



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 2, 2024 – 11:55 pm GMT

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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
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) : 2.36

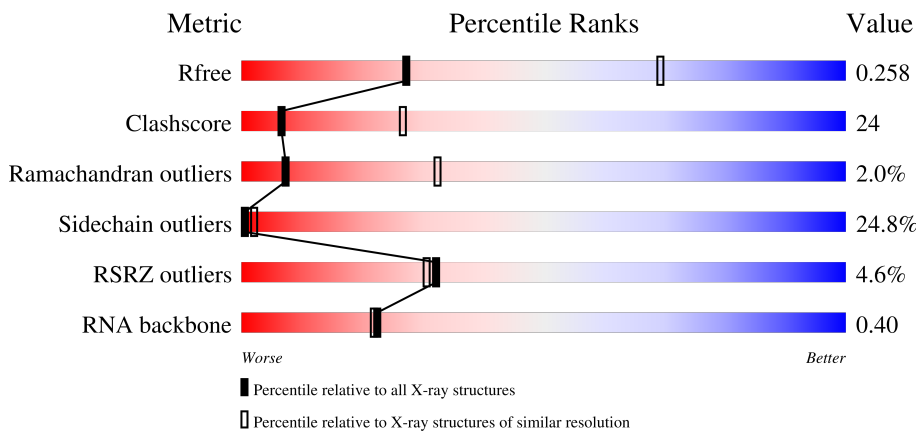
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 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.



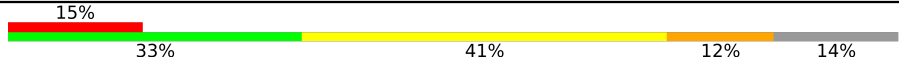

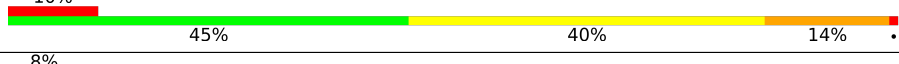
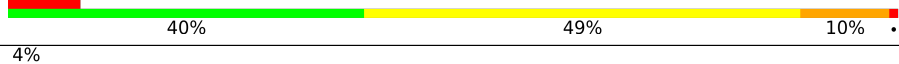
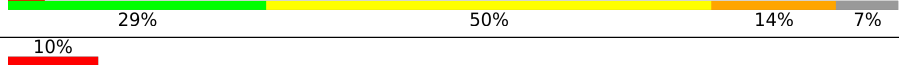

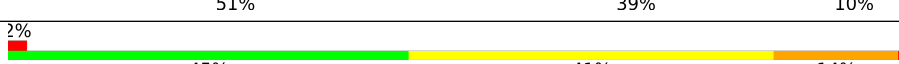
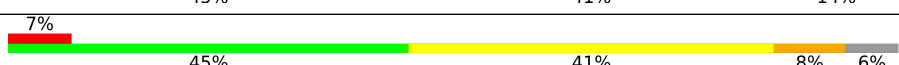


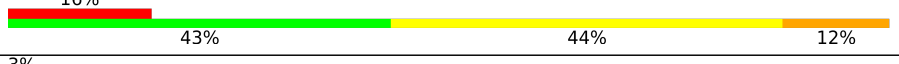
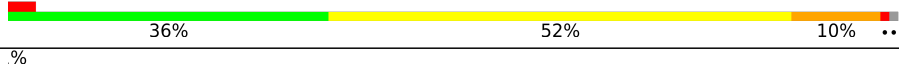
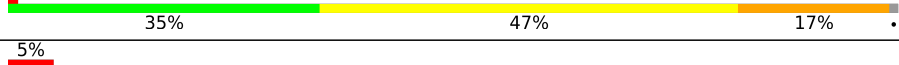

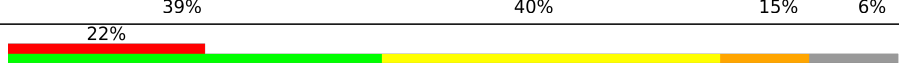
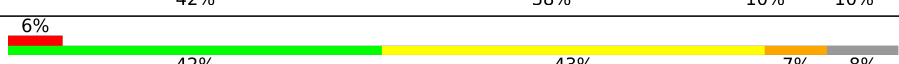
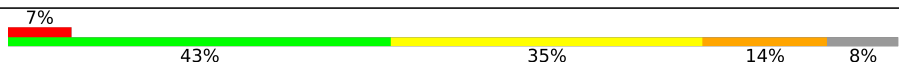

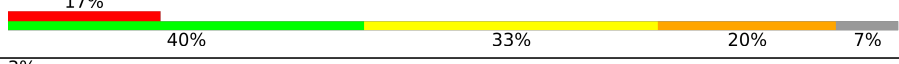

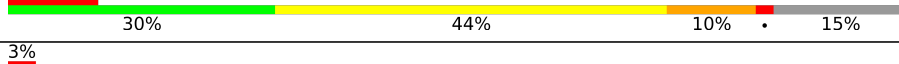




Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117 (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 of 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	13	1522	
1	1G	1522	
2	12	256	
2	1E	256	

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Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126	
13	4I	126	
14	5A	61	
14	5I	61	
15	6A	89	



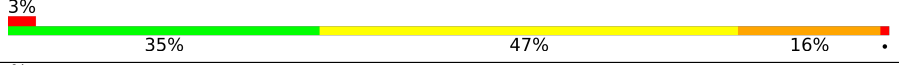
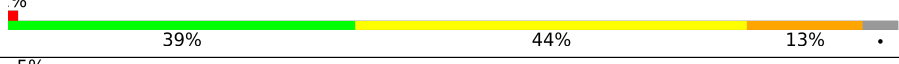
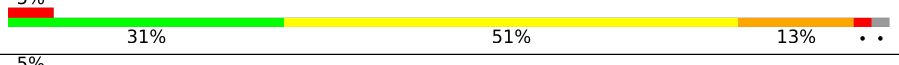
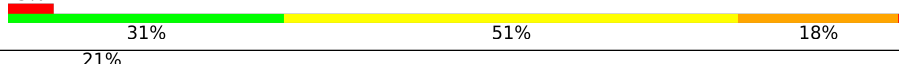
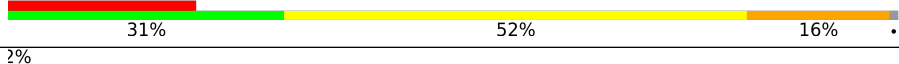
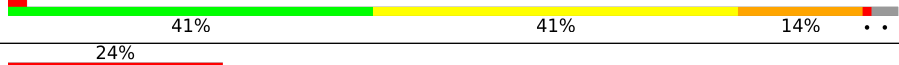
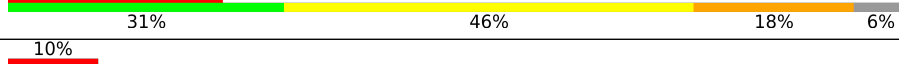
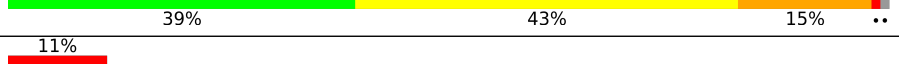

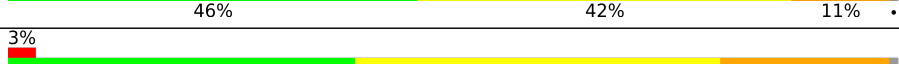
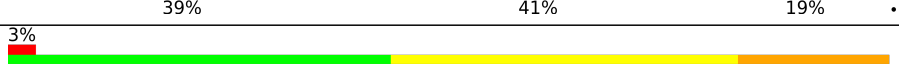

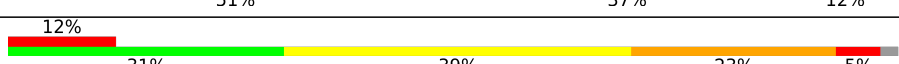
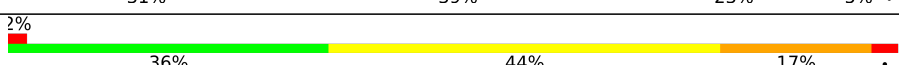
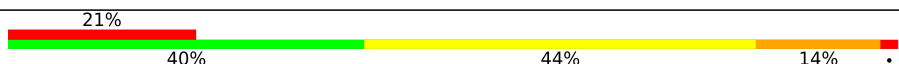
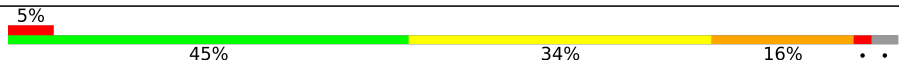
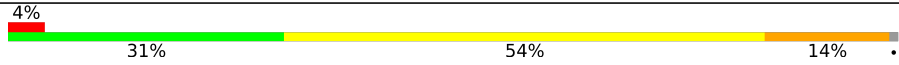


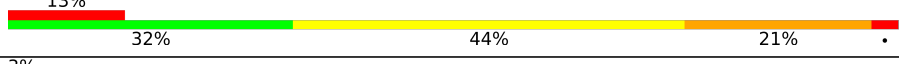
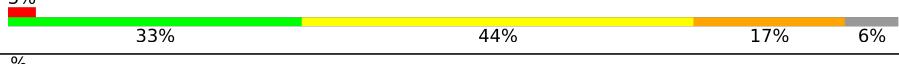
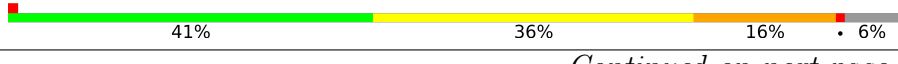

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Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	77	
23	2K	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917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




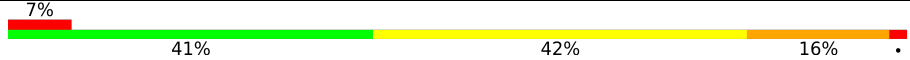
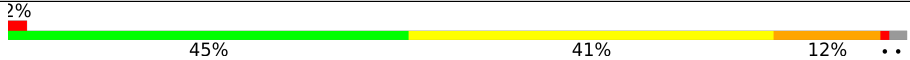
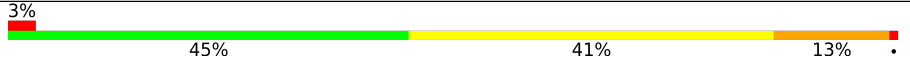
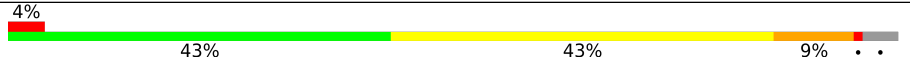
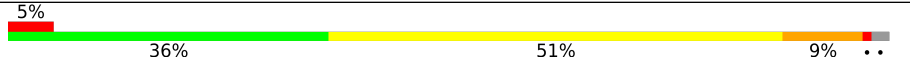
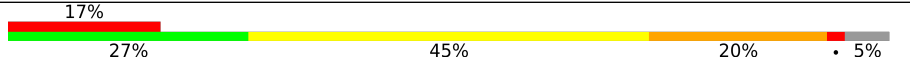
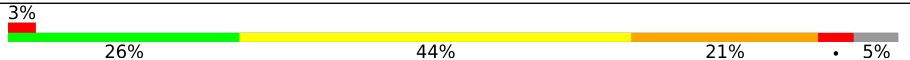
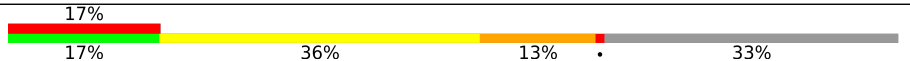
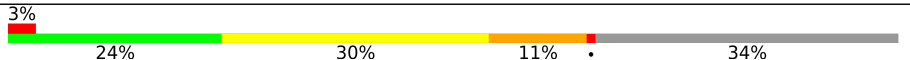
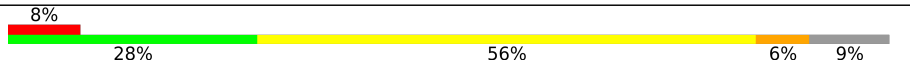
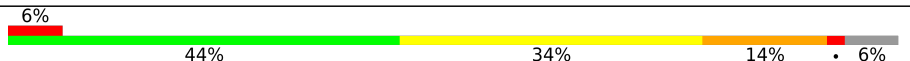
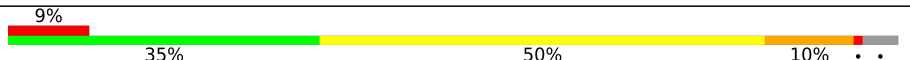
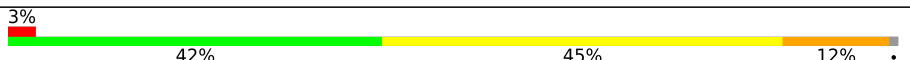
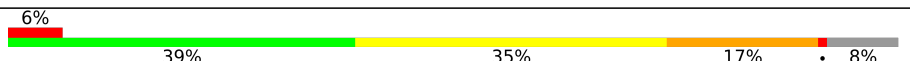
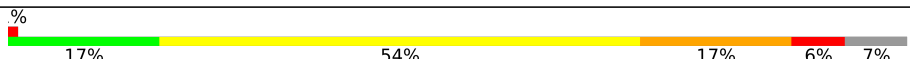
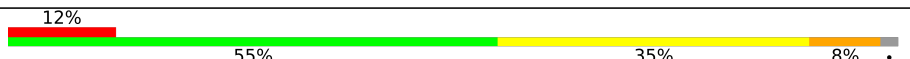
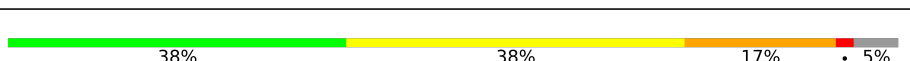
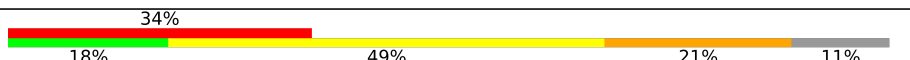
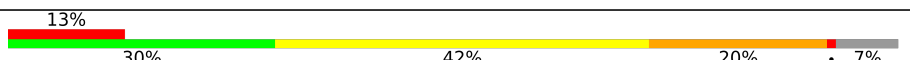
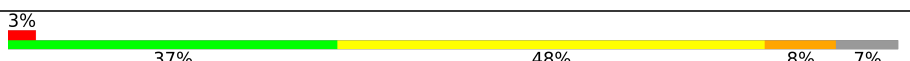

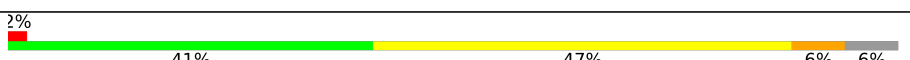
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Mol	Chain	Length	Quality of chain
29	19	276	 % 49% 35% 14% ..
30	21	206	 11% 41% 43% 15% .
30	29	206	 3% 35% 47% 16% .
31	31	210	 % 39% 44% 13% .
31	39	210	 5% 31% 51% 13% ..
32	41	182	 5% 31% 51% 18% ..
32	49	182	 21% 31% 52% 16% .
33	51	180	 2% 41% 41% 14% ..
33	59	180	 24% 31% 46% 18% 6%
34	61	148	 10% 39% 43% 15% ..
34	69	148	 11% 39% 46% 14% ..
35	15	140	 3% 46% 42% 11% .
35	58	140	 3% 39% 41% 19% .
36	25	122	 3% 43% 39% 17%
36	68	122	 3% 51% 37% 12%
37	35	150	 12% 31% 39% 23% 5% .
37	78	150	 2% 36% 44% 17% .
38	45	141	 21% 40% 44% 14% .
38	88	141	 5% 45% 34% 16% ..
39	55	118	 4% 31% 54% 14% .
39	98	118	 3% 33% 53% 13% .
40	65	112	 7% 33% 54% 11% ..
40	A8	112	 13% 32% 44% 21% ..
41	75	146	 3% 33% 44% 17% 6%
41	B8	146	 % 41% 36% 16% . 6%


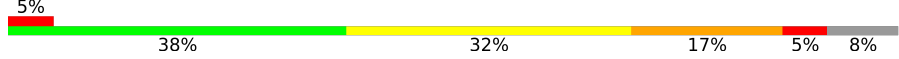

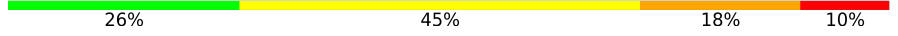
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Mol	Chain	Length	Quality of chain
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	I5	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	M5	65	
55	Q8	65	
56	2L	77	

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
			Total	C	N	O	P			
1	13	1497	Total 32185	C 14324	N 5968	O 10396	P 1497	0	0	0
1	1G	1497	Total 32182	C 14324	N 5968	O 10394	P 1496	0	0	0

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

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

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

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

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

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

- 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
			Total	C	N	O			
21	1F	25	217	134	52	31	0	0	0
21	1B	22	188	116	44	28	0	0	0

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

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

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

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

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

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

- Molecule 25 is a RNA chain called mRNA.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
26	1H	2902	62497	27816	11684	20095	2902	0	0	0
26	14	2877	61968	27579	11594	19918	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
			Total	C	N	O	S			
33	51	174	Total 1336	C 848	N 251	O 236	S 1	0	0	0
33	59	170	Total 1307	C 829	N 245	O 232	S 1	0	0	0

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

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

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

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

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

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

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

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

- 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
			Total	C	N	O	S			
49	J8	97	762	481	150	130	1	0	0	0
49	F5	94	737	463	146	127	1	0	0	0

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

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

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

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

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

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

- 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	13	99	Total	Mg	0	0
			99	99		
57	3E	1	Total	Mg	0	0
			1	1		
57	4E	1	Total	Mg	0	0
			1	1		
57	4I	1	Total	Mg	0	0
			1	1		
57	2K	2	Total	Mg	0	0
			2	2		
57	1H	444	Total	Mg	0	0
			444	444		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	16	11	Total 11	Mg 11	0	0
57	11	3	Total 3	Mg 3	0	0
57	41	2	Total 2	Mg 2	0	0
57	68	2	Total 2	Mg 2	0	0
57	78	2	Total 2	Mg 2	0	0
57	88	1	Total 1	Mg 1	0	0
57	98	1	Total 1	Mg 1	0	0
57	I8	2	Total 2	Mg 2	0	0
57	J8	2	Total 2	Mg 2	0	0
57	L8	1	Total 1	Mg 1	0	0
57	P8	1	Total 1	Mg 1	0	0
57	1G	72	Total 72	Mg 72	0	0
57	2L	2	Total 2	Mg 2	0	0
57	3L	2	Total 2	Mg 2	0	0
57	14	327	Total 327	Mg 327	0	0
57	1J	3	Total 3	Mg 3	0	0
57	29	2	Total 2	Mg 2	0	0
57	25	1	Total 1	Mg 1	0	0
57	35	1	Total 1	Mg 1	0	0
57	45	1	Total 1	Mg 1	0	0
57	55	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	M5	1	Total	Mg	0	0
			1	1		

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

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

- Molecule 59 is water.

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

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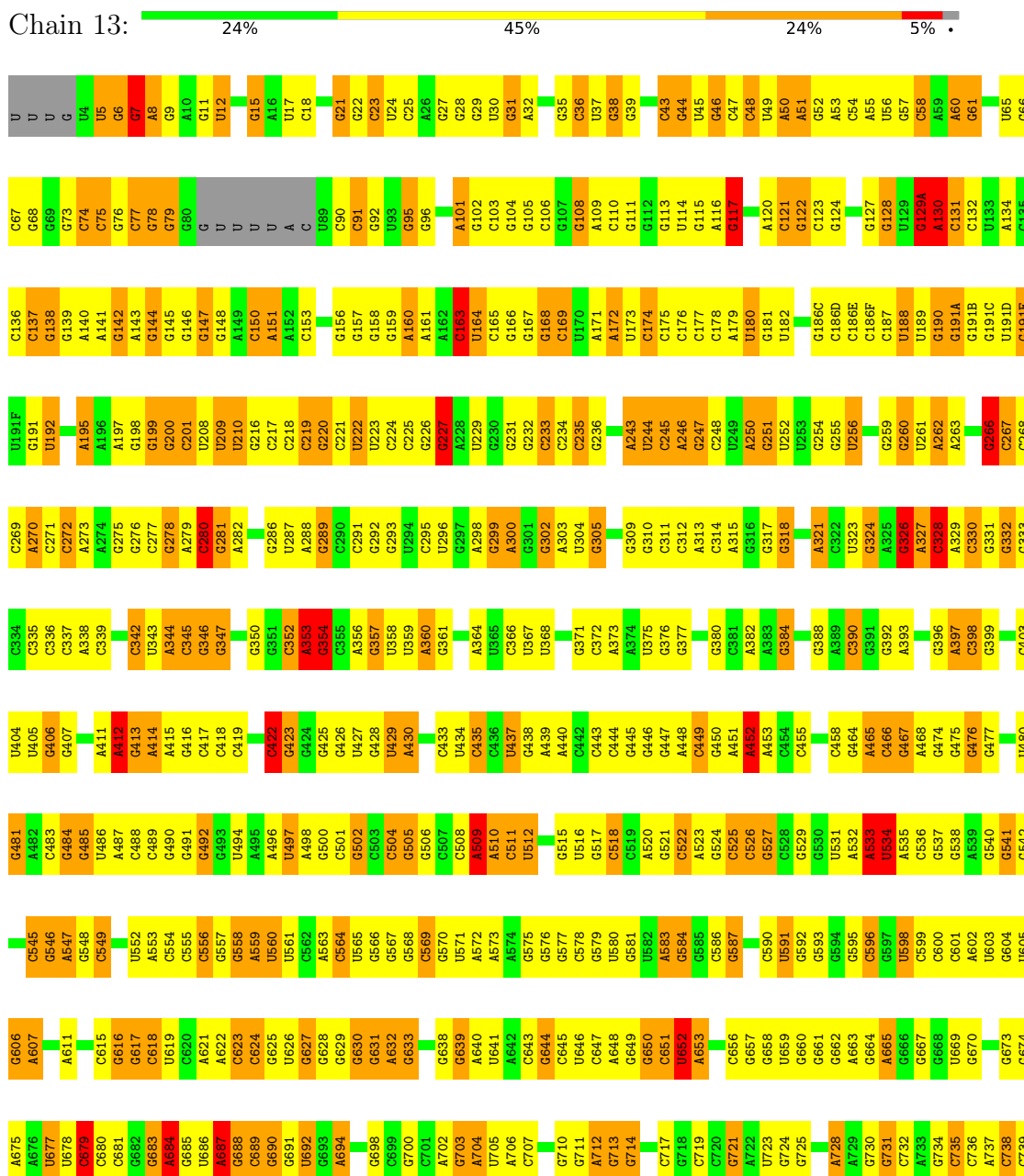
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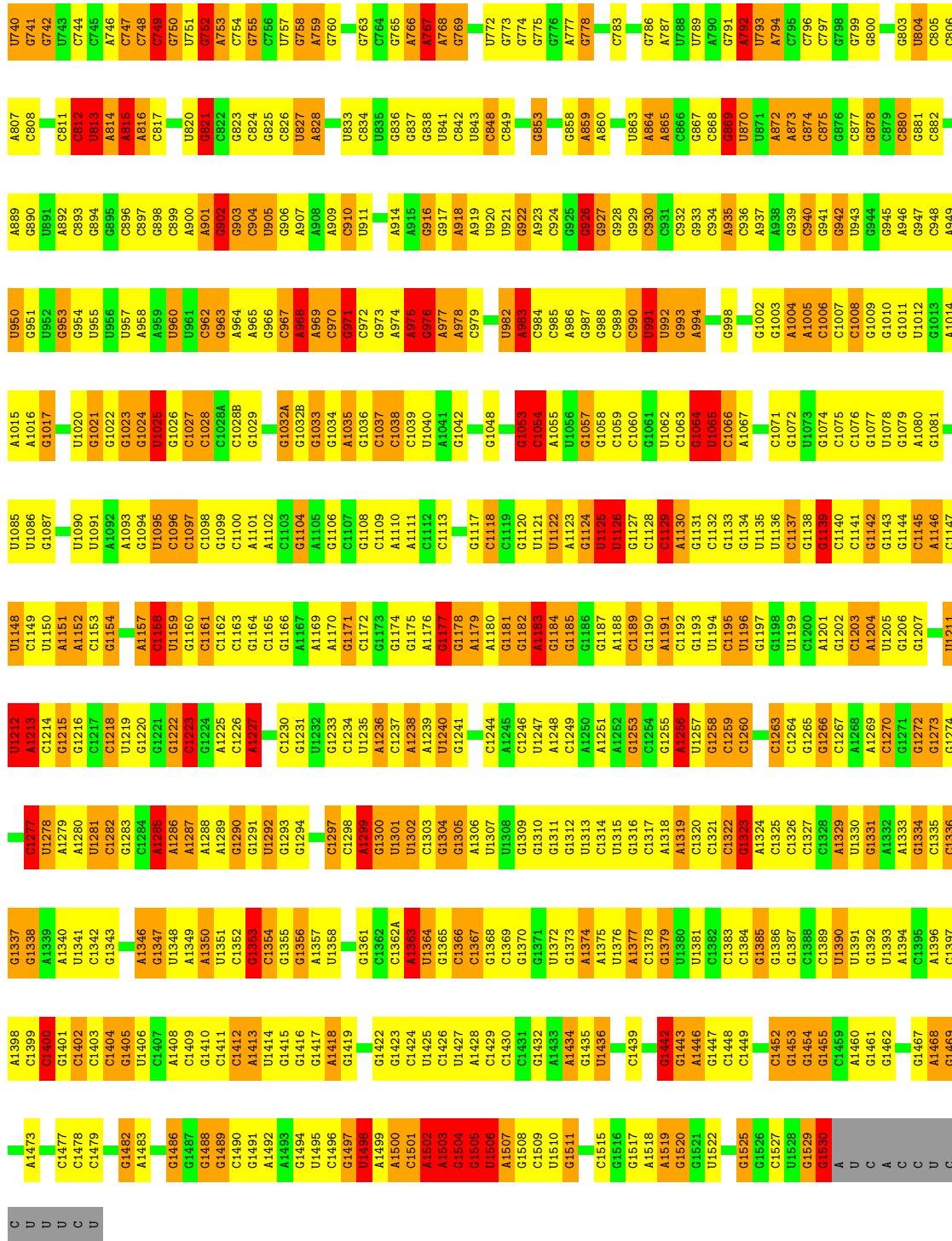
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	H5	2	Total O 2 2	0	0
59	L5	1	Total O 1 1	0	0
59	M5	1	Total O 1 1	0	0

3 Residue-property plots

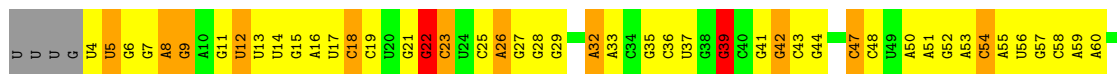
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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

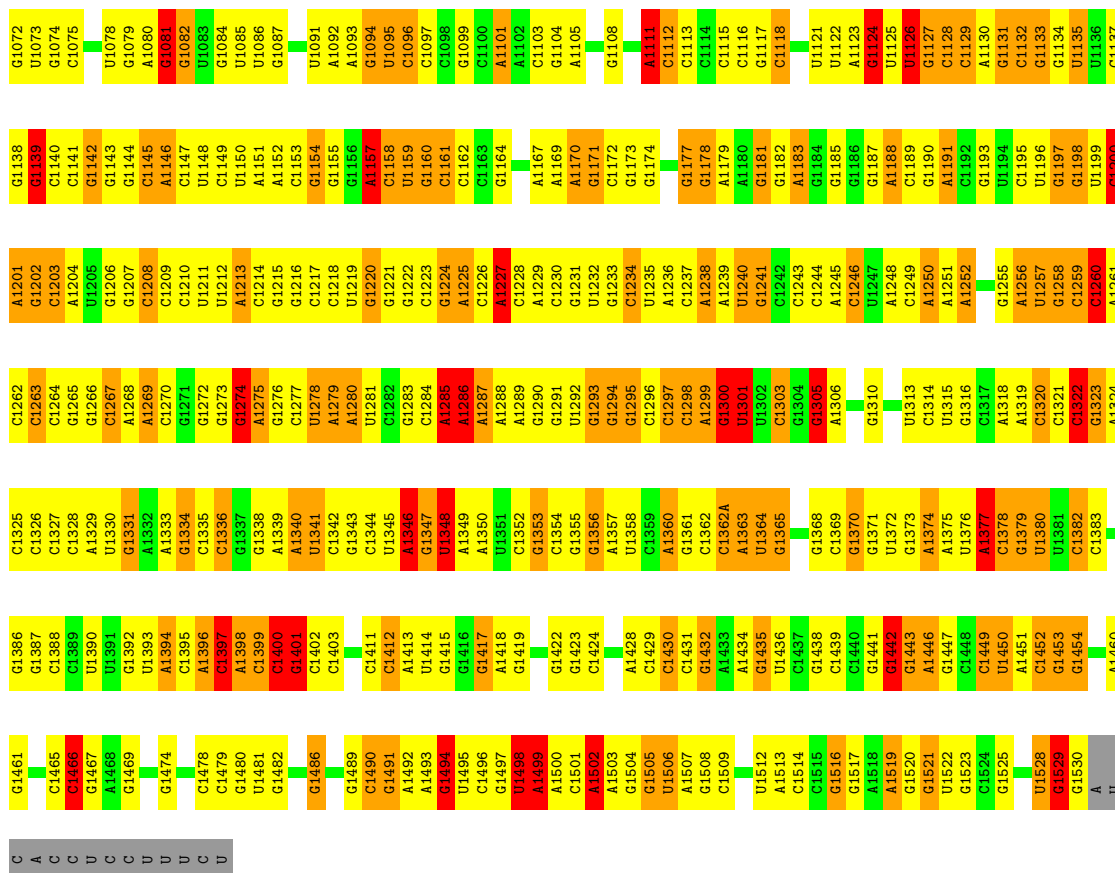




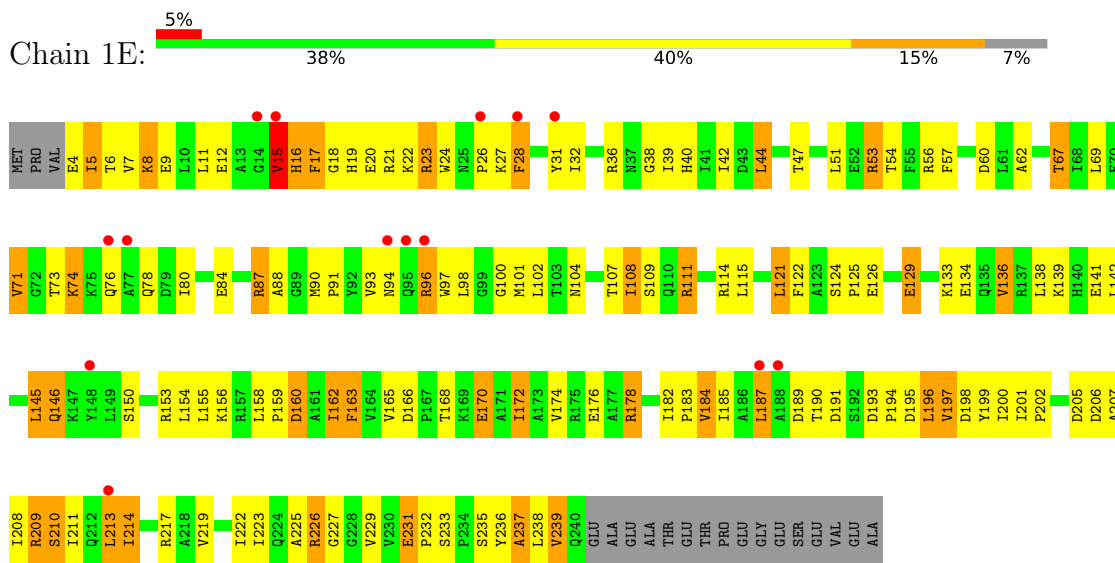
• Molecule 1: 16S ribosomal RNA



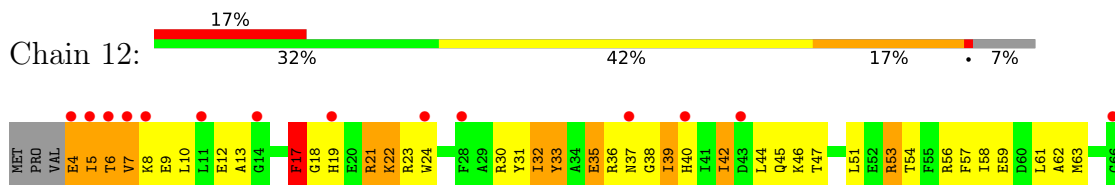
G1013	G1014	A1015	A1016	G1017	C1018	G1019	U1020	G1023	G1024	C1025	A1026	A1027	A1028	C1029	A1030	G1031	A1032	G1032A	G1032B	G1033	G1034	A1035	G1036	C1037	C1038	G1039	U1040	A1041	C1042	A1043	C1044	C1045	A1046	G1047	U1048	G1049	C1050	G1051	U1052	G1053	C1054	A1055	U1056	G1057	G1058	C1059	U1062	C1063	G1064	U1065	C1066	A1067	G1068	C1071																																																																																																																																																																																																																					
G886	G887	G888	G889	G890	G891	G892	G893	G894	G895	G896	G897	G898	G899	G900	G901	G902	G903	G904	G905	G906	G907	G908	G909	G910	G911	G912	G913	G914	G915	G916	G917	G918	G919	G920	G921	G922	G923	G924	G925	G926	G927	G928	G929	G930	G931	G932	G933	G934	G935	G936	G937	G938	G939	G940	G941	G942	G943	G944	G945	G946	G947	G948	G949	G950	G951																																																																																																																																																																																																										
G741	G742	G743	G744	G745	G746	G747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	G762	G763	G764	G765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	G779	G780	G781	G782	G783	G784	G785	G786	G787	G788	G789	G790	G791	G792	G793	G794	G795	G796	G797	G798	G799	G800	G801	G802	G803	G804	G805	G806	G807	G808	G809	G810	G811																																																																																																																																																																																																					
C812	U813	A814	A815	A816	C817	A818	A819	C820	C821	C822	C823	C824	C825	C826	U827	C828	C829	C830	U831	C832	C833	C834	C835	C836	C837	C838	C839	C840	C841	C842	C843	C844	C845	C846	C847	C848	C849	C850	C851	C852	C853	C854	C855	C856	C857	C858	C859	C860	C861	C862	C863	C864	C865	C866	C867	C868	C869	C870	C871	C872	C873	C874	C875	C876	C877	C878	C879	C880	C881	C882	C883	C884	C885																																																																																																																																																																																																		
G674	A675	U676	U677	C678	C679	G680	G681	G682	G683	G684	G685	G686	G687	G688	G689	G690	G691	U692	C693	C694	A695	A696	U697	G698	G699	G700	C701	A702	C703	C704	C705	C706	C707	C708	C709	C710	C711	C712	C713	C714	C715	C716	C717	C718	C719	C720	C721	C722	C723	C724	C725	C726	C727	C728	C729	C730	C731	C732	C733	C734	C735	C736	C737	C738	C739	U740																																																																																																																																																																																																									
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G330	G331	G332	G333	C334	C335	C336	C337	C338	C339	C340	C341	C342	C343	C344	C345	C346	C347	C348	C349	C350	C351	C352	C353	C354	C355	C356	C357	C358	C359	C360	C361	C362	C363	C364	C365	C366	C367	C368	C369	C370	C371	C372	C373	C374	C375	C376	C377	C378	C379	C380	C381	C382	C383	C384	C385	C386	C387	C388	C389	C390	C391	C392	C393	C394	C395	C396	C397	C398	C399	C400																																																																																																																																																																																																					
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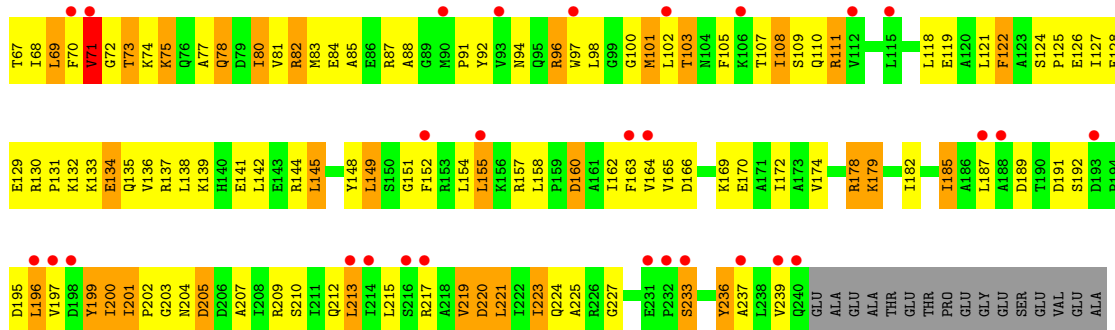


• Molecule 2: 30S ribosomal protein S2

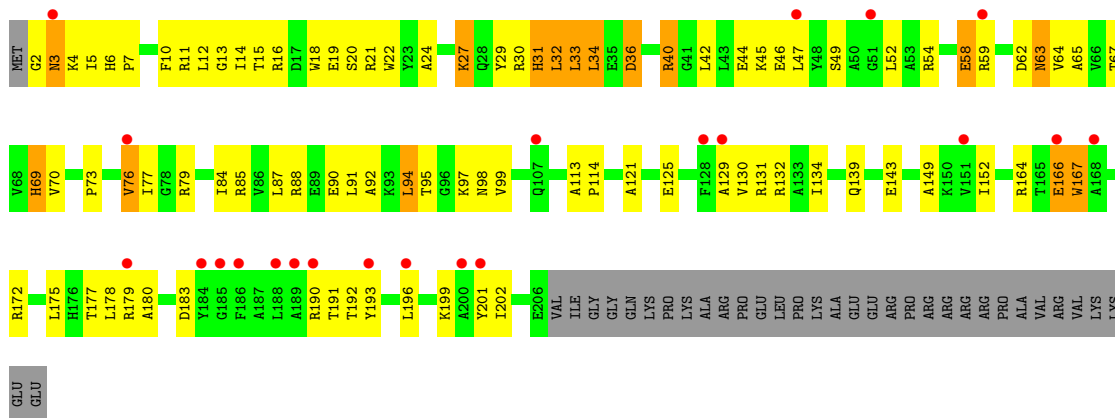


• Molecule 2: 30S ribosomal protein S2

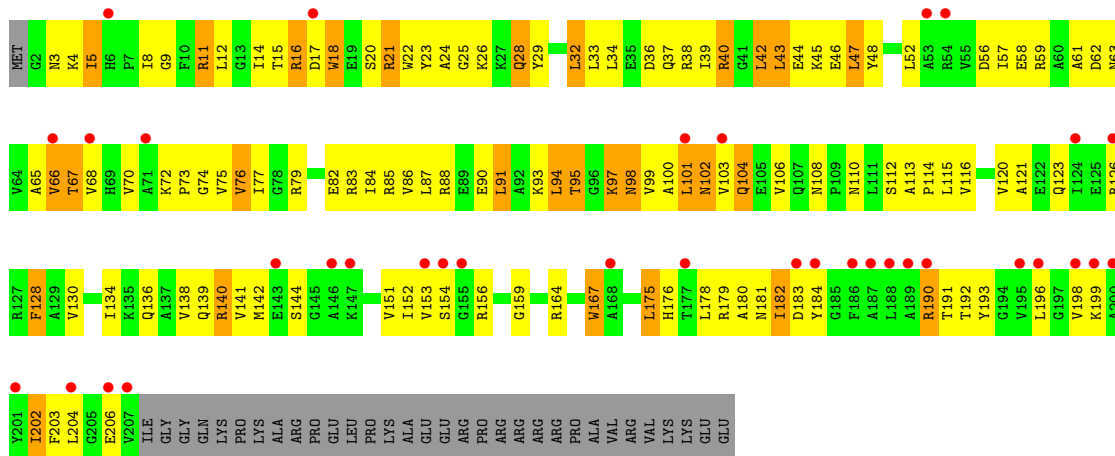




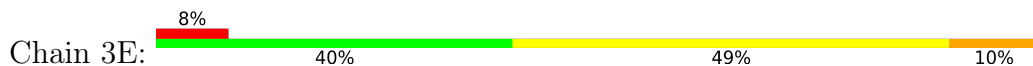
• Molecule 3: 30S ribosomal protein S3

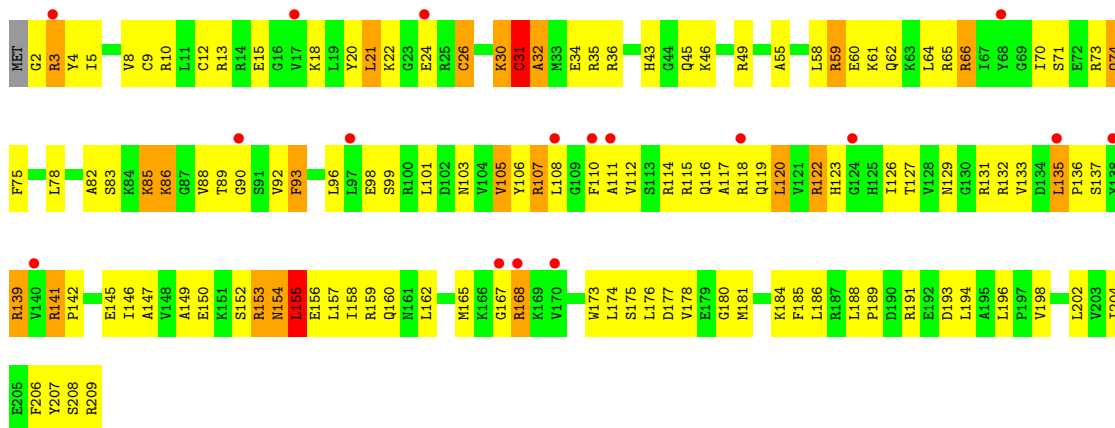


• Molecule 3: 30S ribosomal protein S3

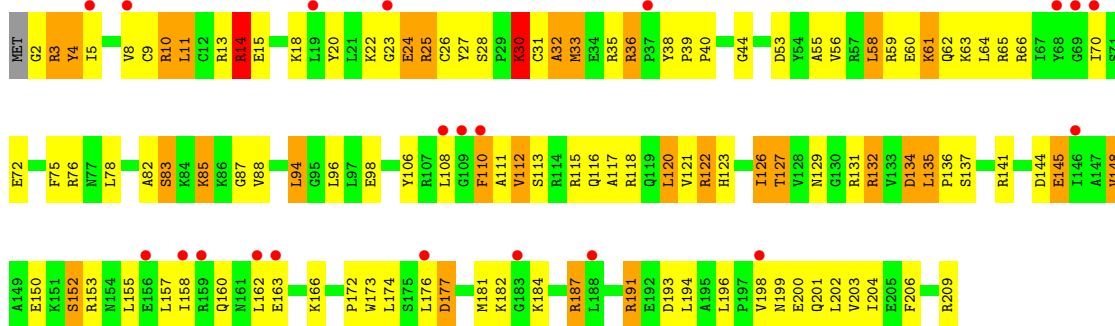


• Molecule 4: 30S ribosomal protein S4

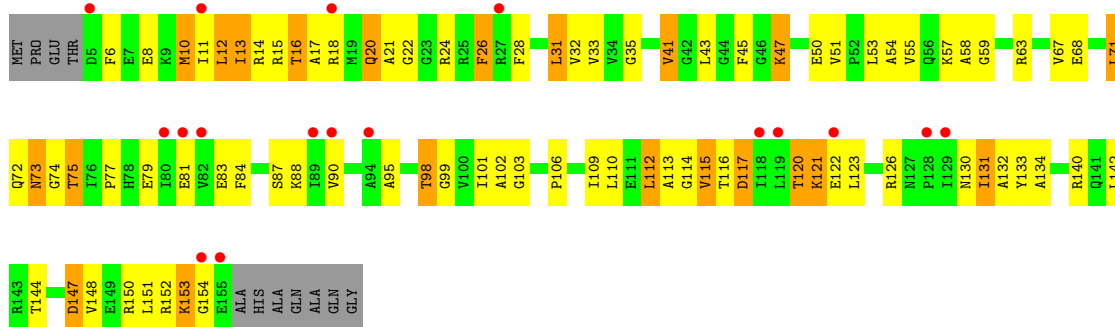




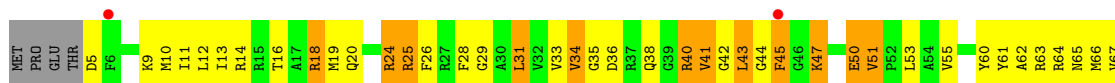
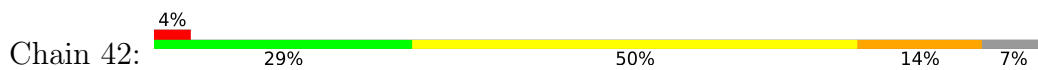
• Molecule 4: 30S ribosomal protein S4

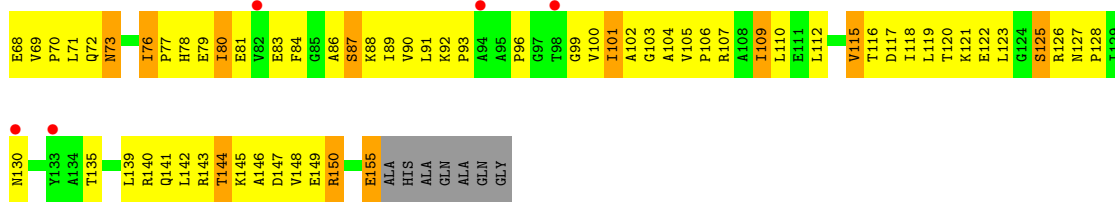


• Molecule 5: 30S ribosomal protein S5

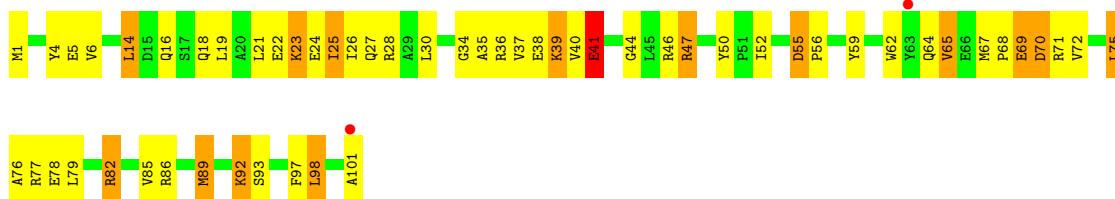


• Molecule 5: 30S ribosomal protein S5

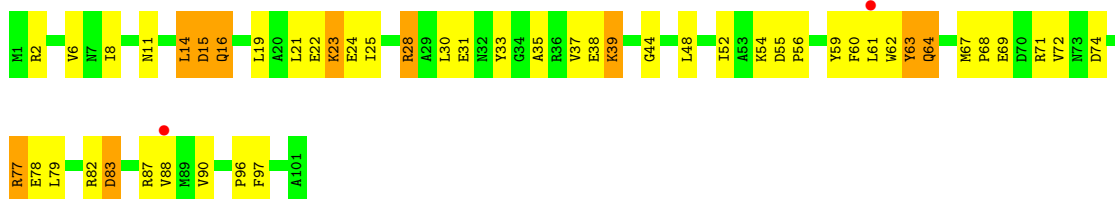




• Molecule 6: 30S ribosomal protein S6



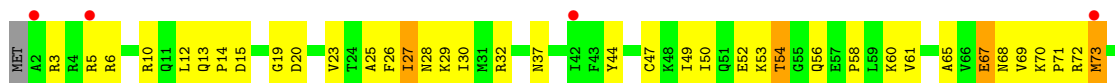
• Molecule 6: 30S ribosomal protein S6



• Molecule 7: 30S ribosomal protein S7

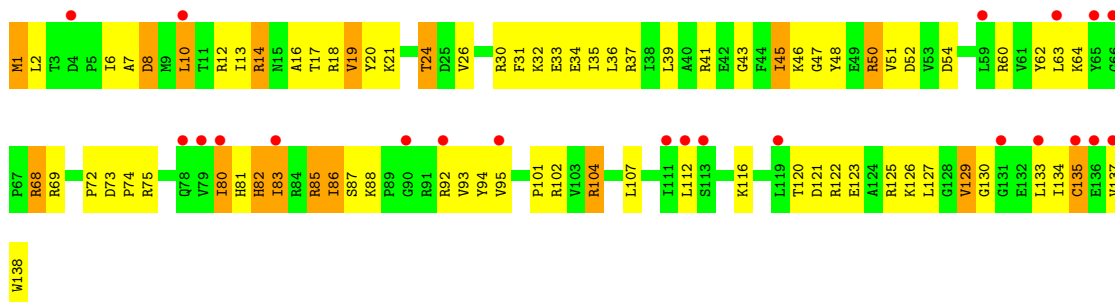


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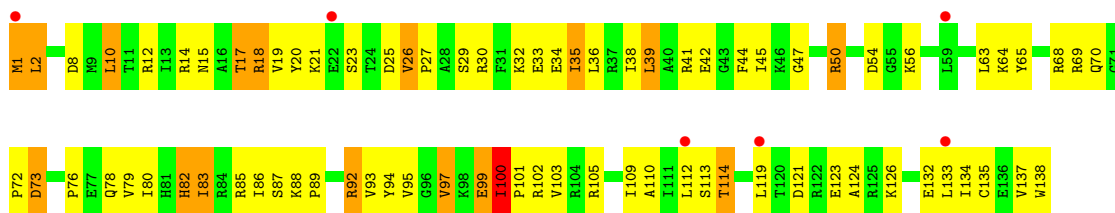




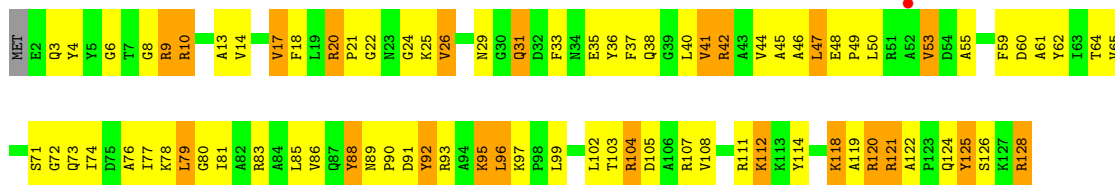
- Molecule 8: 30S ribosomal protein S8



- Molecule 8: 30S ribosomal protein S8

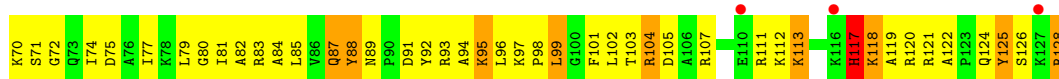


- Molecule 9: 30S ribosomal protein S9

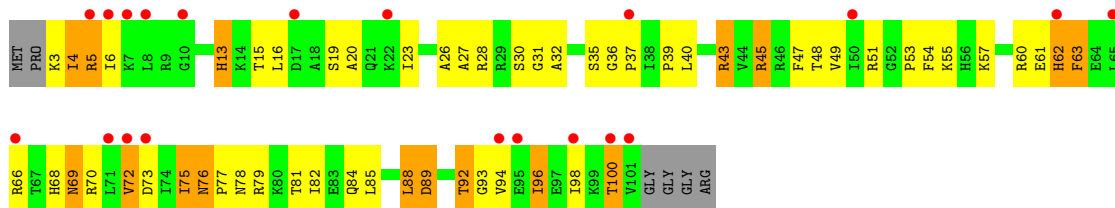


- Molecule 9: 30S ribosomal protein S9

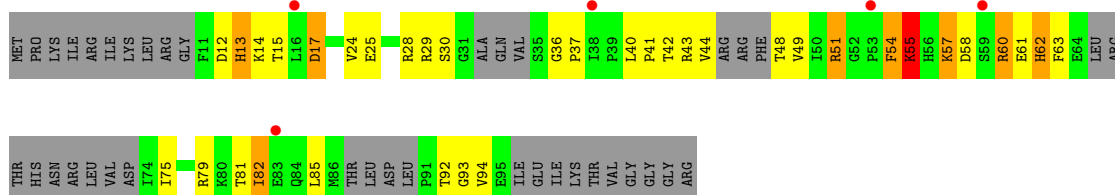
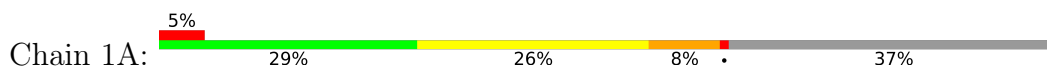




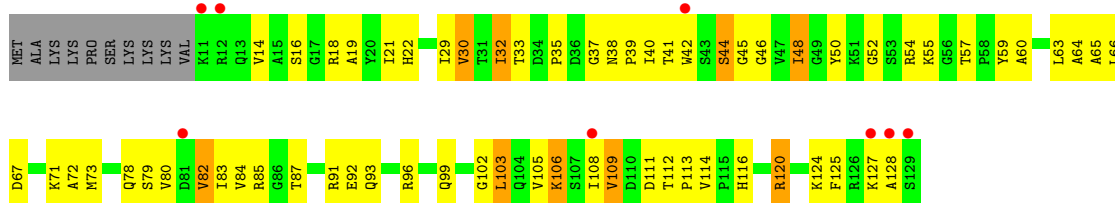
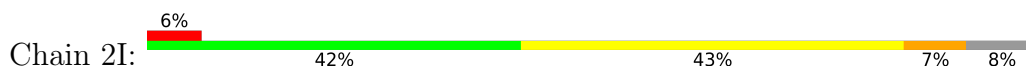
• Molecule 10: 30S ribosomal protein S10



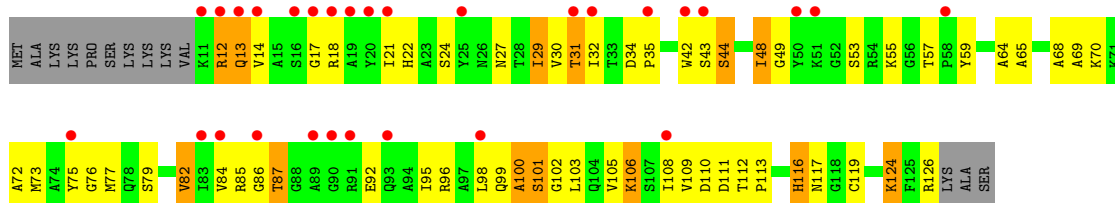
• Molecule 10: 30S ribosomal protein S10



• Molecule 11: 30S ribosomal protein S11

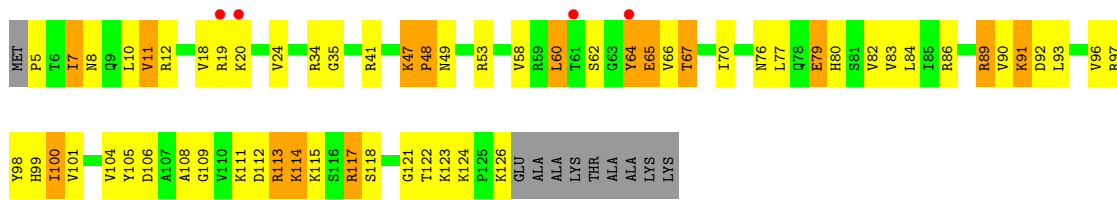


• Molecule 11: 30S ribosomal protein S11

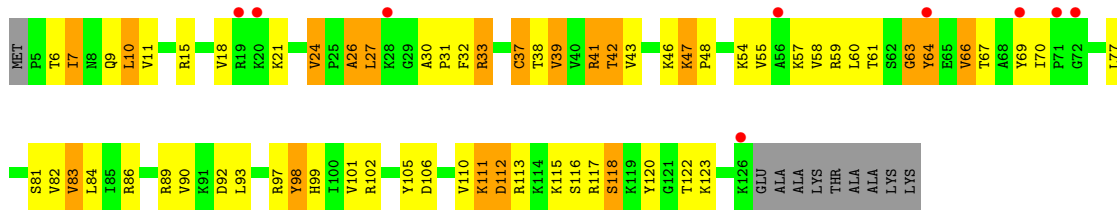


• Molecule 12: 30S ribosomal protein S12

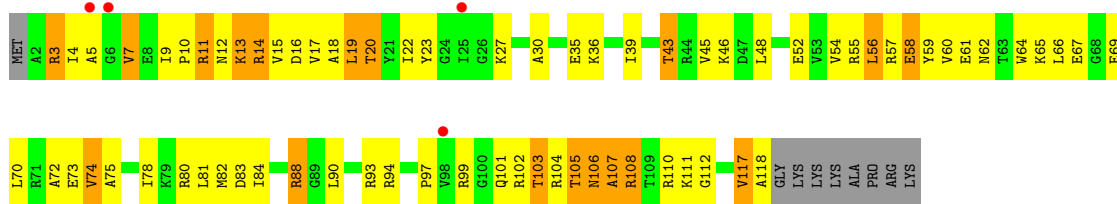




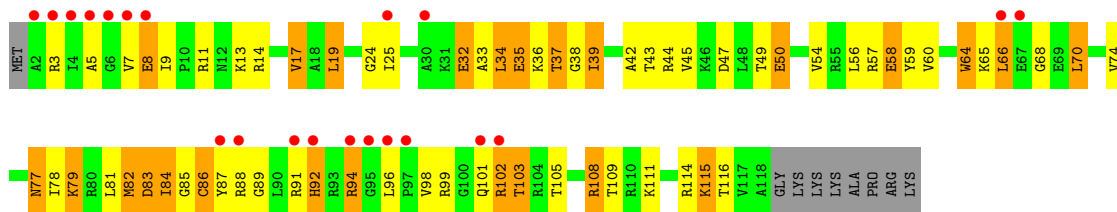
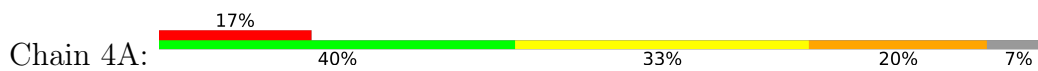
• Molecule 12: 30S ribosomal protein S12



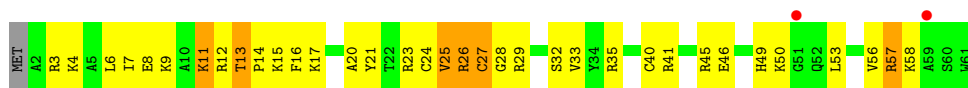
• Molecule 13: 30S ribosomal protein S13



• Molecule 13: 30S ribosomal protein S13



• Molecule 14: 30S ribosomal protein S14 type Z

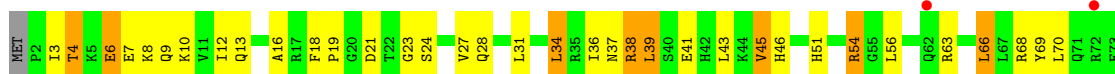


• Molecule 14: 30S ribosomal protein S14 type Z

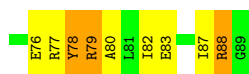




- Molecule 15: 30S ribosomal protein S15



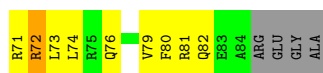
- Molecule 15: 30S ribosomal protein S15



- Molecule 16: 30S ribosomal protein S16

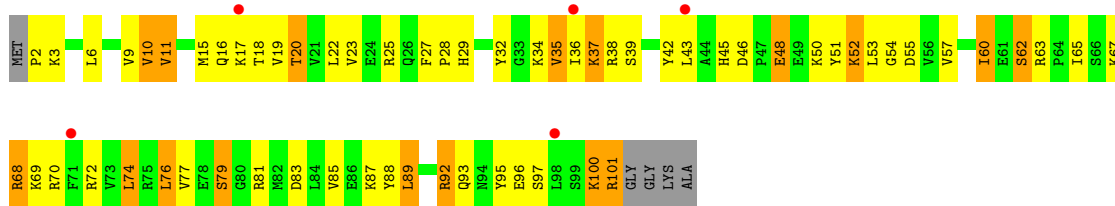


- Molecule 16: 30S ribosomal protein S16

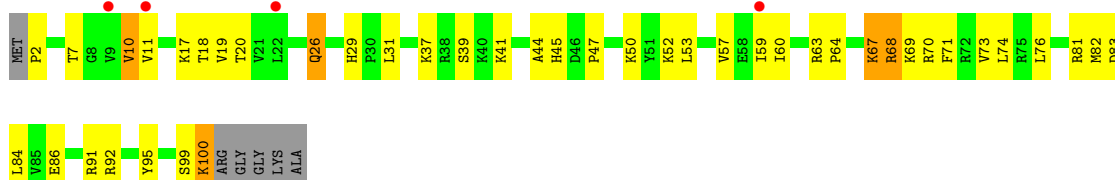


- Molecule 17: 30S ribosomal protein S17

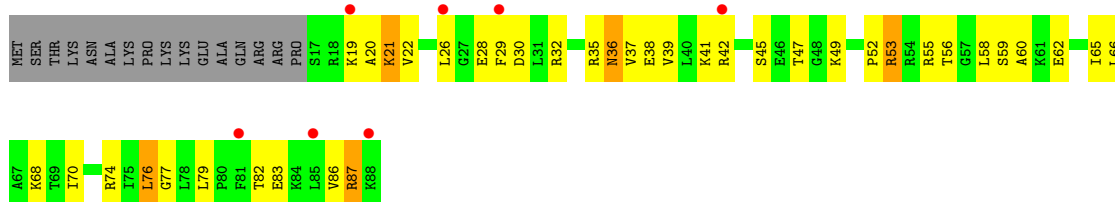




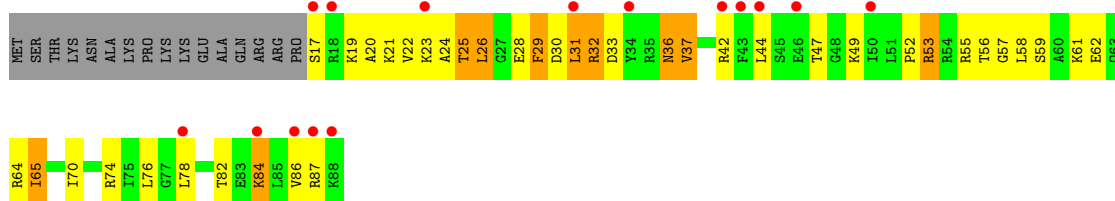
● Molecule 17: 30S ribosomal protein S17



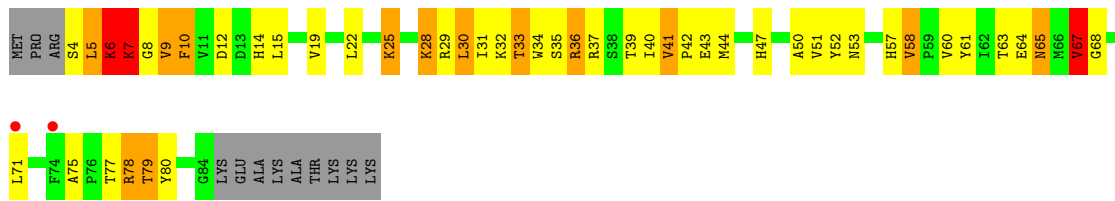
● Molecule 18: 30S ribosomal protein S18



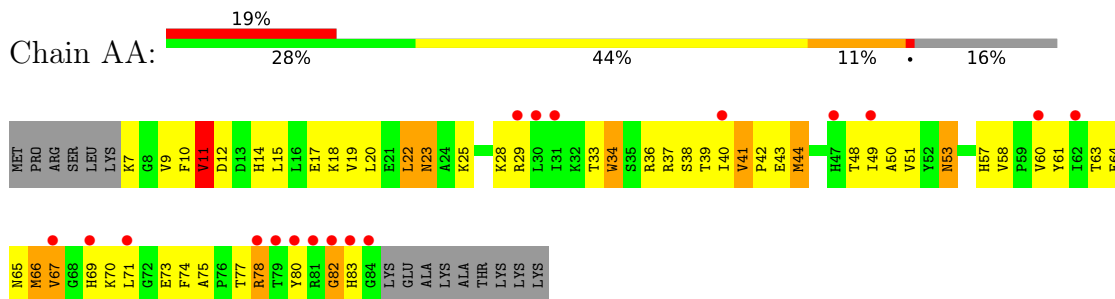
● Molecule 18: 30S ribosomal protein S18



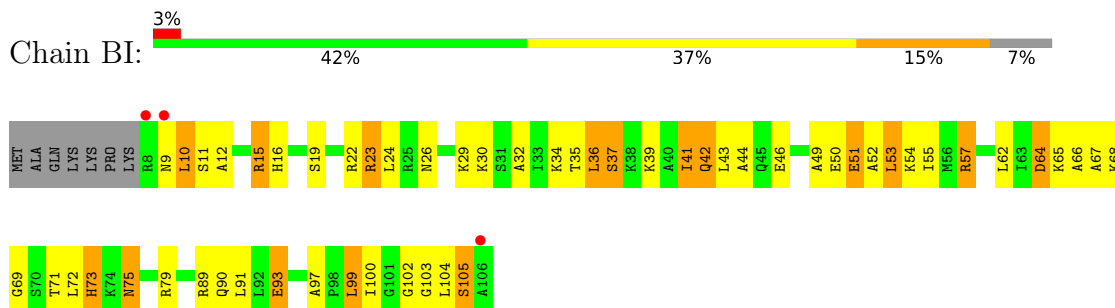
● Molecule 19: 30S ribosomal protein S19



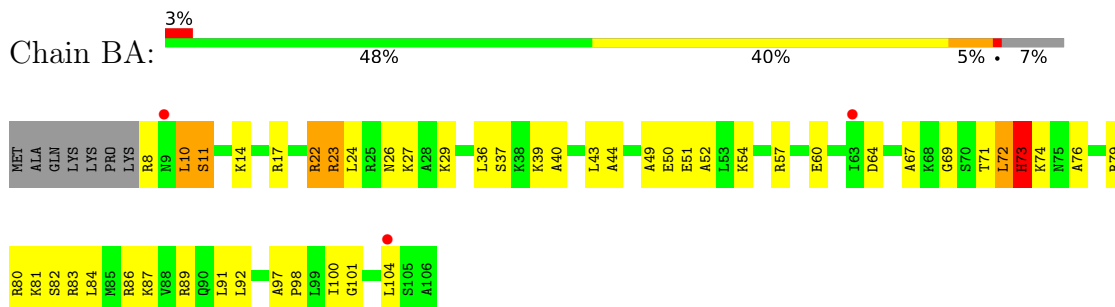
- Molecule 19: 30S ribosomal protein S19



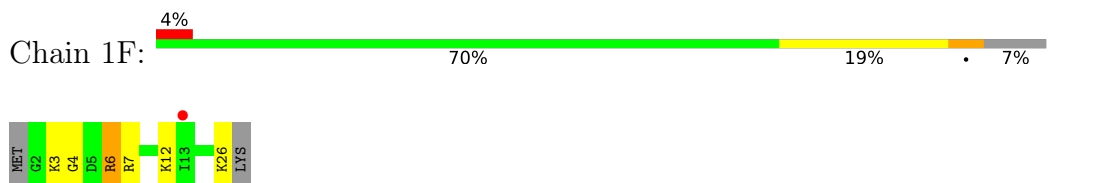
- Molecule 20: 30S ribosomal protein S20



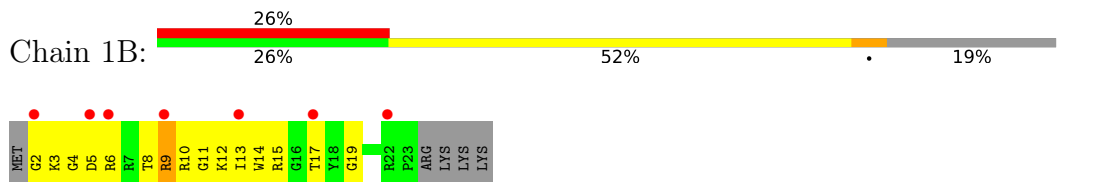
- Molecule 20: 30S ribosomal protein S20



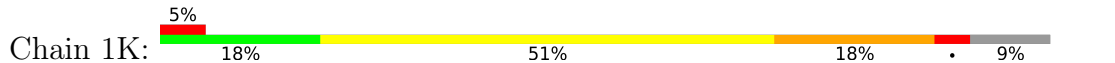
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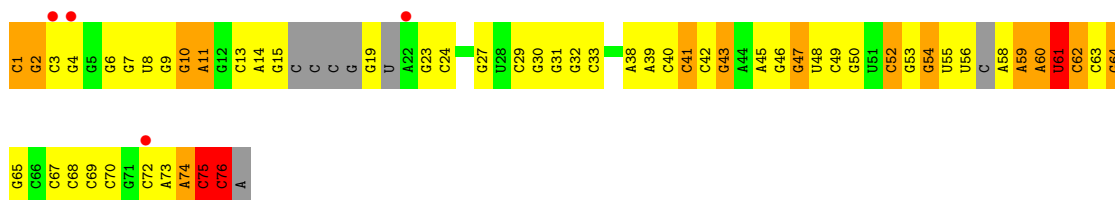


- Molecule 21: 30S ribosomal protein Thx

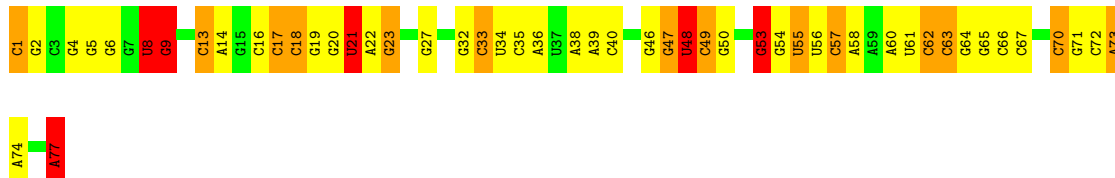


- Molecule 22: tRNA-fMet

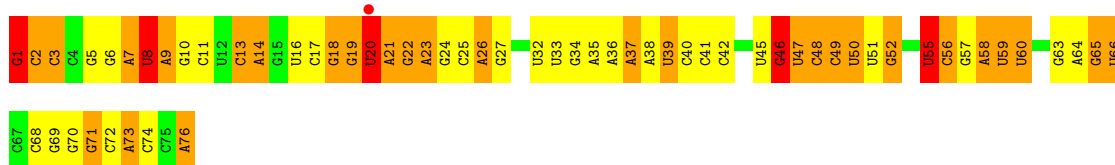
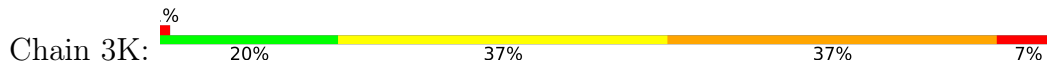




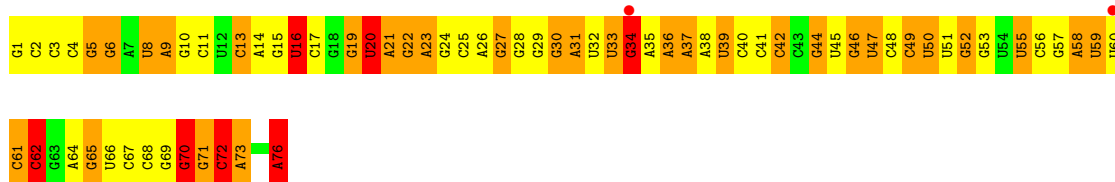
• Molecule 23: tRNA-fMet



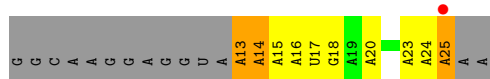
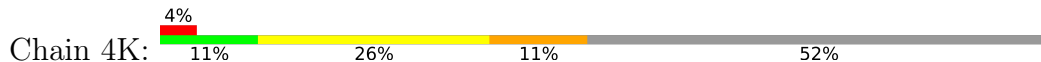
• Molecule 24: tRNA-Phe



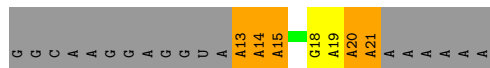
• Molecule 24: tRNA-Phe



• Molecule 25: mRNA

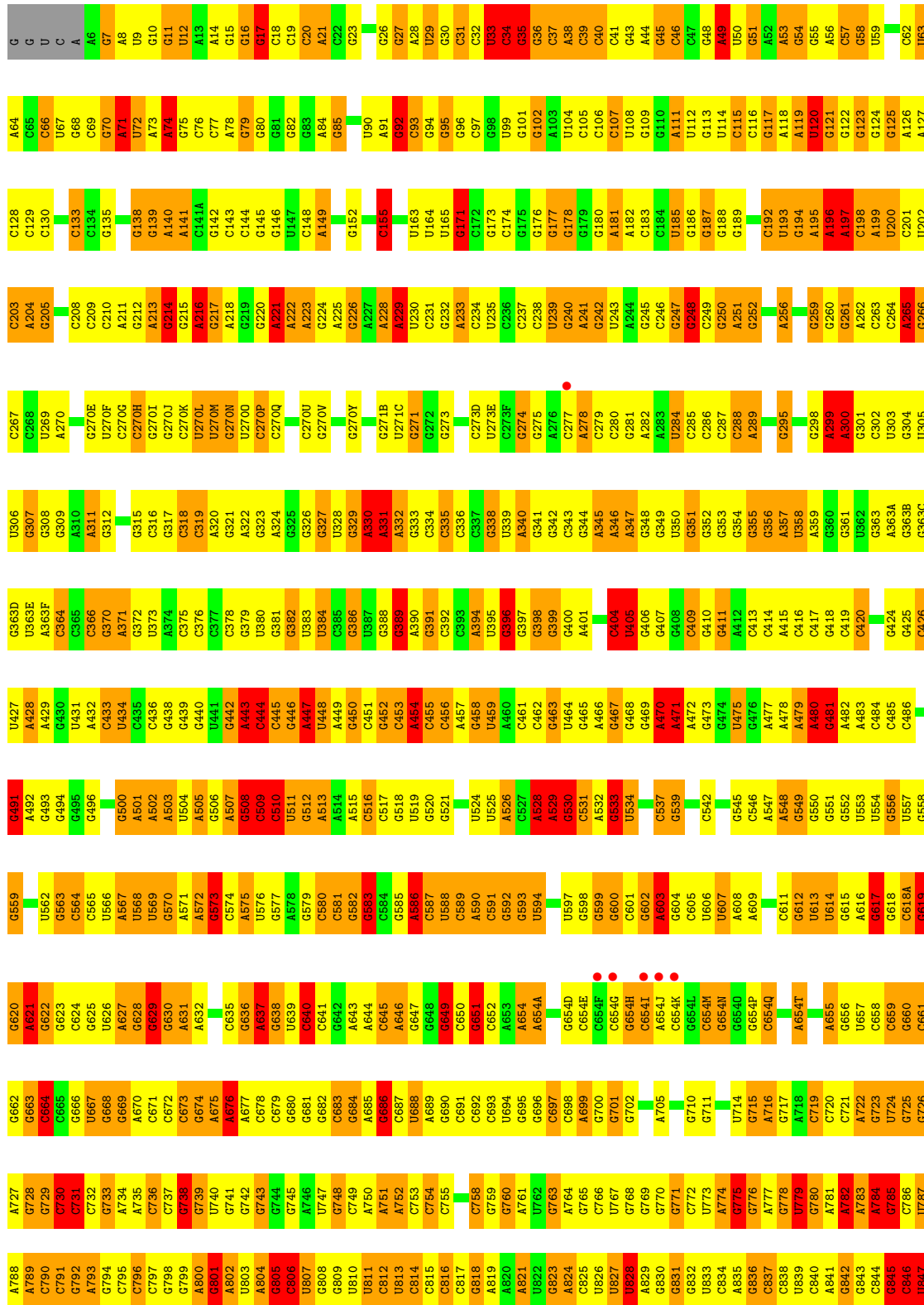


• Molecule 25: mRNA



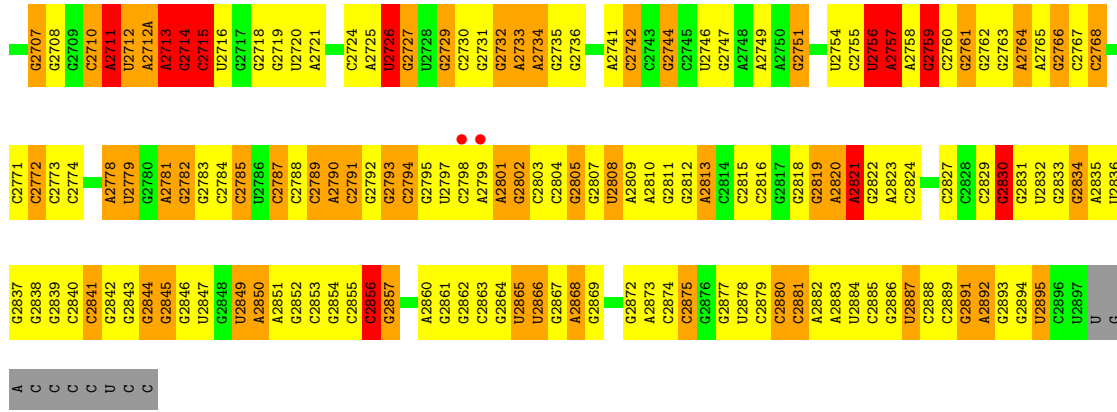
• Molecule 26: 23S ribosomal RNA

Chain 1H: 18% 42% 33% 7%

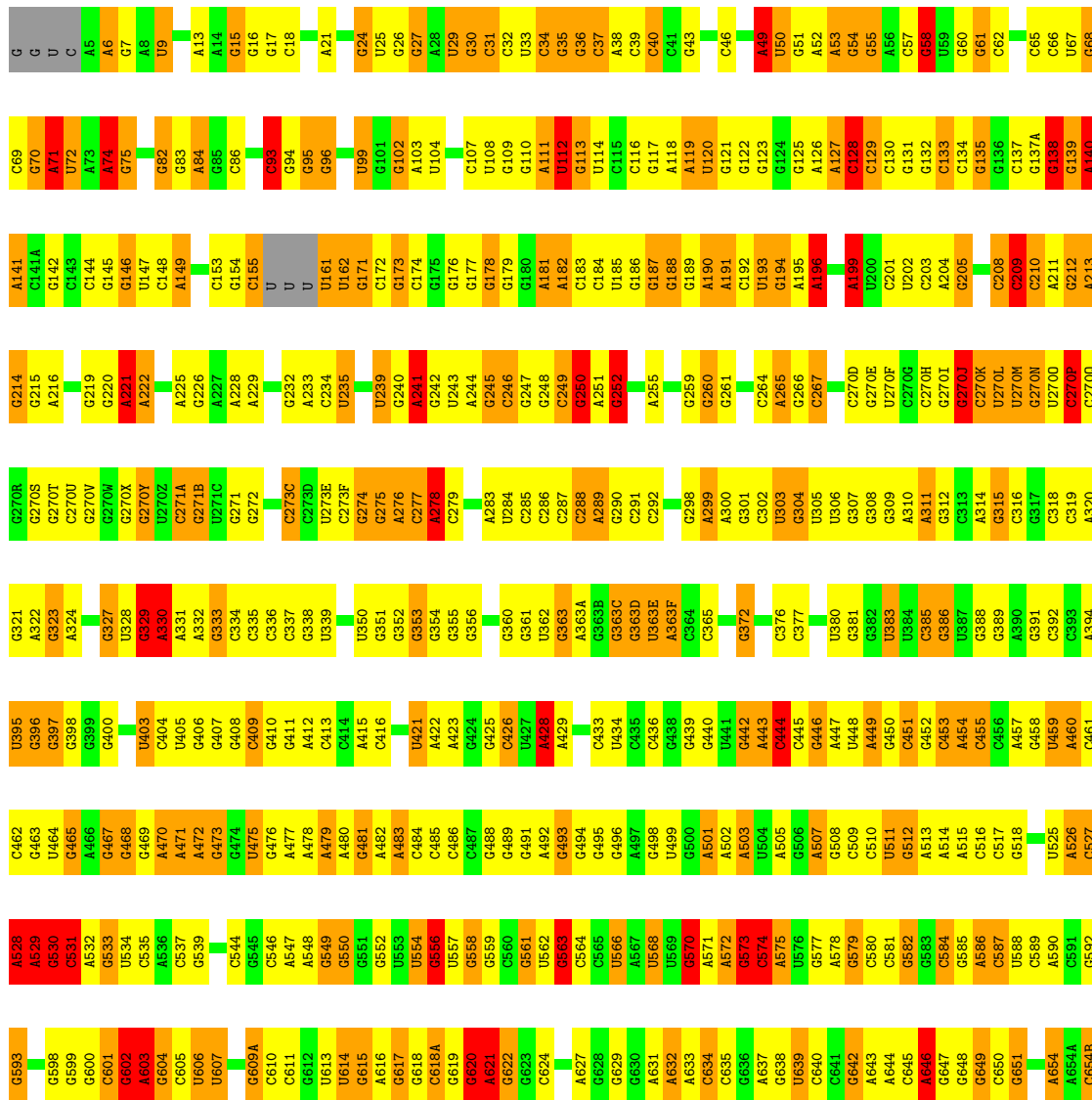
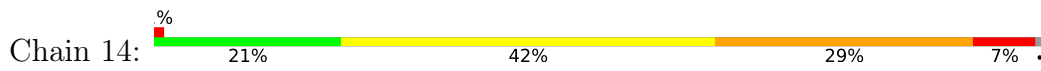


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G2637	G2610	G2385	G2325	U2265	U2132	C2072	G2010	C1947	G1880	G1807	G1743
U2638	G2611	C2386	C2326	A2266	G2133	C2073	U2011	G1948	G1883	G1808	G1744
A2639	G2612	U2387	A2327	A2267	A2134	U2074	G2012	U1949	A1809	A1809	G1747
G2640	G2613	A2388	A2328	A2268	A2135	U2075	A2013	G1950	A1810	A1810	G1748
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G2642	G2615	U2390	G2330	G2270	C2137	A2077	A2015	U1952	A1812	A1812	G1750
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G2645	G2618	A2393	U2333	A2273	U2140	G2080	G2018	U1955	A1814	A1814	
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U2649	G2622	G2397	G2337	G2277	C2145	C2084	G2023		U1818	U1818	U1757
U2650	G2623	G2400	G2338	A2278	C2146	C2085	G2024	G1959	A1819	A1819	G1758
G2651	G2624	U2401	G2339	G2279	G2147	C2086	G2025	A1960	U1759	U1759	A1759
U2652	G2625	U2402	G2340	G2280	G2148	U2087	C2026	G1961	A1820	A1820	A1760
A2653	G2626	C2403	G2341	C2281	G2149	G2088	G2027	C1962	A1821	A1821	C1761
A2654	G2627	C2404	C2342	G2282	U2150	U2089	G2029	G1963	A1822	A1822	
G2655	A2530	C2405	C2343	A2283	G2151	G2090	A2030	C1965		A1825	G1762
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A2657	G2632	U2407	G2345	A2285	G2153	U2092	G2032	C1967	C1827	C1827	C1765
G2661	A2633	G2408	A2346	A2286	G2154	G2093	A2033	G1968	G1828	G1828	U1766
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G2664	G2636	A2411	G2349	G2289	G2157	U2096	C2036	A1971	G1831	G1831	G1769
A2665	G2637	A2412	C2350	G2290	C2161	C2097	G2037	A1972	C1832	C1832	G1770
G2666	G2638	A2413	G2351	U2291	G2162	U2098	G2038	G1973	A1833	A1833	C1771
G2667	G2639	G2414	A2352	C2292	G2163	U2099	C2039	G1974	U1834	U1834	G1772
	A2541	C2415	G2353	C2293	C2164	G2100	C2040	G1975	G1835	G1835	G1773
G2672	A2542	C2416	G2354	C2294	G2165	G2101	U2041	U1976	C1836	C1836	C1774
G2673	A2543	A2417	G2355	G2295	C2166	U2102	U2042	A1977	C1837	C1837	U1775
G2674	G2544	U2418	U2356	U2296	G2167	U2103	C2043	A1978	C1838	C1838	G1776
U2680	G2545	A2419	G2357	C2297	G2168	G2104	G2044	C1979	G1839	G1839	U1777
C2681	G2546	C2420	G2358	A2298	G2169	C2105	C2045	U1980	G1840	G1840	U1778
U2682	U2547	G2421	A2360	G2300	G2170	G2106	G2046	A1981	U1841	U1841	U1779
G2683	G2548	A2422	A2361	C2301	A2169	C2107	U2047	C1982	C1843	C1843	C1781
U2684	G2549	C2423	G2362	G2302	A2170	U2108	G2048	C1983	C1844	C1844	C1782
G2685	G2550	C2424	C2363	G2303	A2171	G2110	C2050	G1984	G1845	G1845	A1783
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A2701	U2566	U2437	G2376	C2316	C2184	G2123	C2063	G1997	G1860	G1860	U1795
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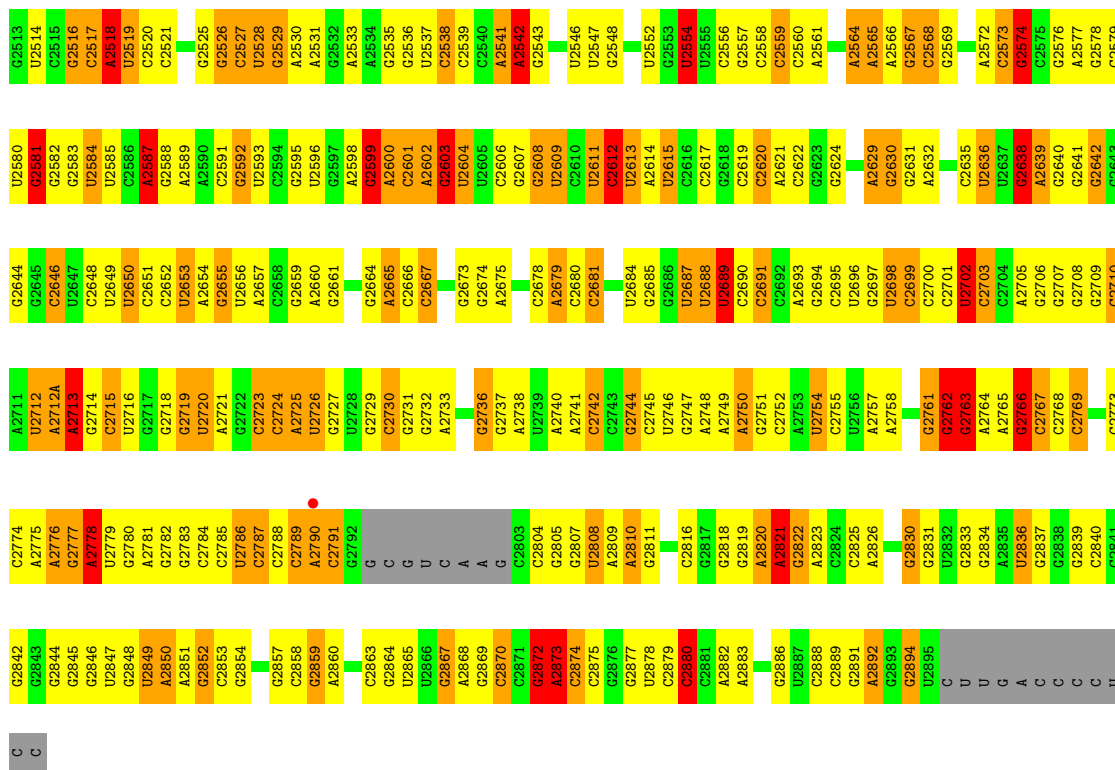


• Molecule 26: 23S ribosomal RNA

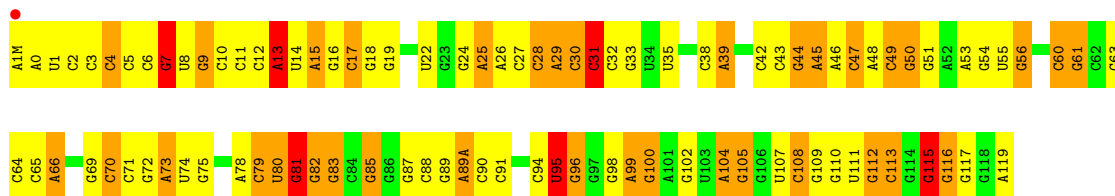
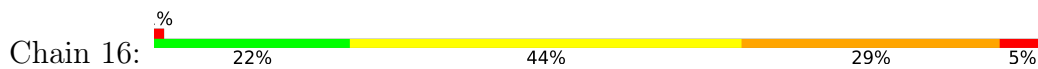


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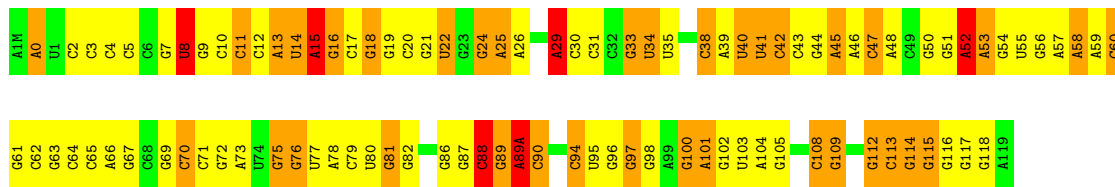
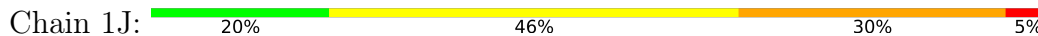
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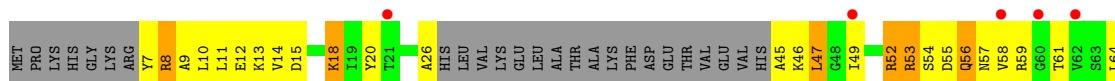
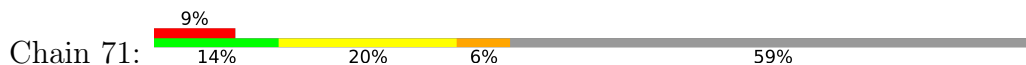
• Molecule 27: 5S ribosomal RNA

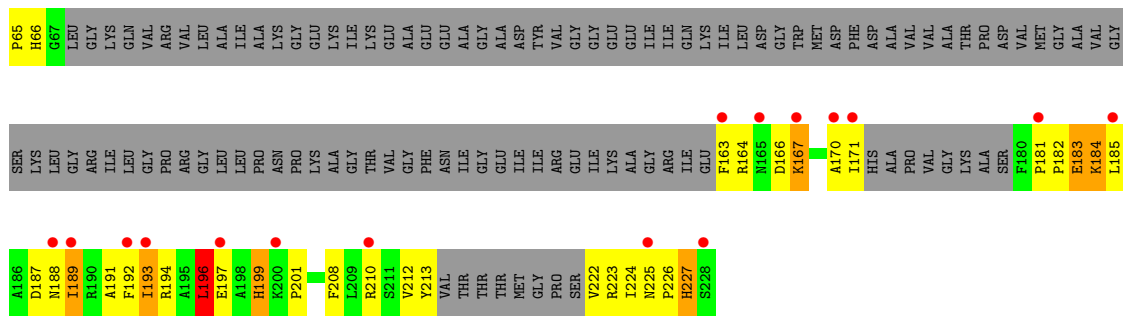


• Molecule 27: 5S ribosomal RNA

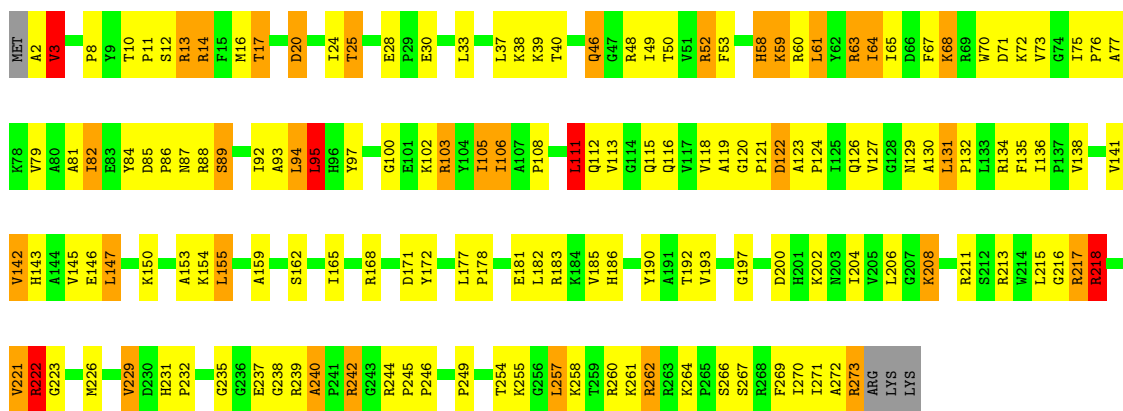


• Molecule 28: 50S ribosomal protein L1

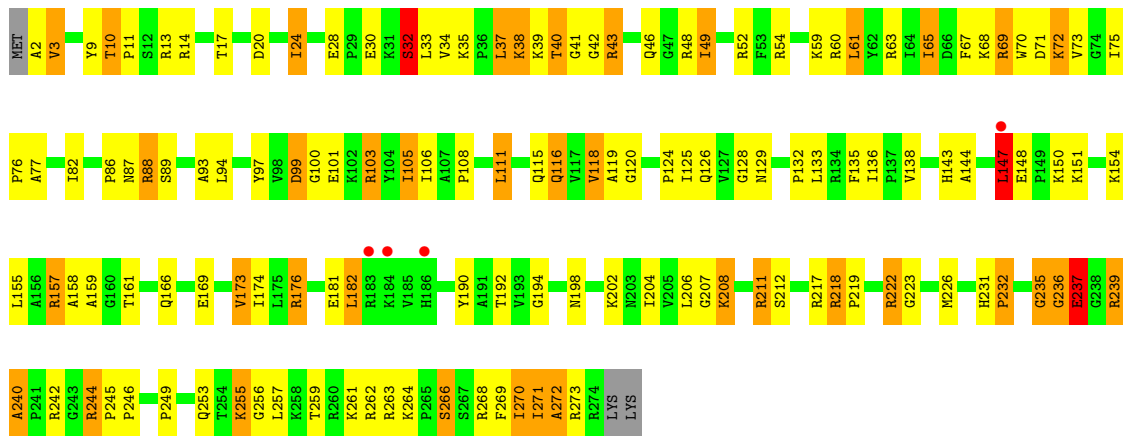




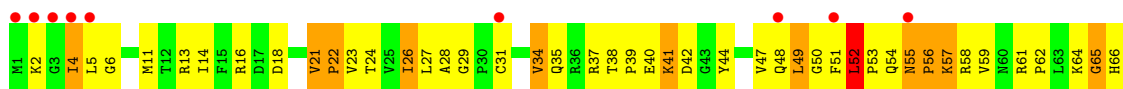
• Molecule 29: 50S ribosomal protein L2

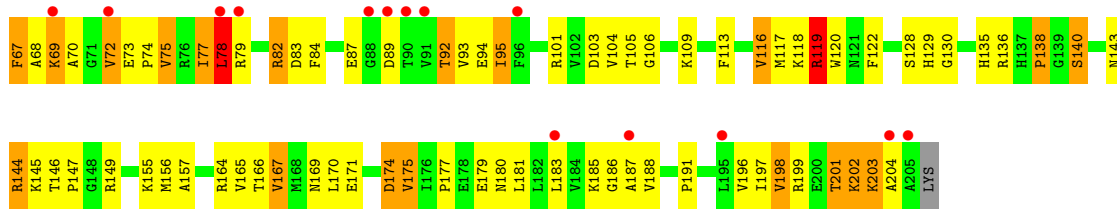


• Molecule 29: 50S ribosomal protein L2

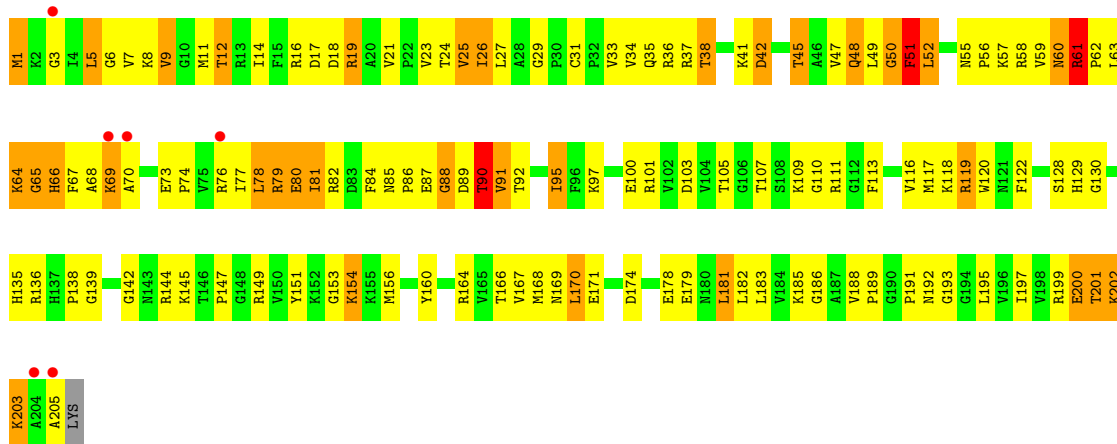


• Molecule 30: 50S ribosomal protein L3

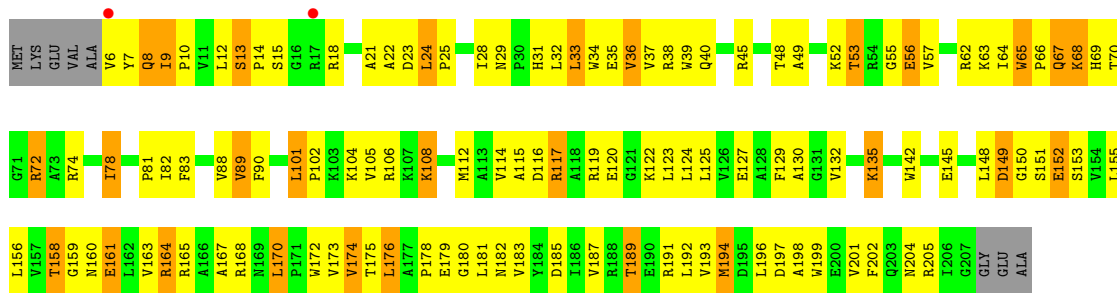




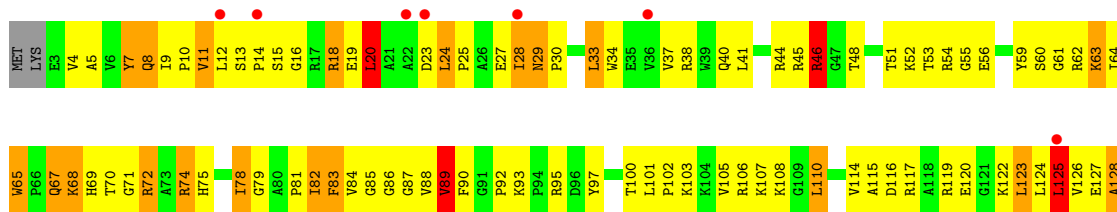
• Molecule 30: 50S ribosomal protein L3

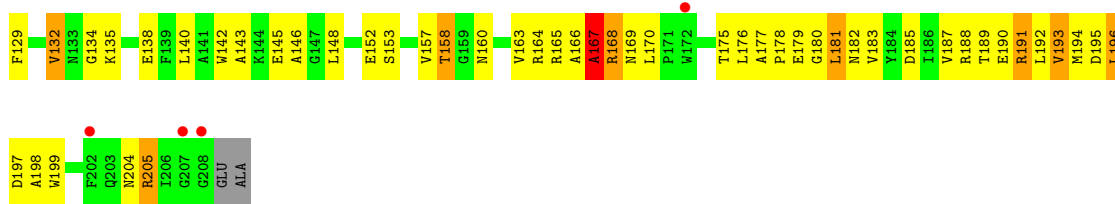


• Molecule 31: 50S ribosomal protein L4

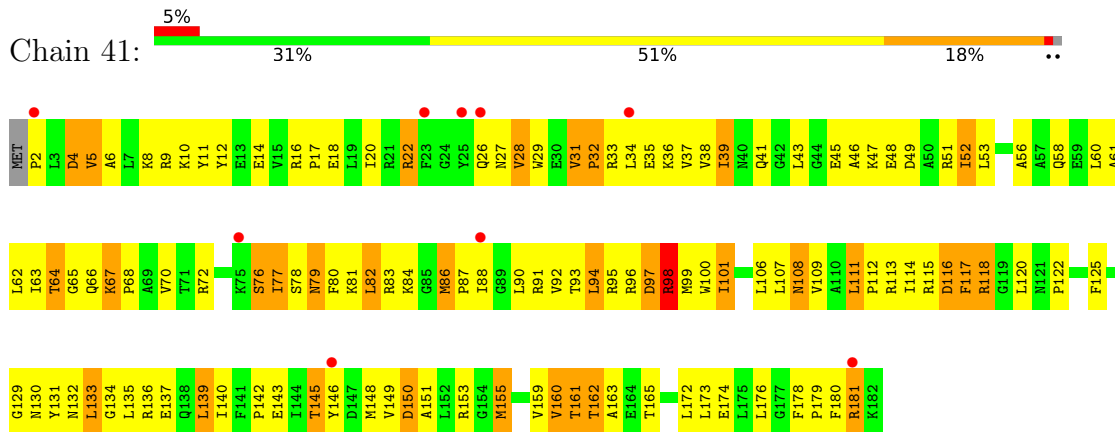


• Molecule 31: 50S ribosomal protein L4

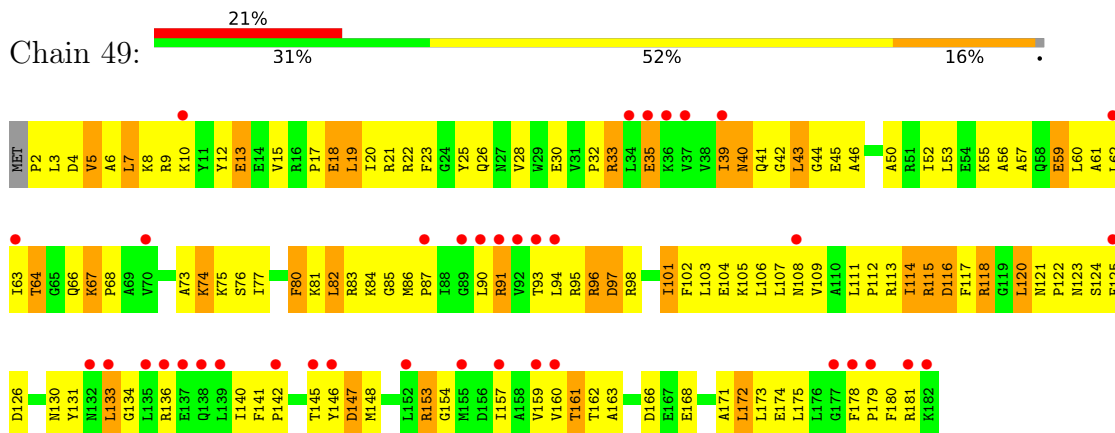




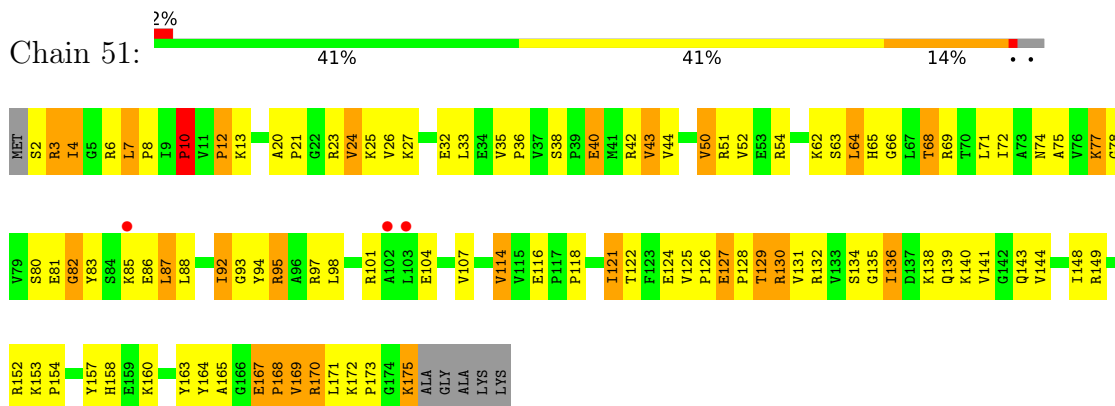
• Molecule 32: 50S ribosomal protein L5



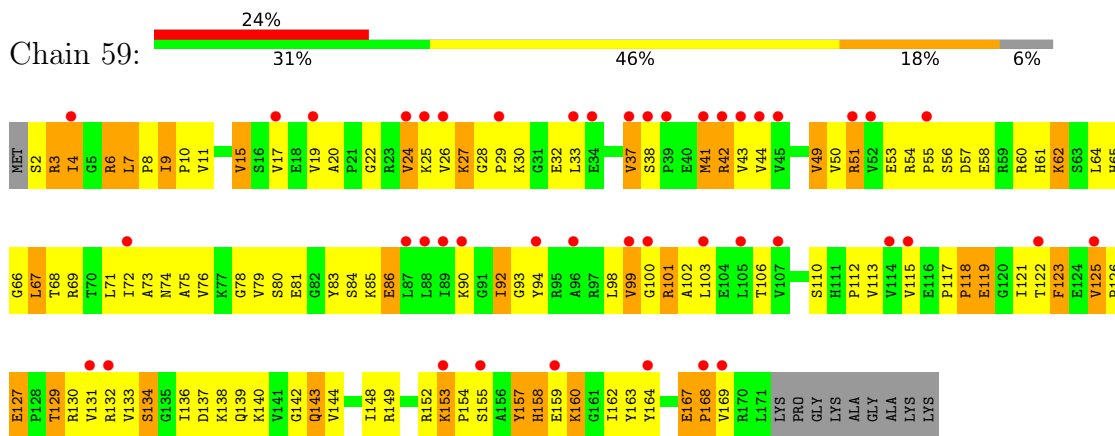
• Molecule 32: 50S ribosomal protein L5



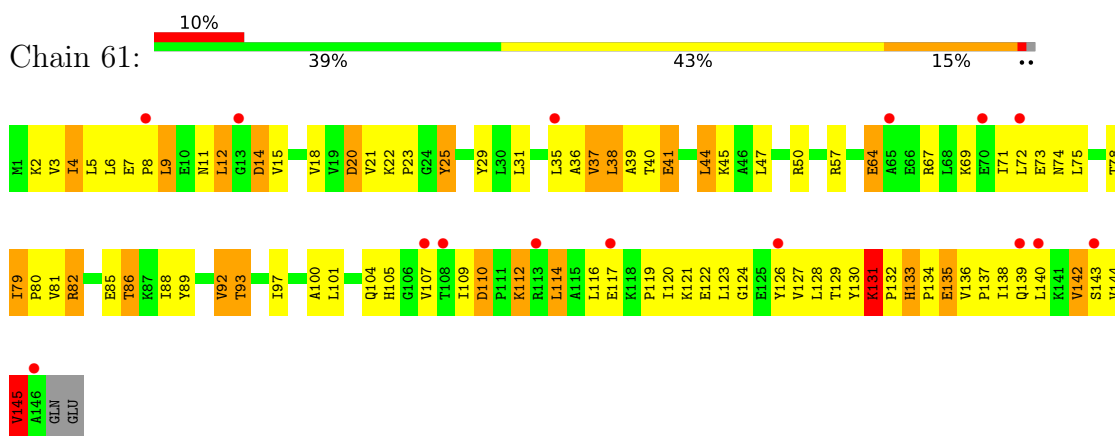
• Molecule 33: 50S ribosomal protein L6



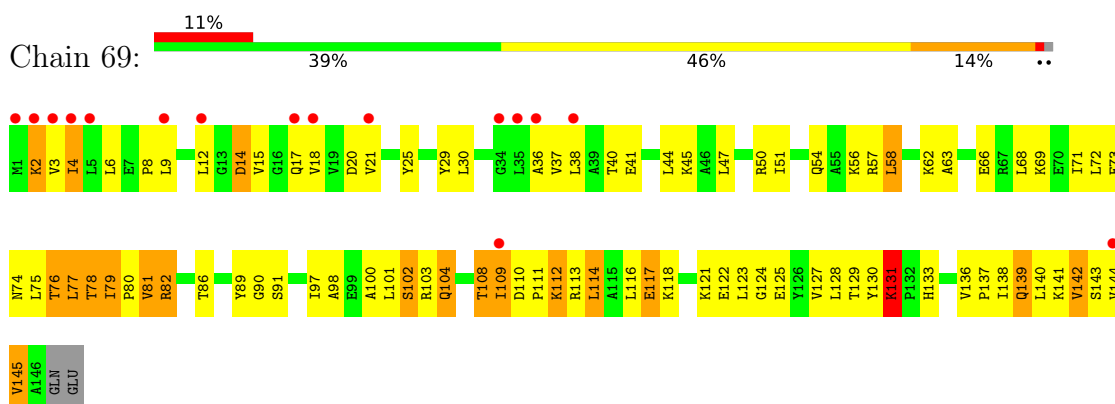
• Molecule 33: 50S ribosomal protein L6



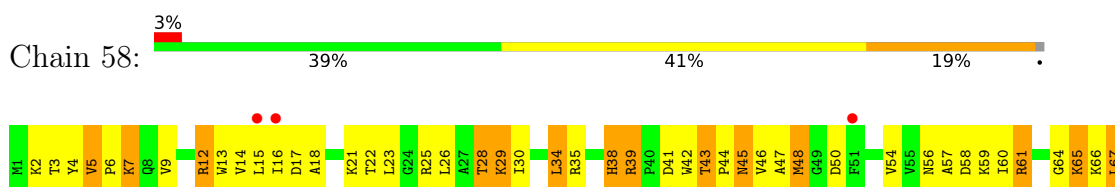
• Molecule 34: 50S ribosomal protein L9



• Molecule 34: 50S ribosomal protein L9



• Molecule 35: 50S ribosomal protein L13





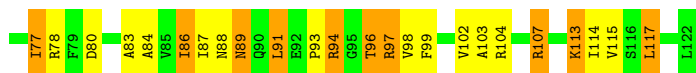
- Molecule 35: 50S ribosomal protein L13



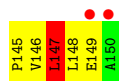
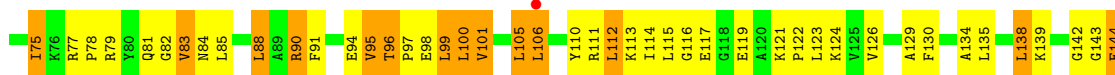
- Molecule 36: 50S ribosomal protein L14



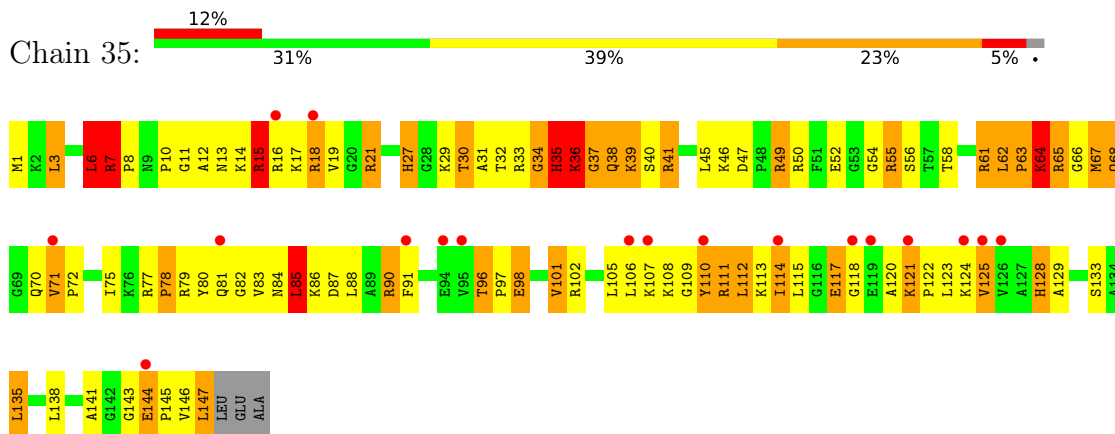
- Molecule 36: 50S ribosomal protein L14



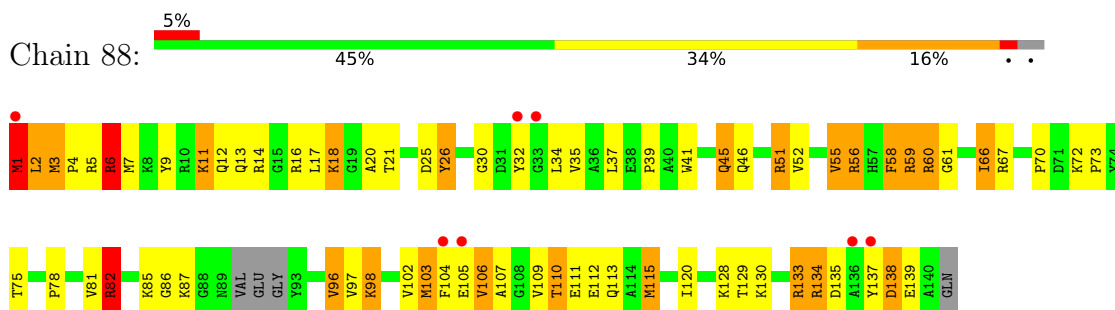
- Molecule 37: 50S ribosomal protein L15



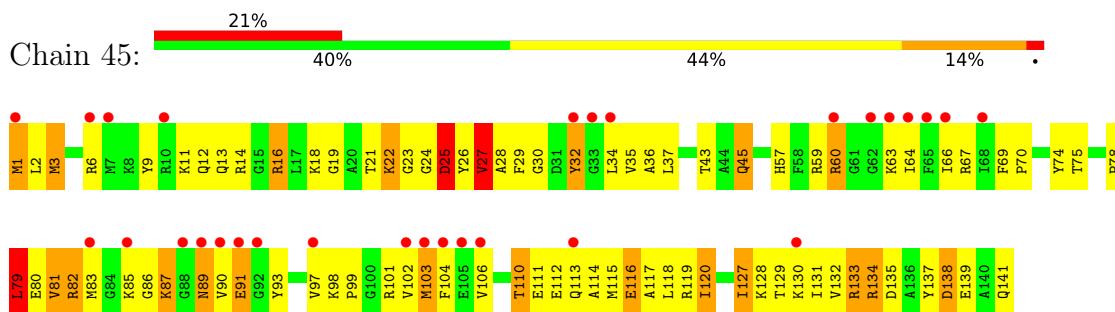
- Molecule 37: 50S ribosomal protein L15



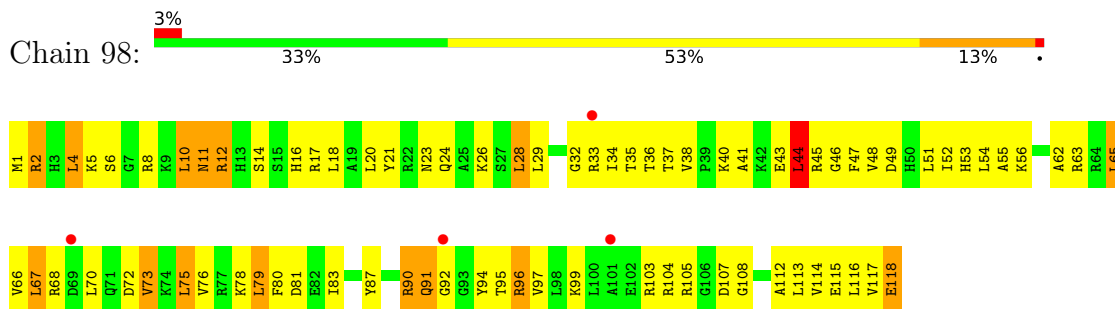
- Molecule 38: 50S ribosomal protein L16



- Molecule 38: 50S ribosomal protein L16



- Molecule 39: 50S ribosomal protein L17

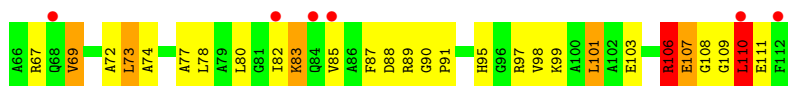
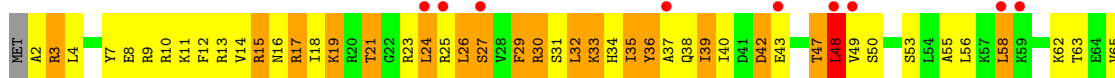


- Molecule 39: 50S ribosomal protein L17

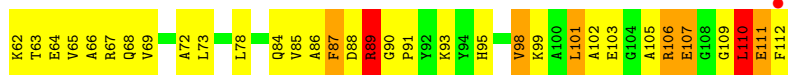
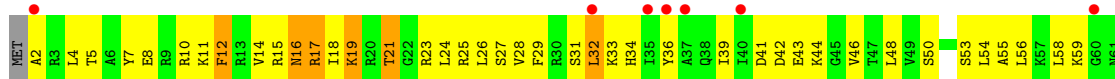




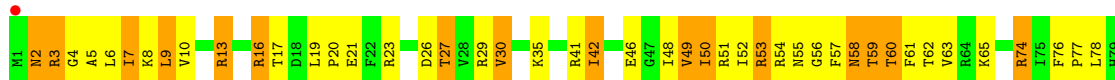
• Molecule 40: 50S ribosomal protein L18



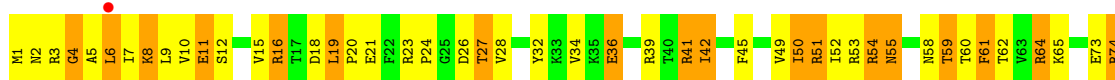
• Molecule 40: 50S ribosomal protein L18

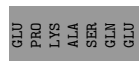


• Molecule 41: 50S ribosomal protein L19

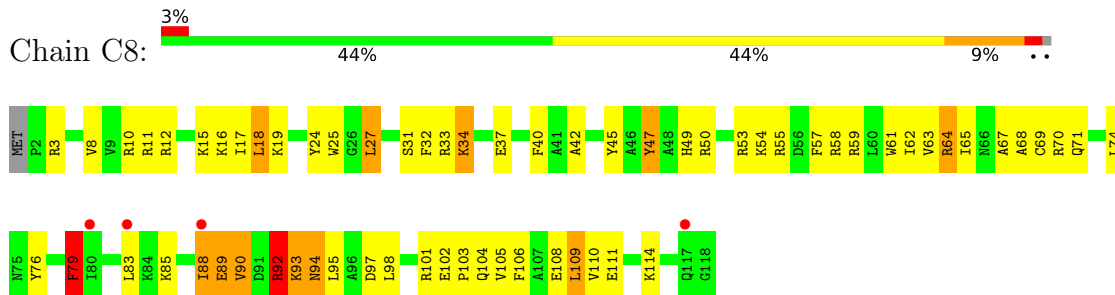


• Molecule 41: 50S ribosomal protein L19

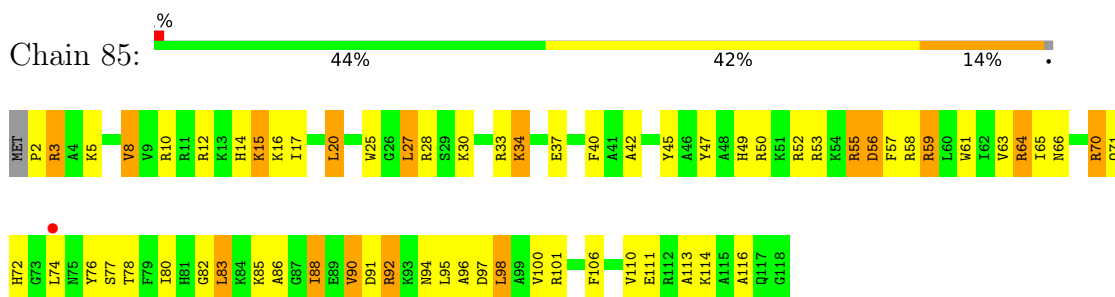




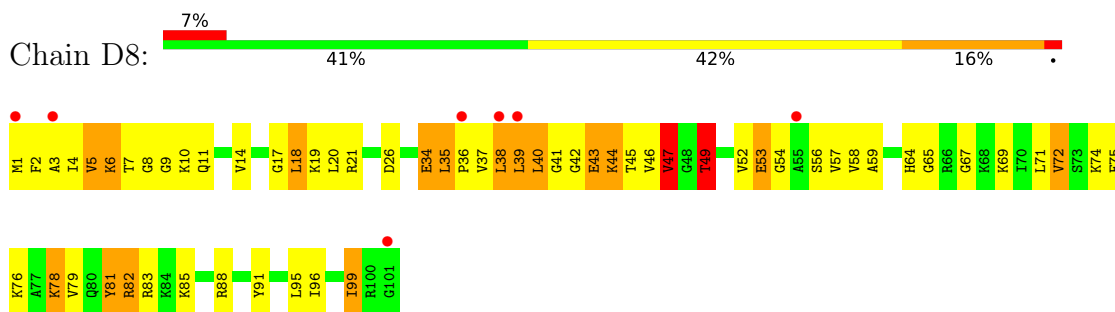
• Molecule 42: 50S ribosomal protein L20



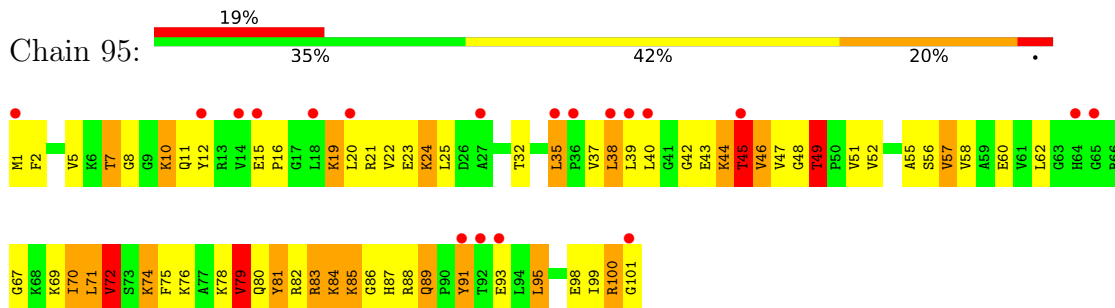
• Molecule 42: 50S ribosomal protein L20



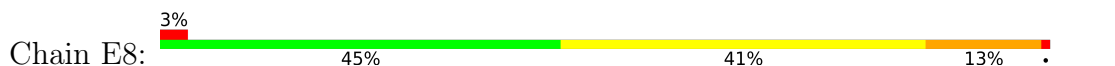
• Molecule 43: 50S ribosomal protein L21

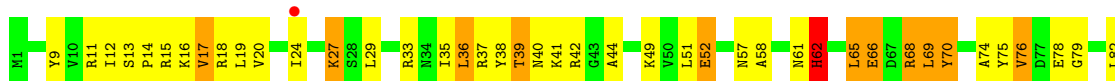


• Molecule 43: 50S ribosomal protein L21

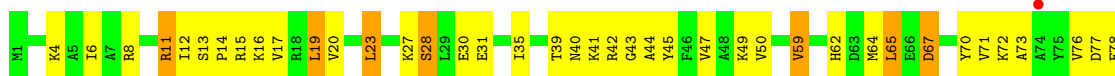


• Molecule 44: 50S ribosomal protein L22

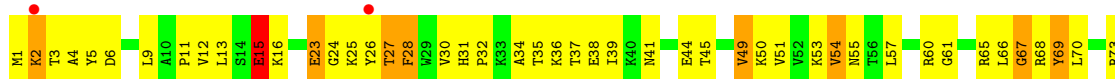




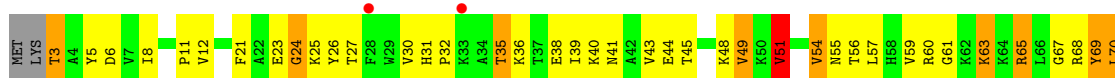
• Molecule 44: 50S ribosomal protein L22



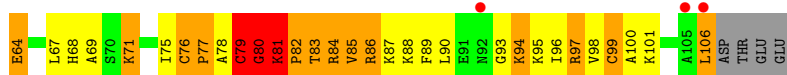
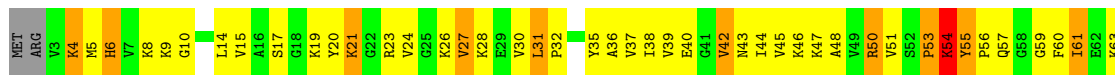
• Molecule 45: 50S ribosomal protein L23

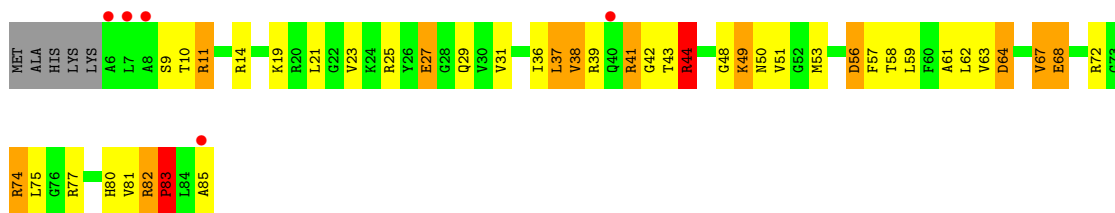


• Molecule 45: 50S ribosomal protein L23

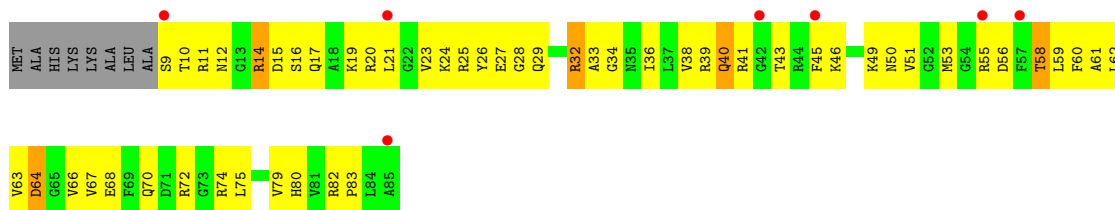


• Molecule 46: 50S ribosomal protein L24

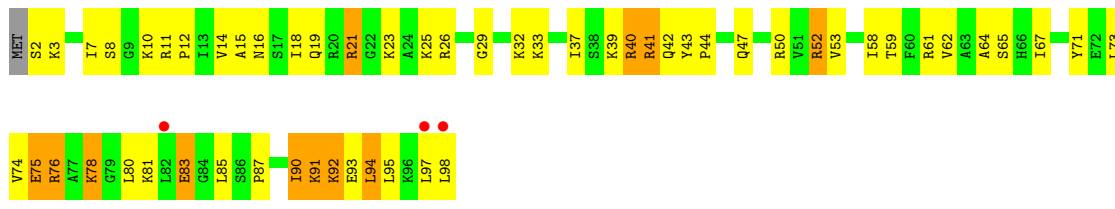




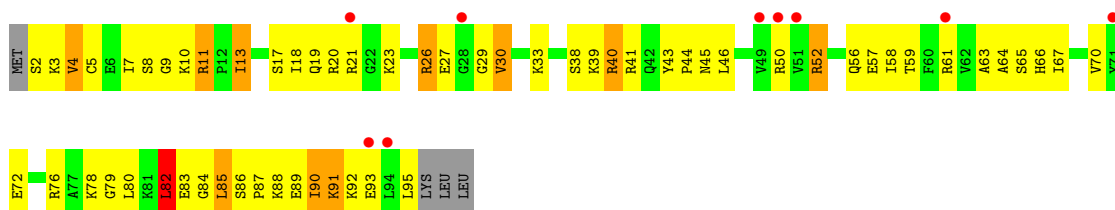
• Molecule 48: 50S ribosomal protein L27



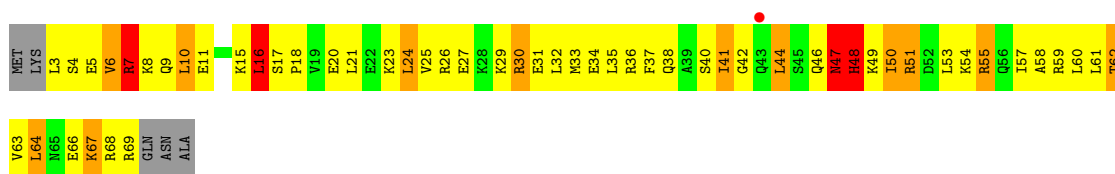
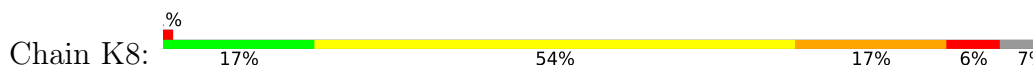
• Molecule 49: 50S ribosomal protein L28



• Molecule 49: 50S ribosomal protein L28



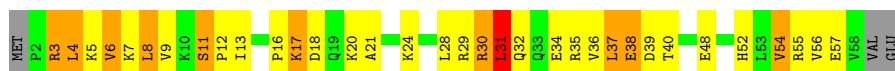
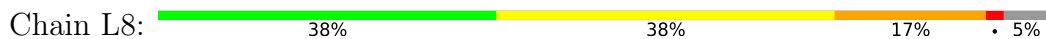
• Molecule 50: 50S ribosomal protein L29



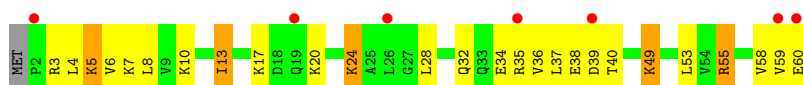
• Molecule 50: 50S ribosomal protein L29



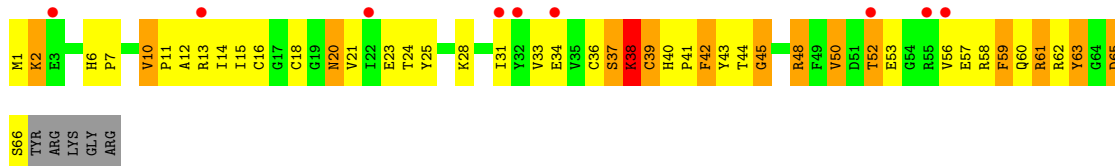
- Molecule 51: 50S ribosomal protein L30



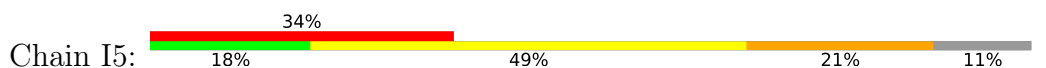
- Molecule 51: 50S ribosomal protein L30



- Molecule 52: 50S ribosomal protein L31



- Molecule 52: 50S ribosomal protein L31



- Molecule 53: 50S ribosomal protein L32



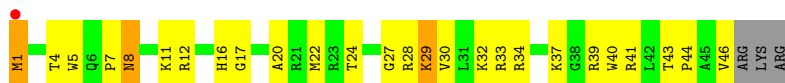
- Molecule 53: 50S ribosomal protein L32



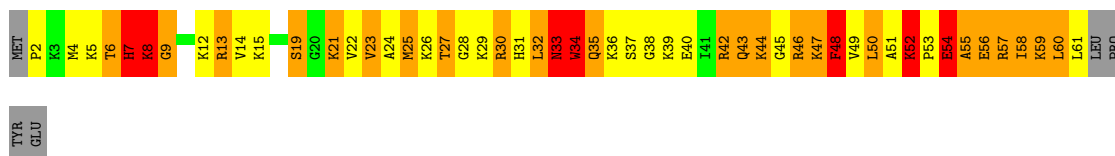
• Molecule 54: 50S ribosomal protein L34



• Molecule 54: 50S ribosomal protein L34



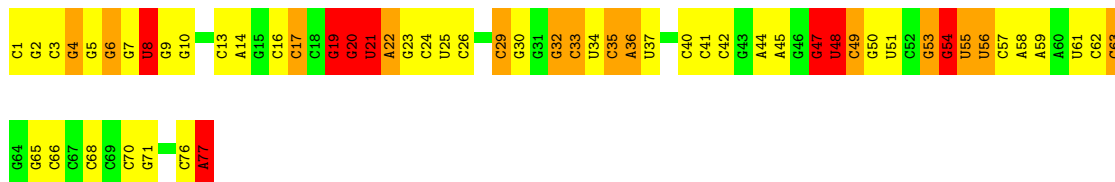
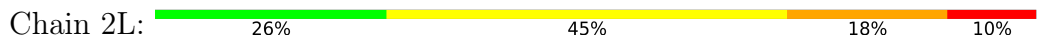
• Molecule 55: 50S ribosomal protein L35



• Molecule 55: 50S ribosomal protein L35



• Molecule 56: tRNA-fMet



4 Data and refinement statistics

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
$\langle I/\sigma(I) \rangle$ ¹	0.96 (at 3.33Å)	Xtrriage
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	Xtrriage
Anisotropy	0.268	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 88.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.26$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
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

Xtrriage'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.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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	C5-C6-N1	-5.70	118.15	121.00
26	1H	2521	C	N3-C4-N4	-5.70	114.01	118.00
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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	N1-C2-N3	5.17	131.88	129.30
26	1H	74	A	O4'-C1'-N9	-5.17	104.07	108.20
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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(°)	Ideal(°)
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
5:4E:99:GLY:H	5:4E:117:ASP:HB3	1.21	1.04
26:1H:1614:A:OP1	59:1H:3862:HOH:O	1.75	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
26:1H:298:G:N7	59:1H:4106:HOH:O	1.95	0.98
29:11:60:ARG:HD3	29:11:86:PRO:HB2	1.46	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:943:U:OP2	59:1H:4352:HOH:O	1.83	0.95
26:1H:2068:U:H3	26:1H:2430:A:H2	0.97	0.95
1:1G:1127:G:H22	1:1G:1144:G:H1	1.12	0.94
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.49	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
26:1H:2308:G:H1	26:1H:2311:A:H2	1.12	0.94
26:14:1757:U:H3	26:14:1762:A:H2	1.05	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:511:U:OP2	59:1H:4387:HOH:O	1.86	0.94
26:1H:1265:A:OP2	59:1H:3517:HOH:O	1.85	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
30:21:24:THR:HG21	30:21:188:VAL:HG21	1.53	0.91
26:14:819:A:OP2	26:14:1187:G:N2	2.03	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
26:1H: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
26:14:751:A:OP1	59:14:3409:HOH:O	1.89	0.91
26:1H:761:A:OP1	59:1H:3599:HOH:O	1.87	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.53	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
26:1H:607:U:H3	26:1H:621:A:H2	0.95	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1019:U:HO2'	26:14:1021:A:H2	0.94	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:958:U:OP2	38:88:14:ARG:NH1	2.05	0.89
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: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:760:G:OP1	59:1H:3754:HOH:O	1.90	0.89
26:1H:2615:U:OP1	59:1H:3517:HOH:O	1.89	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
51:L8:13:ILE:O	59:L8:201:HOH:O	1.91	0.88
4:32:26:CYS:HA	4:32:31:CYS:HB3	1.53	0.88
12:3I:7:ILE:HD11	17:8I:32:TYR:HB3	1.55	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
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.56	0.88
26:1H:1951:U:O4	59:1H:3952:HOH:O	1.92	0.88
26:14:527:C:OP1	59:14:3935: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
1:1G:147:G:H1	1:1G:175:C:H42	1.22	0.87
26:14:2415:G:H4'	37:35:67:MET:H	1.38	0.87
30:21:55:ASN:HB3	30:21:58:ARG:H	1.39	0.87
26:14:2210:G:O5'	26:14:2211:G:N2	2.06	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
26:1H:731:C:OP2	59:1H:3597:HOH:O	1.93	0.86
26:1H:1639:U:OP2	59:1H:3548:HOH:O	1.93	0.86
1:1G:998:G:N2	1:1G:1043:C:N3	2.22	0.86
26:14:602:G:O2'	26:14:604:G:O2'	1.93	0.86
26:14:2210:G:H3'	26:14:2211:G:C2	2.10	0.86
5:4E:83:GLU:HB2	5:4E:88:LYS:HE3	1.55	0.86
26:1H:195:A:N7	59:1H:4369:HOH:O	2.07	0.86
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.55	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
26:1H:2577:A:H5''	26:1H:2578:G:H5'	1.58	0.86
26:14:2028:U:O4	59:14:3947:HOH:O	1.94	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
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.39	0.86
26:14:277:C:OP2	26:14:278:A:N6	2.08	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
26:1H:1632:A:N7	59:1H:4384:HOH:O	2.08	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
26:14:2448: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
26:1H:2588:G:OP1	59:1H:3857:HOH:O	1.91	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
1:13:1133:G:N2	1:13:1141:C:N3	2.22	0.85
26:1H:999:U:OP2	59:1H:3940:HOH:O	1.94	0.85
36:68:17:ARG:HA	36:68:17:ARG:HH11	1.40	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
40:65:99:LYS:NZ	40:65:103:GLU:OE1	2.09	0.85
34:69:139:GLN:OE1	34:69:141:LYS:NZ	2.09	0.85
26:1H:2452:C:OP1	59:1H:4291:HOH:O	1.95	0.85
1:1G:1502:A:H2	1:1G:1505:G:H1	1.24	0.85
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.12	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
26:14:2256:G:N7	59:14:3981:HOH:O	2.09	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
26:1H:49:A:N7	26:1H:120:U:H5	1.74	0.85
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.16	0.85
1:1G:458:C:N3	1:1G:474:G:N2	2.23	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
1:13:963:G:N3	10:1I:55:LYS:NZ	2.26	0.84
26:1H:761:A:N7	59:1H:4011:HOH:O	2.10	0.84
33:51:83:TYR:HB3	33:51:135:GLY:H	1.42	0.84
24:3L:76:A:O2'	26:14:2394:C:N3	2.08	0.84
26:14:1228:G:OP2	42:85:16:LYS:NZ	2.11	0.84
26:14:2873:A:H8	39:55:6:SER:H	1.21	0.84
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.39	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
1:13:1508:G:OP1	59:13:1802:HOH:O	1.94	0.84
26:1H:2712(A):A:OP2	59:1H:3574:HOH:O	1.96	0.84
26:1H:2875:C:H1'	41:B8:5:ALA:HB2	1.59	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
37:35:138:LEU:HD12	37:35:144:GLU:HG3	1.60	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
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.43	0.84
26:14:259:G:H21	26:14:621:A:H8	1.21	0.84
1:13:1110:A:OP2	59:13:1916:HOH:O	1.94	0.84
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.58	0.84
26:14:2002:G:N7	59:14:3793:HOH:O	2.11	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
55:Q8:27:THR:HG22	55:Q8:29:LYS:HB3	1.58	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
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
55:Q8:53:PRO:HA	55:Q8:55:ALA:N	1.92	0.83
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.60	0.83
26:14:839:U:H3	26:14:939:G:H1	1.24	0.83
26:14:1022:G:O2'	26:14:1023:U:OP2	1.96	0.83
26:1H:16:G:H2'	26:1H:17:G:H8	1.42	0.83
26:1H:801:G:OP2	59:1H:4137:HOH:O	1.95	0.83
26:14:1365:A:O2'	49:F5:11:ARG:NH2	2.12	0.83
27:1J:48:A:H4'	40:65:95:HIS:HD2	1.44	0.83
26:1H:450:G:OP2	59:1H:3831:HOH:O	1.97	0.83
32:4I:67:LYS:HE2	52:M8:6:HIS:CE1	2.14	0.83
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.12	0.83
26:14:1364:G:OP2	49:F5:2:SER:N	2.12	0.83
52:I5:56:VAL:HG22	52:I5:57:GLU:HG3	1.60	0.83
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.61	0.83
11:2I:32:ILE:HD13	11:2I:72:ALA:HB2	1.58	0.83
26:1H:428:A:OP1	59:1H:3693:HOH:O	1.97	0.83
26:1H:2591:C:O3'	59:1H:4409:HOH:O	1.96	0.83
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.59	0.83
26:14:1992:G:N7	59:14:3517:HOH:O	2.12	0.83
29:11:12:SER:HB2	29:11:208:LYS:HB3	1.60	0.82
8:72:17:THR:O	8:72:78:GLN:NE2	2.11	0.82
34:69:112:LYS:HA	34:69:114:LEU:H	1.43	0.82
26:1H:195:A:N7	59:1H:4367:HOH:O	2.12	0.82
26:1H:563:G:OP2	59:1H:3534:HOH:O	1.95	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
26:14:2017: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
33:59:81:GLU:O	33:59:138:LYS:NZ	2.12	0.82
26:1H:654(G):C:O2	26:1H:654(N):G:N2	2.11	0.82
1:1G:156:G:N2	1:1G:165:C:O2	2.10	0.82
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.59	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
1:13:74:C:H42	1:13:96:G:H1	1.23	0.82
1:13:1129:C:H4'	1:13:1130:A:H5'	1.61	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
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
26:14:1592:C:H2'	26:14:1593:G:H8	1.44	0.82
32:41:112:PRO:HB3	52:M8:37:SER:H	1.45	0.82
27:1J:86:G:N2	27:1J:90:C:O2	2.10	0.82
32:41:122:PRO:HB3	32:41:180:PHE:HD2	1.44	0.82
1:1G:584:G:H5'	17:8A:91:ARG:HH12	1.45	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
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
26:14:450:G:O6	59:14:3641:HOH:O	1.98	0.81
1:13:972:C:OP1	59:13:1829:HOH:O	1.97	0.81
26:1H:1569:A:H5'	29:11:61:LEU:HD21	1.62	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
27:1J:18:G:N2	27:1J:65:C:N3	2.27	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:198:C:OP2	59:1H:4367:HOH:O	1.97	0.81
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.62	0.81
33:51:101:ARG:NH2	33:51:121:ILE:O	2.13	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
1:13:1177:G:OP1	1:13:1177:G:H4'	1.79	0.81
26:1H:509:C:O3'	59:1H:4389:HOH:O	1.99	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
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
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.63	0.81
43:95:85:LYS:HE3	43:95:88:ARG:H	1.44	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:B5:8:ILE:O	50:G5:36:ARG:NH2	2.13	0.81
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.62	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
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.46	0.81
26:14:2392:A:H2	26:14:2424:C:H42	1.29	0.81
1:13:680:C:O2	1:13:710:G:N2	2.14	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
26:14:196:A:OP2	37:35:46:LYS:NZ	2.13	0.80
13:4I:108:ARG:HG3	13:4I:108:ARG:HH11	1.44	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
26:14:2701:C:H3'	26:14:2702:U:H5''	1.61	0.80
26:1H:2576:G:OP1	59:1H:3724:HOH:O	1.98	0.80
55:Q8:34:TRP:HE1	55:Q8:36:LYS:HZ2	1.28	0.80
27:1J:40:U:O2	27:1J:45:A:N6	2.14	0.80
1:13:1312:G:H5'	19:AI:6:LYS:HD3	1.63	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
26:1H:2255:G:OP2	59:1H:4071:HOH:O	1.98	0.80
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.47	0.80
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.64	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
22:1K:1:C:H5'	22:1K:2:G:H5'	1.64	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
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:933:A:OP1	51:L8:24:LYS:NZ	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2099:U:N3	26:1H:2190:G:O6	2.14	0.80
31:31:179:GLU:OE1	31:31:179:GLU:N	2.14	0.80
26:1H:2058:A:N6	59:1H:3520:HOH:O	2.14	0.80
26:14:2255:G:OP2	59:14:3976:HOH:O	1.99	0.80
24:3K:13:C:H2'	24:3K:14:A:H8	1.45	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
38:88:59:ARG:HH11	38:88:59:ARG:H	1.29	0.80
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.61	0.80
12:3A:27:LEU:HB3	12:3A:33:ARG:HD3	1.64	0.80
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.64	0.80
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.46	0.80
37:35:39:LYS:HB2	37:35:45:LEU:HD21	1.62	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
31:31:130:ALA:H	31:31:132:VAL:HG13	1.47	0.79
1:1G:1162:C:H42	1:1G:1174:G:H1	1.30	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
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
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.62	0.79
1:13:1321:C:H3'	1:13:1322:C:H5''	1.64	0.79
26:1H:2056:G:OP2	59:1H:3525:HOH:O	1.99	0.79
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.15	0.79
26:1H:2711:A:OP2	59:1H:3579:HOH:O	1.99	0.79
29:11:71:ASP:HB2	29:11:103:ARG:HH22	1.47	0.79
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.63	0.79
1:1G:979:C:H3'	1:1G:980:C:H5''	1.62	0.79
1:1G:1411:C:O2	1:1G:1489:G:N2	2.15	0.79
26:14:1828:G:OP2	59:14:3422:HOH:O	1.98	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
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.14	0.79
26:14:568:U:O4	59:14:3963:HOH:O	2.00	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
7:62:68:ASN:ND2	7:62:127:ALA:O	2.16	0.79
38:45:25:ASP:HB3	38:45:102:VAL:HG23	1.63	0.79
26:1H:567:A:OP1	59:1H:3505:HOH:O	2.01	0.79
28:71:49:ILE:HG22	28:71:56:GLN:HG2	1.65	0.79
4:32:14:ARG:HH11	4:32:14:ARG:HG3	1.45	0.79
26:14:1975:G:OP2	59:14:3497:HOH:O	2.00	0.79
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.16	0.79
26:1H:295:G:N2	26:1H:343:C:O2	2.12	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
26:1H:442:G:H1'	31:31:48:THR:HG21	1.65	0.79
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.17	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:2597:G:O3'	59:1H:3555:HOH:O	2.01	0.78
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.66	0.78
1:13:975:A:HO2'	14:5I:32:SER:HG	1.25	0.78
26:1H:2298:A:H62	26:1H:2318:G:H8	1.29	0.78
33:51:101:ARG:HH22	33:51:122:THR:HA	1.47	0.78
31:39:185:ASP:OD1	31:39:188:ARG:NH2	2.14	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
26:1H: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
50:K8:20:GLU:HA	50:K8:23:LYS:HB3	1.63	0.78
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.15	0.78
41:75:92:GLY:HA2	41:75:116:ALA:HA	1.64	0.78
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.66	0.78
26:1H:10:G:H2'	26:1H:11:G:H8	1.48	0.78
26:1H:2574:G:OP1	59:1H:4374:HOH:O	2.02	0.78
26:14:2361:A:N7	59:14:3988:HOH:O	2.15	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
26:1H:1253:A:N7	59:1H:3626:HOH:O	2.15	0.78
1:1G:580:U:H2'	1:1G:581:G:C8	2.18	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
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)
26:1H: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
1:1G:975:A:H5'	1:1G:975:A:H8	1.49	0.78
26:14:31:C:OP1	59:14:3734:HOH:O	2.01	0.78
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
26:1H: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
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.11	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
26:1H: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
26:14:848:G:H2'	26:14:849:A:C8	2.18	0.77
17:8I:11:VAL:HG23	17:8I:20:THR:HB	1.66	0.77
1:1G:359:U:H2'	1:1G:360:A:C8	2.20	0.77
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.19	0.77
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.49	0.77
26:14:2448:A:O5'	59:14:3600:HOH:O	2.02	0.77
1:13:201:C:N4	1:13:209:U:O2	2.18	0.77
26:1H:1689:A:H62	26:1H:1698:A:H2	1.32	0.77
1:1G:157:G:H1	1:1G:164:U:H3	1.33	0.77
30:29:56:PRO:HD2	30:29:58:ARG:HB2	1.66	0.77
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.49	0.77
29:11:79:VAL:HG21	29:11:111:LEU:HD11	1.66	0.77
37:78:95:VAL:HA	37:78:99:LEU:HD11	1.65	0.77
52:M8:38:LYS:NZ	52:M8:44:THR:OG1	2.17	0.77
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.66	0.77
26:14:2131:G:H5'	26:14:2158:A:H61	1.47	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
31:39:20:LEU:HG	31:39:199:TRP:HH2	1.50	0.77
52:I5:62:ARG:HH11	52:I5:62:ARG:HG3	1.50	0.77
1:13:501:C:H2'	1:13:502:G:C8	2.20	0.77
26:1H:674:G:H1'	31:31:74:ARG:HE	1.49	0.77
26:1H:1670:C:OP1	59:1H:3571:HOH:O	2.02	0.77
26:1H:1899:G:H22	26:1H:1902:C:N4	1.82	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
4:3E:22:LYS:HB2	4:3E:26:CYS:HB2	1.67	0.77
15:6I:18:PHE:HB2	15:6I:19:PRO:HD2	1.65	0.77
26:1H:2249:U:O4	59:1H:3640:HOH:O	2.01	0.77
33:51:54:ARG:HD3	33:51:65:HIS:ND1	2.00	0.77
1:1G:78:G:N2	1:1G:91:C:O2	2.17	0.77
32:49:109:VAL:HG11	32:49:142:PRO:HG3	1.67	0.77
38:45:81:VAL:O	38:45:82:ARG:NH1	2.17	0.77
26:1H:1327:C:OP2	59:1H:3541:HOH:O	2.01	0.77
33:51:4:ILE:HG13	33:51:6:ARG:HB2	1.67	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
7:6E:73:MET:HG2	7:6E:90:GLU:HA	1.66	0.77
12:3I:49:ASN:ND2	12:3I:92:ASP:OD2	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
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.17	0.77
1:1G:1349:A:OP1	9:82:118:LYS:NZ	2.18	0.77
2:12:178:ARG:NH1	2:12:196:LEU:O	2.17	0.77
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.16	0.77
26:1H:1828:G:OP1	59:1H:4395:HOH:O	2.02	0.77
33:51:169:VAL:O	33:51:170:ARG:NE	2.18	0.77
13:4A:57:ARG:HH12	52:I5:17:GLY:HA3	1.48	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:2758:A:OP2	59:1H:4324:HOH:O	2.02	0.77
1:1G:666:G:H5'	1:1G:726:C:H1'	1.67	0.77
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.18	0.77
1:13:1300:G:N7	59:13:1927:HOH:O	2.17	0.76
26:1H:910:A:H62	38:88:12:GLN:HA	1.47	0.76
1:1G:826:C:H5'	8:72:12:ARG:HH21	1.48	0.76
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.20	0.76
26:14:1614:A:H62	44:A5:93:ALA:HB2	1.50	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
1:13:396:G:O2'	1:13:398:C:OP1	2.02	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:490:G:OP2	4:3E:132:ARG:NH2	2.17	0.76
1:13:1212:U:H4'	1:13:1213:A:C8	2.20	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
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
42:C8:92:ARG:O	42:C8:94:ASN:N	2.18	0.76
26:14:581:C:H2'	26:14:582:G:H8	1.49	0.76
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.18	0.76
26:1H:929:G:O6	59:1H:3668:HOH:O	2.03	0.76
26:1H:1382:G:O6	59:1H:4418:HOH:O	2.04	0.76
1:1G:255:G:N2	1:1G:271:C:O2	2.18	0.76
26:14:1997:G:OP2	59:14:3511:HOH:O	2.01	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
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
22:1K:23:G:O6	22:1K:47:G:N2	2.18	0.76
26:1H:2496:C:OP1	38:88:82:ARG:HD3	1.84	0.76
1:1G:659:U:OP2	15:6A:8:LYS:NZ	2.15	0.76
1:13:345:C:O2'	1:13:346:G:N2	2.18	0.76
26:1H:606:U:OP2	31:31:104:LYS:NZ	2.18	0.76
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.67	0.76
1:1G:396:G:O2'	1:1G:398:C:OP1	2.01	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
26:14:2062:A:O2'	26:14:2063:C:OP1	2.03	0.76
38:45:32:TYR:HB3	38:45:133:ARG:HA	1.66	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
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.18	0.76
1:1G:877:C:H5''	8:72:88:LYS:HD3	1.68	0.76
26:14:900:A:H3'	26:14:901:A:H8	1.49	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
26:14:2635:C:O2'	30:29:48:GLN:NE2	2.19	0.76
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.19	0.76
52:M8:6:HIS:HD1	52:M8:7:PRO:HD2	1.50	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)
26:14:2134:A:O2'	26:14:2159:G:N2	2.18	0.76
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
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.68	0.76
24:3K:13:C:N4	24:3K:22:G:O6	2.16	0.76
26:1H:1465:G:H2'	26:1H:1466:G:H8	1.50	0.76
27:16:60:C:H2'	27:16:61:G:H8	1.49	0.76
33:51:77:LYS:NZ	33:51:82:GLY:O	2.17	0.76
53:N8:42:PRO:O	53:N8:44:THR:HB	1.86	0.76
1:1G:408:A:N7	59:1G:1730:HOH:O	2.18	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
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
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.66	0.76
1:13:1314:C:N4	19:AI:4:SER:O	2.19	0.76
1:13:1505:G:OP1	59:13:1804:HOH:O	2.03	0.76
10:II:61:GLU:OE2	14:5I:45:ARG:NH1	2.18	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
20:BA:82:SER:HB3	20:BA:86:ARG:HH22	1.49	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
26:14:1163:G:OP1	43:95:24:LYS:NZ	2.19	0.76
26:1H:271(B):G:H1	26:1H:404:C:H42	1.34	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
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
2:12:125:PRO:HA	2:12:127:ILE:HG12	1.67	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
26:1H:882:G:N2	26:1H:895:U:O4	2.19	0.75
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.66	0.75
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.51	0.75
1:1G:591:U:H2'	1:1G:592:G:C8	2.22	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
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.51	0.75
38:88:66:ILE:O	38:88:104:PHE:N	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:581:C:H2'	26:14:582:G:C8	2.21	0.75
33:59:129:THR:HB	33:59:130:ARG:HG3	1.68	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: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
26:1H:2588:G:OP1	59:1H:3855:HOH:O	2.04	0.75
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.66	0.75
26:1H:733:G:N7	59:1H:4009:HOH:O	2.20	0.75
26:1H:1652:A:OP1	39:98:8:ARG:NH1	2.20	0.75
45:F8:3:THR:HB	45:F8:6:ASP:HB2	1.69	0.75
26:14:1725:G:O6	26:14:1735:C:N4	2.20	0.75
31:39:123:LEU:O	31:39:125:LEU:N	2.17	0.75
36:25:13:ASN:HD21	36:25:97:ARG:H	1.34	0.75
47:D5:5:LEU:HD12	47:D5:47:VAL:HG21	1.66	0.75
1:13:1071:C:H2'	1:13:1072:G:H8	1.49	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
26:14:654(B):C:O2	26:14:654(S):G:N2	2.20	0.75
32:49:75:LYS:HE3	32:49:77:ILE:HB	1.68	0.75
35:58:96:GLU:O	35:58:98:VAL:N	2.17	0.75
35:58:132:ALA:O	35:58:134:ARG:NH2	2.19	0.75
1:13:767:A:OP2	59:13:1840:HOH:O	2.04	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
26:14:397:G:N7	59:14:3886:HOH:O	2.20	0.75
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.52	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
45:F8:11:PRO:HA	45:F8:28:PHE:HB3	1.69	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
1:13:339:C:OP2	36:68:97:ARG:NH1	2.19	0.74
2:1E:15:VAL:HG21	2:1E:209:ARG:HB3	1.69	0.74
26:1H:409:C:OP1	59:1H:3663:HOH:O	2.03	0.74
26:1H:2138:C:N4	26:1H:2153:G:O6	2.20	0.74
1:1G:199:G:O6	1:1G:218:C:N4	2.20	0.74
26:14:1676:A:OP2	59:14:3433:HOH:O	2.05	0.74
1:13:1007:C:H42	1:13:1022:G:H1	1.33	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:73:THR:O	2:1E:78:GLN:NE2	2.20	0.74
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.67	0.74
26:1H:357:A:H2'	26:1H:358:U:H6	1.51	0.74
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.51	0.74
2:12:21:ARG:HA	2:12:39:ILE:HA	1.68	0.74
33:59:83:TYR:OH	33:59:132:ARG:NH1	2.21	0.74
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.69	0.74
26:1H:1479:G:N7	26:1H:1510:A:N6	2.36	0.74
1:1G:1117:G:H4'	9:82:104:ARG:HH11	1.52	0.74
26:14:403:U:H4'	26:14:404:C:H5'	1.69	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
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.70	0.74
1:13:664:G:H22	1:13:741:G:H1	1.34	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.21	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
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.68	0.74
27:1J:15:A:H5'	27:1J:16:G:C8	2.21	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
26:1H: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
26:14:1492:G:OP1	26:14:2210:G:N2	2.20	0.74
26:14:1729:A:H2'	26:14:1731:G:N2	2.01	0.74
26:1H:945:A:OP1	59:1H:4068:HOH:O	2.05	0.74
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.18	0.74
37:78:79:ARG:HE	37:78:110:TYR:HE1	1.35	0.74
52:M8:48:ARG:HA	52:M8:48:ARG:HH11	1.53	0.74
1:1G:405:U:O4	4:32:2:GLY:N	2.19	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
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.52	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
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.04	0.74
26:14:273(F):C:N4	26:14:363:G:O6	2.20	0.74
26:14:1864:U:OP1	26:14:2410:G:O2'	2.04	0.74
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.69	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
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.53	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
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.70	0.74
1:1G:56:U:H2'	1:1G:57:G:C8	2.22	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
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.69	0.74
26:1H:2074:U:OP1	59:1H:3593:HOH:O	2.05	0.74
51:L8:9:VAL:HG22	51:L8:54:VAL:HA	1.69	0.74
1:1G:272:C:H2'	1:1G:273:A:H8	1.53	0.74
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.70	0.74
12:3A:39:VAL:HG23	12:3A:57:LYS:HD3	1.68	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
1:13:509:A:OP2	59:13:1922:HOH:O	2.06	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
1:1G:1245:A:H61	1:1G:1292:U:H3	1.33	0.74
26:14:774:A:O2'	26:14:775:G:O5'	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
26:1H: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
1:1G:1158:C:O2'	2:12:133:LYS:NZ	2.17	0.73
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
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.53	0.73
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.70	0.73
26:1H:567:A:OP1	59:1H:3507:HOH:O	2.04	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
49:J8:91:LYS:O	49:J8:94:LEU:N	2.20	0.73
55:Q8:57:ARG:NE	55:Q8:57:ARG:O	2.21	0.73
2:12:87:ARG:HH21	2:12:233:SER:HB2	1.52	0.73
56:2L:22:A:H61	56:2L:47:7MG:H2'	1.54	0.73
26:14:67:U:H2'	26:14:68:G:H8	1.51	0.73
26:1H:1301:A:OP1	59:1H:3509:HOH:O	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:100:ALA:HB1	46:G8:101:LYS:HB2	1.69	0.73
1:1G:1189:C:OP1	10:1A:51:ARG:NH2	2.21	0.73
26:14:654(C):G:N2	26:14:654(R):C:O2	2.22	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
1:13:1366:C:O3'	10:1I:60:ARG:NH2	2.22	0.73
4:3E:31:CYS:SG	4:3E:32:ALA:N	2.61	0.73
26:1H:1249:U:OP1	59:1H:3825:HOH:O	2.06	0.73
26:1H:2127:G:H1	26:1H:2162:G:H1'	1.54	0.73
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.21	0.73
26:1H:2607:G:O3'	59:1H:3908:HOH:O	2.07	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
26:14:1048:A:N6	26:14:1112:G:O2'	2.18	0.73
31:39:182:ASN:ND2	31:39:185:ASP:OD2	2.16	0.73
18:9I:26:LEU:HD22	18:9I:42:ARG:HH22	1.51	0.73
26:1H:583:G:N7	59:1H:3673:HOH:O	2.20	0.73
26:1H:2070:G:OP1	59:1H:4080:HOH:O	2.04	0.73
37:78:138:LEU:HD12	37:78:144:GLU:HG3	1.70	0.73
46:G8:76:CYS:O	46:G8:78:ALA:N	2.20	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
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.53	0.73
53:J5:49:CYS:SG	53:J5:50:GLY:N	2.62	0.73
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.70	0.73
26:1H:270(L):U:N3	34:6I:50:ARG:HG2	1.99	0.73
26:1H:1140:C:OP1	35:58:23:LEU:HB3	1.89	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
26:14:760:G:OP1	59:14:3975:HOH:O	2.06	0.73
26:14:2720:U:H3	26:14:2873:A:H2	1.35	0.73
34:69:80:PRO:HA	34:69:143:SER:HA	1.71	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:N	33:59:41:MET:SD	2.61	0.73
24:3K:50:U:O4	24:3K:64:A:N6	2.19	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)
33:51:83:TYR:HB3	33:51:135:GLY:N	2.03	0.73
51:L8:38:GLU:OE2	51:L8:38:GLU:N	2.14	0.73
26:14:2074:U:OP1	59:14:3405:HOH:O	2.07	0.73
31:39:116:ASP:OD2	37:35:1:MET:N	2.19	0.73
1:13:1111:A:N1	3:2E:177:THR:OG1	2.22	0.73
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.21	0.73
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.52	0.73
26:1H:111:A:H5'	50:K8:69:ARG:HH12	1.54	0.73
26:1H:731:C:OP2	59:1H:3599:HOH:O	2.06	0.73
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.19	0.73
52:M8:56:VAL:O	52:M8:60:GLN:NE2	2.22	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
29:19:60:ARG:NH1	29:19:86:PRO:O	2.21	0.73
32:49:40:ASN:HB2	32:49:91:ARG:HG3	1.71	0.73
52:I5:57:GLU:O	52:I5:61:ARG:NH2	2.21	0.73
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.71	0.73
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.54	0.73
26:14:578:A:OP2	59:14:3584:HOH:O	2.07	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
38:45:11:LYS:NZ	38:45:86:GLY:O	2.22	0.73
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.21	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
26:1H:963:U:OP1	59:1H:3791:HOH:O	2.07	0.72
26:1H:1153:C:OP2	59:1H:3943:HOH:O	2.06	0.72
31:31:66:PRO:O	31:31:67:GLN:HB3	1.88	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
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.24	0.72
26:14:38:A:H1'	31:39:48:THR:HB	1.70	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
26:1H: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
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:2178:C:H5'	28:71:46:LYS:HD3	1.70	0.72
31:31:8:GLN:H	31:31:8:GLN:CD	1.91	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:328:U:H4'	46:C5:68:HIS:CD2	2.24	0.72
26:14:2324:C:H5''	26:14:2325:G:H5'	1.69	0.72
30:29:33:VAL:HG12	30:29:89:ASP:HB3	1.69	0.72
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.56	0.72
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.54	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
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	1.70	0.72
27:16:95:U:H2'	27:16:96:G:H8	1.53	0.72
26:14:2035:G:OP1	59:14:3611:HOH:O	2.08	0.72
27:1J:7:G:H5''	27:1J:7:G:H8	1.55	0.72
1:13:352:C:OP1	59:13:1878:HOH:O	2.06	0.72
1:13:1244:C:H42	1:13:1293:G:H1	1.37	0.72
26:1H:1042:G:N2	26:1H:1113:U:O2	2.20	0.72
26:1H:1900:A:H5'	26:1H:1900:A:C8	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
26:14:2469:A:H2	26:14:2481:G:H21	1.37	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:HA	52:I5:61:ARG:CZ	2.20	0.72
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.72	0.72
26:1H:1243:G:O2'	37:78:7:ARG:NH2	2.22	0.72
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.24	0.72
5:42:50:GLU:HB3	5:42:53:LEU:HD13	1.72	0.72
26:14:1110:G:H2'	26:14:1111:A:H8	1.54	0.72
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.71	0.72
38:88:12:GLN:HG2	38:88:73:PRO:HD2	1.69	0.72
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.71	0.72
26:14:943:U:OP2	37:35:36:LYS:NZ	2.18	0.72
26:14:1579:A:H2'	26:14:1580:A:C8	2.24	0.72
30:29:135:HIS:NE2	59:29:402:HOH:O	2.22	0.72
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.71	0.72
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.71	0.72
26:1H:399:G:OP2	59:1H:3983:HOH:O	2.07	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
38:88:18:LYS:O	38:88:98:LYS:NZ	2.22	0.72
39:98:41:ALA:O	39:98:44:LEU:N	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2882:A:H5'	39:55:96:ARG:HG3	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
26:14:889:C:H2'	26:14:890:A:H4'	1.70	0.72
26:14:1062:G:OP1	26:14:1064:C:N4	2.22	0.72
1:13:711:G:H2'	1:13:712:A:H8	1.54	0.72
26:1H:732:C:OP2	59:1H:4012:HOH:O	2.08	0.72
26:1H:1975:G:OP2	59:1H:3928:HOH:O	2.08	0.72
34:61:39:ALA:HB1	34:61:44:LEU:HD23	1.72	0.72
26:14:2528:U:O3'	26:14:2529:G:N2	2.23	0.72
31:39:4:VAL:HA	31:39:19:GLU:HB3	1.72	0.72
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
1:13:1077:G:N2	1:13:1080:A:OP2	2.21	0.71
4:3E:96:LEU:HD12	4:3E:139:ARG:HH11	1.55	0.71
31:31:8:GLN:NE2	31:31:8:GLN:O	2.23	0.71
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.71	0.71
8:72:119:LEU:HD12	8:72:124:ALA:HA	1.72	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
43:95:85:LYS:HB3	43:95:87:HIS:H	1.55	0.71
26:1H:779:U:O4	59:1H:4014:HOH:O	2.05	0.71
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.25	0.71
26:14:2777:G:H5''	26:14:2778:A:H5'	1.71	0.71
30:29:81:ILE:HG22	30:29:82:ARG:H	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
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
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.72	0.71
26:1H:557:U:H2'	26:1H:558:G:H8	1.56	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
38:88:51:ARG:HH12	38:88:52:VAL:HG23	1.56	0.71
1:1G:1004:A:C6	1:1G:1025:U:H1'	2.26	0.71
31:31:67:GLN:HG3	31:31:67:GLN:O	1.89	0.71
26:14:96:G:H4'	50:G5:48:HIS:CE1	2.25	0.71
26:14:2502:G:H5''	26:14:2503:A:H5''	1.72	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
26:1H: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:CD	28:71:183:GLU:H	1.93	0.71
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.06	0.71
26:14:453:C:OP1	59:14:3646:HOH:O	2.06	0.71
26:14:1260:G:H2'	26:14:1261:C:H6	1.55	0.71
50:G5:47:ASN:O	50:G5:49:LYS:N	2.23	0.71
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.55	0.71
32:41:64:THR:HG22	32:41:66:GLN:H	1.55	0.71
1:1G:426:G:OP1	4:32:38:TYR:OH	2.07	0.71
26:14:526:A:OP1	59:14:3937:HOH:O	2.07	0.71
33:59:26:VAL:HG12	33:59:33:LEU:H	1.55	0.71
1:13:1318:A:H5''	19:AI:10:PHE:CD2	2.26	0.71
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.55	0.71
26:1H:10:G:H2'	26:1H:11:G:C8	2.25	0.71
26:1H:2635:C:H5''	30:21:78:LEU:HA	1.72	0.71
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.14	0.71
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.71	0.71
1:1G:200:G:H1	1:1G:217:C:H42	1.35	0.71
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.26	0.71
26:14:1456:G:OP2	59:14:3915:HOH:O	2.07	0.71
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.71	0.71
51:H5:13:ILE:O	59:H5:101:HOH:O	2.09	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
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.24	0.71
2:12:35:GLU:HG3	2:12:38:GLY:HA2	1.73	0.71
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.26	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
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
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.23	0.71
1:13:1372:U:H5''	9:8E:71:SER:HB2	1.72	0.71
25:4K:13:A:O2'	25:4K:14:A:OP1	2.09	0.71
26:1H:307:G:N7	59:1H:4231:HOH:O	2.24	0.71
26:1H:1022:G:O6	35:58:66:LYS:NZ	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1631:A:OP1	59:1H:4382:HOH:O	2.08	0.71
27:16:1(M):A:H61	27:16:119:A:H62	1.39	0.71
1:1G:448:A:OP2	1:1G:485:G:N2	2.19	0.71
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.24	0.71
26:14:2127:G:O6	26:14:2161:C:N4	2.15	0.71
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.19	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
39:98:91:GLN:NE2	39:98:91:GLN:O	2.24	0.70
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.22	0.70
26:14:249:C:OP1	59:14:3412:HOH:O	2.09	0.70
30:29:55:ASN:O	30:29:57:LYS:N	2.24	0.70
1:13:592:G:H2'	1:13:593:G:H8	1.54	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
37:78:18:ARG:O	37:78:19:VAL:HG13	1.92	0.70
1:1G:5:U:H3	4:32:87:GLY:H	1.37	0.70
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.24	0.70
26:14:974:G:O2'	26:14:975:G:N7	2.24	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
34:69:129:THR:HG22	34:69:137:PRO:HB3	1.72	0.70
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.24	0.70
1:1G:56:U:O4	1:1G:352:C:N4	2.24	0.70
1:1G:272:C:H2'	1:1G:273:A:C8	2.26	0.70
1:1G:547:A:OP1	59:1G:1704:HOH:O	2.08	0.70
6:52:83:ASP:OD1	6:52:83:ASP:N	2.24	0.70
26:14:662:G:H5'	37:35:15:ARG:HA	1.73	0.70
26:14:2232:U:OP2	49:F5:40:ARG:NH2	2.23	0.70
33:59:6:ARG:N	33:59:6:ARG:HH11	1.90	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:1417:C:OP2	59:1H:3972:HOH:O	2.09	0.70
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.25	0.70
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.19	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
36:25:8:LEU:HD12	36:25:84:ALA:HB2	1.74	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
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
9:82:40:LEU:HB3	9:82:43:ALA:HB2	1.72	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
26:14:617:G:OP1	31:39:40:GLN:NE2	2.24	0.70
26:14:2032:G:H4'	59:14:3952:HOH:O	1.90	0.70
27:1J:11:C:OP2	27:1J:12:C:N4	2.20	0.70
1:13:186(E):C:H42	1:13:191(B):G:H1	1.39	0.70
3:2E:16:ARG:NH1	3:2E:183:ASP:OD1	2.25	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
27:16:15:A:H5'	27:16:16:G:C8	2.26	0.70
27:1J:62:C:H2'	27:1J:63:G:H8	1.55	0.70
33:59:125:VAL:HG22	33:59:126:PRO:HA	1.72	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
24:3K:49:C:O2'	24:3K:65:G:N2	2.25	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
26:1H:1676:A:OP2	59:1H:3614:HOH:O	2.09	0.70
32:41:173:LEU:HB3	32:41:178:PHE:HD2	1.57	0.70
33:51:7:LEU:H	33:51:7:LEU:HD12	1.56	0.70
39:98:117:VAL:HG22	39:98:118:GLU:H	1.56	0.70
1:1G:572:A:OP1	59:1G:1723:HOH:O	2.08	0.70
2:12:10:LEU:HD13	2:12:13:ALA:HB3	1.71	0.70
26:14:1260:G:H2'	26:14:1261:C:C6	2.27	0.70
38:45:26:TYR:O	38:45:28:ALA:N	2.24	0.70
43:95:15:GLU:HG2	43:95:16:PRO:HD2	1.74	0.70
1:13:838:G:H1	1:13:848:C:N4	1.90	0.70
1:13:1348:U:H3	1:13:1374:A:H2	1.35	0.70
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.24	0.70
26:1H:298:G:OP2	59:1H:4102:HOH:O	2.08	0.70
26:1H:2549:G:O6	59:1H:4289:HOH:O	2.08	0.70
29:11:72:LYS:HD2	29:11:75:ILE:HD12	1.72	0.70
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.57	0.70
1:1G:1493:A:H2'	26:14:1913:A:H61	1.57	0.70
26:14:910:A:H62	38:45:12:GLN:HA	1.57	0.70
26:14:2358:G:H2'	26:14:2359:C:H6	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:730:G:C5	1:13:731:G:H1'	2.27	0.70
1:13:1122:U:O4	1:13:1123:A:N6	2.25	0.70
26:1H:972:G:O3'	59:1H:3811:HOH:O	2.09	0.70
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.56	0.70
30:21:77:ILE:O	30:21:79:ARG:N	2.25	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
3:22:25:GLY:H	3:22:28:GLN:HE22	1.38	0.70
26:14:395:U:H2'	26:14:396:G:N7	2.07	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:598:G:H5'	37:78:11:GLY:HA3	1.73	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
26:14:1828:G:OP1	59:14:3461:HOH:O	2.09	0.70
40:65:106:ARG:NH1	40:65:106:ARG:O	2.24	0.70
52:15:36:CYS:SG	52:15:39:CYS:HB3	2.32	0.70
1:13:659:U:H2'	1:13:660:G:H8	1.57	0.69
2:1E:158:LEU:HD13	2:1E:182:ILE:HD11	1.73	0.69
26:1H:433:C:H2'	26:1H:434:U:C6	2.26	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
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.74	0.69
26:14:1665:A:N6	59:14:3518:HOH:O	2.19	0.69
26:14:2393:A:H5'	37:35:62:LEU:HD13	1.74	0.69
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.73	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
1:13:1003:G:N2	1:13:1037:C:O2	2.22	0.69
26:1H:2820:A:OP2	39:98:2:ARG:NH2	2.25	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
29:19:166:GLN:OE1	29:19:166:GLN:HA	1.91	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
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.74	0.69
26:1H:2121:G:H4'	28:7I:167:LYS:HD2	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:N8:50:GLY:H	53:N8:56:LYS:HG3	1.58	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
52:I5:22:ILE:HG12	52:I5:23:GLU:N	2.07	0.69
26:1H:1203:G:H3'	26:1H:1204:A:H5''	1.74	0.69
55:Q8:7:HIS:ND1	55:Q8:7:HIS:O	2.25	0.69
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.25	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
26:14:2330:G:O2'	48:E5:41:ARG:O	2.08	0.69
29:19:24:ILE:HA	29:19:82:ILE:HG22	1.74	0.69
26:1H:877:U:H3	26:1H:899:A:H2	1.38	0.69
26:1H:2027:G:N7	59:1H:4001:HOH:O	2.25	0.69
28:71:59:ARG:HB2	28:71:164:ARG:HG3	1.73	0.69
12:3A:47:LYS:HG2	12:3A:48:PRO:HD2	1.74	0.69
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.74	0.69
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.25	0.69
26:1H:409:C:OP1	59:1H:3659:HOH:O	2.09	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.90	0.69
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.10	0.69
25:4L:20:A:H2'	25:4L:21:A:C8	2.27	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
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
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
1:13:1062:U:H2'	1:13:1063:C:C6	2.28	0.69
30:21:29:GLY:H	30:21:51:PHE:HE1	1.40	0.69
45:F8:44:GLU:HG3	45:F8:51:VAL:HG23	1.73	0.69
1:1G:158:G:H1	1:1G:163:C:H42	1.38	0.69
2:12:58:ILE:O	2:12:62:ALA:N	2.25	0.69
3:22:70:VAL:HG12	3:22:72:LYS:H	1.58	0.69
3:22:141:VAL:HA	3:22:144:SER:HB3	1.73	0.69
19:AA:9:VAL:HG13	52:I5:63:TYR:HE1	1.58	0.69
26:14:1111:A:H4'	33:59:3:ARG:HD3	1.74	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
27:1J:9:G:H5'	40:65:25:ARG:HH12	1.58	0.69
32:49:114:ILE:HG22	32:49:117:PHE:HB2	1.75	0.69
1:13:736:C:H2'	1:13:737:A:C8	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1023:G:OP2	1:13:1024:G:N2	2.24	0.69
1:13:1034:G:N2	1:13:1035:A:N7	2.39	0.69
1:13:1124:G:O2'	1:13:1145:C:N4	2.25	0.69
5:4E:99:GLY:N	5:4E:117:ASP:HB3	2.01	0.69
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.75	0.69
26:1H:586:A:OP2	59:1H:3821:HOH:O	2.09	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
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.23	0.69
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.28	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
37:78:39:LYS:HG3	37:78:45:LEU:HD22	1.74	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
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.26	0.69
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.75	0.69
24:3L:53:G:N2	24:3L:61:C:N3	2.40	0.69
26:14:592:G:H1	26:14:665:C:H42	1.39	0.69
26:14:1971:A:OP1	59:14:3466:HOH:O	2.09	0.69
30:29:11:MET:HA	30:29:24:THR:HA	1.74	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
1:13:1071:C:H2'	1:13:1072:G:C8	2.28	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
27:16:8:U:O2	27:16:112:G:N1	2.20	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
26:14:2518:A:OP2	59:14:3955:HOH:O	2.09	0.69
29:19:255:LYS:CE	29:19:255:LYS:H	2.06	0.69
9:8E:42:ARG:NH1	9:8E:71:SER:O	2.26	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
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.74	0.69
31:31:6:VAL:N	31:31:24:LEU:O	2.25	0.69
53:N8:30:LEU:HD23	53:N8:41:PRO:HA	1.73	0.69
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.26	0.69
1:1G:838:G:N2	1:1G:849:C:N3	2.41	0.69
1:1G:1086:U:H3	1:1G:1099:G:H22	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.28	0.69
24:3L:20:U:O2'	24:3L:21:A:OP2	2.11	0.69
26:14:30:G:N1	26:14:511:U:O2	2.26	0.69
26:14:120:U:OP2	59:14:3923:HOH:O	2.10	0.69
35:15:13:TRP:O	35:15:135:PRO:HD2	1.93	0.69
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.18	0.69
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.73	0.69
1:13:8:A:N7	4:3E:208:SER:HB3	2.08	0.68
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
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	1.75	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
26:1H: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
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
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
26:14:586:A:H5'	31:39:89:VAL:HG21	1.74	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
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
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.11	0.68
26:14:861:A:N3	27:1J:79:C:O2'	2.27	0.68
33:59:30:LYS:HB3	33:59:79:VAL:O	1.93	0.68
38:45:89:ASN:ND2	38:45:89:ASN:O	2.24	0.68
2:1E:16:HIS:HE1	2:1E:213:LEU:HD13	1.58	0.68
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.25	0.68
26:1H:751:A:OP1	59:1H:3863:HOH:O	2.10	0.68
34:61:38:LEU:H	34:61:38:LEU:HD12	1.57	0.68
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.74	0.68
1:1G:167:G:H2'	1:1G:168:G:H8	1.59	0.68
1:1G:1346:A:H5''	1:1G:1348:U:H1'	1.74	0.68
29:19:182:LEU:H	29:19:272:ALA:HB2	1.58	0.68
40:65:85:VAL:N	40:65:110:LEU:HB3	2.08	0.68
46:C5:19:LYS:HG3	46:C5:20:TYR:H	1.56	0.68
1:13:728:A:N7	15:6I:54:ARG:HD2	2.08	0.68
1:13:1503:A:O2'	25:4K:13:A:N1	2.24	0.68
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:10:G:N2	26:1H:2801:A:O2'	2.26	0.68
26:1H:1021:A:OP2	35:58:65:LYS:NZ	2.23	0.68
55:Q8:9:GLY:HA2	55:Q8:12:LYS:HB2	1.74	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
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
29:19:32:SER:O	29:19:33:LEU:HB2	1.92	0.68
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.74	0.68
26:1H:326:G:N7	59:1H:3762:HOH:O	2.26	0.68
34:61:37:VAL:HG22	34:61:38:LEU:HD12	1.76	0.68
56:2L:33:OMC:HM22	56:2L:34:U:H5'	1.74	0.68
26:14:1590:U:H2'	26:14:1591:G:H8	1.59	0.68
40:65:28:VAL:HG11	40:65:98:VAL:HG12	1.76	0.68
1:13:446:G:H1	1:13:488:C:H42	1.41	0.68
7:6E:37:ASN:OD1	9:8E:41:VAL:HG23	1.94	0.68
13:4I:93:ARG:HH22	26:1H:888:C:H5	1.41	0.68
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.27	0.68
37:78:19:VAL:HG12	37:78:21:ARG:H	1.57	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
1:1G:456:C:H42	1:1G:476:G:H1	1.40	0.68
26:14:511:U:H5	26:14:512:G:C5	2.11	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
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.74	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:357:A:H2'	26:1H:358:U:C6	2.29	0.68
26:1H:2801:A:H5'	26:1H:2895:U:H1'	1.76	0.68
52:M8:65:ASP:OD1	52:M8:65:ASP:N	2.26	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
26:1H:226:G:H21	26:1H:228:A:H2	1.39	0.68
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
51:L8:56:VAL:HG12	51:L8:57:GLU:H	1.59	0.68
1:1G:596:C:H2'	1:1G:597:G:H8	1.59	0.68
1:1G:1151:A:O2'	1:1G:1152:A:O4'	2.11	0.68
8:72:64:LYS:HB3	8:72:79:VAL:HG21	1.76	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
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.75	0.68
1:13:1121:U:H3	1:13:1152:A:H61	1.41	0.68
22:1K:58:A:C5	22:1K:59:A:H2	2.12	0.68
26:1H:714:U:O2'	26:1H:716:A:N7	2.26	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
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.27	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
33:59:19:VAL:HG12	33:59:20:ALA:H	1.58	0.68
38:45:85:LYS:HG2	38:45:86:GLY:H	1.59	0.68
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.26	0.68
1:13:1145:C:H4'	1:13:1146:A:H5'	1.76	0.68
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.41	0.68
26:1H:2271:G:N7	59:1H:4193:HOH:O	2.27	0.68
32:41:111:LEU:H	32:41:111:LEU:HD12	1.56	0.68
32:41:122:PRO:HD3	32:41:181:ARG:HB3	1.75	0.68
46:G8:30:VAL:HG13	46:G8:37:VAL:HG12	1.74	0.68
55:Q8:53:PRO:HA	55:Q8:54:GLU:C	2.12	0.68
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.42	0.68
26:14:587:C:OP2	37:35:21:ARG:NH2	2.27	0.68
26:14:2018:G:OP1	53:J5:9:LYS:NZ	2.26	0.68
1:13:617:G:H5'	16:7I:45:THR:HG23	1.75	0.67
1:13:1218:C:H2'	1:13:1219:U:C6	2.29	0.67
19:AI:78:ARG:HH11	19:AI:79:THR:HA	1.59	0.67
26:1H:241:A:H5''	59:1H:4217:HOH:O	1.93	0.67
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.27	0.67
47:H8:13:GLU:HB3	47:H8:18:LEU:HD11	1.74	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
26:14:563:G:OP2	59:14:3934:HOH:O	2.10	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
29:19:17:THR:O	29:19:211:ARG:NH2	2.26	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
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.11	0.67
20:BI:89:ARG:HD2	20:BI:104:LEU:HD21	1.76	0.67
26:1H:589:C:H2'	26:1H:590:A:H8	1.59	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
28:71:20:TYR:O	28:71:225:ASN:N	2.21	0.67
32:41:112:PRO:HB3	52:M8:37:SER:N	2.08	0.67
47:H8:163:LEU:HD12	47:H8:165:VAL:HG12	1.77	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
1:1G:979:C:OP1	1:1G:1223:C:N4	2.27	0.67
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.75	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
13:4I:5:ALA:HB2	13:4I:61:GLU:HG3	1.75	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
12:3A:55:VAL:HG23	12:3A:69:TYR:HA	1.74	0.67
26:14:1268:A:H2'	26:14:1269:A:O4'	1.94	0.67
33:59:106:THR:HG22	33:59:112:PRO:HB3	1.77	0.67
6:5E:39:LYS:NZ	6:5E:39:LYS:HB2	2.10	0.67
26:1H:2406:U:OP1	59:1H:3642:HOH:O	2.11	0.67
27:16:3:C:H2'	27:16:4:C:H6	1.59	0.67
30:21:94:GLU:OE2	30:21:177:PRO:HB3	1.94	0.67
30:21:116:VAL:O	30:21:117:MET:HB3	1.94	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
21:1B:9:ARG:HE	21:1B:10:ARG:HG3	1.58	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
26:14:1021:A:H62	26:14:1141:U:H3	1.42	0.67
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.75	0.67
1:13:422:C:O2'	1:13:423:G:OP2	2.11	0.67
26:1H:997:G:OP1	42:C8:93:LYS:HG3	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2592:G:OP1	59:1H:4405:HOH:O	2.13	0.67
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.30	0.67
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.76	0.67
46:G8:94:LYS:HA	46:G8:94:LYS:HZ2	1.59	0.67
1:1G:804:U:H5''	1:1G:805:C:OP2	1.94	0.67
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.29	0.67
4:32:60:GLU:OE2	4:32:199:ASN:N	2.27	0.67
4:32:141:ARG:N	4:32:144:ASP:OD2	2.23	0.67
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.77	0.67
26:14:945:A:H2	59:14:3690:HOH:O	1.77	0.67
26:14:1137:G:H2'	26:14:1138:G:H8	1.59	0.67
1:13:146:G:N2	1:13:176:C:O2	2.27	0.67
1:13:153:C:H42	1:13:168:G:H1	1.43	0.67
1:13:1149:C:H2'	1:13:1150:U:H6	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
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
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
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.26	0.67
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.27	0.67
26:1H:1021:A:H3'	26:1H:1021:A:C8	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
32:41:64:THR:HG22	32:41:66:GLN:N	2.10	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
1:1G:352:C:O2'	1:1G:354:G:OP1	2.11	0.67
26:14:2400:G:H3'	26:14:2401:U:H6	1.60	0.67
49:F5:56:GLN:NE2	49:F5:84:GLY:H	1.92	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
1:1G:457:C:H2'	1:1G:458:C:C6	2.29	0.67
1:1G:1263:C:N3	1:1G:1273:G:N2	2.42	0.67
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.77	0.67
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.28	0.67
26:14:144:C:H2'	26:14:145:G:H8	1.58	0.67
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.29	0.67
26:14:646:A:H2'	26:14:647:G:O4'	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:4:ASP:OD1	32:49:9:ARG:NH2	2.26	0.67
1:13:546:G:HO2'	1:13:548:G:HO2'	1.42	0.67
1:13:1263:C:H2'	1:13:1264:C:H6	1.57	0.67
26:1H:860:U:C5	26:1H:917:A:H2	2.13	0.67
26:1H:2108:C:O2	26:1H:2181:G:N2	2.26	0.67
34:61:47:LEU:HA	34:61:50:ARG:HD3	1.77	0.67
35:58:90:MET:HG2	35:58:98:VAL:HG12	1.76	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
12:3A:89:ARG:HG3	12:3A:97:ARG:HA	1.77	0.67
26:14:731:C:OP1	59:14:3974:HOH:O	2.12	0.67
26:14:1997:G:OP2	59:14:3512:HOH:O	2.13	0.67
47:D5:155:LEU:HD12	47:D5:163:LEU:HD13	1.77	0.67
1:13:688:G:H2'	1:13:689:C:H6	1.59	0.67
1:13:1452:C:O2'	1:13:1453:G:OP2	2.09	0.67
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.27	0.67
26:1H:855:G:O2'	48:I8:27:GLU:OE2	2.12	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
28:7I:182:PRO:HA	28:7I:185:LEU:HD12	1.77	0.67
29:11:68:LYS:HB3	29:11:70:TRP:CH2	2.30	0.67
1:1G:32:A:H2'	1:1G:33:A:C8	2.29	0.67
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.77	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
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
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.77	0.66
26:1H:350:U:H2'	26:1H:351:G:C8	2.30	0.66
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.66
35:58:57:ALA:C	35:58:59:LYS:H	1.99	0.66
26:14:587:C:O2	37:35:33:ARG:NH1	2.28	0.66
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
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.76	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
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
52:M8:37:SER:OG	52:M8:42:PHE:O	2.12	0.66
1:1G:740:U:H2'	1:1G:741:G:H8	1.60	0.66
16:7A:22:THR:HA	16:7A:33:ILE:HG12	1.77	0.66
20:BA:69:GLY:O	20:BA:73:HIS:NE2	2.28	0.66
26:14:127:A:H5''	26:14:128:C:C6	2.30	0.66
26:14:1210:A:H5'	26:14:1212:G:C5'	2.26	0.66
29:19:33:LEU:HD21	29:19:103:ARG:HA	1.77	0.66
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.61	0.66
1:13:674:G:H2'	1:13:675:A:H8	1.60	0.66
1:13:1347:G:H5''	9:8E:107:ARG:HG2	1.77	0.66
11:2I:18:ARG:NH2	11:2I:35:PRO:O	2.27	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
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
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.78	0.66
38:88:66:ILE:HG22	38:88:67:ARG:N	2.10	0.66
1:1G:862:C:H2'	1:1G:863:U:H6	1.60	0.66
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.78	0.66
26:14:1190:G:OP1	37:35:32:THR:HA	1.96	0.66
41:75:106:SER:HA	41:75:110:ILE:HD12	1.76	0.66
1:13:371:G:O2'	1:13:373:A:N7	2.28	0.66
26:1H:779:U:OP1	29:11:49:ILE:HG13	1.95	0.66
26:1H:780:G:H21	26:1H:783:A:H62	1.42	0.66
26:1H:1670:C:OP1	59:1H:3573:HOH:O	2.13	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
1:1G:536:C:OP2	59:1G:1732:HOH:O	2.12	0.66
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.77	0.66
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.78	0.66
26:14:453:C:OP1	59:14:3643:HOH:O	2.13	0.66
26:14:2392:A:OP2	55:M5:32:LEU:HD22	1.95	0.66
29:19:223:GLY:HA3	29:19:231:HIS:CE1	2.31	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
1:13:179:A:H2'	1:13:180:U:H6	1.60	0.66
1:13:1128:C:O2	1:13:1144:G:N2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:8:ARG:HB3	16:7I:28:ARG:NH1	2.09	0.66
24:3K:5:G:N2	24:3K:68:C:N3	2.43	0.66
26:1H:376:C:OP1	59:1H:3664:HOH:O	2.11	0.66
31:31:63:LYS:HE2	31:31:67:GLN:HB2	1.76	0.66
51:L8:7:LYS:HG3	51:L8:34:GLU:HG2	1.76	0.66
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.77	0.66
1:13:1004:A:H1'	1:13:1036:G:H22	1.59	0.66
26:1H:1253:A:C8	59:1H:3629:HOH:O	2.48	0.66
37:78:49:ARG:HG3	55:Q8:57:ARG:HH11	1.61	0.66
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.78	0.66
1:1G:829:G:N2	1:1G:857:C:O2	2.22	0.66
1:1G:1079:G:H5''	5:42:45:PHE:HZ	1.61	0.66
26:14:67:U:H2'	26:14:68:G:C8	2.31	0.66
26:14:539:G:H1	26:14:554:U:H3	1.43	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
30:29:66:HIS:HB3	30:29:68:ALA:HB2	1.77	0.66
34:69:77:LEU:HD22	34:69:141:LYS:HD2	1.77	0.66
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.78	0.66
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.78	0.66
1:1G:456:C:N3	1:1G:476:G:N2	2.42	0.66
26:14:534:U:H5'	42:85:42:ALA:HB1	1.78	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
26:1H:817:C:OP2	59:1H:3815:HOH:O	2.13	0.66
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.60	0.66
50:K8:31:GLU:O	50:K8:35:LEU:HD12	1.96	0.66
1:1G:111:G:H8	1:1G:111:G:O5'	1.78	0.66
1:1G:1292:U:H2'	1:1G:1293:G:H8	1.61	0.66
4:32:14:ARG:HG3	4:32:14:ARG:NH1	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
26:14:674:G:O2'	31:39:74:ARG:HG3	1.95	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
2:1E:184:VAL:N	2:1E:198:ASP:OD2	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:138:ASP:OD1	38:88:138:ASP:N	2.26	0.66
8:72:110:ALA:HB3	8:72:121:ASP:HB3	1.78	0.66
26:14:548:A:C6	26:14:549:G:H1'	2.31	0.66
32:49:133:LEU:HD11	32:49:157:ILE:HD12	1.77	0.66
39:55:14:SER:HA	39:55:17:ARG:NH1	2.11	0.66
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.78	0.66
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.77	0.66
14:5I:27:CYS:HB2	14:5I:29:ARG:H	1.61	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
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
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
30:29:8:LYS:HB3	30:29:193:GLY:H	1.61	0.66
34:69:124:GLY:H	34:69:142:VAL:HG12	1.61	0.66
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.09	0.66
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.77	0.66
46:C5:13:VAL:HG12	46:C5:74:PRO:HA	1.77	0.66
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.29	0.66
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
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
49:J8:73:LEU:HD11	49:J8:95:LEU:HD21	1.78	0.65
55:Q8:21:LYS:HG3	55:Q8:53:PRO:HD3	1.78	0.65
55:Q8:50:LEU:C	55:Q8:52:LYS:H	1.99	0.65
11:2A:21:ILE:HB	11:2A:84:VAL:HG12	1.78	0.65
26:14:1538:G:H2'	26:14:1539:G:H8	1.60	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
1:13:422:C:H6	1:13:422:C:H5''	1.61	0.65
18:9I:53:ARG:HH21	18:9I:60:ALA:N	1.94	0.65
30:21:31:CYS:HB3	30:21:49:LEU:HG	1.78	0.65
47:H8:4:ARG:NH1	47:H8:60:GLU:OE2	2.29	0.65
1:1G:316:G:OP2	1:1G:351:G:O2'	2.12	0.65
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.31	0.65
26:14:748:G:C8	44:A5:89:ALA:HB1	2.30	0.65
26:14:1849:G:H2'	26:14:1850:G:H8	1.58	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
17:8I:100:LYS:HB3	17:8I:101:ARG:HE	1.62	0.65
26:1H:1678:G:H22	26:1H:1989:G:H22	1.44	0.65
28:71:15:ASP:O	28:71:20:TYR:OH	2.14	0.65
1:1G:1430:C:H2'	1:1G:1431:C:C6	2.32	0.65
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.60	0.65
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.60	0.65
56:2L:19:G:N2	56:2L:59:A:O4'	2.30	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
1:13:159: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
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.62	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
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.31	0.65
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.78	0.65
26:1H:524:U:H2'	26:1H:525:U:C6	2.31	0.65
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.61	0.65
31:31:9:ILE:HG12	31:31:10:PRO:HD2	1.77	0.65
50:K8:6:VAL:O	50:K8:7:ARG:HB3	1.97	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
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.78	0.65
26:14:1056:G:HO2'	26:14:1103:A:N6	1.95	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
46:C5:48:ALA:HB3	46:C5:59:GLY:O	1.96	0.65
26:1H:456:C:C5	45:F8:69:TYR:CE1	2.85	0.65
26:1H:2502:G:OP2	59:1H:3527:HOH:O	2.14	0.65
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.11	0.65
37:78:50:ARG:HD3	55:Q8:7:HIS:NE2	2.11	0.65
41:B8:102:ILE:HB	41:B8:110:ILE:HD11	1.79	0.65
43:D8:3:ALA:HB3	43:D8:14:VAL:HG22	1.78	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
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.79	0.65
26:14:287:C:H2'	26:14:288:C:C6	2.32	0.65
31:39:20:LEU:HG	31:39:199:TRP:CH2	2.32	0.65
32:49:124:SER:HB2	32:49:131:TYR:CE2	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:106:ARG:NH1	40:65:107:GLU:OE1	2.29	0.65
43:95:1:MET:HG2	43:95:42:GLY:HA3	1.77	0.65
46:C5:19:LYS:HG3	46:C5:20:TYR:HD1	1.61	0.65
1:13:1002:G:H2'	1:13:1003:G:H8	1.62	0.65
26:1H:1016:G:N7	59:1H:4209:HOH:O	2.29	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
1:1G:259:G:H1	1:1G:267:C:H42	1.43	0.65
4:32:14:ARG:HB2	4:32:40:PRO:HD2	1.79	0.65
7:62:26:PHE:O	7:62:30:ILE:HG13	1.96	0.65
24:3L:21:A:N6	24:3L:47:U:O2	2.19	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
34:69:73:GLU:HG3	34:69:136:VAL:HG23	1.77	0.65
1:13:772:U:H2'	1:13:773:G:H8	1.62	0.65
1:13:1392:G:H2'	1:13:1393:U:H6	1.62	0.65
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	1.77	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
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
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.78	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
26:1H: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
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
26:14:2153: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
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
4:3E:18:LYS:HG3	4:3E:31:CYS:SG	2.37	0.65
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.78	0.65
26:1H:1417:C:OP2	59:1H:3968:HOH:O	2.14	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
35:58:4:TYR:O	42:C8:64:ARG:NH1	2.28	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
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
26:14:1430:C:H2'	26:14:1431:U:C6	2.32	0.65
26:14:2786:U:H5'	30:29:65:GLY:HA2	1.78	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
28:71:66:HIS:HD2	28:71:184:LYS:O	1.79	0.65
34:61:120:ILE:HG12	34:61:126:TYR:HE2	1.61	0.65
38:88:82:ARG:HD2	38:88:82:ARG:N	2.12	0.65
47:H8:130:PRO:HA	47:H8:133:ILE:HD11	1.78	0.65
26:14:528:A:OP2	35:15:114:ARG:NH1	2.30	0.65
26:14:1970:A:OP1	59:14:3469:HOH:O	2.15	0.65
26:14:2294:C:OP2	40:65:89:ARG:NH2	2.30	0.65
47:D5:124:ILE:HD11	47:D5:165:VAL:HG11	1.77	0.65
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
26:1H:992:C:H2'	26:1H:993:G:H8	1.62	0.64
26:1H:2747:G:O6	26:1H:2755:C:H5''	1.96	0.64
32:41:37:VAL:HG22	32:41:159:VAL:HG12	1.79	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
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
2:12:5:ILE:HG12	2:12:6:THR:HG22	1.79	0.64
13:4A:84:ILE:HG22	13:4A:86:CYS:HB3	1.80	0.64
26:14:955:C:OP1	38:45:85:LYS:NZ	2.30	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
29:19:71:ASP:OD2	29:19:103:ARG:NH1	2.29	0.64
31:39:63:LYS:NZ	31:39:75:HIS:O	2.30	0.64
38:45:21:THR:HG22	38:45:23:GLY:HA3	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
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
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
1:1G:341:C:H2'	1:1G:342:C:H6	1.62	0.64
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.30	0.64
26:14:1141:U:OP2	35:15:63:THR:OG1	2.13	0.64
46:C5:33:LYS:HE2	46:C5:34:LYS:HE3	1.78	0.64
1:13:1028:C:H42	1:13:1033:G:H1	1.43	0.64
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.63	0.64
9:8E:128:ARG:NH1	23:2K:34:U:OP2	2.29	0.64
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.79	0.64
23:2K:62:C:H2'	23:2K:63:C:H6	1.63	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
37:78:60:MET:HA	55:Q8:13:ARG:NH1	2.13	0.64
50:K8:5:GLU:HB3	50:K8:8:LYS:HB3	1.79	0.64
50:K8:23:LYS:O	50:K8:27:GLU:HG3	1.96	0.64
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.80	0.64
35:15:15:LEU:HD12	35:15:136:GLU:HB2	1.77	0.64
37:35:64:LYS:HB2	55:M5:30:ARG:NH2	2.10	0.64
52:I5:40:HIS:HA	52:I5:44:THR:HB	1.79	0.64
1:13:1005:A:H5'	1:13:1038:C:H1'	1.79	0.64
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.79	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
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
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
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.98	0.64
1:1G:559:A:H4'	1:1G:560:U:H5''	1.78	0.64
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.33	0.64
4:32:26:CYS:HA	4:32:31:CYS:CB	2.25	0.64
26:14:1667:G:H2'	59:14:3910:HOH:O	1.96	0.64
37:35:15:ARG:HH22	37:35:17:LYS:HE3	1.61	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
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
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.32	0.64
1:1G:474:G:H2'	1:1G:475:G:C8	2.32	0.64
4:32:59:ARG:HH22	4:32:66:ARG:NH1	1.95	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
24:3L:8:4SU:H5''	24:3L:49:C:H5'	1.80	0.64
26:14:172:C:H2'	26:14:173:G:H8	1.63	0.64
31:39:59:TYR:HD2	31:39:78:ILE:HG12	1.63	0.64
32:49:97:ASP:O	32:49:101:ILE:HG23	1.98	0.64
38:45:22:LYS:N	38:45:23:GLY:HA3	2.13	0.64
26:1H:399:G:OP2	59:1H:3982:HOH:O	2.14	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
27:16:88:C:H2'	27:16:89:G:O4'	1.97	0.64
28:71:46:LYS:HE3	28:71:210:ARG:HB3	1.79	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
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
1:13:674:G:H2'	1:13:675:A:C8	2.33	0.64
26:1H:322:A:P	31:31:168:ARG:HH21	2.21	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
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.78	0.64
1:1G:79:G:O6	1:1G:91:C:N4	2.31	0.64
1:1G:1200:C:O2'	1:1G:1201:A:OP2	2.16	0.64
26:14:882:G:H1	26:14:894:C:H42	1.46	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
10:1I:6:ILE:HG22	10:1I:98:ILE:HG12	1.79	0.64
20:BI:49:ALA:O	20:BI:52:ALA:N	2.31	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
1:1G:365:U:H5''	1:1G:366:C:OP1	1.98	0.64
1:1G:973:G:OP1	10:1A:57:LYS:NZ	2.30	0.64
26:14:882:G:H2'	26:14:883:G:H8	1.63	0.64
26:14:1348:G:H2'	26:14:1349:A:H5''	1.80	0.64
43:95:85:LYS:HD2	43:95:86:GLY:N	2.05	0.64
46:C5:68:HIS:HB3	46:C5:71:LYS:HE2	1.78	0.64
1:13:114:U:H2'	1:13:115:G:C8	2.33	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.79	0.64
2:12:102:LEU:H	2:12:102:LEU:HD12	1.62	0.64
26:14:580:C:H2'	26:14:581:C:H6	1.62	0.64
26:1H:784:A:C5	29:11:229:VAL:HG21	2.33	0.64
26:1H:994:C:O2'	26:1H:996:A:OP1	2.06	0.64
26:1H:2502:G:H5''	26:1H:2503:A:H5''	1.79	0.64
36:68:19:ILE:HG22	36:68:43:VAL:HA	1.79	0.64
12:3A:37:CYS:SG	12:3A:81:SER:HB3	2.38	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
26:14:2068: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
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
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
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.30	0.63
1:13:1506:U:H2'	59:13:1805:HOH:O	1.98	0.63
2:1E:74:LYS:NZ	2:1E:206:ASP:OD1	2.31	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
26:1H:76:C:O2'	50:K8:62:THR:HG21	1.98	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: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
31:31:65:TRP:CZ3	31:31:72:ARG:HB2	2.33	0.63
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.79	0.63
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.63	0.63
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.79	0.63
26:14:635:C:O2'	26:14:639:U:OP1	2.06	0.63
26:14:2439:A:H5'	26:14:2439:A:C8	2.33	0.63
1:13:7:G:H5'	1:13:298:A:O4'	1.98	0.63
26:1H:518:G:H2'	26:1H:519:U:C6	2.32	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
1:1G:999:U:O2	1:1G:1042:G:N2	2.31	0.63
2:12:220:ASP:OD1	2:12:220:ASP:N	2.29	0.63
26:14:2581:G:O6	59:14:3720:HOH:O	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.79	0.63
34:69:90:GLY:O	34:69:121:LYS:HD2	1.98	0.63
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.80	0.63
52:15:37:SER:HB3	52:15:39:CYS:HB2	1.79	0.63
1:13:1346:A:N1	1:13:1374:A:H5''	2.14	0.63
3:2E:13:GLY:HA3	14:5I:57:ARG:CZ	2.28	0.63
18:9I:36:ASN:HD22	18:9I:39:VAL:HG21	1.64	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
33:51:149:ARG:NH2	33:51:167:GLU:OE2	2.29	0.63
1:1G:243:A:H4'	1:1G:244:U:O5'	1.96	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
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
19:AA:20:LEU:O	19:AA:23:ASN:ND2	2.27	0.63
26:14:322:A:H3'	31:39:169:ASN:HD21	1.63	0.63
45:B5:26:TYR:CD2	45:B5:89:ILE:HD12	2.33	0.63
1:13:486:U:H2'	1:13:487:A:C8	2.32	0.63
18:9I:52:PRO:O	18:9I:56:THR:HG23	1.99	0.63
26:1H:57:C:H2'	26:1H:58:G:O4'	1.99	0.63
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.33	0.63
28:71:54:SER:HA	28:71:57:ASN:HB2	1.80	0.63
29:11:145:VAL:HG12	29:11:146:GLU:O	1.99	0.63
37:78:115:LEU:HA	37:78:134:ALA:HB2	1.80	0.63
41:B8:2:ASN:O	41:B8:3:ARG:HG2	1.99	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
1:1G:1028(A):C:H5	1:1G:1029:G:C5	2.15	0.63
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.79	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
26:14:1499:C:H2'	26:14:1500:G:H8	1.63	0.63
47:D5:77:ASP:OD1	47:D5:80:ARG:N	2.23	0.63
1:13:917:G:H2'	1:13:918:A:H8	1.63	0.63
1:13:1022:G:H2'	1:13:1023:G:H8	1.64	0.63
19:AI:67:VAL:HG11	52:M8:60:GLN:HE21	1.62	0.63
22:1K:4:G:N2	22:1K:70:C:O2	2.29	0.63
26:1H:33:U:H4'	26:1H:34:C:OP1	1.97	0.63
26:1H:259:G:H21	26:1H:621:A:H8	1.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.79	0.63
28:71:193:ILE:O	28:71:197:GLU:HG2	1.99	0.63
1:1G:25:C:H2'	1:1G:26:A:H8	1.62	0.63
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.80	0.63
2:12:132:LYS:HA	2:12:135:GLN:HB2	1.80	0.63
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.80	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
27:1J:62:C:H2'	27:1J:63:G:C8	2.32	0.63
46:C5:67:LEU:HG	46:C5:71:LYS:HE3	1.80	0.63
1:13:60:A:H4'	1:13:61:G:H5'	1.80	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
1:13:1366:C:H2'	1:13:1367:C:H6	1.64	0.63
3:2E:73:PRO:O	3:2E:76:VAL:HG13	1.99	0.63
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.79	0.63
26:1H:16:G:H2'	26:1H:17:G:C8	2.30	0.63
26:1H:1298:C:OP2	59:1H:3545:HOH:O	2.16	0.63
26:1H:2074:U:P	59:1H:3593:HOH:O	2.56	0.63
26:1H:2638:G:OP1	30:2I:82:ARG:NH2	2.32	0.63
1:1G:978:A:O2'	1:1G:1322:C:N3	2.27	0.63
26:14:548:A:C5	26:14:549:G:H1'	2.34	0.63
26:14:1647:G:H2'	59:14:3555:HOH:O	1.98	0.63
27:1J:3:C:H2'	27:1J:4:C:C6	2.33	0.63
1:13:35:G:O2'	12:3I:118:SER:O	2.09	0.63
1:13:108:G:H5''	1:13:109:A:H5''	1.81	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
27:16:95:U:H2'	27:16:96:G:C8	2.33	0.63
35:58:133:GLN:HG2	35:58:134:ARG:H	1.62	0.63
56:2L:24:C:H2'	56:2L:25:U:H6	1.64	0.63
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.63
26:1H:176:G:O2'	26:1H:177:G:H5'	1.98	0.63
26:1H:1474:C:H2'	26:1H:1475:G:H8	1.64	0.63
31:31:8:GLN:HA	31:31:21:ALA:HA	1.81	0.63
45:F8:2:LYS:HG2	50:K8:26:ARG:HE	1.64	0.63
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.81	0.63
26:14:210:C:OP2	54:L5:29:LYS:NZ	2.32	0.63
26:14:603:A:H8	26:14:604:G:H1'	1.64	0.63
26:14:1499:C:H2'	26:14:1500:G:C8	2.34	0.63
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.63	0.63
23:2K:47:7MG:H81	23:2K:48:U:H5	1.62	0.63
26:1H:844:C:H2'	26:1H:845:G:O4'	1.98	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
44:E8:38:TYR:OH	53:N8:47:PRO:HG3	1.99	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
55:Q8:30:ARG:HB2	55:Q8:30:ARG:CZ	2.28	0.63
1:1G:825:G:H1	1:1G:875:C:H42	1.45	0.63
26:14:854:G:H2'	26:14:855:G:C8	2.34	0.63
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
27:1J:104:A:H2'	27:1J:105:G:O4'	1.99	0.63
34:69:4:ILE:HG23	34:69:18:VAL:HG22	1.81	0.63
38:45:34:LEU:HD11	38:45:129:THR:HB	1.81	0.63
51:H5:4:LEU:N	51:H5:37:LEU:O	2.31	0.63
1:13:1238:A:N3	1:13:1241:G:O2'	2.26	0.62
26:1H:192:C:P	59:1H:3624:HOH:O	2.57	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
1:1G:877:C:OP1	8:72:88:LYS:NZ	2.27	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
1:13:157:G:H2'	1:13:158:G:H8	1.63	0.62
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.34	0.62
11:2I:99:GLN:HG2	11:2I:105:VAL:HG11	1.80	0.62
15:6I:82:ILE:O	15:6I:86:GLY:N	2.32	0.62
20:BI:53:LEU:O	20:BI:57:ARG:NH1	2.32	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
29:11:206:LEU:HD23	29:11:211:ARG:HG2	1.81	0.62
1:1G:373:A:H2'	1:1G:374:A:H8	1.62	0.62
1:1G:619:U:C6	4:32:135:LEU:HD21	2.34	0.62
1:1G:1057:G:H1	1:1G:1203:C:H42	1.45	0.62
1:1G:1157:A:H8	1:1G:1158:C:C5	2.17	0.62
7:62:113:GLU:O	7:62:119:ARG:HD3	1.99	0.62
24:3L:33:U:N3	24:3L:36:A:OP2	2.32	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:37:GLY:O	37:35:39:LYS:N	2.32	0.62
41:75:23:ARG:HG3	41:75:120:ARG:NH1	2.14	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
18:9I:66:LEU:O	18:9I:70:ILE:HG13	1.99	0.62
26:1H:70:G:H21	26:1H:71:A:N6	1.97	0.62
26:1H:910:A:C5	38:88:13:GLN:HG3	2.33	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
33:51:4:ILE:HB	33:51:6:ARG:HG3	1.81	0.62
1:1G:688:G:H2'	1:1G:689:C:H6	1.63	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
24:3L:20:U:H1'	24:3L:21:A:O5'	1.99	0.62
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.34	0.62
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.14	0.62
1:13:111:G:H5''	16:7I:27:LYS:HG2	1.81	0.62
9:8E:48:GLU:HB2	9:8E:78:LYS:HE3	1.81	0.62
26:1H:674:G:H1'	31:31:74:ARG:NE	2.13	0.62
26:1H:2364:C:H4'	48:I8:56:ASP:OD2	1.99	0.62
28:71:20:TYR:HE2	28:71:222:VAL:HG13	1.64	0.62
30:21:104:VAL:HG22	30:21:198:VAL:HG13	1.81	0.62
33:51:125:VAL:HG12	33:51:127:GLU:O	1.99	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
1:1G:1055:A:N7	1:1G:1200:C:N4	2.47	0.62
3:22:183:ASP:HB3	3:22:202:ILE:HG13	1.80	0.62
8:72:99:GLU:OE2	8:72:100:ILE:N	2.32	0.62
13:4A:34:LEU:O	13:4A:38:GLY:N	2.31	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
31:39:53:THR:N	31:39:56:GLU:OE1	2.25	0.62
36:25:89:ASN:OD1	36:25:89:ASN:N	2.32	0.62
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.20	0.62
1:13:21:G:H2'	1:13:22:G:C8	2.34	0.62
1:13:151:A:N6	1:13:171:A:N7	2.47	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
7:6E:45:ASP:O	7:6E:49:ILE:HG12	1.98	0.62
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:63:THR:OG1	19:AI:64:GLU:N	2.30	0.62
26:1H:185:U:H4'	26:1H:218:A:H4'	1.81	0.62
26:1H:1327:C:OP2	59:1H:3539:HOH:O	2.16	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
55:Q8:34:TRP:HE1	55:Q8:36:LYS:NZ	1.97	0.62
24:3L:23:A:H2'	24:3L:24:G:C8	2.35	0.62
26:14:1011:G:H1	26:14:1150:C:H42	1.47	0.62
26:14:1024:G:H3'	26:14:1025:G:H5''	1.80	0.62
37:35:62:LEU:HD12	37:35:63:PRO:HD2	1.82	0.62
1:13:255:G:H4'	17:8I:17:LYS:HD2	1.81	0.62
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.31	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
34:61:79:ILE:HD11	34:61:100:ALA:HB1	1.82	0.62
55:Q8:27:THR:O	55:Q8:29:LYS:HA	1.99	0.62
1:1G:475:G:OP1	16:7A:81:ARG:NH1	2.30	0.62
1:1G:1289:A:OP1	21:1B:10:ARG:NE	2.32	0.62
26:14:38:A:H2'	26:14:39:C:C6	2.35	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
33:59:117:PRO:HB3	33:59:121:ILE:HB	1.82	0.62
39:55:78:LYS:O	39:55:83:ILE:HG13	1.99	0.62
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.81	0.62
1:13:1298:C:OP2	7:6E:114:ARG:NH2	2.27	0.62
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.33	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
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.63	0.62
38:88:17:LEU:HD21	38:88:96:VAL:HG12	1.81	0.62
38:88:20:ALA:HB3	47:H8:79:ARG:CZ	2.30	0.62
55:Q8:23:VAL:HG13	55:Q8:46:ARG:HG3	1.81	0.62
1:1G:1246:C:O2	1:1G:1291:G:N2	2.26	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
32:49:6:ALA:O	32:49:10:LYS:N	2.21	0.62
44:A5:67:ASP:OD1	44:A5:67:ASP:N	2.33	0.62
48:E5:38:VAL:HG12	48:E5:40:GLN:HG2	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
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.81	0.62
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.65	0.62
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.25	0.62
26:1H:2591:C:H2'	26:1H:2592:G:H8	1.64	0.62
45:F8:5:TYR:CZ	50:K8:30:ARG:HB2	2.35	0.62
45:F8:55:ASN:HB2	45:F8:80:ILE:HG13	1.82	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
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.33	0.62
26:14:270(K):C:O2	26:14:270(N):G:N2	2.26	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
27:1J:2:C:H2'	27:1J:3:C:C6	2.34	0.62
27:1J:103:U:O2'	47:D5:29:TYR:OH	2.15	0.62
30:29:116:VAL:HG23	30:29:120:TRP:HB2	1.80	0.62
31:39:24:LEU:HD13	31:39:25:PRO:HD2	1.81	0.62
1:13:21:G:H2'	1:13:22:G:H8	1.65	0.62
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.64	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
26:1H:520:G:H2'	26:1H:521:G:C8	2.35	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
29:11:223:GLY:HA3	29:11:231:HIS:CE1	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
44:E8:57:ASN:HA	44:E8:61:ASN:HD22	1.65	0.62
1:1G:872:A:O2'	1:1G:873:A:H5''	2.00	0.62
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.00	0.62
17:8A:57:VAL:HG12	17:8A:76:LEU:HA	1.81	0.62
26:14:849:A:H2	51:H5:24:LYS:HB3	1.65	0.62
38:45:110:THR:HG23	38:45:113:GLN:HB2	1.82	0.62
24:3K:46:7MG:H4'	24:3K:47:U:OP1	1.99	0.62
26:1H:582:G:H1	26:1H:1258:C:H42	1.47	0.62
26:1H:1213:A:N3	26:1H:1238:G:O2'	2.32	0.62
26:1H:1252:G:O4'	42:C8:33:ARG:HD3	2.00	0.62
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
34:61:110:ASP:HB2	34:61:112:LYS:HG2	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
1:1G:17:U:H2'	1:1G:18:C:C6	2.35	0.62
1:1G:1342:C:H2'	1:1G:1343:G:H8	1.65	0.62
3:22:45:LYS:HG3	3:22:46:GLU:HG2	1.82	0.62
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.81	0.62
15:6A:76:GLU:HA	15:6A:79:ARG:HD2	1.80	0.62
26:14:29:U:H2'	26:14:30:G:C8	2.34	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
52:I5:34:GLU:HG2	52:I5:35:VAL:H	1.65	0.62
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
26:1H:557:U:H2'	26:1H:558:G:C8	2.34	0.61
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.64	0.61
46:G8:20:TYR:CE1	46:G8:43:ASN:HA	2.35	0.61
1:1G:408:A:H2'	1:1G:409:G:O4'	1.99	0.61
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.82	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
1:13:1124:G:HO2'	1:13:1145:C:N4	1.98	0.61
26:1H:205:G:O6	49:J8:39:LYS:NZ	2.33	0.61
26:1H:804:A:H5''	26:1H:805:G:OP1	1.99	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:2593:U:H2'	26:1H:2594:C:H6	1.65	0.61
30:21:70:ALA:O	30:21:73:GLU:N	2.33	0.61
35:58:45:ASN:OD1	35:58:45:ASN:N	2.33	0.61
38:88:81:VAL:O	38:88:82:ARG:HB2	1.98	0.61
4:32:24:GLU:N	4:32:24:GLU:OE2	2.32	0.61
4:32:108:LEU:HD13	4:32:174:LEU:HD22	1.82	0.61
5:42:121:LYS:NZ	5:42:122:GLU:O	2.33	0.61
9:82:17:VAL:HG13	9:82:63:ILE:HD11	1.81	0.61
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.65	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
44:A5:14:PRO:HG2	44:A5:78:GLU:HG3	1.82	0.61
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
12:3I:90:VAL:O	12:3I:91:LYS:HB3	1.98	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
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
40:A8:38:GLN:HB2	40:A8:47:THR:HG21	1.82	0.61
1:1G:60:A:N6	1:1G:110:C:N3	2.49	0.61
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.35	0.61
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.82	0.61
3:22:74:GLY:HA2	3:22:77:ILE:HD12	1.82	0.61
12:3A:84:LEU:HD23	12:3A:105:TYR:HE2	1.65	0.61
13:4A:84:ILE:C	13:4A:86:CYS:H	2.03	0.61
24:3L:27:G:H2'	24:3L:28:G:C8	2.34	0.61
26:14:851:U:H5'	51:H5:49:LYS:HD2	1.82	0.61
26:14:1542:G:H3'	26:14:1543:A:H5''	1.81	0.61
27:1J:90:C:P	38:45:16:ARG:HH21	2.23	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
43:95:85:LYS:CD	43:95:86:GLY:H	2.07	0.61
1:13:200:G:N2	1:13:218:C:O2	2.33	0.61
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.32	0.61
9:8E:128:ARG:HH21	23:2K:36:A:P	2.23	0.61
46:G8:82:PRO:HG3	46:G8:97:ARG:HG3	1.82	0.61
1:1G:371:G:H1	1:1G:390:C:H42	1.48	0.61
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.00	0.61
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.82	0.61
26:14:675:A:OP2	59:14:3874:HOH:O	2.16	0.61
31:39:7:TYR:HD1	31:39:18:ARG:H	1.49	0.61
32:49:52:ILE:HD11	32:49:153:ARG:HH12	1.66	0.61
37:35:101:VAL:HA	37:35:105:LEU:O	2.00	0.61
46:C5:63:LYS:NZ	46:C5:63:LYS:HA	2.15	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
12:3I:82:VAL:HG12	12:3I:106:ASP:OD2	2.01	0.61
23:2K:63:C:H2'	23:2K:64:G:H8	1.65	0.61
26:1H:51:G:O2'	26:1H:119:A:N1	2.31	0.61
26:1H:69:C:H2'	26:1H:70:G:C8	2.35	0.61
26:1H:331:A:N1	59:1H:3769:HOH:O	2.31	0.61
26:1H:1530:G:O6	26:1H:1542:G:N2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.34	0.61
26:1H:2773:C:H5'	30:21:164:ARG:HG2	1.82	0.61
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.65	0.61
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.81	0.61
1:1G:922:G:H4'	5:42:20:GLN:HA	1.81	0.61
1:1G:1255:G:H22	1:1G:1276:G:H22	1.47	0.61
2:12:30:ARG:NH2	2:12:195:ASP:OD2	2.34	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
27:1J:56:G:H4'	27:1J:57:A:C8	2.36	0.61
46:C5:87:LYS:CG	46:C5:88:LYS:H	2.14	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
4:3E:115:ARG:NH2	59:3E:402:HOH:O	2.33	0.61
19:AI:78:ARG:HD2	19:AI:78:ARG:C	2.21	0.61
23:2K:21:U:O2	23:2K:21:U:H2'	2.00	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
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
1:1G:1053:G:O6	1:1G:1199:U:H2'	1.99	0.61
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.35	0.61
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.35	0.61
26:14:943:U:OP2	37:35:36:LYS:HG3	2.00	0.61
26:14:1754:C:H2'	26:14:1755:A:C8	2.35	0.61
30:29:29:GLY:H	30:29:51:PHE:HE1	1.47	0.61
32:49:57:ALA:HA	32:49:90:LEU:HD21	1.83	0.61
32:49:125:PHE:CD1	32:49:166:ASP:HB2	2.36	0.61
43:95:38:LEU:HB3	43:95:52:VAL:HB	1.83	0.61
48:E5:64:ASP:OD1	48:E5:64:ASP:N	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
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
9:82:121:ARG:NH1	9:82:122:ALA:O	2.34	0.61
16:7A:14:ASN:OD1	16:7A:16:HIS:NE2	2.34	0.61
26:14:360:G:H2'	26:14:361:G:H8	1.66	0.61
26:14:2674:G:H2'	26:14:2675:A:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:69:ARG:NH2	29:19:128:GLY:O	2.33	0.61
35:15:10:GLU:HG3	35:15:11:PRO:HD2	1.81	0.61
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.00	0.61
2:1E:219:VAL:HA	2:1E:222:ILE:HD12	1.82	0.61
26:1H:673:C:H5'	31:31:81:PRO:HD2	1.83	0.61
26:1H:2186:G:H2'	26:1H:2187:G:H8	1.66	0.61
27:16:112:G:H2'	27:16:113:C:C6	2.36	0.61
29:11:267:SER:HA	29:11:270:ILE:HD12	1.81	0.61
34:61:8:PRO:HA	34:61:14:ASP:HA	1.82	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
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
37:78:100:LEU:HD12	37:78:105:LEU:HD13	1.83	0.61
43:D8:17:GLY:N	43:D8:96:ILE:O	2.26	0.61
1:1G:559:A:H4'	1:1G:560:U:C5'	2.31	0.61
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.34	0.61
19:AA:41:VAL:HG22	19:AA:42:PRO:HD2	1.82	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
26:14:1688:U:O2	26:14:1700:A:H5'	2.01	0.61
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.83	0.61
35:15:66:LYS:O	35:15:87:LEU:HD12	2.01	0.61
47:D5:58:VAL:HG12	47:D5:60:GLU:HB3	1.82	0.61
50:G5:52:ASP:N	50:G5:52:ASP:OD1	2.32	0.61
8:7E:10:LEU:HB3	8:7E:83:ILE:HD11	1.83	0.61
26:1H:248:G:H5'	26:1H:250:G:N7	2.16	0.61
1:1G:735:C:H2'	1:1G:736:C:H6	1.66	0.61
3:22:139:GLN:NE2	3:22:142:MET:SD	2.73	0.61
26:14:93:C:H5'	26:14:94:G:OP2	2.01	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
1:13:651:C:H2'	1:13:652:U:C6	2.36	0.60
1:13:1505:G:P	59:13:1804:HOH:O	2.57	0.60
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.01	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2685:G:C5	59:1H:4036:HOH:O	2.53	0.60
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.83	0.60
40:A8:14:VAL:HG21	40:A8:89:ARG:HE	1.64	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
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.66	0.60
1:13:1378:C:O2	7:6E:76:ARG:NH1	2.34	0.60
7:6E:62:PHE:HD2	7:6E:124:LEU:HD11	1.66	0.60
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.83	0.60
22:1K:31:G:H2'	22:1K:32:G:H8	1.66	0.60
26:1H:69:C:H2'	26:1H:70:G:H8	1.66	0.60
34:6I:2:LYS:HA	34:6I:20:ASP:HB2	1.83	0.60
35:58:15:LEU:HB2	35:58:134:ARG:HB3	1.83	0.60
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.36	0.60
9:82:102:LEU:O	9:82:103:THR:OG1	2.20	0.60
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.01	0.60
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.00	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
33:59:152:ARG:HG3	33:59:153:LYS:HB2	1.83	0.60
41:75:26:ASP:O	41:75:49:VAL:HG22	2.01	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
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.84	0.60
6:5E:34:GLY:HA3	6:5E:71:ARG:HH21	1.67	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
26:1H:2653:U:OP2	26:1H:2654:A:O2'	2.14	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
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
1:1G:972:C:O2'	10:1A:55:LYS:HB3	2.01	0.60
26:14:468:G:H5''	26:14:469:G:OP2	2.01	0.60
26:14:1041:C:H42	26:14:1114:G:H1	1.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2745:C:O2	33:59:139:GLN:NE2	2.34	0.60
32:49:25:TYR:OH	32:49:168:GLU:OE2	2.18	0.60
13:4I:17:VAL:O	13:4I:20:THR:OG1	2.15	0.60
13:4I:94:ARG:HH22	26:1H:887:A:H3'	1.67	0.60
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.66	0.60
38:88:59:ARG:HH11	38:88:59:ARG:N	1.99	0.60
55:Q8:59:LYS:H	55:Q8:59:LYS:HD2	1.65	0.60
1:1G:8:A:N6	4:32:209:ARG:HB2	2.16	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
1:1G:1262:C:H2'	1:1G:1263:C:C6	2.35	0.60
4:32:172:PRO:HB2	4:32:187:ARG:NH1	2.17	0.60
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.83	0.60
26:14:34:C:O2'	26:14:35:G:OP1	2.16	0.60
26:14:287:C:H2'	26:14:288:C:H6	1.65	0.60
26:14:718:A:H3'	26:14:719:C:H6	1.66	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
2:1E:76:GLN:NE2	2:1E:207:ALA:H	2.00	0.60
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.82	0.60
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.00	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
26:1H:619:G:H3'	26:1H:620:G:N2	2.16	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
33:51:86:GLU:HG3	33:51:165:ALA:N	2.15	0.60
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.84	0.60
41:B8:26:ASP:OD2	41:B8:120:ARG:NH1	2.29	0.60
55:Q8:27:THR:HG23	55:Q8:31:HIS:NE2	2.16	0.60
1:1G:144:G:H1	1:1G:178:C:H42	1.49	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
8:72:114:THR:HG21	8:72:119:LEU:HG	1.83	0.60
9:82:24:GLY:HA2	9:82:59:PHE:O	2.00	0.60
9:82:117:HIS:O	9:82:118:LYS:HB2	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:83:ARG:HG2	32:49:86:MET:HE3	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
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.31	0.60
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.02	0.60
26:1H:404:C:O2'	26:1H:405:U:OP2	2.14	0.60
26:1H:1249:U:OP1	59:1H:3824:HOH:O	2.16	0.60
1:1G:865:A:N3	1:1G:918:A:O2'	2.29	0.60
2:12:221:LEU:HA	2:12:224:GLN:HB3	1.83	0.60
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.01	0.60
26:14:747:U:OP1	53:J5:3:LYS:HD3	2.00	0.60
26:14:2392:A:H1'	37:35:61:ARG:NH2	2.16	0.60
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.83	0.60
36:25:4:PRO:O	36:25:5:GLN:HB2	2.00	0.60
38:45:43:THR:HB	38:45:45:GLN:HG2	1.83	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
26:1H:192:C:OP2	59:1H:3624:HOH:O	2.16	0.60
26:1H:520:G:H2'	26:1H:521: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:2378:A:H2'	40:A8:21:THR:HG21	1.84	0.60
26:1H:2830:G:H5''	26:1H:2830:G:H8	1.65	0.60
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.01	0.60
1:1G:749:C:H2'	1:1G:750:G:H8	1.66	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
4:32:88:VAL:HG22	5:42:96:PRO:HB2	1.83	0.60
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.14	0.60
26:14:2836:U:H2'	26:14:2837:G:C8	2.37	0.60
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.02	0.60
31:39:179:GLU:O	31:39:205:ARG:NH2	2.28	0.60
43:95:70:ILE:N	43:95:86:GLY:O	2.27	0.60
3:2E:19:GLU:HG3	3:2E:54:ARG:CZ	2.32	0.60
7:6E:15:ASP:OD2	7:6E:18:TYR:N	2.35	0.60
8:7E:81:HIS:N	8:7E:138:TRP:O	2.31	0.60
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.37	0.60
12:3I:8:ASN:O	12:3I:11:VAL:HG23	2.02	0.60
26:1H:564:C:H2'	26:1H:565:C:H6	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:1H:2591:C:P	29:11:239:ARG:HG3	2.41	0.60
37:78:16:ARG:HG2	37:78:17:LYS:N	2.17	0.60
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.34	0.60
44:E8:12:ILE:HG13	44:E8:42:ARG:NH1	2.16	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
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.83	0.60
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.84	0.60
26:14:329:G:H8	26:14:329:G:OP1	1.85	0.60
26:14:2056:G:O3'	53:J5:8:LYS:NZ	2.35	0.60
26:14:2831:G:OP1	30:29:58:ARG:NH1	2.31	0.60
27:1J:101:A:OP2	27:1J:101:A:H8	1.84	0.60
44:A5:23:LEU:HD11	53:J5:27:PRO:HB3	1.82	0.60
55:M5:52:LYS:NZ	55:M5:53:PRO:HA	2.17	0.60
1:13:235:C:H2'	1:13:236:G:H8	1.67	0.60
1:13:1139:G:H4'	1:13:1140:C:H5'	1.82	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
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.34	0.60
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.83	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
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
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
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.34	0.60
1:1G:1095:U:P	1:1G:1108:G:H1	2.24	0.60
6:52:39:LYS:HE2	6:52:62:TRP:HZ3	1.67	0.60
26:14:605:C:O2	26:14:657:U:O2'	2.20	0.60
26:14:1251:C:OP1	42:85:10:ARG:HG3	2.01	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
27:1J:64:C:H2'	27:1J:65:C:C6	2.36	0.60
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:52:C:O2	22:1K:65:G:N2	2.34	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
26:1H:2059:A:OP2	59:1H:4186:HOH:O	2.16	0.60
27:16:42:C:O2'	32:41:67:LYS:O	2.12	0.60
41:B8:102:ILE:HA	41:B8:105:LEU:HD22	1.84	0.60
1:1G:801:U:H2'	1:1G:802:A:C8	2.37	0.60
4:32:31:CYS:SG	4:32:33:MET:HB2	2.42	0.60
19:AA:37:ARG:O	19:AA:70:LYS:NZ	2.26	0.60
26:14:120:U:OP2	59:14:3927:HOH:O	2.16	0.60
26:14:2358:G:H22	37:35:55:ARG:HH22	1.50	0.60
26:14:2762:G:H5'	26:14:2763:G:OP2	2.02	0.60
32:49:55:LYS:O	32:49:59:GLU:HB3	2.01	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
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.83	0.59
22:1K:6:G:H1	22:1K:68:C:H42	1.49	0.59
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.36	0.59
27:16:116:G:H5''	40:A8:55:ALA:HB2	1.83	0.59
33:51:4:ILE:HG13	33:51:6:ARG:NE	2.17	0.59
1:1G:581:G:H8	1:1G:581:G:O5'	1.85	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
3:22:14:ILE:HG12	3:22:15:THR:H	1.67	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
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.34	0.59
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.37	0.59
26:14:2331:G:O3'	48:E5:43:THR:HG22	2.02	0.59
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.84	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
1:13:1434:A:H2'	1:13:1435:G:O4'	2.03	0.59
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.03	0.59
13:4I:65:LYS:HZ1	52:M8:52:THR:HG22	1.65	0.59
26:1H:26:G:C6	26:1H:27:G:N1	2.69	0.59
26:1H:1062:G:N2	26:1H:1076:C:O2	2.36	0.59
27:16:6:C:H2'	27:16:7:G:H5''	1.83	0.59
30:21:118:LYS:HG2	30:21:118:LYS:O	2.01	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)
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.66	0.59
5:42:67:VAL:HB	5:42:140:ARG:HH21	1.68	0.59
7:62:37:ASN:ND2	9:82:39:GLY:O	2.35	0.59
24:3L:5:G:O2'	24:3L:69:G:N2	2.35	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
26:14:1473:G:H1	26:14:1520:U:H3	1.50	0.59
26:14:2831:G:P	30:29:58:ARG:HH11	2.25	0.59
30:29:171:GLU:HB3	30:29:185:LYS:HG3	1.83	0.59
32:49:125:PHE:HD1	32:49:166:ASP:HB2	1.67	0.59
37:35:34:GLY:O	37:35:36:LYS:HB2	2.02	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
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
1:13:1194:U:H2'	1:13:1195:C:C6	2.37	0.59
23:2K:63:C:H2'	23:2K:64:G:C8	2.38	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
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
1:1G:21:G:OP1	59:1G:1742:HOH:O	2.17	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
13:4A:68:GLY:HA3	32:49:116:ASP:OD1	2.02	0.59
26:14:1337:G:H2'	26:14:1338:G:C8	2.33	0.59
26:14:2250:G:C5	38:45:82:ARG:HG3	2.37	0.59
33:59:92:ILE:HD11	33:59:160:LYS:HZ2	1.67	0.59
39:55:3:HIS:ND1	59:55:303:HOH:O	2.28	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
1:13:920:U:H2'	1:13:921:U:C6	2.37	0.59
6:5E:18:GLN:HA	6:5E:21:LEU:HD13	1.84	0.59
7:6E:63:LYS:O	7:6E:66:VAL:HG12	2.01	0.59
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.67	0.59
26:1H:277:C:H3'	26:1H:278:A:O4'	2.02	0.59
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.84	0.59
26:1H:581:C:H2'	26:1H:582:G:C8	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2126:A:N1	26:1H:2162:G:N2	2.44	0.59
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
30:21:4:ILE:HG12	30:21:28:ALA:HB1	1.84	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
4:32:110:PHE:HD1	4:32:110:PHE:H	1.50	0.59
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.20	0.59
13:4A:78:ILE:HA	13:4A:81:LEU:HD12	1.84	0.59
16:7A:11:SER:O	16:7A:14:ASN:N	2.35	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
26:14:2015:A:N3	53:J5:2:ALA:N	2.51	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:H8	26:14:2778:A:H5''	1.67	0.59
30:29:201:THR:HG22	30:29:202:LYS:H	1.67	0.59
32:49:61:ALA:HB2	32:49:68:PRO:HD3	1.84	0.59
41:75:120:ARG:O	41:75:124:ASP:HB3	2.02	0.59
5:4E:109:ILE:HG22	5:4E:110:LEU:HD23	1.84	0.59
9:8E:86:VAL:O	9:8E:90:PRO:HB3	2.02	0.59
10:1I:15:THR:O	10:1I:19:SER:OG	2.14	0.59
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.36	0.59
26:1H:64:A:C4	45:F8:66:LEU:HD22	2.37	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.86	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
29:11:182:LEU:N	29:11:272:ALA:HB3	2.18	0.59
47:H8:30:ASN:OD1	47:H8:33:LEU:N	2.34	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
1:1G:1320:C:H1'	19:AA:73:GLU:HG2	1.84	0.59
10:1A:48:THR:CA	10:1A:62:HIS:HB3	2.29	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
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
1:13:630:G:H2'	1:13:631:G:O4'	2.03	0.59
1:13:1366:C:H2'	1:13:1367:C:C6	2.38	0.59
1:13:1505:G:H5'	59:13:1801:HOH:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.37	0.59
5:4E:84:PHE:HB2	5:4E:134:ALA:HB2	1.84	0.59
22:1K:56:U:N3	22:1K:59:A:OP2	2.35	0.59
26:1H:782:A:C2	29:11:226:MET:HG2	2.38	0.59
26:1H:2329:G:H21	48:I8:41:ARG:HG3	1.67	0.59
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.83	0.59
26:14:259:G:O2'	26:14:621:A:O2'	2.20	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:H21	26:14:2529:G:P	2.25	0.59
38:45:79:LEU:H	38:45:80:GLU:HG2	1.66	0.59
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.85	0.59
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.17	0.59
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.02	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:2730:C:OP1	30:21:101:ARG:NH2	2.36	0.59
26:1H:2815:C:O2'	53:N8:42:PRO:HG2	2.03	0.59
31:31:24:LEU:HD21	31:31:114:VAL:HG12	1.85	0.59
51:L8:8:LEU:HA	51:L8:54:VAL:HB	1.83	0.59
1:1G:942:G:H21	9:82:124:GLN:NE2	2.00	0.59
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.37	0.59
4:32:153:ARG:NH1	4:32:181:MET:SD	2.76	0.59
8:72:45:ILE:HG13	8:72:47:GLY:H	1.66	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
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
31:39:53:THR:HG22	31:39:56:GLU:CD	2.23	0.59
1:13:1502:A:H5''	1:13:1504:G:N7	2.18	0.59
3:2E:95:THR:HB	3:2E:97:LYS:HZ3	1.67	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:2360:A:OP1	55:Q8:49:VAL:HB	2.01	0.59
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.38	0.59
26:14:686:G:H5''	54:L5:11:LYS:HZ3	1.66	0.59
31:39:122:LYS:HB3	31:39:191:ARG:HB2	1.84	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)
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.59
48:E5:82:ARG:HD3	48:E5:83:PRO:HD2	1.83	0.59
1:13:376:G:H2'	1:13:377:G:C8	2.37	0.59
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.37	0.59
26:1H:321:G:OP2	31:31:135:LYS:HG3	2.03	0.59
26:1H:568:U:O4	59:1H:3809:HOH:O	2.15	0.59
29:11:2:ALA:HA	29:11:20:ASP:HB3	1.84	0.59
39:98:37:THR:OG1	39:98:40:LYS:HE3	2.03	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
5:42:41:VAL:O	5:42:67:VAL:HG12	2.02	0.59
20:BA:43:LEU:HD13	20:BA:51:GLU:HG3	1.84	0.59
26:14:747:U:C6	53:J5:2:ALA:HB3	2.38	0.59
36:25:22:ILE:HB	36:25:41:ALA:HA	1.84	0.59
37:35:31:ALA:O	37:35:32:THR:OG1	2.21	0.59
1:13:963:G:H21	10:1I:55:LYS:CE	2.14	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
3:2E:79:ARG:NH1	18:9A:87:ARG:HH12	2.01	0.59
3:2E:130:VAL:O	3:2E:134:ILE:HG13	2.03	0.59
8:7E:1:MET:SD	8:7E:2:LEU:N	2.76	0.59
26:1H:2309:A:C5	26:1H:2310:A:C8	2.91	0.59
30:21:67:PHE:O	30:21:69:LYS:HE2	2.03	0.59
30:21:101:ARG:O	30:21:201:THR:OG1	2.20	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
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
1:1G:409:G:O6	1:1G:433:C:N4	2.35	0.59
26:14:288:C:H2'	26:14:289:A:C8	2.38	0.59
26:14:1093:G:H1	26:14:1097:U:H5''	1.68	0.59
36:25:17:ARG:HB3	36:25:18:LYS:HD2	1.84	0.59
37:35:3:LEU:H	37:35:3:LEU:HD12	1.67	0.59
43:95:67:GLY:O	43:95:88:ARG:HD2	2.03	0.59
1:13:595:G:H1'	1:13:596:C:H5	1.68	0.58
1:13:1311:G:N2	1:13:1326:C:O2	2.32	0.58
12:3I:83:VAL:HG21	12:3I:100:ILE:HG12	1.84	0.58
26:1H:192:C:OP1	59:1H:3619:HOH:O	2.16	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
26:1H:2186:G:H2'	26:1H:2187:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2431:U:OP2	59:1H:3843:HOH:O	2.17	0.58
26:1H:2784:C:O2	30:21:37:ARG:NH1	2.35	0.58
43:D8:43:GLU:HB2	43:D8:44:LYS:HE2	1.84	0.58
1:1G:1349:A:P	9:82:118:LYS:HZ1	2.26	0.58
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.85	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
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
27:1J:48:A:H4'	40:65:95:HIS:CD2	2.33	0.58
31:39:25:PRO:HD3	31:39:115:ALA:HB1	1.84	0.58
40:65:34:HIS:CD2	40:65:54:LEU:HB2	2.38	0.58
1:13:1435:G:H2'	1:13:1436:U:C6	2.39	0.58
2:1E:111:ARG:HG2	2:1E:111:ARG:NH1	2.12	0.58
4:3E:9:CYS:SG	4:3E:31:CYS:O	2.61	0.58
4:3E:15:GLU:OE2	4:3E:66:ARG:NH1	2.33	0.58
5:4E:144:THR:H	5:4E:147:ASP:HB2	1.68	0.58
12:3I:89:ARG:HB2	12:3I:97:ARG:HA	1.86	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
28:71:26:ALA:HB2	28:71:189:ILE:HD12	1.84	0.58
35:58:99:LEU:O	35:58:103:VAL:HG23	2.02	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
1:1G:673:G:H2'	1:1G:674:G:C8	2.37	0.58
1:1G:1047:G:H1	1:1G:1210:C:H42	1.49	0.58
2:12:105:PHE:HA	2:12:108:ILE:HB	1.85	0.58
3:22:32:LEU:O	3:22:36:ASP:HB2	2.04	0.58
5:42:76:ILE:HG23	5:42:77:PRO:HD2	1.85	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:17:PHE:HB3	2:1E:44:LEU:HD21	1.83	0.58
4:3E:22:LYS:HB2	4:3E:26:CYS:CB	2.33	0.58
5:4E:45:PHE:CD2	5:4E:47:LYS:HD2	2.38	0.58
8:7E:10:LEU:HD13	8:7E:83:ILE:HD11	1.85	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:129:GLY:O	32:41:161:THR:HG22	2.03	0.58
37:78:57:THR:HB	37:78:59:LEU:H	1.68	0.58
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.85	0.58
44:E8:24:ILE:HG12	44:E8:36:LEU:HD21	1.85	0.58
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.39	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
1:1G:1261:A:OP2	1:1G:1262:C:N4	2.36	0.58
3:22:33:LEU:HD21	14:5A:53:LEU:HD21	1.85	0.58
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.03	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
26:14:68:G:H2'	26:14:69:C:C6	2.38	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
26:14:2808:U:H3	26:14:2892:A:H62	1.51	0.58
26:14:2821:A:H3'	59:14:3920:HOH:O	2.02	0.58
27:1J:42:C:O2	32:49:93:THR:N	2.23	0.58
29:19:108:PRO:HG2	29:19:111:LEU:HG	1.86	0.58
46:C5:3:VAL:HG11	46:C5:32:PRO:HB2	1.85	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
1:13:1183:A:O2'	1:13:1184:G:OP1	2.15	0.58
8:7E:14:ARG:O	8:7E:18:ARG:HD3	2.02	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
34:61:114:LEU:HD22	34:61:114:LEU:H	1.68	0.58
55:Q8:50:LEU:O	55:Q8:52:LYS:N	2.34	0.58
1:1G:430:A:OP1	4:32:9:CYS:N	2.37	0.58
4:32:13:ARG:C	4:32:15:GLU:H	2.06	0.58
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.85	0.58
24:3L:71:G:H2'	24:3L:72:C:H5''	1.84	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
26:14:1593:G:H2'	26:14:1594:G:C8	2.39	0.58
27:1J:44:G:H1'	27:1J:47:C:H42	1.68	0.58
27:1J:46:A:H2'	27:1J:47:C:C6	2.38	0.58
29:19:206:LEU:HD22	29:19:211:ARG:HG2	1.86	0.58
40:65:27:SER:HA	40:65:88:ASP:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:84:GLN:HA	40:65:110:LEU:HD12	1.86	0.58
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.85	0.58
42:85:88:ILE:HG22	42:85:90:VAL:HG23	1.85	0.58
1:13:429:U:H1'	1:13:430:A:H5''	1.85	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
6:5E:39:LYS:HB2	6:5E:39:LYS:HZ2	1.66	0.58
7:6E:5:ARG:HE	7:6E:7:ALA:HA	1.69	0.58
7:6E:23:VAL:O	7:6E:27:ILE:HG12	2.03	0.58
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.35	0.58
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.38	0.58
27:16:50:G:OP1	40:A8:63:THR:HG23	2.02	0.58
28:71:226:PRO:HD2	28:71:227:HIS:CD2	2.38	0.58
43:D8:57:VAL:HG23	43:D8:99:ILE:HG23	1.83	0.58
7:62:132:GLY:HA3	7:62:135:VAL:HG23	1.84	0.58
18:9A:52:PRO:O	18:9A:56:THR:HG23	2.04	0.58
20:BA:74:LYS:HG3	20:BA:76:ALA:H	1.68	0.58
26:14:190:A:OP2	49:F5:39:LYS:NZ	2.37	0.58
26:14:309:G:N3	26:14:329:G:O2'	2.36	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
31:39:192:LEU:HD23	31:39:193:VAL:N	2.18	0.58
1:13:304:U:H2'	1:13:305:G:C8	2.39	0.58
1:13:1342:C:O2'	9:8E:124:GLN:HG2	2.04	0.58
26:1H:250:G:H2'	26:1H:251:A:C8	2.38	0.58
26:1H:960:A:H61	38:88:82:ARG:HH21	1.51	0.58
26:1H:1042:G:H1	26:1H:1113:U:H3	1.52	0.58
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.03	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:2592:G:P	59:1H:4409:HOH:O	2.60	0.58
26:1H:2636:U:OP2	30:21:79:ARG:HD2	2.03	0.58
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.85	0.58
28:71:183:GLU:HG2	28:71:184:LYS:NZ	2.18	0.58
29:11:37:LEU:HB3	29:11:59:LYS:NZ	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:110:ASP:OD1	34:61:130:TYR:OH	2.10	0.58
1:1G:631:G:H3'	1:1G:632:A:H8	1.69	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
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.34	0.58
24:3L:3:C:H2'	24:3L:4:C:O4'	2.04	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
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
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.52	0.58
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.84	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
27:16:116:G:C5'	40:A8:55:ALA:HB2	2.34	0.58
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.04	0.58
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.84	0.58
1:1G:1443:G:O2'	41:75:122:ASP:OD2	2.21	0.58
4:32:31:CYS:C	4:32:33:MET:N	2.56	0.58
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.85	0.58
15:6A:48:LYS:HA	15:6A:48:LYS:NZ	2.19	0.58
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.39	0.58
26:14:2287:A:H8	26:14:2287:A:H5''	1.67	0.58
30:29:35:GLN:H	30:29:48:GLN:HB2	1.68	0.58
33:59:75:ALA:O	33:59:79:VAL:HG13	2.04	0.58
37:35:47:ASP:HB3	37:35:49:ARG:N	2.19	0.58
45:B5:8:ILE:H	45:B5:8:ILE:HD12	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
1:13:774:G:H2'	1:13:775:G:H8	1.68	0.58
1:13:1203:C:H2'	1:13:1204:A:O4'	2.04	0.58
2:1E:11:LEU:O	2:1E:16:HIS:NE2	2.36	0.58
24:3K:19:G:C6	26:1H:2112:G:H1'	2.38	0.58
26:1H:107:C:H2'	26:1H:108:U:C6	2.39	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.68	0.58
26:1H:2359:C:H4'	55:Q8:49:VAL:HG11	1.84	0.58
34:61:4:ILE:HG21	34:61:47:LEU:HD22	1.85	0.58
1:1G:440:A:H8	1:1G:440:A:OP2	1.87	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
5:42:42:GLY:HA3	5:42:65:ASN:O	2.03	0.58
5:42:107:ARG:O	5:42:110:LEU:N	2.36	0.58
56:2L:22:A:N6	56:2L:47:7MG:H2'	2.18	0.58
24:3L:23:A:H2'	24:3L:24:G:H8	1.67	0.58
26:14:353:G:H2'	26:14:354:G:H8	1.68	0.58
1:13:51:A:OP2	1:13:52:G:H8	1.86	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
26:1H:198:C:H4'	26:1H:2243:U:O2'	2.04	0.58
26:1H:1465:G:H2'	26:1H:1466:G:C8	2.35	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
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.86	0.58
1:1G:260:G:H2'	1:1G:261:U:C6	2.39	0.58
1:1G:353:A:H5'	1:1G:353:A:H8	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
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
24:3L:76:A:H8	26:14:2394:C:H42	1.52	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
26:14:1847:A:O2'	26:14:1848:A:H5'	2.04	0.58
26:14:1952:A:C5	36:25:22:ILE:HD11	2.39	0.58
31:39:78:ILE:H	31:39:78:ILE:HD13	1.68	0.58
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.85	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
1:13:1218:C:OP1	14:5I:12:ARG:NH2	2.37	0.58
1:13:1525:G:OP1	11:2I:120:ARG:NH2	2.37	0.58
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.39	0.58
20:BI:32:ALA:O	20:BI:36:LEU:HB2	2.04	0.58
22:1K:6:G:H1	22:1K:68:C:N4	2.02	0.58
26:1H:287:C:H2'	26:1H:288:C:H6	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:989:G:OP2	51:L8:11:SER:OG	2.21	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
30:21:203:LYS:HE3	30:21:204:ALA:HB2	1.86	0.58
35:58:46:VAL:HG11	35:58:48:MET:HG3	1.86	0.58
36:68:17:ARG:HA	36:68:17:ARG:NH1	2.14	0.58
36:68:101:PRO:HB3	36:68:120:GLU:HB3	1.86	0.58
41:B8:26:ASP:HB3	41:B8:120:ARG:HH22	1.68	0.58
44:E8:29:LEU:HD12	44:E8:29:LEU:O	2.04	0.58
1:1G:545:C:OP1	4:32:61:LYS:NZ	2.37	0.58
1:1G:1252:A:H61	1:1G:1285:A:H61	1.52	0.58
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.17	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
26:14:851:U:OP1	51:H5:49:LYS:HE2	2.04	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
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
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
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.04	0.57
1:13:859:A:H2'	1:13:860:A:H8	1.68	0.57
5:4E:15:ARG:NH2	25:4K:25:A:OP2	2.35	0.57
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.66	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
26:1H:84:A:OP2	46:G8:8:LYS:NZ	2.22	0.57
26:1H:299:A:C2	26:1H:322:A:C4	2.92	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
33:51:154:PRO:HB3	33:51:163:TYR:CE2	2.39	0.57
44:E8:70:TYR:HD1	44:E8:70:TYR:H	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
1:1G:57:G:H2'	1:1G:58:C:C6	2.39	0.57
1:1G:433:C:H2'	1:1G:434:U:C6	2.39	0.57
7:62:150:ALA:O	11:2A:57:THR:HG21	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:17:VAL:HG21	9:82:80:GLY:HA3	1.85	0.57
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.38	0.57
16:7A:5:ARG:HE	16:7A:22:THR:HG23	1.68	0.57
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.69	0.57
26:14:39:C:O2	31:39:46:ARG:NH2	2.37	0.57
26:14:132:G:H1	26:14:147:U:H3	1.50	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
26:14:1116:C:H2'	26:14:1117:G:H8	1.69	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
31:39:46:ARG:HG2	31:39:46:ARG:NH1	2.19	0.57
1:13:55:A:H2	34:69:82:ARG:HG2	1.70	0.57
1:13:606:G:H1	1:13:631:G:H5''	1.69	0.57
1:13:1003:G:N2	1:13:1004:A:O2'	2.37	0.57
1:13:1117:G:H5''	9:8E:104:ARG:CZ	2.33	0.57
1:13:1118:C:H1'	1:13:1179:A:C4	2.39	0.57
13:4I:66:LEU:HA	13:4I:70:LEU:HD12	1.86	0.57
22:1K:59:A:H8	22:1K:62:C:C4	2.22	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
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
44:E8:37:ARG:HD3	44:E8:38:TYR:HE1	1.68	0.57
47:H8:75:ASN:O	47:H8:84:GLU:N	2.33	0.57
1:1G:636:U:H2'	1:1G:637:G:C8	2.39	0.57
1:1G:664:G:P	18:9A:64:ARG:HH21	2.27	0.57
1:1G:1349:A:H2'	1:1G:1350:A:C8	2.38	0.57
10:1A:12:ASP:HB3	10:1A:15:THR:OG1	2.04	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
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
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
37:35:14:LYS:O	37:35:16:ARG:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:81:LYS:HB2	46:C5:99:CYS:SG	2.43	0.57
1:13:690:G:H2'	1:13:691:G:O4'	2.03	0.57
1:13:1352:C:H2'	1:13:1353:G:C8	2.39	0.57
3:2E:34:LEU:HD11	14:5I:25:VAL:HG11	1.86	0.57
26:1H:1301:A:H2	26:1H:1626:G:H21	1.52	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:2783:G:H2'	26:1H:2784:C:C6	2.40	0.57
32:4I:65:GLY:HA2	52:M8:7:PRO:HG2	1.84	0.57
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.37	0.57
55:Q8:35:GLN:C	55:Q8:37:SER:H	2.08	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
1:1G:1355:G:H2'	1:1G:1356:G:H8	1.69	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
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
52:I5:48:ARG:NH1	52:I5:51:ASP:HB3	2.20	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
1:13:1399:C:H4'	1:13:1400:C:H5''	1.85	0.57
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.19	0.57
11:2I:108:ILE:O	18:9I:87:ARG:N	2.37	0.57
26:1H:589:C:H2'	26:1H:590:A:C8	2.38	0.57
26:1H:1159:U:P	51:L8:30:ARG:HH22	2.27	0.57
26:1H:1833:U:H2'	26:1H:1834:U:C6	2.36	0.57
35:58:127:ASP:OD1	35:58:127:ASP:N	2.37	0.57
39:98:78:LYS:O	39:98:83:ILE:HG13	2.04	0.57
41:B8:111:ARG:HD3	41:B8:111:ARG:H	1.69	0.57
43:D8:46:VAL:HG12	43:D8:47:VAL:H	1.69	0.57
52:M8:37:SER:OG	52:M8:42:PHE:HB3	2.04	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
16:7A:15:PRO:HD2	16:7A:42:ARG:HD3	1.85	0.57
26:14:1971:A:OP2	29:19:242:ARG:NH2	2.37	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
38:45:138:ASP:N	38:45:138:ASP:OD1	2.37	0.57
1:13:105:G:H2'	1:13:106:C:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:545:C:OP2	4:3E:62:GLN:NE2	2.37	0.57
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.05	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: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:2773:C:OP1	30:21:164:ARG:NH1	2.37	0.57
38:88:3:MET:HG2	38:88:4:PRO:O	2.03	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
2:12:179:LYS:HA	8:72:72:PRO:HG3	1.86	0.57
4:32:8:VAL:O	4:32:11:LEU:N	2.28	0.57
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.84	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
29:19:246:PRO:HD2	29:19:255:LYS:HD3	1.86	0.57
31:39:30:PRO:O	31:39:33:LEU:N	2.37	0.57
35:15:95:PRO:O	35:15:98:VAL:HG22	2.04	0.57
52:I5:13:ARG:HA	52:I5:22:ILE:HB	1.86	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
1:13:1129:C:N3	1:13:1143:G:N2	2.53	0.57
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.40	0.57
11:2I:67:ASP:O	11:2I:71:LYS:HG3	2.04	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
28:71:58:VAL:HG13	28:71:199:HIS:CD2	2.39	0.57
35:58:59:LYS:O	35:58:61:ARG:NH1	2.37	0.57
38:88:30:GLY:HA3	38:88:107:ALA:HB2	1.85	0.57
55:Q8:32:LEU:HG	55:Q8:33:ASN:H	1.69	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
2:12:53:ARG:HH12	2:12:199:TYR:HA	1.69	0.57
5:42:127:ASN:ND2	5:42:130:ASN:OD1	2.36	0.57
26:14:511:U:C5	26:14:512:G:C4	2.92	0.57
26:14:1607:C:N4	26:14:1622:G:OP2	2.37	0.57
26:14:2378:A:O2'	40:65:21:THR:HG21	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:13:38:G:C2	1:13:397:A:C2	2.93	0.57
2:1E:12:GLU:HA	2:1E:16:HIS:CD2	2.39	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:1759:A:H4'	26:1H:2715:C:H1'	1.86	0.57
26:1H:2061:G:P	59:1H:3531:HOH:O	2.62	0.57
55:Q8:53:PRO:HB3	55:Q8:56:GLU:HG3	1.85	0.57
1:1G:56:U:H2'	1:1G:57:G:H8	1.67	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:1006:C:H2'	1:1G:1007:C:C6	2.39	0.57
2:12:166:ASP:HB2	2:12:205:ASP:OD1	2.04	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
32:49:60:LEU:O	32:49:64:THR:HG22	2.05	0.57
34:69:58:LEU:O	34:69:62:LYS:N	2.37	0.57
37:35:64:LYS:CB	55:M5:30:ARG:HH22	2.11	0.57
39:55:45:ARG:HA	39:55:95:THR:HG21	1.87	0.57
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	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
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.40	0.57
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.04	0.57
26:1H:662:G:P	37:78:15:ARG:HE	2.27	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
28:71:66:HIS:NE2	28:71:187:ASP:HB2	2.19	0.57
33:51:122:THR:HB	33:51:134:SER:HB2	1.85	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
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:149:LEU:HD23	2:12:152:PHE:HB3	1.86	0.57
4:32:13:ARG:O	4:32:15:GLU:N	2.33	0.57
15:6A:28:GLN:O	15:6A:32:LEU:HG	2.05	0.57
26:14:27:G:N2	26:14:512:G:H1'	2.19	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
27:1J:88:C:H4'	27:1J:89:G:OP1	2.03	0.57
46:C5:23:ARG:CB	46:C5:23:ARG:HH11	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
1:13:464:G:C6	1:13:466:C:H5'	2.40	0.57
1:13:684:A:O2'	11:2I:38:ASN:HB3	2.04	0.57
1:13:954:G:H21	1:13:1227:A:N6	2.03	0.57
2:1E:42:ILE:HD11	2:1E:202:PRO:HB2	1.86	0.57
3:2E:20:SER:OG	3:2E:40:ARG:NH2	2.29	0.57
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.39	0.57
18:9I:19:LYS:HG3	18:9I:20:ALA:H	1.70	0.57
27:16:91:C:H5''	47:H8:79:ARG:HH22	1.69	0.57
1:1G:1224:G:N1	1:1G:1322:C:O2'	2.37	0.57
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.70	0.57
2:12:92:TYR:CE1	2:12:151:GLY:HA3	2.40	0.57
6:52:97:PHE:HB2	18:9A:32:ARG:HD3	1.84	0.57
26:14:483:A:H1'	46:C5:60:PHE:CE1	2.40	0.57
26:14:993:G:N3	43:95:89:GLN:NE2	2.46	0.57
26:14:2656:U:H3	26:14:2665:A:H2	1.52	0.57
32:49:125:PHE:HB3	32:49:166:ASP:OD2	2.04	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
1:13:468:A:H4'	16:7I:80:PHE:O	2.04	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
4:3E:30:LYS:H	4:3E:34:GLU:HB2	1.70	0.57
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.87	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
28:71:212:VAL:O	28:71:224:ILE:HG13	2.05	0.57
33:51:12:PRO:HG2	33:51:13:LYS:HE2	1.87	0.57
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.36	0.57
1:1G:546:G:OP2	4:32:72:GLU:HB3	2.05	0.57
1:1G:1157:A:C8	1:1G:1158:C:C5	2.93	0.57
7:62:49:ILE:HG22	7:62:53:LYS:HG3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:95:5:VAL:HB	43:95:37:VAL:CG1	2.35	0.57
43:95:22:VAL:HG22	43:95:23:GLU:H	1.70	0.57
45:B5:63:LYS:HZ3	45:B5:63:LYS:H	1.52	0.57
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
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
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.86	0.56
26:1H:604:G:C6	26:1H:625:G:C2	2.93	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
27:16:79:C:O5'	27:16:79:C:H6	1.87	0.56
27:16:112:G:H2'	27:16:113:C:H6	1.70	0.56
29:11:12:SER:O	29:11:16:MET:HB2	2.05	0.56
30:21:16:ARG:HG3	30:21:16:ARG:O	2.05	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
1:1G: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
26:14:1341: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
30:29:33:VAL:HG12	30:29:89:ASP:CB	2.35	0.56
40:65:14:VAL:O	40:65:18:ILE:HD13	2.05	0.56
50:G5:31:GLU:HB2	50:G5:53:LEU:HD11	1.86	0.56
1:13:74:C:N4	1:13:96:G:H1	1.99	0.56
1:13:148:G:H1	1:13:174:C:H42	1.52	0.56
4:3E:105:VAL:HG21	4:3E:126:ILE:HG13	1.87	0.56
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.37	0.56
8:7E:46:LYS:HE2	8:7E:63:LEU:O	2.04	0.56
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.38	0.56
17:8I:62:SER:HB3	17:8I:72:ARG:HE	1.70	0.56
26:1H:654(D):G:H22	26:1H:654(Q):C:H42	1.53	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
28:7I:53:ARG:HG3	28:7I:56:GLN:HE21	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:32:LEU:HG	55:Q8:33:ASN:N	2.20	0.56
1:1G:569:C:O2	1:1G:881:G:N2	2.29	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
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.87	0.56
5:42:145:LYS:O	5:42:149:GLU:N	2.36	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
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.04	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
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.05	0.56
26:14:1225:C:H4'	43:95:85:LYS:HG2	1.87	0.56
26:14:2283:C:C2	26:14:2389:G:C2	2.93	0.56
29:19:253:GLN:HB3	29:19:255:LYS:HZ3	1.70	0.56
38:45:25:ASP:HB3	38:45:102:VAL:CG2	2.32	0.56
39:55:74:LYS:HE2	39:55:77:ARG:HH21	1.70	0.56
47:D5:79:ARG:HD2	47:D5:80:ARG:HH11	1.70	0.56
55:M5:40:GLU:N	55:M5:43:GLN:HB2	2.18	0.56
1:13:52:G:H2'	1:13:53:A:H8	1.70	0.56
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.70	0.56
1:13:1157:A:N6	1:13:1178:G:N3	2.52	0.56
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.52	0.56
4:3E:30:LYS:CB	4:3E:35:ARG:HE	2.18	0.56
4:3E:167:GLY:HA2	29:19:135:PHE:HE1	1.70	0.56
10:1I:48:THR:HA	10:1I:62:HIS:CB	2.36	0.56
26:1H:64:A:H1'	45:F8:66:LEU:HB2	1.86	0.56
26:1H:71:A:H4'	26:1H:72:U:H5''	1.86	0.56
26:1H:353:G:H2'	26:1H:354:G:C8	2.40	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:2579:C:H2'	26:1H:2580:U:O4'	2.06	0.56
27:16:3:C:H2'	27:16:4:C:C6	2.40	0.56
28:7I:212:VAL:HB	28:7I:224:ILE:HD11	1.86	0.56
30:21:174:ASP:HB3	30:21:183:LEU:HD23	1.87	0.56
31:31:64:ILE:HG13	31:31:65:TRP:CD1	2.40	0.56
32:41:28:VAL:O	32:41:31:VAL:HG13	2.05	0.56
33:51:128:PRO:HG2	33:51:129:THR:HG22	1.86	0.56
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:15:VAL:HG21	46:G8:42:VAL:HG21	1.87	0.56
55:Q8:57:ARG:HB2	55:Q8:59:LYS:HE3	1.87	0.56
1:1G:664:G:OP1	18:9A:64:ARG:NH2	2.33	0.56
1:1G:766:A:H2'	1:1G:767:A:O4'	2.06	0.56
1:1G:793:U:O2	1:1G:1516:G:H4'	2.03	0.56
1:1G:940:C:H2'	1:1G:941:G:H8	1.69	0.56
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.41	0.56
3:22:83:ARG:HA	3:22:86:VAL:HG22	1.87	0.56
26:14:161:U:H5'	26:14:171:G:H21	1.69	0.56
26:14:492:A:H2'	26:14:493:G:O4'	2.05	0.56
26:14:1161:C:O2'	43:95:8:GLY:HA2	2.06	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
26:14:1832:C:N4	26:14:1833:U:C4	2.74	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
26:14:2786:U:H4'	30:29:64:LYS:C	2.25	0.56
31:39:37:VAL:HA	31:39:40:GLN:HB3	1.86	0.56
46:C5:47:LYS:HG3	46:C5:60:PHE:CZ	2.40	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
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
39:98:96:ARG:HE	39:98:117:VAL:HG23	1.69	0.56
1:1G:223:U:H2'	1:1G:224:C:C6	2.41	0.56
2:12:75:LYS:HA	2:12:78:GLN:CB	2.31	0.56
4:32:113:SER:O	4:32:117:ALA:N	2.38	0.56
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.70	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
33:59:6:ARG:HB2	33:59:66:GLY:HA2	1.88	0.56
33:59:27:LYS:NZ	33:59:28:GLY:O	2.34	0.56
41:75:107:ASP:OD2	41:75:109:GLU:HB2	2.05	0.56
1:13:657:G:C2	1:13:658:G:C8	2.93	0.56
7:6E:111:ARG:HB3	7:6E:111:ARG:HH11	1.70	0.56
9:8E:31:GLN:HG2	9:8E:35:GLU:HG2	1.86	0.56
15:6I:8:LYS:HG2	15:6I:12:ILE:HD11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:36:ASN:OD1	18:9I:36:ASN:N	2.37	0.56
26:1H:141:A:C8	26:1H:1408:C:H1'	2.39	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
26:1H:1613:G:O2'	54:P8:3:ARG:NE	2.38	0.56
26:1H:1678:G:N2	26:1H:1989:G:N2	2.54	0.56
26:1H:1919:A:H5''	26:1H:1920:C:OP2	2.05	0.56
26:1H:2438:U:O2'	26:1H:2440:C:OP1	2.18	0.56
31:31:150:GLY:HA2	31:31:172:TRP:CD2	2.40	0.56
36:68:68:GLU:OE2	36:68:78:ARG:NH1	2.38	0.56
47:H8:97:GLU:HB3	47:H8:125:LEU:HD11	1.85	0.56
55:Q8:6:THR:H	55:Q8:59:LYS:HZ2	1.53	0.56
1:1G:142:G:H2'	1:1G:143:A:H8	1.69	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
26:14:111:A:H4'	50:G5:69:ARG:NH2	2.21	0.56
26:14:558:G:H5'	35:15:112:LEU:HD12	1.88	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
26:14:2636:U:OP1	30:29:80:GLU:HB2	2.05	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:CZ	40:65:67:ARG:HB2	2.35	0.56
40:65:85:VAL:HG22	40:65:110:LEU:HG	1.88	0.56
3:2E:77:ILE:HA	3:2E:84:ILE:HD12	1.87	0.56
8:7E:69:ARG:NH2	8:7E:73:ASP:O	2.39	0.56
22:1K:59:A:H4'	22:1K:60:A:OP1	2.06	0.56
22:1K:75:C:OP2	22:1K:75:C:H4'	2.04	0.56
26:1H:389:G:O5'	26:1H:389:G:H8	1.88	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
37:78:1:MET:HE1	37:78:6:LEU:HD13	1.88	0.56
42:C8:40:PHE:HB3	43:D8:75:PHE:CD2	2.41	0.56
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.46	0.56
1:1G:458:C:H42	1:1G:474:G:H1	1.54	0.56
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.21	0.56
2:12:155:LEU:HD12	2:12:157:ARG:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:9:ARG:O	9:82:104:ARG:NE	2.35	0.56
26:14:276:A:N3	26:14:277:C:N4	2.54	0.56
26:14:975:G:C5	26:14:976:C:C5	2.94	0.56
26:14:1967:C:H2'	26:14:1968:G:O4'	2.04	0.56
26:14:2875:C:OP1	41:75:3:ARG:NH1	2.38	0.56
30:29:79:ARG:HH11	30:29:79:ARG:HG2	1.70	0.56
34:69:40:THR:O	34:69:44:LEU:N	2.38	0.56
37:35:80:TYR:CD2	37:35:111:ARG:HB3	2.40	0.56
52:15:37:SER:HB3	52:15:39:CYS:H	1.70	0.56
1:13:337:C:H2'	1:13:338:A:C8	2.41	0.56
4:3E:173:TRP:CD2	4:3E:189:PRO:HG3	2.41	0.56
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.34	0.56
13:4I:97:PRO:HA	13:4I:110:ARG:HD3	1.87	0.56
15:6I:24:SER:HB2	15:6I:27:VAL:HG23	1.86	0.56
26:1H:67:U:H3	26:1H:74:A:H2	1.52	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:1407:C:H2'	26:1H:1408:C:H6	1.70	0.56
38:88:52:VAL:HA	38:88:55:VAL:HG13	1.88	0.56
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.38	0.56
5:42:73:ASN:O	5:42:73:ASN:ND2	2.29	0.56
7:62:95:ARG:O	7:62:99:LEU:HB2	2.05	0.56
26:14:86:C:O2'	26:14:104:U:O2'	2.19	0.56
26:14:960:A:H61	38:45:82:ARG:HH21	1.54	0.56
26:14:1040:C:H2'	26:14:1041:C:C6	2.40	0.56
27:1J:50:G:OP1	40:65:63:THR:HG23	2.04	0.56
29:19:124:PRO:HG2	29:19:129:ASN:ND2	2.20	0.56
30:29:57:LYS:NZ	30:29:57:LYS:H	2.03	0.56
37:35:50:ARG:HB2	37:35:50:ARG:HH11	1.69	0.56
40:65:64:GLU:O	40:65:68:GLN:HG3	2.06	0.56
51:H5:55:ARG:HB3	51:H5:55:ARG:CZ	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
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.37	0.56
1:13:825:G:O4'	8:7E:2:LEU:HD21	2.05	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
2:1E:21:ARG:HD3	2:1E:38:GLY:C	2.25	0.56
26:1H:705:A:C8	26:1H:727:A:C2	2.94	0.56
28:71:227:HIS:CD2	28:71:227:HIS:N	2.74	0.56
47:H8:45:ASP:OD2	47:H8:49:ARG:NH1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:L8:5:LYS:HD2	51:L8:34:GLU:OE1	2.04	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
1:1G:749:C:O2'	1:1G:750:G:H5'	2.05	0.56
26:14:112:U:H5''	26:14:113:G:OP2	2.05	0.56
26:14:986:C:HO2'	26:14:1001:A:HO2'	1.38	0.56
26:14:2239:G:P	59:14:3404:HOH:O	2.61	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
1:13:36:C:OP1	12:3I:123:LYS:NZ	2.39	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
4:3E:188:LEU:HD23	4:3E:189:PRO:HD2	1.88	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
32:41:107:LEU:HD11	32:41:178:PHE:CE1	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
3:22:18:TRP:HE1	14:5A:55:GLY:N	2.03	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
16:7A:39:TYR:HB2	16:7A:49:LEU:HD13	1.88	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
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
27:1J:13:A:N1	27:1J:69:G:O2'	2.29	0.56
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.41	0.56
35:15:34:LEU:HD21	35:15:120:LEU:HD13	1.88	0.56
44:A5:110:LYS:HG3	44:A5:111:HIS:CG	2.40	0.56
46:C5:29:GLU:OE1	46:C5:29:GLU:N	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
1:13:1317:C:C6	14:5I:16:PHE:HD2	2.24	0.56
2:1E:71:VAL:HA	2:1E:93:VAL:O	2.06	0.56
4:3E:74:GLN:O	4:3E:78:LEU:HD13	2.05	0.56
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.87	0.56
13:4I:15:VAL:O	13:4I:19:LEU:HD22	2.06	0.56
14:5I:9:LYS:HD2	14:5I:12:ARG:HH21	1.71	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
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.88	0.56
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.41	0.56
32:41:115:ARG:NH1	32:41:115:ARG:HB3	2.20	0.56
33:51:144:VAL:O	33:51:148:ILE:HG12	2.05	0.56
34:61:21:VAL:HG22	34:61:22:LYS:H	1.70	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
1:1G:695:A:OP2	11:2A:53:SER:OG	2.24	0.56
1:1G:913:A:OP2	1:1G:913:A:H8	1.88	0.56
1:1G:1240:U:O2'	1:1G:1241:G:OP1	2.22	0.56
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.88	0.56
16:7A:71:ARG:HB2	16:7A:71:ARG:HH11	1.71	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
32:49:12:TYR:O	32:49:17:PRO:HD3	2.05	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
1:13:11:G:C5	1:13:12:U:C5	2.94	0.55
2:1E:62:ALA:HB2	2:1E:222:ILE:HG23	1.88	0.55
4:3E:158:ILE:O	4:3E:162:LEU:N	2.32	0.55
5:4E:148:VAL:HA	5:4E:151:LEU:HD12	1.88	0.55
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.38	0.55
19:AI:41:VAL:O	52:M8:63:TYR:OH	2.23	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
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
27:16:15:A:H5'	27:16:16:G:H8	1.71	0.55
30:21:128:SER:OG	30:21:129:HIS:N	2.39	0.55
32:41:41:GLN:HG2	32:41:155:MET:HB3	1.87	0.55
36:68:117:LEU:HD23	36:68:117:LEU:N	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.21	0.55
1:1G:135:C:O2	16:7A:1:MET:HB3	2.06	0.55
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.40	0.55
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.39	0.55
26:14:1418:G:H8	26:14:1418:G:O5'	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
27:1J:94:C:H2'	27:1J:95:U:C6	2.41	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
38:45:74:TYR:O	38:45:89:ASN:HB2	2.06	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
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:D5:7:ALA:O	47:D5:8:TYR:CG	2.59	0.55
47:D5:158:PRO:HB2	47:D5:159:PRO:HD2	1.87	0.55
1:13:1305:G:O2'	1:13:1331:G:N2	2.39	0.55
2:1E:22:LYS:H	2:1E:40:HIS:CE1	2.24	0.55
6:5E:38:GLU:HB2	6:5E:64:GLN:HB3	1.89	0.55
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.06	0.55
12:3I:47:LYS:HB2	12:3I:48:PRO:HA	1.88	0.55
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.71	0.55
15:6I:6:GLU:OE1	15:6I:7:GLU:N	2.40	0.55
19:AI:50:ALA:HA	19:AI:58:VAL:O	2.06	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
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
32:4I:131:TYR:O	32:4I:159:VAL:HG22	2.06	0.55
37:78:97:PRO:HA	37:78:100:LEU:HD23	1.88	0.55
39:98:52:ILE:O	39:98:55:ALA:N	2.36	0.55
1:1G:1188:A:H5''	14:5A:58:LYS:HE3	1.87	0.55
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.21	0.55
13:4A:19:LEU:HB2	13:4A:25:ILE:HG21	1.88	0.55
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.07	0.55
26:14:1788:C:H2'	26:14:1789:A:H8	1.71	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
38:45:97:VAL:HG21	38:45:103:MET:HE2	1.88	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
4:3E:142:PRO:HA	4:3E:185:PHE:HD2	1.70	0.55
5:4E:54:ALA:HA	5:4E:57:LYS:HG2	1.87	0.55
19:AI:6:LYS:O	19:AI:7:LYS:NZ	2.37	0.55
26:1H:960:A:C8	26:1H:962:G:C8	2.94	0.55
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.38	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
32:41:33:ARG:O	32:41:162:THR:HG23	2.06	0.55
33:51:95:ARG:HB3	33:51:95:ARG:NH1	2.22	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
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
1:1G:619:U:C5	4:32:135:LEU:HD11	2.41	0.55
2:12:178:ARG:HH21	8:72:68:ARG:HH22	1.54	0.55
26:14:661:C:H1'	37:35:12:ALA:HA	1.88	0.55
26:14:1638:C:H5''	26:14:2710:C:O2	2.06	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
32:49:33:ARG:CZ	32:49:162:THR:HG21	2.36	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
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
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.21	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
35:58:107:LEU:HD13	35:58:117:PHE:HB2	1.87	0.55
36:68:120:GLU:HG2	36:68:122:LEU:HG	1.89	0.55
43:D8:34:GLU:HG3	43:D8:56:SER:HB3	1.87	0.55
1:1G:136:C:H1'	16:7A:1:MET:HE3	1.88	0.55
1:1G:865:A:H2	1:1G:918:A:H4'	1.71	0.55
3:22:190:ARG:H	3:22:190:ARG:HD2	1.71	0.55
14:5A:26:ARG:NH1	14:5A:47:LEU:HD21	2.21	0.55
26:14:172:C:H2'	26:14:173:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.88	0.55
26:14:1820:U:H4'	26:14:1821:A:OP2	2.06	0.55
27:1J:80:U:H2'	27:1J:81:G:N2	2.20	0.55
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.89	0.55
41:75:53:ARG:NH1	41:75:60:THR:HG23	2.22	0.55
42:85:88:ILE:HA	43:95:49:THR:O	2.06	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
4:3E:114:ARG:HA	4:3E:117:ALA:HB3	1.89	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
28:71:53:ARG:HG3	28:71:56:GLN:NE2	2.22	0.55
29:11:53:PHE:C	29:11:218:ARG:HG3	2.27	0.55
45:F8:34:ALA:HA	45:F8:38:GLU:OE1	2.07	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
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.21	0.55
2:12:18:GLY:HA2	2:12:42:ILE:HG22	1.89	0.55
11:2A:86:GLY:H	11:2A:112:THR:HG23	1.70	0.55
12:3A:24:VAL:O	12:3A:26:ALA:N	2.40	0.55
56:2L:29:C:H2'	56:2L:30:G:C8	2.41	0.55
26:14:817:C:H2'	26:14:818:G:O4'	2.06	0.55
26:14:1047:G:H2'	26:14:1110:G:H1	1.72	0.55
27:1J:113:C:H4'	40:65:46:VAL:HG22	1.89	0.55
35:15:13:TRP:N	35:15:133:GLN:OE1	2.35	0.55
1:13:663:A:H2'	1:13:664:G:O4'	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
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
13:4I:117:VAL:HG12	13:4I:118:ALA:H	1.72	0.55
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.40	0.55
23:2K:9:G:H1'	23:2K:47:7MG:H5'	1.88	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
26:1H:1352:U:O2	26:1H:1570:A:H2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2099:U:H2'	26:1H:2100:G:C8	2.41	0.55
32:41:115:ARG:NH2	32:41:137:GLU:OE2	2.39	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
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.55
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.07	0.55
9:82:10:ARG:HD3	9:82:75:ASP:HB3	1.89	0.55
20:BA:36:LEU:O	20:BA:40:ALA:N	2.34	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
27:1J:44:G:H5''	27:1J:45:A:OP1	2.06	0.55
37:35:79:ARG:HG3	37:35:110:TYR:HB2	1.89	0.55
1:13:167:G:H2'	1:13:168:G:C8	2.42	0.55
3:2E:113:ALA:N	3:2E:183:ASP:OD2	2.40	0.55
26:1H:841:A:H2'	26:1H:842:G:C8	2.41	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
32:41:134:GLY:C	32:41:135:LEU:HD12	2.27	0.55
33:51:4:ILE:HD13	33:51:4:ILE:H	1.71	0.55
33:51:130:ARG:NH1	33:51:130:ARG:HB3	2.21	0.55
34:61:144:VAL:HG22	34:61:145:VAL:HG23	1.89	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
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
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
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.05	0.55
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.42	0.55
56:2L:65:G:H2'	56:2L:66:C:C6	2.42	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
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
32:49:7:LEU:HB2	32:49:104:GLU:OE1	2.07	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
2:1E:16:HIS:CD2	2:1E:16:HIS:N	2.74	0.55
22:1K:76:C:O2	26:1H:2507:C:O2'	2.23	0.55
26:1H:64:A:C5	45:F8:66:LEU:HD22	2.42	0.55
26:1H:1386:C:C2	26:1H:1387:C:C5	2.95	0.55
27:16:1(M):A:H61	27:16:119:A:N6	2.04	0.55
45:F8:27:THR:HB	45:F8:80:ILE:HG22	1.88	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
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.89	0.55
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.87	0.55
26:14:1002:G:C2	26:14:1003:G:H1'	2.41	0.55
26:14:1007:C:H5''	35:15:35:ARG:NH1	2.22	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:O5'	26:14:2533:A:H8	1.90	0.55
39:55:62:ALA:O	39:55:66:VAL:HG23	2.06	0.55
39:55:86:ARG:NH2	39:55:118:GLU:HA	2.22	0.55
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.07	0.55
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.21	0.55
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.40	0.55
10:1I:20:ALA:HA	10:1I:23:ILE:HD12	1.89	0.55
16:7I:21:VAL:O	16:7I:33:ILE:N	2.39	0.55
24:3K:56:C:N4	26:1H:2112:G:H1	2.05	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
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.21	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
27:16:90:C:H5'	38:88:18:LYS:HA	1.89	0.55
33:51:3:ARG:NH2	33:51:7:LEU:HD11	2.22	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
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.89	0.55
48:18:42:GLY:O	48:18:57:PHE:HD2	1.90	0.55
50:K8:4:SER:HB3	50:K8:5:GLU:OE1	2.06	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
1:1G:1126:U:C4	1:1G:1281:U:C6	2.95	0.55
5:42:18:ARG:HH21	5:42:25:ARG:HB3	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:82:ALA:HB1	9:82:96:LEU:HD21	1.88	0.55
26:14:68:G:H2'	26:14:69:C:H6	1.72	0.55
26:14:221:A:C4	26:14:266:G:N7	2.75	0.55
26:14:962:G:H2'	26:14:963:U:H6	1.71	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
31:39:8:GLN:HA	31:39:15:SER:HA	1.89	0.55
38:45:2:LEU:HB3	38:45:3:MET:HE3	1.89	0.55
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.88	0.55
47:D5:163:LEU:HD12	47:D5:165:VAL:HG23	1.88	0.55
4:3E:173:TRP:CG	4:3E:189:PRO:HG3	2.42	0.55
16:7I:19:ILE:HD11	16:7I:39:TYR:HB2	1.88	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:2305:A:H5''	32:41:134:GLY:HA3	1.88	0.55
26:1H:2785:C:O2'	30:21:64:LYS:HD3	2.07	0.55
32:41:120:LEU:HB2	32:41:179:PRO:O	2.07	0.55
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.89	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
26:14:1454:U:OP1	39:55:77:ARG:NH1	2.40	0.55
31:39:53:THR:HG23	31:39:55:GLY:H	1.71	0.55
31:39:74:ARG:O	31:39:74:ARG:HG2	2.06	0.55
34:69:6:LEU:HB2	34:69:36:ALA:HA	1.89	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
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.07	0.54
23:2K:17:C:H5'	23:2K:62:C:OP1	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
26:1H:719:C:H2'	26:1H:720:C:H6	1.71	0.54
26:1H:850:C:H5''	51:L8:18:ASP:HB2	1.89	0.54
26:1H:1759:A:H4'	26:1H:2715:C:C1'	2.37	0.54
26:1H:2062:A:N6	26:1H:2503:A:H62	2.05	0.54
26:1H:2179:C:H2'	26:1H:2180:U:H6	1.71	0.54
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.07	0.54
27:16:71:C:H2'	27:16:72:G:C8	2.39	0.54
38:88:112:GLU:OE2	38:88:112:GLU:N	2.29	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
52:M8:39:CYS:SG	52:M8:41:PRO:HD3	2.47	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
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
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
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
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
1:13:994:A:N7	1:13:1216:G:H4'	2.22	0.54
1:13:1079:G:C6	1:13:1080:A:N6	2.75	0.54
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.89	0.54
26:1H:731:C:H5''	59:1H:3752:HOH:O	2.07	0.54
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.42	0.54
27:16:15:A:H3'	27:16:16:G:H5'	1.89	0.54
37:78:144:GLU:OE2	37:78:144:GLU:N	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
1:1G: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:438:G:C4'	4:32:123:HIS:HD2	2.19	0.54
1:1G:677:U:H3	1:1G:713:G:H22	1.55	0.54
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.47	0.54
13:4A:13:LYS:HG2	13:4A:14:ARG:H	1.73	0.54
26:14:110:G:C2	26:14:111:A:C8	2.95	0.54
26:14:747:U:O2	26:14:2014:A:H1'	2.07	0.54
26:14:1219:G:H1	26:14:1230:C:N4	1.98	0.54
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.90	0.54
32:49:5:VAL:HG21	32:49:101:ILE:HG22	1.90	0.54
33:59:149:ARG:HG3	33:59:162:ILE:HG22	1.88	0.54
36:25:91:LEU:HB3	59:25:305:HOH:O	2.07	0.54
1:13:638:G:H2'	1:13:639:G:O4'	2.08	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1428:A:H2'	1:13:1429:C:C6	2.42	0.54
15:6I:63:ARG:HH12	15:6I:87:ILE:HD13	1.72	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
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:1653:G:O6	39:98:11:ASN:ND2	2.40	0.54
38:88:59:ARG:C	38:88:61:GLY:N	2.61	0.54
50:K8:7:ARG:H	50:K8:10:LEU:H	1.55	0.54
1:1G:841:U:H4'	1:1G:842:C:C6	2.42	0.54
1:1G:1316:G:H5''	14:5A:17:LYS:NZ	2.22	0.54
4:32:20:TYR:HA	4:32:26:CYS:HB3	1.89	0.54
11:2A:18:ARG:NH2	11:2A:35:PRO:O	2.39	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
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
1:13:332:G:H2'	1:13:333:G:H8	1.72	0.54
2:1E:100:GLY:O	2:1E:104:ASN:N	2.37	0.54
9:8E:59:PHE:HZ	9:8E:88:TYR:HD2	1.55	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:566:U:O4	43:D8:78:LYS:HD3	2.06	0.54
26:1H:2485:G:OP1	38:88:46:GLN:NE2	2.31	0.54
26:1H:2784:C:O2'	30:21:42:ASP:OD2	2.21	0.54
29:11:59:LYS:HD2	29:11:60:ARG:H	1.72	0.54
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.89	0.54
47:H8:18:LEU:O	47:H8:21:ALA:HB3	2.08	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
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
3:22:70:VAL:HG12	3:22:72:LYS:N	2.22	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:117:ARG:NH1	31:39:120:GLU:OE1	2.41	0.54
36:25:77:ILE:HG12	36:25:78:ARG:N	2.21	0.54
1:13:603:U:H2'	1:13:604:G:C8	2.43	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
2:1E:198:ASP:HA	8:7E:68:ARG:NH2	2.19	0.54
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.89	0.54
22:1K:59:A:C8	22:1K:62:C:C4	2.96	0.54
26:1H:511:U:C5	26:1H:512:G:C5	2.96	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
37:78:19:VAL:HB	37:78:20:GLY:HA2	1.88	0.54
40:A8:12:PHE:O	40:A8:16:ASN:ND2	2.40	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
1:1G:79:G:H2'	1:1G:79:G:N3	2.23	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
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
2:12:220:ASP:O	2:12:224:GLN:N	2.31	0.54
8:72:36:LEU:HA	8:72:39:LEU:HD22	1.89	0.54
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.38	0.54
26:14:912:C:C6	26:14:913:U:H5	2.26	0.54
26:14:1420:U:O2'	26:14:1421:G:OP1	2.26	0.54
34:69:71:ILE:O	34:69:74: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
1:13:611:A:H61	1:13:629:G:H1	1.54	0.54
26:1H:49:A:N7	26:1H:120:U:C5	2.65	0.54
26:1H:240:G:O6	59:1H:4308:HOH:O	2.17	0.54
26:1H:784:A:H5'	26:1H:785:G:OP1	2.07	0.54
26:1H:2077:A:H2'	26:1H:2078:C:H6	1.73	0.54
28:71:8:ARG:HA	28:71:11:LEU:HB3	1.90	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:41:TRP:CD1	38:88:96:VAL:HG13	2.43	0.54
38:88:51:ARG:HB3	38:88:51:ARG:HH11	1.73	0.54
48:I8:68:GLU:OE2	48:I8:82:ARG:NH1	2.32	0.54
8:72:10:LEU:HD13	8:72:83:ILE:HD11	1.88	0.54
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.87	0.54
26:14:134:C:H2'	26:14:135:G:H8	1.71	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
26:14:2745:C:H2'	26:14:2746:U:O4'	2.07	0.54
59:14:3922:HOH:O	39:55:3:HIS:CE1	2.60	0.54
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.43	0.54
34:69:14:ASP:OD1	34:69:15:VAL:N	2.41	0.54
35:15:121:LYS:HB3	35:15:123:TYR:HE2	1.71	0.54
38:45:25:ASP:OD1	38:45:25:ASP:N	2.40	0.54
38:45:110:THR:OG1	38:45:111:GLU:N	2.41	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
1:13:156:G:H1	1:13:165:C:H42	1.54	0.54
1:13:1234:C:H1'	1:13:1364:U:O2	2.07	0.54
2:1E:236:TYR:HA	2:1E:239:VAL:HG21	1.90	0.54
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.54
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.42	0.54
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.08	0.54
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.43	0.54
36:68:27:GLY:H	36:68:30:ALA:HB2	1.72	0.54
37:78:19:VAL:HB	37:78:27:HIS:HB3	1.90	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
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
4:32:78:LEU:HD22	4:32:96:LEU:HB3	1.89	0.54
8:72:29:SER:H	8:72:32:LYS:HB2	1.71	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
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
29:19:159:ALA:HB1	29:19:198:ASN:O	2.07	0.54
44:A5:72:LYS:HB3	44:A5:106:ILE:HD12	1.88	0.54
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H: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
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
36:68:88:ASN:ND2	36:68:92:GLU:H	2.06	0.54
39:98:26:LYS:HE2	39:98:70:LEU:O	2.07	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
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
2:12:47:THR:HG23	2:12:202:PRO:HG2	1.89	0.54
2:12:51:LEU:HA	2:12:201:ILE:HD12	1.90	0.54
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.89	0.54
9:82:95:LYS:NZ	9:82:96:LEU:HD13	2.23	0.54
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.72	0.54
26:14:892:G:C2	26:14:893:C:H1'	2.43	0.54
26:14:1542:G:O6	26:14:1543:A:N6	2.41	0.54
26:14:2056:G:N1	53:J5:4:HIS:HB3	2.15	0.54
26:14:2318:G:H22	40:65:2:ALA:HA	1.73	0.54
26:14:2680:C:H5'	30:29:189:PRO:HA	1.89	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
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
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
1:13:1453:G:C8	20:BI:39:LYS:HE2	2.43	0.54
6:5E:76:ALA:HA	6:5E:79:LEU:HD12	1.90	0.54
13:4I:14:ARG:HB3	13:4I:16:ASP:OD1	2.08	0.54
26:1H:774:A:H2	26:1H:787:U:HO2'	1.54	0.54
26:1H:858:U:O2	26:1H:2268:A:H2'	2.07	0.54
26:1H:1250:G:OP2	37:78:18:ARG:NH1	2.40	0.54
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:1(M):A:N6	27:16:119:A:H62	2.05	0.54
42:C8:47:TYR:CE2	43:D8:74:LYS:HE3	2.43	0.54
55:Q8:39:LYS:HG3	55:Q8:42:ARG:O	2.07	0.54
1:1G:518:C:H5'	1:1G:519:C:C6	2.43	0.54
26:14:686:G:N7	54:L5:5:TRP:CH2	2.76	0.54
26:14:1493:C:O4'	26:14:2210:G:N2	2.41	0.54
26:14:1750:G:O2'	26:14:1751:C:H5'	2.08	0.54
26:14:2816:C:H42	26:14:2830:G:H1	1.56	0.54
27:1J:3:C:H2'	27:1J:4:C:H6	1.73	0.54
52:I5:14:ILE:CG1	52:I5:33:VAL:HG11	2.38	0.54
1:13:8:A:H62	4:3E:208:SER:HB2	1.72	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
2:1E:11:LEU:HB2	2:1E:213:LEU:HD21	1.90	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
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.38	0.54
26:1H:2107:C:H2'	26:1H:2108:C:O4'	2.08	0.54
30:21:39:PRO:HA	30:21:44:TYR:N	2.23	0.54
33:51:6:ARG:HB3	33:51:65:HIS:CG	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
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
1:1G:1131:G:C8	1:1G:1132:C:H5	2.25	0.54
2:12:141:GLU:O	2:12:145:LEU:HB2	2.08	0.54
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.43	0.54
24:3L:34:G:N2	24:3L:35:A:C8	2.76	0.54
26:14:273(C):C:N4	26:14:363(C):G:H1	2.05	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
30:29:63:LEU:HD23	30:29:63:LEU:H	1.72	0.54
33:59:15:VAL:HG11	33:59:29:PRO:HD3	1.89	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
40:65:66:ALA:O	40:65:69:VAL:HG12	2.07	0.54
1:13:398:C:H2'	1:13:399:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.43	0.53
8:7E:17:THR:HG21	8:7E:80:ILE:HG13	1.89	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
26:1H:1309:G:OP1	54:P8:9:ARG:HB2	2.08	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:2674:G:O2'	36:68:29:ASN:OD1	2.09	0.53
26:1H:2880:C:O2'	39:98:90:ARG:NH1	2.41	0.53
45:F8:1:MET:O	45:F8:3:THR:HG23	2.08	0.53
1:1G:103:C:P	20:BA:17:ARG:HH21	2.31	0.53
1:1G:474:G:H2'	1:1G:475:G:H8	1.71	0.53
1:1G:983:A:N1	1:1G:1222:G:N2	2.56	0.53
2:12:67:THR:H	2:12:160:ASP:HB2	1.74	0.53
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.43	0.53
19:AA:41:VAL:HG13	19:AA:43:GLU:H	1.73	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
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
27:1J:14:U:H4'	27:1J:70:C:O2	2.08	0.53
29:19:255:LYS:H	29:19:255:LYS:HE3	1.73	0.53
1:13:49:U:C2	1:13:361:G:N2	2.76	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
1:13:1106: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
2:1E:21:ARG:HG3	2:1E:22:LYS:HG2	1.90	0.53
22:1K:19:G:H1'	22:1K:61:U:C4	2.43	0.53
26:1H:559:G:H22	42:C8:49:HIS:CE1	2.26	0.53
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.27	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
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.07	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
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:O	55:Q8:42:ARG:HG2	2.07	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
26:14:902:C:H2'	26:14:903:C:C6	2.43	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
40:65:11:LYS:O	40:65:15:ARG:HG2	2.07	0.53
41:75:8:LYS:CA	41:75:8:LYS:HZ2	2.21	0.53
1:13:660:G:H2'	1:13:661:G:H8	1.71	0.53
1:13:1442:G:C6	1:13:1446:A:C6	2.96	0.53
9:8E:59:PHE:HZ	9:8E:88:TYR:CD2	2.26	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
26:1H:432:A:H2'	26:1H:433:C:C6	2.43	0.53
26:1H:1191:G:OP1	37:78:32:THR:OG1	2.27	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:2177:C:HO2'	28:71:45:ALA:N	2.05	0.53
26:1H:2768:C:O2'	35:58:89:LYS:HE2	2.07	0.53
32:41:83:ARG:N	32:41:86:MET:SD	2.80	0.53
35:58:57:ALA:O	35:58:59:LYS:N	2.40	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
1:1G:123:C:H2'	1:1G:124:G:C8	2.43	0.53
1:1G:963:G:H21	10:1A:55:LYS:CE	2.22	0.53
1:1G:1275:A:H2'	1:1G:1276:G:H8	1.73	0.53
3:22:57:ILE:HG12	3:22:66:VAL:HG13	1.90	0.53
6:52:8:ILE:HG13	6:52:88:VAL:HG22	1.90	0.53
18:9A:59:SER:HB2	18:9A:62:GLU:H	1.73	0.53
26:14:141:A:H8	26:14:1595:G:H21	1.55	0.53
26:14:863:A:H2'	26:14:864:G:H8	1.74	0.53
26:14:1028:A:N6	26:14:1125:G:H2'	2.24	0.53
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:59:144:VAL:O	33:59:148:ILE:HG12	2.08	0.53
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.08	0.53
45:B5:30:VAL:HG11	45:B5:39:ILE:HD11	1.90	0.53
1:13:1298:C:P	7:6E:114:ARG:HH22	2.31	0.53
2:1E:31:TYR:O	2:1E:42:ILE:HG13	2.08	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
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.08	0.53
29:11:213:ARG:O	29:11:216:GLY:N	2.33	0.53
32:41:108:ASN:OD1	32:41:108:ASN:N	2.40	0.53
34:61:69:LYS:O	34:61:73:GLU:HB2	2.09	0.53
35:58:28:THR:HA	35:58:106:MET:HE2	1.91	0.53
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.90	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
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
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
3:22:37:GLN:O	3:22:40:ARG:HG3	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
11:2A:13:GLN:HA	11:2A:75:TYR:O	2.08	0.53
13:4A:84:ILE:O	13:4A:86:CYS:N	2.41	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
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
34:69:81:VAL:HG23	34:69:143:SER:HB2	1.90	0.53
1:13:611:A:N1	1:13:629:G:N2	2.57	0.53
1:13:939:G:H5''	7:6E:102:ARG:HH22	1.73	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
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.38	0.53
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.08	0.53
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.44	0.53
23:2K:1:C:H2'	23:2K:2:G:H8	1.74	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
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
27:16:44:G:H1'	27:16:47:C:H42	1.73	0.53
31:31:158:THR:OG1	31:31:159:GLY:N	2.41	0.53
33:51:92:ILE:HD12	33:51:93:GLY:H	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
1:1G:230:G:N2	1:1G:231:G:C4	2.77	0.53
1:1G:1195:C:O2	1:1G:1197:G:H1'	2.08	0.53
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.22	0.53
2:12:63:MET:SD	2:12:225:ALA:HB1	2.48	0.53
4:32:55:ALA:O	4:32:59:ARG:HG2	2.09	0.53
13:4A:14:ARG:HA	13:4A:43:THR:O	2.07	0.53
15:6A:16:ALA:HA	15:6A:27:VAL:HG22	1.89	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
38:45:69:PHE:CD1	38:45:70:PRO:HD2	2.44	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
4:3E:93:PHE:HA	4:3E:96:LEU:HD23	1.90	0.53
5:4E:95:ALA:O	5:4E:98:THR:OG1	2.26	0.53
15:6I:63:ARG:NH1	15:6I:87:ILE:HD13	2.24	0.53
26:1H:97:C:H5''	50:K8:3:LEU:HA	1.89	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.23	0.53
30:21:78:LEU:O	30:21:79:ARG:HB2	2.09	0.53
30:21:167:VAL:HG21	30:21:187:ALA:CB	2.39	0.53
32:41:151:ALA:HB3	32:41:153:ARG:NH1	2.24	0.53
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.91	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
1:1G:520:A:N1	1:1G:536:C:H1'	2.22	0.53
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.40	0.53
1:1G:604:G:H2'	1:1G:605:U:O4'	2.09	0.53
1:1G:1086:U:H2'	1:1G:1087:G:O4'	2.08	0.53
13:4A:66:LEU:HA	13:4A:70:LEU:HG	1.90	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
26:14:1462:C:H4'	26:14:2703:C:H5'	1.90	0.53
26:14:2461:C:H2'	26:14:2462:U:C6	2.43	0.53
33:59:42:ARG:HH12	33:59:55:PRO:HD3	1.74	0.53
55:M5:57:ARG:H	55:M5:57:ARG:HD3	1.74	0.53
1:13:68:G:H5'	1:13:171:A:H1'	1.89	0.53
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.43	0.53
12:3I:66:VAL:HG22	12:3I:67:THR:N	2.23	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
27:16:44:G:C2	27:16:48:A:C2	2.96	0.53
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.73	0.53
40:A8:35:ILE:O	40:A8:35:ILE:HG12	2.05	0.53
1:1G:468:A:C5	1:1G:474:G:H1'	2.44	0.53
1:1G:1075:C:H5'	2:12:103:THR:HG21	1.89	0.53
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.42	0.53
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.91	0.53
6:52:2:ARG:HE	6:52:69:GLU:HB3	1.74	0.53
24:3L:9:A:H8	24:3L:11:C:H41	1.56	0.53
26:14:67:U:N3	26:14:74:A:H2	2.00	0.53
26:14:662:G:OP1	37:35:15:ARG:NH1	2.42	0.53
26:14:910:A:C5	38:45:13:GLN:HG3	2.43	0.53
26:14:960:A:H61	38:45:82:ARG:NH2	2.05	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2698:U:H2'	26:14:2699:C:C6	2.44	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
38:45:32:TYR:N	38:45:32:TYR:CD1	2.76	0.53
38:45:34:LEU:HD12	38:45:130:LYS:O	2.09	0.53
42:85:47:TYR:HA	42:85:50:ARG:NH2	2.24	0.53
47:D5:128:VAL:HG23	47:D5:160:GLY:HA3	1.90	0.53
1:13:24:U:H2'	1:13:25:C:H6	1.74	0.53
1:13:1028:C:N3	1:13:1033:G:N2	2.57	0.53
2:1E:18:GLY:N	2:1E:42:ILE:HG22	2.23	0.53
26:1H:748:G:C8	44:E8:89:ALA:HB1	2.44	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
28:71:13:LYS:HB2	28:71:14:VAL:HG23	1.90	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
37:78:49:ARG:HG3	55:Q8:57:ARG:HD3	1.91	0.53
38:88:34:LEU:HD23	38:88:104:PHE:HD2	1.74	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
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
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
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
5:42:109:ILE:HG22	5:42:110:LEU:HD23	1.91	0.53
6:52:15:ASP:OD1	6:52:16:GLN:N	2.41	0.53
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.90	0.53
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:95:ARG:HB2	31:39:97:TYR:HE1	1.72	0.53
32:49:20:ILE:HA	32:49:25:TYR:HB2	1.90	0.53
35:15:99:LEU:O	35:15:103:VAL:HG23	2.09	0.53
38:45:118:LEU:HD13	38:45:131:ILE:HG23	1.91	0.53
42:85:92:ARG:C	42:85:94:ASN:H	2.10	0.53
42:85:111:GLU:OE1	42:85:114:LYS:HD3	2.08	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
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
8:7E:14:ARG:HG3	8:7E:83:ILE:HG23	1.91	0.53
10:1I:6:ILE:HG12	10:1I:72:VAL:O	2.09	0.53
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.09	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
22:1K:52:C:H42	22:1K:64:G:H1	1.56	0.53
26:1H:586:A:P	59:1H:3821:HOH:O	2.66	0.53
26:1H:1264:G:OP1	53:N8:19:ARG:NH1	2.40	0.53
27:16:71:C:O2'	27:16:72:G:H5'	2.09	0.53
30:21:5:LEU:HD22	30:21:197:ILE:HG22	1.91	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
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.91	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
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
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
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.90	0.53
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.08	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
27:1J:78:A:H2'	27:1J:79:C:O4'	2.08	0.53
35:15:42:TRP:HA	35:15:48:MET:HE1	1.90	0.53
36:25:10:VAL:HG13	36:25:17:ARG:O	2.09	0.53
47:D5:17:ALA:HA	47:D5:20:ARG:HD2	1.90	0.53
1:13:468:A:H3'	1:13:474:G:H8	1.73	0.53
2:1E:51:LEU:HD23	2:1E:201:ILE:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:111:ALA:HB2	4:3E:120:LEU:HD11	1.89	0.53
6:5E:52:ILE:O	6:5E:55:ASP:HB2	2.09	0.53
10:1I:81:THR:O	10:1I:85:LEU:HG	2.09	0.53
26:1H:742:G:H2'	26:1H:743:G:C8	2.43	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
27:16:13:A:O2'	27:16:14:U:H3'	2.09	0.53
28:71:226:PRO:HD2	28:71:227:HIS:NE2	2.24	0.53
29:11:25:THR:HG22	29:11:82:ILE:H	1.74	0.53
32:41:84:LYS:HG3	32:41:84:LYS:O	2.09	0.53
32:41:150:ASP:OD1	32:41:150:ASP:N	2.34	0.53
37:78:58:THR:HG21	55:Q8:52:LYS:HD3	1.91	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
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
1:1G:1191:A:H5''	3:22:4:LYS:HD3	1.91	0.53
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.44	0.53
26:14:870:A:OP1	38:45:6:ARG:HD2	2.09	0.53
26:14:1412:A:H2'	26:14:1413:G:C8	2.43	0.53
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.08	0.53
27:1J:29:A:OP2	40:65:31:SER:HB2	2.09	0.53
30:29:14:ILE:O	30:29:21:VAL:N	2.25	0.53
30:29:136:ARG:HG2	30:29:136:ARG:HH11	1.73	0.53
33:59:19:VAL:HA	33:59:24:VAL:HG12	1.90	0.53
36:25:68:GLU:HB3	36:25:78:ARG:HH11	1.74	0.53
37:35:85:LEU:HA	37:35:88:LEU:HB3	1.90	0.53
40:65:41:ASP:OD1	40:65:44:LYS:HB2	2.08	0.53
52:I5:18:CYS:SG	52:I5:19:GLY:HA2	2.49	0.53
1:13:37:U:O2'	1:13:500:G:H4'	2.10	0.52
1:13:356:A:H2'	1:13:357:G:H8	1.74	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
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	1.90	0.52
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.39	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
26:1H:1053:C:N3	26:1H:1107:G:N2	2.57	0.52
26:1H:1141:U:C5	35:58:64:GLY:HA3	2.43	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
27:16:44:G:H1'	27:16:47:C:N4	2.24	0.52
29:11:95:LEU:HD12	29:11:103:ARG:O	2.09	0.52
30:21:93:VAL:HG21	30:21:177:PRO:HA	1.91	0.52
33:51:86:GLU:CG	33:51:165:ALA:H	2.18	0.52
37:78:52:GLU:HG3	37:78:57:THR:HA	1.91	0.52
39:98:53:HIS:HB2	39:98:94:TYR:CE2	2.44	0.52
55:Q8:34:TRP:CZ2	55:Q8:36:LYS:HD3	2.44	0.52
2:12:136:VAL:HG13	2:12:139:LYS:HD3	1.91	0.52
3:22:87:LEU:HA	3:22:90:GLU:HG2	1.91	0.52
3:22:136:GLN:O	3:22:140:ARG:N	2.41	0.52
26:14:796:C:H2'	26:14:797:C:H6	1.71	0.52
26:14:1759:A:C8	26:14:2696:U:H1'	2.43	0.52
34:69:127:VAL:HA	34:69:138:ILE:O	2.09	0.52
40:65:110:LEU:HD23	40:65:112:PHE:CZ	2.45	0.52
1:13:75:C:O5'	1:13:75:C:H6	1.92	0.52
1:13:129(A):G:H4'	1:13:130:A:H5''	1.91	0.52
1:13:163:C:O2	1:13:164:U:N3	2.41	0.52
1:13:1508:G:H2'	1:13:1509:C:C6	2.44	0.52
2:1E:121:LEU:HA	2:1E:124:SER:OG	2.09	0.52
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.90	0.52
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.57	0.52
13:4I:72:ALA:O	13:4I:75:ALA:HB3	2.09	0.52
17:8I:10:VAL:HG12	17:8I:53:LEU:HA	1.90	0.52
26:1H:321:G:O3'	31:31:168:ARG:NH2	2.42	0.52
26:1H:986:C:H3'	59:1H:3937:HOH:O	2.10	0.52
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.44	0.52
26:1H:2837:G:H21	39:98:45:ARG:NH2	2.06	0.52
27:16:89:G:C6	27:16:89(A):A:C6	2.98	0.52
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.44	0.52
30:21:52:LEU:O	30:21:75:VAL:HG23	2.09	0.52
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.90	0.52
34:61:114:LEU:HD22	34:61:114:LEU:N	2.24	0.52
55:Q8:45:GLY:CA	55:Q8:46:ARG:C	2.77	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
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.08	0.52
3:22:102:ASN:OD1	3:22:102:ASN:N	2.43	0.52
4:32:65:ARG:HD2	4:32:72:GLU:HA	1.90	0.52
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.44	0.52
9:82:20:ARG:O	9:82:60:ASP:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.91	0.52
56:2L:8:4SU:O5'	56:2L:8:4SU:H6	2.10	0.52
56:2L:20:G:C2	56:2L:58:A:N3	2.78	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
26:14:1594:G:H5''	26:14:1595:G:OP2	2.09	0.52
32:49:113:ARG:HH11	32:49:142:PRO:HB3	1.74	0.52
37:35:50:ARG:HB2	37:35:50:ARG:NH1	2.24	0.52
42:85:10:ARG:HG2	42:85:14:HIS:CD2	2.45	0.52
47:D5:93:ASP:N	47:D5:130:PRO:HG2	2.24	0.52
47:D5:103:ARG:HD3	47:D5:136:PHE:CD2	2.44	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
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
11:2I:85:ARG:NE	11:2I:111:ASP:OD2	2.32	0.52
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.90	0.52
20:BI:90:GLN:HA	20:BI:93:GLU:HB2	1.89	0.52
24:3K:58:A:O2'	24:3K:59:U:OP1	2.25	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: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:2564:A:OP1	26:1H:2648:C:H4'	2.10	0.52
27:16:43:C:H5''	52:M8:1:MET:HG2	1.90	0.52
31:31:108:LYS:NZ	31:31:108:LYS:HB3	2.24	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
55:Q8:45:GLY:N	55:Q8:46:ARG:O	2.42	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
26:14:760: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:6:GLY:O	30:29:195:LEU:HD12	2.08	0.52
31:39:64:ILE:HG13	31:39:65:TRP:CD1	2.45	0.52
32:49:95:ARG:HG2	32:49:96:ARG:HG2	1.91	0.52
34:69:76:THR:HG23	34:69:77:LEU:H	1.74	0.52
35:15:66:LYS:HA	35:15:69:GLN:HB3	1.91	0.52
37:35:111:ARG:HG3	37:35:128:HIS:CG	2.44	0.52
1:13:177:C:P	20:BI:65:LYS:HZ3	2.32	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.45	0.52
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.73	0.52
24:3K:51:U:H2'	24:3K:52:G:C8	2.44	0.52
26:1H:1024:G:O5'	26:1H:1024:G:H8	1.92	0.52
26:1H:1050:A:N6	26:1H:1051:G:O6	2.43	0.52
26:1H:1252:G:N3	42:C8:33:ARG:HD2	2.24	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
1:1G:57:G:H2'	1:1G:58:C:H6	1.75	0.52
1:1G:229:U:H2'	1:1G:230:G:H8	1.75	0.52
1:1G:624:C:H2'	1:1G:625:G:C8	2.43	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
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
26:14:1315:C:O2'	26:14:1392:A:N3	2.40	0.52
26:14:2445:G:OP1	31:39:74:ARG:NH2	2.43	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
43:95:1:MET:HG3	43:95:43:GLU:HG2	1.90	0.52
46:C5:52:SER:HA	46:C5:55:TYR:O	2.09	0.52
53:J5:4:HIS:O	53:J5:6:VAL:HG23	2.09	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
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
2:1E:9:GLU:O	2:1E:12:GLU:HB2	2.10	0.52
6:5E:75:LEU:HD22	6:5E:79:LEU:CD1	2.39	0.52
15:6I:38:ARG:HG2	15:6I:38:ARG:HH11	1.75	0.52
25:4K:23:A:C6	25:4K:24:A:N6	2.77	0.52
26:1H:250:G:P	37:78:60:MET:HE1	2.50	0.52
26:1H:1993:U:C5	26:1H:1994:C:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:16:10:C:H42	27:16:110:G:H1	1.56	0.52
30:21:167:VAL:HG21	30:21:187:ALA:HB3	1.91	0.52
36:68:34:THR:OG1	36:68:35:VAL:N	2.42	0.52
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.24	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
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
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
10:1A:92:THR:H	10:1A:94:VAL:HG23	1.72	0.52
19:AA:40:ILE:HG12	19:AA:71:LEU:HD23	1.91	0.52
21:1B:6:ARG:HD3	21:1B:15:ARG:NH2	2.25	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
26:14:2334:G:O6	48:E5:75:LEU:HD21	2.10	0.52
26:14:2419:U:H2'	26:14:2420:C:C6	2.44	0.52
26:14:2839:G:H5'	39:55:46:GLY:HA2	1.92	0.52
42:85:53:ARG:HA	42:85:56:ASP:HB2	1.90	0.52
47:D5:30:ASN:ND2	47:D5:90:VAL:HB	2.25	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
1:13:56:U:H4'	34:69:82:ARG:HH21	1.73	0.52
1:13:443:C:H2'	1:13:444:C:C6	2.45	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
13:4I:39:ILE:HD12	13:4I:56:LEU:HD22	1.91	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
26:1H:1111:A:H5'	33:51:3:ARG:HD3	1.92	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
32:41:173:LEU:HB3	32:41:178:PHE:CD2	2.41	0.52
45:F8:1:MET:HG2	45:F8:2:LYS:H	1.74	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1145:C:H1'	1:1G:1146:A:N7	2.24	0.52
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.43	0.52
1:1G:1452:C:H4'	1:1G:1453:G:O5'	2.10	0.52
2:12:73:THR:HB	2:12:96:ARG:H	1.75	0.52
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.91	0.52
26:14:95:G:O2'	50:G5:48:HIS:HB3	2.10	0.52
26:14:176:G:O2'	26:14:177:G:H5'	2.10	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
26:14:1821: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
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
43:95:21:ARG:HG3	43:95:93:GLU:HB2	1.90	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
1:13:1278:U:H5''	1:13:1279:A:O4'	2.10	0.52
4:3E:20:TYR:HA	4:3E:26:CYS:SG	2.50	0.52
9:8E:31:GLN:OE1	9:8E:36:TYR:HB2	2.09	0.52
26:1H:748:G:OP2	44:E8:88:ARG:HG3	2.10	0.52
26:1H:1504:C:O2'	26:1H:1505:C:H5'	2.08	0.52
27:16:60:C:H2'	27:16:61:G:C8	2.37	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
41:B8:26:ASP:O	41:B8:49:VAL:HG12	2.09	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
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
3:22:43:LEU:HD12	3:22:68:VAL:HG21	1.92	0.52
4:32:30:LYS:HB2	4:32:35:ARG:HH11	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:50:ILE:O	7:62:54:THR:HG23	2.09	0.52
20:BA:44:ALA:HA	20:BA:92:LEU:HD21	1.91	0.52
24:3L:8:4SU:O5'	24:3L:8:4SU:H6	2.09	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
26:14:958:U:O2	27:1J:89(A):A:O2'	2.23	0.52
26:14:2702:U:OP1	26:14:2702:U:O4'	2.27	0.52
29:19:37:LEU:HA	29:19:38:LYS:CG	2.39	0.52
32:49:113:ARG:NH1	32:49:142:PRO:HB3	2.24	0.52
43:95:12:TYR:OH	43:95:22:VAL:HG23	2.10	0.52
47:D5:58:VAL:CG1	47:D5:60:GLU:HB3	2.39	0.52
52:I5:60:GLN:HB2	52:I5:62:ARG:HD2	1.92	0.52
1:13:625:G:H4'	16:7I:16:HIS:CG	2.44	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
2:1E:69:LEU:O	2:1E:163:PHE:N	2.42	0.52
4:3E:112:VAL:N	4:3E:116:GLN:OE1	2.27	0.52
19:AI:68:GLY:HA3	52:M8:59:PHE:CZ	2.45	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
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
30:21:52:LEU:O	30:21:75:VAL:N	2.31	0.52
47:H8:77:ASP:N	47:H8:84:GLU:HG2	2.24	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
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	1.90	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
2:12:77:ALA:O	2:12:81:VAL:HG23	2.09	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
24:3L:35:A:H2	25:4L:14:A:N6	2.08	0.52
26:14:978:G:H5''	26:14:979:G:OP2	2.09	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:49:67:LYS:H	52:I5:6:HIS:CD2	2.28	0.52
32:49:108:ASN:O	52:I5:37:SER:HA	2.09	0.52
43:95:76:LYS:HD2	43:95:80:GLN:O	2.10	0.52
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.10	0.52
1:13:1149:C:H2'	1:13:1150:U:C6	2.42	0.52
1:13:1292:U:P	7:6E:41:ARG:HH22	2.33	0.52
1:13:1418:A:H2	26:1H:1948:G:N3	2.07	0.52
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.10	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
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.91	0.52
13:4I:82:MET:O	13:4I:84:ILE:N	2.37	0.52
14:5I:9:LYS:HG3	14:5I:12:ARG:HE	1.73	0.52
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.92	0.52
16:7I:39:TYR:HD1	16:7I:49:LEU:HD13	1.74	0.52
18:9I:53:ARG:HE	18:9I:60:ALA:HA	1.75	0.52
24:3K:34:G:H2'	24:3K:35:A:C8	2.45	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
26:1H:2749:A:H1'	33:51:63:SER:OG	2.08	0.52
32:41:109:VAL:HG13	52:M8:33:VAL:HG11	1.92	0.52
33:51:83:TYR:CG	33:51:134:SER:HA	2.45	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
35:58:42:TRP:HA	35:58:48:MET:CE	2.40	0.52
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.91	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:181:GLU:HA	29:19:272:ALA:HB1	1.92	0.52
30:29:31:CYS:HB2	30:29:49:LEU:HB3	1.92	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
34:69:77:LEU:HD12	34:69:78:THR:H	1.75	0.52
35:15:35:ARG:HB2	35:15:42:TRP:CH2	2.45	0.52
37:35:6:LEU:O	37:35:7:ARG:HG2	2.10	0.52
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.92	0.52
38:45:79:LEU:HD12	38:45:80:GLU:OE1	2.10	0.52
40:65:86:ALA:O	40:65:87:PHE:HB2	2.10	0.52
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.10	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
6:5E:39:LYS:HB3	6:5E:62:TRP:CZ3	2.45	0.52
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.92	0.52
14:5I:8:GLU:O	14:5I:11:LYS:HG3	2.10	0.52
26:1H:1050:A:H1'	26:1H:2751:G:C8	2.45	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:2360:A:OP1	55:Q8:46:ARG:NH2	2.43	0.52
30:21:48:GLN:OE1	30:21:77:ILE:HG21	2.10	0.52
38:88:2:LEU:HB3	38:88:70:PRO:HG3	1.91	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
1:1G:826:C:H5'	8:72:12:ARG:NH2	2.21	0.52
4:32:126:ILE:HG22	4:32:127:THR:H	1.74	0.52
5:42:11:ILE:HB	5:42:31:LEU:HB3	1.91	0.52
9:82:87:GLN:OE1	9:82:88:TYR:N	2.43	0.52
15:6A:3:ILE:H	15:6A:3:ILE:HD13	1.74	0.52
19:AA:66:MET:N	19:AA:67:VAL:HB	2.25	0.52
24:3L:19:G:N1	26:14:2112:G:H4'	2.25	0.52
26:14:270(Q):C:H5''	34:69:45:LYS:HE3	1.90	0.52
26:14:907:U:O2'	38:45:101:ARG:NH2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:H5'	26:14:2286:A:N3	2.25	0.52
26:14:2648:C:H2'	26:14:2649:U:C6	2.45	0.52
26:14:2844:G:H3'	26:14:2845:G:H8	1.75	0.52
31:39:165:ARG:HA	31:39:168:ARG:HD2	1.92	0.52
32:49:43:LEU:HD12	32:49:45:GLU:CD	2.30	0.52
35:15:34:LEU:O	35:15:49:GLY:HA3	2.10	0.52
38:45:132:VAL:HG21	47:D5:81:ARG:NE	2.24	0.52
45:B5:55:ASN:HB2	45:B5:80:ILE:CG1	2.39	0.52
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.45	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
1:13:1410:G:C4	1:13:1491:G:N2	2.79	0.51
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.93	0.51
9:8E:89:ASN:O	9:8E:91:ASP:N	2.42	0.51
22:1K:52:C:N4	22:1K:53:G:O6	2.43	0.51
24:3K:6:G:N2	24:3K:68:C:H1'	2.25	0.51
26:1H:972:G:OP2	26:1H:973:A:O2'	2.21	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
33:51:33:LEU:HD21	33:51:136:ILE:HB	1.91	0.51
48:I8:37:LEU:HD11	48:I8:61:ALA:N	2.24	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
4:32:23:GLY:N	4:32:26:CYS:HB2	2.16	0.51
10:1A:30:SER:OG	10:1A:81:THR:HG22	2.10	0.51
14:5A:12:ARG:HD3	14:5A:13:THR:H	1.75	0.51
26:14:161:U:H5'	26:14:171:G:N2	2.25	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
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
26:14:1785: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:1J:9:G:OP1	40:65:25:ARG:NH2	2.43	0.51
30:29:38:THR:HG23	30:29:41:LYS:HG2	1.92	0.51
35:15:36:GLY:O	35:15:39:ARG:N	2.40	0.51
47:D5:5:LEU:HD23	47:D5:7:ALA:H	1.74	0.51
1:13:77:C:H2'	1:13:78:G:H5''	1.92	0.51
1:13:186(E):C:N4	1:13:191(B):G:H1	2.06	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
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.45	0.51
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.25	0.51
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.09	0.51
15:6I:18:PHE:HB2	15:6I:19:PRO:CD	2.38	0.51
16:7I:69:THR:O	16:7I:69:THR:OG1	2.27	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
26:1H:728:G:H4'	29:11:13:ARG:HD3	1.92	0.51
26:1H:945:A:C4	26:1H:2448:A:C2	2.99	0.51
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.44	0.51
31:31:9:ILE:HG13	31:31:123:LEU:HG	1.92	0.51
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.57	0.51
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.09	0.51
45:F8:26:TYR:CD1	45:F8:92:LEU:HD12	2.45	0.51
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.45	0.51
49:J8:78:LYS:HE3	49:J8:78:LYS:H	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
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
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.91	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
26:14:1027:A:C5'	27:1J:88:C:H41	2.22	0.51
26:14:1665:A:H1'	36:25:1:MET:HG2	1.92	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
46:C5:19:LYS:HG3	46:C5:20:TYR:CD1	2.43	0.51
50:G5:33:MET:O	50:G5:37:PHE:HD1	1.93	0.51
1:13:227:G:N2	16:7I:62:VAL:O	2.41	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
1:13:1177:G:O2'	1:13:1178:G:O4'	2.25	0.51
8:7E:6:ILE:HD12	8:7E:6:ILE:H	1.76	0.51
10:1I:96:ILE:HD13	10:1I:96:ILE:H	1.75	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
16:7I:26:ARG:HH21	16:7I:31:LYS:HB3	1.75	0.51
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.09	0.51
26:1H:282:A:H2'	26:1H:282:A:N3	2.26	0.51
26:1H:548:A:H8	26:1H:548:A:O5'	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
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:2572:A:N7	30:21:145:LYS:HB2	2.26	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
1:1G: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
1:1G:1231:G:O3'	9:82:126:SER:OG	2.24	0.51
8:72:27:PRO:O	8:72:32:LYS:HD3	2.09	0.51
26:14:310:A:O3'	26:14:311:A:H2'	2.10	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
29:19:11:PRO:C	29:19:13:ARG:H	2.13	0.51
32:49:52:ILE:HD11	32:49:153:ARG:NH1	2.25	0.51
37:35:90:ARG:HG3	37:35:91:PHE:CD2	2.45	0.51
1:13:131:C:H2'	1:13:132:C:C6	2.46	0.51
1:13:273:A:H1'	17:8I:16:GLN:HE21	1.74	0.51
1:13:552:U:H4'	12:3I:86:ARG:HG2	1.93	0.51
1:13:902:G:O2'	1:13:903:G:H5'	2.10	0.51
1:13:1404:C:H2'	1:13:1405:G:C8	2.45	0.51
4:3E:92:VAL:HG12	4:3E:96:LEU:CD2	2.40	0.51
13:4I:108:ARG:HG3	13:4I:108:ARG:NH1	2.19	0.51
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.93	0.51
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.44	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
26:1H:1790:C:H5''	26:1H:1791:A:OP1	2.10	0.51
33:51:87:LEU:HD11	33:51:148:ILE:HB	1.92	0.51
1:1G:1206:G:O2'	3:22:192:THR:O	2.16	0.51
56:2L:48:U:O2'	56:2L:49:C:OP2	2.21	0.51
26:14:654(J):A:H5'	26:14:654(K):C:OP2	2.11	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
26:14:2019:A:N7	53:J5:9:LYS:HE3	2.25	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
29:19:37:LEU:O	29:19:37:LEU:HD12	2.10	0.51
36:25:64:ARG:NH1	36:25:83:ALA:HB2	2.25	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
43:95:21:ARG:HE	43:95:91:TYR:HB3	1.75	0.51
45:B5:63:LYS:O	45:B5:63:LYS:HD2	2.10	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
1:13:51:A:C6	1:13:353:A:C2	2.99	0.51
1:13:79:G:H2'	1:13:79:G:N3	2.26	0.51
1:13:129(A):G:N2	1:13:188:U:HO2'	2.09	0.51
1:13:664:G:N2	1:13:741:G:H1	2.04	0.51
1:13:1048:G:H5''	14:5I:3:ARG:HG3	1.92	0.51
1:13:1059:C:O2	10:1I:53:PRO:HG3	2.11	0.51
1:13:1226:C:H4'	1:13:1227:A:OP1	2.10	0.51
12:3I:79:GLU:OE2	12:3I:80:HIS:NE2	2.44	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
18:9I:59:SER:OG	18:9I:60:ALA:N	2.42	0.51
24:3K:71:G:O2'	26:1H:1851:U:O3'	2.23	0.51
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.10	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
31:31:164:ARG:HG3	31:31:175:THR:OG1	2.10	0.51
34:61:131:LYS:HD3	34:61:131:LYS:N	2.25	0.51
38:88:39:PRO:HA	38:88:97:VAL:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:81:ASP:OD1	39:98:81:ASP:N	2.43	0.51
44:E8:17:VAL:HG22	44:E8:76:VAL:HG11	1.91	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
1:1G:748:C:H4'	1:1G:749:C:O5'	2.10	0.51
4:32:173:TRP:HZ3	4:32:193:ASP:HB3	1.75	0.51
5:42:61:TYR:HA	5:42:64:ARG:CB	2.40	0.51
18:9A:19:LYS:HG3	18:9A:20:ALA:H	1.76	0.51
24:3L:70:G:H2'	24:3L:71:G:O4'	2.11	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
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
26:14:2845:G:H5''	41:75:54:ARG:O	2.10	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
38:45:19:GLY:O	38:45:98:LYS:HB3	2.10	0.51
40:65:16:ASN:H	40:65:16:ASN:ND2	2.09	0.51
43:95:21:ARG:HA	43:95:93:GLU:HA	1.91	0.51
47:D5:152:ALA:N	47:D5:167:PRO:O	2.43	0.51
53:J5:4:HIS:O	53:J5:5:PRO:C	2.47	0.51
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.51
2:1E:8:LYS:H	2:1E:8:LYS:HE2	1.75	0.51
23:2K:70:C:H2'	23:2K:71:G:O4'	2.10	0.51
26:1H:78:A:H2'	26:1H:79:G:H8	1.75	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
32:41:2:PRO:HG2	52:M8:25:TYR:CE1	2.46	0.51
37:78:16:ARG:HG2	37:78:17:LYS:H	1.75	0.51
41:B8:3:ARG:HG3	41:B8:3:ARG:O	2.10	0.51
41:B8:3:ARG:HG3	41:B8:7:ILE:HG13	1.93	0.51
43:D8:53:GLU:HG3	43:D8:54:GLY:N	2.24	0.51
49:J8:87:PRO:O	49:J8:91:LYS:N	2.42	0.51
1:1G:216:G:O2'	1:1G:217:C:O4'	2.20	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
26:14:814:C:N3	26:14:1194:A:C2	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1033:U:H3'	26:14:1033:U:H6	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
31:39:25:PRO:HG3	31:39:28:ILE:HG23	1.92	0.51
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
35:15:121:LYS:HB3	35:15:123:TYR:CE2	2.44	0.51
36:25:104:ARG:NH1	41:75:36:GLU:HB3	2.25	0.51
46:C5:87:LYS:HB2	46:C5:96:ILE:CD1	2.41	0.51
47:D5:79:ARG:HD2	47:D5:80:ARG:NH1	2.26	0.51
47:D5:152:ALA:HB2	47:D5:169:GLU:O	2.10	0.51
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.25	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
5:4E:101:ILE:O	5:4E:120:THR:HG23	2.10	0.51
19:AI:40:ILE:HG12	19:AI:41:VAL:N	2.25	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:H21	26:1H:620:G:P	2.33	0.51
26:1H:2875:C:C1'	41:B8:5:ALA:HB2	2.37	0.51
28:71:52:ARG:H	28:71:52:ARG:HD2	1.76	0.51
37:78:96:THR:O	37:78:98:GLU:N	2.43	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
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
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
4:32:63:LYS:HD2	4:32:198:VAL:HG12	1.93	0.51
4:32:134:ASP:O	4:32:136:PRO:HD3	2.10	0.51
5:42:106:PRO:O	5:42:110:LEU:HG	2.11	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
9:82:48:GLU:HG3	9:82:101:PHE:HE2	1.76	0.51
26:14:32:C:O2'	26:14:33:U:H5'	2.10	0.51
26:14:144:C:H2'	26:14:145:G:C8	2.43	0.51
26:14:273(F):C:H3'	26:14:274:G:C5'	2.39	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1110:G:O2'	26:14:1111:A:O4'	2.16	0.51
26:14:1226:G:H4'	43:95:83:ARG:HB3	1.93	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
27:1J:9:G:P	40:65:25:ARG:HH22	2.34	0.51
31:39:178:PRO:HB3	31:39:198:ALA:HB1	1.93	0.51
34:69:3:VAL:HG12	34:69:38:LEU:HA	1.93	0.51
37:35:107:LYS:O	37:35:109:GLY:N	2.43	0.51
43:95:87:HIS:ND1	43:95:87:HIS:O	2.44	0.51
52:I5:37:SER:OG	52:I5:38:LYS:N	2.43	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
1:13:1162:C:H2'	1:13:1163:C:C6	2.46	0.51
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.11	0.51
4:3E:162:LEU:O	4:3E:165:MET:HB3	2.11	0.51
7:6E:108:ALA:O	7:6E:119:ARG:HB3	2.10	0.51
8:7E:122:ARG:O	8:7E:126:LYS:HG2	2.10	0.51
12:3I:76:ASN:ND2	12:3I:108:ALA:HB2	2.25	0.51
14:5I:6:LEU:HD22	14:5I:23:ARG:HH22	1.75	0.51
26:1H:355:G:H2'	26:1H:356:G:C8	2.46	0.51
26:1H:390:A:C6	37:78:71:VAL:HG21	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
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
27:16:63:G:C2	27:16:64:C:C2	2.99	0.51
30:21:51:PHE:O	30:21:74:PRO:HB2	2.11	0.51
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
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
1:1G:1161:C:O2'	1:1G:1162:C:H5'	2.10	0.51
3:22:91:LEU:O	3:22:95:THR:OG1	2.23	0.51
9:82:48:GLU:HG3	9:82:101:PHE:CE2	2.45	0.51
12:3A:11:VAL:HG22	17:8A:29:HIS:CD2	2.44	0.51
14:5A:43:CYS:HA	14:5A:46:GLU:OE2	2.10	0.51
26:14:177:G:H3'	26:14:178:G:C8	2.46	0.51
26:14:705:A:H1'	29:19:9:TYR:CD2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.41	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
30:29:5:LEU:HD21	30:29:49:LEU:HB2	1.93	0.51
33:59:154:PRO:HB3	33:59:162:ILE:O	2.11	0.51
42:85:83:LEU:HD23	42:85:88:ILE:HD12	1.93	0.51
45:B5:12:VAL:HG13	45:B5:27:THR:O	2.11	0.51
1:13:735:C:H2'	1:13:736:C:C6	2.45	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
4:3E:62:GLN:HB3	4:3E:66:ARG:NH1	2.26	0.51
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	1.92	0.51
26:1H:94:G:H2'	26:1H:95:G:O4'	2.11	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
32:41:38:VAL:HG22	32:41:93:THR:HG23	1.93	0.51
42:C8:34:LYS:HA	42:C8:34:LYS:HE3	1.93	0.51
42:C8:47:TYR:CD1	42:C8:47:TYR:C	2.84	0.51
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.92	0.51
46:G8:40:GLU:HA	46:G8:42:VAL:H	1.76	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
2:12:17:PHE:CZ	2:12:203:GLY:HA2	2.46	0.51
4:32:30:LYS:CB	4:32:35:ARG:HD2	2.41	0.51
4:32:150:GLU:C	4:32:152:SER:H	2.13	0.51
13:4A:94:ARG:HH22	19:AA:78:ARG:HH12	1.58	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
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
30:29:105:THR:HG21	30:29:164:ARG:CZ	2.40	0.51
46:C5:63:LYS:HA	46:C5:63:LYS:HZ3	1.75	0.51
48:E5:23:VAL:HG13	48:E5:38:VAL:HG22	1.92	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
1:13:946:A:O2'	1:13:1333:A:H2'	2.11	0.51
1:13:1315:U:H2'	1:13:1316:G:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:75:LEU:HD22	6:5E:79:LEU:HD11	1.93	0.51
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.71	0.51
26:1H:20:C:H2'	26:1H:21:A:H8	1.76	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
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:1662:C:O2'	26:1H:2687:U:OP1	2.27	0.51
26:1H:1825:A:O4'	29:11:254:THR:HG21	2.10	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: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
27:16:78:A:C2	27:16:99:A:C4	2.99	0.51
30:21:105:THR:HG22	30:21:106:GLY:H	1.75	0.51
33:51:23:ARG:HH22	33:51:25:LYS:NZ	2.09	0.51
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.51
35:58:137:LYS:HG3	35:58:138:LEU:N	2.25	0.51
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.09	0.51
49:J8:41:ARG:NH1	49:J8:43:TYR:HE1	2.09	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
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
3:22:8:ILE:HD11	3:22:184:TYR:HB3	1.93	0.51
4:32:82:ALA:HA	4:32:85:LYS:HB2	1.91	0.51
19:AA:11:VAL:HG13	19:AA:39:THR:HB	1.93	0.51
26:14:360:G:H2'	26:14:361:G:C8	2.46	0.51
26:14:601:C:OP1	31:39:108:LYS:HE2	2.10	0.51
26:14:662:G:H5'	37:35:15:ARG:CA	2.41	0.51
26:14:1113:U:H5'	33:59:2:SER:HA	1.92	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
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
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.46	0.51
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.93	0.51
52:I5:48:ARG:NH1	52:I5:49:PHE:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:537:G:P	12:3I:113:ARG:HH22	2.33	0.50
1:13:828:A:N7	1:13:859:A:C8	2.78	0.50
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.44	0.50
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.11	0.50
24:3K:23:A:C6	24:3K:24:G:C6	3.00	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
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.94	0.50
32:41:8:LYS:O	32:41:11:TYR:HB3	2.11	0.50
32:41:79:ASN:OD1	32:41:79:ASN:N	2.43	0.50
32:41:83:ARG:HB2	32:41:86:MET:HG2	1.91	0.50
37:78:19:VAL:HG11	37:78:27:HIS:HB2	1.92	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
1:1G:1310:G:OP2	13:4A:88:ARG:NH2	2.34	0.50
2:12:189:ASP:HB3	2:12:203:GLY:O	2.11	0.50
3:22:123:GLN:HA	3:22:126:ARG:HB2	1.92	0.50
5:42:81:GLU:HA	5:42:89:ILE:O	2.11	0.50
5:42:145:LYS:O	5:42:148:VAL:HB	2.11	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
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
26:14:2094:G:H5'	34:69:25:TYR:CD1	2.46	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
27:1J:0:A:H3'	27:1J:0:A:OP2	2.10	0.50
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.38	0.50
32:49:147:ASP:OD1	32:49:147:ASP:N	2.44	0.50
35:15:55:VAL:HB	35:15:126:PRO:HA	1.94	0.50
36:25:64:ARG:HB2	36:25:83:ALA:HB3	1.93	0.50
37:35:15:ARG:NH1	37:35:15:ARG:HB2	2.26	0.50
38:45:112:GLU:OE2	38:45:112:GLU:N	2.44	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
1:13:490:G:H2'	1:13:491:G:C8	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.51	0.50
10:1I:84:GLN:HG3	10:1I:88:LEU:HD23	1.92	0.50
15:6I:74:ASP:OD1	15:6I:77:ARG:N	2.35	0.50
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.23	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
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
30:21:73:GLU:HG3	30:21:74:PRO:HD2	1.93	0.50
31:31:13:SER:HA	31:31:127:GLU:HB3	1.92	0.50
34:61:40:THR:O	34:61:44:LEU:HB2	2.10	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
1:1G:114:U:H2'	1:1G:115:G:C8	2.46	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
1:1G:1375:A:H4'	7:62:29:LYS:CE	2.41	0.50
1:1G:1378:C:H3'	1:1G:1379:G:H5''	1.91	0.50
17:8A:20:THR:HG21	17:8A:41:LYS:HD2	1.93	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
26:14:2228:G:C6	26:14:2229:C:C4	3.00	0.50
26:14:2378:A:H4'	40:65:23:ARG:NH1	2.26	0.50
26:14:2564:A:N7	26:14:2565:A:N6	2.58	0.50
29:19:270:ILE:O	29:19:271:ILE:HG23	2.11	0.50
30:29:36:ARG:HG2	30:29:85:ASN:HD21	1.76	0.50
34:69:9:LEU:HD12	34:69:12:LEU:HD22	1.92	0.50
37:35:96:THR:OG1	37:35:97:PRO:O	2.30	0.50
37:35:120:ALA:O	37:35:121:LYS:HE3	2.11	0.50
47:D5:157:LEU:CA	47:D5:161:VAL:HG11	2.34	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
1:13:491:G:H2'	1:13:492:G:H8	1.76	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
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.75	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)
17:8I:76:LEU:HD12	17:8I:77:VAL:C	2.32	0.50
22:1K:73:A:H2'	22:1K:74:A:H8	1.77	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
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.76	0.50
26:1H:1814:G:P	29:11:40:THR:HG21	2.51	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
27:16:42:C:H4'	32:41:67:LYS:HD2	1.94	0.50
37:78:13:ASN:OD1	37:78:15:ARG:HD3	2.11	0.50
38:88:59:ARG:N	38:88:59:ARG:HD2	2.26	0.50
41:B8:30:VAL:HG23	41:B8:83:ILE:HG23	1.93	0.50
41:B8:81:PRO:HG2	41:B8:82:LEU:HD12	1.92	0.50
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.25	0.50
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.45	0.50
1:1G:371:G:O2'	1:1G:373:A:N7	2.44	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.79	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
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
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
4:32:64:LEU:HD22	4:32:198:VAL:HG21	1.94	0.50
7:62:126:ASP:HB3	7:62:131:LYS:O	2.12	0.50
9:82:47:LEU:HD12	9:82:51:ARG:HH21	1.76	0.50
24:3L:25:C:H2'	24:3L:26:A:O4'	2.11	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
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
26:14:2621:A:P	30:29:119:ARG:HH22	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2778:A:H5''	26:14:2778:A:C8	2.45	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
40:65:26:LEU:O	40:65:88:ASP:HB2	2.10	0.50
40:65:62:LYS:O	40:65:65:VAL:HG12	2.12	0.50
41:75:123:GLN:HA	41:75:126:ALA:HB3	1.93	0.50
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.91	0.50
1:13:153:C:N4	1:13:168:G:H1	2.08	0.50
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.94	0.50
1:13:896:C:H5''	17:8I:101:ARG:HD3	1.94	0.50
1:13:1240:U:OP2	7:6E:116:ALA:N	2.44	0.50
4:3E:9:CYS:HB3	4:3E:32:ALA:CB	2.26	0.50
4:3E:82:ALA:O	4:3E:85:LYS:HB3	2.10	0.50
6:5E:35:ALA:HB1	6:5E:65:VAL:HG21	1.94	0.50
7:6E:70:LYS:HG2	7:6E:96:GLN:HB3	1.93	0.50
16:7I:5:ARG:O	16:7I:20:VAL:HG12	2.11	0.50
20:BI:97:ALA:O	20:BI:99:LEU:N	2.44	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
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:H8	26:1H:2802:G:OP2	1.94	0.50
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.10	0.50
26:1H:2830:G:H5''	26:1H:2830:G:C8	2.46	0.50
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.76	0.50
30:21:65:GLY:HA2	30:21:70:ALA:HB2	1.93	0.50
33:51:130:ARG:HB3	33:51:130:ARG:CZ	2.40	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
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
4:32:126:ILE:HG22	4:32:127:THR:N	2.26	0.50
5:42:145:LYS:O	5:42:149:GLU:HG2	2.12	0.50
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.93	0.50
11:2A:29:ILE:HG22	11:2A:44:SER:CB	2.34	0.50
15:6A:69:TYR:HD1	15:6A:72:ARG:NH2	2.09	0.50
26:14:108:U:H2'	26:14:109:G:C8	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
27:1J:18:G:H1	27:1J:65:C:N4	2.00	0.50
31:39:67:GLN:O	31:39:67:GLN:HG3	2.11	0.50
39:55:73:VAL:O	39:55:76:VAL:HG12	2.11	0.50
40:65:7:TYR:CZ	40:65:91:PRO:HG3	2.46	0.50
40:65:34:HIS:HD2	40:65:54:LEU:H	1.58	0.50
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.27	0.50
1:13:814:A:N7	1:13:816:A:C4	2.80	0.50
3:2E:33:LEU:HA	3:2E:36:ASP:HB2	1.93	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
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
26:1H:1533:C:H2'	26:1H:1534:G:C4	2.47	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
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.12	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
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
11:2A:13:GLN:HG3	11:2A:76:GLY:HA3	1.92	0.50
24:3L:9:A:O2'	24:3L:10:G:N7	2.34	0.50
26:14:30:G:C2	26:14:511:U:O2	2.64	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
29:19:39:LYS:HB3	29:19:39:LYS:NZ	2.26	0.50
42:85:98:LEU:HA	42:85:100:VAL:O	2.11	0.50
47:D5:10:ARG:HB2	47:D5:37:VAL:HA	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:125:LEU:HD23	47:D5:164:ALA:HB3	1.94	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
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.77	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
22:1K:67:C:H2'	22:1K:68:C:C6	2.46	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
26:1H:550:G:O2'	26:1H:1220:A:N3	2.41	0.50
26:1H:631:A:OP2	55:Q8:44:LYS:NZ	2.32	0.50
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.92	0.50
26:1H:1228:G:H5''	26:1H:1228:G:H8	1.76	0.50
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.12	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
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
34:61:86:THR:HA	34:61:123:LEU:HD13	1.94	0.50
35:58:15:LEU:HD13	35:58:16:ILE:N	2.27	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
1:1G:616:G:C2	1:1G:617:G:C8	3.00	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:1250:A:H4'	9:82:68:GLY:N	2.26	0.50
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.76	0.50
9:82:118:LYS:NZ	9:82:118:LYS:O	2.42	0.50
13:4A:54:VAL:O	13:4A:58:GLU:HB3	2.11	0.50
17:8A:17:LYS:HD3	17:8A:47:PRO:HA	1.93	0.50
26:14:305:U:H2'	26:14:306:U:C6	2.46	0.50
26:14:415:A:H61	26:14:2408:U:H3	1.60	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1461:G:H8	26:14:1461:G:O5'	1.95	0.50
26:14:1926:U:H2'	26:14:1928:A:OP2	2.11	0.50
30:29:23:VAL:HG11	30:29:183:LEU:HD23	1.93	0.50
30:29:81:ILE:O	30:29:82:ARG:HB2	2.12	0.50
30:29:200:GLU:OE1	30:29:200:GLU:N	2.44	0.50
33:59:158:HIS:O	33:59:158:HIS:ND1	2.41	0.50
37:35:15:ARG:NH2	37:35:17:LYS:HE3	2.27	0.50
42:85:90:VAL:HA	43:95:39:LEU:HD23	1.94	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
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
2:1E:104:ASN:HD21	2:1E:107:THR:HB	1.75	0.50
13:4I:13:LYS:HA	13:4I:13:LYS:HZ3	1.77	0.50
14:5I:53:LEU:HB3	14:5I:56:VAL:HG21	1.94	0.50
26:1H:152:G:H1	26:1H:174:C:N4	2.09	0.50
26:1H:355:G:H2'	26:1H:356:G:H8	1.75	0.50
26:1H:443:A:N7	31:31:45:ARG:HG2	2.26	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:2053:G:OP1	30:21:144:ARG:HD3	2.12	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
27:16:24:G:N7	27:16:56:G:H2'	2.26	0.50
33:51:38:SER:OG	33:51:40:GLU:HG3	2.12	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
1:1G:54:C:N4	1:1G:353:A:OP2	2.44	0.50
1:1G:234:C:H2'	1:1G:235:C:C6	2.47	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
9:82:84:ALA:O	9:82:87:GLN:HB3	2.12	0.50
56:2L:19:G:C2	56:2L:59:A:C4	3.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:913:U:H4'	26:14:914:C:OP1	2.11	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
42:85:110:VAL:HG12	42:85:114:LYS:HD2	1.93	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
1:13:233:C:H2'	1:13:234:C:H6	1.76	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
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.47	0.50
9:8E:83:ARG:O	9:8E:86:VAL:HG12	2.12	0.50
26:1H:135:G:N7	59:1H:4100:HOH:O	2.33	0.50
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.12	0.50
26:1H:1500:G:O2'	29:11:100:GLY:O	2.24	0.50
26:1H:1553:A:N1	26:1H:1555:G:H1'	2.26	0.50
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.12	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
29:11:2:ALA:C	29:11:3:VAL:HG23	2.32	0.50
29:11:70:TRP:CH2	29:11:150:LYS:HA	2.46	0.50
34:61:31:LEU:HD21	34:61:38:LEU:HG	1.93	0.50
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.94	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
1:1G:19:C:H1'	1:1G:917:G:H22	1.77	0.50
1:1G:281:G:H8	1:1G:281:G:OP2	1.94	0.50
1:1G:983:A:H2	1:1G:984:C:C6	2.30	0.50
5:42:121:LYS:NZ	5:42:123:LEU:HD23	2.27	0.50
11:2A:73:MET:O	11:2A:76:GLY:N	2.31	0.50
13:4A:91:ARG:HD2	13:4A:96:LEU:HB3	1.93	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
27:1J:10:C:C4	27:1J:11:C:C5	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:34:VAL:HG21	30:29:78:LEU:HD22	1.94	0.50
31:39:83:PHE:C	31:39:85:GLY:H	2.15	0.50
35:15:90:MET:HE1	35:15:97:ARG:HB2	1.92	0.50
37:35:15:ARG:HB2	37:35:15:ARG:CZ	2.42	0.50
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.93	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
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
4:3E:147:ALA:HA	4:3E:181:MET:O	2.11	0.50
5:4E:103:GLY:O	5:4E:106:PRO:HD2	2.11	0.50
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.93	0.50
16:7I:57:ARG:O	16:7I:60:LEU:N	2.45	0.50
26:1H:469:G:O6	54:P8:39:ARG:NH1	2.45	0.50
26:1H:1049:C:N3	26:1H:2751:G:O6	2.45	0.50
41:B8:58:ASN:C	41:B8:58:ASN:HD22	2.14	0.50
41:B8:93:ARG:HG3	41:B8:93:ARG:HH11	1.76	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
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.93	0.50
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.09	0.50
26:14:852:G:H2'	26:14:853:G:C8	2.46	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
26:14:2630:G:N3	26:14:2894:G:N1	2.60	0.50
26:14:2636:U:H1'	26:14:2783:G:N2	2.26	0.50
59:14:3871:HOH:O	31:39:54:ARG:NH2	2.45	0.50
59:14:3922:HOH:O	39:55:3:HIS:HE1	1.94	0.50
38:45:27:VAL:HG21	38:45:137:TYR:H	1.77	0.50
40:65:34:HIS:NE2	40:65:54:LEU:HD13	2.27	0.50
1:13:165:C:H2'	1:13:166:G:H8	1.77	0.49
1:13:1292:U:H2'	1:13:1293:G:C8	2.46	0.49
6:5E:89:MET:HG3	18:9I:76:LEU:CD2	2.42	0.49
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.12	0.49
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.47	0.49
26:1H:1387:C:O2	26:1H:1387:C:H2'	2.11	0.49
26:1H:2052:G:H4'	30:21:143:ASN:O	2.12	0.49
27:16:54:G:H2'	27:16:55:U:H6	1.76	0.49
30:21:34:VAL:HG22	30:21:48:GLN:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:92:ILE:CD1	33:51:93:GLY:H	2.25	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
44:E8:78:GLU:OE1	44:E8:99:ARG:HD3	2.12	0.49
47:H8:30:ASN:HA	47:H8:89:PHE:CE1	2.45	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
1:1G:345:C:C6	1:1G:345:C:H5''	2.47	0.49
1:1G:375:U:OP1	16:7A:69:THR:OG1	2.22	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
6:52:6:VAL:HG22	6:52:90:VAL:HG22	1.94	0.49
15:6A:4:THR:H	15:6A:7:GLU:HG2	1.77	0.49
20:BA:98:PRO:HA	20:BA:100:ILE:HD13	1.94	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
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
27:1J:116:G:C2	27:1J:117:G:H1'	2.47	0.49
30:29:61:ARG:HG2	30:29:63:LEU:HD22	1.94	0.49
32:49:120:LEU:HG	32:49:179:PRO:O	2.12	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
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
49:F5:8:SER:HB3	49:F5:66:HIS:CD2	2.47	0.49
54:L5:43:THR:HG22	54:L5:44:PRO:O	2.12	0.49
1:13:160:A:H61	1:13:347:G:H1'	1.77	0.49
1:13:229:U:O2'	16:7I:23:ASP:OD2	2.22	0.49
1:13:1239:A:H62	1:13:1299:A:H62	1.59	0.49
2:1E:94:ASN:OD1	2:1E:94:ASN:N	2.45	0.49
6:5E:39:LYS:HB3	6:5E:62:TRP:HZ3	1.78	0.49
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.45	0.49
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:28:LYS:HB3	19:AI:47:HIS:CE1	2.47	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
31:31:33:LEU:HD23	37:78:1:MET:HG3	1.93	0.49
31:31:36:VAL:HG11	31:31:183:VAL:HG11	1.94	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
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
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
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.77	0.49
2:12:142:LEU:O	2:12:142:LEU:HD23	2.12	0.49
7:62:102:ARG:O	7:62:106:GLN:HG3	2.12	0.49
9:82:16:ARG:O	9:82:63:ILE:HG23	2.13	0.49
12:3A:84:LEU:HD23	12:3A:105:TYR:CE2	2.46	0.49
26:14:946:G:H2'	26:14:947:G:H8	1.76	0.49
26:14:2536:G:C2	26:14:2537:U:C2	2.99	0.49
27:1J:7:G:H5''	27:1J:7:G:C8	2.43	0.49
30:29:9:VAL:HG23	30:29:26:ILE:O	2.12	0.49
30:29:135:HIS:CE1	59:29:402:HOH:O	2.61	0.49
36:25:2:ILE:HG23	36:25:6:THR:HB	1.94	0.49
36:25:107:ARG:HB3	36:25:115:VAL:HG21	1.93	0.49
37:35:86:LYS:HD3	37:35:117:GLU:HG2	1.93	0.49
49:F5:87:PRO:O	49:F5:91:LYS:N	2.29	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
1:13:1263:C:O2'	1:13:1264:C:H5'	2.13	0.49
3:2E:22:TRP:CZ3	3:2E:24:ALA:HB2	2.47	0.49
7:6E:15:ASP:OD1	7:6E:44:TYR:OH	2.30	0.49
11:2I:57:THR:HG22	11:2I:59:TYR:N	2.26	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:41:133:LEU:HD12	32:41:135:LEU:HD11	1.94	0.49
33:51:157:TYR:CE1	33:51:172:LYS:HB2	2.46	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
1:1G:229:U:O2'	16:7A:23:ASP:OD2	2.29	0.49
1:1G:769:G:OP2	1:1G:803:G:O2'	2.28	0.49
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
2:12:237:ALA:C	2:12:239:VAL:H	2.14	0.49
3:22:21:ARG:HB3	3:22:21:ARG:NH1	2.27	0.49
7:62:49:ILE:HD12	7:62:118:VAL:HA	1.95	0.49
7:62:69:VAL:HG21	7:62:104:LEU:HD11	1.93	0.49
8:72:21:LYS:N	8:72:65:TYR:OH	2.42	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
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
32:49:111:LEU:HB3	32:49:117:PHE:CZ	2.47	0.49
33:59:102:ALA:HB1	33:59:115:VAL:O	2.13	0.49
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.47	0.49
1:13:129(A):G:N2	1:13:188:U:O2'	2.45	0.49
1:13:406:G:N2	4:3E:119:GLN:OE1	2.42	0.49
1:13:685:G:O2'	1:13:686:U:H5'	2.12	0.49
1:13:1285:A:O5'	1:13:1285:A:H8	1.95	0.49
1:13:1303:C:N4	1:13:1304:G:C6	2.81	0.49
2:1E:172:ILE:O	2:1E:176:GLU:HG3	2.13	0.49
5:4E:84:PHE:CB	5:4E:134:ALA:HB2	2.42	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
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.10	0.49
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.39	0.49
23:2K:54:G:H3'	23:2K:55:5MU:H71	1.94	0.49
24:3K:9:A:H62	24:3K:23:A:H62	1.60	0.49
26:1H:458:G:C8	54:P8:37:LYS:HG2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:1266:G:OP2	53:N8:19:ARG:HD2	2.12	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
29:11:37:LEU:HB3	29:11:59:LYS:HZ1	1.76	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
50:K8:25:VAL:O	50:K8:29:LYS:HG3	2.12	0.49
55:Q8:21:LYS:NZ	55:Q8:22:VAL:N	2.61	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
5:42:61:TYR:O	5:42:65:ASN:N	2.45	0.49
6:52:28:ARG:O	6:52:31:GLU:HB3	2.13	0.49
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.94	0.49
9:82:77:ILE:O	9:82:81:ILE:HG12	2.12	0.49
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	1.94	0.49
13:4A:3:ARG:HE	13:4A:9:ILE:HG12	1.77	0.49
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.47	0.49
24:3L:76:A:H8	26:14:2394:C:N4	2.09	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
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
26:14:2882:A:P	39:55:96:ARG:HE	2.35	0.49
35:15:136:GLU:O	35:15:137:LYS:NZ	2.46	0.49
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.95	0.49
52:I5:43:TYR:CG	52:I5:43:TYR:O	2.65	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
2:1E:166:ASP:C	2:1E:168:THR:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:191:ARG:HH12	4:3E:196:LEU:H	1.61	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
11:2I:57:THR:HG22	11:2I:60:ALA:H	1.77	0.49
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.78	0.49
17:8I:20:THR:HG23	17:8I:43:LEU:HD23	1.93	0.49
24:3K:5:G:O5'	24:3K:5:G:H8	1.95	0.49
26:1H:485:C:H2'	26:1H:486:C:C6	2.47	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
27:16:69:G:H2'	27:16:70:C:H6	1.77	0.49
34:61:64:GLU:O	34:61:67:ARG:N	2.43	0.49
35:58:18:ALA:HA	35:58:21:LYS:HG2	1.94	0.49
42:C8:34:LYS:NZ	42:C8:37:GLU:OE1	2.35	0.49
55:Q8:47:LYS:HZ2	55:Q8:47:LYS:H	1.60	0.49
1:1G:229:U:H2'	1:1G:230:G:C8	2.48	0.49
7:62:92:SER:O	7:62:96:GLN:HG3	2.12	0.49
24:3L:22:G:C6	24:3L:23:A:C6	3.00	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
26:14:987:G:O2'	26:14:1000:A:N3	2.34	0.49
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
39:55:34:ILE:HG22	39:55:114:VAL:HB	1.94	0.49
47:D5:69:THR:HG22	47:D5:90:VAL:HA	1.94	0.49
1:13:219:C:C4	1:13:220:G:N7	2.81	0.49
1:13:750:G:N3	15:6I:23:GLY:HA3	2.27	0.49
1:13:948:C:O2'	1:13:949:A:H5'	2.13	0.49
1:13:1414:U:H2'	1:13:1415:G:H8	1.76	0.49
2:1E:223:ILE:HA	2:1E:226:ARG:HG2	1.93	0.49
7:6E:57:GLU:O	7:6E:60:LYS:N	2.44	0.49
7:6E:62:PHE:CD2	7:6E:124:LEU:HD11	2.46	0.49
16:7I:77:ALA:HB1	16:7I:79:VAL:HG23	1.94	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
27:16:10:C:C4	27:16:11:C:C5	3.01	0.49
29:11:239:ARG:O	29:11:240:ALA:HB3	2.12	0.49
31:31:53:THR:HG23	31:31:56:GLU:CD	2.33	0.49
32:41:142:PRO:HG2	32:41:143:GLU:OE2	2.12	0.49
33:51:107:VAL:HG21	33:51:152:ARG:HB2	1.93	0.49
39:98:87:TYR:OH	39:98:116:LEU:HB3	2.13	0.49
55:Q8:25:MET:HE3	55:Q8:46:ARG:HH11	1.76	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
1:1G:673:G:H5''	6:52:87:ARG:NH1	2.28	0.49
1:1G:1004:A:C5	1:1G:1025:U:H1'	2.47	0.49
3:22:130:VAL:O	3:22:134:ILE:HG12	2.13	0.49
5:42:79:GLU:HG3	5:42:93:PRO:HD2	1.95	0.49
7:62:94:ARG:O	7:62:97:GLN:HB3	2.10	0.49
9:82:111:ARG:HG2	9:82:112:LYS:H	1.77	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
26:14:664:C:P	37:35:18:ARG:HH21	2.35	0.49
26:14:686:G:H8	54:L5:7:PRO:HA	1.78	0.49
26:14:829:A:N7	26:14:2247:A:O2'	2.41	0.49
26:14:1058:U:N3	26:14:1059:G:N7	2.61	0.49
26:14:1067:A:N3	26:14:1067:A:H2'	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
27:1J:29:A:C2	27:1J:56:G:C2	3.00	0.49
32:49:101:ILE:HG13	32:49:102:PHE:N	2.28	0.49
33:59:10:PRO:O	33:59:49:VAL:HG12	2.12	0.49
33:59:19:VAL:HG13	33:59:43:VAL:HG21	1.94	0.49
34:69:77:LEU:HD13	34:69:141:LYS:HB2	1.95	0.49
41:75:84:GLN:OE1	41:75:85:LYS:HG2	2.13	0.49
43:95:85:LYS:HG3	43:95:87:HIS:HA	1.94	0.49
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:39:ARG:HD3	48:E5:58:THR:HG23	1.95	0.49
55:M5:58:ILE:HG22	55:M5:58:ILE:O	2.12	0.49
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.31	0.49
20:BI:29:LYS:HD2	20:BI:66:ALA:HB2	1.93	0.49
26:1H:880:G:H4'	26:1H:881:G:OP1	2.11	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
27:16:115:G:H8	27:16:115:G:OP2	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
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
37:78:122:PRO:HA	37:78:142:GLY:CA	2.42	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
1:1G:42:G:H2'	1:1G:43:C:O4'	2.12	0.49
1:1G:103:C:OP2	20:BA:17:ARG:NH2	2.45	0.49
1:1G:233:C:H2'	1:1G:234:C:H6	1.78	0.49
1:1G:1009:G:C2	1:1G:1010:G:C8	3.01	0.49
1:1G:1430:C:H2'	1:1G:1431:C:H6	1.75	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
19:AA:29:ARG:NH1	19:AA:48:THR:H	2.11	0.49
26:14:52:A:H2'	26:14:53:A:C8	2.48	0.49
26:14:479:A:N3	26:14:481:G:H5''	2.27	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
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
27:1J:46:A:H2'	27:1J:47:C:H6	1.78	0.49
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.95	0.49
33:59:4:ILE:HG22	33:59:54:ARG:HH22	1.77	0.49
33:59:10:PRO:HD3	33:59:50:VAL:O	2.13	0.49
40:65:34:HIS:CD2	40:65:53:SER:OG	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:8:LYS:HZ2	41:75:8:LYS:CB	2.26	0.49
41:75:88:ILE:HD13	41:75:91:ARG:HG2	1.94	0.49
44:A5:59:VAL:HA	44:A5:64:MET:H	1.78	0.49
1:13:91:C:N4	1:13:92:G:O6	2.46	0.49
1:13:277:C:P	17:8I:68:ARG:HH12	2.35	0.49
4:3E:61:LYS:HD3	4:3E:206:PHE:CE2	2.47	0.49
5:4E:54:ALA:O	5:4E:58:ALA:N	2.46	0.49
5:4E:110:LEU:HB3	5:4E:115:VAL:HG21	1.94	0.49
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.41	0.49
26:1H:443:A:C5	31:31:45:ARG:HD2	2.48	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
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
30:21:101:ARG:CZ	30:21:171:GLU:HB2	2.43	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
40:A8:69:VAL:HA	40:A8:72:ALA:HB3	1.95	0.49
44:E8:40:ASN:O	44:E8:41:LYS:HG2	2.12	0.49
1:1G:35:G:C2	1:1G:550:G:C2	3.01	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: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:O5'	1:1G:1441:G:H8	1.95	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
5:42:104:ALA:HA	5:42:107:ARG:HH12	1.78	0.49
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	1.95	0.49
13:4A:35:GLU:OE2	13:4A:36:LYS:HG2	2.13	0.49
24:3L:25:C:C2	24:3L:26:A:C8	3.01	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
26:14:270(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
26:14:873:G:O3'	38:45:63:LYS:NZ	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1952: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
30:29:51:PHE:CD2	30:29:52:LEU:HB2	2.46	0.49
35:15:96:GLU:HB2	35:15:122:VAL:HG12	1.95	0.49
43:95:87:HIS:CE1	43:95:89:GLN:HB2	2.47	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
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
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
6:5E:5:GLU:N	6:5E:93:SER:OG	2.45	0.49
7:6E:122:HIS:HA	7:6E:125:MET:HB2	1.95	0.49
17:8I:76:LEU:HD11	17:8I:79:SER:H	1.78	0.49
23:2K:20:G:C2	23:2K:58:A:N3	2.80	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
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
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
29:11:181:GLU:HG3	29:11:182:LEU:N	2.27	0.49
30:21:117:MET:O	30:21:118:LYS:HB3	2.13	0.49
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.28	0.49
34:61:8:PRO:HG3	34:61:14:ASP:HB2	1.94	0.49
37:78:124:LYS:HA	37:78:143:GLY:O	2.13	0.49
44:E8:96:ILE:HD13	44:E8:96:ILE:H	1.78	0.49
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.95	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
3:22:40:ARG:O	3:22:44:GLU:N	2.42	0.49
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.94	0.49
56:2L:25:U:H2'	56:2L:26:C:C6	2.48	0.49
26:14:249:C:H4'	26:14:250:G:O5'	2.13	0.49
26:14:1019:U:H3	26:14:1142(A):A:H62	1.60	0.49
26:14:1652:A:OP1	39:55:8:ARG:NH1	2.44	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
26:14:2659: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
34:69:128:LEU:O	34:69:138:ILE:HG22	2.12	0.49
41:75:98:LYS:HB3	41:75:100:TYR:CE2	2.48	0.49
43:95:52:VAL:CG1	43:95:55:ALA:HB3	2.43	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
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
2:1E:174:VAL:O	2:1E:178:ARG:HB2	2.12	0.49
7:6E:15:ASP:HB2	7:6E:23:VAL:HB	1.95	0.49
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.77	0.49
10:1I:6:ILE:HD11	10:1I:72:VAL:HB	1.94	0.49
23:2K:48:U:H4'	23:2K:49:C:H5'	1.94	0.49
26:1H:68:G:H2'	26:1H:69:C:C6	2.48	0.49
26:1H:405:U:O2	26:1H:405:U:H2'	2.12	0.49
26:1H:771:G:N7	59:1H:4277:HOH:O	2.35	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
28:71:65:PRO:HB2	28:71:66:HIS:CE1	2.47	0.49
29:11:131:LEU:HD22	29:11:136:ILE:HD13	1.94	0.49
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.94	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
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
1:1G:197:A:H3'	1:1G:197:A:OP2	2.12	0.49
1:1G:300:A:H1'	1:1G:565:U:O2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:433:C:H2'	1:1G:434:U:H6	1.77	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
2:12:73:THR:HG21	2:12:97:TRP:N	2.28	0.49
4:32:153:ARG:HH12	4:32:181:MET:HB2	1.78	0.49
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.79	0.49
26:14:355:G:H2'	26:14:356:G:C8	2.48	0.49
26:14:978:G:N3	26:14:978:G:H2'	2.28	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
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
36:25:88:ASN:HB3	36:25:94:ARG:HD3	1.95	0.49
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.43	0.49
50:G5:15:LYS:H	50:G5:67:LYS:NZ	2.11	0.49
52:15:62:ARG:HD2	52:15:62:ARG:H	1.78	0.49
53:J5:3:LYS:NZ	53:J5:3:LYS:HA	2.28	0.49
1:13:46:G:H2'	1:13:366:C:H5	1.78	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
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.28	0.48
24:3K:40:C:H2'	24:3K:41:C:H6	1.78	0.48
26:1H:300:A:N3	26:1H:319:C:H1'	2.28	0.48
26:1H:620:G:N2	26:1H:620:G:OP2	2.40	0.48
26:1H:1313:U:H4'	26:1H:1332:G:H4'	1.94	0.48
26:1H:2575:C:O2'	30:21:140:SER:HB2	2.13	0.48
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.38	0.48
29:11:30:GLU:O	29:11:33:LEU:N	2.41	0.48
31:31:9:ILE:HG12	31:31:10:PRO:CD	2.42	0.48
34:61:138:ILE:HG12	34:61:139:GLN:H	1.77	0.48
35:58:13:TRP:O	35:58:135:PRO:HD2	2.13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:421:U:O2'	1:1G:423:G:N7	2.45	0.48
1:1G:552:U:O2'	12:3A:86:ARG:O	2.30	0.48
1:1G:980:C:H5'	1:1G:981:U:C5	2.47	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
2:12:4:GLU:N	2:12:59:GLU:OE2	2.46	0.48
4:32:9:CYS:SG	4:32:22:LYS:HD2	2.53	0.48
4:32:18:LYS:HD3	4:32:31:CYS:SG	2.53	0.48
5:42:92:LYS:HE2	8:72:105:ARG:HH21	1.76	0.48
26:14:868:U:C2	26:14:869:G:C8	3.01	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
32:49:171:ALA:O	32:49:175:LEU:N	2.33	0.48
33:59:22:GLY:O	33:59:37:VAL:HG12	2.13	0.48
36:25:68:GLU:HB3	36:25:78:ARG:HB3	1.95	0.48
37:35:64:LYS:HD2	55:M5:30:ARG:NH1	2.28	0.48
38:45:3:MET:HB2	38:45:93:TYR:CD1	2.48	0.48
38:45:114:ALA:O	38:45:118:LEU:HB2	2.13	0.48
41:75:64:ARG:NH1	41:75:103:ARG:HA	2.27	0.48
41:75:113:LYS:O	41:75:114:LEU:HD23	2.13	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
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.14	0.48
16:7I:23:ASP:O	16:7I:26:ARG:HB2	2.13	0.48
24:3K:10:G:C2	24:3K:26:A:C5	3.01	0.48
26:1H:529:A:C8	26:1H:530:G:C6	3.00	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
29:11:71:ASP:CB	29:11:103:ARG:HH22	2.21	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
46:G8:68:HIS:HB3	46:G8:71:LYS:HG2	1.94	0.48
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.60	0.48
8:72:99:GLU:CD	8:72:100:ILE:H	2.16	0.48
12:3A:58:VAL:N	12:3A:66:VAL:O	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:6:G:N2	24:3L:67:C:O2	2.37	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:H5''	26:14:2287:A:C8	2.48	0.48
26:14:2774:C:H2'	26:14:2775:A:H8	1.79	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
31:39:59:TYR:CD2	31:39:78:ILE:HG12	2.47	0.48
32:49:76:SER:OG	32:49:84:LYS:N	2.45	0.48
42:85:82:GLY:O	42:85:86:ALA:N	2.39	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
1:13:1448:C:H42	1:13:1455:G:H1	1.60	0.48
2:1E:56:ARG:NH1	2:1E:56:ARG:HB2	2.29	0.48
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.94	0.48
20:BI:41:ILE:HD12	20:BI:42:GLN:N	2.28	0.48
26:1H:730:C:H3'	59:1H:3597:HOH:O	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
29:11:108:PRO:HG3	29:11:143:HIS:HE1	1.77	0.48
32:41:151:ALA:HB3	32:41:153:ARG:HH12	1.77	0.48
37:78:46:LYS:O	37:78:47:ASP:HB3	2.13	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
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.41	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
1:1G:1084:G:C5	1:1G:1085:U:C4	3.01	0.48
3:22:126:ARG:HB3	3:22:128:PHE:HD1	1.76	0.48
4:32:31:CYS:C	4:32:33:MET:H	2.15	0.48
6:52:39:LYS:HE2	6:52:62:TRP:CZ3	2.46	0.48
8:72:85:ARG:NH1	8:72:134:ILE:HG23	2.28	0.48
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.95	0.48
15:6A:10:LYS:HD2	15:6A:10:LYS:HA	1.55	0.48
19:AA:9:VAL:HG13	52:I5:63:TYR:CE1	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:845:G:HO2'	26:14:846:C:H5	1.59	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
26:14:2723:C:OP1	39:55:3:HIS:CD2	2.66	0.48
27:1J:14:U:H5''	27:1J:70:C:O2'	2.13	0.48
30:29:89:ASP:OD1	30:29:90:THR:N	2.47	0.48
31:39:28:ILE:HD13	31:39:119:ARG:NH2	2.28	0.48
33:59:60:ARG:O	33:59:64:LEU:HG	2.12	0.48
36:25:104:ARG:HH12	41:75:36:GLU:HB3	1.78	0.48
41:75:27:THR:HG23	41:75:90:GLN:HB3	1.95	0.48
47:D5:28:MET:O	47:D5:34:ASN:HA	2.12	0.48
1:13:797:C:OP1	11:2I:124:LYS:HE2	2.13	0.48
1:13:1287:A:H2'	1:13:1288:A:C8	2.48	0.48
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.27	0.48
6:5E:50:TYR:CE2	18:9I:77:GLY:HA2	2.48	0.48
7:6E:18:TYR:CD1	7:6E:59:LEU:HD12	2.48	0.48
13:4I:60:VAL:HG12	13:4I:66:LEU:HD11	1.94	0.48
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.14	0.48
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.48
23:2K:47:7MG:H81	23:2K:48:U:C5	2.45	0.48
26:1H:155:C:H5''	26:1H:155:C:H6	1.78	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
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: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
28:7I:47:LEU:HB2	28:7I:170:ALA:HA	1.96	0.48
32:4I:125:PHE:HA	32:4I:130:ASN:O	2.13	0.48
32:4I:173:LEU:HD22	32:4I:178:PHE:HE2	1.79	0.48
34:6I:93:THR:HA	34:6I:119:PRO:HB3	1.94	0.48
36:68:113:LYS:NZ	36:68:117:LEU:HD21	2.28	0.48
38:88:58:PHE:HZ	38:88:106:VAL:HG11	1.79	0.48
45:F8:67:GLY:O	45:F8:69:TYR:N	2.44	0.48
50:K8:5:GLU:HG3	50:K8:7:ARG:HD3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:642:A:C2'	8:72:113:SER:HG	2.27	0.48
1:1G:838:G:H8	1:1G:838:G:O5'	1.95	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
2:12:45:GLN:OE1	2:12:46:LYS:NZ	2.25	0.48
3:22:61:ALA:O	3:22:63:ASN:N	2.44	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
11:2A:43:SER:OG	11:2A:44:SER:N	2.46	0.48
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.94	0.48
24:3L:35:A:H2'	24:3L:36:A:O4'	2.14	0.48
26:14:117:G:C6	26:14:119:A:C6	3.01	0.48
26:14:828:U:H4'	26:14:831:G:N1	2.28	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
26:14:2773:C:OP1	30:29:164:ARG:NE	2.46	0.48
47:D5:11:GLU:OE2	47:D5:12:GLY:N	2.46	0.48
52:I5:37:SER:O	52:I5:44:THR:HG21	2.12	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
1:13:963:G:N2	1:13:972:C:N3	2.47	0.48
1:13:968:A:H4'	1:13:969:A:OP2	2.13	0.48
1:13:977:A:C8	1:13:1223:C:C4	3.01	0.48
1:13:1501:C:N4	1:13:1504:G:C2	2.81	0.48
4:3E:165:MET:HA	4:3E:168:ARG:HG3	1.96	0.48
23:2K:62:C:H2'	23:2K:63:C:C6	2.46	0.48
26:1H:141:A:H8	26:1H:1408:C:H1'	1.78	0.48
26:1H:467:G:OP2	54:P8:34:ARG:NH1	2.46	0.48
26:1H:945:A:C2	26:1H:2448:A:C6	3.01	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:2122:U:H1'	28:71:166:ASP:HB3	1.96	0.48
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2598:A:P	59:1H:3555:HOH:O	2.71	0.48
27:16:11:C:OP2	27:16:12:C:N4	2.41	0.48
28:71:45:ALA:HA	28:71:212:VAL:HA	1.96	0.48
30:21:38:THR:CG2	30:21:41:LYS:H	2.25	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
1:1G:244:U:C5	1:1G:894:G:C2	3.01	0.48
1:1G:579:G:O3'	15:6A:54:ARG:NH2	2.46	0.48
1:1G:1325:C:H5''	21:1B:17:THR:HG21	1.96	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
4:32:116:GLN:O	4:32:120:LEU:HG	2.13	0.48
7:62:15:ASP:O	7:62:19:GLY:HA2	2.14	0.48
13:4A:86:CYS:SG	13:4A:88:ARG:HB3	2.53	0.48
26:14:245:G:C2	26:14:246:C:C6	3.01	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
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
26:14:2416:C:OP1	37:35:64:LYS:HG3	2.13	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
26:14:2697:G:H2'	26:14:2698:U:O4'	2.13	0.48
32:49:41:GLN:NE2	32:49:154:GLY:O	2.26	0.48
48:E5:26:TYR:N	48:E5:29:GLN:OE1	2.46	0.48
1:13:538:G:OP2	12:3I:115:LYS:HG3	2.13	0.48
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.46	0.48
1:13:1111:A:H8	1:13:1111:A:O5'	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
2:1E:80:ILE:HD12	2:1E:80:ILE:H	1.79	0.48
2:1E:126:GLU:HA	2:1E:129:GLU:HG2	1.95	0.48
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.14	0.48
5:4E:83:GLU:HG3	5:4E:88:LYS:HG3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
27:16:42:C:O2'	32:41:67:LYS:HE3	2.13	0.48
33:51:3:ARG:HH21	33:51:7:LEU:HD11	1.78	0.48
37:78:31:ALA:O	37:78:32:THR:HG22	2.12	0.48
46:G8:31:LEU:HD12	46:G8:36:ALA:O	2.13	0.48
55:Q8:33:ASN:O	55:Q8:34:TRP:CD1	2.67	0.48
1:1G:1173:G:H2'	1:1G:1174:G:O4'	2.13	0.48
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.95	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
26:14:1144:G:C2	26:14:1145:C:C2	3.02	0.48
26:14:1287:A:OP2	39:55:104:ARG:HB3	2.13	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:H2'	26:14:2056:G:N3	2.28	0.48
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
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
48:E5:45:PHE:O	48:E5:59:LEU:HD11	2.13	0.48
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.28	0.48
52:I5:23:GLU:HG3	52:I5:24:THR:H	1.79	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
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
2:1E:62:ALA:HB3	2:1E:225:ALA:HB3	1.95	0.48
2:1E:101:MET:HA	2:1E:108:ILE:HG13	1.96	0.48
22:1K:10:G:H2'	22:1K:11:A:C8	2.48	0.48
24:3K:21:A:N6	24:3K:48:C:O2	2.47	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
39:98:53:HIS:HB2	39:98:94:TYR:HE2	1.79	0.48
53:N8:46:CYS:H	53:N8:50:GLY:HA2	1.79	0.48
1:1G:109:A:C6	1:1G:326:G:C6	3.01	0.48
1:1G:284:G:H2'	1:1G:285:G:H8	1.79	0.48
1:1G:359:U:H2'	1:1G:360:A:H8	1.72	0.48
1:1G:1493:A:H2'	26:14:1913:A:N6	2.27	0.48
4:32:39:PRO:O	4:32:44:GLY:HA3	2.12	0.48
7:62:25:ALA:HA	7:62:28:ASN:ND2	2.29	0.48
11:2A:82:VAL:HG13	11:2A:108:ILE:HG12	1.95	0.48
11:2A:111:ASP:OD1	18:9A:84:LYS:HD3	2.14	0.48
17:8A:26:GLN:HB3	17:8A:37:LYS:HG2	1.95	0.48
56:2L:36:A:H2'	56:2L:37:U:H6	1.78	0.48
26:14:443:A:H5''	26:14:444:C:OP1	2.13	0.48
26:14:1167:U:O2	26:14:1183:G:N2	2.45	0.48
26:14:1288:U:C2	26:14:1327:C:O2	2.66	0.48
26:14:1295:C:O4'	39:55:23:ASN:ND2	2.40	0.48
26:14:1377:G:H8	26:14:1377:G:O5'	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
26:14:2839:G:C5'	39:55:46:GLY:HA2	2.43	0.48
26:14:2857:G:N2	26:14:2859:G:H3'	2.29	0.48
27:1J:80:U:C2	27:1J:81:G:N2	2.81	0.48
29:19:231:HIS:CD2	29:19:232:PRO:HD2	2.48	0.48
31:39:135:LYS:HD2	31:39:135:LYS:HA	1.64	0.48
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.94	0.48
39:55:86:ARG:HH21	39:55:118:GLU:HA	1.79	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
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
1:13:74:C:H2'	1:13:75:C:O4'	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
1:13:793: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
1:13:1064:G:OP1	1:13:1386:G:H4'	2.14	0.48
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.95	0.48
12:3I:93:LEU:O	12:3I:96:VAL:HG12	2.13	0.48
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.77	0.48
23:2K:60:A:H2'	23:2K:61:U:H5'	1.95	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
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:2329:G:N2	48:I8:41:ARG:HG3	2.29	0.48
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.13	0.48
28:7I:66:HIS:HB2	28:7I:188:ASN:ND2	2.29	0.48
30:21:109:LYS:HE2	30:21:191:PRO:HA	1.95	0.48
31:31:7:TYR:O	31:31:21:ALA:HA	2.14	0.48
31:31:192:LEU:HD21	31:31:194:MET:HE3	1.96	0.48
38:88:109:VAL:CG1	38:88:113:GLN:HB3	2.40	0.48
39:98:96:ARG:HD2	39:98:115:GLU:CG	2.44	0.48
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.14	0.48
1:1G:631:G:C3'	1:1G:632:A:H8	2.26	0.48
1:1G:1010:G:H2'	1:1G:1011:G:O4'	2.14	0.48
1:1G:1260:C:OP1	1:1G:1284:C:H4'	2.14	0.48
1:1G:1277:C:HO2'	1:1G:1279:A:H1'	1.79	0.48
1:1G:1362:C:H2'	1:1G:1362(A):C:H5''	1.96	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
12:3A:6:THR:OG1	12:3A:9:GLN:HG3	2.14	0.48
19:AA:50:ALA:HA	19:AA:58:VAL:O	2.14	0.48
26:14:139:G:H1'	26:14:140:A:C2	2.49	0.48
26:14:212:G:H2'	26:14:213:A:O4'	2.14	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
26:14:1291:C:H2'	26:14:1292:U:C6	2.48	0.48
26:14:1575:C:O2'	26:14:1576:U:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2142: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
27:1J:38:C:O5'	27:1J:38:C:H6	1.97	0.48
27:1J:117:G:C2	27:1J:118:G:C5	3.02	0.48
32:49:63:ILE:HD12	32:49:141:PHE:CD2	2.49	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
39:55:20:LEU:O	39:55:24:GLN:HG3	2.12	0.48
43:95:71:LEU:HD13	43:95:71:LEU:HA	1.73	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
1:13:49:U:C4	1:13:364:A:C6	3.02	0.48
1:13:143:A:H2	1:13:220:G:H22	1.61	0.48
1:13:1192:C:OP2	3:2E:4:LYS:NZ	2.47	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
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
8:7E:8:ASP:OD2	8:7E:12:ARG:HD2	2.13	0.48
15:6I:8:LYS:O	15:6I:12:ILE:HG13	2.13	0.48
20:BI:75:ASN:OD1	20:BI:75:ASN:N	2.44	0.48
24:3K:20:U:H5''	24:3K:20:U:H6	1.79	0.48
26:1H:40:C:H2'	26:1H:41:C:C6	2.48	0.48
26:1H:270(J):G:H2'	26:1H:270(K):C:O4'	2.14	0.48
26:1H:415:A:H2'	26:1H:416:C:O4'	2.14	0.48
26:1H:507:A:H5''	26:1H:508:G:H3'	1.95	0.48
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
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:2085:C:O3'	29:11:262:ARG:HD3	2.12	0.48
26:1H:2228:G:H2'	26:1H:2229:C:C6	2.49	0.48
26:1H:2734:A:H3'	26:1H:2735:G:H8	1.78	0.48
26:1H:2881:C:O2'	39:98:96:ARG:HA	2.14	0.48
30:21:92:THR:HB	30:21:94:GLU:HG2	1.95	0.48
32:41:172:LEU:O	32:41:176:LEU:HD12	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:4:ILE:C	33:51:6:ARG:H	2.17	0.48
37:78:84:ASN:HA	37:78:115:LEU:O	2.13	0.48
39:98:21:TYR:HB3	39:98:47:PHE:CD2	2.49	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
1:1G:897:C:H2'	1:1G:898:G:C8	2.47	0.48
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.79	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
3:22:179:ARG:NE	3:22:206:GLU:OE2	2.47	0.48
4:32:18:LYS:HD2	4:32:20:TYR:CE1	2.48	0.48
8:72:82:HIS:HB3	8:72:138:TRP:CE3	2.48	0.48
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.14	0.48
19:AA:51:VAL:HB	19:AA:75:ALA:HB3	1.96	0.48
26:14:49:A:H5''	26:14:51:G:O4'	2.14	0.48
26:14:83:G:N2	26:14:102:G:H2'	2.29	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
26:14:1728: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
27:1J:50:G:OP1	40:65:62:LYS:HB2	2.14	0.48
31:39:143:ALA:HB1	31:39:148:LEU:HB3	1.95	0.48
36:25:22:ILE:HA	36:25:22:ILE:HD12	1.47	0.48
37:35:82:GLY:HA2	37:35:113:LYS:O	2.13	0.48
42:85:47:TYR:HD2	43:95:74:LYS:HD3	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
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.14	0.48
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.79	0.48
47:D5:19:ARG:HE	47:D5:19:ARG:HB2	1.40	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
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
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:89:ASP:N	10:1I:89:ASP:OD1	2.46	0.48
13:4I:13:LYS:NZ	13:4I:13:LYS:HA	2.29	0.48
14:5I:26:ARG:NH1	14:5I:46:GLU:OE2	2.47	0.48
19:AI:9:VAL:HG21	52:M8:63:TYR:O	2.13	0.48
26:1H:242:G:H5'	55:Q8:60:LEU:HD13	1.95	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
29:11:24:ILE:HA	29:11:82:ILE:HG22	1.95	0.48
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.95	0.48
32:41:137:GLU:HB2	32:41:139:LEU:HD23	1.95	0.48
33:51:35:VAL:HA	33:51:36:PRO:HD2	1.73	0.48
36:68:10:VAL:HG11	36:68:16:ALA:HB3	1.96	0.48
38:88:138:ASP:OD2	47:H8:81:ARG:NH2	2.47	0.48
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:N	48:I8:64:ASP:OD1	2.47	0.48
55:Q8:23:VAL:O	55:Q8:44:LYS:HB2	2.14	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
1:1G:1342:C:H1'	9:82:124:GLN:OE1	2.14	0.48
3:22:12:LEU:HD22	3:22:18:TRP:CZ3	2.49	0.48
3:22:88:ARG:HB2	3:22:101:LEU:HD22	1.96	0.48
6:52:48:LEU:HD13	6:52:52:ILE:HB	1.95	0.48
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.96	0.48
9:82:95:LYS:HZ3	9:82:96:LEU:HB2	1.78	0.48
12:3A:10:LEU:HD22	12:3A:10:LEU:HA	1.74	0.48
24:3L:72:C:H3'	24:3L:73:A:H5''	1.95	0.48
26:14:72:U:OP2	50:G5:29:LYS:NZ	2.46	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
26:14:847:U:H5'	26:14:929:G:H1	1.79	0.48
26:14:1443:G:H1	26:14:1548:C:H42	1.60	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
31:39:135:LYS:HB3	31:39:138:GLU:HG3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:114:ILE:HG12	32:49:140:ILE:HD13	1.94	0.48
33:59:74:ASN:O	33:59:78:GLY:N	2.47	0.48
34:69:129:THR:HA	34:69:137:PRO:HA	1.95	0.48
39:55:67:LEU:HD13	39:55:76:VAL:HG11	1.96	0.48
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
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.96	0.47
3:2E:18:TRP:HB3	3:2E:20:SER:O	2.14	0.47
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.96	0.47
10:1I:32:ALA:HB1	10:1I:76:ASN:OD1	2.14	0.47
25:4K:14:A:H3'	25:4K:15:A:H8	1.79	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
29:11:77:ALA:HB2	29:11:97:TYR:HA	1.96	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
43:D8:83:ARG:HA	43:D8:83:ARG:HD3	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
1:1G:191(A):G:H2'	1:1G:191(B):G:H5'	1.96	0.47
1:1G:374:A:N3	1:1G:374:A:H2'	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
1:1G:1386:G:H2'	1:1G:1387:G:H8	1.78	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
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.13	0.47
5:42:76:ILE:HD13	5:42:76:ILE:HA	1.71	0.47
13:4A:32:GLU:OE2	13:4A:33:ALA:N	2.47	0.47
26:14:70:G:H2'	26:14:113:G:O2'	2.13	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
26:14:489: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
26:14:918:A:C5	26:14:919:G:H1'	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:988:A:H8	26:14:988:A:O5'	1.96	0.47
26:14:1019:U:H2'	26:14:1020:A:C8	2.49	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
27:1J:14:U:O2'	27:1J:15:A:OP1	2.29	0.47
27:1J:42:C:O2'	32:49:67:LYS:O	2.22	0.47
27:1J:62:C:C2	27:1J:63:G:C8	3.02	0.47
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.95	0.47
31:39:4:VAL:HA	31:39:19:GLU:CB	2.43	0.47
32:49:80:PHE:O	32:49:82:LEU:HB2	2.13	0.47
36:25:63:VAL:HB	36:25:102:VAL:HG12	1.95	0.47
37:35:105:LEU:O	37:35:106:LEU:HB3	2.14	0.47
47:D5:52:SER:C	47:D5:54:HIS:H	2.17	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
1:13:1152:A:OP1	10:1I:13:HIS:HB2	2.14	0.47
1:13:1373:G:H5''	7:6E:36:LYS:HG3	1.96	0.47
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.27	0.47
3:2E:152:ILE:HB	3:2E:199:LYS:HB2	1.96	0.47
5:4E:123:LEU:HA	5:4E:123:LEU:HD23	1.70	0.47
24:3K:19:G:O2'	24:3K:57:G:N3	2.47	0.47
26:1H:116:C:O2'	26:1H:117:G:H5'	2.14	0.47
26:1H:177:G:H3'	26:1H:178:G:H8	1.79	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
26:1H:931:G:C4	26:1H:933:A:C8	3.02	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: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
32:41:114:ILE:HG22	32:41:115:ARG:O	2.14	0.47
33:51:131:VAL:HG12	33:51:132:ARG:N	2.29	0.47
39:98:117:VAL:O	39:98:118:GLU:HB2	2.13	0.47
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.45	0.47
52:M8:14:ILE:CG2	52:M8:21:VAL:HB	2.45	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
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.49	0.47
2:12:69:LEU:O	2:12:163:PHE:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.96	0.47
3:22:167:TRP:CE3	3:22:167:TRP:O	2.67	0.47
4:32:26:CYS:CA	4:32:31:CYS:HB3	2.37	0.47
12:3A:117:ARG:HB3	12:3A:122:THR:O	2.14	0.47
19:AA:28:LYS:HD3	19:AA:29:ARG:H	1.79	0.47
26:14:528:A:H2	26:14:2043:C:H4'	1.79	0.47
26:14:616:A:C8	31:39:180:GLY:HA3	2.50	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
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
26:14:2394:C:OP1	37:35:63:PRO:HG2	2.15	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
29:19:133:LEU:HA	29:19:136:ILE:HD12	1.96	0.47
32:49:98:ARG:HH22	52:I5:2:LYS:NZ	2.12	0.47
32:49:171:ALA:O	32:49:174:GLU:N	2.47	0.47
34:69:63:ALA:HA	34:69:66:GLU:HG2	1.96	0.47
36:25:107:ARG:HE	36:25:115:VAL:HG11	1.79	0.47
38:45:103:MET:O	38:45:104:PHE:HB2	2.14	0.47
48:E5:60:PHE:N	48:E5:60:PHE:CD1	2.82	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
1:13:1237:C:O2'	1:13:1300:G:N2	2.46	0.47
3:2E:114:PRO:HD3	3:2E:183:ASP:OD2	2.14	0.47
4:3E:30:LYS:HA	4:3E:35:ARG:HG3	1.96	0.47
9:8E:25:LYS:N	9:8E:60:ASP:OD1	2.46	0.47
22:1K:31:G:H1	22:1K:41:C:H42	1.62	0.47
26:1H:592:G:O2'	55:Q8:4:MET:HG3	2.14	0.47
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
28:71:185:LEU:O	28:71:189:ILE:N	2.40	0.47
31:31:125:LEU:HA	31:31:125:LEU:HD23	1.56	0.47
32:41:11:TYR:OH	32:41:32:PRO:O	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:41:GLU:O	34:61:45:LYS:HB2	2.14	0.47
1:1G:12:U:H2'	1:1G:13:U:H5''	1.96	0.47
1:1G:90:C:H2'	1:1G:91:C:C6	2.49	0.47
1:1G:571:U:O2	1:1G:918:A:H5'	2.14	0.47
1:1G:580:U:H5''	15:6A:58:MET:HG2	1.95	0.47
1:1G:589:C:C2	1:1G:650:G:N2	2.81	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
19:AA:66:MET:HG2	19:AA:69:HIS:CE1	2.49	0.47
24:3L:15:G:H1	24:3L:48:C:H42	1.62	0.47
26:14:579:G:H2'	26:14:580:C:C6	2.50	0.47
26:14:674:G:O2'	31:39:67:GLN:OE1	2.20	0.47
26:14:797:C:H2'	26:14:798:G:O4'	2.15	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
26:14:1225:C:H4'	43:95:85:LYS:CG	2.44	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
26:14:2312:U:P	32:49:74:LYS:HZ2	2.38	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
32:49:25:TYR:HD1	32:49:30:GLU:CD	2.17	0.47
35:15:4:TYR:O	42:85:64:ARG:NH1	2.46	0.47
40:65:102:ALA:HA	40:65:105:ALA:HB3	1.97	0.47
44:A5:28:SER:OG	44:A5:31:GLU:HG2	2.14	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
1:13:141:A:H2'	1:13:142:G:C8	2.50	0.47
1:13:1139:G:H4'	1:13:1140:C:C5'	2.44	0.47
2:1E:187:LEU:HD22	2:1E:201:ILE:O	2.14	0.47
2:1E:208:ILE:O	2:1E:211:ILE:N	2.47	0.47
16:7I:50:LYS:HD3	16:7I:51:VAL:N	2.24	0.47
24:3K:65:G:H5''	24:3K:66:U:OP2	2.14	0.47
26:1H:67:U:H2'	26:1H:68:G:H8	1.78	0.47
26:1H:139:G:N3	26:1H:141:A:N1	2.62	0.47
26:1H:598:G:H1'	37:78:12:ALA:HB2	1.96	0.47
26:1H:624:C:P	59:1H:4216:HOH:O	2.73	0.47
26:1H:911:A:C5	38:88:9:TYR:CD2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:988:A:H8	26:1H:988:A:O5'	1.97	0.47
26:1H:1248:G:C8	42:C8:3:ARG:HB2	2.49	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
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.29	0.47
31:31:14:PRO:HD3	31:31:127:GLU:HB3	1.95	0.47
32:41:60:LEU:HD12	32:41:68:PRO:HG3	1.94	0.47
34:61:110:ASP:H	34:61:130:TYR:HH	1.61	0.47
35:58:57:ALA:C	35:58:59:LYS:N	2.67	0.47
37:78:31:ALA:C	37:78:33:ARG:H	2.15	0.47
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.80	0.47
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.33	0.47
1:1G:323:U:H2'	1:1G:324:G:O4'	2.14	0.47
1:1G:932:C:H2'	1:1G:933:G:C8	2.49	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
3:22:103:VAL:HG12	3:22:104:GLN:H	1.79	0.47
4:32:163:GLU:HA	4:32:166:LYS:HE3	1.95	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
15:6A:34:LEU:HA	15:6A:34:LEU:HD12	1.59	0.47
56:2L:29:C:H2'	56:2L:30:G:H8	1.79	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
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
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
30:29:203:LYS:N	30:29:205:ALA:H	2.12	0.47
33:59:118:PRO:HD2	33:59:121:ILE:HG13	1.96	0.47
39:55:3:HIS:CE1	59:55:303:HOH:O	2.67	0.47
46:C5:23:ARG:HH11	46:C5:23:ARG:CG	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
1:13:511:C:O2'	1:13:512:U:OP2	2.29	0.47
1:13:752:G:H8	1:13:752:G:O5'	1.98	0.47
1:13:901:A:C5	1:13:902:G:H1'	2.50	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
3:2E:95:THR:HB	3:2E:97:LYS:NZ	2.30	0.47
6:5E:5:GLU:HG2	6:5E:62:TRP:HE1	1.79	0.47
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.95	0.47
11:2I:41:THR:HG21	11:2I:71:LYS:HD3	1.97	0.47
14:5I:24:CYS:HB3	14:5I:28:GLY:H	1.79	0.47
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.29	0.47
25:4K:14:A:H3'	25:4K:15:A:C8	2.49	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
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.50	0.47
26:1H:1843:C:O5'	26:1H:1843:C:H6	1.97	0.47
28:7I:196:LEU:O	28:7I:199:HIS:HB2	2.14	0.47
33:5I:124:GLU:HB3	33:5I:132:ARG:HB3	1.97	0.47
35:58:96:GLU:C	35:58:98:VAL:H	2.13	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
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
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
1:1G: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
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.49	0.47
9:82:49:PRO:HB3	9:82:82:ALA:HB2	1.96	0.47
12:3A:90:VAL:HG11	12:3A:93:LEU:HD12	1.94	0.47
14:5A:53:LEU:HD12	14:5A:56:VAL:HG21	1.96	0.47
26:14:290:G:H2'	26:14:291:C:O4'	2.14	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2287:A:H2	26:14:2346:A:C2	2.31	0.47
26:14:2406:U:C2	37:35:72:PRO:HB2	2.49	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
29:19:133:LEU:HD13	29:19:173:VAL:HG21	1.96	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
37:35:68:GLN:HG3	55:M5:12:LYS:HD3	1.95	0.47
41:75:51:ARG:CG	41:75:98:LYS:HD2	2.43	0.47
42:85:45:TYR:O	42:85:49:HIS:HB2	2.15	0.47
43:95:71:LEU:H	43:95:86:GLY:CA	2.26	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
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
1:13:664:G:N2	1:13:742:G:C2	2.83	0.47
1:13:719:C:H1'	18:9I:49:LYS:HB3	1.96	0.47
1:13:991:U:O2'	1:13:992:U:O5'	2.24	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
4:3E:177:ASP:OD2	4:3E:180:GLY:HA3	2.15	0.47
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.97	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
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
33:51:24:VAL:HG13	33:51:35:VAL:HB	1.95	0.47
33:51:83:TYR:CB	33:51:135:GLY:H	2.22	0.47
34:61:4:ILE:HG23	34:61:18:VAL:HG22	1.96	0.47
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.14	0.47
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.97	0.47
50:K8:33:MET:HG2	50:K8:37:PHE:HE1	1.78	0.47
1:1G:102:G:H2'	1:1G:103:C:H6	1.79	0.47
1:1G:922:G:C2	1:1G:923:A:C4	3.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1293:G:H2'	1:1G:1294:G:O4'	2.14	0.47
3:22:112:SER:O	3:22:116:VAL:HG23	2.15	0.47
6:52:2:ARG:HE	6:52:69:GLU:CB	2.27	0.47
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.67	0.47
26:14:452:G:H5'	31:39:59:TYR:HE1	1.79	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
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
27:1J:9:G:C6	27:1J:10:C:C4	3.02	0.47
37:35:13:ASN:C	37:35:15:ARG:H	2.18	0.47
40:65:73:LEU:HD23	40:65:73:LEU:HA	1.77	0.47
43:95:35:LEU:O	43:95:37:VAL:HG22	2.14	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
1:13:44:G:C6	1:13:45:U:C2	3.03	0.47
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.97	0.47
1:13:271:C:H2'	1:13:272:C:H6	1.80	0.47
1:13:357:G:O2'	34:69:89:TYR:O	2.31	0.47
1:13:376:G:H4'	16:7I:5:ARG:HD2	1.96	0.47
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.48	0.47
1:13:476:G:H2'	1:13:476:G:N3	2.29	0.47
1:13:660:G:H2'	1:13:661:G:C8	2.48	0.47
1:13:947:G:N2	1:13:1235:U:C2	2.83	0.47
1:13:1121:U:H3	1:13:1152:A:N6	2.09	0.47
1:13:1132:C:H2'	1:13:1133:G:C8	2.50	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
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
5:4E:150:ARG:NH1	5:4E:150:ARG:HB3	2.29	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
20:BI:44:ALA:O	20:BI:91:LEU:HB3	2.14	0.47
23:2K:65:G:H2'	23:2K:66:C:O4'	2.15	0.47
24:3K:34:G:H8	24:3K:34:G:OP1	1.98	0.47
24:3K:60:U:H6	24:3K:60:U:O5'	1.98	0.47
26:1H:194:G:C8	59:1H:4369:HOH:O	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(M):U:H4'	26:1H:270(N):G:C4	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:481:G:C4	26:1H:507:A:C2	3.03	0.47
26:1H:537:C:H2'	26:1H:539:G:O4'	2.14	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:1401:G:C6	26:1H:1402:C:C4	3.03	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:1945:G:H2'	26:1H:1946:U:C6	2.50	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:2309:A:C6	26:1H:2310:A:C8	3.03	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:2519:U:OP2	59:1H:4004:HOH:O	2.20	0.47
27:16:25:A:H2'	27:16:26:A:O4'	2.15	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
30:21:67:PHE:C	30:21:69:LYS:H	2.16	0.47
31:31:176:LEU:HG	31:31:180:GLY:O	2.14	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
37:78:1:MET:CE	37:78:6:LEU:HD13	2.44	0.47
37:78:15:ARG:CB	37:78:16:ARG:HB2	2.45	0.47
39:98:91:GLN:H	39:98:91:GLN:CD	2.18	0.47
41:B8:13:ARG:H	41:B8:13:ARG:HD3	1.79	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
1:1G:107:G:C2	1:1G:108:G:H1'	2.50	0.47
1:1G:457:C:H2'	1:1G:458:C:H6	1.78	0.47
1:1G:498:A:N6	1:1G:547:A:O5'	2.47	0.47
1:1G:665:A:N3	1:1G:732:C:H2'	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:719:C:C5	1:1G:720:C:C4	3.03	0.47
1:1G:935:A:H2'	1:1G:936:C:H6	1.78	0.47
1:1G:1014:A:H4'	19:AA:14:HIS:ND1	2.29	0.47
1:1G:1177:G:H8	1:1G:1177:G:OP2	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: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
4:32:172:PRO:HB2	4:32:187:ARG:HH12	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
9:82:48:GLU:OE1	9:82:51:ARG:NH1	2.48	0.47
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.96	0.47
13:4A:5:ALA:HB3	13:4A:8:GLU:HB2	1.96	0.47
14:5A:26:ARG:HH12	14:5A:47:LEU:HD21	1.79	0.47
20:BA:14:LYS:HA	20:BA:17:ARG:NH1	2.30	0.47
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.14	0.47
56:2L:36:A:H2'	56:2L:37:U:C6	2.50	0.47
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.96	0.47
26:14:247:G:H4'	26:14:386:G:C5	2.49	0.47
26:14:780:G:H21	26:14:783:A:H62	1.62	0.47
26:14:1058:U:C2	26:14:1059:G:N7	2.83	0.47
26:14:1137:G:H2'	26:14:1138:G:C8	2.46	0.47
26:14:1167:U:C2	26:14:1183:G:N2	2.83	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
26:14:2049:G:N2	26:14:2620:C:C2	2.82	0.47
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.15	0.47
26:14:2443:C:OP1	31:39:68:LYS:HG3	2.14	0.47
26:14:2560:C:C2	26:14:2561:A:C8	3.02	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
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.96	0.47
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.49	0.47
30:29:57:LYS:HA	30:29:57:LYS:HD3	1.68	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
31:39:83:PHE:O	31:39:85:GLY:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:122:PRO:O	32:49:125:PHE:HD2	1.97	0.47
33:59:6:ARG:HG2	33:59:65:HIS:CE1	2.49	0.47
34:69:4:ILE:HG21	34:69:47:LEU:HD22	1.97	0.47
34:69:123:LEU:HD22	34:69:143:SER:HB3	1.97	0.47
36:25:68:GLU:H	36:25:68:GLU:CD	2.18	0.47
37:35:41:ARG:N	37:35:41:ARG:HD2	2.28	0.47
37:35:49:ARG:HB3	55:M5:58:ILE:HD11	1.97	0.47
37:35:86:LYS:HB3	37:35:118:GLY:HA3	1.96	0.47
38:45:36:ALA:HB2	38:45:103:MET:SD	2.54	0.47
41:75:15:VAL:HG23	41:75:79:HIS:CE1	2.49	0.47
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.62	0.47
1:13:713:G:H2'	1:13:714:G:C8	2.50	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
2:1E:136:VAL:HA	2:1E:139:LYS:HB2	1.97	0.47
3:2E:191:THR:HG21	3:2E:193:TYR:CZ	2.49	0.47
15:6I:78:TYR:CE1	15:6I:82:ILE:HD11	2.50	0.47
23:2K:33:OMC:HM23	23:2K:33:OMC:H1'	1.77	0.47
26:1H:66:C:C4	26:1H:67:U:C4	3.02	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
26:1H:565:C:OP1	43:D8:82:ARG:NH2	2.48	0.47
26:1H:1466:G:N2	26:1H:1547:C:N3	2.63	0.47
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.50	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
29:11:46:GLN:C	29:11:48:ARG:H	2.18	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
40:A8:26:LEU:HD11	40:A8:73:LEU:HD13	1.97	0.47
40:A8:83:LYS:O	40:A8:109:GLY:HA2	2.13	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
46:G8:99:CYS:SG	46:G8:100:ALA:N	2.88	0.47
49:J8:85:LEU:HD13	49:J8:85:LEU:HA	1.60	0.47
51:L8:12:PRO:HB2	51:L8:20:LYS:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:P8:18:PHE:C	54:P8:18:PHE:CD1	2.88	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
1:1G:1046:A:H61	1:1G:1213:A:N6	2.10	0.47
3:22:15:THR:HG22	3:22:16:ARG:NH1	2.30	0.47
3:22:18:TRP:HD1	14:5A:54:PRO:HA	1.79	0.47
8:72:89:PRO:HA	8:72:92:ARG:HE	1.80	0.47
11:2A:24:SER:HB2	11:2A:27:ASN:H	1.80	0.47
24:3L:52:G:H1	24:3L:62:C:H42	1.63	0.47
26:14:177:G:OP2	26:14:177:G:N2	2.45	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
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.48	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:H8	26:14:2518:A:O5'	1.98	0.47
29:19:37:LEU:HD13	29:19:39:LYS:HG3	1.97	0.47
30:29:5:LEU:HB2	30:29:51:PHE:CD1	2.49	0.47
32:49:95:ARG:HG2	32:49:96:ARG:N	2.23	0.47
45:B5:25:LYS:HA	45:B5:81:VAL:O	2.14	0.47
48:E5:23:VAL:HG12	48:E5:25:ARG:O	2.14	0.47
1:13:131:C:H2'	1:13:131:C:O2	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
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
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.14	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:31:7:TYR:HA	31:31:22:ALA:O	2.15	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
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
1:1G: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
3:22:11:ARG:HB2	3:22:11:ARG:HH11	1.79	0.47
6:52:60:PHE:O	6:52:61:LEU:HD12	2.14	0.47
11:2A:106:LYS:H	11:2A:106:LYS:HD3	1.78	0.47
26:14:139:G:N2	26:14:141:A:N1	2.59	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
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
26:14:2176: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
32:49:18:GLU:O	32:49:22:ARG:N	2.47	0.47
36:25:10:VAL:HG13	36:25:17:ARG:C	2.35	0.47
36:25:113:LYS:O	36:25:117:LEU:HB2	2.15	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.96	0.47
14:5I:29:ARG:HH21	14:5I:41:ARG:NH1	2.13	0.47
15:6I:39:LEU:HD22	15:6I:43:LEU:HG	1.97	0.47
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.15	0.47
23:2K:72:C:H2'	23:2K:73:A:O4'	2.14	0.47
24:3K:13:C:O2'	24:3K:14:A:H5'	2.15	0.47
25:4K:24:A:H8	25:4K:24:A:O5'	1.98	0.47
26:1H:121:G:H4'	26:1H:149:A:H5'	1.96	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
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.48	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: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
31:31:24:LEU:HA	31:31:25:PRO:HD2	1.73	0.47
32:41:16:ARG:O	32:41:20:ILE:HG13	2.15	0.47
40:A8:88:ASP:C	40:A8:90:GLY:H	2.19	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
1:1G: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
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
4:32:201:GLN:HA	4:32:204:ILE:HB	1.96	0.47
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.24	0.47
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:140:LEU:HD12	34:69:140:LEU:HA	1.63	0.47
35:15:133:GLN:O	35:15:134:ARG:HB3	2.15	0.47
37:35:70:GLN:N	37:35:70:GLN:OE1	2.48	0.47
37:35:111:ARG:HG3	37:35:128:HIS:ND1	2.29	0.47
39:55:25:ALA:O	39:55:29:LEU:HB2	2.15	0.47
47:D5:163:LEU:HD23	47:D5:163:LEU:H	1.79	0.47
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
1:13:973:G:OP1	10:1E:57:LYS:HD3	2.15	0.46
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
1:13:1347:G:H8	9:8E:107:ARG:HB3	1.79	0.46
1:13:1414:U:H2'	1:13:1415:G:C8	2.50	0.46
2:1E:17:PHE:N	2:1E:17:PHE:CD1	2.83	0.46
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.16	0.46
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.15	0.46
7:6E:95:ARG:NH2	7:6E:99:LEU:HD11	2.29	0.46
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.15	0.46
11:2I:124:LYS:HD2	11:2I:125:PHE:HE1	1.80	0.46
12:3I:60:LEU:HD21	12:3I:66:VAL:HG12	1.97	0.46
23:2K:64:G:C2	23:2K:65:G:C8	3.03	0.46
26:1H:11:G:H2'	26:1H:12:U:H5'	1.97	0.46
26:1H:548:A:C8	26:1H:548:A:H3'	2.50	0.46
26:1H:910:A:C6	26:1H:911:A:C6	3.03	0.46
26:1H:1061:U:O3'	26:1H:1070:A:H4'	2.16	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:2031:A:C6	26:1H:2498:C:H1'	2.49	0.46
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.51	0.46
26:1H:2530:A:N7	33:51:172:LYS:NZ	2.61	0.46
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.68	0.46
30:21:29:GLY:N	30:21:51:PHE:HE1	2.10	0.46
31:31:108:LYS:NZ	31:31:112:MET:SD	2.88	0.46
33:51:10:PRO:HD2	33:51:50:VAL:O	2.14	0.46
34:61:9:LEU:HD21	34:61:35:LEU:HD12	1.96	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:142:LEU:HA	5:42:142:LEU:HD23	1.65	0.46
8:72:29:SER:HB3	8:72:32:LYS:HB2	1.97	0.46
10:1A:61:GLU:HG3	14:5A:58:LYS:HZ3	1.79	0.46
24:3L:51:U:H2'	24:3L:52:G:C8	2.50	0.46
26:14:16:G:O2'	26:14:17:G:H5'	2.14	0.46
26:14:71:A:H8	26:14:71:A:H5'	1.80	0.46
26:14:99:U:C2	26:14:102:G:N2	2.83	0.46
26:14:191:A:H2'	26:14:192:C:H6	1.78	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
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
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
30:29:170:LEU:HD11	30:29:185:LYS:O	2.14	0.46
32:49:107:LEU:HD21	32:49:178:PHE:CD1	2.50	0.46
39:55:74:LYS:CE	39:55:77:ARG:HH21	2.28	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
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
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.97	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
8:7E:33:GLU:O	8:7E:36:LEU:N	2.49	0.46
10:1I:57:LYS:HD2	10:1I:60:ARG:HH12	1.79	0.46
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.80	0.46
20:BI:50:GLU:HB2	20:BI:100:ILE:HB	1.97	0.46
26:1H:271:G:H1	26:1H:366:C:H42	1.63	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
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:1783:A:H5'	26:1H:2608:G:H4'	1.96	0.46
26:1H:1799:G:H5''	26:1H:1819:A:N6	2.30	0.46
26:1H:2845:G:H8	26:1H:2845:G:O5'	1.98	0.46
29:11:136:ILE:O	29:11:168:ARG:NH2	2.47	0.46
32:41:35:GLU:OE1	32:41:36:LYS:N	2.47	0.46
40:A8:29:PHE:HD1	40:A8:30:ARG:N	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:88:ILE:HG13	41:B8:88:ILE:O	2.14	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
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
1:1G:154:C:H2'	1:1G:155:C:C6	2.50	0.46
1:1G:681:C:C2	1:1G:710:G:C2	3.04	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
6:52:2:ARG:HH21	6:52:69:GLU:HG3	1.80	0.46
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.50	0.46
11:2A:100:ALA:C	11:2A:102:GLY:H	2.19	0.46
14:5A:53:LEU:HD22	14:5A:53:LEU:HA	1.69	0.46
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.30	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
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
26:14:1993:U:H4'	30:29:128:SER:CB	2.46	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
36:25:13:ASN:HD21	36:25:97:ARG:N	2.09	0.46
41:75:88:ILE:HD12	41:75:89:VAL:N	2.30	0.46
41:75:91:ARG:O	41:75:116:ALA:HA	2.15	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
49:F5:79:GLY:O	49:F5:80:LEU:HG	2.15	0.46
1:13:1305:G:H21	1:13:1331:G:C2'	2.24	0.46
2:1E:15:VAL:HB	2:1E:210:SER:HB2	1.97	0.46
2:1E:23:ARG:HB3	2:1E:23:ARG:NH1	2.31	0.46
5:4E:71:LEU:HA	5:4E:75:THR:O	2.16	0.46
8:7E:116:LYS:HG2	8:7E:129:VAL:HG11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:10:LYS:HA	15:6I:10:LYS:HD2	1.78	0.46
17:8I:6:LEU:HD22	17:8I:23:VAL:HG11	1.97	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
26:1H:17:G:H2'	26:1H:18:C:C6	2.50	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: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:2392:A:H8	37:78:61:ARG:HG2	1.81	0.46
26:1H:2845:G:H5''	41:B8:54:ARG:O	2.16	0.46
27:16:71:C:C2	27:16:72:G:C8	3.04	0.46
35:58:96:GLU:O	35:58:98:VAL:HG13	2.16	0.46
44:E8:37:ARG:HB3	44:E8:38:TYR:HD1	1.80	0.46
50:K8:5:GLU:OE1	50:K8:5:GLU: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
1:1G:666:G:N2	1:1G:740:U:O2	2.42	0.46
1:1G:698:G:C6	1:1G:699:C:C4	3.03	0.46
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.14	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
1:1G:1265:G:H2'	1:1G:1266:G:O4'	2.15	0.46
3:22:3:ASN:ND2	3:22:3:ASN:H	2.12	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
7:62:143:ARG:NH1	24:3L:41:C:O3'	2.32	0.46
11:2A:92:GLU:O	11:2A:95:ILE:N	2.48	0.46
24:3L:30:G:C2	24:3L:31:A:C5	3.03	0.46
24:3L:55:PSU:H2'	24:3L:57:G:OP2	2.16	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
26:14:993:G:C6	26:14:1162:G:N1	2.84	0.46
26:14:996:A:H4'	42:85:92:ARG:CZ	2.45	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
26:14:2031:A:C6	26:14:2498:C:H1'	2.50	0.46
26:14:2207:C:H42	26:14:2217:G:H1	1.63	0.46
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
27:1J:31:C:H42	27:1J:51:G:H1	1.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:97:TYR:HB3	29:19:99:ASP:HB2	1.98	0.46
33:59:101:ARG:HG3	33:59:102:ALA:N	2.29	0.46
37:35:52:GLU:O	37:35:54:GLY:N	2.47	0.46
40:65:26:LEU:HD12	40:65:39:ILE:HD11	1.97	0.46
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.98	0.46
43:95:19:LYS:HB2	43:95:93:GLU:OE2	2.15	0.46
43:95:43:GLU:HB2	43:95:44:LYS:HZ2	1.81	0.46
44:A5:35:ILE:HG23	53:J5:28:PRO:HD2	1.98	0.46
48:E5:49:LYS:NZ	48:E5:68:GLU:OE2	2.45	0.46
50:G5:49:LYS:HB2	50:G5:49:LYS:HE3	1.77	0.46
55:M5:17:THR:OG1	55:M5:20:GLY:N	2.49	0.46
1:13:591:U:H2'	1:13:592:G:C8	2.51	0.46
1:13:661:G:N2	1:13:744:C:N3	2.42	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
1:13:926: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
1:13:963:G:H21	10:1I:55:LYS:HE2	1.80	0.46
1:13:976:G:H5'	1:13:1358:U:O2'	2.14	0.46
1:13:1260:C:H3'	1:13:1260:C:H6	1.80	0.46
1:13:1330:U:O4	1:13:1331:G:C2	2.68	0.46
1:13:1507:A:H2'	1:13:1508:G:C8	2.50	0.46
11:2I:83:ILE:HG23	11:2I:109:VAL:HG23	1.98	0.46
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.15	0.46
23:2K:57:C:O2'	32:4I:78:SER:HB2	2.16	0.46
24:3K:9:A:O2'	24:3K:46:7MG:H5''	2.15	0.46
25:4K:16:A:C2	25:4K:17:U:C2	3.04	0.46
26:1H:518:G:H2'	26:1H:519:U:H6	1.79	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
26:1H:2581:G:H4'	26:1H:2582:G:C8	2.50	0.46
26:1H:2661:G:OP2	26:1H:2661:G:H8	1.98	0.46
28:7I:58:VAL:HG13	28:7I:199:HIS:HD2	1.80	0.46
29:11:33:LEU:O	29:11:64:ILE:HG23	2.15	0.46
36:68:64:ARG:HG2	36:68:79:PHE:CD2	2.50	0.46
38:88:20:ALA:HB3	47:H8:79:ARG:NH2	2.31	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
43:D8:45:THR:O	43:D8:45:THR:OG1	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G: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:510:A:H1'	1:1G:542:G:H21	1.80	0.46
1:1G:515:G:C6	1:1G:516:U:N3	2.83	0.46
1:1G:971:G:C6	1:1G:1364:U:O2'	2.68	0.46
2:12:82:ARG:HG3	2:12:92:TYR:OH	2.15	0.46
8:72:2:LEU:HD21	8:72:8:ASP:HB2	1.98	0.46
15:6A:78:TYR:CD1	15:6A:79:ARG:HG3	2.50	0.46
19:AA:12:ASP:HB3	19:AA:38:SER:CB	2.45	0.46
24:3L:35:A:C2	25:4L:14:A:N6	2.83	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
26:14:322:A:OP2	31:39:169:ASN:HB2	2.16	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
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
26:14:2844:G:N2	26:14:2874:C:C2	2.84	0.46
33:59:99:VAL:HG13	33:59:100:GLY:H	1.79	0.46
46:C5:49:VAL:O	46:C5:51:VAL:HG12	2.16	0.46
52:I5:37:SER:C	52:I5:39:CYS:H	2.19	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
7:6E:79:ARG:NH1	7:6E:82:GLY:O	2.49	0.46
8:7E:133:LEU:HD23	8:7E:134:ILE:N	2.31	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
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:BI:16:HIS:O	20:BI:19:SER:N	2.48	0.46
22:1K:10:G:H2'	22:1K:11:A:H8	1.80	0.46
26:1H:198:C:P	59:1H:4370:HOH:O	2.73	0.46
26:1H:247:G:H4'	26:1H:386:G:C5	2.51	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:603:A:C4	26:1H:655:A:N1	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:649:G:C5	26:1H:650:C:C4	3.04	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
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:H8	26:1H:1858:G:OP2	1.98	0.46
31:31:24:LEU:HD23	31:31:115:ALA:HA	1.96	0.46
32:41:37:VAL:H	32:41:99:MET:HE3	1.81	0.46
32:41:61:ALA:O	52:M8:7:PRO:HG3	2.15	0.46
32:41:145:THR:OG1	32:41:148:MET:SD	2.73	0.46
33:51:129:THR:O	33:51:129:THR:OG1	2.32	0.46
43:D8:9:GLY:O	43:D8:10:LYS:HG3	2.15	0.46
55:Q8:57:ARG:H	55:Q8:57:ARG:HE	1.63	0.46
1:1G:1127:G:N2	1:1G:1144:G:H1	1.95	0.46
1:1G:1231:G:H5'	9:82:128:ARG:O	2.15	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
5:42:24:ARG:H	5:42:24:ARG:HG2	1.48	0.46
14:5A:7:ILE:H	14:5A:7:ILE:HG13	1.62	0.46
16:7A:3:LYS:O	16:7A:21:VAL:HA	2.16	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
24:3L:21:A:H5'	24:3L:22:G:OP2	2.15	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
26:14:321:G:N3	31:39:165:ARG:HD3	2.30	0.46
26:14:795:C:O2'	26:14:796:C:H5'	2.15	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
29:19:37:LEU:HB3	29:19:38:LYS:HE2	1.97	0.46
29:19:218:ARG:HB3	29:19:219:PRO:HD2	1.98	0.46
31:39:59:TYR:N	31:39:59:TYR:HD1	2.12	0.46
33:59:117:PRO:HA	33:59:118:PRO:HD2	1.74	0.46
35:15:29:LYS:O	35:15:33:LEU:HB2	2.15	0.46
36:25:104:ARG:HH12	41:75:36:GLU:HG2	1.80	0.46
38:45:102:VAL:O	38:45:102:VAL:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:86:ARG:O	46:C5:96:ILE:HD13	2.16	0.46
49:F5:4:VAL:HB	49:F5:11:ARG:HB3	1.97	0.46
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
1:13:67:C:H2'	1:13:68:G:C8	2.51	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
2:1E:12:GLU:HG3	2:1E:16:HIS:HB2	1.96	0.46
7:6E:89:MET:SD	7:6E:156:TRP:HD1	2.38	0.46
17:8I:51:TYR:HD1	17:8I:55:ASP:OD2	1.98	0.46
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.16	0.46
26:1H:260:G:C2	26:1H:261:G:H1'	2.51	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
26:1H:1009:A:OP2	59:1H:4114:HOH:O	2.20	0.46
26:1H:1567:A:H2'	29:11:86:PRO:HB3	1.96	0.46
26:1H:2061:G:C2	26:1H:2063:C:C4	3.04	0.46
26:1H:2789:C:H3'	26:1H:2790:A:H5''	1.97	0.46
28:7I:49:ILE:HG21	28:7I:201:PRO:HG2	1.96	0.46
37:78:19:VAL:HG21	37:78:27:HIS:CG	2.49	0.46
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.97	0.46
40:A8:15:ARG:HD3	40:A8:15:ARG:HA	1.65	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
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
1:1G:625:G:OP1	16:7A:9:PHE:HB3	2.16	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
3:22:77:ILE:O	3:22:83:ARG:HB3	2.16	0.46
3:22:108:ASN:O	3:22:110:ASN:N	2.44	0.46
5:42:28:PHE:O	5:42:47:LYS:HA	2.15	0.46
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.23	0.46
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.16	0.46
24:3L:37:MIA:H162	24:3L:37:MIA:H121	1.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
37:35:30:THR:HG21	37:35:35:HIS:N	2.30	0.46
43:95:48:GLY:HA3	43:95:51:VAL:C	2.36	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
1:13:22:G:H2'	1:13:23:C:C6	2.50	0.46
1:13:108:G:C2	1:13:109:A:C2	3.04	0.46
1:13:142:G:H22	1:13:221:C:N4	2.14	0.46
1:13:292:G:N7	1:13:293:G:H1'	2.30	0.46
1:13:412:A:OP2	4:3E:35:ARG:NH2	2.48	0.46
1:13:899:C:H2'	1:13:900:A:C8	2.51	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
4:3E:30:LYS:HB2	4:3E:35:ARG:HE	1.81	0.46
6:5E:46:ARG:HD2	6:5E:47:ARG:H	1.80	0.46
7:6E:13:GLN:HA	7:6E:14:PRO:HD3	1.79	0.46
13:4I:82:MET:C	13:4I:84:ILE:H	2.17	0.46
26:1H:995:C:O2	35:58:3:THR:OG1	2.28	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
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.15	0.46
26:1H:2150:U:H6	26:1H:2150:U:O5'	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
30:21:181:LEU:HD12	30:21:181:LEU:HA	1.80	0.46
33:51:74:ASN:O	33:51:78:GLY:N	2.47	0.46
34:61:6:LEU:HD13	34:61:36:ALA:HA	1.98	0.46
36:68:12:ASP:HB3	36:68:85:VAL:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:121:LYS:O	37:78:123:LEU:N	2.48	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
55:Q8:47:LYS:NZ	55:Q8:47:LYS:HA	2.31	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
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
2:12:236:TYR:HB2	2:12:239:VAL:HB	1.98	0.46
8:72:93:VAL:O	8:72:132:GLU:HA	2.16	0.46
9:82:10:ARG:CA	9:82:104:ARG:HH21	2.29	0.46
11:2A:21:ILE:HG12	11:2A:30:VAL:HG12	1.97	0.46
15:6A:58:MET:H	15:6A:58:MET:HG3	1.53	0.46
26:14:57:C:H2'	26:14:58:G:O4'	2.16	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
26:14:1003: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
59:14:3532:HOH:O	41:75:54:ARG:HD2	2.15	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
27:1J:116:G:H2'	27:1J:117:G:O4'	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
36:25:66:LYS:HD2	36:25:80:ASP:O	2.16	0.46
40:65:67:ARG:HB2	40:65:67:ARG:NH1	2.30	0.46
41:75:1:MET:HB3	41:75:6:LEU:HB2	1.97	0.46
42:85:47:TYR:HA	42:85:50:ARG:HH22	1.81	0.46
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.97	0.46
48:E5:72:ARG:HE	48:E5:75:LEU:HD12	1.81	0.46
1:13:353:A:H8	1:13:353:A:H5'	1.81	0.46
1:13:643:C:H2'	1:13:644:G:H8	1.79	0.46
1:13:823:G:H2'	1:13:824:C:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:92:ALA:HA	3:2E:95:THR:OG1	2.16	0.46
4:3E:43:HIS:O	4:3E:46:LYS:HG2	2.16	0.46
5:4E:41:VAL:O	5:4E:67:VAL:HG12	2.16	0.46
8:7E:68:ARG:O	8:7E:68:ARG:HG3	2.16	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:AI:67:VAL:CG1	52:M8:60:GLN:HE21	2.28	0.46
24:3K:37:MIA:H2'	24:3K:38:A:C8	2.50	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
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
29:11:102:LYS:C	29:11:103:ARG:HG2	2.36	0.46
34:61:97:ILE:O	34:61:101:LEU:N	2.35	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
53:N8:49:CYS:HA	53:N8:56:LYS:HG3	1.97	0.46
1:1G:109:A:H5'	1:1G:110:C:C5	2.51	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
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:1321:C:H4'	13:4A:87:TYR:CE2	2.51	0.46
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.81	0.46
1:1G:1400:C:N4	56:2L:35:C:H1'	2.31	0.46
3:22:91:LEU:HD23	3:22:91:LEU:N	2.30	0.46
6:52:23:LYS:HB3	6:52:23:LYS:HE2	1.79	0.46
7:62:89:MET:CE	7:62:155:ARG:HG3	2.45	0.46
9:82:37:PHE:CE2	9:82:74:ILE:HG12	2.50	0.46
19:AA:66:MET:HA	19:AA:67:VAL:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2L:54:G:H3'	56:2L:55:U:OP1	2.15	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
26:14:389:G:H1	37:35:71:VAL:HG12	1.81	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
26:14:1015:G:C6	26:14:1148:A:C6	3.04	0.46
26:14:1152:C:H4'	42:85:77:SER:HA	1.97	0.46
26:14:1246:A:H4'	31:39:45:ARG:HH12	1.81	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
30:29:199:ARG:HB3	30:29:200:GLU:OE1	2.15	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
34:69:14:ASP:O	34:69:17:GLN:HB2	2.16	0.46
34:69:116:LEU:HD12	34:69:117:GLU:OE2	2.16	0.46
36:25:52:VAL:C	36:25:53:LYS:HD2	2.36	0.46
36:25:93:PRO:HD3	36:25:113:LYS:HG3	1.98	0.46
42:85:92:ARG:HD3	42:85:94:ASN:HB3	1.98	0.46
46:C5:67:LEU:HD12	46:C5:67:LEU:HA	1.82	0.46
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.97	0.46
1:13:37:U:H2'	1:13:38:G:H8	1.81	0.46
1:13:46:G:H2'	1:13:366:C:C5	2.51	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
1:13:1160:G:N3	1:13:1160:G:H2'	2.30	0.46
1:13:1384:C:H2'	1:13:1385:G:C8	2.51	0.46
2:1E:96:ARG:N	2:1E:96:ARG:HD2	2.31	0.46
2:1E:189:ASP:HB2	2:1E:205:ASP:HB3	1.97	0.46
4:3E:202:LEU:O	4:3E:206:PHE:N	2.48	0.46
5:4E:43:LEU:HD11	5:4E:132:ALA:HB1	1.98	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
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.11	0.46
9:8E:79:LEU:HD22	9:8E:83:ARG:HD2	1.97	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
23:2K:50:G:N2	23:2K:67:C:C2	2.84	0.46
26:1H:973:A:P	59:1H:3811:HOH:O	2.74	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:11:17:THR:O	29:11:211:ARG:NH1	2.43	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
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
47:H8:20:ARG:HH11	47:H8:20:ARG:HG3	1.80	0.46
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
47:H8:165:VAL:HB	47:H8:167:PRO:CD	2.38	0.46
1:1G:325:A:H2'	1:1G:326:G:O4'	2.15	0.46
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.50	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
3:22:72:LYS:HZ1	3:22:75:VAL:HG23	1.81	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
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
18:9A:76:LEU:HA	18:9A:76:LEU:HD23	1.64	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
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
27:1J:15:A:H3'	27:1J:16:G:H5'	1.96	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
32:49:23:PHE:HD2	32:49:25:TYR:CE2	2.34	0.46
33:59:53:GLU:HA	33:59:65:HIS:HE2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:55:ALA:HB1	43:95:101:GLY:HA2	1.98	0.46
45:B5:35:THR:HG23	45:B5:38:GLU:HB3	1.98	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
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
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
3:2E:40:ARG:HH11	3:2E:40:ARG:HG3	1.81	0.46
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.97	0.46
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.63	0.46
9:8E:33:PHE:CE1	9:8E:37:PHE:HD2	2.34	0.46
19:AI:6:LYS:HE2	19:AI:6:LYS:HB3	1.54	0.46
23:2K:17:C:HO2'	23:2K:18:C:H5	1.57	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
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:2093:G:C6	26:1H:2225:A:C8	3.04	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:2292:C:P	40:A8:17:ARG:HH21	2.39	0.46
26:1H:2682:U:H5'	26:1H:2682:U:H6	1.79	0.46
28:71:52:ARG:HD2	28:71:52:ARG:N	2.30	0.46
29:11:106:ILE:O	29:11:108:PRO:HD3	2.17	0.46
32:41:109:VAL:O	32:41:113:ARG:HG3	2.16	0.46
37:78:45:LEU:HD12	37:78:45:LEU:HA	1.75	0.46
38:88:103:MET:H	38:88:103:MET:HG2	1.45	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:821:G:C5	1:1G:822:C:C5	3.03	0.46
1:1G:1299:A:C2	1:1G:1301:U:C4	3.04	0.46
1:1G:1314:C:H41	19:AA:7:LYS:NZ	2.14	0.46
1:1G:1442:G:C5	1:1G:1446:A:C6	3.04	0.46
2:12:220:ASP:O	2:12:223:ILE:N	2.49	0.46
5:42:34:VAL:HG11	5:42:63:ARG:HG2	1.97	0.46
20:BA:49:ALA:HA	20:BA:52:ALA:CB	2.45	0.46
56:2L:20:G:C2	56:2L:58:A:C2	3.04	0.46
26:14:71:A:H4'	26:14:72:U:H5''	1.98	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
26:14:445:C:OP1	42:85:2:PRO:HA	2.16	0.46
26:14:483:A:H3'	26:14:484:C:H6	1.80	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
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.98	0.46
31:39:81:PRO:HB3	31:39:87:GLY:O	2.16	0.46
33:59:76:VAL:O	33:59:80:SER:OG	2.26	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
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
1:13:971:G:N2	1:13:1363:A:OP2	2.36	0.45
1:13:978:A:H61	1:13:1316:G:H1'	1.81	0.45
1:13:1135:U:H2'	1:13:1137:C:N3	2.30	0.45
1:13:1385:G:H2'	1:13:1386:G:H8	1.80	0.45
1:13:1392:G:H21	1:13:1502:A:H8	1.63	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
2:1E:26:PRO:C	2:1E:28:PHE:H	2.20	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
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
14:5I:53:LEU:HB3	14:5I:56:VAL:CG2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:70:LEU:HG	15:6I:78:TYR:HB2	1.98	0.45
26:1H:270(G):C:H2'	26:1H:270(H):C:H6	1.81	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:2176:A:H4'	28:71:222:VAL:HG23	1.98	0.45
26:1H:2467:C:N4	26:1H:2468:G:C6	2.84	0.45
26:1H:2843:G:H1	26:1H:2874:C:H42	1.63	0.45
28:71:163:PHE:CD2	28:71:192:PHE:HE1	2.35	0.45
30:21:116:VAL:H	30:21:157:ALA:HB2	1.81	0.45
31:31:129:PHE:O	31:31:130:ALA:HB3	2.16	0.45
37:78:139:LYS:HB2	37:78:139:LYS:HE3	1.63	0.45
39:98:14:SER:HA	39:98:17:ARG:NH1	2.31	0.45
41:B8:19:LEU:HA	41:B8:20:PRO:HD3	1.64	0.45
43:D8:35:LEU:HA	43:D8:36:PRO:HD3	1.72	0.45
51:L8:7:LYS:C	51:L8:54:VAL:HG23	2.37	0.45
1:1G:37:U:O2'	1:1G:500:G:H4'	2.16	0.45
1:1G:114:U:O2'	1:1G:115:G:H5'	2.16	0.45
1:1G:831:U:H2'	1:1G:832:C:C6	2.51	0.45
1:1G:1129:C:N4	1:1G:1139:G:N2	2.64	0.45
1:1G:1202:G:N2	14:5A:46:GLU:OE1	2.48	0.45
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.99	0.45
2:12:105:PHE:CE1	2:12:109:SER:HB2	2.51	0.45
4:32:3:ARG:HB2	4:32:4:TYR:H	1.46	0.45
4:32:25:ARG:NH1	4:32:31:CYS:HA	2.27	0.45
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.44	0.45
14:5A:9:LYS:HA	14:5A:12:ARG:HD2	1.99	0.45
56:2L:76:C:H2'	56:2L:77:A:C8	2.52	0.45
26:14:61:G:H5'	50:G5:50:ILE:HG13	1.97	0.45
26:14:138:G:H5''	26:14:139:G:OP2	2.16	0.45
26:14:138:G:N2	45:B5:44:GLU:OE2	2.27	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
26:14:607: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
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
26:14:2113:U:N3	26:14:2114:A:O2'	2.48	0.45
26:14:2506:U:O5'	26:14:2506:U:H6	2.00	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
29:19:108:PRO:HB3	29:19:143:HIS:NE2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:181:LEU:HD23	31:39:181:LEU:HA	1.77	0.45
38:45:32:TYR:HD1	38:45:32:TYR:H	1.64	0.45
46:C5:43:ASN:HA	46:C5:63:LYS:O	2.15	0.45
52:I5:42:PHE:O	52:I5:43:TYR:HB3	2.16	0.45
55:M5:40:GLU:CA	55:M5:43:GLN:HB2	2.45	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
1:13:607:A:C2	16:7I:31:LYS:HG3	2.50	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
1:13:1007:C:H2'	1:13:1008:C:O4'	2.16	0.45
1:13:1415:G:C6	1:13:1486:G:C6	3.05	0.45
1:13:1429:C:H2'	1:13:1430:C:H6	1.81	0.45
1:13:1489:G:C6	1:13:1490:C:C4	3.05	0.45
2:1E:196:LEU:HD13	2:1E:197:VAL:HG22	1.98	0.45
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.31	0.45
7:6E:51:GLN:HG2	7:6E:58:PRO:HG3	1.98	0.45
11:2I:52:GLY:H	11:2I:55:LYS:HE3	1.81	0.45
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.97	0.45
24:3K:7:A:C5	24:3K:49:C:C2	3.04	0.45
26:1H:286:C:H2'	26:1H:287:C:H6	1.81	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:2885:C:C2	26:1H:2886:G:H1'	2.50	0.45
27:16:73:A:C4	27:16:104:A:C2	3.04	0.45
28:7I:227:HIS:CD2	28:7I:227:HIS:H	2.34	0.45
31:31:68:LYS:HB3	31:31:69:HIS:CD2	2.51	0.45
35:58:39:ARG:HH12	35:58:48:MET:HB2	1.81	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
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
1:1G: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
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:1418:A:H2	26:14:1948:G:N3	2.14	0.45
4:32:118:ARG:O	4:32:121:VAL:HB	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:102:ALA:HB3	5:42:107:ARG:HB2	1.97	0.45
10:1A:25:GLU:O	10:1A:29:ARG:HB2	2.16	0.45
12:3A:123:LYS:H	12:3A:123:LYS:HG2	1.60	0.45
13:4A:13:LYS:HE2	13:4A:17:VAL:HG21	1.98	0.45
26:14:563:G:C4	26:14:564:C:C5	3.04	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:H8	26:14:1687:G:O5'	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
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.50	0.45
26:14:2542:A:N3	26:14:2542:A:H5''	2.30	0.45
27:1J:2:C:H2'	27:1J:3:C:C5	2.51	0.45
29:19:65:ILE:HD11	29:19:67:PHE:CZ	2.50	0.45
30:29:81:ILE:HG22	30:29:82:ARG:N	2.27	0.45
32:49:118:ARG:HD2	32:49:118:ARG:N	2.30	0.45
34:69:8:PRO:N	34:69:15:VAL:HG22	2.31	0.45
35:15:36:GLY:N	35:15:42:TRP:HZ3	2.14	0.45
37:35:65:ARG:HH12	55:M5:14:VAL:C	2.19	0.45
39:55:71:GLN:HG3	39:55:71:GLN:O	2.16	0.45
41:75:4:GLY:O	41:75:7:ILE:HG22	2.16	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
43:95:37:VAL:HG21	43:95:57:VAL:HG13	1.98	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
1:13:359:U:H2'	1:13:360:A:C8	2.51	0.45
1:13:599:C:H4'	8:7E:130:GLY:O	2.15	0.45
1:13:825:G:C6	1:13:826:C:C4	3.05	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
2:1E:237:ALA:O	2:1E:239:VAL:N	2.49	0.45
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.31	0.45
4:3E:90:GLY:O	4:3E:93:PHE:HB2	2.16	0.45
4:3E:114:ARG:O	4:3E:118:ARG:N	2.45	0.45
7:6E:95:ARG:NH2	7:6E:99:LEU:HD21	2.32	0.45
8:7E:81:HIS:HB3	8:7E:138:TRP:CZ3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:4:THR:OG1	15:6I:7:GLU:OE2	2.34	0.45
15:6I:24:SER:O	15:6I:28:GLN:HG3	2.17	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:733:G:OP2	59:1H:4008:HOH:O	2.21	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: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
28:71:213:TYR:HA	28:71:222:VAL:O	2.16	0.45
30:21:101:ARG:NH1	30:21:171:GLU:HB2	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
36:68:88:ASN:HD21	36:68:92:GLU:H	1.64	0.45
39:98:28:LEU:O	39:98:32:GLY:N	2.37	0.45
40:A8:56:LEU:HB3	40:A8:58:LEU:HD21	1.99	0.45
42:C8:47:TYR:HE2	43:D8:74:LYS:HE3	1.81	0.45
47:H8:45:ASP:O	47:H8:49:ARG:HG3	2.17	0.45
47:H8:136:PHE:O	47:H8:137:ILE:HG13	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
1:1G:803:G:C6	1:1G:804:U:C4	3.04	0.45
1:1G:819:A:N7	1:1G:1529:G:C6	2.85	0.45
1:1G:949:A:N3	1:1G:971:G:O6	2.50	0.45
1:1G:1028:C:N3	1:1G:1034:G:N2	2.63	0.45
3:22:18:TRP:H	3:22:18:TRP:HE3	1.63	0.45
4:32:191:ARG:NH2	4:32:194:LEU:O	2.45	0.45
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.45
9:82:16:ARG:NH2	9:82:66:ARG:HH22	2.13	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
26:14:686:G:C8	54:L5:7:PRO:HA	2.51	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
27:1J:24:G:C5	27:1J:56:G:C2	3.04	0.45
30:29:51:PHE:O	30:29:74:PRO:HB2	2.16	0.45
30:29:203:LYS:O	30:29:203:LYS:HG3	2.17	0.45
31:39:52:LYS:HA	31:39:56:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:107:LYS:HA	31:39:107:LYS:HD3	1.53	0.45
32:49:56:ALA:HB2	32:49:153:ARG:NE	2.31	0.45
33:59:92:ILE:HG22	33:59:93:GLY:N	2.31	0.45
34:69:41:GLU:O	34:69:45:LYS:HG2	2.17	0.45
38:45:27:VAL:HG12	47:D5:81:ARG:NH2	2.31	0.45
41:75:4:GLY:N	41:75:7:ILE:HG22	2.31	0.45
43:95:100:ARG:H	43:95:100:ARG:HG2	1.63	0.45
47:D5:27:VAL:HG12	47:D5:87:ASP:HA	1.98	0.45
50:G5:52:ASP:O	50:G5:56:GLN:HG3	2.16	0.45
1:13:68:G:H22	1:13:101:A:H2	1.64	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
1:13:1059:C:O2'	10:1I:53:PRO:HD3	2.16	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
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.97	0.45
8:7E:82:HIS:C	8:7E:82:HIS:ND1	2.70	0.45
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.99	0.45
13:4I:70:LEU:O	13:4I:73:GLU:HB3	2.17	0.45
24:3K:1:G:HO2'	24:3K:2:C:P	2.39	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
26:1H:817:C:H5	59:1H:3817:HOH:O	1.99	0.45
26:1H:870:A:H5'	38:88:6:ARG:HB3	1.98	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
32:41:4:ASP:OD1	32:41:9:ARG:NH1	2.49	0.45
33:51:83:TYR:CD2	33:51:134:SER:HA	2.52	0.45
33:51:85:LYS:HD3	33:51:85:LYS:HA	1.70	0.45
34:61:81:VAL:HG11	34:61:88:ILE:HD13	1.97	0.45
35:58:7:LYS:HB3	35:58:7:LYS:HE3	1.80	0.45
35:58:46:VAL:O	35:58:47:ALA:HB3	2.15	0.45
38:88:32:TYR:O	38:88:105:GLU:HA	2.17	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:538:G:OP2	12:3A:115:LYS:HB2	2.16	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:941:G:C6	1:1G:1343:G:C6	3.05	0.45
1:1G:1229:A:H2'	1:1G:1230:C:C6	2.52	0.45
2:12:36:ARG:NH1	2:12:37:ASN:OD1	2.50	0.45
3:22:76:VAL:HA	3:22:83:ARG:HH21	1.82	0.45
5:42:43:LEU:HG	5:42:44:GLY:N	2.28	0.45
7:62:56:GLN:HB3	7:62:61:VAL:HG23	1.98	0.45
26:14:208:C:H2'	26:14:209:C:C6	2.50	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
26:14:451: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
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
26:14:2394:C:H5''	37:35:63:PRO:HG3	1.98	0.45
26:14:2853:C:H2'	26:14:2854:G:H8	1.80	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
33:59:81:GLU:HG3	33:59:83:TYR:HB3	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
1:13:122:G:H8	1:13:122:G:O5'	2.00	0.45
1:13:199:G:O6	1:13:218:C:N4	2.50	0.45
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.17	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
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
1:13:1256: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
4:3E:86:LYS:H	4:3E:86:LYS:HD2	1.81	0.45
17:8I:27:PHE:CE2	17:8I:36:ILE:HD11	2.52	0.45
24:3K:9:A:H5''	24:3K:11:C:OP2	2.16	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
26:1H:1288:U:C2	26:1H:1327:C:O2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:11:46:GLN:O	29:11:48:ARG:N	2.49	0.45
29:11:172:TYR:HD1	29:11:185:VAL:C	2.20	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
33:51:26:VAL:HG21	33:51:75:ALA:CB	2.46	0.45
40:A8:38:GLN:HB2	40:A8:47:THR:CG2	2.46	0.45
44:E8:75:TYR:CE1	44:E8:104:THR:HB	2.52	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
1:1G:1028(A):C:H42	1:1G:1032(B):G:N2	2.14	0.45
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.51	0.45
4:32:203:VAL:O	4:32:206:PHE:HB3	2.15	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
21:1B:2:GLY:O	21:1B:4:GLY:N	2.48	0.45
24:3L:25:C:N3	24:3L:26:A:C8	2.85	0.45
26:14:871:U:H4'	38:45:69:PHE:CD2	2.52	0.45
26:14:1654:A:C1'	26:14:2823:A:H5'	2.47	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
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.16	0.45
26:14:2567:G:H2'	26:14:2568:C:H6	1.82	0.45
26:14:2591:C:OP1	29:19:239:ARG:HD2	2.16	0.45
30:29:5:LEU:HD22	30:29:5:LEU:H	1.81	0.45
31:39:11:VAL:HG23	31:39:12:LEU:H	1.82	0.45
32:49:33:ARG:NH2	32:49:162:THR:HG21	2.31	0.45
35:15:36:GLY:O	35:15:38:HIS:N	2.50	0.45
38:45:27:VAL:HG12	47:D5:81:ARG:CZ	2.47	0.45
38:45:27:VAL:HG11	38:45:137:TYR:HB2	1.99	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:HD3	48:E5:82:ARG:HA	1.69	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:J5:31:VAL:HG22	53:J5:42:PRO:HG3	1.97	0.45
53:J5:40:LYS:HE2	53:J5:44:THR:O	2.16	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
1:13:1478:C:H2'	1:13:1479:C:C6	2.52	0.45
10:1I:27:ALA:O	10:1I:31:GLY:N	2.49	0.45
10:1I:43:ARG:HE	10:1I:43:ARG:HB3	1.39	0.45
17:8I:67:LYS:O	17:8I:68:ARG:HB3	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
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:2849:U:P	41:B8:95:ARG:HH12	2.38	0.45
28:71:8:ARG:O	28:71:12:GLU:HB2	2.16	0.45
28:71:9:ALA:O	28:71:13:LYS:N	2.49	0.45
29:11:121:PRO:HB3	29:11:135:PHE:CE2	2.51	0.45
30:21:52:LEU:HA	30:21:53:PRO:HD3	1.83	0.45
31:31:192:LEU:HD23	31:31:193:VAL:N	2.32	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
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.31	0.45
41:B8:87:ASP:OD1	41:B8:87:ASP:N	2.47	0.45
41:B8:132:LYS:HE2	41:B8:132:LYS:HB3	1.81	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:K8:57:ILE:O	50:K8:61:LEU:HD12	2.17	0.45
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.49	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
2:12:187:LEU:HD11	2:12:203:GLY:HA3	1.99	0.45
5:42:96:PRO:HA	5:42:117:ASP:OD2	2.16	0.45
26:14:276:A:H2'	26:14:277:C:C5	2.52	0.45
26:14:638:G:C6	26:14:639:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:993:G:C5	26:14:994:C:C5	3.05	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
26:14:2050:C:H1'	30:29:156:MET:CE	2.47	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
26:14:2780:G:OP1	35:15:118:LYS:HE2	2.16	0.45
26:14:2787:C:O2'	30:29:61:ARG:HD3	2.16	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
32:49:15:VAL:HG13	32:49:175:LEU:HB2	1.99	0.45
39:55:51:LEU:HD13	39:55:66:VAL:HG13	1.99	0.45
39:55:57:ARG:HE	39:55:62:ALA:HB2	1.81	0.45
41:75:123:GLN:H	41:75:123:GLN:HG3	1.55	0.45
45:B5:43:VAL:HG21	45:B5:81:VAL:HG11	1.99	0.45
47:D5:153:SER:HB3	47:D5:167:PRO:HB3	1.98	0.45
50:G5:56:GLN:O	50:G5:60:LEU:N	2.37	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
1:13:1004:A:P	1:13:1025:U:H3	2.36	0.45
2:1E:231:GLU:HB2	2:1E:232:PRO:HD2	1.98	0.45
3:2E:149:ALA:HA	3:2E:201:TYR:O	2.17	0.45
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.30	0.45
8:7E:81:HIS:HB2	8:7E:138:TRP:C	2.36	0.45
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.16	0.45
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.82	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
15:6I:66:LEU:HD12	15:6I:66:LEU:HA	1.64	0.45
17:8I:92:ARG:HA	17:8I:92:ARG:HE	1.82	0.45
26:1H:173:G:H2'	26:1H:174:C:C6	2.52	0.45
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.52	0.45
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.49	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
27:16:42:C:O3'	32:41:67:LYS:NZ	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.98	0.45
29:11:38:LYS:HD2	29:11:39:LYS:N	2.32	0.45
31:31:39:TRP:CZ3	31:31:106:ARG:HD2	2.51	0.45
33:51:126:PRO:O	33:51:127:GLU:HB2	2.16	0.45
37:78:90:ARG:HG2	37:78:91:PHE:CD1	2.51	0.45
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.99	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
1:1G: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
1:1G:994:A:N7	1:1G:1216:G:H4'	2.31	0.45
1:1G:1097:C:H1'	1:1G:1169:A:C2	2.51	0.45
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.51	0.45
4:32:191:ARG:HA	4:32:194:LEU:HD23	1.98	0.45
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.99	0.45
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.59	0.45
17:8A:31:LEU:HA	17:8A:31:LEU:HD12	1.63	0.45
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.60	0.45
26:14:654:A:N3	26:14:654:A:H2'	2.32	0.45
26:14:920:G:H2'	26:14:921:G:H8	1.81	0.45
26:14:2259:G:H1'	26:14:2427:C:C2	2.52	0.45
29:19:273:ARG:O	29:19:273:ARG:HG2	2.17	0.45
30:29:136:ARG:HG2	30:29:136:ARG:NH1	2.32	0.45
30:29:154:LYS:HE3	30:29:154:LYS:HA	1.99	0.45
31:39:123:LEU:O	31:39:193:VAL:HA	2.16	0.45
32:49:95:ARG:HD3	32:49:96:ARG:HH11	1.82	0.45
34:69:75:LEU:HD22	34:69:139:GLN:OE1	2.17	0.45
40:65:24:LEU:HB2	40:65:85:VAL:HG12	1.98	0.45
42:85:92:ARG:HD2	42:85:95:LEU:HD12	1.99	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
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
1:13:1008:C:H42	1:13:1021:G:H1	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1096:C:H2'	1:13:1097:C:H6	1.81	0.45
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.17	0.45
1:13:1447:G:C6	1:13:1460:A:C2	3.05	0.45
4:3E:70:ILE:CG2	4:3E:75:PHE:HB2	2.47	0.45
5:4E:113:ALA:O	5:4E:115:VAL:HG23	2.16	0.45
17:8I:74:LEU:HD22	17:8I:74:LEU:HA	1.63	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.65	0.45
30:21:175:VAL:HG22	30:21:177:PRO:HD3	1.97	0.45
31:31:53:THR:O	31:31:55:GLY:N	2.50	0.45
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.52	0.45
35:58:137:LYS:HZ2	35:58:138:LEU:H	1.64	0.45
36:68:112:MET:HA	36:68:115:VAL:HG22	1.98	0.45
38:88:17:LEU:HD13	38:88:39:PRO:HB2	1.98	0.45
40:A8:26:LEU:HD23	40:A8:87:PHE:HD1	1.82	0.45
46:G8:46:LYS:HG2	46:G8:60:PHE:CD1	2.52	0.45
52:M8:13:ARG:HB3	52:M8:20:ASN:OD1	2.16	0.45
10:1A:25:GLU:OE2	10:1A:28:ARG:HD2	2.16	0.45
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.82	0.45
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.99	0.45
24:3L:9:A:H2'	24:3L:11:C:H41	1.82	0.45
26:14:13:A:N1	26:14:525:U:H2'	2.31	0.45
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.45
26:14:529:A:H4'	26:14:530:G:O5'	2.17	0.45
26:14:686:G:N1	54:L5:16:HIS:NE2	2.58	0.45
26:14:1142:U:H5''	26:14:1142(A):A:H5'	1.98	0.45
26:14:1919:A:H5''	26:14:1920:C:OP2	2.17	0.45
26:14:2358:G:C4	26:14:2359:C:C5	3.04	0.45
26:14:2416:C:O5'	26:14:2416:C:H6	1.99	0.45
26:14:2839:G:H2'	26:14:2840:C:O4'	2.17	0.45
32:49:42:GLY:O	32:49:43:LEU:HD13	2.16	0.45
33:59:19:VAL:HG12	33:59:20:ALA:N	2.29	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
39:55:56:LYS:HD2	39:55:88:ARG:HA	1.99	0.45
41:75:16:ARG:HE	41:75:16:ARG:HB3	1.23	0.45
42:85:110:VAL:O	42:85:114:LYS:HG2	2.16	0.45
43:95:35:LEU:HD23	43:95:35:LEU:H	1.80	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:CZ	49:F5:26:ARG:HB2	2.42	0.45
1:13:1255:G:OP1	10:1I:45:ARG:NH2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:23:LYS:HG2	6:5E:27:GLN:HE22	1.81	0.45
9:8E:8:GLY:HA3	9:8E:79:LEU:HB3	1.99	0.45
14:5I:15:LYS:HE2	14:5I:16:PHE:HE1	1.81	0.45
22:1K:38:A:H2'	22:1K:39:A:O4'	2.17	0.45
24:3K:2:C:H4'	24:3K:3:C:OP1	2.17	0.45
24:3K:72:C:H2'	24:3K:73:A:O4'	2.17	0.45
26:1H:338:G:OP1	46:G8:4:LYS:HD3	2.16	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
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
29:11:8:PRO:HB3	29:11:14:ARG:HB3	1.99	0.45
31:31:29:ASN:O	31:31:32:LEU:N	2.50	0.45
31:31:101:LEU:HD22	31:31:102:PRO:CD	2.46	0.45
32:41:115:ARG:HB3	32:41:115:ARG:HH11	1.82	0.45
34:61:144:VAL:HG22	34:61:145:VAL:CG2	2.47	0.45
35:58:9:VAL:HG21	35:58:39:ARG:HH22	1.81	0.45
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.47	0.45
38:88:6:ARG:HB2	38:88:6:ARG:HH11	1.80	0.45
38:88:37:LEU:HD21	38:88:130:LYS:HE3	1.97	0.45
41:B8:50:ILE:O	41:B8:99:LEU:HD12	2.16	0.45
44:E8:19:LEU:HD12	44:E8:19:LEU:HA	1.58	0.45
44:E8:37:ARG:HD3	44:E8:38:TYR:CE1	2.51	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
1:1G:997:U:H2'	1:1G:998:G:C8	2.52	0.45
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.16	0.45
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
3:22:43:LEU:O	3:22:47:LEU:HB2	2.16	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
15:6A:62:GLN:O	15:6A:65:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:48:THR:HA	19:AA:61:TYR:HA	1.98	0.45
24:3L:6:G:N1	24:3L:67:C:N3	2.59	0.45
26:14:249:C:OP1	59:14:3415:HOH:O	2.20	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
26:14:1015:G:O6	26:14:1148:A:N6	2.50	0.45
26:14:1306:C:O2	26:14:1623:G:C2	2.70	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
26:14:1674: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
26:14:2715:C:H2'	26:14:2716:U:H6	1.82	0.45
27:1J:87:G:H3'	27:1J:88:C:C5'	2.44	0.45
29:19:37:LEU:HD11	29:19:60:ARG:HB2	1.98	0.45
30:29:95:ILE:H	30:29:95:ILE:HG13	1.36	0.45
31:39:204:ASN:OD1	31:39:204:ASN:N	2.50	0.45
37:35:47:ASP:OD1	37:35:49:ARG:HB2	2.17	0.45
42:85:76:TYR:CE1	42:85:80:ILE:HD11	2.51	0.45
44:A5:20:VAL:CG2	44:A5:47:VAL:HG21	2.47	0.45
52:I5:23:GLU:HG3	52:I5:24:THR:N	2.31	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
1:13:1196:U:C4	25:4K:23:A:C8	3.05	0.45
2:1E:91:PRO:HD3	2:1E:155:LEU:HD23	1.99	0.45
3:2E:32:LEU:HD22	3:2E:32:LEU:HA	1.72	0.45
4:3E:60:GLU:OE2	4:3E:198:VAL:HA	2.17	0.45
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.82	0.45
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.43	0.45
11:2I:124:LYS:HB3	11:2I:125:PHE:CD1	2.52	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:16:87:G:N2	27:16:89(A):A:OP2	2.47	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
34:61:131:LYS:HB3	34:61:132:PRO:CA	2.46	0.45
38:88:133:ARG:HE	38:88:133:ARG:HB2	1.41	0.45
39:98:48:VAL:O	39:98:51:LEU:N	2.50	0.45
40:A8:27:SER:HA	40:A8:88:ASP:HB3	1.99	0.45
40:A8:101:LEU:HD12	40:A8:101:LEU:O	2.17	0.45
41:B8:107:ASP:CG	41:B8:109:GLU:HG3	2.37	0.45
42:C8:79:PHE:O	42:C8:79:PHE:HD1	2.00	0.45
47:H8:160:GLY:O	47:H8:161:VAL:HG13	2.17	0.45
55:Q8:53:PRO:HB3	55:Q8:56:GLU:N	2.32	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
2:12:54:THR:O	2:12:57:PHE:HB3	2.16	0.45
4:32:59:ARG:NH2	4:32:66:ARG:NH1	2.65	0.45
24:3L:14:A:C6	24:3L:22:G:C4	3.05	0.45
26:14:60:G:C2	26:14:74:A:C5	3.05	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
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
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
26:14:2615:U:N1	53:J5:7:PRO:HA	2.32	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
29:19:232:PRO:HD2	29:19:249:PRO:HA	1.99	0.45
34:69:74:ASN:OD1	34:69:75:LEU:N	2.49	0.45
34:69:104:GLN:HE21	34:69:104:GLN:HB3	1.61	0.45
36:25:104:ARG:O	36:25:107:ARG:HG2	2.16	0.45
37:35:78:PRO:HB3	37:35:111:ARG:NH1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:52:ILE:HG12	41:75:61:PHE:HB3	1.99	0.45
43:95:84:LYS:HA	43:95:84:LYS:HD2	1.51	0.45
46:C5:36:ALA:O	46:C5:37:VAL:HG13	2.17	0.45
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
52:I5:49:PHE:CD2	52:I5:50:VAL:HG22	2.49	0.45
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
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
2:1E:28:PHE:O	2:1E:32:ILE:HG22	2.17	0.44
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.17	0.44
5:4E:74:GLY:HA3	5:4E:116:THR:HG23	1.98	0.44
16:7I:72:ARG:HD3	16:7I:73:LEU:HG	1.98	0.44
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.17	0.44
24:3K:23:A:H2'	24:3K:24:G:C8	2.52	0.44
26:1H:155:C:H42	26:1H:171:G:H1	1.64	0.44
26:1H:270(I):G:H1	26:1H:270(Q):C:N4	2.15	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
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
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.47	0.44
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.16	0.44
26:1H:1465:G:C4	26:1H:1466:G:C8	3.05	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: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
28:71:49:ILE:CG2	28:71:56:GLN:HG2	2.42	0.44
28:71:183:GLU:HG2	28:71:184:LYS:HZ3	1.80	0.44
32:41:47:LYS:HD3	32:41:81:LYS:CB	2.47	0.44
33:51:4:ILE:O	33:51:4:ILE:HG12	2.17	0.44
39:98:96:ARG:HD2	39:98:115:GLU:HG2	1.99	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:HE	49:J8:21:ARG:HB3	1.29	0.44
1:1G:167:G:H2'	1:1G:168:G:C8	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H8	1:1G:861:G:O5'	2.00	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:1228:C:H5'	13:4A:114:ARG:HB3	1.99	0.44
1:1G:1287:A:H2	1:1G:1353:G:N3	2.15	0.44
8:72:69:ARG:HG3	8:72:76:PRO:HA	1.99	0.44
9:82:79:LEU:HD23	9:82:101:PHE:O	2.16	0.44
9:82:112:LYS:CE	9:82:118:LYS:H	2.30	0.44
12:3A:60:LEU:HD23	12:3A:66:VAL:HG23	1.98	0.44
20:BA:54:LYS:HA	20:BA:57:ARG:CZ	2.47	0.44
26:14:245:G:N3	26:14:246:C:C6	2.85	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
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
26:14:2705: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
30:29:79:ARG:N	30:29:79:ARG:HD2	2.33	0.44
31:39:116:ASP:OD1	31:39:119:ARG:NH2	2.50	0.44
37:35:47:ASP:HB3	37:35:49:ARG:H	1.82	0.44
39:55:61:HIS:O	39:55:65:LEU:HD22	2.17	0.44
41:75:18:ASP:OD1	41:75:19:LEU:HG	2.17	0.44
41:75:102:ILE:HB	41:75:110:ILE:HD11	1.99	0.44
45:B5:84:ALA:O	45:B5:87:GLN:HG3	2.17	0.44
47:D5:94:GLU:O	47:D5:129:SER:HA	2.17	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:O5'	1:13:526:C:H6	2.00	0.44
1:13:627:G:C4	1:13:628:G:C8	3.05	0.44
1:13:1417:G:N2	1:13:1482:G:H2'	2.33	0.44
2:1E:17:PHE:HD1	2:1E:17:PHE:N	2.15	0.44
2:1E:53:ARG:HH12	2:1E:200:ILE:HD12	1.83	0.44
2:1E:158:LEU:O	2:1E:158:LEU:HD12	2.17	0.44
3:2E:129:ALA:O	3:2E:132:ARG:HB3	2.16	0.44
4:3E:30:LYS:HB3	4:3E:35:ARG:HE	1.82	0.44
5:4E:153:LYS:HD3	5:4E:154:GLY:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
28:71:64:LEU:HD13	28:71:188:ASN:CG	2.37	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
35:58:26:LEU:O	35:58:30:ILE:HG13	2.17	0.44
35:58:54:VAL:HB	35:58:122:VAL:HG22	1.99	0.44
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.51	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
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
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.18	0.44
2:12:157:ARG:HG2	2:12:158:LEU:N	2.32	0.44
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.80	0.44
5:42:50:GLU:OE2	5:42:51:VAL:HG23	2.17	0.44
7:62:13:GLN:HA	7:62:14:PRO:HD3	1.75	0.44
11:2A:82:VAL:CG1	11:2A:108:ILE:HG12	2.47	0.44
13:4A:56:LEU:O	13:4A:60:VAL:HG23	2.17	0.44
14:5A:26:ARG:HD3	14:5A:43:CYS:SG	2.57	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
26:14:266:G:H2'	26:14:267:C:O5'	2.17	0.44
26:14:273(F):C:H3'	26:14:274:G:H5''	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:389:G:H8	26:14:389:G:O5'	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
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
26:14:2600:A:H2'	26:14:2601:C:C6	2.53	0.44
26:14:2702:U:H2'	26:14:2702:U:O2	2.16	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
29:19:61:LEU:HD13	29:19:61:LEU:HA	1.81	0.44
30:29:79:ARG:HG2	30:29:79:ARG:NH1	2.32	0.44
31:39:51:THR:HB	31:39:88:VAL:HG11	2.00	0.44
38:45:75:THR:HG21	38:45:85:LYS:HE3	1.98	0.44
43:95:81:TYR:O	43:95:82:ARG:HG3	2.17	0.44
49:F5:41:ARG:HD3	49:F5:43:TYR:HE1	1.82	0.44
1:13:122:G:H2'	1:13:123:C:O4'	2.16	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
1:13:1074:G:H4'	2:1E:104:ASN:HB2	1.99	0.44
1:13:1152:A:H5'	10:1I:13:HIS:CG	2.52	0.44
1:13:1301:U:C3'	1:13:1302:U:H5'	2.48	0.44
2:1E:98:LEU:H	2:1E:101:MET:HE3	1.82	0.44
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.99	0.44
19:AI:7:LYS:HG2	19:AI:7:LYS:O	2.18	0.44
23:2K:2:G:H2'	23:2K:2:G:N3	2.31	0.44
26:1H:49:A:H5''	26:1H:51:G:O4'	2.17	0.44
26:1H:141:A:H1'	26:1H:1408:C:H1'	1.99	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:775:G:C4	26:1H:794:G:C8	3.05	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
27:16:83:G:H4'	51:L8:52:HIS:CG	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:123:LEU:HD12	31:31:124:LEU:N	2.32	0.44
35:58:120:LEU:HD22	35:58:121:LYS:N	2.32	0.44
39:98:2:ARG:O	39:98:5:LYS:HG2	2.18	0.44
46:G8:45:VAL:HG22	46:G8:46:LYS:H	1.81	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
55:Q8:6:THR:HG22	55:Q8:59:LYS:HD2	1.99	0.44
1:1G:17:U:H1'	1:1G:1080:A:N3	2.32	0.44
1:1G:158:G:H1	1:1G:163:C:N4	2.10	0.44
1:1G:407:G:H5''	4:32:115:ARG:HB3	1.99	0.44
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.18	0.44
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
2:12:5:ILE:HA	2:12:221:LEU:HD11	1.98	0.44
3:22:84:ILE:O	3:22:88:ARG:HB2	2.17	0.44
5:42:88:LYS:HE2	5:42:88:LYS:HB3	1.69	0.44
6:52:19:LEU:O	6:52:23:LYS:HG3	2.17	0.44
8:72:35:ILE:H	8:72:35:ILE:HG13	1.33	0.44
11:2A:34:ASP:HB2	11:2A:35:PRO:CD	2.47	0.44
12:3A:86:ARG:HB2	12:3A:101:VAL:CG2	2.47	0.44
26:14:443:A:HO2'	26:14:1200:C:HO2'	1.58	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
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
26:14:1213: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
26:14:2749:A:H4'	33:59:62:LYS:HD2	1.98	0.44
26:14:2853:C:H2'	26:14:2854:G:C8	2.52	0.44
34:69:44:LEU:HA	34:69:44:LEU:HD23	1.64	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
38:45:26:TYR:HE2	38:45:141:GLN:HE22	1.65	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:12:ARG:O	39:55:17:ARG:NH2	2.50	0.44
40:65:12:PHE:HD1	40:65:12:PHE:HA	1.71	0.44
41:75:34:VAL:N	41:75:41:ARG:O	2.48	0.44
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	2.00	0.44
52:I5:13:ARG:HG2	52:I5:22:ILE:HG13	2.00	0.44
1:13:29:G:O2'	1:13:30:U:H5'	2.18	0.44
1:13:172:A:H8	1:13:172:A:OP2	2.00	0.44
1:13:280:C:C2	17:8I:38:ARG:HG3	2.53	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
1:13:1075:C:H2'	1:13:1076:C:H6	1.83	0.44
1:13:1080:A:H5''	5:4E:16:THR:HG21	1.98	0.44
1:13:1158:C:C2	1:13:1160:G:C8	3.06	0.44
1:13:1375:A:P	7:6E:28:ASN:HD22	2.40	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
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
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.44
17:8I:29:HIS:N	17:8I:34:LYS:O	2.44	0.44
20:BI:26:ASN:HD22	20:BI:71:THR:HA	1.83	0.44
26:1H:270(F):U:O5'	26:1H:270(F):U:H6	2.01	0.44
26:1H:722:A:H2'	26:1H:723:G:H8	1.79	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:1952:A:C5	36:68:22:ILE:HD12	2.53	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:2832:U:O2	26:1H:2834:G:N1	2.51	0.44
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.51	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
30:21:68:ALA:C	30:21:70:ALA:H	2.21	0.44
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.81	0.44
33:51:118:PRO:HD2	33:51:121:ILE:HG21	1.98	0.44
34:61:109:ILE:HB	34:61:130:TYR:CZ	2.52	0.44
37:78:60:MET:HA	55:Q8:13:ARG:HH12	1.82	0.44
37:78:113:LYS:HA	37:78:129:ALA:O	2.18	0.44
38:88:115:MET:HE2	38:88:115:MET:HB3	1.95	0.44
44:E8:66:GLU:O	44:E8:68:ARG:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:HA	55:Q8:47:LYS:CE	2.36	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:585:G:O2'	1:1G:879:C:H5''	2.17	0.44
1:1G:631:G:H2'	1:1G:632:A:C8	2.53	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
3:22:21:ARG:HB3	3:22:21:ARG:HH11	1.82	0.44
15:6A:4:THR:C	15:6A:6:GLU:N	2.70	0.44
26:14:15:G:C2	26:14:16:G:C8	3.05	0.44
26:14:251:A:C5	26:14:252:G:H1'	2.53	0.44
26:14:581:C:C2	26:14:582:G:C8	3.06	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
26:14:1798:U:H5'	29:19:259:THR:OG1	2.17	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
26:14:2702: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
29:19:239:ARG:HB2	29:19:240:ALA:H	1.68	0.44
32:49:64:THR:OG1	32:49:94:LEU:HD21	2.17	0.44
33:59:73:ALA:O	33:59:76:VAL:HB	2.17	0.44
36:25:98:VAL:CG1	36:25:117:LEU:HB3	2.44	0.44
42:85:91:ASP:OD1	42:85:96:ALA:HB2	2.18	0.44
46:C5:39:VAL:HG23	46:C5:41:GLY:N	2.33	0.44
51:H5:38:GLU:HG3	51:H5:39:ASP:H	1.82	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.47	0.44
1:13:286:G:C6	1:13:287:U:C4	3.06	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
1:13:1151:A:C4	1:13:1152:A:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:1E:97:TRP:HH2	2:1E:176:GLU:OE2	2.00	0.44
3:2E:139:GLN:HG3	3:2E:143:GLU:OE2	2.17	0.44
4:3E:65:ARG:HG3	4:3E:70:ILE:HG22	1.98	0.44
6:5E:19:LEU:O	6:5E:23:LYS:HB2	2.18	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
19:AI:8:GLY:H	52:M8:66:SER:HB3	1.83	0.44
26:1H:70:G:H21	26:1H:71:A:H62	1.66	0.44
26:1H:654(J):A:N1	26:1H:654(M):C:C4	2.84	0.44
26:1H:879:G:C6	26:1H:898:C:N4	2.86	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:1805:U:O2	29:11:50:THR:HB	2.17	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:H2'	26:1H:2308:G:N3	2.32	0.44
26:1H:2378:A:H4'	40:A8:23:ARG:NH1	2.31	0.44
30:21:201:THR:HG22	30:21:202:LYS:N	2.33	0.44
31:31:34:TRP:HB2	37:78:6:LEU:HD12	1.99	0.44
31:31:101:LEU:O	31:31:106:ARG:NH1	2.50	0.44
32:41:46:ALA:HB3	32:41:53:LEU:HD13	2.00	0.44
32:41:53:LEU:HD12	32:41:53:LEU:HA	1.76	0.44
32:41:77:ILE:O	32:41:81:LYS:O	2.35	0.44
32:41:181:ARG:HG2	32:41:181:ARG:HH11	1.83	0.44
34:61:123:LEU:HD23	34:61:142:VAL:O	2.17	0.44
35:58:28:THR:HG22	35:58:29:LYS:N	2.32	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
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
1:1G:105:G:C6	1:1G:106:C:C4	3.05	0.44
1:1G:186(C):G:C6	1:1G:191(E):G:N1	2.85	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:1190:G:P	3:22:5:ILE:HD12	2.57	0.44
1:1G:1305:G:H8	1:1G:1305:G:OP2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:7:VAL:HG13	2:12:8:LYS:HG3	2.00	0.44
2:12:72:GLY:O	2:12:74:LYS:N	2.50	0.44
3:22:23:TYR:CD1	3:22:24:ALA:N	2.86	0.44
4:32:30:LYS:HB3	4:32:35:ARG:HD2	1.99	0.44
5:42:101:ILE:O	5:42:101:ILE:HG12	2.17	0.44
13:4A:81:LEU:HD22	13:4A:88:ARG:HG2	2.00	0.44
56:2L:55:U:C4	56:2L:56:PSU:C2	3.05	0.44
24:3L:14:A:H2'	24:3L:15:G:H5'	1.98	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
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
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.47	0.44
31:39:60:SER:OG	31:39:61:GLY:N	2.51	0.44
32:49:39:ILE:HG23	32:49:157:ILE:HG12	2.00	0.44
32:49:103:LEU:HD22	32:49:178:PHE:HZ	1.82	0.44
35:15:62:VAL:HG13	35:15:66:LYS:HE3	2.00	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
52:I5:1:MET:HG2	52:I5:2:LYS:N	2.31	0.44
1:13:428:G:O4'	1:13:430:A:C8	2.71	0.44
1:13:449:C:C5	16:7I:42:ARG:HD2	2.53	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
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
1:13:1253:G:H1'	1:13:1355:G:O2'	2.17	0.44
1:13:1260:C:H4'	1:13:1283: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:156:GLU:N	4:3E:156:GLU:OE2	2.51	0.44
5:4E:13:ILE:HD12	5:4E:13:ILE:HA	1.69	0.44
6:5E:55:ASP:HA	6:5E:56:PRO:HD2	1.77	0.44
8:7E:104:ARG:HB2	8:7E:107:LEU:HB2	1.98	0.44
11:2I:127:LYS:HD3	11:2I:128:ALA:CB	2.47	0.44
17:8I:88:TYR:CD1	17:8I:88:TYR:C	2.91	0.44
22:1K:67:C:H2'	22:1K:68:C:H6	1.82	0.44
26:1H:120:U:H3'	59:1H:4086:HOH:O	2.18	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
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: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:2086:U:P	29:11:262:ARG:HH11	2.41	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
27:16:16:G:H2'	27:16:17:C:H6	1.81	0.44
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.51	0.44
38:88:137:TYR:CE1	47:H8:83:PRO:HG3	2.53	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
49:J8:94:LEU:HD23	49:J8:94:LEU:HA	1.81	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
1:1G:987:G:H22	1:1G:1218:C:N4	2.16	0.44
1:1G:1000:A:H2'	1:1G:1000:A:N3	2.33	0.44
1:1G:1157:A:C2	1:1G:1181:G:H1'	2.53	0.44
1:1G:1394:A:H61	1:1G:1500:A:HO2'	1.66	0.44
11:2A:22:HIS:ND1	11:2A:29:ILE:HD11	2.31	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
26:14:141:A:H8	26:14:1408:C:H1'	1.81	0.44
26:14:376:C:H2'	26:14:377:C:C6	2.52	0.44
26:14:533:G:OP1	42:85:28:ARG:HD2	2.17	0.44
26:14:839:U:H2'	26:14:840:C:C6	2.53	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
27:1J:12:C:OP2	27:1J:12:C:C6	2.71	0.44
29:19:72:LYS:HB3	29:19:72:LYS:HE2	1.91	0.44
34:69:79:ILE:HD11	34:69:140:LEU:HD11	1.99	0.44
37:35:55:ARG:HG2	37:35:56:SER:H	1.83	0.44
40:65:42:ASP:O	40:65:43:GLU:HB2	2.18	0.44
42:85:106:PHE:O	42:85:110:VAL:HG23	2.18	0.44
46:C5:19:LYS:C	46:C5:21:LYS:H	2.20	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
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
3:2E:30:ARG:HH11	3:2E:30:ARG:HG3	1.83	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
6:5E:23:LYS:HB2	6:5E:23:LYS:HE2	1.61	0.44
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.99	0.44
13:4I:81:LEU:HD22	13:4I:88:ARG:HB3	1.99	0.44
16:7I:23:ASP:OD1	16:7I:25:ARG:NH1	2.51	0.44
22:1K:29:C:N4	22:1K:30:G:O6	2.51	0.44
24:3K:6:G:H2'	24:3K:7:A:C8	2.53	0.44
26:1H:330:A:O2'	26:1H:331:A:C8	2.56	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:1799:G:N2	29:11:155:LEU:HD12	2.32	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
31:31:64:ILE:HG13	31:31:65:TRP:NE1	2.32	0.44
31:31:148:LEU:HD23	31:31:148:LEU:HA	1.72	0.44
33:51:20:ALA:HB3	33:51:23:ARG:HB2	1.99	0.44
34:61:75:LEU:HD23	34:61:105:HIS:CG	2.53	0.44
44:E8:82:LEU:HD23	44:E8:82:LEU:HA	1.82	0.44
47:H8:153:SER:OG	47:H8:167:PRO:HB3	2.17	0.44
55:Q8:47:LYS:HA	55:Q8:47:LYS:HD3	1.30	0.44
55:Q8:53:PRO:HB3	55:Q8:56:GLU:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:52:G:H2'	1:1G:53:A:O4'	2.18	0.44
1:1G:78:G:N3	1:1G:78:G:H2'	2.31	0.44
1:1G:814:A:H2'	1:1G:816:A:H5''	2.00	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:H8	1:1G:1111:A:O5'	2.00	0.44
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.18	0.44
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.33	0.44
5:42:76:ILE:HD12	5:42:77:PRO:HD2	1.99	0.44
10:1A:61:GLU:HG3	14:5A:58:LYS:NZ	2.33	0.44
11:2A:31:THR:HB	11:2A:42:TRP:HB3	2.00	0.44
24:3L:8:4SU:HN3	24:3L:14:A:H62	1.64	0.44
26:14:492:A:H8	26:14:492:A:O5'	2.01	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
26:14:1612:C:O3'	54:L5:5:TRP:HB3	2.18	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
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
30:29:89:ASP:CG	30:29:90:THR:H	2.20	0.44
31:39:64:ILE:C	31:39:65:TRP:CD1	2.91	0.44
34:69:113:ARG:O	34:69:131:LYS:HD3	2.16	0.44
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.61	0.44
43:95:44:LYS:O	43:95:46:VAL:N	2.45	0.44
50:G5:7:ARG:HB3	50:G5:7:ARG:HH11	1.83	0.44
52:I5:18:CYS:H	52:I5:19:GLY:HA2	1.82	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
1:13:1255:G:C2	1:13:1283:G:C2	3.06	0.44
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.26	0.44
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.86	0.44
5:4E:153:LYS:HD3	5:4E:154:GLY:N	2.32	0.44
20:BI:41:ILE:H	20:BI:41:ILE:HG13	1.47	0.44
26:1H:274:G:H8	26:1H:274:G:H3'	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:660:G:H21	37:78:12:ALA:HA	1.82	0.44
26:1H:811:U:H3'	37:78:22:GLY:HA2	2.00	0.44
26:1H:1155:A:H2'	26:1H:1156:A:H5''	2.00	0.44
26:1H:2580:U:H4'	30:21:130:GLY:HA3	2.00	0.44
26:1H:2846:G:C5	26:1H:2847:U:C4	3.06	0.44
30:21:144:ARG:HH11	30:21:144:ARG:HG3	1.82	0.44
31:31:155:LEU:HD13	31:31:174:VAL:HG22	2.00	0.44
32:41:83:ARG:O	32:41:86:MET:HG3	2.18	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
36:68:4:PRO:O	36:68:5:GLN:CB	2.66	0.44
37:78:15:ARG:HB3	37:78:16:ARG:HB2	1.99	0.44
41:B8:13:ARG:HD3	41:B8:13:ARG:N	2.33	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
1:1G:695:A:H2	1:1G:787:A:HO2'	1.63	0.44
1:1G:827:U:H3	1:1G:872:A:H62	1.65	0.44
1:1G:830:G:C2	1:1G:831:U:O2	2.70	0.44
1:1G:1118:C:O4'	1:1G:1179:A:H1'	2.18	0.44
1:1G:1341:U:H3'	1:1G:1341:U:H6	1.81	0.44
1:1G:1403:C:H1'	1:1G:1500:A:N1	2.32	0.44
1:1G:1460:A:H2'	1:1G:1461:G:O4'	2.17	0.44
2:12:111:ARG:HG2	2:12:111:ARG:HH11	1.83	0.44
3:22:98:ASN:OD1	3:22:98:ASN:N	2.51	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
8:72:123:GLU:O	8:72:126:LYS:HB3	2.17	0.44
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.53	0.44
11:2A:65:ALA:O	11:2A:68:ALA:HB3	2.18	0.44
19:AA:41:VAL:HG12	19:AA:44:MET:H	1.83	0.44
56:2L:24:C:C2	56:2L:25:U:C5	3.05	0.44
26:14:111:A:C2	26:14:112:U:C2	3.06	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
26:14:1024:G:C3'	26:14:1025:G:H5''	2.46	0.44
26:14:1111:A:H5'	33:59:3:ARG:HD3	1.99	0.44
26:14:1142:U:O2	26:14:1142:U:H2'	2.18	0.44
26:14:1248:G:C5	42:85:3:ARG:HB2	2.53	0.44
26:14:1248:G:N7	31:39:92:PRO:HG3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1614:A:H61	44:A5:88:ARG:H	1.66	0.44
26:14:1827:C:H5'	26:14:1971:A:H4'	2.00	0.44
27:1J:65:C:C4	27:1J:108:C:C5	3.06	0.44
31:39:93:LYS:HD3	31:39:93:LYS:HA	1.85	0.44
31:39:178:PRO:HB3	31:39:198:ALA:CB	2.48	0.44
44:A5:19:LEU:HD12	44:A5:19:LEU:HA	1.71	0.44
44:A5:78:GLU:OE2	44:A5:99:ARG:HD2	2.17	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
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
5:4E:153:LYS:HD3	5:4E:154:GLY:H	1.82	0.44
9:8E:26:VAL:HG12	9:8E:61:ALA:HB3	2.00	0.44
13:4I:52:GLU:HA	13:4I:55:ARG:HB2	2.00	0.44
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.22	0.44
17:8I:88:TYR:CD1	17:8I:89:LEU:HD23	2.53	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
23:2K:53:G:C6	23:2K:54:G:N7	2.86	0.44
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:749:C:O2	26:1H:1618:A:H2'	2.18	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
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: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
27:16:69:G:H2'	27:16:70:C:C6	2.52	0.44
27:16:116:G:H2'	27:16:117:G:O4'	2.18	0.44
31:31:64:ILE:HD12	31:31:64:ILE:O	2.18	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
37:78:24:GLY:C	37:78:26:GLY:N	2.70	0.44
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:128:VAL:HA	47:H8:161:VAL:HG11	2.00	0.44
1:1G:8:A:C6	4:32:209:ARG:HB2	2.52	0.44
1:1G:363:A:C6	12:3A:31:PRO:HD2	2.52	0.44
1:1G:474:G:C2	1:1G:475:G:N7	2.86	0.44
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.33	0.44
1:1G:830:G:H2'	1:1G:831:U:O4'	2.17	0.44
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.32	0.44
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.18	0.44
3:22:12:LEU:HD11	14:5A:51:GLY:HA2	2.00	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
8:72:38:ILE:HG12	8:72:41:ARG:NH1	2.32	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
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
27:1J:34:U:O4	27:1J:44:G:H2'	2.18	0.44
29:19:147:LEU:HD23	29:19:155:LEU:HD11	1.99	0.44
29:19:176:ARG:HG2	29:19:176:ARG:HH11	1.83	0.44
30:29:5:LEU:HD23	30:29:51:PHE:HB2	2.00	0.44
30:29:11:MET:SD	30:29:24:THR:HG22	2.58	0.44
37:35:16:ARG:H	37:35:16:ARG:HG2	1.63	0.44
47:D5:158:PRO:HB2	47:D5:159:PRO:CD	2.48	0.44
52:I5:48:ARG:CZ	52:I5:51:ASP:HB3	2.47	0.44
55:M5:36:LYS:HE3	55:M5:36:LYS:HB2	1.68	0.44
1:13:563:A:C8	1:13:567:G:O4'	2.71	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
2:1E:87:ARG:HH11	2:1E:219:VAL:CG1	2.31	0.43
2:1E:146:GLN:OE1	2:1E:153:ARG:NH2	2.46	0.43
16:7I:36:ILE:H	16:7I:36:ILE:HG12	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:48:GLU:H	17:8I:48:GLU:HG3	1.57	0.43
17:8I:60:ILE:O	17:8I:62:SER:OG	2.36	0.43
18:9I:52:PRO:C	18:9I:56:THR:HG23	2.39	0.43
22:1K:1:C:HO2'	22:1K:2:G:H8	1.64	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
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
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:H2'	26:1H:2582:G:N3	2.31	0.43
27:16:63:G:C6	27:16:64:C:C4	3.06	0.43
29:11:97:TYR:CE1	29:11:103:ARG:HG3	2.53	0.43
37:78:18:ARG:C	37:78:19:VAL:HG22	2.38	0.43
37:78:114:ILE:HD11	37:78:130:PHE:HD2	1.83	0.43
38:88:75:THR:HA	38:88:87:LYS:O	2.18	0.43
40:A8:32:LEU:HD23	40:A8:32:LEU:N	2.33	0.43
41:B8:5:ALA:O	41:B8:9:LEU:HB2	2.18	0.43
41:B8:6:LEU:HA	41:B8:9:LEU:CB	2.41	0.43
41:B8:29:ARG:HG3	41:B8:46:GLU:HB2	1.99	0.43
47:H8:45:ASP:OD1	47:H8:49:ARG:HD2	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:Q8:8:LYS:N	55:Q8:8:LYS:HD2	2.33	0.43
55:Q8:43:GLN:CD	55:Q8:43:GLN:N	2.71	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:12:80:ILE:O	2:12:80:ILE:HG13	2.17	0.43
2:12:136:VAL:O	2:12:139:LYS:HB3	2.17	0.43
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.32	0.43
5:42:24:ARG:CZ	5:42:24:ARG:HB3	2.47	0.43
8:72:92:ARG:HB3	8:72:94:TYR:CE2	2.52	0.43
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.48	0.43
15:6A:18:PHE:CZ	15:6A:21:ASP:HB2	2.53	0.43
17:8A:82:MET:O	17:8A:86:GLU:HG3	2.17	0.43
56:2L:19:G:C6	56:2L:59:A:C6	3.05	0.43
26:14:214:G:OP1	26:14:214:G:H4'	2.18	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
26:14:1104:C:H2'	26:14:1105:U:C5	2.53	0.43
26:14:1129:A:N6	26:14:2491:U:OP1	2.46	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
26:14:2176: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:H6	26:14:2406:U:H2'	1.62	0.43
32:49:10:LYS:O	32:49:15:VAL:HG23	2.18	0.43
38:45:75:THR:HB	38:45:86:GLY:HA3	2.00	0.43
40:65:12:PHE:O	40:65:16:ASN:ND2	2.51	0.43
42:85:50:ARG:HH22	43:95:72:VAL:HG23	1.82	0.43
43:95:5:VAL:HB	43:95:37:VAL:HG12	2.00	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
45:B5:24:GLY:HA3	45:B5:82:GLN:NE2	2.33	0.43
47:D5:160:GLY:O	47:D5:162:GLU:HG3	2.18	0.43
53:J5:16:ARG:O	53:J5:20:ARG:HG3	2.18	0.43
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
2:1E:67:THR:HG21	2:1E:155:LEU:CD2	2.48	0.43
3:2E:131:ARG:HD3	3:2E:166:GLU:OE2	2.18	0.43
8:7E:35:ILE:HG22	8:7E:36:LEU:N	2.32	0.43
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.68	0.43
21:1F:6:ARG:H	21:1F:6:ARG:HG3	1.40	0.43
26:1H:720:C:H2'	26:1H:721:C:C6	2.53	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
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
29:11:132:PRO:HD3	29:11:190:TYR:CZ	2.52	0.43
32:41:36:LYS:O	32:41:160:VAL:HG23	2.18	0.43
34:61:9:LEU:HD13	34:61:9:LEU:HA	1.82	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
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
1:1G:1030:C:H2'	1:1G:1031:G:C4	2.53	0.43
1:1G:1372:U:OP1	9:82:72:GLY:N	2.51	0.43
2:12:178:ARG:NH2	8:72:68:ARG:HH22	2.17	0.43
3:22:11:ARG:O	3:22:14:ILE:O	2.36	0.43
7:62:47:CYS:O	7:62:50:ILE:HB	2.18	0.43
8:72:14:ARG:O	8:72:18:ARG:HB2	2.18	0.43
18:9A:56:THR:OG1	18:9A:57:GLY:N	2.51	0.43
56:2L:20:G:OP1	56:2L:61:U:N3	2.51	0.43
56:2L:56:PSU:O4	56:2L:58:A:C8	2.71	0.43
25:4L:15:A:H8	25:4L:15:A:O5'	2.01	0.43
26:14:601:C:H5'	31:39:108:LYS:HZ1	1.83	0.43
26:14:746:A:HO2'	26:14:2611:U:HO2'	1.65	0.43
26:14:1090:U:C5	26:14:1091:G:C4	3.06	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
26:14:1568:G:O3'	29:19:59:LYS:HD3	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1710:C:H4'	26:14:2858:C:O2	2.17	0.43
26:14:1717:G:N2	26:14:1742:C:N3	2.45	0.43
26:14:2420:C:N4	55:M5:31:HIS:HB3	2.33	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
26:14:2882:A:OP1	39:55:96:ARG:NE	2.50	0.43
27:1J:40:U:H3'	27:1J:41:U:H5'	1.99	0.43
29:19:182:LEU:H	29:19:272:ALA:CB	2.26	0.43
33:59:6:ARG:HG2	33:59:65:HIS:ND1	2.33	0.43
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
38:45:64:ILE:HA	38:45:106:VAL:HG12	2.00	0.43
41:75:45:PHE:CE2	41:75:74:ARG:HB2	2.53	0.43
42:85:65:ILE:HG22	42:85:66:ASN:N	2.33	0.43
45:B5:21:PHE:HZ	45:B5:92:LEU:HD22	1.83	0.43
53:J5:33:CYS:HG	53:J5:46:CYS:HG	1.61	0.43
1:13:52:G:H2'	1:13:53:A:C8	2.51	0.43
1:13:95:G:H3'	1:13:96:G:H8	1.83	0.43
1:13:120:A:H8	1:13:120:A:H3'	1.83	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
1:13:545: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
1:13:990:C:C2	1:13:991:U:C5	3.06	0.43
1:13:1014:A:C2	19:AI:34:TRP:CE2	3.06	0.43
1:13:1530:G:H5''	1:13:1530:G:H8	1.82	0.43
3:2E:67:THR:HG22	3:2E:69:HIS:CE1	2.53	0.43
9:8E:89:ASN:C	9:8E:91:ASP:H	2.21	0.43
13:4I:3:ARG:HH12	13:4I:7:VAL:HG22	1.83	0.43
14:5I:58:LYS:HE3	14:5I:58:LYS:HB2	1.73	0.43
22:1K:42:C:H2'	22:1K:43:G:C8	2.53	0.43
24:3K:8:4SU:H6	24:3K:8:4SU:H2'	1.81	0.43
26:1H:115:C:O2'	26:1H:116:C:H5'	2.18	0.43
26:1H:155:C:N4	26:1H:171:G:H1	2.16	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
26:1H:662:G:H1'	37:78:14:LYS:HD3	1.99	0.43
26:1H:1228:G:H5''	26:1H:1228:G:C8	2.53	0.43
26:1H:1401:G:C5	26:1H:1402:C:C5	3.06	0.43
26:1H:2283:C:N3	26:1H:2389:G:C2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:16:31:C:H2'	27:16:32:C:C6	2.52	0.43
29:11:67:PHE:HB3	29:11:153:ALA:HB3	2.01	0.43
31:31:23:ASP:CG	31:31:24:LEU:H	2.22	0.43
33:51:94:TYR:N	33:51:94:TYR:CD1	2.86	0.43
34:61:79:ILE:HA	34:61:80:PRO:HD2	1.89	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
50:K8:42:GLY:C	50:K8:44:LEU:N	2.70	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
1:1G:1240:U:N3	7:62:32:ARG:HG3	2.33	0.43
2:12:54:THR:O	2:12:58:ILE:HG12	2.18	0.43
8:72:89:PRO:HA	8:72:92:ARG:NE	2.34	0.43
11:2A:73:MET:HA	11:2A:77:MET:H	1.84	0.43
13:4A:79:LYS:HD3	13:4A:82:MET:SD	2.59	0.43
21:1B:2:GLY:O	21:1B:5:ASP:N	2.34	0.43
56:2L:4:G:H1	56:2L:70:C:H42	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
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
32:49:8:LYS:O	32:49:12:TYR:HD1	2.00	0.43
34:69:117:GLU:CD	34:69:117:GLU:H	2.19	0.43
41:75:42:ILE:HD12	41:75:42:ILE:HA	1.87	0.43
42:85:25:TRP:CD1	42:85:25:TRP:C	2.91	0.43
51:H5:4:LEU:O	51:H5:37:LEU:N	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:1086:U:H2'	1:13:1087:G:O4'	2.19	0.43
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.17	0.43
4:3E:4:TYR:O	4:3E:5:ILE:HG13	2.18	0.43
8:7E:19:VAL:HB	8:7E:21:LYS:HD3	2.00	0.43
13:4I:15:VAL:HA	13:4I:45:VAL:HG12	2.00	0.43
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.84	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
22:1K:14:A:C5	22:1K:23:G:C2	3.06	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
26:1H:38:A:H2'	26:1H:39:C:C6	2.53	0.43
26:1H:300:A:H2'	26:1H:334:C:O2'	2.19	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:H4'	26:1H:890:A:OP1	2.18	0.43
26:1H:996:A:C2	26:1H:997:G:C8	3.07	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
26:1H:2583:G:C2'	26:1H:2584:U:H5'	2.48	0.43
28:7I:10:LEU:HD13	28:7I:13:LYS:CE	2.49	0.43
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
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.19	0.43
31:31:125:LEU:HD21	31:31:199:TRP:HB2	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
36:68:64:ARG:O	36:68:82:ASN:HA	2.18	0.43
36:68:66:LYS:NZ	36:68:80:ASP:O	2.51	0.43
37:78:6:LEU:O	37:78:7:ARG:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
2:12:197:VAL:HB	2:12:200:ILE:HG23	1.99	0.43
3:22:22:TRP:CH2	3:22:32:LEU:HB3	2.53	0.43
5:42:34:VAL:HB	5:42:62:ALA:HB1	1.99	0.43
7:62:107:ALA:CB	7:62:134:ALA:HB2	2.48	0.43
15:6A:43:LEU:HD23	15:6A:43:LEU:HA	1.66	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
26:14:17:G:H2'	26:14:18:C:C6	2.53	0.43
26:14:208:C:H2'	26:14:209:C:H6	1.83	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:H2'	26:14:518:G:N3	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
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
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.51	0.43
26:14:1580:A:H2'	26:14:1581:G:O4'	2.18	0.43
26:14:1786:A:C2	26:14:2606:C:H1'	2.52	0.43
26:14:1952:A:N6	26:14:1953:A:N1	2.66	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
27:1J:56:G:H4'	27:1J:57:A:H8	1.81	0.43
29:19:176:ARG:HA	29:19:182:LEU:HD22	2.00	0.43
31:39:52:LYS:O	31:39:88:VAL:HG13	2.19	0.43
33:59:27:LYS:HD2	33:59:32:GLU:CG	2.49	0.43
36:25:59:LYS:C	36:25:87:ILE:HG22	2.39	0.43
42:85:82:GLY:HA3	42:85:113:ALA:HB1	2.00	0.43
46:C5:8:LYS:HB2	46:C5:11:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:90:LEU:HA	46:C5:91:GLU:HA	1.73	0.43
52:I5:6:HIS:HA	52:I5:7:PRO:HD3	1.91	0.43
1:13:178:C:C4	1:13:179:A:N7	2.87	0.43
1:13:553:A:H5''	12:3I:24:VAL:HG21	2.00	0.43
1:13:774:G:H2'	1:13:775:G:C8	2.51	0.43
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.39	0.43
6:5E:25:ILE:HA	6:5E:25:ILE:HD13	1.81	0.43
15:6I:82:ILE:O	15:6I:85:LEU:N	2.52	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
24:3K:2:C:N3	24:3K:3:C:N4	2.67	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
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
27:16:29:A:H2'	27:16:30:C:O4'	2.18	0.43
31:31:32:LEU:HD13	31:31:32:LEU:O	2.18	0.43
31:31:120:GLU:HB3	31:31:122:LYS:HG2	2.00	0.43
34:61:79:ILE:HA	34:61:79:ILE:HD13	1.64	0.43
34:61:104:GLN:HG2	34:61:105:HIS:CD2	2.54	0.43
35:58:15:LEU:HD12	35:58:136:GLU:HG2	1.99	0.43
35:58:133:GLN:HG2	35:58:134:ARG:N	2.29	0.43
47:H8:23:LYS:HD3	47:H8:40:ASP:HA	2.01	0.43
47:H8:28:MET:O	47:H8:34:ASN:HA	2.18	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
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:1443:G:N2	26:14:2864:G:OP1	2.50	0.43
7:62:50:ILE:HD13	7:62:50:ILE:HA	1.80	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
10:1A:81:THR:O	10:1A:85:LEU:HG	2.18	0.43
13:4A:108:ARG:HD3	13:4A:114:ARG:HG2	2.01	0.43
18:9A:25:THR:HB	18:9A:26:LEU:HD13	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:5:G:H2'	24:3L:6:G:C8	2.53	0.43
24:3L:10:G:N2	24:3L:26:A:H1'	2.32	0.43
26:14:244:A:C2	26:14:255:A:C4	3.07	0.43
26:14:768:G:C4	26:14:769:G:C8	3.06	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
27:1J:58:A:N7	27:1J:59:A:C5	2.87	0.43
29:19:158:ALA:HB3	29:19:161:THR:HG21	2.00	0.43
31:39:70:THR:OG1	31:39:71:GLY:N	2.51	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
33:59:136:ILE:HD12	33:59:137:ASP:HB2	2.01	0.43
34:69:97:ILE:O	34:69:100:ALA:HB3	2.17	0.43
37:35:38:GLN:O	37:35:38:GLN:HG2	2.18	0.43
37:35:68:GLN:HE21	55:M5:12:LYS:HG2	1.84	0.43
42:85:8:VAL:HG11	42:85:12:ARG:NH2	2.33	0.43
42:85:30:LYS:HD3	42:85:30:LYS:N	2.33	0.43
48:E5:72:ARG:CB	48:E5:75:LEU:HB2	2.42	0.43
1:13:120:A:H3'	1:13:120:A:C8	2.54	0.43
1:13:128:G:H4'	17:8I:3:LYS:HG2	2.01	0.43
1:13:146:G:C2	1:13:147:G:C5	3.07	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:H3'	1:13:983:A:N3	2.34	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
1:13:1507: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
2:1E:111:ARG:HH11	2:1E:111:ARG:CG	2.23	0.43
3:2E:85:ARG:NH2	3:2E:88:ARG:HD2	2.33	0.43
5:4E:73:ASN:O	5:4E:73:ASN:ND2	2.37	0.43
8:7E:107:LEU:HD23	8:7E:107:LEU:HA	1.77	0.43
10:1I:63:PHE:HB3	14:5I:57:ARG:O	2.18	0.43
17:8I:55:ASP:HA	17:8I:79:SER:HA	2.00	0.43
22:1K:53:G:O2'	22:1K:54:G:H5'	2.19	0.43
26:1H:274:G:H3'	26:1H:274:G:C8	2.53	0.43
26:1H:378:C:H2'	26:1H:379:G:H5'	2.00	0.43
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.18	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
26:1H:1149:G:H2'	26:1H:1150:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
31:31:201:VAL:O	31:31:205:ARG:N	2.46	0.43
33:51:26:VAL:HG21	33:51:75:ALA:HB1	2.00	0.43
39:98:4:LEU:HD13	39:98:4:LEU:HA	1.58	0.43
41:B8:95:ARG:HA	41:B8:95:ARG:HD2	1.87	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:E8:9:TYR:H	44:E8:102:HIS:HD2	1.64	0.43
44:E8:74:ALA:HA	44:E8:104:THR:O	2.18	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
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
3:22:59:ARG:O	10:1A:93:GLY:HA3	2.18	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
8:72:64:LYS:O	8:72:79:VAL:HB	2.19	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
24:3L:27:G:N1	24:3L:28:G:O6	2.51	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
26:14:455: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
26:14:1022: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
26:14:1500:G:O2'	29:19:100:GLY:O	2.33	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
26:14:2010:G:H5''	44:A5:42:ARG:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2749:A:OP2	26:14:2750:A:H5''	2.19	0.43
26:14:2808:U:O2'	26:14:2809:A:H5'	2.18	0.43
37:35:13:ASN:O	37:35:15:ARG:N	2.52	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
40:65:48:LEU:HA	40:65:48:LEU:HD13	1.66	0.43
41:75:91:ARG:HG3	41:75:121:ILE:HG12	1.99	0.43
43:95:20:LEU:C	43:95:93:GLU:HG3	2.38	0.43
1:13:6:G:N2	5:4E:98:THR:HG23	2.33	0.43
1:13:150:C:C2	1:13:151:A:C8	3.07	0.43
1:13:177:C:P	20:BI:65:LYS:NZ	2.91	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
1:13:1120: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
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.18	0.43
4:3E:99:SER:HB3	4:3E:139:ARG:HG2	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
17:8I:54:GLY:HA2	17:8I:81:ARG:O	2.19	0.43
19:AI:30:LEU:HD22	19:AI:30:LEU:H	1.83	0.43
26:1H:10:G:N3	26:1H:2801:A:H1'	2.34	0.43
26:1H:213:A:H5''	26:1H:214:G:OP2	2.18	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
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:2213:U:O2	49:J8:52:ARG:NH2	2.41	0.43
27:16:99:A:C6	27:16:100:G:C5	3.07	0.43
29:11:206:LEU:HA	29:11:211:ARG:HD3	1.99	0.43
30:21:21:VAL:HA	30:21:22:PRO:HD3	1.62	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
34:61:138:ILE:HG12	34:61:139:GLN:N	2.34	0.43
42:C8:47:TYR:C	42:C8:47:TYR:HD1	2.22	0.43
43:D8:43:GLU:HA	43:D8:44:LYS:HA	1.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H	53:N8:25:LEU:HD12	1.84	0.43
1:1G:262:A:N6	1:1G:263:A:N6	2.67	0.43
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.19	0.43
1:1G:616:G:N3	1:1G:616:G:H2'	2.33	0.43
1:1G:674:G:H2'	1:1G:675:A:C8	2.53	0.43
1:1G:1000:A:N6	1:1G:1041:A:H61	2.16	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
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
8:72:26:VAL:HA	8:72:27:PRO:HD3	1.88	0.43
12:3A:84:LEU:HB3	12:3A:101:VAL:HB	2.00	0.43
56:2L:62:C:H2'	56:2L:63:C:H6	1.83	0.43
24:3L:13:C:H2'	24:3L:14:A:C8	2.36	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
26:14:270(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
26:14:691: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
26:14:1030:G:OP2	38:45:128:LYS:HE2	2.19	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
26:14:2745:C:H4'	33:59:142:GLY:O	2.18	0.43
29:19:143:HIS:HD2	29:19:194:GLY:C	2.21	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
32:49:18:GLU:HG2	32:49:175:LEU:HD13	2.01	0.43
33:59:7:LEU:H	33:59:7:LEU:HG	1.61	0.43
35:15:120:LEU:HA	35:15:120:LEU:HD12	1.72	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:74:LEU:HB2	42:85:78:THR:OG1	2.18	0.43
44:A5:87:PRO:HA	44:A5:93:ALA:HB2	2.01	0.43
47:D5:5:LEU:HD23	47:D5:6:LYS:N	2.33	0.43
47:D5:30:ASN:HD22	47:D5:90:VAL:HB	1.83	0.43
47:D5:102:LEU:HB2	47:D5:104:PHE:HE1	1.83	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
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
3:2E:27:LYS:O	3:2E:31:HIS:HE1	2.02	0.43
4:3E:3:ARG:H	4:3E:3:ARG:HD3	1.83	0.43
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.18	0.43
9:8E:24:GLY:HA2	9:8E:59:PHE:O	2.19	0.43
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	2.01	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
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.31	0.43
25:4K:23:A:H3'	25:4K:24:A:C8	2.53	0.43
26:1H:33:U:C4'	26:1H:34:C:OP1	2.64	0.43
26:1H:139:G:N2	26:1H:141:A:N1	2.66	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
26:1H: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:1567:A:OP1	29:11:60:ARG:NE	2.43	0.43
26:1H:1716:U:O2	26:1H:1716:U:H2'	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
27:16:44:G:N1	27:16:48:A:C2	2.87	0.43
30:21:166:THR:CG2	30:21:199:ARG:HH22	2.32	0.43
31:31:9:ILE:HD11	31:31:125:LEU:H	1.84	0.43
36:68:2:ILE:HG23	36:68:8:LEU:HD21	2.01	0.43
36:68:70:LYS:HE3	36:68:70:LYS:HB3	1.67	0.43
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.46	0.43
39:98:65:LEU:HA	39:98:65:LEU:HD12	1.73	0.43
40:A8:110:LEU:CD1	40:A8:111:GLU:H	2.32	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
55:Q8:21:LYS:HA	55:Q8:21:LYS:HD2	1.69	0.43
1:1G:15:G:H1	1:1G:920:U:H3	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1071:C:H2'	1:1G:1072:G:C8	2.54	0.43
2:12:24:TRP:N	2:12:24:TRP:CD1	2.85	0.43
3:22:76:VAL:HG21	3:22:103:VAL:HG11	2.00	0.43
10:1A:63:PHE:HD1	14:5A:57:ARG:O	2.02	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
12:3A:102:ARG:HA	12:3A:102:ARG:HD2	1.88	0.43
20:BA:26:ASN:HB2	20:BA:71:THR:HG23	2.00	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
26:14:199:A:N3	26:14:2433:A:C2	2.87	0.43
26:14:972:G:H2'	26:14:973:A:C8	2.54	0.43
26:14:1027:A:H5''	27:1J:88:C:H41	1.83	0.43
26:14:1280:G:C6	26:14:1281:G:C5	3.06	0.43
26:14:1678:G:H22	26:14:1989:G:H22	1.65	0.43
26:14:1904:G:H2'	26:14:1905:C:O4'	2.19	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
27:1J:86:G:N1	27:1J:90:C:N3	2.37	0.43
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.19	0.43
35:15:67:LEU:HG	35:15:88:GLU:HG2	2.00	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
43:95:35:LEU:O	43:95:37:VAL:HG13	2.19	0.43
54:L5:27:GLY:HA2	54:L5:30:VAL:HG23	1.99	0.43
1:13:186(C):G:H2'	1:13:186(D):C:O4'	2.18	0.43
1:13:403:C:H4'	4:3E:122:ARG:HH11	1.83	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
1:13:1144: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
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
13:4I:107:ALA:HB3	13:4I:111:LYS:HB2	1.99	0.43
19:AI:41:VAL:HB	19:AI:42:PRO:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:37:SER:O	20:BI:41:ILE:HG13	2.19	0.43
23:2K:14:A:C4	23:2K:23:G:C2	3.07	0.43
24:3K:55:PSU:H5''	24:3K:56:C:OP2	2.18	0.43
26:1H:49:A:H4'	26:1H:50:U:H5''	2.00	0.43
26:1H:273:G:H1	26:1H:364:C:H42	1.66	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:OP2	26:1H:1678:G:C8	2.72	0.43
26:1H:2502:G:OP2	59:1H:3529:HOH:O	2.21	0.43
27:16:31:C:H2'	27:16:32:C:H6	1.84	0.43
28:71:225:ASN:HA	28:71:226:PRO:HD3	1.69	0.43
29:11:75:ILE:HG22	29:11:76:PRO:O	2.19	0.43
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.83	0.43
29:11:222:ARG:HE	29:11:222:ARG:HB2	1.60	0.43
31:31:63:LYS:HE2	31:31:67:GLN:CB	2.46	0.43
32:41:97:ASP:O	32:41:99:MET:N	2.52	0.43
33:51:64:LEU:O	33:51:68:THR:OG1	2.32	0.43
37:78:24:GLY:C	37:78:26:GLY:H	2.23	0.43
41:B8:125:ARG:O	41:B8:129:ARG:N	2.31	0.43
45:F8:49:VAL:HG23	45:F8:50:LYS:N	2.34	0.43
55:Q8:6:THR:N	55:Q8:59:LYS:HZ2	2.14	0.43
55:Q8:21:LYS:C	55:Q8:21:LYS:NZ	2.72	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
1:1G:784:C:H4'	26:14:1837:C:OP1	2.19	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
2:12:118:LEU:HD23	2:12:118:LEU:HA	1.82	0.43
11:2A:106:LYS:O	18:9A:87:ARG:NH2	2.51	0.43
12:3A:7:ILE:HD13	12:3A:7:ILE:HA	1.74	0.43
17:8A:99:SER:OG	17:8A:100:LYS:N	2.51	0.43
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.47	0.43
24:3L:26:A:H2'	24:3L:27:G:H5'	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:990:A:H5'	26:14:990:A:H8	1.83	0.43
26:14:1662:C:O2'	26:14:2687:U:OP1	2.36	0.43
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
26:14:2531:A:H5'	33:59:157:TYR:CZ	2.54	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
26:14:2745:C:O2'	33:59:142:GLY:HA3	2.19	0.43
33:59:152:ARG:HD2	33:59:153:LYS:HG3	2.00	0.43
39:55:63:ARG:HA	39:55:80:PHE:CZ	2.53	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
1:13:77:C:C2'	1:13:78:G:H5''	2.48	0.43
1:13:128:G:H5'	17:8I:2:PRO:O	2.18	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
1:13:804: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
1:13:1269:A:H2	1:13:1312:G:N3	2.17	0.43
1:13:1503:A:O2'	25:4K:13:A:C6	2.70	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
3:2E:178:LEU:HA	3:2E:178:LEU:HD13	1.63	0.43
5:4E:41:VAL:HG23	5:4E:67:VAL:HG11	2.00	0.43
9:8E:53:VAL:HG12	9:8E:55:ALA:H	1.84	0.43
9:8E:118:LYS:HE2	9:8E:118:LYS:HB3	1.93	0.43
12:3I:90:VAL:HG12	12:3I:91:LYS:N	2.34	0.43
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.19	0.43
22:1K:58:A:C5	22:1K:59:A:C2	3.01	0.43
26:1H:260:G:N2	26:1H:261:G:H1'	2.34	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:2531:A:C8	33:51:175:LYS:HG2	2.54	0.43
26:1H:2690:C:OP2	39:98:14:SER:HB3	2.19	0.43
28:71:66:HIS:HB2	28:71:188:ASN:HD21	1.84	0.43
29:11:94:LEU:HD23	29:11:94:LEU:HA	1.65	0.43
31:31:101:LEU:HD23	31:31:101:LEU:HA	1.58	0.43
33:51:32:GLU:O	33:51:33:LEU:HD23	2.18	0.43
34:61:25:TYR:CE1	34:61:29:TYR:CD2	3.07	0.43
35:58:5:VAL:HG23	35:58:6:PRO:HD2	2.01	0.43
36:68:2:ILE:HG22	36:68:3:GLN:N	2.34	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
41:B8:99:LEU:HD12	41:B8:99:LEU:H	1.84	0.43
47:H8:15:PRO:HA	47:H8:18:LEU:HD13	2.00	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
50:K8:7:ARG:N	50:K8:10:LEU:HB2	2.34	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
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
2:12:124:SER:C	2:12:126:GLU:H	2.22	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
5:42:86:ALA:O	5:42:125:SER:HB3	2.19	0.43
14:5A:22:THR:OG1	14:5A:33:VAL:HG21	2.19	0.43
15:6A:23:GLY:O	15:6A:28:GLN:NE2	2.42	0.43
19:AA:64:GLU:H	19:AA:64:GLU:CD	2.22	0.43
56:2L:1:C:H4'	38:45:87:LYS:HE2	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
26:14:1160:G:C5	26:14:1161:C:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H5'	26:14:2439:A:H8	1.84	0.43
26:14:2678:C:O5'	26:14:2678:C:H6	2.01	0.43
27:1J:44:G:C2	27:1J:48:A:C2	3.07	0.43
27:1J:104:A:H4'	47:D5:89:PHE:CE1	2.53	0.43
30:29:9:VAL:CG1	41:75:8:LYS:HZ3	2.31	0.43
31:39:140:LEU:O	31:39:140:LEU:HD13	2.19	0.43
32:49:2:PRO:HB2	32:49:3:LEU:H	1.62	0.43
37:35:64:LYS:HD2	55:M5:30:ARG:HH12	1.84	0.43
37:35:144:GLU:CD	37:35:144:GLU:N	2.71	0.43
38:45:26:TYR:O	38:45:26:TYR:CD2	2.72	0.43
39:55:105:ARG:HE	39:55:105:ARG:HB3	1.55	0.43
47:D5:31:ARG:HE	47:D5:31:ARG:HB2	1.30	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
55:M5:14:VAL:HG12	55:M5:15:LYS:H	1.84	0.43
1:13:105:G:C5	1:13:106:C:C4	3.07	0.42
1:13:195:A:H4'	20:BI:68:LYS:HE2	2.01	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
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
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	2.01	0.42
6:5E:98:LEU:HA	18:9I:29:PHE:O	2.19	0.42
12:3I:86:ARG:NH2	12:3I:99:HIS:CG	2.87	0.42
13:4I:19:LEU:HA	13:4I:22:ILE:HG13	2.01	0.42
19:AI:78:ARG:HD2	19:AI:79:THR:N	2.34	0.42
20:BI:29:LYS:HB2	20:BI:29:LYS:HE3	1.73	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
24:3K:18:G:O2'	24:3K:19:G:OP1	2.35	0.42
26:1H:228:A:O2'	26:1H:229:A:N3	2.47	0.42
26:1H:1064:C:N4	26:1H:1070:A:OP1	2.52	0.42
26:1H:2049:G:N2	26:1H:2620:C:C2	2.87	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
26:1H:2325:G:OP1	26:1H:2325:G:H3'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2470:G:H8	26:1H:2470:G:O5'	2.02	0.42
27:16:4:C:H2'	27:16:5:C:C6	2.53	0.42
30:21:170:LEU:HD11	30:21:187:ALA:HB3	2.01	0.42
31:31:53:THR:C	31:31:55:GLY:N	2.71	0.42
33:51:7:LEU:HD12	33:51:7:LEU:N	2.28	0.42
34:61:129:THR:HA	34:61:137:PRO:HA	2.01	0.42
35:58:29:LYS:H	35:58:29:LYS:HG2	1.51	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
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
43:D8:46:VAL:C	43:D8:47:VAL:HG12	2.39	0.42
1:1G:96:G:C6	1:1G:97:U:C4	3.07	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
2:12:185:ILE:CG2	2:12:199:TYR:HB2	2.41	0.42
5:42:76:ILE:HD12	5:42:142:LEU:HD13	2.01	0.42
5:42:103:GLY:C	5:42:106:PRO:HD2	2.39	0.42
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.86	0.42
7:62:149:ARG:HD3	11:2A:59:TYR:CZ	2.54	0.42
19:AA:66:MET:HA	19:AA:67:VAL:C	2.39	0.42
25:4L:13:A:H2'	25:4L:13:A:N3	2.34	0.42
26:14:392:C:H5''	26:14:409:C:H5''	2.01	0.42
26:14:1027:A:H5'	27:1J:88:C:H41	1.83	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
26:14:2377:A:H4'	40:65:111:GLU:HG2	2.01	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
27:1J:45:A:C6	27:1J:46:A:C5	3.07	0.42
30:29:77:ILE:C	30:29:78:LEU:HG	2.39	0.42
32:49:73:ALA:HB3	32:49:85:GLY:H	1.84	0.42
33:59:119:GLU:C	33:59:140:LYS:HZ1	2.19	0.42
35:15:130:HIS:HB2	35:15:134:ARG:CZ	2.49	0.42
39:55:18:LEU:HD23	39:55:18:LEU:HA	1.72	0.42
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1215:G:C6	1:13:1216:G:C5	3.08	0.42
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
2:1E:73:THR:OG1	2:1E:170:GLU:OE2	2.27	0.42
3:2E:6:HIS:O	3:2E:10:PHE:HB2	2.19	0.42
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	2.00	0.42
9:8E:4:TYR:CE2	9:8E:88:TYR:HB2	2.54	0.42
11:2I:44:SER:OG	11:2I:45:GLY:N	2.52	0.42
17:8I:15:MET:HB2	17:8I:18:THR:HB	2.01	0.42
20:BI:64:ASP:OD1	20:BI:64:ASP:N	2.52	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
24:3K:76:A:O2'	26:1H:2394:C:C2	2.71	0.42
26:1H:44:A:C2'	26:1H:45:G:H5'	2.49	0.42
26:1H:67:U:H2'	26:1H:68:G:C8	2.53	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
26:1H:484:C:H2'	26:1H:485:C:C6	2.54	0.42
26:1H:588:U:C2	31:31:90:PHE:CE1	3.07	0.42
26:1H:601:C:O2'	26:1H:605:C:OP1	2.33	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:1567:A:C8	29:11:84:TYR:CE2	3.07	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
26:1H:2392:A:H1'	37:78:61:ARG:HD2	2.01	0.42
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.77	0.42
31:31:153:SER:HB2	31:31:189:THR:HG22	2.00	0.42
33:51:101:ARG:NH1	33:51:122:THR:OG1	2.50	0.42
35:58:112:LEU:HD12	35:58:112:LEU:HA	1.80	0.42
36:68:25:LEU:HD21	36:68:40:VAL:HG23	2.01	0.42
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	2.01	0.42
1:1G:66:G:C2	1:1G:67:C:C6	3.07	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:12:162:ILE:HG23	2:12:182:ILE:HG21	1.99	0.42
5:42:40:ARG:HA	5:42:67:VAL:O	2.19	0.42
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.34	0.42
18:9A:37:VAL:HG13	18:9A:78:LEU:HB3	2.00	0.42
56:2L:6:G:O6	56:2L:68:C:N4	2.44	0.42
26:14:6:A:C2	26:14:7:G:C8	3.07	0.42
26:14:54:G:C6	26:14:117:G:N2	2.87	0.42
26:14:107:C:C2	26:14:108:U:C6	3.06	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
26:14:711: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
26:14:993:G:C6	26:14:1162:G:C6	3.07	0.42
26:14:1667:G:O2'	26:14:1991:U:O4	2.29	0.42
26:14:1819:A:H8	26:14:1819:A:O5'	2.02	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
31:39:9:ILE:HG12	31:39:14:PRO:HA	2.01	0.42
38:45:116:GLU:O	38:45:117:ALA:HB3	2.19	0.42
39:55:85:PRO:O	39:55:88:ARG:HB2	2.18	0.42
40:65:88:ASP:HB3	40:65:89:ARG:H	1.43	0.42
43:95:22:VAL:HG22	43:95:23:GLU:N	2.34	0.42
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	2.01	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
1:13:468:A:H5''	16:7I:80:PHE:HB3	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
8:7E:14:ARG:HG3	8:7E:83:ILE:CG2	2.49	0.42
9:8E:48:GLU:N	9:8E:49:PRO:CD	2.83	0.42
15:6I:9:GLN:O	15:6I:13:GLN:HG3	2.18	0.42
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:21:VAL:HG12	16:7I:33:ILE:HB	1.99	0.42
24:3K:5:G:N1	24:3K:6:G:O6	2.53	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:598:G:C1'	37:78:12:ALA:HB2	2.49	0.42
26:1H:782:A:N7	29:11:221:VAL:HG11	2.33	0.42
26:1H:818:G:N7	26:1H:1187:G:C6	2.87	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
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: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:H5'	26:1H:2439:A:C8	2.54	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
28:71:10:LEU:HD22	28:71:10:LEU:H	1.84	0.42
33:51:12:PRO:HB2	33:51:13:LYS:H	1.62	0.42
33:51:124:GLU:O	33:51:126:PRO:HD3	2.19	0.42
34:61:25:TYR:HE1	34:61:29:TYR:CD2	2.38	0.42
34:61:72:LEU:HD11	34:61:107:VAL:HG11	2.01	0.42
37:78:57:THR:HB	37:78:60:MET:H	1.85	0.42
38:88:66:ILE:CG2	38:88:67:ARG:N	2.82	0.42
40:A8:33:LYS:HB3	40:A8:34:HIS:CD2	2.54	0.42
42:C8:92:ARG:HD2	43:D8:11:GLN:CB	2.48	0.42
45:F8:5:TYR:CE2	50:K8:30:ARG:HB2	2.53	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: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
1:1G:4:U:O4	8:72:105:ARG:HD3	2.20	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:750:G:N2	15:6A:23:GLY:HA3	2.34	0.42
1:1G:921:U:O2'	5:42:18:ARG:HG3	2.19	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:18:TRP:NE1	14:5A:55:GLY:N	2.66	0.42
4:32:18:LYS:HE2	4:32:33:MET:HB3	2.01	0.42
6:52:2:ARG:HH22	15:6A:2:PRO:HD3	1.84	0.42
6:52:55:ASP:HA	6:52:56:PRO:HD3	1.78	0.42
9:82:95:LYS:HB2	9:82:95:LYS:HE2	1.74	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
20:BA:26:ASN:HA	20:BA:29:LYS:HG2	2.01	0.42
56:2L:65:G:C2	56:2L:66:C:C2	3.07	0.42
26:14:452:G:H5'	31:39:59:TYR:CE1	2.54	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
26:14:604:G:OP2	37:35:90:ARG:NH2	2.52	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
26:14:1000:A:C6	26:14:1155:A:C8	3.08	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
26:14:1550:C:OP1	26:14:1727:U:O2'	2.26	0.42
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
29:19:70:TRP:CD1	29:19:70:TRP:C	2.91	0.42
30:29:41:LYS:HG3	30:29:42:ASP:H	1.85	0.42
31:39:25:PRO:HB2	31:39:27:GLU:H	1.84	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
34:69:76:THR:HG23	34:69:77:LEU:N	2.34	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
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
46:C5:20:TYR:CE2	46:C5:42:VAL:HA	2.55	0.42
52:I5:53:GLU:HG3	52:I5:53:GLU:O	2.20	0.42
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.53	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
2:1E:178:ARG:HG2	2:1E:178:ARG:HH11	1.83	0.42
3:2E:58:GLU:N	3:2E:65:ALA:HB3	2.34	0.42
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.19	0.42
15:6I:3:ILE:HG21	15:6I:34:LEU:HD23	2.02	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:H8	26:1H:818:G:O5'	2.03	0.42
26:1H:919:G:H4'	27:16:81:G:H4'	2.02	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:1799:G:C2	29:11:155:LEU:HD12	2.55	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
27:16:73:A:H2'	27:16:74:U:O4'	2.20	0.42
34:61:4:ILE:HG23	34:61:18:VAL:CG2	2.50	0.42
34:61:130:TYR:O	34:61:135:GLU:HB2	2.20	0.42
39:98:12:ARG:HE	39:98:16:HIS:CE1	2.37	0.42
40:A8:35:ILE:C	40:A8:36:TYR:HD1	2.22	0.42
40:A8:106:ARG:NH2	40:A8:107:GLU:HB2	2.35	0.42
46:G8:6:HIS:ND1	46:G8:6:HIS:N	2.67	0.42
47:H8:77:ASP:OD2	47:H8:80:ARG:HB2	2.19	0.42
1:1G:128:G:H5'	17:8A:2:PRO:C	2.40	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
1:1G:994:A:C8	1:1G:1216:G:H4'	2.54	0.42
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.54	0.42
3:22:82:GLU:O	3:22:86:VAL:HG13	2.20	0.42
3:22:91:LEU:HD23	3:22:91:LEU:H	1.84	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
5:42:144:THR:HG23	5:42:147:ASP:HB2	2.01	0.42
7:62:102:ARG:HG2	7:62:106:GLN:NE2	2.34	0.42
8:72:15:ASN:O	8:72:19:VAL:HG22	2.20	0.42
26:14:322:A:C3'	31:39:169:ASN:HD21	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:N3	26:14:1559:G:H5'	2.34	0.42
26:14:1771:C:H1'	26:14:1786:A:C8	2.54	0.42
26:14:2050:C:H1'	30:29:156:MET:HE1	2.02	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
31:39:143:ALA:HB1	31:39:148:LEU:HB2	2.02	0.42
32:49:118:ARG:HB3	32:49:181:ARG:HG3	2.01	0.42
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.75	0.42
38:45:24:GLY:H	38:45:101:ARG:NH1	2.18	0.42
41:75:6:LEU:O	41:75:10:VAL:HB	2.19	0.42
41:75:127:ALA:O	41:75:131:ALA:HB3	2.19	0.42
52:I5:58:ARG:NE	52:I5:61:ARG:HE	2.18	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
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
2:1E:155:LEU:HD13	2:1E:155:LEU:HA	1.85	0.42
4:3E:131:ARG:O	4:3E:133:VAL:HG23	2.19	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
6:5E:4:TYR:O	6:5E:6:VAL:HG23	2.19	0.42
9:8E:13:ALA:HB1	9:8E:73:GLN:HG2	2.01	0.42
13:4I:65:LYS:NZ	52:M8:52:THR:HG22	2.32	0.42
19:AI:33:THR:HG1	19:AI:35:SER:H	1.61	0.42
22:1K:53:G:C2	22:1K:54:G:C8	3.07	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:90:U:H4'	26:1H:91:A:H5'	2.00	0.42
26:1H:396:G:O3'	49:J8:44:PRO:HA	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:H4'	26:1H:878:A:OP1	2.20	0.42
26:1H:970:C:HO2'	26:1H:984:A:HO2'	1.66	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
29:11:112:GLN:N	29:11:115:GLN:OE1	2.43	0.42
30:21:201:THR:HG22	30:21:202:LYS:H	1.85	0.42
33:51:95:ARG:HB3	33:51:95:ARG:HH11	1.85	0.42
36:68:24:VAL:HB	36:68:33:ALA:HB2	2.01	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
50:K8:7:ARG:CA	50:K8:10:LEU:HB2	2.49	0.42
1:1G:219:C:H2'	1:1G:220:G:O4'	2.20	0.42
1:1G:382:A:H8	1:1G:382:A:O5'	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
1:1G:1129:C:C4	1:1G:1139:G:N1	2.88	0.42
1:1G:1149:C:O5'	1:1G:1149:C:H6	2.02	0.42
2:12:33:TYR:HD1	2:12:33:TYR:HA	1.70	0.42
3:22:42:LEU:HD12	3:22:42:LEU:HA	1.72	0.42
8:72:50:ARG:H	8:72:50:ARG:HG3	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
21:1B:3:LYS:O	21:1B:14:TRP:CE3	2.72	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2439:A:C8	26:14:2439:A:C5'	3.02	0.42
27:1J:66:A:C2	27:1J:108:C:C4	3.08	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
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
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
1:13:1298:C:N4	7:6E:114:ARG:HB3	2.34	0.42
1:13:1304:G:C6	1:13:1305:G:N1	2.88	0.42
2:1E:36:ARG:HA	2:1E:36:ARG:HD2	1.82	0.42
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.54	0.42
4:3E:8:VAL:CG1	4:3E:21:LEU:HD13	2.50	0.42
4:3E:154:ASN:O	4:3E:159:ARG:HG3	2.20	0.42
8:7E:16:ALA:HB1	8:7E:24:THR:HG21	2.02	0.42
10:1I:78:ASN:HB2	10:1I:81:THR:HG23	2.02	0.42
24:3K:50:U:N3	24:3K:65:G:N3	2.66	0.42
26:1H:74:A:C5'	26:1H:74:A:H8	2.33	0.42
26:1H:92:G:H2'	26:1H:93:C:H6	1.84	0.42
26:1H:203:C:O5'	26:1H:203:C:H6	2.03	0.42
26:1H:221:A:H5'	26:1H:233:A:O2'	2.19	0.42
26:1H:328:U:O2'	46:G8:71:LYS:HD3	2.20	0.42
26:1H:424:G:C2	26:1H:425:G:C8	3.07	0.42
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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:16:2:C:H2'	27:16:3:C:C6	2.54	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
27:16:42:C:O2	32:41:92:VAL:HA	2.20	0.42
29:11:52:ARG:HH11	29:11:52:ARG:HD3	1.71	0.42
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.66	0.42
31:31:182:ASN:OD1	31:31:185:ASP:N	2.40	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
42:C8:65:ILE:O	42:C8:68:ALA:N	2.52	0.42
42:C8:90:VAL:HG22	43:D8:39:LEU:HG	2.01	0.42
46:G8:76:CYS:CB	46:G8:97:ARG:HG2	2.49	0.42
50:K8:37:PHE:H	50:K8:37:PHE:HD1	1.67	0.42
1:1G:78:G:C2	1:1G:79:G:N7	2.87	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:899:C:O5'	1:1G:899:C:H6	2.02	0.42
1:1G:954:G:O5'	1:1G:954:G:H8	2.02	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
2:12:126:GLU:C	2:12:128:GLU:N	2.72	0.42
3:22:9:GLY:N	14:5A:49:HIS:O	2.53	0.42
3:22:112:SER:O	3:22:115:LEU:HB2	2.19	0.42
5:42:51:VAL:O	5:42:55:VAL:HG23	2.19	0.42
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.83	0.42
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.40	0.42
7:62:113:GLU:HB2	7:62:119:ARG:CD	2.49	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
16:7A:31:LYS:HG2	16:7A:32:TYR:N	2.33	0.42
19:AA:7:LYS:HE2	19:AA:10:PHE:CE2	2.55	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
26:14:459:U:H5''	54:L5:40:TRP:CD2	2.55	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2022:U:O2'	26:14:2617:C:H5'	2.19	0.42
26:14:2134:A:N3	26:14:2159:G:H1'	2.35	0.42
27:1J:12:C:O2	48:E5:74:ARG:NE	2.52	0.42
35:15:35:ARG:H	35:15:35:ARG:HG2	1.71	0.42
36:25:96:THR:OG1	36:25:97:ARG:N	2.51	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
41:75:8:LYS:O	41:75:11:GLU:N	2.30	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
47:D5:9:TYR:HA	47:D5:37:VAL:HG12	2.01	0.42
51:H5:28:LEU:HD23	51:H5:28:LEU:HA	1.76	0.42
52:I5:61:ARG:HA	52:I5:61:ARG:NE	2.34	0.42
55:M5:57:ARG:H	55:M5:57:ARG:CD	2.33	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
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
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	2.00	0.42
2:1E:208:ILE:HA	2:1E:211:ILE:HD12	2.02	0.42
14:5I:6:LEU:HA	14:5I:6:LEU:HD23	1.75	0.42
26:1H:105:C:H2'	26:1H:106:C:H6	1.85	0.42
26:1H:918:A:O2'	27:16:96:G:N2	2.50	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
27:16:11:C:O5'	27:16:12:C:H5	2.03	0.42
27:16:49:C:OP1	40:A8:97:ARG:HB2	2.19	0.42
27:16:99:A:C4	27:16:100:G:C8	3.08	0.42
28:71:26:ALA:HB2	28:71:189:ILE:CD1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:65:GLY:C	30:21:68:ALA:H	2.23	0.42
30:21:119:ARG:NH1	30:21:156:MET:O	2.53	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
38:88:45:GLN:OE1	38:88:45:GLN:N	2.53	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
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
1:1G:720:C:H2'	1:1G:721:G:N7	2.34	0.42
1:1G:922:G:N3	1:1G:1398:A:H2	2.18	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
1:1G:1375:A:H4'	7:62:29:LYS:HZ1	1.83	0.42
1:1G:1399:C:C2	1:1G:1502:A:N6	2.87	0.42
2:12:88:ALA:HB2	2:12:219:VAL:HG23	2.00	0.42
2:12:149:LEU:CD2	2:12:152:PHE:HB3	2.48	0.42
5:42:70:PRO:O	5:42:77:PRO:HD3	2.20	0.42
15:6A:54:ARG:O	15:6A:58:MET:HG3	2.20	0.42
19:AA:29:ARG:HD3	19:AA:48:THR:OG1	2.20	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
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:N3	26:14:2053:G:H2'	2.34	0.42
29:19:181:GLU:HG3	29:19:272:ALA:CB	2.50	0.42
29:19:245:PRO:HA	29:19:246:PRO:HD3	1.74	0.42
33:59:68:THR:HG22	33:59:72:ILE:HD11	2.01	0.42
35:15:91:LEU:O	35:15:95:PRO:HB3	2.19	0.42
43:95:21:ARG:HE	43:95:91:TYR:CB	2.32	0.42
44:A5:65:LEU:HD23	44:A5:65:LEU:HA	1.85	0.42
47:D5:74:VAL:HA	47:D5:86:VAL:CG2	2.50	0.42
55:M5:60:LEU:HB2	55:M5:61:LEU:H	1.41	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
1:13:1010:G:C6	1:13:1011:G:C5	3.08	0.42
1:13:1021:G:OP2	1:13:1021:G:H8	2.02	0.42
1:13:1054:C:H5	1:13:1196:U:HO2'	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1372:U:H2'	1:13:1373:G:O4'	2.20	0.42
1:13:1418:A:C2	1:13:1483:A:C2	3.08	0.42
2:1E:57:PHE:O	2:1E:60:ASP:HB2	2.20	0.42
13:4I:94:ARG:HA	13:4I:94:ARG:HD3	1.55	0.42
15:6I:4:THR:O	15:6I:8:LYS:N	2.51	0.42
16:7I:33:ILE:HG13	16:7I:33:ILE:H	1.47	0.42
25:4K:23:A:N1	25:4K:24:A:N6	2.68	0.42
26:1H:7:G:H2'	26:1H:8:A:O4'	2.19	0.42
26:1H:438:G:H2'	26:1H:439:G:H8	1.85	0.42
26:1H:847:U:C4	26:1H:933:A:N1	2.87	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:2075:U:C4	26:1H:2238:G:C6	3.08	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: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
27:16:1(M):A:H2'	27:16:1(M):A:N3	2.34	0.42
27:16:13:A:N1	27:16:69:G:O2'	2.37	0.42
27:16:27:C:O3'	40:A8:36:TYR:OH	2.37	0.42
28:71:58:VAL:HG23	28:71:201:PRO:HG3	2.01	0.42
29:11:126:GLN:O	29:11:193:VAL:HG22	2.18	0.42
31:31:102:PRO:HB2	31:31:105:VAL:HG23	2.02	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
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
35:58:120:LEU:HD22	35:58:120:LEU:C	2.40	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
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:CD1	45:F8:28:PHE:N	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
52:M8:2:LYS:HD3	52:M8:2:LYS:HA	1.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:137:C:C2	1:1G:227:G:N2	2.88	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
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:1428:A:H2'	1:1G:1429:C:C6	2.55	0.42
3:22:38:ARG:O	3:22:42:LEU:N	2.27	0.42
5:42:18:ARG:NH2	5:42:25:ARG:HB3	2.34	0.42
5:42:26:PHE:CD1	5:42:26:PHE:N	2.88	0.42
6:52:38:GLU:OE1	6:52:64:GLN:HG2	2.17	0.42
8:72:29:SER:HB3	8:72:32:LYS:H	1.84	0.42
14:5A:32:SER:O	14:5A:40:CYS:HA	2.19	0.42
24:3L:65:G:H2'	24:3L:66:U:C5	2.55	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
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
26:14:1620:G:O4'	54:L5:1:MET:N	2.51	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
27:1J:7:G:H3'	27:1J:8:U:H5''	2.01	0.42
30:29:31:CYS:CB	30:29:49:LEU:HB3	2.50	0.42
30:29:116:VAL:HG11	30:29:138:PRO:HB3	2.01	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
32:49:7:LEU:HD23	32:49:7:LEU:HA	1.89	0.42
33:59:58:GLU:O	33:59:61:HIS:N	2.53	0.42
41:75:55:ASN:OD1	41:75:58:ASN:HB2	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H6	1:13:967:C:O5'	2.03	0.42
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
4:3E:206:PHE:HD2	4:3E:207:TYR:CD1	2.37	0.42
8:7E:33:GLU:OE2	8:7E:50:ARG:NH2	2.53	0.42
12:3I:60:LEU:HD13	12:3I:60:LEU:HA	1.81	0.42
13:4I:27:LYS:O	13:4I:30:ALA:HB3	2.20	0.42
26:1H:256:A:OP2	59:1H:4313:HOH:O	2.22	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
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:2319:G:C5	40:A8:3:ARG:HD3	2.55	0.42
26:1H:2562:U:C1'	36:68:23:ARG:HD3	2.50	0.42
26:1H:2747:G:H1	26:1H:2754:U:H2'	1.83	0.42
29:11:238:GLY:O	29:11:239:ARG:C	2.57	0.42
29:11:257:LEU:HD23	29:11:257:LEU:HA	1.82	0.42
31:31:117:ARG:HD2	31:31:117:ARG:HA	1.79	0.42
33:51:136:ILE:H	33:51:136:ILE:HD12	1.85	0.42
33:51:170:ARG:NE	33:51:170:ARG:HA	2.33	0.42
36:68:2:ILE:CG2	36:68:8:LEU:HD21	2.49	0.42
40:A8:25:ARG:NH2	40:A8:40:ILE:HD12	2.34	0.42
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.49	0.42
41:B8:52:ILE:HG13	41:B8:61:PHE:HB3	2.02	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
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
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:974:A:P	14:5A:41:ARG:HH12	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:977:A:H2'	1:1G:978:A:H5''	2.02	0.42
1:1G:1341:U:H3'	1:1G:1341:U:C6	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
2:12:61:LEU:HD23	2:12:68:ILE:HD11	2.02	0.42
14:5A:26:ARG:O	14:5A:27:CYS:HB3	2.20	0.42
19:AA:67:VAL:HG11	52:I5:56:VAL:HG23	2.02	0.42
26:14:337:C:H2'	26:14:338:G:O4'	2.19	0.42
26:14:662:G:H5'	37:35:15:ARG:C	2.40	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
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
26:14:2630:G:H21	26:14:2894:G:H22	1.66	0.42
26:14:2877:G:H8	26:14:2877:G:O5'	2.01	0.42
30:29:87:GLU:OE2	30:29:88:GLY:N	2.53	0.42
31:39:89:VAL:O	31:39:90:PHE:C	2.57	0.42
32:49:121:ASN:HB2	32:49:181:ARG:HH22	1.85	0.42
34:69:98:ALA:HA	34:69:109:ILE:HD11	2.01	0.42
37:35:98:GLU:O	37:35:102:ARG:HG3	2.20	0.42
40:65:8:GLU:O	40:65:12:PHE:HB2	2.20	0.42
46:C5:96:ILE:HG23	46:C5:102:CYS:O	2.20	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
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
1:13:101:A:H8	1:13:101:A:OP2	2.03	0.42
1:13:159:G:H2'	1:13:161:A:OP2	2.20	0.42
1:13:569:C:H5''	1:13:570:G:OP1	2.20	0.42
1:13:963:G:C2	10:1I:55:LYS:NZ	2.88	0.42
1:13:967:C:H4'	9:8E:125:TYR:HE1	1.85	0.42
1:13:972:C:H4'	10:1I:57:LYS:HB2	2.01	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:153:ARG:HE	2:1E:153:ARG:HB2	1.68	0.42
2:1E:178:ARG:HH12	2:1E:196:LEU:C	2.22	0.42
2:1E:178:ARG:HH21	8:7E:74:PRO:HB3	1.85	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
20:BI:10:LEU:HG	20:BI:11:SER:N	2.34	0.42
22:1K:10:G:C6	22:1K:11:A:N6	2.88	0.42
23:2K:32:G:H2'	23:2K:33:OMC:H6	1.85	0.42
24:3K:5:G:N2	24:3K:69:G:C5	2.88	0.42
24:3K:34:G:C4	25:4K:14:A:C6	3.08	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
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: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:H6	26:1H:2501:C:H2'	1.66	0.42
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.54	0.42
32:41:72:ARG:HA	32:41:87:PRO:HA	2.02	0.42
32:41:116:ASP:HB3	32:41:117:PHE:H	1.59	0.42
33:51:6:ARG:HA	33:51:66:GLY:HA2	2.02	0.42
33:51:26:VAL:HB	33:51:33:LEU:O	2.20	0.42
34:61:132:PRO:O	34:61:133:HIS:ND1	2.53	0.42
41:B8:50:ILE:HD12	41:B8:50:ILE:HA	1.77	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
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
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.18	0.42
53:N8:50:GLY:H	53:N8:56:LYS:CG	2.29	0.42
1:1G:18:C:H6	1:1G:18:C:O5'	2.03	0.42
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:775:G:O2'	1:1G:776:G:H5'	2.20	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
2:12:145:LEU:O	2:12:149:LEU:HB2	2.20	0.42
3:22:44:GLU:HA	3:22:52:LEU:HD11	2.01	0.42
3:22:108:ASN:C	3:22:110:ASN:H	2.23	0.42
9:82:5:TYR:HA	9:82:17:VAL:O	2.20	0.42
9:82:42:ARG:HE	9:82:42:ARG:HB2	1.13	0.42
12:3A:69:TYR:HD2	12:3A:99:HIS:CD2	2.37	0.42
13:4A:3:ARG:HG2	13:4A:9:ILE:HG12	2.01	0.42
15:6A:12:ILE:H	15:6A:12:ILE:HG13	1.59	0.42
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.20	0.42
24:3L:36:A:H5'	24:3L:37:MIA:OP2	2.20	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
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
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
27:1J:11:C:H3'	27:1J:12:C:C6	2.55	0.42
29:19:270:ILE:H	29:19:270:ILE:HG12	1.51	0.42
39:55:97:VAL:HA	39:55:113:LEU:O	2.20	0.42
47:D5:54:HIS:NE2	47:D5:123:ASP:OD2	2.52	0.42
54:L5:22:MET:HE3	54:L5:22:MET:HB3	1.82	0.42
55:M5:14:VAL:HG11	55:M5:22:VAL:CG1	2.38	0.42
55:M5:46:ARG:HE	55:M5:46:ARG:HB3	1.44	0.42
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
1:13:942:G:C2	1:13:1342:C:C2	3.08	0.41
1:13:1309:G:C6	1:13:1329:A:C2	3.08	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
5:4E:16:THR:OG1	5:4E:17:ALA:N	2.50	0.41
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	2.01	0.41
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:758:C:O2	26:1H:1981:A:H2	2.03	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: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
27:16:50:G:OP2	40:A8:62:LYS:HB2	2.20	0.41
29:11:182:LEU:HA	29:11:182:LEU:HD23	1.79	0.41
30:21:35:GLN:HA	30:21:67:PHE:CE2	2.55	0.41
32:41:62:LEU:HA	32:41:62:LEU:HD12	1.79	0.41
32:41:82:LEU:HA	32:41:86:MET:SD	2.60	0.41
35:58:129:PRO:O	35:58:134:ARG:NH1	2.53	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
42:C8:106:PHE:O	42:C8:109:LEU:HB2	2.19	0.41
44:E8:29:LEU:HD21	44:E8:33:ARG:HH21	1.84	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
55:Q8:23:VAL:CG2	55:Q8:24:ALA:N	2.82	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
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
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
56:2L:19:G:C4	56:2L:59:A:C2	3.07	0.41
26:14:221:A:C5	26:14:266:G:N7	2.88	0.41
26:14:260:G:O4'	26:14:621:A:H1'	2.19	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
26:14:643:A:H2'	26:14:644:A:H8	1.85	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
26:14:1653:G:C6	39:55:9:LYS:HB2	2.55	0.41
26:14:1725:G:H5'	26:14:1726:G:OP2	2.20	0.41
26:14:2383:G:OP2	55:M5:37:SER:HB3	2.20	0.41
27:1J:33:G:C2	27:1J:34:U:C2	3.08	0.41
36:25:87:ILE:HD13	36:25:87:ILE:HG21	1.88	0.41
47:D5:161:VAL:HG23	47:D5:162:GLU:H	1.85	0.41
49:F5:18:ILE:HG22	49:F5:20:ARG:HG3	2.01	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
1:13:881:G:P	12:3I:12:ARG:NH2	2.93	0.41
1:13:1160:G:H1	1:13:1177:G:N2	2.18	0.41
4:3E:167:GLY:C	4:3E:168:ARG:HG2	2.40	0.41
10:1I:4:ILE:HD11	10:1I:100:THR:HG23	2.02	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
26:1H:182:A:H2'	26:1H:183:C:C6	2.55	0.41
26:1H:238:C:H2'	26:1H:239:U:O4'	2.20	0.41
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.68	0.41
26:1H:270(M):U:O2'	26:1H:270(N):G:H3'	2.21	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
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
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:2246:G:H2'	26:1H:2247:A:H8	1.85	0.41
26:1H:2450:A:C2	26:1H:2451:A:C4	3.08	0.41
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:29:GLY:HA2	30:21:180:ASN:HB3	2.01	0.41
30:21:170:LEU:HA	30:21:170:LEU:HD23	1.84	0.41
32:41:35:GLU:HG3	32:41:36:LYS:HB2	2.02	0.41
33:51:51:ARG:HG2	33:51:52:VAL:N	2.36	0.41
39:98:2:ARG:HG2	39:98:2:ARG:HH11	1.85	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
55:Q8:48:PHE:CE2	55:Q8:52:LYS:HB2	2.55	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:750:G:H1'	15:6A:22:THR:OG1	2.20	0.41
1:1G:985:C:N3	1:1G:1220:G:N2	2.58	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
5:42:12:LEU:HD23	5:42:12:LEU:HA	1.91	0.41
5:42:99:GLY:O	5:42:117:ASP:HA	2.21	0.41
5:42:100:VAL:HG23	5:42:118:ILE:HG22	2.02	0.41
5:42:155:GLU:H	5:42:155:GLU:HG2	1.61	0.41
8:72:34:GLU:O	8:72:38:ILE:HG13	2.20	0.41
12:3A:112:ASP:N	12:3A:112:ASP:OD1	2.52	0.41
18:9A:29:PHE:HD1	18:9A:29:PHE:H	1.67	0.41
56:2L:14:A:C6	56:2L:23:G:C6	3.08	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
26:14:65:C:H2'	26:14:66:C:C6	2.55	0.41
26:14:810:U:C2	37:35:29:LYS:O	2.74	0.41
26:14:998:C:H2'	26:14:999:U:O4'	2.19	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
27:1J:100:G:H2'	27:1J:101:A:O4'	2.19	0.41
30:29:92:THR:O	30:29:95:ILE:HG13	2.20	0.41
32:49:40:ASN:HB2	32:49:91:ARG:CG	2.47	0.41
35:15:91:LEU:HD22	35:15:91:LEU:HA	1.88	0.41
37:35:138:LEU:CD1	37:35:144:GLU:HG3	2.41	0.41
40:65:39:ILE:HD13	40:65:39:ILE:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:62:PRO:C	47:D5:64:GLY:H	2.24	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
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
4:3E:175:SER:HB3	4:3E:186:LEU:HD21	2.01	0.41
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	2.02	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
10:1I:63:PHE:HB3	14:5I:58:LYS:HA	2.01	0.41
26:1H:35:G:C4	26:1H:454:A:C2	3.08	0.41
26:1H:266:G:C6	26:1H:267:C:C5	3.08	0.41
26:1H:456:C:N4	45:F8:69:TYR:CZ	2.84	0.41
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
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
30:21:135:HIS:CE1	59:21:303:HOH:O	2.72	0.41
35:58:116:LEU:HD23	35:58:116:LEU:HA	1.77	0.41
39:98:99:LYS:HE3	39:98:99:LYS:HB2	1.90	0.41
41:B8:108:ARG:O	41:B8:111:ARG:HG2	2.20	0.41
45:F8:5:TYR:HB3	50:K8:33:MET:HB2	2.03	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
50:K8:33:MET:O	50:K8:37:PHE:HD1	2.02	0.41
1:1G:21:G:C2	1:1G:22:G:C5	3.09	0.41
1:1G:155:C:C2	1:1G:167:G:N2	2.88	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
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
3:22:70:VAL:O	3:22:106:VAL:N	2.54	0.41
5:42:24:ARG:HB3	5:42:24:ARG:NH1	2.35	0.41
5:42:105:VAL:HG21	5:42:128:PRO:HB3	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:82:ILE:H	10:1A:82:ILE:HG12	1.55	0.41
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.21	0.41
11:2A:84:VAL:HG23	11:2A:110:ASP:OD1	2.19	0.41
11:2A:98:LEU:O	11:2A:101:SER:OG	2.23	0.41
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.20	0.41
18:9A:61:LYS:O	18:9A:65:ILE:HG23	2.20	0.41
24:3L:29:G:C2'	24:3L:30:G:H5'	2.50	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
26:14:773:U:O2'	29:19:48:ARG:HD3	2.20	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
26:14:1010:A:N3	26:14:1153:C:H1'	2.36	0.41
26:14:1064:C:O2	26:14:1074:G:N2	2.53	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
26:14:2392:A:C8	37:35:61:ARG:HD2	2.51	0.41
26:14:2561:A:H2	36:25:23:ARG:HE	1.68	0.41
26:14:2729:G:H2'	26:14:2730:C:O4'	2.20	0.41
26:14:2787:C:O3'	30:29:61:ARG:NH1	2.54	0.41
26:14:2864:G:C6	26:14:2865:U:N3	2.88	0.41
30:29:11:MET:CA	30:29:24:THR:HA	2.47	0.41
30:29:116:VAL:HG21	30:29:122:PHE:CD2	2.56	0.41
30:29:117:MET:HB2	30:29:122:PHE:O	2.20	0.41
38:45:59:ARG:O	38:45:60:ARG:NH1	2.52	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:254:G:O2'	17:8I:16:GLN:O	2.32	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
1:13:1032(A):G:H2'	1:13:1032(B):G:C8	2.55	0.41
4:3E:62:GLN:OE1	4:3E:62:GLN:HA	2.20	0.41
6:5E:16:GLN:OE1	6:5E:16:GLN:N	2.53	0.41
7:6E:126:ASP:O	7:6E:130:GLY:N	2.53	0.41
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	2.03	0.41
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	2.03	0.41
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.20	0.41
11:2I:73:MET:HG3	11:2I:103:LEU:HD21	2.02	0.41
12:3I:35:GLY:O	12:3I:82:VAL:HG23	2.20	0.41
16:7I:77:ALA:CB	16:7I:79:VAL:H	2.34	0.41
23:2K:77:A:H5'	23:2K:77:A:H8	1.85	0.41
26:1H:503:A:C6	26:1H:506:G:C6	3.09	0.41
26:1H:1219:G:OP2	42:C8:19:LYS:HE3	2.20	0.41
26:1H:1268:A:C2	26:1H:2013:A:C4	3.08	0.41
26:1H:1949:G:C6	26:1H:1950:G:C6	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
29:11:273:ARG:H	29:11:273:ARG:HG3	1.67	0.41
34:61:128:LEU:O	34:61:137:PRO:HA	2.21	0.41
39:98:63:ARG:O	39:98:66:VAL:N	2.53	0.41
41:B8:6:LEU:HD13	41:B8:9:LEU:HB3	2.03	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
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
2:12:107:THR:O	2:12:110:GLN:HB3	2.20	0.41
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.86	0.41
6:52:22:GLU:OE2	6:52:82:ARG:NE	2.52	0.41
16:7A:54:GLU:HA	16:7A:57:ARG:HB2	2.02	0.41
56:2L:41:C:H2'	56:2L:42:C:H6	1.85	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
26:14:740:U:O4'	26:14:1981:A:C4	2.74	0.41
26:14:853:G:H2'	26:14:854:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:911:A:C6	38:45:9:TYR:CD2	3.08	0.41
26:14:1248:G:C8	31:39:92:PRO:HG3	2.56	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
26:14:2308: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
26:14:2846:G:H2'	26:14:2847:U:O4'	2.21	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
29:19:2:ALA:O	29:19:3:VAL:HB	2.20	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
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
31:39:28:ILE:HD13	31:39:119:ARG:HH21	1.85	0.41
33:59:167:GLU:HA	33:59:168:PRO:HD3	2.00	0.41
34:69:109:ILE:HB	34:69:130:TYR:OH	2.21	0.41
35:15:96:GLU:H	35:15:96:GLU:CD	2.24	0.41
39:55:38:VAL:HG22	39:55:112:ALA:HB2	2.02	0.41
42:85:95:LEU:HD11	43:95:11:GLN:O	2.20	0.41
44:A5:6:ILE:HG22	44:A5:8:ARG:HG3	2.01	0.41
45:B5:11:PRO:HD3	50:G5:37:PHE:CD2	2.55	0.41
49:F5:44:PRO:HB2	49:F5:46:LEU:CD1	2.49	0.41
55:M5:56:GLU:HB2	55:M5:57:ARG:NH1	2.35	0.41
1:13:49:U:C4	1:13:364:A:C5	3.08	0.41
1:13:115:G:C2	1:13:289:G:N7	2.89	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
1:13:1266:G:N2	1:13:1270:C:N3	2.69	0.41
2:1E:90:MET:HE1	2:1E:226:ARG:HH22	1.85	0.41
2:1E:214:ILE:H	2:1E:214:ILE:HG12	1.63	0.41
2:1E:219:VAL:O	2:1E:223:ILE:HG13	2.21	0.41
3:2E:87:LEU:O	3:2E:90:GLU:N	2.53	0.41
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.35	0.41
6:5E:4:TYR:CD1	6:5E:92:LYS:HA	2.55	0.41
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.36	0.41
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:109:GLY:HA3	12:3I:121:GLY:O	2.20	0.41
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.85	0.41
26:1H:196:A:N3	26:1H:196:A:H2'	2.35	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
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:H3'	26:1H:1647:G:OP2	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:2108:C:H2'	26:1H:2109:U:O4'	2.20	0.41
26:1H:2314:C:H5''	32:41:38:VAL:HG11	2.01	0.41
26:1H:2414:G:N3	26:1H:2414:G:H2'	2.34	0.41
26:1H:2843:G:O2'	26:1H:2844:G:H5'	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
28:71:182:PRO:O	28:71:185:LEU:HB2	2.19	0.41
30:21:27:LEU:HG	30:21:180:ASN:O	2.20	0.41
39:98:54:LEU:O	39:98:62:ALA:HB1	2.20	0.41
41:B8:42:ILE:HD12	41:B8:42:ILE:O	2.20	0.41
42:C8:27:LEU:HD22	42:C8:27:LEU:HA	1.90	0.41
43:D8:34:GLU:HG3	43:D8:56:SER:CB	2.48	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:537:G:H5''	12:3A:113:ARG:NH1	2.35	0.41
1:1G:628:G:N2	1:1G:629:G:C4	2.89	0.41
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.86	0.41
1:1G:937:A:H1'	1:1G:1379:G:C2	2.55	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:1499:A:O2'	1:1G:1500:A:H5'	2.21	0.41
3:22:90:GLU:HA	3:22:93:LYS:HB2	2.03	0.41
15:6A:49:ASP:OD2	15:6A:52:SER:OG	2.36	0.41
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
26:14:1668:A:OP1	36:25:5:GLN:HG2	2.20	0.41
26:14:2129:C:H2'	26:14:2130:U:O4'	2.20	0.41
26:14:2306:C:N4	32:49:42:GLY:O	2.40	0.41
26:14:2631:G:H1	26:14:2787:C:H42	1.67	0.41
27:1J:70:C:H2'	27:1J:71:C:H6	1.85	0.41
29:19:103:ARG:HE	29:19:103:ARG:HB3	1.45	0.41
30:29:64:LYS:HB3	30:29:65:GLY:H	1.56	0.41
31:39:27:GLU:O	31:39:28:ILE:HG12	2.20	0.41
32:49:43:LEU:O	32:49:46:ALA:HB3	2.21	0.41
35:15:21:LYS:O	35:15:60:ILE:HG13	2.20	0.41
36:25:9:GLU:O	36:25:83:ALA:HA	2.19	0.41
39:55:100:LEU:HG	39:55:112:ALA:HA	2.01	0.41
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.56	0.41
47:D5:68:PRO:HD2	47:D5:90:VAL:HG12	2.02	0.41
54:L5:34:ARG:NH1	54:L5:39:ARG:HE	2.18	0.41
1:13:103:C:C4	1:13:104:G:N7	2.88	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
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
3:2E:12:LEU:HD23	3:2E:12:LEU:HA	1.68	0.41
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.21	0.41
7:6E:57:GLU:HA	7:6E:58:PRO:HD2	1.89	0.41
9:8E:22:GLY:HA3	9:8E:60:ASP:OD2	2.21	0.41
13:4I:74:VAL:O	13:4I:78:ILE:HG13	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
19:AI:78:ARG:NH1	19:AI:79:THR:HA	2.32	0.41
24:3K:18:G:C5	24:3K:57:G:N1	2.86	0.41
25:4K:24:A:H2'	25:4K:25:A:C8	2.55	0.41
26:1H:282:A:C8	26:1H:359:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:664:C:H4'	26:1H:941:A:OP1	2.19	0.41
26:1H:908:C:O2'	26:1H:909:A:H5'	2.20	0.41
26:1H:973:A:OP2	59:1H:3811:HOH:O	2.22	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
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
35:58:23:LEU:HA	35:58:23:LEU:HD12	1.67	0.41
38:88:82:ARG:HD2	38:88:82:ARG:HH11	1.70	0.41
39:98:17:ARG:O	39:98:20:LEU:HB3	2.20	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
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
1:1G:910:C:P	12:3A:21:LYS:HZ1	2.39	0.41
1:1G:1286:A:H3'	1:1G:1286:A:H8	1.84	0.41
1:1G:1305:G:H5''	21:1B:4:GLY:C	2.41	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
2:12:78:GLN:HG2	2:12:94:ASN:O	2.21	0.41
3:22:20:SER:HB2	3:22:40:ARG:HH12	1.85	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
4:32:13:ARG:C	4:32:15:GLU:N	2.73	0.41
7:62:150:ALA:HA	11:2A:59:TYR:HD2	1.85	0.41
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.19	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.20	0.41
13:4A:84:ILE:C	13:4A:86:CYS:N	2.71	0.41
56:2L:32:G:N3	56:2L:32:G:H2'	2.34	0.41
24:3L:50:U:C2	24:3L:65:G:N2	2.89	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
26:14:1535:U:H2'	26:14:1536:A:O4'	2.20	0.41
26:14:1648:C:H42	26:14:2009:G:H1	1.69	0.41
26:14:1790:C:H2'	26:14:1791:A:C5	2.56	0.41
26:14:2302:G:H2'	26:14:2303:G:O4'	2.21	0.41
27:1J:61:G:C6	27:1J:62:C:C4	3.08	0.41
30:29:89:ASP:O	30:29:91:VAL:N	2.37	0.41
31:39:15:SER:OG	31:39:16:GLY:N	2.51	0.41
31:39:146:ALA:HB3	31:39:148:LEU:H	1.85	0.41
31:39:170:LEU:HD23	31:39:170:LEU:HA	1.78	0.41
31:39:177:ALA:HB1	31:39:178:PRO:HD2	2.03	0.41
32:49:103:LEU:HD22	32:49:178:PHE:CZ	2.55	0.41
33:59:94:TYR:CD1	33:59:94:TYR:N	2.88	0.41
35:15:72:TYR:HE2	35:15:87:LEU:HD23	1.85	0.41
36:25:34:THR:HG22	36:25:37:ASP:OD2	2.20	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
52:I5:40:HIS:CG	52:I5:45:GLY:HA3	2.54	0.41
1:13:67:C:H2'	1:13:68:G:H8	1.85	0.41
1:13:109:A:C6	1:13:326:G:C5	3.09	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
1:13:909: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
1:13:1118:C:O4'	1:13:1179:A:H1'	2.21	0.41
8:7E:104:ARG:O	8:7E:107:LEU:HB2	2.20	0.41
9:8E:18:PHE:O	9:8E:61:ALA:HA	2.21	0.41
10:1I:40:LEU:HD23	10:1I:40:LEU:HA	1.83	0.41
15:6I:45:VAL:HG12	15:6I:46:HIS:CD2	2.56	0.41
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.19	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
26:1H:1084:A:C8	26:1H:1085:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1276:A:H1'	39:98:16:HIS:NE2	2.35	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:H8	26:1H:2170:A:OP2	2.04	0.41
26:1H:2335:A:N7	26:1H:2337:G:C4	2.89	0.41
27:16:4:C:H42	27:16:116:G:H1	1.67	0.41
29:11:25:THR:HG21	29:11:81:ALA:HA	2.01	0.41
29:11:106:ILE:HD13	29:11:106:ILE:HG21	1.74	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
32:41:146:TYR:O	32:41:149:VAL:HG22	2.20	0.41
35:58:17:ASP:O	35:58:18:ALA:HB3	2.20	0.41
35:58:126:PRO:HB2	35:58:127:ASP:OD1	2.20	0.41
37:78:82:GLY:HA2	37:78:113:LYS:O	2.20	0.41
37:78:83:VAL:HG11	37:78:112:LEU:HD21	2.03	0.41
42:C8:69:CYS:SG	42:C8:79:PHE:CD2	3.11	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
1:1G: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
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
2:12:81:VAL:O	2:12:85:ALA:HB2	2.20	0.41
2:12:131:PRO:HG2	2:12:134:GLU:HB2	2.01	0.41
5:42:9:LYS:HB3	5:42:33:VAL:HB	2.03	0.41
5:42:80:ILE:HG12	5:42:81:GLU:N	2.36	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
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
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
26:14:849:A:C2	51:H5:24:LYS:HB3	2.49	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
32:49:82:LEU:HA	32:49:86:MET:SD	2.60	0.41
33:59:83:TYR:CG	33:59:84:SER:N	2.89	0.41
37:35:86:LYS:HG3	37:35:87:ASP:N	2.36	0.41
37:35:110:TYR:HB3	37:35:111:ARG:H	1.44	0.41
42:85:88:ILE:C	42:85:90:VAL:H	2.24	0.41
43:95:2:PHE:CD1	43:95:42:GLY:HA2	2.56	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
49:F5:5:CYS:HB3	49:F5:10:LYS:H	1.86	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
1:13:881:G:P	12:3I:12:ARG:HH22	2.44	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
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.50	0.41
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.21	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
4:3E:206:PHE:HD2	4:3E:207:TYR:CE1	2.39	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
5:4E:77:PRO:HD2	5:4E:142:LEU:HD13	2.03	0.41
5:4E:101:ILE:HD13	5:4E:101:ILE:HA	1.82	0.41
12:3I:83:VAL:HG22	12:3I:84:LEU:H	1.86	0.41
12:3I:98:TYR:N	12:3I:98:TYR:CD1	2.88	0.41
23:2K:20:G:C2	23:2K:58:A:C4	3.09	0.41
26:1H:43:G:N2	26:1H:438:G:C4	2.89	0.41
26:1H:216:A:C4	26:1H:432:A:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:654(H):G:N2	26:1H:654(I):C:H5	2.18	0.41
26:1H:1006:C:O2	35:58:106:MET:HG2	2.20	0.41
26:1H:1287:A:N7	39:98:107:ASP:HB2	2.35	0.41
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:2252:G:H2'	26:1H:2253:G:O4'	2.20	0.41
26:1H:2359:C:O3'	55:Q8:49:VAL:HG11	2.19	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
28:71:45:ALA:CA	28:71:212:VAL:HA	2.51	0.41
31:31:65:TRP:CD1	31:31:65:TRP:N	2.88	0.41
33:51:43:VAL:HB	33:51:52:VAL:HG22	2.02	0.41
34:61:97:ILE:H	34:61:97:ILE:HG12	1.64	0.41
34:61:128:LEU:HD23	34:61:128:LEU:HA	1.66	0.41
38:88:18:LYS:HB2	38:88:18:LYS:HE3	1.59	0.41
40:A8:15:ARG:O	40:A8:19:LYS:HD2	2.20	0.41
55:Q8:7:HIS:O	55:Q8:8:LYS:C	2.59	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
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.67	0.41
1:1G:1447:G:H8	1:1G:1447:G:O5'	2.04	0.41
4:32:108:LEU:HD12	4:32:108:LEU:HA	1.78	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
12:3A:11:VAL:HG22	17:8A:29:HIS:HD2	1.86	0.41
14:5A:53:LEU:HA	14:5A:54:PRO:HD3	1.77	0.41
16:7A:19:ILE:HD12	16:7A:38:TYR:N	2.35	0.41
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.20	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
26:14:84:A:H61	26:14:102:G:C2'	2.33	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
26:14:1239: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2322:A:H2'	26:14:2323:G:O4'	2.20	0.41
27:1J:96:G:C6	27:1J:97:G:C5	3.09	0.41
29:19:71:ASP:OD1	29:19:71:ASP:N	2.53	0.41
29:19:148:GLU:O	29:19:151:LYS:HB2	2.20	0.41
32:49:43:LEU:HD12	32:49:45:GLU:OE1	2.21	0.41
40:65:5:THR:O	40:65:8:GLU:HB2	2.20	0.41
40:65:7:TYR:O	40:65:11:LYS:HB2	2.21	0.41
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.20	0.41
44:A5:73:ALA:H	44:A5:106:ILE:HG13	1.86	0.41
46:C5:55:TYR:N	46:C5:55:TYR:CD1	2.89	0.41
47:D5:61:LEU:HB3	47:D5:62:PRO:O	2.20	0.41
1:13:55:A:C5	1:13:56:U:C5	3.08	0.41
1:13:232:G:C5	1:13:233:C:C5	3.08	0.41
1:13:298:A:H2'	1:13:299:G:C8	2.55	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
1:13:689:C:OP1	11:2I:44:SER:OG	2.37	0.41
1:13:728:A:N6	15:6I:54:ARG:HG3	2.35	0.41
1:13:749:C:O2	1:13:750:G:C8	2.73	0.41
1:13:750:G:C2	1:13:751:U:C5	3.09	0.41
1:13:827:U:C5	1:13:872:A:N1	2.89	0.41
1:13:916:G:H2'	1:13:917:G:H8	1.85	0.41
1:13:988:G:H2'	1:13:989:C:O4'	2.21	0.41
1:13:1053:G:C4	1:13:1199:U:C4	3.09	0.41
1:13:1093:A:C2	1:13:1095:U:H5'	2.56	0.41
1:13:1202:G:H8	1:13:1202:G:O5'	2.04	0.41
1:13:1367:C:H5''	9:8E:114:TYR:CB	2.50	0.41
1:13:1372:U:H5''	9:8E:71:SER:CB	2.47	0.41
1:13:1483:A:O2'	26:1H:1947:C:O2'	2.17	0.41
2:1E:21:ARG:HB3	2:1E:39:ILE:HD13	2.02	0.41
2:1E:23:ARG:HB3	2:1E:23:ARG:CZ	2.51	0.41
3:2E:90:GLU:O	3:2E:94:LEU:HD23	2.21	0.41
3:2E:152:ILE:HG13	3:2E:167:TRP:HB2	2.03	0.41
4:3E:108:LEU:HD12	4:3E:174:LEU:HD13	2.03	0.41
4:3E:184:LYS:HZ2	4:3E:184:LYS:HG3	1.74	0.41
6:5E:5:GLU:HG3	6:5E:93:SER:OG	2.21	0.41
7:6E:16:LEU:HD23	7:6E:16:LEU:HA	1.69	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
9:8E:6:GLY:O	9:8E:17:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:96:LEU:O	9:8E:99:LEU:HB2	2.21	0.41
10:1I:26:ALA:C	10:1I:30:SER:HB3	2.41	0.41
11:2I:66:LEU:HD23	11:2I:66:LEU:HA	1.64	0.41
15:6I:36:ILE:HG22	15:6I:37:ASN:N	2.36	0.41
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.21	0.41
17:8I:45:HIS:ND1	17:8I:46:ASP:N	2.69	0.41
20:BI:16:HIS:HA	20:BI:19:SER:HB3	2.03	0.41
20:BI:34:LYS:HE3	20:BI:34:LYS:HB2	1.92	0.41
22:1K:45:A:H8	22:1K:45:A:O5'	2.04	0.41
24:3K:5:G:C5	24:3K:6:G:N7	2.89	0.41
26:1H:234:C:H2'	26:1H:235:U:H6	1.86	0.41
26:1H:299:A:H62	26:1H:300:A:N6	2.18	0.41
26:1H:526:A:N3	26:1H:2044:C:H1'	2.36	0.41
26:1H:661:C:O3'	37:78:15:ARG:NE	2.54	0.41
26:1H:722:A:C2	26:1H:723:G:C4	3.08	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:844:C:C5	26:1H:845:G:C5	3.09	0.41
26:1H:860:U:H5	26:1H:917:A:N1	2.18	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
26:1H:1049:C:H1'	26:1H:1113:U:H4'	2.03	0.41
26:1H:1408:C:C2	26:1H:1595:G:N2	2.89	0.41
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.45	0.41
26:1H:1475:G:N2	26:1H:1476:C:C2	2.88	0.41
26:1H:1526:G:C6	26:1H:1527:G:C2	3.09	0.41
26:1H:1742:C:O5'	26:1H:1742:C:H6	2.04	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: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:2281:C:O2'	26:1H:2282:G:H5'	2.21	0.41
26:1H:2757:A:H5''	59:1H:4324:HOH:O	2.21	0.41
26:1H:2819:G:C6	26:1H:2821:A:C2	3.09	0.41
27:16:63:G:N2	27:16:64:C:C2	2.89	0.41
29:11:33:LEU:HA	29:11:33:LEU:HD23	1.75	0.41
29:11:60:ARG:HD3	29:11:86:PRO:CB	2.33	0.41
29:11:120:GLY:N	29:11:130:ALA:O	2.53	0.41
29:11:155:LEU:HD13	29:11:155:LEU:N	2.36	0.41
29:11:177:LEU:HD12	29:11:181:GLU:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:264:LYS:HG2	29:11:266:SER:HB3	2.01	0.41
30:21:6:GLY:HA3	30:21:26:ILE:HD11	2.01	0.41
30:21:166:THR:HG21	30:21:199:ARG:HH22	1.86	0.41
31:31:31:HIS:NE2	31:31:35:GLU:OE2	2.53	0.41
32:41:49:ASP:OD2	32:41:51:ARG:HB3	2.20	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
35:58:14:VAL:HG12	35:58:15:LEU:H	1.86	0.41
35:58:56:ASN:C	35:58:57:ALA:O	2.58	0.41
37:78:100:LEU:O	37:78:105:LEU:HD12	2.20	0.41
37:78:112:LEU:HD23	37:78:112:LEU:HA	1.79	0.41
38:88:1:MET:HB3	38:88:2:LEU:H	1.69	0.41
38:88:37:LEU:HB2	38:88:128:LYS:O	2.21	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
42:C8:85:LYS:HA	42:C8:85:LYS:HZ3	1.85	0.41
43:D8:35:LEU:HD11	43:D8:57:VAL:HG12	2.03	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:H8:56:VAL:HA	47:H8:70:LEU:HD23	2.03	0.41
47:H8:137:ILE:HG22	47:H8:155:LEU:HD22	2.02	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
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
1:1G:39:G:N7	1:1G:547:A:H2'	2.36	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:328:C:H4'	1:1G:329:A:H5''	2.02	0.41
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.41
1:1G:458:C:C2	1:1G:464:G:C8	3.08	0.41
1:1G:512:U:H2'	1:1G:513:C:H6	1.83	0.41
1:1G:603:U:H2'	1:1G:604:G:C8	2.56	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
1:1G:1004:A:H5''	1:1G:1025:U:C4	2.55	0.41
1:1G:1093:A:N3	1:1G:1095:U:H5''	2.36	0.41
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1261:A:H5'	1:1G:1283:G:O3'	2.21	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:1417:G:H2'	1:1G:1482:G:N2	2.36	0.41
2:12:128:GLU:HG3	2:12:129:GLU:OE1	2.20	0.41
3:22:40:ARG:NH1	3:22:57:ILE:HD12	2.36	0.41
7:62:89:MET:HE3	7:62:155:ARG:HG3	2.03	0.41
8:72:44:PHE:CD1	8:72:80:ILE:HG13	2.55	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
15:6A:48:LYS:HA	15:6A:48:LYS:HZ2	1.81	0.41
16:7A:5:ARG:HE	16:7A:22:THR:CG2	2.33	0.41
18:9A:22:VAL:C	18:9A:24:ALA:H	2.24	0.41
19:AA:50:ALA:HB1	19:AA:57:HIS:C	2.41	0.41
56:2L:44:A:H2'	56:2L:45:A:C8	2.55	0.41
26:14:26:G:C6	26:14:27:G:C6	3.09	0.41
26:14:55:G:O2'	26:14:127:A:N1	2.47	0.41
26:14:111:A:C6	26:14:112:U:C4	3.09	0.41
26:14:380:U:H2'	26:14:381:G:C8	2.56	0.41
26:14:642:G:C8	26:14:642:G:C3'	3.04	0.41
26:14:659:C:H4'	31:39:100:THR:O	2.21	0.41
26:14:819:A:H2'	26:14:820:A:H5'	2.03	0.41
26:14:926:A:H5''	26:14:928:G:OP2	2.21	0.41
26:14:1054:A:H62	26:14:1104:C:N4	2.16	0.41
26:14:1061:U:H3'	26:14:1062:G:H5'	2.03	0.41
26:14:1299:G:C5	26:14:1639:U:C5	3.09	0.41
26:14:1349:A:N6	26:14:1598:C:N4	2.69	0.41
26:14:1387:C:H5'	26:14:1469:A:H4'	2.03	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
26:14:1791:A:O2'	29:19:207:GLY:HA2	2.21	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
26:14:2026:C:C4	26:14:2027:G:N7	2.89	0.41
26:14:2041:U:C2	26:14:2042:A:C8	3.09	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
26:14:2233:U:H2'	26:14:2234:G:C8	2.55	0.41
26:14:2238:G:N3	26:14:2238:G:H2'	2.36	0.41
26:14:2299:G:C6	26:14:2318:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2355:C:H5''	26:14:2356:C:OP2	2.21	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
27:1J:95:U:N3	27:1J:96:G:N7	2.68	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
30:29:35:GLN:O	30:29:48:GLN:HB2	2.21	0.41
31:39:110:LEU:O	31:39:114:VAL:HG23	2.21	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
33:59:30:LYS:HD3	33:59:80:SER:O	2.21	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
37:35:35:HIS:HB3	37:35:36:LYS:H	1.66	0.41
39:55:37:THR:HB	39:55:39:PRO:HD2	2.03	0.41
40:65:69:VAL:HG13	40:65:101:LEU:HD13	2.03	0.41
41:75:27:THR:CG2	41:75:90:GLN:HB3	2.51	0.41
42:85:74:LEU:H	42:85:74:LEU:HD23	1.86	0.41
47:D5:124:ILE:HD12	47:D5:124:ILE:HA	1.85	0.41
50:G5:50:ILE:HD13	50:G5:50:ILE:H	1.86	0.41
52:I5:10:VAL:HA	52:I5:11:PRO:HD2	1.83	0.41
1:13:21:G:C2	1:13:22:G:C5	3.09	0.41
1:13:116:A:H2'	1:13:117:G:O4'	2.21	0.41
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.20	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
1:13:1104:G:H4'	2:1E:111:ARG:NH1	2.36	0.41
1:13:1309:G:C6	1:13:1310:G:C5	3.08	0.41
2:1E:36:ARG:C	2:1E:38:GLY:H	2.24	0.41
2:1E:69:LEU:HB2	2:1E:159:PRO:HG3	2.03	0.41
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	2.03	0.41
11:2I:33:THR:HB	11:2I:37:GLY:C	2.41	0.41
13:4I:82:MET:HE2	13:4I:93:ARG:HG2	2.03	0.41
15:6I:82:ILE:HG23	15:6I:87:ILE:HB	2.03	0.41
19:AI:30:LEU:H	19:AI:30:LEU:HD13	1.86	0.41
23:2K:38:A:C4	23:2K:39:A:C8	3.09	0.41
26:1H:311:A:C6	26:1H:328:U:C4	3.09	0.41
26:1H:466:A:N3	26:1H:683:C:H1'	2.36	0.41
26:1H:628:G:H2'	26:1H:629:G:C8	2.56	0.41
26:1H:1301:A:N3	26:1H:1301:A:H2'	2.35	0.41
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H8	26:1H:1581:G:O5'	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:2512:C:H4'	30:21:122:PHE:CE2	2.56	0.41
26:1H:2880:C:H2'	26:1H:2881:C:H6	1.86	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
28:71:45:ALA:N	28:71:212:VAL:HA	2.35	0.41
29:11:59:LYS:HD2	29:11:59:LYS:HA	1.70	0.41
29:11:136:ILE:H	29:11:136:ILE:HG12	1.67	0.41
31:31:38:ARG:O	31:31:38:ARG:HG2	2.20	0.41
31:31:161:GLU:H	31:31:161:GLU:HG2	1.67	0.41
36:68:64:ARG:HH11	36:68:64:ARG:HD2	1.77	0.41
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.30	0.41
41:B8:95:ARG:HA	41:B8:95:ARG:HH11	1.86	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:HE	55:Q8:57:ARG:N	2.17	0.41
1:1G:302:G:H2'	1:1G:303:A:O4'	2.21	0.41
1:1G:309:G:O2'	1:1G:607:A:N1	2.54	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: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:H2'	1:1G:993:G:N3	2.36	0.41
1:1G:1290:G:C5	1:1G:1291:G:N7	2.89	0.41
2:12:105:PHE:O	2:12:108:ILE:N	2.54	0.41
3:22:43:LEU:HD22	3:22:43:LEU:HA	1.86	0.41
3:22:178:LEU:HA	3:22:178:LEU:HD13	1.90	0.41
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	2.03	0.41
21:1B:6:ARG:HH11	21:1B:15:ARG:NH1	2.19	0.41
56:2L:3:C:H42	56:2L:71:G:H1	1.69	0.41
56:2L:21:U:O2	56:2L:21:U:H2'	2.21	0.41
26:14:9:U:O4	26:14:2629:A:N7	2.54	0.41
26:14:199:A:C4	26:14:2433:A:C2	3.09	0.41
26:14:311:A:C6	26:14:328:U:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:2600:A:C6	26:14:2601:C:N4	2.89	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
29:19:30:GLU:HG3	29:19:32:SER:O	2.21	0.41
29:19:46:GLN:H	29:19:46:GLN:HG2	1.68	0.41
30:29:60:ASN:C	30:29:62:PRO:HD3	2.41	0.41
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.51	0.41
33:59:140:LYS:HE2	33:59:140:LYS:HB3	1.87	0.41
37:35:62:LEU:HD12	37:35:62:LEU:HA	1.68	0.41
37:35:85:LEU:HD13	37:35:115:LEU:O	2.21	0.41
40:65:101:LEU:O	40:65:105:ALA:N	2.51	0.41
45:B5:31:HIS:HA	45:B5:32:PRO:HD3	1.76	0.41
47:D5:10:ARG:HB2	47:D5:37:VAL:CA	2.50	0.41
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
1:13:1011:G:H2'	1:13:1012:U:O4'	2.21	0.40
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.03	0.40
2:1E:4:GLU:HB3	2:1E:5:ILE:H	1.66	0.40
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.51	0.40
5:4E:152:ARG:HB3	8:7E:43:GLY:O	2.21	0.40
7:6E:26:PHE:O	7:6E:30:ILE:HG13	2.21	0.40
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.40
10:1I:36:GLY:HA2	10:1I:37:PRO:HD3	1.88	0.40
11:2I:21:ILE:HB	11:2I:84:VAL:HG12	2.02	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
13:4I:13:LYS:HB3	13:4I:14:ARG:H	1.51	0.40
19:AI:15:LEU:O	19:AI:19:VAL:N	2.42	0.40
20:BI:50:GLU:HB2	20:BI:100:ILE:HD13	2.02	0.40
26:1H:223:A:N1	26:1H:407:G:O2'	2.36	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.21	0.40
26:1H:993:G:C4	26:1H:994:C:C5	3.09	0.40
26:1H:1071:G:H8	26:1H:1071:G:O5'	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: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
27:16:80:U:O2'	27:16:81:G:H5'	2.21	0.40
28:71:18:LYS:HB3	28:71:18:LYS:HZ2	1.86	0.40
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
30:21:117:MET:HA	30:21:122:PHE:N	2.36	0.40
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.55	0.40
32:41:52:ILE:HD13	32:41:52:ILE:HA	1.94	0.40
32:41:114:ILE:HG12	32:41:140:ILE:HG21	2.04	0.40
33:51:124:GLU:C	33:51:126:PRO:HD3	2.41	0.40
37:78:112:LEU:HD22	37:78:113:LYS:N	2.36	0.40
39:98:92:GLY:N	39:98:94:TYR:HE1	2.19	0.40
41:B8:102:ILE:HB	41:B8:110:ILE:CD1	2.50	0.40
45:F8:44:GLU:HG2	45:F8:49:VAL:O	2.21	0.40
46:G8:64:GLU:H	46:G8:64:GLU:HG2	1.78	0.40
47:H8:18:LEU:HD12	47:H8:18:LEU:N	2.36	0.40
47:H8:36:LYS:HB2	47:H8:36:LYS:HE3	1.80	0.40
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
1:1G:452:A:HO2'	1:1G:453:A:C4'	2.34	0.40
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.22	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1278:U:H5'	1:1G:1279:A:O4'	2.22	0.40
2:12:111:ARG:HD3	2:12:111:ARG:HA	1.86	0.40
4:32:106:TYR:HA	4:32:111:ALA:HB3	2.03	0.40
4:32:120:LEU:HG	4:32:120:LEU:H	1.63	0.40
5:42:60:TYR:HD2	5:42:64:ARG:HH12	1.68	0.40
9:82:79:LEU:O	9:82:83:ARG:N	2.44	0.40
12:3A:89:ARG:HG2	12:3A:90:VAL:H	1.87	0.40
13:4A:7:VAL:HG21	32:49:115:ARG:CZ	2.52	0.40
16:7A:20:VAL:HG11	16:7A:32:TYR:CE2	2.56	0.40
56:2L:53:G:H2'	56:2L:54:G:O4'	2.21	0.40
24:3L:19:G:C1'	24:3L:57:G:H21	2.34	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
26:14:96:G:H4'	50:G5:48:HIS:ND1	2.36	0.40
26:14:449:A:C4	26:14:450:G:C8	3.10	0.40
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
26:14:1287: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
27:1J:76:G:H2'	27:1J:77:U:O4'	2.20	0.40
27:1J:101:A:OP2	27:1J:101:A:C8	2.70	0.40
30:29:182:LEU:HA	30:29:182:LEU:HD12	1.72	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
33:59:54:ARG:HD2	33:59:56:SER:O	2.21	0.40
39:55:30:THR:HG22	39:55:31:HIS:ND1	2.36	0.40
39:55:104:ARG:H	39:55:104:ARG:HG3	1.60	0.40
40:65:84:GLN:HA	40:65:110:LEU:CD1	2.50	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
44:A5:72:LYS:HB3	44:A5:106:ILE:CD1	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B5:35:THR:HG23	45:B5:38:GLU:CB	2.51	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
55:M5:54:GLU:H	55:M5:54:GLU:HG3	1.63	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
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
2:1E:114:ARG:NH2	2:1E:141:GLU:OE1	2.55	0.40
11:2I:60:ALA:HA	11:2I:63:LEU:HD12	2.04	0.40
18:9I:65:ILE:H	18:9I:65:ILE:HG13	1.69	0.40
20:BI:57:ARG:CZ	20:BI:102:GLY:HA2	2.51	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
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:805:G:P	37:78:41:ARG:HG2	2.61	0.40
26:1H:972:G:H8	26:1H:972:G:O5'	2.04	0.40
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:H8	26:1H:1580:A:OP2	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
27:16:17:C:N4	27:16:108:C:N3	2.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:63:ARG:HG2	29:11:92:ILE:CD1	2.51	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
32:41:97:ASP:O	32:41:98:ARG:C	2.59	0.40
37:78:91:PHE:CD1	37:78:91:PHE:N	2.89	0.40
37:78:114:ILE:HD11	37:78:130:PHE:CD2	2.56	0.40
39:98:44:LEU:O	39:98:45:ARG:C	2.60	0.40
41:B8:48:ILE:O	41:B8:63:VAL:HA	2.22	0.40
41:B8:114:LEU:HA	41:B8:114:LEU:HD23	1.71	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
49:J8:32:LYS:HZ3	49:J8:32:LYS:HG3	1.75	0.40
55:Q8:47:LYS:NZ	55:Q8:47:LYS:CA	2.84	0.40
1:1G:102:G:H2'	1:1G:103: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
1:1G:1028(A):C:C4	1:1G:1028(B):C:H5	2.38	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
3:22:94:LEU:HD12	3:22:95:THR:H	1.86	0.40
5:42:41:VAL:O	5:42:67:VAL:N	2.53	0.40
7:62:73:MET:HE3	7:62:73:MET:HB2	1.98	0.40
7:62:143:ARG:HH12	24:3L:42:C:P	2.42	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
13:4A:94:ARG:NH2	19:AA:78:ARG:HH12	2.19	0.40
18:9A:70:ILE:O	18:9A:74:ARG:HG3	2.20	0.40
24:3L:10:G:C5	24:3L:26:A:C2	3.10	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
26:14:74:A:H4'	26:14:75:G:O5'	2.21	0.40
26:14:265:A:C8	26:14:266:G:H1'	2.57	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
26:14:977:G:N3	26:14:978:G:C8	2.89	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
26:14:2684:U:H2'	26:14:2685:G:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:39:82:ILE:O	31:39:82:ILE:HG22	2.21	0.40
34:69:76:THR:HG21	34:69:139:GLN:O	2.20	0.40
34:69:102:SER:HB3	34:69:108:THR:HG23	2.02	0.40
38:45:16:ARG:HE	38:45:16:ARG:HB2	1.28	0.40
40:65:15:ARG:O	40:65:19:LYS:HD3	2.20	0.40
41:75:19:LEU:HA	41:75:20:PRO:HD3	1.93	0.40
44:A5:23:LEU:HD13	44:A5:23:LEU:HA	1.91	0.40
45:B5:3:THR:HG22	45:B5:6:ASP:OD2	2.20	0.40
47:D5:53:ILE:HA	47:D5:70:LEU:HD22	2.03	0.40
53:J5:16:ARG:HG3	53:J5:17:ASP:OD1	2.20	0.40
1:13:101:A:C4	1:13:102:G:C8	3.10	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
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
1:13:1422:G:H5''	36:68:48:PRO:CB	2.51	0.40
3:2E:12:LEU:HB3	3:2E:13:GLY:H	1.59	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
9:8E:42:ARG:H	9:8E:42:ARG:HG2	1.62	0.40
11:2I:32:ILE:H	11:2I:32:ILE:HG13	1.76	0.40
13:4I:90:LEU:O	13:4I:93:ARG:HB2	2.22	0.40
13:4I:108:ARG:HH11	13:4I:108:ARG:CG	2.25	0.40
16:7I:4:ILE:HG12	16:7I:21:VAL:HG22	2.03	0.40
16:7I:43:LYS:HG2	16:7I:48:TRP:CZ3	2.56	0.40
17:8I:25:ARG:O	17:8I:37:LYS:HA	2.21	0.40
20:BI:43:LEU:O	20:BI:46:GLU:N	2.53	0.40
23:2K:20:G:C4	23:2K:58:A:C2	3.10	0.40
26:1H:7:G:N2	26:1H:8:A:N3	2.70	0.40
26:1H:55:G:C2	26:1H:116:C:C2	3.09	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:958:U:O2	27:16:89(A):A:H4'	2.21	0.40
26:1H:1280:G:N2	26:1H:1291:C:C2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H8	26:1H:1690:A:O5'	2.03	0.40
26:1H:1844:C:H5''	29:11:258:LYS:HD3	2.03	0.40
26:1H:2032:G:N2	30:21:146:THR:HG23	2.19	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
27:16:10:C:N4	27:16:110:G:H1	2.18	0.40
29:11:105:ILE:HD12	29:11:105:ILE:HA	1.80	0.40
29:11:177:LEU:HB3	29:11:178:PRO:CD	2.51	0.40
30:21:202:LYS:HA	30:21:202:LYS:HD3	1.94	0.40
31:31:130:ALA:C	31:31:132:VAL:H	2.23	0.40
32:41:112:PRO:HG3	52:M8:38:LYS:HD2	2.03	0.40
33:51:54:ARG:HE	33:51:62:LYS:HG3	1.85	0.40
39:98:48:VAL:O	39:98:49:ASP:C	2.59	0.40
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.19	0.40
46:G8:77:PRO:HD2	46:G8:97:ARG:HD3	2.04	0.40
47:H8:16:SER:HB2	47:H8:20:ARG:NH1	2.36	0.40
47:H8:128:VAL:CB	47:H8:161:VAL:HG21	2.51	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:HD13	52:M8:14:ILE:HG21	1.87	0.40
55:Q8:8:LYS:HD2	55:Q8:8:LYS:H	1.85	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
1:1G:12:U:H4'	1:1G:526:C:H4'	2.04	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
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
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.57	0.40
1:1G:1305:G:P	1:1G:1305:G:O4'	2.79	0.40
1:1G:1331:G:H4'	1:1G:1331:G:OP1	2.21	0.40
1:1G:1346:A:N1	1:1G:1374:A:H5''	2.36	0.40
2:12:8:LYS:NZ	2:12:213:LEU:HD21	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:69:LEU:HA	2:12:91:PRO:O	2.21	0.40
4:32:155:LEU:HD23	4:32:155:LEU:HA	1.90	0.40
5:42:135:THR:O	5:42:139:LEU:HG	2.21	0.40
7:62:44:TYR:O	7:62:47:CYS:N	2.55	0.40
12:3A:30:ALA:HB2	12:3A:33:ARG:HH11	1.85	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
14:5A:12:ARG:H	14:5A:12:ARG:HG3	1.45	0.40
24:3L:67:C:H2'	24:3L:68:C:C6	2.57	0.40
26:14:141:A:N6	26:14:1595:G:O2'	2.54	0.40
26:14:621:A:H3'	26:14:622:G:H8	1.87	0.40
26:14:817:C:O5'	26:14:817:C:H6	2.05	0.40
26:14:900:A:H2'	26:14:900:A:N3	2.37	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
26:14:1672: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
27:1J:17:C:H2'	27:1J:18:G:O4'	2.20	0.40
27:1J:66:A:N1	27:1J:108:C:C6	2.89	0.40
30:29:1:MET:HA	30:29:84:PHE:HB2	2.03	0.40
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.76	0.40
31:39:65:TRP:CD1	31:39:65:TRP:N	2.84	0.40
31:39:68:LYS:HD3	31:39:68:LYS:HA	1.82	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
32:49:61:ALA:HA	32:49:64:THR:HG23	2.02	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
38:45:1:MET:N	38:45:69:PHE:HE1	2.20	0.40
38:45:3:MET:HB2	38:45:93:TYR:CE1	2.56	0.40
41:75:32:TYR:CE1	41:75:82:LEU:HB3	2.56	0.40
41:75:39:ARG:NH1	41:75:41:ARG:HB3	2.36	0.40
42:85:27:LEU:HA	42:85:27:LEU:HD22	1.71	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
47:D5:127:LYS:HE2	47:D5:127:LYS:HB3	1.66	0.40
48:E5:28:GLY:HA2	48:E5:66:VAL:HG13	2.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:1179:A:H5'	9:8E:102:LEU:O	2.20	0.40
1:13:1413:A:H2'	1:13:1414:U:O4'	2.21	0.40
1:13:1439:C:O5'	1:13:1439:C:H6	2.05	0.40
1:13:1442:G:C8	1:13:1442:G:C3'	3.04	0.40
4:3E:4:TYR:CG	4:3E:5:ILE:N	2.90	0.40
4:3E:20:TYR:HE1	6:52:16:GLN:NE2	2.19	0.40
10:1I:57:LYS:HD2	10:1I:60:ARG:NH1	2.36	0.40
12:3I:82:VAL:HG13	12:3I:105:TYR:HB3	2.02	0.40
15:6I:79:ARG:O	15:6I:79:ARG:HG2	2.21	0.40
17:8I:68:ARG:HG3	17:8I:68:ARG:O	2.21	0.40
17:8I:92:ARG:O	17:8I:95:TYR:HB2	2.21	0.40
24:3K:70:G:C6	24:3K:71:G:C5	3.10	0.40
26:1H:141:A:H1'	26:1H:1408:C:C1'	2.51	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:1462:C:H4'	26:1H:2703:C:O4'	2.22	0.40
26:1H:1794:U:H1'	26:1H:1900:A:N3	2.36	0.40
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.22	0.40
26:1H:2634:G:N2	30:21:37:ARG:HH22	2.19	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:2766:G:C2	26:1H:2767:C:C6	3.10	0.40
27:16:94:C:C4	27:16:95:U:C5	3.09	0.40
29:11:60:ARG:HD2	29:11:87:ASN:ND2	2.37	0.40
29:11:172:TYR:CD1	29:11:186:HIS:HA	2.56	0.40
30:21:67:PHE:O	30:21:69:LYS:N	2.55	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
32:41:145:THR:HG23	52:M8:28:LYS:HZ3	1.86	0.40
34:61:38:LEU:HD21	49:J8:71:TYR:HB3	2.03	0.40
35:58:41:ASP:O	42:C8:64:ARG:NH2	2.54	0.40
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.37	0.40
37:78:135:LEU:HD22	37:78:139:LYS:HE2	2.03	0.40
39:98:44:LEU:HD22	39:98:48:VAL:HG13	2.02	0.40
40:A8:7:TYR:HA	40:A8:10:ARG:HH21	1.87	0.40
40:A8:8:GLU:HA	40:A8:11:LYS:HB3	2.04	0.40
47:H8:18:LEU:H	47:H8:18:LEU:CD1	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:L8:6:VAL:HG12	51:L8:54:VAL:HG22	2.03	0.40
54:P8:10:ARG:HH11	54:P8:10:ARG:HD3	1.66	0.40
1:1G:124:G:C6	1:1G:125:U:N3	2.90	0.40
1:1G:649:G:H2'	1:1G:650:G:H8	1.87	0.40
1:1G:689:C:H2'	1:1G:689:C:O2	2.21	0.40
1:1G:933:G:OP2	7:62:3:ARG:HB2	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:H3'	1:1G:1227:A:H8	1.86	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
2:12:54:THR:HG21	2:12:201:ILE:HD11	2.03	0.40
3:22:62:ASP:O	3:22:97:LYS:HB2	2.21	0.40
4:32:108:LEU:HD21	4:32:184:LYS:N	2.37	0.40
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.87	0.40
7:62:92:SER:HB3	7:62:94:ARG:HG2	2.04	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
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
9:82:94:ALA:O	9:82:98:PRO:HG2	2.22	0.40
18:9A:55:ARG:HH11	18:9A:55:ARG:HG3	1.87	0.40
56:2L:20:G:O2'	56:2L:21:U:H5'	2.21	0.40
24:3L:48:C:H5''	24:3L:59:U:H5'	2.03	0.40
26:14:120:U:P	59:14:3927:HOH:O	2.80	0.40
26:14:171:G:H2'	26:14:172:C:C6	2.56	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
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
26:14:1783: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:O5'	26:14:2015:A:H8	2.04	0.40
26:14:2138:C:C2	26:14:2154:G:N1	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2213:U:H2'	26:14:2215:G:H5'	2.03	0.40
26:14:2321:G:H2'	26:14:2321:G:N3	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:H6	26:14:2646:C:O5'	2.04	0.40
27:1J:13:A:H5''	27:1J:15:A:N6	2.36	0.40
29:19:232:PRO:HA	59:19:301:HOH:O	2.22	0.40
30:29:31:CYS:O	30:29:91:VAL:HG22	2.22	0.40
31:39:63:LYS:HE2	31:39:67:GLN:HB3	2.02	0.40
31:39:110:LEU:HD21	31:39:181:LEU:HD13	2.01	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
38:45:79:LEU:N	38:45:80:GLU:HG2	2.36	0.40
40:65:33:LYS:HE2	40:65:34:HIS:HE1	1.86	0.40
46:C5:28:LYS:HG2	46:C5:29:GLU:HG2	2.04	0.40
46:C5:62:GLU:H	46:C5:62:GLU:HG3	1.63	0.40
49:F5:5:CYS:O	49:F5:9:GLY:HA2	2.21	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:O5'	1:13:719:C:H6	2.05	0.40
1:13:926:G:N2	25:4K:15:A:OP2	2.51	0.40
1:13:928:G:H2'	1:13:929:G:C8	2.57	0.40
1:13:1026:G:H1	1:13:1035:A:H61	1.67	0.40
1:13:1074:G:C4'	2:1E:104:ASN:HB2	2.52	0.40
1:13:1151:A:O2'	1:13:1152:A:O4'	2.39	0.40
3:2E:193:TYR:HE1	3:2E:196:LEU:HD21	1.87	0.40
4:3E:176:LEU:HA	4:3E:176:LEU:HD12	1.86	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
11:2I:50:TYR:HD2	11:2I:54:ARG:HB3	1.85	0.40
22:1K:19:G:H1'	22:1K:61:U:N3	2.37	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:H6	26:1H:688:U:O5'	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
26:1H:1163:G:C2	26:1H:1164:G:C8	3.09	0.40
26:1H:1574:C:O5'	26:1H:1574:C:H6	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2885:C:H2'	26:1H:2886:G:O4'	2.21	0.40
26:1H:2886:G:N3	26:1H:2886:G:H2'	2.37	0.40
30:21:4:ILE:C	30:21:5:LEU:HD23	2.42	0.40
31:31:81:PRO:HB3	31:31:89:VAL:HG22	2.04	0.40
34:61:93:THR:O	34:61:97:ILE:HG12	2.22	0.40
35:58:78:TYR:N	35:58:78:TYR:CD1	2.89	0.40
35:58:130:HIS:C	35:58:134:ARG:HH22	2.25	0.40
37:78:144:GLU:HA	37:78:145:PRO:HD3	1.93	0.40
37:78:147:LEU:HD12	37:78:147:LEU:HA	1.97	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
1:1G:28:G:C6	1:1G:29:G:C5	3.10	0.40
1:1G:142:G:O5'	1:1G:142:G:H8	2.04	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:674:G:P	6:52:87:ARG:HH22	2.44	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
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:1123:A:H5''	10:1A:37:PRO:HD2	2.04	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
2:12:131:PRO:O	2:12:135:GLN:N	2.55	0.40
3:22:18:TRP:HE3	3:22:18:TRP:N	2.19	0.40
5:42:84:PHE:N	5:42:87:SER:O	2.46	0.40
7:62:65:ALA:CB	7:62:124:LEU:HD23	2.52	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
15:6A:31:LEU:HA	15:6A:31:LEU:HD12	1.78	0.40
24:3L:8:4SU:H5''	24:3L:49:C:C5'	2.50	0.40
26:14:94:G:H2'	26:14:95:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:219:G:H2'	26:14:220:G:O4'	2.20	0.40
26:14:389:G:N1	37:35:70:GLN:HB3	2.36	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
26:14:907:U:O5'	38:45:24:GLY:HA2	2.21	0.40
26:14:937:U:H2'	26:14:938:G:O4'	2.22	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
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
26:14:1895: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
26:14:2282:G:H5'	26:14:2389:G:H1'	2.03	0.40
26:14:2343:C:O2'	26:14:2373:G:H4'	2.22	0.40
26:14:2582:G:C2	26:14:2583:G:C8	3.09	0.40
26:14:2845:G:H5''	41:75:55:ASN:HA	2.02	0.40
27:1J:8:U:H3	27:1J:112:G:H1	1.68	0.40
29:19:266:SER:O	29:19:269:PHE:HB2	2.21	0.40
30:29:97:LYS:N	30:29:97:LYS:HD2	2.37	0.40
30:29:153:GLY:O	30:29:154:LYS:C	2.58	0.40
31:39:132:VAL:C	31:39:134:GLY:H	2.25	0.40
33:59:81:GLU:HG3	33:59:83:TYR:N	2.29	0.40
35:15:4:TYR:CD2	42:85:100:VAL:HG11	2.57	0.40
36:25:86:ILE:H	36:25:86:ILE:HG12	1.60	0.40
39:55:107:ASP:OD1	39:55:107:ASP:C	2.60	0.40
41:75:107:ASP:OD1	41:75:107:ASP:N	2.54	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

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

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	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	7I	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	
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

Continued on next page...

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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

Continued on next page...

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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

Sometimes 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 [i](#)

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

Continued on next page...

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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

Continued on next page...

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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

Continued on next page...

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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

Continued on next page...

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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
23	7MG	2K	47	23	22,26,27	2.84	7 (31%)	29,39,42	2.87	10 (34%)
24	7MG	3K	46	24	22,26,27	2.95	6 (27%)	29,39,42	2.90	10 (34%)
24	4SU	3K	8	24	18,21,22	1.83	3 (16%)	26,30,33	2.44	5 (19%)
24	PSU	3L	32	24	18,21,22	1.25	1 (5%)	22,30,33	1.49	2 (9%)
24	PSU	3K	32	24	18,21,22	1.05	1 (5%)	22,30,33	1.64	4 (18%)
24	MIA	3L	37	24	24,31,32	2.66	4 (16%)	26,44,47	3.09	10 (38%)
23	PSU	2K	56	23	18,21,22	1.24	2 (11%)	22,30,33	2.18	5 (22%)
24	PSU	3L	39	24	18,21,22	1.05	1 (5%)	22,30,33	1.64	4 (18%)
24	7MG	3L	46	24	22,26,27	3.23	7 (31%)	29,39,42	2.82	10 (34%)
24	MIA	3K	37	24	24,31,32	2.39	4 (16%)	26,44,47	3.43	10 (38%)
56	7MG	2L	47	56	22,26,27	2.96	7 (31%)	29,39,42	2.87	10 (34%)
23	5MU	2K	55	23	19,22,23	3.76	5 (26%)	28,32,35	3.16	10 (35%)
24	PSU	3L	55	24	18,21,22	1.15	1 (5%)	22,30,33	1.63	2 (9%)
24	4SU	3L	8	24	18,21,22	1.88	4 (22%)	26,30,33	1.96	5 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
22	OMC	1K	33	22	19,22,23	1.72	3 (15%)	26,31,34	0.77	0
24	PSU	3K	55	24	18,21,22	1.14	1 (5%)	22,30,33	1.99	6 (27%)
22	5MU	1K	55	22	19,22,23	3.85	5 (26%)	28,32,35	3.30	10 (35%)
24	PSU	3K	39	24	18,21,22	1.09	1 (5%)	22,30,33	1.72	4 (18%)
56	4SU	2L	8	56	18,21,22	1.88	5 (27%)	26,30,33	2.65	6 (23%)
56	PSU	2L	56	56	18,21,22	1.32	2 (11%)	22,30,33	1.72	4 (18%)
23	4SU	2K	8	23	18,21,22	1.60	4 (22%)	26,30,33	3.13	5 (19%)
23	OMC	2K	33	23	19,22,23	1.84	3 (15%)	26,31,34	0.92	1 (3%)
56	OMC	2L	33	56	19,22,23	1.78	3 (15%)	26,31,34	1.11	3 (11%)

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
23	7MG	2K	47	23	-	3/7/37/38	0/3/3/3
24	7MG	3K	46	24	-	2/7/37/38	0/3/3/3
24	4SU	3K	8	24	-	5/7/25/26	0/2/2/2
24	PSU	3L	32	24	-	1/7/25/26	0/2/2/2
24	PSU	3K	32	24	-	0/7/25/26	0/2/2/2
24	MIA	3L	37	24	-	7/11/33/34	0/3/3/3
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
24	PSU	3L	39	24	-	2/7/25/26	0/2/2/2
24	7MG	3L	46	24	-	2/7/37/38	0/3/3/3
24	MIA	3K	37	24	-	6/11/33/34	0/3/3/3
56	7MG	2L	47	56	-	3/7/37/38	0/3/3/3
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
24	PSU	3L	55	24	-	0/7/25/26	0/2/2/2
24	4SU	3L	8	24	-	0/7/25/26	0/2/2/2
22	OMC	1K	33	22	-	0/9/27/28	0/2/2/2
24	PSU	3K	55	24	-	4/7/25/26	0/2/2/2
22	5MU	1K	55	22	-	0/7/25/26	0/2/2/2
24	PSU	3K	39	24	-	0/7/25/26	0/2/2/2
56	4SU	2L	8	56	-	2/7/25/26	0/2/2/2
56	PSU	2L	56	56	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	1/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OMC	2L	33	56	-	0/9/27/28	0/2/2/2

All (80) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	55	5MU	C2-N1	12.31	1.58	1.38
23	2K	55	5MU	C2-N1	11.73	1.57	1.38
24	3L	46	7MG	C5-N7	9.56	1.46	1.35
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	47	7MG	C5-N7	8.65	1.45	1.35
24	3K	46	7MG	C5-N7	8.54	1.45	1.35
23	2K	47	7MG	C5-N7	8.27	1.45	1.35
24	3L	46	7MG	C4-N9	-7.85	1.28	1.37
24	3K	46	7MG	C4-N9	-6.60	1.30	1.37
56	2L	47	7MG	C4-N9	-6.40	1.30	1.37
24	3L	37	MIA	C6-N6	6.21	1.45	1.34
24	3L	37	MIA	C2-S10	6.08	1.80	1.75
22	1K	55	5MU	C4-N3	-6.08	1.27	1.38
24	3L	46	7MG	C4-N3	5.97	1.48	1.34
23	2K	47	7MG	C4-N9	-5.92	1.30	1.37
23	2K	55	5MU	C2-N3	5.89	1.48	1.38
24	3K	46	7MG	C4-N3	5.85	1.48	1.34
56	2L	47	7MG	C4-N3	5.83	1.48	1.34
23	2K	47	7MG	C4-N3	5.76	1.47	1.34
22	1K	55	5MU	C6-N1	5.73	1.47	1.38
24	3K	37	MIA	C6-N6	5.66	1.44	1.34
23	2K	55	5MU	C4-C5	5.61	1.54	1.44
24	3L	8	4SU	C5-C4	5.55	1.49	1.42
24	3K	8	4SU	C5-C4	5.55	1.49	1.42
56	2L	8	4SU	C5-C4	5.50	1.49	1.42
23	2K	55	5MU	C4-N3	-5.50	1.28	1.38
22	1K	55	5MU	C2-N3	5.48	1.47	1.38
23	2K	55	5MU	C6-N1	5.45	1.47	1.38
22	1K	55	5MU	C4-C5	5.04	1.53	1.44
23	2K	33	OMC	C2-N3	4.69	1.45	1.36
56	2L	33	OMC	C4-N4	4.60	1.44	1.33
23	2K	8	4SU	C5-C4	4.55	1.48	1.42
56	2L	33	OMC	C2-N3	4.53	1.45	1.36
23	2K	33	OMC	C4-N4	4.43	1.44	1.33
22	1K	33	OMC	C4-N4	4.42	1.44	1.33
24	3L	32	PSU	C6-C5	4.41	1.40	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	3L	46	7MG	C5-C4	-4.36	1.23	1.38
56	2L	56	PSU	C6-C5	4.30	1.40	1.35
24	3K	46	7MG	C5-C4	-4.20	1.24	1.38
22	1K	33	OMC	C2-N3	4.13	1.44	1.36
56	2L	47	7MG	C5-C4	-3.97	1.25	1.38
23	2K	47	7MG	C5-C4	-3.93	1.25	1.38
24	3L	8	4SU	C2-N1	3.81	1.44	1.38
23	2K	33	OMC	C5-C4	3.80	1.51	1.42
24	3K	39	PSU	C6-C5	3.76	1.39	1.35
23	2K	56	PSU	C6-C5	3.76	1.39	1.35
24	3K	8	4SU	C2-N1	3.74	1.44	1.38
24	3L	55	PSU	C6-C5	3.73	1.39	1.35
24	3K	37	MIA	C2-S10	3.69	1.78	1.75
24	3K	55	PSU	C6-C5	3.56	1.39	1.35
22	1K	33	OMC	C5-C4	3.50	1.50	1.42
24	3K	32	PSU	C6-C5	3.43	1.39	1.35
56	2L	8	4SU	C2-N1	3.37	1.43	1.38
24	3L	39	PSU	C6-C5	3.35	1.39	1.35
56	2L	33	OMC	C5-C4	3.27	1.50	1.42
56	2L	8	4SU	C6-N1	3.21	1.45	1.38
24	3K	46	7MG	C2-N2	3.06	1.41	1.34
24	3L	46	7MG	C2-N2	3.01	1.41	1.34
56	2L	47	7MG	C2-N2	3.01	1.41	1.34
23	2K	8	4SU	C2-N1	3.00	1.43	1.38
24	3L	37	MIA	C6-N1	2.97	1.36	1.32
24	3K	8	4SU	C6-N1	2.88	1.45	1.38
24	3L	8	4SU	C6-N1	2.86	1.44	1.38
23	2K	47	7MG	C2-N2	2.71	1.40	1.34
23	2K	8	4SU	C6-N1	2.60	1.44	1.38
23	2K	47	7MG	C8-N9	2.56	1.47	1.46
56	2L	47	7MG	C6-N1	-2.53	1.34	1.38
24	3K	37	MIA	C6-N1	2.29	1.36	1.32
23	2K	8	4SU	C4-S4	-2.28	1.64	1.68
56	2L	56	PSU	C2-N1	2.27	1.39	1.36
24	3K	46	7MG	C6-N1	-2.25	1.34	1.38
56	2L	8	4SU	C4-N3	2.23	1.40	1.37
23	2K	56	PSU	C4-C5	-2.23	1.37	1.44
23	2K	47	7MG	C5-C6	2.18	1.49	1.43
24	3L	8	4SU	C2-N3	2.16	1.41	1.38
24	3L	46	7MG	C5-C6	2.11	1.49	1.43
24	3L	46	7MG	C6-N1	-2.04	1.35	1.38
56	2L	8	4SU	C2-N3	2.02	1.41	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	2L	47	7MG	C5-C6	2.00	1.48	1.43

All (136) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	55	5MU	C5-C4-N3	11.66	125.26	115.31
24	3K	37	MIA	C11-S10-C2	11.38	110.77	102.27
23	2K	8	4SU	C4-N3-C2	-9.98	117.64	127.34
23	2K	8	4SU	C5-C4-N3	9.59	123.58	114.69
24	3K	37	MIA	C12-C13-C14	-9.36	108.93	127.14
23	2K	55	5MU	C5-C4-N3	9.34	123.28	115.31
24	3L	37	MIA	C12-C13-C14	-8.79	110.03	127.14
24	3L	37	MIA	C11-S10-C2	8.25	108.43	102.27
24	3K	8	4SU	C4-N3-C2	-8.22	119.35	127.34
56	2L	8	4SU	C4-N3-C2	-8.20	119.38	127.34
56	2L	8	4SU	C5-C4-N3	8.05	122.15	114.69
23	2K	47	7MG	C4-C5-N7	6.98	115.22	105.53
56	2L	47	7MG	C4-C5-N7	6.91	115.12	105.53
24	3K	46	7MG	C4-C5-N7	6.79	114.96	105.53
24	3L	46	7MG	C4-C5-N7	6.70	114.83	105.53
22	1K	55	5MU	C4-N3-C2	-6.48	118.96	127.35
24	3L	8	4SU	C4-N3-C2	-6.36	121.16	127.34
24	3L	46	7MG	CM7-N7-C5	6.26	142.54	126.40
24	3K	8	4SU	C5-C4-N3	6.25	120.49	114.69
23	2K	47	7MG	C6-C5-N7	-6.19	122.19	131.91
56	2L	47	7MG	CM7-N7-C5	6.12	142.21	126.40
23	2K	55	5MU	C4-N3-C2	-6.01	119.57	127.35
24	3K	46	7MG	CM7-N7-C5	5.99	141.87	126.40
23	2K	47	7MG	C5-C4-N9	5.92	114.03	106.35
22	1K	55	5MU	C5-C6-N1	-5.84	117.33	123.34
23	2K	55	5MU	C5M-C5-C6	-5.82	115.08	122.85
24	3K	46	7MG	C5-C4-N9	5.72	113.77	106.35
23	2K	55	5MU	C5-C6-N1	-5.67	117.51	123.34
23	2K	56	PSU	N1-C2-N3	5.65	121.53	115.13
23	2K	55	5MU	C6-C5-C4	5.60	122.72	118.03
56	2L	47	7MG	C5-C4-N9	5.54	113.54	106.35
23	2K	47	7MG	CM7-N7-C5	5.46	140.49	126.40
24	3L	46	7MG	C5-C6-N1	5.35	120.42	110.99
24	3L	46	7MG	C5-C4-N9	5.27	113.19	106.35
56	2L	47	7MG	C6-C5-N7	-5.18	123.78	131.91
23	2K	8	4SU	C5-C4-S4	-5.13	117.85	124.47
22	1K	55	5MU	O4-C4-C5	-5.07	119.02	124.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3K	55	PSU	N1-C2-N3	5.00	120.79	115.13
23	2K	47	7MG	C5-C4-N3	-4.97	118.67	128.13
24	3K	46	7MG	C6-C5-N7	-4.91	124.20	131.91
24	3K	46	7MG	C5-C6-N1	4.85	119.53	110.99
56	2L	47	7MG	C5-C6-N1	4.80	119.45	110.99
23	2K	56	PSU	C4-N3-C2	-4.75	119.50	126.34
56	2L	47	7MG	C5-C4-N3	-4.74	119.09	128.13
24	3K	46	7MG	C5-C4-N3	-4.70	119.17	128.13
24	3K	46	7MG	C2-N3-C4	4.70	120.67	112.30
24	3K	55	PSU	C4-N3-C2	-4.68	119.60	126.34
24	3L	55	PSU	C4-N3-C2	-4.64	119.66	126.34
24	3K	8	4SU	N3-C2-N1	4.59	120.99	114.89
56	2L	8	4SU	C5-C4-S4	-4.54	118.61	124.47
22	1K	55	5MU	C5M-C5-C6	-4.45	116.90	122.85
23	2K	55	5MU	O4-C4-C5	-4.45	119.74	124.90
22	1K	55	5MU	C6-C5-C4	4.45	121.75	118.03
24	3L	46	7MG	C2-N3-C4	4.35	120.05	112.30
24	3L	8	4SU	C5-C4-N3	4.32	118.70	114.69
24	3K	39	PSU	C4-N3-C2	-4.31	120.13	126.34
56	2L	47	7MG	C2-N3-C4	4.31	119.97	112.30
24	3L	39	PSU	C4-N3-C2	-4.29	120.16	126.34
23	2K	56	PSU	C6-N1-C2	-4.27	118.32	122.68
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
56	2L	56	PSU	C4-N3-C2	-4.19	120.30	126.34
23	2K	47	7MG	C5-C6-N1	4.15	118.30	110.99
24	3K	39	PSU	N1-C2-N3	4.15	119.83	115.13
56	2L	56	PSU	N1-C2-N3	4.13	119.81	115.13
24	3L	39	PSU	N1-C2-N3	4.11	119.78	115.13
24	3K	32	PSU	C4-N3-C2	-4.08	120.46	126.34
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
24	3L	32	PSU	C4-N3-C2	-3.98	120.60	126.34
24	3L	8	4SU	N3-C2-N1	3.92	120.09	114.89
24	3L	46	7MG	C5-C4-N3	-3.91	120.67	128.13
23	2K	47	7MG	C2-N3-C4	3.89	119.23	112.30
24	3L	46	7MG	C6-C5-N7	-3.85	125.87	131.91
23	2K	8	4SU	N3-C2-N1	3.82	119.96	114.89
24	3L	55	PSU	N1-C2-N3	3.80	119.44	115.13
24	3K	37	MIA	C16-C14-C13	-3.74	111.82	122.65
24	3K	32	PSU	N1-C2-N3	3.74	119.36	115.13
24	3K	37	MIA	C2-N3-C4	3.71	120.44	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3L	37	MIA	C5-C6-N1	-3.48	117.92	120.81
24	3K	32	PSU	O2-C2-N1	-3.45	118.99	122.79
24	3K	55	PSU	C6-C5-C4	3.39	120.57	118.20
24	3L	46	7MG	N9-C8-N7	-3.30	98.67	103.38
56	2L	8	4SU	N3-C2-N1	3.29	119.26	114.89
23	2K	47	7MG	C2-N1-C6	-3.27	119.14	125.10
24	3L	32	PSU	N1-C2-N3	3.20	118.75	115.13
23	2K	55	5MU	C5M-C5-C4	3.12	122.20	118.77
24	3K	39	PSU	O2-C2-N1	-3.12	119.36	122.79
24	3K	8	4SU	C5-C4-S4	-3.10	120.47	124.47
23	2K	55	5MU	O2-C2-N1	-3.10	118.67	122.79
24	3L	37	MIA	N3-C2-N1	-3.06	121.36	126.98
24	3L	8	4SU	C5-C4-S4	-3.02	120.57	124.47
24	3L	46	7MG	O6-C6-C5	-3.00	120.18	127.54
24	3L	46	7MG	C2-N1-C6	-2.99	119.64	125.10
56	2L	47	7MG	C2-N1-C6	-2.99	119.66	125.10
24	3K	46	7MG	O6-C6-C5	-2.94	120.34	127.54
23	2K	47	7MG	O6-C6-C5	-2.92	120.39	127.54
24	3K	46	7MG	C2-N1-C6	-2.85	119.90	125.10
56	2L	8	4SU	C6-C5-C4	-2.83	117.50	119.95
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
56	2L	33	OMC	N4-C4-N3	2.72	122.74	117.97
23	2K	56	PSU	O2-C2-N1	-2.71	119.81	122.79
24	3K	37	MIA	N3-C2-N1	-2.70	122.01	126.98
23	2K	56	PSU	C6-C5-C4	2.69	120.08	118.20
56	2L	56	PSU	C6-C5-C4	2.63	120.03	118.20
56	2L	47	7MG	O6-C6-C5	-2.63	121.10	127.54
56	2L	8	4SU	O2-C2-N1	-2.62	119.30	122.79
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	N9-C8-N7	-2.57	99.70	103.38
23	2K	55	5MU	C6-N1-C2	-2.49	118.77	121.30
24	3L	37	MIA	C16-C14-C15	-2.49	109.11	114.60
23	2K	55	5MU	N3-C2-N1	2.45	118.14	114.89
23	2K	8	4SU	C6-C5-C4	-2.39	117.88	119.95
56	2L	33	OMC	C1'-N1-C2	2.37	123.72	118.42
56	2L	33	OMC	C1'-N1-C6	-2.36	115.69	120.84
24	3K	55	PSU	O4'-C1'-C2'	2.35	108.45	105.14
22	1K	55	5MU	C5M-C5-C4	2.34	121.34	118.77
24	3K	55	PSU	C6-N1-C2	-2.34	120.29	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	55	5MU	O4-C4-N3	-2.30	115.72	120.12
22	1K	55	5MU	C6-N1-C2	-2.28	118.99	121.30
24	3K	39	PSU	C6-N1-C2	-2.27	120.37	122.68
24	3K	8	4SU	O2-C2-N1	-2.27	119.77	122.79
24	3K	32	PSU	C6-N1-C2	-2.25	120.38	122.68
24	3L	39	PSU	O2-C2-N1	-2.20	120.37	122.79
24	3L	39	PSU	C6-N1-C2	-2.18	120.45	122.68
23	2K	33	OMC	N4-C4-N3	2.18	121.80	117.97
56	2L	47	7MG	N9-C8-N7	-2.18	100.26	103.38
56	2L	56	PSU	C6-N1-C2	-2.18	120.46	122.68
23	2K	47	7MG	N9-C8-N7	-2.18	100.27	103.38
22	1K	55	5MU	N3-C2-N1	2.12	117.70	114.89
24	3K	55	PSU	O2-C2-N1	-2.07	120.51	122.79
24	3L	8	4SU	C1'-N1-C2	2.03	121.24	117.57
24	3K	37	MIA	C16-C14-C15	-2.02	110.15	114.60

There are no chirality outliers.

All (38) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	2K	33	OMC	C1'-C2'-O2'-CM2
24	3K	8	4SU	C2'-C1'-N1-C2
24	3K	8	4SU	C2'-C1'-N1-C6
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	37	MIA	O4'-C4'-C5'-O5'
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	39	PSU	C3'-C4'-C5'-O5'
24	3L	39	PSU	O4'-C4'-C5'-O5'
24	3K	46	7MG	C3'-C4'-C5'-O5'
24	3L	46	7MG	O4'-C4'-C5'-O5'
24	3K	55	PSU	C2'-C1'-C5-C4
24	3K	46	7MG	O4'-C4'-C5'-O5'
24	3L	46	7MG	C3'-C4'-C5'-O5'
24	3K	55	PSU	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
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
24	3L	37	MIA	N1-C6-N6-C12
24	3K	55	PSU	O4'-C4'-C5'-O5'
56	2L	8	4SU	O4'-C4'-C5'-O5'
24	3K	8	4SU	O4'-C1'-N1-C2
56	2L	8	4SU	C3'-C4'-C5'-O5'
24	3K	8	4SU	O4'-C1'-N1-C6
23	2K	47	7MG	C4'-C5'-O5'-P
56	2L	47	7MG	C4'-C5'-O5'-P
24	3K	8	4SU	O4'-C4'-C5'-O5'
24	3L	32	PSU	O4'-C1'-C5-C4
24	3K	55	PSU	O4'-C1'-C5-C6
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
23	2K	47	7MG	3	0
24	3K	46	7MG	2	0
24	3K	8	4SU	1	0
24	3L	37	MIA	2	0
24	3K	37	MIA	1	0
56	2L	47	7MG	2	0
23	2K	55	5MU	1	0
24	3L	55	PSU	1	0
24	3L	8	4SU	5	0
24	3K	55	PSU	2	0
24	3K	39	PSU	2	0
56	2L	8	4SU	1	0
56	2L	56	PSU	2	0
23	2K	8	4SU	1	0
23	2K	33	OMC	2	0
56	2L	33	OMC	1	0

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

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 [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
22	1K	1
56	2L	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, 95th 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	7I	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, 182	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, 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
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(\AA^2)	Q<0.9
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
56	PSU	2L	56	20/21	0.92	0.10	116,124,129,135	0
22	OMC	1K	33	21/22	0.93	0.18	114,132,138,141	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	7MG	2K	47	24/25	0.94	0.13	113,121,127,130	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 monosaccharides 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(\AA^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	13	1626	1/1	0.45	0.46	73,73,73,73	0
57	MG	1H	3259	1/1	0.45	0.27	73,73,73,73	0
57	MG	1H	3225	1/1	0.45	0.78	95,95,95,95	0
57	MG	13	1662	1/1	0.49	0.56	88,88,88,88	0
57	MG	14	3176	1/1	0.49	0.58	85,85,85,85	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	14	3179	1/1	0.57	0.56	100,100,100,100	0
57	MG	14	3200	1/1	0.57	0.38	90,90,90,90	0
57	MG	1G	1655	1/1	0.57	0.37	82,82,82,82	0
57	MG	16	205	1/1	0.58	0.40	90,90,90,90	0
57	MG	13	1671	1/1	0.59	0.46	97,97,97,97	0
57	MG	1G	1635	1/1	0.59	0.58	79,79,79,79	0
57	MG	1H	3262	1/1	0.60	0.50	75,75,75,75	0
57	MG	14	3102	1/1	0.60	0.62	81,81,81,81	0
57	MG	1H	3148	1/1	0.60	0.16	64,64,64,64	0
57	MG	1H	3167	1/1	0.60	0.37	79,79,79,79	0
57	MG	1H	3190	1/1	0.61	0.29	94,94,94,94	0
57	MG	14	3218	1/1	0.61	0.43	74,74,74,74	0
57	MG	1G	1672	1/1	0.64	0.09	117,117,117,117	0
57	MG	1H	3240	1/1	0.64	0.30	73,73,73,73	0
57	MG	14	3086	1/1	0.64	0.43	82,82,82,82	0
57	MG	14	3094	1/1	0.64	0.56	94,94,94,94	0
57	MG	13	1664	1/1	0.66	0.58	95,95,95,95	0
57	MG	14	3103	1/1	0.66	0.38	74,74,74,74	0
57	MG	1H	3053	1/1	0.66	0.66	76,76,76,76	0
57	MG	2L	102	1/1	0.66	0.28	96,96,96,96	0
57	MG	14	3166	1/1	0.66	0.48	82,82,82,82	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	1H	3270	1/1	0.68	0.35	102,102,102,102	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	45	201	1/1	0.69	0.16	98,98,98,98	0
57	MG	14	3107	1/1	0.69	0.32	76,76,76,76	0
57	MG	14	3142	1/1	0.70	0.21	86,86,86,86	0
57	MG	1H	3162	1/1	0.70	0.44	83,83,83,83	0
57	MG	14	3212	1/1	0.70	1.00	86,86,86,86	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	14	3170	1/1	0.70	0.80	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	1H	3428	1/1	0.71	0.07	103,103,103,103	0
57	MG	1G	1656	1/1	0.71	0.40	97,97,97,97	0
57	MG	1H	3255	1/1	0.71	0.33	81,81,81,81	0
57	MG	1H	3102	1/1	0.71	0.28	82,82,82,82	0
57	MG	13	1693	1/1	0.71	0.08	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	1H	3074	1/1	0.71	0.21	63,63,63,63	0
57	MG	14	3151	1/1	0.71	0.35	71,71,71,71	0
57	MG	1H	3314	1/1	0.71	0.09	86,86,86,86	0
57	MG	1G	1651	1/1	0.71	0.59	94,94,94,94	0
57	MG	14	3167	1/1	0.71	0.31	91,91,91,91	0
57	MG	14	3099	1/1	0.71	0.18	108,108,108,108	0
57	MG	1H	3188	1/1	0.72	0.51	82,82,82,82	0
57	MG	1H	3129	1/1	0.72	0.29	93,93,93,93	0
57	MG	13	1661	1/1	0.72	0.40	89,89,89,89	0
57	MG	14	3139	1/1	0.72	0.14	93,93,93,93	0
57	MG	14	3291	1/1	0.72	0.11	126,126,126,126	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	3404	1/1	0.72	0.06	110,110,110,110	0
57	MG	16	208	1/1	0.73	0.09	102,102,102,102	0
57	MG	1H	3181	1/1	0.73	0.25	75,75,75,75	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	13	1645	1/1	0.75	0.23	89,89,89,89	0
57	MG	1H	3186	1/1	0.75	0.35	72,72,72,72	0
57	MG	1H	3247	1/1	0.76	0.18	97,97,97,97	0
57	MG	1H	3170	1/1	0.76	0.49	88,88,88,88	0
57	MG	1H	3140	1/1	0.76	0.33	74,74,74,74	0
57	MG	14	3156	1/1	0.76	0.43	107,107,107,107	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	3152	1/1	0.76	0.38	92,92,92,92	0
57	MG	1H	3224	1/1	0.76	0.52	66,66,66,66	0
57	MG	13	1612	1/1	0.77	0.24	84,84,84,84	0
57	MG	14	3098	1/1	0.77	0.36	78,78,78,78	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	29	302	1/1	0.77	0.17	68,68,68,68	0
57	MG	1H	3277	1/1	0.77	0.46	89,89,89,89	0
57	MG	1H	3248	1/1	0.77	0.34	76,76,76,76	0
57	MG	1H	3230	1/1	0.78	0.73	97,97,97,97	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
57	MG	1H	3177	1/1	0.78	0.24	57,57,57,57	0
57	MG	1H	3204	1/1	0.78	0.94	77,77,77,77	0
57	MG	1H	3018	1/1	0.78	0.12	80,80,80,80	0
57	MG	14	3194	1/1	0.78	0.28	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3073	1/1	0.78	0.36	55,55,55,55	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	3261	1/1	0.79	0.68	80,80,80,80	0
57	MG	14	3160	1/1	0.79	0.22	83,83,83,83	0
57	MG	1H	3064	1/1	0.79	0.26	52,52,52,52	0
57	MG	1H	3078	1/1	0.79	0.15	73,73,73,73	0
57	MG	1G	1661	1/1	0.79	0.16	109,109,109,109	0
57	MG	1H	3271	1/1	0.79	0.59	90,90,90,90	0
57	MG	68	201	1/1	0.79	0.37	80,80,80,80	0
57	MG	2K	102	1/1	0.79	0.11	111,111,111,111	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	3189	1/1	0.79	0.28	69,69,69,69	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	14	3022	1/1	0.80	0.08	89,89,89,89	0
57	MG	14	3302	1/1	0.80	0.10	106,106,106,106	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	3174	1/1	0.80	0.86	87,87,87,87	0
57	MG	14	3122	1/1	0.80	0.18	76,76,76,76	0
57	MG	1H	3172	1/1	0.80	0.39	73,73,73,73	0
57	MG	14	3135	1/1	0.80	0.37	74,74,74,74	0
57	MG	13	1642	1/1	0.80	0.47	80,80,80,80	0
57	MG	1H	3269	1/1	0.81	0.69	74,74,74,74	0
57	MG	14	3195	1/1	0.81	0.52	88,88,88,88	0
57	MG	1H	3136	1/1	0.81	0.22	55,55,55,55	0
57	MG	14	3020	1/1	0.81	0.60	76,76,76,76	0
57	MG	1H	3251	1/1	0.81	0.58	84,84,84,84	0
57	MG	14	3060	1/1	0.81	0.55	83,83,83,83	0
57	MG	68	202	1/1	0.81	0.45	91,91,91,91	0
57	MG	14	3083	1/1	0.81	0.41	57,57,57,57	0
57	MG	1H	3274	1/1	0.81	0.88	86,86,86,86	0
57	MG	14	3271	1/1	0.81	0.13	92,92,92,92	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	1H	3257	1/1	0.81	0.59	90,90,90,90	0
57	MG	1H	3059	1/1	0.81	0.28	75,75,75,75	0
57	MG	1H	3427	1/1	0.81	0.07	122,122,122,122	0
57	MG	1H	3111	1/1	0.81	0.39	71,71,71,71	0
57	MG	1H	3443	1/1	0.81	0.08	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1663	1/1	0.81	0.76	77,77,77,77	0
57	MG	14	3112	1/1	0.81	0.38	78,78,78,78	0
58	ZN	G8	201	1/1	0.81	0.26	176,176,176,176	0
57	MG	14	3178	1/1	0.82	0.29	76,76,76,76	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	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	1G	1652	1/1	0.82	0.31	82,82,82,82	0
57	MG	1H	3377	1/1	0.82	0.07	103,103,103,103	0
57	MG	14	3327	1/1	0.82	0.08	108,108,108,108	0
57	MG	1H	3095	1/1	0.82	0.36	74,74,74,74	0
57	MG	1J	202	1/1	0.82	0.36	74,74,74,74	0
57	MG	1G	1658	1/1	0.82	0.13	132,132,132,132	0
57	MG	1H	3130	1/1	0.82	0.41	81,81,81,81	0
57	MG	1H	3070	1/1	0.82	0.31	64,64,64,64	0
57	MG	1H	3109	1/1	0.82	0.27	76,76,76,76	0
57	MG	14	3116	1/1	0.83	0.35	60,60,60,60	0
57	MG	1H	3087	1/1	0.83	0.31	80,80,80,80	0
57	MG	1H	3182	1/1	0.83	0.25	78,78,78,78	0
57	MG	1H	3201	1/1	0.83	0.55	68,68,68,68	0
57	MG	13	1652	1/1	0.83	0.16	104,104,104,104	0
57	MG	1G	1614	1/1	0.83	0.49	72,72,72,72	0
57	MG	1G	1659	1/1	0.83	0.30	101,101,101,101	0
57	MG	1G	1620	1/1	0.83	0.50	71,71,71,71	0
57	MG	13	1655	1/1	0.83	0.40	81,81,81,81	0
57	MG	1H	3119	1/1	0.83	0.67	62,62,62,62	0
57	MG	1H	3178	1/1	0.83	0.19	91,91,91,91	0
57	MG	1G	1644	1/1	0.83	0.37	90,90,90,90	0
57	MG	1H	3278	1/1	0.83	0.66	68,68,68,68	0
57	MG	14	3027	1/1	0.83	0.14	94,94,94,94	0
57	MG	13	1650	1/1	0.84	0.34	88,88,88,88	0
57	MG	1H	3218	1/1	0.84	0.56	91,91,91,91	0
57	MG	1G	1670	1/1	0.84	0.11	129,129,129,129	0
57	MG	1H	3392	1/1	0.84	0.16	96,96,96,96	0
57	MG	1H	3138	1/1	0.84	0.11	67,67,67,67	0
57	MG	1H	3107	1/1	0.84	0.29	81,81,81,81	0
57	MG	14	3318	1/1	0.84	0.14	84,84,84,84	0
57	MG	1G	1612	1/1	0.84	0.14	99,99,99,99	0
57	MG	1H	3099	1/1	0.84	0.09	88,88,88,88	0
57	MG	13	1627	1/1	0.84	0.52	84,84,84,84	0
57	MG	1G	1657	1/1	0.84	0.76	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3229	1/1	0.84	0.12	72,72,72,72	0
57	MG	1G	1624	1/1	0.84	0.37	71,71,71,71	0
57	MG	14	3125	1/1	0.84	0.58	68,68,68,68	0
57	MG	1G	1636	1/1	0.85	0.24	96,96,96,96	0
57	MG	1G	1641	1/1	0.85	0.22	113,113,113,113	0
57	MG	14	3084	1/1	0.85	0.18	82,82,82,82	0
57	MG	1H	3253	1/1	0.85	0.41	67,67,67,67	0
57	MG	14	3089	1/1	0.85	0.20	56,56,56,56	0
57	MG	14	3093	1/1	0.85	0.20	62,62,62,62	0
57	MG	1G	1668	1/1	0.85	0.07	120,120,120,120	0
57	MG	1H	3126	1/1	0.85	0.30	67,67,67,67	0
57	MG	1H	3444	1/1	0.85	0.08	96,96,96,96	0
57	MG	1H	3168	1/1	0.85	0.43	100,100,100,100	0
57	MG	1H	3221	1/1	0.85	0.42	79,79,79,79	0
57	MG	14	3157	1/1	0.85	0.76	79,79,79,79	0
57	MG	13	1665	1/1	0.85	0.40	86,86,86,86	0
57	MG	11	303	1/1	0.85	0.64	48,48,48,48	0
57	MG	1H	3243	1/1	0.85	0.52	65,65,65,65	0
57	MG	14	3214	1/1	0.85	0.25	84,84,84,84	0
58	ZN	C5	201	1/1	0.85	0.22	187,187,187,187	0
57	MG	1H	3154	1/1	0.86	0.37	101,101,101,101	0
57	MG	14	3100	1/1	0.86	0.32	82,82,82,82	0
57	MG	13	1614	1/1	0.86	0.61	70,70,70,70	0
57	MG	1H	3075	1/1	0.86	0.46	59,59,59,59	0
57	MG	1H	3202	1/1	0.86	0.36	84,84,84,84	0
57	MG	13	1630	1/1	0.86	0.27	83,83,83,83	0
57	MG	14	3169	1/1	0.86	0.32	59,59,59,59	0
57	MG	1H	3215	1/1	0.86	0.34	79,79,79,79	0
57	MG	14	3172	1/1	0.86	0.38	68,68,68,68	0
57	MG	1H	3216	1/1	0.86	0.38	75,75,75,75	0
57	MG	11	301	1/1	0.86	0.31	62,62,62,62	0
57	MG	1H	3116	1/1	0.86	0.18	80,80,80,80	0
57	MG	1H	3141	1/1	0.86	0.33	81,81,81,81	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	1G	1611	1/1	0.86	0.11	98,98,98,98	0
57	MG	1H	3092	1/1	0.86	0.30	67,67,67,67	0
57	MG	13	1670	1/1	0.86	0.12	101,101,101,101	0
57	MG	1H	3196	1/1	0.86	0.29	84,84,84,84	0
57	MG	1H	3197	1/1	0.86	0.36	53,53,53,53	0
57	MG	14	3206	1/1	0.86	0.29	78,78,78,78	0
57	MG	1H	3414	1/1	0.87	0.09	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3142	1/1	0.87	0.36	55,55,55,55	0
57	MG	14	3171	1/1	0.87	0.56	71,71,71,71	0
57	MG	13	1696	1/1	0.87	0.05	101,101,101,101	0
57	MG	13	1618	1/1	0.87	0.39	63,63,63,63	0
57	MG	14	3288	1/1	0.87	0.09	108,108,108,108	0
57	MG	1H	3150	1/1	0.87	0.28	65,65,65,65	0
57	MG	14	3294	1/1	0.87	0.09	107,107,107,107	0
57	MG	14	3299	1/1	0.87	0.05	114,114,114,114	0
57	MG	1H	3151	1/1	0.87	0.39	75,75,75,75	0
57	MG	1H	3088	1/1	0.87	0.25	65,65,65,65	0
57	MG	1H	3227	1/1	0.87	0.67	66,66,66,66	0
57	MG	1H	3115	1/1	0.87	0.20	63,63,63,63	0
57	MG	1H	3157	1/1	0.87	0.13	89,89,89,89	0
57	MG	1H	3106	1/1	0.87	0.40	69,69,69,69	0
57	MG	1H	3091	1/1	0.87	0.21	71,71,71,71	0
57	MG	14	3199	1/1	0.87	0.54	95,95,95,95	0
57	MG	1H	3400	1/1	0.87	0.08	85,85,85,85	0
57	MG	14	3161	1/1	0.87	0.47	88,88,88,88	0
57	MG	14	3031	1/1	0.87	0.42	73,73,73,73	0
57	MG	14	3109	1/1	0.87	0.31	84,84,84,84	0
57	MG	1H	3121	1/1	0.87	0.55	73,73,73,73	0
57	MG	L8	101	1/1	0.88	0.35	70,70,70,70	0
57	MG	1H	3180	1/1	0.88	0.16	80,80,80,80	0
57	MG	13	1646	1/1	0.88	0.18	102,102,102,102	0
57	MG	14	3217	1/1	0.88	0.11	83,83,83,83	0
57	MG	1H	3060	1/1	0.88	0.29	63,63,63,63	0
57	MG	14	3264	1/1	0.88	0.19	57,57,57,57	0
57	MG	1G	1615	1/1	0.88	0.49	90,90,90,90	0
57	MG	1H	3082	1/1	0.88	0.29	60,60,60,60	0
57	MG	1H	3331	1/1	0.88	0.08	74,74,74,74	0
57	MG	1G	1623	1/1	0.88	0.53	66,66,66,66	0
57	MG	1H	3175	1/1	0.88	0.48	64,64,64,64	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	14	3191	1/1	0.88	0.22	72,72,72,72	0
57	MG	14	3153	1/1	0.88	0.49	87,87,87,87	0
57	MG	1H	3390	1/1	0.88	0.08	99,99,99,99	0
57	MG	1G	1634	1/1	0.88	0.21	93,93,93,93	0
57	MG	1H	3263	1/1	0.88	0.70	75,75,75,75	0
57	MG	1H	3233	1/1	0.88	0.80	86,86,86,86	0
57	MG	14	3203	1/1	0.88	0.42	83,83,83,83	0
57	MG	1H	3160	1/1	0.88	0.39	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3210	1/1	0.88	0.20	78,78,78,78	0
57	MG	1H	3114	1/1	0.88	0.40	77,77,77,77	0
57	MG	1H	3418	1/1	0.88	0.06	82,82,82,82	0
57	MG	14	3198	1/1	0.89	0.66	86,86,86,86	0
57	MG	1H	3184	1/1	0.89	0.34	86,86,86,86	0
57	MG	13	1677	1/1	0.89	0.14	98,98,98,98	0
57	MG	1H	3256	1/1	0.89	0.52	72,72,72,72	0
57	MG	1H	3226	1/1	0.89	0.42	70,70,70,70	0
57	MG	1H	3025	1/1	0.89	0.18	66,66,66,66	0
57	MG	14	3041	1/1	0.89	0.24	60,60,60,60	0
57	MG	1H	3076	1/1	0.89	0.28	77,77,77,77	0
57	MG	13	1687	1/1	0.89	0.08	103,103,103,103	0
57	MG	14	3074	1/1	0.89	0.27	82,82,82,82	0
57	MG	13	1628	1/1	0.89	0.19	90,90,90,90	0
57	MG	13	1633	1/1	0.89	0.39	90,90,90,90	0
57	MG	1G	1642	1/1	0.89	0.26	93,93,93,93	0
57	MG	16	203	1/1	0.89	0.10	98,98,98,98	0
57	MG	14	3219	1/1	0.89	0.56	81,81,81,81	0
57	MG	14	3228	1/1	0.89	0.08	69,69,69,69	0
57	MG	14	3229	1/1	0.89	0.09	82,82,82,82	0
57	MG	14	3244	1/1	0.89	0.10	93,93,93,93	0
57	MG	14	3260	1/1	0.89	0.09	86,86,86,86	0
57	MG	14	3090	1/1	0.89	0.20	77,77,77,77	0
57	MG	14	3092	1/1	0.89	0.77	79,79,79,79	0
57	MG	14	3283	1/1	0.89	0.14	74,74,74,74	0
57	MG	16	204	1/1	0.89	0.10	78,78,78,78	0
57	MG	3E	301	1/1	0.89	0.13	127,127,127,127	0
57	MG	14	3292	1/1	0.89	0.08	91,91,91,91	0
57	MG	1H	3146	1/1	0.89	0.51	80,80,80,80	0
57	MG	14	3096	1/1	0.89	0.35	70,70,70,70	0
57	MG	1H	3090	1/1	0.89	0.33	47,47,47,47	0
57	MG	16	211	1/1	0.89	0.07	99,99,99,99	0
57	MG	1H	3062	1/1	0.89	0.61	78,78,78,78	0
57	MG	13	1615	1/1	0.89	0.34	85,85,85,85	0
57	MG	1H	3068	1/1	0.89	0.10	63,63,63,63	0
57	MG	14	3325	1/1	0.89	0.10	104,104,104,104	0
57	MG	1H	3179	1/1	0.89	0.41	81,81,81,81	0
57	MG	14	3182	1/1	0.89	0.24	84,84,84,84	0
57	MG	1H	3354	1/1	0.89	0.20	66,66,66,66	0
57	MG	1H	3069	1/1	0.89	0.15	69,69,69,69	0
57	MG	1H	3382	1/1	0.89	0.07	74,74,74,74	0
57	MG	1H	3012	1/1	0.89	0.39	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1672	1/1	0.89	0.88	84,84,84,84	0
57	MG	14	3196	1/1	0.89	0.37	86,86,86,86	0
57	MG	13	1640	1/1	0.90	0.08	141,141,141,141	0
57	MG	13	1619	1/1	0.90	0.28	72,72,72,72	0
57	MG	1H	3123	1/1	0.90	0.28	58,58,58,58	0
57	MG	13	1673	1/1	0.90	0.32	87,87,87,87	0
57	MG	1G	1622	1/1	0.90	0.41	80,80,80,80	0
57	MG	1H	3166	1/1	0.90	0.41	75,75,75,75	0
57	MG	1H	3254	1/1	0.90	0.44	94,94,94,94	0
57	MG	14	3234	1/1	0.90	0.12	86,86,86,86	0
57	MG	1G	1626	1/1	0.90	0.28	81,81,81,81	0
57	MG	14	3257	1/1	0.90	0.12	89,89,89,89	0
57	MG	1H	3316	1/1	0.90	0.08	75,75,75,75	0
57	MG	14	3263	1/1	0.90	0.06	99,99,99,99	0
57	MG	1H	3320	1/1	0.90	0.14	76,76,76,76	0
57	MG	13	1643	1/1	0.90	0.23	91,91,91,91	0
57	MG	14	3278	1/1	0.90	0.04	109,109,109,109	0
57	MG	13	1657	1/1	0.90	0.24	129,129,129,129	0
57	MG	14	3036	1/1	0.90	0.38	64,64,64,64	0
57	MG	14	3117	1/1	0.90	0.37	80,80,80,80	0
57	MG	1H	3371	1/1	0.90	0.13	66,66,66,66	0
57	MG	14	3047	1/1	0.90	0.43	56,56,56,56	0
57	MG	14	3296	1/1	0.90	0.12	110,110,110,110	0
57	MG	1H	3183	1/1	0.90	0.60	87,87,87,87	0
57	MG	14	3132	1/1	0.90	0.29	81,81,81,81	0
57	MG	1H	3135	1/1	0.90	0.28	74,74,74,74	0
57	MG	14	3197	1/1	0.90	0.32	78,78,78,78	0
57	MG	11	302	1/1	0.90	0.35	48,48,48,48	0
57	MG	13	1616	1/1	0.90	0.38	93,93,93,93	0
57	MG	13	1638	1/1	0.90	0.56	84,84,84,84	0
57	MG	14	3148	1/1	0.90	0.31	93,93,93,93	0
57	MG	1G	1653	1/1	0.90	0.26	91,91,91,91	0
57	MG	1G	1654	1/1	0.90	0.38	92,92,92,92	0
57	MG	14	3207	1/1	0.90	0.33	70,70,70,70	0
57	MG	1H	3396	1/1	0.90	0.07	80,80,80,80	0
57	MG	1H	3173	1/1	0.90	0.57	99,99,99,99	0
57	MG	1H	3267	1/1	0.90	0.34	106,106,106,106	0
57	MG	13	1699	1/1	0.90	0.07	119,119,119,119	0
57	MG	13	1698	1/1	0.91	0.11	105,105,105,105	0
57	MG	1H	3085	1/1	0.91	0.15	58,58,58,58	0
57	MG	1H	3279	1/1	0.91	0.27	78,78,78,78	0
57	MG	14	3137	1/1	0.91	0.12	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3147	1/1	0.91	0.16	74,74,74,74	0
57	MG	14	3141	1/1	0.91	0.29	67,67,67,67	0
57	MG	14	3277	1/1	0.91	0.07	98,98,98,98	0
57	MG	13	1647	1/1	0.91	0.31	81,81,81,81	0
57	MG	1H	3235	1/1	0.91	0.52	69,69,69,69	0
57	MG	1G	1665	1/1	0.91	0.07	117,117,117,117	0
57	MG	14	3150	1/1	0.91	0.23	79,79,79,79	0
57	MG	13	1689	1/1	0.91	0.10	115,115,115,115	0
57	MG	1H	3346	1/1	0.91	0.09	58,58,58,58	0
57	MG	1H	3348	1/1	0.91	0.12	90,90,90,90	0
57	MG	1H	3239	1/1	0.91	0.52	71,71,71,71	0
57	MG	1H	3089	1/1	0.91	0.29	74,74,74,74	0
57	MG	1H	3223	1/1	0.91	0.31	63,63,63,63	0
57	MG	1H	3101	1/1	0.91	0.41	70,70,70,70	0
57	MG	1H	3385	1/1	0.91	0.08	112,112,112,112	0
57	MG	14	3312	1/1	0.91	0.09	115,115,115,115	0
57	MG	1H	3386	1/1	0.91	0.06	96,96,96,96	0
57	MG	1H	3037	1/1	0.91	0.37	55,55,55,55	0
57	MG	14	3044	1/1	0.91	0.29	82,82,82,82	0
57	MG	13	1656	1/1	0.91	0.18	96,96,96,96	0
57	MG	13	1649	1/1	0.91	0.07	97,97,97,97	0
57	MG	1H	3250	1/1	0.91	0.29	71,71,71,71	0
57	MG	14	3175	1/1	0.91	0.31	75,75,75,75	0
57	MG	14	3119	1/1	0.91	0.24	67,67,67,67	0
57	MG	1H	3203	1/1	0.91	0.28	62,62,62,62	0
57	MG	1H	3275	1/1	0.91	0.21	63,63,63,63	0
57	MG	1H	3315	1/1	0.92	0.21	81,81,81,81	0
57	MG	16	206	1/1	0.92	0.32	83,83,83,83	0
57	MG	13	1674	1/1	0.92	0.13	83,83,83,83	0
57	MG	1H	3171	1/1	0.92	0.47	84,84,84,84	0
57	MG	1G	1660	1/1	0.92	0.23	124,124,124,124	0
57	MG	1H	3194	1/1	0.92	0.13	83,83,83,83	0
57	MG	1H	3195	1/1	0.92	0.89	70,70,70,70	0
57	MG	1H	3124	1/1	0.92	0.12	61,61,61,61	0
57	MG	1H	3083	1/1	0.92	0.31	61,61,61,61	0
57	MG	41	201	1/1	0.92	0.09	82,82,82,82	0
57	MG	1H	3021	1/1	0.92	0.36	62,62,62,62	0
57	MG	1H	3023	1/1	0.92	0.18	68,68,68,68	0
57	MG	I8	101	1/1	0.92	0.08	91,91,91,91	0
57	MG	1H	3379	1/1	0.92	0.12	83,83,83,83	0
57	MG	1G	1605	1/1	0.92	0.10	104,104,104,104	0
57	MG	14	3025	1/1	0.92	0.23	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	1G	1608	1/1	0.92	0.31	88,88,88,88	0
57	MG	13	1623	1/1	0.92	0.21	77,77,77,77	0
57	MG	14	3243	1/1	0.92	0.11	74,74,74,74	0
57	MG	1H	3158	1/1	0.92	0.35	59,59,59,59	0
57	MG	13	1683	1/1	0.92	0.11	96,96,96,96	0
57	MG	14	3043	1/1	0.92	0.29	71,71,71,71	0
57	MG	1H	3388	1/1	0.92	0.09	75,75,75,75	0
57	MG	1H	3268	1/1	0.92	0.17	96,96,96,96	0
57	MG	14	3048	1/1	0.92	0.27	59,59,59,59	0
57	MG	1H	3391	1/1	0.92	0.07	91,91,91,91	0
57	MG	1H	3034	1/1	0.92	0.18	62,62,62,62	0
57	MG	1H	3205	1/1	0.92	0.64	73,73,73,73	0
57	MG	1H	3398	1/1	0.92	0.07	98,98,98,98	0
57	MG	13	1660	1/1	0.92	0.28	61,61,61,61	0
57	MG	1H	3402	1/1	0.92	0.10	88,88,88,88	0
57	MG	13	1624	1/1	0.92	0.17	84,84,84,84	0
57	MG	1H	3043	1/1	0.92	0.14	75,75,75,75	0
57	MG	1H	3416	1/1	0.92	0.09	81,81,81,81	0
57	MG	1H	3276	1/1	0.92	0.37	67,67,67,67	0
57	MG	13	1639	1/1	0.92	0.61	83,83,83,83	0
57	MG	1H	3220	1/1	0.92	0.40	62,62,62,62	0
57	MG	1G	1645	1/1	0.92	0.20	107,107,107,107	0
57	MG	14	3097	1/1	0.92	0.10	62,62,62,62	0
57	MG	14	3315	1/1	0.92	0.10	80,80,80,80	0
57	MG	14	3184	1/1	0.92	0.65	75,75,75,75	0
57	MG	1G	1646	1/1	0.92	0.16	117,117,117,117	0
57	MG	14	3186	1/1	0.92	0.35	75,75,75,75	0
57	MG	1H	3077	1/1	0.92	0.51	65,65,65,65	0
57	MG	1H	3287	1/1	0.92	0.10	71,71,71,71	0
57	MG	1H	3300	1/1	0.92	0.08	68,68,68,68	0
57	MG	35	201	1/1	0.92	0.14	77,77,77,77	0
57	MG	16	201	1/1	0.92	0.17	90,90,90,90	0
57	MG	14	3105	1/1	0.92	0.23	89,89,89,89	0
57	MG	1H	3308	1/1	0.92	0.05	91,91,91,91	0
57	MG	1H	3017	1/1	0.92	0.20	81,81,81,81	0
57	MG	1H	3011	1/1	0.93	0.55	63,63,63,63	0
57	MG	1H	3245	1/1	0.93	0.49	96,96,96,96	0
57	MG	1G	1606	1/1	0.93	0.22	92,92,92,92	0
57	MG	14	3114	1/1	0.93	0.46	88,88,88,88	0
57	MG	1H	3397	1/1	0.93	0.15	76,76,76,76	0
57	MG	1G	1610	1/1	0.93	0.20	111,111,111,111	0
57	MG	1H	3222	1/1	0.93	0.63	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	1H	3122	1/1	0.93	0.39	81,81,81,81	0
57	MG	14	3013	1/1	0.93	0.37	55,55,55,55	0
57	MG	1G	1613	1/1	0.93	0.17	89,89,89,89	0
57	MG	14	3127	1/1	0.93	0.22	77,77,77,77	0
57	MG	1H	3249	1/1	0.93	0.24	79,79,79,79	0
57	MG	13	1621	1/1	0.93	0.22	88,88,88,88	0
57	MG	14	3215	1/1	0.93	0.28	97,97,97,97	0
57	MG	1G	1616	1/1	0.93	0.20	105,105,105,105	0
57	MG	1H	3289	1/1	0.93	0.10	48,48,48,48	0
57	MG	14	3140	1/1	0.93	0.20	54,54,54,54	0
57	MG	14	3032	1/1	0.93	0.38	98,98,98,98	0
57	MG	14	3220	1/1	0.93	0.26	84,84,84,84	0
57	MG	14	3223	1/1	0.93	0.13	79,79,79,79	0
57	MG	1H	3145	1/1	0.93	0.66	66,66,66,66	0
57	MG	14	3039	1/1	0.93	0.59	75,75,75,75	0
57	MG	13	1635	1/1	0.93	0.20	92,92,92,92	0
57	MG	13	1610	1/1	0.93	0.24	72,72,72,72	0
57	MG	13	1666	1/1	0.93	0.23	116,116,116,116	0
57	MG	14	3246	1/1	0.93	0.09	96,96,96,96	0
57	MG	14	3250	1/1	0.93	0.12	56,56,56,56	0
57	MG	14	3254	1/1	0.93	0.17	69,69,69,69	0
57	MG	14	3046	1/1	0.93	0.44	61,61,61,61	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	1G	1633	1/1	0.93	0.09	141,141,141,141	0
57	MG	14	3061	1/1	0.93	0.56	67,67,67,67	0
57	MG	14	3162	1/1	0.93	0.19	102,102,102,102	0
57	MG	14	3063	1/1	0.93	0.25	80,80,80,80	0
57	MG	1H	3439	1/1	0.93	0.15	65,65,65,65	0
57	MG	1H	3441	1/1	0.93	0.13	70,70,70,70	0
57	MG	1H	3318	1/1	0.93	0.12	55,55,55,55	0
57	MG	1G	1639	1/1	0.93	0.15	90,90,90,90	0
57	MG	14	3293	1/1	0.93	0.08	84,84,84,84	0
57	MG	1H	3131	1/1	0.93	0.31	67,67,67,67	0
57	MG	1H	3324	1/1	0.93	0.05	76,76,76,76	0
57	MG	1H	3326	1/1	0.93	0.11	105,105,105,105	0
57	MG	1H	3231	1/1	0.93	0.44	79,79,79,79	0
57	MG	1H	3258	1/1	0.93	0.41	86,86,86,86	0
57	MG	14	3306	1/1	0.93	0.07	82,82,82,82	0
57	MG	1H	3207	1/1	0.93	0.37	80,80,80,80	0
57	MG	14	3308	1/1	0.93	0.07	106,106,106,106	0
57	MG	1H	3210	1/1	0.93	0.15	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3071	1/1	0.93	0.27	66,66,66,66	0
57	MG	14	3181	1/1	0.93	0.44	85,85,85,85	0
57	MG	1H	3022	1/1	0.93	0.23	64,64,64,64	0
57	MG	14	3323	1/1	0.93	0.11	73,73,73,73	0
57	MG	14	3183	1/1	0.93	0.40	77,77,77,77	0
57	MG	14	3326	1/1	0.93	0.09	104,104,104,104	0
57	MG	1H	3265	1/1	0.93	0.20	83,83,83,83	0
57	MG	1H	3237	1/1	0.93	0.51	64,64,64,64	0
57	MG	1H	3217	1/1	0.93	0.36	97,97,97,97	0
57	MG	1J	203	1/1	0.93	0.36	90,90,90,90	0
57	MG	1H	3156	1/1	0.93	0.31	81,81,81,81	0
57	MG	14	3190	1/1	0.93	0.46	72,72,72,72	0
57	MG	1H	3241	1/1	0.93	0.37	73,73,73,73	0
57	MG	4E	201	1/1	0.93	0.46	88,88,88,88	0
57	MG	78	201	1/1	0.93	0.26	60,60,60,60	0
57	MG	13	1611	1/1	0.93	0.18	107,107,107,107	0
57	MG	1H	3120	1/1	0.94	0.42	56,56,56,56	0
57	MG	14	3205	1/1	0.94	0.62	80,80,80,80	0
57	MG	13	1617	1/1	0.94	0.62	70,70,70,70	0
57	MG	14	3113	1/1	0.94	0.22	76,76,76,76	0
57	MG	1H	3280	1/1	0.94	0.44	72,72,72,72	0
57	MG	98	201	1/1	0.94	0.44	70,70,70,70	0
57	MG	1H	3282	1/1	0.94	0.09	65,65,65,65	0
57	MG	J8	102	1/1	0.94	0.19	68,68,68,68	0
57	MG	1H	3086	1/1	0.94	0.46	48,48,48,48	0
57	MG	P8	101	1/1	0.94	0.41	65,65,65,65	0
57	MG	13	1685	1/1	0.94	0.13	93,93,93,93	0
57	MG	1H	3050	1/1	0.94	0.19	68,68,68,68	0
57	MG	14	3128	1/1	0.94	0.16	98,98,98,98	0
57	MG	1G	1607	1/1	0.94	0.12	98,98,98,98	0
57	MG	14	3134	1/1	0.94	0.14	72,72,72,72	0
57	MG	1H	3125	1/1	0.94	0.46	77,77,77,77	0
57	MG	14	3227	1/1	0.94	0.13	64,64,64,64	0
57	MG	14	3021	1/1	0.94	0.40	65,65,65,65	0
57	MG	1H	3403	1/1	0.94	0.11	76,76,76,76	0
57	MG	14	3230	1/1	0.94	0.10	65,65,65,65	0
57	MG	14	3023	1/1	0.94	0.33	50,50,50,50	0
57	MG	14	3238	1/1	0.94	0.13	76,76,76,76	0
57	MG	14	3239	1/1	0.94	0.09	92,92,92,92	0
57	MG	1H	3103	1/1	0.94	0.23	80,80,80,80	0
57	MG	14	3026	1/1	0.94	0.07	83,83,83,83	0
57	MG	14	3245	1/1	0.94	0.04	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	1H	3406	1/1	0.94	0.12	106,106,106,106	0
57	MG	1H	3408	1/1	0.94	0.07	67,67,67,67	0
57	MG	1H	3411	1/1	0.94	0.09	133,133,133,133	0
57	MG	1H	3234	1/1	0.94	0.56	86,86,86,86	0
57	MG	1H	3415	1/1	0.94	0.09	105,105,105,105	0
57	MG	1H	3104	1/1	0.94	0.30	69,69,69,69	0
57	MG	1H	3417	1/1	0.94	0.07	73,73,73,73	0
57	MG	14	3268	1/1	0.94	0.11	84,84,84,84	0
57	MG	1H	3317	1/1	0.94	0.12	76,76,76,76	0
57	MG	1H	3419	1/1	0.94	0.10	83,83,83,83	0
57	MG	13	1608	1/1	0.94	0.15	88,88,88,88	0
57	MG	14	3281	1/1	0.94	0.09	95,95,95,95	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	3290	1/1	0.94	0.03	114,114,114,114	0
57	MG	1H	3159	1/1	0.94	0.46	67,67,67,67	0
57	MG	1G	1628	1/1	0.94	0.17	108,108,108,108	0
57	MG	13	1668	1/1	0.94	0.17	119,119,119,119	0
57	MG	1H	3108	1/1	0.94	0.99	73,73,73,73	0
57	MG	1H	3328	1/1	0.94	0.05	91,91,91,91	0
57	MG	14	3075	1/1	0.94	0.26	103,103,103,103	0
57	MG	13	1669	1/1	0.94	0.40	79,79,79,79	0
57	MG	14	3303	1/1	0.94	0.06	85,85,85,85	0
57	MG	1H	3336	1/1	0.94	0.10	67,67,67,67	0
57	MG	1G	1637	1/1	0.94	0.47	85,85,85,85	0
57	MG	14	3088	1/1	0.94	0.30	76,76,76,76	0
57	MG	1H	3337	1/1	0.94	0.10	65,65,65,65	0
57	MG	13	1676	1/1	0.94	0.11	110,110,110,110	0
57	MG	14	3311	1/1	0.94	0.11	78,78,78,78	0
57	MG	1H	3189	1/1	0.94	0.26	70,70,70,70	0
57	MG	14	3313	1/1	0.94	0.06	101,101,101,101	0
57	MG	1H	3094	1/1	0.94	0.36	60,60,60,60	0
57	MG	1H	3357	1/1	0.94	0.05	77,77,77,77	0
57	MG	1H	3016	1/1	0.94	0.24	71,71,71,71	0
57	MG	1G	1647	1/1	0.94	0.56	101,101,101,101	0
57	MG	1H	3272	1/1	0.94	0.35	71,71,71,71	0
57	MG	1G	1650	1/1	0.94	0.31	86,86,86,86	0
57	MG	1H	3273	1/1	0.94	0.61	85,85,85,85	0
57	MG	16	210	1/1	0.94	0.05	88,88,88,88	0
57	MG	1H	3035	1/1	0.94	0.18	64,64,64,64	0
57	MG	29	301	1/1	0.94	0.34	67,67,67,67	0
57	MG	1H	3384	1/1	0.94	0.08	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	14	3104	1/1	0.94	0.48	68,68,68,68	0
57	MG	13	1637	1/1	0.94	0.17	105,105,105,105	0
57	MG	1H	3117	1/1	0.94	0.23	74,74,74,74	0
57	MG	1H	3084	1/1	0.94	0.15	53,53,53,53	0
57	MG	4I	202	1/1	0.94	0.18	93,93,93,93	0
57	MG	1G	1603	1/1	0.95	0.34	77,77,77,77	0
57	MG	13	1686	1/1	0.95	0.13	89,89,89,89	0
57	MG	1H	3187	1/1	0.95	0.88	81,81,81,81	0
57	MG	1H	3093	1/1	0.95	0.25	69,69,69,69	0
57	MG	14	3209	1/1	0.95	0.26	84,84,84,84	0
57	MG	1H	3080	1/1	0.95	0.25	81,81,81,81	0
57	MG	14	3012	1/1	0.95	0.59	60,60,60,60	0
57	MG	1H	3067	1/1	0.95	0.33	70,70,70,70	0
57	MG	14	3115	1/1	0.95	0.39	71,71,71,71	0
57	MG	14	3017	1/1	0.95	0.15	75,75,75,75	0
57	MG	1H	3407	1/1	0.95	0.09	77,77,77,77	0
57	MG	13	1607	1/1	0.95	0.22	88,88,88,88	0
57	MG	1H	3322	1/1	0.95	0.12	74,74,74,74	0
57	MG	1H	3193	1/1	0.95	0.35	65,65,65,65	0
57	MG	1H	3019	1/1	0.95	0.30	72,72,72,72	0
57	MG	14	3126	1/1	0.95	0.37	66,66,66,66	0
57	MG	13	1678	1/1	0.95	0.05	106,106,106,106	0
57	MG	1H	3133	1/1	0.95	0.20	54,54,54,54	0
57	MG	1H	3335	1/1	0.95	0.17	74,74,74,74	0
57	MG	1H	3134	1/1	0.95	0.47	62,62,62,62	0
57	MG	14	3033	1/1	0.95	0.20	74,74,74,74	0
57	MG	14	3231	1/1	0.95	0.18	66,66,66,66	0
57	MG	14	3034	1/1	0.95	0.18	82,82,82,82	0
57	MG	14	3235	1/1	0.95	0.18	66,66,66,66	0
57	MG	14	3237	1/1	0.95	0.10	69,69,69,69	0
57	MG	14	3035	1/1	0.95	0.38	59,59,59,59	0
57	MG	1H	3420	1/1	0.95	0.12	60,60,60,60	0
57	MG	13	1692	1/1	0.95	0.06	100,100,100,100	0
57	MG	1H	3342	1/1	0.95	0.17	63,63,63,63	0
57	MG	1H	3343	1/1	0.95	0.09	57,57,57,57	0
57	MG	14	3144	1/1	0.95	0.42	72,72,72,72	0
57	MG	14	3145	1/1	0.95	0.59	64,64,64,64	0
57	MG	1H	3344	1/1	0.95	0.12	57,57,57,57	0
57	MG	14	3045	1/1	0.95	0.30	66,66,66,66	0
57	MG	14	3258	1/1	0.95	0.15	80,80,80,80	0
57	MG	1G	1630	1/1	0.95	0.17	102,102,102,102	0
57	MG	13	1680	1/1	0.95	0.09	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3154	1/1	0.95	0.43	59,59,59,59	0
57	MG	1H	3440	1/1	0.95	0.15	64,64,64,64	0
57	MG	14	3053	1/1	0.95	0.39	64,64,64,64	0
57	MG	14	3273	1/1	0.95	0.10	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	3279	1/1	0.95	0.10	69,69,69,69	0
57	MG	1H	3139	1/1	0.95	0.55	62,62,62,62	0
57	MG	14	3282	1/1	0.95	0.05	92,92,92,92	0
57	MG	1H	3356	1/1	0.95	0.07	81,81,81,81	0
57	MG	14	3287	1/1	0.95	0.14	101,101,101,101	0
57	MG	14	3163	1/1	0.95	0.49	72,72,72,72	0
57	MG	13	1613	1/1	0.95	0.48	74,74,74,74	0
57	MG	14	3065	1/1	0.95	0.33	58,58,58,58	0
57	MG	1H	3361	1/1	0.95	0.05	95,95,95,95	0
57	MG	1H	3367	1/1	0.95	0.12	90,90,90,90	0
57	MG	1H	3368	1/1	0.95	0.08	65,65,65,65	0
57	MG	14	3076	1/1	0.95	0.20	80,80,80,80	0
57	MG	14	3080	1/1	0.95	0.41	89,89,89,89	0
57	MG	14	3082	1/1	0.95	0.23	63,63,63,63	0
57	MG	1H	3015	1/1	0.95	0.23	52,52,52,52	0
57	MG	1H	3372	1/1	0.95	0.10	62,62,62,62	0
57	MG	14	3085	1/1	0.95	0.23	64,64,64,64	0
57	MG	1H	3374	1/1	0.95	0.07	83,83,83,83	0
57	MG	1H	3281	1/1	0.95	0.11	55,55,55,55	0
57	MG	13	1609	1/1	0.95	0.17	82,82,82,82	0
57	MG	1H	3380	1/1	0.95	0.07	57,57,57,57	0
57	MG	14	3091	1/1	0.95	0.54	69,69,69,69	0
57	MG	1H	3284	1/1	0.95	0.12	51,51,51,51	0
57	MG	1H	3206	1/1	0.95	0.65	73,73,73,73	0
57	MG	1H	3105	1/1	0.95	0.13	81,81,81,81	0
57	MG	14	3187	1/1	0.95	0.35	81,81,81,81	0
57	MG	1H	3294	1/1	0.95	0.07	65,65,65,65	0
57	MG	1H	3296	1/1	0.95	0.13	51,51,51,51	0
57	MG	1H	3185	1/1	0.95	0.08	121,121,121,121	0
57	MG	14	3192	1/1	0.95	0.37	74,74,74,74	0
57	MG	14	3193	1/1	0.95	0.85	78,78,78,78	0
57	MG	1H	3307	1/1	0.95	0.05	114,114,114,114	0
57	MG	78	202	1/1	0.95	0.33	84,84,84,84	0
57	MG	1H	3214	1/1	0.95	0.45	55,55,55,55	0
57	MG	14	3101	1/1	0.95	0.42	84,84,84,84	0
57	MG	1H	3394	1/1	0.95	0.07	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	55	201	1/1	0.95	0.18	57,57,57,57	0
57	MG	1H	3310	1/1	0.95	0.09	91,91,91,91	0
57	MG	1H	3311	1/1	0.95	0.08	70,70,70,70	0
57	MG	1H	3313	1/1	0.95	0.06	84,84,84,84	0
57	MG	1H	3304	1/1	0.96	0.07	76,76,76,76	0
57	MG	1G	1669	1/1	0.96	0.10	129,129,129,129	0
57	MG	1H	3389	1/1	0.96	0.09	87,87,87,87	0
57	MG	14	3110	1/1	0.96	0.24	82,82,82,82	0
57	MG	1G	1671	1/1	0.96	0.12	117,117,117,117	0
57	MG	1H	3153	1/1	0.96	0.63	83,83,83,83	0
57	MG	1H	3031	1/1	0.96	0.29	87,87,87,87	0
57	MG	14	3010	1/1	0.96	0.33	58,58,58,58	0
57	MG	4I	201	1/1	0.96	0.06	97,97,97,97	0
57	MG	1H	3393	1/1	0.96	0.10	58,58,58,58	0
57	MG	14	3014	1/1	0.96	0.31	72,72,72,72	0
57	MG	14	3118	1/1	0.96	0.16	58,58,58,58	0
57	MG	13	1625	1/1	0.96	0.37	80,80,80,80	0
57	MG	14	3120	1/1	0.96	0.34	49,49,49,49	0
57	MG	1H	3036	1/1	0.96	0.27	57,57,57,57	0
57	MG	14	3222	1/1	0.96	0.16	62,62,62,62	0
57	MG	1H	3001	1/1	0.96	0.62	83,83,83,83	0
57	MG	13	1620	1/1	0.96	0.20	61,61,61,61	0
57	MG	1H	3260	1/1	0.96	0.48	71,71,71,71	0
57	MG	1H	3401	1/1	0.96	0.05	80,80,80,80	0
57	MG	1H	3161	1/1	0.96	0.27	71,71,71,71	0
57	MG	14	3130	1/1	0.96	0.19	84,84,84,84	0
57	MG	14	3232	1/1	0.96	0.09	67,67,67,67	0
57	MG	14	3233	1/1	0.96	0.15	82,82,82,82	0
57	MG	13	1648	1/1	0.96	0.32	84,84,84,84	0
57	MG	14	3133	1/1	0.96	0.21	77,77,77,77	0
57	MG	14	3236	1/1	0.96	0.12	63,63,63,63	0
57	MG	14	3028	1/1	0.96	0.39	67,67,67,67	0
57	MG	1H	3044	1/1	0.96	0.24	60,60,60,60	0
57	MG	1H	3264	1/1	0.96	0.32	65,65,65,65	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	1H	3046	1/1	0.96	0.46	75,75,75,75	0
57	MG	1H	3266	1/1	0.96	0.35	85,85,85,85	0
57	MG	1H	3327	1/1	0.96	0.11	81,81,81,81	0
57	MG	1G	1618	1/1	0.96	0.27	100,100,100,100	0
57	MG	1H	3048	1/1	0.96	0.30	69,69,69,69	0
57	MG	14	3255	1/1	0.96	0.11	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	14	3040	1/1	0.96	0.42	62,62,62,62	0
57	MG	1H	3329	1/1	0.96	0.08	80,80,80,80	0
57	MG	1H	3049	1/1	0.96	0.16	58,58,58,58	0
57	MG	14	3262	1/1	0.96	0.21	55,55,55,55	0
57	MG	14	3149	1/1	0.96	0.31	96,96,96,96	0
57	MG	13	1605	1/1	0.96	0.19	75,75,75,75	0
57	MG	14	3266	1/1	0.96	0.11	73,73,73,73	0
57	MG	1H	3137	1/1	0.96	0.32	62,62,62,62	0
57	MG	14	3270	1/1	0.96	0.08	97,97,97,97	0
57	MG	1H	3200	1/1	0.96	0.22	73,73,73,73	0
57	MG	1H	3340	1/1	0.96	0.14	64,64,64,64	0
57	MG	1G	1627	1/1	0.96	0.30	103,103,103,103	0
57	MG	13	1641	1/1	0.96	0.37	74,74,74,74	0
57	MG	14	3056	1/1	0.96	0.22	65,65,65,65	0
57	MG	1G	1629	1/1	0.96	0.18	96,96,96,96	0
57	MG	1H	3425	1/1	0.96	0.09	110,110,110,110	0
57	MG	1H	3426	1/1	0.96	0.07	97,97,97,97	0
57	MG	14	3062	1/1	0.96	0.29	70,70,70,70	0
57	MG	13	1690	1/1	0.96	0.10	83,83,83,83	0
57	MG	1H	3056	1/1	0.96	0.18	46,46,46,46	0
57	MG	1H	3431	1/1	0.96	0.13	66,66,66,66	0
57	MG	14	3070	1/1	0.96	0.30	74,74,74,74	0
57	MG	1H	3432	1/1	0.96	0.11	56,56,56,56	0
57	MG	1H	3238	1/1	0.96	0.39	101,101,101,101	0
57	MG	1H	3435	1/1	0.96	0.20	90,90,90,90	0
57	MG	14	3297	1/1	0.96	0.07	92,92,92,92	0
57	MG	14	3298	1/1	0.96	0.08	78,78,78,78	0
57	MG	1G	1640	1/1	0.96	0.04	107,107,107,107	0
57	MG	14	3081	1/1	0.96	0.20	94,94,94,94	0
57	MG	1H	3437	1/1	0.96	0.13	64,64,64,64	0
57	MG	1H	3058	1/1	0.96	0.11	71,71,71,71	0
57	MG	1H	3351	1/1	0.96	0.06	79,79,79,79	0
57	MG	1H	3112	1/1	0.96	0.42	76,76,76,76	0
57	MG	1H	3113	1/1	0.96	0.28	81,81,81,81	0
57	MG	14	3309	1/1	0.96	0.11	86,86,86,86	0
57	MG	14	3087	1/1	0.96	0.38	76,76,76,76	0
57	MG	13	1651	1/1	0.96	0.09	110,110,110,110	0
57	MG	1H	3209	1/1	0.96	0.27	76,76,76,76	0
57	MG	1G	1649	1/1	0.96	0.42	70,70,70,70	0
57	MG	1H	3363	1/1	0.96	0.10	69,69,69,69	0
57	MG	14	3316	1/1	0.96	0.07	88,88,88,88	0
57	MG	14	3317	1/1	0.96	0.07	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3364	1/1	0.96	0.10	93,93,93,93	0
57	MG	14	3322	1/1	0.96	0.14	79,79,79,79	0
57	MG	13	1675	1/1	0.96	0.14	70,70,70,70	0
57	MG	14	3324	1/1	0.96	0.11	77,77,77,77	0
57	MG	1H	3211	1/1	0.96	0.32	78,78,78,78	0
57	MG	1H	3369	1/1	0.96	0.16	60,60,60,60	0
57	MG	1H	3213	1/1	0.96	0.58	77,77,77,77	0
57	MG	13	1606	1/1	0.96	0.17	83,83,83,83	0
57	MG	13	1636	1/1	0.96	0.08	103,103,103,103	0
57	MG	1H	3291	1/1	0.96	0.14	56,56,56,56	0
57	MG	13	1644	1/1	0.96	0.40	78,78,78,78	0
57	MG	1H	3295	1/1	0.96	0.09	76,76,76,76	0
57	MG	13	1601	1/1	0.96	0.25	82,82,82,82	0
57	MG	1H	3298	1/1	0.96	0.14	65,65,65,65	0
57	MG	1H	3299	1/1	0.96	0.13	49,49,49,49	0
57	MG	13	1682	1/1	0.96	0.16	84,84,84,84	0
58	ZN	3E	302	1/1	0.96	0.32	95,95,95,95	0
57	MG	14	3106	1/1	0.96	0.64	86,86,86,86	0
58	ZN	5A	101	1/1	0.96	0.10	139,139,139,139	0
57	MG	14	3204	1/1	0.96	0.30	71,71,71,71	0
57	MG	1H	3395	1/1	0.97	0.09	73,73,73,73	0
57	MG	1H	3127	1/1	0.97	0.36	63,63,63,63	0
57	MG	1H	3128	1/1	0.97	0.18	52,52,52,52	0
57	MG	1H	3039	1/1	0.97	0.29	69,69,69,69	0
57	MG	1H	3063	1/1	0.97	0.29	56,56,56,56	0
57	MG	1H	3212	1/1	0.97	0.24	62,62,62,62	0
57	MG	14	3242	1/1	0.97	0.13	65,65,65,65	0
57	MG	1H	3041	1/1	0.97	0.30	68,68,68,68	0
57	MG	1H	3303	1/1	0.97	0.10	61,61,61,61	0
57	MG	1H	3349	1/1	0.97	0.11	68,68,68,68	0
57	MG	1H	3405	1/1	0.97	0.10	72,72,72,72	0
57	MG	14	3248	1/1	0.97	0.09	103,103,103,103	0
57	MG	1H	3006	1/1	0.97	0.43	58,58,58,58	0
57	MG	I8	102	1/1	0.97	0.06	69,69,69,69	0
57	MG	J8	101	1/1	0.97	0.37	62,62,62,62	0
57	MG	14	3256	1/1	0.97	0.15	57,57,57,57	0
57	MG	14	3168	1/1	0.97	0.48	51,51,51,51	0
57	MG	1H	3352	1/1	0.97	0.05	68,68,68,68	0
57	MG	1H	3009	1/1	0.97	0.20	47,47,47,47	0
57	MG	1H	3409	1/1	0.97	0.04	99,99,99,99	0
57	MG	1G	1667	1/1	0.97	0.10	98,98,98,98	0
57	MG	1G	1602	1/1	0.97	0.41	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	14	3265	1/1	0.97	0.08	72,72,72,72	0
57	MG	1H	3410	1/1	0.97	0.11	102,102,102,102	0
57	MG	1G	1604	1/1	0.97	0.21	91,91,91,91	0
57	MG	14	3177	1/1	0.97	0.29	65,65,65,65	0
57	MG	1H	3010	1/1	0.97	0.33	51,51,51,51	0
57	MG	1H	3309	1/1	0.97	0.11	66,66,66,66	0
57	MG	1H	3359	1/1	0.97	0.07	79,79,79,79	0
57	MG	3L	101	1/1	0.97	0.43	156,156,156,156	0
57	MG	3L	102	1/1	0.97	0.28	165,165,165,165	0
57	MG	14	3280	1/1	0.97	0.14	75,75,75,75	0
57	MG	1H	3360	1/1	0.97	0.10	67,67,67,67	0
57	MG	1G	1609	1/1	0.97	0.11	106,106,106,106	0
57	MG	1H	3045	1/1	0.97	0.31	70,70,70,70	0
57	MG	14	3284	1/1	0.97	0.05	84,84,84,84	0
57	MG	14	3286	1/1	0.97	0.06	91,91,91,91	0
57	MG	1H	3362	1/1	0.97	0.15	60,60,60,60	0
57	MG	14	3015	1/1	0.97	0.32	69,69,69,69	0
57	MG	14	3289	1/1	0.97	0.06	106,106,106,106	0
57	MG	14	3016	1/1	0.97	0.18	86,86,86,86	0
57	MG	13	1688	1/1	0.97	0.10	74,74,74,74	0
57	MG	14	3019	1/1	0.97	0.41	77,77,77,77	0
57	MG	1H	3312	1/1	0.97	0.17	93,93,93,93	0
57	MG	1H	3421	1/1	0.97	0.08	104,104,104,104	0
57	MG	14	3295	1/1	0.97	0.09	78,78,78,78	0
57	MG	1H	3366	1/1	0.97	0.13	75,75,75,75	0
57	MG	13	1603	1/1	0.97	0.22	78,78,78,78	0
57	MG	14	3024	1/1	0.97	0.22	78,78,78,78	0
57	MG	1H	3030	1/1	0.97	0.28	79,79,79,79	0
57	MG	13	1697	1/1	0.97	0.10	76,76,76,76	0
57	MG	1H	3032	1/1	0.97	0.30	75,75,75,75	0
57	MG	1H	3429	1/1	0.97	0.08	60,60,60,60	0
57	MG	1H	3430	1/1	0.97	0.16	50,50,50,50	0
57	MG	1H	3118	1/1	0.97	0.21	76,76,76,76	0
57	MG	1H	3373	1/1	0.97	0.05	55,55,55,55	0
57	MG	1H	3433	1/1	0.97	0.12	56,56,56,56	0
57	MG	1H	3033	1/1	0.97	0.18	54,54,54,54	0
57	MG	1H	3376	1/1	0.97	0.11	90,90,90,90	0
57	MG	1H	3144	1/1	0.97	0.21	95,95,95,95	0
57	MG	1H	3321	1/1	0.97	0.12	74,74,74,74	0
57	MG	14	3314	1/1	0.97	0.06	91,91,91,91	0
57	MG	1H	3055	1/1	0.97	0.53	64,64,64,64	0
57	MG	1H	3323	1/1	0.97	0.05	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3129	1/1	0.97	0.33	90,90,90,90	0
57	MG	13	1622	1/1	0.97	0.33	65,65,65,65	0
57	MG	14	3321	1/1	0.97	0.10	78,78,78,78	0
57	MG	1H	3325	1/1	0.97	0.10	75,75,75,75	0
57	MG	1H	3081	1/1	0.97	0.21	47,47,47,47	0
57	MG	16	202	1/1	0.97	0.28	62,62,62,62	0
57	MG	1H	3387	1/1	0.97	0.11	82,82,82,82	0
57	MG	14	3051	1/1	0.97	0.39	74,74,74,74	0
57	MG	1H	3057	1/1	0.97	0.18	60,60,60,60	0
57	MG	14	3221	1/1	0.97	0.18	67,67,67,67	0
57	MG	1H	3149	1/1	0.97	0.23	61,61,61,61	0
57	MG	13	1684	1/1	0.97	0.11	95,95,95,95	0
57	MG	14	3224	1/1	0.97	0.13	55,55,55,55	0
57	MG	14	3226	1/1	0.97	0.13	67,67,67,67	0
57	MG	1H	3003	1/1	0.97	0.24	53,53,53,53	0
57	MG	1H	3334	1/1	0.97	0.08	54,54,54,54	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	3064	1/1	0.97	0.19	84,84,84,84	0
57	MG	1H	3292	1/1	0.97	0.18	58,58,58,58	0
57	MG	14	3067	1/1	0.97	0.46	71,71,71,71	0
57	MG	14	3068	1/1	0.97	0.34	81,81,81,81	0
57	MG	1H	3378	1/1	0.98	0.13	59,59,59,59	0
57	MG	1H	3288	1/1	0.98	0.07	55,55,55,55	0
57	MG	14	3121	1/1	0.98	0.15	65,65,65,65	0
57	MG	1H	3436	1/1	0.98	0.16	50,50,50,50	0
57	MG	14	3225	1/1	0.98	0.11	55,55,55,55	0
57	MG	14	3123	1/1	0.98	0.31	73,73,73,73	0
57	MG	14	3029	1/1	0.98	0.21	78,78,78,78	0
57	MG	14	3030	1/1	0.98	0.24	64,64,64,64	0
57	MG	13	1604	1/1	0.98	0.19	79,79,79,79	0
57	MG	1H	3381	1/1	0.98	0.11	58,58,58,58	0
57	MG	1H	3290	1/1	0.98	0.11	49,49,49,49	0
57	MG	1H	3383	1/1	0.98	0.07	82,82,82,82	0
57	MG	1H	3442	1/1	0.98	0.06	73,73,73,73	0
57	MG	1G	1632	1/1	0.98	0.13	131,131,131,131	0
57	MG	14	3037	1/1	0.98	0.26	61,61,61,61	0
57	MG	1H	3330	1/1	0.98	0.16	49,49,49,49	0
57	MG	1H	3002	1/1	0.98	0.38	47,47,47,47	0
57	MG	14	3136	1/1	0.98	0.20	66,66,66,66	0
57	MG	1H	3332	1/1	0.98	0.08	49,49,49,49	0
57	MG	14	3042	1/1	0.98	0.40	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	13	1691	1/1	0.98	0.12	78,78,78,78	0
57	MG	1H	3293	1/1	0.98	0.17	62,62,62,62	0
57	MG	1G	1638	1/1	0.98	0.20	83,83,83,83	0
57	MG	13	1653	1/1	0.98	0.12	92,92,92,92	0
57	MG	1H	3038	1/1	0.98	0.26	55,55,55,55	0
57	MG	1H	3338	1/1	0.98	0.12	60,60,60,60	0
57	MG	14	3249	1/1	0.98	0.12	62,62,62,62	0
57	MG	14	3049	1/1	0.98	0.38	63,63,63,63	0
57	MG	14	3251	1/1	0.98	0.07	77,77,77,77	0
57	MG	14	3253	1/1	0.98	0.13	66,66,66,66	0
57	MG	14	3146	1/1	0.98	0.39	71,71,71,71	0
57	MG	14	3147	1/1	0.98	0.42	79,79,79,79	0
57	MG	14	3050	1/1	0.98	0.35	63,63,63,63	0
57	MG	1H	3339	1/1	0.98	0.13	50,50,50,50	0
57	MG	14	3052	1/1	0.98	0.28	63,63,63,63	0
57	MG	14	3259	1/1	0.98	0.10	71,71,71,71	0
57	MG	1G	1643	1/1	0.98	0.10	97,97,97,97	0
57	MG	14	3152	1/1	0.98	0.38	93,93,93,93	0
57	MG	14	3054	1/1	0.98	0.64	53,53,53,53	0
57	MG	14	3055	1/1	0.98	0.26	62,62,62,62	0
57	MG	1H	3155	1/1	0.98	0.34	68,68,68,68	0
57	MG	1H	3341	1/1	0.98	0.08	47,47,47,47	0
57	MG	14	3267	1/1	0.98	0.15	48,48,48,48	0
57	MG	14	3059	1/1	0.98	0.32	45,45,45,45	0
57	MG	14	3159	1/1	0.98	0.33	73,73,73,73	0
57	MG	1H	3208	1/1	0.98	0.37	48,48,48,48	0
57	MG	14	3272	1/1	0.98	0.22	58,58,58,58	0
57	MG	1H	3061	1/1	0.98	0.32	52,52,52,52	0
57	MG	14	3274	1/1	0.98	0.10	74,74,74,74	0
57	MG	14	3276	1/1	0.98	0.10	83,83,83,83	0
57	MG	1H	3005	1/1	0.98	0.40	51,51,51,51	0
57	MG	1H	3345	1/1	0.98	0.15	53,53,53,53	0
57	MG	1H	3399	1/1	0.98	0.04	111,111,111,111	0
57	MG	14	3165	1/1	0.98	0.46	86,86,86,86	0
57	MG	1H	3301	1/1	0.98	0.12	61,61,61,61	0
57	MG	14	3066	1/1	0.98	0.50	63,63,63,63	0
57	MG	1H	3347	1/1	0.98	0.07	64,64,64,64	0
57	MG	1H	3302	1/1	0.98	0.15	60,60,60,60	0
57	MG	14	3285	1/1	0.98	0.11	87,87,87,87	0
57	MG	1H	3020	1/1	0.98	0.25	70,70,70,70	0
57	MG	1H	3350	1/1	0.98	0.10	74,74,74,74	0
57	MG	14	3071	1/1	0.98	0.23	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	14	3173	1/1	0.98	0.28	44,44,44,44	0
57	MG	14	3072	1/1	0.98	0.23	62,62,62,62	0
57	MG	14	3073	1/1	0.98	0.31	81,81,81,81	0
57	MG	13	1679	1/1	0.98	0.07	100,100,100,100	0
57	MG	88	201	1/1	0.98	0.39	76,76,76,76	0
57	MG	1H	3065	1/1	0.98	0.18	58,58,58,58	0
57	MG	1H	3066	1/1	0.98	0.39	59,59,59,59	0
57	MG	1H	3007	1/1	0.98	0.38	47,47,47,47	0
57	MG	1H	3008	1/1	0.98	0.34	53,53,53,53	0
57	MG	1G	1662	1/1	0.98	0.38	91,91,91,91	0
57	MG	1H	3358	1/1	0.98	0.08	73,73,73,73	0
57	MG	14	3300	1/1	0.98	0.08	87,87,87,87	0
57	MG	14	3301	1/1	0.98	0.06	92,92,92,92	0
57	MG	13	1694	1/1	0.98	0.09	111,111,111,111	0
57	MG	1H	3413	1/1	0.98	0.08	57,57,57,57	0
57	MG	1G	1666	1/1	0.98	0.14	89,89,89,89	0
57	MG	14	3305	1/1	0.98	0.11	74,74,74,74	0
57	MG	1G	1601	1/1	0.98	0.27	90,90,90,90	0
57	MG	14	3188	1/1	0.98	0.42	87,87,87,87	0
57	MG	1H	3165	1/1	0.98	0.22	96,96,96,96	0
57	MG	1H	3246	1/1	0.98	0.43	78,78,78,78	0
57	MG	1H	3192	1/1	0.98	0.32	66,66,66,66	0
57	MG	13	1695	1/1	0.98	0.09	87,87,87,87	0
57	MG	1H	3047	1/1	0.98	0.30	61,61,61,61	0
57	MG	2L	101	1/1	0.98	0.31	80,80,80,80	0
57	MG	1H	3365	1/1	0.98	0.12	68,68,68,68	0
57	MG	1H	3072	1/1	0.98	0.36	66,66,66,66	0
57	MG	1H	3027	1/1	0.98	0.34	35,35,35,35	0
57	MG	14	3001	1/1	0.98	0.39	58,58,58,58	0
57	MG	14	3002	1/1	0.98	0.33	64,64,64,64	0
57	MG	14	3319	1/1	0.98	0.10	63,63,63,63	0
57	MG	14	3320	1/1	0.98	0.15	73,73,73,73	0
57	MG	14	3005	1/1	0.98	0.31	61,61,61,61	0
57	MG	14	3006	1/1	0.98	0.41	53,53,53,53	0
57	MG	14	3007	1/1	0.98	0.27	76,76,76,76	0
57	MG	14	3008	1/1	0.98	0.32	59,59,59,59	0
57	MG	1H	3422	1/1	0.98	0.08	86,86,86,86	0
57	MG	14	3011	1/1	0.98	0.42	60,60,60,60	0
57	MG	1H	3319	1/1	0.98	0.11	60,60,60,60	0
57	MG	14	3208	1/1	0.98	0.33	77,77,77,77	0
57	MG	1H	3424	1/1	0.98	0.08	94,94,94,94	0
57	MG	1H	3028	1/1	0.98	0.33	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3370	1/1	0.98	0.17	60,60,60,60	0
57	MG	2K	101	1/1	0.98	0.37	77,77,77,77	0
57	MG	25	201	1/1	0.98	0.05	111,111,111,111	0
57	MG	13	1654	1/1	0.98	0.12	133,133,133,133	0
57	MG	1G	1617	1/1	0.98	0.25	88,88,88,88	0
57	MG	1H	3013	1/1	0.98	0.21	63,63,63,63	0
57	MG	1G	1619	1/1	0.98	0.29	103,103,103,103	0
57	MG	1H	3285	1/1	0.98	0.12	53,53,53,53	0
58	ZN	5I	101	1/1	0.98	0.13	100,100,100,100	0
57	MG	1H	3375	1/1	0.98	0.16	60,60,60,60	0
58	ZN	32	301	1/1	0.98	0.30	117,117,117,117	0
57	MG	1H	3286	1/1	0.98	0.10	62,62,62,62	0
57	MG	1H	3014	1/1	0.98	0.37	67,67,67,67	0
57	MG	1H	3026	1/1	0.99	0.21	62,62,62,62	0
57	MG	13	1629	1/1	0.99	0.42	74,74,74,74	0
57	MG	14	3038	1/1	0.99	0.39	55,55,55,55	0
57	MG	1H	3051	1/1	0.99	0.32	50,50,50,50	0
57	MG	1H	3052	1/1	0.99	0.36	42,42,42,42	0
57	MG	14	3269	1/1	0.99	0.08	108,108,108,108	0
57	MG	14	3131	1/1	0.99	0.17	76,76,76,76	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	3029	1/1	0.99	0.25	55,55,55,55	0
57	MG	1H	3297	1/1	0.99	0.12	47,47,47,47	0
57	MG	14	3275	1/1	0.99	0.10	90,90,90,90	0
57	MG	14	3202	1/1	0.99	0.21	88,88,88,88	0
57	MG	14	3018	1/1	0.99	0.39	66,66,66,66	0
57	MG	1H	3283	1/1	0.99	0.15	65,65,65,65	0
57	MG	1H	3333	1/1	0.99	0.10	54,54,54,54	0
57	MG	14	3240	1/1	0.99	0.08	71,71,71,71	0
57	MG	1H	3412	1/1	0.99	0.05	94,94,94,94	0
57	MG	14	3077	1/1	0.99	0.12	61,61,61,61	0
57	MG	14	3078	1/1	0.99	0.10	70,70,70,70	0
57	MG	14	3079	1/1	0.99	0.31	56,56,56,56	0
57	MG	13	1602	1/1	0.99	0.27	80,80,80,80	0
57	MG	1H	3353	1/1	0.99	0.09	62,62,62,62	0
57	MG	14	3247	1/1	0.99	0.12	65,65,65,65	0
57	MG	13	1658	1/1	0.99	0.25	91,91,91,91	0
57	MG	1H	3355	1/1	0.99	0.17	56,56,56,56	0
57	MG	1H	3438	1/1	0.99	0.10	55,55,55,55	0
57	MG	1H	3132	1/1	0.99	0.14	49,49,49,49	0
57	MG	14	3252	1/1	0.99	0.08	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1631	1/1	0.99	0.26	83,83,83,83	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	3004	1/1	0.99	0.30	60,60,60,60	0
57	MG	1H	3040	1/1	0.99	0.25	67,67,67,67	0
57	MG	1H	3079	1/1	0.99	0.23	66,66,66,66	0
57	MG	14	3155	1/1	0.99	0.31	70,70,70,70	0
57	MG	1H	3305	1/1	0.99	0.13	49,49,49,49	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	3009	1/1	0.99	0.36	59,59,59,59	0

6.5 Other polymers [\(i\)](#)

There are no such residues in this entry.