8	61	ARG
52	M8	62	ARG
52	M8	65	ASP
53	N8	6	VAL
53	N8	9	LYS
53	N8	16	ARG
53	N8	19	ARG
53	N8	25	LEU
53	N8	26	THR
53	N8	36	CYS
53	N8	40	LYS
53	N8	44	THR
53	N8	49	CYS
53	N8	51	TYR
53	N8	56	LYS
54	P8	1	MET
54	P8	4	THR
54	P8	8	ASN
54	P8	9	ARG
54	P8	10	ARG
54	P8	14	LYS
54	P8	23	ARG
54	P8	36	GLN
54	P8	46	VAL
55	Q8	8	LYS
55	Q8	19	SER
55	Q8	21	LYS
55	Q8	23	VAL
55	Q8	30	ARG
55	Q8	32	LEU
55	Q8	33	ASN
55	Q8	34	TRP
55	Q8	35	GLN
55	Q8	42	ARG

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Mol	Chain	Res	Type
55	Q8	46	ARG
55	Q8	47	LYS
55	Q8	52	LYS
55	Q8	54	GLU
55	Q8	57	ARG
55	Q8	59	LYS
55	Q8	61	LEU
2	12	4	GLU
2	12	5	ILE
2	12	17	PHE
2	12	21	ARG
2	12	22	LYS
2	12	23	ARG
2	12	31	TYR
2	12	33	TYR
2	12	35	GLU
2	12	42	ILE
2	12	44	LEU
2	12	53	ARG
2	12	56	ARG
2	12	69	LEU
2	12	71	VAL
2	12	75	LYS
2	12	78	GLN
2	12	80	ILE
2	12	82	ARG
2	12	83	MET
2	12	96	ARG
2	12	101	MET
2	12	103	THR
2	12	108	ILE
2	12	111	ARG
2	12	121	LEU
2	12	122	PHE
2	12	134	GLU
2	12	137	ARG
2	12	138	LEU
2	12	144	ARG
2	12	145	LEU
2	12	149	LEU
2	12	155	LEU
2	12	160	ASP

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Mol	Chain	Res	Type
2	12	164	VAL
2	12	165	VAL
2	12	170	GLU
2	12	172	ILE
2	12	178	ARG
2	12	179	LYS
2	12	185	ILE
2	12	191	ASP
2	12	200	ILE
2	12	201	ILE
2	12	205	ASP
2	12	209	ARG
2	12	210	SER
2	12	212	GLN
2	12	213	LEU
2	12	215	LEU
2	12	219	VAL
2	12	220	ASP
2	12	221	LEU
2	12	223	ILE
2	12	233	SER
2	12	236	TYR
3	22	5	ILE
3	22	11	ARG
3	22	16	ARG
3	22	17	ASP
3	22	18	TRP
3	22	21	ARG
3	22	28	GLN
3	22	29	TYR
3	22	32	LEU
3	22	34	LEU
3	22	40	ARG
3	22	42	LEU
3	22	43	LEU
3	22	47	LEU
3	22	48	TYR
3	22	56	ASP
3	22	66	VAL
3	22	67	THR
3	22	76	VAL
3	22	79	ARG

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Mol	Chain	Res	Type
3	22	91	LEU
3	22	94	LEU
3	22	95	THR
3	22	97	LYS
3	22	98	ASN
3	22	101	LEU
3	22	102	ASN
3	22	104	GLN
3	22	128	PHE
3	22	140	ARG
3	22	153	VAL
3	22	154	SER
3	22	164	ARG
3	22	167	TRP
3	22	175	LEU
3	22	182	ILE
3	22	190	ARG
3	22	191	THR
3	22	202	ILE
4	32	3	ARG
4	32	4	TYR
4	32	5	ILE
4	32	10	ARG
4	32	11	LEU
4	32	14	ARG
4	32	24	GLU
4	32	25	ARG
4	32	27	TYR
4	32	28	SER
4	32	30	LYS
4	32	36	ARG
4	32	58	LEU
4	32	61	LYS
4	32	76	ARG
4	32	83	SER
4	32	85	LYS
4	32	94	LEU
4	32	110	PHE
4	32	112	VAL
4	32	120	LEU
4	32	122	ARG
4	32	126	ILE

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Mol	Chain	Res	Type
4	32	127	THR
4	32	131	ARG
4	32	132	ARG
4	32	134	ASP
4	32	135	LEU
4	32	137	SER
4	32	145	GLU
4	32	148	VAL
4	32	157	LEU
4	32	160	GLN
4	32	162	LEU
4	32	176	LEU
4	32	177	ASP
4	32	187	ARG
4	32	191	ARG
4	32	196	LEU
4	32	200	GLU
5	42	5	ASP
5	42	10	MET
5	42	16	THR
5	42	18	ARG
5	42	19	MET
5	42	24	ARG
5	42	25	ARG
5	42	31	LEU
5	42	34	VAL
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	45	PHE
5	42	47	LYS
5	42	50	GLU
5	42	51	VAL
5	42	66	MET
5	42	68	GLU
5	42	72	GLN
5	42	73	ASN
5	42	76	ILE
5	42	78	HIS
5	42	80	ILE
5	42	83	GLU
5	42	87	SER

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Mol	Chain	Res	Type
5	42	91	LEU
5	42	101	ILE
5	42	112	LEU
5	42	115	VAL
5	42	116	THR
5	42	125	SER
5	42	126	ARG
5	42	141	GLN
5	42	144	THR
5	42	150	ARG
5	42	155	GLU
6	52	14	LEU
6	52	15	ASP
6	52	16	GLN
6	52	21	LEU
6	52	23	LYS
6	52	24	GLU
6	52	25	ILE
6	52	28	ARG
6	52	37	VAL
6	52	39	LYS
6	52	54	LYS
6	52	63	TYR
6	52	64	GLN
6	52	72	VAL
6	52	74	ASP
6	52	77	ARG
6	52	83	ASP
7	62	5	ARG
7	62	10	ARG
7	62	12	LEU
7	62	27	ILE
7	62	52	GLU
7	62	54	THR
7	62	60	LYS
7	62	67	GLU
7	62	72	ARG
7	62	73	MET
7	62	86	GLN
7	62	89	MET
7	62	92	SER
7	62	94	ARG

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Mol	Chain	Res	Type
7	62	99	LEU
7	62	101	LEU
7	62	104	LEU
7	62	114	ARG
7	62	124	LEU
7	62	131	LYS
7	62	137	LYS
7	62	140	ASP
7	62	146	GLU
7	62	148	ASN
8	72	1	MET
8	72	2	LEU
8	72	10	LEU
8	72	17	THR
8	72	18	ARG
8	72	23	SER
8	72	25	ASP
8	72	26	VAL
8	72	33	GLU
8	72	35	ILE
8	72	39	LEU
8	72	50	ARG
8	72	54	ASP
8	72	56	LYS
8	72	63	LEU
8	72	70	GLN
8	72	73	ASP
8	72	82	HIS
8	72	83	ILE
8	72	92	ARG
8	72	95	VAL
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	112	LEU
8	72	114	THR
8	72	133	LEU
9	82	7	THR
9	82	10	ARG
9	82	31	GLN
9	82	35	GLU

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Mol	Chain	Res	Type
9	82	36	TYR
9	82	38	GLN
9	82	42	ARG
9	82	47	LEU
9	82	54	ASP
9	82	56	LEU
9	82	87	GLN
9	82	88	TYR
9	82	91	ASP
9	82	95	LYS
9	82	97	LYS
9	82	99	LEU
9	82	104	ARG
9	82	113	LYS
9	82	117	HIS
9	82	125	TYR
9	82	128	ARG
10	1A	13	HIS
10	1A	17	ASP
10	1A	42	THR
10	1A	43	ARG
10	1A	44	VAL
10	1A	51	ARG
10	1A	54	PHE
10	1A	55	LYS
10	1A	57	LYS
10	1A	58	ASP
10	1A	60	ARG
10	1A	62	HIS
10	1A	75	ILE
10	1A	79	ARG
10	1A	82	ILE
11	2A	12	ARG
11	2A	13	GLN
11	2A	14	VAL
11	2A	29	ILE
11	2A	31	THR
11	2A	44	SER
11	2A	70	LYS
11	2A	79	SER
11	2A	82	VAL
11	2A	87	THR

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Mol	Chain	Res	Type
11	2A	105	VAL
11	2A	106	LYS
11	2A	109	VAL
11	2A	116	HIS
11	2A	124	LYS
11	2A	126	ARG
12	3A	7	ILE
12	3A	10	LEU
12	3A	24	VAL
12	3A	27	LEU
12	3A	33	ARG
12	3A	37	CYS
12	3A	38	THR
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	46	LYS
12	3A	54	LYS
12	3A	59	ARG
12	3A	61	THR
12	3A	64	TYR
12	3A	66	VAL
12	3A	83	VAL
12	3A	98	TYR
12	3A	111	LYS
12	3A	112	ASP
12	3A	118	SER
13	4A	8	GLU
13	4A	11	ARG
13	4A	17	VAL
13	4A	19	LEU
13	4A	32	GLU
13	4A	34	LEU
13	4A	35	GLU
13	4A	37	THR
13	4A	39	ILE
13	4A	45	VAL
13	4A	47	ASP
13	4A	49	THR
13	4A	50	GLU
13	4A	58	GLU

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Mol	Chain	Res	Type
13	4A	64	TRP
13	4A	65	LYS
13	4A	66	LEU
13	4A	70	LEU
13	4A	77	ASN
13	4A	79	LYS
13	4A	82	MET
13	4A	83	ASP
13	4A	86	CYS
13	4A	92	HIS
13	4A	94	ARG
13	4A	98	VAL
13	4A	99	ARG
13	4A	101	GLN
13	4A	102	ARG
13	4A	103	THR
13	4A	105	THR
13	4A	108	ARG
13	4A	115	LYS
13	4A	116	THR
14	5A	6	LEU
14	5A	8	GLU
14	5A	12	ARG
14	5A	17	LYS
14	5A	25	VAL
14	5A	26	ARG
14	5A	27	CYS
14	5A	33	VAL
14	5A	44	LEU
14	5A	53	LEU
15	6A	3	ILE
15	6A	21	ASP
15	6A	24	SER
15	6A	31	LEU
15	6A	41	GLU
15	6A	48	LYS
15	6A	65	ARG
15	6A	66	LEU
15	6A	67	LEU
15	6A	71	GLN
15	6A	78	TYR
15	6A	79	ARG

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Mol	Chain	Res	Type
15	6A	82	ILE
15	6A	83	GLU
15	6A	88	ARG
16	7A	1	MET
16	7A	2	VAL
16	7A	6	LEU
16	7A	8	ARG
16	7A	11	SER
16	7A	13	HIS
16	7A	21	VAL
16	7A	31	LYS
16	7A	34	GLU
16	7A	39	TYR
16	7A	45	THR
16	7A	47	ASP
16	7A	62	VAL
16	7A	67	THR
16	7A	69	THR
16	7A	72	ARG
16	7A	73	LEU
16	7A	76	GLN
16	7A	82	GLN
17	8A	7	THR
17	8A	10	VAL
17	8A	11	VAL
17	8A	26	GLN
17	8A	39	SER
17	8A	50	LYS
17	8A	53	LEU
17	8A	60	ILE
17	8A	67	LYS
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	81	ARG
17	8A	100	LYS
18	9A	17	SER
18	9A	21	LYS
18	9A	25	THR
18	9A	26	LEU
18	9A	28	GLU
18	9A	29	PHE

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Mol	Chain	Res	Type
18	9A	31	LEU
18	9A	32	ARG
18	9A	36	ASN
18	9A	37	VAL
18	9A	42	ARG
18	9A	44	LEU
18	9A	47	THR
18	9A	53	ARG
18	9A	58	LEU
18	9A	65	ILE
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
19	AA	11	VAL
19	AA	22	LEU
19	AA	23	ASN
19	AA	25	LYS
19	AA	33	THR
19	AA	34	TRP
19	AA	41	VAL
19	AA	44	MET
19	AA	49	ILE
19	AA	53	ASN
19	AA	66	MET
19	AA	78	ARG
19	AA	83	HIS
20	BA	8	ARG
20	BA	10	LEU
20	BA	11	SER
20	BA	22	ARG
20	BA	23	ARG
20	BA	24	LEU
20	BA	37	SER
20	BA	60	GLU
20	BA	73	HIS
20	BA	84	LEU
21	1B	9	ARG
29	19	10	THR
29	19	24	ILE
29	19	28	GLU
29	19	32	SER
29	19	34	VAL

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Mol	Chain	Res	Type
29	19	38	LYS
29	19	40	THR
29	19	43	ARG
29	19	49	ILE
29	19	61	LEU
29	19	65	ILE
29	19	68	LYS
29	19	69	ARG
29	19	72	LYS
29	19	87	ASN
29	19	88	ARG
29	19	89	SER
29	19	94	LEU
29	19	99	ASP
29	19	101	GLU
29	19	103	ARG
29	19	105	ILE
29	19	111	LEU
29	19	115	GLN
29	19	116	GLN
29	19	118	VAL
29	19	125	ILE
29	19	126	GLN
29	19	138	VAL
29	19	147	LEU
29	19	154	LYS
29	19	157	ARG
29	19	169	GLU
29	19	173	VAL
29	19	176	ARG
29	19	182	LEU
29	19	192	THR
29	19	204	ILE
29	19	208	LYS
29	19	211	ARG
29	19	212	SER
29	19	217	ARG
29	19	218	ARG
29	19	222	ARG
29	19	232	PRO
29	19	244	ARG
29	19	255	LYS

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Mol	Chain	Res	Type
29	19	257	LEU
29	19	262	ARG
29	19	266	SER
29	19	268	ARG
29	19	271	ILE
30	29	1	MET
30	29	5	LEU
30	29	7	VAL
30	29	12	THR
30	29	17	ASP
30	29	19	ARG
30	29	38	THR
30	29	42	ASP
30	29	45	THR
30	29	48	GLN
30	29	52	LEU
30	29	60	ASN
30	29	61	ARG
30	29	64	LYS
30	29	69	LYS
30	29	76	ARG
30	29	79	ARG
30	29	90	THR
30	29	95	ILE
30	29	107	THR
30	29	111	ARG
30	29	113	PHE
30	29	119	ARG
30	29	144	ARG
30	29	154	LYS
30	29	160	TYR
30	29	167	VAL
30	29	168	MET
30	29	170	LEU
30	29	174	ASP
30	29	178	GLU
30	29	181	LEU
30	29	188	VAL
30	29	197	ILE
30	29	200	GLU
30	29	201	THR
30	29	202	LYS

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Mol	Chain	Res	Type
31	39	7	TYR
31	39	8	GLN
31	39	11	VAL
31	39	18	ARG
31	39	20	LEU
31	39	23	ASP
31	39	24	LEU
31	39	29	ASN
31	39	33	LEU
31	39	38	ARG
31	39	46	ARG
31	39	62	ARG
31	39	63	LYS
31	39	67	GLN
31	39	68	LYS
31	39	69	HIS
31	39	72	ARG
31	39	74	ARG
31	39	78	ILE
31	39	83	PHE
31	39	89	VAL
31	39	110	LEU
31	39	123	LEU
31	39	125	LEU
31	39	145	GLU
31	39	153	SER
31	39	158	THR
31	39	168	ARG
31	39	175	THR
31	39	176	LEU
31	39	181	LEU
31	39	183	VAL
31	39	189	THR
31	39	191	ARG
31	39	193	VAL
31	39	196	LEU
31	39	197	ASP
31	39	205	ARG
32	49	7	LEU
32	49	13	GLU
32	49	18	GLU
32	49	19	LEU

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Mol	Chain	Res	Type
32	49	21	ARG
32	49	26	GLN
32	49	28	VAL
32	49	33	ARG
32	49	35	GLU
32	49	39	ILE
32	49	40	ASN
32	49	43	LEU
32	49	53	LEU
32	49	59	GLU
32	49	62	LEU
32	49	64	THR
32	49	66	GLN
32	49	67	LYS
32	49	74	LYS
32	49	80	PHE
32	49	81	LYS
32	49	82	LEU
32	49	91	ARG
32	49	96	ARG
32	49	97	ASP
32	49	101	ILE
32	49	106	LEU
32	49	114	ILE
32	49	115	ARG
32	49	116	ASP
32	49	118	ARG
32	49	120	LEU
32	49	123	ASN
32	49	126	ASP
32	49	130	ASN
32	49	133	LEU
32	49	136	ARG
32	49	147	ASP
32	49	153	ARG
32	49	159	VAL
32	49	161	THR
32	49	172	LEU
32	49	173	LEU
33	59	3	ARG
33	59	6	ARG
33	59	7	LEU

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Mol	Chain	Res	Type
33	59	9	ILE
33	59	11	VAL
33	59	15	VAL
33	59	24	VAL
33	59	27	LYS
33	59	37	VAL
33	59	41	MET
33	59	42	ARG
33	59	44	VAL
33	59	49	VAL
33	59	51	ARG
33	59	62	LYS
33	59	67	LEU
33	59	86	GLU
33	59	98	LEU
33	59	101	ARG
33	59	103	LEU
33	59	113	VAL
33	59	119	GLU
33	59	122	THR
33	59	123	PHE
33	59	125	VAL
33	59	127	GLU
33	59	129	THR
33	59	133	VAL
33	59	134	SER
33	59	143	GLN
33	59	157	TYR
33	59	158	HIS
33	59	160	LYS
33	59	164	TYR
34	69	2	LYS
34	69	4	ILE
34	69	14	ASP
34	69	21	VAL
34	69	37	VAL
34	69	50	ARG
34	69	51	ILE
34	69	54	GLN
34	69	56	LYS
34	69	57	ARG
34	69	58	LEU

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Mol	Chain	Res	Type
34	69	68	LEU
34	69	69	LYS
34	69	76	THR
34	69	77	LEU
34	69	78	THR
34	69	79	ILE
34	69	81	VAL
34	69	82	ARG
34	69	86	THR
34	69	101	LEU
34	69	103	ARG
34	69	104	GLN
34	69	108	THR
34	69	109	ILE
34	69	110	ASP
34	69	114	LEU
34	69	117	GLU
34	69	122	GLU
34	69	125	GLU
34	69	131	LYS
34	69	133	HIS
34	69	139	GLN
34	69	142	VAL
34	69	145	VAL
35	15	1	MET
35	15	5	VAL
35	15	10	GLU
35	15	12	ARG
35	15	32	THR
35	15	34	LEU
35	15	35	ARG
35	15	37	LYS
35	15	41	ASP
35	15	46	VAL
35	15	48	MET
35	15	59	LYS
35	15	62	VAL
35	15	69	GLN
35	15	85	ILE
35	15	90	MET
35	15	91	LEU
35	15	93	THR

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Mol	Chain	Res	Type
35	15	96	GLU
35	15	99	LEU
35	15	112	LEU
35	15	127	ASP
35	15	134	ARG
35	15	136	GLU
36	25	8	LEU
36	25	10	VAL
36	25	13	ASN
36	25	19	ILE
36	25	22	ILE
36	25	28	SER
36	25	35	VAL
36	25	38	VAL
36	25	39	ILE
36	25	42	SER
36	25	44	LYS
36	25	47	ILE
36	25	49	ARG
36	25	53	LYS
36	25	58	VAL
36	25	69	ILE
36	25	73	ASP
36	25	77	ILE
36	25	86	ILE
36	25	89	ASN
36	25	91	LEU
36	25	94	ARG
36	25	96	THR
36	25	97	ARG
36	25	107	ARG
36	25	113	LYS
36	25	114	ILE
36	25	117	LEU
37	35	3	LEU
37	35	6	LEU
37	35	7	ARG
37	35	10	PRO
37	35	15	ARG
37	35	18	ARG
37	35	21	ARG
37	35	27	HIS

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Mol	Chain	Res	Type
37	35	30	THR
37	35	35	HIS
37	35	36	LYS
37	35	39	LYS
37	35	41	ARG
37	35	49	ARG
37	35	55	ARG
37	35	61	ARG
37	35	64	LYS
37	35	65	ARG
37	35	67	MET
37	35	68	GLN
37	35	71	VAL
37	35	75	ILE
37	35	78	PRO
37	35	81	GLN
37	35	83	VAL
37	35	85	LEU
37	35	90	ARG
37	35	96	THR
37	35	98	GLU
37	35	101	VAL
37	35	110	TYR
37	35	111	ARG
37	35	112	LEU
37	35	114	ILE
37	35	117	GLU
37	35	121	LYS
37	35	123	LEU
37	35	125	VAL
37	35	128	HIS
37	35	133	SER
37	35	135	LEU
37	35	144	GLU
37	35	146	VAL
37	35	147	LEU
38	45	1	MET
38	45	3	MET
38	45	16	ARG
38	45	18	LYS
38	45	22	LYS
38	45	25	ASP

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Mol	Chain	Res	Type
38	45	32	TYR
38	45	35	VAL
38	45	45	GLN
38	45	60	ARG
38	45	79	LEU
38	45	81	VAL
38	45	83	MET
38	45	89	ASN
38	45	90	VAL
38	45	91	GLU
38	45	103	MET
38	45	110	THR
38	45	115	MET
38	45	116	GLU
38	45	120	ILE
38	45	127	ILE
38	45	133	ARG
38	45	134	ARG
38	45	138	ASP
38	45	139	GLU
39	55	6	SER
39	55	15	SER
39	55	18	LEU
39	55	27	SER
39	55	29	LEU
39	55	35	THR
39	55	43	GLU
39	55	44	LEU
39	55	51	LEU
39	55	54	LEU
39	55	56	LYS
39	55	59	ASP
39	55	65	LEU
39	55	71	GLN
39	55	74	LYS
39	55	79	LEU
39	55	81	ASP
39	55	82	GLU
39	55	91	GLN
39	55	104	ARG
39	55	105	ARG
39	55	118	GLU

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Mol	Chain	Res	Type
40	65	4	LEU
40	65	12	PHE
40	65	16	ASN
40	65	17	ARG
40	65	19	LYS
40	65	21	THR
40	65	32	LEU
40	65	36	TYR
40	65	50	SER
40	65	56	LEU
40	65	58	LEU
40	65	78	LEU
40	65	89	ARG
40	65	93	LYS
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG
40	65	107	GLU
40	65	110	LEU
41	75	6	LEU
41	75	8	LYS
41	75	11	GLU
41	75	16	ARG
41	75	19	LEU
41	75	21	GLU
41	75	27	THR
41	75	28	VAL
41	75	36	GLU
41	75	41	ARG
41	75	42	ILE
41	75	50	ILE
41	75	51	ARG
41	75	54	ARG
41	75	55	ASN
41	75	59	THR
41	75	61	PHE
41	75	62	THR
41	75	64	ARG
41	75	65	LYS
41	75	74	ARG
41	75	78	LEU
41	75	86	ILE

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Mol	Chain	Res	Type
41	75	88	ILE
41	75	89	VAL
41	75	91	ARG
41	75	93	ARG
41	75	108	ARG
41	75	109	GLU
41	75	110	ILE
41	75	111	ARG
41	75	112	ARG
41	75	123	GLN
41	75	124	ASP
41	75	133	GLU
41	75	134	GLU
41	75	137	LYS
42	85	3	ARG
42	85	5	LYS
42	85	8	VAL
42	85	15	LYS
42	85	17	ILE
42	85	20	LEU
42	85	27	LEU
42	85	33	ARG
42	85	34	LYS
42	85	40	PHE
42	85	55	ARG
42	85	56	ASP
42	85	59	ARG
42	85	63	VAL
42	85	64	ARG
42	85	70	ARG
42	85	71	GLN
42	85	83	LEU
42	85	88	ILE
42	85	92	ARG
42	85	97	ASP
42	85	101	ARG
43	95	7	THR
43	95	10	LYS
43	95	19	LYS
43	95	24	LYS
43	95	32	THR
43	95	35	LEU

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Mol	Chain	Res	Type
43	95	38	LEU
43	95	40	LEU
43	95	44	LYS
43	95	45	THR
43	95	46	VAL
43	95	47	VAL
43	95	49	THR
43	95	56	SER
43	95	57	VAL
43	95	62	LEU
43	95	70	ILE
43	95	71	LEU
43	95	72	VAL
43	95	74	LYS
43	95	79	VAL
43	95	81	TYR
43	95	83	ARG
43	95	84	LYS
43	95	85	LYS
43	95	89	GLN
43	95	91	TYR
43	95	95	LEU
43	95	100	ARG
44	A5	11	ARG
44	A5	19	LEU
44	A5	23	LEU
44	A5	28	SER
44	A5	30	GLU
44	A5	39	THR
44	A5	40	ASN
44	A5	41	LYS
44	A5	59	VAL
44	A5	65	LEU
44	A5	67	ASP
44	A5	70	TYR
44	A5	76	VAL
44	A5	82	LEU
44	A5	86	LEU
44	A5	88	ARG
44	A5	90	ARG
44	A5	92	ARG
44	A5	95	ILE

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Mol	Chain	Res	Type
44	A5	96	ILE
44	A5	97	LYS
44	A5	105	VAL
44	A5	107	LEU
44	A5	109	GLU
44	A5	110	LYS
44	A5	111	HIS
45	B5	3	THR
45	B5	23	GLU
45	B5	35	THR
45	B5	40	LYS
45	B5	45	THR
45	B5	48	LYS
45	B5	49	VAL
45	B5	51	VAL
45	B5	54	VAL
45	B5	59	VAL
45	B5	60	ARG
45	B5	63	LYS
45	B5	65	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	75	ASP
45	B5	78	LYS
46	C5	2	ARG
46	C5	19	LYS
46	C5	23	ARG
46	C5	24	VAL
46	C5	29	GLU
46	C5	37	VAL
46	C5	38	ILE
46	C5	47	LYS
46	C5	49	VAL
46	C5	50	ARG
46	C5	51	VAL
46	C5	55	TYR
46	C5	62	GLU
46	C5	63	LYS
46	C5	68	HIS
46	C5	70	SER
46	C5	84	ARG
46	C5	85	VAL

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Mol	Chain	Res	Type
46	C5	88	LYS
46	C5	89	PHE
46	C5	94	LYS
46	C5	97	ARG
46	C5	98	VAL
46	C5	99	CYS
46	C5	102	CYS
47	D5	4	ARG
47	D5	11	GLU
47	D5	13	GLU
47	D5	16	SER
47	D5	18	LEU
47	D5	19	ARG
47	D5	24	LEU
47	D5	31	ARG
47	D5	32	HIS
47	D5	53	ILE
47	D5	66	SER
47	D5	70	LEU
47	D5	71	VAL
47	D5	72	ARG
47	D5	74	VAL
47	D5	76	LEU
47	D5	77	ASP
47	D5	80	ARG
47	D5	85	HIS
47	D5	86	VAL
47	D5	89	PHE
47	D5	90	VAL
47	D5	91	LEU
47	D5	92	SER
47	D5	102	LEU
47	D5	103	ARG
47	D5	133	ILE
47	D5	154	ASP
47	D5	157	LEU
47	D5	165	VAL
47	D5	168	GLU
48	E5	9	SER
48	E5	10	THR
48	E5	12	ASN
48	E5	14	ARG

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Mol	Chain	Res	Type
48	E5	36	ILE
48	E5	40	GLN
48	E5	46	LYS
48	E5	55	ARG
48	E5	58	THR
48	E5	63	VAL
48	E5	64	ASP
48	E5	70	GLN
48	E5	79	VAL
48	E5	80	HIS
49	F5	4	VAL
49	F5	11	ARG
49	F5	13	ILE
49	F5	17	SER
49	F5	19	GLN
49	F5	21	ARG
49	F5	23	LYS
49	F5	26	ARG
49	F5	27	GLU
49	F5	38	SER
49	F5	40	ARG
49	F5	52	ARG
49	F5	65	SER
49	F5	72	GLU
49	F5	76	ARG
49	F5	78	LYS
49	F5	82	LEU
49	F5	83	GLU
49	F5	85	LEU
49	F5	88	LYS
49	F5	89	GLU
49	F5	90	ILE
49	F5	91	LYS
50	G5	5	GLU
50	G5	10	LEU
50	G5	14	ARG
50	G5	15	LYS
50	G5	16	LEU
50	G5	24	LEU
50	G5	34	GLU
50	G5	46	GLN
50	G5	48	HIS

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Mol	Chain	Res	Type
50	G5	49	LYS
50	G5	50	ILE
50	G5	52	ASP
50	G5	53	LEU
50	G5	55	ARG
50	G5	60	LEU
50	G5	61	LEU
50	G5	62	THR
50	G5	64	LEU
50	G5	65	ASN
50	G5	67	LYS
50	G5	69	ARG
51	H5	5	LYS
51	H5	8	LEU
51	H5	10	LYS
51	H5	13	ILE
51	H5	17	LYS
51	H5	20	LYS
51	H5	24	LYS
51	H5	35	ARG
51	H5	36	VAL
51	H5	40	THR
51	H5	49	LYS
51	H5	53	LEU
51	H5	55	ARG
52	I5	1	MET
52	I5	6	HIS
52	I5	8	LYS
52	I5	18	CYS
52	I5	21	VAL
52	I5	22	ILE
52	I5	30	GLU
52	I5	32	TYR
52	I5	35	VAL
52	I5	38	LYS
52	I5	39	CYS
52	I5	46	GLN
52	I5	53	GLU
52	I5	58	ARG
52	I5	59	PHE
52	I5	61	ARG
52	I5	62	ARG

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Mol	Chain	Res	Type
53	J5	3	LYS
53	J5	4	HIS
53	J5	15	ARG
53	J5	16	ARG
53	J5	19	ARG
53	J5	22	HIS
53	J5	29	THR
53	J5	35	GLU
53	J5	36	CYS
53	J5	37	LYS
53	J5	45	VAL
53	J5	48	GLU
53	J5	52	TYR
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	24	THR
54	L5	29	LYS
54	L5	32	LYS
54	L5	41	ARG
54	L5	46	VAL
55	M5	3	LYS
55	M5	14	VAL
55	M5	16	ILE
55	M5	31	HIS
55	M5	32	LEU
55	M5	33	ASN
55	M5	34	TRP
55	M5	37	SER
55	M5	46	ARG
55	M5	52	LYS
55	M5	53	PRO
55	M5	59	LYS
55	M5	60	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (31) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	16	HIS
7	6E	84	ASN
19	AI	47	HIS

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Mol	Chain	Res	Type
28	71	56	GLN
28	71	66	HIS
28	71	227	HIS
30	21	143	ASN
31	31	69	HIS
31	31	75	HIS
34	61	105	HIS
37	78	68	GLN
39	98	11	ASN
39	98	91	GLN
40	A8	34	HIS
48	I8	29	GLN
2	12	19	HIS
3	22	139	GLN
5	42	127	ASN
5	42	130	ASN
9	82	124	GLN
29	19	231	HIS
30	29	48	GLN
31	39	40	GLN
31	39	169	ASN
34	69	104	GLN
34	69	105	HIS
39	55	3	HIS
39	55	11	ASN
40	65	34	HIS
46	C5	68	HIS
50	G5	47	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1495/1522 (98%)	395 (26%)	38 (2%)
1	1G	1495/1522 (98%)	396 (26%)	36 (2%)
22	1K	65/77 (84%)	28 (43%)	3 (4%)
23	2K	76/77 (98%)	16 (21%)	1 (1%)
24	3K	75/76 (98%)	35 (46%)	6 (8%)
24	3L	74/76 (97%)	38 (51%)	2 (2%)
25	4K	12/27 (44%)	2 (16%)	0
25	4L	9/27 (33%)	4 (44%)	1 (11%)
26	14	2874/2917 (98%)	803 (27%)	48 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
26	1H	2901/2917 (99%)	734 (25%)	52 (1%)
27	16	121/122 (99%)	25 (20%)	0
27	1J	121/122 (99%)	39 (32%)	1 (0%)
56	2L	75/77 (97%)	22 (29%)	3 (4%)
All	All	9393/9559 (98%)	2537 (27%)	191 (2%)

All (2537) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	7	G
1	13	8	A
1	13	9	G
1	13	31	G
1	13	32	A
1	13	39	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	74	C
1	13	76	G
1	13	77	C
1	13	78	G
1	13	79	G
1	13	90	C
1	13	91	C
1	13	95	G
1	13	101	A
1	13	108	G
1	13	117	G
1	13	121	C
1	13	129(A)	G
1	13	130	A
1	13	131	C
1	13	138	G

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Mol	Chain	Res	Type
1	13	142	G
1	13	144	G
1	13	147	G
1	13	150	C
1	13	151	A
1	13	160	A
1	13	163	C
1	13	164	U
1	13	168	G
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	180	U
1	13	188	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	200	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	227	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	250	A
1	13	251	G
1	13	256	U
1	13	262	A
1	13	266	G
1	13	267	C
1	13	270	A
1	13	280	C
1	13	281	G
1	13	289	G

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Mol	Chain	Res	Type
1	13	299	G
1	13	318	G
1	13	321	A
1	13	324	G
1	13	326	G
1	13	327	A
1	13	328	C
1	13	330	C
1	13	332	G
1	13	342	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	350	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	367	U
1	13	372	C
1	13	382	A
1	13	384	G
1	13	388	G
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	419	C
1	13	422	C
1	13	423	G
1	13	429	U
1	13	430	A
1	13	435	C
1	13	452	A
1	13	455	C
1	13	465	A
1	13	466	C
1	13	467	G

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Mol	Chain	Res	Type
1	13	476	G
1	13	481	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	504	C
1	13	505	G
1	13	508	C
1	13	509	A
1	13	510	A
1	13	511	C
1	13	512	U
1	13	518	C
1	13	521	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	534	U
1	13	546	G
1	13	547	A
1	13	559	A
1	13	561	U
1	13	564	C
1	13	569	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	587	G
1	13	591	U
1	13	596	C
1	13	607	A
1	13	616	G
1	13	617	G
1	13	618	C
1	13	623	C
1	13	624	C
1	13	627	G
1	13	630	G
1	13	631	G
1	13	632	A

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Mol	Chain	Res	Type
1	13	633	G
1	13	639	G
1	13	650	G
1	13	652	U
1	13	653	A
1	13	665	A
1	13	679	C
1	13	683	G
1	13	684	A
1	13	687	A
1	13	688	G
1	13	698	G
1	13	702	A
1	13	704	A
1	13	721	G
1	13	723	U
1	13	724	G
1	13	728	A
1	13	735	C
1	13	747	C
1	13	748	C
1	13	749	C
1	13	750	G
1	13	752	G
1	13	753	A
1	13	755	G
1	13	759	A
1	13	766	A
1	13	767	A
1	13	768	A
1	13	769	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	803	G
1	13	804	U
1	13	813	U
1	13	815	A
1	13	817	C
1	13	820	U

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Mol	Chain	Res	Type
1	13	821	G
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	869	G
1	13	870	U
1	13	873	A
1	13	889	A
1	13	902	G
1	13	903	G
1	13	905	U
1	13	914	A
1	13	916	G
1	13	922	G
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	935	A
1	13	940	C
1	13	950	U
1	13	958	A
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	982	U
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	994	A
1	13	998	G
1	13	1004	A

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Mol	Chain	Res	Type
1	13	1005	A
1	13	1006	C
1	13	1008	C
1	13	1009	G
1	13	1017	G
1	13	1020	U
1	13	1021	G
1	13	1023	G
1	13	1024	G
1	13	1025	U
1	13	1027	C
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1032(A)	G
1	13	1033	G
1	13	1035	A
1	13	1037	C
1	13	1038	C
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1053	G
1	13	1054	C
1	13	1055	A
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1067	A
1	13	1081	G
1	13	1085	U
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1118	C
1	13	1122	U
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A

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Mol	Chain	Res	Type
1	13	1131	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1147	C
1	13	1148	U
1	13	1151	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1161	C
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1181	G
1	13	1182	G
1	13	1184	G
1	13	1189	C
1	13	1191	A
1	13	1193	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1204	A
1	13	1212	U
1	13	1213	A
1	13	1214	C
1	13	1215	G
1	13	1218	C
1	13	1223	C
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1248	A
1	13	1256	A
1	13	1257	U

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Mol	Chain	Res	Type
1	13	1258	G
1	13	1263	C
1	13	1267	C
1	13	1270	C
1	13	1272	G
1	13	1273	G
1	13	1277	C
1	13	1278	U
1	13	1280	A
1	13	1281	U
1	13	1282	C
1	13	1286	A
1	13	1287	A
1	13	1297	C
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1302	U
1	13	1304	G
1	13	1319	A
1	13	1322	C
1	13	1323	G
1	13	1325	C
1	13	1331	G
1	13	1334	G
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1361	G
1	13	1362(A)	C
1	13	1363	A
1	13	1364	U
1	13	1370	G
1	13	1377	A
1	13	1379	G
1	13	1381	U
1	13	1398	A

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Mol	Chain	Res	Type
1	13	1400	C
1	13	1402	C
1	13	1419	G
1	13	1436	U
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1469	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1519	A
1	13	1520	G
1	13	1529	G
1	13	1530	G
22	1K	2	G
22	1K	3	C
22	1K	7	G
22	1K	8	U
22	1K	9	G
22	1K	10	G
22	1K	11	A
22	1K	13	C
22	1K	15	G
22	1K	24	C
22	1K	27	G
22	1K	41	C
22	1K	43	G
22	1K	46	G
22	1K	47	G
22	1K	48	U

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Mol	Chain	Res	Type
22	1K	49	C
22	1K	50	G
22	1K	52	C
22	1K	54	G
22	1K	59	A
22	1K	60	A
22	1K	61	U
22	1K	63	C
22	1K	64	G
22	1K	74	A
22	1K	75	C
22	1K	76	C
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	16	C
23	2K	18	C
23	2K	19	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	48	U
23	2K	49	C
23	2K	53	G
23	2K	57	C
23	2K	73	A
23	2K	77	A
24	3K	2	C
24	3K	3	C
24	3K	7	A
24	3K	8	4SU
24	3K	9	A
24	3K	13	C
24	3K	14	A
24	3K	17	C
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	23	A
24	3K	26	A

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Mol	Chain	Res	Type
24	3K	27	G
24	3K	33	U
24	3K	36	A
24	3K	42	C
24	3K	45	U
24	3K	46	7MG
24	3K	47	U
24	3K	48	C
24	3K	49	C
24	3K	50	U
24	3K	52	G
24	3K	55	PSU
24	3K	56	C
24	3K	59	U
24	3K	60	U
24	3K	65	G
24	3K	66	U
24	3K	71	G
24	3K	73	A
24	3K	74	C
24	3K	76	A
25	4K	14	A
25	4K	25	A
26	1H	7	G
26	1H	9	U
26	1H	15	G
26	1H	17	G
26	1H	29	U
26	1H	34	C
26	1H	35	G
26	1H	37	C
26	1H	45	G
26	1H	46	C
26	1H	49	A
26	1H	56	A
26	1H	63	U
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	92	G

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Mol	Chain	Res	Type
26	1H	93	C
26	1H	95	G
26	1H	102	G
26	1H	111	A
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	133	C
26	1H	140	A
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	200	U
26	1H	204	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	230	U
26	1H	233	A
26	1H	243	U
26	1H	248	G
26	1H	249	C
26	1H	252	G
26	1H	261	G
26	1H	263	C
26	1H	264	C
26	1H	265	A
26	1H	266	G

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Mol	Chain	Res	Type
26	1H	269	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(V)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	279	C
26	1H	281	G
26	1H	299	A
26	1H	300	A
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	327	G
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	345	A
26	1H	346	A
26	1H	347	A
26	1H	352	G
26	1H	356	G
26	1H	363	G
26	1H	363(D)	G
26	1H	363(E)	U
26	1H	364	C
26	1H	370	G
26	1H	372	G
26	1H	384	U
26	1H	386	G
26	1H	388	G
26	1H	389	G
26	1H	396	G
26	1H	405	U
26	1H	406	G
26	1H	411	G
26	1H	413	C

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Mol	Chain	Res	Type
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	458	G
26	1H	470	A
26	1H	471	A
26	1H	479	A
26	1H	480	A
26	1H	481	G
26	1H	482	A
26	1H	491	G
26	1H	494	G
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	573	G
26	1H	575	A
26	1H	583	G
26	1H	586	A
26	1H	588	U
26	1H	592	G
26	1H	603	A
26	1H	607	U
26	1H	613	U

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Mol	Chain	Res	Type
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	619	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	629	G
26	1H	636	G
26	1H	637	A
26	1H	640	C
26	1H	646	A
26	1H	649	G
26	1H	651	G
26	1H	654	A
26	1H	654(I)	C
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(N)	G
26	1H	654(Q)	C
26	1H	654(T)	A
26	1H	664	C
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	695	G
26	1H	701	G
26	1H	715	G
26	1H	717	G
26	1H	719	C
26	1H	723	G
26	1H	730	C
26	1H	731	C
26	1H	738	G
26	1H	752	A
26	1H	753	C
26	1H	765	G
26	1H	775	G
26	1H	776	G
26	1H	777	A
26	1H	779	U
26	1H	782	A

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Mol	Chain	Res	Type
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	801	G
26	1H	805	G
26	1H	806	C
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	876	C
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	883	G
26	1H	884	C
26	1H	885	C
26	1H	886	C
26	1H	887	A
26	1H	888	C
26	1H	890	A
26	1H	892	G
26	1H	893	C
26	1H	894	C
26	1H	895	U
26	1H	896	A
26	1H	897	C
26	1H	898	C
26	1H	900	A
26	1H	901	A
26	1H	907	U
26	1H	910	A
26	1H	914	C

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Mol	Chain	Res	Type
26	1H	917	A
26	1H	926	A
26	1H	932	G
26	1H	938	G
26	1H	941	A
26	1H	946	G
26	1H	957	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	962	G
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	996	A
26	1H	997	G
26	1H	1003	G
26	1H	1010	A
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
26	1H	1016	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1046	A
26	1H	1047	G
26	1H	1051	G
26	1H	1054	A
26	1H	1057	A
26	1H	1058	U
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1066	U
26	1H	1068	G
26	1H	1070	A

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Mol	Chain	Res	Type
26	1H	1071	G
26	1H	1072	C
26	1H	1075	C
26	1H	1076	C
26	1H	1077	A
26	1H	1078	U
26	1H	1079	C
26	1H	1082	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1089	G
26	1H	1090	U
26	1H	1091	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1104	C
26	1H	1106	G
26	1H	1107	G
26	1H	1111	A
26	1H	1112	G
26	1H	1121	C
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1151	G
26	1H	1155	A
26	1H	1156	A
26	1H	1165	U
26	1H	1169	G
26	1H	1171	G
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A

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Mol	Chain	Res	Type
26	1H	1178	C
26	1H	1179	C
26	1H	1188	U
26	1H	1192	G
26	1H	1195	G
26	1H	1200	C
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1220	A
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1255	U
26	1H	1256	G
26	1H	1265	A
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1275	A
26	1H	1282	U
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1313	U
26	1H	1320	C
26	1H	1325	G
26	1H	1329	U
26	1H	1332	G
26	1H	1334	G
26	1H	1338	G
26	1H	1343	G
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1352	U
26	1H	1359	A
26	1H	1360	A

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Mol	Chain	Res	Type
26	1H	1365	A
26	1H	1368	G
26	1H	1370	C
26	1H	1374	G
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1430	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1453	A
26	1H	1454	U
26	1H	1455	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1483	G
26	1H	1493	C
26	1H	1495	A
26	1H	1497	U
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1522	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C

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Mol	Chain	Res	Type
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1546	C
26	1H	1547	C
26	1H	1548	C
26	1H	1552	G
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1569	A
26	1H	1578	U
26	1H	1582	C
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1606	G
26	1H	1609	A
26	1H	1610	A
26	1H	1613	G
26	1H	1617	C
26	1H	1618	A
26	1H	1633	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1674	G
26	1H	1678	G
26	1H	1694	C
26	1H	1695	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1746	G
26	1H	1756	G
26	1H	1758	G
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A

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Mol	Chain	Res	Type
26	1H	1782	C
26	1H	1786	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1808	U
26	1H	1816	G
26	1H	1819	A
26	1H	1826	G
26	1H	1829	A
26	1H	1839	G
26	1H	1847	A
26	1H	1848	A
26	1H	1858	G
26	1H	1860	G
26	1H	1870	C
26	1H	1889	A
26	1H	1899	G
26	1H	1900	A
26	1H	1906	G
26	1H	1914	C
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1952	A
26	1H	1955	U
26	1H	1960	A
26	1H	1963	U
26	1H	1964	G
26	1H	1965	C
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1987	G

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Mol	Chain	Res	Type
26	1H	1992	G
26	1H	1993	U
26	1H	2023	G
26	1H	2030	A
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2036	C
26	1H	2039	C
26	1H	2043	C
26	1H	2047	U
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2058	A
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2093	G
26	1H	2096	U
26	1H	2099	U
26	1H	2100	G
26	1H	2102	U
26	1H	2104	G
26	1H	2108	C
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2116	G
26	1H	2118	U
26	1H	2119	A
26	1H	2122	U
26	1H	2123	G
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2129	C
26	1H	2131	G

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Mol	Chain	Res	Type
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2140	C
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2154	G
26	1H	2155	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2163	C
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2172	U
26	1H	2173	A
26	1H	2174	C
26	1H	2176	A
26	1H	2177	C
26	1H	2178	C
26	1H	2181	G
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2239	G

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Mol	Chain	Res	Type
26	1H	2246	G
26	1H	2253	G
26	1H	2269	A
26	1H	2275	C
26	1H	2278	A
26	1H	2283	C
26	1H	2287	A
26	1H	2288	A
26	1H	2291	U
26	1H	2298	A
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2309	A
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2319	G
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2341	G
26	1H	2343	C
26	1H	2344	U
26	1H	2347	C
26	1H	2349	G
26	1H	2350	C
26	1H	2361	A
26	1H	2376	A
26	1H	2377	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2389	G
26	1H	2396	G
26	1H	2402	C

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Mol	Chain	Res	Type
26	1H	2403	C
26	1H	2406	U
26	1H	2413	G
26	1H	2423	U
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2435	A
26	1H	2439	A
26	1H	2441	C
26	1H	2447	G
26	1H	2448	A
26	1H	2464	C
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2482	G
26	1H	2484	G
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2513	G
26	1H	2518	A
26	1H	2520	C
26	1H	2529	G
26	1H	2531	A
26	1H	2534	A
26	1H	2548	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2577	A
26	1H	2582	G
26	1H	2584	U

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Mol	Chain	Res	Type
26	1H	2585	U
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2630	G
26	1H	2631	G
26	1H	2634	G
26	1H	2636	U
26	1H	2637	U
26	1H	2656	U
26	1H	2657	A
26	1H	2661	G
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2682	U
26	1H	2686	G
26	1H	2687	U
26	1H	2689	U
26	1H	2690	C
26	1H	2702	U
26	1H	2703	C
26	1H	2704	C
26	1H	2707	G
26	1H	2711	A
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2715	C
26	1H	2718	G
26	1H	2726	U
26	1H	2729	G
26	1H	2733	A
26	1H	2734	A
26	1H	2742	C
26	1H	2744	G
26	1H	2756	U
26	1H	2757	A
26	1H	2759	G

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Mol	Chain	Res	Type
26	1H	2763	G
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2787	C
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2799	A
26	1H	2801	A
26	1H	2802	G
26	1H	2803	C
26	1H	2805	G
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2831	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2849	U
26	1H	2850	A
26	1H	2856	C
26	1H	2866	U
26	1H	2872	G
26	1H	2879	C
26	1H	2884	U
26	1H	2887	U
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G

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Mol	Chain	Res	Type
26	1H	2895	U
27	16	0	A
27	16	1	U
27	16	4	C
27	16	7	G
27	16	9	G
27	16	13	A
27	16	15	A
27	16	25	A
27	16	31	C
27	16	33	G
27	16	35	U
27	16	39	A
27	16	45	A
27	16	56	G
27	16	65	C
27	16	66	A
27	16	73	A
27	16	81	G
27	16	82	G
27	16	85	G
27	16	95	U
27	16	96	G
27	16	105	G
27	16	109	G
27	16	115	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	14	U
1	1G	22	G
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	42	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	65	U
1	1G	73	G
1	1G	75	C

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Mol	Chain	Res	Type
1	1G	76	G
1	1G	79	G
1	1G	80	G
1	1G	90	C
1	1G	91	C
1	1G	95	G
1	1G	108	G
1	1G	116	A
1	1G	121	C
1	1G	129	U
1	1G	131	C
1	1G	143	A
1	1G	144	G
1	1G	154	C
1	1G	162	A
1	1G	163	C
1	1G	168	G
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	187	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	197	A
1	1G	198	G
1	1G	201	C
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	231	G
1	1G	242	C
1	1G	244	U
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	266	G

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Mol	Chain	Res	Type
1	1G	267	C
1	1G	275	G
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	299	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	330	C
1	1G	332	G
1	1G	345	C
1	1G	346	G
1	1G	349	A
1	1G	350	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
1	1G	365	U
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	375	U
1	1G	382	A
1	1G	384	G
1	1G	388	G
1	1G	398	C
1	1G	406	G
1	1G	409	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	436	C

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Mol	Chain	Res	Type
1	1G	439	A
1	1G	440	A
1	1G	449	C
1	1G	452	A
1	1G	454	C
1	1G	458	C
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	478	A
1	1G	482	A
1	1G	483	C
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	504	C
1	1G	505	G
1	1G	511	C
1	1G	518	C
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	546	G
1	1G	547	A
1	1G	553	A
1	1G	554	C
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	566	G
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	600	C

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Mol	Chain	Res	Type
1	1G	607	A
1	1G	616	G
1	1G	618	C
1	1G	629	G
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	635	G
1	1G	643	C
1	1G	651	C
1	1G	652	U
1	1G	653	A
1	1G	660	G
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	704	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	734	G
1	1G	746	A
1	1G	749	C
1	1G	752	G
1	1G	755	G
1	1G	767	A
1	1G	769	G
1	1G	771	G
1	1G	776	G
1	1G	777	A
1	1G	788	U
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	803	G
1	1G	804	U
1	1G	816	A
1	1G	817	C
1	1G	818	G
1	1G	821	G
1	1G	828	A

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Mol	Chain	Res	Type
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	859	A
1	1G	867	G
1	1G	873	A
1	1G	884	U
1	1G	885	G
1	1G	913	A
1	1G	914	A
1	1G	916	G
1	1G	919	A
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	953	G
1	1G	954	G
1	1G	955	U
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	963	G
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	980	C
1	1G	981	U
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C

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Mol	Chain	Res	Type
1	1G	1009	G
1	1G	1016	A
1	1G	1017	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1034	G
1	1G	1035	A
1	1G	1036	G
1	1G	1038	C
1	1G	1040	U
1	1G	1041	A
1	1G	1042	G
1	1G	1043	C
1	1G	1045	C
1	1G	1046	A
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1081	G
1	1G	1082	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1111	A
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1129	C

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Mol	Chain	Res	Type
1	1G	1130	A
1	1G	1131	G
1	1G	1133	G
1	1G	1135	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1142	G
1	1G	1145	C
1	1G	1146	A
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1161	C
1	1G	1170	A
1	1G	1171	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1185	G
1	1G	1188	A
1	1G	1191	A
1	1G	1193	G
1	1G	1196	U
1	1G	1198	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1208	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1232	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G

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Mol	Chain	Res	Type
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1267	C
1	1G	1269	A
1	1G	1274	G
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1293	G
1	1G	1294	G
1	1G	1295	G
1	1G	1296	C
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1313	U
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1339	A
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1348	U
1	1G	1353	G
1	1G	1360	A
1	1G	1362(A)	C

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Mol	Chain	Res	Type
1	1G	1363	A
1	1G	1364	U
1	1G	1365	G
1	1G	1370	G
1	1G	1377	A
1	1G	1378	C
1	1G	1379	G
1	1G	1382	C
1	1G	1394	A
1	1G	1396	A
1	1G	1397	C
1	1G	1398	A
1	1G	1400	C
1	1G	1401	G
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1466	C
1	1G	1490	C
1	1G	1491	G
1	1G	1492	A
1	1G	1494	G
1	1G	1496	C
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1505	G
1	1G	1506	U
1	1G	1507	A
1	1G	1508	G
1	1G	1509	C
1	1G	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1525	G

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Mol	Chain	Res	Type
1	1G	1529	G
1	1G	1530	G
56	2L	2	G
56	2L	6	G
56	2L	7	G
56	2L	8	4SU
56	2L	9	G
56	2L	16	C
56	2L	17	C
56	2L	19	G
56	2L	20	G
56	2L	21	U
56	2L	22	A
56	2L	32	G
56	2L	47	7MG
56	2L	48	U
56	2L	49	C
56	2L	50	G
56	2L	51	U
56	2L	53	G
56	2L	54	G
56	2L	57	C
56	2L	63	C
56	2L	77	A
24	3L	2	C
24	3L	5	G
24	3L	6	G
24	3L	9	A
24	3L	13	C
24	3L	16	U
24	3L	17	C
24	3L	19	G
24	3L	21	A
24	3L	22	G
24	3L	23	A
24	3L	27	G
24	3L	30	G
24	3L	31	A
24	3L	33	U
24	3L	34	G
24	3L	36	A
24	3L	38	A

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Mol	Chain	Res	Type
24	3L	39	PSU
24	3L	40	C
24	3L	42	C
24	3L	44	G
24	3L	45	U
24	3L	46	7MG
24	3L	47	U
24	3L	49	C
24	3L	50	U
24	3L	52	G
24	3L	58	A
24	3L	59	U
24	3L	61	C
24	3L	62	C
24	3L	64	A
24	3L	65	G
24	3L	70	G
24	3L	72	C
24	3L	73	A
24	3L	76	A
25	4L	14	A
25	4L	15	A
25	4L	19	A
25	4L	20	A
26	14	6	A
26	14	9	U
26	14	15	G
26	14	24	G
26	14	34	C
26	14	35	G
26	14	43	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	54	G
26	14	55	G
26	14	58	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G

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Mol	Chain	Res	Type
26	14	82	G
26	14	84	A
26	14	93	C
26	14	95	G
26	14	99	U
26	14	102	G
26	14	112	U
26	14	116	C
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	125	G
26	14	129	C
26	14	131	G
26	14	133	C
26	14	137(A)	G
26	14	138	G
26	14	139	G
26	14	140	A
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	181	A
26	14	182	A
26	14	188	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	209	C
26	14	213	A
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A

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Mol	Chain	Res	Type
26	14	228	A
26	14	229	A
26	14	233	A
26	14	241	A
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	267	C
26	14	270(J)	G
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271	G
26	14	273(C)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	288	C
26	14	289	A
26	14	299	A
26	14	303	U
26	14	308	G
26	14	311	A
26	14	312	G
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	332	A
26	14	339	U
26	14	352	G
26	14	353	G
26	14	363	G

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Mol	Chain	Res	Type
26	14	363(D)	G
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	395	U
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	413	C
26	14	421	U
26	14	428	A
26	14	434	U
26	14	436	C
26	14	443	A
26	14	444	C
26	14	447	A
26	14	448	U
26	14	449	A
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	470	A
26	14	471	A
26	14	481	G
26	14	483	A
26	14	501	A
26	14	505	A
26	14	507	A
26	14	509	C
26	14	527	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	546	C
26	14	549	G

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Mol	Chain	Res	Type
26	14	550	G
26	14	556	G
26	14	563	G
26	14	570	G
26	14	573	G
26	14	574	C
26	14	575	A
26	14	584	C
26	14	602	G
26	14	603	A
26	14	604	G
26	14	607	U
26	14	609(A)	G
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618(A)	C
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
26	14	651	G
26	14	654	A
26	14	654(E)	C
26	14	654(G)	C
26	14	654(H)	G
26	14	654(I)	C
26	14	654(K)	C
26	14	654(L)	G
26	14	654(Q)	C
26	14	654(T)	A
26	14	656	G
26	14	665	C
26	14	669	G
26	14	678	C
26	14	682	G
26	14	686	G
26	14	708	C

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Mol	Chain	Res	Type
26	14	709	U
26	14	715	G
26	14	717	G
26	14	722	A
26	14	730	C
26	14	740	U
26	14	758	C
26	14	764	A
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	788	A
26	14	791	C
26	14	792	G
26	14	797	C
26	14	805	G
26	14	812	C
26	14	814	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	830	G
26	14	832	G
26	14	845	G
26	14	846	C
26	14	847	U
26	14	848	G
26	14	856	C
26	14	859	G
26	14	865	C
26	14	868	U
26	14	878	A
26	14	880	G
26	14	881	G
26	14	882	G
26	14	883	G
26	14	885	C
26	14	886	C
26	14	887	A

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Mol	Chain	Res	Type
26	14	888	C
26	14	889	C
26	14	890	A
26	14	893	C
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	907	U
26	14	910	A
26	14	911	A
26	14	914	C
26	14	917	A
26	14	918	A
26	14	920	G
26	14	924	C
26	14	926	A
26	14	932	G
26	14	933	A
26	14	934	G
26	14	935	C
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	947	G
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	974	G
26	14	974(A)	C
26	14	978	G
26	14	980	A
26	14	981	A
26	14	982	C
26	14	983	A
26	14	989	G

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Mol	Chain	Res	Type
26	14	990	A
26	14	991	C
26	14	993	G
26	14	996	A
26	14	999	U
26	14	1008	C
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A
26	14	1021	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1034	G
26	14	1037	G
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1047	G
26	14	1048	A
26	14	1049	C
26	14	1051	G
26	14	1054	A
26	14	1056	G
26	14	1057	A
26	14	1059	G
26	14	1060	U
26	14	1062	G
26	14	1063	G
26	14	1065	U
26	14	1067	A
26	14	1068	G
26	14	1069	A
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1091	G
26	14	1093	G

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Mol	Chain	Res	Type
26	14	1095	A
26	14	1096	A
26	14	1098	A
26	14	1099	G
26	14	1104	C
26	14	1105	U
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1142(A)	A
26	14	1143	A
26	14	1149	G
26	14	1155	A
26	14	1156	A
26	14	1168	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1183	G
26	14	1190	G
26	14	1196	C
26	14	1204	A
26	14	1205	U
26	14	1208	C
26	14	1211	U
26	14	1212	G
26	14	1214	A
26	14	1220	A
26	14	1230	C
26	14	1236	G
26	14	1244	G
26	14	1248	G
26	14	1250	G

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Mol	Chain	Res	Type
26	14	1253	A
26	14	1256	G
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1274	A
26	14	1275	A
26	14	1286	A
26	14	1300	U
26	14	1301	A
26	14	1302	A
26	14	1313	U
26	14	1314	C
26	14	1319	G
26	14	1320	C
26	14	1321	A
26	14	1324	G
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1342	A
26	14	1343	G
26	14	1345	C
26	14	1349	A
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1370	C
26	14	1380	G
26	14	1382	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1406	U
26	14	1407	C
26	14	1408	C
26	14	1414	G
26	14	1416	G

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Mol	Chain	Res	Type
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1425	G
26	14	1427	A
26	14	1428	C
26	14	1436	G
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1461	G
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1475	G
26	14	1478	G
26	14	1483	G
26	14	1489	U
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1500	G
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1524	G
26	14	1528	A
26	14	1533	C
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1538	G

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Mol	Chain	Res	Type
26	14	1543	A
26	14	1544	C
26	14	1547	C
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1565	C
26	14	1566	A
26	14	1569	A
26	14	1570	A
26	14	1576	U
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1587	A
26	14	1588	C
26	14	1593	G
26	14	1594	G
26	14	1595	G
26	14	1598	C
26	14	1599	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1613	G
26	14	1616	A
26	14	1618	A
26	14	1619	G
26	14	1621	U
26	14	1625	C
26	14	1627	G
26	14	1635	G
26	14	1638	C
26	14	1640	C
26	14	1641	A
26	14	1647	G
26	14	1648	C
26	14	1669	A
26	14	1672	C
26	14	1674	G
26	14	1682	G
26	14	1693	U

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Mol	Chain	Res	Type
26	14	1695	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1718	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1735	C
26	14	1742	C
26	14	1743	G
26	14	1750	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C
26	14	1788	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1812	A
26	14	1816	G
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1830	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1856	G
26	14	1858	G
26	14	1878	G
26	14	1888	G
26	14	1889	A
26	14	1903	G

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Mol	Chain	Res	Type
26	14	1905	C
26	14	1906	G
26	14	1911	U
26	14	1913	A
26	14	1917	U
26	14	1919	A
26	14	1920	C
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1938	A
26	14	1945	G
26	14	1955	U
26	14	1963	U
26	14	1966	A
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1991	U
26	14	1992	G
26	14	1993	U
26	14	2005	A
26	14	2019	A
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2043	C
26	14	2044	C
26	14	2049	G
26	14	2053	G
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2076	U
26	14	2082	A

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Mol	Chain	Res	Type
26	14	2084	C
26	14	2086	U
26	14	2096	U
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2113	U
26	14	2114	A
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2127	G
26	14	2128	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2140	C
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2152	G
26	14	2157	G
26	14	2158	A
26	14	2160	G
26	14	2161	C
26	14	2165	G
26	14	2166	G
26	14	2169	A
26	14	2170	A
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2182	G
26	14	2188	C
26	14	2189	U

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Mol	Chain	Res	Type
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2236	C
26	14	2238	G
26	14	2239	G
26	14	2251	G
26	14	2252	G
26	14	2261	C
26	14	2267	A
26	14	2268	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2283	C
26	14	2286	A
26	14	2287	A
26	14	2288	A
26	14	2291	U
26	14	2294	C
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2319	G
26	14	2320	A
26	14	2322	A
26	14	2324	C
26	14	2325	G
26	14	2326	C
26	14	2333	A

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Mol	Chain	Res	Type
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2342	C
26	14	2343	C
26	14	2345	G
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2355	C
26	14	2372	G
26	14	2376	A
26	14	2381	C
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2390	U
26	14	2391	G
26	14	2392	A
26	14	2393	A
26	14	2394	C
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2411	A
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2446	G
26	14	2448	A
26	14	2450	A
26	14	2452	C
26	14	2458	G

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Mol	Chain	Res	Type
26	14	2459	A
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2475	C
26	14	2476	A
26	14	2478	A
26	14	2480	C
26	14	2481	G
26	14	2482	G
26	14	2487	G
26	14	2496	C
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2518	A
26	14	2526	G
26	14	2527	C
26	14	2528	U
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2546	U
26	14	2554	U
26	14	2556	C
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2574	G
26	14	2581	G
26	14	2584	U
26	14	2585	U
26	14	2587	A
26	14	2598	A
26	14	2599	G
26	14	2601	C
26	14	2602	A
26	14	2603	G
26	14	2609	U

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Mol	Chain	Res	Type
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2630	G
26	14	2632	A
26	14	2636	U
26	14	2638	G
26	14	2639	A
26	14	2654	A
26	14	2655	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2691	C
26	14	2698	U
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2726	U
26	14	2733	A
26	14	2744	G
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2758	A
26	14	2761	G
26	14	2762	G
26	14	2763	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A

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Mol	Chain	Res	Type
26	14	2779	U
26	14	2786	U
26	14	2787	C
26	14	2788	C
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2804	C
26	14	2807	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2825	C
26	14	2833	G
26	14	2834	G
26	14	2836	U
26	14	2849	U
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2879	C
26	14	2880	C
26	14	2883	A
26	14	2886	G
26	14	2892	A
26	14	2894	G
27	1J	0	A
27	1J	8	U
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	19	G
27	1J	20	C
27	1J	22	U
27	1J	24	G
27	1J	25	A
27	1J	26	A
27	1J	29	A
27	1J	30	C

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Mol	Chain	Res	Type
27	1J	33	G
27	1J	35	U
27	1J	39	A
27	1J	40	U
27	1J	41	U
27	1J	42	C
27	1J	45	A
27	1J	47	C
27	1J	52	A
27	1J	53	A
27	1J	58	A
27	1J	60	C
27	1J	67	G
27	1J	73	A
27	1J	75	G
27	1J	76	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	94	C
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	114	G

All (191) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	190	G
1	13	244	U
1	13	266	G
1	13	412	A
1	13	422	C
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	687	A

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Mol	Chain	Res	Type
1	13	703	G
1	13	748	C
1	13	758	G
1	13	793	U
1	13	812	C
1	13	991	U
1	13	992	U
1	13	1027	C
1	13	1053	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1126	U
1	13	1157	A
1	13	1183	A
1	13	1211	U
1	13	1256	A
1	13	1281	U
1	13	1285	A
1	13	1302	U
1	13	1336	C
1	13	1363	A
1	13	1452	C
1	13	1498	U
1	13	1504	G
1	13	1529	G
22	1K	9	G
22	1K	49	C
22	1K	59	A
23	2K	48	U
24	3K	1	G
24	3K	2	C
24	3K	18	G
24	3K	20	U
24	3K	46	7MG
24	3K	58	A
26	1H	33	U
26	1H	125	G
26	1H	196	A
26	1H	199	A
26	1H	222	A
26	1H	229	A

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Mol	Chain	Res	Type
26	1H	404	C
26	1H	457	A
26	1H	508	G
26	1H	668	G
26	1H	685	A
26	1H	752	A
26	1H	800	A
26	1H	845	G
26	1H	880	G
26	1H	1022	G
26	1H	1026	U
26	1H	1045	A
26	1H	1060	U
26	1H	1085	A
26	1H	1095	A
26	1H	1110	G
26	1H	1178	C
26	1H	1273	U
26	1H	1299	G
26	1H	1312	U
26	1H	1416	G
26	1H	1420	U
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1617	C
26	1H	1694	C
26	1H	1781	C
26	1H	1799	G
26	1H	1800	C
26	1H	2060	A
26	1H	2062	A
26	1H	2157	G
26	1H	2167	U
26	1H	2171	A
26	1H	2213	U
26	1H	2447	G
26	1H	2468	G
26	1H	2475	C
26	1H	2481	G
26	1H	2566	A

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Mol	Chain	Res	Type
26	1H	2611	U
26	1H	2689	U
26	1H	2756	U
26	1H	2873	A
1	1G	64	G
1	1G	115	G
1	1G	197	A
1	1G	243	A
1	1G	250	A
1	1G	266	G
1	1G	274	A
1	1G	328	C
1	1G	345	C
1	1G	350	G
1	1G	412	A
1	1G	413	G
1	1G	421	U
1	1G	429	U
1	1G	560	U
1	1G	632	A
1	1G	687	A
1	1G	748	C
1	1G	884	U
1	1G	913	A
1	1G	992	U
1	1G	1023	G
1	1G	1025	U
1	1G	1053	G
1	1G	1126	U
1	1G	1128	C
1	1G	1145	C
1	1G	1157	A
1	1G	1200	C
1	1G	1285	A
1	1G	1300	G
1	1G	1346	A
1	1G	1449	C
1	1G	1453	G
1	1G	1498	U
1	1G	1506	U
56	2L	19	G
56	2L	47	7MG

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Mol	Chain	Res	Type
56	2L	48	U
24	3L	16	U
24	3L	20	U
25	4L	13	A
26	14	34	C
26	14	49	A
26	14	128	C
26	14	196	A
26	14	278	A
26	14	385	C
26	14	503	A
26	14	529	A
26	14	573	G
26	14	614	U
26	14	669	G
26	14	686	G
26	14	764	A
26	14	774	A
26	14	790	C
26	14	791	C
26	14	1022	G
26	14	1128	A
26	14	1273	U
26	14	1379	A
26	14	1385	G
26	14	1396	U
26	14	1420	U
26	14	1427	A
26	14	1460	A
26	14	1558	A
26	14	1559	G
26	14	1608	A
26	14	1609	A
26	14	1647	G
26	14	1801	G
26	14	1819	A
26	14	1971	A
26	14	2062	A
26	14	2157	G
26	14	2191	G
26	14	2225	A
26	14	2286	A

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Mol	Chain	Res	Type
26	14	2402	C
26	14	2406	U
26	14	2439	A
26	14	2602	A
26	14	2629	A
26	14	2638	G
26	14	2689	U
26	14	2776	A
26	14	2778	A
26	14	2859	G
27	1J	88	C

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

23 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\#\|Z\| > 2$
24	PSU	3K	55	24	17,21,22	1.16	3 (17%)	20,30,33	3.03	7 (35%)
24	4SU	3K	8	24	14,21,22	3.38	2 (14%)	15,30,33	1.25	2 (13%)
24	MIA	3L	37	24	24,31,32	2.66	4 (16%)	26,44,47	3.09	10 (38%)
23	7MG	2K	47	23	22,26,27	3.32	7 (31%)	28,39,42	2.61	10 (35%)
23	PSU	2K	56	23	17,21,22	1.12	2 (11%)	20,30,33	2.72	4 (20%)
22	OMC	1K	33	22	15,22,23	2.19	4 (26%)	17,31,34	1.55	3 (17%)
22	5MU	1K	55	22	15,22,23	2.14	3 (20%)	16,32,35	1.69	2 (12%)
24	4SU	3L	8	24	14,21,22	3.38	2 (14%)	15,30,33	1.59	2 (13%)
24	PSU	3L	55	24	17,21,22	1.02	1 (5%)	20,30,33	3.20	6 (30%)
23	5MU	2K	55	23	15,22,23	2.23	3 (20%)	16,32,35	1.80	2 (12%)
24	7MG	3K	46	24	22,26,27	3.39	6 (27%)	28,39,42	2.56	11 (39%)
24	7MG	3L	46	24	22,26,27	3.55	6 (27%)	28,39,42	2.41	11 (39%)
56	OMC	2L	33	56	15,22,23	2.17	4 (26%)	17,31,34	1.63	3 (17%)
56	PSU	2L	56	56	17,21,22	1.18	1 (5%)	20,30,33	3.30	6 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	PSU	3L	32	24	17,21,22	1.17	1 (5%)	20,30,33	3.50	6 (30%)
24	PSU	3K	39	24	17,21,22	1.07	1 (5%)	20,30,33	3.24	6 (30%)
24	PSU	3K	32	24	17,21,22	1.05	1 (5%)	20,30,33	3.30	5 (25%)
23	OMC	2K	33	23	15,22,23	2.26	4 (26%)	17,31,34	1.40	2 (11%)
56	4SU	2L	8	56	14,21,22	3.47	2 (14%)	15,30,33	0.96	1 (6%)
56	7MG	2L	47	56	22,26,27	3.37	6 (27%)	28,39,42	2.54	10 (35%)
24	MIA	3K	37	24	24,31,32	2.39	4 (16%)	26,44,47	3.43	10 (38%)
23	4SU	2K	8	23	14,21,22	3.08	2 (14%)	15,30,33	0.66	0
24	PSU	3L	39	24	17,21,22	1.06	1 (5%)	20,30,33	3.17	6 (30%)

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
24	PSU	3K	55	24	-	2/7/25/26	0/2/2/2
24	4SU	3K	8	24	-	1/5/25/26	0/2/2/2
24	MIA	3L	37	24	-	7/11/33/34	0/3/3/3
23	7MG	2K	47	23	-	4/7/37/38	0/3/3/3
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	OMC	1K	33	22	-	0/7/27/28	0/2/2/2
22	5MU	1K	55	22	-	0/5/25/26	0/2/2/2
24	4SU	3L	8	24	-	2/5/25/26	0/2/2/2
24	PSU	3L	55	24	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/5/25/26	0/2/2/2
24	7MG	3K	46	24	-	2/7/37/38	0/3/3/3
24	7MG	3L	46	24	-	2/7/37/38	0/3/3/3
56	OMC	2L	33	56	-	0/7/27/28	0/2/2/2
56	PSU	2L	56	56	-	0/7/25/26	0/2/2/2
24	PSU	3L	32	24	-	0/7/25/26	0/2/2/2
24	PSU	3K	39	24	-	0/7/25/26	0/2/2/2
24	PSU	3K	32	24	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	1/7/27/28	0/2/2/2
56	4SU	2L	8	56	-	2/5/25/26	0/2/2/2
56	7MG	2L	47	56	-	3/7/37/38	0/3/3/3
24	MIA	3K	37	24	-	6/11/33/34	0/3/3/3
23	4SU	2K	8	23	-	0/5/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	PSU	3L	39	24	-	2/7/25/26	0/2/2/2

All (70) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	3L	46	7MG	C4-N3	11.15	1.48	1.34
24	3K	46	7MG	C4-N3	10.93	1.48	1.34
56	2L	47	7MG	C4-N3	10.90	1.48	1.34
23	2K	47	7MG	C4-N3	10.76	1.47	1.34
24	3L	8	4SU	C5-C4	9.98	1.49	1.38
24	3K	8	4SU	C5-C4	9.98	1.49	1.38
56	2L	8	4SU	C5-C4	9.92	1.49	1.38
23	2K	8	4SU	C5-C4	8.84	1.48	1.38
24	3K	37	MIA	C13-C14	8.69	1.57	1.32
24	3L	37	MIA	C13-C14	8.66	1.57	1.32
56	2L	8	4SU	C6-N1	8.02	1.45	1.35
24	3L	46	7MG	C5-C4	-7.62	1.23	1.39
24	3K	8	4SU	C6-N1	7.39	1.45	1.35
24	3K	46	7MG	C5-C4	-7.35	1.24	1.39
24	3L	8	4SU	C6-N1	7.34	1.44	1.35
56	2L	47	7MG	C5-C4	-6.98	1.25	1.39
23	2K	47	7MG	C5-C4	-6.91	1.25	1.39
23	2K	8	4SU	C6-N1	6.83	1.44	1.35
24	3L	37	MIA	C6-N6	6.21	1.45	1.34
24	3L	37	MIA	C2-S10	6.08	1.80	1.75
23	2K	55	5MU	C4-C5	5.90	1.54	1.41
24	3K	37	MIA	C6-N6	5.66	1.44	1.34
23	2K	47	7MG	C6-C5	5.63	1.49	1.41
24	3L	46	7MG	C6-C5	5.49	1.49	1.41
22	1K	55	5MU	C4-C5	5.46	1.53	1.41
22	1K	33	OMC	C6-N1	5.38	1.42	1.35
23	2K	33	OMC	C6-N1	5.35	1.42	1.35
56	2L	47	7MG	C6-C5	5.29	1.48	1.41
24	3L	46	7MG	C4-N9	-5.24	1.28	1.38
23	2K	55	5MU	C2-N3	5.20	1.48	1.38
24	3K	46	7MG	C6-C5	5.08	1.48	1.41
56	2L	33	OMC	C6-N1	4.99	1.42	1.35
22	1K	55	5MU	C2-N3	4.83	1.47	1.38
24	3K	46	7MG	C4-N9	-4.46	1.30	1.38
56	2L	47	7MG	C4-N9	-4.33	1.30	1.38
23	2K	33	OMC	C5-C4	4.32	1.51	1.41
22	1K	33	OMC	C5-C4	4.04	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	47	7MG	C4-N9	-4.03	1.30	1.38
24	3L	46	7MG	C5-N7	3.92	1.46	1.39
23	2K	33	OMC	C2-N3	3.88	1.45	1.38
56	2L	33	OMC	C5-C4	3.82	1.50	1.41
24	3K	46	7MG	C2-N2	3.79	1.41	1.33
24	3L	46	7MG	C2-N2	3.73	1.41	1.33
56	2L	47	7MG	C2-N2	3.73	1.41	1.33
56	2L	33	OMC	C2-N3	3.72	1.45	1.38
24	3K	37	MIA	C2-S10	3.69	1.78	1.75
24	3L	32	PSU	C4-N3	3.68	1.39	1.33
24	3K	39	PSU	C4-N3	3.44	1.39	1.33
23	2K	47	7MG	C2-N2	3.37	1.40	1.33
22	1K	33	OMC	C2-N3	3.31	1.44	1.38
56	2L	47	7MG	C5-N7	3.31	1.45	1.39
56	2L	56	PSU	C4-N3	3.30	1.38	1.33
56	2L	33	OMC	C4-N4	3.25	1.44	1.35
24	3K	46	7MG	C5-N7	3.24	1.45	1.39
24	3K	32	PSU	C4-N3	3.20	1.38	1.33
22	1K	55	5MU	C4-N3	-3.14	1.27	1.33
23	2K	33	OMC	C4-N4	3.11	1.44	1.35
22	1K	33	OMC	C4-N4	3.11	1.44	1.35
24	3L	39	PSU	C4-N3	3.07	1.38	1.33
23	2K	47	7MG	C5-N7	3.06	1.45	1.39
24	3L	55	PSU	C4-N3	3.06	1.38	1.33
24	3L	37	MIA	C6-N1	2.97	1.36	1.32
24	3K	55	PSU	C5-C1'	-2.78	1.49	1.52
24	3K	55	PSU	C4-N3	2.58	1.37	1.33
23	2K	55	5MU	C4-N3	-2.53	1.28	1.33
23	2K	56	PSU	C4-N3	2.45	1.37	1.33
24	3K	37	MIA	C6-N1	2.29	1.36	1.32
24	3K	55	PSU	O4'-C1'	-2.24	1.41	1.44
23	2K	56	PSU	C5-C1'	-2.13	1.50	1.52
23	2K	47	7MG	C2-N1	2.02	1.39	1.35

All (125) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	32	PSU	N1-C2-N3	-12.18	118.75	128.43
24	3K	32	PSU	N1-C2-N3	-11.41	119.36	128.43
24	3K	37	MIA	C11-S10-C2	11.38	110.77	102.27
24	3L	55	PSU	N1-C2-N3	-11.31	119.44	128.43
24	3L	39	PSU	N1-C2-N3	-10.88	119.78	128.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	2L	56	PSU	N1-C2-N3	-10.84	119.81	128.43
24	3K	39	PSU	N1-C2-N3	-10.82	119.83	128.43
24	3K	55	PSU	N1-C2-N3	-9.61	120.79	128.43
24	3K	37	MIA	C12-C13-C14	-9.36	108.93	127.14
24	3L	37	MIA	C12-C13-C14	-8.79	110.03	127.14
23	2K	56	PSU	N1-C2-N3	-8.68	121.53	128.43
24	3L	37	MIA	C11-S10-C2	8.25	108.43	102.27
23	2K	47	7MG	C6-C5-C4	6.89	122.60	115.20
24	3L	32	PSU	C4-N3-C2	6.47	120.60	115.14
24	3K	32	PSU	C4-N3-C2	6.30	120.46	115.14
56	2L	56	PSU	C4-N3-C2	6.11	120.30	115.14
24	3L	39	PSU	C4-N3-C2	5.95	120.16	115.14
24	3K	39	PSU	C4-N3-C2	5.90	120.13	115.14
56	2L	47	7MG	C6-C5-C4	5.50	121.10	115.20
23	2K	47	7MG	C5-C4-N9	5.41	114.03	106.44
23	2K	47	7MG	C4-C5-N7	5.39	115.22	106.98
24	3L	55	PSU	C4-N3-C2	5.34	119.66	115.14
56	2L	47	7MG	C4-C5-N7	5.32	115.12	106.98
24	3K	55	PSU	C4-N3-C2	5.28	119.60	115.14
24	3K	46	7MG	C6-C5-C4	5.25	120.84	115.20
23	2K	55	5MU	C4-N3-C2	5.24	119.57	115.14
24	3K	46	7MG	C5-C4-N9	5.23	113.77	106.44
24	3K	46	7MG	C4-C5-N7	5.22	114.96	106.98
23	2K	56	PSU	C4-N3-C2	5.16	119.50	115.14
24	3L	46	7MG	C4-C5-N7	5.14	114.83	106.98
56	2L	47	7MG	C5-C4-N9	5.06	113.54	106.44
24	3L	46	7MG	CM7-N7-C5	4.82	142.54	124.01
24	3L	46	7MG	C5-C4-N9	4.81	113.19	106.44
23	2K	47	7MG	C5-C4-N3	-4.79	118.67	126.49
56	2L	47	7MG	CM7-N7-C5	4.74	142.21	124.01
56	2L	56	PSU	C5-C4-N3	-4.73	119.27	125.36
22	1K	33	OMC	C2-N3-C4	4.70	121.10	116.34
24	3K	46	7MG	CM7-N7-C5	4.65	141.87	124.01
24	3K	55	PSU	C5-C4-N3	-4.63	119.39	125.36
23	2K	56	PSU	C5-C4-N3	-4.63	119.40	125.36
56	2L	47	7MG	C5-C4-N3	-4.53	119.09	126.49
22	1K	55	5MU	C4-N3-C2	4.53	118.96	115.14
22	1K	55	5MU	C5-C6-N1	-4.51	117.33	122.19
24	3K	46	7MG	C5-C4-N3	-4.48	119.17	126.49
24	3L	39	PSU	C5-C4-N3	-4.42	119.67	125.36
56	2L	33	OMC	C2-N3-C4	4.38	120.78	116.34
24	3K	32	PSU	C5-C4-N3	-4.36	119.75	125.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C6-N1	-4.35	117.51	122.19
23	2K	47	7MG	CM7-N7-C5	4.29	140.49	124.01
24	3L	37	MIA	C16-C14-C13	-4.26	110.35	122.65
24	3K	37	MIA	C15-C14-C13	-4.25	110.36	122.65
24	3K	39	PSU	C5-C4-N3	-4.15	120.01	125.36
24	3L	8	4SU	C2-N3-C4	4.15	121.16	115.15
24	3K	55	PSU	C5-C6-N1	-4.14	119.36	124.44
24	3L	37	MIA	C2-N3-C4	4.04	120.89	115.32
24	3L	37	MIA	C15-C14-C13	-3.99	111.12	122.65
56	2L	33	OMC	N4-C4-N3	3.96	122.74	116.49
24	3K	39	PSU	C5-C1'-C2'	-3.89	108.37	115.32
24	3L	8	4SU	C5-C4-N3	-3.84	118.70	123.83
24	3L	46	7MG	C6-C5-C4	3.82	119.30	115.20
23	2K	47	7MG	C8-N7-C5	-3.80	99.06	108.94
56	2L	47	7MG	C8-N7-C5	-3.78	99.10	108.94
24	3K	37	MIA	C16-C14-C13	-3.74	111.82	122.65
24	3K	46	7MG	C8-N7-C5	-3.71	99.28	108.94
24	3K	37	MIA	C2-N3-C4	3.71	120.44	115.32
24	3L	46	7MG	C8-N7-C5	-3.69	99.34	108.94
23	2K	33	OMC	C2-N3-C4	3.66	120.06	116.34
24	3L	32	PSU	C5-C4-N3	-3.62	120.69	125.36
24	3L	32	PSU	C6-N1-C2	3.59	121.28	115.36
24	3L	46	7MG	C5-C4-N3	-3.56	120.67	126.49
24	3K	46	7MG	N1-C2-N3	-3.53	119.89	125.42
56	2L	56	PSU	C5-C6-N1	-3.51	120.12	124.44
24	3L	46	7MG	N1-C2-N3	-3.50	119.92	125.42
24	3L	37	MIA	C5-C6-N1	-3.48	117.92	120.81
24	3L	55	PSU	C6-N1-C2	3.43	121.01	115.36
24	3L	55	PSU	C5-C4-N3	-3.37	121.02	125.36
23	2K	33	OMC	N4-C4-N3	3.36	121.80	116.49
24	3L	46	7MG	N7-C8-N9	-3.30	98.67	103.38
24	3L	55	PSU	C5-C6-N1	-3.22	120.47	124.44
24	3L	32	PSU	O4'-C1'-C5	3.12	114.76	109.93
56	2L	56	PSU	C6-N1-C2	3.09	120.46	115.36
24	3L	39	PSU	C6-N1-C2	3.09	120.45	115.36
24	3L	37	MIA	N3-C2-N1	-3.06	121.36	126.98
24	3K	32	PSU	C6-N1-C2	3.04	120.38	115.36
24	3K	39	PSU	C6-N1-C2	3.03	120.37	115.36
56	2L	47	7MG	N1-C2-N3	-3.00	120.72	125.42
24	3K	55	PSU	C6-N1-C2	2.99	120.29	115.36
24	3L	39	PSU	C5-C6-N1	-2.96	120.80	124.44
56	2L	8	4SU	C2-N3-C4	2.92	119.38	115.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3K	8	4SU	C2-N3-C4	2.90	119.35	115.15
24	3L	37	MIA	C4-C5-N7	-2.82	106.46	109.40
24	3K	37	MIA	C2-N1-C6	2.80	122.20	117.19
24	3K	37	MIA	C4-C5-N7	-2.75	106.54	109.40
24	3K	37	MIA	N3-C2-N1	-2.70	122.01	126.98
23	2K	56	PSU	C5-C6-N1	-2.67	121.16	124.44
24	3K	37	MIA	C5-C6-N1	-2.61	118.64	120.81
24	3L	37	MIA	C2-N1-C6	2.57	121.80	117.19
24	3K	46	7MG	N7-C8-N9	-2.57	99.70	103.38
24	3K	46	7MG	C6-N1-C2	2.50	119.90	115.93
24	3K	8	4SU	C5-C4-N3	-2.50	120.49	123.83
24	3L	37	MIA	C16-C14-C15	-2.49	109.11	114.60
24	3L	55	PSU	C5-C1'-C2'	-2.49	110.89	115.32
24	3L	32	PSU	C5-C6-N1	-2.48	121.39	124.44
22	1K	33	OMC	C5-C4-N3	-2.46	118.88	121.72
24	3K	46	7MG	C2-N3-C4	2.45	120.67	113.89
22	1K	33	OMC	N4-C4-N3	2.39	120.26	116.49
24	3K	32	PSU	C5-C6-N1	-2.37	121.52	124.44
24	3K	39	PSU	C5-C6-N1	-2.37	121.53	124.44
24	3L	46	7MG	N2-C2-N3	2.36	120.92	117.25
23	2K	47	7MG	C5-C6-N1	-2.35	118.30	123.14
56	2L	47	7MG	C6-N1-C2	2.35	119.66	115.93
24	3K	55	PSU	O4'-C1'-C2'	2.34	108.45	104.66
24	3L	46	7MG	C6-N1-C2	2.33	119.64	115.93
24	3L	46	7MG	C2-N3-C4	2.23	120.05	113.89
24	3K	46	7MG	N2-C2-N1	2.21	120.70	117.25
56	2L	47	7MG	C2-N3-C4	2.20	119.97	113.89
56	2L	47	7MG	N7-C8-N9	-2.18	100.26	103.38
23	2K	47	7MG	N7-C8-N9	-2.18	100.27	103.38
23	2K	47	7MG	N1-C2-N3	-2.14	122.06	125.42
56	2L	56	PSU	C5-C1'-C2'	-2.09	111.58	115.32
24	3K	55	PSU	C5-C1'-C2'	-2.05	111.65	115.32
23	2K	47	7MG	C6-N1-C2	2.02	119.14	115.93
56	2L	33	OMC	C5-C4-N4	-2.02	117.64	121.14
24	3K	37	MIA	C16-C14-C15	-2.02	110.15	114.60
24	3L	39	PSU	O4'-C1'-C2'	2.01	107.91	104.66

There are no chirality outliers.

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
24	3L	37	MIA	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
24	3L	37	MIA	C3'-C4'-C5'-O5'
24	3L	37	MIA	C5-C6-N6-C12
24	3L	37	MIA	N1-C2-S10-C11
24	3L	37	MIA	N3-C2-S10-C11
24	3L	37	MIA	C12-C13-C14-C16
24	3L	8	4SU	C2'-C1'-N1-C6
24	3L	8	4SU	O4'-C1'-N1-C6
24	3K	46	7MG	C3'-C4'-C5'-O5'
24	3L	46	7MG	O4'-C4'-C5'-O5'
23	2K	33	OMC	C1'-C2'-O2'-CM2
24	3K	37	MIA	C5-C6-N6-C12
24	3K	37	MIA	N1-C2-S10-C11
24	3K	37	MIA	N3-C2-S10-C11
24	3K	37	MIA	C12-C13-C14-C15
24	3K	37	MIA	C12-C13-C14-C16
24	3L	39	PSU	C3'-C4'-C5'-O5'
24	3L	39	PSU	O4'-C4'-C5'-O5'
24	3K	55	PSU	C3'-C4'-C5'-O5'
24	3K	46	7MG	O4'-C4'-C5'-O5'
24	3L	46	7MG	C3'-C4'-C5'-O5'
56	2L	47	7MG	O4'-C1'-N9-C4
56	2L	47	7MG	O4'-C1'-N9-C8
24	3K	37	MIA	N1-C6-N6-C12
23	2K	47	7MG	C2'-C1'-N9-C8
23	2K	47	7MG	C2'-C1'-N9-C4
24	3L	37	MIA	N1-C6-N6-C12
24	3K	55	PSU	O4'-C4'-C5'-O5'
56	2L	8	4SU	O4'-C4'-C5'-O5'
56	2L	8	4SU	C3'-C4'-C5'-O5'
23	2K	47	7MG	C4'-C5'-O5'-P
56	2L	47	7MG	C4'-C5'-O5'-P
24	3K	8	4SU	O4'-C4'-C5'-O5'
23	2K	47	7MG	O4'-C1'-N9-C8

There are no ring outliers.

16 monomers are involved in 29 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
24	3K	55	PSU	2	0
24	3K	8	4SU	1	0
24	3L	37	MIA	2	0
23	2K	47	7MG	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
24	3L	8	4SU	5	0
24	3L	55	PSU	1	0
23	2K	55	5MU	1	0
24	3K	46	7MG	2	0
56	2L	33	OMC	1	0
56	2L	56	PSU	2	0
24	3K	39	PSU	2	0
23	2K	33	OMC	2	0
56	2L	8	4SU	1	0
56	2L	47	7MG	2	0
24	3K	37	MIA	1	0
23	2K	8	4SU	1	0

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 995 ligands modelled in this entry, 995 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
56	2L	1

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Mol	Chain	Number of breaks
22	1K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	1K	69:C	O3'	70:C	P	5.53
1	2L	54:G	O3'	55:U	P	2.94

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1497/1522 (98%)	-0.58	0 100 100	70, 114, 187, 287	0
1	1G	1497/1522 (98%)	-0.66	0 100 100	79, 129, 197, 297	0
2	12	237/256 (92%)	0.88	43 (18%) 1 1	143, 175, 203, 210	0
2	1E	237/256 (92%)	0.26	14 (5%) 22 22	124, 155, 178, 191	0
3	22	206/239 (86%)	1.02	35 (16%) 1 1	132, 155, 182, 195	0
3	2E	205/239 (85%)	0.72	22 (10%) 6 5	101, 124, 154, 164	0
4	32	208/209 (99%)	0.73	21 (10%) 7 6	118, 137, 157, 163	0
4	3E	208/209 (99%)	0.60	17 (8%) 11 11	100, 127, 145, 153	0
5	42	151/162 (93%)	0.37	7 (4%) 32 30	115, 132, 153, 171	0
5	4E	151/162 (93%)	0.75	17 (11%) 5 5	93, 117, 136, 166	0
6	52	101/101 (100%)	0.49	2 (1%) 65 64	102, 116, 134, 144	0
6	5E	101/101 (100%)	0.33	2 (1%) 65 64	89, 112, 132, 144	0
7	62	147/156 (94%)	0.28	11 (7%) 14 13	122, 138, 151, 165	0
7	6E	155/156 (99%)	0.35	14 (9%) 9 9	108, 123, 152, 169	0
8	72	138/138 (100%)	0.36	6 (4%) 35 34	111, 137, 150, 157	0
8	7E	138/138 (100%)	0.72	22 (15%) 1 2	107, 122, 136, 144	0
9	82	127/128 (99%)	0.42	4 (3%) 49 48	125, 161, 179, 186	0
9	8E	127/128 (99%)	0.30	1 (0%) 86 86	98, 142, 161, 174	0
10	1A	66/105 (62%)	0.47	5 (7%) 13 13	130, 158, 176, 188	0
10	1I	99/105 (94%)	0.91	20 (20%) 1 1	98, 147, 178, 183	0
11	2A	116/129 (89%)	1.32	29 (25%) 0 0	103, 124, 142, 169	0
11	2I	119/129 (92%)	0.67	8 (6%) 17 17	85, 112, 156, 180	0
12	3A	122/132 (92%)	0.50	9 (7%) 14 14	97, 113, 129, 145	0
12	3I	122/132 (92%)	0.24	4 (3%) 46 44	83, 93, 119, 143	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	117/126 (92%)	0.67	21 (17%) 1 1	125, 155, 178, 192	0
13	4I	117/126 (92%)	0.15	4 (3%) 45 43	95, 131, 145, 162	0
14	5A	52/61 (85%)	0.83	6 (11%) 4 4	138, 151, 163, 167	0
14	5I	60/61 (98%)	0.45	2 (3%) 46 44	101, 113, 127, 134	0
15	6A	88/89 (98%)	-0.04	0 100 100	99, 120, 141, 148	0
15	6I	88/89 (98%)	0.17	5 (5%) 23 23	87, 110, 128, 134	0
16	7A	84/88 (95%)	0.23	1 (1%) 79 78	108, 123, 139, 168	0
16	7I	84/88 (95%)	0.67	9 (10%) 6 5	113, 127, 155, 174	0
17	8A	99/105 (94%)	0.35	4 (4%) 38 36	101, 116, 131, 136	0
17	8I	100/105 (95%)	0.34	5 (5%) 28 27	100, 117, 127, 131	0
18	9A	72/88 (81%)	1.34	15 (20%) 1 1	109, 130, 167, 194	0
18	9I	72/88 (81%)	0.81	7 (9%) 7 8	96, 115, 152, 185	0
19	AA	78/93 (83%)	1.07	18 (23%) 0 1	137, 178, 195, 198	0
19	AI	81/93 (87%)	0.21	2 (2%) 57 54	107, 129, 146, 157	0
20	BA	99/106 (93%)	0.38	3 (3%) 50 49	104, 122, 141, 156	0
20	BI	99/106 (93%)	0.29	3 (3%) 50 49	120, 135, 156, 164	0
21	1B	22/27 (81%)	1.42	7 (31%) 0 0	122, 142, 149, 152	0
21	1F	25/27 (92%)	0.42	1 (4%) 38 36	106, 118, 135, 147	0
22	1K	68/77 (88%)	0.51	4 (5%) 22 22	117, 196, 214, 216	0
23	2K	72/77 (93%)	-0.41	0 100 100	80, 108, 138, 146	0
24	3K	70/76 (92%)	-0.25	1 (1%) 75 75	83, 231, 262, 266	0
24	3L	70/76 (92%)	-0.09	2 (2%) 51 50	96, 239, 268, 279	0
25	4K	13/27 (48%)	0.30	1 (7%) 13 12	83, 115, 170, 170	0
25	4L	9/27 (33%)	-0.03	0 100 100	100, 136, 151, 157	0
26	14	2877/2917 (98%)	-0.38	16 (0%) 89 90	62, 96, 237, 329	0
26	1H	2902/2917 (99%)	-0.36	13 (0%) 92 93	50, 81, 226, 314	0
27	16	122/122 (100%)	-0.64	1 (0%) 86 86	76, 99, 116, 199	0
27	1J	122/122 (100%)	-0.75	0 100 100	98, 136, 162, 199	0
28	71	93/229 (40%)	1.10	21 (22%) 0 1	109, 115, 131, 143	0
29	11	272/276 (98%)	0.12	0 100 100	52, 71, 87, 95	0
29	19	273/276 (98%)	0.28	4 (1%) 73 72	60, 83, 100, 111	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
30	21	205/206 (99%)	0.60	23 (11%) 5 5	59, 95, 137, 152	0
30	29	205/206 (99%)	0.23	6 (2%) 51 50	70, 104, 144, 178	0
31	31	202/210 (96%)	0.10	2 (0%) 82 82	55, 84, 120, 142	0
31	39	206/210 (98%)	0.55	11 (5%) 26 24	70, 110, 163, 190	0
32	41	181/182 (99%)	0.42	9 (4%) 28 27	85, 110, 141, 149	0
32	49	181/182 (99%)	0.98	38 (20%) 1 1	133, 152, 174, 187	0
33	51	174/180 (96%)	0.20	3 (1%) 70 68	88, 108, 123, 136	0
33	59	170/180 (94%)	1.27	44 (25%) 0 0	131, 193, 221, 241	0
34	61	146/148 (98%)	0.58	15 (10%) 6 6	81, 135, 151, 154	0
34	69	146/148 (98%)	0.46	16 (10%) 5 5	97, 138, 155, 163	0
35	15	138/140 (98%)	0.45	4 (2%) 51 50	87, 114, 146, 168	0
35	58	138/140 (98%)	0.34	4 (2%) 51 50	73, 95, 129, 147	0
36	25	122/122 (100%)	0.38	4 (3%) 46 44	75, 96, 112, 124	0
36	68	122/122 (100%)	0.52	4 (3%) 46 44	65, 85, 103, 115	0
37	35	147/150 (98%)	0.82	18 (12%) 4 3	70, 114, 145, 159	0
37	78	150/150 (100%)	0.01	3 (2%) 65 64	57, 85, 111, 159	0
38	45	141/141 (100%)	1.18	29 (20%) 1 1	80, 111, 139, 153	0
38	88	137/141 (97%)	0.39	7 (5%) 28 26	63, 84, 103, 146	0
39	55	117/118 (99%)	0.32	5 (4%) 35 34	69, 88, 105, 121	0
39	98	118/118 (100%)	0.53	4 (3%) 45 43	70, 91, 111, 121	0
40	65	111/112 (99%)	0.51	8 (7%) 15 15	104, 128, 140, 146	0
40	A8	111/112 (99%)	0.80	15 (13%) 3 3	81, 95, 120, 129	0
41	75	137/146 (93%)	0.13	4 (2%) 51 50	86, 104, 164, 200	0
41	B8	137/146 (93%)	0.11	1 (0%) 87 88	80, 99, 151, 186	0
42	85	117/118 (99%)	0.24	1 (0%) 84 84	76, 103, 142, 163	0
42	C8	117/118 (99%)	0.22	4 (3%) 45 43	63, 83, 117, 136	0
43	95	101/101 (100%)	0.98	19 (18%) 1 1	72, 129, 143, 161	0
43	D8	101/101 (100%)	0.45	7 (6%) 16 16	63, 108, 131, 145	0
44	A5	111/113 (98%)	0.30	2 (1%) 68 67	69, 83, 117, 151	0
44	E8	113/113 (100%)	0.26	3 (2%) 54 52	66, 80, 116, 158	0
45	B5	92/96 (95%)	0.60	4 (4%) 35 34	78, 94, 113, 133	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	F8	94/96 (97%)	0.60	5 (5%) 26 24	65, 77, 101, 118	0
46	C5	104/110 (94%)	0.84	19 (18%) 1 1	98, 120, 152, 163	0
46	G8	104/110 (94%)	0.17	3 (2%) 51 50	76, 98, 132, 143	0
47	D5	137/206 (66%)	1.18	34 (24%) 0 0	118, 147, 190, 205	0
47	H8	135/206 (65%)	0.51	7 (5%) 27 25	89, 115, 161, 183	0
48	E5	77/85 (90%)	0.84	7 (9%) 9 9	81, 97, 115, 148	0
48	I8	80/85 (94%)	0.42	5 (6%) 20 20	66, 78, 106, 122	0
49	F5	94/98 (95%)	0.66	9 (9%) 8 8	72, 94, 135, 145	0
49	J8	97/98 (98%)	0.28	3 (3%) 49 48	60, 79, 122, 155	0
50	G5	66/72 (91%)	0.61	4 (6%) 21 20	95, 113, 128, 155	0
50	K8	67/72 (93%)	0.36	1 (1%) 73 72	70, 89, 107, 139	0
51	H5	59/60 (98%)	0.76	7 (11%) 4 4	87, 104, 146, 161	0
51	L8	57/60 (95%)	0.09	0 100 100	70, 86, 105, 121	0
52	I5	63/71 (88%)	1.50	24 (38%) 0 0	163, 192, 207, 213	0
52	M8	66/71 (92%)	0.77	9 (13%) 3 2	120, 156, 195, 205	0
53	J5	56/60 (93%)	0.13	2 (3%) 42 40	69, 94, 139, 149	0
53	N8	54/60 (90%)	0.20	2 (3%) 41 38	62, 100, 155, 165	0
54	L5	46/49 (93%)	0.09	1 (2%) 62 60	61, 71, 82, 95	0
54	P8	47/49 (95%)	-0.18	0 100 100	53, 60, 76, 85	0
55	M5	60/65 (92%)	0.57	3 (5%) 28 27	78, 90, 114, 129	0
55	Q8	60/65 (92%)	0.13	0 100 100	64, 77, 102, 113	0
56	2L	73/77 (94%)	-0.33	0 100 100	91, 123, 156, 173	0
All	All	20765/21734 (95%)	0.08	951 (4%) 32 30	50, 110, 186, 329	0

All (951) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	4A	6	GLY	10.5
31	39	208	GLY	9.4
30	21	204	ALA	8.0
18	9A	88	LYS	8.0
38	45	65	PHE	7.8
38	45	1	MET	7.5
11	2A	12	ARG	7.1

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Mol	Chain	Res	Type	RSRZ
43	D8	36	PRO	7.1
3	22	199	LYS	7.1
50	G5	44	LEU	7.0
7	6E	84	ASN	7.0
30	29	70	ALA	6.9
26	1H	2799	A	6.4
13	4A	7	VAL	6.4
30	21	205	ALA	6.4
2	12	232	PRO	6.3
37	35	110	TYR	6.3
13	4I	6	GLY	6.2
46	G8	106	LEU	6.2
3	22	186	PHE	6.1
19	AA	79	THR	6.0
51	H5	60	GLU	6.0
38	45	91	GLU	6.0
11	2A	11	LYS	5.9
11	2A	13	GLN	5.7
32	49	34	LEU	5.7
18	9A	17	SER	5.7
49	J8	98	LEU	5.6
52	M8	55	ARG	5.6
41	B8	1	MET	5.6
34	69	4	ILE	5.5
44	E8	113	LYS	5.5
18	9A	87	ARG	5.4
33	59	115	VAL	5.4
51	H5	2	PRO	5.3
31	39	207	GLY	5.3
3	22	155	GLY	5.3
7	6E	83	ALA	5.3
13	4A	2	ALA	5.2
7	6E	81	GLY	5.2
48	E5	85	ALA	5.1
4	3E	110	PHE	5.1
2	12	240	GLN	5.1
7	6E	82	GLY	5.0
33	59	103	LEU	5.0
30	29	69	LYS	5.0
26	14	654(L)	G	5.0
11	2A	50	TYR	5.0
32	49	182	LYS	4.9

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Mol	Chain	Res	Type	RSRZ
19	AA	78	ARG	4.9
11	2A	17	GLY	4.9
42	C8	117	GLN	4.9
11	2I	129	SER	4.9
26	14	654(I)	C	4.9
25	4K	25	A	4.8
18	9I	88	LYS	4.8
2	12	216	SER	4.8
3	22	189	ALA	4.7
52	I5	46	GLN	4.7
26	14	654(J)	A	4.6
52	I5	42	PHE	4.6
52	I5	63	TYR	4.6
47	D5	27	VAL	4.6
40	65	37	ALA	4.5
49	J8	97	LEU	4.5
34	69	1	MET	4.5
52	M8	52	THR	4.5
46	C5	93	GLY	4.5
32	49	39	ILE	4.5
10	1I	101	VAL	4.5
52	I5	41	PRO	4.5
7	6E	78	ARG	4.4
11	2I	11	LYS	4.4
3	2E	128	PHE	4.3
2	1E	31	TYR	4.3
2	12	233	SER	4.3
21	1B	13	ILE	4.3
18	9I	19	LYS	4.3
12	3I	64	TYR	4.3
26	14	654(H)	G	4.2
52	I5	54	GLY	4.2
48	I8	85	ALA	4.2
3	22	53	ALA	4.2
38	45	92	GLY	4.2
38	45	104	PHE	4.1
36	68	122	LEU	4.1
16	7I	39	TYR	4.1
46	C5	59	GLY	4.1
53	N8	54	GLY	4.1
19	AA	83	HIS	4.1
33	59	25	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
15	6I	89	GLY	4.1
5	42	94	ALA	4.1
43	95	36	PRO	4.1
37	35	16	ARG	4.1
30	21	1	MET	4.0
34	69	5	LEU	4.0
4	3E	111	ALA	4.0
18	9A	23	LYS	4.0
43	95	15	GLU	4.0
4	32	183	GLY	4.0
33	59	41	MET	4.0
2	12	213	LEU	4.0
32	49	160	VAL	4.0
4	32	5	ILE	4.0
40	A8	112	PHE	4.0
32	49	137	GLU	4.0
33	59	17	VAL	4.0
4	3E	24	GLU	3.9
43	95	45	THR	3.9
13	4A	66	LEU	3.9
37	35	106	LEU	3.9
3	22	187	ALA	3.9
32	49	133	LEU	3.9
19	AA	80	TYR	3.9
32	49	152	LEU	3.9
26	14	888	C	3.9
40	65	35	ILE	3.9
5	4E	119	LEU	3.8
32	41	26	GLN	3.8
28	71	189	ILE	3.8
34	69	35	LEU	3.8
18	9A	43	PHE	3.8
24	3L	34	G	3.8
52	M8	31	ILE	3.8
43	D8	55	ALA	3.8
12	3A	64	TYR	3.8
32	49	146	TYR	3.8
47	D5	162	GLU	3.8
52	M8	34	GLU	3.8
10	1I	6	ILE	3.8
3	22	198	VAL	3.8
47	D5	88	PHE	3.8

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Mol	Chain	Res	Type	RSRZ
32	49	155	MET	3.7
37	35	91	PHE	3.7
33	59	4	ILE	3.7
50	K8	43	GLN	3.7
37	35	126	VAL	3.7
32	49	138	GLN	3.7
38	45	68	ILE	3.7
32	49	35	GLU	3.7
33	59	39	PRO	3.7
5	4E	154	GLY	3.6
11	2I	12	ARG	3.6
30	21	90	THR	3.6
32	49	178	PHE	3.6
26	1H	654(J)	A	3.6
28	71	58	VAL	3.6
11	2A	89	ALA	3.6
3	2E	200	ALA	3.6
33	59	107	VAL	3.6
10	1I	5	ARG	3.6
33	59	87	LEU	3.6
43	95	18	LEU	3.6
5	4E	89	ILE	3.6
46	C5	47	LYS	3.6
26	14	654(K)	C	3.6
3	22	201	TYR	3.6
7	62	2	ALA	3.6
3	22	146	ALA	3.6
30	21	2	LYS	3.5
33	59	24	VAL	3.5
47	D5	55	HIS	3.5
33	59	45	VAL	3.5
52	I5	5	ILE	3.5
2	1E	28	PHE	3.5
30	21	3	GLY	3.5
34	61	65	ALA	3.5
36	68	84	ALA	3.5
48	E5	21	LEU	3.5
38	45	66	ILE	3.5
3	22	206	GLU	3.5
18	9A	42	ARG	3.5
38	45	103	MET	3.5
10	1I	95	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
32	49	139	LEU	3.5
13	4A	97	PRO	3.5
48	I8	7	LEU	3.5
5	42	45	PHE	3.5
3	2E	201	TYR	3.5
32	41	25	TYR	3.5
33	59	99	VAL	3.5
46	C5	49	VAL	3.5
8	7E	4	ASP	3.5
19	AA	81	ARG	3.5
4	32	23	GLY	3.5
19	AA	82	GLY	3.5
32	49	142	PRO	3.5
26	1H	654(F)	C	3.4
30	29	205	ALA	3.4
11	2A	31	THR	3.4
8	72	119	LEU	3.4
43	95	12	TYR	3.4
2	12	14	GLY	3.4
52	I5	28	LYS	3.4
2	1E	187	LEU	3.4
38	45	33	GLY	3.4
2	12	71	VAL	3.4
26	1H	654(I)	C	3.4
30	21	88	GLY	3.4
19	AA	47	HIS	3.4
33	59	168	PRO	3.3
11	2A	18	ARG	3.3
46	C5	29	GLU	3.3
52	I5	47	GLN	3.3
20	BA	9	ASN	3.3
18	9A	18	ARG	3.3
7	6E	156	TRP	3.3
38	45	89	ASN	3.3
29	19	147	LEU	3.3
33	59	37	VAL	3.3
13	4A	4	ILE	3.3
3	22	200	ALA	3.3
12	3A	19	ARG	3.3
21	1B	2	GLY	3.3
43	95	35	LEU	3.3
52	M8	32	TYR	3.3

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Mol	Chain	Res	Type	RSRZ
3	22	68	VAL	3.3
2	1E	148	TYR	3.2
38	45	90	VAL	3.2
35	15	1	MET	3.2
3	22	195	VAL	3.2
8	7E	66	GLY	3.2
19	AA	62	ILE	3.2
32	41	2	PRO	3.2
52	I5	52	THR	3.2
30	29	3	GLY	3.2
36	25	1	MET	3.2
47	D5	53	ILE	3.2
2	1E	14	GLY	3.2
40	A8	24	LEU	3.2
41	75	6	LEU	3.2
30	21	91	VAL	3.2
45	B5	28	PHE	3.2
3	2E	166	GLU	3.2
40	A8	58	LEU	3.2
37	35	125	VAL	3.2
52	I5	31	ILE	3.2
28	71	163	PHE	3.2
7	6E	85	TYR	3.2
13	4A	8	GLU	3.2
19	AA	30	LEU	3.2
53	J5	56	LYS	3.2
47	D5	70	LEU	3.2
47	D5	125	LEU	3.2
11	2A	21	ILE	3.1
32	49	37	VAL	3.1
10	1A	59	SER	3.1
2	12	19	HIS	3.1
11	2I	127	LYS	3.1
47	D5	76	LEU	3.1
17	8I	36	ILE	3.1
7	6E	80	VAL	3.1
7	62	77	SER	3.1
8	72	112	LEU	3.1
49	F5	94	LEU	3.1
4	32	156	GLU	3.1
34	61	72	LEU	3.1
34	69	12	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
43	95	40	LEU	3.1
2	12	5	ILE	3.1
2	12	152	PHE	3.1
5	42	6	PHE	3.1
3	22	204	LEU	3.1
2	12	11	LEU	3.1
3	22	184	TYR	3.1
28	71	49	ILE	3.1
2	12	97	TRP	3.1
11	2A	42	TRP	3.1
2	12	7	VAL	3.1
12	3A	20	LYS	3.1
19	AI	71	LEU	3.1
8	7E	80	ILE	3.1
8	72	133	LEU	3.1
26	1H	1176	G	3.1
4	3E	168	ARG	3.1
33	59	164	TYR	3.1
45	F8	26	TYR	3.1
7	6E	87	VAL	3.1
40	A8	49	VAL	3.1
33	59	96	ALA	3.1
3	2E	193	TYR	3.0
3	22	207	VAL	3.0
3	2E	189	ALA	3.0
7	62	88	PRO	3.0
34	61	113	ARG	3.0
36	68	1	MET	3.0
10	1I	10	GLY	3.0
11	2I	42	TRP	3.0
4	32	176	LEU	3.0
51	H5	26	LEU	3.0
33	59	29	PRO	3.0
3	22	154	SER	3.0
38	45	105	GLU	3.0
2	12	197	VAL	3.0
33	59	43	VAL	3.0
2	12	164	VAL	3.0
4	32	110	PHE	3.0
24	3L	60	U	3.0
20	BA	63	ILE	3.0
8	7E	133	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
32	49	90	LEU	3.0
33	59	55	PRO	3.0
34	61	139	GLN	3.0
5	4E	118	ILE	3.0
32	49	159	VAL	3.0
12	3A	72	GLY	3.0
37	35	71	VAL	3.0
38	45	106	VAL	3.0
47	D5	4	ARG	2.9
47	D5	99	TYR	2.9
48	I8	8	ALA	2.9
2	12	40	HIS	2.9
52	I5	40	HIS	2.9
8	7E	137	VAL	2.9
10	1I	94	VAL	2.9
11	2A	108	ILE	2.9
2	1E	188	ALA	2.9
34	69	3	VAL	2.9
38	45	10	ARG	2.9
38	88	1	MET	2.9
38	45	7	MET	2.9
2	12	214	ILE	2.9
47	D5	25	PRO	2.9
22	1K	3	C	2.9
17	8I	43	LEU	2.9
32	49	92	VAL	2.9
48	I8	6	ALA	2.9
11	2A	32	ILE	2.9
14	5A	41	ARG	2.9
45	B5	92	LEU	2.9
52	M8	22	ILE	2.9
11	2I	128	ALA	2.9
26	1H	1536	A	2.9
2	12	217	ARG	2.9
11	2A	84	VAL	2.9
37	78	149	GLU	2.9
2	12	115	LEU	2.9
12	3I	19	ARG	2.9
16	7I	9	PHE	2.9
2	1E	96	ARG	2.9
46	C5	55	TYR	2.9
26	1H	654(K)	C	2.8

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Mol	Chain	Res	Type	RSRZ
46	C5	60	PHE	2.8
13	4A	87	TYR	2.8
49	F5	28	GLY	2.8
13	4A	102	ARG	2.8
18	9A	84	LYS	2.8
43	95	27	ALA	2.8
34	61	107	VAL	2.8
46	C5	48	ALA	2.8
2	12	6	THR	2.8
47	D5	95	PRO	2.8
7	62	156	TRP	2.8
4	3E	170	VAL	2.8
5	4E	90	VAL	2.8
2	1E	77	ALA	2.8
2	12	93	VAL	2.8
32	49	93	THR	2.8
40	A8	37	ALA	2.8
3	22	66	VAL	2.8
5	42	130	ASN	2.8
8	7E	83	ILE	2.8
28	71	62	VAL	2.8
4	3E	3	ARG	2.8
4	32	37	PRO	2.8
6	5E	63	TYR	2.8
16	7A	59	TRP	2.8
26	14	654(O)	G	2.8
35	58	16	ILE	2.8
38	45	63	LYS	2.8
4	3E	167	GLY	2.8
33	59	105	LEU	2.8
46	C5	86	ARG	2.8
38	88	137	TYR	2.8
49	F5	71	TYR	2.8
37	35	107	LYS	2.8
8	7E	63	LEU	2.8
32	49	108	ASN	2.8
47	D5	54	HIS	2.8
46	C5	34	LYS	2.8
52	I5	10	VAL	2.8
31	39	12	LEU	2.8
43	95	91	TYR	2.8
3	2E	107	GLN	2.7

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Mol	Chain	Res	Type	RSRZ
22	1K	72	C	2.8
47	D5	163	LEU	2.7
3	22	190	ARG	2.7
11	2A	35	PRO	2.7
18	9A	86	VAL	2.7
47	D5	3	TYR	2.7
10	1I	73	ASP	2.7
40	A8	68	GLN	2.7
26	1H	277	C	2.7
14	5A	50	LYS	2.7
40	A8	85	VAL	2.7
47	H8	27	VAL	2.7
5	4E	11	ILE	2.7
18	9A	50	ILE	2.7
10	1I	62	HIS	2.7
3	22	124	ILE	2.7
4	32	158	ILE	2.7
13	4A	95	GLY	2.7
50	G5	53	LEU	2.7
34	69	36	ALA	2.7
2	1E	95	GLN	2.7
26	14	1093	G	2.7
50	G5	60	LEU	2.7
29	19	184	LYS	2.7
30	21	69	LYS	2.7
13	4I	5	ALA	2.7
32	49	136	ARG	2.7
37	35	119	GLU	2.7
33	59	132	ARG	2.7
3	22	71	ALA	2.7
11	2A	20	TYR	2.7
13	4A	3	ARG	2.7
32	41	23	PHE	2.7
47	D5	68	PRO	2.7
2	12	231	GLU	2.7
2	12	193	ASP	2.7
7	6E	154	TYR	2.7
7	62	154	TYR	2.7
46	C5	50	ARG	2.7
47	D5	83	PRO	2.7
2	12	24	TRP	2.7
10	1A	38	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
31	39	22	ALA	2.7
18	9A	44	LEU	2.7
26	14	1095	A	2.7
32	49	145	THR	2.7
29	19	186	HIS	2.7
3	22	17	ASP	2.6
43	95	101	GLY	2.6
46	C5	45	VAL	2.6
48	E5	42	GLY	2.6
52	M8	56	VAL	2.6
46	C5	46	LYS	2.6
3	2E	184	TYR	2.6
41	75	135	ALA	2.6
47	D5	50	GLN	2.6
32	49	179	PRO	2.6
33	59	89	ILE	2.6
30	21	55	ASN	2.6
34	69	34	GLY	2.6
7	62	76	ARG	2.6
52	I5	24	THR	2.6
32	49	157	ILE	2.6
43	95	39	LEU	2.6
2	12	112	VAL	2.6
49	F5	49	VAL	2.6
4	3E	108	LEU	2.6
40	65	2	ALA	2.6
48	E5	57	PHE	2.6
17	8I	98	LEU	2.6
20	BA	104	LEU	2.6
32	49	94	LEU	2.6
52	I5	44	THR	2.6
38	45	88	GLY	2.6
51	H5	35	ARG	2.6
4	3E	124	GLY	2.6
51	H5	59	VAL	2.6
3	22	54	ARG	2.6
3	2E	185	GLY	2.6
39	98	92	GLY	2.6
33	59	153	LYS	2.6
5	4E	80	ILE	2.6
21	1B	22	ARG	2.6
26	1H	2798	C	2.6

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Mol	Chain	Res	Type	RSRZ
32	49	135	LEU	2.6
3	2E	186	PHE	2.6
11	2A	19	ALA	2.6
52	M8	3	GLU	2.6
5	4E	18	ARG	2.6
40	A8	48	LEU	2.6
43	D8	39	LEU	2.6
39	55	69	ASP	2.6
4	32	188	LEU	2.6
13	4A	96	LEU	2.6
39	55	100	LEU	2.6
12	3A	126	LYS	2.5
33	59	94	TYR	2.5
34	69	38	LEU	2.5
32	49	87	PRO	2.5
28	71	197	GLU	2.5
52	I5	32	TYR	2.5
6	52	88	VAL	2.5
10	1I	71	LEU	2.5
18	9I	85	LEU	2.5
28	71	228	SER	2.5
52	I5	9	LEU	2.5
38	45	64	ILE	2.5
40	65	36	TYR	2.5
19	AA	49	ILE	2.5
4	3E	118	ARG	2.5
26	14	2146	C	2.5
44	E8	112	GLY	2.5
32	49	63	ILE	2.5
38	45	60	ARG	2.5
3	22	143	GLU	2.5
5	42	133	TYR	2.5
34	69	18	VAL	2.5
38	45	62	GLY	2.5
40	A8	59	LYS	2.5
52	I5	35	VAL	2.5
35	58	15	LEU	2.5
19	AI	74	PHE	2.5
4	3E	17	VAL	2.5
16	7I	7	ALA	2.5
47	D5	24	LEU	2.5
2	12	43	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
3	22	147	LYS	2.5
2	12	66	GLY	2.5
19	AA	67	VAL	2.5
8	7E	119	LEU	2.5
11	2A	91	ARG	2.5
31	39	28	ILE	2.5
26	14	1177	A	2.5
2	12	196	LEU	2.5
4	32	68	TYR	2.5
16	7I	17	TYR	2.5
11	2A	43	SER	2.5
30	21	4	ILE	2.5
52	I5	27	THR	2.5
55	M5	4	MET	2.5
14	5A	10	ALA	2.5
17	8A	11	VAL	2.5
18	9I	26	LEU	2.5
30	21	78	LEU	2.5
47	D5	5	LEU	2.5
43	95	64	HIS	2.5
48	E5	9	SER	2.5
7	6E	79	ARG	2.5
30	21	79	ARG	2.5
3	22	101	LEU	2.5
11	2A	25	TYR	2.5
7	6E	86	GLN	2.5
34	69	2	LYS	2.5
45	F8	2	LYS	2.5
46	C5	88	LYS	2.5
47	D5	57	ILE	2.5
33	59	100	GLY	2.5
2	12	28	PHE	2.5
10	1A	83	GLU	2.5
16	7I	48	TRP	2.4
2	12	187	LEU	2.4
3	2E	196	LEU	2.4
11	2A	98	LEU	2.4
33	59	131	VAL	2.4
43	95	65	GLY	2.4
10	1I	66	ARG	2.4
15	6I	88	ARG	2.4
3	2E	3	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
13	4A	30	ALA	2.4
34	61	146	ALA	2.4
17	8A	59	ILE	2.4
19	AA	31	ILE	2.4
34	61	70	GLU	2.4
46	C5	5	MET	2.4
18	9A	78	LEU	2.4
5	4E	94	ALA	2.4
2	1E	94	ASN	2.4
11	2A	51	LYS	2.4
30	21	31	CYS	2.4
47	D5	51	ALA	2.4
14	5A	26	ARG	2.4
43	95	38	LEU	2.4
48	E5	55	ARG	2.4
40	65	112	PHE	2.4
21	1F	13	ILE	2.4
4	3E	90	GLY	2.4
4	3E	140	VAL	2.4
13	4A	94	ARG	2.4
33	59	88	LEU	2.4
47	H8	25	PRO	2.4
3	22	6	HIS	2.4
6	5E	101	ALA	2.4
11	2A	75	TYR	2.4
4	32	70	ILE	2.4
37	35	94	GLU	2.4
30	21	183	LEU	2.4
38	45	113	GLN	2.4
3	22	177	THR	2.4
32	49	177	GLY	2.4
38	45	83	MET	2.4
5	4E	81	GLU	2.4
18	9A	34	TYR	2.4
7	62	42	ILE	2.4
40	65	40	ILE	2.4
2	12	4	GLU	2.4
21	1B	9	ARG	2.4
53	N8	55	ARG	2.4
2	1E	213	LEU	2.4
9	82	116	LYS	2.4
32	41	34	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
2	12	90	MET	2.4
12	3A	71	PRO	2.4
16	7I	36	ILE	2.4
39	98	69	ASP	2.4
40	A8	110	LEU	2.4
47	D5	155	LEU	2.4
2	12	70	PHE	2.4
8	7E	131	GLY	2.4
34	69	21	VAL	2.4
2	12	237	ALA	2.4
8	7E	65	TYR	2.4
43	95	14	VAL	2.4
16	7I	8	ARG	2.4
28	71	192	PHE	2.4
43	95	1	MET	2.4
5	4E	128	PRO	2.4
30	29	204	ALA	2.4
32	49	10	LYS	2.4
47	D5	11	GLU	2.4
13	4A	25	ILE	2.4
31	39	125	LEU	2.4
47	D5	91	LEU	2.4
2	1E	76	GLN	2.3
47	H8	28	MET	2.3
32	49	36	LYS	2.3
38	45	130	LYS	2.3
2	12	155	LEU	2.3
11	2I	108	ILE	2.3
11	2A	83	ILE	2.3
46	C5	53	PRO	2.3
3	2E	151	VAL	2.3
8	7E	79	VAL	2.3
8	7E	90	GLY	2.3
9	82	33	PHE	2.3
9	82	127	LYS	2.3
8	7E	136	GLU	2.3
38	88	105	GLU	2.3
4	3E	138	TYR	2.3
8	7E	113	SER	2.3
12	3A	56	ALA	2.3
33	59	155	SER	2.3
33	59	122	THR	2.3

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Mol	Chain	Res	Type	RSRZ
47	D5	34	ASN	2.3
13	4A	101	GLN	2.3
21	1B	5	ASP	2.3
2	12	8	LYS	2.3
33	59	114	VAL	2.3
48	E5	45	PHE	2.3
43	95	92	THR	2.3
3	22	196	LEU	2.3
32	49	62	LEU	2.3
31	31	6	VAL	2.3
33	59	90	LYS	2.3
46	G8	105	ALA	2.3
33	59	34	GLU	2.3
3	22	168	ALA	2.3
10	1I	65	LEU	2.3
35	15	99	LEU	2.3
10	1I	98	ILE	2.3
41	75	99	LEU	2.3
20	BI	8	ARG	2.3
26	1H	1537	C	2.3
3	22	188	LEU	2.3
22	1K	22	A	2.3
33	59	26	VAL	2.3
47	D5	134	PRO	2.3
3	2E	129	ALA	2.3
4	32	159	ARG	2.3
28	71	170	ALA	2.3
31	39	202	PHE	2.3
5	4E	122	GLU	2.3
5	4E	155	GLU	2.3
10	1A	53	PRO	2.3
4	3E	97	LEU	2.3
10	1A	16	LEU	2.3
40	A8	84	GLN	2.3
7	6E	155	ARG	2.3
35	58	51	PHE	2.3
38	45	32	TYR	2.3
39	98	101	ALA	2.3
37	35	118	GLY	2.3
2	12	198	ASP	2.3
51	H5	39	ASP	2.3
28	71	193	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
42	C8	88	ILE	2.3
44	A5	103	ILE	2.3
45	F8	89	ILE	2.3
45	B5	79	ALA	2.3
28	71	225	ASN	2.3
3	2E	188	LEU	2.3
4	32	108	LEU	2.3
8	72	59	LEU	2.3
19	AA	71	LEU	2.3
42	C8	83	LEU	2.3
4	32	8	VAL	2.3
22	1K	4	G	2.2
28	71	21	THR	2.2
32	49	91	ARG	2.2
38	45	34	LEU	2.2
13	4I	25	ILE	2.2
34	69	109	ILE	2.2
37	35	124	LYS	2.2
40	A8	82	ILE	2.2
2	12	239	VAL	2.2
3	2E	76	VAL	2.2
33	59	52	VAL	2.2
19	AA	84	GLY	2.2
34	61	126	TYR	2.2
34	61	117	GLU	2.2
34	61	143	SER	2.2
18	9I	42	ARG	2.2
27	16	1(M)	A	2.2
38	45	6	ARG	2.2
49	F5	61	ARG	2.2
47	H8	70	LEU	2.2
34	61	108	THR	2.2
46	G8	92	ASN	2.2
46	C5	92	ASN	2.2
10	1I	37	PRO	2.2
31	39	14	PRO	2.2
33	59	169	VAL	2.2
49	F5	51	VAL	2.2
45	F8	87	GLN	2.2
28	71	167	LYS	2.2
37	35	121	LYS	2.2
32	41	88	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
14	5I	59	ALA	2.2
24	3K	20	U	2.2
29	19	183	ARG	2.2
43	D8	101	GLY	2.2
47	D5	7	ALA	2.2
26	14	654(E)	C	2.2
3	22	103	VAL	2.2
32	49	70	VAL	2.2
47	D5	137	ILE	2.2
40	A8	25	ARG	2.2
37	78	150	ALA	2.2
39	55	101	ALA	2.2
43	D8	3	ALA	2.2
44	A5	74	ALA	2.2
39	55	70	LEU	2.2
19	AA	40	ILE	2.2
21	1B	6	ARG	2.2
33	59	72	ILE	2.2
4	32	69	GLY	2.2
12	3A	69	TYR	2.2
40	A8	43	GLU	2.2
55	M5	29	LYS	2.2
4	3E	135	LEU	2.2
7	62	73	MET	2.2
8	7E	95	VAL	2.2
19	AA	60	VAL	2.2
28	71	171	ILE	2.2
32	41	181	ARG	2.2
44	E8	24	ILE	2.2
47	D5	48	PHE	2.2
49	F5	21	ARG	2.2
54	L5	1	MET	2.2
11	2A	90	GLY	2.2
38	88	33	GLY	2.2
7	62	86	GLN	2.2
34	61	8	PRO	2.2
37	78	106	LEU	2.2
15	6I	72	ARG	2.2
18	9I	29	PHE	2.2
2	1E	15	VAL	2.2
8	7E	111	ILE	2.2
3	2E	168	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
7	6E	88	PRO	2.2
21	1B	17	THR	2.2
28	71	188	ASN	2.2
4	32	146	ILE	2.2
38	45	97	VAL	2.2
42	C8	80	ILE	2.2
47	H8	98	MET	2.2
13	4A	67	GLU	2.2
26	14	1094	U	2.2
34	61	13	GLY	2.2
8	7E	10	LEU	2.2
10	1I	7	LYS	2.2
45	B5	33	LYS	2.2
52	I5	11	PRO	2.2
37	35	144	GLU	2.2
52	I5	55	ARG	2.2
31	39	23	ASP	2.2
5	4E	82	VAL	2.2
32	49	132	ASN	2.2
12	3A	28	LYS	2.2
30	21	89	ASP	2.2
36	25	48	PRO	2.2
5	4E	129	ILE	2.2
33	59	44	VAL	2.2
33	59	125	VAL	2.2
36	25	43	VAL	2.2
43	95	93	GLU	2.2
52	I5	51	ASP	2.2
12	3I	61	THR	2.2
19	AA	69	HIS	2.2
8	7E	112	LEU	2.1
18	9A	31	LEU	2.1
38	88	32	TYR	2.1
43	95	20	LEU	2.1
50	G5	43	GLN	2.1
8	72	1	MET	2.1
9	82	110	GLU	2.1
33	59	19	VAL	2.1
36	68	58	VAL	2.1
28	71	60	GLY	2.1
47	D5	156	LYS	2.1
26	14	1096	A	2.1

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Mol	Chain	Res	Type	RSRZ
42	85	74	LEU	2.1
47	H8	85	HIS	2.1
52	I5	49	PHE	2.1
3	2E	190	ARG	2.1
7	62	5	ARG	2.1
11	2A	16	SER	2.1
48	I8	40	GLN	2.1
34	69	144	VAL	2.1
17	8A	22	LEU	2.1
34	61	35	LEU	2.1
4	3E	68	TYR	2.1
5	42	98	THR	2.1
8	7E	135	CYS	2.1
3	22	126	ARG	2.1
16	7I	18	ARG	2.1
35	15	133	GLN	2.1
47	D5	74	VAL	2.1
52	I5	50	VAL	2.1
53	J5	45	VAL	2.1
40	65	60	GLY	2.1
47	D5	28	MET	2.1
26	1H	654(G)	C	2.1
33	51	103	LEU	2.1
12	3I	20	LYS	2.1
13	4A	88	ARG	2.1
13	4A	91	ARG	2.1
28	71	200	LYS	2.1
46	C5	63	LYS	2.1
52	M8	13	ARG	2.1
8	72	22	GLU	2.1
32	49	181	ARG	2.1
37	35	81	GLN	2.1
6	52	61	LEU	2.1
39	55	8	ARG	2.1
55	M5	21	LYS	2.1
10	1I	17	ASP	2.1
32	41	146	TYR	2.1
33	51	102	ALA	2.1
3	22	153	VAL	2.1
33	59	159	GLU	2.1
34	69	17	GLN	2.1
51	H5	19	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
5	4E	27	ARG	2.1
43	D8	38	LEU	2.1
18	9A	46	GLU	2.1
30	21	72	VAL	2.1
35	58	136	GLU	2.1
3	2E	179	ARG	2.1
10	1I	100	THR	2.1
11	2A	86	GLY	2.1
46	C5	87	LYS	2.1
40	A8	27	SER	2.1
11	2A	14	VAL	2.1
37	35	114	ILE	2.1
38	45	102	VAL	2.1
16	7I	37	GLY	2.1
28	71	185	LEU	2.1
30	21	195	LEU	2.1
30	21	96	PHE	2.1
26	14	654(F)	C	2.1
52	I5	29	PRO	2.1
38	88	136	ALA	2.1
4	32	198	VAL	2.1
10	1I	50	ILE	2.1
19	AA	29	ARG	2.1
45	F8	88	LYS	2.1
3	2E	47	LEU	2.1
7	62	153	HIS	2.1
49	J8	82	LEU	2.1
15	6I	62	GLN	2.1
30	21	48	GLN	2.1
38	88	104	PHE	2.1
2	1E	26	PRO	2.1
2	12	188	ALA	2.1
38	45	85	LYS	2.1
10	1I	72	VAL	2.1
47	D5	56	VAL	2.1
15	6I	87	ILE	2.1
4	32	109	GLY	2.1
41	75	78	LEU	2.1
31	39	172	TRP	2.1
17	8I	71	PHE	2.1
18	9I	81	PHE	2.1
32	49	125	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
43	D8	1	MET	2.1
28	71	210	ARG	2.1
35	15	72	TYR	2.1
49	F5	50	ARG	2.1
28	71	181	PRO	2.1
4	32	19	LEU	2.1
26	1H	2117	A	2.1
34	61	140	LEU	2.1
13	4A	92	HIS	2.1
30	21	51	PHE	2.0
5	42	82	VAL	2.0
30	21	187	ALA	2.0
4	32	162	LEU	2.0
34	69	9	LEU	2.0
10	1I	22	LYS	2.0
3	22	183	ASP	2.0
5	4E	5	ASP	2.0
9	8E	52	ALA	2.0
17	8A	9	VAL	2.0
2	12	37	ASN	2.0
3	2E	51	GLY	2.0
11	2A	58	PRO	2.0
36	25	19	ILE	2.0
32	49	89	GLY	2.0
3	2E	59	ARG	2.0
33	59	42	ARG	2.0
11	2I	81	ASP	2.0
11	2A	93	GLN	2.0
13	4I	98	VAL	2.0
31	39	36	VAL	2.0
37	35	95	VAL	2.0
17	8I	17	LYS	2.0
30	21	5	LEU	2.0
32	41	75	LYS	2.0
33	59	33	LEU	2.0
28	71	165	ASN	2.0
30	29	76	ARG	2.0
31	31	17	ARG	2.0
4	32	163	GLU	2.0
49	F5	93	GLU	2.0
33	59	38	SER	2.0
8	7E	59	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
14	5A	30	ALA	2.0
33	51	85	LYS	2.0
8	7E	92	ARG	2.0
14	5I	51	GLY	2.0
26	1H	896	A	2.0
39	98	33	ARG	2.0
2	12	163	PHE	2.0
20	BI	9	ASN	2.0
8	7E	78	GLN	2.0
13	4A	5	ALA	2.0
14	5A	53	LEU	2.0
20	BI	106	ALA	2.0
37	35	18	ARG	2.0
40	65	32	LEU	2.0
47	H8	102	LEU	2.0
26	14	2790	A	2.0
2	12	106	LYS	2.0
2	12	102	LEU	2.0
10	1I	8	LEU	2.0
33	59	51	ARG	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	4SU	3K	8	20/21	0.44	0.22	240,248,252,254	0
24	7MG	3K	46	24/25	0.68	0.19	234,242,250,254	0
24	4SU	3L	8	20/21	0.70	0.12	239,245,250,250	0
24	PSU	3L	55	20/21	0.71	0.18	244,253,256,256	0
24	7MG	3L	46	24/25	0.75	0.16	242,245,250,252	0
24	PSU	3K	55	20/21	0.78	0.16	233,248,253,253	0
24	MIA	3L	37	29/30	0.78	0.28	158,185,200,208	0
24	PSU	3L	32	20/21	0.80	0.18	165,176,183,185	0
22	5MU	1K	55	21/22	0.87	0.19	147,158,168,170	0
24	PSU	3K	32	20/21	0.88	0.19	149,154,157,159	0
24	PSU	3L	39	20/21	0.89	0.15	156,173,181,188	0
24	MIA	3K	37	29/30	0.90	0.19	139,155,160,161	0
56	4SU	2L	8	20/21	0.91	0.17	127,132,138,139	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	PSU	2L	56	20/21	0.92	0.10	116,124,129,135	0
23	4SU	2K	8	20/21	0.92	0.15	101,110,114,119	0
23	PSU	2K	56	20/21	0.92	0.12	95,103,113,113	0
22	OMC	1K	33	21/22	0.93	0.18	114,132,138,141	0
23	7MG	2K	47	24/25	0.94	0.13	113,121,127,130	0
24	PSU	3K	39	20/21	0.94	0.12	126,143,151,159	0
56	7MG	2L	47	24/25	0.94	0.13	137,143,153,157	0
23	OMC	2K	33	21/22	0.95	0.16	84,91,99,106	0
23	5MU	2K	55	21/22	0.95	0.13	96,109,114,116	0
56	OMC	2L	33	21/22	0.96	0.15	105,114,117,119	0

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3252	1/1	0.17	0.65	92,92,92,92	0
57	MG	13	1667	1/1	0.19	0.38	119,119,119,119	0
57	MG	1G	1631	1/1	0.37	0.24	97,97,97,97	0
57	MG	1H	3199	1/1	0.44	0.29	98,98,98,98	0
57	MG	1H	3259	1/1	0.45	0.27	73,73,73,73	0
57	MG	13	1626	1/1	0.45	0.46	73,73,73,73	0
57	MG	1H	3225	1/1	0.45	0.78	95,95,95,95	0
57	MG	14	3176	1/1	0.49	0.58	85,85,85,85	0
57	MG	13	1662	1/1	0.49	0.56	88,88,88,88	0
57	MG	13	1659	1/1	0.50	0.41	100,100,100,100	0
57	MG	1H	3232	1/1	0.50	0.31	102,102,102,102	0
57	MG	14	3108	1/1	0.51	0.35	77,77,77,77	0
57	MG	14	3164	1/1	0.52	0.76	94,94,94,94	0
57	MG	1H	3096	1/1	0.52	0.27	65,65,65,65	0
57	MG	16	207	1/1	0.53	0.27	88,88,88,88	0
57	MG	14	3213	1/1	0.53	0.41	102,102,102,102	0
57	MG	1H	3174	1/1	0.55	0.29	88,88,88,88	0
57	MG	14	3069	1/1	0.56	0.46	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1655	1/1	0.57	0.37	82,82,82,82	0
57	MG	14	3200	1/1	0.57	0.38	90,90,90,90	0
57	MG	14	3179	1/1	0.57	0.56	100,100,100,100	0
57	MG	16	205	1/1	0.58	0.40	90,90,90,90	0
57	MG	1G	1635	1/1	0.59	0.58	79,79,79,79	0
57	MG	13	1671	1/1	0.59	0.46	97,97,97,97	0
57	MG	1H	3148	1/1	0.60	0.16	64,64,64,64	0
57	MG	14	3102	1/1	0.60	0.62	81,81,81,81	0
57	MG	1H	3167	1/1	0.60	0.37	79,79,79,79	0
57	MG	1H	3262	1/1	0.60	0.50	75,75,75,75	0
57	MG	14	3218	1/1	0.61	0.43	74,74,74,74	0
57	MG	1H	3190	1/1	0.61	0.29	94,94,94,94	0
57	MG	14	3094	1/1	0.64	0.56	94,94,94,94	0
57	MG	1G	1672	1/1	0.64	0.09	117,117,117,117	0
57	MG	14	3086	1/1	0.64	0.43	82,82,82,82	0
57	MG	1H	3240	1/1	0.64	0.30	73,73,73,73	0
57	MG	1H	3053	1/1	0.66	0.66	76,76,76,76	0
57	MG	14	3103	1/1	0.66	0.38	74,74,74,74	0
57	MG	14	3166	1/1	0.66	0.48	82,82,82,82	0
57	MG	13	1664	1/1	0.66	0.58	95,95,95,95	0
57	MG	2L	102	1/1	0.66	0.28	96,96,96,96	0
57	MG	14	3124	1/1	0.67	0.49	97,97,97,97	0
57	MG	1H	3100	1/1	0.67	0.40	84,84,84,84	0
57	MG	14	3211	1/1	0.68	0.47	101,101,101,101	0
57	MG	M5	101	1/1	0.68	0.36	85,85,85,85	0
57	MG	1H	3270	1/1	0.68	0.35	102,102,102,102	0
57	MG	14	3107	1/1	0.69	0.32	76,76,76,76	0
57	MG	45	201	1/1	0.69	0.16	98,98,98,98	0
57	MG	1H	3162	1/1	0.70	0.44	83,83,83,83	0
57	MG	1J	201	1/1	0.70	0.32	88,88,88,88	0
57	MG	1H	3169	1/1	0.70	0.70	72,72,72,72	0
57	MG	1G	1648	1/1	0.70	0.26	99,99,99,99	0
57	MG	14	3212	1/1	0.70	1.00	86,86,86,86	0
57	MG	14	3142	1/1	0.70	0.21	86,86,86,86	0
57	MG	14	3170	1/1	0.70	0.80	83,83,83,83	0
57	MG	1G	1663	1/1	0.70	0.25	89,89,89,89	0
57	MG	14	3216	1/1	0.70	0.67	84,84,84,84	0
57	MG	1H	3074	1/1	0.71	0.21	63,63,63,63	0
57	MG	1G	1656	1/1	0.71	0.40	97,97,97,97	0
57	MG	14	3099	1/1	0.71	0.18	108,108,108,108	0
57	MG	14	3167	1/1	0.71	0.31	91,91,91,91	0
57	MG	1H	3102	1/1	0.71	0.28	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1693	1/1	0.71	0.08	118,118,118,118	0
57	MG	14	3151	1/1	0.71	0.35	71,71,71,71	0
57	MG	1G	1651	1/1	0.71	0.59	94,94,94,94	0
57	MG	1H	3428	1/1	0.71	0.07	103,103,103,103	0
57	MG	1H	3255	1/1	0.71	0.33	81,81,81,81	0
57	MG	1H	3314	1/1	0.71	0.09	86,86,86,86	0
57	MG	1H	3188	1/1	0.72	0.51	82,82,82,82	0
57	MG	14	3291	1/1	0.72	0.11	126,126,126,126	0
57	MG	13	1661	1/1	0.72	0.40	89,89,89,89	0
57	MG	1H	3404	1/1	0.72	0.06	110,110,110,110	0
57	MG	14	3139	1/1	0.72	0.14	93,93,93,93	0
57	MG	1H	3242	1/1	0.72	0.54	79,79,79,79	0
57	MG	1H	3219	1/1	0.72	0.30	77,77,77,77	0
57	MG	1H	3129	1/1	0.72	0.29	93,93,93,93	0
57	MG	1H	3181	1/1	0.73	0.25	75,75,75,75	0
57	MG	16	208	1/1	0.73	0.09	102,102,102,102	0
57	MG	1H	3228	1/1	0.74	0.40	83,83,83,83	0
57	MG	14	3180	1/1	0.74	0.39	112,112,112,112	0
57	MG	1H	3186	1/1	0.75	0.35	72,72,72,72	0
57	MG	13	1645	1/1	0.75	0.23	89,89,89,89	0
57	MG	14	3156	1/1	0.76	0.43	107,107,107,107	0
57	MG	1H	3224	1/1	0.76	0.52	66,66,66,66	0
57	MG	1H	3152	1/1	0.76	0.38	92,92,92,92	0
57	MG	14	3304	1/1	0.76	0.12	103,103,103,103	0
57	MG	1H	3098	1/1	0.76	0.27	83,83,83,83	0
57	MG	1H	3247	1/1	0.76	0.18	97,97,97,97	0
57	MG	1H	3140	1/1	0.76	0.33	74,74,74,74	0
57	MG	1H	3170	1/1	0.76	0.49	88,88,88,88	0
57	MG	29	302	1/1	0.77	0.17	68,68,68,68	0
57	MG	14	3098	1/1	0.77	0.36	78,78,78,78	0
57	MG	13	1612	1/1	0.77	0.24	84,84,84,84	0
57	MG	1H	3248	1/1	0.77	0.34	76,76,76,76	0
57	MG	1H	3277	1/1	0.77	0.46	89,89,89,89	0
57	MG	14	3307	1/1	0.77	0.15	91,91,91,91	0
57	MG	13	1634	1/1	0.77	0.19	110,110,110,110	0
57	MG	1H	3018	1/1	0.78	0.12	80,80,80,80	0
57	MG	1H	3230	1/1	0.78	0.73	97,97,97,97	0
57	MG	1H	3177	1/1	0.78	0.24	57,57,57,57	0
57	MG	1H	3024	1/1	0.78	0.23	72,72,72,72	0
57	MG	1H	3163	1/1	0.78	0.28	65,65,65,65	0
57	MG	1H	3198	1/1	0.78	0.62	77,77,77,77	0
57	MG	1G	1621	1/1	0.78	0.76	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3204	1/1	0.78	0.94	77,77,77,77	0
57	MG	14	3194	1/1	0.78	0.28	79,79,79,79	0
57	MG	1H	3073	1/1	0.78	0.36	55,55,55,55	0
57	MG	68	201	1/1	0.79	0.37	80,80,80,80	0
57	MG	1H	3078	1/1	0.79	0.15	73,73,73,73	0
57	MG	1H	3064	1/1	0.79	0.26	52,52,52,52	0
57	MG	1H	3244	1/1	0.79	0.53	88,88,88,88	0
57	MG	1H	3423	1/1	0.79	0.09	65,65,65,65	0
57	MG	1H	3271	1/1	0.79	0.59	90,90,90,90	0
57	MG	1G	1661	1/1	0.79	0.16	109,109,109,109	0
57	MG	14	3189	1/1	0.79	0.28	69,69,69,69	0
57	MG	2K	102	1/1	0.79	0.11	111,111,111,111	0
57	MG	1H	3261	1/1	0.79	0.68	80,80,80,80	0
57	MG	14	3310	1/1	0.79	0.10	102,102,102,102	0
57	MG	1H	3164	1/1	0.79	0.31	66,66,66,66	0
57	MG	14	3160	1/1	0.79	0.22	83,83,83,83	0
57	MG	14	3122	1/1	0.80	0.18	76,76,76,76	0
57	MG	14	3135	1/1	0.80	0.37	74,74,74,74	0
57	MG	1H	3172	1/1	0.80	0.39	73,73,73,73	0
57	MG	13	1642	1/1	0.80	0.47	80,80,80,80	0
57	MG	14	3022	1/1	0.80	0.08	89,89,89,89	0
57	MG	14	3111	1/1	0.80	0.34	89,89,89,89	0
57	MG	14	3201	1/1	0.80	0.61	78,78,78,78	0
57	MG	14	3302	1/1	0.80	0.10	106,106,106,106	0
57	MG	14	3174	1/1	0.80	0.86	87,87,87,87	0
57	MG	1H	3236	1/1	0.81	0.37	80,80,80,80	0
57	MG	1H	3191	1/1	0.81	0.62	102,102,102,102	0
57	MG	13	1663	1/1	0.81	0.76	77,77,77,77	0
57	MG	1H	3443	1/1	0.81	0.08	100,100,100,100	0
57	MG	14	3060	1/1	0.81	0.55	83,83,83,83	0
57	MG	1H	3257	1/1	0.81	0.59	90,90,90,90	0
57	MG	14	3112	1/1	0.81	0.38	78,78,78,78	0
57	MG	68	202	1/1	0.81	0.45	91,91,91,91	0
57	MG	1H	3111	1/1	0.81	0.39	71,71,71,71	0
57	MG	14	3271	1/1	0.81	0.13	92,92,92,92	0
57	MG	1H	3059	1/1	0.81	0.28	75,75,75,75	0
57	MG	1H	3269	1/1	0.81	0.69	74,74,74,74	0
57	MG	1H	3274	1/1	0.81	0.88	86,86,86,86	0
57	MG	1H	3427	1/1	0.81	0.07	122,122,122,122	0
57	MG	1H	3251	1/1	0.81	0.58	84,84,84,84	0
57	MG	1H	3136	1/1	0.81	0.22	55,55,55,55	0
57	MG	14	3195	1/1	0.81	0.52	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	ZN	G8	201	1/1	0.81	0.26	176,176,176,176	0
57	MG	14	3083	1/1	0.81	0.41	57,57,57,57	0
57	MG	14	3020	1/1	0.81	0.60	76,76,76,76	0
57	MG	1H	3110	1/1	0.82	0.52	84,84,84,84	0
57	MG	13	1632	1/1	0.82	0.50	74,74,74,74	0
57	MG	1H	3070	1/1	0.82	0.31	64,64,64,64	0
57	MG	14	3327	1/1	0.82	0.08	108,108,108,108	0
57	MG	1G	1658	1/1	0.82	0.13	132,132,132,132	0
57	MG	14	3178	1/1	0.82	0.29	76,76,76,76	0
57	MG	1H	3377	1/1	0.82	0.07	103,103,103,103	0
57	MG	1H	3130	1/1	0.82	0.41	81,81,81,81	0
57	MG	1G	1652	1/1	0.82	0.31	82,82,82,82	0
57	MG	1H	3095	1/1	0.82	0.36	74,74,74,74	0
57	MG	1H	3109	1/1	0.82	0.27	76,76,76,76	0
57	MG	1J	202	1/1	0.82	0.36	74,74,74,74	0
57	MG	1H	3143	1/1	0.82	0.37	64,64,64,64	0
57	MG	14	3143	1/1	0.82	0.16	92,92,92,92	0
57	MG	13	1655	1/1	0.83	0.40	81,81,81,81	0
57	MG	1H	3182	1/1	0.83	0.25	78,78,78,78	0
57	MG	1G	1659	1/1	0.83	0.30	101,101,101,101	0
57	MG	14	3027	1/1	0.83	0.14	94,94,94,94	0
57	MG	1H	3119	1/1	0.83	0.67	62,62,62,62	0
57	MG	1G	1644	1/1	0.83	0.37	90,90,90,90	0
57	MG	13	1652	1/1	0.83	0.16	104,104,104,104	0
57	MG	1H	3178	1/1	0.83	0.19	91,91,91,91	0
57	MG	1G	1620	1/1	0.83	0.50	71,71,71,71	0
57	MG	1H	3087	1/1	0.83	0.31	80,80,80,80	0
57	MG	14	3116	1/1	0.83	0.35	60,60,60,60	0
57	MG	1H	3278	1/1	0.83	0.66	68,68,68,68	0
57	MG	1G	1614	1/1	0.83	0.49	72,72,72,72	0
57	MG	1H	3201	1/1	0.83	0.55	68,68,68,68	0
57	MG	1H	3218	1/1	0.84	0.56	91,91,91,91	0
57	MG	1H	3107	1/1	0.84	0.29	81,81,81,81	0
57	MG	1G	1670	1/1	0.84	0.11	129,129,129,129	0
57	MG	14	3318	1/1	0.84	0.14	84,84,84,84	0
57	MG	1H	3229	1/1	0.84	0.12	72,72,72,72	0
57	MG	14	3125	1/1	0.84	0.58	68,68,68,68	0
57	MG	1H	3099	1/1	0.84	0.09	88,88,88,88	0
57	MG	1G	1657	1/1	0.84	0.76	91,91,91,91	0
57	MG	1H	3138	1/1	0.84	0.11	67,67,67,67	0
57	MG	13	1627	1/1	0.84	0.52	84,84,84,84	0
57	MG	13	1650	1/1	0.84	0.34	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1624	1/1	0.84	0.37	71,71,71,71	0
57	MG	1G	1612	1/1	0.84	0.14	99,99,99,99	0
57	MG	1H	3392	1/1	0.84	0.16	96,96,96,96	0
57	MG	14	3089	1/1	0.85	0.20	56,56,56,56	0
57	MG	1H	3444	1/1	0.85	0.08	96,96,96,96	0
57	MG	1H	3253	1/1	0.85	0.41	67,67,67,67	0
58	ZN	C5	201	1/1	0.85	0.22	187,187,187,187	0
57	MG	11	303	1/1	0.85	0.64	48,48,48,48	0
57	MG	13	1665	1/1	0.85	0.40	86,86,86,86	0
57	MG	1G	1636	1/1	0.85	0.24	96,96,96,96	0
57	MG	1H	3221	1/1	0.85	0.42	79,79,79,79	0
57	MG	1H	3243	1/1	0.85	0.52	65,65,65,65	0
57	MG	1G	1668	1/1	0.85	0.07	120,120,120,120	0
57	MG	1H	3168	1/1	0.85	0.43	100,100,100,100	0
57	MG	14	3084	1/1	0.85	0.18	82,82,82,82	0
57	MG	14	3214	1/1	0.85	0.25	84,84,84,84	0
57	MG	1H	3126	1/1	0.85	0.30	67,67,67,67	0
57	MG	1G	1641	1/1	0.85	0.22	113,113,113,113	0
57	MG	14	3093	1/1	0.85	0.20	62,62,62,62	0
57	MG	14	3157	1/1	0.85	0.76	79,79,79,79	0
57	MG	14	3172	1/1	0.86	0.38	68,68,68,68	0
57	MG	1H	3197	1/1	0.86	0.36	53,53,53,53	0
57	MG	14	3100	1/1	0.86	0.32	82,82,82,82	0
57	MG	1H	3215	1/1	0.86	0.34	79,79,79,79	0
57	MG	11	301	1/1	0.86	0.31	62,62,62,62	0
57	MG	13	1670	1/1	0.86	0.12	101,101,101,101	0
57	MG	1H	3216	1/1	0.86	0.38	75,75,75,75	0
57	MG	1H	3042	1/1	0.86	0.27	77,77,77,77	0
57	MG	14	3185	1/1	0.86	0.70	71,71,71,71	0
57	MG	1H	3154	1/1	0.86	0.37	101,101,101,101	0
57	MG	13	1614	1/1	0.86	0.61	70,70,70,70	0
57	MG	1H	3092	1/1	0.86	0.30	67,67,67,67	0
57	MG	14	3206	1/1	0.86	0.29	78,78,78,78	0
57	MG	1H	3202	1/1	0.86	0.36	84,84,84,84	0
57	MG	1H	3141	1/1	0.86	0.33	81,81,81,81	0
57	MG	14	3169	1/1	0.86	0.32	59,59,59,59	0
57	MG	1H	3116	1/1	0.86	0.18	80,80,80,80	0
57	MG	1H	3196	1/1	0.86	0.29	84,84,84,84	0
57	MG	1H	3075	1/1	0.86	0.46	59,59,59,59	0
57	MG	1G	1611	1/1	0.86	0.11	98,98,98,98	0
57	MG	13	1630	1/1	0.86	0.27	83,83,83,83	0
57	MG	1H	3142	1/1	0.87	0.36	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3171	1/1	0.87	0.56	71,71,71,71	0
57	MG	1H	3088	1/1	0.87	0.25	65,65,65,65	0
57	MG	1H	3414	1/1	0.87	0.09	87,87,87,87	0
57	MG	14	3109	1/1	0.87	0.31	84,84,84,84	0
57	MG	14	3288	1/1	0.87	0.09	108,108,108,108	0
57	MG	14	3299	1/1	0.87	0.05	114,114,114,114	0
57	MG	14	3199	1/1	0.87	0.54	95,95,95,95	0
57	MG	1H	3150	1/1	0.87	0.28	65,65,65,65	0
57	MG	1H	3091	1/1	0.87	0.21	71,71,71,71	0
57	MG	1H	3106	1/1	0.87	0.40	69,69,69,69	0
57	MG	13	1618	1/1	0.87	0.39	63,63,63,63	0
57	MG	13	1696	1/1	0.87	0.05	101,101,101,101	0
57	MG	1H	3151	1/1	0.87	0.39	75,75,75,75	0
57	MG	1H	3400	1/1	0.87	0.08	85,85,85,85	0
57	MG	1H	3227	1/1	0.87	0.67	66,66,66,66	0
57	MG	14	3161	1/1	0.87	0.47	88,88,88,88	0
57	MG	1H	3115	1/1	0.87	0.20	63,63,63,63	0
57	MG	14	3031	1/1	0.87	0.42	73,73,73,73	0
57	MG	1H	3157	1/1	0.87	0.13	89,89,89,89	0
57	MG	14	3294	1/1	0.87	0.09	107,107,107,107	0
57	MG	1H	3121	1/1	0.87	0.55	73,73,73,73	0
57	MG	14	3210	1/1	0.88	0.20	78,78,78,78	0
57	MG	14	3153	1/1	0.88	0.49	87,87,87,87	0
57	MG	13	1646	1/1	0.88	0.18	102,102,102,102	0
57	MG	1H	3390	1/1	0.88	0.08	99,99,99,99	0
57	MG	14	3095	1/1	0.88	0.42	83,83,83,83	0
57	MG	1G	1664	1/1	0.88	0.65	87,87,87,87	0
57	MG	1H	3263	1/1	0.88	0.70	75,75,75,75	0
57	MG	14	3191	1/1	0.88	0.22	72,72,72,72	0
57	MG	14	3217	1/1	0.88	0.11	83,83,83,83	0
57	MG	14	3264	1/1	0.88	0.19	57,57,57,57	0
57	MG	1G	1634	1/1	0.88	0.21	93,93,93,93	0
57	MG	1G	1615	1/1	0.88	0.49	90,90,90,90	0
57	MG	1H	3418	1/1	0.88	0.06	82,82,82,82	0
57	MG	L8	101	1/1	0.88	0.35	70,70,70,70	0
57	MG	14	3203	1/1	0.88	0.42	83,83,83,83	0
57	MG	1H	3082	1/1	0.88	0.29	60,60,60,60	0
57	MG	1G	1623	1/1	0.88	0.53	66,66,66,66	0
57	MG	1H	3160	1/1	0.88	0.39	67,67,67,67	0
57	MG	1H	3114	1/1	0.88	0.40	77,77,77,77	0
57	MG	1H	3060	1/1	0.88	0.29	63,63,63,63	0
57	MG	1H	3233	1/1	0.88	0.80	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3180	1/1	0.88	0.16	80,80,80,80	0
57	MG	1H	3175	1/1	0.88	0.48	64,64,64,64	0
57	MG	1H	3331	1/1	0.88	0.08	74,74,74,74	0
57	MG	13	1677	1/1	0.89	0.14	98,98,98,98	0
57	MG	14	3260	1/1	0.89	0.09	86,86,86,86	0
57	MG	13	1672	1/1	0.89	0.88	84,84,84,84	0
57	MG	14	3283	1/1	0.89	0.14	74,74,74,74	0
57	MG	14	3219	1/1	0.89	0.56	81,81,81,81	0
57	MG	14	3092	1/1	0.89	0.77	79,79,79,79	0
57	MG	14	3090	1/1	0.89	0.20	77,77,77,77	0
57	MG	1H	3025	1/1	0.89	0.18	66,66,66,66	0
57	MG	1H	3354	1/1	0.89	0.20	66,66,66,66	0
57	MG	1H	3179	1/1	0.89	0.41	81,81,81,81	0
57	MG	13	1628	1/1	0.89	0.19	90,90,90,90	0
57	MG	1G	1642	1/1	0.89	0.26	93,93,93,93	0
57	MG	14	3074	1/1	0.89	0.27	82,82,82,82	0
57	MG	1H	3226	1/1	0.89	0.42	70,70,70,70	0
57	MG	14	3182	1/1	0.89	0.24	84,84,84,84	0
57	MG	14	3096	1/1	0.89	0.35	70,70,70,70	0
57	MG	14	3041	1/1	0.89	0.24	60,60,60,60	0
57	MG	14	3229	1/1	0.89	0.09	82,82,82,82	0
57	MG	16	203	1/1	0.89	0.10	98,98,98,98	0
57	MG	1H	3068	1/1	0.89	0.10	63,63,63,63	0
57	MG	3E	301	1/1	0.89	0.13	127,127,127,127	0
57	MG	14	3244	1/1	0.89	0.10	93,93,93,93	0
57	MG	1H	3062	1/1	0.89	0.61	78,78,78,78	0
57	MG	16	204	1/1	0.89	0.10	78,78,78,78	0
57	MG	14	3292	1/1	0.89	0.08	91,91,91,91	0
57	MG	14	3325	1/1	0.89	0.10	104,104,104,104	0
57	MG	1H	3076	1/1	0.89	0.28	77,77,77,77	0
57	MG	16	211	1/1	0.89	0.07	99,99,99,99	0
57	MG	13	1687	1/1	0.89	0.08	103,103,103,103	0
57	MG	13	1633	1/1	0.89	0.39	90,90,90,90	0
57	MG	1H	3184	1/1	0.89	0.34	86,86,86,86	0
57	MG	1H	3090	1/1	0.89	0.33	47,47,47,47	0
57	MG	1H	3012	1/1	0.89	0.39	69,69,69,69	0
57	MG	1H	3069	1/1	0.89	0.15	69,69,69,69	0
57	MG	14	3196	1/1	0.89	0.37	86,86,86,86	0
57	MG	1H	3146	1/1	0.89	0.51	80,80,80,80	0
57	MG	14	3228	1/1	0.89	0.08	69,69,69,69	0
57	MG	14	3198	1/1	0.89	0.66	86,86,86,86	0
57	MG	1H	3256	1/1	0.89	0.52	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1615	1/1	0.89	0.34	85,85,85,85	0
57	MG	1H	3382	1/1	0.89	0.07	74,74,74,74	0
57	MG	14	3296	1/1	0.90	0.12	110,110,110,110	0
57	MG	1H	3173	1/1	0.90	0.57	99,99,99,99	0
57	MG	14	3234	1/1	0.90	0.12	86,86,86,86	0
57	MG	1H	3396	1/1	0.90	0.07	80,80,80,80	0
57	MG	1G	1654	1/1	0.90	0.38	92,92,92,92	0
57	MG	1H	3166	1/1	0.90	0.41	75,75,75,75	0
57	MG	13	1619	1/1	0.90	0.28	72,72,72,72	0
57	MG	14	3132	1/1	0.90	0.29	81,81,81,81	0
57	MG	1G	1622	1/1	0.90	0.41	80,80,80,80	0
57	MG	14	3036	1/1	0.90	0.38	64,64,64,64	0
57	MG	1H	3267	1/1	0.90	0.34	106,106,106,106	0
57	MG	1G	1653	1/1	0.90	0.26	91,91,91,91	0
57	MG	1H	3320	1/1	0.90	0.14	76,76,76,76	0
57	MG	14	3263	1/1	0.90	0.06	99,99,99,99	0
57	MG	14	3257	1/1	0.90	0.12	89,89,89,89	0
57	MG	14	3207	1/1	0.90	0.33	70,70,70,70	0
57	MG	1H	3254	1/1	0.90	0.44	94,94,94,94	0
57	MG	13	1640	1/1	0.90	0.08	141,141,141,141	0
57	MG	13	1657	1/1	0.90	0.24	129,129,129,129	0
57	MG	14	3047	1/1	0.90	0.43	56,56,56,56	0
57	MG	13	1673	1/1	0.90	0.32	87,87,87,87	0
57	MG	13	1616	1/1	0.90	0.38	93,93,93,93	0
57	MG	14	3117	1/1	0.90	0.37	80,80,80,80	0
57	MG	1G	1626	1/1	0.90	0.28	81,81,81,81	0
57	MG	14	3148	1/1	0.90	0.31	93,93,93,93	0
57	MG	1H	3183	1/1	0.90	0.60	87,87,87,87	0
57	MG	13	1699	1/1	0.90	0.07	119,119,119,119	0
57	MG	1H	3316	1/1	0.90	0.08	75,75,75,75	0
57	MG	1H	3135	1/1	0.90	0.28	74,74,74,74	0
57	MG	1H	3123	1/1	0.90	0.28	58,58,58,58	0
57	MG	14	3197	1/1	0.90	0.32	78,78,78,78	0
57	MG	1H	3371	1/1	0.90	0.13	66,66,66,66	0
57	MG	13	1638	1/1	0.90	0.56	84,84,84,84	0
57	MG	14	3278	1/1	0.90	0.04	109,109,109,109	0
57	MG	11	302	1/1	0.90	0.35	48,48,48,48	0
57	MG	13	1643	1/1	0.90	0.23	91,91,91,91	0
57	MG	1H	3239	1/1	0.91	0.52	71,71,71,71	0
57	MG	13	1698	1/1	0.91	0.11	105,105,105,105	0
57	MG	13	1647	1/1	0.91	0.31	81,81,81,81	0
57	MG	1H	3037	1/1	0.91	0.37	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3137	1/1	0.91	0.12	76,76,76,76	0
57	MG	14	3141	1/1	0.91	0.29	67,67,67,67	0
57	MG	14	3175	1/1	0.91	0.31	75,75,75,75	0
57	MG	1H	3348	1/1	0.91	0.12	90,90,90,90	0
57	MG	13	1656	1/1	0.91	0.18	96,96,96,96	0
57	MG	1H	3385	1/1	0.91	0.08	112,112,112,112	0
57	MG	13	1649	1/1	0.91	0.07	97,97,97,97	0
57	MG	14	3150	1/1	0.91	0.23	79,79,79,79	0
57	MG	1H	3275	1/1	0.91	0.21	63,63,63,63	0
57	MG	1G	1665	1/1	0.91	0.07	117,117,117,117	0
57	MG	1H	3386	1/1	0.91	0.06	96,96,96,96	0
57	MG	1H	3250	1/1	0.91	0.29	71,71,71,71	0
57	MG	1H	3279	1/1	0.91	0.27	78,78,78,78	0
57	MG	1H	3223	1/1	0.91	0.31	63,63,63,63	0
57	MG	1H	3203	1/1	0.91	0.28	62,62,62,62	0
57	MG	14	3312	1/1	0.91	0.09	115,115,115,115	0
57	MG	1H	3346	1/1	0.91	0.09	58,58,58,58	0
57	MG	13	1689	1/1	0.91	0.10	115,115,115,115	0
57	MG	14	3119	1/1	0.91	0.24	67,67,67,67	0
57	MG	1H	3147	1/1	0.91	0.16	74,74,74,74	0
57	MG	1H	3235	1/1	0.91	0.52	69,69,69,69	0
57	MG	1H	3101	1/1	0.91	0.41	70,70,70,70	0
57	MG	1H	3089	1/1	0.91	0.29	74,74,74,74	0
57	MG	14	3277	1/1	0.91	0.07	98,98,98,98	0
57	MG	14	3044	1/1	0.91	0.29	82,82,82,82	0
57	MG	1H	3085	1/1	0.91	0.15	58,58,58,58	0
57	MG	1H	3205	1/1	0.92	0.64	73,73,73,73	0
57	MG	14	3043	1/1	0.92	0.29	71,71,71,71	0
57	MG	1H	3402	1/1	0.92	0.10	88,88,88,88	0
57	MG	13	1623	1/1	0.92	0.21	77,77,77,77	0
57	MG	1H	3124	1/1	0.92	0.12	61,61,61,61	0
57	MG	1H	3276	1/1	0.92	0.37	67,67,67,67	0
57	MG	13	1674	1/1	0.92	0.13	83,83,83,83	0
57	MG	1H	3023	1/1	0.92	0.18	68,68,68,68	0
57	MG	13	1639	1/1	0.92	0.61	83,83,83,83	0
57	MG	16	206	1/1	0.92	0.32	83,83,83,83	0
57	MG	1H	3379	1/1	0.92	0.12	83,83,83,83	0
57	MG	1H	3034	1/1	0.92	0.18	62,62,62,62	0
57	MG	1H	3220	1/1	0.92	0.40	62,62,62,62	0
57	MG	14	3186	1/1	0.92	0.35	75,75,75,75	0
57	MG	1H	3388	1/1	0.92	0.09	75,75,75,75	0
57	MG	13	1660	1/1	0.92	0.28	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3077	1/1	0.92	0.51	65,65,65,65	0
57	MG	1H	3391	1/1	0.92	0.07	91,91,91,91	0
57	MG	1G	1608	1/1	0.92	0.31	88,88,88,88	0
57	MG	1G	1646	1/1	0.92	0.16	117,117,117,117	0
57	MG	1H	3194	1/1	0.92	0.13	83,83,83,83	0
57	MG	1H	3300	1/1	0.92	0.08	68,68,68,68	0
57	MG	1H	3158	1/1	0.92	0.35	59,59,59,59	0
57	MG	1H	3195	1/1	0.92	0.89	70,70,70,70	0
57	MG	1H	3043	1/1	0.92	0.14	75,75,75,75	0
57	MG	16	201	1/1	0.92	0.17	90,90,90,90	0
57	MG	35	201	1/1	0.92	0.14	77,77,77,77	0
57	MG	14	3097	1/1	0.92	0.10	62,62,62,62	0
57	MG	1H	3287	1/1	0.92	0.10	71,71,71,71	0
57	MG	14	3025	1/1	0.92	0.23	95,95,95,95	0
57	MG	14	3184	1/1	0.92	0.65	75,75,75,75	0
57	MG	13	1624	1/1	0.92	0.17	84,84,84,84	0
57	MG	I8	101	1/1	0.92	0.08	91,91,91,91	0
57	MG	1H	3171	1/1	0.92	0.47	84,84,84,84	0
57	MG	41	201	1/1	0.92	0.09	82,82,82,82	0
57	MG	1H	3083	1/1	0.92	0.31	61,61,61,61	0
57	MG	14	3105	1/1	0.92	0.23	89,89,89,89	0
57	MG	14	3315	1/1	0.92	0.10	80,80,80,80	0
57	MG	14	3048	1/1	0.92	0.27	59,59,59,59	0
57	MG	14	3243	1/1	0.92	0.11	74,74,74,74	0
57	MG	1H	3017	1/1	0.92	0.20	81,81,81,81	0
57	MG	1G	1645	1/1	0.92	0.20	107,107,107,107	0
57	MG	1H	3315	1/1	0.92	0.21	81,81,81,81	0
57	MG	1H	3021	1/1	0.92	0.36	62,62,62,62	0
57	MG	1H	3416	1/1	0.92	0.09	81,81,81,81	0
57	MG	1H	3308	1/1	0.92	0.05	91,91,91,91	0
57	MG	1H	3398	1/1	0.92	0.07	98,98,98,98	0
57	MG	1H	3268	1/1	0.92	0.17	96,96,96,96	0
57	MG	13	1683	1/1	0.92	0.11	96,96,96,96	0
57	MG	1G	1660	1/1	0.92	0.23	124,124,124,124	0
57	MG	1G	1605	1/1	0.92	0.10	104,104,104,104	0
57	MG	1H	3210	1/1	0.93	0.15	70,70,70,70	0
57	MG	1H	3397	1/1	0.93	0.15	76,76,76,76	0
57	MG	14	3220	1/1	0.93	0.26	84,84,84,84	0
57	MG	1H	3222	1/1	0.93	0.63	81,81,81,81	0
57	MG	14	3183	1/1	0.93	0.40	77,77,77,77	0
57	MG	14	3306	1/1	0.93	0.07	82,82,82,82	0
57	MG	14	3223	1/1	0.93	0.13	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3217	1/1	0.93	0.36	97,97,97,97	0
57	MG	1G	1633	1/1	0.93	0.09	141,141,141,141	0
57	MG	1H	3122	1/1	0.93	0.39	81,81,81,81	0
57	MG	13	1666	1/1	0.93	0.23	116,116,116,116	0
57	MG	78	201	1/1	0.93	0.26	60,60,60,60	0
57	MG	4E	201	1/1	0.93	0.46	88,88,88,88	0
57	MG	14	3032	1/1	0.93	0.38	98,98,98,98	0
57	MG	14	3127	1/1	0.93	0.22	77,77,77,77	0
57	MG	14	3308	1/1	0.93	0.07	106,106,106,106	0
57	MG	1H	3237	1/1	0.93	0.51	64,64,64,64	0
57	MG	1H	3249	1/1	0.93	0.24	79,79,79,79	0
57	MG	1H	3326	1/1	0.93	0.11	105,105,105,105	0
57	MG	14	3246	1/1	0.93	0.09	96,96,96,96	0
57	MG	1H	3265	1/1	0.93	0.20	83,83,83,83	0
57	MG	14	3293	1/1	0.93	0.08	84,84,84,84	0
57	MG	14	3326	1/1	0.93	0.09	104,104,104,104	0
57	MG	14	3140	1/1	0.93	0.20	54,54,54,54	0
57	MG	1H	3071	1/1	0.93	0.27	66,66,66,66	0
57	MG	1H	3156	1/1	0.93	0.31	81,81,81,81	0
57	MG	1G	1606	1/1	0.93	0.22	92,92,92,92	0
57	MG	1H	3439	1/1	0.93	0.15	65,65,65,65	0
57	MG	14	3323	1/1	0.93	0.11	73,73,73,73	0
57	MG	1H	3131	1/1	0.93	0.31	67,67,67,67	0
57	MG	13	1635	1/1	0.93	0.20	92,92,92,92	0
57	MG	14	3114	1/1	0.93	0.46	88,88,88,88	0
57	MG	14	3046	1/1	0.93	0.44	61,61,61,61	0
57	MG	1G	1613	1/1	0.93	0.17	89,89,89,89	0
57	MG	1H	3022	1/1	0.93	0.23	64,64,64,64	0
57	MG	14	3215	1/1	0.93	0.28	97,97,97,97	0
57	MG	1H	3231	1/1	0.93	0.44	79,79,79,79	0
57	MG	1G	1610	1/1	0.93	0.20	111,111,111,111	0
57	MG	14	3162	1/1	0.93	0.19	102,102,102,102	0
57	MG	1H	3241	1/1	0.93	0.37	73,73,73,73	0
57	MG	14	3254	1/1	0.93	0.17	69,69,69,69	0
57	MG	14	3013	1/1	0.93	0.37	55,55,55,55	0
57	MG	1G	1616	1/1	0.93	0.20	105,105,105,105	0
57	MG	1H	3441	1/1	0.93	0.13	70,70,70,70	0
57	MG	14	3250	1/1	0.93	0.12	56,56,56,56	0
57	MG	1H	3097	1/1	0.93	0.41	93,93,93,93	0
57	MG	1H	3434	1/1	0.93	0.14	68,68,68,68	0
57	MG	1H	3145	1/1	0.93	0.66	66,66,66,66	0
57	MG	1G	1639	1/1	0.93	0.15	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3190	1/1	0.93	0.46	72,72,72,72	0
57	MG	13	1611	1/1	0.93	0.18	107,107,107,107	0
57	MG	13	1621	1/1	0.93	0.22	88,88,88,88	0
57	MG	1J	203	1/1	0.93	0.36	90,90,90,90	0
57	MG	1H	3011	1/1	0.93	0.55	63,63,63,63	0
57	MG	1H	3324	1/1	0.93	0.05	76,76,76,76	0
57	MG	1H	3245	1/1	0.93	0.49	96,96,96,96	0
57	MG	1H	3318	1/1	0.93	0.12	55,55,55,55	0
57	MG	1H	3207	1/1	0.93	0.37	80,80,80,80	0
57	MG	13	1610	1/1	0.93	0.24	72,72,72,72	0
57	MG	14	3039	1/1	0.93	0.59	75,75,75,75	0
57	MG	14	3061	1/1	0.93	0.56	67,67,67,67	0
57	MG	1H	3258	1/1	0.93	0.41	86,86,86,86	0
57	MG	14	3181	1/1	0.93	0.44	85,85,85,85	0
57	MG	1H	3289	1/1	0.93	0.10	48,48,48,48	0
57	MG	14	3063	1/1	0.93	0.25	80,80,80,80	0
57	MG	14	3075	1/1	0.94	0.26	103,103,103,103	0
57	MG	1H	3117	1/1	0.94	0.23	74,74,74,74	0
57	MG	98	201	1/1	0.94	0.44	70,70,70,70	0
57	MG	14	3238	1/1	0.94	0.13	76,76,76,76	0
57	MG	1H	3125	1/1	0.94	0.46	77,77,77,77	0
57	MG	1H	3411	1/1	0.94	0.09	133,133,133,133	0
57	MG	14	3227	1/1	0.94	0.13	64,64,64,64	0
57	MG	13	1608	1/1	0.94	0.15	88,88,88,88	0
57	MG	14	3205	1/1	0.94	0.62	80,80,80,80	0
57	MG	1H	3084	1/1	0.94	0.15	53,53,53,53	0
57	MG	13	1617	1/1	0.94	0.62	70,70,70,70	0
57	MG	1H	3234	1/1	0.94	0.56	86,86,86,86	0
57	MG	1G	1650	1/1	0.94	0.31	86,86,86,86	0
57	MG	14	3088	1/1	0.94	0.30	76,76,76,76	0
57	MG	1H	3419	1/1	0.94	0.10	83,83,83,83	0
57	MG	1H	3104	1/1	0.94	0.30	69,69,69,69	0
57	MG	1H	3328	1/1	0.94	0.05	91,91,91,91	0
57	MG	1H	3406	1/1	0.94	0.12	106,106,106,106	0
57	MG	14	3134	1/1	0.94	0.14	72,72,72,72	0
57	MG	16	210	1/1	0.94	0.05	88,88,88,88	0
57	MG	1H	3189	1/1	0.94	0.26	70,70,70,70	0
57	MG	14	3021	1/1	0.94	0.40	65,65,65,65	0
57	MG	14	3239	1/1	0.94	0.09	92,92,92,92	0
57	MG	1H	3035	1/1	0.94	0.18	64,64,64,64	0
57	MG	13	1676	1/1	0.94	0.11	110,110,110,110	0
57	MG	14	3281	1/1	0.94	0.09	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3417	1/1	0.94	0.07	73,73,73,73	0
57	MG	14	3128	1/1	0.94	0.16	98,98,98,98	0
57	MG	1H	3408	1/1	0.94	0.07	67,67,67,67	0
57	MG	1H	3415	1/1	0.94	0.09	105,105,105,105	0
57	MG	14	3290	1/1	0.94	0.03	114,114,114,114	0
57	MG	14	3268	1/1	0.94	0.11	84,84,84,84	0
57	MG	1G	1625	1/1	0.94	0.42	81,81,81,81	0
57	MG	14	3058	1/1	0.94	0.32	77,77,77,77	0
57	MG	14	3026	1/1	0.94	0.07	83,83,83,83	0
57	MG	1H	3159	1/1	0.94	0.46	67,67,67,67	0
57	MG	1H	3403	1/1	0.94	0.11	76,76,76,76	0
57	MG	14	3245	1/1	0.94	0.04	99,99,99,99	0
57	MG	14	3023	1/1	0.94	0.33	50,50,50,50	0
57	MG	1H	3357	1/1	0.94	0.05	77,77,77,77	0
57	MG	1H	3103	1/1	0.94	0.23	80,80,80,80	0
57	MG	1H	3272	1/1	0.94	0.35	71,71,71,71	0
57	MG	14	3104	1/1	0.94	0.48	68,68,68,68	0
57	MG	1H	3094	1/1	0.94	0.36	60,60,60,60	0
57	MG	14	3113	1/1	0.94	0.22	76,76,76,76	0
57	MG	29	301	1/1	0.94	0.34	67,67,67,67	0
57	MG	1G	1607	1/1	0.94	0.12	98,98,98,98	0
57	MG	13	1637	1/1	0.94	0.17	105,105,105,105	0
57	MG	1H	3384	1/1	0.94	0.08	68,68,68,68	0
57	MG	1G	1628	1/1	0.94	0.17	108,108,108,108	0
57	MG	1G	1647	1/1	0.94	0.56	101,101,101,101	0
57	MG	13	1685	1/1	0.94	0.13	93,93,93,93	0
57	MG	1H	3282	1/1	0.94	0.09	65,65,65,65	0
57	MG	1H	3336	1/1	0.94	0.10	67,67,67,67	0
57	MG	13	1669	1/1	0.94	0.40	79,79,79,79	0
57	MG	J8	102	1/1	0.94	0.19	68,68,68,68	0
57	MG	1H	3280	1/1	0.94	0.44	72,72,72,72	0
57	MG	1H	3273	1/1	0.94	0.61	85,85,85,85	0
57	MG	1H	3108	1/1	0.94	0.99	73,73,73,73	0
57	MG	14	3230	1/1	0.94	0.10	65,65,65,65	0
57	MG	14	3311	1/1	0.94	0.11	78,78,78,78	0
57	MG	1H	3086	1/1	0.94	0.46	48,48,48,48	0
57	MG	13	1668	1/1	0.94	0.17	119,119,119,119	0
57	MG	1H	3120	1/1	0.94	0.42	56,56,56,56	0
57	MG	1H	3337	1/1	0.94	0.10	65,65,65,65	0
57	MG	1H	3317	1/1	0.94	0.12	76,76,76,76	0
57	MG	14	3303	1/1	0.94	0.06	85,85,85,85	0
57	MG	41	202	1/1	0.94	0.18	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1637	1/1	0.94	0.47	85,85,85,85	0
57	MG	P8	101	1/1	0.94	0.41	65,65,65,65	0
57	MG	1H	3050	1/1	0.94	0.19	68,68,68,68	0
57	MG	14	3313	1/1	0.94	0.06	101,101,101,101	0
57	MG	1H	3016	1/1	0.94	0.24	71,71,71,71	0
57	MG	1H	3356	1/1	0.95	0.07	81,81,81,81	0
57	MG	1H	3296	1/1	0.95	0.13	51,51,51,51	0
57	MG	14	3115	1/1	0.95	0.39	71,71,71,71	0
57	MG	14	3080	1/1	0.95	0.41	89,89,89,89	0
57	MG	14	3163	1/1	0.95	0.49	72,72,72,72	0
57	MG	1H	3284	1/1	0.95	0.12	51,51,51,51	0
57	MG	14	3053	1/1	0.95	0.39	64,64,64,64	0
57	MG	1H	3380	1/1	0.95	0.07	57,57,57,57	0
57	MG	1H	3187	1/1	0.95	0.88	81,81,81,81	0
57	MG	1H	3310	1/1	0.95	0.09	91,91,91,91	0
57	MG	1H	3342	1/1	0.95	0.17	63,63,63,63	0
57	MG	1H	3067	1/1	0.95	0.33	70,70,70,70	0
57	MG	1H	3344	1/1	0.95	0.12	57,57,57,57	0
57	MG	1H	3367	1/1	0.95	0.12	90,90,90,90	0
57	MG	1H	3374	1/1	0.95	0.07	83,83,83,83	0
57	MG	1H	3311	1/1	0.95	0.08	70,70,70,70	0
57	MG	1H	3322	1/1	0.95	0.12	74,74,74,74	0
57	MG	13	1692	1/1	0.95	0.06	100,100,100,100	0
57	MG	13	1607	1/1	0.95	0.22	88,88,88,88	0
57	MG	1H	3080	1/1	0.95	0.25	81,81,81,81	0
57	MG	14	3154	1/1	0.95	0.43	59,59,59,59	0
57	MG	14	3101	1/1	0.95	0.42	84,84,84,84	0
57	MG	1H	3139	1/1	0.95	0.55	62,62,62,62	0
57	MG	1H	3214	1/1	0.95	0.45	55,55,55,55	0
57	MG	1H	3407	1/1	0.95	0.09	77,77,77,77	0
57	MG	1H	3368	1/1	0.95	0.08	65,65,65,65	0
57	MG	1H	3105	1/1	0.95	0.13	81,81,81,81	0
57	MG	1G	1630	1/1	0.95	0.17	102,102,102,102	0
57	MG	1H	3019	1/1	0.95	0.30	72,72,72,72	0
57	MG	1H	3294	1/1	0.95	0.07	65,65,65,65	0
57	MG	1H	3193	1/1	0.95	0.35	65,65,65,65	0
57	MG	14	3145	1/1	0.95	0.59	64,64,64,64	0
57	MG	1G	1603	1/1	0.95	0.34	77,77,77,77	0
57	MG	14	3279	1/1	0.95	0.10	69,69,69,69	0
57	MG	14	3209	1/1	0.95	0.26	84,84,84,84	0
57	MG	78	202	1/1	0.95	0.33	84,84,84,84	0
57	MG	1H	3372	1/1	0.95	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1680	1/1	0.95	0.09	91,91,91,91	0
57	MG	1H	3307	1/1	0.95	0.05	114,114,114,114	0
57	MG	14	3082	1/1	0.95	0.23	63,63,63,63	0
57	MG	14	3273	1/1	0.95	0.10	69,69,69,69	0
57	MG	1H	3394	1/1	0.95	0.07	83,83,83,83	0
57	MG	14	3193	1/1	0.95	0.85	78,78,78,78	0
57	MG	1H	3313	1/1	0.95	0.06	84,84,84,84	0
57	MG	1H	3281	1/1	0.95	0.11	55,55,55,55	0
57	MG	1H	3185	1/1	0.95	0.08	121,121,121,121	0
57	MG	1H	3093	1/1	0.95	0.25	69,69,69,69	0
57	MG	14	3091	1/1	0.95	0.54	69,69,69,69	0
57	MG	14	3158	1/1	0.95	0.10	94,94,94,94	0
57	MG	1H	3054	1/1	0.95	0.50	41,41,41,41	0
57	MG	14	3282	1/1	0.95	0.05	92,92,92,92	0
57	MG	14	3192	1/1	0.95	0.37	74,74,74,74	0
57	MG	55	201	1/1	0.95	0.18	57,57,57,57	0
57	MG	14	3076	1/1	0.95	0.20	80,80,80,80	0
57	MG	13	1609	1/1	0.95	0.17	82,82,82,82	0
57	MG	14	3035	1/1	0.95	0.38	59,59,59,59	0
57	MG	14	3187	1/1	0.95	0.35	81,81,81,81	0
57	MG	13	1613	1/1	0.95	0.48	74,74,74,74	0
57	MG	1H	3440	1/1	0.95	0.15	64,64,64,64	0
57	MG	1H	3343	1/1	0.95	0.09	57,57,57,57	0
57	MG	14	3065	1/1	0.95	0.33	58,58,58,58	0
57	MG	1H	3335	1/1	0.95	0.17	74,74,74,74	0
57	MG	14	3085	1/1	0.95	0.23	64,64,64,64	0
57	MG	1H	3134	1/1	0.95	0.47	62,62,62,62	0
57	MG	1H	3206	1/1	0.95	0.65	73,73,73,73	0
57	MG	1H	3420	1/1	0.95	0.12	60,60,60,60	0
57	MG	14	3126	1/1	0.95	0.37	66,66,66,66	0
57	MG	14	3144	1/1	0.95	0.42	72,72,72,72	0
57	MG	14	3258	1/1	0.95	0.15	80,80,80,80	0
57	MG	14	3033	1/1	0.95	0.20	74,74,74,74	0
57	MG	14	3017	1/1	0.95	0.15	75,75,75,75	0
57	MG	13	1678	1/1	0.95	0.05	106,106,106,106	0
57	MG	14	3231	1/1	0.95	0.18	66,66,66,66	0
57	MG	1H	3361	1/1	0.95	0.05	95,95,95,95	0
57	MG	14	3287	1/1	0.95	0.14	101,101,101,101	0
57	MG	14	3235	1/1	0.95	0.18	66,66,66,66	0
57	MG	13	1686	1/1	0.95	0.13	89,89,89,89	0
57	MG	14	3237	1/1	0.95	0.10	69,69,69,69	0
57	MG	1H	3015	1/1	0.95	0.23	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3034	1/1	0.95	0.18	82,82,82,82	0
57	MG	14	3012	1/1	0.95	0.59	60,60,60,60	0
57	MG	1H	3133	1/1	0.95	0.20	54,54,54,54	0
57	MG	14	3045	1/1	0.95	0.30	66,66,66,66	0
57	MG	1H	3036	1/1	0.96	0.27	57,57,57,57	0
57	MG	1H	3426	1/1	0.96	0.07	97,97,97,97	0
57	MG	14	3010	1/1	0.96	0.33	58,58,58,58	0
57	MG	1H	3437	1/1	0.96	0.13	64,64,64,64	0
57	MG	1H	3046	1/1	0.96	0.46	75,75,75,75	0
57	MG	1H	3431	1/1	0.96	0.13	66,66,66,66	0
57	MG	1G	1640	1/1	0.96	0.04	107,107,107,107	0
57	MG	1G	1669	1/1	0.96	0.10	129,129,129,129	0
57	MG	1H	3327	1/1	0.96	0.11	81,81,81,81	0
57	MG	13	1651	1/1	0.96	0.09	110,110,110,110	0
57	MG	14	3062	1/1	0.96	0.29	70,70,70,70	0
57	MG	14	3070	1/1	0.96	0.30	74,74,74,74	0
57	MG	13	1636	1/1	0.96	0.08	103,103,103,103	0
57	MG	13	1644	1/1	0.96	0.40	78,78,78,78	0
57	MG	1H	3200	1/1	0.96	0.22	73,73,73,73	0
57	MG	1G	1629	1/1	0.96	0.18	96,96,96,96	0
57	MG	14	3297	1/1	0.96	0.07	92,92,92,92	0
57	MG	13	1648	1/1	0.96	0.32	84,84,84,84	0
57	MG	14	3241	1/1	0.96	0.12	69,69,69,69	0
57	MG	14	3138	1/1	0.96	0.45	74,74,74,74	0
57	MG	14	3133	1/1	0.96	0.21	77,77,77,77	0
57	MG	14	3317	1/1	0.96	0.07	76,76,76,76	0
57	MG	14	3266	1/1	0.96	0.11	73,73,73,73	0
57	MG	14	3056	1/1	0.96	0.22	65,65,65,65	0
57	MG	13	1625	1/1	0.96	0.37	80,80,80,80	0
57	MG	13	1601	1/1	0.96	0.25	82,82,82,82	0
57	MG	1H	3137	1/1	0.96	0.32	62,62,62,62	0
57	MG	1H	3304	1/1	0.96	0.07	76,76,76,76	0
57	MG	1H	3389	1/1	0.96	0.09	87,87,87,87	0
57	MG	14	3028	1/1	0.96	0.39	67,67,67,67	0
57	MG	14	3262	1/1	0.96	0.21	55,55,55,55	0
57	MG	14	3232	1/1	0.96	0.09	67,67,67,67	0
57	MG	1H	3364	1/1	0.96	0.10	93,93,93,93	0
57	MG	13	1682	1/1	0.96	0.16	84,84,84,84	0
57	MG	1H	3048	1/1	0.96	0.30	69,69,69,69	0
57	MG	1H	3264	1/1	0.96	0.32	65,65,65,65	0
57	MG	14	3014	1/1	0.96	0.31	72,72,72,72	0
57	MG	1H	3153	1/1	0.96	0.63	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3329	1/1	0.96	0.08	80,80,80,80	0
57	MG	1H	3112	1/1	0.96	0.42	76,76,76,76	0
57	MG	1H	3393	1/1	0.96	0.10	58,58,58,58	0
57	MG	1G	1671	1/1	0.96	0.12	117,117,117,117	0
57	MG	1H	3209	1/1	0.96	0.27	76,76,76,76	0
57	MG	1H	3432	1/1	0.96	0.11	56,56,56,56	0
57	MG	1H	3425	1/1	0.96	0.09	110,110,110,110	0
57	MG	1H	3211	1/1	0.96	0.32	78,78,78,78	0
57	MG	1H	3001	1/1	0.96	0.62	83,83,83,83	0
57	MG	14	3081	1/1	0.96	0.20	94,94,94,94	0
57	MG	14	3149	1/1	0.96	0.31	96,96,96,96	0
57	MG	1H	3113	1/1	0.96	0.28	81,81,81,81	0
57	MG	1H	3401	1/1	0.96	0.05	80,80,80,80	0
57	MG	1H	3351	1/1	0.96	0.06	79,79,79,79	0
57	MG	1H	3044	1/1	0.96	0.24	60,60,60,60	0
57	MG	13	1606	1/1	0.96	0.17	83,83,83,83	0
57	MG	1H	3363	1/1	0.96	0.10	69,69,69,69	0
57	MG	14	3130	1/1	0.96	0.19	84,84,84,84	0
57	MG	13	1620	1/1	0.96	0.20	61,61,61,61	0
57	MG	14	3255	1/1	0.96	0.11	72,72,72,72	0
57	MG	14	3309	1/1	0.96	0.11	86,86,86,86	0
57	MG	1G	1618	1/1	0.96	0.27	100,100,100,100	0
57	MG	14	3118	1/1	0.96	0.16	58,58,58,58	0
57	MG	14	3316	1/1	0.96	0.07	88,88,88,88	0
57	MG	1H	3291	1/1	0.96	0.14	56,56,56,56	0
57	MG	1H	3295	1/1	0.96	0.09	76,76,76,76	0
57	MG	14	3204	1/1	0.96	0.30	71,71,71,71	0
57	MG	1H	3056	1/1	0.96	0.18	46,46,46,46	0
57	MG	4I	201	1/1	0.96	0.06	97,97,97,97	0
57	MG	14	3222	1/1	0.96	0.16	62,62,62,62	0
57	MG	13	1605	1/1	0.96	0.19	75,75,75,75	0
57	MG	1H	3299	1/1	0.96	0.13	49,49,49,49	0
57	MG	1H	3260	1/1	0.96	0.48	71,71,71,71	0
57	MG	14	3110	1/1	0.96	0.24	82,82,82,82	0
58	ZN	3E	302	1/1	0.96	0.32	95,95,95,95	0
57	MG	1H	3340	1/1	0.96	0.14	64,64,64,64	0
57	MG	1H	3058	1/1	0.96	0.11	71,71,71,71	0
57	MG	14	3106	1/1	0.96	0.64	86,86,86,86	0
57	MG	13	1675	1/1	0.96	0.14	70,70,70,70	0
57	MG	14	3120	1/1	0.96	0.34	49,49,49,49	0
57	MG	1G	1649	1/1	0.96	0.42	70,70,70,70	0
57	MG	14	3270	1/1	0.96	0.08	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3298	1/1	0.96	0.14	65,65,65,65	0
57	MG	1H	3031	1/1	0.96	0.29	87,87,87,87	0
57	MG	13	1690	1/1	0.96	0.10	83,83,83,83	0
57	MG	1H	3435	1/1	0.96	0.20	90,90,90,90	0
57	MG	14	3233	1/1	0.96	0.15	82,82,82,82	0
57	MG	1H	3369	1/1	0.96	0.16	60,60,60,60	0
57	MG	13	1641	1/1	0.96	0.37	74,74,74,74	0
57	MG	14	3322	1/1	0.96	0.14	79,79,79,79	0
57	MG	1H	3049	1/1	0.96	0.16	58,58,58,58	0
57	MG	14	3040	1/1	0.96	0.42	62,62,62,62	0
57	MG	14	3087	1/1	0.96	0.38	76,76,76,76	0
57	MG	1G	1627	1/1	0.96	0.30	103,103,103,103	0
57	MG	1H	3161	1/1	0.96	0.27	71,71,71,71	0
57	MG	1H	3266	1/1	0.96	0.35	85,85,85,85	0
57	MG	14	3324	1/1	0.96	0.11	77,77,77,77	0
57	MG	14	3298	1/1	0.96	0.08	78,78,78,78	0
57	MG	1H	3238	1/1	0.96	0.39	101,101,101,101	0
57	MG	14	3236	1/1	0.96	0.12	63,63,63,63	0
57	MG	1H	3213	1/1	0.96	0.58	77,77,77,77	0
58	ZN	5A	101	1/1	0.96	0.10	139,139,139,139	0
57	MG	14	3280	1/1	0.97	0.14	75,75,75,75	0
57	MG	1H	3144	1/1	0.97	0.21	95,95,95,95	0
57	MG	1H	3323	1/1	0.97	0.05	83,83,83,83	0
57	MG	1H	3376	1/1	0.97	0.11	90,90,90,90	0
57	MG	1G	1667	1/1	0.97	0.10	98,98,98,98	0
57	MG	14	3286	1/1	0.97	0.06	91,91,91,91	0
57	MG	14	3242	1/1	0.97	0.13	65,65,65,65	0
57	MG	14	3284	1/1	0.97	0.05	84,84,84,84	0
57	MG	3L	101	1/1	0.97	0.43	156,156,156,156	0
57	MG	1H	3128	1/1	0.97	0.18	52,52,52,52	0
57	MG	14	3015	1/1	0.97	0.32	69,69,69,69	0
57	MG	1H	3421	1/1	0.97	0.08	104,104,104,104	0
57	MG	14	3177	1/1	0.97	0.29	65,65,65,65	0
57	MG	1H	3395	1/1	0.97	0.09	73,73,73,73	0
57	MG	3L	102	1/1	0.97	0.28	165,165,165,165	0
57	MG	1H	3063	1/1	0.97	0.29	56,56,56,56	0
57	MG	1H	3045	1/1	0.97	0.31	70,70,70,70	0
57	MG	14	3289	1/1	0.97	0.06	106,106,106,106	0
57	MG	1H	3118	1/1	0.97	0.21	76,76,76,76	0
57	MG	14	3295	1/1	0.97	0.09	78,78,78,78	0
57	MG	13	1684	1/1	0.97	0.11	95,95,95,95	0
57	MG	14	3248	1/1	0.97	0.09	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1688	1/1	0.97	0.10	74,74,74,74	0
57	MG	1G	1609	1/1	0.97	0.11	106,106,106,106	0
57	MG	14	3314	1/1	0.97	0.06	91,91,91,91	0
57	MG	1H	3009	1/1	0.97	0.20	47,47,47,47	0
57	MG	14	3129	1/1	0.97	0.33	90,90,90,90	0
57	MG	1H	3149	1/1	0.97	0.23	61,61,61,61	0
57	MG	16	202	1/1	0.97	0.28	62,62,62,62	0
57	MG	1H	3430	1/1	0.97	0.16	50,50,50,50	0
57	MG	1H	3349	1/1	0.97	0.11	68,68,68,68	0
57	MG	1H	3429	1/1	0.97	0.08	60,60,60,60	0
57	MG	1H	3032	1/1	0.97	0.30	75,75,75,75	0
57	MG	1H	3405	1/1	0.97	0.10	72,72,72,72	0
57	MG	1H	3303	1/1	0.97	0.10	61,61,61,61	0
57	MG	13	1622	1/1	0.97	0.33	65,65,65,65	0
57	MG	1H	3010	1/1	0.97	0.33	51,51,51,51	0
57	MG	J8	101	1/1	0.97	0.37	62,62,62,62	0
57	MG	14	3016	1/1	0.97	0.18	86,86,86,86	0
57	MG	14	3226	1/1	0.97	0.13	67,67,67,67	0
57	MG	1H	3334	1/1	0.97	0.08	54,54,54,54	0
57	MG	1H	3030	1/1	0.97	0.28	79,79,79,79	0
57	MG	14	3168	1/1	0.97	0.48	51,51,51,51	0
57	MG	1H	3409	1/1	0.97	0.04	99,99,99,99	0
57	MG	1H	3373	1/1	0.97	0.05	55,55,55,55	0
57	MG	14	3067	1/1	0.97	0.46	71,71,71,71	0
57	MG	1H	3006	1/1	0.97	0.43	58,58,58,58	0
57	MG	14	3024	1/1	0.97	0.22	78,78,78,78	0
57	MG	14	3019	1/1	0.97	0.41	77,77,77,77	0
57	MG	1H	3321	1/1	0.97	0.12	74,74,74,74	0
57	MG	1H	3359	1/1	0.97	0.07	79,79,79,79	0
57	MG	14	3064	1/1	0.97	0.19	84,84,84,84	0
57	MG	1H	3352	1/1	0.97	0.05	68,68,68,68	0
57	MG	1H	3366	1/1	0.97	0.13	75,75,75,75	0
57	MG	14	3224	1/1	0.97	0.13	55,55,55,55	0
57	MG	1H	3033	1/1	0.97	0.18	54,54,54,54	0
57	MG	1H	3360	1/1	0.97	0.10	67,67,67,67	0
57	MG	1H	3433	1/1	0.97	0.12	56,56,56,56	0
57	MG	14	3265	1/1	0.97	0.08	72,72,72,72	0
57	MG	1H	3362	1/1	0.97	0.15	60,60,60,60	0
57	MG	1H	3312	1/1	0.97	0.17	93,93,93,93	0
57	MG	13	1697	1/1	0.97	0.10	76,76,76,76	0
57	MG	14	3256	1/1	0.97	0.15	57,57,57,57	0
57	MG	1H	3292	1/1	0.97	0.18	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1604	1/1	0.97	0.21	91,91,91,91	0
57	MG	1H	3055	1/1	0.97	0.53	64,64,64,64	0
57	MG	1H	3081	1/1	0.97	0.21	47,47,47,47	0
57	MG	14	3321	1/1	0.97	0.10	78,78,78,78	0
57	MG	1H	3309	1/1	0.97	0.11	66,66,66,66	0
57	MG	1H	3212	1/1	0.97	0.24	62,62,62,62	0
57	MG	1H	3410	1/1	0.97	0.11	102,102,102,102	0
57	MG	13	1603	1/1	0.97	0.22	78,78,78,78	0
57	MG	16	209	1/1	0.97	0.07	76,76,76,76	0
57	MG	1H	3004	1/1	0.97	0.21	56,56,56,56	0
57	MG	14	3051	1/1	0.97	0.39	74,74,74,74	0
57	MG	1H	3325	1/1	0.97	0.10	75,75,75,75	0
57	MG	14	3068	1/1	0.97	0.34	81,81,81,81	0
57	MG	1H	3003	1/1	0.97	0.24	53,53,53,53	0
57	MG	1H	3127	1/1	0.97	0.36	63,63,63,63	0
57	MG	1H	3039	1/1	0.97	0.29	69,69,69,69	0
57	MG	1H	3387	1/1	0.97	0.11	82,82,82,82	0
57	MG	1G	1602	1/1	0.97	0.41	79,79,79,79	0
57	MG	1H	3057	1/1	0.97	0.18	60,60,60,60	0
57	MG	1H	3041	1/1	0.97	0.30	68,68,68,68	0
57	MG	14	3221	1/1	0.97	0.18	67,67,67,67	0
57	MG	I8	102	1/1	0.97	0.06	69,69,69,69	0
57	MG	14	3253	1/1	0.98	0.13	66,66,66,66	0
57	MG	1H	3208	1/1	0.98	0.37	48,48,48,48	0
57	MG	14	3042	1/1	0.98	0.40	75,75,75,75	0
57	MG	14	3259	1/1	0.98	0.10	71,71,71,71	0
57	MG	14	3225	1/1	0.98	0.11	55,55,55,55	0
57	MG	14	3159	1/1	0.98	0.33	73,73,73,73	0
57	MG	1H	3350	1/1	0.98	0.10	74,74,74,74	0
57	MG	1G	1662	1/1	0.98	0.38	91,91,91,91	0
57	MG	1H	3345	1/1	0.98	0.15	53,53,53,53	0
57	MG	14	3001	1/1	0.98	0.39	58,58,58,58	0
57	MG	14	3305	1/1	0.98	0.11	74,74,74,74	0
57	MG	1H	3319	1/1	0.98	0.11	60,60,60,60	0
57	MG	14	3005	1/1	0.98	0.31	61,61,61,61	0
57	MG	13	1604	1/1	0.98	0.19	79,79,79,79	0
57	MG	13	1694	1/1	0.98	0.09	111,111,111,111	0
57	MG	13	1691	1/1	0.98	0.12	78,78,78,78	0
57	MG	14	3052	1/1	0.98	0.28	63,63,63,63	0
57	MG	1H	3020	1/1	0.98	0.25	70,70,70,70	0
57	MG	14	3029	1/1	0.98	0.21	78,78,78,78	0
57	MG	14	3006	1/1	0.98	0.41	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3123	1/1	0.98	0.31	73,73,73,73	0
57	MG	1H	3246	1/1	0.98	0.43	78,78,78,78	0
57	MG	14	3285	1/1	0.98	0.11	87,87,87,87	0
57	MG	14	3208	1/1	0.98	0.33	77,77,77,77	0
57	MG	14	3276	1/1	0.98	0.10	83,83,83,83	0
57	MG	14	3272	1/1	0.98	0.22	58,58,58,58	0
57	MG	14	3251	1/1	0.98	0.07	77,77,77,77	0
57	MG	13	1679	1/1	0.98	0.07	100,100,100,100	0
57	MG	1H	3038	1/1	0.98	0.26	55,55,55,55	0
57	MG	1H	3290	1/1	0.98	0.11	49,49,49,49	0
57	MG	14	3300	1/1	0.98	0.08	87,87,87,87	0
57	MG	14	3066	1/1	0.98	0.50	63,63,63,63	0
57	MG	14	3059	1/1	0.98	0.32	45,45,45,45	0
57	MG	1H	3014	1/1	0.98	0.37	67,67,67,67	0
57	MG	1H	3375	1/1	0.98	0.16	60,60,60,60	0
57	MG	1H	3301	1/1	0.98	0.12	61,61,61,61	0
57	MG	1H	3165	1/1	0.98	0.22	96,96,96,96	0
57	MG	14	3188	1/1	0.98	0.42	87,87,87,87	0
57	MG	1H	3027	1/1	0.98	0.34	35,35,35,35	0
57	MG	1H	3285	1/1	0.98	0.12	53,53,53,53	0
57	MG	1H	3007	1/1	0.98	0.38	47,47,47,47	0
57	MG	2L	101	1/1	0.98	0.31	80,80,80,80	0
57	MG	1G	1638	1/1	0.98	0.20	83,83,83,83	0
57	MG	1H	3338	1/1	0.98	0.12	60,60,60,60	0
57	MG	1H	3302	1/1	0.98	0.15	60,60,60,60	0
57	MG	1H	3286	1/1	0.98	0.10	62,62,62,62	0
57	MG	1H	3370	1/1	0.98	0.17	60,60,60,60	0
57	MG	1H	3442	1/1	0.98	0.06	73,73,73,73	0
57	MG	14	3319	1/1	0.98	0.10	63,63,63,63	0
57	MG	1H	3155	1/1	0.98	0.34	68,68,68,68	0
57	MG	1H	3365	1/1	0.98	0.12	68,68,68,68	0
57	MG	14	3073	1/1	0.98	0.31	81,81,81,81	0
57	MG	14	3249	1/1	0.98	0.12	62,62,62,62	0
57	MG	1H	3072	1/1	0.98	0.36	66,66,66,66	0
57	MG	1H	3066	1/1	0.98	0.39	59,59,59,59	0
57	MG	1H	3399	1/1	0.98	0.04	111,111,111,111	0
57	MG	1G	1632	1/1	0.98	0.13	131,131,131,131	0
57	MG	14	3146	1/1	0.98	0.39	71,71,71,71	0
57	MG	1H	3347	1/1	0.98	0.07	64,64,64,64	0
57	MG	14	3054	1/1	0.98	0.64	53,53,53,53	0
58	ZN	5I	101	1/1	0.98	0.13	100,100,100,100	0
57	MG	13	1654	1/1	0.98	0.12	133,133,133,133	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3028	1/1	0.98	0.33	71,71,71,71	0
57	MG	14	3011	1/1	0.98	0.42	60,60,60,60	0
57	MG	14	3072	1/1	0.98	0.23	62,62,62,62	0
57	MG	1H	3013	1/1	0.98	0.21	63,63,63,63	0
57	MG	14	3055	1/1	0.98	0.26	62,62,62,62	0
57	MG	14	3152	1/1	0.98	0.38	93,93,93,93	0
57	MG	14	3165	1/1	0.98	0.46	86,86,86,86	0
57	MG	1H	3293	1/1	0.98	0.17	62,62,62,62	0
57	MG	14	3136	1/1	0.98	0.20	66,66,66,66	0
57	MG	14	3071	1/1	0.98	0.23	68,68,68,68	0
57	MG	1H	3005	1/1	0.98	0.40	51,51,51,51	0
57	MG	14	3147	1/1	0.98	0.42	79,79,79,79	0
57	MG	1H	3422	1/1	0.98	0.08	86,86,86,86	0
57	MG	1G	1617	1/1	0.98	0.25	88,88,88,88	0
57	MG	1H	3383	1/1	0.98	0.07	82,82,82,82	0
58	ZN	32	301	1/1	0.98	0.30	117,117,117,117	0
57	MG	1H	3378	1/1	0.98	0.13	59,59,59,59	0
57	MG	13	1653	1/1	0.98	0.12	92,92,92,92	0
57	MG	1G	1601	1/1	0.98	0.27	90,90,90,90	0
57	MG	1H	3339	1/1	0.98	0.13	50,50,50,50	0
57	MG	1G	1666	1/1	0.98	0.14	89,89,89,89	0
57	MG	1H	3047	1/1	0.98	0.30	61,61,61,61	0
57	MG	1H	3065	1/1	0.98	0.18	58,58,58,58	0
57	MG	1H	3341	1/1	0.98	0.08	47,47,47,47	0
57	MG	14	3049	1/1	0.98	0.38	63,63,63,63	0
57	MG	14	3121	1/1	0.98	0.15	65,65,65,65	0
57	MG	1H	3330	1/1	0.98	0.16	49,49,49,49	0
57	MG	1H	3061	1/1	0.98	0.32	52,52,52,52	0
57	MG	2K	101	1/1	0.98	0.37	77,77,77,77	0
57	MG	13	1695	1/1	0.98	0.09	87,87,87,87	0
57	MG	1H	3008	1/1	0.98	0.34	53,53,53,53	0
57	MG	1H	3358	1/1	0.98	0.08	73,73,73,73	0
57	MG	14	3173	1/1	0.98	0.28	44,44,44,44	0
57	MG	1H	3436	1/1	0.98	0.16	50,50,50,50	0
57	MG	14	3008	1/1	0.98	0.32	59,59,59,59	0
57	MG	14	3037	1/1	0.98	0.26	61,61,61,61	0
57	MG	1H	3192	1/1	0.98	0.32	66,66,66,66	0
57	MG	88	201	1/1	0.98	0.39	76,76,76,76	0
57	MG	1H	3288	1/1	0.98	0.07	55,55,55,55	0
57	MG	14	3002	1/1	0.98	0.33	64,64,64,64	0
57	MG	14	3320	1/1	0.98	0.15	73,73,73,73	0
57	MG	1G	1619	1/1	0.98	0.29	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3030	1/1	0.98	0.24	64,64,64,64	0
57	MG	14	3267	1/1	0.98	0.15	48,48,48,48	0
57	MG	25	201	1/1	0.98	0.05	111,111,111,111	0
57	MG	1H	3413	1/1	0.98	0.08	57,57,57,57	0
57	MG	14	3274	1/1	0.98	0.10	74,74,74,74	0
57	MG	1H	3424	1/1	0.98	0.08	94,94,94,94	0
57	MG	1H	3381	1/1	0.98	0.11	58,58,58,58	0
57	MG	1H	3332	1/1	0.98	0.08	49,49,49,49	0
57	MG	14	3050	1/1	0.98	0.35	63,63,63,63	0
57	MG	14	3007	1/1	0.98	0.27	76,76,76,76	0
57	MG	1G	1643	1/1	0.98	0.10	97,97,97,97	0
57	MG	1H	3002	1/1	0.98	0.38	47,47,47,47	0
57	MG	14	3301	1/1	0.98	0.06	92,92,92,92	0
57	MG	14	3018	1/1	0.99	0.39	66,66,66,66	0
57	MG	14	3261	1/1	0.99	0.23	56,56,56,56	0
57	MG	1H	3306	1/1	0.99	0.09	70,70,70,70	0
57	MG	14	3004	1/1	0.99	0.30	60,60,60,60	0
57	MG	1H	3051	1/1	0.99	0.32	50,50,50,50	0
57	MG	1H	3079	1/1	0.99	0.23	66,66,66,66	0
57	MG	1H	3353	1/1	0.99	0.09	62,62,62,62	0
57	MG	14	3155	1/1	0.99	0.31	70,70,70,70	0
57	MG	14	3079	1/1	0.99	0.31	56,56,56,56	0
57	MG	1H	3412	1/1	0.99	0.05	94,94,94,94	0
57	MG	1H	3040	1/1	0.99	0.25	67,67,67,67	0
57	MG	14	3202	1/1	0.99	0.21	88,88,88,88	0
57	MG	13	1631	1/1	0.99	0.26	83,83,83,83	0
57	MG	14	3247	1/1	0.99	0.12	65,65,65,65	0
57	MG	14	3275	1/1	0.99	0.10	90,90,90,90	0
57	MG	14	3077	1/1	0.99	0.12	61,61,61,61	0
57	MG	1H	3132	1/1	0.99	0.14	49,49,49,49	0
57	MG	1H	3026	1/1	0.99	0.21	62,62,62,62	0
57	MG	1H	3176	1/1	0.99	0.23	42,42,42,42	0
57	MG	13	1681	1/1	0.99	0.09	71,71,71,71	0
57	MG	1H	3438	1/1	0.99	0.10	55,55,55,55	0
57	MG	14	3038	1/1	0.99	0.39	55,55,55,55	0
57	MG	1H	3355	1/1	0.99	0.17	56,56,56,56	0
57	MG	1H	3333	1/1	0.99	0.10	54,54,54,54	0
57	MG	13	1629	1/1	0.99	0.42	74,74,74,74	0
57	MG	13	1658	1/1	0.99	0.25	91,91,91,91	0
57	MG	1H	3283	1/1	0.99	0.15	65,65,65,65	0
57	MG	14	3009	1/1	0.99	0.36	59,59,59,59	0
57	MG	1H	3297	1/1	0.99	0.12	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3029	1/1	0.99	0.25	55,55,55,55	0
57	MG	14	3269	1/1	0.99	0.08	108,108,108,108	0
57	MG	1H	3305	1/1	0.99	0.13	49,49,49,49	0
57	MG	14	3003	1/1	0.99	0.27	54,54,54,54	0
57	MG	14	3057	1/1	0.99	0.47	78,78,78,78	0
57	MG	14	3131	1/1	0.99	0.17	76,76,76,76	0
57	MG	14	3252	1/1	0.99	0.08	71,71,71,71	0
57	MG	14	3078	1/1	0.99	0.10	70,70,70,70	0
57	MG	1H	3052	1/1	0.99	0.36	42,42,42,42	0
57	MG	13	1602	1/1	0.99	0.27	80,80,80,80	0
57	MG	14	3240	1/1	0.99	0.08	71,71,71,71	0

6.5 Other polymers

There are no such residues in this entry.