



Full wwPDB X-ray Structure Validation Report ⓘ

May 22, 2020 – 04:03 pm BST

PDB ID : 5EL6
Title : Structure of T. thermophilus 70S ribosome complex with mRNA and tRNA^{Lys} in the A-site with a U-U mismatch in the first position and antibiotic paromomycin
Authors : Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on : 2015-11-04
Resolution : 3.10 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

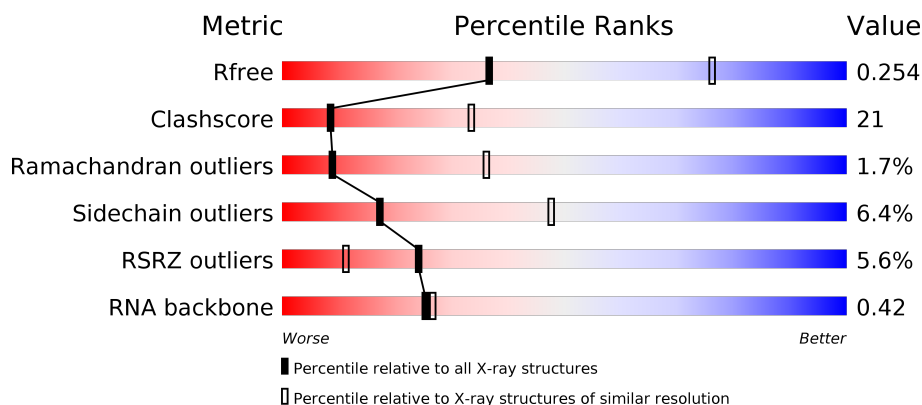
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 Å.

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



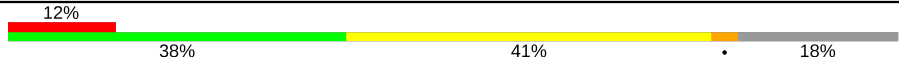

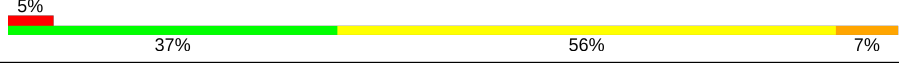

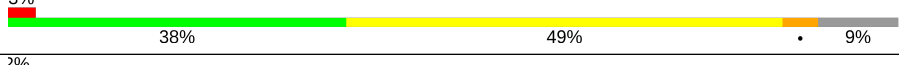
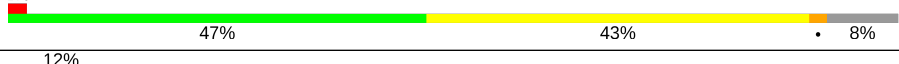
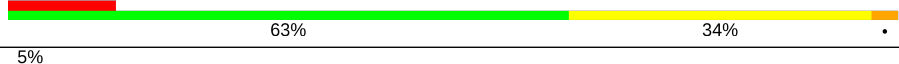




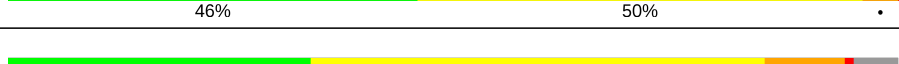
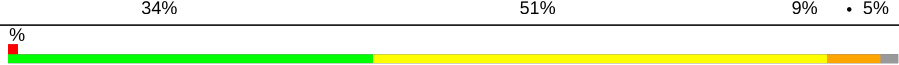
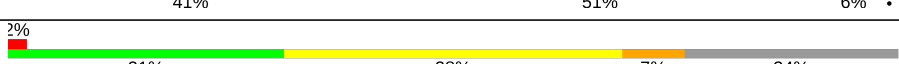
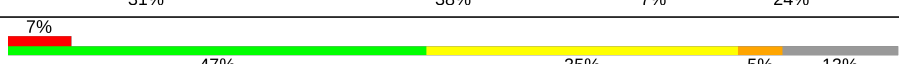
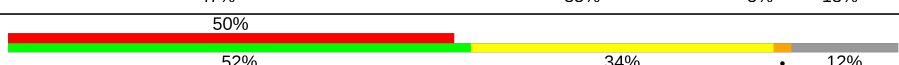
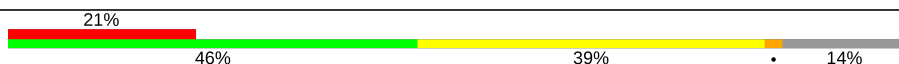
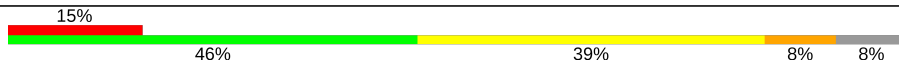



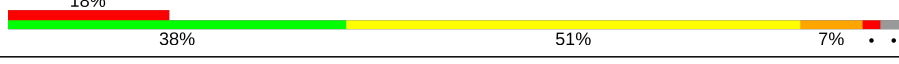
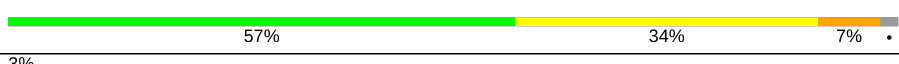


Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1094 (3.10-3.10)
Clashscore	141614	1184 (3.10-3.10)
Ramachandran outliers	138981	1141 (3.10-3.10)
Sidechain outliers	138945	1141 (3.10-3.10)
RSRZ outliers	127900	1067 (3.10-3.10)
RNA backbone	3102	1116 (3.40-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	
26	14	2912	
26	1H	2912	
27	16	122	
27	1J	122	

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Mol	Chain	Length	Quality of chain
28	71	229	
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	

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Mol	Chain	Length	Quality of chain
40	A8	112	
41	75	146	
41	B8	146	
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	M8	71	
53	J5	60	

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Mol	Chain	Length	Quality of chain
53	N8	60	
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	

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
56	MG	13	1629	-	-	-	X
56	MG	13	1646	-	-	-	X
56	MG	13	1648	-	-	-	X
56	MG	13	1674	-	-	-	X
56	MG	13	1690	-	-	-	X
56	MG	13	1693	-	-	-	X
56	MG	13	1695	-	-	-	X
56	MG	14	3032	-	-	-	X
56	MG	14	3055	-	-	-	X
56	MG	14	3091	-	-	-	X
56	MG	14	3110	-	-	-	X
56	MG	14	3126	-	-	-	X
56	MG	14	3156	-	-	-	X
56	MG	14	3162	-	-	-	X
56	MG	14	3177	-	-	-	X
56	MG	14	3205	-	-	-	X
56	MG	14	3222	-	-	-	X
56	MG	14	3224	-	-	-	X
56	MG	14	3229	-	-	-	X
56	MG	14	3233	-	-	-	X
56	MG	14	3254	-	-	-	X
56	MG	14	3261	-	-	-	X
56	MG	14	3262	-	-	-	X
56	MG	14	3291	-	-	-	X
56	MG	14	3302	-	-	-	X
56	MG	14	3303	-	-	-	X
56	MG	14	3304	-	-	-	X
56	MG	16	207	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1G	1602	-	-	-	X
56	MG	1G	1616	-	-	-	X
56	MG	1G	1622	-	-	-	X
56	MG	1G	1637	-	-	-	X
56	MG	1G	1638	-	-	-	X
56	MG	1G	1644	-	-	-	X
56	MG	1G	1651	-	-	-	X
56	MG	1G	1654	-	-	-	X
56	MG	1G	1666	-	-	-	X
56	MG	1G	1668	-	-	-	X
56	MG	1H	3015	-	-	-	X
56	MG	1H	3018	-	-	-	X
56	MG	1H	3028	-	-	-	X
56	MG	1H	3039	-	-	-	X
56	MG	1H	3046	-	-	-	X
56	MG	1H	3052	-	-	-	X
56	MG	1H	3099	-	-	-	X
56	MG	1H	3134	-	-	-	X
56	MG	1H	3189	-	-	-	X
56	MG	1H	3206	-	-	-	X
56	MG	1H	3213	-	-	-	X
56	MG	1H	3219	-	-	-	X
56	MG	1H	3224	-	-	-	X
56	MG	1H	3250	-	-	-	X
56	MG	1H	3270	-	-	-	X
56	MG	1H	3273	-	-	-	X
56	MG	1H	3274	-	-	-	X
56	MG	1H	3275	-	-	-	X
56	MG	1H	3291	-	-	-	X
56	MG	1H	3295	-	-	-	X
56	MG	1H	3299	-	-	-	X
56	MG	1H	3302	-	-	-	X
56	MG	1H	3308	-	-	-	X
56	MG	1H	3316	-	-	-	X
56	MG	1H	3317	-	-	-	X
56	MG	1J	203	-	-	-	X
56	MG	1K	101	-	-	-	X
56	MG	2K	101	-	-	-	X
56	MG	2K	102	-	-	-	X
56	MG	2L	102	-	-	-	X
56	MG	35	201	-	-	-	X
56	MG	3E	301	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	SF4	32	301	-	-	X	-
58	SF4	3E	302	-	-	X	-

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 294257 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 rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1507	Total	C	N	O	P	0	0	0
			32391	14418	6004	10463	1506			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	231	Total	C	N	O	S	0	0	0
			1874	1199	334	336	5			
2	12	210	Total	C	N	O	S	0	0	0
			1721	1100	309	308	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	196	Total	C	N	O	S	0	0	0
			1541	975	298	267	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1698	1064	338	289	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	148	Total	C	N	O	S	0	0	0
			1134	718	215	197	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	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	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	138	Total	C	N	O	S	0	0	0
			1110	689	221	194	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	137	Total	C	N	O	S	0	0	0
			1107	700	214	191	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	8E	126	Total	C	N	O		0	0	0
			1000	634	196	170				
9	82	121	Total	C	N	O		0	0	0
			953	605	186	162				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	91	Total	C	N	O	S	0	0	0
			734	459	144	130	1			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	1A	80	Total	C	N	O	0	0	0
			646	403	129	114			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	111	Total	C	N	O	S	0	0	0
			823	512	154	154	3			
11	2A	113	Total	C	N	O	S	0	0	0
			835	520	156	156	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	119	Total	C	N	O	S	0	0	0
			942	582	194	164	2			
13	4A	111	Total	C	N	O	S	0	0	0
			893	552	183	156	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	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			
15	6A	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	83	Total	C	N	O	S	0	0	0
			700	443	139	117	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	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	67	Total	C	N	O	0	0	0
			544	349	104	91			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	82	Total	C	N	O	S	0	0	0
			658	419	123	114	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	1B	22	Total	C	N	O	0	0	0
			188	116	44	28			

- Molecule 22 is a RNA chain called tRNA^{Lys}.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	69	Total	C	N	O	P	S	0	0	0
			1477	662	257	488	69	1			
22	1L	73	Total	C	N	O	P	S	0	0	0
			1563	700	271	518	73	1			

- Molecule 23 is a RNA chain called E. coli tRNA^{fMet}.

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

- Molecule 24 is a RNA chain called tRNA^{Lys}.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	76	Total	C	N	O	P	0	0	0
			1611	721	281	534	75			
24	3L	76	Total	C	N	O	P	0	0	0
			1611	721	281	534	75			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	20	Total	C	N	O	P	0	0	0
			439	197	91	131	20			
25	4L	18	Total	C	N	O	P	0	0	0
			395	177	81	119	18			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2833	Total	C	N	O	P	0	0	0
			61028	27159	11418	19618	2833			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	2861	Total	C	N	O	P	0	0	0
			61630	27429	11535	19806	2860			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	UNK	conflict	GB 55771382
1H	654A	A	G	conflict	GB 55771382
1H	654E	C	G	conflict	GB 55771382
1H	654P	G	C	conflict	GB 55771382
1H	654T	A	C	conflict	GB 55771382
1H	1058	U	G	conflict	GB 55771382
1H	1080	A	C	conflict	GB 55771382
14	158	U	UNK	conflict	GB 55771382
14	654A	A	G	conflict	GB 55771382
14	654E	C	G	conflict	GB 55771382
14	654P	G	C	conflict	GB 55771382
14	654T	A	C	conflict	GB 55771382
14	1058	U	G	conflict	GB 55771382
14	1080	A	C	conflict	GB 55771382

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

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	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			
28	79	57	Total	C	N	O		0	0	0
			456	283	91	82				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	203	Total	C	N	O	S	0	0	0
			1558	985	298	269	6			
30	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	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	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	179	Total	C	N	O	S	0	0	0
			1458	931	266	257	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	171	Total	C	N	O	S	0	0	0
			1312	832	246	233	1			
33	59	69	Total	C	N	O		0	0	0
			539	339	109	91				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
34	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1113	709	210	187	7			
38	45	138	Total	C	N	O	S	0	0	0
			1099	702	208	183	6			

- 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	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			

- 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	110	Total	C	N	O	0	0	0
			876	553	175	148			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	B8	132	Total	C	N	O	0	0	0
			1101	686	227	188			
41	75	133	Total	C	N	O	S	0	0
			1109	691	228	189	1		

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	C8	115	Total	C	N	O	S	0	0
			950	603	199	147	1		
42	85	116	Total	C	N	O	S	0	0
			959	608	201	149	1		

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
43	D8	100	Total	C	N	O	S	0	0
			774	499	141	133	1		
43	95	100	Total	C	N	O	S	0	0
			774	499	141	133	1		

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	E8	112	Total	C	N	O	S	0	0
			890	560	175	153	2		
44	A5	111	Total	C	N	O	S	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	95	Total	C	N	O	S	0	0
			743	482	134	126	1		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	B5	94	Total	C	N	O	0	0	0
			735	477	133	125			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	105	Total	C	N	O	S	0	0	0
			796	513	150	128	5			
46	C5	105	Total	C	N	O	S	0	0	0
			799	513	153	128	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	H8	171	Total	C	N	O	S	0	0	0
			1373	876	247	247	3			
47	D5	132	Total	C	N	O	S	0	0	0
			1074	691	193	188	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	76	Total	C	N	O	S	0	0	0
			606	376	128	101	1			
48	E5	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	K8	68	Total	C	N	O	S	0	0	0
			568	352	115	100	1			
50	G5	68	Total	C	N	O	S	0	0	0
			568	352	115	100	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	L8	58	Total	C	N	O	0	0	0
			459	293	89	77			
51	H5	58	Total	C	N	O	0	0	0
			459	293	89	77			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M8	47	Total	C	N	O	S	0	0	0
			366	234	61	66	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	48	Total	C	N	O	S	0	0	0
			369	229	75	60	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
			401	246	99	54	2			
54	L5	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			
55	M5	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	45	3	Total	Mg	0	0
			3	3		

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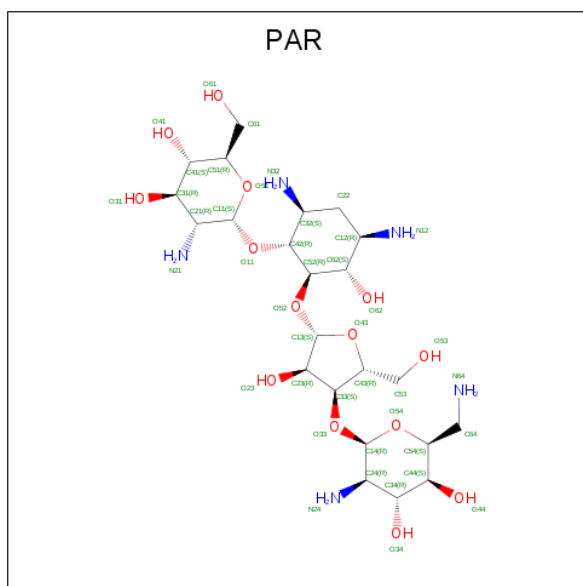
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	P8	1	Total 1	Mg 1	0	0
56	85	1	Total 1	Mg 1	0	0
56	C5	1	Total 1	Mg 1	0	0
56	13	131	Total 131	Mg 131	0	0
56	1J	5	Total 5	Mg 5	0	0
56	5I	1	Total 1	Mg 1	0	0
56	35	1	Total 1	Mg 1	0	0
56	16	11	Total 11	Mg 11	0	0
56	3K	1	Total 1	Mg 1	0	0
56	21	2	Total 2	Mg 2	0	0
56	2K	3	Total 3	Mg 3	0	0
56	Q8	1	Total 1	Mg 1	0	0
56	L8	1	Total 1	Mg 1	0	0
56	3I	1	Total 1	Mg 1	0	0
56	I8	3	Total 3	Mg 3	0	0
56	5E	1	Total 1	Mg 1	0	0
56	29	1	Total 1	Mg 1	0	0
56	78	1	Total 1	Mg 1	0	0
56	39	1	Total 1	Mg 1	0	0
56	1G	81	Total 81	Mg 81	0	0
56	1H	429	Total 429	Mg 429	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	E5	1	Total	Mg	0	0
			1	1		
56	88	2	Total	Mg	0	0
			2	2		
56	14	382	Total	Mg	0	0
			382	382		
56	3E	1	Total	Mg	0	0
			1	1		
56	4K	1	Total	Mg	0	0
			1	1		
56	1K	1	Total	Mg	0	0
			1	1		
56	41	1	Total	Mg	0	0
			1	1		
56	2L	3	Total	Mg	0	0
			3	3		

- Molecule 57 is PAROMOMYCIN (three-letter code: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	13	1	Total	C	N	O	0	0
			42	23	5	14		
57	1G	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	3E	1	Total	Fe	S	0	0
			8	4	4		
58	32	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	C5	1	Total	Zn	0	0
			1	1		
59	5A	1	Total	Zn	0	0
			1	1		
59	G8	1	Total	Zn	0	0
			1	1		
59	5I	1	Total	Zn	0	0
			1	1		

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	13	144	Total	O	0	0
			144	144		
60	3E	2	Total	O	0	0
			2	2		
60	1I	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	5I	2	Total 2	O 2	0	0
60	6I	1	Total 1	O 1	0	0
60	7I	1	Total 1	O 1	0	0
60	BI	1	Total 1	O 1	0	0
60	3K	1	Total 1	O 1	0	0
60	4K	3	Total 3	O 3	0	0
60	1H	540	Total 540	O 540	0	0
60	16	22	Total 22	O 22	0	0
60	11	10	Total 10	O 10	0	0
60	31	7	Total 7	O 7	0	0
60	58	2	Total 2	O 2	0	0
60	78	4	Total 4	O 4	0	0
60	98	1	Total 1	O 1	0	0
60	G8	1	Total 1	O 1	0	0
60	I8	2	Total 2	O 2	0	0
60	L8	3	Total 3	O 3	0	0
60	P8	1	Total 1	O 1	0	0
60	1G	68	Total 68	O 68	0	0
60	32	2	Total 2	O 2	0	0
60	14	367	Total 367	O 367	0	0
60	1J	12	Total 12	O 12	0	0

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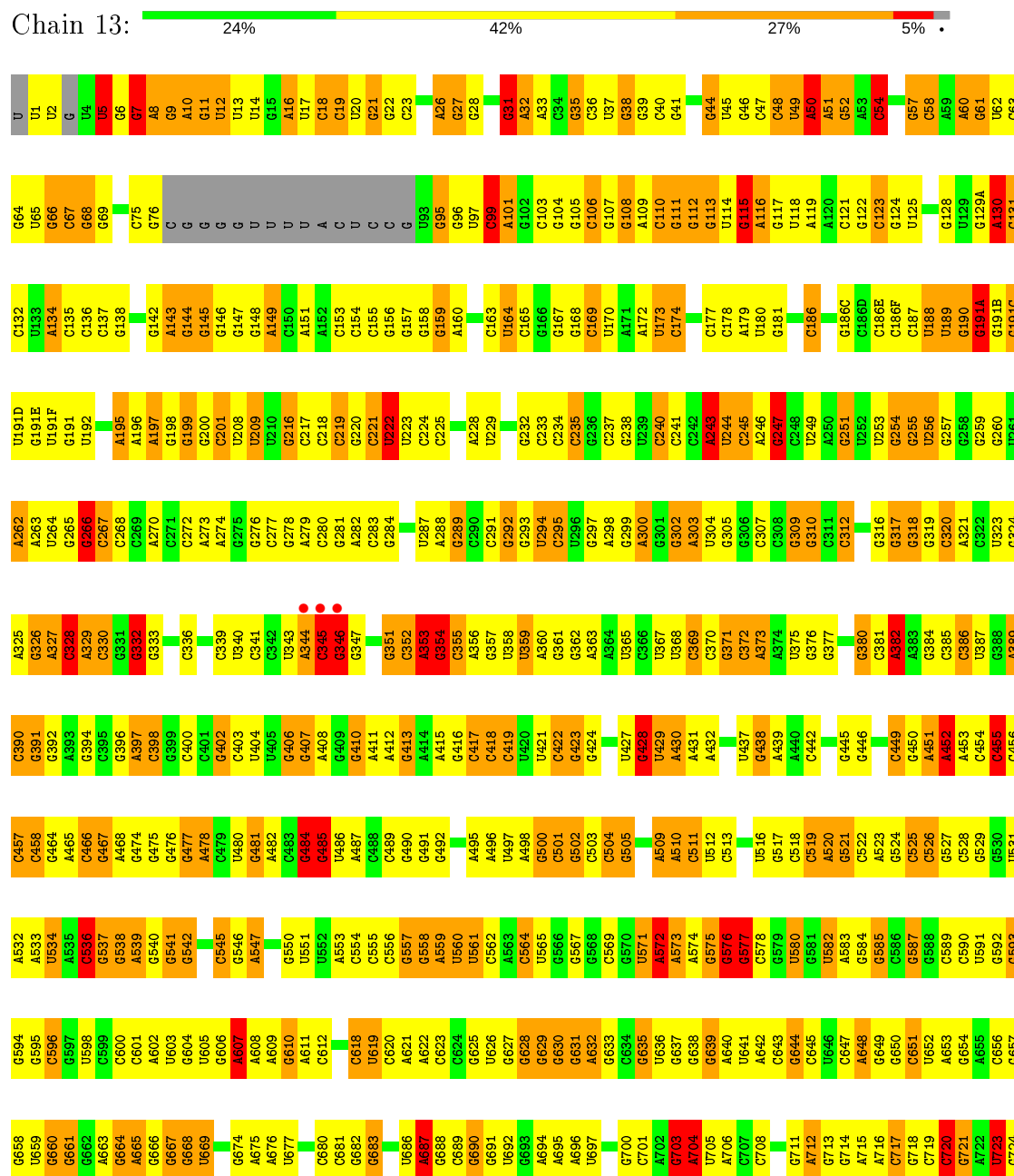
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	19	8	Total 8	O 8	0	0
60	29	2	Total 2	O 2	0	0
60	39	3	Total 3	O 3	0	0
60	35	2	Total 2	O 2	0	0
60	55	2	Total 2	O 2	0	0
60	H5	1	Total 1	O 1	0	0
60	L5	1	Total 1	O 1	0	0

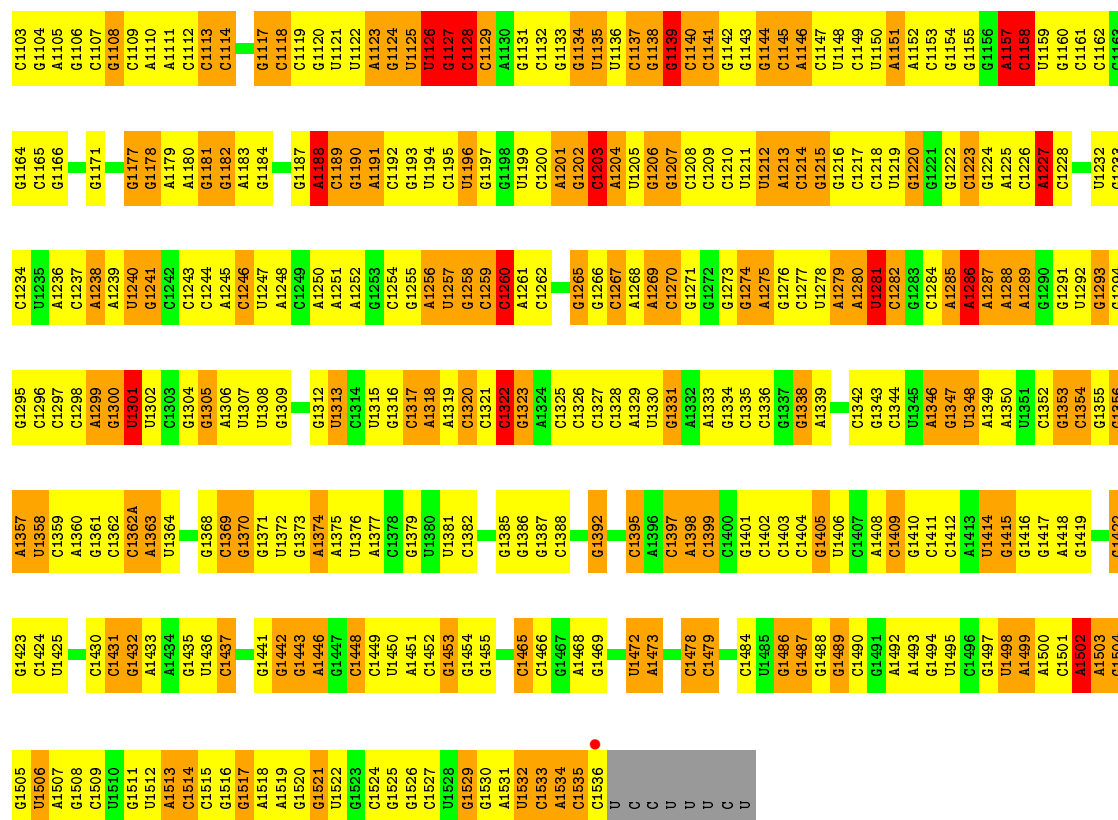
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of 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.

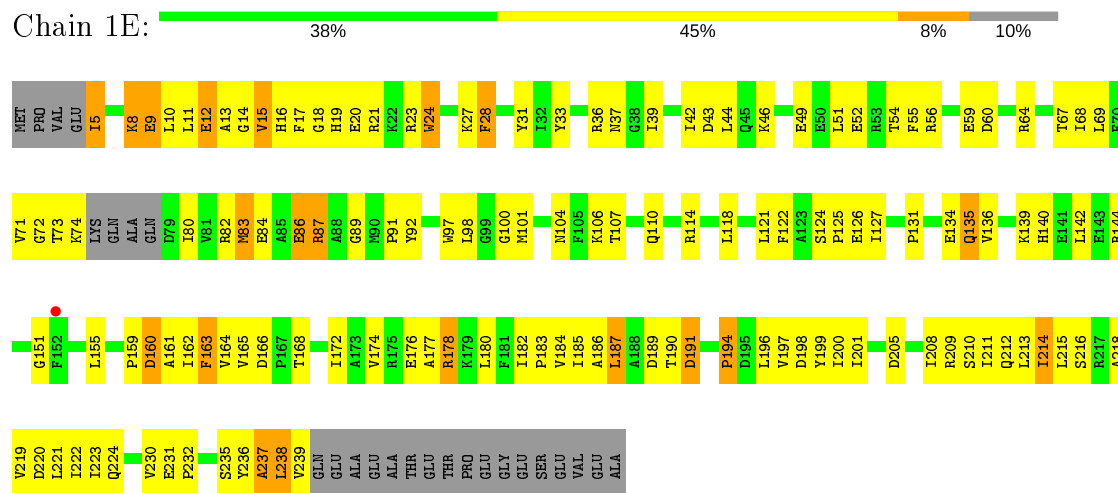
• Molecule 1: 16S rRNA



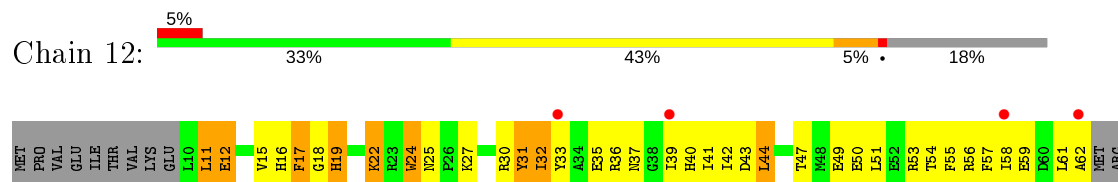
C1039	C979	A914	C848	G760	G685	G617	C556	G491	A412	C345	C269	G191E	C131	C63
A1040	C980	A915	G853	G761	G686	G618	G557	G492	G413	G346	G429	U191F	C132	C64
A1041	C981	G916	G854	G762	U686	U619	A559	G493	A414	G347	C271	U191F	U133	U65
C1042	C982	G917	G854	G763	G687	G620	U560	U494	A415	G348	C272	U192	A134	G66
A983	C983	A918	G855	G764	G688	A621	U561	A495	G416	A349	A273	C193	C67	
A1044	C984	A919	C856	G765	C689	A622	C562	A496	C417	G350	C194	C137	C68	
C1045	C985	U920	C857	G766	G690	G623	A563	U497		G351	G276	A195		G69
A1046	C986	U921	C858	G769	G691	G624	C564		U420	C377	C277	A196	G142	G73
G1047	C987	A922	C859	G770	U692	G625	U565	C501	U421	A353	G278	A197	A143	C74
C1048	A923	G923	A860	G771	G693	U626	G566	G502	C422	G354	A279	G198	G144	G75
A984	C924	G924	G861	U772	A694	G627	G567	C503	G423	C355	C280	G199	G145	G76
G1049	C925	G925	C862	G773	G694	G628	G568	G504	G424	A356	G281	G200	G146	G77
C1050	G926	G926	U863	G774	U697	G629	C569	G505	G425		A282	C201	G147	G78
U1051	G927	G927	A864		G698	G630	U570	G506	G426	U359	U208	G198	G148	G79
U1052	A928	G928	A865	A777	C699	G631	U571	G507	U427	A360	U287	G209	G149	G80
A1053	G929	G929	C866	G778	C699	A632	A572	C508	G428	G361	A288	U210	A149	G81
C1054			C867		A704	G633	A573	A509	U429	G362	G289	G216	C150	U82
A1055	C932	C932	C868	A782	U705	C634	A574	A510	A430	A363		G216	C155	U
U1056	G933	G933	G869	C783	A706	G635	G575	A511	C433	A364	U296	C221	C156	U
C1059	C934	C934	U870	C784	C707	U636	G576	U512		U365	G297	U222	G157	U
U1060	A1000	A935	U871	C785	C708	G637	G577	C513		C366	U223		A87	
C1061	G1001		A872	G786	G724	G638	C578	C514	C436	U367	A300	C224	A161	C88
U1062	A938	A938	A873	A787	G713	G639	G579		U437			C224	A162	U89
C1063	G939	G939	C874	U788		U640	U580	C518	G438	G371	A303		A163	C90
A1064	C940	C940	C875	U789	G721	A641	G581	C519	A439	C372	U304	A228	C164	C91
C1065	G941	G941	G876	A642	A722	A642	U582	A520		A373	U304	U229	C165	G92
U1066	G942	G942	C877	G791	U723	C643	A583	G521	C444	A374	G306	G230	G166	U93
C1067			G878	A792	G724	G644	G584	C522	G445	U375	C307	G231	G166	G95
C1068	G945	G945		U793	G725	C645	G585	A523	G446	G376	C308	G232		G96
U1069	A946	A946	C883	A794	C726	U646	C586	G524	G447	G377	G309		C169	U97
C1071	G947	G947	U884	C795		C647	G587	C525	U448		G310	C235	U170	C99
G1072	C948	C948	G885		G730	A648	G588	C526	C449	A382	C311	C236	A171	
A1073	A949	A949	G886	A802	G731	G649	C589	G527	U450	A383	C312	C237	A172	A101
	U950	U950	G887	G803	C732	G650	C590	G528	A451	G384	C312	G238	U173	G102
C1077	C951	C951	G888	U804	A733	C651	U591	G529	A452	C385	A315	U239	G174	C103
	U952	U952	A889	C905		G652	G592	G530	A453	C386	G316		C175	G104
C1018	G953	G953	G890	C908	C736	A653	G593	U531		U387	G317	A243	C176	G105
C1019	C954	C954	U891	C908			G594	A532	C456	G388	G317	U244	C106	
A1080	U954	U954	A932	C738	G658		G595	A533	C457	G318	G318	U244	G107	
C1081	C955	C955	G892	C739	G659	U659	C596	U534	C458	A179	C319	C245	G108	
U1082	U956	U956	G893	C739	G660	G660	G597	U534	C459	G390	C320	G251	U180	A109
C1083	C957	C957	G894	U740	U740	U740	A595	G535	G464	G391	A321	G247	G181	
G1084	G1024	G1024	G895	C817	G741	G661	U598	C536	A465	G392	G325	C246	U182	
U1085	U960	U960	C896	G818	G742	G662	C599	G537	C466	G393	A325	U249	G183	G112
U1086	U961	U961	C897	A819	U743	A663	C600	G538	G467	G184	G326	A250	G184	G113
C1087	C1027	C1027	G898	U820	C744	G664	C601	A539	A468	A185	A327	G251	U114	
U1088	C1028	C1028	C899	G821	C745	A665	A602	G540	G474	G396	C328	G251	A185	G115
G1089	A964	A964	A900	G821	A746	G666	U603	G541	G475	C397	A329	G254	C186	A116
U1090	G966	G966	A901	U827	C747	G667	G604	C542	C476	C398	A329	G254	C186A	
C1028A	C967	C967	G902	C748	C748	G668	U543	G543		G399	G255	G255	C186B	U118
U1091	C967	C967	C902	A828	C748	G668	G605	C543		C400	G322	U256	G186C	
C1092	A968	A968	G903	G829	C749	U669	G606	G544	U480	C401	G333	C257	C186D	C121
A1093	C969	C969	C904	G830	C750		A607	C545	G481	G402	C334		C186E	G122
C1094	G970	G970	U905	U831	U751	G673	G608	G546	A482	C403	C335	G260	C186F	C123
U1095	C971	C971	G905	U831	U751	G673	A609	G546	C483	U404	C336	U261	C187	G124
G1096	C972	C972	C832	G532	G752	G674	G609	A547	G484	U405	G336	A262	U188	U125
C1032B	G1032B	G1032B	A907	U933	A753		G610		G485	G405	C339	G263	U189	G126
G1033	G973	G973	A908		C754	U677	A611	G550	G485	G406	U340	A263	G190	G127
C1098	A974	A974	A909	G837	G755	U678	C612	U551	G486	G407	U340	U264	G127	
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C1099	G976	G976	U911	U841	U757	C680	A614	A553	C488	G409	C342	G266	G191B	U129
C1099	C977	C977	C912	C842	G758	C681	C615	C554	C489	G410	U343	C267	G191C	G129A
A1101	A977	A977	C912	C842	G758	C681	C615	C554	C489	G410	U343	C267	G191C	A120
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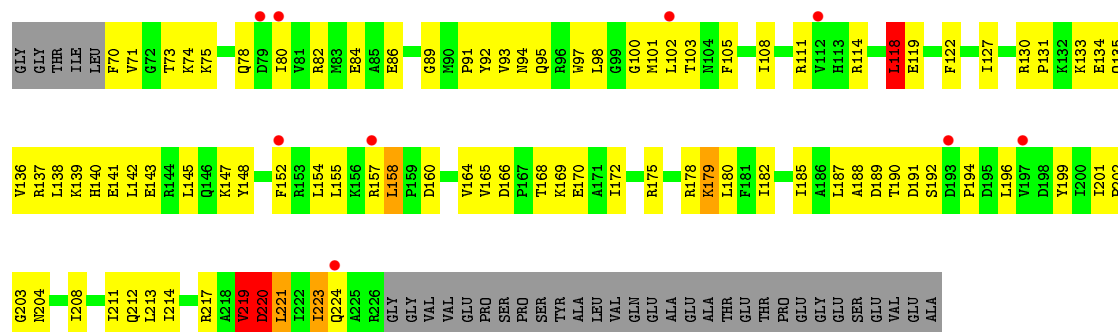


• Molecule 2: 30S ribosomal protein S2

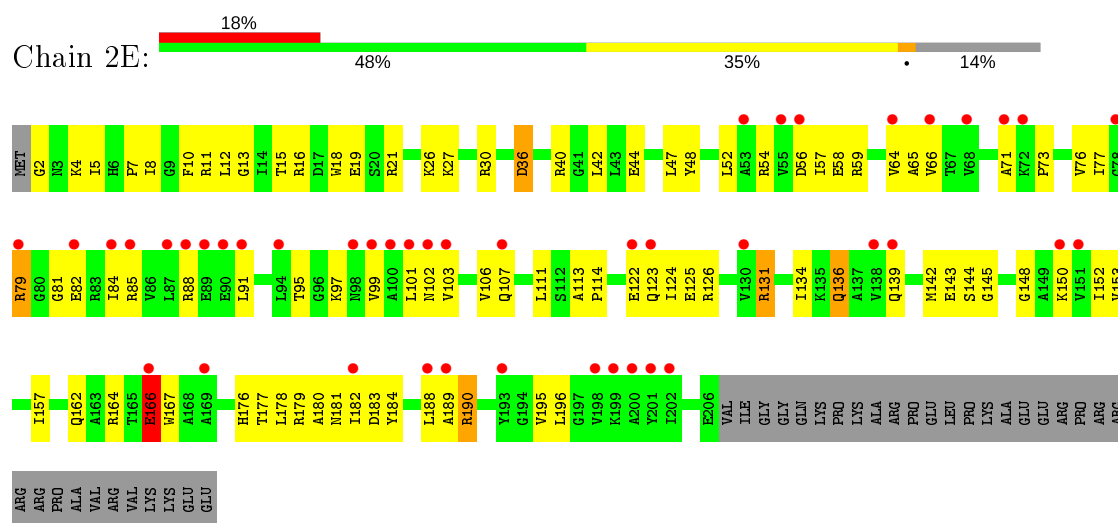


• Molecule 2: 30S ribosomal protein S2

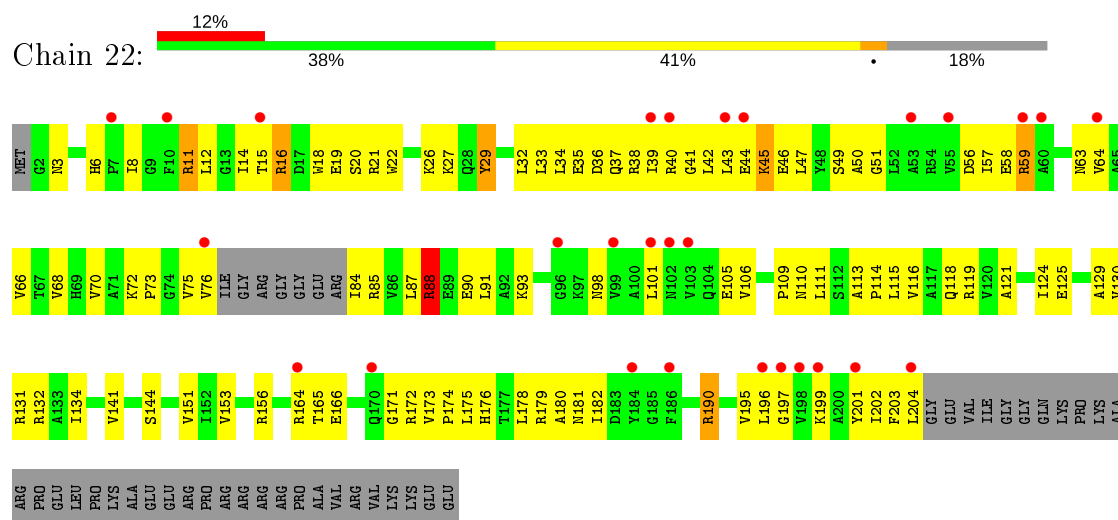




- Molecule 3: 30S ribosomal protein S3

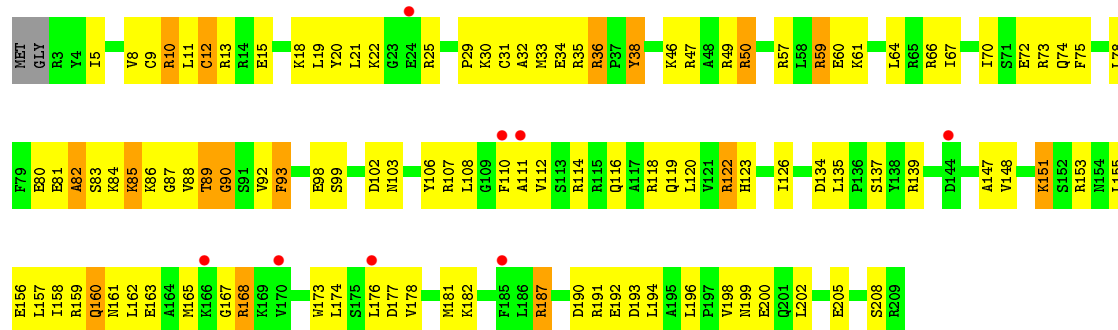


- Molecule 3: 30S ribosomal protein S3

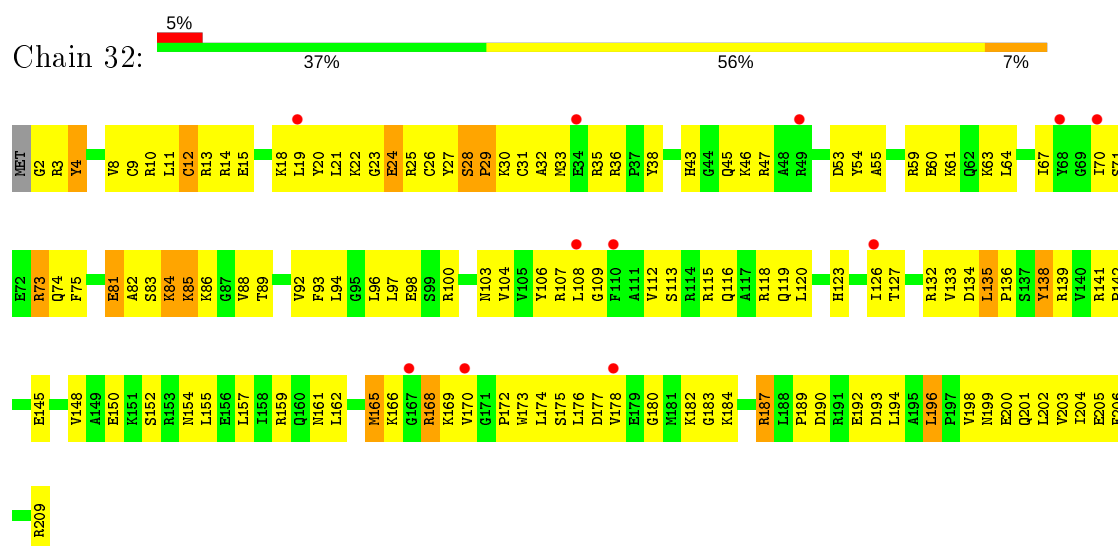


- Molecule 4: 30S ribosomal protein S4

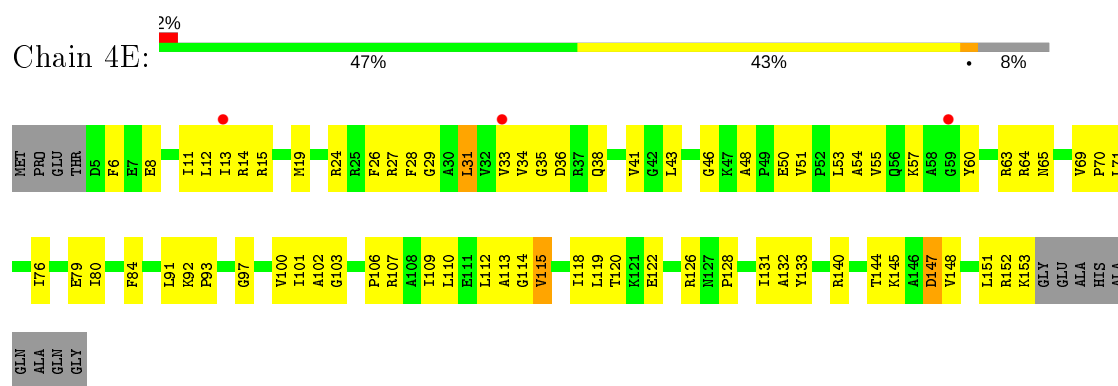




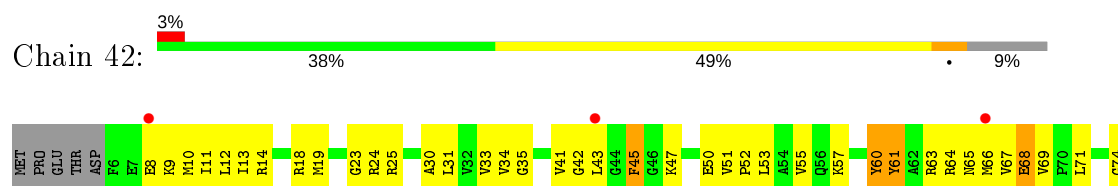
• Molecule 4: 30S ribosomal protein S4

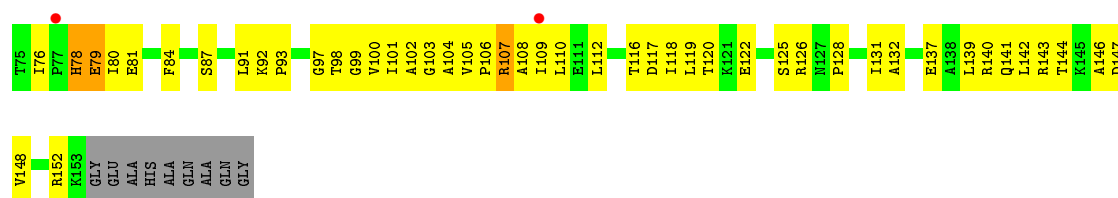


• Molecule 5: 30S ribosomal protein S5

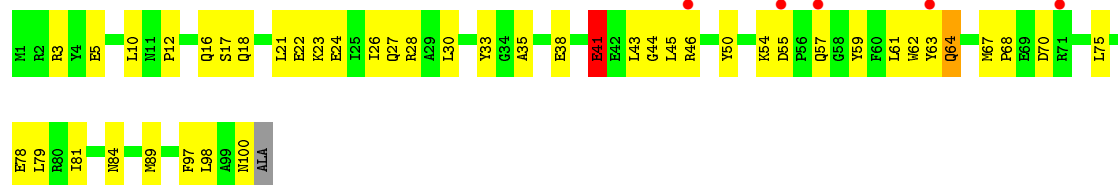


• Molecule 5: 30S ribosomal protein S5

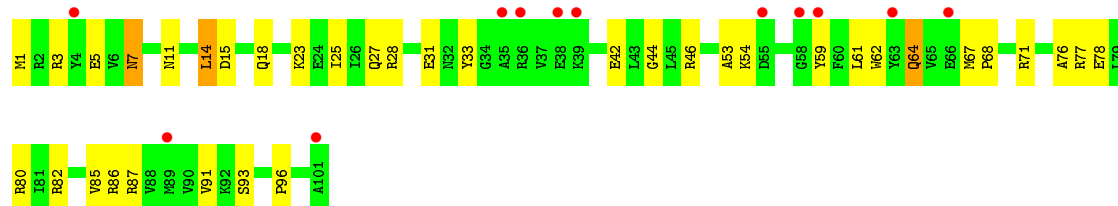




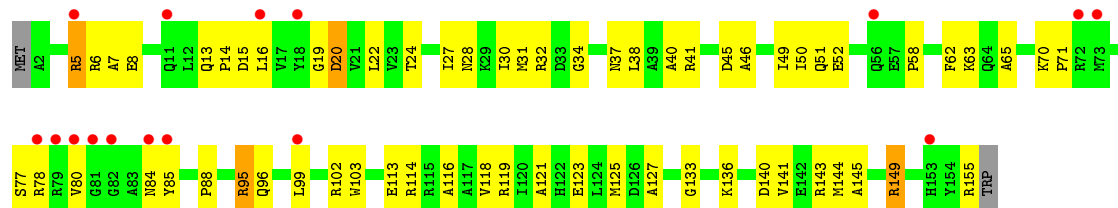
- Molecule 6: 30S ribosomal protein S6



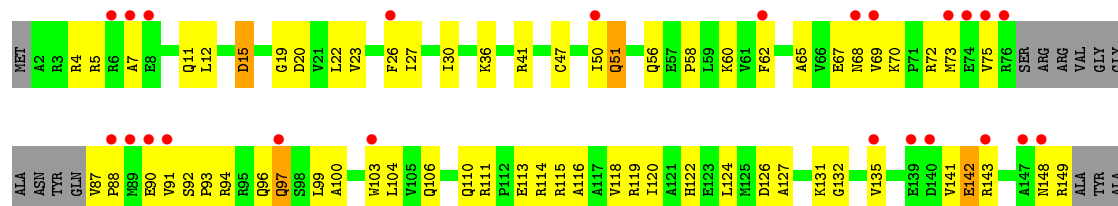
- Molecule 6: 30S ribosomal protein S6



- Molecule 7: 30S ribosomal protein S7

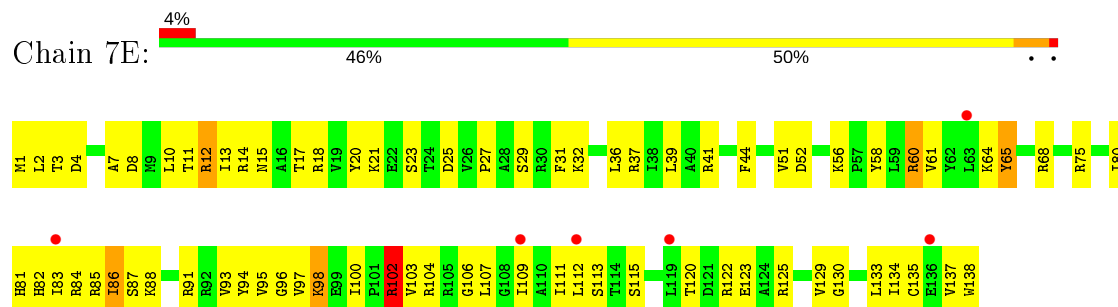


- Molecule 7: 30S ribosomal protein S7

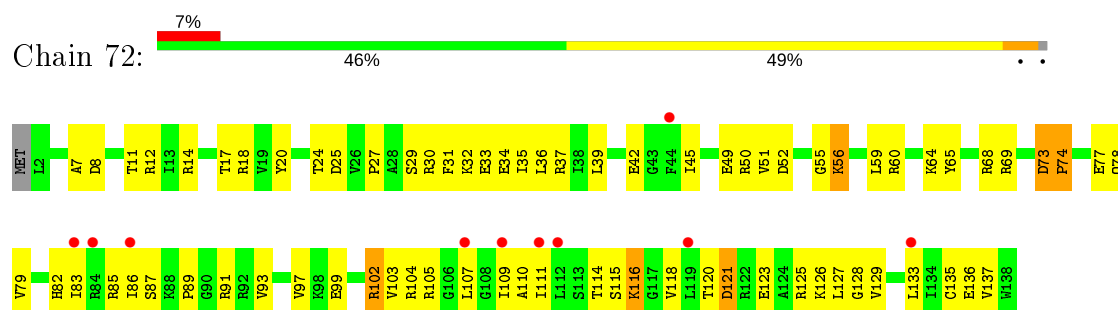


HIS
TYR
ARG
TRP

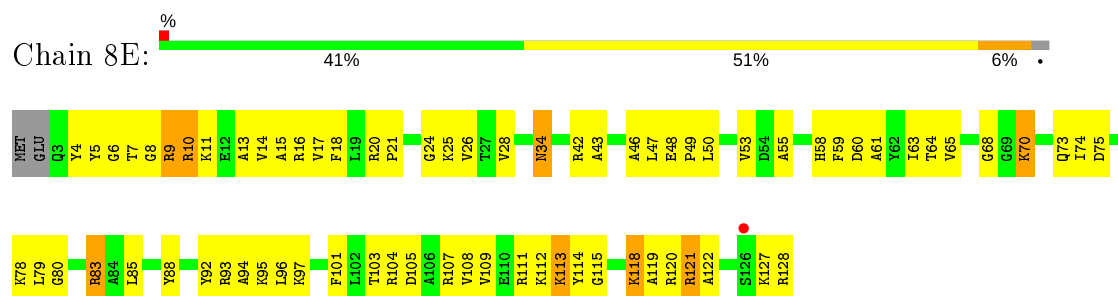
• Molecule 8: 30S ribosomal protein S8



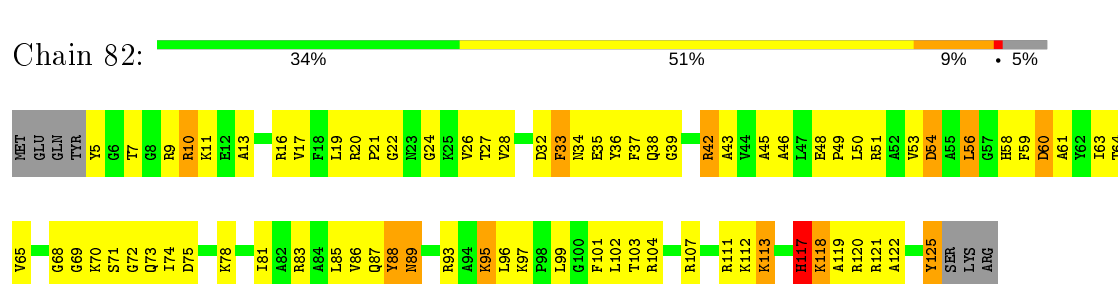
• Molecule 8: 30S ribosomal protein S8



• Molecule 9: 30S ribosomal protein S9

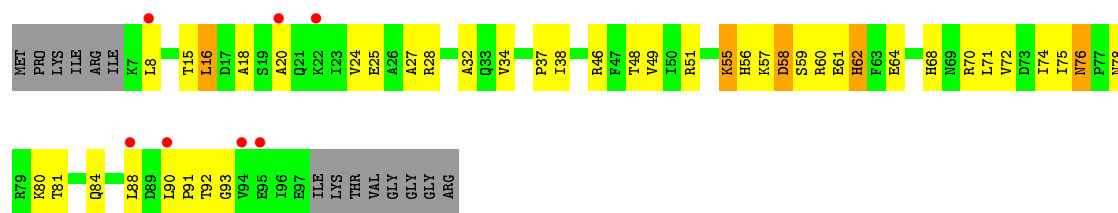


• Molecule 9: 30S ribosomal protein S9

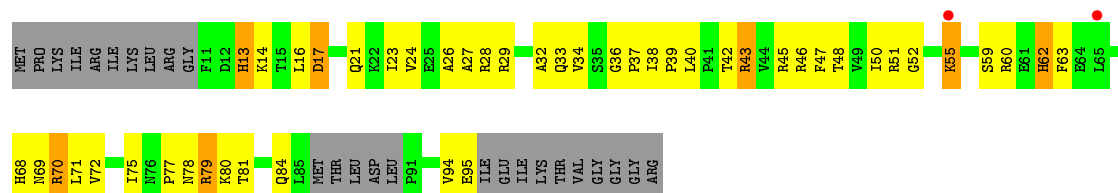


• Molecule 10: 30S ribosomal protein S10

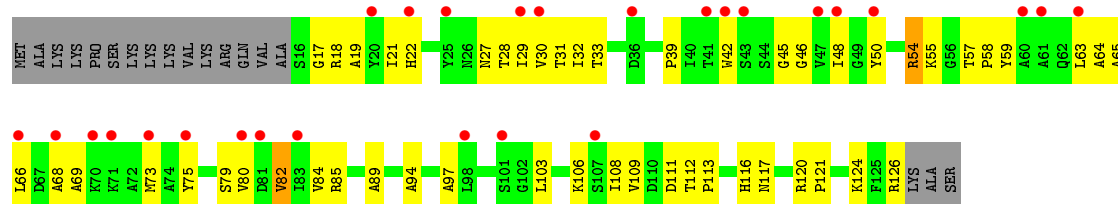




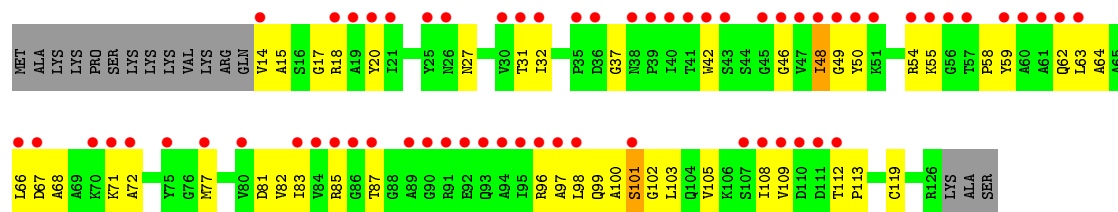
• Molecule 10: 30S ribosomal protein S10



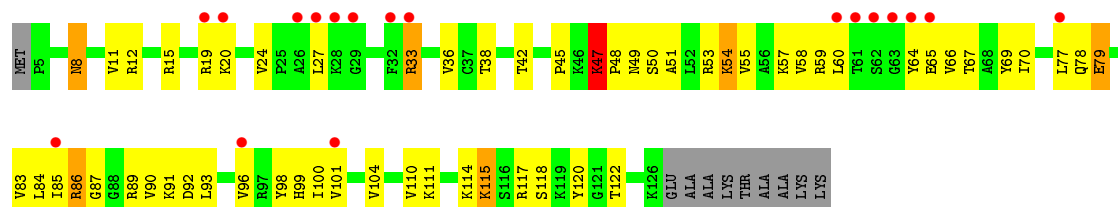
• Molecule 11: 30S ribosomal protein S11



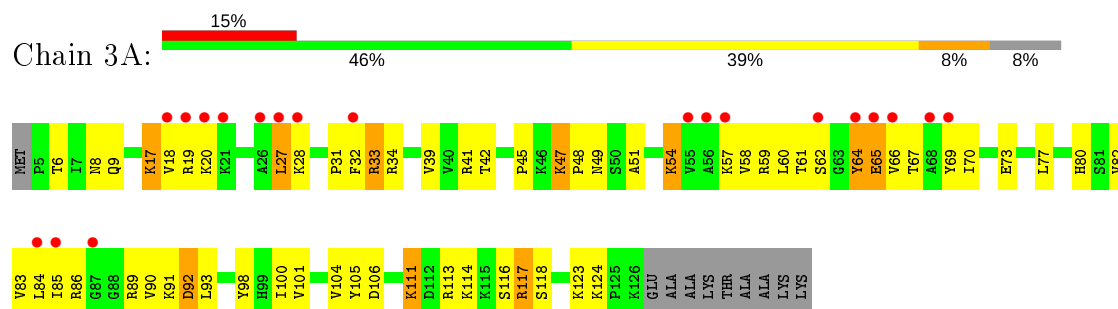
• Molecule 11: 30S ribosomal protein S11



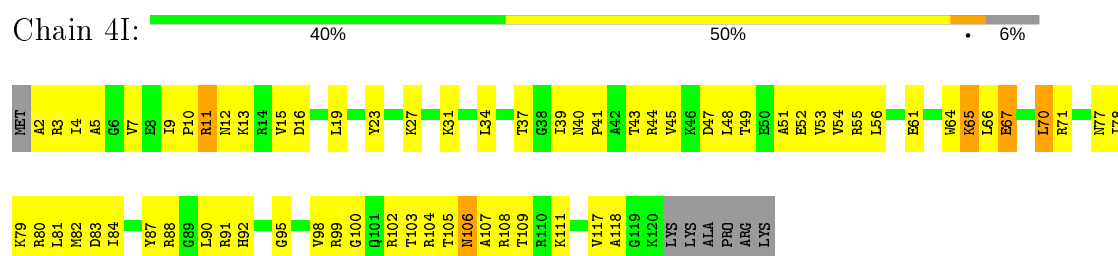
• Molecule 12: 30S ribosomal protein S12



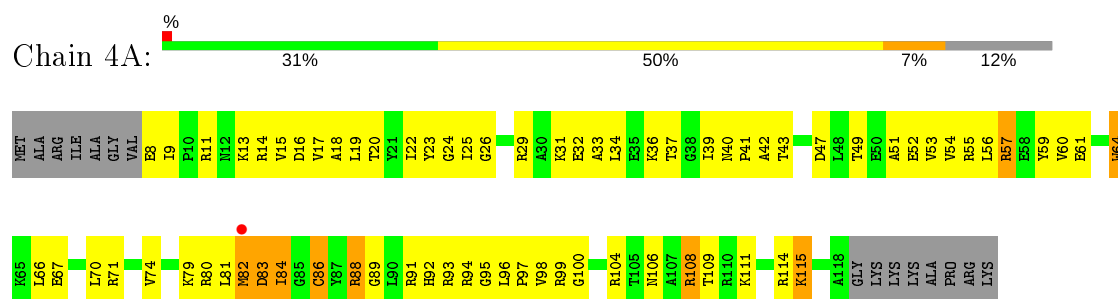
- Molecule 12: 30S ribosomal protein S12



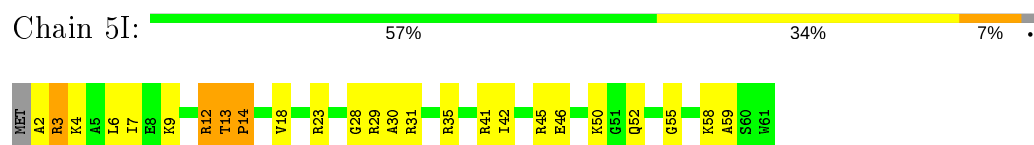
- Molecule 13: 30S ribosomal protein S13



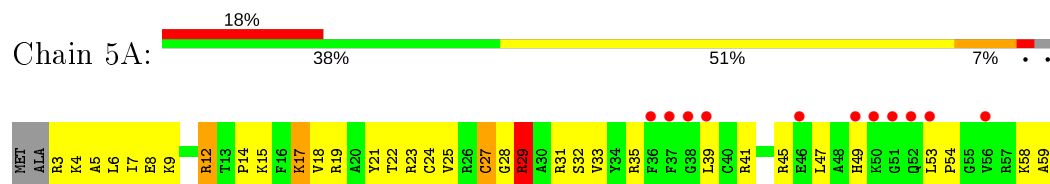
- Molecule 13: 30S ribosomal protein S13



- Molecule 14: 30S ribosomal protein S14 type Z

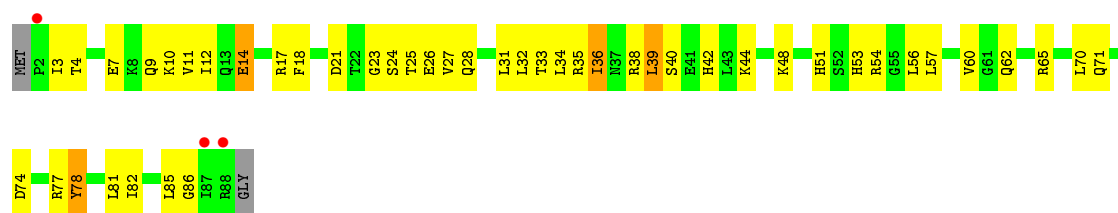


- Molecule 14: 30S ribosomal protein S14 type Z

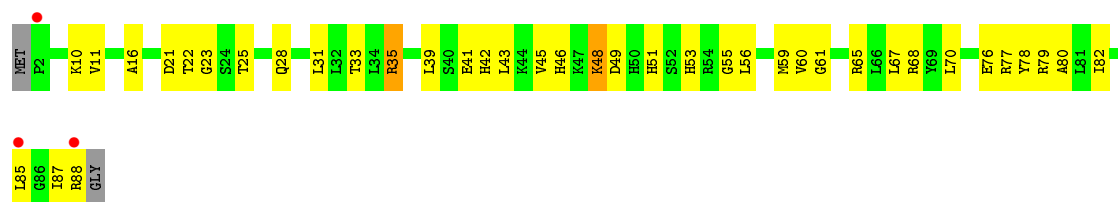


- Molecule 15: 30S ribosomal protein S15

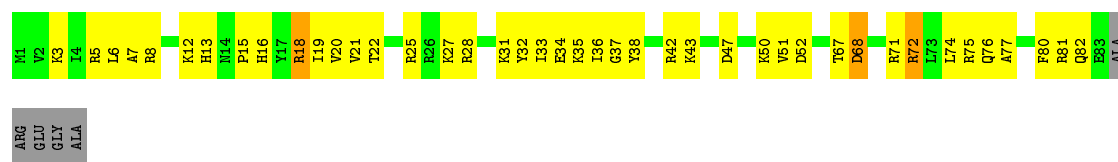




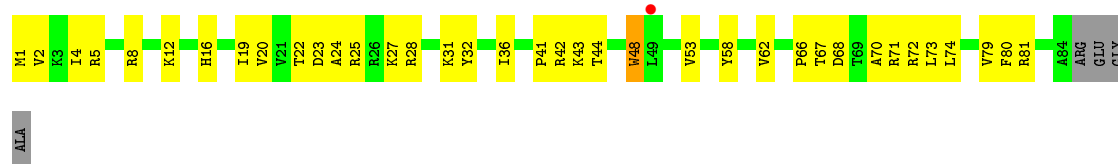
- Molecule 15: 30S ribosomal protein S15



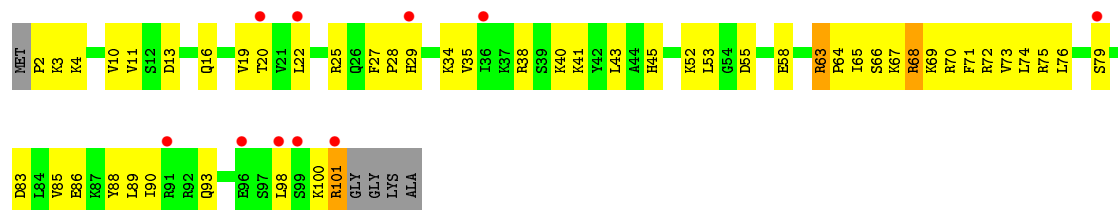
- Molecule 16: 30S ribosomal protein S16



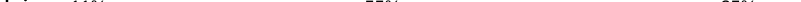
- Molecule 16: 30S ribosomal protein S16

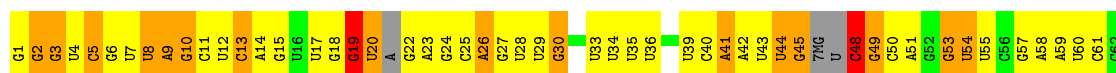


- Molecule 17: 30S ribosomal protein S17

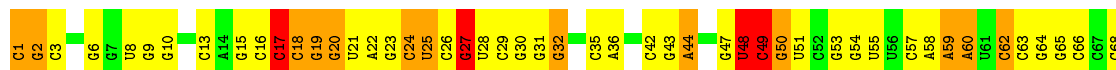


- Molecule 17: 30S ribosomal protein S17

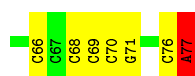
- Chain 1L: 



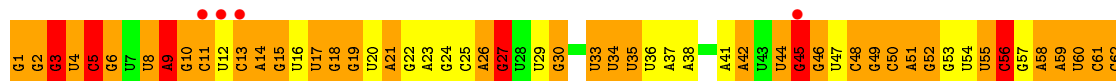
• Molecule 23: E. coli tRNA^{fMet}



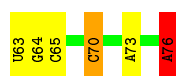
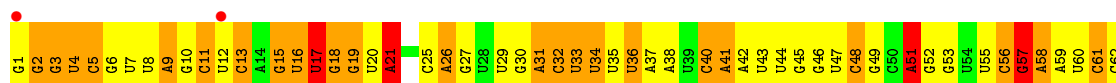
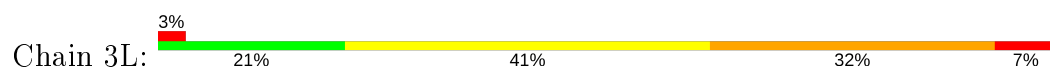
• Molecule 23: E. coli tRNA^{fMet}



• Molecule 24: tRNA^{Lys}

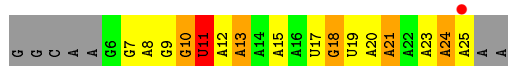


• Molecule 24: tRNA^{Lys}

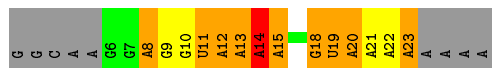


• Molecule 25: mRNA

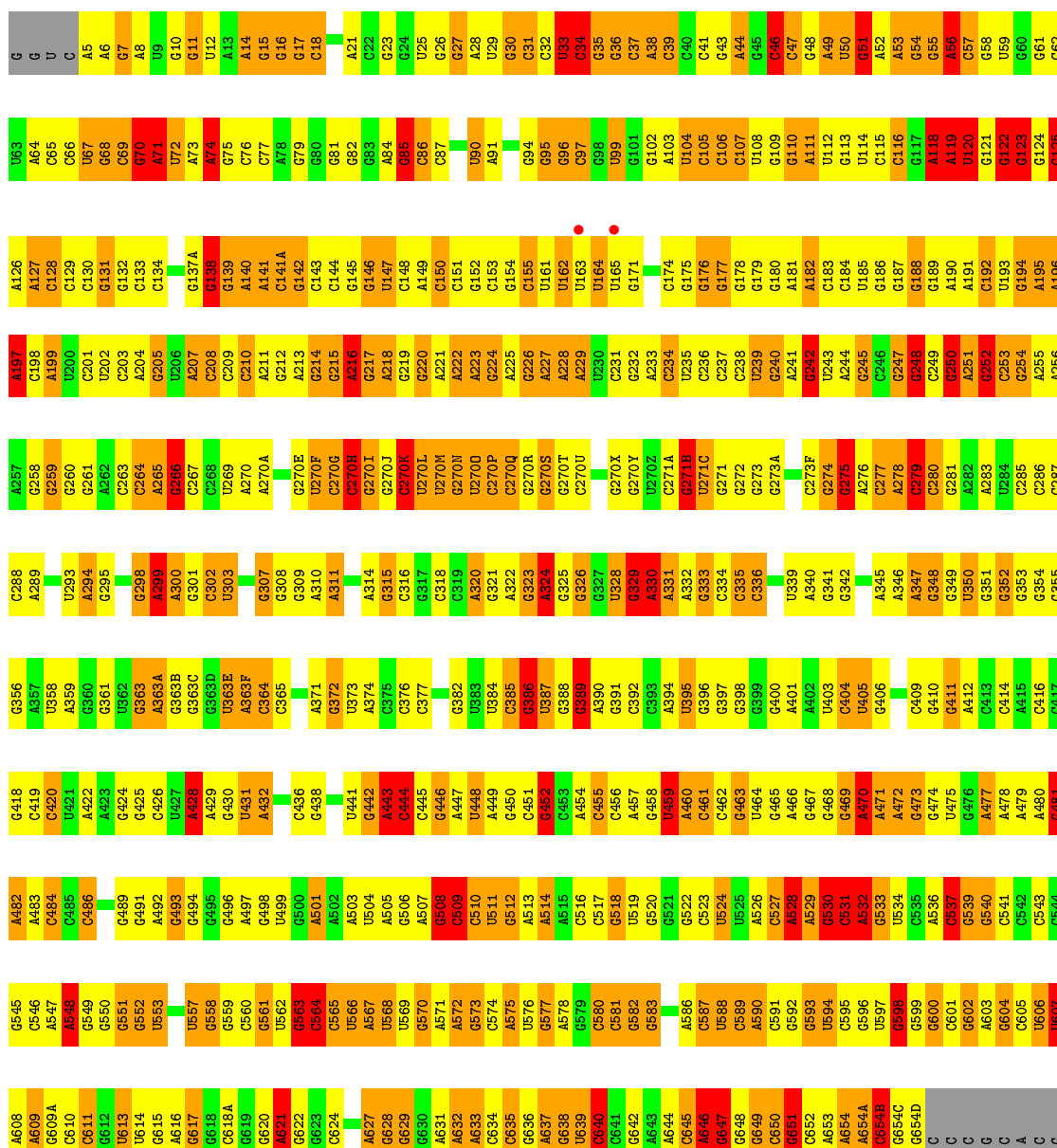




• Molecule 25: mRNA

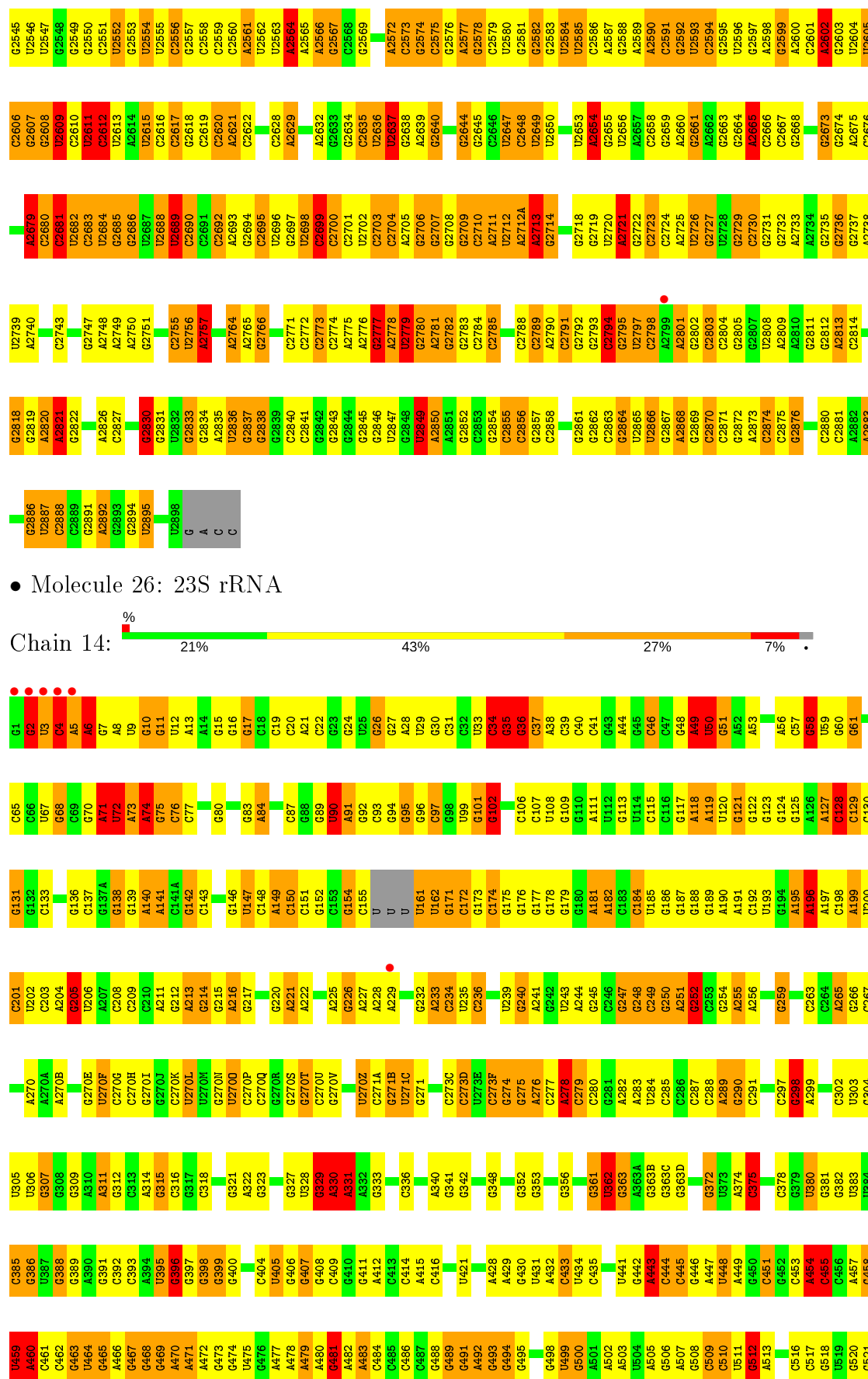


• Molecule 26: 23S rRNA



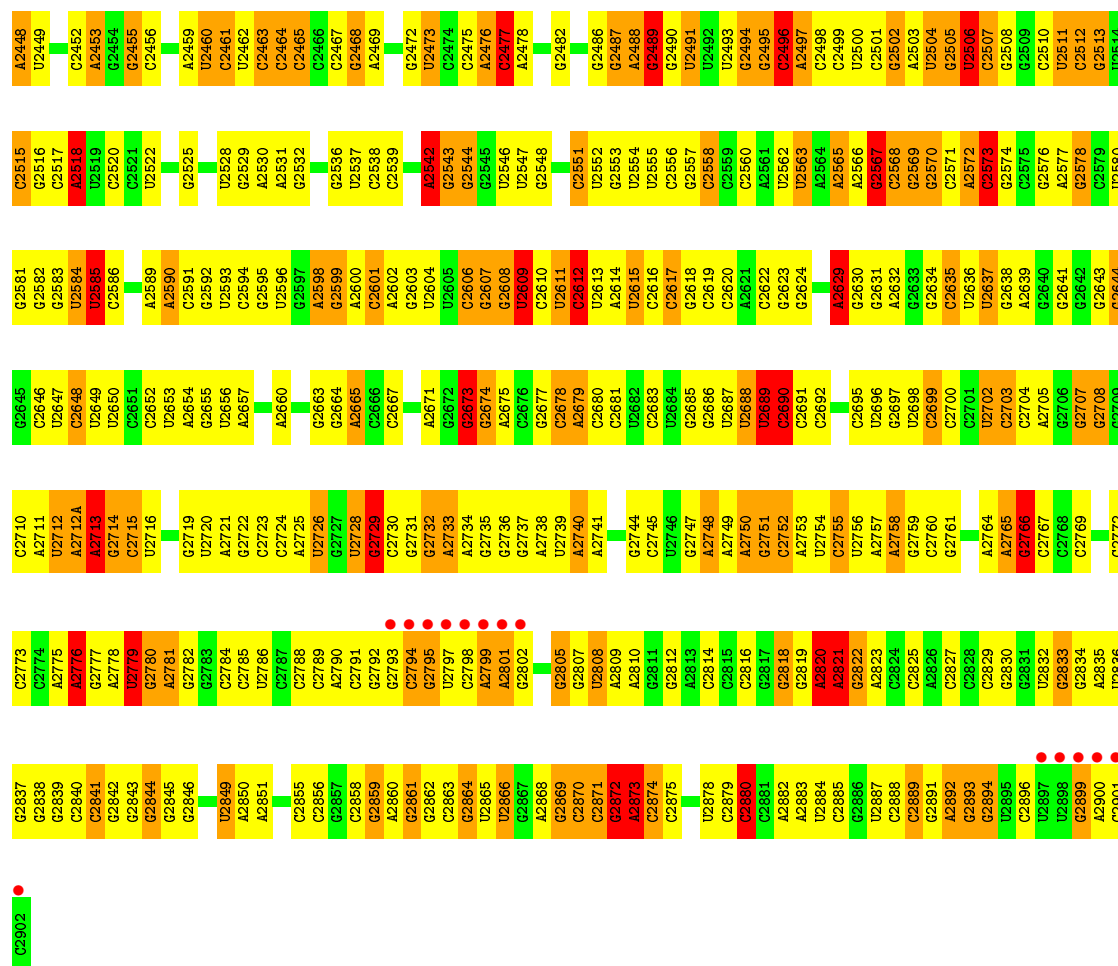
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C1513	G1450	U1391	A1331	A1268	G1206		C955		G831	G771	G711	
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C1515	A1453	A1393	C1333	C1270	C1208		A957		U833	U773	G713	
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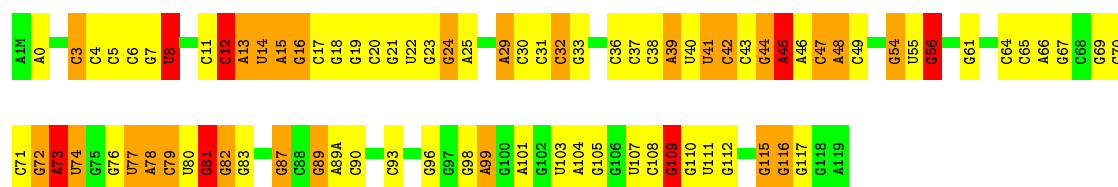
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C2374	C2254	U2117	C2179	A2117	G2056	U1991	C1925	G1852	A1785	A1701	C1638	U1578	
C2375	G2315	G2255	U2180	A2057	A2057	G1992	U1926	C1853	A1786	G1702	U1639	A1579	
A2439	C2316	G2256	G2181	A2058	A2058	U1993	A1927	A1854	G1703	G1703	C1640	A1580	
C2440	U2257	U2257	C2182	A2059	A2059	C1994	A1928	G1704	G1704	G1704	A1641	G1517	
C2441	C2317	U2257	C2183	A2060	A2060	G1987	G1929	G1857	A1789	G1705	G1642	C1582	
C2442	G2318	G2258	C2184	G2123	G2061	C1989	G1930	G1858	U1790		C1644	A1583	
C2443	G2319	G2259	C2185	G2124	A2062	G2000	U1931	A1859	A1791	U1709	C1645	C1585	
G2444	A2260	C2260	C2186	G2125	A2063	A2001	A1932	G1860	G1792	G1710	G1646	A1586	
G2445	G2321	U2262	G2187	A2126	C2064	G2002		G1861	C1793		C1647	G1522	
G2447	G2323	C2263	C2188	G2127	C2065		G1935	G1862	U1794	U1716	G1647	U1523	



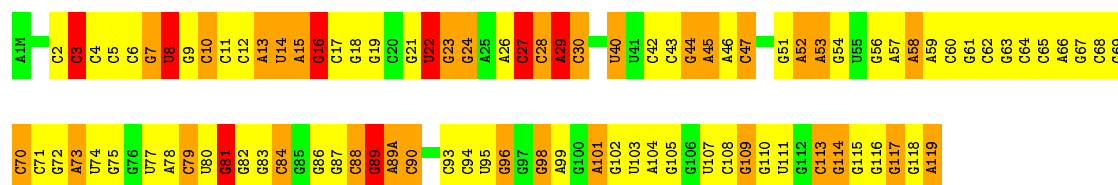
- Molecule 27: 5S rRNA

Chain 16: 31% 42% 21% 6%



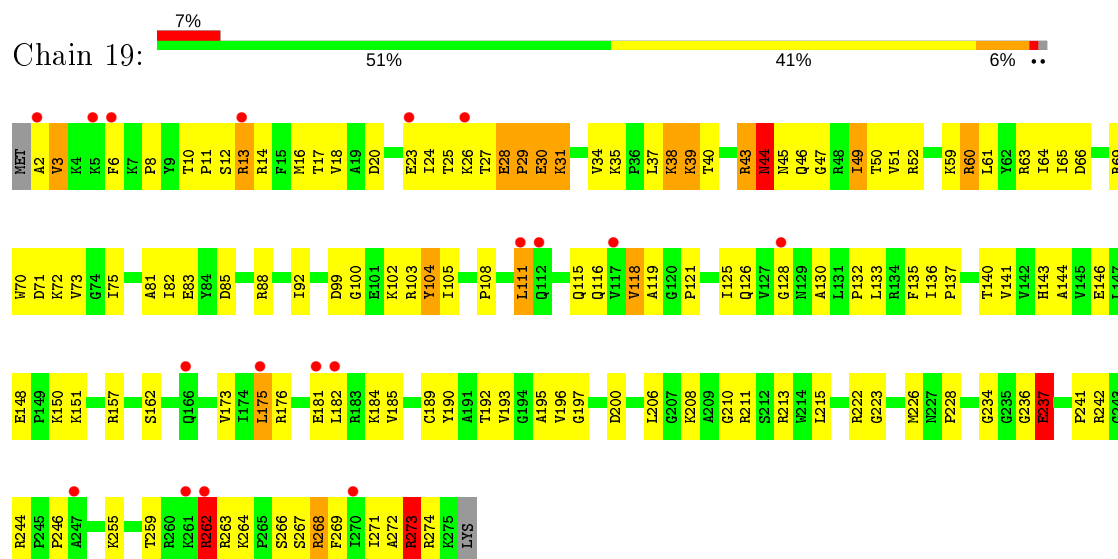
- Molecule 27: 5S rRNA

Chain 1J: 22% 46% 25% 7%

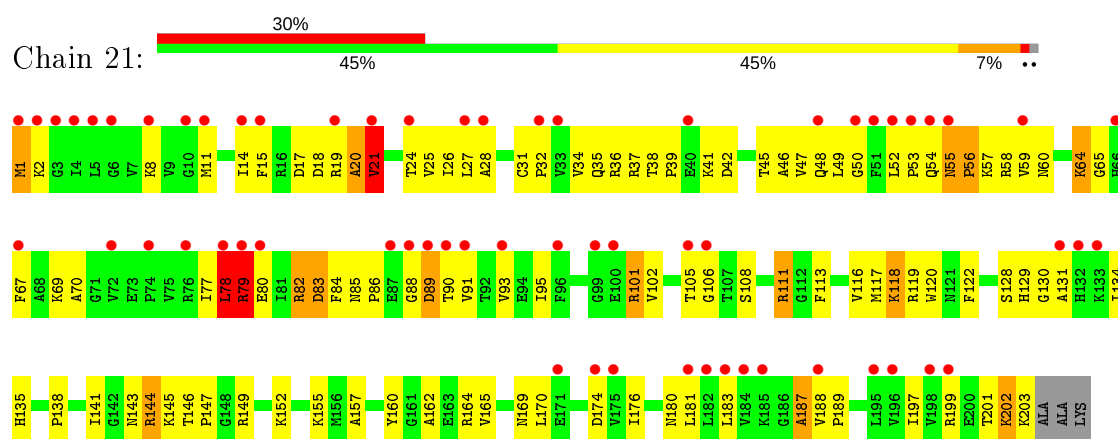


- Molecule 28: 50S ribosomal protein L1

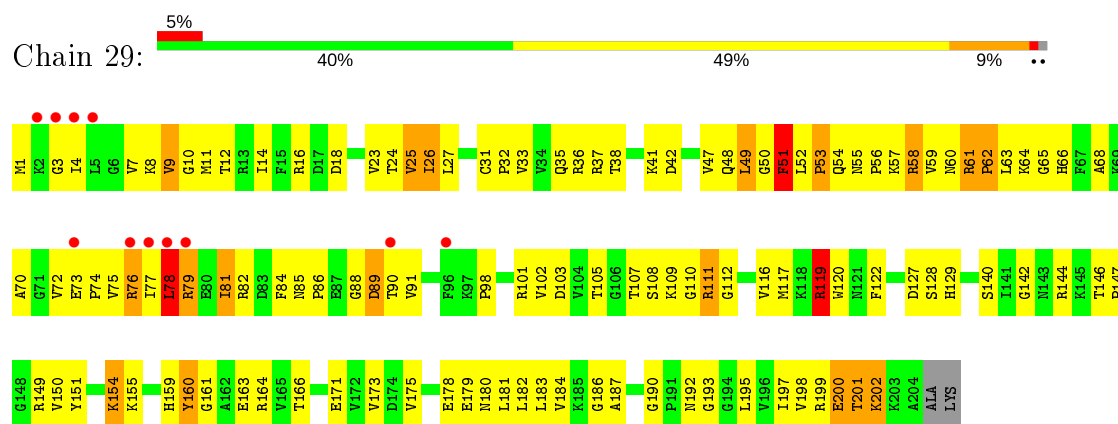
- Molecule 29: 50S ribosomal protein L2



- Molecule 30: 50S ribosomal protein L3

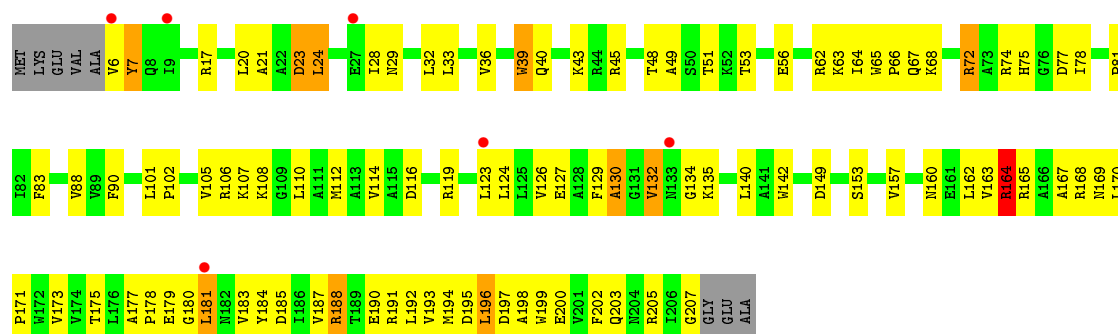


- Molecule 30: 50S ribosomal protein L3

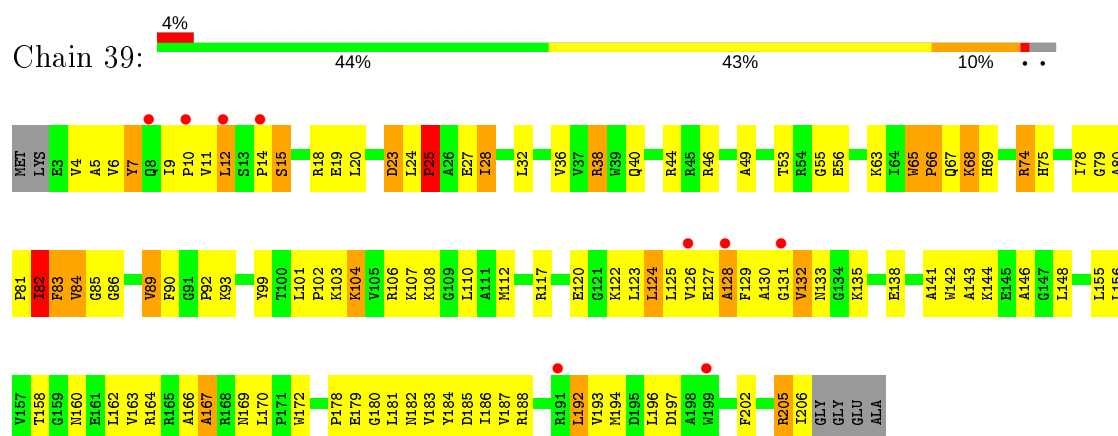


- Molecule 31: 50S ribosomal protein L4

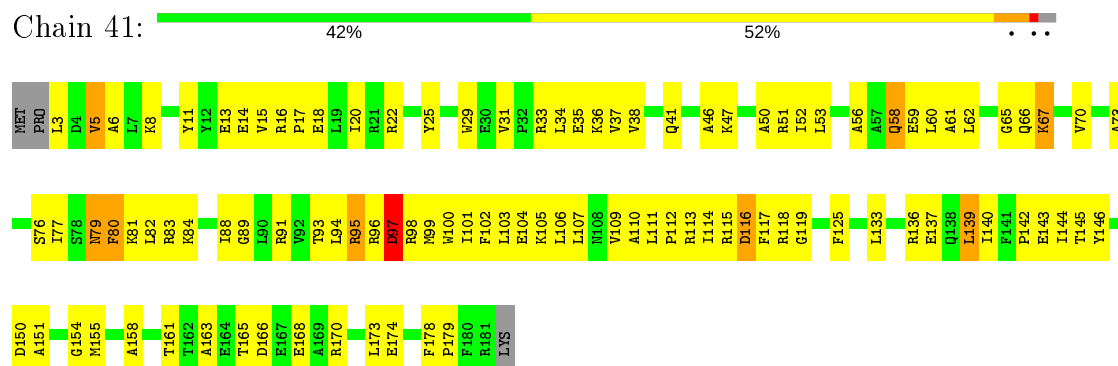




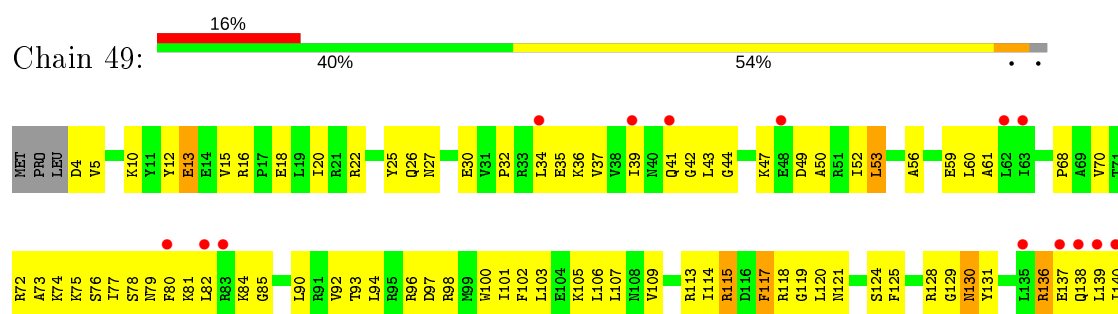
• Molecule 31: 50S ribosomal protein L4



• Molecule 32: 50S ribosomal protein L5

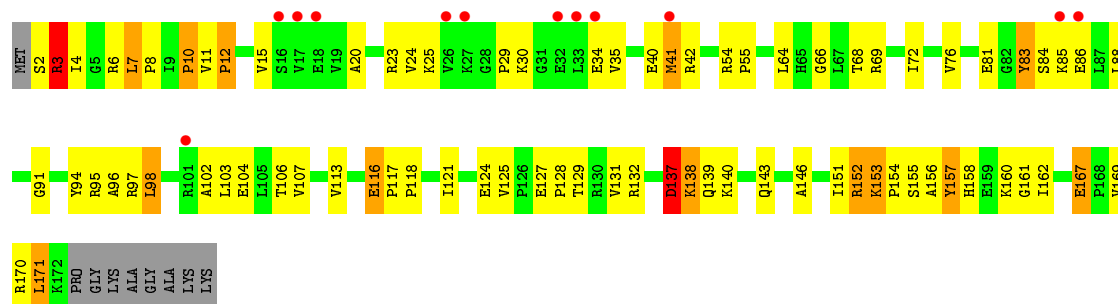


• Molecule 32: 50S ribosomal protein L5

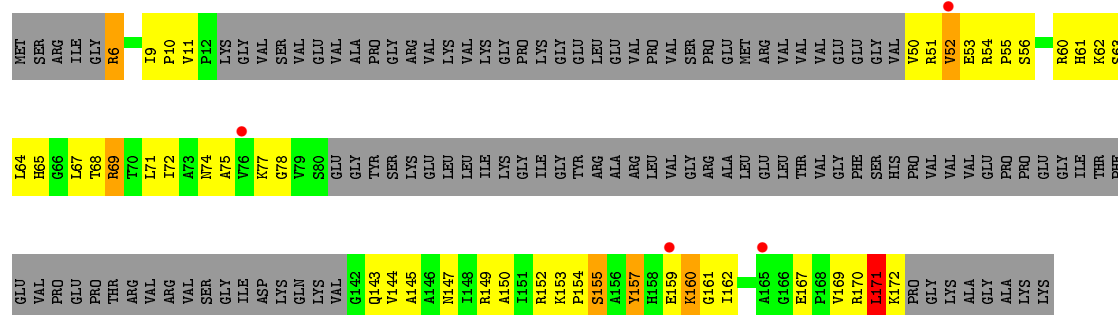




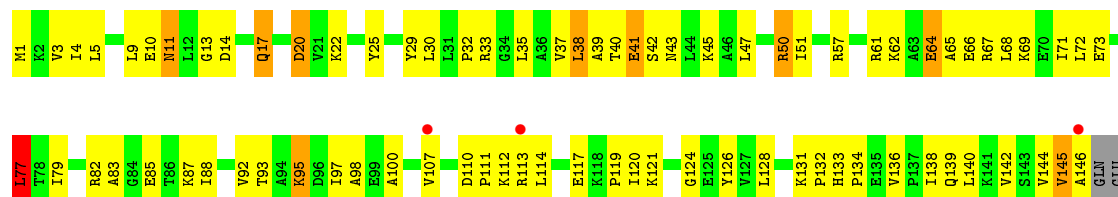
- Molecule 33: 50S ribosomal protein L6



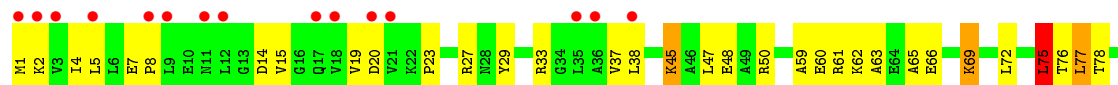
- Molecule 33: 50S ribosomal protein L6

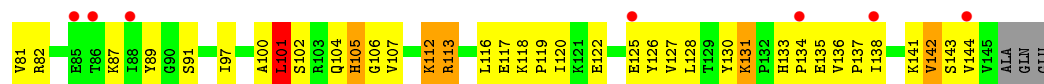


- Molecule 34: 50S ribosomal protein L9

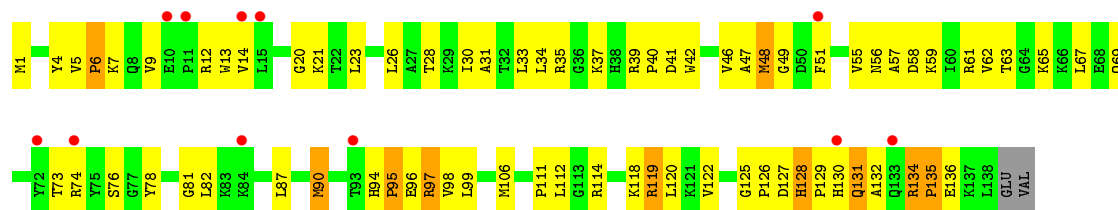


- Molecule 34: 50S ribosomal protein L9

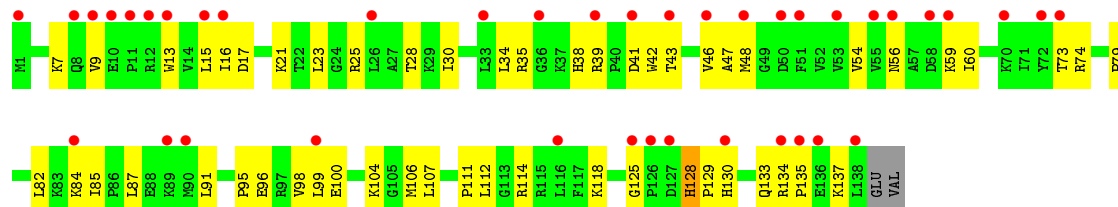




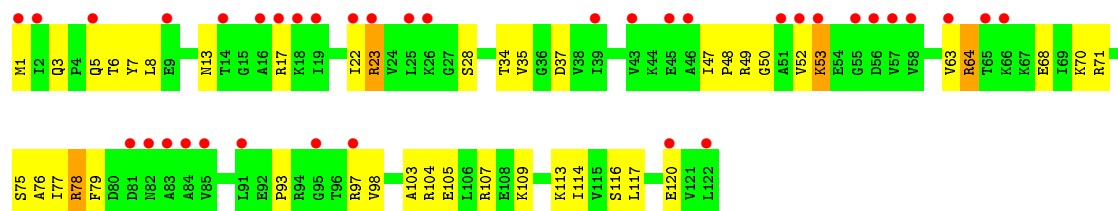
- Molecule 35: 50S ribosomal protein L13



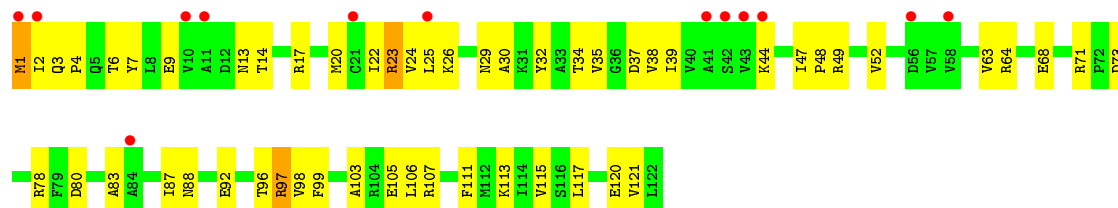
- Molecule 35: 50S ribosomal protein L13



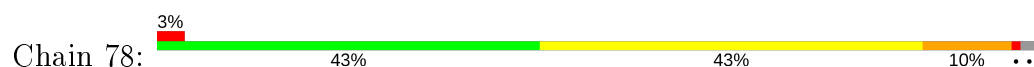
- Molecule 36: 50S ribosomal protein L14

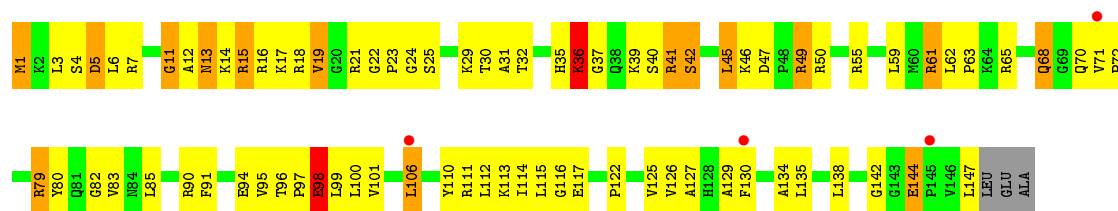


- Molecule 36: 50S ribosomal protein L14

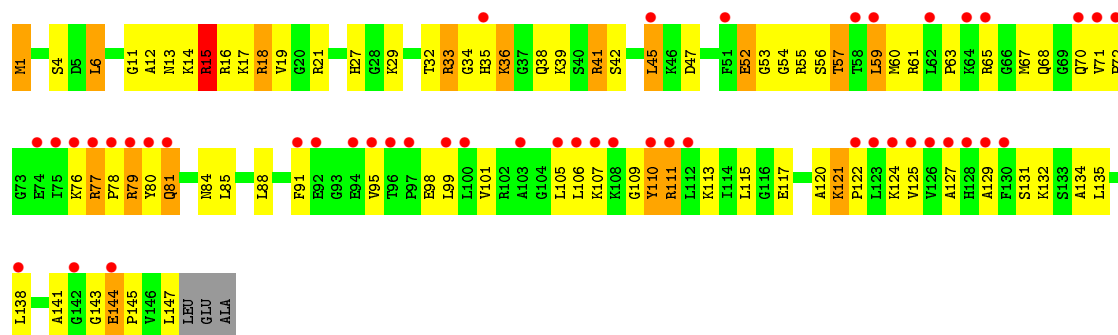
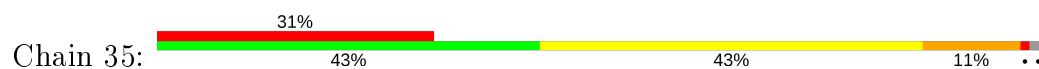


- Molecule 37: 50S ribosomal protein L15

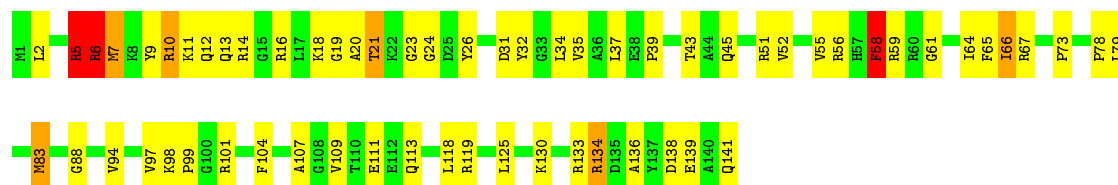




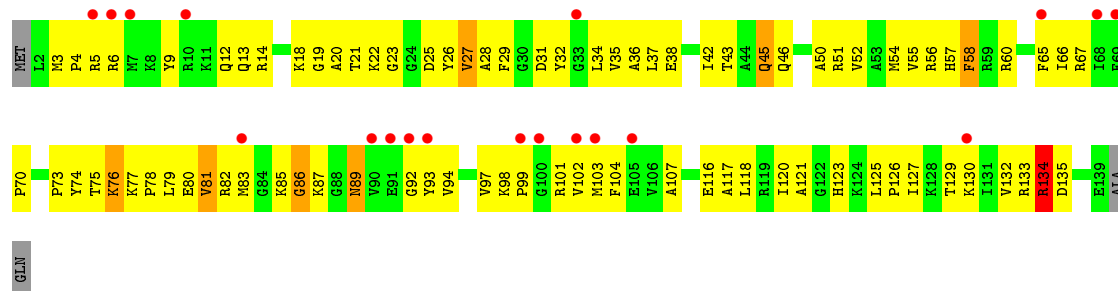
• Molecule 37: 50S ribosomal protein L15



• Molecule 38: 50S ribosomal protein L16

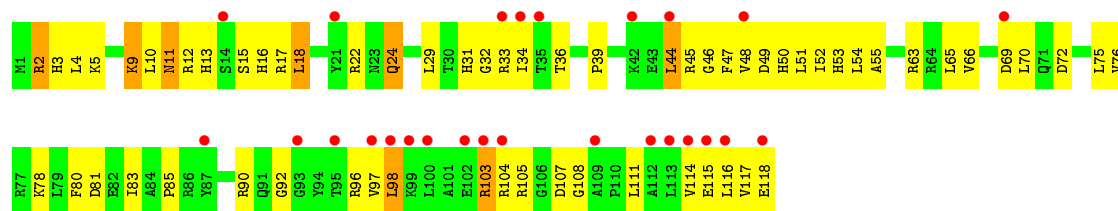


• Molecule 38: 50S ribosomal protein L16



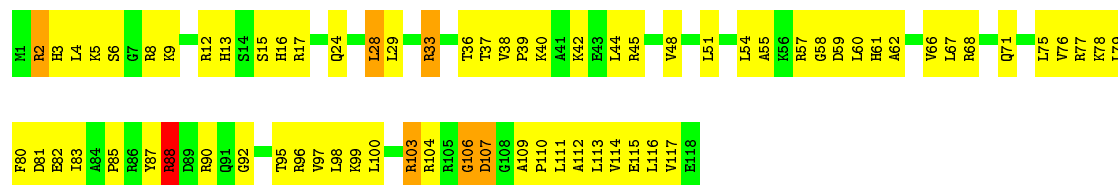
• Molecule 39: 50S ribosomal protein L17





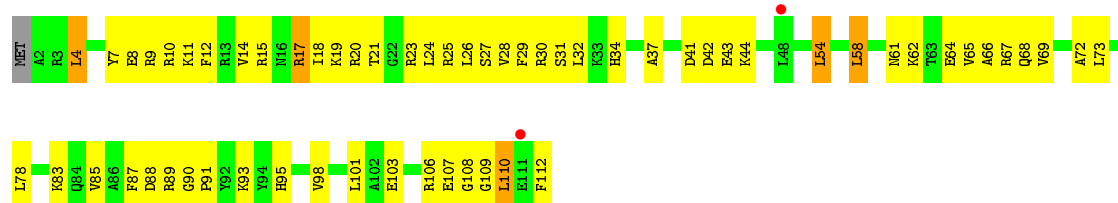
• Molecule 39: 50S ribosomal protein L17

Chain 55: 40% 54% 5% •



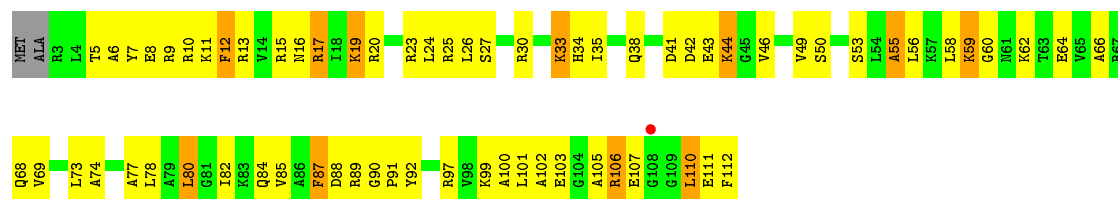
• Molecule 40: 50S ribosomal protein L18

Chain A8: 2% 45% 50% • •



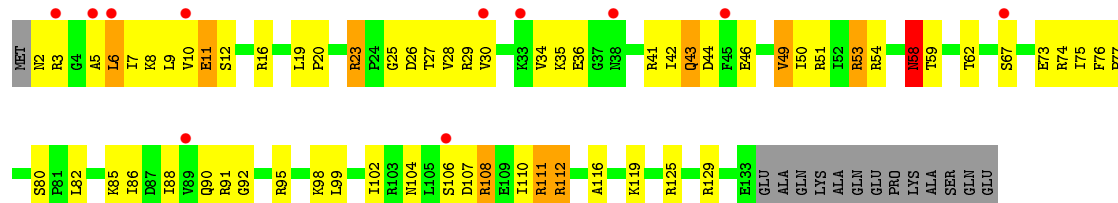
• Molecule 40: 50S ribosomal protein L18

Chain 65: 38% 51% 10% •

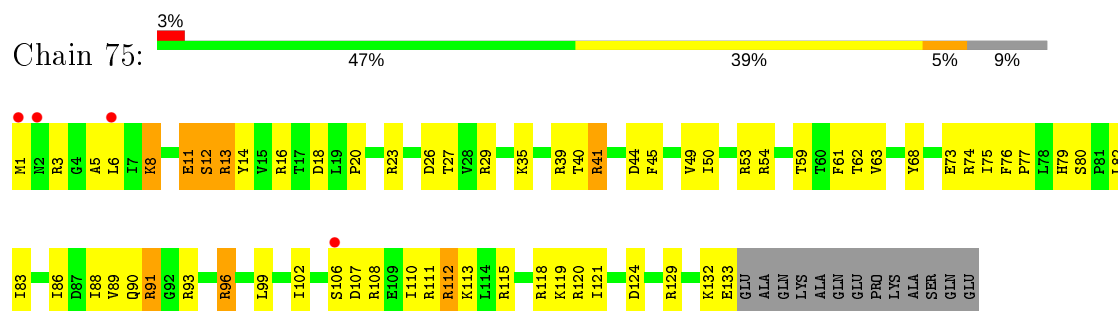


• Molecule 41: 50S ribosomal protein L19

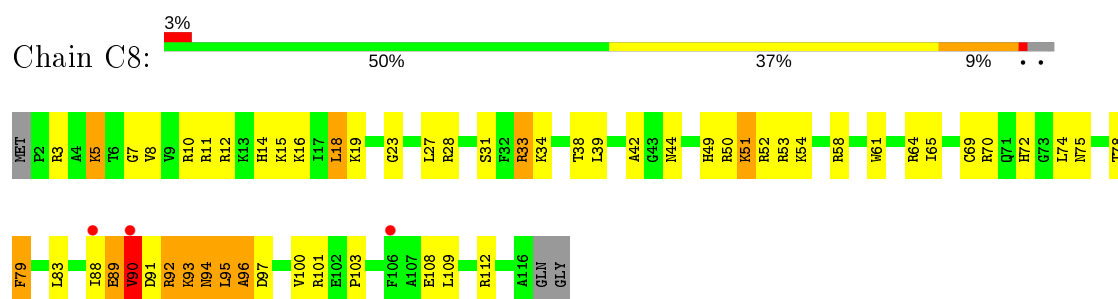
Chain B8: 8% 46% 38% 6% • 10%



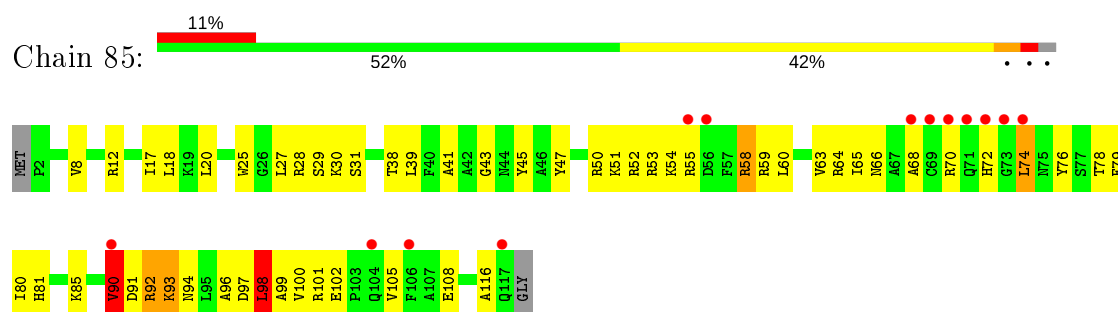
- Molecule 41: 50S ribosomal protein L19



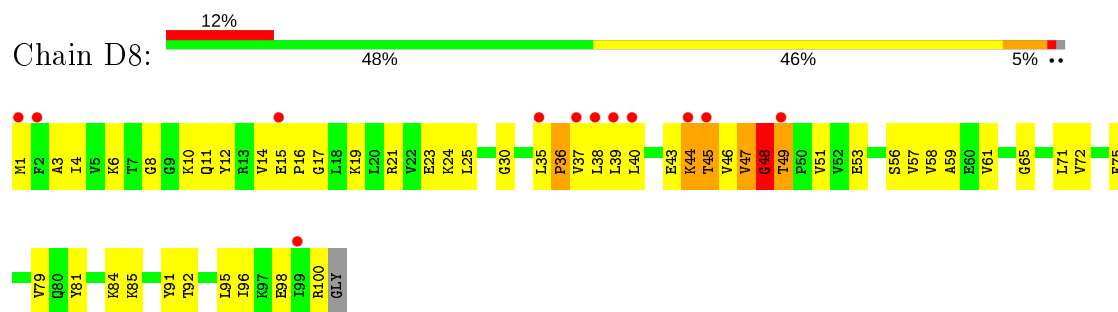
- Molecule 42: 50S ribosomal protein L20



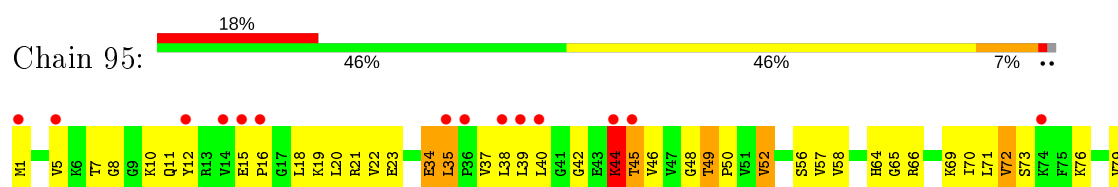
- Molecule 42: 50S ribosomal protein L20

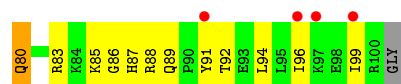


- Molecule 43: 50S ribosomal protein L21

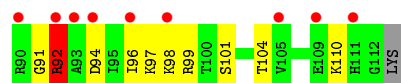
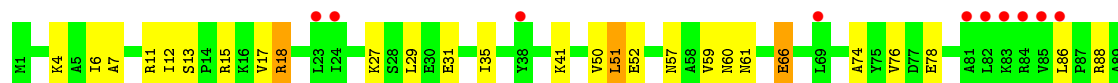


- Molecule 43: 50S ribosomal protein L21





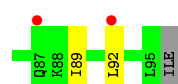
- Molecule 44: 50S ribosomal protein L22



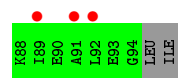
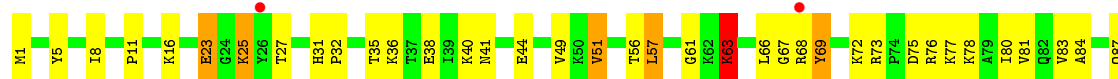
- Molecule 44: 50S ribosomal protein L22



- Molecule 45: 50S ribosomal protein L23

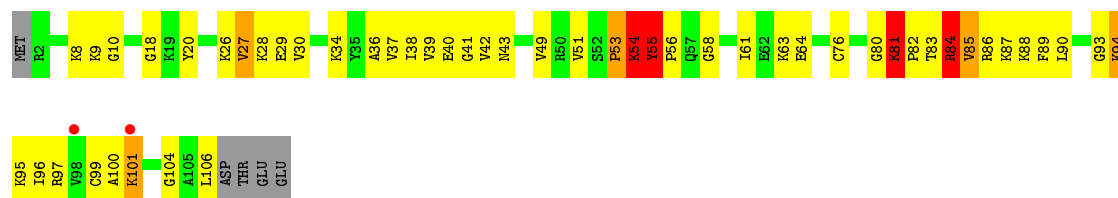


- Molecule 45: 50S ribosomal protein L23

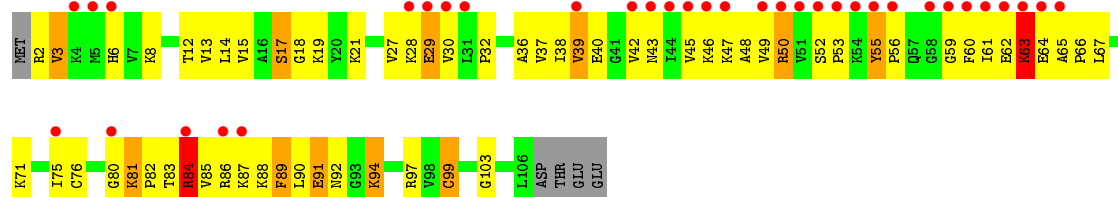


- Molecule 46: 50S ribosomal protein L24

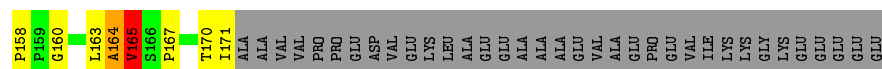
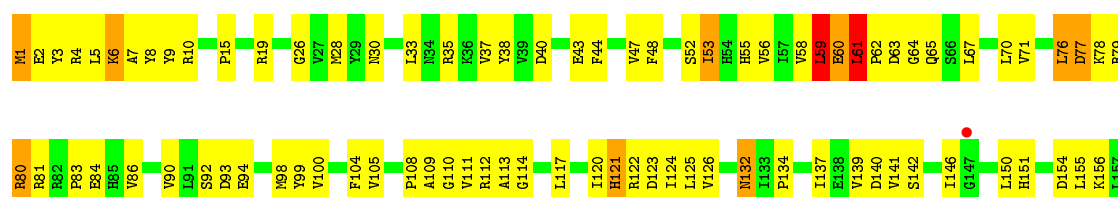




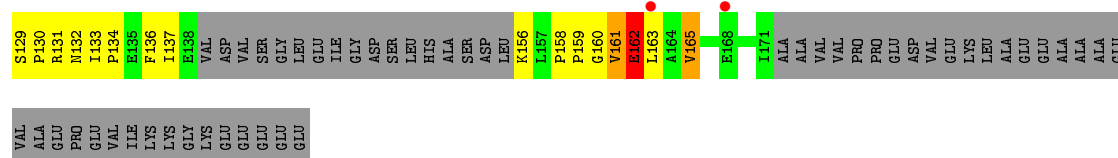
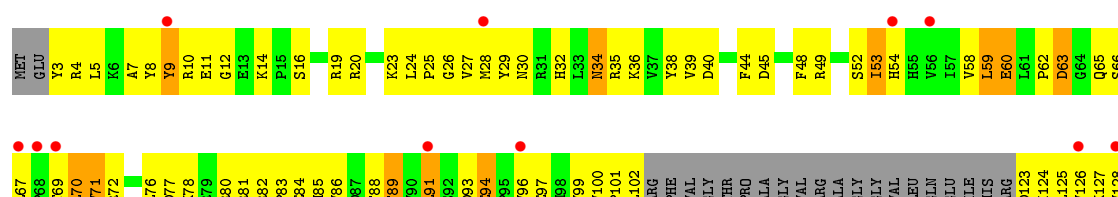
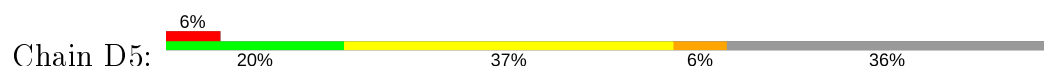
• Molecule 46: 50S ribosomal protein L24



• Molecule 47: 50S ribosomal protein L25

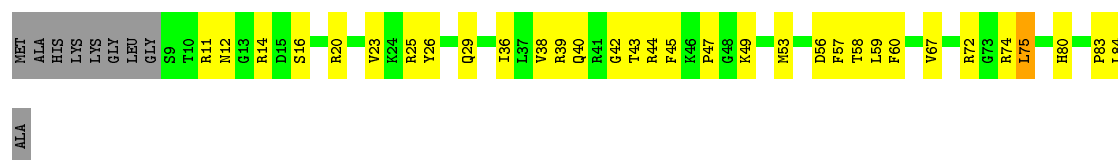


• Molecule 47: 50S ribosomal protein L25



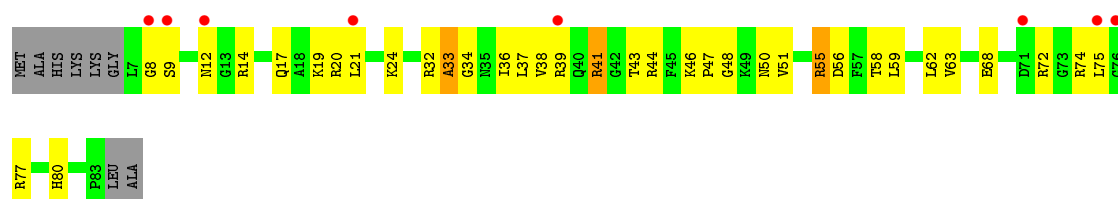
• Molecule 48: 50S ribosomal protein L27

Chain I8: 



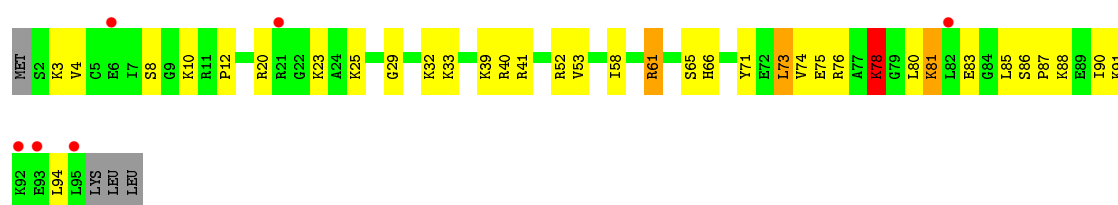
- Molecule 48: 50S ribosomal protein L27

Chain E5: 



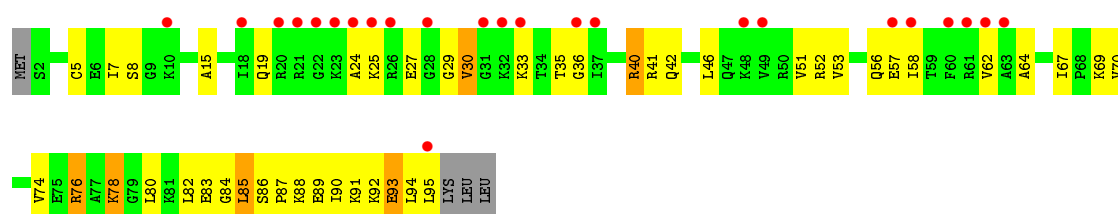
- Molecule 49: 50S ribosomal protein L28

Chain J8: 



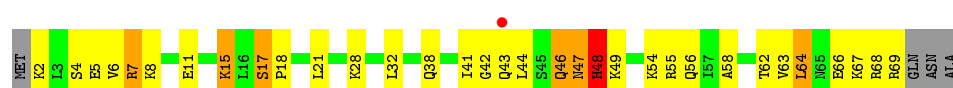
- Molecule 49: 50S ribosomal protein L28

Chain F5: 




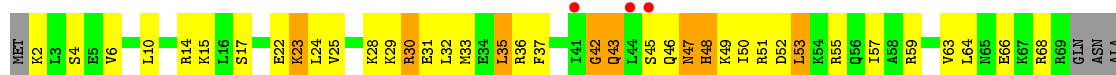
- Molecule 50: 50S ribosomal protein L29

Chain K8: 

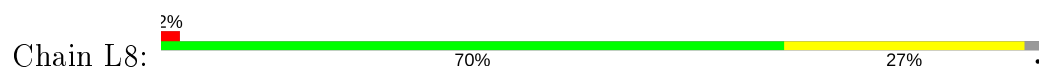


- Molecule 50: 50S ribosomal protein L29

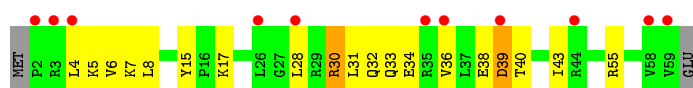
Chain G5: 



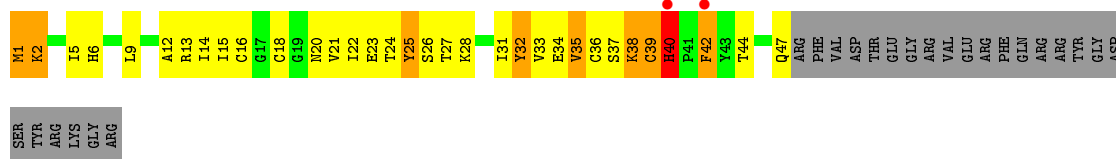
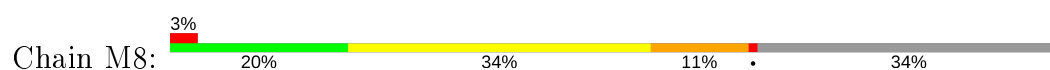
- Molecule 51: 50S ribosomal protein L30



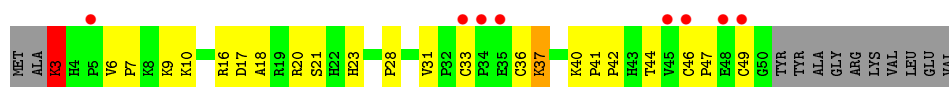
- Molecule 51: 50S ribosomal protein L30



- Molecule 52: 50S ribosomal protein L31



- Molecule 53: 50S ribosomal protein L32



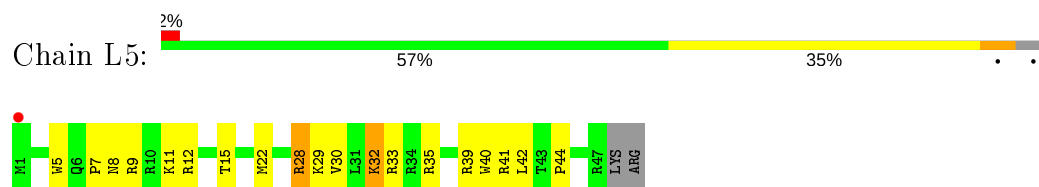
- Molecule 53: 50S ribosomal protein L32



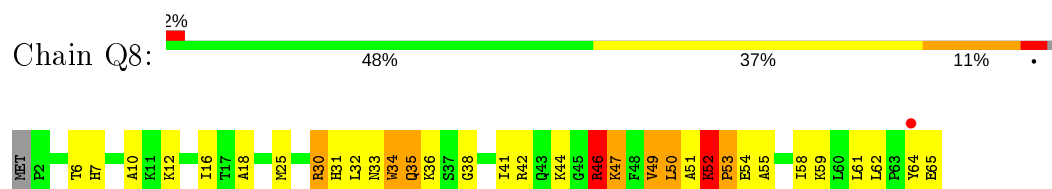
- Molecule 54: 50S ribosomal protein L34



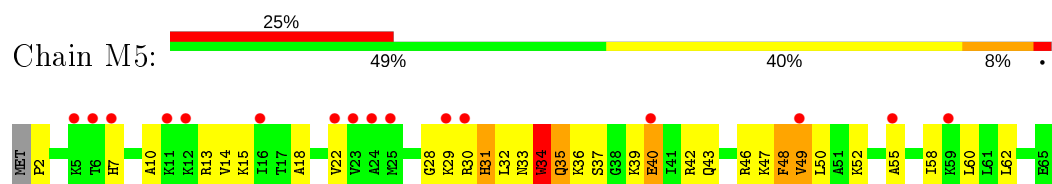
- Molecule 54: 50S ribosomal protein L34



- Molecule 55: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L35



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.40 Å 446.00 Å 617.40 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	151.24 – 3.10 161.07 – 3.10	Depositor EDS
% Data completeness (in resolution range)	100.0 (151.24-3.10) 93.3 (161.07-3.10)	Depositor EDS
R_{merge}	0.29	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.91 (at 3.07 Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.196 , 0.249 0.196 , 0.254	Depositor DCC
R_{free} test set	2000 reflections (0.19%)	wwPDB-VP
Wilson B-factor (Å ²)	91.6	Xtriage
Anisotropy	0.272	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 68.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	294257	wwPDB-VP
Average B, all atoms (Å ²)	106.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% 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: 5MU, OMC, PAR, U8U, 4SU, G7M, SF4, MG, ZN, T6A, PSU

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	13	0.93	18/35994 (0.1%)	1.69	967/56171 (1.7%)
1	1G	0.78	4/36258 (0.0%)	1.46	463/56589 (0.8%)
2	12	0.53	0/1752	0.74	3/2360 (0.1%)
2	1E	0.46	0/1908	0.72	2/2573 (0.1%)
3	22	0.61	5/1564 (0.3%)	0.65	0/2109
3	2E	0.61	2/1629 (0.1%)	0.71	0/2195
4	32	0.55	0/1732	0.73	2/2318 (0.1%)
4	3E	0.63	0/1728	0.78	2/2313 (0.1%)
5	42	0.49	0/1150	0.73	0/1548
5	4E	0.58	0/1158	0.76	0/1559
6	52	0.56	0/855	0.75	2/1154 (0.2%)
6	5E	0.71	2/850 (0.2%)	0.77	1/1147 (0.1%)
7	62	0.46	0/1122	0.65	0/1500
7	6E	0.48	0/1259	0.63	0/1686
8	72	0.43	0/1127	0.65	1/1517 (0.1%)
8	7E	0.71	4/1135 (0.4%)	0.76	0/1527
9	82	0.46	0/971	0.66	0/1304
9	8E	0.46	0/1019	0.69	0/1367
10	1A	0.51	0/658	0.65	0/885
10	1I	0.47	0/747	0.73	0/1006
11	2A	0.46	0/850	0.66	0/1150
11	2I	0.51	0/838	0.71	1/1133 (0.1%)
12	3A	0.55	0/972	0.79	2/1301 (0.2%)
12	3I	0.73	0/972	0.88	1/1301 (0.1%)
13	4A	0.52	0/903	0.76	1/1211 (0.1%)
13	4I	0.66	2/952 (0.2%)	0.72	0/1277
14	5A	0.51	0/495	0.76	0/657
14	5I	0.56	0/500	0.79	1/664 (0.2%)
15	6A	0.47	0/740	0.66	0/987
15	6I	0.56	0/740	0.69	0/987
16	7A	0.52	0/721	0.71	0/970
16	7I	0.53	0/716	0.75	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	8A	0.48	0/836	0.66	0/1117
17	8I	0.53	0/847	0.74	0/1131
18	9A	0.52	0/549	0.68	0/732
18	9I	0.63	0/554	0.77	1/739 (0.1%)
19	AA	0.50	0/490	0.73	0/662
19	AI	0.55	0/672	0.77	0/904
20	BA	0.44	0/764	0.72	1/1007 (0.1%)
20	BI	0.55	1/748 (0.1%)	0.75	2/986 (0.2%)
21	1B	0.40	0/192	0.61	0/252
21	1F	0.54	0/203	0.64	0/266
22	1K	0.91	2/1516 (0.1%)	1.53	28/2350 (1.2%)
22	1L	0.76	1/1613 (0.1%)	1.29	18/2504 (0.7%)
23	2K	0.97	2/1721 (0.1%)	1.63	38/2682 (1.4%)
23	2L	0.78	1/1721 (0.1%)	1.51	26/2682 (1.0%)
24	3K	0.85	1/1777 (0.1%)	1.52	32/2767 (1.2%)
24	3L	0.81	4/1777 (0.2%)	1.46	28/2767 (1.0%)
25	4K	1.19	0/494	1.43	7/767 (0.9%)
25	4L	0.84	0/445	1.23	4/693 (0.6%)
26	14	1.06	133/69023 (0.2%)	1.87	2721/107740 (2.5%)
26	1H	1.24	276/68351 (0.4%)	2.12	4205/106700 (3.9%)
27	16	0.97	2/2928 (0.1%)	1.82	99/4568 (2.2%)
27	1J	0.85	0/2928	1.58	53/4568 (1.2%)
28	71	0.41	0/1055	0.67	1/1425 (0.1%)
28	79	0.44	0/459	0.66	0/608
29	11	0.90	6/2170 (0.3%)	1.13	16/2926 (0.5%)
29	19	0.82	5/2175 (0.2%)	0.97	9/2933 (0.3%)
30	21	0.68	0/1591	0.92	2/2146 (0.1%)
30	29	0.76	3/1596 (0.2%)	0.96	3/2153 (0.1%)
31	31	0.78	1/1620 (0.1%)	0.89	1/2194 (0.0%)
31	39	0.83	2/1637 (0.1%)	0.88	1/2218 (0.0%)
32	41	0.54	0/1481	0.76	0/1994
32	49	0.45	0/1482	0.67	0/1994
33	51	0.64	0/1337	0.91	5/1809 (0.3%)
33	59	0.63	1/548 (0.2%)	1.13	6/738 (0.8%)
34	61	0.53	0/1151	0.79	1/1558 (0.1%)
34	69	0.52	0/1146	0.78	2/1551 (0.1%)
35	15	0.53	0/1131	0.73	0/1525
35	58	0.59	0/1131	0.81	2/1525 (0.1%)
36	25	0.69	1/942 (0.1%)	0.76	0/1269
36	68	0.66	0/942	0.83	1/1269 (0.1%)
37	35	0.79	2/1139 (0.2%)	0.99	3/1514 (0.2%)
37	78	0.84	4/1139 (0.4%)	1.08	7/1514 (0.5%)
38	45	0.64	1/1120 (0.1%)	0.87	0/1498

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	88	0.81	0/1134	1.02	3/1519 (0.2%)
39	55	0.71	2/981 (0.2%)	0.89	1/1312 (0.1%)
39	98	0.54	0/981	0.87	1/1312 (0.1%)
40	65	0.57	0/886	0.87	1/1180 (0.1%)
40	A8	0.64	0/891	0.89	3/1187 (0.3%)
41	75	0.72	3/1123 (0.3%)	0.79	1/1500 (0.1%)
41	B8	0.75	3/1115 (0.3%)	0.88	0/1490
42	85	0.57	0/977	0.77	1/1301 (0.1%)
42	C8	0.67	0/968	0.86	2/1289 (0.2%)
43	95	0.65	0/785	0.92	1/1052 (0.1%)
43	D8	0.62	0/785	0.88	1/1052 (0.1%)
44	A5	0.67	0/897	0.83	0/1204
44	E8	0.66	0/901	0.91	3/1209 (0.2%)
45	B5	0.69	0/749	0.87	3/1007 (0.3%)
45	F8	0.72	0/757	0.96	2/1017 (0.2%)
46	C5	0.89	4/812 (0.5%)	0.96	1/1083 (0.1%)
46	G8	0.93	6/809 (0.7%)	1.07	3/1080 (0.3%)
47	D5	0.58	3/1099 (0.3%)	0.77	1/1490 (0.1%)
47	H8	0.52	0/1403	0.79	3/1901 (0.2%)
48	E5	0.62	0/616	0.86	0/821
48	I8	0.81	0/614	0.91	1/819 (0.1%)
49	F5	0.63	0/744	0.86	1/989 (0.1%)
49	J8	0.73	1/744 (0.1%)	0.88	1/989 (0.1%)
50	G5	0.61	0/570	0.76	0/755
50	K8	0.73	0/570	0.99	1/755 (0.1%)
51	H5	0.48	0/464	0.68	0/623
51	L8	0.63	0/464	0.82	0/623
52	M8	0.54	0/375	0.94	1/507 (0.2%)
53	J5	0.64	0/448	0.85	2/606 (0.3%)
53	N8	0.90	1/381 (0.3%)	0.86	0/516
54	L5	0.69	0/409	0.97	1/540 (0.2%)
54	P8	0.84	0/409	1.05	0/540
55	M5	0.79	1/524 (0.2%)	1.01	2/691 (0.3%)
55	Q8	0.72	0/524	1.18	4/691 (0.6%)
All	All	0.95	510/317065 (0.2%)	1.64	8817/475024 (1.9%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	5
4	32	0	6
4	3E	0	2
5	42	0	1
7	62	0	1
8	72	0	1
9	82	0	1
10	1A	0	2
11	2A	0	1
12	3I	0	2
13	4A	0	5
13	4I	0	2
14	5A	0	1
14	5I	0	1
19	AA	0	2
19	AI	0	2
20	BA	0	3
20	BI	0	2
28	71	0	3
29	11	0	8
29	19	0	4
30	21	0	10
30	29	0	6
31	31	0	2
31	39	0	9
32	49	0	3
33	51	0	6
33	59	0	5
34	61	0	4
34	69	0	4
35	58	0	1
37	35	0	4
37	78	0	7
38	45	0	6
38	88	0	3
39	55	0	1
39	98	0	2
40	65	0	2
40	A8	0	1
41	75	0	1
41	B8	0	2
42	85	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
42	C8	0	4
43	95	0	3
43	D8	0	3
44	A5	0	1
45	B5	0	1
45	F8	0	3
46	C5	0	4
46	G8	0	7
47	D5	0	1
47	H8	0	4
49	F5	0	1
49	J8	0	1
50	G5	0	3
50	K8	0	3
52	M8	0	4
54	P8	0	1
55	M5	0	1
55	Q8	0	2
All	All	0	191

All (510) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	39	66	PRO	N-CD	-23.13	1.15	1.47
26	1H	774	A	N9-C4	-14.86	1.28	1.37
37	35	121	LYS	C-N	14.12	1.61	1.34
26	1H	783	A	N9-C4	-12.71	1.30	1.37
26	14	783	A	N9-C4	-12.47	1.30	1.37
26	1H	2430	A	N9-C4	-11.96	1.30	1.37
29	19	262	ARG	CZ-NH2	-11.59	1.18	1.33
26	1H	783	A	N3-C4	-11.38	1.28	1.34
26	14	528	A	N9-C4	-11.36	1.31	1.37
26	1H	676	A	N9-C4	-11.09	1.31	1.37
30	29	178	GLU	CD-OE1	-11.06	1.13	1.25
3	22	173	VAL	C-N	11.01	1.55	1.34
26	1H	2476	A	N9-C4	10.73	1.44	1.37
26	1H	698	C	N1-C6	-10.67	1.30	1.37
26	1H	1142(A)	A	N9-C4	-10.39	1.31	1.37
26	1H	2287	A	N9-C4	-10.23	1.31	1.37
26	1H	1786	A	N9-C4	-9.71	1.32	1.37
26	1H	71	A	N9-C4	-9.60	1.32	1.37
29	11	29	PRO	N-CD	-9.54	1.34	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	N8	3	LYS	CD-CE	-9.38	1.27	1.51
26	14	1616	A	N9-C4	-9.29	1.32	1.37
26	1H	783	A	N7-C5	-9.18	1.33	1.39
26	1H	2346	A	N3-C4	-9.17	1.29	1.34
26	1H	783	A	C5-C6	-9.05	1.32	1.41
26	14	2287	A	N9-C4	-8.98	1.32	1.37
37	78	98	GLU	CD-OE1	-8.91	1.15	1.25
30	29	178	GLU	CD-OE2	-8.87	1.15	1.25
29	11	43	ARG	CG-CD	-8.83	1.29	1.51
26	1H	1966	A	N9-C4	-8.83	1.32	1.37
26	1H	945	A	N7-C5	-8.82	1.33	1.39
26	14	1950	G	C2-N3	8.77	1.39	1.32
26	1H	1786	A	N3-C4	-8.77	1.29	1.34
26	14	2430	A	N9-C4	-8.74	1.32	1.37
26	14	783	A	N7-C5	-8.62	1.34	1.39
8	7E	102	ARG	NE-CZ	-8.56	1.22	1.33
26	1H	1698	A	N9-C4	-8.51	1.32	1.37
26	1H	676	A	N9-C8	8.49	1.44	1.37
26	1H	621	A	N9-C4	-8.47	1.32	1.37
26	1H	1698	A	N3-C4	-8.40	1.29	1.34
46	C5	84	ARG	CZ-NH2	-8.31	1.22	1.33
26	14	783	A	N3-C4	-8.27	1.29	1.34
13	4I	67	GLU	CD-OE1	-8.27	1.16	1.25
26	1H	774	A	C5-C6	-8.26	1.33	1.41
41	75	11	GLU	CD-OE2	-8.24	1.16	1.25
8	7E	102	ARG	CZ-NH1	-8.23	1.22	1.33
26	14	1899	G	N9-C4	-8.20	1.31	1.38
26	1H	245	G	N7-C5	-8.19	1.34	1.39
26	14	774	A	N9-C4	-8.17	1.32	1.37
26	14	1332	G	N3-C4	-8.14	1.29	1.35
26	1H	73	A	C5-C4	-8.08	1.33	1.38
26	14	1332	G	N9-C4	-8.00	1.31	1.38
26	14	945	A	N9-C4	-7.99	1.33	1.37
26	1H	330	A	N9-C4	-7.96	1.33	1.37
26	14	2062	A	N3-C4	7.88	1.39	1.34
26	1H	687	C	N3-C4	-7.87	1.28	1.33
26	14	1821	A	N7-C5	-7.86	1.34	1.39
26	1H	472	A	N3-C4	-7.85	1.30	1.34
6	5E	41	GLU	CD-OE1	-7.78	1.17	1.25
26	1H	1614	A	N9-C4	-7.74	1.33	1.37
26	1H	528	A	N9-C4	-7.73	1.33	1.37
26	14	945	A	C5-C6	-7.61	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1792	G	C6-N1	-7.61	1.34	1.39
55	M5	34	TRP	CB-CG	7.59	1.64	1.50
46	C5	84	ARG	NE-CZ	-7.54	1.23	1.33
26	1H	945	A	N9-C4	-7.54	1.33	1.37
39	55	88	ARG	CZ-NH1	-7.51	1.23	1.33
29	19	262	ARG	CD-NE	-7.43	1.33	1.46
26	14	2518	A	N9-C4	-7.38	1.33	1.37
26	1H	821	A	N7-C5	-7.38	1.34	1.39
26	1H	2246	G	N9-C8	-7.36	1.32	1.37
26	1H	2346	A	N7-C5	-7.35	1.34	1.39
1	13	1227	A	N9-C4	-7.33	1.33	1.37
26	1H	2053	G	C5-C4	-7.32	1.33	1.38
26	14	945	A	N3-C4	-7.26	1.30	1.34
26	1H	676	A	N3-C4	-7.25	1.30	1.34
29	19	262	ARG	CZ-NH1	-7.25	1.23	1.33
26	1H	966	G	N9-C8	-7.22	1.32	1.37
26	14	2346	A	N3-C4	-7.21	1.30	1.34
26	1H	2392	A	N9-C8	7.18	1.43	1.37
41	75	11	GLU	CD-OE1	-7.17	1.17	1.25
26	1H	1971	A	C5-C4	-7.17	1.33	1.38
26	1H	71	A	C5-C6	-7.17	1.34	1.41
26	1H	1336	A	C6-N1	-7.16	1.30	1.35
26	14	74	A	N9-C4	-7.13	1.33	1.37
26	1H	138	G	N9-C8	7.10	1.42	1.37
26	1H	772	C	N1-C6	-7.09	1.32	1.37
26	1H	2713	A	N9-C4	-7.09	1.33	1.37
26	1H	201	C	N1-C6	-7.07	1.32	1.37
39	55	88	ARG	CZ-NH2	-7.06	1.23	1.33
26	1H	751	A	N3-C4	-7.06	1.30	1.34
30	29	119	ARG	CB-CG	-7.05	1.33	1.52
26	1H	676	A	C5-C4	7.02	1.43	1.38
26	1H	2490	G	N9-C4	-7.00	1.32	1.38
26	14	783	A	C5-C6	-6.98	1.34	1.41
47	D5	162	GLU	CD-OE1	-6.95	1.18	1.25
26	1H	2297	C	N3-C4	-6.95	1.29	1.33
26	14	1784	A	C6-N1	-6.88	1.30	1.35
26	1H	1786	A	C5-C4	6.79	1.43	1.38
26	14	1783	A	N7-C5	-6.79	1.35	1.39
26	14	90	U	N1-C2	6.79	1.44	1.38
46	C5	84	ARG	CD-NE	-6.77	1.34	1.46
23	2K	75	C	N3-C4	-6.76	1.29	1.33
22	1L	76	A	N9-C4	6.75	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	587	C	N1-C6	-6.74	1.33	1.37
26	1H	56	A	C6-N1	-6.73	1.30	1.35
26	1H	2575	C	N3-C4	-6.73	1.29	1.33
37	78	98	GLU	CD-OE2	-6.73	1.18	1.25
26	1H	471	A	N9-C4	-6.72	1.33	1.37
26	1H	1308	A	C6-N1	-6.71	1.30	1.35
26	1H	2247	A	C6-N1	-6.71	1.30	1.35
26	14	1605	C	N1-C6	-6.67	1.33	1.37
26	1H	74	A	N9-C4	-6.65	1.33	1.37
1	13	889	A	N9-C4	-6.63	1.33	1.37
26	1H	2248	C	N3-C4	-6.62	1.29	1.33
26	14	2062	A	C6-N1	6.61	1.40	1.35
26	14	1376	C	N1-C6	-6.61	1.33	1.37
26	1H	2392	A	N9-C4	-6.60	1.33	1.37
26	14	1678	G	N9-C4	-6.59	1.32	1.38
26	1H	2430	A	N3-C4	-6.57	1.30	1.34
26	1H	1308	A	N3-C4	-6.56	1.30	1.34
3	22	88	ARG	CZ-NH2	-6.55	1.24	1.33
26	14	945	A	N7-C5	-6.53	1.35	1.39
26	1H	2062	A	N7-C5	6.52	1.43	1.39
29	19	262	ARG	NE-CZ	-6.52	1.24	1.33
26	14	2402	C	N1-C6	6.52	1.41	1.37
26	1H	448	U	N1-C6	-6.51	1.32	1.38
23	2K	24	C	N3-C4	-6.50	1.29	1.33
26	1H	1321	A	N9-C4	-6.50	1.33	1.37
26	14	1950	G	C5-C4	6.47	1.42	1.38
26	14	1786	A	N9-C4	-6.46	1.33	1.37
26	1H	2432	A	N9-C4	-6.45	1.33	1.37
26	1H	795	C	N3-C4	-6.44	1.29	1.33
26	1H	952	G	C5-C4	-6.43	1.33	1.38
26	14	676	A	N9-C4	-6.43	1.33	1.37
13	4I	67	GLU	CD-OE2	-6.42	1.18	1.25
26	1H	1823	G	C6-N1	-6.41	1.35	1.39
26	1H	2064	C	N3-C4	-6.40	1.29	1.33
26	1H	2451	A	C6-N1	-6.39	1.31	1.35
26	1H	878	A	N9-C4	6.39	1.41	1.37
26	1H	2490	G	N9-C8	6.39	1.42	1.37
6	5E	41	GLU	CD-OE2	-6.37	1.18	1.25
26	14	1781	C	N3-C4	6.35	1.38	1.33
26	1H	2578	G	N9-C8	-6.34	1.33	1.37
26	1H	1332	G	C5-C4	6.34	1.42	1.38
26	14	1890	A	N9-C4	-6.33	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	973	A	N9-C4	-6.31	1.34	1.37
29	19	30	GLU	CG-CD	6.30	1.61	1.51
26	1H	2252	G	C5-C4	-6.30	1.33	1.38
26	14	2392	A	N7-C5	-6.29	1.35	1.39
26	1H	2256	G	N9-C4	-6.27	1.32	1.38
26	1H	140	A	C5-C6	-6.26	1.35	1.41
26	14	472	A	N3-C4	-6.26	1.31	1.34
8	7E	102	ARG	CZ-NH2	-6.24	1.25	1.33
26	14	1612	C	N1-C6	-6.24	1.33	1.37
26	1H	775	G	N7-C5	-6.23	1.35	1.39
26	1H	27	G	C6-N1	-6.23	1.35	1.39
26	1H	2506	U	N1-C2	6.22	1.44	1.38
26	1H	2199	A	N9-C4	6.20	1.41	1.37
26	1H	663	G	N9-C8	-6.20	1.33	1.37
26	14	1676	A	N3-C4	-6.19	1.31	1.34
26	14	74	A	N3-C4	-6.19	1.31	1.34
26	14	788	A	N9-C4	6.18	1.41	1.37
26	1H	1652	A	N3-C4	-6.16	1.31	1.34
26	1H	1950	G	N9-C8	6.16	1.42	1.37
26	14	2082	A	N9-C4	-6.16	1.34	1.37
31	39	65	TRP	CB-CG	-6.16	1.39	1.50
26	14	738	G	N7-C5	-6.15	1.35	1.39
26	1H	2248	C	C4-N4	-6.15	1.28	1.33
1	1G	1473	A	N9-C4	-6.14	1.34	1.37
26	14	1661	G	N9-C8	-6.13	1.33	1.37
26	1H	1786	A	C5-C6	-6.11	1.35	1.41
23	2L	77	A	N9-C4	-6.11	1.34	1.37
20	BI	97	ALA	C-N	6.09	1.45	1.34
26	1H	1979	C	N3-C4	-6.09	1.29	1.33
26	1H	2502	G	N3-C4	-6.08	1.31	1.35
38	45	76	LYS	C-N	6.08	1.48	1.34
26	1H	330	A	N3-C4	-6.08	1.31	1.34
26	1H	1106	G	N9-C4	6.07	1.42	1.38
26	1H	251	A	C6-N1	-6.07	1.31	1.35
26	1H	398	G	N7-C5	-6.07	1.35	1.39
26	1H	1950	G	C2-N3	6.06	1.37	1.32
26	14	2444	G	C6-N1	-6.06	1.35	1.39
26	1H	774	A	C2-N3	-6.06	1.28	1.33
46	C5	84	ARG	CZ-NH1	-6.06	1.25	1.33
29	11	122	ASP	CB-CG	6.05	1.64	1.51
1	13	890	G	C5-C4	-6.04	1.34	1.38
26	14	71	A	N9-C4	-6.04	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	2690	C	N1-C6	-6.04	1.33	1.37
26	1H	959	A	C6-N1	-6.04	1.31	1.35
26	14	2329	G	C2-N3	6.04	1.37	1.32
26	1H	946	G	N3-C4	-6.02	1.31	1.35
26	14	775	G	N7-C5	-6.01	1.35	1.39
26	1H	1924	C	N3-C4	-6.00	1.29	1.33
26	1H	449	A	N9-C4	-5.99	1.34	1.37
26	1H	693	C	N3-C4	-5.98	1.29	1.33
26	1H	1903	G	N9-C8	-5.98	1.33	1.37
26	1H	2276	G	C2-N3	-5.96	1.27	1.32
36	25	26	LYS	CD-CE	-5.96	1.36	1.51
26	14	74	A	N7-C5	-5.95	1.35	1.39
26	14	782	A	N7-C5	-5.95	1.35	1.39
26	14	1257	C	N1-C6	-5.94	1.33	1.37
26	14	1613	G	C6-N1	-5.94	1.35	1.39
26	14	1142(A)	A	N3-C4	-5.93	1.31	1.34
26	1H	664	C	N1-C6	-5.93	1.33	1.37
26	1H	2287	A	N3-C4	-5.92	1.31	1.34
26	1H	1376	C	N3-C4	-5.92	1.29	1.33
26	1H	775	G	N9-C8	-5.92	1.33	1.37
26	14	2087	G	C5-C4	-5.92	1.34	1.38
26	1H	945	A	C5-C6	-5.90	1.35	1.41
26	14	774	A	C5-C6	-5.90	1.35	1.41
26	1H	690	G	C6-N1	-5.89	1.35	1.39
26	14	775	G	N9-C8	-5.89	1.33	1.37
26	14	1342	A	N3-C4	-5.89	1.31	1.34
31	31	39	TRP	CB-CG	-5.88	1.39	1.50
26	1H	2445	G	N7-C5	-5.87	1.35	1.39
26	1H	530	G	N7-C5	5.87	1.42	1.39
26	14	1786	A	C5-C6	-5.87	1.35	1.41
26	1H	2502	G	C8-N7	5.87	1.34	1.30
26	14	1661	G	C5-C4	-5.87	1.34	1.38
26	1H	2322	A	N9-C4	-5.86	1.34	1.37
46	G8	84	ARG	CG-CD	5.86	1.66	1.51
26	1H	1694	C	N1-C6	-5.86	1.33	1.37
26	14	2873	A	N9-C4	-5.85	1.34	1.37
26	1H	1899	G	N9-C4	-5.85	1.33	1.38
26	1H	2490	G	C5-C6	-5.84	1.36	1.42
26	14	2251	G	N9-C8	-5.84	1.33	1.37
26	1H	689	A	N3-C4	-5.84	1.31	1.34
26	1H	124	G	C5-C4	-5.84	1.34	1.38
26	1H	687	C	C4-C5	-5.84	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1616	A	C5-C6	-5.84	1.35	1.41
26	1H	917	A	C2-N3	-5.84	1.28	1.33
26	1H	265	A	N7-C5	-5.83	1.35	1.39
26	1H	669	G	C5-C4	-5.83	1.34	1.38
26	14	140	A	C5-C6	-5.83	1.35	1.41
41	B8	49	VAL	CB-CG1	-5.83	1.40	1.52
26	1H	2071	A	N7-C5	-5.82	1.35	1.39
26	1H	1968	G	C8-N7	-5.81	1.27	1.30
26	1H	2065	C	C2-N3	-5.81	1.31	1.35
26	14	2049	G	N9-C4	-5.81	1.33	1.38
26	1H	862	G	C6-N1	-5.80	1.35	1.39
26	1H	5	A	N9-C4	5.78	1.41	1.37
22	1K	74	C	N1-C2	5.78	1.46	1.40
26	1H	1758	G	C2-N3	-5.78	1.28	1.32
26	1H	798	G	N9-C4	-5.77	1.33	1.38
26	1H	1969	A	N7-C5	-5.77	1.35	1.39
26	14	2873	A	N7-C5	-5.77	1.35	1.39
26	14	777	A	N9-C4	-5.75	1.34	1.37
26	1H	390	A	C6-N1	-5.75	1.31	1.35
26	14	1776	G	C8-N7	-5.74	1.27	1.30
1	1G	1502	A	N3-C4	-5.74	1.31	1.34
26	14	1786	A	N7-C5	-5.74	1.35	1.39
26	14	2065	C	N3-C4	-5.74	1.29	1.33
24	3K	76	A	C5-C4	5.73	1.42	1.38
26	1H	726	G	N7-C5	-5.73	1.35	1.39
26	1H	830	G	N7-C5	-5.73	1.35	1.39
26	14	1755	A	N9-C4	-5.73	1.34	1.37
26	14	1823	G	C6-N1	-5.72	1.35	1.39
26	1H	2297	C	N1-C6	-5.72	1.33	1.37
26	14	2518	A	N7-C5	-5.71	1.35	1.39
26	1H	530	G	C2-N3	5.70	1.37	1.32
26	1H	2713	A	N9-C8	5.69	1.42	1.37
29	11	7	LYS	C-N	-5.69	1.23	1.34
26	1H	770	G	N3-C4	-5.67	1.31	1.35
46	G8	55	TYR	CB-CG	-5.67	1.43	1.51
26	14	2580	U	C4-C5	-5.66	1.38	1.43
26	1H	1364	G	C5-C4	-5.65	1.34	1.38
1	13	810	C	N1-C6	-5.65	1.33	1.37
26	1H	2409	G	C5-C6	-5.64	1.36	1.42
26	1H	1566	A	C8-N7	5.63	1.35	1.31
24	3L	76	A	C5-C4	5.63	1.42	1.38
26	14	2441	C	N3-C4	-5.62	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	539	A	N3-C4	-5.62	1.31	1.34
26	14	1785	A	N7-C5	-5.62	1.35	1.39
26	1H	1899	G	N3-C4	-5.61	1.31	1.35
26	1H	2051	A	N7-C5	-5.61	1.35	1.39
37	78	36	LYS	CE-NZ	-5.61	1.35	1.49
26	1H	2847	U	N1-C2	-5.61	1.33	1.38
26	14	690	G	C5-C4	-5.61	1.34	1.38
26	1H	576	U	N3-C4	-5.61	1.33	1.38
26	14	2448	A	N7-C5	-5.60	1.35	1.39
24	3L	21	A	N9-C4	5.60	1.41	1.37
26	1H	57	C	N3-C4	-5.59	1.30	1.33
47	D5	162	GLU	CD-OE2	-5.59	1.19	1.25
26	1H	2070	G	N9-C8	-5.58	1.33	1.37
1	1G	690	G	N9-C8	5.58	1.41	1.37
22	1K	26	A	N9-C4	5.57	1.41	1.37
26	1H	2276	G	N9-C8	-5.57	1.33	1.37
26	1H	225	A	N9-C4	-5.57	1.34	1.37
26	1H	71	A	N3-C4	-5.57	1.31	1.34
26	1H	122	G	N9-C4	-5.57	1.33	1.38
26	1H	1676	A	N9-C4	-5.56	1.34	1.37
26	14	2241	A	N9-C4	-5.55	1.34	1.37
27	16	46	A	N9-C4	-5.55	1.34	1.37
1	13	1498	U	C2-N3	5.54	1.41	1.37
26	1H	1510	A	N9-C4	5.54	1.41	1.37
26	1H	621	A	N9-C8	5.54	1.42	1.37
26	1H	1844	C	N1-C6	-5.54	1.33	1.37
26	1H	2551	C	N1-C6	-5.54	1.33	1.37
26	14	2713	A	C5-C4	5.54	1.42	1.38
26	1H	1783	A	N9-C8	-5.54	1.33	1.37
26	1H	1966	A	C6-N1	-5.54	1.31	1.35
26	14	71	A	N9-C8	5.53	1.42	1.37
26	14	2518	A	C5-C6	-5.53	1.36	1.41
3	2E	166	GLU	CD-OE1	-5.53	1.19	1.25
26	1H	87	C	N1-C6	-5.53	1.33	1.37
26	1H	1571	A	N3-C4	-5.53	1.31	1.34
26	1H	2023	G	N3-C4	-5.53	1.31	1.35
26	14	1786	A	N3-C4	-5.53	1.31	1.34
26	14	2599	G	N9-C8	-5.53	1.33	1.37
26	1H	768	G	N3-C4	-5.52	1.31	1.35
26	1H	1899	G	N9-C8	5.52	1.41	1.37
1	13	303	A	N9-C4	5.52	1.41	1.37
26	1H	1021	A	N9-C4	-5.52	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	539	A	N9-C4	-5.51	1.34	1.37
26	1H	2781	A	N9-C4	-5.51	1.34	1.37
26	1H	410	G	N9-C4	-5.51	1.33	1.38
26	1H	1528	A	N7-C5	-5.51	1.35	1.39
26	1H	1621	U	N1-C2	-5.51	1.33	1.38
26	14	1260	G	N7-C5	-5.51	1.35	1.39
26	14	2247	A	C6-N1	-5.51	1.31	1.35
26	1H	966	G	N1-C2	-5.50	1.33	1.37
26	1H	122	G	N7-C5	-5.50	1.35	1.39
26	1H	140	A	N7-C5	-5.50	1.35	1.39
26	1H	970	C	N1-C6	-5.50	1.33	1.37
26	14	2447	G	C5-C4	-5.49	1.34	1.38
26	1H	1613	G	N1-C2	-5.49	1.33	1.37
26	1H	2822	G	C5-C6	-5.49	1.36	1.42
46	G8	55	TYR	CG-CD2	-5.48	1.32	1.39
24	3L	4	U	C2-N3	5.48	1.41	1.37
26	14	1829	A	N7-C5	-5.48	1.35	1.39
26	1H	74	A	N3-C4	-5.48	1.31	1.34
26	1H	204	A	N3-C4	-5.47	1.31	1.34
26	14	71	A	C5-C4	5.47	1.42	1.38
26	1H	1965	C	C2-O2	-5.47	1.19	1.24
26	1H	229	A	N3-C4	5.46	1.38	1.34
26	1H	1496	A	N7-C5	-5.46	1.35	1.39
26	1H	1354	A	N9-C4	-5.44	1.34	1.37
26	14	2447	G	N9-C8	-5.44	1.34	1.37
26	1H	2591	C	N1-C6	-5.44	1.33	1.37
26	14	2772	C	N3-C4	-5.44	1.30	1.33
26	14	73	A	N9-C8	-5.44	1.33	1.37
49	J8	78	LYS	CD-CE	-5.43	1.37	1.51
26	1H	1332	G	N9-C4	-5.43	1.33	1.38
26	14	1784	A	C5-C6	-5.43	1.36	1.41
1	13	428	G	N9-C4	-5.42	1.33	1.38
26	1H	988	A	C6-N1	-5.42	1.31	1.35
26	1H	795	C	N1-C6	-5.42	1.33	1.37
26	14	2082	A	N3-C4	-5.42	1.31	1.34
26	14	2488	A	N9-C4	-5.42	1.34	1.37
26	14	2821	A	N9-C4	-5.41	1.34	1.37
26	1H	197	A	N3-C4	-5.41	1.31	1.34
46	G8	84	ARG	CB-CG	5.41	1.67	1.52
26	14	447	A	N3-C4	-5.40	1.31	1.34
26	1H	2346	A	N9-C4	-5.40	1.34	1.37
26	1H	473	G	N1-C2	-5.40	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1888	G	N9-C4	5.39	1.42	1.38
46	G8	55	TYR	CG-CD1	-5.38	1.32	1.39
26	14	2490	G	N9-C8	5.38	1.41	1.37
1	13	1502	A	C5-C6	-5.38	1.36	1.41
26	1H	1142(A)	A	N3-C4	-5.38	1.31	1.34
26	1H	551	G	N3-C4	-5.37	1.31	1.35
26	1H	2251	G	N3-C4	-5.36	1.31	1.35
26	14	2346	A	N9-C4	-5.36	1.34	1.37
26	1H	598	G	N3-C4	-5.35	1.31	1.35
26	1H	774	A	N7-C5	-5.34	1.36	1.39
26	1H	1957	C	N3-C4	-5.34	1.30	1.33
26	1H	2067	G	N3-C4	-5.34	1.31	1.35
26	1H	1966	A	N3-C4	-5.34	1.31	1.34
26	1H	2025	C	C4-C5	-5.34	1.38	1.43
26	14	2238	G	N7-C5	5.33	1.42	1.39
26	14	2506	U	C2-N3	5.33	1.41	1.37
26	1H	2040	C	N1-C6	-5.33	1.33	1.37
26	1H	1678	G	N9-C8	5.33	1.41	1.37
26	14	2070	G	C6-N1	-5.33	1.35	1.39
3	22	88	ARG	NE-CZ	-5.32	1.26	1.33
26	14	2740	A	N9-C4	-5.32	1.34	1.37
26	1H	182	A	C5-C4	-5.32	1.35	1.38
26	1H	2254	C	N1-C2	-5.32	1.34	1.40
26	1H	849	A	N9-C4	-5.32	1.34	1.37
26	1H	1632	A	N9-C4	-5.32	1.34	1.37
27	16	101	A	N9-C4	-5.32	1.34	1.37
26	1H	1678	G	C5-C6	-5.31	1.37	1.42
37	78	68	GLN	CD-OE1	-5.31	1.12	1.24
26	14	1983	C	N1-C6	-5.30	1.33	1.37
46	G8	27	VAL	CB-CG1	-5.30	1.41	1.52
33	59	69	ARG	CZ-NH2	5.30	1.40	1.33
1	13	1531	A	N9-C4	5.29	1.41	1.37
26	1H	2599	G	N9-C8	-5.29	1.34	1.37
26	1H	1984	G	C6-N1	-5.29	1.35	1.39
29	11	229	VAL	CB-CG1	-5.29	1.41	1.52
26	1H	945	A	N1-C2	5.29	1.39	1.34
26	1H	1698	A	N7-C5	-5.28	1.36	1.39
29	11	205	VAL	CB-CG2	-5.28	1.41	1.52
26	1H	414	C	N1-C6	-5.28	1.33	1.37
26	1H	1989	G	C5-C4	-5.28	1.34	1.38
26	1H	829	A	N7-C5	-5.28	1.36	1.39
26	1H	2713	A	C5-C4	5.27	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	13	501	C	N1-C6	5.26	1.40	1.37
1	13	1409	C	N3-C4	-5.26	1.30	1.33
24	3L	76	A	N9-C8	5.26	1.42	1.37
26	14	1021	A	N3-C4	-5.26	1.31	1.34
26	1H	1767	C	N3-C4	-5.26	1.30	1.33
26	14	729	G	C6-N1	5.26	1.43	1.39
26	1H	1772	G	C6-N1	-5.25	1.35	1.39
26	1H	1836	C	N3-C4	-5.25	1.30	1.33
26	14	2873	A	N3-C4	-5.25	1.31	1.34
26	1H	104	U	N1-C2	-5.25	1.33	1.38
26	1H	735	A	N9-C8	-5.25	1.33	1.37
26	14	676	A	C5-C4	5.25	1.42	1.38
26	1H	2569	G	N3-C4	-5.24	1.31	1.35
26	1H	722	A	N9-C4	-5.24	1.34	1.37
26	1H	21	A	N9-C4	-5.23	1.34	1.37
26	1H	2607	G	N7-C5	-5.23	1.36	1.39
26	1H	598	G	N9-C4	-5.23	1.33	1.38
41	75	11	GLU	CG-CD	-5.23	1.44	1.51
26	14	21	A	N3-C4	-5.22	1.31	1.34
26	1H	1786	A	N7-C5	-5.22	1.36	1.39
26	14	1204	A	N9-C4	-5.21	1.34	1.37
26	1H	945	A	C5-C4	5.21	1.42	1.38
8	7E	102	ARG	CD-NE	-5.20	1.37	1.46
26	1H	1937	A	C5-C4	-5.20	1.35	1.38
26	14	500	G	N9-C8	-5.20	1.34	1.37
26	1H	2287	A	C5-C6	-5.20	1.36	1.41
26	1H	2082	A	N3-C4	-5.20	1.31	1.34
26	14	1785	A	N9-C8	-5.20	1.33	1.37
1	13	1502	A	N7-C5	-5.19	1.36	1.39
26	1H	1430	C	C2-O2	-5.19	1.19	1.24
26	1H	1634	A	N7-C5	-5.19	1.36	1.39
26	1H	1678	G	N9-C4	-5.19	1.33	1.38
26	1H	497	A	N3-C4	-5.19	1.31	1.34
26	1H	2502	G	N7-C5	5.18	1.42	1.39
41	B8	11	GLU	CD-OE1	-5.18	1.20	1.25
26	14	879	G	N9-C4	5.18	1.42	1.38
26	14	828	U	N3-C4	-5.18	1.33	1.38
26	1H	1121	C	N3-C4	-5.18	1.30	1.33
26	14	1021	A	N9-C4	-5.16	1.34	1.37
3	2E	166	GLU	CD-OE2	-5.15	1.20	1.25
26	14	2444	G	N3-C4	-5.15	1.31	1.35
26	1H	735	A	C5-C4	-5.15	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1936	A	C5-C6	-5.14	1.36	1.41
26	14	2361	A	N9-C4	-5.14	1.34	1.37
26	14	2243	U	N1-C6	-5.14	1.33	1.38
26	1H	129	C	N1-C6	-5.14	1.34	1.37
26	1H	2688	U	N3-C4	-5.14	1.33	1.38
47	D5	94	GLU	C-N	5.13	1.44	1.34
26	1H	669	G	C2-N3	-5.13	1.28	1.32
26	1H	1244	G	C2-N3	-5.13	1.28	1.32
26	1H	674	G	C6-O6	-5.12	1.19	1.24
26	1H	751	A	C6-N1	-5.12	1.31	1.35
1	13	974	A	N9-C4	-5.12	1.34	1.37
26	14	2589	A	N9-C4	-5.12	1.34	1.37
26	1H	567	A	N9-C4	-5.12	1.34	1.37
26	1H	943	U	N1-C2	-5.12	1.33	1.38
26	1H	1496	A	C5-C6	-5.12	1.36	1.41
26	14	6	A	N9-C4	5.12	1.41	1.37
26	1H	1303	G	N7-C5	-5.10	1.36	1.39
3	22	88	ARG	CZ-NH1	-5.10	1.26	1.33
26	1H	774	A	C6-N1	5.10	1.39	1.35
26	1H	1369	G	C8-N7	-5.10	1.27	1.30
26	14	2599	G	N9-C4	-5.10	1.33	1.38
1	13	582	U	C2-N3	-5.09	1.34	1.37
26	1H	2622	C	N1-C6	-5.09	1.34	1.37
26	1H	516	C	C4-C5	-5.09	1.38	1.43
26	14	447	A	N9-C4	-5.09	1.34	1.37
26	14	739	G	C2-N3	-5.09	1.28	1.32
26	14	1789	A	C5-C6	-5.08	1.36	1.41
26	1H	204	A	C5-C4	-5.08	1.35	1.38
26	1H	945	A	C2-N3	5.08	1.38	1.33
26	1H	939	G	N3-C4	-5.08	1.31	1.35
26	1H	2674	G	C6-N1	-5.08	1.35	1.39
26	1H	1278	A	N9-C8	-5.08	1.33	1.37
26	14	1272	A	N3-C4	5.08	1.37	1.34
26	1H	1701	A	C5-C4	-5.07	1.35	1.38
37	35	52	GLU	CG-CD	5.07	1.59	1.51
26	1H	1602	U	C4-O4	5.07	1.27	1.23
26	1H	1784	A	C6-N1	-5.07	1.31	1.35
26	1H	1960	A	N7-C5	-5.07	1.36	1.39
26	1H	71	A	N9-C8	5.07	1.41	1.37
26	14	2287	A	N3-C4	-5.07	1.31	1.34
1	13	974	A	N7-C5	-5.07	1.36	1.39
26	14	838	C	N3-C4	-5.06	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1678	G	N3-C4	-5.06	1.31	1.35
26	1H	2601	C	C4-N4	-5.06	1.29	1.33
26	1H	2675	A	N3-C4	-5.06	1.31	1.34
26	14	699	A	C5-C4	-5.06	1.35	1.38
1	13	712	A	C6-N1	-5.06	1.32	1.35
26	1H	575	A	N3-C4	5.06	1.37	1.34
26	1H	787	U	C2-O2	-5.06	1.17	1.22
26	1H	2578	G	N1-C2	-5.06	1.33	1.37
41	B8	11	GLU	CG-CD	-5.06	1.44	1.51
26	1H	1616	A	N7-C5	-5.05	1.36	1.39
26	1H	1669	A	C5-C6	-5.05	1.36	1.41
26	1H	467	G	C5-C4	-5.05	1.34	1.38
26	1H	2360	A	N9-C4	-5.05	1.34	1.37
3	22	88	ARG	CD-NE	-5.05	1.37	1.46
26	14	786	C	N3-C4	-5.05	1.30	1.33
26	1H	1363	C	N3-C4	-5.04	1.30	1.33
26	1H	1251	C	N1-C6	-5.04	1.34	1.37
26	14	744	G	N9-C8	-5.03	1.34	1.37
26	14	2332	U	C4-C5	5.03	1.48	1.43
26	14	2615	U	N1-C2	5.02	1.43	1.38
1	1G	1139	G	N9-C4	-5.02	1.33	1.38
26	14	1807	G	N9-C8	-5.02	1.34	1.37
26	1H	1885	A	C5-C4	-5.02	1.35	1.38
26	1H	736	C	N1-C2	-5.02	1.35	1.40
26	14	1633	G	N7-C5	-5.02	1.36	1.39
26	1H	2062	A	N3-C4	5.01	1.37	1.34
26	1H	1258	C	N1-C6	-5.01	1.34	1.37
26	1H	2440	C	N3-C4	-5.01	1.30	1.33
26	1H	530	G	N9-C8	5.01	1.41	1.37

All (8817) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	945	A	N1-C6-N6	20.77	131.06	118.60
26	1H	676	A	C2-N3-C4	-19.63	100.78	110.60
26	1H	783	A	C5-N7-C8	-19.52	94.14	103.90
26	1H	1332	G	C5-N7-C8	-18.53	95.04	104.30
26	1H	945	A	C6-C5-N7	-18.52	119.34	132.30
26	14	783	A	C2-N3-C4	-18.27	101.47	110.60
26	1H	1786	A	C5-N7-C8	-18.17	94.82	103.90
26	1H	1786	A	N7-C8-N9	18.04	122.82	113.80
26	1H	774	A	N3-C4-C5	17.80	139.26	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2287	A	C2-N3-C4	-17.76	101.72	110.60
26	1H	1786	A	C2-N3-C4	-17.73	101.74	110.60
26	14	945	A	N1-C6-N6	17.67	129.20	118.60
26	14	1332	G	C2-N3-C4	-17.07	103.36	111.90
26	14	1899	G	C2-N3-C4	-17.01	103.40	111.90
26	1H	783	A	N7-C8-N9	16.99	122.30	113.80
26	1H	783	A	C8-N9-C4	-16.93	99.03	105.80
26	14	1786	A	N7-C8-N9	16.69	122.14	113.80
26	1H	1496	A	N1-C6-N6	16.67	128.60	118.60
26	1H	1332	G	N7-C8-N9	16.58	121.39	113.10
26	1H	2490	G	C4-C5-N7	16.49	117.40	110.80
26	14	528	A	C2-N3-C4	-16.35	102.42	110.60
26	14	945	A	C2-N3-C4	-16.34	102.43	110.60
26	1H	2490	G	C5-N7-C8	-16.29	96.16	104.30
26	1H	1332	G	C2-N3-C4	-16.16	103.82	111.90
26	14	1786	A	C5-N7-C8	-16.08	95.86	103.90
26	1H	917	A	C2-N3-C4	-16.07	102.56	110.60
26	14	74	A	C2-N3-C4	-16.05	102.57	110.60
26	14	1899	G	N3-C4-N9	-15.95	116.43	126.00
26	1H	1336	A	N1-C6-N6	-15.93	109.04	118.60
26	1H	2699	C	C6-N1-C2	15.91	126.67	120.30
26	1H	1496	A	C5-N7-C8	-15.86	95.97	103.90
26	1H	140	A	N1-C6-N6	15.79	128.07	118.60
26	1H	1616	A	N1-C6-N6	15.69	128.01	118.60
26	1H	1332	G	C4-C5-N7	15.61	117.04	110.80
26	1H	774	A	C2-N3-C4	-15.48	102.86	110.60
26	1H	1332	G	C6-C5-N7	-15.46	121.13	130.40
26	1H	783	A	C2-N3-C4	-15.40	102.90	110.60
26	14	945	A	C6-C5-N7	-15.20	121.66	132.30
26	14	783	A	C5-N7-C8	-15.18	96.31	103.90
26	14	1899	G	N3-C4-C5	15.17	136.18	128.60
26	1H	1899	G	C2-N3-C4	-15.07	104.37	111.90
26	1H	576	U	C5-C4-O4	15.06	134.94	125.90
26	1H	1829	A	O5'-P-OP1	-14.96	92.23	105.70
29	11	28	GLU	C-N-CD	-14.84	87.94	120.60
26	14	1786	A	C8-N9-C4	-14.76	99.90	105.80
26	1H	973	A	C2-N3-C4	-14.66	103.27	110.60
26	1H	1496	A	N7-C8-N9	14.54	121.07	113.80
26	1H	945	A	C4-C5-C6	14.42	124.21	117.00
26	1H	774	A	N3-C4-N9	-14.32	115.94	127.40
26	1H	1332	G	N1-C6-O6	14.26	128.46	119.90
26	1H	1786	A	C8-N9-C4	-14.13	100.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	196	A	O5'-P-OP2	-14.06	93.05	105.70
26	1H	1616	A	C5-N7-C8	-14.04	96.88	103.90
26	14	2873	A	C2-N3-C4	-14.04	103.58	110.60
26	1H	140	A	C5-N7-C8	-13.96	96.92	103.90
26	14	1248	G	O5'-P-OP1	13.96	127.45	110.70
26	14	140	A	N1-C6-N6	13.91	126.94	118.60
26	14	2430	A	C2-N3-C4	-13.78	103.71	110.60
26	1H	1394	U	C5-C6-N1	13.73	129.56	122.70
26	1H	945	A	C5-N7-C8	-13.68	97.06	103.90
26	1H	1817	G	C5-C6-O6	13.68	136.81	128.60
26	1H	774	A	C6-N1-C2	13.67	126.80	118.60
26	1H	783	A	C6-C5-N7	-13.67	122.73	132.30
26	14	565	C	C6-N1-C2	13.59	125.74	120.30
26	1H	510	C	O5'-P-OP2	-13.59	93.47	105.70
26	1H	735	A	C8-N9-C4	13.55	111.22	105.80
26	14	2518	A	N1-C6-N6	13.51	126.70	118.60
1	1G	900	A	O5'-P-OP1	-13.44	93.60	105.70
26	14	774	A	C2-N3-C4	-13.37	103.92	110.60
26	14	2460	U	O5'-P-OP1	-13.36	93.68	105.70
26	1H	2392	A	C5-N7-C8	-13.36	97.22	103.90
26	1H	530	G	N1-C6-O6	-13.35	111.89	119.90
1	13	690	G	C6-C5-N7	-13.34	122.40	130.40
26	1H	593	G	O5'-P-OP2	-13.32	93.72	105.70
26	1H	690	G	N9-C4-C5	-13.30	100.08	105.40
26	1H	1496	A	C4-C5-N7	13.29	117.35	110.70
26	1H	945	A	C2-N3-C4	-13.10	104.05	110.60
26	1H	148	C	C5-C6-N1	-13.10	114.45	121.00
26	1H	676	A	N3-C4-C5	13.09	135.97	126.80
26	14	783	A	N1-C6-N6	13.09	126.45	118.60
26	14	1332	G	C5-N7-C8	-13.09	97.76	104.30
24	3K	76	A	N7-C8-N9	13.08	120.34	113.80
26	1H	774	A	C5-C6-N1	-13.03	111.19	117.70
26	1H	74	A	C2-N3-C4	-12.99	104.11	110.60
1	13	235	C	C6-N1-C2	12.95	125.48	120.30
26	1H	1787	A	O5'-P-OP1	-12.95	94.05	105.70
26	1H	1899	G	N1-C2-N3	12.94	131.67	123.90
26	1H	1616	A	C4-C5-N7	12.90	117.15	110.70
26	14	698	C	N3-C4-C5	-12.86	116.75	121.90
26	1H	467	G	O5'-P-OP2	-12.85	94.14	105.70
26	1H	698	C	C4-C5-C6	12.83	123.82	117.40
26	1H	1611	C	C6-N1-C2	12.82	125.43	120.30
26	1H	1204	A	O4'-C1'-N9	12.81	118.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2710	C	C6-N1-C2	12.81	125.43	120.30
26	1H	140	A	N7-C8-N9	12.80	120.20	113.80
27	16	47	C	C6-N1-C2	12.79	125.42	120.30
26	1H	945	A	N7-C8-N9	12.79	120.19	113.80
26	1H	676	A	N3-C4-N9	-12.76	117.19	127.40
26	1H	1325	G	N1-C6-O6	12.76	127.56	119.90
26	14	2873	A	N7-C8-N9	12.74	120.17	113.80
26	1H	774	A	N1-C6-N6	12.74	126.25	118.60
24	3K	76	A	C5-N7-C8	-12.72	97.54	103.90
26	1H	71	A	C2-N3-C4	-12.72	104.24	110.60
26	14	676	A	C2-N3-C4	-12.70	104.25	110.60
26	1H	1698	A	C2-N3-C4	-12.63	104.29	110.60
26	1H	1950	G	N7-C8-N9	12.61	119.41	113.10
26	1H	863	A	O5'-P-OP2	-12.59	94.37	105.70
26	1H	917	A	C5-C6-N1	-12.59	111.41	117.70
26	14	330	A	C2-N3-C4	-12.54	104.33	110.60
26	1H	2518	A	N1-C6-N6	12.52	126.11	118.60
26	1H	2490	G	N3-C4-C5	12.50	134.85	128.60
26	1H	783	A	C4-C5-N7	12.49	116.95	110.70
26	14	74	A	C5-C6-N1	-12.48	111.46	117.70
26	14	2873	A	N1-C2-N3	12.46	135.53	129.30
26	14	2518	A	C2-N3-C4	-12.46	104.37	110.60
26	1H	682	G	O5'-P-OP2	-12.42	94.52	105.70
26	14	840	C	C6-N1-C2	12.42	125.27	120.30
26	1H	690	G	C2-N3-C4	-12.41	105.69	111.90
26	1H	71	A	C5-N7-C8	-12.41	97.69	103.90
1	13	1502	A	C5-N7-C8	-12.38	97.71	103.90
26	1H	2346	A	C8-N9-C4	-12.38	100.85	105.80
26	14	783	A	N7-C8-N9	12.35	119.98	113.80
26	1H	2000	G	O5'-P-OP2	-12.34	94.59	105.70
26	1H	613	U	C5-C4-O4	12.32	133.29	125.90
26	14	945	A	N1-C2-N3	12.31	135.46	129.30
26	14	945	A	C4-C5-N7	12.29	116.84	110.70
26	14	1616	A	C5-N7-C8	-12.26	97.77	103.90
26	14	687	C	O5'-P-OP1	-12.24	94.68	105.70
26	1H	768	G	OP1-P-OP2	12.19	137.88	119.60
26	1H	860	U	C4-C5-C6	12.16	127.00	119.70
26	1H	2700	C	C6-N1-C2	12.15	125.16	120.30
26	1H	1627	G	N1-C6-O6	-12.15	112.61	119.90
26	1H	1931	U	N3-C2-O2	-12.15	113.69	122.20
26	1H	1786	A	N1-C2-N3	12.14	135.37	129.30
26	1H	783	A	N1-C6-N6	12.11	125.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1204	A	C2-N3-C4	-12.10	104.55	110.60
26	1H	2346	A	N1-C2-N3	12.05	135.32	129.30
26	1H	735	A	N7-C8-N9	-12.04	107.78	113.80
26	1H	801	G	O5'-P-OP2	-12.00	94.90	105.70
26	1H	2447	G	N1-C6-O6	11.99	127.09	119.90
26	14	2712	U	C5-C6-N1	-11.99	116.71	122.70
26	1H	576	U	N3-C2-O2	-11.96	113.83	122.20
1	13	19	C	C6-N1-C2	-11.95	115.52	120.30
26	1H	1678	G	C2-N3-C4	-11.93	105.93	111.90
26	1H	1496	A	C6-C5-N7	-11.93	123.95	132.30
26	1H	698	C	C5-C6-N1	-11.92	115.04	121.00
26	1H	1006	C	O5'-P-OP1	-11.90	94.99	105.70
26	1H	2346	A	N7-C8-N9	11.89	119.75	113.80
26	1H	1496	A	C5-C6-N6	-11.89	114.19	123.70
26	1H	1325	G	C5-C6-O6	-11.88	121.47	128.60
26	14	1786	A	C2-N3-C4	-11.88	104.66	110.60
26	1H	148	C	C6-N1-C2	11.87	125.05	120.30
26	1H	140	A	C6-C5-N7	-11.84	124.02	132.30
26	14	2247	A	N1-C6-N6	-11.83	111.50	118.60
26	1H	1210	A	C8-N9-C4	-11.82	101.07	105.80
26	1H	452	G	N1-C6-O6	-11.82	112.81	119.90
26	1H	2346	A	N1-C6-N6	11.77	125.66	118.60
26	1H	1604	C	N1-C2-O2	-11.77	111.84	118.90
26	14	1784	A	C2-N3-C4	-11.76	104.72	110.60
26	14	1381	G	C4-C5-N7	11.74	115.50	110.80
26	1H	1950	G	C5-N7-C8	-11.73	98.44	104.30
26	1H	2252	G	O5'-P-OP2	-11.73	95.15	105.70
26	1H	691	C	N1-C2-O2	-11.72	111.86	118.90
26	1H	1786	A	C6-C5-N7	-11.72	124.09	132.30
26	14	783	A	C5-C6-N1	-11.71	111.85	117.70
26	14	2430	A	N1-C6-N6	11.68	125.61	118.60
26	1H	587	C	C2-N3-C4	-11.67	114.07	119.90
26	14	1698	A	N1-C6-N6	11.66	125.60	118.60
26	1H	2346	A	C6-C5-N7	-11.65	124.14	132.30
26	14	796	C	C6-N1-C2	11.65	124.96	120.30
26	14	2080	G	O5'-P-OP2	-11.65	95.21	105.70
26	14	1678	G	N3-C4-C5	11.64	134.42	128.60
26	1H	2598	A	C8-N9-C4	11.63	110.45	105.80
26	14	1332	G	N3-C4-C5	11.63	134.42	128.60
26	14	1899	G	N3-C2-N2	-11.63	111.76	119.90
26	1H	690	G	C6-C5-N7	-11.62	123.43	130.40
26	1H	2342	C	C6-N1-C2	-11.62	115.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1603	A	C8-N9-C4	-11.61	101.16	105.80
24	3L	76	A	C5-N7-C8	-11.60	98.10	103.90
26	1H	621	A	C5-N7-C8	-11.60	98.10	103.90
26	1H	1819	A	C5-C6-N6	-11.59	114.43	123.70
26	1H	812	C	N1-C2-O2	-11.59	111.95	118.90
33	59	69	ARG	NE-CZ-NH2	-11.58	114.51	120.30
26	1H	1376	C	O5'-P-OP1	-11.57	95.29	105.70
26	1H	330	A	C2-N3-C4	-11.56	104.82	110.60
26	14	783	A	C6-C5-N7	-11.56	124.20	132.30
26	1H	2688	U	N3-C4-O4	-11.55	111.31	119.40
26	1H	698	C	C6-N1-C2	11.54	124.92	120.30
26	1H	1616	A	C5-C6-N6	-11.54	114.47	123.70
26	1H	1817	G	N1-C6-O6	-11.53	112.98	119.90
26	1H	1678	G	N1-C6-O6	11.52	126.81	119.90
26	14	140	A	C4-C5-N7	11.51	116.45	110.70
26	1H	138	G	C5-N7-C8	-11.50	98.55	104.30
26	1H	945	A	C4-C5-N7	11.49	116.44	110.70
26	1H	2430	A	C2-N3-C4	-11.47	104.86	110.60
26	1H	2688	U	N3-C2-O2	-11.46	114.18	122.20
26	1H	140	A	C4-C5-N7	11.46	116.43	110.70
26	1H	1528	A	C8-N9-C4	-11.46	101.22	105.80
26	1H	860	U	C5-C6-N1	-11.44	116.98	122.70
26	14	2818	G	C8-N9-C4	11.44	110.97	106.40
26	1H	621	A	C2-N3-C4	-11.43	104.88	110.60
26	14	130	C	N3-C4-C5	11.43	126.47	121.90
26	1H	1210	A	N7-C8-N9	11.41	119.50	113.80
1	13	1489	G	C8-N9-C4	11.40	110.96	106.40
26	1H	575	A	C8-N9-C4	11.40	110.36	105.80
26	1H	2430	A	C5-N7-C8	-11.40	98.20	103.90
26	14	1786	A	O5'-P-OP2	-11.40	95.44	105.70
26	1H	966	G	N1-C6-O6	-11.40	113.06	119.90
26	1H	773	U	C5-C6-N1	-11.36	117.02	122.70
26	14	2346	A	C2-N3-C4	-11.36	104.92	110.60
26	14	2441	C	O5'-P-OP1	-11.35	95.49	105.70
26	1H	744	G	N1-C6-O6	-11.32	113.11	119.90
26	14	140	A	C5-N7-C8	-11.31	98.24	103.90
26	1H	1940	U	N1-C2-O2	-11.30	114.89	122.80
26	1H	1970	A	O5'-P-OP2	-11.30	95.53	105.70
26	1H	2476	A	C8-N9-C4	-11.29	101.28	105.80
1	13	789	U	N3-C2-O2	-11.28	114.31	122.20
26	1H	679	C	C6-N1-C2	11.26	124.81	120.30
26	1H	1990	C	C6-N1-C2	-11.26	115.80	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	974	G	O5'-P-OP2	-11.25	95.58	105.70
26	14	1602	U	O5'-P-OP2	11.23	124.18	110.70
26	1H	945	A	N1-C2-N3	11.22	134.91	129.30
26	14	74	A	N1-C6-N6	11.21	125.33	118.60
26	1H	1393	A	O5'-P-OP2	-11.21	95.61	105.70
1	13	1371	G	O5'-P-OP1	-11.20	95.62	105.70
26	1H	1678	G	C5-N7-C8	-11.19	98.71	104.30
26	14	1277	G	C8-N9-C4	11.19	110.88	106.40
26	14	1332	G	N3-C4-N9	-11.16	119.30	126.00
1	13	880	C	C6-N1-C2	11.15	124.76	120.30
26	1H	917	A	N1-C2-N3	11.14	134.87	129.30
26	14	1678	G	N3-C4-N9	-11.14	119.31	126.00
26	1H	2822	G	C4-C5-N7	11.14	115.26	110.80
26	1H	1350	C	O5'-P-OP1	-11.14	95.68	105.70
1	13	892	A	C2-N3-C4	-11.09	105.06	110.60
26	1H	1931	U	N1-C2-N3	11.09	121.55	114.90
27	16	8	U	O5'-P-OP1	11.09	124.00	110.70
26	14	1678	G	C2-N3-C4	-11.06	106.37	111.90
26	14	2688	U	N3-C2-O2	-11.05	114.47	122.20
1	13	690	G	C4-C5-N7	11.05	115.22	110.80
26	14	2084	C	C2-N3-C4	-11.05	114.38	119.90
1	1G	1489	G	C8-N9-C4	11.04	110.82	106.40
26	14	2591	C	N1-C2-O2	-11.02	112.29	118.90
26	1H	1271	G	O5'-P-OP2	-11.02	95.78	105.70
26	14	2067	G	N3-C2-N2	-11.02	112.19	119.90
26	14	1821	A	C8-N9-C4	-11.02	101.39	105.80
26	1H	966	G	C5-C6-O6	11.01	135.21	128.60
1	1G	690	G	C5-N7-C8	-11.01	98.80	104.30
23	2L	77	A	C8-N9-C4	11.01	110.20	105.80
26	1H	2311	A	C2-N3-C4	-10.99	105.11	110.60
26	14	796	C	N3-C4-C5	10.99	126.30	121.90
26	1H	389	G	C8-N9-C4	10.98	110.79	106.40
26	1H	2276	G	C4-C5-N7	-10.98	106.41	110.80
26	1H	729	G	C4-C5-N7	10.96	115.18	110.80
27	16	81	G	C4-C5-N7	10.96	115.18	110.80
26	1H	2700	C	N3-C4-C5	10.95	126.28	121.90
26	1H	2346	A	O4'-C1'-N9	10.95	116.96	108.20
26	1H	133	C	C6-N1-C2	10.93	124.67	120.30
26	1H	609	A	N1-C6-N6	10.93	125.16	118.60
26	1H	690	G	C5-C6-O6	10.92	135.15	128.60
26	1H	1030	G	N1-C6-O6	-10.92	113.35	119.90
26	14	2873	A	C5-C6-N1	-10.91	112.24	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	945	A	C5-N7-C8	-10.91	98.44	103.90
26	1H	1611	C	C5-C6-N1	-10.88	115.56	121.00
26	14	2873	A	C5-N7-C8	-10.87	98.47	103.90
26	14	528	A	N3-C4-C5	10.86	134.41	126.80
26	1H	2430	A	N3-C4-N9	-10.86	118.71	127.40
26	14	782	A	O5'-P-OP1	-10.83	95.95	105.70
26	14	71	A	C2-N3-C4	-10.82	105.19	110.60
26	14	192	C	C6-N1-C2	10.81	124.62	120.30
26	1H	2253	G	O5'-P-OP2	-10.81	95.97	105.70
26	1H	2392	A	N7-C8-N9	10.81	119.20	113.80
26	1H	1496	A	C8-N9-C4	-10.80	101.48	105.80
1	13	1502	A	C2-N3-C4	-10.79	105.20	110.60
26	1H	576	U	N3-C4-O4	-10.79	111.85	119.40
26	1H	2506	U	N1-C2-O2	10.79	130.35	122.80
26	14	687	C	C6-N1-C2	-10.79	115.98	120.30
26	1H	1616	A	C6-C5-N7	-10.78	124.75	132.30
26	14	2374	C	C6-N1-C2	10.78	124.61	120.30
26	1H	138	G	N7-C8-N9	10.77	118.48	113.10
26	14	770	G	O5'-P-OP2	-10.77	96.01	105.70
26	14	783	A	C4-C5-N7	10.76	116.08	110.70
26	1H	210	C	C6-N1-C2	10.75	124.60	120.30
26	1H	1627	G	C5-C6-O6	10.74	135.04	128.60
26	1H	1693	U	O5'-P-OP1	-10.73	96.04	105.70
26	14	71	A	C5-N7-C8	-10.73	98.54	103.90
26	1H	678	C	N3-C4-C5	10.72	126.19	121.90
26	1H	1678	G	N3-C4-C5	10.72	133.96	128.60
26	1H	728	G	O5'-P-OP2	-10.72	96.05	105.70
26	1H	1786	A	N1-C6-N6	10.72	125.03	118.60
26	1H	729	G	C8-N9-C4	-10.71	102.12	106.40
26	1H	1013	C	N1-C2-O2	-10.71	112.48	118.90
26	1H	1614	A	C2-N3-C4	-10.71	105.25	110.60
26	14	675	A	N9-C4-C5	-10.69	101.53	105.80
26	1H	1616	A	N7-C8-N9	10.68	119.14	113.80
26	1H	1698	A	C5-N7-C8	-10.66	98.57	103.90
1	13	789	U	C5-C4-O4	10.65	132.29	125.90
26	1H	1819	A	N1-C6-N6	10.65	124.99	118.60
26	1H	1639	U	N3-C2-O2	-10.64	114.75	122.20
26	1H	2699	C	C5-C6-N1	-10.64	115.68	121.00
26	1H	2392	A	C2-N3-C4	-10.63	105.28	110.60
26	1H	74	A	N7-C8-N9	10.61	119.11	113.80
26	14	2287	A	C2-N3-C4	-10.61	105.30	110.60
26	14	783	A	C8-N9-C4	-10.61	101.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2084	C	C5-C6-N1	-10.60	115.70	121.00
26	1H	2040	C	C6-N1-C2	10.59	124.54	120.30
26	14	1763	G	O5'-P-OP2	-10.59	96.17	105.70
26	1H	1899	G	C5-N7-C8	-10.58	99.01	104.30
26	1H	130	C	C6-N1-C2	10.58	124.53	120.30
26	1H	140	A	C5-C6-N6	-10.57	115.24	123.70
26	1H	690	G	C4-C5-N7	10.57	115.03	110.80
1	13	817	C	C6-N1-C2	10.56	124.52	120.30
26	1H	1021	A	C5-N7-C8	-10.56	98.62	103.90
26	14	2273	A	O5'-P-OP2	-10.55	96.21	105.70
27	1J	30	C	C6-N1-C2	-10.55	116.08	120.30
26	1H	676	A	C5-N7-C8	-10.54	98.63	103.90
26	14	1496	A	N7-C8-N9	10.54	119.07	113.80
26	1H	1678	G	C4-C5-N7	10.54	115.02	110.80
26	14	802	A	O5'-P-OP2	-10.54	96.21	105.70
26	1H	793	A	N1-C6-N6	10.54	124.92	118.60
26	1H	1914	C	C2-N1-C1'	10.53	130.39	118.80
26	14	2261	C	O5'-P-OP1	10.53	123.34	110.70
26	1H	1673	U	C5-C6-N1	-10.53	117.43	122.70
26	1H	1210	A	C5-N7-C8	-10.52	98.64	103.90
26	1H	1950	G	C8-N9-C4	-10.52	102.19	106.40
26	1H	531	C	O5'-P-OP1	-10.51	96.24	105.70
26	1H	678	C	C6-N1-C2	10.51	124.50	120.30
26	1H	787	U	N3-C4-O4	-10.50	112.05	119.40
26	1H	2509	G	N1-C6-O6	-10.50	113.60	119.90
26	14	1914	C	C6-N1-C2	-10.50	116.10	120.30
26	1H	2701	C	C2-N3-C4	-10.50	114.65	119.90
26	14	2072	G	C4-C5-N7	10.49	115.00	110.80
26	1H	2710	C	C5-C6-N1	-10.49	115.75	121.00
26	1H	736	C	C4-C5-C6	-10.49	112.16	117.40
26	1H	783	A	N1-C2-N3	10.48	134.54	129.30
1	13	1227	A	C5-N7-C8	-10.47	98.67	103.90
26	1H	1613	G	N1-C6-O6	-10.46	113.62	119.90
26	1H	1312	U	C5-C4-O4	10.46	132.17	125.90
26	1H	664	C	C6-N1-C2	10.45	124.48	120.30
26	1H	2000	G	O5'-P-OP1	10.46	123.25	110.70
26	14	1332	G	N1-C2-N3	10.45	130.17	123.90
26	14	2873	A	C6-C5-N7	-10.44	124.99	132.30
26	1H	210	C	C5-C6-N1	-10.43	115.78	121.00
26	1H	120	U	C5-C6-N1	-10.43	117.49	122.70
26	1H	865	C	O5'-P-OP2	10.43	123.21	110.70
26	14	2595	G	C8-N9-C4	10.42	110.57	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	452	G	C5-C6-O6	10.41	134.85	128.60
26	1H	1950	G	C4-C5-N7	10.40	114.96	110.80
26	1H	853	G	O5'-P-OP2	-10.40	96.34	105.70
26	1H	678	C	C2-N3-C4	-10.40	114.70	119.90
26	1H	1021	A	N7-C8-N9	10.40	119.00	113.80
26	1H	1786	A	C4-C5-N7	10.39	115.90	110.70
1	13	345	C	N1-C2-O2	10.39	125.14	118.90
26	1H	729	G	N7-C8-N9	10.39	118.29	113.10
26	14	833	U	N1-C2-O2	-10.38	115.53	122.80
26	14	2377	A	C8-N9-C4	10.38	109.95	105.80
24	3K	76	A	C8-N9-C4	-10.38	101.65	105.80
24	3L	76	A	N1-C6-N6	10.37	124.82	118.60
26	1H	71	A	C4-C5-N7	10.37	115.88	110.70
26	1H	74	A	C5-N7-C8	-10.37	98.72	103.90
26	1H	658	C	O5'-P-OP2	-10.36	96.38	105.70
26	1H	2346	A	C5-N7-C8	-10.36	98.72	103.90
26	1H	245	G	N1-C6-O6	10.36	126.11	119.90
26	14	1761	C	N1-C2-O2	-10.36	112.69	118.90
1	13	905	U	C5-C4-O4	-10.34	119.69	125.90
26	14	1332	G	N7-C8-N9	10.34	118.27	113.10
26	14	774	A	N3-C4-C5	10.34	134.04	126.80
26	14	2430	A	C5-C6-N1	-10.34	112.53	117.70
26	14	2430	A	N3-C4-C5	10.34	134.04	126.80
26	1H	1781	C	C6-N1-C2	10.34	124.43	120.30
26	1H	2490	G	N7-C8-N9	10.33	118.27	113.10
26	1H	2584	U	N3-C2-O2	-10.33	114.97	122.20
26	1H	2346	A	C4-C5-C6	10.33	122.17	117.00
26	14	1616	A	O4'-C1'-N9	10.33	116.46	108.20
26	1H	796	C	C6-N1-C2	10.31	124.42	120.30
26	14	528	A	N3-C4-N9	-10.31	119.16	127.40
1	13	789	U	N1-C2-N3	10.30	121.08	114.90
26	1H	1548	C	C6-N1-C2	-10.30	116.18	120.30
26	1H	1325	G	C6-C5-N7	-10.30	124.22	130.40
26	1H	793	A	C5-C6-N6	-10.29	115.47	123.70
26	14	1600	C	O5'-P-OP2	-10.29	96.43	105.70
1	13	974	A	N1-C6-N6	10.29	124.77	118.60
26	1H	389	G	N9-C4-C5	-10.29	101.28	105.40
26	1H	774	A	C5-N7-C8	-10.29	98.76	103.90
26	14	399	G	O5'-P-OP2	-10.28	96.44	105.70
26	14	1798	U	O5'-P-OP2	-10.28	96.45	105.70
26	1H	691	C	N3-C2-O2	10.27	129.09	121.90
26	1H	729	G	C5-N7-C8	-10.26	99.17	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2392	A	C4-C5-N7	10.26	115.83	110.70
1	13	966	G	C5-C6-O6	-10.26	122.44	128.60
26	1H	140	A	C8-N9-C4	-10.25	101.70	105.80
26	1H	148	C	C2-N3-C4	-10.25	114.77	119.90
26	14	2674	G	O5'-P-OP2	-10.25	96.47	105.70
26	14	675	A	C8-N9-C4	10.25	109.90	105.80
26	1H	134	C	N3-C2-O2	-10.25	114.72	121.90
26	1H	2346	A	C2-N3-C4	-10.24	105.48	110.60
26	1H	1676	A	C2-N3-C4	-10.23	105.48	110.60
26	1H	512	G	O4'-C1'-N9	10.23	116.39	108.20
26	1H	845	G	C5-N7-C8	-10.23	99.19	104.30
26	1H	2439	A	N1-C6-N6	10.22	124.73	118.60
26	1H	1362	C	O5'-P-OP2	-10.21	96.51	105.70
26	1H	959	A	N1-C6-N6	-10.20	112.48	118.60
26	1H	1940	U	C5-C4-O4	-10.20	119.78	125.90
26	1H	773	U	C2-N3-C4	-10.20	120.88	127.00
26	14	746	A	O5'-P-OP2	10.20	122.94	110.70
26	14	2713	A	C2-N3-C4	-10.19	105.51	110.60
26	1H	2530	A	N1-C6-N6	10.18	124.71	118.60
26	1H	537	C	O5'-P-OP2	-10.18	96.54	105.70
26	1H	2490	G	C2-N3-C4	-10.17	106.81	111.90
26	14	2261	C	O5'-P-OP2	-10.17	96.55	105.70
26	1H	947	G	N1-C6-O6	10.15	125.99	119.90
26	1H	1369	G	C8-N9-C4	10.14	110.46	106.40
26	1H	2838	G	O5'-P-OP1	-10.13	96.58	105.70
26	1H	945	A	C5-C6-N6	-10.13	115.59	123.70
26	14	510	C	C6-N1-C2	-10.13	116.25	120.30
26	1H	1948	G	C5-C6-O6	10.12	134.68	128.60
1	13	1502	A	C4-C5-N7	10.12	115.76	110.70
26	1H	909	A	N1-C6-N6	-10.12	112.53	118.60
1	13	690	G	N1-C6-O6	10.11	125.97	119.90
26	1H	806	C	N1-C2-O2	10.11	124.97	118.90
26	14	796	C	C5-C6-N1	-10.10	115.95	121.00
26	1H	678	C	C5-C6-N1	-10.10	115.95	121.00
26	1H	74	A	N1-C2-N3	10.09	134.35	129.30
26	1H	1942	C	C4-C5-C6	-10.09	112.35	117.40
26	1H	2070	G	O5'-P-OP2	-10.09	96.62	105.70
26	1H	2688	U	C5-C4-O4	10.09	131.96	125.90
26	1H	391	G	N1-C6-O6	10.09	125.95	119.90
27	16	81	G	C6-C5-N7	-10.09	124.35	130.40
26	1H	1373	A	O5'-P-OP2	-10.08	96.63	105.70
26	1H	813	U	C5-C6-N1	-10.08	117.66	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	902	G	O5'-P-OP2	-10.06	96.64	105.70
1	1G	690	G	N3-C4-C5	10.05	133.63	128.60
26	14	1678	G	C5-N7-C8	-10.05	99.27	104.30
26	1H	46	C	C6-N1-C2	-10.04	116.28	120.30
26	1H	196	A	N1-C6-N6	10.04	124.62	118.60
26	14	1835	G	O5'-P-OP1	-10.04	96.66	105.70
26	1H	1759	A	O5'-P-OP1	-10.04	96.67	105.70
26	1H	2287	A	C5-C6-N1	-10.04	112.68	117.70
26	14	4	C	C2-N1-C1'	10.03	129.83	118.80
26	1H	795	C	O5'-P-OP1	-10.03	96.68	105.70
26	1H	1559	G	N3-C4-C5	10.02	133.61	128.60
26	14	2258	C	O5'-P-OP1	-10.02	96.68	105.70
26	14	510	C	O5'-P-OP2	-10.01	96.69	105.70
26	1H	989	G	C5-C6-O6	-10.01	122.59	128.60
26	1H	1021	A	C2-N3-C4	-10.01	105.60	110.60
26	1H	2503	A	N1-C2-N3	-10.00	124.30	129.30
26	14	2033	A	O5'-P-OP2	-10.00	96.70	105.70
26	1H	1332	G	N1-C2-N3	10.00	129.90	123.90
26	14	1899	G	C8-N9-C1'	10.00	140.00	127.00
26	1H	658	C	O5'-P-OP1	10.00	122.69	110.70
26	14	48	G	C8-N9-C4	-9.99	102.40	106.40
26	14	974(A)	C	C5-C4-N4	9.99	127.19	120.20
26	14	1932	A	O5'-P-OP1	-9.99	96.71	105.70
26	14	2386	C	C6-N1-C2	9.99	124.30	120.30
26	1H	1914	C	N1-C2-O2	9.98	124.89	118.90
24	3L	76	A	N7-C8-N9	9.97	118.79	113.80
1	13	1502	A	N7-C8-N9	9.97	118.78	113.80
26	1H	788	A	N1-C6-N6	9.96	124.58	118.60
1	13	656	C	C5-C6-N1	9.94	125.97	121.00
24	3K	76	A	N1-C6-N6	9.94	124.56	118.60
26	1H	178	G	O5'-P-OP1	-9.94	96.76	105.70
26	1H	2515	C	N3-C4-C5	9.93	125.87	121.90
26	14	1780	A	C8-N9-C4	-9.93	101.83	105.80
29	19	196	VAL	C-N-CA	-9.92	101.47	122.30
26	1H	210	C	C2-N3-C4	-9.92	114.94	119.90
26	1H	2067	G	N9-C4-C5	9.91	109.36	105.40
26	1H	420	C	C6-N1-C2	9.90	124.26	120.30
26	14	1801	G	C5-C6-O6	-9.90	122.66	128.60
26	14	1899	G	N1-C2-N3	9.90	129.84	123.90
26	1H	144	C	N3-C4-C5	9.90	125.86	121.90
26	14	945	A	C5-C6-N6	-9.89	115.79	123.70
26	14	2596	U	O5'-P-OP2	-9.89	96.80	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	689	A	N1-C2-N3	9.88	134.24	129.30
26	1H	966	G	C8-N9-C4	9.88	110.35	106.40
26	1H	1142(A)	A	C2-N3-C4	-9.88	105.66	110.60
26	1H	1983	C	C6-N1-C2	9.88	124.25	120.30
26	14	1342	A	N1-C2-N3	9.88	134.24	129.30
26	1H	120	U	C4-C5-C6	9.87	125.62	119.70
26	14	677	A	C8-N9-C4	-9.87	101.85	105.80
26	1H	263	C	O5'-P-OP2	-9.86	96.82	105.70
26	1H	2713	A	C2-N3-C4	-9.86	105.67	110.60
26	1H	2424	C	OP1-P-OP2	9.85	134.38	119.60
1	13	580	U	C5-C6-N1	-9.85	117.78	122.70
26	1H	2502	G	C8-N9-C4	-9.85	102.46	106.40
26	14	330	A	N1-C6-N6	9.85	124.51	118.60
26	14	1614	A	C2-N3-C4	-9.82	105.69	110.60
26	1H	189	G	C8-N9-C4	9.81	110.32	106.40
26	14	2253	G	O5'-P-OP2	-9.81	96.87	105.70
26	1H	2048	G	C8-N9-C4	-9.80	102.48	106.40
26	14	835	A	O5'-P-OP2	-9.80	96.88	105.70
26	1H	1899	G	C8-N9-C4	-9.79	102.48	106.40
26	1H	1370	C	C5-C6-N1	-9.79	116.11	121.00
26	14	1489	U	C5-C4-O4	9.78	131.77	125.90
26	1H	1955	U	N1-C2-N3	9.78	120.77	114.90
26	1H	2447	G	C5-C6-O6	-9.78	122.73	128.60
26	1H	2287	A	N1-C2-N3	9.78	134.19	129.30
26	14	1786	A	C4-C5-N7	9.78	115.59	110.70
26	1H	664	C	C5-C6-N1	-9.77	116.12	121.00
26	14	621	A	C5-N7-C8	-9.77	99.02	103.90
26	1H	700	G	N3-C2-N2	-9.77	113.06	119.90
26	1H	1931	U	C5-C4-O4	9.76	131.76	125.90
1	13	690	G	C5-N7-C8	-9.76	99.42	104.30
26	14	1506	C	C6-N1-C2	-9.76	116.40	120.30
26	1H	448	U	C5-C6-N1	-9.76	117.82	122.70
26	1H	1967	C	N3-C2-O2	-9.73	115.09	121.90
26	1H	382	G	C8-N9-C4	9.73	110.29	106.40
26	1H	676	A	O4'-C1'-N9	9.72	115.98	108.20
26	14	684	G	C8-N9-C4	-9.72	102.51	106.40
26	14	783	A	N3-C4-C5	9.72	133.60	126.80
26	14	1408	C	N1-C2-O2	-9.72	113.07	118.90
26	1H	2380	C	C5-C6-N1	-9.71	116.14	121.00
26	14	2502	G	O5'-P-OP1	-9.70	96.97	105.70
26	14	1899	G	C4-N9-C1'	-9.69	113.91	126.50
26	14	2392	A	C5-C6-N1	-9.67	112.87	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1619	G	O5'-P-OP2	-9.66	97.01	105.70
26	1H	410	G	O5'-P-OP1	-9.66	97.01	105.70
26	1H	831	G	O5'-P-OP2	-9.66	97.01	105.70
27	16	81	G	C5-N7-C8	-9.66	99.47	104.30
26	1H	2053	G	C5-C6-O6	-9.65	122.81	128.60
26	14	2711	A	C2-N3-C4	-9.65	105.78	110.60
1	1G	519	C	C6-N1-C2	9.65	124.16	120.30
26	14	740	U	C5-C4-O4	9.65	131.69	125.90
26	1H	138	G	C4-C5-N7	9.64	114.66	110.80
26	1H	1053	C	C6-N1-C2	-9.64	116.44	120.30
26	1H	1314	C	C6-N1-C2	-9.64	116.44	120.30
26	14	1187	G	C8-N9-C4	-9.64	102.54	106.40
26	1H	120	U	C5-C4-O4	9.64	131.68	125.90
26	1H	575	A	N9-C4-C5	-9.63	101.95	105.80
26	1H	1940	U	N3-C2-O2	9.62	128.93	122.20
26	14	1614	A	C5-C6-N1	-9.61	112.90	117.70
26	14	2712	U	C2-N3-C4	-9.59	121.25	127.00
26	1H	691	C	N3-C4-N4	9.59	124.71	118.00
26	14	2301	C	C6-N1-C2	-9.59	116.46	120.30
26	1H	141	A	C5-N7-C8	-9.58	99.11	103.90
26	1H	2409	G	C4-C5-N7	9.58	114.63	110.80
26	1H	909	A	O5'-P-OP2	-9.58	97.08	105.70
26	1H	2704	C	C6-N1-C2	9.58	124.13	120.30
26	1H	2544	G	N1-C6-O6	9.57	125.64	119.90
26	14	2443	C	N3-C4-N4	9.57	124.70	118.00
26	1H	1308	A	N1-C2-N3	9.57	134.08	129.30
26	1H	736	C	N3-C2-O2	9.56	128.59	121.90
26	14	1327	C	O5'-P-OP2	-9.55	97.10	105.70
26	14	2444	G	N1-C6-O6	-9.54	114.18	119.90
26	14	2615	U	O5'-P-OP1	-9.54	97.12	105.70
26	1H	144	C	C5-C6-N1	-9.53	116.23	121.00
26	1H	216	A	O5'-P-OP1	-9.53	97.12	105.70
26	1H	1698	A	N1-C2-N3	9.53	134.07	129.30
26	14	1381	G	C5-C6-O6	-9.52	122.89	128.60
26	14	2591	C	N3-C2-O2	9.52	128.56	121.90
26	1H	621	A	C4-C5-N7	9.52	115.46	110.70
26	1H	787	U	OP1-P-OP2	-9.52	105.33	119.60
26	1H	1698	A	N7-C8-N9	9.52	118.56	113.80
26	1H	772	C	C6-N1-C2	9.51	124.11	120.30
27	1J	81	G	C4-C5-N7	9.51	114.60	110.80
26	1H	2685	G	C5-C6-N1	-9.51	106.75	111.50
26	1H	788	A	N9-C4-C5	-9.50	102.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2392	A	C5-C6-N1	-9.49	112.95	117.70
26	1H	2502	G	N1-C6-O6	-9.49	114.20	119.90
26	14	1616	A	C2-N3-C4	-9.49	105.85	110.60
26	1H	2430	A	N3-C4-C5	9.49	133.44	126.80
26	14	121	G	C5-C6-O6	-9.49	122.91	128.60
26	1H	663	G	C4-C5-N7	-9.47	107.01	110.80
26	1H	2380	C	C6-N1-C2	9.47	124.09	120.30
26	14	1698	A	C6-C5-N7	-9.47	125.67	132.30
26	14	933	A	N1-C6-N6	9.47	124.28	118.60
26	1H	1332	G	C8-N9-C4	-9.46	102.61	106.40
26	1H	1341	U	O5'-P-OP1	-9.47	97.18	105.70
26	14	1304	C	N1-C2-O2	9.46	124.58	118.90
26	1H	1899	G	N7-C8-N9	9.46	117.83	113.10
26	14	216	A	C8-N9-C4	9.45	109.58	105.80
26	14	2779	U	N3-C2-O2	-9.45	115.59	122.20
26	1H	837	C	C5-C4-N4	-9.44	113.59	120.20
26	1H	2016	U	N3-C4-O4	-9.44	112.79	119.40
26	1H	2062	A	C8-N9-C4	9.44	109.58	105.80
26	14	1304	C	N3-C4-N4	-9.44	111.39	118.00
26	14	2596	U	OP1-P-OP2	9.44	133.76	119.60
1	1G	254	G	O5'-P-OP1	-9.43	97.21	105.70
26	14	1260	G	N1-C6-O6	9.43	125.56	119.90
26	14	1616	A	C4-C5-N7	9.43	115.41	110.70
26	1H	2048	G	N9-C4-C5	9.42	109.17	105.40
26	14	2873	A	N1-C6-N6	9.42	124.25	118.60
26	14	453	C	C6-N1-C2	9.42	124.07	120.30
26	14	800	A	N1-C6-N6	-9.42	112.95	118.60
26	1H	676	A	C5-C6-N1	-9.41	112.99	117.70
26	1H	528	A	N3-C4-C5	9.41	133.39	126.80
26	1H	1430	C	C6-N1-C2	-9.40	116.54	120.30
26	1H	1614	A	C5-N7-C8	-9.40	99.20	103.90
26	1H	2589	A	C8-N9-C4	9.40	109.56	105.80
26	1H	774	A	C4-C5-N7	9.39	115.40	110.70
26	1H	1013	C	N3-C2-O2	9.39	128.47	121.90
27	16	98	G	OP1-P-OP2	9.39	133.68	119.60
26	14	1780	A	N9-C4-C5	9.38	109.55	105.80
26	14	2873	A	C8-N9-C4	-9.38	102.05	105.80
26	1H	2067	G	C8-N9-C4	-9.38	102.65	106.40
26	1H	1940	U	N3-C4-O4	9.38	125.96	119.40
26	14	469	G	C5-C6-N1	9.37	116.19	111.50
26	1H	2518	A	C5-C6-N6	-9.37	116.20	123.70
26	1H	2822	G	C5-C6-O6	-9.37	122.98	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2252	G	O5'-P-OP2	-9.37	97.27	105.70
26	1H	945	A	O4'-C1'-N9	9.36	115.69	108.20
26	1H	2607	G	O5'-P-OP2	-9.36	97.28	105.70
23	2K	17	C	C6-N1-C2	-9.36	116.56	120.30
26	1H	245	G	C6-C5-N7	-9.36	124.79	130.40
26	14	41	C	N1-C2-O2	-9.35	113.29	118.90
26	1H	1786	A	C5-C6-N1	-9.35	113.03	117.70
26	1H	1626	G	N1-C6-O6	9.35	125.51	119.90
26	1H	979	G	N3-C2-N2	-9.34	113.36	119.90
26	14	1972	A	O5'-P-OP2	-9.34	97.30	105.70
26	1H	671	C	N3-C4-C5	9.33	125.63	121.90
26	1H	769	G	O5'-P-OP2	-9.33	97.30	105.70
26	1H	577	G	OP1-P-OP2	-9.32	105.62	119.60
26	14	2546	U	C5-C4-O4	9.32	131.49	125.90
26	1H	1184	G	N3-C2-N2	-9.31	113.38	119.90
26	14	729	G	N1-C2-N2	9.30	124.57	116.20
26	14	140	A	N7-C8-N9	9.30	118.45	113.80
26	1H	732	C	N1-C2-O2	-9.30	113.32	118.90
26	1H	1398	C	C2-N3-C4	-9.29	115.25	119.90
26	1H	2432	A	C2-N3-C4	-9.29	105.95	110.60
26	1H	1626	G	N3-C2-N2	-9.28	113.41	119.90
26	14	679	C	C2-N3-C4	-9.28	115.26	119.90
1	13	690	G	C2-N3-C4	-9.28	107.26	111.90
26	1H	1437	C	C6-N1-C2	-9.27	116.59	120.30
1	13	669	U	O5'-P-OP2	-9.27	97.36	105.70
26	14	1965	C	N3-C4-N4	-9.27	111.51	118.00
26	14	2392	A	C2-N3-C4	-9.27	105.96	110.60
26	1H	2581	G	O5'-P-OP1	-9.27	97.36	105.70
26	1H	143	C	C6-N1-C2	9.26	124.00	120.30
26	1H	472	A	O5'-P-OP2	-9.26	97.37	105.70
26	14	1266	G	C8-N9-C4	9.25	110.10	106.40
1	13	776	G	O5'-P-OP1	-9.25	97.38	105.70
26	1H	1443	G	C5-C6-N1	-9.24	106.88	111.50
1	1G	900	A	O5'-P-OP2	9.24	121.79	110.70
1	1G	1301	U	C2-N1-C1'	9.24	128.79	117.70
26	1H	1308	A	N1-C6-N6	-9.24	113.06	118.60
26	1H	195	A	N1-C6-N6	9.23	124.14	118.60
26	14	433	C	N3-C4-C5	-9.22	118.21	121.90
26	1H	2433	A	N1-C2-N3	9.22	133.91	129.30
26	1H	814	C	C6-N1-C2	9.22	123.99	120.30
26	14	569	U	C5-C6-N1	-9.21	118.09	122.70
26	14	2610	C	C6-N1-C2	9.21	123.98	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2251	G	N3-C2-N2	-9.21	113.45	119.90
1	13	740	U	O5'-P-OP2	-9.21	97.41	105.70
26	1H	756	C	N1-C2-O2	-9.21	113.38	118.90
30	29	78	LEU	CA-CB-CG	9.21	136.47	115.30
26	1H	1636	C	C4-C5-C6	9.20	122.00	117.40
26	1H	1678	G	C6-C5-N7	-9.20	124.88	130.40
26	1H	2443	C	C6-N1-C2	-9.20	116.62	120.30
27	16	79	C	C6-N1-C2	-9.20	116.62	120.30
26	14	1496	A	C5-N7-C8	-9.20	99.30	103.90
26	1H	528	A	C5-N7-C8	-9.20	99.30	103.90
26	14	140	A	C6-C5-N7	-9.20	125.86	132.30
26	1H	452	G	C4-C5-N7	-9.19	107.12	110.80
26	1H	1304	C	O5'-P-OP1	9.19	121.72	110.70
26	1H	1030	G	C5-C6-O6	9.18	134.11	128.60
27	16	30	C	C6-N1-C2	-9.18	116.63	120.30
1	13	1519	A	C5-C6-N6	9.17	131.04	123.70
26	1H	1942	C	C5-C6-N1	9.17	125.59	121.00
26	1H	2062	A	O5'-P-OP1	-9.17	97.44	105.70
26	14	2249	U	N3-C4-C5	-9.17	109.10	114.60
26	14	1821	A	N1-C6-N6	9.17	124.10	118.60
26	14	2444	G	C5-C6-O6	9.17	134.10	128.60
26	1H	984	A	O5'-P-OP2	-9.17	97.45	105.70
26	1H	2502	G	N9-C4-C5	9.17	109.07	105.40
26	1H	2708	G	C8-N9-C4	9.16	110.07	106.40
26	1H	772	C	N1-C2-O2	-9.16	113.40	118.90
26	1H	1608	A	C8-N9-C4	9.16	109.47	105.80
26	1H	1142(A)	A	N3-C4-C5	9.16	133.21	126.80
26	1H	1404	C	O5'-P-OP2	-9.16	97.46	105.70
1	1G	690	G	N7-C8-N9	9.16	117.68	113.10
1	13	529	G	N1-C6-O6	9.15	125.39	119.90
26	1H	2249	U	O5'-P-OP1	-9.15	97.46	105.70
26	1H	773	U	C4-C5-C6	9.14	125.18	119.70
26	14	2456	C	O5'-P-OP2	-9.14	97.47	105.70
26	1H	966	G	N3-C2-N2	9.13	126.29	119.90
26	1H	2544	G	C5-C6-O6	-9.13	123.12	128.60
26	1H	1489	U	C5-C4-O4	9.12	131.37	125.90
26	1H	649	G	O5'-P-OP2	-9.12	97.49	105.70
26	1H	676	A	N1-C2-N3	9.12	133.86	129.30
1	13	526	C	C6-N1-C2	9.12	123.95	120.30
26	1H	451	C	C6-N1-C2	9.12	123.95	120.30
26	1H	1784	A	N1-C6-N6	-9.12	113.13	118.60
26	14	2335	A	O4'-C1'-N9	9.12	115.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3K	76	A	C6-C5-N7	-9.12	125.92	132.30
26	1H	1621	U	N1-C2-O2	-9.12	116.42	122.80
1	13	852	G	C8-N9-C4	9.11	110.05	106.40
26	14	566	U	C6-N1-C2	9.11	126.47	121.00
26	1H	1528	A	N7-C8-N9	9.11	118.35	113.80
26	1H	1621	U	N3-C2-O2	9.10	128.57	122.20
1	13	952	U	N3-C2-O2	-9.10	115.83	122.20
26	1H	729	G	C6-C5-N7	-9.09	124.94	130.40
26	1H	144	C	C6-N1-C2	9.09	123.94	120.30
1	1G	690	G	N3-C4-N9	-9.09	120.55	126.00
26	14	1950	G	N7-C8-N9	9.09	117.64	113.10
26	1H	1566	A	O5'-P-OP2	-9.08	97.53	105.70
1	1G	690	G	C4-C5-N7	9.08	114.43	110.80
26	1H	271(B)	G	N3-C4-C5	-9.08	124.06	128.60
26	1H	1656	C	C5-C6-N1	9.08	125.54	121.00
1	13	1371	G	O5'-P-OP2	9.08	121.59	110.70
1	13	123	C	O5'-P-OP2	-9.07	97.53	105.70
26	1H	1185	C	N1-C2-O2	9.07	124.34	118.90
26	1H	966	G	N7-C8-N9	-9.06	108.57	113.10
26	14	856	C	O5'-P-OP1	-9.06	97.54	105.70
26	1H	148	C	N3-C4-C5	9.06	125.52	121.90
26	1H	971	C	C6-N1-C2	-9.05	116.68	120.30
26	1H	71	A	N1-C6-N6	9.05	124.03	118.60
26	1H	1806	C	O5'-P-OP2	-9.05	97.56	105.70
27	16	81	G	N1-C6-O6	9.05	125.33	119.90
26	1H	2701	C	C5-C6-N1	-9.05	116.48	121.00
26	1H	746	A	O5'-P-OP2	9.05	121.56	110.70
1	13	1227	A	C2-N3-C4	-9.04	106.08	110.60
26	1H	867	C	O5'-P-OP1	-9.04	97.56	105.70
24	3L	5	C	C6-N1-C2	-9.04	116.68	120.30
26	14	936	C	C6-N1-C2	9.04	123.92	120.30
26	14	1970	A	O5'-P-OP2	-9.04	97.57	105.70
26	14	2607	G	C6-C5-N7	-9.04	124.98	130.40
26	1H	530	G	N3-C2-N2	9.03	126.22	119.90
26	1H	835	A	C2-N3-C4	9.03	115.11	110.60
26	1H	1210	A	N1-C6-N6	9.03	124.02	118.60
26	1H	787	U	N3-C4-C5	9.01	120.01	114.60
26	1H	945	A	C4-N9-C1'	9.01	142.51	126.30
26	14	678	C	N3-C4-C5	9.00	125.50	121.90
26	1H	1611	C	C2-N3-C4	-8.99	115.40	119.90
26	14	2609	U	C5-C6-N1	-8.99	118.20	122.70
26	1H	1430	C	N3-C4-C5	-8.99	118.30	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1643	G	O5'-P-OP2	-8.99	97.61	105.70
1	13	889	A	C2-N3-C4	-8.99	106.11	110.60
26	1H	452	G	N9-C4-C5	8.99	109.00	105.40
26	1H	528	A	N3-C4-N9	-8.99	120.21	127.40
1	13	758	G	C5-C6-O6	-8.98	123.21	128.60
26	14	945	A	C4-C5-C6	8.98	121.49	117.00
26	1H	124	G	C5-C6-O6	-8.98	123.21	128.60
26	1H	226	G	O4'-C1'-N9	8.98	115.38	108.20
26	14	1496	A	C8-N9-C4	-8.97	102.21	105.80
1	13	1279	A	N7-C8-N9	8.96	118.28	113.80
26	1H	2010	G	OP1-P-OP2	-8.96	106.16	119.60
26	14	690	G	N7-C8-N9	-8.96	108.62	113.10
1	13	974	A	C2-N3-C4	-8.96	106.12	110.60
1	13	1516	G	N1-C6-O6	-8.95	114.53	119.90
26	1H	205	G	N3-C2-N2	8.95	126.16	119.90
26	1H	828	U	C5-C4-O4	8.94	131.26	125.90
26	1H	1370	C	C6-N1-C2	8.94	123.88	120.30
26	14	796	C	C2-N3-C4	-8.94	115.43	119.90
26	1H	2264	C	OP1-P-O3'	8.94	124.86	105.20
27	1J	114	G	C8-N9-C4	8.94	109.97	106.40
26	1H	1394	U	C2-N3-C4	8.93	132.36	127.00
26	1H	445	C	C6-N1-C2	-8.93	116.73	120.30
26	1H	2352	A	O5'-P-OP1	-8.92	97.67	105.70
26	14	2441	C	N3-C2-O2	-8.92	115.66	121.90
26	14	2873	A	C4-C5-C6	8.92	121.46	117.00
26	14	618(A)	C	C6-N1-C2	8.92	123.87	120.30
26	1H	1160	G	C8-N9-C4	-8.91	102.84	106.40
26	1H	970	C	C4-C5-C6	8.91	121.85	117.40
26	1H	1931	U	C5-C6-N1	-8.90	118.25	122.70
26	1H	2392	A	N3-C4-C5	8.90	133.03	126.80
26	14	2609	U	C2-N3-C4	-8.90	121.66	127.00
26	1H	806	C	N3-C4-C5	8.90	125.46	121.90
55	Q8	52	LYS	N-CA-C	-8.89	86.98	111.00
26	1H	1443	G	N3-C2-N2	-8.89	113.67	119.90
26	1H	1948	G	N1-C6-O6	-8.89	114.57	119.90
26	14	2323	G	C8-N9-C4	8.89	109.95	106.40
27	1J	6	C	C6-N1-C2	8.89	123.85	120.30
26	1H	600	G	C8-N9-C4	8.88	109.95	106.40
26	1H	196	A	C5-C6-N1	-8.88	113.26	117.70
26	1H	1369	G	N7-C8-N9	-8.88	108.66	113.10
26	1H	27	G	N1-C6-O6	-8.87	114.58	119.90
26	1H	1306	C	O5'-P-OP2	8.87	121.34	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1487	G	C5-C6-O6	-8.87	123.28	128.60
26	14	1381	G	N9-C4-C5	-8.86	101.86	105.40
23	2K	6	G	C8-N9-C4	8.86	109.94	106.40
26	1H	2065	C	N1-C2-O2	8.86	124.21	118.90
26	1H	1698	A	C8-N9-C4	-8.85	102.26	105.80
26	14	2079	U	O5'-P-OP1	-8.85	97.73	105.70
1	13	880	C	N3-C4-C5	8.85	125.44	121.90
26	1H	400	G	N1-C6-O6	8.85	125.21	119.90
26	1H	2699	C	N3-C4-C5	8.84	125.43	121.90
24	3L	76	A	C4-C5-N7	8.84	115.12	110.70
26	14	671	C	C2-N3-C4	-8.84	115.48	119.90
1	13	862	C	C6-N1-C2	8.82	123.83	120.30
26	14	2066	C	OP1-P-O3'	8.82	124.60	105.20
26	14	190	A	N9-C4-C5	-8.81	102.27	105.80
26	1H	2492	U	N1-C2-O2	8.81	128.97	122.80
26	1H	1602	U	C4-C5-C6	8.81	124.99	119.70
26	1H	2392	A	C8-N9-C4	-8.81	102.28	105.80
26	14	2394	C	O5'-P-OP2	-8.81	97.77	105.70
26	14	2546	U	O5'-P-OP2	-8.80	97.78	105.70
1	1G	108	G	C4-C5-N7	8.80	114.32	110.80
26	1H	210	C	N3-C4-C5	8.79	125.42	121.90
26	1H	2402	C	O4'-C1'-N1	8.79	115.23	108.20
26	1H	1558	A	C2-N3-C4	-8.79	106.21	110.60
26	1H	691	C	C5-C4-N4	-8.79	114.05	120.20
26	1H	134	C	C5-C6-N1	-8.78	116.61	121.00
26	1H	1142(A)	A	N3-C4-N9	-8.78	120.38	127.40
26	14	783	A	N3-C4-N9	-8.78	120.38	127.40
26	14	2000	G	O5'-P-OP1	8.78	121.23	110.70
26	1H	1035	U	C5-C4-O4	8.77	131.16	125.90
22	1K	76	A	N7-C8-N9	8.77	118.19	113.80
26	1H	2287	A	N1-C6-N6	8.77	123.86	118.60
26	1H	1199	U	C5-C6-N1	-8.77	118.32	122.70
26	14	1435	G	C5-C6-O6	-8.77	123.34	128.60
26	1H	842	G	C8-N9-C4	8.76	109.91	106.40
26	14	1772	G	N1-C6-O6	8.76	125.16	119.90
26	1H	1758	G	N3-C2-N2	-8.76	113.77	119.90
26	1H	587	C	N1-C2-O2	-8.75	113.65	118.90
26	14	74	A	N1-C2-N3	8.75	133.68	129.30
26	1H	1603	A	N7-C8-N9	8.75	118.18	113.80
26	1H	2490	G	N1-C6-O6	8.75	125.15	119.90
26	14	729	G	C2-N3-C4	8.75	116.28	111.90
26	14	621	A	C2-N3-C4	-8.75	106.23	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	815	C	C6-N1-C2	8.74	123.80	120.30
1	13	1404	C	N3-C4-N4	-8.74	111.88	118.00
26	1H	945	A	C5-C6-N1	-8.74	113.33	117.70
26	1H	1967	C	C4-C5-C6	8.74	121.77	117.40
26	14	2518	A	C6-C5-N7	-8.74	126.19	132.30
26	14	566	U	C5-C6-N1	-8.73	118.34	122.70
26	14	1831	G	C2-N3-C4	-8.73	107.53	111.90
1	1G	1417	G	N1-C6-O6	8.72	125.14	119.90
26	1H	2587	A	N1-C2-N3	8.72	133.66	129.30
26	1H	2295	C	C6-N1-C2	-8.72	116.81	120.30
26	14	523	C	C5-C6-N1	8.71	125.36	121.00
26	1H	1843	C	C6-N1-C2	8.71	123.78	120.30
26	1H	1403	C	O5'-P-OP2	-8.71	97.86	105.70
26	1H	1649	G	N3-C4-C5	-8.71	124.25	128.60
25	4K	18	G	N1-C6-O6	-8.70	114.68	119.90
26	1H	1249	U	C5-C4-O4	-8.70	120.68	125.90
26	1H	862	G	N3-C4-C5	-8.70	124.25	128.60
1	1G	453	A	O5'-P-OP1	-8.70	97.87	105.70
26	1H	1673	U	C6-N1-C2	8.69	126.22	121.00
26	14	2249	U	C6-N1-C2	-8.69	115.78	121.00
26	1H	2681	C	C6-N1-C2	-8.69	116.83	120.30
26	14	1376	C	O5'-P-OP1	-8.69	97.88	105.70
26	14	203	C	N1-C2-O2	-8.69	113.69	118.90
26	1H	2559	C	C6-N1-C2	-8.68	116.83	120.30
26	14	621	A	N1-C6-N6	8.68	123.81	118.60
22	1K	76	A	N1-C6-N6	8.68	123.81	118.60
26	1H	692	C	C5-C6-N1	-8.68	116.66	121.00
26	1H	683	C	N3-C4-C5	8.68	125.37	121.90
26	14	2430	A	N3-C4-N9	-8.68	120.46	127.40
26	1H	2286	A	C8-N9-C4	-8.67	102.33	105.80
26	14	1559	G	N1-C6-O6	8.67	125.11	119.90
26	1H	144	C	C2-N3-C4	-8.67	115.56	119.90
1	13	757	U	N1-C2-O2	8.67	128.87	122.80
22	1K	74	C	N1-C2-O2	8.67	124.10	118.90
26	14	935	C	C6-N1-C2	8.67	123.77	120.30
26	1H	510	C	OP1-P-OP2	8.66	132.60	119.60
26	14	2048	G	C8-N9-C4	-8.66	102.93	106.40
26	1H	199	A	C2-N3-C4	8.66	114.93	110.60
26	1H	1694	C	C6-N1-C2	8.66	123.76	120.30
26	14	1314	C	N1-C2-O2	8.66	124.10	118.90
26	14	1647	G	O5'-P-OP2	-8.66	97.91	105.70
26	1H	930	U	C5-C6-N1	-8.65	118.37	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1752	C	C6-N1-C2	8.65	123.76	120.30
26	1H	2866	U	C5-C4-O4	8.65	131.09	125.90
1	13	1525	G	N1-C6-O6	-8.65	114.71	119.90
26	1H	2430	A	C8-N9-C4	-8.65	102.34	105.80
26	1H	2503	A	C2-N3-C4	8.65	114.92	110.60
1	13	690	G	O4'-C1'-N9	8.64	115.12	108.20
26	1H	2392	A	N1-C6-N6	8.64	123.78	118.60
26	14	208	C	C6-N1-C2	8.64	123.75	120.30
26	1H	1136	G	O5'-P-OP2	-8.63	97.93	105.70
26	1H	1899	G	C6-C5-N7	-8.63	125.22	130.40
26	14	74	A	C6-C5-N7	-8.63	126.26	132.30
26	14	733	G	C6-C5-N7	-8.63	125.22	130.40
26	1H	223	A	O5'-P-OP2	-8.63	97.93	105.70
26	1H	2275	C	OP1-P-O3'	8.63	124.19	105.20
26	14	463	G	OP1-P-O3'	8.63	124.19	105.20
26	1H	1950	G	O4'-C1'-N9	8.63	115.10	108.20
26	1H	2597	G	N3-C2-N2	-8.63	113.86	119.90
26	1H	1302	A	OP1-P-OP2	8.63	132.54	119.60
26	14	778	G	N1-C6-O6	-8.63	114.72	119.90
26	14	1698	A	C2-N3-C4	-8.62	106.29	110.60
26	1H	1324	G	N3-C2-N2	-8.62	113.87	119.90
24	3K	60	U	C5-C6-N1	8.62	127.01	122.70
26	1H	25	U	C5-C4-O4	-8.61	120.73	125.90
26	1H	772	C	C5-C6-N1	-8.61	116.69	121.00
1	1G	326	G	C5-C6-N1	-8.61	107.19	111.50
26	1H	2822	G	N9-C4-C5	-8.61	101.96	105.40
26	1H	2591	C	O5'-P-OP2	-8.61	97.95	105.70
26	1H	609	A	N9-C4-C5	-8.61	102.36	105.80
26	1H	2409	G	C5-C6-O6	-8.61	123.44	128.60
26	1H	621	A	N3-C4-C5	8.60	132.82	126.80
26	1H	2053	G	C6-N1-C2	-8.60	119.94	125.10
26	14	2313	C	C6-N1-C2	-8.60	116.86	120.30
26	14	2617	C	C6-N1-C2	8.60	123.74	120.30
26	1H	1786	A	OP1-P-O3'	8.60	124.11	105.20
26	14	2607	G	N9-C4-C5	-8.60	101.96	105.40
26	1H	1931	U	C4-C5-C6	8.59	124.85	119.70
26	14	2818	G	N9-C4-C5	-8.59	101.96	105.40
26	1H	1579	A	C8-N9-C4	-8.59	102.36	105.80
24	3L	4	U	C5-C6-N1	8.59	127.00	122.70
26	14	915	C	N1-C2-O2	8.59	124.05	118.90
26	14	1342	A	C8-N9-C4	-8.59	102.36	105.80
26	1H	693	C	C5-C6-N1	-8.59	116.71	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	216	A	O5'-P-OP2	8.59	121.00	110.70
26	1H	2569	G	C6-N1-C2	-8.59	119.95	125.10
1	1G	117	G	N1-C6-O6	8.59	125.05	119.90
26	1H	690	G	C8-N9-C4	8.58	109.83	106.40
26	1H	2430	A	N7-C8-N9	8.58	118.09	113.80
26	1H	410	G	N3-C2-N2	-8.58	113.89	119.90
26	1H	1366	A	C8-N9-C4	8.58	109.23	105.80
26	1H	122	G	C2-N3-C4	-8.57	107.61	111.90
26	1H	1800	C	O5'-P-OP2	8.57	120.99	110.70
26	14	1908	C	C6-N1-C2	-8.57	116.87	120.30
26	1H	2594	C	C6-N1-C2	-8.56	116.87	120.30
1	13	1279	A	C8-N9-C4	-8.56	102.38	105.80
26	1H	2275	C	O5'-P-OP2	-8.56	97.99	105.70
26	14	558	G	C8-N9-C4	8.56	109.83	106.40
26	14	676	A	N1-C6-N6	8.56	123.74	118.60
26	14	1328	G	N9-C4-C5	-8.55	101.98	105.40
26	1H	2426	A	O5'-P-OP2	-8.55	98.01	105.70
26	1H	2403	C	C6-N1-C2	-8.54	116.88	120.30
26	1H	2445	G	C8-N9-C4	-8.54	102.98	106.40
26	14	678	C	C6-N1-C2	8.54	123.72	120.30
26	1H	2353	G	O5'-P-OP1	-8.54	98.02	105.70
26	14	1566	A	N1-C6-N6	8.54	123.72	118.60
26	1H	518	G	O5'-P-OP2	-8.54	98.02	105.70
26	14	1781	C	C5-C6-N1	8.53	125.27	121.00
26	14	1821	A	C5-C6-N6	-8.53	116.87	123.70
26	1H	2299	G	N1-C6-O6	8.53	125.02	119.90
26	14	1336	A	N1-C6-N6	-8.53	113.48	118.60
26	1H	2517	C	N3-C4-C5	8.53	125.31	121.90
26	1H	859	G	N3-C4-C5	8.52	132.86	128.60
26	1H	1304	C	N3-C4-C5	8.52	125.31	121.90
26	1H	862	G	N1-C6-O6	-8.52	114.79	119.90
26	1H	74	A	C6-C5-N7	-8.51	126.34	132.30
26	1H	1681	G	N3-C4-C5	8.51	132.85	128.60
26	14	34	C	N3-C2-O2	-8.51	115.94	121.90
26	14	2544	G	N1-C6-O6	8.51	125.01	119.90
26	1H	2688	U	N1-C2-N3	8.51	120.00	114.90
26	14	1786	A	C6-C5-N7	-8.51	126.35	132.30
26	1H	1219	G	C5-C6-O6	-8.50	123.50	128.60
1	13	1433	A	O5'-P-OP1	-8.50	98.05	105.70
26	1H	930	U	N3-C4-O4	-8.50	113.45	119.40
26	1H	1129	A	O5'-P-OP2	-8.50	98.05	105.70
26	1H	2287	A	N3-C4-C5	8.50	132.75	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2358	G	C6-N1-C2	-8.50	120.00	125.10
26	14	1339	G	O5'-P-OP1	-8.50	98.05	105.70
26	1H	1520	U	N3-C2-O2	-8.50	116.25	122.20
26	1H	698	C	OP1-P-OP2	8.49	132.34	119.60
26	14	141	A	C5-N7-C8	-8.49	99.65	103.90
26	1H	2199	A	O5'-P-OP1	-8.49	98.06	105.70
26	14	2700	C	C6-N1-C2	8.49	123.70	120.30
1	13	690	G	N7-C8-N9	8.49	117.34	113.10
1	13	843	U	C2-N1-C1'	8.49	127.89	117.70
26	1H	203	C	O5'-P-OP2	8.49	120.89	110.70
26	1H	2053	G	C5-C6-N1	8.49	115.75	111.50
1	1G	569	C	C6-N1-C2	-8.49	116.91	120.30
26	14	2072	G	C5-N7-C8	-8.49	100.06	104.30
26	14	2092	U	N1-C2-N3	8.49	119.99	114.90
1	13	1195	C	C6-N1-C2	-8.48	116.91	120.30
26	1H	186	G	C5-C6-O6	-8.48	123.51	128.60
26	1H	669	G	N1-C2-N2	8.48	123.83	116.20
26	1H	1430	C	OP1-P-O3'	8.48	123.86	105.20
26	1H	2065	C	N3-C2-O2	-8.48	115.96	121.90
26	14	2518	A	C5-N7-C8	-8.48	99.66	103.90
26	1H	138	G	C8-N9-C4	-8.48	103.01	106.40
1	1G	610	G	O5'-P-OP2	-8.48	98.07	105.70
26	1H	2256	G	C4-C5-N7	8.47	114.19	110.80
26	1H	621	A	N1-C6-N6	8.47	123.68	118.60
26	1H	508	G	C8-N9-C4	-8.47	103.01	106.40
1	1G	1414	U	C5-C4-O4	8.47	130.98	125.90
26	14	1616	A	N7-C8-N9	8.47	118.03	113.80
1	13	1231	G	C5-C6-O6	-8.47	123.52	128.60
26	1H	772	C	C4-C5-C6	8.46	121.63	117.40
26	1H	2065	C	C6-N1-C2	-8.46	116.92	120.30
26	14	2518	A	C4-C5-N7	8.46	114.93	110.70
26	1H	773	U	N1-C2-N3	8.45	119.97	114.90
26	1H	2581	G	N1-C2-N2	-8.45	108.59	116.20
26	1H	1626	G	O5'-P-OP1	-8.45	98.09	105.70
26	1H	1888	G	N3-C4-N9	8.45	131.07	126.00
26	1H	613	U	N3-C4-O4	-8.45	113.49	119.40
26	1H	766	C	N1-C2-O2	-8.45	113.83	118.90
26	14	148	C	C6-N1-C2	8.45	123.68	120.30
26	14	2518	A	O4'-C1'-N9	-8.45	101.44	108.20
26	1H	145	G	C8-N9-C4	8.44	109.78	106.40
1	13	967	C	N3-C4-C5	8.44	125.28	121.90
26	1H	1678	G	N3-C4-N9	-8.44	120.94	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	196	A	O4'-C1'-N9	8.44	114.95	108.20
26	1H	2311	A	N1-C2-N3	8.44	133.52	129.30
1	13	1096	C	C6-N1-C2	-8.44	116.92	120.30
26	1H	530	G	C5-C6-N1	8.44	115.72	111.50
26	14	2277	G	N1-C6-O6	-8.43	114.84	119.90
1	13	1502	A	C6-C5-N7	-8.43	126.40	132.30
26	1H	104	U	N3-C2-O2	8.43	128.10	122.20
26	14	1776	G	N3-C4-N9	8.43	131.06	126.00
26	14	1432	C	C6-N1-C2	8.43	123.67	120.30
26	14	2322	A	N1-C6-N6	8.43	123.66	118.60
26	1H	1158	C	C5-C6-N1	-8.43	116.79	121.00
26	14	2873	A	O5'-P-OP1	-8.43	98.12	105.70
1	13	897	C	C6-N1-C2	8.42	123.67	120.30
26	14	2008	C	N1-C2-O2	-8.42	113.85	118.90
26	14	630	G	C8-N9-C4	8.42	109.77	106.40
26	14	1631	A	N1-C6-N6	8.42	123.65	118.60
26	1H	1399	C	C6-N1-C2	-8.41	116.93	120.30
26	1H	661	C	C6-N1-C2	8.41	123.66	120.30
1	13	299	G	N3-C2-N2	8.41	125.79	119.90
26	1H	528	A	C2-N3-C4	-8.41	106.40	110.60
26	1H	1109	C	O5'-P-OP1	-8.40	98.14	105.70
26	1H	2387	U	C5-C6-N1	-8.40	118.50	122.70
26	14	689	A	O5'-P-OP2	-8.40	98.14	105.70
26	14	855	G	C8-N9-C4	-8.39	103.04	106.40
1	13	345	C	C2-N1-C1'	8.39	128.03	118.80
26	1H	789	A	O5'-P-OP1	-8.39	98.15	105.70
26	1H	141	A	C4-C5-N7	8.39	114.89	110.70
26	1H	2572	A	O5'-P-OP2	-8.39	98.15	105.70
26	14	528	A	C5-C6-N1	-8.39	113.51	117.70
26	1H	2493	U	O5'-P-OP1	-8.39	98.15	105.70
26	1H	1210	A	C6-C5-N7	-8.38	126.43	132.30
26	1H	2256	G	C5-N7-C8	-8.38	100.11	104.30
26	14	733	G	N1-C6-O6	8.38	124.93	119.90
26	1H	1301	A	O5'-P-OP1	-8.38	98.16	105.70
26	1H	120	U	N3-C2-O2	-8.37	116.34	122.20
26	1H	575	A	N1-C6-N6	8.37	123.62	118.60
26	1H	1185	C	C6-N1-C2	-8.37	116.95	120.30
26	14	190	A	C8-N9-C4	8.37	109.15	105.80
1	1G	841	U	N1-C2-O2	8.37	128.66	122.80
26	1H	508	G	C6-C5-N7	-8.37	125.38	130.40
26	1H	2549	G	C5-C6-O6	-8.37	123.58	128.60
26	1H	1193	G	N7-C8-N9	-8.36	108.92	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	802	A	N1-C6-N6	8.36	123.62	118.60
1	13	974	A	C6-C5-N7	-8.36	126.45	132.30
26	1H	199	A	N1-C2-N3	-8.36	125.12	129.30
26	14	934	G	OP1-P-OP2	8.36	132.14	119.60
26	1H	627	A	C8-N9-C4	8.36	109.14	105.80
26	14	1950	G	C4-N9-C1'	8.36	137.36	126.50
26	1H	1204	A	C2-N3-C4	-8.35	106.42	110.60
27	16	32	C	N1-C2-O2	8.35	123.91	118.90
26	14	2818	G	C5-C6-O6	-8.35	123.59	128.60
26	1H	947	G	O5'-P-OP1	-8.35	98.19	105.70
1	1G	1502	A	C6-C5-N7	-8.35	126.46	132.30
26	1H	699	A	N1-C6-N6	8.34	123.61	118.60
26	1H	2712	U	C2-N3-C4	-8.34	122.00	127.00
26	1H	251	A	O5'-P-OP1	-8.34	98.19	105.70
26	1H	845	G	C4-C5-N7	8.34	114.14	110.80
1	13	974	A	C5-N7-C8	-8.33	99.73	103.90
1	13	1524	C	N1-C2-O2	8.33	123.90	118.90
1	1G	906	G	N1-C6-O6	8.33	124.90	119.90
26	14	1391	U	O5'-P-OP1	-8.33	98.20	105.70
26	1H	1769	G	O5'-P-OP2	-8.33	98.20	105.70
26	14	512	G	C5-C6-O6	8.32	133.59	128.60
26	1H	1290	C	O5'-P-OP2	-8.32	98.21	105.70
26	1H	1022	G	N9-C4-C5	8.32	108.73	105.40
26	1H	1518	C	O5'-P-OP1	-8.32	98.21	105.70
26	1H	2274	A	C2-N3-C4	-8.31	106.44	110.60
26	14	912	C	C6-N1-C2	-8.31	116.97	120.30
26	1H	1332	G	C5-C6-O6	-8.31	123.61	128.60
1	13	243	A	C8-N9-C4	-8.31	102.48	105.80
26	14	1673	U	O5'-P-OP1	-8.30	98.23	105.70
26	1H	1806	C	OP1-P-OP2	8.30	132.05	119.60
1	13	1525	G	C5-C6-O6	8.30	133.58	128.60
26	1H	860	U	N3-C2-O2	-8.30	116.39	122.20
26	14	36	G	O5'-P-OP2	-8.30	98.23	105.70
26	1H	825	C	C5-C4-N4	-8.30	114.39	120.20
26	1H	1950	G	C6-C5-N7	-8.29	125.42	130.40
1	13	817	C	C5-C6-N1	-8.29	116.85	121.00
26	1H	1308	A	C6-N1-C2	-8.29	113.63	118.60
1	13	827	U	C2-N1-C1'	8.28	127.64	117.70
26	14	1769	G	N1-C6-O6	8.28	124.87	119.90
26	1H	294	A	C8-N9-C4	8.28	109.11	105.80
26	1H	738	G	C4-C5-N7	8.28	114.11	110.80
26	1H	1899	G	O5'-P-OP1	-8.28	98.25	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	707	G	C5-C6-N1	-8.28	107.36	111.50
26	14	1321	A	C8-N9-C4	8.28	109.11	105.80
26	1H	646	A	C8-N9-C4	-8.28	102.49	105.80
26	1H	2689	U	C5-C4-O4	8.27	130.86	125.90
26	14	2688	U	C5-C4-O4	8.27	130.86	125.90
26	14	2870	C	C6-N1-C2	-8.27	116.99	120.30
26	14	704	G	C5-C6-N1	-8.27	107.36	111.50
1	1G	1139	G	N3-C4-C5	8.27	132.73	128.60
26	14	1304	C	N3-C4-C5	8.27	125.21	121.90
26	14	1914	C	C2-N1-C1'	8.27	127.89	118.80
26	1H	1021	A	C8-N9-C4	-8.26	102.50	105.80
26	14	566	U	C5-C4-O4	-8.26	120.94	125.90
26	14	1914	C	N3-C2-O2	-8.26	116.12	121.90
26	1H	51	G	N1-C2-N2	-8.26	108.77	116.20
26	1H	688	U	N1-C2-N3	8.26	119.86	114.90
26	1H	104	U	N1-C2-O2	-8.26	117.02	122.80
26	1H	537	C	O5'-P-OP1	8.26	120.61	110.70
26	14	774	A	C5-C6-N1	-8.26	113.57	117.70
26	14	2464	C	C6-N1-C2	8.26	123.60	120.30
26	14	1640	C	N1-C2-O2	8.25	123.85	118.90
26	1H	1314	C	C2-N1-C1'	8.25	127.88	118.80
26	1H	2271	G	C5-C6-O6	-8.25	123.65	128.60
26	1H	1336	A	C5-C6-N1	8.25	121.82	117.70
26	1H	2581	G	N3-C2-N2	8.25	125.67	119.90
26	14	1366	A	C5-C6-N6	-8.25	117.10	123.70
26	1H	420	C	C5-C6-N1	-8.24	116.88	121.00
27	16	81	G	C5-C6-O6	-8.24	123.65	128.60
27	1J	7	G	C8-N9-C4	8.24	109.70	106.40
26	1H	196	A	C2-N3-C4	-8.24	106.48	110.60
26	1H	966	G	C5-N7-C8	8.24	108.42	104.30
26	14	1688	U	C5-C4-O4	8.24	130.84	125.90
1	1G	1502	A	N1-C6-N6	8.23	123.54	118.60
1	13	584	G	OP1-P-OP2	8.23	131.95	119.60
23	2L	77	A	N9-C4-C5	-8.23	102.51	105.80
26	14	1435	G	N1-C6-O6	8.23	124.84	119.90
26	1H	2036	C	C6-N1-C2	-8.23	117.01	120.30
26	14	1260	G	N3-C2-N2	-8.23	114.14	119.90
26	1H	773	U	N1-C2-O2	-8.22	117.05	122.80
26	1H	648	G	N3-C2-N2	-8.22	114.15	119.90
26	1H	99	U	N3-C2-O2	-8.22	116.45	122.20
26	1H	950	G	N1-C2-N2	-8.21	108.81	116.20
26	1H	2518	A	C6-C5-N7	-8.21	126.55	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	676	A	C5-N7-C8	-8.21	99.79	103.90
26	1H	1971	A	C5-C6-N1	8.21	121.81	117.70
26	14	694	U	N3-C2-O2	-8.21	116.45	122.20
26	1H	589	C	C5-C6-N1	-8.21	116.90	121.00
26	1H	1972	A	O5'-P-OP2	-8.20	98.32	105.70
26	1H	2628	C	C6-N1-C2	8.21	123.58	120.30
1	1G	117	G	C5-C6-O6	-8.20	123.68	128.60
26	14	663	G	C5-C6-O6	8.21	133.52	128.60
26	1H	2757	A	O5'-P-OP2	-8.20	98.32	105.70
26	14	1408	C	N3-C4-N4	8.20	123.74	118.00
26	1H	575	A	N7-C8-N9	-8.20	109.70	113.80
1	1G	1502	A	C2-N3-C4	-8.20	106.50	110.60
26	1H	204	A	N7-C8-N9	-8.20	109.70	113.80
26	1H	687	C	O5'-P-OP1	-8.19	98.33	105.70
26	1H	687	C	C2-N3-C4	8.19	123.99	119.90
26	1H	265	A	N7-C8-N9	8.18	117.89	113.80
26	1H	2549	G	N1-C6-O6	8.18	124.81	119.90
26	14	2070	G	N1-C2-N2	-8.18	108.83	116.20
1	13	1260	C	C6-N1-C2	-8.18	117.03	120.30
26	14	2382	G	O5'-P-OP2	-8.18	98.34	105.70
26	14	71	A	C4-C5-N7	8.18	114.79	110.70
26	1H	694	U	O5'-P-OP1	8.18	120.51	110.70
26	1H	860	U	C2-N1-C1'	8.17	127.51	117.70
26	1H	1790	C	C2-N3-C4	-8.17	115.82	119.90
26	1H	1321	A	C8-N9-C4	8.17	109.07	105.80
26	1H	2469	A	N1-C6-N6	8.17	123.50	118.60
26	1H	2236	C	O5'-P-OP1	-8.16	98.35	105.70
26	14	1678	G	N7-C8-N9	8.16	117.18	113.10
26	1H	930	U	C5-C4-O4	8.16	130.79	125.90
26	1H	2712	U	C5-C6-N1	-8.16	118.62	122.70
26	14	621	A	C4-C5-N7	8.16	114.78	110.70
26	1H	1382	G	C5-C6-O6	-8.15	123.71	128.60
26	1H	694	U	O5'-P-OP2	-8.15	98.36	105.70
26	14	683	C	C2-N3-C4	-8.15	115.82	119.90
26	14	2346	A	N1-C2-N3	8.15	133.38	129.30
26	1H	593	G	OP1-P-OP2	8.15	131.83	119.60
26	14	1021	A	C2-N3-C4	-8.15	106.53	110.60
1	13	1227	A	N7-C8-N9	8.15	117.87	113.80
26	14	584	C	N1-C2-O2	-8.14	114.01	118.90
26	1H	2409	G	C6-C5-N7	-8.14	125.52	130.40
26	14	34	C	N1-C2-O2	8.14	123.78	118.90
26	1H	2502	G	C5-C6-N1	8.13	115.57	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1352	U	O5'-P-OP2	-8.13	98.38	105.70
1	13	58	C	N1-C2-O2	8.13	123.78	118.90
26	1H	2330	G	C5-C6-O6	-8.13	123.72	128.60
26	14	729	G	N3-C2-N2	-8.13	114.21	119.90
26	14	1187	G	C5-C6-N1	-8.13	107.44	111.50
1	13	1226	C	N1-C2-O2	-8.13	114.02	118.90
1	13	528	C	N3-C4-C5	8.13	125.15	121.90
26	1H	2688	U	C5-C6-N1	-8.13	118.64	122.70
26	14	380	U	O5'-P-OP2	-8.13	98.39	105.70
26	14	897	C	C2-N1-C1'	8.12	127.74	118.80
26	14	2072	G	OP1-P-OP2	-8.12	107.41	119.60
26	1H	1185	C	N3-C2-O2	-8.12	116.22	121.90
1	13	1301	U	C2-N1-C1'	8.12	127.44	117.70
26	1H	2530	A	C5-C6-N6	-8.12	117.20	123.70
26	1H	456	C	O5'-P-OP2	-8.12	98.39	105.70
26	1H	2398	U	C5-C4-O4	8.12	130.77	125.90
26	1H	1304	C	N3-C4-N4	-8.11	112.32	118.00
46	G8	81	LYS	C-N-CD	-8.12	102.75	120.60
26	1H	254	G	C5-C6-O6	-8.11	123.73	128.60
26	14	675	A	N1-C2-N3	-8.11	125.25	129.30
26	14	675	A	C5-C6-N6	-8.11	117.21	123.70
26	14	802	A	C5-C6-N1	8.11	121.75	117.70
26	14	196	A	O4'-C1'-N9	8.11	114.68	108.20
26	14	720	C	C6-N1-C2	8.11	123.54	120.30
26	14	2329	G	N3-C4-N9	8.10	130.86	126.00
26	14	2048	G	N7-C8-N9	8.10	117.15	113.10
26	1H	845	G	N3-C4-C5	8.10	132.65	128.60
27	1J	60	C	C6-N1-C2	-8.10	117.06	120.30
24	3K	76	A	C4-C5-N7	8.10	114.75	110.70
37	78	42	SER	C-N-CA	-8.10	105.30	122.30
26	1H	1625	C	N3-C4-N4	-8.09	112.34	118.00
26	14	803	U	C5-C6-N1	-8.09	118.66	122.70
26	1H	71	A	N7-C8-N9	8.09	117.84	113.80
26	1H	2503	A	C5-C6-N6	-8.09	117.23	123.70
26	1H	2645	G	N1-C6-O6	8.09	124.75	119.90
26	14	209	C	C5-C6-N1	-8.09	116.96	121.00
26	1H	2029	G	O5'-P-OP1	-8.08	98.43	105.70
26	14	731	C	N1-C2-O2	-8.08	114.05	118.90
26	1H	1690	A	N1-C6-N6	-8.08	113.75	118.60
26	1H	2329	G	C8-N9-C4	8.08	109.63	106.40
26	1H	1394	U	C6-N1-C2	-8.08	116.15	121.00
1	13	783	C	C6-N1-C2	8.07	123.53	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	330	A	C5-N7-C8	-8.07	99.86	103.90
26	1H	973	A	C5-C6-N1	-8.07	113.67	117.70
26	1H	1879	C	C6-N1-C2	-8.07	117.07	120.30
26	1H	946	G	C4-C5-N7	-8.07	107.57	110.80
1	13	284	G	N1-C6-O6	8.07	124.74	119.90
26	1H	140	A	O4'-C1'-N9	8.06	114.65	108.20
26	1H	462	C	O5'-P-OP2	-8.06	98.44	105.70
26	1H	1767	C	O5'-P-OP1	-8.06	98.44	105.70
26	1H	2004	G	O5'-P-OP2	-8.06	98.44	105.70
26	1H	2484	G	O5'-P-OP2	-8.06	98.44	105.70
27	16	81	G	N7-C8-N9	8.06	117.13	113.10
26	14	774	A	N3-C4-N9	-8.06	120.95	127.40
26	1H	2432	A	C5-C6-N1	-8.05	113.67	117.70
26	1H	909	A	N9-C4-C5	8.05	109.02	105.80
26	1H	972	G	N7-C8-N9	-8.05	109.08	113.10
26	1H	1626	G	C5-C6-O6	-8.05	123.77	128.60
1	1G	1227	A	C2-N3-C4	8.05	114.62	110.60
26	14	462	C	N3-C4-C5	8.05	125.12	121.90
26	14	705	A	O5'-P-OP2	-8.05	98.45	105.70
1	13	901	A	N1-C6-N6	8.05	123.43	118.60
26	1H	967	C	N3-C4-N4	-8.05	112.37	118.00
26	1H	863	A	O5'-P-OP1	8.04	120.35	110.70
26	1H	972	G	C8-N9-C4	8.05	109.62	106.40
26	14	1616	A	N3-C4-C5	8.05	132.43	126.80
26	1H	2331	G	N1-C6-O6	8.04	124.72	119.90
26	14	467	G	O5'-P-OP2	-8.04	98.46	105.70
26	14	974(A)	C	N3-C4-N4	-8.04	112.37	118.00
26	14	1786	A	C5-C6-N1	-8.04	113.68	117.70
26	1H	2083	G	N1-C6-O6	8.04	124.72	119.90
26	1H	2713	A	C5-N7-C8	-8.04	99.88	103.90
26	14	1698	A	C4-C5-C6	8.04	121.02	117.00
26	14	307	G	C5-C6-O6	-8.04	123.78	128.60
26	1H	213	A	C8-N9-C4	8.03	109.01	105.80
26	1H	2698	U	OP1-P-OP2	8.03	131.65	119.60
26	14	407	G	N1-C6-O6	-8.03	115.08	119.90
26	14	2335	A	N1-C6-N6	-8.03	113.78	118.60
26	14	1142(A)	A	N1-C2-N3	8.03	133.31	129.30
26	14	1939	U	C5-C6-N1	-8.03	118.69	122.70
26	1H	1318	C	O5'-P-OP1	-8.03	98.48	105.70
26	1H	796	C	C5-C6-N1	-8.02	116.99	121.00
26	1H	933	A	O5'-P-OP1	8.02	120.33	110.70
26	1H	1238	G	N1-C6-O6	-8.02	115.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2086	U	C5-C4-O4	8.02	130.71	125.90
1	13	966	G	N1-C6-O6	8.02	124.71	119.90
26	1H	1826	G	C5-N7-C8	8.02	108.31	104.30
26	14	2275	C	C6-N1-C2	-8.02	117.09	120.30
1	1G	1081	G	C8-N9-C4	8.02	109.61	106.40
26	1H	700	G	C8-N9-C4	-8.02	103.19	106.40
26	1H	809	G	C8-N9-C4	8.02	109.61	106.40
26	1H	225	A	C8-N9-C4	8.02	109.01	105.80
26	14	74	A	C5-N7-C8	-8.02	99.89	103.90
26	1H	1162	G	C8-N9-C4	-8.01	103.19	106.40
26	1H	2553	G	N1-C6-O6	-8.01	115.09	119.90
1	1G	1489	G	N7-C8-N9	-8.01	109.09	113.10
26	1H	996	A	C8-N9-C4	8.01	109.00	105.80
26	1H	2238	G	OP1-P-OP2	8.01	131.61	119.60
26	14	59	U	O5'-P-OP2	-8.01	98.49	105.70
26	1H	667	U	N1-C2-O2	-8.01	117.20	122.80
26	1H	847	U	C5-C6-N1	-8.01	118.70	122.70
26	1H	864	G	C4-C5-N7	8.01	114.00	110.80
26	1H	2507	C	N3-C2-O2	-8.01	116.30	121.90
26	14	1784	A	N1-C2-N3	8.01	133.30	129.30
1	13	792	A	O4'-C1'-N9	8.00	114.60	108.20
1	13	895	G	O5'-P-OP2	-8.00	98.50	105.70
26	14	1279	G	N1-C6-O6	-8.00	115.10	119.90
26	1H	952	G	C2-N3-C4	8.00	115.90	111.90
26	1H	694	U	C2-N3-C4	-8.00	122.20	127.00
26	1H	1453	A	N1-C6-N6	8.00	123.40	118.60
26	1H	1661	G	N7-C8-N9	-8.00	109.10	113.10
26	1H	197	A	C2-N3-C4	-7.99	106.60	110.60
26	14	409	C	C6-N1-C2	7.99	123.50	120.30
1	13	328	C	C2-N1-C1'	7.99	127.59	118.80
29	11	43	ARG	NE-CZ-NH2	-7.99	116.31	120.30
26	14	2329	G	C5-C6-N1	7.99	115.49	111.50
26	1H	1521	G	OP1-P-OP2	-7.99	107.62	119.60
26	1H	2461	C	N3-C4-N4	-7.98	112.41	118.00
26	1H	966	G	N1-C2-N2	-7.98	109.02	116.20
1	13	897	C	C5-C6-N1	-7.98	117.01	121.00
1	1G	312	C	C6-N1-C2	-7.98	117.11	120.30
26	1H	74	A	C8-N9-C4	-7.98	102.61	105.80
26	1H	1602	U	N3-C4-C5	-7.98	109.81	114.60
26	1H	1704	G	N1-C6-O6	7.98	124.69	119.90
26	1H	141	A	N1-C6-N6	7.97	123.39	118.60
26	14	462	C	C2-N3-C4	-7.97	115.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1803	A	C2-N3-C4	7.96	114.58	110.60
26	14	1253	A	C5-C6-N6	-7.96	117.33	123.70
1	1G	1521	G	N3-C2-N2	-7.96	114.33	119.90
26	14	1835	G	N3-C4-C5	-7.96	124.62	128.60
1	13	789	U	C4-C5-C6	7.95	124.47	119.70
26	1H	451	C	N3-C2-O2	7.95	127.47	121.90
26	14	2713	A	N1-C6-N6	7.95	123.37	118.60
26	14	945	A	N9-C4-C5	-7.95	102.62	105.80
26	1H	74	A	N1-C6-N6	7.94	123.37	118.60
26	1H	122	G	N1-C6-O6	7.94	124.67	119.90
26	1H	827	U	C5-C6-N1	-7.94	118.73	122.70
26	1H	1198	U	N3-C4-O4	-7.94	113.84	119.40
26	1H	1983	C	C5-C6-N1	-7.94	117.03	121.00
26	1H	664	C	C2-N3-C4	-7.93	115.93	119.90
26	1H	815	C	C5-C6-N1	-7.93	117.03	121.00
26	1H	1366	A	N9-C4-C5	-7.93	102.63	105.80
26	14	1821	A	C4-C5-C6	7.93	120.97	117.00
26	14	679	C	C5-C6-N1	-7.93	117.03	121.00
26	14	1953	A	O5'-P-OP2	7.93	120.22	110.70
26	1H	1566	A	O5'-P-OP1	7.93	120.21	110.70
26	14	2042	A	O5'-P-OP2	-7.92	98.57	105.70
1	13	328	C	N1-C2-O2	7.92	123.65	118.90
26	14	970	C	N1-C2-O2	-7.92	114.15	118.90
1	13	580	U	N3-C2-O2	-7.92	116.66	122.20
26	14	2708	G	C8-N9-C4	7.92	109.57	106.40
26	1H	129	C	C4-C5-C6	7.91	121.36	117.40
26	1H	1241	A	C5-N7-C8	-7.91	99.94	103.90
26	14	1657	C	N3-C4-C5	7.91	125.07	121.90
26	14	679	C	N1-C2-O2	-7.91	114.15	118.90
29	11	37	LEU	CA-CB-CG	-7.91	97.11	115.30
26	1H	967	C	N3-C4-C5	7.91	125.06	121.90
27	16	14	U	C5-C6-N1	-7.91	118.75	122.70
26	14	1257	C	N1-C2-O2	-7.90	114.16	118.90
26	14	1608	A	O5'-P-OP1	-7.90	98.59	105.70
26	14	1769	G	C5-C6-O6	-7.90	123.86	128.60
1	13	1424	C	C6-N1-C2	7.90	123.46	120.30
26	1H	839	U	C5-C4-O4	7.90	130.64	125.90
26	14	2235	G	C5-C6-O6	-7.90	123.86	128.60
1	13	830	G	N1-C6-O6	7.89	124.64	119.90
26	14	663	G	C4-C5-N7	-7.89	107.64	110.80
26	1H	1613	G	C5-C6-O6	7.89	133.34	128.60
26	14	1266	G	C5-C6-N1	7.89	115.45	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	828	U	N3-C2-O2	-7.89	116.68	122.20
26	14	1661	G	C8-N9-C4	7.89	109.56	106.40
26	14	2546	U	OP1-P-OP2	7.89	131.43	119.60
26	14	2428	G	N9-C4-C5	7.89	108.56	105.40
26	1H	2490	G	N3-C4-N9	-7.88	121.27	126.00
26	14	2275	C	P-O3'-C3'	7.88	129.16	119.70
26	1H	778	G	O5'-P-OP2	-7.88	98.61	105.70
26	1H	2084	C	C5-C6-N1	-7.88	117.06	121.00
26	1H	1315	C	N1-C2-O2	7.88	123.62	118.90
26	14	2438	U	O5'-P-OP2	-7.88	98.61	105.70
26	1H	601	C	N3-C4-C5	7.87	125.05	121.90
26	1H	939	G	C5-C6-O6	7.87	133.32	128.60
1	1G	786	G	C8-N9-C4	7.87	109.55	106.40
26	14	1806	C	C6-N1-C2	7.87	123.45	120.30
26	1H	328	U	N3-C4-C5	-7.87	109.88	114.60
26	1H	1950	G	C4-N9-C1'	7.87	136.73	126.50
26	1H	1663	C	C5-C4-N4	-7.87	114.69	120.20
26	14	642	G	N1-C6-O6	7.87	124.62	119.90
26	14	733	G	N3-C4-N9	7.87	130.72	126.00
26	1H	787	U	O5'-P-OP1	7.87	120.14	110.70
26	1H	2246	G	N3-C4-N9	7.86	130.72	126.00
26	14	41	C	N3-C2-O2	7.86	127.40	121.90
26	1H	2888	C	C6-N1-C2	-7.86	117.16	120.30
26	1H	2430	A	C5-C6-N1	-7.86	113.77	117.70
26	14	2453	A	C8-N9-C4	7.86	108.94	105.80
26	1H	140	A	OP2-P-O3'	7.86	122.48	105.20
26	14	1950	G	C8-N9-C4	-7.86	103.26	106.40
26	14	2615	U	N3-C2-O2	-7.85	116.70	122.20
20	BI	83	ARG	NE-CZ-NH1	-7.85	116.37	120.30
26	14	1187	G	N7-C8-N9	7.85	117.03	113.10
26	14	1802	A	C6-N1-C2	-7.85	113.89	118.60
26	14	2067	G	N9-C4-C5	7.85	108.54	105.40
26	1H	2713	A	N3-C4-C5	7.85	132.29	126.80
26	1H	954	G	N3-C2-N2	-7.84	114.41	119.90
26	1H	2258	C	C6-N1-C2	-7.84	117.16	120.30
26	1H	330	A	N1-C2-N3	7.84	133.22	129.30
26	1H	533	G	N1-C2-N3	7.84	128.61	123.90
26	1H	1492	G	N1-C6-O6	7.84	124.61	119.90
26	14	2443	C	C5-C4-N4	-7.84	114.71	120.20
26	14	2603	G	C5-C6-O6	-7.84	123.89	128.60
26	1H	974(A)	C	N3-C4-C5	-7.84	118.76	121.90
26	1H	2439	A	O5'-P-OP2	-7.84	98.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1296	G	N3-C2-N2	7.84	125.39	119.90
26	1H	141	A	N7-C8-N9	7.83	117.72	113.80
26	1H	2699	C	C2-N3-C4	-7.83	115.98	119.90
1	13	1478	C	N3-C4-N4	-7.83	112.52	118.00
26	1H	742	G	N1-C2-N3	7.83	128.60	123.90
1	1G	690	G	C8-N9-C4	-7.83	103.27	106.40
1	13	868	C	N1-C2-O2	7.83	123.59	118.90
26	1H	265	A	C5-N7-C8	-7.83	99.99	103.90
26	1H	477	A	OP1-P-OP2	7.83	131.34	119.60
26	1H	1997	G	C8-N9-C4	-7.83	103.27	106.40
26	1H	728	G	C8-N9-C4	7.82	109.53	106.40
26	1H	2490	G	C6-C5-N7	-7.82	125.70	130.40
26	14	2841	C	N1-C2-O2	-7.82	114.21	118.90
1	1G	841	U	C2-N1-C1'	7.82	127.09	117.70
26	14	2332	U	N3-C4-O4	-7.82	113.92	119.40
26	1H	1837	C	C6-N1-C2	-7.82	117.17	120.30
26	1H	1400	G	C8-N9-C4	-7.82	103.27	106.40
26	1H	1663	C	C2-N3-C4	-7.82	115.99	119.90
26	1H	2006	C	C6-N1-C2	7.82	123.43	120.30
26	1H	2830	G	C8-N9-C4	-7.82	103.27	106.40
26	14	784	A	OP1-P-O3'	7.82	122.40	105.20
26	14	1381	G	C5-N7-C8	-7.82	100.39	104.30
26	1H	2278	A	O5'-P-OP1	7.82	120.08	110.70
26	14	1644	C	N1-C2-O2	7.82	123.59	118.90
26	1H	491	G	O5'-P-OP1	-7.81	98.67	105.70
23	2K	17	C	C2-N1-C1'	7.81	127.39	118.80
1	1G	108	G	C5-C6-O6	-7.81	123.91	128.60
26	14	1225	C	C6-N1-C2	7.81	123.42	120.30
26	1H	1510	A	C2-N3-C4	7.81	114.51	110.60
26	1H	2465	C	C5-C6-N1	-7.81	117.09	121.00
26	1H	2518	A	C5-N7-C8	-7.81	100.00	103.90
26	14	1605	C	C4-C5-C6	7.81	121.30	117.40
26	1H	146	G	C4-C5-N7	7.81	113.92	110.80
26	1H	849	A	C8-N9-C4	7.81	108.92	105.80
26	14	717	G	N1-C6-O6	-7.81	115.22	119.90
26	1H	2016	U	C5-C4-O4	7.80	130.58	125.90
1	13	867	G	C8-N9-C4	-7.80	103.28	106.40
1	13	537	G	O5'-P-OP1	-7.80	98.68	105.70
26	1H	1268	A	N7-C8-N9	-7.80	109.90	113.80
26	14	966	G	N1-C6-O6	-7.80	115.22	119.90
26	1H	68	G	N3-C2-N2	-7.80	114.44	119.90
26	1H	1279	G	O5'-P-OP2	-7.80	98.68	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1780	A	N7-C8-N9	7.80	117.70	113.80
26	14	2606	C	O5'-P-OP1	-7.80	98.68	105.70
26	1H	265	A	C8-N9-C4	-7.79	102.68	105.80
26	1H	1827	C	C6-N1-C2	-7.79	117.18	120.30
26	14	1348	G	OP1-P-OP2	-7.79	107.91	119.60
26	14	2779	U	N3-C4-O4	-7.79	113.94	119.40
26	1H	386	G	C5-C6-O6	-7.79	123.92	128.60
26	1H	735	A	C5-N7-C8	7.79	107.80	103.90
26	14	460	A	N1-C6-N6	7.79	123.27	118.60
26	1H	805	G	N1-C6-O6	7.79	124.57	119.90
26	1H	2072	G	C5-C6-O6	-7.79	123.93	128.60
1	1G	690	G	C2-N3-C4	-7.79	108.01	111.90
26	14	1314	C	C2-N1-C1'	7.79	127.37	118.80
1	13	419	C	O5'-P-OP1	-7.79	98.69	105.70
26	1H	755	C	C4-C5-C6	7.79	121.29	117.40
26	14	642	G	N7-C8-N9	7.79	116.99	113.10
26	1H	852	G	O5'-P-OP2	-7.78	98.69	105.70
26	1H	1698	A	C6-C5-N7	-7.78	126.85	132.30
26	1H	2247	A	N1-C2-N3	7.78	133.19	129.30
26	14	2065	C	N3-C2-O2	-7.78	116.45	121.90
1	13	36	C	C6-N1-C2	-7.78	117.19	120.30
26	1H	279	C	C6-N1-C2	-7.78	117.19	120.30
26	1H	685	A	C5-N7-C8	-7.78	100.01	103.90
26	1H	827	U	N1-C2-O2	-7.78	117.36	122.80
1	13	826	C	C6-N1-C2	-7.78	117.19	120.30
26	1H	2451	A	N1-C6-N6	-7.78	113.93	118.60
26	14	683	C	C5-C6-N1	-7.78	117.11	121.00
1	13	819	A	O5'-P-OP1	-7.77	98.70	105.70
26	1H	1814	G	C8-N9-C4	-7.77	103.29	106.40
1	1G	841	U	N3-C2-O2	-7.77	116.76	122.20
26	14	523	C	C2-N3-C4	7.77	123.78	119.90
40	65	110	LEU	CA-CB-CG	7.77	133.17	115.30
26	1H	34	C	O5'-P-OP2	7.77	120.02	110.70
27	1J	52	A	C8-N9-C4	7.77	108.91	105.80
26	14	783	A	N1-C2-N3	7.77	133.18	129.30
1	13	1066	C	C6-N1-C2	-7.76	117.19	120.30
26	14	2249	U	N3-C2-O2	-7.76	116.76	122.20
26	1H	613	U	N3-C2-O2	-7.76	116.77	122.20
26	14	37	C	N1-C2-O2	-7.76	114.24	118.90
26	14	1374	G	C8-N9-C4	-7.76	103.30	106.40
26	14	603	A	N1-C6-N6	7.76	123.25	118.60
26	14	2573	C	C2-N1-C1'	7.76	127.34	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2821	A	C2-N3-C4	-7.76	106.72	110.60
26	1H	25	U	N3-C4-O4	7.76	124.83	119.40
26	14	643	A	N1-C6-N6	7.76	123.25	118.60
26	1H	1559	G	C8-N9-C4	7.75	109.50	106.40
26	14	2000	G	C8-N9-C4	7.75	109.50	106.40
26	1H	973	A	N1-C2-N3	7.75	133.18	129.30
26	14	2011	U	N3-C2-O2	7.75	127.63	122.20
26	1H	1794	U	N3-C2-O2	-7.75	116.77	122.20
26	1H	2040	C	N3-C2-O2	7.75	127.33	121.90
26	14	2713	A	C5-C6-N1	-7.75	113.83	117.70
26	14	1299	G	O5'-P-OP1	-7.75	98.73	105.70
26	1H	734	A	C2-N3-C4	-7.74	106.73	110.60
26	14	1142	U	N1-C2-O2	7.74	128.22	122.80
26	1H	1764	G	C5-C6-O6	7.74	133.24	128.60
1	13	253	U	O5'-P-OP2	7.74	119.99	110.70
26	1H	739	G	C8-N9-C4	7.74	109.50	106.40
1	1G	1227	A	C5-C6-N1	7.74	121.57	117.70
26	14	621	A	N7-C8-N9	7.74	117.67	113.80
26	1H	2545	G	C4-C5-N7	-7.74	107.70	110.80
26	14	90	U	N1-C2-O2	7.74	128.22	122.80
26	1H	1021	A	C5-C6-N1	-7.74	113.83	117.70
1	13	295	C	O5'-P-OP2	-7.73	98.74	105.70
22	1K	76	A	O4'-C1'-N9	7.73	114.39	108.20
26	1H	669	G	N3-C2-N2	-7.73	114.49	119.90
26	14	738	G	OP1-P-OP2	7.73	131.20	119.60
26	1H	693	C	N3-C4-N4	-7.73	112.59	118.00
26	1H	2773	C	C6-N1-C2	7.73	123.39	120.30
26	14	1347	G	OP1-P-O3'	7.73	122.21	105.20
23	2L	57	C	C6-N1-C2	7.73	123.39	120.30
26	1H	71	A	C6-C5-N7	-7.72	126.89	132.30
26	1H	1026	U	O4'-C1'-N1	7.72	114.38	108.20
26	14	4	C	N1-C2-O2	7.72	123.53	118.90
26	1H	729	G	N1-C6-O6	7.72	124.53	119.90
26	1H	238	C	N1-C2-O2	-7.72	114.27	118.90
26	1H	1249	U	N3-C2-O2	7.72	127.60	122.20
26	14	1780	A	N1-C6-N6	-7.72	113.97	118.60
26	1H	2436	G	N3-C2-N2	-7.72	114.50	119.90
26	14	2346	A	C5-C6-N1	-7.72	113.84	117.70
26	1H	271(B)	G	P-O3'-C3'	7.71	128.96	119.70
26	1H	1767	C	N3-C2-O2	-7.71	116.50	121.90
1	13	966	G	N9-C4-C5	-7.71	102.32	105.40
26	1H	501	A	C2-N3-C4	-7.71	106.74	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	76	A	C5-N7-C8	-7.71	100.05	103.90
26	1H	822	U	N3-C2-O2	-7.71	116.80	122.20
26	1H	1253	A	C8-N9-C4	7.71	108.88	105.80
26	1H	1899	G	C6-N1-C2	-7.71	120.47	125.10
1	13	720	C	N3-C2-O2	-7.71	116.50	121.90
26	1H	774	A	C4-C5-C6	-7.71	113.15	117.00
26	1H	958	U	C6-N1-C2	-7.71	116.38	121.00
26	1H	1382	G	N1-C6-O6	7.71	124.52	119.90
1	13	135	C	N1-C2-O2	-7.71	114.28	118.90
26	1H	1969	A	O5'-P-OP2	7.70	119.94	110.70
26	14	76	C	C6-N1-C2	-7.70	117.22	120.30
26	1H	2036	C	O5'-P-OP2	-7.70	98.77	105.70
26	14	2000	G	O5'-P-OP2	-7.70	98.77	105.70
26	1H	2327	A	C5-C6-N1	7.70	121.55	117.70
26	14	1807	G	C8-N9-C4	7.70	109.48	106.40
1	1G	353	A	C8-N9-C4	-7.69	102.72	105.80
1	1G	1196	U	C2-N1-C1'	7.69	126.93	117.70
26	14	2332	U	C5-C6-N1	-7.69	118.85	122.70
1	13	582	U	C5-C6-N1	-7.69	118.85	122.70
26	1H	71	A	N1-C2-N3	7.69	133.15	129.30
1	1G	266	G	P-O3'-C3'	7.69	128.93	119.70
1	13	529	G	N9-C4-C5	-7.69	102.32	105.40
27	1J	89	G	O5'-P-OP1	-7.69	98.78	105.70
1	13	477	G	N3-C4-C5	7.69	132.44	128.60
26	14	939	G	C8-N9-C4	-7.68	103.33	106.40
26	1H	1229(A)	G	O5'-P-OP2	-7.68	98.79	105.70
26	1H	2645	G	C4-C5-N7	7.68	113.87	110.80
26	14	1320	C	N3-C4-C5	-7.68	118.83	121.90
26	14	2420	C	N1-C2-O2	-7.68	114.29	118.90
26	1H	675	A	C5-C6-N1	7.68	121.54	117.70
26	1H	1429	G	C5-C6-O6	7.68	133.21	128.60
26	1H	2891	G	C5-C6-O6	-7.68	123.99	128.60
1	1G	1502	A	N7-C8-N9	7.68	117.64	113.80
26	14	265	A	C2-N3-C4	-7.68	106.76	110.60
1	13	623	C	C5-C6-N1	7.68	124.84	121.00
26	1H	240	G	N3-C2-N2	-7.67	114.53	119.90
26	1H	387	U	C5-C4-O4	-7.67	121.30	125.90
26	14	808	G	N1-C2-N2	-7.67	109.29	116.20
26	14	676	A	O4'-C1'-N9	7.67	114.34	108.20
26	14	1372	U	N1-C2-N3	7.67	119.50	114.90
26	14	1344	G	N1-C6-O6	7.67	124.50	119.90
26	1H	1313	U	N3-C4-C5	-7.67	110.00	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1356	G	C8-N9-C4	-7.66	103.33	106.40
26	14	202	U	C5-C6-N1	-7.66	118.87	122.70
26	14	1366	A	N1-C6-N6	7.66	123.20	118.60
26	14	2610	C	O5'-P-OP1	-7.66	98.80	105.70
26	1H	1634	A	O5'-P-OP2	-7.66	98.80	105.70
1	13	712	A	N1-C6-N6	-7.66	114.00	118.60
26	1H	2023	G	O5'-P-OP1	-7.66	98.81	105.70
26	1H	2281	C	C6-N1-C2	7.66	123.36	120.30
26	14	751	A	C8-N9-C4	7.66	108.86	105.80
26	1H	1325	G	C4-C5-N7	7.66	113.86	110.80
26	1H	1858	G	N1-C6-O6	7.66	124.50	119.90
26	14	1777	U	C5-C6-N1	-7.66	118.87	122.70
26	1H	1159	U	N3-C2-O2	-7.66	116.84	122.20
26	1H	1246	A	C6-N1-C2	-7.66	114.01	118.60
26	1H	1379	A	N1-C6-N6	7.66	123.19	118.60
26	1H	1858	G	C5-C6-N1	-7.66	107.67	111.50
26	1H	2518	A	C4-C5-N7	7.66	114.53	110.70
26	1H	134	C	C2-N3-C4	-7.65	116.07	119.90
26	1H	1825	A	N1-C6-N6	-7.65	114.01	118.60
26	1H	2618	G	C4-C5-N7	-7.65	107.74	110.80
26	14	1204	A	C5-C6-N1	-7.65	113.88	117.70
26	1H	651	G	O5'-P-OP1	-7.65	98.82	105.70
26	1H	860	U	C2-N3-C4	-7.65	122.41	127.00
26	1H	2562	U	N3-C2-O2	-7.65	116.85	122.20
26	14	2581	G	C6-C5-N7	-7.65	125.81	130.40
26	14	140	A	C5-C6-N6	-7.65	117.58	123.70
1	13	856	C	C6-N1-C2	-7.65	117.24	120.30
26	1H	115	C	C5-C4-N4	-7.64	114.85	120.20
26	1H	845	G	N7-C8-N9	7.64	116.92	113.10
26	1H	1903	G	C2-N3-C4	-7.64	108.08	111.90
26	1H	2331	G	N9-C4-C5	-7.64	102.34	105.40
26	1H	1528	A	O4'-C1'-N9	7.64	114.31	108.20
1	1G	1397	C	C6-N1-C2	-7.64	117.24	120.30
26	1H	1790	C	C5-C6-N1	-7.64	117.18	121.00
29	11	111	LEU	CA-CB-CG	7.64	132.87	115.30
26	1H	1335	U	N3-C2-O2	-7.64	116.85	122.20
26	1H	2226	C	C6-N1-C2	7.64	123.36	120.30
26	1H	658	C	N1-C2-O2	7.64	123.48	118.90
26	14	90	U	N3-C2-O2	-7.64	116.85	122.20
26	1H	265	A	C2-N3-C4	-7.63	106.78	110.60
26	1H	2265	U	O5'-P-OP1	-7.63	98.83	105.70
26	14	252	G	N1-C6-O6	-7.63	115.32	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1502	A	C5-N7-C8	-7.63	100.08	103.90
26	1H	768	G	O5'-P-OP2	-7.63	98.83	105.70
26	1H	2281	C	C5-C4-N4	-7.63	114.86	120.20
26	1H	1825	A	O5'-P-OP2	-7.63	98.84	105.70
1	13	892	A	C8-N9-C4	7.62	108.85	105.80
1	13	57	G	N1-C6-O6	-7.62	115.33	119.90
1	13	723	U	C5-C6-N1	7.62	126.51	122.70
26	1H	726	G	C2-N3-C4	-7.62	108.09	111.90
26	1H	946	G	O5'-P-OP1	-7.62	98.84	105.70
26	14	220	G	C8-N9-C4	-7.61	103.35	106.40
26	1H	2259	G	OP1-P-OP2	-7.61	108.19	119.60
26	14	1393	A	O5'-P-OP2	-7.61	98.85	105.70
26	14	1597	A	O5'-P-OP2	-7.61	98.85	105.70
1	1G	1200	C	N1-C2-O2	7.61	123.47	118.90
26	1H	1611	C	N3-C4-C5	7.61	124.94	121.90
26	1H	2367	G	C8-N9-C4	-7.61	103.36	106.40
26	14	1781	C	O4'-C1'-N1	7.61	114.28	108.20
26	1H	444	C	C2-N3-C4	-7.61	116.10	119.90
26	14	1296	G	N1-C2-N2	-7.60	109.36	116.20
26	14	1824	G	O5'-P-OP2	-7.60	98.86	105.70
26	1H	1193	G	C8-N9-C4	7.60	109.44	106.40
26	14	140	A	N9-C4-C5	-7.60	102.76	105.80
26	14	2018	G	N1-C6-O6	-7.60	115.34	119.90
26	1H	202	U	N3-C4-C5	7.60	119.16	114.60
23	2K	6	G	N9-C4-C5	-7.60	102.36	105.40
26	14	1470	G	C5-C6-N1	-7.60	107.70	111.50
26	1H	1971	A	C2-N3-C4	7.59	114.40	110.60
26	14	735	A	C8-N9-C4	7.59	108.84	105.80
26	1H	2276	G	N9-C4-C5	7.59	108.44	105.40
26	14	569	U	C2-N3-C4	-7.59	122.44	127.00
26	1H	145	G	N7-C8-N9	-7.59	109.31	113.10
26	1H	2584	U	C5-C4-O4	7.59	130.45	125.90
26	1H	2585	U	N1-C2-O2	7.59	128.11	122.80
26	1H	252	G	O5'-P-OP1	7.59	119.80	110.70
26	1H	1586	A	N1-C6-N6	7.59	123.15	118.60
26	1H	2385	C	C2-N3-C4	-7.58	116.11	119.90
26	1H	2246	G	N3-C2-N2	-7.58	114.59	119.90
26	1H	211	A	C2-N3-C4	-7.58	106.81	110.60
26	1H	2502	G	O5'-P-OP1	-7.58	98.88	105.70
26	1H	2822	G	N1-C6-O6	7.58	124.45	119.90
26	14	133	C	C2-N3-C4	-7.58	116.11	119.90
26	14	1821	A	C6-N1-C2	-7.58	114.05	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	587	C	N3-C4-C5	7.58	124.93	121.90
26	1H	2409	G	N1-C6-O6	7.58	124.45	119.90
26	14	2712	U	N1-C2-N3	7.58	119.45	114.90
26	1H	1955	U	C2-N3-C4	-7.57	122.46	127.00
26	1H	821	A	C8-N9-C4	-7.57	102.77	105.80
26	1H	1606	G	C8-N9-C4	7.57	109.43	106.40
26	1H	1638	C	OP1-P-OP2	7.57	130.96	119.60
26	1H	1654	A	O5'-P-OP1	-7.57	98.89	105.70
26	1H	854	G	C4-N9-C1'	-7.57	116.66	126.50
26	14	1703	G	C4-C5-N7	7.57	113.83	110.80
26	14	1396	U	N3-C2-O2	-7.57	116.90	122.20
26	14	1980	G	N3-C2-N2	-7.57	114.60	119.90
1	1G	52	G	N1-C6-O6	-7.57	115.36	119.90
26	14	667	U	N3-C4-O4	7.57	124.70	119.40
26	1H	659	C	C5-C6-N1	-7.56	117.22	121.00
26	14	3	U	C2-N1-C1'	7.56	126.78	117.70
26	14	247	G	C8-N9-C4	7.56	109.42	106.40
26	14	642	G	C6-C5-N7	-7.56	125.86	130.40
26	14	531	C	C4-C5-C6	7.56	121.18	117.40
26	14	2688	U	N1-C2-O2	7.56	128.09	122.80
26	1H	2276	G	N3-C2-N2	-7.56	114.61	119.90
24	3L	76	A	C5-C6-N6	-7.56	117.65	123.70
26	14	737	C	N1-C2-O2	-7.56	114.36	118.90
1	13	880	C	N3-C2-O2	7.56	127.19	121.90
26	1H	1955	U	C5-C6-N1	-7.56	118.92	122.70
26	14	759	G	C5-C6-O6	-7.56	124.07	128.60
26	14	944	G	C8-N9-C4	7.56	109.42	106.40
26	14	1821	A	C6-C5-N7	-7.56	127.01	132.30
26	14	2612	C	C6-N1-C2	7.56	123.32	120.30
26	1H	655	A	C5-N7-C8	-7.56	100.12	103.90
1	13	623	C	C6-N1-C2	-7.55	117.28	120.30
26	1H	2439	A	C5-C6-N6	-7.55	117.66	123.70
26	1H	564	C	OP1-P-O3'	7.55	121.81	105.20
26	1H	1248	G	N3-C2-N2	-7.55	114.62	119.90
26	14	655	A	C8-N9-C4	7.55	108.82	105.80
26	1H	1563	G	N1-C6-O6	-7.54	115.37	119.90
26	14	2376	A	C8-N9-C4	7.54	108.82	105.80
26	14	2567	G	C8-N9-C4	7.54	109.42	106.40
26	14	400	G	N7-C8-N9	7.54	116.87	113.10
26	14	1787	A	OP1-P-OP2	-7.54	108.29	119.60
1	13	1303	C	O5'-P-OP1	-7.54	98.92	105.70
1	13	1513	A	C8-N9-C4	7.54	108.82	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2545	G	C5-N7-C8	7.54	108.07	104.30
26	14	2518	A	C5-C6-N1	-7.54	113.93	117.70
26	1H	320	A	N1-C6-N6	7.54	123.12	118.60
26	14	686	G	OP1-P-OP2	7.54	130.90	119.60
26	1H	121	G	C5-C6-N1	7.53	115.27	111.50
26	1H	772	C	N3-C2-O2	7.53	127.17	121.90
40	A8	110	LEU	CA-CB-CG	7.53	132.63	115.30
26	1H	201	C	C6-N1-C2	7.53	123.31	120.30
26	1H	1598	C	OP1-P-O3'	7.53	121.77	105.20
26	14	2247	A	C5-C6-N6	7.53	129.73	123.70
26	1H	1834	U	N3-C2-O2	-7.53	116.93	122.20
26	14	704	G	N1-C6-O6	7.53	124.42	119.90
26	1H	131	G	C5-C6-O6	-7.53	124.08	128.60
26	1H	974	G	N3-C2-N2	-7.53	114.63	119.90
26	14	1332	G	C4-C5-N7	7.53	113.81	110.80
26	1H	2618	G	N9-C4-C5	7.53	108.41	105.40
26	1H	2072	G	OP1-P-O3'	7.52	121.75	105.20
26	1H	685	A	N1-C6-N6	7.52	123.11	118.60
26	1H	723	G	C8-N9-C4	7.52	109.41	106.40
26	14	1761	C	N3-C2-O2	7.52	127.17	121.90
26	14	2447	G	OP1-P-OP2	-7.52	108.32	119.60
25	4K	18	G	C5-C6-O6	7.52	133.11	128.60
26	14	690	G	C8-N9-C4	7.52	109.41	106.40
1	13	862	C	C5-C6-N1	-7.52	117.24	121.00
26	14	2822	G	O5'-P-OP2	-7.52	98.94	105.70
26	1H	1498	C	N1-C2-O2	-7.52	114.39	118.90
26	1H	1669	A	C5-N7-C8	-7.52	100.14	103.90
26	1H	1678	G	N7-C8-N9	7.52	116.86	113.10
26	1H	448	U	C4-C5-C6	7.51	124.21	119.70
26	1H	847	U	N3-C2-O2	-7.51	116.94	122.20
26	1H	989	G	N1-C6-O6	7.51	124.41	119.90
26	1H	1814	G	N9-C4-C5	7.51	108.41	105.40
26	1H	2316	C	C6-N1-C2	-7.51	117.29	120.30
26	14	951	C	OP1-P-O3'	7.51	121.73	105.20
26	1H	250	G	C8-N9-C4	-7.51	103.40	106.40
26	1H	777	A	N1-C2-N3	7.51	133.06	129.30
26	1H	271(B)	G	N3-C4-N9	7.51	130.50	126.00
23	2L	15	G	C5-C6-O6	7.51	133.10	128.60
26	14	1276	A	N1-C6-N6	7.51	123.10	118.60
26	14	1599	C	C6-N1-C2	-7.51	117.30	120.30
1	13	1526	G	C8-N9-C4	-7.50	103.40	106.40
26	1H	809	G	N7-C8-N9	-7.50	109.35	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2264	C	O5'-P-OP2	7.50	119.70	110.70
1	13	965	A	N1-C6-N6	7.50	123.10	118.60
26	1H	1660	C	N3-C4-C5	7.50	124.90	121.90
26	1H	2780	G	N1-C6-O6	-7.50	115.40	119.90
26	14	1251	C	N1-C2-O2	-7.50	114.40	118.90
26	1H	271(B)	G	C6-N1-C2	-7.50	120.60	125.10
26	1H	832	G	O5'-P-OP2	7.50	119.70	110.70
26	14	1688	U	N1-C2-N3	7.50	119.40	114.90
26	14	133	C	C5-C6-N1	-7.50	117.25	121.00
1	13	757	U	N3-C2-O2	-7.49	116.95	122.20
1	1G	906	G	C6-C5-N7	-7.49	125.90	130.40
26	1H	2689	U	C5-C6-N1	-7.49	118.95	122.70
1	13	1354	C	C6-N1-C2	-7.49	117.30	120.30
26	1H	424	G	N1-C6-O6	7.49	124.39	119.90
26	1H	1644	C	N1-C2-O2	7.49	123.39	118.90
1	1G	1502	A	N1-C2-N3	7.49	133.04	129.30
26	14	307	G	O5'-P-OP2	-7.49	98.96	105.70
26	1H	945	A	C8-N9-C4	-7.48	102.81	105.80
26	1H	729	G	C5-C6-O6	-7.48	124.11	128.60
1	1G	1301	U	N1-C2-O2	7.48	128.04	122.80
26	14	4	C	C6-N1-C1'	-7.48	111.82	120.80
26	1H	2331	G	C8-N9-C4	7.48	109.39	106.40
1	1G	28	G	C8-N9-C4	-7.48	103.41	106.40
26	1H	36	G	O5'-P-OP2	-7.48	98.97	105.70
26	1H	2286	A	N7-C8-N9	7.48	117.54	113.80
26	1H	2532	G	C5-C6-O6	-7.48	124.11	128.60
26	14	1704	G	C8-N9-C4	7.48	109.39	106.40
26	1H	508	G	N7-C8-N9	7.47	116.84	113.10
26	14	1465	G	C5-C6-O6	-7.47	124.11	128.60
26	1H	1302	A	O5'-P-OP1	-7.47	98.97	105.70
26	14	1816	G	C5-C6-N1	7.47	115.23	111.50
26	14	2252	G	OP1-P-OP2	7.47	130.81	119.60
27	1J	81	G	C5-N7-C8	-7.47	100.57	104.30
26	1H	1899	G	C4-C5-N7	7.47	113.79	110.80
26	14	784	A	P-O3'-C3'	7.47	128.66	119.70
26	14	1812	A	C6-N1-C2	-7.47	114.12	118.60
26	1H	1559	G	N1-C6-O6	7.46	124.38	119.90
26	1H	2690	C	C5-C6-N1	-7.46	117.27	121.00
26	1H	1296	G	N1-C6-O6	-7.46	115.42	119.90
26	1H	1370	C	C2-N3-C4	-7.46	116.17	119.90
26	1H	259	G	N1-C6-O6	7.46	124.38	119.90
26	1H	813	U	C2-N3-C4	-7.46	122.52	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1319	G	C8-N9-C4	-7.46	103.42	106.40
26	1H	2553	G	C4-C5-N7	-7.46	107.82	110.80
26	1H	2727	G	O5'-P-OP2	-7.46	98.99	105.70
26	1H	1657	C	OP1-P-O3'	7.46	121.61	105.20
26	14	677	A	O5'-P-OP2	-7.46	98.99	105.70
26	1H	814	C	N3-C4-C5	7.46	124.88	121.90
26	1H	2507	C	C6-N1-C2	-7.46	117.32	120.30
1	1G	1128	C	N1-C2-O2	7.46	123.37	118.90
1	13	977	A	N1-C6-N6	-7.45	114.13	118.60
26	1H	2311	A	C5-N7-C8	-7.45	100.17	103.90
26	14	2238	G	N1-C6-O6	-7.45	115.43	119.90
27	16	41	U	C5-C6-N1	-7.45	118.97	122.70
26	1H	1937	A	C5-N7-C8	7.45	107.62	103.90
26	14	1851	U	C6-N1-C2	-7.45	116.53	121.00
26	1H	195	A	C8-N9-C4	7.45	108.78	105.80
26	1H	674	G	N1-C6-O6	-7.45	115.43	119.90
26	1H	1109	C	C6-N1-C2	-7.45	117.32	120.30
26	1H	1914	C	N3-C2-O2	-7.45	116.69	121.90
26	1H	2299	G	C5-C6-O6	-7.45	124.13	128.60
26	14	784	A	O4'-C1'-N9	7.45	114.16	108.20
26	14	1703	G	C5-C6-O6	-7.45	124.13	128.60
26	14	2544	G	C5-C6-O6	-7.45	124.13	128.60
26	1H	576	U	N1-C2-N3	7.44	119.37	114.90
1	13	893	C	O5'-P-OP2	7.44	119.63	110.70
45	B5	23	GLU	C-N-CA	-7.44	106.67	122.30
1	13	529	G	C8-N9-C4	7.44	109.38	106.40
26	1H	774	A	C4-N9-C1'	-7.44	112.91	126.30
26	1H	845	G	C2-N3-C4	-7.44	108.18	111.90
26	14	1823	G	C5-C6-O6	7.44	133.06	128.60
1	13	1517	G	O5'-P-OP2	-7.44	99.01	105.70
26	1H	690	G	C5-C6-N1	-7.44	107.78	111.50
26	1H	138	G	C2-N3-C4	7.43	115.62	111.90
26	1H	2346	A	C4-N9-C1'	7.43	139.68	126.30
26	14	318	C	O5'-P-OP1	-7.43	99.01	105.70
26	1H	1955	U	N3-C2-O2	-7.43	117.00	122.20
23	2K	17	C	O5'-P-OP1	-7.43	99.01	105.70
1	1G	1374	A	C2-N3-C4	-7.43	106.89	110.60
26	14	664	C	OP1-P-OP2	7.43	130.74	119.60
26	14	2443	C	N1-C2-O2	-7.43	114.44	118.90
26	14	2648	C	N3-C4-C5	7.43	124.87	121.90
26	14	443	A	N1-C6-N6	7.43	123.06	118.60
26	1H	188	G	N1-C2-N2	-7.43	109.52	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	603	A	N7-C8-N9	7.43	117.51	113.80
26	14	781	A	OP1-P-OP2	7.43	130.74	119.60
26	1H	1268	A	C8-N9-C4	7.42	108.77	105.80
26	1H	242	G	C5-C6-O6	-7.42	124.15	128.60
1	13	952	U	N1-C2-N3	7.42	119.35	114.90
26	1H	2258	C	N3-C4-N4	7.42	123.20	118.00
26	1H	2312	U	O5'-P-OP1	-7.42	99.02	105.70
26	1H	704	G	N9-C4-C5	7.42	108.37	105.40
27	16	36	C	C6-N1-C2	7.42	123.27	120.30
26	14	2238	G	C5-C6-N1	7.42	115.21	111.50
26	1H	845	G	P-O3'-C3'	7.42	128.60	119.70
26	14	121	G	C6-C5-N7	-7.42	125.95	130.40
26	14	2060	A	O5'-P-OP2	-7.42	99.02	105.70
26	1H	2387	U	C4-C5-C6	7.42	124.15	119.70
26	1H	236	C	C5-C6-N1	-7.42	117.29	121.00
26	1H	1950	G	N3-C2-N2	7.42	125.09	119.90
26	14	141	A	N7-C8-N9	7.42	117.51	113.80
26	14	1960	A	N1-C6-N6	-7.42	114.15	118.60
26	1H	1789	A	C8-N9-C4	-7.41	102.83	105.80
26	1H	2250	G	C8-N9-C4	-7.41	103.44	106.40
26	1H	697	C	C5-C4-N4	-7.41	115.02	120.20
26	1H	2449	U	O5'-P-OP1	-7.41	99.03	105.70
26	14	676	A	N3-C4-C5	7.41	131.98	126.80
26	1H	48	G	N9-C4-C5	7.40	108.36	105.40
26	14	2011	U	N1-C2-O2	-7.40	117.62	122.80
37	78	45	LEU	CB-CG-CD2	-7.40	98.42	111.00
26	14	2092	U	O5'-P-OP2	-7.40	99.04	105.70
26	1H	1189	A	N1-C6-N6	7.39	123.04	118.60
26	14	802	A	C6-N1-C2	-7.39	114.16	118.60
26	14	1993	U	O5'-P-OP1	-7.39	99.05	105.70
1	13	1524	C	N3-C2-O2	-7.39	116.73	121.90
26	1H	2329	G	N7-C8-N9	-7.39	109.41	113.10
26	14	2711	A	C5-C6-N1	-7.39	114.00	117.70
26	1H	1885	A	N7-C8-N9	-7.39	110.11	113.80
26	14	1221	C	C5-C6-N1	-7.39	117.31	121.00
26	1H	673	C	O5'-P-OP1	7.38	119.56	110.70
26	1H	682	G	O5'-P-OP1	7.38	119.56	110.70
26	14	989	G	N1-C6-O6	-7.38	115.47	119.90
26	1H	1394	U	OP1-P-OP2	-7.38	108.53	119.60
26	14	211	A	N1-C6-N6	7.38	123.03	118.60
26	14	690	G	C5-N7-C8	7.38	107.99	104.30
26	1H	51	G	C5-C6-O6	7.38	133.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	671	C	N3-C4-N4	-7.38	112.83	118.00
1	1G	1322	C	C2-N1-C1'	7.38	126.92	118.80
26	14	2594	C	N3-C4-N4	7.38	123.17	118.00
26	1H	1430	C	O5'-P-OP2	-7.38	99.06	105.70
26	1H	2276	G	C5-C6-O6	7.38	133.03	128.60
26	14	1204	A	O5'-P-OP2	-7.38	99.06	105.70
26	1H	813	U	O5'-P-OP1	-7.37	99.06	105.70
26	14	2365	G	N3-C4-N9	7.37	130.42	126.00
26	1H	2331	G	C2-N3-C4	-7.37	108.22	111.90
26	1H	628	G	C8-N9-C4	7.37	109.35	106.40
26	1H	245	G	C5-C6-O6	-7.36	124.18	128.60
26	1H	508	G	C4-N9-C1'	7.36	136.07	126.50
26	1H	1636	C	N1-C2-O2	-7.36	114.48	118.90
26	1H	2688	U	C2-N3-C4	-7.36	122.58	127.00
26	14	307	G	N1-C6-O6	7.36	124.32	119.90
26	14	2365	G	C6-C5-N7	-7.36	125.98	130.40
26	1H	736	C	O5'-P-OP2	7.36	119.53	110.70
26	1H	835	A	C5-C6-N1	7.36	121.38	117.70
26	1H	2401	U	C5-C4-O4	-7.36	121.48	125.90
26	1H	1519	G	O5'-P-OP1	-7.36	99.08	105.70
26	1H	1824	G	OP2-P-O3'	7.36	121.38	105.20
26	1H	2674	G	N1-C2-N2	-7.36	109.58	116.20
26	14	4	C	C5-C6-N1	7.35	124.68	121.00
26	1H	1614	A	N3-C4-C5	7.35	131.95	126.80
26	1H	2392	A	N3-C4-N9	-7.35	121.52	127.40
26	1H	2619	C	N3-C4-N4	7.35	123.15	118.00
24	3L	5	C	C5-C6-N1	7.35	124.68	121.00
26	14	1470	G	N1-C6-O6	7.35	124.31	119.90
26	14	2428	G	C4-C5-N7	-7.35	107.86	110.80
26	1H	1369	G	C5-N7-C8	7.35	107.98	104.30
26	14	675	A	C4-C5-C6	-7.35	113.33	117.00
26	1H	2355	C	C6-N1-C2	-7.35	117.36	120.30
1	1G	1270	C	C6-N1-C2	-7.35	117.36	120.30
26	14	2438	U	OP1-P-OP2	7.35	130.62	119.60
26	14	2446	G	N1-C6-O6	-7.35	115.49	119.90
1	13	1227	A	C4-C5-N7	7.35	114.37	110.70
1	13	149	A	C8-N9-C4	-7.34	102.86	105.80
26	1H	461	C	C4-C5-C6	7.34	121.07	117.40
26	1H	1327	C	N3-C4-C5	-7.34	118.96	121.90
26	1H	575	A	C5-C6-N6	-7.34	117.83	123.70
26	1H	845	G	OP1-P-O3'	7.34	121.35	105.20
26	14	1289	C	O5'-P-OP1	-7.34	99.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2598	A	N9-C4-C5	-7.34	102.86	105.80
26	1H	663	G	N9-C4-C5	7.34	108.33	105.40
26	1H	74	A	C5-C6-N1	-7.34	114.03	117.70
26	1H	1589	C	O5'-P-OP2	7.34	119.50	110.70
26	14	800	A	O5'-P-OP1	-7.34	99.10	105.70
26	14	1328	G	N3-C4-N9	7.34	130.40	126.00
1	13	1436	U	N1-C2-O2	7.33	127.94	122.80
26	14	687	C	C5-C6-N1	7.33	124.67	121.00
26	14	834	C	C4-C5-C6	7.33	121.07	117.40
1	13	1126	U	N3-C2-O2	-7.33	117.07	122.20
26	1H	736	C	N3-C4-C5	7.33	124.83	121.90
26	1H	2084	C	C2-N3-C4	-7.33	116.23	119.90
26	1H	2430	A	N1-C6-N6	7.33	123.00	118.60
26	14	676	A	N1-C2-N3	7.33	132.97	129.30
27	16	8	U	O5'-P-OP2	-7.33	99.10	105.70
26	14	1349	A	C8-N9-C4	-7.33	102.87	105.80
26	14	1661	G	C6-N1-C2	-7.33	120.70	125.10
26	1H	880	G	N7-C8-N9	7.33	116.77	113.10
26	14	667	U	N3-C2-O2	7.33	127.33	122.20
26	1H	745	G	N1-C6-O6	7.33	124.30	119.90
26	1H	2227	A	N1-C6-N6	7.33	123.00	118.60
26	1H	2585	U	N3-C4-C5	7.33	119.00	114.60
26	14	733	G	C4-N9-C1'	7.33	136.02	126.50
26	14	1408	C	N3-C2-O2	7.33	127.03	121.90
26	1H	613	U	N1-C2-N3	7.32	119.29	114.90
26	1H	2502	G	N7-C8-N9	7.32	116.76	113.10
26	1H	2766	G	N1-C6-O6	7.32	124.29	119.90
26	14	774	A	N1-C6-N6	7.32	122.99	118.60
1	1G	1409	C	C4-C5-C6	7.32	121.06	117.40
26	1H	530	G	N1-C2-N2	-7.32	109.61	116.20
27	16	47	C	N3-C2-O2	7.32	127.02	121.90
1	13	751	U	O5'-P-OP1	-7.32	99.11	105.70
26	14	740	U	N3-C2-O2	-7.32	117.08	122.20
26	1H	326	G	C8-N9-C4	-7.32	103.47	106.40
26	1H	429	A	O5'-P-OP1	-7.32	99.11	105.70
26	1H	686	G	C5-C6-O6	-7.32	124.21	128.60
1	1G	911	U	C5-C4-O4	7.32	130.29	125.90
26	1H	1838	C	C4-C5-C6	7.31	121.06	117.40
26	14	2551	C	O5'-P-OP2	-7.31	99.12	105.70
26	1H	400	G	C5-C6-O6	-7.31	124.21	128.60
26	14	1332	G	C5-C6-N1	-7.31	107.84	111.50
26	1H	973	A	C8-N9-C4	7.31	108.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	402	G	C8-N9-C4	7.31	109.32	106.40
26	14	2607	G	O5'-P-OP2	-7.31	99.12	105.70
26	1H	1704	G	N3-C2-N2	-7.31	114.78	119.90
26	14	2595	G	OP1-P-OP2	7.31	130.56	119.60
26	1H	738	G	C5-N7-C8	-7.30	100.65	104.30
26	1H	1821	A	N1-C6-N6	-7.30	114.22	118.60
26	1H	2234	G	C8-N9-C4	7.30	109.32	106.40
26	1H	196	A	C6-C5-N7	-7.30	127.19	132.30
26	1H	2698	U	C5-C6-N1	-7.30	119.05	122.70
1	13	780	A	C2-N3-C4	-7.30	106.95	110.60
26	1H	409	C	C6-N1-C2	7.30	123.22	120.30
26	1H	1636	C	C5-C6-N1	-7.30	117.35	121.00
26	14	2713	A	C5-N7-C8	-7.30	100.25	103.90
26	1H	1241	A	N7-C8-N9	7.30	117.45	113.80
26	1H	2530	A	N9-C4-C5	-7.30	102.88	105.80
26	1H	46	C	O5'-P-OP2	7.30	119.45	110.70
26	1H	1999	C	C6-N1-C2	7.30	123.22	120.30
26	1H	2318	G	N7-C8-N9	7.30	116.75	113.10
1	13	12	U	C6-N1-C2	-7.29	116.62	121.00
26	1H	1203	G	N3-C4-C5	-7.29	124.95	128.60
26	1H	1297	C	OP1-P-O3'	7.29	121.25	105.20
26	14	197	A	C5-C6-N6	-7.29	117.86	123.70
26	14	2092	U	C5-C4-O4	7.29	130.28	125.90
26	1H	921	G	N3-C2-N2	-7.29	114.80	119.90
26	1H	1399	C	N1-C2-O2	-7.29	114.53	118.90
26	14	1340	U	N3-C2-O2	7.29	127.30	122.20
1	13	1489	G	N7-C8-N9	-7.29	109.46	113.10
26	1H	930	U	OP1-P-O3'	7.29	121.23	105.20
26	1H	2502	G	C5-N7-C8	-7.29	100.66	104.30
26	14	193	U	C5-C6-N1	-7.29	119.06	122.70
26	1H	1698	A	N1-C6-N6	7.29	122.97	118.60
26	14	234	C	N1-C2-O2	7.29	123.27	118.90
26	1H	1443	G	N1-C6-O6	7.28	124.27	119.90
1	13	1279	A	C6-C5-N7	-7.28	127.20	132.30
26	1H	48	G	OP2-P-O3'	7.28	121.22	105.20
26	1H	1914	C	C6-N1-C1'	-7.28	112.06	120.80
26	14	2048	G	C5-N7-C8	-7.28	100.66	104.30
26	1H	1313	U	C5-C6-N1	7.28	126.34	122.70
26	1H	2443	C	N3-C4-C5	-7.28	118.99	121.90
26	1H	1250	G	C5-C6-N1	7.28	115.14	111.50
26	14	2512	C	C6-N1-C2	7.28	123.21	120.30
1	13	858	G	C8-N9-C4	-7.27	103.49	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1519	A	C5-C6-N1	-7.27	114.06	117.70
26	1H	1462	C	C6-N1-C2	-7.27	117.39	120.30
26	1H	2070	G	C8-N9-C4	7.27	109.31	106.40
26	1H	2401	U	C5-C6-N1	7.27	126.34	122.70
26	1H	1613	G	N3-C2-N2	7.27	124.99	119.90
26	1H	2004	G	OP1-P-OP2	7.27	130.50	119.60
26	14	2005	A	O5'-P-OP2	-7.27	99.16	105.70
26	14	2461	C	O5'-P-OP2	-7.27	99.16	105.70
26	14	201	C	C5-C6-N1	-7.27	117.37	121.00
26	14	835	A	O5'-P-OP1	7.27	119.42	110.70
26	1H	860	U	C6-N1-C1'	-7.26	111.03	121.20
26	1H	942	G	N3-C2-N2	-7.26	114.81	119.90
26	1H	1347	G	C5-C6-N1	7.26	115.13	111.50
26	14	773	U	N1-C2-O2	-7.26	117.72	122.80
26	14	775	G	N3-C4-N9	7.26	130.36	126.00
1	1G	529	G	N1-C6-O6	7.26	124.26	119.90
26	14	1135	C	N1-C2-O2	7.26	123.25	118.90
26	14	2392	A	C8-N9-C4	-7.26	102.90	105.80
26	1H	2085	C	C6-N1-C2	7.26	123.20	120.30
26	1H	302	C	C6-N1-C2	-7.26	117.40	120.30
26	14	2444	G	N1-C2-N3	7.26	128.25	123.90
1	13	49	U	OP1-P-OP2	7.25	130.48	119.60
26	1H	1142(A)	A	C5-N7-C8	-7.25	100.27	103.90
26	1H	1370	C	N1-C2-O2	-7.25	114.55	118.90
26	1H	2205	C	C6-N1-C2	7.25	123.20	120.30
26	1H	1292	U	O5'-P-OP1	7.25	119.40	110.70
24	3K	63	U	C5-C6-N1	7.25	126.32	122.70
26	1H	741	G	N1-C2-N3	7.25	128.25	123.90
26	14	141	A	C4-C5-N7	7.25	114.32	110.70
26	14	750	A	N7-C8-N9	7.25	117.42	113.80
1	13	827	U	N3-C2-O2	-7.24	117.13	122.20
26	14	71	A	N7-C8-N9	7.24	117.42	113.80
26	1H	398	G	C2-N3-C4	-7.24	108.28	111.90
26	1H	1826	G	N7-C8-N9	-7.24	109.48	113.10
26	1H	2003	G	O5'-P-OP1	-7.24	99.18	105.70
26	14	1890	A	C8-N9-C4	7.24	108.70	105.80
26	1H	27	G	N3-C4-C5	-7.24	124.98	128.60
26	1H	233	A	N1-C6-N6	-7.24	114.26	118.60
26	1H	1002	G	C5-C6-O6	7.24	132.94	128.60
26	1H	1794	U	C4-C5-C6	7.24	124.04	119.70
26	14	2392	A	N7-C8-N9	7.24	117.42	113.80
26	14	2363	C	C6-N1-C2	7.24	123.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	678	C	N3-C4-N4	-7.24	112.94	118.00
26	1H	945	A	C8-N9-C1'	-7.24	114.68	127.70
26	1H	1647	G	C4-C5-N7	-7.24	107.91	110.80
26	1H	2288	A	N1-C6-N6	7.24	122.94	118.60
26	14	2307	G	C4-N9-C1'	7.24	135.91	126.50
26	14	2235	G	N3-C4-N9	7.23	130.34	126.00
26	14	633	A	O5'-P-OP2	7.23	119.38	110.70
1	13	1416	G	C2-N3-C4	-7.23	108.28	111.90
26	14	1558	A	C5-C6-N1	-7.23	114.08	117.70
26	1H	1437	C	N3-C2-O2	-7.23	116.84	121.90
26	1H	2346	A	C5-C6-N1	-7.23	114.09	117.70
26	1H	2048	G	N3-C2-N2	-7.22	114.84	119.90
26	1H	2645	G	C5-N7-C8	-7.22	100.69	104.30
26	14	667	U	N1-C2-O2	-7.22	117.74	122.80
26	1H	578	A	OP2-P-O3'	7.22	121.09	105.20
26	1H	776	G	N3-C2-N2	-7.22	114.85	119.90
26	1H	1661	G	C5-C6-N1	7.22	115.11	111.50
26	14	781	A	C5-C6-N1	7.22	121.31	117.70
26	1H	1158	C	C6-N1-C2	7.22	123.19	120.30
26	1H	693	C	OP2-P-O3'	7.21	121.07	105.20
26	1H	1517	G	OP1-P-O3'	7.21	121.07	105.20
26	1H	1780	A	C5-C6-N6	7.21	129.47	123.70
26	14	130	C	C6-N1-C2	7.21	123.19	120.30
26	14	192	C	C5-C6-N1	-7.21	117.39	121.00
26	1H	73	A	C2-N3-C4	7.21	114.21	110.60
26	14	1277	G	N7-C8-N9	-7.21	109.49	113.10
1	13	1469	G	N1-C6-O6	7.21	124.22	119.90
22	1K	25	C	N1-C2-O2	7.21	123.22	118.90
26	1H	1669	A	N7-C8-N9	7.21	117.41	113.80
26	14	202	U	C4-C5-C6	7.21	124.03	119.70
1	13	892	A	N1-C2-N3	7.21	132.90	129.30
26	1H	667	U	C2-N3-C4	-7.21	122.68	127.00
26	1H	1271	G	C8-N9-C4	7.21	109.28	106.40
1	1G	697	U	C5-C6-N1	-7.21	119.10	122.70
26	1H	1363	C	C2-N3-C4	-7.20	116.30	119.90
26	14	1291	C	N3-C2-O2	-7.20	116.86	121.90
26	14	1313	U	N3-C4-O4	7.20	124.44	119.40
26	1H	1398	C	C5-C6-N1	-7.20	117.40	121.00
26	1H	827	U	C5-C4-O4	-7.20	121.58	125.90
26	1H	1992	G	C5-C6-N1	7.20	115.10	111.50
34	69	77	LEU	CA-CB-CG	7.20	131.86	115.30
26	14	733	G	C4-C5-C6	7.20	123.12	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1778	U	OP2-P-O3'	7.19	121.03	105.20
26	14	149	A	N1-C2-N3	7.19	132.90	129.30
1	13	910	C	C6-N1-C2	7.19	123.18	120.30
26	1H	2297	C	O5'-P-OP1	-7.19	99.23	105.70
26	14	197	A	C6-N1-C2	-7.19	114.28	118.60
26	14	565	C	C5-C6-N1	-7.19	117.40	121.00
26	14	74	A	N7-C8-N9	7.19	117.40	113.80
26	14	213	A	O5'-P-OP2	-7.19	99.23	105.70
26	1H	2071	A	OP1-P-OP2	-7.19	108.82	119.60
26	14	1857	G	C5-C6-N1	-7.19	107.91	111.50
26	1H	2229	C	C6-N1-C2	7.19	123.17	120.30
26	1H	582	G	C6-C5-N7	-7.18	126.09	130.40
26	1H	2040	C	O5'-P-OP1	-7.18	99.23	105.70
1	13	26	A	C8-N9-C4	7.18	108.67	105.80
26	1H	2617	C	N1-C2-O2	-7.18	114.59	118.90
27	16	115	G	C5-C6-O6	-7.18	124.29	128.60
26	14	71	A	N3-C4-C5	7.18	131.83	126.80
1	13	758	G	N1-C6-O6	7.18	124.21	119.90
26	1H	1788	C	N1-C2-O2	7.18	123.21	118.90
26	1H	2593	U	C6-N1-C2	-7.18	116.69	121.00
26	1H	1689	A	C8-N9-C4	-7.17	102.93	105.80
26	14	49	A	P-O3'-C3'	7.17	128.31	119.70
26	1H	2446	G	C5-C6-O6	-7.17	124.30	128.60
26	14	1264	G	C5-C6-O6	7.17	132.90	128.60
26	1H	1837	C	C5-C6-N1	7.17	124.59	121.00
26	14	2456	C	O5'-P-OP1	7.17	119.31	110.70
26	14	2580	U	N3-C4-O4	7.17	124.42	119.40
26	1H	211	A	C8-N9-C4	7.17	108.67	105.80
26	14	1821	A	N7-C8-N9	7.17	117.39	113.80
1	13	733	A	C8-N9-C4	7.17	108.67	105.80
26	1H	692	C	C2-N3-C4	-7.17	116.32	119.90
26	1H	1332	G	C5-C6-N1	-7.17	107.92	111.50
26	1H	2569	G	N3-C2-N2	-7.17	114.88	119.90
26	14	1702	G	C8-N9-C4	7.17	109.27	106.40
1	13	966	G	C8-N9-C4	7.17	109.27	106.40
1	13	1304	G	N1-C6-O6	7.17	124.20	119.90
1	13	1446	A	O4'-C1'-N9	7.17	113.93	108.20
23	2K	75	C	N3-C2-O2	-7.17	116.88	121.90
26	14	179	G	C8-N9-C4	7.17	109.27	106.40
1	1G	1281	U	C5-C6-N1	7.16	126.28	122.70
26	14	808	G	N1-C2-N3	7.16	128.20	123.90
26	14	1781	C	C4-C5-C6	-7.16	113.82	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2158	A	N7-C8-N9	7.16	117.38	113.80
26	1H	2439	A	O4'-C1'-N9	-7.16	102.47	108.20
26	1H	2476	A	N3-C4-C5	-7.16	121.79	126.80
1	13	656	C	C6-N1-C2	-7.16	117.44	120.30
26	1H	1601	G	C5-C6-N1	-7.16	107.92	111.50
26	1H	1823	G	C5-N7-C8	-7.16	100.72	104.30
26	14	2473	U	C2-N1-C1'	7.16	126.29	117.70
26	1H	982	C	C6-N1-C2	-7.16	117.44	120.30
26	1H	1302	A	N1-C6-N6	-7.16	114.31	118.60
26	1H	2708	G	O5'-P-OP2	-7.15	99.26	105.70
1	1G	117	G	C6-C5-N7	-7.15	126.11	130.40
26	14	195	A	C5-C6-N1	-7.15	114.12	117.70
26	1H	2318	G	O4'-C1'-N9	7.15	113.92	108.20
26	1H	2238	G	O5'-P-OP2	-7.15	99.27	105.70
26	1H	2327	A	C4-C5-C6	-7.15	113.43	117.00
1	1G	401	C	C5-C6-N1	-7.15	117.43	121.00
26	14	565	C	N1-C2-O2	7.15	123.19	118.90
26	1H	2819	G	C5-C6-O6	-7.15	124.31	128.60
26	14	1342	A	N7-C8-N9	7.14	117.37	113.80
26	1H	972	G	C5-C6-N1	7.14	115.07	111.50
22	1K	5	C	C6-N1-C2	-7.14	117.44	120.30
26	1H	979	G	N1-C2-N2	7.14	122.62	116.20
26	14	84	A	C8-N9-C4	7.14	108.66	105.80
1	13	1362(A)	C	C6-N1-C2	7.14	123.16	120.30
1	1G	1410	G	O5'-P-OP2	-7.14	99.28	105.70
26	14	400	G	C5-N7-C8	-7.14	100.73	104.30
26	1H	704	G	C8-N9-C4	-7.13	103.55	106.40
1	1G	577	G	O5'-P-OP2	7.13	119.26	110.70
26	14	1313	U	C6-N1-C2	-7.13	116.72	121.00
26	1H	528	A	C6-N1-C2	7.13	122.88	118.60
26	1H	1614	A	C5-C6-N1	-7.13	114.13	117.70
26	1H	2497	A	C6-N1-C2	-7.13	114.32	118.60
1	13	402	G	O5'-P-OP2	-7.13	99.28	105.70
26	1H	694	U	C5-C6-N1	-7.13	119.14	122.70
26	1H	693	C	N3-C2-O2	-7.13	116.91	121.90
26	1H	1241	A	C8-N9-C4	-7.13	102.95	105.80
26	14	2539	C	C6-N1-C2	7.13	123.15	120.30
27	1J	8	U	O5'-P-OP2	-7.13	99.28	105.70
26	14	1520	U	C5-C4-O4	7.13	130.18	125.90
26	1H	2327	A	N1-C2-N3	-7.12	125.74	129.30
26	14	209	C	C2-N3-C4	-7.12	116.34	119.90
26	14	330	A	C4-C5-N7	7.12	114.26	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2322	A	C5-C6-N6	-7.12	118.00	123.70
26	1H	1204	A	N1-C6-N6	7.12	122.87	118.60
26	14	74	A	N3-C4-C5	7.12	131.78	126.80
26	14	935	C	C5-C6-N1	-7.12	117.44	121.00
26	14	1984	G	O5'-P-OP2	-7.12	99.29	105.70
26	1H	467	G	OP2-P-O3'	7.12	120.86	105.20
26	1H	671	C	C2-N3-C4	-7.12	116.34	119.90
26	1H	676	A	N7-C8-N9	7.12	117.36	113.80
26	1H	1742	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	193	U	C5-C6-N1	-7.12	119.14	122.70
26	14	2692	C	O5'-P-OP1	-7.12	99.30	105.70
26	1H	2064	C	C4-C5-C6	7.12	120.96	117.40
26	14	1307	A	O5'-P-OP1	-7.12	99.30	105.70
26	14	2087	G	O5'-P-OP2	-7.12	99.30	105.70
26	1H	1442	G	N3-C2-N2	-7.11	114.92	119.90
26	1H	1656	C	C4-C5-C6	-7.11	113.84	117.40
26	1H	2404	C	N3-C4-C5	-7.11	119.06	121.90
26	1H	767	U	O5'-P-OP2	-7.11	99.30	105.70
26	1H	2530	A	C4-C5-N7	7.11	114.26	110.70
1	13	1504	G	O5'-P-OP1	-7.11	99.30	105.70
26	1H	774	A	C8-N9-C1'	7.11	140.50	127.70
26	1H	1193	G	C5-N7-C8	7.11	107.86	104.30
23	2L	22	A	N1-C6-N6	-7.11	114.33	118.60
26	14	632	A	O5'-P-OP2	7.11	119.23	110.70
26	14	834	C	C5-C6-N1	-7.11	117.44	121.00
26	1H	2476	A	N7-C8-N9	7.11	117.35	113.80
26	14	675	A	C5-C6-N1	7.11	121.25	117.70
26	14	1465	G	N1-C6-O6	7.11	124.16	119.90
26	14	2276	G	C5-C6-O6	7.11	132.86	128.60
26	1H	1624	G	N7-C8-N9	-7.10	109.55	113.10
26	1H	1763	G	O5'-P-OP2	-7.10	99.31	105.70
26	14	733	G	N3-C4-C5	-7.10	125.05	128.60
26	14	2287	A	N1-C6-N6	7.10	122.86	118.60
26	14	1984	G	C8-N9-C4	7.10	109.24	106.40
26	14	2573	C	N3-C4-N4	7.10	122.97	118.00
26	1H	946	G	N9-C4-C5	7.10	108.24	105.40
26	1H	528	A	C5-C6-N1	-7.10	114.15	117.70
26	14	503	A	N1-C2-N3	7.10	132.85	129.30
26	14	785	G	C5-C6-N1	7.10	115.05	111.50
26	14	1999	C	N3-C4-C5	7.10	124.74	121.90
26	14	33	U	O5'-P-OP1	-7.09	99.31	105.70
26	14	2249	U	C5-C4-O4	7.09	130.16	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1558	A	O5'-P-OP1	-7.09	99.32	105.70
1	1G	1151	A	C8-N9-C4	7.09	108.64	105.80
26	14	697	C	C6-N1-C2	-7.09	117.46	120.30
2	1E	5	ILE	CG1-CB-CG2	-7.09	95.80	111.40
33	59	69	ARG	NE-CZ-NH1	-7.09	116.75	120.30
26	14	671	C	N1-C2-N3	7.09	124.16	119.20
1	13	910	C	C5-C6-N1	-7.09	117.46	121.00
26	1H	524	U	N3-C2-O2	-7.09	117.24	122.20
1	1G	1501	C	N1-C2-O2	-7.09	114.65	118.90
26	14	573	G	C4-C5-N7	-7.09	107.97	110.80
26	1H	124	G	C5-C6-N1	7.08	115.04	111.50
26	14	629	G	O5'-P-OP2	-7.08	99.32	105.70
26	1H	1969	A	C5-C6-N6	7.08	129.37	123.70
26	14	677	A	N9-C4-C5	7.08	108.63	105.80
1	13	1468	A	C8-N9-C4	7.08	108.63	105.80
26	14	642	G	C8-N9-C4	-7.08	103.57	106.40
26	14	1489	U	O4'-C1'-N1	7.08	113.87	108.20
26	1H	2496	C	N3-C4-C5	7.08	124.73	121.90
26	1H	1520	U	C5-C4-O4	7.08	130.15	125.90
26	1H	132	G	C8-N9-C4	7.08	109.23	106.40
26	1H	2232	U	C5-C4-O4	7.08	130.15	125.90
26	14	671	C	O5'-P-OP2	-7.08	99.33	105.70
26	1H	470	A	C5-N7-C8	-7.08	100.36	103.90
26	1H	1273	U	C5-C4-O4	7.08	130.15	125.90
26	14	2713	A	N7-C8-N9	7.08	117.34	113.80
26	1H	2428	G	C4-C5-N7	-7.07	107.97	110.80
26	1H	410	G	O5'-P-OP2	7.07	119.19	110.70
26	14	2465	C	N1-C2-O2	-7.07	114.66	118.90
26	14	1914	C	N1-C2-O2	7.07	123.14	118.90
26	1H	2562	U	C5-C4-O4	7.07	130.14	125.90
1	13	571	U	OP1-P-OP2	-7.07	109.00	119.60
1	13	768	A	O5'-P-OP2	-7.07	99.34	105.70
1	13	974	A	C4-C5-N7	7.07	114.23	110.70
26	14	2844	G	C5-C6-O6	-7.07	124.36	128.60
1	13	564	C	O5'-P-OP1	-7.07	99.34	105.70
1	13	1187	G	O5'-P-OP1	-7.07	99.34	105.70
26	1H	326	G	N7-C8-N9	7.07	116.63	113.10
26	1H	410	G	N1-C6-O6	7.06	124.14	119.90
24	3L	1	G	C2-N3-C4	7.06	115.43	111.90
26	1H	928	G	N3-C2-N2	-7.06	114.96	119.90
26	1H	1349	A	N1-C6-N6	7.06	122.84	118.60
27	16	29	A	OP1-P-OP2	-7.06	109.00	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	822	U	N1-C2-O2	7.06	127.74	122.80
26	1H	1338	G	C5-C6-N1	7.06	115.03	111.50
26	14	736	C	C5-C4-N4	-7.06	115.26	120.20
26	1H	1379	A	C5-N7-C8	-7.06	100.37	103.90
1	13	695	A	C5-C6-N1	-7.06	114.17	117.70
23	2K	25	U	C5-C4-O4	7.06	130.13	125.90
26	1H	917	A	N1-C6-N6	7.06	122.83	118.60
26	1H	2469	A	C4-C5-N7	7.06	114.23	110.70
26	1H	128	C	C2-N3-C4	-7.05	116.37	119.90
26	1H	446	G	O5'-P-OP2	7.05	119.17	110.70
1	1G	1484	C	OP1-P-OP2	7.05	130.18	119.60
26	1H	606	U	O5'-P-OP2	-7.05	99.35	105.70
26	1H	798	G	C2-N3-C4	-7.05	108.37	111.90
1	1G	1354	C	C5-C6-N1	7.05	124.53	121.00
1	13	500	G	C8-N9-C4	7.05	109.22	106.40
26	1H	1629	U	OP1-P-OP2	-7.05	109.02	119.60
26	1H	2490	G	C5-C6-O6	-7.05	124.37	128.60
26	14	2374	C	N3-C4-C5	7.05	124.72	121.90
26	1H	1830	C	C6-N1-C2	-7.05	117.48	120.30
26	14	560	C	N3-C4-C5	7.05	124.72	121.90
26	1H	122	G	C6-C5-N7	-7.05	126.17	130.40
26	1H	628	G	N7-C8-N9	-7.05	109.58	113.10
26	1H	1726	G	C8-N9-C4	7.05	109.22	106.40
26	14	840	C	C5-C6-N1	-7.05	117.48	121.00
26	1H	2246	G	C5-N7-C8	7.04	107.82	104.30
1	13	687	A	P-O3'-C3'	7.04	128.15	119.70
26	1H	2674	G	N1-C2-N3	7.04	128.13	123.90
26	14	1348	G	O5'-P-OP2	7.04	119.15	110.70
26	1H	598	G	N3-C2-N2	-7.04	114.97	119.90
26	14	1141	U	P-O3'-C3'	7.04	128.15	119.70
26	1H	299	A	C8-N9-C4	-7.04	102.98	105.80
26	1H	1362	C	OP1-P-OP2	7.04	130.16	119.60
26	14	50	U	C6-N1-C2	7.04	125.22	121.00
26	14	781	A	C2-N3-C4	7.04	114.12	110.60
1	13	35	G	C5-C6-N1	-7.04	107.98	111.50
26	1H	1191	G	C8-N9-C4	7.04	109.21	106.40
26	1H	1608	A	C2-N3-C4	-7.04	107.08	110.60
26	1H	1649	G	C4-C5-N7	-7.04	107.99	110.80
26	14	2432	A	O5'-P-OP2	-7.04	99.37	105.70
26	14	2502	G	N1-C6-O6	-7.04	115.68	119.90
1	13	756	C	O5'-P-OP2	-7.03	99.37	105.70
26	1H	180	G	C2-N3-C4	-7.03	108.38	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1800	C	C6-N1-C2	-7.03	117.49	120.30
26	1H	2822	G	C6-C5-N7	-7.03	126.18	130.40
26	14	1566	A	N9-C4-C5	-7.03	102.99	105.80
26	1H	197	A	N1-C2-N3	7.03	132.82	129.30
26	1H	686	G	OP1-P-OP2	7.03	130.15	119.60
26	1H	188	G	N3-C2-N2	7.03	124.82	119.90
26	1H	1569	A	C5-N7-C8	-7.03	100.39	103.90
1	13	13	U	N3-C2-O2	-7.03	117.28	122.20
26	1H	831	G	C8-N9-C4	7.03	109.21	106.40
26	1H	1613	G	N1-C2-N2	-7.03	109.88	116.20
26	1H	1279	G	N1-C6-O6	-7.03	115.69	119.90
26	1H	2426	A	C5-N7-C8	-7.03	100.39	103.90
26	14	1626	G	O5'-P-OP2	7.03	119.13	110.70
26	14	2092	U	N3-C2-O2	-7.03	117.28	122.20
1	13	690	G	C5-C6-O6	-7.02	124.39	128.60
1	13	767	A	OP1-P-OP2	7.02	130.13	119.60
1	1G	42	G	C8-N9-C4	7.02	109.21	106.40
1	1G	1322	C	C5-C6-N1	7.02	124.51	121.00
26	14	1955	U	N3-C4-O4	-7.02	114.48	119.40
26	1H	51	G	N1-C6-O6	-7.02	115.69	119.90
26	1H	541	C	N3-C2-O2	-7.02	116.98	121.90
26	1H	1624	G	C8-N9-C4	7.02	109.21	106.40
26	14	2644	G	O5'-P-OP1	-7.02	99.38	105.70
26	1H	2416	C	O5'-P-OP2	-7.02	99.38	105.70
26	1H	2713	A	N3-C4-N9	-7.02	121.78	127.40
22	1L	76	A	C2-N3-C4	7.02	114.11	110.60
26	14	733	G	C5-C6-O6	-7.02	124.39	128.60
1	1G	1513	A	N1-C6-N6	7.02	122.81	118.60
26	14	2429	G	O5'-P-OP1	7.01	119.12	110.70
26	1H	699	A	C5-C6-N6	-7.01	118.09	123.70
26	1H	599	G	N7-C8-N9	-7.01	109.59	113.10
26	1H	1434	A	C8-N9-C4	7.01	108.61	105.80
26	14	530	G	C4-C5-N7	7.01	113.60	110.80
26	1H	1316	U	N3-C4-O4	-7.01	114.49	119.40
26	1H	1662	C	C6-N1-C2	7.01	123.10	120.30
26	1H	681	G	N3-C4-N9	7.01	130.21	126.00
26	1H	2697	G	OP1-P-OP2	7.01	130.11	119.60
26	1H	950	G	N3-C2-N2	7.01	124.80	119.90
26	1H	1899	G	N3-C4-N9	-7.01	121.80	126.00
26	1H	2429	G	N9-C4-C5	7.01	108.20	105.40
26	1H	737	C	N1-C2-O2	-7.00	114.70	118.90
26	1H	722	A	C2-N3-C4	-7.00	107.10	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	138	G	N1-C2-N3	-7.00	119.70	123.90
26	14	806	C	O5'-P-OP2	7.00	119.10	110.70
26	1H	247	G	C8-N9-C4	7.00	109.20	106.40
26	1H	1551	C	C6-N1-C2	-7.00	117.50	120.30
26	1H	2362	G	C8-N9-C4	7.00	109.20	106.40
27	16	74	U	C5-C4-O4	7.00	130.10	125.90
26	14	1964	G	N3-C2-N2	7.00	124.80	119.90
26	14	197	A	N1-C2-N3	7.00	132.80	129.30
26	14	873	G	N1-C6-O6	7.00	124.10	119.90
26	1H	250	G	C5-C6-O6	7.00	132.80	128.60
26	1H	1440	G	C5-C6-O6	7.00	132.80	128.60
26	1H	1803	A	N1-C2-N3	-7.00	125.80	129.30
28	71	10	LEU	CA-CB-CG	-7.00	99.21	115.30
26	14	470	A	C5-C6-N6	-7.00	118.10	123.70
26	14	740	U	N1-C2-O2	7.00	127.70	122.80
26	14	2573	C	N1-C2-O2	7.00	123.10	118.90
26	14	2615	U	N1-C2-O2	7.00	127.70	122.80
1	13	644	G	C8-N9-C4	6.99	109.20	106.40
26	1H	2367	G	N7-C8-N9	6.99	116.60	113.10
26	1H	2465	C	C6-N1-C2	6.99	123.10	120.30
26	14	1975	G	C8-N9-C4	6.99	109.20	106.40
26	1H	694	U	N1-C2-N3	6.99	119.09	114.90
26	1H	178	G	O5'-P-OP2	6.99	119.09	110.70
26	1H	1651	G	C5-C6-O6	-6.99	124.41	128.60
26	1H	1914	C	C5-C6-N1	6.99	124.50	121.00
26	1H	631	A	C8-N9-C4	6.99	108.60	105.80
26	1H	1030	G	N1-C2-N2	-6.99	109.91	116.20
26	1H	2081	C	N3-C2-O2	-6.99	117.01	121.90
26	14	1332	G	N1-C6-O6	6.99	124.09	119.90
1	13	1236	A	N1-C6-N6	6.99	122.79	118.60
26	1H	1918	A	C8-N9-C4	6.98	108.59	105.80
1	13	1214	C	C6-N1-C2	6.98	123.09	120.30
26	14	195	A	N1-C6-N6	6.98	122.79	118.60
29	19	44	ASN	C-N-CA	6.98	139.15	121.70
26	14	933	A	C5-N7-C8	-6.98	100.41	103.90
26	14	2518	A	N3-C4-C5	6.98	131.69	126.80
26	1H	1563	G	C5-C6-O6	6.98	132.79	128.60
26	1H	1767	C	C2-N3-C4	-6.98	116.41	119.90
26	1H	1813	G	O5'-P-OP1	-6.98	99.42	105.70
27	16	101	A	C8-N9-C4	6.98	108.59	105.80
26	14	1777	U	C4-C5-C6	6.98	123.89	119.70
26	1H	1648	C	C2-N1-C1'	-6.98	111.13	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	329	G	O5'-P-OP2	-6.97	99.42	105.70
26	1H	1228	G	C8-N9-C4	-6.97	103.61	106.40
26	1H	1291	C	N3-C4-N4	-6.97	113.12	118.00
26	14	72	U	C5-C6-N1	-6.97	119.21	122.70
26	14	1372	U	N1-C2-O2	-6.97	117.92	122.80
26	14	1663	C	C6-N1-C2	6.97	123.09	120.30
26	14	2607	G	C4-C5-N7	6.97	113.59	110.80
26	1H	23	G	C5-C6-O6	6.97	132.78	128.60
26	1H	273(A)	G	N1-C6-O6	6.97	124.08	119.90
26	1H	1500	G	C8-N9-C4	6.97	109.19	106.40
14	5I	12	ARG	C-N-CA	6.97	139.13	121.70
26	1H	1607	C	O5'-P-OP2	-6.97	99.43	105.70
26	1H	1728	G	C4-C5-N7	6.97	113.59	110.80
1	13	880	C	C4-C5-C6	-6.97	113.92	117.40
1	13	1403	C	N1-C2-O2	-6.97	114.72	118.90
26	1H	1781	C	C5-C4-N4	-6.97	115.32	120.20
27	16	47	C	N3-C4-C5	6.97	124.69	121.90
26	14	585	G	N1-C6-O6	6.97	124.08	119.90
26	1H	47	C	O5'-P-OP1	-6.97	99.43	105.70
26	1H	1632	A	C5-N7-C8	-6.97	100.42	103.90
26	14	122	G	C8-N9-C4	6.97	109.19	106.40
26	1H	689	A	C2-N3-C4	-6.96	107.12	110.60
26	1H	1699	G	O5'-P-OP1	-6.96	99.43	105.70
1	1G	112	G	C5-C6-O6	-6.96	124.42	128.60
26	14	1489	U	N3-C4-C5	-6.96	110.42	114.60
27	1J	81	G	C6-C5-N7	-6.96	126.22	130.40
26	1H	628	G	OP1-P-OP2	6.96	130.04	119.60
26	14	2233	U	C5-C6-N1	-6.96	119.22	122.70
26	1H	1660	C	N3-C4-N4	-6.96	113.13	118.00
26	1H	1366	A	C2-N3-C4	-6.96	107.12	110.60
26	14	1823	G	N3-C4-N9	-6.96	121.83	126.00
1	13	1478	C	C5-C6-N1	-6.95	117.52	121.00
26	1H	1367	A	C2-N3-C4	-6.95	107.12	110.60
26	1H	1394	U	O5'-P-OP2	6.95	119.05	110.70
26	1H	1643	G	O5'-P-OP1	-6.95	99.44	105.70
26	1H	1698	A	C5-C6-N1	-6.95	114.22	117.70
26	1H	1888	G	C4-N9-C1'	6.95	135.54	126.50
26	14	2594	C	N1-C2-O2	-6.95	114.73	118.90
26	1H	587	C	C5-C4-N4	-6.95	115.33	120.20
26	1H	2611	U	N3-C2-O2	-6.95	117.33	122.20
1	13	1436	U	N3-C2-O2	-6.95	117.34	122.20
26	1H	727	A	OP2-P-O3'	6.95	120.49	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	744	G	C5-C6-N1	6.95	114.97	111.50
26	14	455	C	N1-C2-O2	6.95	123.07	118.90
26	14	678	C	N3-C4-N4	-6.95	113.14	118.00
26	14	2420	C	N3-C4-N4	6.95	122.86	118.00
1	13	519	C	C5-C6-N1	-6.95	117.53	121.00
1	13	1266	G	N3-C4-C5	6.95	132.07	128.60
26	1H	1651	G	N1-C6-O6	6.95	124.07	119.90
26	1H	2584	U	N1-C2-N3	6.95	119.07	114.90
26	14	469	G	C5-C6-O6	-6.95	124.43	128.60
22	1K	25	C	N3-C2-O2	-6.94	117.04	121.90
26	1H	1837	C	O5'-P-OP1	-6.94	99.45	105.70
26	14	2444	G	C4-C5-N7	-6.94	108.02	110.80
26	1H	816	C	O5'-P-OP1	6.94	119.03	110.70
1	1G	770	C	C4-C5-C6	6.94	120.87	117.40
26	1H	463	G	N1-C6-O6	-6.94	115.73	119.90
26	1H	1470	G	O5'-P-OP1	-6.94	99.45	105.70
26	1H	2234	G	N9-C4-C5	-6.94	102.62	105.40
33	59	69	ARG	NH1-CZ-NH2	6.94	127.03	119.40
26	1H	48	G	C5-C6-O6	6.94	132.76	128.60
26	14	1332	G	N3-C2-N2	-6.94	115.04	119.90
26	1H	777	A	C6-N1-C2	-6.94	114.44	118.60
26	1H	2033	A	O5'-P-OP1	-6.94	99.46	105.70
26	14	2253	G	C4-C5-N7	6.94	113.58	110.80
26	14	2307	G	O4'-C1'-N9	6.94	113.75	108.20
26	14	1314	C	C6-N1-C1'	-6.94	112.48	120.80
26	1H	668	G	O5'-P-OP2	-6.93	99.46	105.70
26	1H	1688	U	O5'-P-OP2	-6.93	99.46	105.70
46	G8	81	LYS	C-N-CA	6.93	151.12	122.00
1	13	1107	C	C6-N1-C2	-6.93	117.53	120.30
26	1H	2247	A	C2-N3-C4	-6.93	107.13	110.60
26	14	2830	G	C5-C6-N1	-6.93	108.03	111.50
26	1H	270(O)	U	C2-N1-C1'	6.93	126.02	117.70
26	1H	589	C	C4-C5-C6	6.93	120.86	117.40
26	1H	599	G	N1-C6-O6	-6.93	115.74	119.90
26	1H	1249	U	N1-C2-O2	-6.93	117.95	122.80
26	14	2377	A	C2-N3-C4	-6.93	107.14	110.60
1	13	134	A	N1-C6-N6	6.93	122.76	118.60
26	1H	1340	U	C5-C4-O4	-6.93	121.74	125.90
26	1H	1160	G	N7-C8-N9	6.93	116.56	113.10
26	1H	1303	G	C5-C6-O6	6.93	132.75	128.60
26	14	918	A	C8-N9-C4	-6.93	103.03	105.80
1	13	765	G	C8-N9-C1'	-6.92	118.00	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	853	G	O5'-P-OP2	-6.92	99.47	105.70
26	1H	631	A	N7-C8-N9	-6.92	110.34	113.80
26	1H	685	A	C4-C5-N7	6.92	114.16	110.70
26	1H	917	A	O5'-P-OP1	-6.92	99.47	105.70
26	14	694	U	O5'-P-OP2	-6.92	99.47	105.70
26	14	2091	U	C5-C4-O4	6.92	130.05	125.90
26	1H	198	C	N3-C4-C5	6.92	124.67	121.90
26	1H	1928	A	C2-N3-C4	6.92	114.06	110.60
26	1H	2564	A	N9-C4-C5	6.92	108.57	105.80
26	1H	2619	C	C5-C4-N4	-6.92	115.36	120.20
26	14	2440	C	O5'-P-OP2	6.92	119.00	110.70
26	14	1822	G	O5'-P-OP2	6.92	119.00	110.70
26	1H	265	A	C6-C5-N7	-6.92	127.46	132.30
26	14	115	C	O5'-P-OP1	-6.92	99.48	105.70
1	13	1513	A	C5-C6-N6	-6.91	118.17	123.70
26	1H	1192	G	O5'-P-OP2	-6.91	99.48	105.70
26	1H	2520	C	C6-N1-C2	-6.91	117.53	120.30
1	1G	449	C	C6-N1-C2	-6.91	117.53	120.30
26	14	1428	C	C6-N1-C2	6.91	123.07	120.30
26	14	1597	A	N1-C6-N6	-6.91	114.45	118.60
26	1H	689	A	C6-N1-C2	-6.91	114.45	118.60
26	1H	1533	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	1990	C	OP1-P-O3'	6.91	120.40	105.20
26	14	2260	C	C5-C6-N1	-6.91	117.55	121.00
26	1H	258	G	N3-C2-N2	6.91	124.73	119.90
26	1H	270(O)	U	C5-C6-N1	6.91	126.15	122.70
26	1H	830	G	C8-N9-C4	-6.91	103.64	106.40
26	1H	2581	G	C2-N3-C4	-6.91	108.45	111.90
26	1H	1632	A	C4-C5-N7	6.91	114.15	110.70
26	1H	2477	C	C6-N1-C2	-6.91	117.54	120.30
1	13	1355	G	C8-N9-C4	-6.90	103.64	106.40
1	13	556	C	C6-N1-C2	-6.90	117.54	120.30
26	1H	1976	U	N1-C2-O2	-6.90	117.97	122.80
1	13	690	G	C4-N9-C1'	6.90	135.47	126.50
1	13	892	A	C5-C6-N1	-6.90	114.25	117.70
26	1H	681	G	N1-C2-N2	-6.90	109.99	116.20
26	1H	2549	G	C8-N9-C4	6.90	109.16	106.40
26	1H	2639	A	C8-N9-C4	6.90	108.56	105.80
26	1H	2689	U	N3-C4-O4	-6.90	114.57	119.40
26	14	464	U	O5'-P-OP2	6.90	118.98	110.70
26	14	672	C	C4-C5-C6	6.90	120.85	117.40
26	1H	655	A	N7-C8-N9	6.90	117.25	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	749	C	N1-C2-O2	6.90	123.04	118.90
26	1H	2331	G	C6-C5-N7	-6.90	126.26	130.40
26	1H	2428	G	N9-C4-C5	6.90	108.16	105.40
1	1G	906	G	C5-C6-O6	-6.90	124.46	128.60
26	1H	122	G	C5-C6-O6	-6.90	124.46	128.60
26	1H	830	G	N9-C4-C5	6.90	108.16	105.40
1	13	1315	U	N3-C4-O4	6.89	124.23	119.40
26	1H	1193	G	C4-C5-N7	-6.89	108.04	110.80
26	1H	1660	C	N3-C2-O2	-6.89	117.07	121.90
1	1G	1395	C	O5'-P-OP1	-6.89	99.49	105.70
33	59	171	LEU	CA-CB-CG	6.89	131.16	115.30
1	13	136	C	N3-C2-O2	-6.89	117.08	121.90
1	13	1229	A	N1-C2-N3	6.89	132.75	129.30
26	1H	1634	A	OP1-P-OP2	6.89	129.94	119.60
26	14	1326	U	N3-C2-O2	-6.89	117.38	122.20
26	14	1956	U	O5'-P-OP2	-6.89	99.50	105.70
26	14	2281	C	C5-C4-N4	-6.89	115.38	120.20
26	1H	1658	C	N3-C2-O2	6.89	126.72	121.90
26	14	1549	C	O5'-P-OP2	6.89	118.97	110.70
26	1H	115	C	N3-C4-N4	6.89	122.82	118.00
26	1H	2359	C	N3-C4-N4	-6.89	113.18	118.00
26	1H	2681	C	N3-C2-O2	-6.89	117.08	121.90
26	1H	822	U	N1-C2-N3	6.89	119.03	114.90
26	1H	1782	C	N1-C2-O2	6.89	123.03	118.90
26	1H	2730	C	N1-C2-O2	-6.89	114.77	118.90
26	1H	245	G	C4-N9-C1'	6.88	135.45	126.50
26	1H	452	G	C6-C5-N7	6.88	134.53	130.40
26	1H	1914	C	C6-N1-C2	-6.88	117.55	120.30
26	14	129	C	N1-C2-O2	6.88	123.03	118.90
26	1H	452	G	OP1-P-OP2	6.88	129.92	119.60
26	1H	1932	A	C8-N9-C4	6.88	108.55	105.80
26	14	1145	C	C6-N1-C2	-6.88	117.55	120.30
26	1H	2503	A	C5-C6-N1	6.88	121.14	117.70
26	1H	2273	A	N1-C2-N3	-6.88	125.86	129.30
26	1H	1817	G	N3-C2-N2	6.88	124.71	119.90
26	14	470	A	N1-C6-N6	6.88	122.72	118.60
26	14	2067	G	C8-N9-C4	-6.88	103.65	106.40
26	1H	1651	G	C4-C5-N7	6.88	113.55	110.80
26	1H	1936	A	C5-C6-N6	-6.88	118.20	123.70
26	14	1489	U	C6-N1-C1'	6.88	130.82	121.20
1	13	1299	A	N1-C6-N6	6.87	122.72	118.60
26	1H	1304	C	O5'-P-OP2	-6.87	99.52	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1310	G	O5'-P-OP2	6.87	118.95	110.70
26	1H	1334	G	C6-C5-N7	-6.87	126.28	130.40
26	14	729	G	C5-C6-O6	-6.87	124.48	128.60
1	1G	353	A	N7-C8-N9	6.87	117.23	113.80
26	14	1897	G	C5-C6-O6	-6.87	124.48	128.60
1	13	326	G	C4-C5-N7	-6.87	108.05	110.80
1	13	572	A	N1-C6-N6	-6.87	114.48	118.60
1	13	1502	A	N1-C6-N6	6.87	122.72	118.60
26	1H	741	G	C6-N1-C2	-6.87	120.98	125.10
26	1H	766	C	C5-C4-N4	-6.87	115.39	120.20
26	1H	783	A	N3-C4-N9	-6.87	121.91	127.40
26	14	211	A	C5-C6-N6	-6.87	118.21	123.70
26	1H	442	G	C5-C6-N1	-6.87	108.07	111.50
26	1H	1831	G	OP1-P-OP2	-6.87	109.30	119.60
26	14	1125	G	C5-C6-O6	6.87	132.72	128.60
26	14	1673	U	O5'-P-OP2	6.87	118.94	110.70
1	13	481	G	C4-C5-C6	6.86	122.92	118.80
1	13	768	A	N1-C2-N3	6.86	132.73	129.30
26	1H	1332	G	N3-C4-C5	6.86	132.03	128.60
26	1H	2054	A	OP2-P-O3'	6.86	120.30	105.20
26	14	1678	G	C5-C6-N1	-6.86	108.07	111.50
26	1H	463	G	C8-N9-C4	6.86	109.14	106.40
26	1H	1786	A	N9-C1'-C2'	6.86	122.92	114.00
26	1H	2025	C	C5-C6-N1	6.86	124.43	121.00
26	1H	2581	G	C5-C6-O6	6.86	132.72	128.60
33	51	153	LYS	C-N-CD	-6.86	105.51	120.60
26	1H	913	U	N1-C2-O2	6.86	127.60	122.80
26	1H	1021	A	C4-C5-N7	6.86	114.13	110.70
26	14	1025	G	N3-C4-C5	6.86	132.03	128.60
22	1K	26	A	O4'-C1'-N9	6.85	113.68	108.20
26	1H	1691	C	C6-N1-C2	-6.85	117.56	120.30
26	14	470	A	C4-C5-N7	6.85	114.13	110.70
26	14	723	G	C5-C6-N1	-6.85	108.07	111.50
26	1H	2062	A	N7-C8-N9	-6.85	110.38	113.80
26	14	1266	G	N7-C8-N9	-6.85	109.68	113.10
26	1H	792	G	N3-C2-N2	-6.85	115.11	119.90
26	1H	965	C	N1-C2-O2	6.85	123.01	118.90
26	1H	2226	C	N3-C4-C5	6.85	124.64	121.90
26	1H	880	G	C5-N7-C8	-6.84	100.88	104.30
26	1H	959	A	C5-C6-N6	6.84	129.18	123.70
22	1L	20	U	C2-N1-C1'	6.84	125.91	117.70
22	1K	76	A	C8-N9-C4	-6.84	103.06	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1401	G	C8-N9-C4	-6.84	103.66	106.40
26	1H	1957	C	N3-C4-N4	-6.84	113.21	118.00
1	13	903	G	C6-N1-C2	-6.84	121.00	125.10
26	1H	775	G	O4'-C1'-N9	6.84	113.67	108.20
26	1H	2271	G	C4-C5-N7	6.84	113.54	110.80
26	1H	2690	C	C4-C5-C6	6.84	120.82	117.40
26	1H	700	G	N1-C6-O6	6.84	124.00	119.90
26	1H	1492	G	C5-C6-O6	-6.84	124.50	128.60
26	1H	2276	G	N1-C6-O6	-6.84	115.80	119.90
26	14	2283	C	N3-C4-N4	6.84	122.79	118.00
26	1H	1186	G	C4-C5-N7	-6.84	108.06	110.80
26	1H	1616	A	O4'-C1'-N9	6.84	113.67	108.20
26	14	1366	A	C4-C5-N7	6.84	114.12	110.70
26	14	1941	C	O5'-P-OP1	-6.84	99.55	105.70
26	14	2394	C	OP1-P-OP2	6.84	129.85	119.60
1	13	417	C	N3-C4-N4	-6.83	113.22	118.00
26	1H	1379	A	N7-C8-N9	6.83	117.22	113.80
26	1H	2360	A	C2-N3-C4	-6.83	107.18	110.60
27	16	14	U	OP1-P-OP2	6.83	129.85	119.60
26	14	779	U	C5-C4-O4	-6.83	121.80	125.90
26	14	1775	U	C5-C6-N1	-6.83	119.28	122.70
31	39	82	ILE	CG1-CB-CG2	-6.83	96.38	111.40
26	1H	1187	G	N1-C6-O6	6.83	124.00	119.90
26	1H	1347	G	C5-C6-O6	-6.83	124.50	128.60
26	1H	2063	C	C5-C4-N4	-6.83	115.42	120.20
26	1H	2589	A	N7-C8-N9	-6.83	110.39	113.80
1	1G	1409	C	C5-C6-N1	-6.83	117.59	121.00
26	1H	1219	G	N1-C6-O6	6.82	123.99	119.90
26	1H	1415	U	N3-C4-O4	-6.82	114.62	119.40
26	1H	1757	U	OP1-P-O3'	6.82	120.21	105.20
43	D8	40	LEU	CA-CB-CG	6.82	130.99	115.30
26	14	2067	G	C4-C5-N7	-6.82	108.07	110.80
26	1H	697	C	N3-C4-N4	6.82	122.77	118.00
26	1H	1603	A	C5-N7-C8	-6.82	100.49	103.90
1	13	1227	A	N1-C6-N6	6.82	122.69	118.60
26	1H	759	G	C6-N1-C2	-6.82	121.01	125.10
1	1G	360	A	C8-N9-C4	6.82	108.53	105.80
1	1G	886	G	C8-N9-C4	6.82	109.13	106.40
26	1H	141	A	O5'-P-OP1	6.82	118.88	110.70
26	14	1643	G	OP1-P-OP2	6.82	129.82	119.60
1	13	1433	A	N1-C2-N3	6.81	132.71	129.30
26	1H	444	C	O5'-P-OP1	6.81	118.88	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1210	A	C4-C5-N7	6.81	114.11	110.70
26	1H	1429	G	O5'-P-OP2	-6.81	99.57	105.70
26	14	1585	C	N1-C2-O2	6.81	122.99	118.90
26	1H	445	C	N3-C2-O2	-6.81	117.13	121.90
26	14	330	A	N9-C4-C5	-6.81	103.08	105.80
26	1H	617	G	C8-N9-C4	6.81	109.12	106.40
26	1H	1394	U	C4-C5-C6	-6.81	115.61	119.70
26	1H	1777	U	C4-C5-C6	6.81	123.78	119.70
26	1H	1888	G	N3-C4-C5	-6.81	125.20	128.60
1	13	558	G	C6-C5-N7	-6.81	126.32	130.40
26	1H	2621	A	C8-N9-C4	6.80	108.52	105.80
26	14	1688	U	C5-C6-N1	-6.80	119.30	122.70
26	14	2238	G	C2-N3-C4	6.80	115.30	111.90
26	1H	389	G	C4-C5-N7	6.80	113.52	110.80
26	1H	2449	U	N3-C4-O4	6.80	124.16	119.40
1	13	880	C	N1-C2-N3	-6.80	114.44	119.20
26	1H	112	U	N3-C2-O2	6.80	126.96	122.20
26	14	265	A	C5-N7-C8	-6.80	100.50	103.90
26	14	642	G	C5-C6-N1	-6.80	108.10	111.50
26	14	915	C	C6-N1-C2	-6.80	117.58	120.30
26	14	2361	A	C2-N3-C4	-6.80	107.20	110.60
1	13	112	G	OP1-P-OP2	-6.80	109.41	119.60
26	14	2329	G	N3-C2-N2	6.80	124.66	119.90
1	13	667	G	C8-N9-C4	-6.79	103.68	106.40
26	1H	1669	A	C8-N9-C4	-6.79	103.08	105.80
26	1H	1693	U	N1-C2-O2	6.79	127.56	122.80
26	14	701	G	N3-C2-N2	-6.79	115.14	119.90
26	1H	783	A	O5'-P-OP2	-6.79	99.59	105.70
26	1H	1336	A	C5-C6-N6	6.79	129.13	123.70
26	1H	1354	A	C2-N3-C4	-6.79	107.20	110.60
26	1H	149	A	C8-N9-C4	-6.79	103.08	105.80
26	1H	1265	A	N1-C2-N3	6.79	132.69	129.30
1	13	1498	U	C5-C4-O4	-6.79	121.83	125.90
26	1H	48	G	N1-C6-O6	-6.79	115.83	119.90
26	1H	1789	A	C5-C6-N1	6.79	121.09	117.70
27	16	109	G	C8-N9-C4	-6.79	103.68	106.40
26	14	992	C	N1-C2-O2	6.79	122.97	118.90
26	14	1337	G	OP1-P-O3'	6.79	120.14	105.20
26	1H	1355	G	C8-N9-C4	-6.79	103.69	106.40
23	2K	77	A	C5-C6-N6	-6.79	118.27	123.70
26	1H	508	G	C4-C5-N7	6.78	113.51	110.80
26	1H	1496	A	O4'-C1'-N9	6.78	113.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	620	G	C8-N9-C4	-6.78	103.69	106.40
26	1H	2544	G	C6-C5-N7	-6.78	126.33	130.40
26	1H	2685	G	N1-C6-O6	6.78	123.97	119.90
26	14	2084	C	C4-C5-C6	6.78	120.79	117.40
1	13	11	G	C5-C6-O6	6.78	132.67	128.60
26	1H	667	U	C5-C4-O4	-6.78	121.83	125.90
1	13	391	G	N1-C6-O6	-6.78	115.83	119.90
26	1H	1928	A	C5-C6-N1	6.78	121.09	117.70
26	14	959	A	C5-C6-N6	6.78	129.12	123.70
26	14	1519	G	C5-C6-O6	6.78	132.67	128.60
26	14	2239	G	C8-N9-C4	6.78	109.11	106.40
26	1H	265	A	O4'-C1'-N9	6.78	113.62	108.20
26	1H	1850	G	C8-N9-C4	-6.78	103.69	106.40
26	1H	2358	G	C5-C6-N1	6.78	114.89	111.50
26	14	1404	C	O5'-P-OP1	-6.78	99.60	105.70
26	14	1696	G	O5'-P-OP2	-6.77	99.60	105.70
26	14	2841	C	N3-C2-O2	6.77	126.64	121.90
26	1H	215	G	C8-N9-C4	6.77	109.11	106.40
26	1H	913	U	N3-C2-O2	-6.77	117.46	122.20
26	1H	971	C	N1-C2-N3	6.77	123.94	119.20
26	1H	1760	A	O5'-P-OP2	-6.77	99.61	105.70
26	1H	2070	G	N9-C4-C5	-6.77	102.69	105.40
26	1H	1274	A	C8-N9-C4	-6.77	103.09	105.80
27	16	48	A	N1-C6-N6	6.77	122.66	118.60
26	14	1821	A	N3-C4-C5	-6.77	122.06	126.80
1	13	137	C	C6-N1-C2	6.77	123.01	120.30
26	1H	51	G	N3-C2-N2	6.76	124.63	119.90
26	1H	2510	C	C6-N1-C2	6.76	123.00	120.30
26	1H	391	G	C6-C5-N7	-6.76	126.34	130.40
26	1H	1631	A	C8-N9-C4	6.76	108.50	105.80
1	1G	166	G	N1-C6-O6	6.76	123.96	119.90
26	1H	864	G	C5-C6-O6	-6.76	124.55	128.60
26	1H	664	C	C4-C5-C6	6.76	120.78	117.40
26	1H	1334	G	C5-N7-C8	-6.76	100.92	104.30
26	1H	1567	A	OP1-P-O3'	6.76	120.06	105.20
26	14	209	C	C4-C5-C6	6.76	120.78	117.40
26	14	2702	U	C5-C6-N1	-6.76	119.32	122.70
1	13	519	C	C6-N1-C2	6.75	123.00	120.30
1	13	899	C	N3-C2-O2	6.75	126.63	121.90
26	1H	1234	U	C5-C6-N1	-6.75	119.32	122.70
1	13	513	C	C5-C4-N4	-6.75	115.47	120.20
26	1H	2086	U	N3-C2-O2	-6.75	117.47	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2724	C	N1-C2-O2	-6.75	114.85	118.90
26	14	256	A	N7-C8-N9	6.75	117.17	113.80
26	1H	1828	G	C5-C6-N1	-6.75	108.13	111.50
26	14	676	A	OP1-P-OP2	6.75	129.72	119.60
26	14	702	G	O5'-P-OP2	-6.75	99.63	105.70
26	1H	1548	C	N3-C2-O2	-6.75	117.18	121.90
26	1H	2532	G	N1-C6-O6	6.75	123.95	119.90
26	14	1142	U	C2-N1-C1'	6.75	125.80	117.70
1	13	1336	C	P-O3'-C3'	6.75	127.79	119.70
44	E8	92	ARG	NE-CZ-NH2	-6.75	116.93	120.30
26	14	208	C	C5-C6-N1	-6.75	117.63	121.00
1	13	945	G	N3-C2-N2	-6.74	115.18	119.90
26	14	936	C	N3-C2-O2	6.74	126.62	121.90
26	1H	694	U	N3-C2-O2	-6.74	117.48	122.20
26	1H	1794	U	N1-C2-N3	6.74	118.94	114.90
26	14	256	A	C8-N9-C4	-6.74	103.10	105.80
26	14	621	A	C5-C6-N1	-6.74	114.33	117.70
26	14	790	C	O5'-P-OP2	-6.74	99.63	105.70
26	1H	1184	G	N1-C2-N2	6.74	122.27	116.20
1	1G	1501	C	N3-C2-O2	6.74	126.62	121.90
26	14	330	A	C5-N7-C8	-6.74	100.53	103.90
26	14	2033	A	OP1-P-OP2	6.74	129.71	119.60
26	1H	1343	G	C8-N9-C4	-6.74	103.71	106.40
26	1H	1702	G	O5'-P-OP2	6.74	118.78	110.70
26	14	48	G	N7-C8-N9	6.74	116.47	113.10
1	13	832	C	C5-C6-N1	-6.73	117.63	121.00
26	1H	397	G	C2-N3-C4	-6.73	108.53	111.90
26	1H	736	C	N1-C2-O2	-6.73	114.86	118.90
26	1H	2712	U	N3-C4-O4	-6.73	114.69	119.40
26	14	759	G	OP1-P-OP2	-6.73	109.50	119.60
26	14	1204	A	N3-C4-C5	6.73	131.51	126.80
1	13	368	U	O5'-P-OP1	-6.73	99.64	105.70
26	1H	531	C	OP1-P-OP2	6.73	129.70	119.60
26	1H	840	C	C5-C6-N1	-6.73	117.63	121.00
26	1H	1397	U	N3-C2-O2	-6.73	117.49	122.20
26	1H	2713	A	C5-C6-N1	-6.73	114.33	117.70
26	14	2607	G	C2-N3-C4	-6.73	108.53	111.90
26	14	2265	U	C5-C6-N1	6.73	126.06	122.70
26	1H	25	U	O5'-P-OP1	-6.73	99.65	105.70
26	1H	677	A	O5'-P-OP2	-6.73	99.64	105.70
26	1H	1122	G	C5-C6-O6	-6.73	124.56	128.60
26	1H	1614	A	N7-C8-N9	6.73	117.16	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	M8	40	HIS	N-CA-C	6.73	129.17	111.00
26	14	1401	G	C8-N9-C4	-6.73	103.71	106.40
26	1H	833	U	N3-C2-O2	6.73	126.91	122.20
26	1H	1300	U	N1-C2-N3	6.72	118.94	114.90
26	1H	2318	G	C8-N9-C4	-6.72	103.71	106.40
1	1G	131	C	C6-N1-C2	-6.72	117.61	120.30
26	14	1359	A	C8-N9-C4	6.72	108.49	105.80
26	14	182	A	OP2-P-O3'	6.72	119.99	105.20
26	14	1932	A	C8-N9-C4	6.72	108.49	105.80
26	1H	73	A	C5-C6-N1	6.72	121.06	117.70
26	1H	501	A	N1-C2-N3	6.72	132.66	129.30
26	1H	2587	A	C6-N1-C2	-6.72	114.57	118.60
26	14	682	G	C5-N7-C8	6.72	107.66	104.30
26	14	733	G	C8-N9-C1'	-6.72	118.26	127.00
26	14	2594	C	C5-C4-N4	-6.72	115.50	120.20
26	1H	254	G	N9-C4-C5	-6.72	102.71	105.40
26	1H	1676	A	C5-C6-N1	-6.72	114.34	117.70
26	1H	2674	G	N1-C6-O6	-6.72	115.87	119.90
26	14	1954	G	C2-N3-C4	6.72	115.26	111.90
26	1H	1147	C	C6-N1-C2	6.72	122.99	120.30
26	1H	1899	G	OP2-P-O3'	6.72	119.98	105.20
26	1H	2593	U	N1-C2-N3	6.72	118.93	114.90
26	1H	2598	A	N7-C8-N9	-6.72	110.44	113.80
26	1H	2681	C	P-O3'-C3'	6.72	127.76	119.70
1	1G	556	C	O5'-P-OP1	-6.72	99.66	105.70
26	14	685	A	O4'-C1'-N9	6.72	113.57	108.20
26	1H	2174	C	C6-N1-C2	-6.71	117.61	120.30
26	1H	1213	A	C2-N3-C4	-6.71	107.24	110.60
1	1G	197	A	P-O3'-C3'	6.71	127.76	119.70
26	14	192	C	N3-C4-C5	6.71	124.58	121.90
26	1H	175	G	N1-C6-O6	-6.71	115.87	119.90
26	1H	1308	A	C4-C5-N7	-6.71	107.34	110.70
1	1G	1072	G	C8-N9-C4	6.71	109.08	106.40
26	14	2607	G	N1-C2-N2	-6.71	110.16	116.20
26	14	945	A	O4'-C1'-N9	6.71	113.57	108.20
26	1H	120	U	N1-C2-N3	6.71	118.92	114.90
26	1H	254	G	N1-C6-O6	6.71	123.92	119.90
26	1H	1516	U	C5-C4-O4	6.71	129.92	125.90
26	14	1823	G	N3-C4-C5	6.71	131.95	128.60
26	14	2199	A	O5'-P-OP1	-6.71	99.66	105.70
26	1H	974(A)	C	N1-C2-O2	6.71	122.92	118.90
1	13	353	A	O5'-P-OP1	-6.70	99.67	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1200	C	N1-C2-N3	-6.70	114.51	119.20
26	1H	1187	G	C5-C6-N1	-6.70	108.15	111.50
26	1H	2516	G	C5-N7-C8	-6.70	100.95	104.30
27	16	76	G	C5-C6-O6	6.70	132.62	128.60
1	1G	108	G	N1-C2-N3	-6.70	119.88	123.90
26	14	642	G	C4-C5-C6	6.70	122.82	118.80
1	13	817	C	C2-N3-C4	-6.70	116.55	119.90
1	13	1227	A	N3-C4-C5	6.70	131.49	126.80
23	2K	6	G	C2-N3-C4	-6.70	108.55	111.90
26	14	1423	G	C8-N9-C4	6.70	109.08	106.40
26	14	1785	A	C4-C5-C6	6.70	120.35	117.00
26	1H	2303	G	OP1-P-O3'	6.70	119.93	105.20
26	14	492	A	O5'-P-OP2	-6.70	99.67	105.70
26	1H	693	C	C2-N3-C4	-6.70	116.55	119.90
26	1H	1614	A	C4-C5-N7	6.70	114.05	110.70
1	1G	612	C	N1-C2-O2	6.70	122.92	118.90
26	14	2413	G	C5-C6-O6	-6.70	124.58	128.60
26	14	2595	G	N3-C4-C5	6.70	131.95	128.60
1	13	988	G	N3-C4-C5	-6.69	125.25	128.60
26	1H	979	G	N3-C4-N9	-6.69	121.98	126.00
1	13	330	C	N1-C2-O2	6.69	122.92	118.90
26	1H	766	C	N3-C4-N4	6.69	122.69	118.00
26	1H	814	C	C5-C6-N1	-6.69	117.65	121.00
26	1H	1832	C	OP2-P-O3'	6.69	119.92	105.20
26	1H	2597	G	N1-C2-N2	6.69	122.22	116.20
26	14	121	G	C8-N9-C1'	-6.69	118.30	127.00
26	14	463	G	C5-C6-O6	-6.69	124.58	128.60
26	14	744	G	C2-N3-C4	-6.69	108.55	111.90
1	13	811	C	C5-C6-N1	-6.69	117.65	121.00
26	1H	1321	A	C4-C5-C6	-6.69	113.66	117.00
1	13	717	C	C6-N1-C2	6.69	122.98	120.30
1	13	1065	U	P-O3'-C3'	6.69	127.73	119.70
26	1H	1396	U	O5'-P-OP2	6.69	118.73	110.70
22	1K	76	A	C6-C5-N7	-6.69	127.62	132.30
26	1H	110	G	O5'-P-OP2	-6.69	99.68	105.70
26	1H	1933	G	C8-N9-C4	-6.69	103.72	106.40
26	1H	2006	C	N3-C2-O2	6.69	126.58	121.90
26	14	528	A	N1-C2-N3	6.69	132.64	129.30
26	14	1951	U	N3-C4-C5	-6.69	110.59	114.60
26	1H	1423	G	N1-C6-O6	-6.68	115.89	119.90
26	1H	2358	G	N3-C2-N2	-6.68	115.22	119.90
26	14	2346	A	N1-C6-N6	6.68	122.61	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2573	C	C6-N1-C1'	-6.68	112.78	120.80
1	13	1201	A	N1-C6-N6	6.68	122.61	118.60
26	1H	679	C	N3-C4-C5	6.68	124.57	121.90
26	1H	1639	U	N1-C2-N3	6.68	118.91	114.90
26	1H	2392	A	C6-N1-C2	6.68	122.61	118.60
26	14	448	U	O5'-P-OP1	-6.68	99.69	105.70
26	14	1577	C	O5'-P-OP2	-6.68	99.69	105.70
26	14	2507	C	O5'-P-OP2	-6.68	99.69	105.70
26	1H	1497	U	C5-C4-O4	-6.68	121.89	125.90
26	1H	1669	A	C6-C5-N7	-6.68	127.62	132.30
26	1H	1935	G	C4-C5-N7	-6.68	108.13	110.80
26	14	775	G	C6-C5-N7	-6.68	126.39	130.40
26	1H	1204	A	C5-N7-C8	-6.68	100.56	103.90
26	1H	1754	C	O5'-P-OP2	-6.68	99.69	105.70
26	14	682	G	N1-C6-O6	-6.68	115.89	119.90
26	1H	739	G	N7-C8-N9	-6.68	109.76	113.10
26	14	1013	C	C6-N1-C2	-6.68	117.63	120.30
26	14	1794	U	N1-C2-N3	6.68	118.91	114.90
26	1H	1830	C	OP1-P-O3'	6.68	119.89	105.20
26	1H	1938	A	OP1-P-OP2	6.68	129.62	119.60
26	1H	2507	C	N1-C2-O2	6.68	122.91	118.90
26	14	2331	G	C8-N9-C4	6.68	109.07	106.40
26	1H	760	G	N1-C6-O6	6.67	123.90	119.90
26	1H	825	C	N3-C4-N4	6.67	122.67	118.00
26	14	2443	C	O5'-P-OP1	-6.67	99.69	105.70
26	1H	1374	G	C5-C6-N1	-6.67	108.16	111.50
26	1H	1379	A	C8-N9-C4	-6.67	103.13	105.80
26	1H	2533	A	C8-N9-C4	6.67	108.47	105.80
26	1H	2837	G	N7-C8-N9	6.67	116.44	113.10
1	13	1527	C	N1-C2-O2	-6.67	114.90	118.90
26	1H	46	C	N1-C2-N3	6.67	123.87	119.20
27	16	96	G	C2-N3-C4	6.67	115.23	111.90
26	14	1621	U	O5'-P-OP1	-6.67	99.69	105.70
1	13	534	U	C5-C6-N1	-6.67	119.36	122.70
1	13	1279	A	C5-N7-C8	-6.67	100.57	103.90
26	1H	681	G	C8-N9-C4	6.67	109.07	106.40
26	1H	828	U	N3-C4-O4	-6.67	114.73	119.40
26	1H	2282	G	C5-C6-O6	6.67	132.60	128.60
26	1H	558	G	C8-N9-C4	6.67	109.07	106.40
26	1H	1673	U	C2-N3-C4	-6.67	123.00	127.00
26	1H	2271	G	C6-C5-N7	-6.66	126.40	130.40
26	1H	2287	A	N3-C4-N9	-6.66	122.07	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2327	A	C2-N3-C4	6.66	113.93	110.60
37	78	23	PRO	C-N-CA	-6.66	108.31	122.30
26	14	1342	A	C2-N3-C4	-6.66	107.27	110.60
29	11	29	PRO	CA-N-CD	6.66	121.03	111.70
26	14	2447	G	C4-C5-N7	-6.66	108.14	110.80
26	1H	580	C	C4-C5-C6	6.66	120.73	117.40
26	14	307	G	C4-C5-N7	6.66	113.46	110.80
26	14	1620	G	OP1-P-OP2	-6.66	109.61	119.60
26	1H	270(G)	C	C6-N1-C2	-6.66	117.64	120.30
26	14	1605	C	N1-C2-O2	-6.66	114.91	118.90
26	14	1831	G	N1-C2-N3	6.66	127.89	123.90
26	1H	536	A	C6-N1-C2	-6.66	114.61	118.60
26	1H	821	A	N1-C2-N3	6.66	132.63	129.30
1	13	905	U	N3-C4-C5	6.65	118.59	114.60
26	1H	320	A	C5-C6-N6	-6.65	118.38	123.70
26	1H	686	G	C5-C6-N1	6.65	114.83	111.50
26	1H	1663	C	C5-C6-N1	-6.65	117.67	121.00
26	1H	2622	C	C6-N1-C2	6.65	122.96	120.30
1	1G	1322	C	N1-C2-O2	6.65	122.89	118.90
26	14	488	G	O5'-P-OP2	-6.65	99.71	105.70
55	M5	48	PHE	C-N-CA	6.65	138.33	121.70
1	1G	1501	C	C6-N1-C2	6.65	122.96	120.30
45	F8	3	THR	C-N-CA	6.65	138.32	121.70
26	14	2396	G	N1-C6-O6	6.65	123.89	119.90
26	1H	328	U	C6-N1-C2	-6.65	117.01	121.00
1	1G	40	C	N3-C4-N4	-6.65	113.35	118.00
1	13	1231	G	N1-C6-O6	6.65	123.89	119.90
27	16	116	G	N1-C6-O6	6.65	123.89	119.90
1	13	963	G	N7-C8-N9	-6.64	109.78	113.10
1	1G	21	G	C5-C6-N1	-6.64	108.18	111.50
26	14	469	G	C2-N3-C4	6.64	115.22	111.90
26	14	1110	G	O4'-C1'-N9	6.64	113.52	108.20
26	1H	2250	G	N9-C4-C5	6.64	108.06	105.40
26	14	947	G	N3-C2-N2	-6.64	115.25	119.90
26	14	2307	G	N7-C8-N9	6.64	116.42	113.10
26	1H	783	A	C4-C5-C6	6.64	120.32	117.00
26	1H	1661	G	C8-N9-C4	6.64	109.06	106.40
1	13	221	C	C6-N1-C2	-6.64	117.64	120.30
26	1H	420	C	C2-N3-C4	-6.64	116.58	119.90
26	1H	862	G	C6-N1-C2	-6.64	121.12	125.10
26	1H	915	C	N1-C2-O2	6.64	122.88	118.90
26	1H	974	G	N1-C6-O6	6.64	123.88	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1818	U	C4-C5-C6	6.64	123.68	119.70
26	14	2070	G	O5'-P-OP2	-6.64	99.73	105.70
1	13	664	G	N1-C6-O6	-6.63	115.92	119.90
1	13	1489	G	N9-C4-C5	-6.63	102.75	105.40
26	1H	909	A	C4-C5-N7	-6.63	107.38	110.70
26	14	775	G	N3-C4-C5	-6.63	125.28	128.60
26	1H	1614	A	N1-C6-N6	6.63	122.58	118.60
26	1H	2010	G	C5-C6-N1	-6.63	108.18	111.50
26	14	121	G	N3-C4-N9	6.63	129.98	126.00
26	1H	1600	C	C4-C5-C6	-6.63	114.08	117.40
1	13	852	G	N7-C8-N9	-6.63	109.78	113.10
26	1H	222	A	P-O3'-C3'	6.63	127.66	119.70
26	14	330	A	C6-C5-N7	-6.63	127.66	132.30
26	14	2829	C	C6-N1-C2	6.63	122.95	120.30
26	1H	1649	G	N1-C6-O6	-6.63	115.92	119.90
26	1H	2037	G	N3-C4-C5	-6.63	125.29	128.60
26	1H	2637	U	N3-C4-O4	6.63	124.04	119.40
26	14	2062	A	N1-C2-N3	-6.63	125.98	129.30
26	14	2258	C	N3-C4-N4	6.63	122.64	118.00
26	14	2376	A	N9-C4-C5	-6.63	103.15	105.80
26	1H	1669	A	C4-C5-N7	6.63	114.01	110.70
26	14	738	G	O5'-P-OP2	-6.63	99.74	105.70
26	14	1367	A	N1-C6-N6	6.63	122.58	118.60
26	14	2376	A	N1-C6-N6	6.63	122.58	118.60
26	1H	129	C	C5-C6-N1	-6.62	117.69	121.00
26	1H	2276	G	O5'-P-OP1	-6.62	99.74	105.70
26	14	793	A	N9-C4-C5	-6.62	103.15	105.80
26	14	1558	A	C2-N3-C4	-6.62	107.29	110.60
26	14	2048	G	C4-C5-N7	6.62	113.45	110.80
26	14	2441	C	N1-C2-O2	6.62	122.88	118.90
26	1H	1966	A	C8-N9-C4	6.62	108.45	105.80
26	1H	2357	U	O5'-P-OP2	-6.62	99.74	105.70
26	14	122	G	C5-C6-O6	-6.62	124.63	128.60
26	1H	1678	G	C5-C6-N1	-6.62	108.19	111.50
26	1H	2586	C	C6-N1-C2	6.62	122.95	120.30
26	14	2078	C	O5'-P-OP2	6.62	118.64	110.70
1	13	817	C	C5-C4-N4	-6.62	115.57	120.20
26	1H	676	A	C5-C6-N6	6.62	129.00	123.70
26	1H	2858	C	OP1-P-OP2	6.62	129.53	119.60
26	14	1559	G	C2-N3-C4	-6.62	108.59	111.90
26	1H	239	U	N3-C4-O4	-6.62	114.77	119.40
26	14	2007	C	O5'-P-OP2	-6.62	99.75	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	6	C	C5-C6-N1	-6.62	117.69	121.00
26	1H	1616	A	C8-N9-C4	-6.62	103.15	105.80
26	1H	2600	A	N1-C6-N6	-6.62	114.63	118.60
26	1H	1699	G	C8-N9-C4	-6.61	103.75	106.40
24	3L	76	A	C6-C5-N7	-6.61	127.67	132.30
1	13	765	G	C4-N9-C1'	6.61	135.10	126.50
26	1H	468	G	N1-C6-O6	6.61	123.87	119.90
26	1H	469	G	N1-C6-O6	-6.61	115.93	119.90
26	1H	799	G	OP1-P-OP2	-6.61	109.68	119.60
26	14	270(T)	G	C5-C6-N1	-6.61	108.19	111.50
26	14	2490	G	C4-C5-N7	6.61	113.44	110.80
26	1H	2449	U	N1-C2-N3	6.61	118.86	114.90
26	14	671	C	C5-C6-N1	-6.61	117.70	121.00
26	14	2287	A	C5-C6-N1	-6.61	114.40	117.70
26	14	2609	U	C4-C5-C6	6.61	123.67	119.70
26	1H	693	C	C4-C5-C6	6.61	120.70	117.40
26	1H	737	C	C4-C5-C6	6.61	120.70	117.40
26	1H	1315	C	N3-C2-O2	-6.61	117.28	121.90
26	1H	1675	C	C5-C6-N1	-6.61	117.70	121.00
26	1H	2491	U	C4-C5-C6	-6.61	115.74	119.70
26	14	493	G	N1-C6-O6	6.61	123.86	119.90
26	1H	1977	A	O5'-P-OP2	-6.60	99.76	105.70
26	14	671	C	OP2-P-O3'	6.60	119.73	105.20
26	14	1276	A	N9-C4-C5	-6.60	103.16	105.80
26	14	2439	A	O5'-P-OP2	-6.60	99.76	105.70
27	1J	117	G	N3-C4-C5	6.60	131.90	128.60
23	2K	73	A	C8-N9-C4	6.60	108.44	105.80
26	1H	1837	C	C2-N3-C4	6.60	123.20	119.90
26	1H	2819	G	N1-C6-O6	6.60	123.86	119.90
26	1H	2469	A	C2-N3-C4	-6.60	107.30	110.60
26	1H	85	G	O5'-P-OP2	-6.60	99.76	105.70
26	1H	116	C	N1-C2-O2	-6.60	114.94	118.90
26	1H	395	U	N3-C2-O2	-6.60	117.58	122.20
26	1H	778	G	C5-N7-C8	6.60	107.60	104.30
26	1H	1623	G	N1-C2-N3	6.60	127.86	123.90
1	1G	1499	A	C8-N9-C4	6.60	108.44	105.80
26	14	1566	A	C5-C6-N6	-6.60	118.42	123.70
1	13	326	G	C5-N7-C8	6.60	107.60	104.30
1	1G	366	C	C6-N1-C2	6.60	122.94	120.30
26	14	121	G	N1-C6-O6	6.60	123.86	119.90
26	14	574	C	N3-C4-N4	-6.60	113.38	118.00
1	13	52	G	N1-C6-O6	6.59	123.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	3E	36	ARG	NE-CZ-NH1	-6.59	117.00	120.30
37	78	36	LYS	CD-CE-NZ	-6.59	96.53	111.70
26	14	1806	C	O5'-P-OP2	-6.59	99.77	105.70
1	13	962	C	N3-C4-N4	-6.59	113.39	118.00
23	2K	31	G	C8-N9-C4	-6.59	103.76	106.40
26	1H	770	G	N3-C4-C5	6.59	131.90	128.60
26	1H	1021	A	N1-C6-N6	6.59	122.56	118.60
26	1H	2708	G	N7-C8-N9	-6.59	109.80	113.10
24	3K	3	G	C8-N9-C4	-6.59	103.76	106.40
26	1H	382	G	C5-C6-O6	-6.59	124.65	128.60
26	1H	806	C	C6-N1-C2	6.59	122.94	120.30
26	1H	2411	A	OP1-P-OP2	6.59	129.48	119.60
26	1H	2622	C	C5-C6-N1	-6.59	117.71	121.00
26	14	2072	G	C5-C6-O6	-6.59	124.65	128.60
27	1J	103	U	C5-C6-N1	-6.59	119.41	122.70
1	13	1304	G	C5-C6-N1	-6.59	108.21	111.50
26	1H	2442	C	C2-N3-C4	-6.59	116.61	119.90
2	12	11	LEU	CA-CB-CG	6.59	130.45	115.30
26	14	142	G	OP1-P-OP2	6.59	129.48	119.60
26	14	2496	C	C5-C4-N4	-6.59	115.59	120.20
26	14	2058	A	OP1-P-OP2	6.58	129.48	119.60
1	13	974	A	N7-C8-N9	6.58	117.09	113.80
26	1H	377	C	N3-C4-C5	6.58	124.53	121.90
26	1H	2311	A	N1-C6-N6	6.58	122.55	118.60
27	16	29	A	C8-N9-C4	-6.58	103.17	105.80
1	13	346	G	C4-N9-C1'	6.58	135.06	126.50
1	13	528	C	C6-N1-C2	6.58	122.93	120.30
26	1H	1053	C	O4'-C1'-N1	6.58	113.47	108.20
26	1H	1918	A	N9-C4-C5	-6.58	103.17	105.80
26	1H	1927	A	O5'-P-OP2	-6.58	99.78	105.70
26	1H	1935	G	N3-C2-N2	-6.58	115.29	119.90
26	1H	2605	U	N1-C2-O2	6.58	127.41	122.80
1	1G	121	C	N3-C4-N4	6.58	122.61	118.00
1	1G	1301	U	C6-N1-C1'	-6.58	111.99	121.20
26	1H	2418	A	OP1-P-OP2	-6.58	109.73	119.60
26	14	939	G	N7-C8-N9	6.58	116.39	113.10
26	14	2158	A	C8-N9-C4	-6.58	103.17	105.80
1	13	952	U	C4-C5-C6	6.58	123.65	119.70
26	1H	445	C	N1-C2-N3	6.58	123.81	119.20
26	1H	839	U	O5'-P-OP2	-6.58	99.78	105.70
26	1H	2064	C	N1-C2-O2	-6.58	114.95	118.90
26	14	717	G	C5-C6-O6	6.58	132.55	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1414	U	OP2-P-O3'	6.58	119.67	105.20
26	1H	2439	A	N9-C4-C5	-6.58	103.17	105.80
26	1H	258	G	N1-C6-O6	-6.58	115.95	119.90
26	1H	2412	A	C5-C6-N1	6.58	120.99	117.70
26	14	1225	C	N3-C2-O2	6.58	126.50	121.90
26	14	2252	G	C2-N3-C4	-6.58	108.61	111.90
26	14	2503	A	C5-C6-N6	-6.58	118.44	123.70
26	1H	197	A	OP2-P-O3'	6.57	119.66	105.20
1	1G	1354	C	C6-N1-C2	-6.57	117.67	120.30
26	1H	199	A	N1-C6-N6	-6.57	114.66	118.60
26	1H	1807	G	C8-N9-C4	6.57	109.03	106.40
26	1H	2701	C	N3-C4-N4	-6.57	113.40	118.00
26	1H	2713	A	N1-C6-N6	6.57	122.54	118.60
1	1G	400	C	N1-C2-O2	-6.57	114.96	118.90
1	1G	1127	G	O5'-P-OP1	-6.57	99.78	105.70
1	1G	1196	U	C5-C6-N1	6.57	125.99	122.70
13	4A	95	GLY	N-CA-C	6.57	129.53	113.10
26	1H	256	A	N1-C6-N6	6.57	122.54	118.60
26	1H	527	C	C5-C4-N4	-6.57	115.60	120.20
26	1H	759	G	C5-C6-N1	6.57	114.78	111.50
26	1H	1312	U	N3-C4-O4	-6.57	114.80	119.40
26	14	209	C	OP1-P-OP2	6.57	129.45	119.60
26	14	1939	U	C2-N3-C4	-6.57	123.06	127.00
26	14	216	A	N7-C8-N9	-6.57	110.52	113.80
26	14	248	G	N1-C2-N2	-6.57	110.29	116.20
26	1H	204	A	C8-N9-C4	6.57	108.43	105.80
26	1H	1308	A	N9-C4-C5	6.57	108.43	105.80
26	1H	2648	C	O5'-P-OP2	-6.57	99.79	105.70
1	13	1327	C	C6-N1-C2	6.57	122.93	120.30
26	1H	742	G	C8-N9-C4	-6.57	103.77	106.40
26	14	208	C	C2-N3-C4	-6.57	116.62	119.90
26	14	2084	C	C6-N1-C2	6.57	122.93	120.30
1	1G	529	G	C5-C6-O6	-6.56	124.66	128.60
26	1H	577	G	O5'-P-OP1	6.56	118.58	110.70
1	1G	1260	C	C6-N1-C2	-6.56	117.67	120.30
26	14	736	C	N1-C2-O2	-6.56	114.96	118.90
1	13	328	C	C6-N1-C1'	-6.56	112.93	120.80
26	1H	138	G	C5-C6-N1	6.56	114.78	111.50
26	1H	862	G	N1-C2-N2	-6.56	110.30	116.20
26	1H	1106	G	C8-N9-C4	-6.56	103.78	106.40
26	1H	1357	U	C4-C5-C6	6.56	123.64	119.70
26	1H	1605	C	OP1-P-OP2	6.56	129.44	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2676	C	N3-C4-C5	6.56	124.52	121.90
26	14	400	G	C8-N9-C4	-6.56	103.78	106.40
26	14	2569	G	C8-N9-C4	6.56	109.02	106.40
26	14	2598	A	C5-C6-N1	6.56	120.98	117.70
26	1H	481	G	N1-C6-O6	6.56	123.83	119.90
26	1H	2008	C	C2-N3-C4	-6.56	116.62	119.90
1	1G	1432	G	C5-C6-N1	-6.56	108.22	111.50
26	14	819	A	C8-N9-C4	-6.56	103.18	105.80
26	14	1333	C	N3-C4-C5	6.56	124.52	121.90
26	14	665	C	C6-N1-C2	6.56	122.92	120.30
26	14	1277	G	C2-N3-C4	-6.56	108.62	111.90
26	14	1376	C	C4-C5-C6	6.56	120.68	117.40
1	13	1405	G	N1-C6-O6	-6.55	115.97	119.90
26	1H	749	C	N3-C2-O2	-6.55	117.31	121.90
1	1G	1411	C	C5-C6-N1	-6.55	117.72	121.00
26	14	566	U	C2-N3-C4	-6.55	123.07	127.00
26	14	1257	C	C2-N3-C4	-6.55	116.62	119.90
26	14	2087	G	N9-C4-C5	-6.55	102.78	105.40
1	13	19	C	C5-C6-N1	6.55	124.28	121.00
1	13	884	U	N1-C2-N3	-6.55	110.97	114.90
26	14	2006	C	C6-N1-C2	6.55	122.92	120.30
1	13	1408	A	O5'-P-OP1	-6.55	99.81	105.70
26	1H	1336	A	C6-C5-N7	6.55	136.88	132.30
26	1H	1463	C	C6-N1-C2	-6.55	117.68	120.30
26	1H	2380	C	C2-N3-C4	-6.55	116.63	119.90
26	1H	71	A	C5-C6-N6	-6.54	118.46	123.70
27	1J	14	U	O5'-P-OP2	-6.54	99.81	105.70
1	13	893	C	O5'-P-OP1	-6.54	99.81	105.70
26	1H	767	U	OP1-P-OP2	6.54	129.42	119.60
26	1H	1852	C	N1-C2-O2	-6.54	114.97	118.90
26	14	1441	G	C8-N9-C4	6.54	109.02	106.40
26	14	1604	C	N1-C2-O2	-6.54	114.97	118.90
26	1H	705	A	N1-C6-N6	6.54	122.53	118.60
26	1H	2553	G	N1-C2-N3	6.54	127.83	123.90
25	4L	18	G	OP1-P-OP2	-6.54	109.79	119.60
26	14	1506	C	C5-C6-N1	6.54	124.27	121.00
26	1H	1174	A	N9-C1'-C2'	-6.54	104.81	112.00
1	1G	1356	G	N7-C8-N9	6.54	116.37	113.10
26	14	598	G	N1-C6-O6	6.54	123.82	119.90
26	14	793	A	C8-N9-C4	6.54	108.42	105.80
26	14	929	G	N1-C6-O6	6.54	123.82	119.90
26	14	1663	C	C5-C4-N4	-6.54	115.62	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2265	U	C6-N1-C2	-6.54	117.08	121.00
26	14	2779	U	C5-C4-O4	6.54	129.82	125.90
1	13	1506	U	N3-C2-O2	6.54	126.78	122.20
26	1H	999	U	C5-C4-O4	6.54	129.82	125.90
26	1H	1793	C	N1-C2-O2	-6.54	114.98	118.90
26	14	1950	G	O4'-C1'-N9	6.54	113.43	108.20
26	1H	2026	C	C4-C5-C6	6.54	120.67	117.40
24	3L	16	U	C5-C6-N1	6.54	125.97	122.70
26	14	1698	A	N1-C2-N3	6.54	132.57	129.30
26	14	2444	G	N9-C4-C5	6.54	108.01	105.40
26	1H	25	U	N1-C2-O2	-6.53	118.23	122.80
26	1H	939	G	C4-C5-N7	-6.53	108.19	110.80
26	1H	1399	C	N3-C4-N4	6.53	122.57	118.00
26	1H	1681	G	N1-C2-N3	-6.53	119.98	123.90
26	1H	2794	C	C5-C6-N1	6.53	124.27	121.00
26	14	1776	G	N3-C4-C5	-6.53	125.33	128.60
26	1H	811	U	C5-C6-N1	-6.53	119.43	122.70
37	78	106	LEU	CB-CG-CD1	6.53	122.11	111.00
26	14	684	G	N9-C4-C5	6.53	108.01	105.40
26	14	822	U	N3-C4-O4	-6.53	114.83	119.40
26	1H	2026	C	C5-C6-N1	-6.53	117.73	121.00
1	13	727	G	O5'-P-OP1	-6.53	99.83	105.70
26	1H	146	G	N9-C4-C5	-6.53	102.79	105.40
26	1H	2445	G	N7-C8-N9	6.53	116.36	113.10
26	14	1382	G	C5-C6-N1	-6.53	108.24	111.50
26	14	1605	C	C5-C6-N1	-6.53	117.74	121.00
26	1H	2436	G	N1-C2-N2	6.53	122.07	116.20
47	H8	61	LEU	CB-CG-CD2	6.53	122.09	111.00
26	14	1302	A	OP1-P-OP2	6.53	129.39	119.60
1	13	974	A	C5-C6-N1	-6.52	114.44	117.70
1	1G	898	G	C8-N9-C4	6.52	109.01	106.40
26	1H	948	G	N3-C2-N2	-6.52	115.33	119.90
26	14	2374	C	C5-C6-N1	-6.52	117.74	121.00
26	14	833	U	N3-C2-O2	6.52	126.77	122.20
26	14	2392	A	N1-C6-N6	6.52	122.51	118.60
26	1H	1219	G	C6-C5-N7	-6.52	126.49	130.40
26	1H	1346	G	N3-C4-N9	6.52	129.91	126.00
1	1G	828	A	N1-C6-N6	-6.52	114.69	118.60
26	14	1528	A	C8-N9-C4	-6.52	103.19	105.80
1	13	380	G	N3-C4-N9	-6.52	122.09	126.00
1	13	884	U	OP1-P-OP2	6.52	129.38	119.60
26	1H	142	G	C2-N3-C4	-6.52	108.64	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	528	A	N1-C6-N6	6.52	122.51	118.60
26	14	2873	A	C4-N9-C1'	6.52	138.03	126.30
26	1H	129	C	N3-C2-O2	-6.51	117.34	121.90
26	1H	241	A	N1-C6-N6	6.51	122.51	118.60
26	1H	1516	U	N3-C4-O4	-6.51	114.84	119.40
1	1G	416	G	C5-C6-N1	-6.51	108.24	111.50
26	14	675	A	C4-C5-N7	6.51	113.96	110.70
26	14	2445	G	OP2-P-O3'	6.51	119.52	105.20
1	13	477	G	N1-C6-O6	6.51	123.81	119.90
26	1H	237	C	N1-C2-O2	-6.51	115.00	118.90
27	16	16	G	C5-N7-C8	-6.51	101.05	104.30
1	1G	326	G	C4-C5-C6	6.51	122.71	118.80
1	13	577	G	N1-C6-O6	6.51	123.81	119.90
26	14	2401	U	C5-C6-N1	6.51	125.95	122.70
26	1H	736	C	C6-N1-C2	6.51	122.90	120.30
26	1H	1300	U	N1-C2-O2	-6.51	118.25	122.80
29	11	37	LEU	CB-CG-CD2	-6.51	99.94	111.00
26	14	2359	C	N3-C4-N4	-6.51	113.45	118.00
26	14	1643	G	O5'-P-OP1	-6.50	99.85	105.70
26	14	2609	U	N1-C2-N3	6.50	118.80	114.90
26	14	2716	U	C6-N1-C2	-6.50	117.10	121.00
26	14	2337	G	C8-N9-C4	-6.50	103.80	106.40
26	1H	762	U	C5-C4-O4	-6.50	122.00	125.90
26	1H	2024	G	N3-C2-N2	-6.50	115.35	119.90
26	1H	783	A	C5-C6-N6	-6.50	118.50	123.70
26	1H	902	C	N3-C4-N4	-6.50	113.45	118.00
26	1H	1314	C	N3-C2-O2	-6.50	117.35	121.90
26	1H	2266	A	N1-C2-N3	6.50	132.55	129.30
26	1H	703	U	C5-C6-N1	-6.50	119.45	122.70
26	1H	2318	G	C5-N7-C8	-6.50	101.05	104.30
26	1H	2639	A	N9-C4-C5	-6.50	103.20	105.80
26	14	537	C	C6-N1-C2	-6.50	117.70	120.30
26	14	1785	A	N9-C4-C5	6.50	108.40	105.80
1	13	585	G	O5'-P-OP2	-6.50	99.85	105.70
26	1H	1903	G	C8-N9-C4	6.50	109.00	106.40
26	1H	2559	C	N1-C2-N3	6.50	123.75	119.20
30	21	54	GLN	C-N-CA	6.50	137.94	121.70
26	14	1313	U	C5-C6-N1	6.50	125.95	122.70
1	13	1502	A	C8-N9-C4	-6.49	103.20	105.80
26	1H	1563	G	N9-C4-C5	6.49	108.00	105.40
1	13	789	U	C6-N1-C2	-6.49	117.11	121.00
26	1H	2417	C	C6-N1-C2	6.49	122.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1022	G	N9-C4-C5	6.49	108.00	105.40
26	1H	48	G	C4-C5-N7	-6.49	108.20	110.80
26	1H	2778	A	O5'-P-OP2	-6.49	99.86	105.70
26	14	1204	A	O4'-C1'-N9	6.49	113.39	108.20
26	14	1313	U	O5'-P-OP2	-6.49	99.86	105.70
26	1H	1188	U	C4-C5-C6	6.49	123.59	119.70
26	1H	2253	G	O5'-P-OP1	6.49	118.48	110.70
26	14	1818	U	N1-C2-O2	-6.49	118.26	122.80
26	1H	2053	G	C2-N3-C4	6.49	115.14	111.90
26	14	1759	A	C8-N9-C4	6.49	108.39	105.80
29	19	49	ILE	CG1-CB-CG2	-6.49	97.13	111.40
26	1H	690	G	O5'-P-OP2	6.49	118.48	110.70
26	1H	2611	U	N1-C2-O2	6.49	127.34	122.80
26	1H	2620	C	N1-C2-O2	-6.49	115.01	118.90
1	1G	27	G	N1-C6-O6	6.49	123.79	119.90
1	1G	40	C	C5-C4-N4	6.49	124.74	120.20
26	14	2437	U	C5-C4-O4	6.49	129.79	125.90
1	1G	562	C	N3-C4-C5	6.48	124.49	121.90
1	1G	1128	C	C6-N1-C2	-6.48	117.71	120.30
26	14	265	A	C6-C5-N7	-6.48	127.76	132.30
26	14	1175	U	C2-N1-C1'	6.48	125.48	117.70
26	1H	25	U	N3-C2-O2	6.48	126.74	122.20
26	1H	1159	U	N1-C2-O2	6.48	127.34	122.80
26	1H	2297	C	OP1-P-OP2	6.48	129.32	119.60
55	Q8	50	LEU	CA-CB-CG	6.48	130.21	115.30
1	1G	180	U	N3-C4-O4	6.48	123.94	119.40
26	14	2586	C	C5-C4-N4	-6.48	115.66	120.20
26	1H	209	C	C5-C6-N1	-6.48	117.76	121.00
26	1H	1579	A	N7-C8-N9	6.48	117.04	113.80
26	1H	2607	G	N1-C2-N2	-6.48	110.37	116.20
26	14	441	U	O5'-P-OP1	-6.48	99.87	105.70
26	14	935	C	N3-C4-N4	-6.48	113.46	118.00
1	13	900	A	C5-C6-N1	6.48	120.94	117.70
1	13	1524	C	N3-C4-C5	6.48	124.49	121.90
26	1H	1278	A	O5'-P-OP2	-6.48	99.87	105.70
26	1H	1805	U	O5'-P-OP1	-6.48	99.87	105.70
26	1H	2238	G	N7-C8-N9	6.48	116.34	113.10
26	14	1950	G	N3-C2-N2	6.48	124.43	119.90
1	13	500	G	N7-C8-N9	-6.47	109.86	113.10
26	1H	696	G	C5-C6-N1	6.47	114.74	111.50
26	1H	873	G	O5'-P-OP2	-6.47	99.87	105.70
26	14	1814	G	N1-C6-O6	6.47	123.78	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1976	U	O5'-P-OP2	-6.47	99.87	105.70
1	13	125	U	C5-C6-N1	-6.47	119.46	122.70
26	14	435	C	C6-N1-C2	6.47	122.89	120.30
27	1J	98	G	C8-N9-C4	6.47	108.99	106.40
29	11	37	LEU	CB-CG-CD1	6.47	122.00	111.00
26	14	197	A	N1-C6-N6	6.47	122.48	118.60
26	1H	264	C	N3-C4-C5	6.47	124.49	121.90
1	1G	508	C	O5'-P-OP1	-6.47	99.88	105.70
1	1G	1502	A	C4-C5-C6	6.47	120.23	117.00
26	14	1373	A	C5-C6-N1	6.47	120.94	117.70
26	1H	933	A	O5'-P-OP2	-6.47	99.88	105.70
26	1H	1690	A	C5-C6-N6	6.47	128.87	123.70
26	1H	2470	G	N1-C6-O6	-6.47	116.02	119.90
26	14	189	G	N1-C6-O6	6.47	123.78	119.90
26	1H	721	C	C5-C6-N1	-6.47	117.77	121.00
26	1H	1793	C	N3-C2-O2	6.47	126.43	121.90
26	1H	2541	A	O5'-P-OP1	-6.46	99.88	105.70
26	14	265	A	N7-C8-N9	6.46	117.03	113.80
26	14	915	C	N3-C2-O2	-6.46	117.38	121.90
26	14	1336	A	C5-C6-N1	6.46	120.93	117.70
26	14	2477	C	N3-C4-C5	-6.46	119.31	121.90
26	14	573	G	C5-N7-C8	6.46	107.53	104.30
26	1H	621	A	N7-C8-N9	6.46	117.03	113.80
26	1H	966	G	C4-C5-N7	-6.46	108.22	110.80
26	14	2637	U	C5-C4-O4	-6.46	122.02	125.90
26	1H	1306	C	O5'-P-OP1	-6.46	99.89	105.70
26	1H	655	A	N1-C6-N6	6.46	122.47	118.60
26	1H	827	U	N3-C2-O2	6.46	126.72	122.20
26	1H	2347	C	N1-C2-O2	6.46	122.78	118.90
36	68	23	ARG	NE-CZ-NH1	-6.46	117.07	120.30
1	1G	122	G	C5-C6-O6	-6.46	124.72	128.60
1	1G	132	C	C6-N1-C2	-6.46	117.72	120.30
26	14	391	G	N7-C8-N9	6.46	116.33	113.10
26	14	1999	C	C6-N1-C2	6.46	122.88	120.30
1	13	14	U	O5'-P-OP1	-6.46	99.89	105.70
1	13	963	G	C8-N9-C4	6.46	108.98	106.40
26	1H	195	A	C5-C6-N6	-6.46	118.54	123.70
26	1H	609	A	C8-N9-C4	6.46	108.38	105.80
26	14	676	A	C4-C5-N7	6.46	113.93	110.70
26	14	2357	U	O5'-P-OP2	-6.46	99.89	105.70
26	1H	833	U	N1-C2-O2	-6.45	118.28	122.80
26	1H	849	A	N7-C8-N9	-6.45	110.57	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	87	C	C6-N1-C2	-6.45	117.72	120.30
26	14	585	G	C5-C6-O6	-6.45	124.73	128.60
1	13	41	G	C8-N9-C4	6.45	108.98	106.40
1	13	890	G	O5'-P-OP2	-6.45	99.89	105.70
26	1H	1408	C	N1-C2-O2	-6.45	115.03	118.90
26	1H	2743	C	C5-C6-N1	-6.45	117.77	121.00
26	14	2024	G	N1-C6-O6	6.45	123.77	119.90
26	1H	1701	A	O5'-P-OP1	-6.45	99.89	105.70
26	1H	2083	G	N1-C2-N3	6.45	127.77	123.90
26	1H	2438	U	O5'-P-OP2	-6.45	99.89	105.70
26	1H	2447	G	C4-C5-C6	6.45	122.67	118.80
1	13	300	A	O5'-P-OP1	-6.45	99.90	105.70
26	1H	271(B)	G	C4-N9-C1'	6.45	134.88	126.50
26	1H	2497	A	N1-C2-N3	6.45	132.53	129.30
26	14	2304	G	N3-C4-N9	-6.45	122.13	126.00
26	14	2595	G	N9-C4-C5	-6.45	102.82	105.40
1	13	765	G	N3-C4-C5	-6.45	125.38	128.60
33	59	69	ARG	CD-NE-CZ	6.45	132.62	123.60
26	1H	2666	C	O5'-P-OP1	-6.45	99.90	105.70
26	1H	2701	C	N1-C2-N3	6.45	123.71	119.20
26	14	1372	U	C4-C5-C6	6.45	123.57	119.70
26	14	2081	C	C6-N1-C2	6.45	122.88	120.30
26	1H	1251	C	C6-N1-C2	6.44	122.88	120.30
26	1H	2259	G	C2-N3-C4	-6.44	108.68	111.90
1	1G	1415	G	C8-N9-C4	6.44	108.98	106.40
1	13	1335	C	C6-N1-C2	6.44	122.88	120.30
26	1H	1520	U	C6-N1-C2	-6.44	117.14	121.00
26	1H	2287	A	C5-N7-C8	-6.44	100.68	103.90
26	1H	443	A	N1-C2-N3	-6.44	126.08	129.30
26	1H	2056	G	N1-C2-N3	6.44	127.76	123.90
1	1G	1228	C	N3-C2-O2	-6.44	117.39	121.90
26	14	388	G	N3-C4-N9	-6.44	122.14	126.00
26	14	1626	G	C4-C5-N7	-6.44	108.22	110.80
26	14	2546	U	N3-C2-O2	-6.44	117.69	122.20
1	13	266	G	C6-C5-N7	-6.44	126.54	130.40
1	13	1486	G	N3-C4-N9	-6.44	122.14	126.00
26	1H	599	G	C8-N9-C4	6.44	108.97	106.40
26	1H	1259	G	N3-C2-N2	6.44	124.41	119.90
26	1H	1569	A	C5-C6-N1	-6.44	114.48	117.70
26	1H	2246	G	N3-C4-C5	-6.44	125.38	128.60
1	1G	1313	U	C6-N1-C2	-6.44	117.14	121.00
12	3A	92	ASP	CB-CG-OD2	-6.44	112.51	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	677	A	N1-C6-N6	-6.44	114.74	118.60
26	14	1251	C	N3-C2-O2	6.44	126.41	121.90
26	14	1332	G	O4'-C1'-N9	-6.44	103.05	108.20
26	14	1836	C	OP1-P-O3'	6.44	119.36	105.20
26	1H	1209	G	N1-C6-O6	6.43	123.76	119.90
1	1G	246	A	O5'-P-OP2	-6.43	99.91	105.70
26	14	580	C	C6-N1-C2	-6.43	117.73	120.30
26	14	2443	C	O5'-P-OP2	6.43	118.42	110.70
26	1H	528	A	N7-C8-N9	6.43	117.02	113.80
26	1H	675	A	N9-C4-C5	-6.43	103.23	105.80
26	1H	1334	G	N7-C8-N9	6.43	116.32	113.10
26	1H	1805	U	OP2-P-O3'	6.43	119.35	105.20
26	1H	1350	C	C6-N1-C2	6.43	122.87	120.30
1	13	538	G	N1-C2-N3	6.43	127.76	123.90
26	1H	1287	A	O5'-P-OP1	6.43	118.42	110.70
27	16	42	C	N1-C2-O2	-6.43	115.04	118.90
26	14	512	G	N3-C4-N9	-6.43	122.14	126.00
26	14	646	A	C8-N9-C4	-6.43	103.23	105.80
26	14	1567	A	N1-C6-N6	6.43	122.46	118.60
26	14	2332	U	C5-C4-O4	6.43	129.76	125.90
26	1H	946	G	N3-C4-N9	-6.43	122.14	126.00
26	1H	1340	U	N3-C4-O4	6.43	123.90	119.40
26	14	2573	C	C5-C6-N1	6.43	124.21	121.00
26	14	2607	G	N3-C2-N2	6.43	124.40	119.90
1	13	770	C	OP1-P-OP2	-6.43	109.96	119.60
26	1H	1274	A	C5-C6-N1	-6.43	114.49	117.70
26	1H	1623	G	C4-C5-N7	-6.43	108.23	110.80
23	2L	77	A	C4-C5-C6	-6.43	113.79	117.00
1	13	1347	G	C5-C6-O6	6.42	132.45	128.60
26	1H	444	C	OP1-P-OP2	-6.42	109.96	119.60
26	1H	909	A	C5-C6-N6	6.42	128.84	123.70
26	14	2560	C	O5'-P-OP1	-6.42	99.92	105.70
1	13	328	C	N3-C2-O2	-6.42	117.41	121.90
1	13	1400	C	C5-C6-N1	6.42	124.21	121.00
1	13	1439	C	O5'-P-OP2	-6.42	99.92	105.70
26	1H	1600	C	OP1-P-O3'	6.42	119.33	105.20
26	1H	1827	C	N3-C4-C5	-6.42	119.33	121.90
26	1H	2030	A	C5-C6-N6	-6.42	118.56	123.70
26	14	1682	G	O5'-P-OP2	-6.42	99.92	105.70
26	14	2779	U	N1-C2-N3	6.42	118.75	114.90
26	1H	606	U	C5-C4-O4	6.42	129.75	125.90
26	1H	2422	A	N1-C6-N6	-6.42	114.75	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1811	G	C5-C6-N1	6.42	114.71	111.50
26	1H	854	G	C8-N9-C1'	6.42	135.34	127.00
26	1H	17	G	O5'-P-OP2	-6.42	99.93	105.70
26	1H	395	U	C2-N1-C1'	6.42	125.40	117.70
26	1H	2281	C	N3-C4-C5	6.42	124.47	121.90
1	13	481	G	N1-C6-O6	6.41	123.75	119.90
26	1H	1209	G	C2-N3-C4	-6.41	108.69	111.90
26	1H	2299	G	C6-C5-N7	-6.41	126.55	130.40
26	1H	2618	G	C8-N9-C4	-6.41	103.83	106.40
27	16	12	C	O4'-C1'-N1	6.41	113.33	108.20
45	F8	3	THR	N-CA-C	-6.41	93.69	111.00
1	1G	808	C	N3-C4-N4	-6.41	113.51	118.00
26	14	1845	G	C4-C5-N7	-6.41	108.23	110.80
26	14	2295	C	N3-C4-N4	6.41	122.49	118.00
26	1H	99	U	C2-N1-C1'	6.41	125.39	117.70
26	14	2591	C	N3-C4-N4	6.41	122.49	118.00
1	13	575	G	C5-C6-O6	6.41	132.44	128.60
26	1H	758	C	O5'-P-OP2	-6.41	99.93	105.70
26	1H	1410	G	C8-N9-C4	6.41	108.96	106.40
26	14	1897	G	C8-N9-C4	6.41	108.96	106.40
26	1H	1860	G	N3-C4-C5	6.41	131.80	128.60
26	1H	2681	C	C2'-C3'-O3'	6.40	123.95	113.70
26	14	1929	G	OP1-P-OP2	6.40	129.21	119.60
1	13	284	G	C5-C6-O6	-6.40	124.76	128.60
1	13	909	A	C8-N9-C4	6.40	108.36	105.80
26	1H	1192	G	N1-C6-O6	6.40	123.74	119.90
26	14	1678	G	C4-C5-N7	6.40	113.36	110.80
1	13	238	G	C5-N7-C8	6.40	107.50	104.30
1	13	797	C	N1-C2-O2	-6.40	115.06	118.90
26	14	1992	G	P-O3'-C3'	6.40	127.38	119.70
1	13	558	G	N1-C6-O6	6.40	123.74	119.90
1	13	1279	A	N1-C6-N6	6.40	122.44	118.60
26	1H	1931	U	N3-C4-O4	-6.40	114.92	119.40
1	13	1277	C	C6-N1-C2	-6.40	117.74	120.30
1	13	1450	U	N1-C2-O2	6.40	127.28	122.80
26	14	2716	U	N1-C2-N3	6.40	118.74	114.90
26	14	2394	C	N3-C4-C5	6.40	124.46	121.90
1	13	522	C	O5'-P-OP2	-6.39	99.95	105.70
26	1H	189	G	N7-C8-N9	-6.39	109.90	113.10
26	1H	951	C	N1-C2-O2	6.39	122.73	118.90
26	1H	1934	C	C5-C6-N1	-6.39	117.80	121.00
26	1H	2590	A	C2-N3-C4	-6.39	107.40	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1418	G	N1-C6-O6	6.39	123.73	119.90
26	14	2062	A	N9-C4-C5	-6.39	103.24	105.80
26	1H	219	G	OP1-P-O3'	6.39	119.26	105.20
26	1H	1157	G	OP1-P-OP2	6.39	129.19	119.60
26	1H	1936	A	N1-C2-N3	6.39	132.50	129.30
26	14	630	G	N7-C8-N9	-6.39	109.90	113.10
26	1H	812	C	C2-N3-C4	-6.39	116.71	119.90
26	1H	2025	C	C6-N1-C2	-6.39	117.74	120.30
26	1H	1982	C	O5'-P-OP2	-6.39	99.95	105.70
26	1H	2847	U	N1-C2-O2	-6.39	118.33	122.80
1	13	582	U	C2-N3-C4	-6.38	123.17	127.00
26	1H	2704	C	OP1-P-OP2	6.38	129.18	119.60
26	14	1660	C	C6-N1-C2	-6.38	117.75	120.30
1	13	18	C	N1-C2-O2	6.38	122.73	118.90
26	14	909	A	C5-C6-N1	6.38	120.89	117.70
26	14	1816	G	O5'-P-OP1	-6.38	99.95	105.70
26	1H	516	C	C6-N1-C2	-6.38	117.75	120.30
26	1H	686	G	C8-N9-C4	6.38	108.95	106.40
26	14	770	G	O5'-P-OP1	6.38	118.36	110.70
26	14	2601	C	C6-N1-C2	-6.38	117.75	120.30
26	14	1408	C	C5-C4-N4	-6.38	115.73	120.20
26	14	2267	A	OP1-P-OP2	6.38	129.17	119.60
26	1H	840	C	C6-N1-C2	6.38	122.85	120.30
26	1H	2347	C	O5'-P-OP2	-6.38	99.96	105.70
1	1G	1484	C	N1-C2-O2	-6.38	115.07	118.90
26	14	2415	G	N1-C6-O6	6.38	123.73	119.90
26	1H	1993	U	O5'-P-OP1	-6.38	99.96	105.70
26	1H	2278	A	C6-N1-C2	-6.38	114.77	118.60
26	14	1807	G	N1-C6-O6	6.38	123.73	119.90
1	13	770	C	C5-C6-N1	-6.38	117.81	121.00
26	14	1825	A	C6-N1-C2	-6.38	114.78	118.60
26	1H	447	A	O5'-P-OP2	6.37	118.35	110.70
26	1H	508	G	C5-N7-C8	-6.37	101.11	104.30
26	14	667	U	C5-C4-O4	-6.37	122.08	125.90
26	14	677	A	C2-N3-C4	6.37	113.79	110.60
25	4K	13	A	C5-C6-N1	-6.37	114.52	117.70
26	14	531	C	N3-C4-C5	-6.37	119.35	121.90
26	14	1647	G	O5'-P-OP1	6.37	118.35	110.70
26	14	1802	A	C5-C6-N1	6.37	120.89	117.70
26	1H	745	G	C5-C6-O6	-6.37	124.78	128.60
26	1H	1885	A	C8-N9-C4	6.37	108.35	105.80
1	13	1511	G	N1-C2-N2	-6.37	110.47	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	9	A	N9-C4-C5	-6.37	103.25	105.80
26	1H	273(A)	G	C8-N9-C4	6.37	108.95	106.40
26	1H	688	U	N1-C2-O2	-6.37	118.34	122.80
26	1H	1955	U	O4'-C1'-N1	6.37	113.29	108.20
26	1H	2082	A	N1-C2-N3	6.37	132.49	129.30
26	14	686	G	C4-C5-N7	6.37	113.35	110.80
26	14	1786	A	N9-C1'-C2'	6.37	122.28	114.00
1	13	299	G	N1-C2-N2	-6.37	110.47	116.20
1	13	880	C	C5-C4-N4	-6.37	115.75	120.20
26	1H	382	G	N7-C8-N9	-6.37	109.92	113.10
26	1H	1639	U	OP2-P-O3'	6.37	119.21	105.20
1	1G	121	C	C2-N1-C1'	6.37	125.80	118.80
1	1G	257	G	N1-C6-O6	6.37	123.72	119.90
1	1G	668	G	N3-C2-N2	-6.37	115.44	119.90
26	14	678	C	C5-C6-N1	-6.37	117.82	121.00
26	14	1487	G	C8-N9-C4	-6.37	103.85	106.40
26	14	2473	U	N3-C2-O2	-6.37	117.74	122.20
26	14	1132	A	N1-C2-N3	6.36	132.48	129.30
26	14	1698	A	C5-C6-N1	-6.36	114.52	117.70
26	14	2026	C	C6-N1-C2	6.36	122.84	120.30
1	13	942	G	N3-C4-N9	6.36	129.82	126.00
26	1H	372	G	N1-C6-O6	-6.36	116.08	119.90
26	1H	2499	C	N1-C2-O2	-6.36	115.08	118.90
26	1H	1326	U	N3-C2-O2	-6.36	117.75	122.20
26	1H	2017	U	N3-C4-O4	6.36	123.85	119.40
26	14	1265	A	N1-C2-N3	6.36	132.48	129.30
26	14	1549	C	O5'-P-OP1	-6.36	99.97	105.70
26	1H	71	A	O4'-C1'-N9	-6.36	103.11	108.20
26	1H	860	U	N1-C2-N3	6.36	118.72	114.90
26	14	1772	G	OP1-P-OP2	6.36	129.13	119.60
26	1H	105	C	C6-N1-C2	-6.36	117.76	120.30
26	1H	141	A	C6-C5-N7	-6.36	127.85	132.30
26	1H	391	G	C2-N3-C4	-6.36	108.72	111.90
26	1H	1197	G	OP1-P-OP2	6.36	129.13	119.60
26	1H	1938	A	O5'-P-OP1	-6.36	99.98	105.70
26	14	698	C	C6-N1-C2	-6.36	117.76	120.30
26	1H	196	A	C4-C5-C6	6.35	120.18	117.00
26	1H	2391	G	C5-C6-O6	6.35	132.41	128.60
26	1H	2449	U	C4-C5-C6	6.35	123.51	119.70
26	14	752	A	C8-N9-C4	-6.35	103.26	105.80
26	14	1643	G	OP2-P-O3'	6.35	119.17	105.20
26	1H	256	A	C5-C6-N1	-6.35	114.53	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2073	C	OP2-P-O3'	6.35	119.17	105.20
26	14	2070	G	C2-N3-C4	-6.35	108.72	111.90
26	14	2262	U	OP1-P-OP2	-6.35	110.08	119.60
1	1G	1348	U	C5-C4-O4	6.35	129.71	125.90
1	13	1200	C	N1-C2-O2	6.34	122.71	118.90
26	1H	2042	A	O5'-P-OP2	-6.34	99.99	105.70
26	14	101	G	C2-N3-C4	6.34	115.07	111.90
1	1G	504	C	N1-C2-O2	-6.34	115.09	118.90
26	14	788	A	N1-C6-N6	6.34	122.41	118.60
26	1H	44	A	O5'-P-OP1	-6.34	99.99	105.70
26	1H	1790	C	N3-C4-N4	-6.34	113.56	118.00
26	1H	2676	C	C6-N1-C2	6.34	122.84	120.30
26	14	2038	G	OP1-P-OP2	-6.34	110.09	119.60
26	14	2087	G	C8-N9-C4	6.34	108.94	106.40
1	13	762	C	C6-N1-C2	6.34	122.83	120.30
26	1H	1981	A	C4-C5-C6	-6.34	113.83	117.00
1	1G	108	G	N9-C4-C5	-6.34	102.86	105.40
26	14	2542	A	C8-N9-C4	6.34	108.34	105.80
27	16	77	U	N1-C2-O2	-6.34	118.36	122.80
26	14	698	C	C4-C5-C6	6.34	120.57	117.40
26	14	2252	G	N1-C2-N2	-6.34	110.50	116.20
26	1H	764	A	C6-N1-C2	6.34	122.40	118.60
26	1H	2883	A	N1-C6-N6	-6.34	114.80	118.60
26	14	121	G	N9-C4-C5	-6.34	102.86	105.40
26	14	2581	G	N1-C2-N2	-6.34	110.50	116.20
26	1H	447	A	O5'-P-OP1	-6.33	100.00	105.70
26	1H	593	G	N1-C2-N2	-6.33	110.50	116.20
26	1H	948	G	N1-C6-O6	6.33	123.70	119.90
26	14	2326	C	N3-C4-C5	-6.33	119.37	121.90
26	14	2490	G	C8-N9-C4	-6.33	103.87	106.40
39	55	28	LEU	CA-CB-CG	6.33	129.87	115.30
1	13	536	C	O5'-P-OP2	-6.33	100.00	105.70
26	1H	74	A	O4'-C1'-N9	-6.33	103.14	108.20
26	1H	575	A	O5'-P-OP2	6.33	118.30	110.70
26	1H	921	G	N1-C2-N2	6.33	121.90	116.20
26	1H	2428	G	C5-C6-O6	6.33	132.40	128.60
26	14	836	G	C4-C5-N7	6.33	113.33	110.80
26	14	1107	G	C8-N9-C4	-6.33	103.87	106.40
1	13	580	U	C4-C5-C6	6.33	123.50	119.70
26	1H	2322	A	N1-C6-N6	-6.33	114.80	118.60
26	1H	2502	G	C6-N1-C2	-6.33	121.30	125.10
1	13	1432	G	C5-C6-O6	-6.33	124.80	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	743	G	OP1-P-OP2	6.33	129.09	119.60
26	1H	2611	U	OP2-P-O3'	6.33	119.12	105.20
26	14	2277	G	C5-C6-O6	6.33	132.40	128.60
26	1H	1035	U	N3-C4-O4	-6.33	114.97	119.40
26	1H	1277	G	N7-C8-N9	-6.33	109.94	113.10
26	1H	1430	C	C5-C4-N4	6.33	124.63	120.20
26	1H	1649	G	C5-C6-O6	6.33	132.40	128.60
24	3L	3	G	N1-C6-O6	6.33	123.70	119.90
26	1H	1829	A	N1-C6-N6	-6.33	114.81	118.60
26	1H	2392	A	C6-C5-N7	-6.33	127.87	132.30
1	1G	503	C	N3-C2-O2	6.33	126.33	121.90
22	1K	75	C	N3-C2-O2	-6.32	117.47	121.90
26	1H	578	A	C8-N9-C4	-6.32	103.27	105.80
27	16	38	C	N1-C2-O2	-6.32	115.11	118.90
26	1H	955	C	C4-C5-C6	6.32	120.56	117.40
26	14	1790	C	C5-C6-N1	-6.32	117.84	121.00
26	1H	1513	C	C5-C6-N1	6.32	124.16	121.00
23	2L	27	G	C8-N9-C4	6.32	108.93	106.40
26	14	530	G	C5-N7-C8	-6.32	101.14	104.30
26	1H	915	C	N3-C2-O2	-6.32	117.48	121.90
26	1H	1445	C	C6-N1-C2	-6.32	117.77	120.30
26	14	1304	C	C4-C5-C6	-6.32	114.24	117.40
26	14	1344	G	C5-C6-O6	-6.32	124.81	128.60
26	14	1955	U	C5-C4-O4	6.32	129.69	125.90
26	14	1976	U	N3-C4-C5	-6.32	110.81	114.60
26	1H	470	A	C4-C5-N7	6.32	113.86	110.70
26	1H	539	G	N3-C4-N9	-6.32	122.21	126.00
26	1H	582	G	N1-C6-O6	6.32	123.69	119.90
26	1H	1780	A	N1-C2-N3	6.32	132.46	129.30
26	1H	2063	C	N3-C4-N4	6.32	122.42	118.00
26	14	2590	A	O5'-P-OP1	-6.32	100.01	105.70
26	1H	840	C	C2-N3-C4	-6.32	116.74	119.90
26	1H	1497	U	OP1-P-O3'	6.32	119.09	105.20
26	1H	2553	G	C6-N1-C2	-6.32	121.31	125.10
26	14	639	U	C5-C4-O4	6.32	129.69	125.90
26	1H	16	G	N1-C2-N3	6.31	127.69	123.90
26	1H	513	A	C6-N1-C2	-6.31	114.81	118.60
26	1H	530	G	C5-C6-O6	6.31	132.39	128.60
26	1H	576	U	C6-N1-C2	-6.31	117.21	121.00
24	3K	12	U	C5-C6-N1	6.31	125.86	122.70
26	1H	2443	C	N3-C4-N4	6.31	122.42	118.00
1	1G	317	G	N1-C6-O6	6.31	123.69	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	782	A	C6-N1-C2	-6.31	114.81	118.60
26	14	2337	G	N7-C8-N9	6.31	116.26	113.10
1	13	770	C	C6-N1-C2	6.31	122.83	120.30
26	1H	781	A	OP1-P-O3'	6.31	119.08	105.20
1	1G	1519	A	C8-N9-C4	-6.31	103.28	105.80
2	1E	187	LEU	CA-CB-CG	6.31	129.81	115.30
26	1H	1319	G	N7-C8-N9	6.31	116.25	113.10
26	1H	2701	C	N3-C4-C5	6.31	124.42	121.90
26	14	913	U	O5'-P-OP2	-6.31	100.02	105.70
26	14	2197	U	O5'-P-OP2	6.31	118.27	110.70
1	13	1524	C	N3-C4-N4	-6.31	113.58	118.00
22	1K	76	A	C5-C6-N6	-6.31	118.65	123.70
26	1H	1728	G	N9-C4-C5	-6.31	102.88	105.40
26	14	2635	C	C6-N1-C2	6.31	122.82	120.30
26	14	1951	U	N1-C2-O2	-6.31	118.39	122.80
26	1H	1402	C	O5'-P-OP1	-6.30	100.03	105.70
26	1H	1527	G	C4-C5-N7	-6.30	108.28	110.80
26	1H	1528	A	C5-N7-C8	-6.30	100.75	103.90
26	1H	1604	C	O5'-P-OP1	-6.30	100.03	105.70
26	1H	2412	A	C6-N1-C2	-6.30	114.82	118.60
26	1H	598	G	N9-C4-C5	6.30	107.92	105.40
26	1H	693	C	C5-C4-N4	6.30	124.61	120.20
26	1H	1813	G	N1-C6-O6	-6.30	116.12	119.90
26	1H	2416	C	N1-C2-O2	-6.30	115.12	118.90
26	14	1259	G	OP2-P-O3'	6.30	119.07	105.20
1	13	582	U	N3-C4-C5	6.30	118.38	114.60
26	1H	755	C	N3-C4-C5	-6.30	119.38	121.90
26	1H	1568	G	N3-C2-N2	-6.30	115.49	119.90
26	1H	1663	C	C6-N1-C2	6.30	122.82	120.30
1	1G	1259	C	C6-N1-C2	-6.30	117.78	120.30
26	14	793	A	C2-N3-C4	-6.30	107.45	110.60
26	14	1381	G	N1-C6-O6	6.30	123.68	119.90
26	1H	16	G	C4-C5-N7	-6.30	108.28	110.80
26	1H	663	G	N3-C4-C5	-6.30	125.45	128.60
26	14	2229	C	N1-C2-O2	-6.30	115.12	118.90
26	1H	1219	G	C4-C5-N7	6.30	113.32	110.80
26	1H	1604	C	C4-C5-C6	6.30	120.55	117.40
26	1H	2067	G	N1-C6-O6	-6.30	116.12	119.90
26	1H	2512	C	N1-C2-O2	-6.30	115.12	118.90
26	1H	2712	U	O4'-C1'-N1	6.30	113.24	108.20
26	14	530	G	N3-C2-N2	6.30	124.31	119.90
26	14	1807	G	C5-C6-N1	-6.30	108.35	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1870	C	N1-C2-O2	6.30	122.68	118.90
1	13	855	G	OP1-P-OP2	6.29	129.04	119.60
26	1H	468	G	OP1-P-OP2	-6.29	110.16	119.60
26	1H	835	A	O5'-P-OP1	6.29	118.25	110.70
26	1H	1389	G	N1-C6-O6	-6.29	116.12	119.90
26	1H	880	G	C4-C5-N7	6.29	113.32	110.80
26	1H	1850	G	N7-C8-N9	6.29	116.25	113.10
26	1H	1948	G	C6-C5-N7	6.29	134.18	130.40
26	1H	2374	C	C5-C6-N1	-6.29	117.85	121.00
1	1G	784	C	C6-N1-C2	6.29	122.82	120.30
26	14	330	A	C5-C6-N1	-6.29	114.55	117.70
26	14	2497	A	N1-C6-N6	-6.29	114.82	118.60
26	1H	1502	C	C6-N1-C2	-6.29	117.78	120.30
26	1H	1799	G	N3-C4-N9	6.29	129.78	126.00
26	1H	2426	A	N7-C8-N9	6.29	116.94	113.80
29	11	39	LYS	C-N-CA	6.29	137.43	121.70
1	1G	783	C	C6-N1-C2	6.29	122.82	120.30
26	14	1626	G	C5-C6-O6	6.29	132.38	128.60
26	1H	300	A	O5'-P-OP2	-6.29	100.04	105.70
1	13	564	C	OP1-P-OP2	6.29	129.03	119.60
26	1H	792	G	C5-C6-O6	-6.29	124.83	128.60
26	1H	1124	C	OP1-P-OP2	6.29	129.03	119.60
26	1H	2276	G	N3-C4-C5	-6.29	125.46	128.60
26	1H	2573	C	C2-N1-C1'	6.29	125.72	118.80
27	16	14	U	C2-N3-C4	-6.29	123.23	127.00
26	1H	214	G	C8-N9-C4	-6.29	103.89	106.40
27	16	30	C	N3-C2-O2	-6.29	117.50	121.90
26	14	558	G	N7-C8-N9	-6.29	109.96	113.10
26	1H	467	G	C4-C5-N7	-6.29	108.29	110.80
26	1H	683	C	C2-N3-C4	-6.29	116.76	119.90
26	1H	904	C	C6-N1-C2	-6.29	117.79	120.30
23	2L	77	A	C4-C5-N7	6.29	113.84	110.70
26	14	140	A	C2-N3-C4	-6.29	107.46	110.60
26	14	259	G	N1-C6-O6	6.29	123.67	119.90
26	14	2581	G	C4-N9-C1'	6.29	134.67	126.50
26	1H	1336	A	C4-C5-C6	-6.28	113.86	117.00
26	1H	2311	A	N7-C8-N9	6.28	116.94	113.80
26	14	53	A	N1-C2-N3	6.28	132.44	129.30
26	14	298	G	C5-N7-C8	-6.28	101.16	104.30
26	14	725	G	C8-N9-C4	-6.28	103.89	106.40
26	14	749	C	C6-N1-C2	6.28	122.81	120.30
26	14	1025	G	C8-N9-C4	6.28	108.91	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	648	G	C4-C5-N7	-6.28	108.29	110.80
26	1H	2280	G	N3-C2-N2	-6.28	115.50	119.90
26	1H	629	G	C8-N9-C4	6.28	108.91	106.40
26	1H	1497	U	N3-C4-O4	6.28	123.80	119.40
26	1H	1800	C	N3-C4-C5	-6.28	119.39	121.90
27	16	81	G	C8-N9-C4	-6.28	103.89	106.40
26	14	494	G	N3-C4-C5	6.28	131.74	128.60
26	1H	470	A	C5-C6-N6	-6.28	118.68	123.70
26	14	2581	G	N1-C2-N3	6.28	127.67	123.90
1	13	584	G	C4-C5-N7	-6.28	108.29	110.80
24	3K	76	A	O4'-C1'-N9	6.28	113.22	108.20
26	1H	395	U	N1-C2-O2	6.28	127.19	122.80
26	14	1801	G	N1-C6-O6	6.28	123.67	119.90
26	14	2443	C	C4-C5-C6	6.28	120.54	117.40
26	1H	756	C	N3-C4-N4	6.28	122.39	118.00
26	1H	1427	A	C6-N1-C2	-6.28	114.83	118.60
26	1H	1776	G	N9-C4-C5	-6.28	102.89	105.40
26	1H	2406	U	O4'-C1'-N1	-6.28	103.18	108.20
26	1H	2779	U	C5-C4-O4	6.28	129.66	125.90
26	14	922	U	O5'-P-OP1	-6.28	100.05	105.70
26	1H	633	A	N1-C6-N6	6.27	122.36	118.60
26	1H	793	A	C8-N9-C4	6.27	108.31	105.80
26	1H	1698	A	C4-C5-N7	6.27	113.84	110.70
1	1G	968	A	N1-C6-N6	6.27	122.36	118.60
26	14	121	G	C6-N1-C2	-6.27	121.34	125.10
26	14	1332	G	C8-N9-C4	-6.27	103.89	106.40
26	14	2307	G	C8-N9-C4	-6.27	103.89	106.40
26	1H	53	A	OP1-P-O3'	6.27	119.00	105.20
26	1H	1966	A	N7-C8-N9	-6.27	110.66	113.80
26	1H	1971	A	C5-C6-N6	-6.27	118.68	123.70
1	1G	1487	G	N3-C2-N2	-6.27	115.51	119.90
26	14	664	C	C5-C6-N1	-6.27	117.86	121.00
26	14	828	U	C5-C4-O4	6.27	129.66	125.90
26	14	1071	G	C4-N9-C1'	6.27	134.66	126.50
1	13	974	A	O4'-C1'-N9	6.27	113.22	108.20
26	1H	1316	U	C5-C4-O4	6.27	129.66	125.90
26	1H	2054	A	C5-C6-N6	-6.27	118.68	123.70
26	14	749	C	N1-C2-O2	6.27	122.66	118.90
26	14	933	A	C4-C5-N7	6.27	113.84	110.70
1	13	10	A	N1-C6-N6	-6.27	114.84	118.60
26	1H	186	G	C8-N9-C4	6.27	108.91	106.40
26	1H	2299	G	C4-C5-N7	6.27	113.31	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1416	G	O5'-P-OP2	-6.27	100.06	105.70
26	14	500	G	C8-N9-C4	6.27	108.91	106.40
26	14	1663	C	N1-C2-O2	-6.27	115.14	118.90
26	1H	913	U	O5'-P-OP2	-6.27	100.06	105.70
26	1H	2311	A	O4'-C1'-N9	6.27	113.21	108.20
26	14	1966	A	N9-C4-C5	6.27	108.31	105.80
26	14	2067	G	O5'-P-OP1	-6.27	100.06	105.70
26	1H	1122	G	N1-C6-O6	6.27	123.66	119.90
26	1H	1792	G	N1-C6-O6	-6.27	116.14	119.90
26	1H	745	G	C6-C5-N7	-6.26	126.64	130.40
26	14	208	C	N3-C4-C5	6.26	124.41	121.90
26	14	2377	A	N7-C8-N9	-6.26	110.67	113.80
26	1H	215	G	N9-C4-C5	-6.26	102.89	105.40
26	1H	527	C	C6-N1-C2	6.26	122.81	120.30
26	1H	1830	C	N1-C2-O2	-6.26	115.14	118.90
26	14	621	A	N3-C4-C5	6.26	131.18	126.80
26	14	1528	A	N7-C8-N9	6.26	116.93	113.80
26	14	1935	G	C8-N9-C4	-6.26	103.89	106.40
26	14	2241	A	C8-N9-C4	6.26	108.30	105.80
26	14	2256	G	O5'-P-OP2	-6.26	100.06	105.70
26	14	2374	C	C2-N3-C4	-6.26	116.77	119.90
23	2K	25	U	N3-C4-O4	-6.26	115.02	119.40
26	1H	723	G	N7-C8-N9	-6.26	109.97	113.10
26	1H	1899	G	N1-C6-O6	6.26	123.66	119.90
26	14	845	G	C4-N9-C1'	6.26	134.64	126.50
26	14	1861	G	N1-C6-O6	6.26	123.66	119.90
26	1H	46	C	C4-C5-C6	6.26	120.53	117.40
26	1H	805	G	C6-C5-N7	-6.26	126.64	130.40
26	1H	1520	U	N1-C2-N3	6.26	118.66	114.90
26	1H	420	C	N3-C4-C5	6.26	124.40	121.90
26	1H	1188	U	C5-C6-N1	-6.26	119.57	122.70
27	16	37	C	C6-N1-C2	6.25	122.80	120.30
1	13	345	C	C6-N1-C1'	-6.25	113.30	120.80
1	13	481	G	C6-C5-N7	-6.25	126.65	130.40
1	13	1215	G	N3-C4-C5	6.25	131.73	128.60
26	1H	973	A	N3-C4-C5	6.25	131.18	126.80
26	1H	1924	C	C5-C6-N1	-6.25	117.87	121.00
26	1H	2704	C	C5-C6-N1	-6.25	117.87	121.00
1	1G	1139	G	C8-N9-C4	6.25	108.90	106.40
26	1H	1189	A	C5-C6-N6	-6.25	118.70	123.70
26	14	652	C	N1-C2-O2	-6.25	115.15	118.90
1	13	50	A	P-O3'-C3'	6.25	127.20	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	823	G	N1-C2-N3	6.25	127.65	123.90
26	1H	950	G	N1-C6-O6	-6.25	116.15	119.90
26	1H	1438	U	C6-N1-C2	-6.25	117.25	121.00
1	1G	1502	A	C5-C6-N1	-6.25	114.58	117.70
26	14	2755	C	C6-N1-C2	-6.25	117.80	120.30
27	1J	81	G	C2-N3-C4	-6.25	108.78	111.90
1	13	27	G	N1-C6-O6	-6.25	116.15	119.90
26	1H	1136	G	N3-C2-N2	-6.25	115.53	119.90
24	3L	76	A	O4'-C1'-N9	6.25	113.20	108.20
26	14	236	C	N3-C4-C5	6.25	124.40	121.90
26	1H	30	G	N3-C4-N9	6.24	129.75	126.00
26	1H	1609	A	OP1-P-O3'	6.24	118.94	105.20
26	1H	2056	G	N3-C2-N2	-6.24	115.53	119.90
26	14	1333	C	O5'-P-OP1	6.24	118.19	110.70
26	14	1812	A	OP1-P-OP2	6.24	128.97	119.60
26	14	2023	G	C5-N7-C8	-6.24	101.18	104.30
1	1G	587	G	N1-C6-O6	6.24	123.64	119.90
26	14	1915	U	N3-C2-O2	-6.24	117.83	122.20
1	13	953	G	N3-C4-C5	-6.24	125.48	128.60
26	1H	1250	G	C2-N3-C4	6.24	115.02	111.90
1	1G	180	U	C5-C6-N1	6.24	125.82	122.70
26	14	184	C	C2-N3-C4	-6.24	116.78	119.90
26	14	1370	C	C6-N1-C2	6.24	122.80	120.30
26	14	1893	C	C6-N1-C2	-6.24	117.80	120.30
26	1H	788	A	C8-N9-C4	6.24	108.30	105.80
26	1H	1602	U	N1-C2-N3	6.24	118.64	114.90
26	1H	1641	A	OP1-P-O3'	6.24	118.93	105.20
26	1H	1764	G	N1-C6-O6	-6.24	116.16	119.90
26	1H	2328	A	C8-N9-C4	6.24	108.30	105.80
26	1H	318	C	OP1-P-O3'	6.24	118.92	105.20
26	1H	862	G	N3-C4-N9	6.24	129.74	126.00
1	1G	392	G	N1-C6-O6	6.24	123.64	119.90
1	13	853	G	C8-N9-C4	6.24	108.89	106.40
26	1H	576	U	OP2-P-O3'	6.24	118.92	105.20
26	1H	2006	C	N1-C2-O2	-6.24	115.16	118.90
26	1H	2387	U	N1-C2-O2	-6.24	118.44	122.80
4	32	196	LEU	CB-CG-CD1	6.24	121.60	111.00
26	14	190	A	C4-C5-N7	6.24	113.82	110.70
26	14	1805	U	N3-C2-O2	-6.24	117.84	122.20
26	1H	310	A	C8-N9-C4	6.23	108.29	105.80
26	14	566	U	N3-C4-C5	6.23	118.34	114.60
26	1H	990	A	O5'-P-OP1	-6.23	100.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1653	G	OP1-P-OP2	6.23	128.95	119.60
26	1H	1819	A	O5'-P-OP1	-6.23	100.09	105.70
26	1H	2640	G	OP1-P-OP2	6.23	128.95	119.60
26	1H	2644	G	C5-C6-N1	-6.23	108.38	111.50
27	16	5	C	C6-N1-C2	6.23	122.79	120.30
24	3L	3	G	C6-C5-N7	-6.23	126.66	130.40
26	14	649	G	C2-N3-C4	6.23	115.02	111.90
26	14	828	U	C4-C5-C6	6.23	123.44	119.70
1	13	843	U	N3-C2-O2	-6.23	117.84	122.20
1	13	1049	U	C2-N1-C1'	-6.23	110.22	117.70
26	1H	1411	C	O5'-P-OP2	-6.23	100.09	105.70
26	1H	2057	A	C8-N9-C4	6.23	108.29	105.80
26	1H	2336	A	C2-N3-C4	6.23	113.72	110.60
26	1H	813	U	C4-C5-C6	6.23	123.44	119.70
26	14	1416	G	C8-N9-C4	6.23	108.89	106.40
26	14	2429	G	OP2-P-O3'	6.23	118.91	105.20
1	13	584	G	C6-N1-C2	-6.23	121.36	125.10
26	1H	389	G	C2-N3-C4	-6.23	108.79	111.90
26	14	2251	G	C8-N9-C1'	-6.23	118.90	127.00
26	1H	1342	A	C4-C5-N7	6.23	113.81	110.70
26	1H	1936	A	N1-C6-N6	6.23	122.34	118.60
26	1H	1445	C	C5-C6-N1	6.22	124.11	121.00
26	1H	2402	C	C6-N1-C2	-6.22	117.81	120.30
26	14	1999	C	OP2-P-O3'	6.22	118.89	105.20
26	1H	798	G	C8-N9-C4	6.22	108.89	106.40
26	1H	837	C	N3-C4-C5	6.22	124.39	121.90
26	1H	2437	U	OP1-P-OP2	6.22	128.93	119.60
26	1H	1621	U	C5-C4-O4	-6.22	122.17	125.90
26	1H	137(A)	G	C5-C6-O6	-6.22	124.87	128.60
6	52	14	LEU	CB-CG-CD2	6.22	121.58	111.00
26	14	2070	G	C5-C6-O6	6.22	132.33	128.60
26	1H	82	G	N9-C4-C5	6.22	107.89	105.40
26	14	1022	G	P-O3'-C3'	6.22	127.16	119.70
26	14	1313	U	C2-N1-C1'	6.22	125.16	117.70
26	1H	195	A	N9-C4-C5	-6.22	103.31	105.80
26	1H	248	G	C5-C6-O6	-6.22	124.87	128.60
26	1H	928	G	N1-C6-O6	6.22	123.63	119.90
1	13	611	A	N1-C6-N6	6.21	122.33	118.60
26	1H	130	C	C6-N1-C1'	-6.21	113.34	120.80
26	1H	2506	U	N1-C2-N3	-6.21	111.17	114.90
1	1G	932	C	N1-C2-O2	6.21	122.63	118.90
26	14	1021	A	N1-C2-N3	6.21	132.41	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1831	G	C6-C5-N7	-6.21	126.67	130.40
1	13	452	A	C8-N9-C4	6.21	108.28	105.80
26	1H	176	G	C2-N3-C4	-6.21	108.79	111.90
26	1H	2028	U	N3-C4-C5	-6.21	110.87	114.60
26	1H	2492	U	N3-C2-O2	-6.21	117.85	122.20
26	1H	2599	G	C5-C6-O6	6.21	132.33	128.60
1	1G	328	C	N3-C2-O2	-6.21	117.55	121.90
26	14	2499	C	C6-N1-C2	-6.21	117.82	120.30
1	13	326	G	C5-C6-O6	6.21	132.33	128.60
26	1H	247	G	N3-C2-N2	6.21	124.25	119.90
26	1H	1689	A	N9-C4-C5	6.21	108.28	105.80
23	2L	44	A	C5-C6-N1	6.21	120.81	117.70
26	14	491	G	C2-N3-C4	-6.21	108.80	111.90
26	1H	1274	A	N7-C8-N9	6.21	116.90	113.80
26	14	1779	U	C5-C4-O4	-6.21	122.17	125.90
1	13	689	C	C6-N1-C2	-6.21	117.82	120.30
22	1K	61	C	C2-N1-C1'	6.21	125.63	118.80
26	1H	589	C	OP1-P-OP2	6.21	128.91	119.60
1	1G	1128	C	C2-N1-C1'	6.21	125.63	118.80
1	1G	1357	A	N7-C8-N9	6.21	116.90	113.80
26	14	2392	A	C5-N7-C8	-6.21	100.80	103.90
27	16	5	C	N3-C4-C5	6.21	124.38	121.90
1	1G	1486	G	C8-N9-C4	6.21	108.88	106.40
26	14	2726	U	N3-C4-O4	-6.21	115.06	119.40
1	13	744	C	N1-C2-O2	-6.20	115.18	118.90
26	1H	700	G	N7-C8-N9	6.20	116.20	113.10
26	1H	815	C	OP2-P-O3'	6.20	118.85	105.20
1	1G	489	C	C6-N1-C2	6.20	122.78	120.30
20	BA	84	LEU	CA-CB-CG	6.20	129.57	115.30
26	1H	866	A	O4'-C1'-N9	-6.20	103.24	108.20
26	1H	1837	C	N1-C2-O2	6.20	122.62	118.90
26	1H	2042	A	C5-C6-N6	6.20	128.66	123.70
26	14	50	U	C5-C6-N1	-6.20	119.60	122.70
26	14	1678	G	C8-N9-C4	-6.20	103.92	106.40
26	14	236	C	C6-N1-C2	6.20	122.78	120.30
26	14	565	C	C6-N1-C1'	-6.20	113.36	120.80
26	14	2035	G	N7-C8-N9	-6.20	110.00	113.10
26	1H	1160	G	C5-N7-C8	-6.20	101.20	104.30
26	1H	2304	G	N1-C6-O6	6.20	123.62	119.90
26	1H	2440	C	O5'-P-OP2	-6.20	100.12	105.70
1	1G	687	A	P-O3'-C3'	6.20	127.14	119.70
1	1G	1415	G	C2-N3-C4	-6.20	108.80	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1303	G	C8-N9-C4	-6.20	103.92	106.40
26	1H	2599	G	N1-C2-N2	-6.20	110.62	116.20
1	13	238	G	N7-C8-N9	-6.20	110.00	113.10
1	13	1455	G	C8-N9-C4	6.20	108.88	106.40
26	1H	1694	C	N3-C4-N4	6.20	122.34	118.00
26	1H	1967	C	OP1-P-OP2	6.20	128.89	119.60
26	1H	2029	G	C5-C6-N1	-6.20	108.40	111.50
26	14	2069	G	OP1-P-OP2	6.20	128.89	119.60
1	13	888	G	N1-C6-O6	6.19	123.62	119.90
26	1H	692	C	N3-C2-O2	-6.19	117.56	121.90
26	14	2292	C	C6-N1-C2	6.19	122.78	120.30
24	3K	2	G	C4-N9-C1'	6.19	134.55	126.50
26	1H	745	G	C8-N9-C1'	-6.19	118.95	127.00
26	1H	946	G	C5-C6-O6	6.19	132.31	128.60
26	1H	1193	G	O5'-P-OP2	-6.19	100.13	105.70
26	1H	2012	G	C8-N9-C4	6.19	108.88	106.40
26	1H	2016	U	C5-C6-N1	-6.19	119.60	122.70
1	1G	186(D)	C	C6-N1-C2	6.19	122.78	120.30
24	3L	1	G	N3-C4-C5	-6.19	125.50	128.60
26	14	897	C	N1-C2-O2	6.19	122.62	118.90
26	14	2006	C	N3-C2-O2	6.19	126.23	121.90
1	13	1513	A	N1-C6-N6	6.19	122.31	118.60
26	1H	141	A	C2-N3-C4	-6.19	107.50	110.60
26	1H	217	G	O5'-P-OP1	-6.19	100.13	105.70
26	1H	917	A	C6-C5-N7	-6.19	127.97	132.30
26	14	470	A	N9-C4-C5	-6.19	103.32	105.80
26	14	2238	G	C6-C5-N7	6.19	134.11	130.40
26	14	2442	C	C2-N3-C4	-6.19	116.81	119.90
26	1H	239	U	C5-C6-N1	-6.19	119.61	122.70
26	1H	1653	G	N3-C2-N2	6.19	124.23	119.90
26	1H	2562	U	N3-C4-O4	-6.19	115.07	119.40
26	14	489	G	C6-C5-N7	-6.19	126.69	130.40
26	14	1623	G	O5'-P-OP1	-6.19	100.13	105.70
26	1H	2266	A	C6-N1-C2	-6.19	114.89	118.60
1	1G	1126	U	C6-N1-C2	6.19	124.71	121.00
26	14	121	G	C4-C5-N7	6.19	113.28	110.80
26	14	1646	C	O4'-C1'-N1	6.19	113.15	108.20
26	14	2591	C	C5-C4-N4	-6.19	115.87	120.20
26	1H	609	A	C2-N3-C4	-6.19	107.51	110.60
26	1H	1261	C	C5-C4-N4	-6.19	115.87	120.20
26	1H	1599	C	C5-C6-N1	-6.19	117.91	121.00
26	1H	845	G	N3-C4-N9	-6.18	122.29	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	249	U	C5-C6-N1	-6.18	119.61	122.70
26	14	36	G	C8-N9-C4	-6.18	103.93	106.40
26	14	1773	A	N1-C6-N6	-6.18	114.89	118.60
26	14	2062	A	N1-C6-N6	6.18	122.31	118.60
24	3K	71	C	C6-N1-C2	-6.18	117.83	120.30
26	1H	1255	U	N3-C4-O4	6.18	123.73	119.40
26	1H	1790	C	N3-C4-C5	6.18	124.37	121.90
26	1H	1957	C	C2-N1-C1'	-6.18	112.00	118.80
26	1H	123	G	N3-C2-N2	-6.18	115.57	119.90
26	1H	942	G	C5-C6-O6	-6.18	124.89	128.60
26	1H	1248	G	C5-C6-N1	-6.18	108.41	111.50
26	1H	2509	G	C5-C6-O6	6.18	132.31	128.60
26	1H	68	G	OP1-P-O3'	6.18	118.80	105.20
26	1H	1225	C	C6-N1-C2	6.18	122.77	120.30
26	14	2392	A	C6-C5-N7	-6.18	127.97	132.30
27	1J	89	G	O5'-P-OP2	-6.18	100.14	105.70
26	1H	621	A	N3-C4-N9	-6.18	122.46	127.40
1	13	1519	A	N1-C6-N6	-6.18	114.89	118.60
26	1H	1957	C	C5-C4-N4	6.18	124.52	120.20
26	1H	2429	G	C4-C5-N7	-6.18	108.33	110.80
27	16	116	G	C5-C6-O6	-6.18	124.89	128.60
26	14	870	A	C8-N9-C4	6.18	108.27	105.80
26	14	2070	G	OP2-P-O3'	6.18	118.79	105.20
26	14	2500	U	N3-C4-O4	-6.18	115.08	119.40
26	14	2580	U	C5-C4-O4	-6.18	122.19	125.90
26	1H	1597	A	O4'-C1'-N9	6.17	113.14	108.20
26	1H	1905	C	C6-N1-C2	-6.17	117.83	120.30
26	1H	2394	C	O5'-P-OP2	-6.17	100.14	105.70
26	1H	2558	C	N1-C2-O2	-6.17	115.20	118.90
26	14	1914	C	C5-C6-N1	6.17	124.09	121.00
26	14	1965	C	N3-C4-C5	6.17	124.37	121.90
26	14	21	A	N1-C2-N3	6.17	132.39	129.30
26	14	74	A	C4-C5-C6	6.17	120.09	117.00
26	1H	52	A	C2-N3-C4	6.17	113.69	110.60
26	1H	1836	C	C6-N1-C2	-6.17	117.83	120.30
26	1H	2553	G	C5-C6-O6	6.17	132.30	128.60
26	14	598	G	C5-C6-O6	-6.17	124.90	128.60
26	14	1251	C	OP1-P-OP2	6.17	128.85	119.60
1	13	222	U	C5-C6-N1	6.17	125.78	122.70
1	13	867	G	N3-C4-C5	-6.17	125.52	128.60
26	1H	1693	U	N3-C2-O2	-6.17	117.88	122.20
1	1G	449	C	N3-C2-O2	-6.17	117.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	787	U	C2-N3-C4	-6.17	123.30	127.00
26	1H	1647	G	C5-C6-O6	6.17	132.30	128.60
26	1H	2552	U	N1-C2-N3	6.17	118.60	114.90
26	14	195	A	C4-C5-C6	6.17	120.08	117.00
26	14	1762	A	OP2-P-O3'	6.17	118.76	105.20
26	1H	1902	C	N3-C4-N4	-6.16	113.69	118.00
26	1H	2052	G	O5'-P-OP1	-6.16	100.15	105.70
26	1H	2502	G	C2-N3-C4	6.16	114.98	111.90
26	14	297	C	N3-C4-C5	-6.16	119.44	121.90
26	1H	220	G	C5-C6-N1	-6.16	108.42	111.50
26	14	2283	C	C2-N1-C1'	6.16	125.58	118.80
26	1H	566	U	C6-N1-C2	6.16	124.70	121.00
26	1H	1423	G	N3-C2-N2	6.16	124.21	119.90
26	1H	1443	G	C2-N3-C4	-6.16	108.82	111.90
1	1G	1274	G	C8-N9-C4	-6.16	103.94	106.40
26	14	806	C	C6-N1-C2	6.16	122.76	120.30
26	14	1325	G	O5'-P-OP2	-6.16	100.16	105.70
26	14	1757	U	C5-C4-O4	6.16	129.60	125.90
26	14	2583	G	N9-C4-C5	6.16	107.86	105.40
26	14	2688	U	N3-C4-O4	-6.16	115.09	119.40
1	13	896	C	C2-N3-C4	-6.16	116.82	119.90
26	1H	16	G	O5'-P-OP2	-6.16	100.16	105.70
26	1H	762	U	N1-C2-O2	6.16	127.11	122.80
26	1H	1624	G	C6-N1-C2	-6.16	121.41	125.10
23	2L	27	G	N9-C4-C5	-6.16	102.94	105.40
26	1H	2337	G	C8-N9-C4	-6.16	103.94	106.40
26	1H	767	U	O5'-P-OP1	-6.16	100.16	105.70
26	1H	947	G	C5-C6-O6	-6.16	124.91	128.60
26	1H	978	G	C5-C6-O6	6.16	132.29	128.60
26	1H	1321	A	N7-C8-N9	-6.16	110.72	113.80
26	1H	1999	C	C5-C6-N1	-6.16	117.92	121.00
26	1H	2432	A	C5-C6-N6	6.16	128.62	123.70
1	1G	328	C	N1-C2-O2	6.16	122.59	118.90
1	13	419	C	N1-C2-O2	6.15	122.59	118.90
26	1H	70	G	P-O3'-C3'	6.15	127.08	119.70
1	13	1108	G	C4-C5-N7	-6.15	108.34	110.80
26	1H	1440	G	OP1-P-O3'	6.15	118.74	105.20
26	1H	693	C	O5'-P-OP2	-6.15	100.16	105.70
1	1G	1519	A	N9-C4-C5	6.15	108.26	105.80
1	13	1400	C	C4-C5-C6	-6.15	114.33	117.40
1	13	1517	G	C8-N9-C4	6.15	108.86	106.40
26	1H	608	A	O5'-P-OP1	6.15	118.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	917	A	N3-C4-C5	6.15	131.10	126.80
26	14	1037	G	N1-C6-O6	6.15	123.59	119.90
26	14	2688	U	C5-C6-N1	-6.15	119.63	122.70
26	1H	238	C	N1-C2-N3	6.15	123.50	119.20
26	1H	813	U	OP1-P-OP2	6.15	128.82	119.60
26	14	2518	A	N9-C4-C5	-6.15	103.34	105.80
1	13	345	C	N3-C2-O2	-6.14	117.60	121.90
1	13	513	C	N3-C4-C5	6.14	124.36	121.90
26	1H	134	C	C4-C5-C6	6.14	120.47	117.40
26	1H	335	C	C5-C6-N1	6.14	124.07	121.00
26	1H	1286	A	C6-N1-C2	-6.14	114.91	118.60
26	1H	2444	G	C8-N9-C4	-6.14	103.94	106.40
26	1H	2447	G	C6-C5-N7	-6.14	126.71	130.40
26	14	2083	G	C6-C5-N7	-6.14	126.71	130.40
26	1H	85	G	O5'-P-OP1	6.14	118.07	110.70
26	1H	690	G	N3-C4-N9	6.14	129.69	126.00
26	1H	1310	G	O5'-P-OP1	-6.14	100.17	105.70
26	1H	1606	G	N7-C8-N9	-6.14	110.03	113.10
26	1H	2711	A	C8-N9-C4	6.14	108.26	105.80
26	14	2772	C	C6-N1-C2	-6.14	117.84	120.30
26	1H	1672	C	C6-N1-C2	6.14	122.76	120.30
26	1H	1786	A	N3-C4-C5	6.14	131.10	126.80
26	1H	463	G	N1-C2-N2	-6.14	110.67	116.20
26	1H	970	C	N3-C4-C5	-6.14	119.44	121.90
26	1H	1398	C	OP2-P-O3'	6.14	118.71	105.20
26	1H	2337	G	O5'-P-OP1	6.14	118.07	110.70
1	1G	974	A	O4'-C1'-N9	6.14	113.11	108.20
26	14	48	G	N9-C4-C5	6.14	107.86	105.40
26	1H	1026	U	C2-N1-C1'	-6.14	110.33	117.70
26	14	1661	G	C5-C6-N1	6.14	114.57	111.50
26	1H	1275	A	N1-C2-N3	6.14	132.37	129.30
26	1H	1914	C	N3-C4-N4	6.14	122.30	118.00
26	14	1562	A	C8-N9-C4	6.14	108.25	105.80
1	13	924	C	N1-C2-O2	-6.13	115.22	118.90
26	1H	664	C	N1-C2-O2	-6.13	115.22	118.90
26	14	415	A	O5'-P-OP2	-6.13	100.18	105.70
26	14	1616	A	N3-C4-N9	-6.13	122.49	127.40
26	1H	1440	G	C4-C5-N7	-6.13	108.35	110.80
1	13	108	G	N9-C4-C5	-6.13	102.95	105.40
26	1H	107	C	C5-C4-N4	-6.13	115.91	120.20
26	1H	114	U	OP1-P-O3'	6.13	118.69	105.20
26	14	811	U	C5-C4-O4	6.13	129.58	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	702	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	762	U	C6-N1-C1'	-6.13	112.62	121.20
26	1H	627	A	N7-C8-N9	-6.13	110.73	113.80
26	1H	1031	G	N1-C6-O6	-6.13	116.22	119.90
26	1H	1681	G	C4-C5-N7	6.13	113.25	110.80
26	1H	1994	C	OP1-P-OP2	-6.13	110.41	119.60
26	1H	2503	A	OP1-P-OP2	-6.13	110.41	119.60
26	14	453	C	C5-C6-N1	-6.13	117.94	121.00
26	14	832	G	C8-N9-C4	-6.13	103.95	106.40
26	1H	659	C	C2-N3-C4	-6.13	116.84	119.90
26	1H	766	C	N3-C2-O2	6.13	126.19	121.90
26	1H	2782	G	N1-C6-O6	6.13	123.58	119.90
26	14	189	G	C5-C6-O6	-6.13	124.92	128.60
26	14	2313	C	N3-C4-C5	-6.13	119.45	121.90
26	1H	1920	C	C6-N1-C2	6.12	122.75	120.30
1	1G	1487	G	N1-C6-O6	6.12	123.58	119.90
26	14	447	A	O4'-C1'-N9	-6.12	103.30	108.20
1	13	266	G	C4-C5-N7	6.12	113.25	110.80
1	13	872	A	C6-N1-C2	6.12	122.27	118.60
25	4K	18	G	C4-C5-N7	-6.12	108.35	110.80
26	1H	829	A	N1-C6-N6	6.12	122.27	118.60
26	1H	2008	C	O5'-P-OP2	-6.12	100.19	105.70
26	14	247	G	N3-C4-C5	6.12	131.66	128.60
26	14	2067	G	N3-C4-C5	-6.12	125.54	128.60
26	1H	1204	A	C4-C5-N7	6.12	113.76	110.70
26	1H	2271	G	N1-C6-O6	6.12	123.57	119.90
23	2L	6	G	C8-N9-C4	6.12	108.85	106.40
26	14	678	C	C2-N3-C4	-6.12	116.84	119.90
26	14	1964	G	N1-C2-N2	-6.12	110.69	116.20
26	14	2164	C	N1-C2-O2	6.12	122.57	118.90
26	14	2461	C	C6-N1-C2	6.12	122.75	120.30
26	14	2607	G	N3-C4-N9	6.12	129.67	126.00
27	1J	98	G	N9-C4-C5	-6.12	102.95	105.40
26	1H	299	A	OP2-P-O3'	6.12	118.66	105.20
26	1H	142	G	N1-C6-O6	6.12	123.57	119.90
26	1H	1236	G	C2-N3-C4	-6.12	108.84	111.90
1	1G	911	U	O5'-P-OP2	-6.12	100.19	105.70
26	14	1690	A	OP1-P-OP2	-6.12	110.42	119.60
26	1H	46	C	N3-C2-O2	-6.12	117.62	121.90
26	1H	675	A	C8-N9-C4	6.12	108.25	105.80
26	14	1162	G	O5'-P-OP1	-6.12	100.19	105.70
26	14	1831	G	N9-C4-C5	-6.12	102.95	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	303	A	C2-N3-C4	6.12	113.66	110.60
1	13	1227	A	C5-C6-N1	-6.12	114.64	117.70
26	1H	1303	G	N1-C6-O6	-6.12	116.23	119.90
26	1H	2052	G	OP2-P-O3'	6.12	118.66	105.20
26	1H	587	C	C5-C6-N1	-6.11	117.94	121.00
26	14	774	A	C4-C5-N7	6.11	113.76	110.70
26	14	1671	U	N3-C2-O2	6.11	126.48	122.20
26	14	2697	G	C2-N3-C4	-6.11	108.84	111.90
1	13	721	G	N3-C4-N9	6.11	129.67	126.00
26	14	510	C	N3-C4-C5	-6.11	119.45	121.90
26	14	1762	A	C2-N3-C4	-6.11	107.54	110.60
26	1H	382	G	N9-C4-C5	-6.11	102.95	105.40
26	1H	1397	U	N1-C2-O2	6.11	127.08	122.80
26	1H	1558	A	N1-C2-N3	6.11	132.36	129.30
26	1H	1616	A	OP1-P-O3'	6.11	118.64	105.20
26	1H	2246	G	O5'-P-OP1	-6.11	100.20	105.70
26	14	1754	C	N1-C2-O2	6.11	122.57	118.90
26	1H	1387	C	C6-N1-C2	-6.11	117.86	120.30
23	2K	62	C	O5'-P-OP2	-6.11	100.20	105.70
26	1H	1816	G	OP2-P-O3'	6.11	118.63	105.20
26	1H	2006	C	N3-C4-C5	6.11	124.34	121.90
26	1H	2605	U	N3-C2-O2	-6.11	117.92	122.20
22	1L	74	C	N3-C4-N4	6.11	122.28	118.00
26	14	575	A	C5-C6-N6	-6.11	118.81	123.70
26	14	1889	A	C8-N9-C4	-6.11	103.36	105.80
26	14	2044	C	O5'-P-OP1	-6.11	100.20	105.70
26	14	2726	U	C5-C6-N1	-6.11	119.65	122.70
1	13	578	C	N3-C4-C5	-6.11	119.46	121.90
26	1H	470	A	N1-C6-N6	6.11	122.26	118.60
26	1H	1404	C	OP1-P-OP2	6.11	128.76	119.60
26	1H	2501	C	C2-N1-C1'	-6.11	112.08	118.80
26	14	750	A	C5-N7-C8	-6.11	100.85	103.90
26	1H	2640	G	C5-C6-N1	-6.10	108.45	111.50
26	14	362	U	N3-C2-O2	-6.10	117.93	122.20
26	1H	1549	C	N1-C2-O2	6.10	122.56	118.90
26	1H	2533	A	N7-C8-N9	-6.10	110.75	113.80
26	14	460	A	C6-C5-N7	-6.10	128.03	132.30
26	14	664	C	N3-C4-N4	-6.10	113.73	118.00
26	14	1649	G	C4-C5-N7	-6.10	108.36	110.80
23	2K	77	A	N1-C6-N6	6.10	122.26	118.60
26	1H	189	G	N1-C6-O6	6.10	123.56	119.90
26	1H	632	A	O5'-P-OP2	6.10	118.02	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1978	A	N1-C6-N6	-6.10	114.94	118.60
1	1G	1269	A	N1-C6-N6	-6.10	114.94	118.60
26	14	682	G	O5'-P-OP1	6.10	118.02	110.70
26	14	1700	A	O5'-P-OP2	6.10	118.02	110.70
26	1H	123	G	C5'-C4'-O4'	-6.10	101.78	109.10
26	14	773	U	C5-C6-N1	-6.10	119.65	122.70
26	14	1831	G	N1-C6-O6	6.10	123.56	119.90
26	14	2082	A	O5'-P-OP1	6.10	118.02	110.70
23	2K	32	G	C6-C5-N7	-6.10	126.74	130.40
26	14	1812	A	N1-C2-N3	6.10	132.35	129.30
26	14	2556	C	O5'-P-OP2	-6.10	100.21	105.70
1	13	869	G	C5-N7-C8	-6.09	101.25	104.30
26	1H	124	G	N1-C2-N2	6.09	121.69	116.20
1	1G	311	C	N3-C4-N4	6.09	122.27	118.00
26	14	1443	G	C5-C6-O6	-6.09	124.94	128.60
26	14	2243	U	OP2-P-O3'	6.09	118.61	105.20
26	14	2420	C	C5-C4-N4	-6.09	115.93	120.20
1	13	1519	A	C4-C5-N7	-6.09	107.65	110.70
26	1H	599	G	C5-N7-C8	6.09	107.35	104.30
26	1H	1812	A	C2-N3-C4	-6.09	107.55	110.60
26	14	2	G	C4-N9-C1'	6.09	134.42	126.50
26	14	1631	A	C5-C6-N6	-6.09	118.83	123.70
1	13	1252	A	C2-N3-C4	6.09	113.65	110.60
26	1H	1931	U	C2-N3-C4	-6.09	123.34	127.00
1	13	1107	C	N3-C4-C5	-6.09	119.47	121.90
26	1H	481	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	2469	A	C6-C5-N7	-6.09	128.04	132.30
1	1G	316	G	OP1-P-O3'	6.09	118.60	105.20
1	1G	692	U	N3-C4-O4	6.09	123.66	119.40
26	14	2496	C	OP1-P-OP2	-6.09	110.46	119.60
26	14	2766	G	N7-C8-N9	6.09	116.14	113.10
26	1H	140	A	OP1-P-O3'	-6.09	91.81	105.20
26	1H	2464	C	C6-N1-C2	6.09	122.73	120.30
23	2K	24	C	N3-C4-N4	-6.09	113.74	118.00
26	1H	755	C	N1-C2-O2	-6.09	115.25	118.90
26	1H	1977	A	C2-N3-C4	-6.09	107.56	110.60
26	1H	2287	A	C6-C5-N7	-6.09	128.04	132.30
26	14	672	C	N3-C4-C5	-6.09	119.47	121.90
26	14	1688	U	C2-N1-C1'	-6.09	110.40	117.70
26	14	1992	G	O4'-C1'-N9	-6.09	103.33	108.20
26	14	2386	C	C5-C6-N1	-6.09	117.96	121.00
26	1H	674	G	C5-C6-N1	6.08	114.54	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1767	C	C4-C5-C6	6.08	120.44	117.40
26	14	684	G	N7-C8-N9	6.08	116.14	113.10
26	14	2546	U	C2-N3-C4	6.08	130.65	127.00
26	1H	770	G	C4-C5-N7	6.08	113.23	110.80
26	1H	1802	A	C2-N3-C4	-6.08	107.56	110.60
1	1G	33	A	C8-N9-C4	-6.08	103.37	105.80
26	14	2618	G	C5-C6-O6	6.08	132.25	128.60
1	13	576	G	N1-C6-O6	6.08	123.55	119.90
1	13	1253	G	N3-C4-N9	6.08	129.65	126.00
26	1H	336	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	358	U	N3-C2-O2	-6.08	117.94	122.20
26	1H	677	A	N1-C2-N3	6.08	132.34	129.30
26	1H	681	G	N9-C4-C5	-6.08	102.97	105.40
26	1H	729	G	OP2-P-O3'	6.08	118.58	105.20
27	16	79	C	N3-C4-C5	-6.08	119.47	121.90
26	14	679	C	C4-C5-C6	6.08	120.44	117.40
26	14	841	A	C2-N3-C4	-6.08	107.56	110.60
26	14	2283	C	C5-C4-N4	-6.08	115.94	120.20
1	13	111	G	N1-C6-O6	6.08	123.55	119.90
1	13	477	G	C5-C6-O6	-6.08	124.95	128.60
1	13	1215	G	C2-N3-C4	-6.08	108.86	111.90
26	1H	786	C	N3-C4-N4	-6.08	113.75	118.00
26	1H	801	G	C5-C6-O6	-6.08	124.95	128.60
26	1H	1599	C	C2-N3-C4	-6.08	116.86	119.90
26	1H	2042	A	O5'-P-OP1	6.08	117.99	110.70
26	1H	2847	U	N3-C4-C5	-6.08	110.95	114.60
26	14	463	G	C8-N9-C4	6.08	108.83	106.40
26	14	771	G	OP1-P-O3'	6.08	118.57	105.20
1	13	943	U	O5'-P-OP1	-6.08	100.23	105.70
26	1H	382	G	N1-C6-O6	6.08	123.55	119.90
26	1H	1475	G	N3-C2-N2	-6.08	115.65	119.90
26	1H	2017	U	N1-C2-O2	-6.08	118.55	122.80
26	1H	2869	G	C5-C6-O6	-6.08	124.95	128.60
26	1H	330	A	N3-C4-C5	6.08	131.05	126.80
26	1H	2861	G	C8-N9-C4	-6.08	103.97	106.40
26	14	1401	G	N7-C8-N9	6.08	116.14	113.10
1	13	1430	C	C5-C6-N1	-6.07	117.96	121.00
26	1H	1338	G	C2-N3-C4	6.07	114.94	111.90
26	1H	1869	G	N1-C6-O6	6.07	123.54	119.90
22	1L	48	C	P-O3'-C3'	6.07	126.99	119.70
26	14	468	G	N3-C2-N2	-6.07	115.65	119.90
26	1H	1785	A	OP2-P-O3'	6.07	118.56	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	835	A	C6-N1-C2	-6.07	114.96	118.60
26	1H	1252	G	C8-N9-C4	6.07	108.83	106.40
26	1H	2505	G	N1-C6-O6	6.07	123.54	119.90
26	14	17	G	N3-C2-N2	6.07	124.15	119.90
26	14	41	C	C6-N1-C2	6.07	122.73	120.30
26	14	138	G	C8-N9-C4	-6.07	103.97	106.40
26	14	1202	C	N1-C2-O2	-6.07	115.26	118.90
1	13	858	G	N1-C6-O6	-6.07	116.26	119.90
26	1H	2023	G	N3-C2-N2	-6.07	115.65	119.90
26	1H	2288	A	N9-C4-C5	-6.07	103.37	105.80
26	14	2686	G	N1-C6-O6	6.07	123.54	119.90
1	13	380	G	C6-C5-N7	6.07	134.04	130.40
1	13	1301	U	C6-N1-C1'	-6.07	112.71	121.20
26	1H	471	A	C2-N3-C4	-6.07	107.57	110.60
26	1H	1819	A	C4-C5-N7	6.07	113.73	110.70
26	1H	1992	G	O4'-C1'-N9	-6.07	103.35	108.20
26	1H	2711	A	N9-C4-C5	-6.07	103.37	105.80
27	16	48	A	OP1-P-OP2	-6.07	110.50	119.60
22	1L	19	G	C4-N9-C1'	6.07	134.38	126.50
26	14	682	G	N3-C4-C5	-6.07	125.57	128.60
26	14	1107	G	N7-C8-N9	6.07	116.13	113.10
26	14	1342	A	C6-C5-N7	-6.07	128.06	132.30
26	14	2330	G	N3-C4-C5	-6.07	125.57	128.60
1	13	428	G	N3-C4-C5	6.06	131.63	128.60
26	1H	1621	U	N3-C4-O4	6.06	123.64	119.40
26	1H	74	A	C4-C5-C6	6.06	120.03	117.00
26	1H	2713	A	N7-C8-N9	6.06	116.83	113.80
1	13	534	U	C5-C4-O4	6.06	129.54	125.90
26	1H	685	A	C2-N3-C4	-6.06	107.57	110.60
26	1H	1271	G	N7-C8-N9	-6.06	110.07	113.10
26	1H	1992	G	P-O3'-C3'	6.06	126.97	119.70
26	14	802	A	C2-N3-C4	6.06	113.63	110.60
1	13	117	G	C4-C5-N7	6.06	113.22	110.80
26	1H	779	U	C5-C6-N1	-6.06	119.67	122.70
26	1H	2034	U	O5'-P-OP2	-6.06	100.25	105.70
26	1H	2273	A	OP2-P-O3'	6.06	118.53	105.20
26	14	56	A	C2-N3-C4	-6.06	107.57	110.60
26	14	843	G	N1-C6-O6	6.06	123.54	119.90
26	14	2473	U	N1-C2-O2	6.06	127.04	122.80
26	14	2880	C	C6-N1-C2	-6.06	117.88	120.30
26	1H	128	C	C5-C6-N1	-6.06	117.97	121.00
26	1H	148	C	N3-C4-N4	-6.06	113.76	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	242	G	N1-C6-O6	6.06	123.53	119.90
1	1G	704	A	C2-N3-C4	6.06	113.63	110.60
1	1G	924	C	C5-C4-N4	6.06	124.44	120.20
26	14	1332	G	C6-C5-N7	-6.06	126.77	130.40
26	14	2367	G	C6-C5-N7	-6.06	126.77	130.40
26	14	2424	C	C5-C6-N1	-6.06	117.97	121.00
26	14	2591	C	C6-N1-C2	6.06	122.72	120.30
1	13	108	G	C5-C6-O6	-6.06	124.97	128.60
26	1H	784	A	O4'-C1'-N9	6.06	113.04	108.20
26	1H	532	A	O5'-P-OP1	-6.05	100.25	105.70
26	1H	2326	C	N1-C2-O2	6.05	122.53	118.90
1	1G	1500	A	C2-N3-C4	-6.05	107.57	110.60
26	14	191	A	C2-N3-C4	6.05	113.63	110.60
26	14	2367	G	C4-C5-N7	6.05	113.22	110.80
1	13	772	U	C5-C6-N1	-6.05	119.67	122.70
26	1H	363(E)	U	C6-N1-C2	-6.05	117.37	121.00
26	1H	138	G	C4-C5-C6	-6.05	115.17	118.80
26	1H	818	G	C2-N3-C4	-6.05	108.87	111.90
26	1H	1983	C	N3-C4-C5	6.05	124.32	121.90
26	1H	2552	U	N1-C2-O2	-6.05	118.56	122.80
1	1G	416	G	C4-C5-C6	6.05	122.43	118.80
1	1G	770	C	C5-C6-N1	-6.05	117.97	121.00
26	14	463	G	N9-C4-C5	-6.05	102.98	105.40
26	14	974	G	P-O3'-C3'	6.05	126.96	119.70
26	14	1928	A	N1-C6-N6	-6.05	114.97	118.60
26	1H	1623	G	N1-C6-O6	-6.05	116.27	119.90
26	1H	1669	A	N1-C6-N6	6.05	122.23	118.60
26	1H	2500	U	C2-N3-C4	-6.05	123.37	127.00
1	1G	925	G	C8-N9-C4	6.05	108.82	106.40
24	3L	32	C	C6-N1-C2	-6.05	117.88	120.30
26	14	1253	A	N1-C6-N6	6.05	122.23	118.60
26	14	1564	C	N3-C4-N4	-6.05	113.77	118.00
1	13	703	G	C4-C5-N7	6.05	113.22	110.80
26	1H	294	A	N7-C8-N9	-6.05	110.78	113.80
26	1H	1407	C	OP1-P-O3'	6.05	118.50	105.20
26	1H	2074	U	C5-C6-N1	-6.05	119.68	122.70
26	1H	2711	A	OP1-P-O3'	6.05	118.50	105.20
1	1G	355	C	N3-C4-N4	-6.05	113.77	118.00
26	14	2442	C	N1-C2-N3	6.05	123.43	119.20
26	1H	211	A	N1-C6-N6	6.04	122.23	118.60
26	14	49	A	OP2-P-O3'	6.04	118.50	105.20
26	1H	834	C	N3-C4-N4	6.04	122.23	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1141	U	O4'-C1'-N1	6.04	113.04	108.20
26	1H	1162	G	N9-C4-C5	6.04	107.82	105.40
26	1H	1440	G	C5-N7-C8	6.04	107.32	104.30
26	1H	2067	G	N7-C8-N9	6.04	116.12	113.10
26	1H	2830	G	N7-C8-N9	6.04	116.12	113.10
26	14	924	C	O5'-P-OP2	-6.04	100.26	105.70
26	1H	1516	U	OP1-P-O3'	6.04	118.49	105.20
26	1H	2387	U	C2-N3-C4	-6.04	123.38	127.00
26	1H	2837	G	C8-N9-C4	-6.04	103.98	106.40
23	2L	13	C	C6-N1-C2	-6.04	117.88	120.30
26	14	679	C	N1-C2-N3	6.04	123.43	119.20
26	1H	683	C	C6-N1-C2	6.04	122.72	120.30
26	1H	1796	U	C5-C4-O4	6.04	129.52	125.90
26	14	1128	A	N1-C6-N6	-6.04	114.98	118.60
1	13	63	C	C6-N1-C2	-6.04	117.89	120.30
1	13	862	C	C2-N1-C1'	-6.04	112.16	118.80
26	1H	451	C	C5-C4-N4	-6.04	115.97	120.20
1	1G	907	A	O5'-P-OP1	6.04	117.95	110.70
26	14	812	C	O5'-P-OP1	-6.04	100.26	105.70
1	13	883	C	C6-N1-C2	-6.04	117.89	120.30
26	1H	2311	A	C6-C5-N7	-6.04	128.07	132.30
26	14	2281	C	C2-N1-C1'	6.04	125.44	118.80
1	13	1486	G	N3-C4-C5	6.04	131.62	128.60
26	1H	788	A	C2-N3-C4	-6.04	107.58	110.60
26	1H	1120	G	N1-C6-O6	6.04	123.52	119.90
26	1H	2072	G	N1-C6-O6	6.04	123.52	119.90
26	14	3	U	N1-C2-O2	6.04	127.03	122.80
26	1H	704	G	N3-C2-N2	-6.03	115.68	119.90
26	1H	732	C	C2-N3-C4	-6.03	116.88	119.90
26	1H	1784	A	OP1-P-OP2	-6.03	110.55	119.60
26	14	2729	G	C4-C5-N7	6.03	113.21	110.80
1	13	310	G	N1-C6-O6	-6.03	116.28	119.90
1	13	827	U	C6-N1-C1'	-6.03	112.75	121.20
1	13	455	C	C2-N1-C1'	6.03	125.43	118.80
26	1H	1610	A	N9-C4-C5	-6.03	103.39	105.80
26	14	2586	C	N3-C4-N4	6.03	122.22	118.00
26	1H	2645	G	C2-N3-C4	-6.03	108.89	111.90
23	2K	32	G	C2-N3-C4	-6.03	108.89	111.90
26	1H	451	C	N1-C2-O2	-6.03	115.28	118.90
26	1H	1333	C	C4-C5-C6	-6.03	114.39	117.40
26	1H	2278	A	N1-C2-N3	6.03	132.31	129.30
26	14	796	C	C5-C4-N4	-6.03	115.98	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1260	G	C8-N9-C4	-6.03	103.99	106.40
26	14	1271	G	N1-C6-O6	6.03	123.52	119.90
26	14	2563	U	N3-C2-O2	6.03	126.42	122.20
1	13	736	C	N3-C2-O2	-6.03	117.68	121.90
26	1H	560	C	C5-C6-N1	-6.03	117.99	121.00
26	1H	861	A	N1-C2-N3	6.03	132.31	129.30
26	1H	1573	G	OP2-P-O3'	6.03	118.46	105.20
1	1G	913	A	P-O3'-C3'	6.03	126.93	119.70
26	1H	909	A	C5-N7-C8	6.02	106.91	103.90
26	1H	1346	G	N3-C2-N2	6.02	124.12	119.90
26	1H	2577	A	N9-C4-C5	6.02	108.21	105.80
26	1H	2888	C	N3-C4-C5	-6.02	119.49	121.90
26	14	573	G	N3-C4-C5	-6.02	125.59	128.60
26	1H	2294	C	C6-N1-C2	-6.02	117.89	120.30
26	1H	2319	G	N1-C2-N2	-6.02	110.78	116.20
26	14	506	G	OP1-P-O3'	6.02	118.45	105.20
26	14	1648	C	N1-C2-O2	-6.02	115.29	118.90
26	14	2084	C	N3-C4-C5	6.02	124.31	121.90
26	14	2442	C	N3-C2-O2	-6.02	117.69	121.90
46	C5	103	GLY	N-CA-C	6.02	128.15	113.10
22	1L	74	C	C2-N1-C1'	6.02	125.42	118.80
26	1H	1574	C	N1-C2-O2	-6.02	115.29	118.90
26	1H	2620	C	C2-N3-C4	-6.02	116.89	119.90
26	14	510	C	N3-C2-O2	-6.02	117.69	121.90
26	14	879	G	N3-C4-N9	6.02	129.61	126.00
26	14	1683	C	N1-C2-O2	-6.02	115.29	118.90
26	14	2686	G	C4-C5-N7	6.02	113.21	110.80
26	1H	788	A	C6-C5-N7	-6.02	128.09	132.30
26	1H	1988	C	C5-C4-N4	6.02	124.41	120.20
49	J8	73	LEU	CA-CB-CG	6.02	129.14	115.30
26	14	73	A	C8-N9-C4	6.02	108.21	105.80
26	14	603	A	C6-C5-N7	-6.02	128.09	132.30
26	14	2726	U	C5-C4-O4	6.02	129.51	125.90
1	13	438	G	O5'-P-OP2	-6.02	100.29	105.70
26	1H	245	G	C4-C5-C6	6.02	122.41	118.80
26	1H	468	G	C5-C6-O6	-6.02	124.99	128.60
26	1H	2869	G	N3-C2-N2	-6.02	115.69	119.90
26	14	1823	G	C6-N1-C2	6.02	128.71	125.10
26	1H	920	G	N1-C2-N2	-6.01	110.79	116.20
26	1H	1777	U	N3-C4-C5	-6.01	110.99	114.60
26	1H	2385	C	N1-C2-O2	-6.01	115.29	118.90
26	14	2383	G	N3-C4-C5	-6.01	125.59	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	974	G	C5-C6-O6	-6.01	124.99	128.60
26	1H	2704	C	O5'-P-OP2	-6.01	100.29	105.70
26	1H	2779	U	N3-C2-O2	-6.01	117.99	122.20
26	14	458	G	C8-N9-C4	-6.01	104.00	106.40
26	14	298	G	N1-C6-O6	6.01	123.51	119.90
26	14	1624	G	C8-N9-C4	6.01	108.80	106.40
26	14	2772	C	N3-C2-O2	-6.01	117.69	121.90
26	1H	827	U	C2-N3-C4	-6.01	123.39	127.00
26	1H	2189	U	C5-C6-N1	6.01	125.70	122.70
26	14	783	A	N9-C1'-C2'	-6.01	105.39	112.00
26	1H	688	U	C4-C5-C6	6.01	123.31	119.70
26	1H	2620	C	C5-C6-N1	-6.01	118.00	121.00
26	14	2255	G	C5-C6-N1	6.01	114.50	111.50
26	1H	858	U	N3-C4-O4	-6.01	115.20	119.40
26	1H	979	G	N3-C4-C5	6.01	131.60	128.60
26	1H	1843	C	C5-C6-N1	-6.01	118.00	121.00
26	1H	2456	C	OP2-P-O3'	6.01	118.41	105.20
26	14	1210	A	C5-N7-C8	-6.01	100.90	103.90
26	14	1613	G	N1-C6-O6	-6.01	116.30	119.90
26	14	1660	C	N3-C2-O2	-6.01	117.69	121.90
26	14	2424	C	N3-C4-C5	6.01	124.30	121.90
26	1H	1273	U	N3-C4-O4	-6.00	115.20	119.40
55	Q8	47	LYS	N-CA-C	-6.00	94.79	111.00
1	13	892	A	N1-C6-N6	6.00	122.20	118.60
26	1H	727	A	O5'-P-OP2	6.00	117.91	110.70
26	1H	870	A	C5-C6-N1	6.00	120.70	117.70
26	1H	1248	G	N3-C4-N9	-6.00	122.40	126.00
26	1H	1324	G	C5-C6-N1	-6.00	108.50	111.50
26	1H	1678	G	C5-C6-O6	-6.00	125.00	128.60
26	14	1202	C	C2-N3-C4	-6.00	116.90	119.90
26	14	1728	G	C2-N3-C4	6.00	114.90	111.90
1	13	310	G	C5-C6-O6	6.00	132.20	128.60
26	1H	179	G	OP1-P-OP2	6.00	128.60	119.60
26	1H	2392	A	O4'-C1'-N9	6.00	113.00	108.20
1	1G	1270	C	C5-C6-N1	6.00	124.00	121.00
26	14	603	A	C5-N7-C8	-6.00	100.90	103.90
26	1H	1144	G	N1-C6-O6	-6.00	116.30	119.90
26	14	1418	G	C5-C6-O6	-6.00	125.00	128.60
26	1H	99	U	N1-C2-O2	6.00	127.00	122.80
26	1H	793	A	C6-N1-C2	-6.00	115.00	118.60
26	1H	1379	A	C4-C5-N7	6.00	113.70	110.70
26	1H	1784	A	C5-C6-N6	6.00	128.50	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1786	A	C4-C5-C6	6.00	120.00	117.00
27	16	8	U	N3-C2-O2	-6.00	118.00	122.20
26	14	1796	U	O5'-P-OP1	-6.00	100.30	105.70
1	13	326	G	N7-C8-N9	-6.00	110.10	113.10
26	1H	192	C	N3-C2-O2	6.00	126.10	121.90
26	1H	528	A	C4-C5-N7	6.00	113.70	110.70
26	14	129	C	N3-C2-O2	-6.00	117.70	121.90
26	14	150	C	C6-N1-C2	-6.00	117.90	120.30
26	14	2229	C	N3-C4-C5	-6.00	119.50	121.90
26	14	2713	A	C6-C5-N7	-6.00	128.10	132.30
1	13	108	G	C4-C5-N7	6.00	113.20	110.80
26	1H	30	G	N3-C4-C5	-6.00	125.60	128.60
26	1H	1209	G	C4-C5-N7	6.00	113.20	110.80
26	14	1272	A	O5'-P-OP2	-6.00	100.30	105.70
26	14	2014	A	C8-N9-C4	6.00	108.20	105.80
1	13	1203	C	C6-N1-C2	-5.99	117.90	120.30
26	1H	806	C	N3-C2-O2	-5.99	117.70	121.90
26	1H	1502	C	N3-C4-N4	5.99	122.19	118.00
26	1H	1839	G	N1-C2-N2	-5.99	110.81	116.20
26	14	187	G	C8-N9-C1'	-5.99	119.21	127.00
26	14	2592	G	O5'-P-OP2	-5.99	100.31	105.70
1	13	1077	G	OP1-P-OP2	5.99	128.59	119.60
26	1H	2059	A	N7-C8-N9	-5.99	110.80	113.80
22	1L	20	U	C5-C6-N1	5.99	125.70	122.70
26	14	409	C	C5-C4-N4	-5.99	116.01	120.20
26	14	469	G	N1-C2-N2	5.99	121.59	116.20
26	14	2409	G	C4-C5-N7	5.99	113.20	110.80
1	13	1405	G	C8-N9-C4	-5.99	104.00	106.40
26	1H	1161	C	C6-N1-C2	-5.99	117.90	120.30
26	1H	1238	G	C5-C6-O6	5.99	132.19	128.60
26	1H	1364	G	C2-N3-C4	5.99	114.89	111.90
26	14	922	U	C6-N1-C2	-5.99	117.41	121.00
26	1H	594	U	C5-C6-N1	-5.99	119.71	122.70
26	14	2359	C	C5-C4-N4	5.99	124.39	120.20
26	14	2731	G	C8-N9-C4	-5.99	104.00	106.40
26	14	2430	A	C5-N7-C8	-5.99	100.91	103.90
26	1H	271(B)	G	C5-C6-N1	5.99	114.49	111.50
26	1H	1204	A	C6-C5-N7	-5.99	128.11	132.30
26	1H	1888	G	C8-N9-C1'	-5.99	119.22	127.00
26	1H	2017	U	C4-C5-C6	5.99	123.29	119.70
26	1H	2352	A	C8-N9-C4	5.99	108.19	105.80
26	1H	2686	G	OP1-P-OP2	5.99	128.58	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	73	G	N1-C6-O6	5.99	123.49	119.90
26	14	2000	G	N7-C8-N9	-5.99	110.11	113.10
26	1H	265	A	C5-C6-N1	-5.98	114.71	117.70
26	1H	1813	G	C8-N9-C4	5.98	108.79	106.40
27	16	16	G	C4-C5-N7	5.98	113.19	110.80
26	14	333	G	N1-C6-O6	5.98	123.49	119.90
26	14	570	G	N3-C4-C5	-5.98	125.61	128.60
26	14	1006	C	N1-C2-O2	-5.98	115.31	118.90
22	1K	76	A	C4-C5-N7	5.98	113.69	110.70
26	1H	871	U	N3-C4-O4	5.98	123.59	119.40
26	14	1808	U	O5'-P-OP1	-5.98	100.31	105.70
23	2K	17	C	C5-C6-N1	5.98	123.99	121.00
26	1H	1428	C	C6-N1-C2	5.98	122.69	120.30
26	1H	2518	A	N7-C8-N9	5.98	116.79	113.80
26	14	2287	A	N3-C4-C5	5.98	130.99	126.80
26	14	2392	A	O5'-P-OP2	5.98	117.88	110.70
26	14	974	G	N1-C6-O6	-5.98	116.31	119.90
26	14	2301	C	C5-C6-N1	5.98	123.99	121.00
26	1H	1265	A	C6-N1-C2	-5.98	115.01	118.60
26	1H	1557	C	O5'-P-OP2	-5.98	100.32	105.70
26	1H	1786	A	N3-C4-N9	-5.98	122.62	127.40
26	1H	2068	U	C5-C4-O4	5.98	129.49	125.90
26	1H	2276	G	C6-C5-N7	5.98	133.99	130.40
26	14	683	C	C6-N1-C2	5.98	122.69	120.30
26	14	1189	A	OP1-P-OP2	-5.98	110.64	119.60
26	14	1962	C	N3-C4-C5	5.98	124.29	121.90
26	14	2216	G	N3-C2-N2	-5.98	115.72	119.90
1	13	249	U	OP1-P-OP2	5.98	128.56	119.60
24	3K	1	G	N3-C4-N9	5.98	129.59	126.00
26	14	2329	G	N3-C4-C5	-5.98	125.61	128.60
26	1H	71	A	N3-C4-C5	5.97	130.98	126.80
26	1H	1924	C	N3-C4-N4	-5.97	113.82	118.00
26	1H	1954	G	C5-C6-N1	-5.97	108.51	111.50
26	14	775	G	C4-C5-C6	5.97	122.38	118.80
26	14	1142	U	N3-C2-O2	-5.97	118.02	122.20
26	14	1304	C	N3-C2-O2	-5.97	117.72	121.90
26	14	2490	G	C5-N7-C8	-5.97	101.31	104.30
26	14	2598	A	P-O3'-C3'	5.97	126.87	119.70
1	13	387	U	OP1-P-O3'	5.97	118.34	105.20
1	13	690	G	C4-C5-C6	5.97	122.38	118.80
23	2K	59	A	N1-C6-N6	-5.97	115.02	118.60
26	1H	628	G	N1-C6-O6	-5.97	116.32	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	906	G	C4-C5-N7	5.97	113.19	110.80
12	3A	27	LEU	CA-CB-CG	5.97	129.04	115.30
26	14	1694	C	C6-N1-C2	5.97	122.69	120.30
23	2K	75	C	N3-C4-N4	-5.97	113.82	118.00
26	1H	1939	U	C5-C4-O4	-5.97	122.32	125.90
26	14	583	G	N1-C6-O6	5.97	123.48	119.90
26	14	879	G	N3-C4-C5	-5.97	125.61	128.60
26	14	1291	C	C2-N3-C4	-5.97	116.91	119.90
26	1H	129	C	C6-N1-C1'	-5.97	113.64	120.80
26	14	2076	U	O5'-P-OP2	-5.97	100.33	105.70
26	14	2286	A	N7-C8-N9	5.97	116.78	113.80
26	14	2715	C	O5'-P-OP1	5.97	117.86	110.70
26	14	739	G	N1-C2-N2	5.97	121.57	116.20
1	13	1355	G	N7-C8-N9	5.97	116.08	113.10
26	1H	1630	G	C5-C6-N1	5.97	114.48	111.50
26	1H	2346	A	C4-C5-N7	5.97	113.68	110.70
26	1H	2695	C	N1-C2-O2	-5.97	115.32	118.90
26	14	329	G	OP1-P-OP2	5.97	128.55	119.60
26	14	1385	G	O4'-C1'-N9	5.97	112.97	108.20
26	14	2508	G	N3-C2-N2	-5.97	115.72	119.90
26	14	2829	C	N3-C2-O2	5.97	126.08	121.90
23	2K	27	G	C5-C6-O6	-5.96	125.02	128.60
24	3K	13	C	C6-N1-C2	-5.96	117.92	120.30
27	16	115	G	C8-N9-C4	5.96	108.79	106.40
26	14	743	G	O5'-P-OP1	-5.96	100.33	105.70
1	13	1338	G	N1-C6-O6	-5.96	116.32	119.90
26	1H	776	G	OP1-P-OP2	5.96	128.54	119.60
26	1H	2611	U	N3-C4-O4	-5.96	115.23	119.40
26	14	685	A	OP1-P-OP2	5.96	128.54	119.60
26	14	1404	C	N1-C2-O2	5.96	122.48	118.90
26	14	2289	G	C2-N3-C4	5.96	114.88	111.90
1	13	538	G	C8-N9-C4	5.96	108.78	106.40
24	3K	5	C	C6-N1-C2	-5.96	117.92	120.30
26	1H	431	U	N3-C2-O2	-5.96	118.03	122.20
26	1H	1842	G	N7-C8-N9	-5.96	110.12	113.10
26	14	127	A	OP1-P-O3'	5.96	118.32	105.20
26	1H	1258	C	OP2-P-O3'	5.96	118.31	105.20
26	14	1980	G	N1-C6-O6	5.96	123.48	119.90
1	13	50	A	N3-C4-C5	-5.96	122.63	126.80
1	13	770	C	C4-C5-C6	5.96	120.38	117.40
26	1H	663	G	N1-C2-N3	5.96	127.47	123.90
26	1H	1022	G	C6-N1-C2	-5.96	121.52	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2766	G	C6-C5-N7	-5.96	126.83	130.40
26	14	803	U	N3-C2-O2	-5.96	118.03	122.20
22	1K	61	C	N1-C2-O2	5.96	122.47	118.90
26	1H	658	C	N3-C2-O2	-5.96	117.73	121.90
26	1H	2356	C	N3-C4-C5	5.96	124.28	121.90
1	1G	1495	U	O5'-P-OP1	-5.96	100.34	105.70
26	1H	2327	A	C8-N9-C4	5.96	108.18	105.80
26	1H	2516	G	C4-C5-N7	5.96	113.18	110.80
26	14	1136	G	C8-N9-C4	5.96	108.78	106.40
1	13	52	G	C2-N3-C4	-5.95	108.92	111.90
26	1H	673	C	C5-C4-N4	-5.95	116.03	120.20
26	1H	676	A	OP1-P-OP2	5.95	128.53	119.60
26	1H	821	A	OP1-P-OP2	5.95	128.53	119.60
26	1H	2364	C	N1-C2-O2	-5.95	115.33	118.90
26	14	385	C	OP1-P-OP2	5.95	128.53	119.60
26	14	528	A	C5-N7-C8	-5.95	100.92	103.90
27	1J	30	C	N3-C4-C5	-5.95	119.52	121.90
26	1H	2012	G	C6-N1-C2	-5.95	121.53	125.10
26	14	1600	C	C6-N1-C2	5.95	122.68	120.30
1	13	238	G	C8-N9-C4	5.95	108.78	106.40
26	1H	696	G	O5'-P-OP2	5.95	117.84	110.70
26	1H	1199	U	C2-N3-C4	-5.95	123.43	127.00
26	1H	1442	G	C5-C6-N1	-5.95	108.53	111.50
1	1G	1511	G	C5-C6-N1	-5.95	108.52	111.50
26	14	330	A	N3-C4-C5	5.95	130.97	126.80
26	14	933	A	C6-C5-N7	-5.95	128.13	132.30
26	1H	424	G	C5-C6-O6	-5.95	125.03	128.60
26	1H	655	A	C4-C5-N7	5.95	113.67	110.70
26	1H	797	C	C5-C6-N1	-5.95	118.03	121.00
26	1H	868	U	C5-C6-N1	-5.95	119.73	122.70
26	1H	1427	A	N9-C4-C5	5.95	108.18	105.80
26	1H	1571	A	N7-C8-N9	-5.95	110.83	113.80
26	1H	1966	A	N1-C6-N6	-5.95	115.03	118.60
26	1H	2377	A	N1-C6-N6	5.95	122.17	118.60
1	1G	690	G	O4'-C1'-N9	5.95	112.96	108.20
26	14	398	G	N1-C6-O6	-5.95	116.33	119.90
26	14	959	A	N1-C6-N6	-5.95	115.03	118.60
26	1H	2712	U	N1-C2-N3	5.95	118.47	114.90
26	14	2578	G	C8-N9-C4	5.95	108.78	106.40
1	13	1482	G	O5'-P-OP2	-5.95	100.35	105.70
26	1H	193	U	C2-N3-C4	-5.95	123.43	127.00
26	1H	938	G	O5'-P-OP1	5.95	117.84	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	939	G	N1-C6-O6	-5.95	116.33	119.90
26	14	585	G	C4-C5-N7	5.95	113.18	110.80
26	14	1306	C	N1-C2-O2	5.95	122.47	118.90
26	1H	590	A	C6-N1-C2	-5.94	115.03	118.60
26	1H	847	U	N3-C4-O4	-5.94	115.24	119.40
26	1H	2700	C	C2-N3-C4	-5.94	116.93	119.90
24	3L	70	C	C6-N1-C2	-5.94	117.92	120.30
26	1H	672	C	N3-C4-C5	5.94	124.28	121.90
26	1H	2497	A	C4-C5-C6	5.94	119.97	117.00
26	14	834	C	C2-N3-C4	-5.94	116.93	119.90
1	13	576	G	C5-C6-N1	-5.94	108.53	111.50
1	13	792	A	C5-C6-N6	-5.94	118.95	123.70
26	1H	192	C	N3-C4-C5	5.94	124.28	121.90
26	14	460	A	O5'-P-OP2	-5.94	100.35	105.70
26	14	738	G	C8-N9-C4	-5.94	104.02	106.40
27	1J	79	C	C6-N1-C2	-5.94	117.92	120.30
1	13	1370	G	N1-C6-O6	5.94	123.46	119.90
26	1H	1647	G	N1-C6-O6	-5.94	116.34	119.90
1	13	1305	G	N1-C2-N3	5.94	127.46	123.90
23	2K	31	G	OP1-P-OP2	-5.94	110.69	119.60
23	2K	44	A	C5-C6-N1	5.94	120.67	117.70
26	1H	539	G	C5-C6-N1	-5.94	108.53	111.50
26	1H	2199	A	O5'-P-OP2	5.94	117.82	110.70
26	14	2027	G	C8-N9-C4	-5.94	104.03	106.40
1	13	1498	U	O4'-C1'-N1	-5.94	103.45	108.20
26	1H	1675	C	C4-C5-C6	5.94	120.37	117.40
26	14	1938	A	C2-N3-C4	-5.94	107.63	110.60
1	13	1158	C	N1-C2-O2	5.93	122.46	118.90
26	1H	62	C	C5-C6-N1	-5.93	118.03	121.00
26	1H	1968	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	2324	C	C6-N1-C2	5.93	122.67	120.30
26	1H	2645	G	C6-C5-N7	-5.93	126.84	130.40
26	14	458	G	O4'-C1'-N9	5.93	112.95	108.20
26	14	1366	A	OP2-P-O3'	5.93	118.26	105.20
26	14	1972	A	OP2-P-O3'	5.93	118.25	105.20
26	14	1980	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	46	C	O5'-P-OP1	-5.93	100.36	105.70
26	1H	1106	G	N3-C4-C5	-5.93	125.63	128.60
26	1H	1357	U	O5'-P-OP2	-5.93	100.36	105.70
26	1H	1902	C	C5-C4-N4	5.93	124.35	120.20
1	1G	924	C	N3-C4-N4	-5.93	113.85	118.00
1	1G	982	U	C5-C4-O4	-5.93	122.34	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1019	U	N1-C2-O2	5.93	126.95	122.80
26	1H	217	G	C4-C5-N7	-5.93	108.43	110.80
26	1H	2584	U	C4-C5-C6	5.93	123.26	119.70
1	1G	537	G	C5-C6-O6	-5.93	125.04	128.60
26	14	773	U	N1-C2-N3	5.93	118.46	114.90
26	14	1755	A	OP1-P-O3'	5.93	118.25	105.20
26	1H	459	U	O5'-P-OP2	-5.93	100.36	105.70
26	1H	2603	G	O5'-P-OP1	-5.93	100.36	105.70
6	5E	98	LEU	CA-CB-CG	-5.93	101.67	115.30
26	1H	2391	G	N1-C6-O6	-5.93	116.34	119.90
26	14	121	G	C4-N9-C1'	5.93	134.21	126.50
26	14	566	U	N3-C2-O2	5.93	126.35	122.20
26	14	1199	U	N3-C2-O2	5.93	126.35	122.20
26	14	1688	U	C6-N1-C1'	5.93	129.50	121.20
26	1H	220	G	OP1-P-OP2	-5.93	110.71	119.60
26	1H	865	C	C6-N1-C2	5.93	122.67	120.30
26	14	204	A	C6-N1-C2	-5.93	115.04	118.60
26	14	1977	A	C5-C6-N6	5.93	128.44	123.70
26	14	2081	C	N3-C4-C5	5.93	124.27	121.90
1	13	825	G	C8-N9-C4	-5.92	104.03	106.40
26	1H	508	G	C5-C6-O6	-5.92	125.05	128.60
26	1H	1130	U	O5'-P-OP1	-5.92	100.37	105.70
26	1H	1802	A	N1-C2-N3	5.92	132.26	129.30
26	1H	2515	C	C2-N3-C4	-5.92	116.94	119.90
26	14	866	A	N9-C4-C5	-5.92	103.43	105.80
26	14	1786	A	N3-C4-N9	-5.92	122.66	127.40
26	14	2226	C	C5-C4-N4	-5.92	116.05	120.20
1	13	575	G	O4'-C1'-N9	-5.92	103.46	108.20
26	1H	137(A)	G	C6-N1-C2	-5.92	121.55	125.10
26	14	2060	A	O4'-C1'-N9	5.92	112.94	108.20
26	1H	878	A	C2-N3-C4	5.92	113.56	110.60
26	1H	2359	C	C5-C4-N4	5.92	124.34	120.20
26	1H	2558	C	N3-C2-O2	5.92	126.05	121.90
26	1H	2575	C	N1-C2-O2	-5.92	115.35	118.90
26	14	137	C	C6-N1-C2	-5.92	117.93	120.30
1	13	1321	C	C4-C5-C6	5.92	120.36	117.40
26	1H	142	G	C4-N9-C1'	-5.92	118.80	126.50
26	1H	812	C	N3-C2-O2	5.92	126.04	121.90
26	1H	1279	G	O5'-P-OP1	5.92	117.80	110.70
1	1G	60	A	C8-N9-C4	5.92	108.17	105.80
26	14	1210	A	N1-C6-N6	5.92	122.15	118.60
26	14	2253	G	N1-C6-O6	5.92	123.45	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1246	A	N1-C2-N3	5.92	132.26	129.30
26	1H	1758	G	N1-C2-N2	5.92	121.53	116.20
26	1H	2028	U	N3-C4-O4	5.92	123.54	119.40
26	1H	2042	A	N1-C6-N6	-5.92	115.05	118.60
1	1G	537	G	N1-C6-O6	5.92	123.45	119.90
26	14	1835	G	N3-C4-N9	5.92	129.55	126.00
26	14	2324	C	C6-N1-C2	5.92	122.67	120.30
26	14	2446	G	C5-C6-O6	5.92	132.15	128.60
26	14	2589	A	OP1-P-OP2	-5.92	110.72	119.60
1	13	481	G	C5-C6-N1	-5.92	108.54	111.50
26	1H	1198	U	C5-C4-O4	5.92	129.45	125.90
1	13	647	C	C5-C6-N1	5.91	123.96	121.00
26	1H	745	G	N9-C4-C5	-5.91	103.03	105.40
26	1H	1381	G	N3-C2-N2	-5.91	115.76	119.90
26	1H	2592	G	N3-C2-N2	5.91	124.04	119.90
26	1H	2084	C	C4-C5-C6	5.91	120.36	117.40
26	14	855	G	N7-C8-N9	5.91	116.06	113.10
26	1H	122	G	OP1-P-OP2	5.91	128.47	119.60
26	1H	131	G	C4-C5-N7	5.91	113.16	110.80
26	1H	1304	C	C4-C5-C6	-5.91	114.44	117.40
26	1H	1437	C	C2-N1-C1'	5.91	125.30	118.80
26	1H	2072	G	N3-C4-N9	5.91	129.55	126.00
26	1H	2266	A	OP1-P-OP2	-5.91	110.73	119.60
26	1H	2891	G	N3-C4-N9	5.91	129.55	126.00
26	14	2374	C	N3-C2-O2	5.91	126.04	121.90
26	14	2546	U	N1-C2-O2	5.91	126.94	122.80
27	1J	29	A	N1-C6-N6	5.91	122.15	118.60
27	1J	114	G	N7-C8-N9	-5.91	110.14	113.10
1	13	952	U	C2-N3-C4	-5.91	123.45	127.00
1	13	1512	U	C4-C5-C6	5.91	123.25	119.70
23	2K	31	G	N7-C8-N9	5.91	116.05	113.10
26	1H	471	A	N1-C6-N6	5.91	122.14	118.60
26	1H	609	A	C4-C5-N7	5.91	113.65	110.70
26	1H	1386	C	O5'-P-OP2	-5.91	100.38	105.70
26	1H	1403	C	C6-N1-C2	-5.91	117.94	120.30
26	1H	1695	G	N3-C4-N9	5.91	129.55	126.00
1	1G	63	C	C6-N1-C2	-5.91	117.94	120.30
1	1G	893	C	C6-N1-C2	5.91	122.66	120.30
26	14	455	C	N3-C4-N4	-5.91	113.86	118.00
26	14	1348	G	C5-C6-O6	-5.91	125.06	128.60
26	14	2365	G	C5-C6-O6	-5.91	125.06	128.60
1	13	52	G	N9-C4-C5	-5.91	103.04	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	300	A	C5-N7-C8	-5.91	100.95	103.90
26	1H	146	G	C2-N3-C4	-5.91	108.95	111.90
26	1H	820	A	C8-N9-C4	5.91	108.16	105.80
26	1H	920	G	C8-N9-C4	5.91	108.76	106.40
1	13	1512	U	C5-C4-O4	5.91	129.44	125.90
26	1H	328	U	C4-C5-C6	5.91	123.24	119.70
26	1H	2419	U	OP1-P-O3'	5.91	118.19	105.20
26	1H	2484	G	C8-N9-C4	5.91	108.76	106.40
26	14	74	A	C4-C5-N7	5.91	113.65	110.70
26	1H	97	C	O5'-P-OP1	-5.90	100.39	105.70
26	1H	1281	G	OP1-P-OP2	-5.90	110.74	119.60
1	13	136	C	C5-C6-N1	-5.90	118.05	121.00
1	13	806	C	O5'-P-OP2	-5.90	100.39	105.70
26	1H	134	C	N1-C2-O2	5.90	122.44	118.90
26	1H	2086	U	O5'-P-OP1	5.90	117.78	110.70
26	1H	2387	U	N1-C2-N3	5.90	118.44	114.90
26	1H	2666	C	C6-N1-C2	-5.90	117.94	120.30
26	14	348	G	C8-N9-C4	5.90	108.76	106.40
26	1H	1305	C	O5'-P-OP2	5.90	117.78	110.70
26	1H	1395	A	O4'-C1'-N9	5.90	112.92	108.20
26	1H	2596	U	N1-C2-O2	-5.90	118.67	122.80
1	1G	1206	G	N1-C6-O6	5.90	123.44	119.90
29	19	262	ARG	NE-CZ-NH1	5.90	123.25	120.30
34	69	131	LYS	C-N-CD	-5.90	107.62	120.60
26	1H	446	G	OP1-P-OP2	-5.90	110.75	119.60
26	1H	778	G	C4-C5-N7	-5.90	108.44	110.80
26	1H	857	C	OP1-P-OP2	5.90	128.45	119.60
26	1H	1191	G	OP1-P-OP2	5.90	128.45	119.60
1	13	990	C	C6-N1-C2	-5.90	117.94	120.30
26	1H	444	C	C5-C6-N1	-5.90	118.05	121.00
26	1H	698	C	O5'-P-OP2	-5.90	100.39	105.70
26	14	445	C	N1-C2-O2	-5.90	115.36	118.90
26	14	1233	C	N1-C2-O2	-5.90	115.36	118.90
26	14	2086	U	C5-C4-O4	5.90	129.44	125.90
26	14	2829	C	C5-C4-N4	-5.90	116.07	120.20
1	13	768	A	C6-N1-C2	-5.90	115.06	118.60
26	1H	1192	G	C6-C5-N7	-5.90	126.86	130.40
1	1G	522	C	C5-C6-N1	-5.90	118.05	121.00
26	14	2253	G	C5-C6-O6	-5.90	125.06	128.60
26	14	2584	U	OP1-P-OP2	-5.90	110.76	119.60
26	1H	385	C	OP2-P-O3'	5.89	118.17	105.20
26	1H	975	G	N3-C2-N2	-5.89	115.77	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1600	C	C5-C6-N1	5.89	123.95	121.00
26	1H	1617	C	C6-N1-C2	-5.89	117.94	120.30
26	1H	1807	G	O5'-P-OP2	-5.89	100.39	105.70
26	1H	1898	U	O5'-P-OP1	-5.89	100.39	105.70
26	1H	1934	C	C4-C5-C6	5.89	120.35	117.40
26	1H	2262	U	N1-C2-N3	5.89	118.44	114.90
26	1H	2277	G	N1-C6-O6	-5.89	116.36	119.90
26	1H	2612	C	O5'-P-OP1	-5.89	100.39	105.70
26	1H	2617	C	N3-C2-O2	5.89	126.03	121.90
39	98	18	LEU	CB-CG-CD2	-5.89	100.98	111.00
26	14	672	C	N1-C2-N3	5.89	123.33	119.20
26	14	2490	G	N7-C8-N9	5.89	116.05	113.10
26	14	2820	A	C2-N3-C4	-5.89	107.65	110.60
1	13	802	A	C5-C6-N6	-5.89	118.99	123.70
26	1H	192	C	C4-C5-C6	-5.89	114.45	117.40
26	1H	827	U	C6-N1-C2	5.89	124.54	121.00
26	14	780	G	N1-C2-N3	5.89	127.44	123.90
26	14	1617	C	N3-C4-C5	-5.89	119.54	121.90
26	14	2251	G	N1-C2-N3	5.89	127.44	123.90
26	14	2673	G	C6-C5-N7	-5.89	126.86	130.40
26	1H	1426	G	C8-N9-C4	-5.89	104.04	106.40
26	1H	1656	C	C2-N3-C4	5.89	122.85	119.90
26	1H	2368	C	O5'-P-OP1	-5.89	100.40	105.70
1	13	1266	G	C4-N9-C1'	-5.89	118.84	126.50
26	1H	880	G	C8-N9-C4	-5.89	104.04	106.40
26	1H	1001	A	C8-N9-C4	-5.89	103.44	105.80
26	1H	1642	G	N3-C2-N2	-5.89	115.78	119.90
26	14	912	C	N3-C4-C5	-5.89	119.54	121.90
26	14	992	C	N3-C2-O2	-5.89	117.78	121.90
26	14	1257	C	C5-C6-N1	-5.89	118.06	121.00
26	14	1614	A	N1-C6-N6	5.89	122.13	118.60
26	14	1662	C	N3-C2-O2	-5.89	117.78	121.90
26	14	1695	G	C8-N9-C4	-5.89	104.04	106.40
26	1H	965	C	C2-N1-C1'	5.89	125.28	118.80
26	1H	1431	U	C5-C6-N1	5.89	125.64	122.70
26	1H	1653	G	N3-C4-N9	5.89	129.53	126.00
26	14	1630(A)	C	N1-C2-O2	-5.89	115.37	118.90
26	14	117	G	C4-C5-N7	5.89	113.16	110.80
1	13	752	G	N1-C6-O6	5.88	123.43	119.90
26	1H	657	U	OP1-P-O3'	-5.88	92.25	105.20
26	1H	1357	U	OP1-P-OP2	5.88	128.43	119.60
26	14	72	U	C4-C5-C6	5.88	123.23	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	97	C	C5-C6-N1	-5.88	118.06	121.00
26	14	1772	G	C5-C6-O6	-5.88	125.07	128.60
1	13	820	U	OP2-P-O3'	5.88	118.14	105.20
26	14	2620	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	389	G	C6-C5-N7	-5.88	126.87	130.40
26	1H	1303	G	N9-C4-C5	5.88	107.75	105.40
26	1H	1619	G	C8-N9-C4	5.88	108.75	106.40
26	14	664	C	O5'-P-OP2	-5.88	100.41	105.70
26	14	1826	G	OP1-P-O3'	5.88	118.14	105.20
26	1H	690	G	C6-N1-C2	5.88	128.63	125.10
26	1H	795	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	964	C	C5-C4-N4	-5.88	116.08	120.20
1	13	108	G	C8-N9-C1'	-5.88	119.36	127.00
26	1H	411	G	N1-C6-O6	-5.88	116.37	119.90
26	1H	719	C	C6-N1-C2	-5.88	117.95	120.30
26	1H	1342	A	N1-C2-N3	-5.88	126.36	129.30
26	1H	1437	C	N1-C2-O2	5.88	122.43	118.90
1	1G	1200	C	C2-N1-C1'	5.88	125.27	118.80
26	14	1266	G	C6-N1-C2	-5.88	121.57	125.10
26	14	1281	G	C5-C6-O6	-5.88	125.07	128.60
26	14	1992	G	C8-N9-C4	-5.88	104.05	106.40
26	14	2070	G	N1-C2-N3	5.88	127.43	123.90
1	13	52	G	C6-C5-N7	-5.88	126.87	130.40
1	13	1315	U	N3-C4-C5	-5.88	111.07	114.60
26	1H	465	G	OP1-P-OP2	-5.88	110.78	119.60
26	1H	471	A	P-O3'-C3'	-5.88	112.65	119.70
26	1H	582	G	C4-C5-N7	5.88	113.15	110.80
1	1G	1068	G	C8-N9-C4	-5.88	104.05	106.40
1	1G	1412	C	N3-C2-O2	5.88	126.01	121.90
26	14	944	G	N9-C4-C5	-5.88	103.05	105.40
26	1H	2083	G	C2-N3-C4	-5.88	108.96	111.90
26	14	459	U	N3-C2-O2	-5.88	118.09	122.20
26	14	1374	G	N7-C8-N9	5.88	116.04	113.10
26	14	1894	C	N3-C2-O2	-5.88	117.79	121.90
1	13	1089	G	N1-C6-O6	5.87	123.42	119.90
26	1H	2054	A	C5-N7-C8	-5.87	100.96	103.90
1	13	11	G	C4-C5-N7	-5.87	108.45	110.80
1	13	721	G	N3-C4-C5	-5.87	125.67	128.60
1	13	1253	G	N3-C4-C5	-5.87	125.66	128.60
26	1H	1022	G	C8-N9-C4	-5.87	104.05	106.40
26	1H	2048	G	N1-C2-N2	5.87	121.48	116.20
26	14	690	G	OP1-P-O3'	5.87	118.12	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1559	G	N3-C4-C5	5.87	131.53	128.60
26	1H	2582	G	C6-C5-N7	-5.87	126.88	130.40
1	1G	401	C	C2-N3-C4	-5.87	116.97	119.90
1	13	266	G	N1-C6-O6	5.87	123.42	119.90
1	13	1516	G	C6-C5-N7	5.87	133.92	130.40
26	1H	55	G	OP1-P-OP2	-5.87	110.80	119.60
26	1H	508	G	N9-C1'-C2'	5.87	121.63	114.00
1	1G	355	C	C6-N1-C2	5.87	122.65	120.30
26	14	2794	C	N1-C2-O2	5.87	122.42	118.90
26	1H	238	C	C2-N3-C4	-5.87	116.97	119.90
26	1H	1402	C	C5-C6-N1	5.87	123.93	121.00
26	1H	1797	C	N3-C4-C5	5.87	124.25	121.90
1	13	813	U	N1-C2-O2	5.87	126.91	122.80
1	13	815	A	N1-C6-N6	-5.87	115.08	118.60
1	13	1529	G	N7-C8-N9	5.87	116.03	113.10
26	1H	526	A	N1-C6-N6	-5.87	115.08	118.60
26	1H	648	G	N3-C4-N9	-5.87	122.48	126.00
26	1H	906	G	C5-C6-O6	-5.87	125.08	128.60
26	1H	1334	G	C4-C5-N7	5.87	113.15	110.80
26	1H	1501	C	OP1-P-OP2	-5.87	110.80	119.60
1	1G	1322	C	C6-N1-C1'	-5.87	113.76	120.80
26	14	396	G	C4-C5-N7	-5.87	108.45	110.80
26	14	845	G	C8-N9-C1'	-5.87	119.38	127.00
26	14	2197	U	C5-C6-N1	-5.87	119.77	122.70
26	14	2374	C	N1-C2-O2	-5.87	115.38	118.90
26	14	2436	G	N1-C6-O6	5.87	123.42	119.90
26	1H	600	G	N7-C8-N9	-5.86	110.17	113.10
26	1H	1759	A	OP1-P-OP2	5.86	128.40	119.60
27	16	89	G	C5-C6-O6	-5.86	125.08	128.60
26	14	525	U	N1-C2-O2	-5.86	118.70	122.80
26	14	732	C	C4-C5-C6	5.86	120.33	117.40
26	14	1929	G	C5-C6-O6	-5.86	125.08	128.60
26	14	1950	G	C8-N9-C1'	-5.86	119.38	127.00
41	75	8	LYS	CB-CG-CD	-5.86	96.35	111.60
1	13	1080	A	C8-N9-C4	5.86	108.14	105.80
26	14	759	G	C6-N1-C2	-5.86	121.58	125.10
26	14	1342	A	N9-C1'-C2'	5.86	121.62	114.00
26	14	1649	G	N1-C6-O6	-5.86	116.38	119.90
26	14	2779	U	C2-N3-C4	-5.86	123.48	127.00
26	1H	37	C	C5-C4-N4	5.86	124.30	120.20
26	1H	1275	A	O5'-P-OP1	-5.86	100.43	105.70
26	1H	1379	A	C2-N3-C4	-5.86	107.67	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1939	U	N3-C4-C5	5.86	118.11	114.60
26	1H	2711	A	N1-C6-N6	5.86	122.11	118.60
26	14	1786	A	N3-C4-C5	5.86	130.90	126.80
26	14	1801	G	C4-C5-N7	5.86	113.14	110.80
1	13	303	A	C5-C6-N1	5.86	120.63	117.70
1	13	765	G	N3-C4-N9	5.86	129.51	126.00
26	1H	124	G	C4-C5-N7	5.86	113.14	110.80
26	1H	1602	U	O5'-P-OP2	5.86	117.73	110.70
1	1G	1301	U	N3-C2-O2	-5.86	118.10	122.20
26	14	375	C	C5-C6-N1	-5.86	118.07	121.00
26	14	1123	C	C6-N1-C2	5.86	122.64	120.30
26	14	1601	G	C8-N9-C4	5.86	108.74	106.40
1	13	946	A	O5'-P-OP1	-5.86	100.43	105.70
26	1H	2428	G	N1-C6-O6	-5.86	116.39	119.90
1	13	786	G	N1-C6-O6	-5.85	116.39	119.90
26	1H	2342	C	N3-C4-C5	-5.85	119.56	121.90
26	14	1260	G	C5-C6-O6	-5.85	125.09	128.60
26	14	2065	C	N1-C2-O2	5.85	122.41	118.90
26	14	2436	G	N3-C2-N2	-5.85	115.80	119.90
1	13	667	G	N9-C4-C5	5.85	107.74	105.40
1	13	792	A	C5-C6-N1	5.85	120.63	117.70
26	1H	74	A	C4-C5-N7	5.85	113.63	110.70
26	1H	2332	U	N1-C2-N3	-5.85	111.39	114.90
26	1H	2635	C	C6-N1-C2	5.85	122.64	120.30
1	1G	122	G	N1-C6-O6	5.85	123.41	119.90
26	1H	498	G	C8-N9-C4	5.85	108.74	106.40
1	13	282	A	N1-C6-N6	-5.85	115.09	118.60
1	13	1276	G	N1-C6-O6	5.85	123.41	119.90
26	1H	647	G	N3-C2-N2	-5.85	115.81	119.90
26	1H	701	G	N7-C8-N9	5.85	116.03	113.10
26	1H	975	G	N1-C2-N2	5.85	121.46	116.20
26	1H	1203	G	N1-C6-O6	-5.85	116.39	119.90
26	1H	1203	G	C2-N3-C4	5.85	114.83	111.90
26	1H	1688	U	C5-C6-N1	-5.85	119.78	122.70
1	1G	946	A	O5'-P-OP1	-5.85	100.44	105.70
1	13	843	U	N1-C2-O2	5.85	126.89	122.80
26	1H	1375	C	OP1-P-O3'	5.85	118.07	105.20
26	1H	2595	G	N9-C4-C5	-5.85	103.06	105.40
26	14	188	G	C2-N3-C4	-5.85	108.98	111.90
26	14	385	C	P-O3'-C3'	5.85	126.72	119.70
26	14	811	U	C6-N1-C2	-5.85	117.49	121.00
26	1H	143	C	C5-C6-N1	-5.85	118.08	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	391	G	C5-C6-N1	-5.85	108.58	111.50
26	1H	821	A	C4-C5-C6	5.85	119.92	117.00
26	1H	2049	G	O5'-P-OP2	-5.85	100.44	105.70
1	13	12	U	N3-C4-C5	-5.84	111.09	114.60
1	13	138	G	N1-C6-O6	5.84	123.41	119.90
1	13	1432	G	N1-C6-O6	5.84	123.41	119.90
26	1H	79	G	N7-C8-N9	5.84	116.02	113.10
26	1H	432	A	N9-C4-C5	-5.84	103.46	105.80
26	1H	791	C	C6-N1-C2	5.84	122.64	120.30
26	1H	2009	G	OP1-P-O3'	5.84	118.06	105.20
26	1H	2054	A	N7-C8-N9	5.84	116.72	113.80
26	1H	2347	C	OP2-P-O3'	5.84	118.06	105.20
27	16	103	U	C2-N3-C4	-5.84	123.49	127.00
1	13	115	G	P-O3'-C3'	5.84	126.71	119.70
26	1H	142	G	N3-C4-C5	5.84	131.52	128.60
26	1H	662	G	O5'-P-OP2	-5.84	100.44	105.70
26	1H	805	G	N9-C4-C5	-5.84	103.06	105.40
26	1H	1156	A	C5-N7-C8	-5.84	100.98	103.90
26	1H	2780	G	C5-C6-O6	5.84	132.11	128.60
26	14	2281	C	C6-N1-C1'	-5.84	113.79	120.80
26	1H	107	C	N3-C2-O2	5.84	125.99	121.90
26	1H	853	G	N3-C2-N2	5.84	123.99	119.90
1	1G	354	G	C6-C5-N7	-5.84	126.89	130.40
26	14	1204	A	N1-C2-N3	5.84	132.22	129.30
1	13	1502	A	N1-C2-N3	5.84	132.22	129.30
26	1H	414	C	C5-C6-N1	-5.84	118.08	121.00
26	1H	1579	A	N9-C4-C5	5.84	108.14	105.80
26	1H	2442	C	C5-C6-N1	-5.84	118.08	121.00
26	14	217	G	O5'-P-OP2	5.84	117.71	110.70
26	14	834	C	N1-C2-O2	-5.84	115.40	118.90
26	14	1617	C	N1-C2-O2	-5.84	115.40	118.90
26	1H	728	G	N7-C8-N9	-5.84	110.18	113.10
26	1H	1568	G	N3-C4-C5	5.84	131.52	128.60
1	13	886	G	C4-C5-N7	-5.84	108.47	110.80
26	1H	462	C	N1-C2-O2	-5.84	115.40	118.90
26	1H	1638	C	O5'-P-OP2	-5.84	100.45	105.70
26	14	720	C	N3-C2-O2	5.84	125.98	121.90
26	14	735	A	N7-C8-N9	-5.84	110.88	113.80
26	1H	862	G	C5-C6-N1	5.83	114.42	111.50
26	14	2433	A	C2-N3-C4	-5.83	107.68	110.60
1	13	1504	G	C2-N3-C4	-5.83	108.98	111.90
26	1H	1433	U	N1-C2-N3	5.83	118.40	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1695	G	OP1-P-OP2	5.83	128.35	119.60
26	14	2028	U	C5-C6-N1	-5.83	119.78	122.70
26	1H	424	G	C6-C5-N7	-5.83	126.90	130.40
26	1H	1800	C	N1-C2-O2	-5.83	115.40	118.90
26	1H	1933	G	N9-C4-C5	5.83	107.73	105.40
1	1G	1411	C	C2-N3-C4	-5.83	116.98	119.90
26	14	2392	A	O5'-P-OP1	-5.83	100.45	105.70
26	1H	1381	G	N1-C2-N2	5.83	121.45	116.20
26	1H	950	G	C5-C6-O6	5.83	132.10	128.60
26	1H	1241	A	C4-C5-N7	5.83	113.61	110.70
26	1H	1253	A	N9-C4-C5	-5.83	103.47	105.80
26	1H	2561	A	C8-N9-C4	5.83	108.13	105.80
26	1H	2755	C	N1-C2-O2	-5.83	115.40	118.90
1	13	668	G	N3-C4-C5	-5.83	125.69	128.60
26	1H	2868	A	OP2-P-O3'	5.83	118.02	105.20
26	1H	805	G	OP1-P-O3'	5.83	118.02	105.20
26	1H	1661	G	C6-N1-C2	-5.83	121.60	125.10
1	1G	1374	A	N1-C2-N3	5.83	132.21	129.30
26	14	1021	A	C5-C6-N1	-5.83	114.79	117.70
23	2K	48	U	P-O3'-C3'	5.82	126.69	119.70
26	1H	103	A	C8-N9-C4	5.82	108.13	105.80
26	1H	432	A	N1-C6-N6	5.82	122.09	118.60
26	1H	588	U	C5-C6-N1	-5.82	119.79	122.70
26	1H	769	G	OP1-P-OP2	5.82	128.34	119.60
26	1H	770	G	N3-C4-N9	-5.82	122.51	126.00
26	1H	2469	A	C5-N7-C8	-5.82	100.99	103.90
26	1H	2600	A	N9-C4-C5	5.82	108.13	105.80
1	1G	228	A	N1-C6-N6	5.82	122.09	118.60
26	14	2217	G	C5-C6-O6	-5.82	125.11	128.60
26	1H	253	C	C6-N1-C2	5.82	122.63	120.30
26	1H	1373	A	C6-N1-C2	-5.82	115.11	118.60
26	1H	1839	G	C8-N9-C4	5.82	108.73	106.40
26	1H	2028	U	C6-N1-C2	-5.82	117.51	121.00
1	1G	1128	C	C5-C6-N1	5.82	123.91	121.00
26	14	864	G	C8-N9-C4	-5.82	104.07	106.40
26	14	1938	A	N1-C6-N6	5.82	122.09	118.60
26	14	2567	G	N7-C8-N9	-5.82	110.19	113.10
26	1H	17	G	N3-C4-N9	5.82	129.49	126.00
26	1H	450	G	C8-N9-C4	-5.82	104.07	106.40
26	1H	702	G	N1-C2-N3	5.82	127.39	123.90
1	1G	52	G	C5-C6-O6	5.82	132.09	128.60
1	1G	1431	C	C6-N1-C2	-5.82	117.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1528	A	C5-N7-C8	-5.82	100.99	103.90
26	14	1644	C	N3-C2-O2	-5.82	117.83	121.90
26	14	1686	C	N1-C2-O2	5.82	122.39	118.90
1	13	741	G	OP1-P-OP2	5.82	128.33	119.60
1	13	903	G	N1-C2-N2	-5.82	110.96	116.20
1	13	1529	G	C5-N7-C8	-5.82	101.39	104.30
26	1H	609	A	C5-C6-N1	-5.82	114.79	117.70
26	1H	742	G	N9-C4-C5	5.82	107.73	105.40
1	1G	523	A	N3-C4-C5	5.82	130.87	126.80
1	13	243	A	O4'-C1'-N9	5.82	112.85	108.20
26	1H	59	U	N3-C4-C5	-5.82	111.11	114.60
26	1H	106	C	C6-N1-C2	-5.82	117.97	120.30
26	1H	462	C	OP1-P-OP2	5.82	128.33	119.60
26	1H	698	C	C2-N3-C4	-5.82	116.99	119.90
26	1H	1309	G	O5'-P-OP2	-5.82	100.47	105.70
26	1H	1769	G	C4-C5-N7	-5.82	108.47	110.80
26	1H	2723	C	N3-C4-N4	-5.82	113.93	118.00
26	14	2502	G	C5-C6-N1	5.82	114.41	111.50
1	13	765	G	C4-C5-C6	5.82	122.29	118.80
1	13	1498	U	P-O3'-C3'	5.82	126.68	119.70
26	1H	962	G	C5-C6-N1	5.82	114.41	111.50
26	14	779	U	N3-C4-O4	5.82	123.47	119.40
26	14	786	C	N3-C4-C5	5.82	124.23	121.90
26	14	1105	U	C5-C6-N1	5.82	125.61	122.70
26	14	1425	G	OP1-P-O3'	5.82	117.99	105.20
26	14	2522	U	O5'-P-OP2	-5.82	100.47	105.70
26	1H	796	C	N3-C4-C5	5.81	124.23	121.90
1	1G	1374	A	O4'-C1'-N9	5.81	112.85	108.20
1	13	1478	C	N3-C4-C5	5.81	124.22	121.90
26	14	391	G	C6-C5-N7	-5.81	126.91	130.40
26	1H	756	C	N3-C2-O2	5.81	125.97	121.90
26	1H	1622	G	N1-C6-O6	-5.81	116.41	119.90
26	14	641	C	C6-N1-C2	5.81	122.62	120.30
26	14	1349	A	N1-C2-N3	5.81	132.21	129.30
26	1H	247	G	N7-C8-N9	-5.81	110.20	113.10
26	1H	441	U	N1-C2-N3	-5.81	111.41	114.90
26	1H	1525	G	O5'-P-OP2	-5.81	100.47	105.70
26	1H	1809	A	C2-N3-C4	-5.81	107.70	110.60
26	1H	2311	A	C5-C6-N1	-5.81	114.80	117.70
1	1G	815	A	OP2-P-O3'	5.81	117.98	105.20
1	1G	1281	U	C2-N1-C1'	5.81	124.67	117.70
26	14	777	A	C5-N7-C8	-5.81	101.00	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	822	U	C4-C5-C6	-5.81	116.21	119.70
1	13	878	G	N3-C2-N2	5.81	123.97	119.90
1	13	1049	U	C6-N1-C2	5.81	124.48	121.00
26	1H	180	G	N1-C2-N3	5.81	127.39	123.90
26	1H	247	G	N1-C6-O6	-5.81	116.42	119.90
26	1H	1330	C	N3-C4-C5	5.81	124.22	121.90
26	1H	1413	G	N7-C8-N9	5.81	116.00	113.10
1	1G	362	G	C6-C5-N7	5.81	133.88	130.40
1	1G	1260	C	C5-C6-N1	5.81	123.90	121.00
26	14	433	C	C6-N1-C2	-5.81	117.98	120.30
26	14	1977	A	N1-C2-N3	5.81	132.20	129.30
26	14	2581	G	O4'-C1'-N9	5.81	112.85	108.20
26	14	782	A	C8-N9-C4	-5.81	103.48	105.80
26	14	879	G	C4-N9-C1'	5.81	134.05	126.50
1	13	266	G	C5-N7-C8	-5.80	101.40	104.30
26	1H	2064	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	2447	G	N3-C2-N2	-5.80	115.84	119.90
26	14	396	G	C8-N9-C4	-5.80	104.08	106.40
26	14	1616	A	N1-C6-N6	5.80	122.08	118.60
1	13	878	G	OP1-P-O3'	5.80	117.97	105.20
26	1H	830	G	C4-C5-N7	-5.80	108.48	110.80
6	52	14	LEU	CA-CB-CG	5.80	128.65	115.30
1	13	292	G	C5-C6-O6	5.80	132.08	128.60
1	13	509	A	C2'-C3'-O3'	5.80	122.98	113.70
26	1H	241	A	N9-C4-C5	-5.80	103.48	105.80
26	1H	1823	G	N7-C8-N9	5.80	116.00	113.10
26	1H	2431	U	OP1-P-OP2	5.80	128.30	119.60
1	1G	568	G	C8-N9-C4	-5.80	104.08	106.40
26	14	1349	A	N7-C8-N9	5.80	116.70	113.80
26	14	2722	G	C5-C6-O6	-5.80	125.12	128.60
26	1H	252	G	O5'-P-OP2	-5.80	100.48	105.70
26	1H	501	A	C5-C6-N1	-5.80	114.80	117.70
26	1H	1429	G	N1-C2-N2	-5.80	110.98	116.20
23	2L	77	A	N1-C6-N6	5.80	122.08	118.60
24	3L	21	A	C2-N3-C4	5.80	113.50	110.60
26	14	217	G	O5'-P-OP1	-5.80	100.48	105.70
26	14	477	A	C8-N9-C4	-5.80	103.48	105.80
26	14	698	C	C2-N3-C4	5.80	122.80	119.90
26	14	897	C	C6-N1-C1'	-5.80	113.84	120.80
26	14	1018	C	C6-N1-C2	-5.80	117.98	120.30
26	14	1328	G	C4-C5-N7	5.80	113.12	110.80
26	14	1605	C	C2-N3-C4	-5.80	117.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2873	A	N9-C1'-C2'	5.80	121.54	114.00
26	1H	2582	G	OP1-P-OP2	-5.80	110.90	119.60
22	1L	69	A	P-O3'-C3'	5.80	126.66	119.70
26	14	1626	G	N1-C6-O6	-5.80	116.42	119.90
26	14	1930	G	C4-C5-N7	-5.80	108.48	110.80
1	13	940	C	N3-C4-C5	5.80	124.22	121.90
1	13	1440	C	C6-N1-C2	5.80	122.62	120.30
26	1H	2586	C	N3-C2-O2	5.80	125.96	121.90
27	16	45	A	N7-C8-N9	5.80	116.70	113.80
26	14	650	C	C6-N1-C2	-5.80	117.98	120.30
26	14	1974	C	C6-N1-C2	5.80	122.62	120.30
26	14	2348	U	N1-C2-O2	5.80	126.86	122.80
26	14	2382	G	N3-C4-N9	5.80	129.48	126.00
26	1H	141(A)	C	N3-C4-N4	5.79	122.06	118.00
26	1H	1374	G	C8-N9-C4	-5.79	104.08	106.40
26	1H	2690	C	C2-N3-C4	-5.79	117.00	119.90
24	3L	76	A	C2-N3-C4	-5.79	107.70	110.60
26	14	2453	A	O5'-P-OP2	-5.79	100.48	105.70
26	1H	236	C	C4-C5-C6	5.79	120.30	117.40
26	1H	265	A	N1-C6-N6	5.79	122.08	118.60
26	1H	1615	C	N1-C2-O2	5.79	122.38	118.90
26	1H	2616	C	C2-N3-C4	-5.79	117.00	119.90
26	1H	2779	U	C5-C6-N1	-5.79	119.80	122.70
26	14	800	A	OP1-P-OP2	5.79	128.29	119.60
26	14	2012	G	C6-C5-N7	-5.79	126.92	130.40
26	14	2235	G	N3-C4-C5	-5.79	125.70	128.60
26	1H	681	G	N3-C2-N2	5.79	123.95	119.90
26	1H	1976	U	N1-C2-N3	5.79	118.38	114.90
26	14	621	A	C6-C5-N7	-5.79	128.25	132.30
26	14	2000	G	C5-C6-N1	5.79	114.40	111.50
26	14	2872	G	C8-N9-C4	-5.79	104.08	106.40
1	13	656	C	C4-C5-C6	-5.79	114.50	117.40
1	13	792	A	C6-N1-C2	-5.79	115.13	118.60
26	1H	778	G	C5-C6-O6	5.79	132.07	128.60
26	1H	797	C	OP1-P-OP2	-5.79	110.92	119.60
26	1H	1586	A	C6-C5-N7	-5.79	128.25	132.30
38	88	138	ASP	CB-CG-OD2	5.79	123.51	118.30
1	1G	388	G	C5-C6-O6	5.79	132.07	128.60
26	14	1920	C	O5'-P-OP2	-5.79	100.49	105.70
1	13	778	G	N3-C4-C5	5.79	131.49	128.60
1	13	1530	G	N3-C4-C5	5.79	131.49	128.60
26	1H	1241	A	C6-C5-N7	-5.79	128.25	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2083	G	C6-C5-N7	-5.79	126.93	130.40
26	1H	2088	G	N1-C6-O6	-5.79	116.43	119.90
26	1H	2700	C	C5-C6-N1	-5.79	118.11	121.00
1	1G	24	U	OP1-P-OP2	5.79	128.28	119.60
1	1G	772	U	N3-C2-O2	-5.79	118.15	122.20
26	14	1342	A	C5-N7-C8	-5.79	101.01	103.90
26	14	1760	A	C5-C6-N1	5.79	120.59	117.70
1	13	758	G	N3-C2-N2	-5.79	115.85	119.90
26	1H	798	G	N3-C4-C5	5.79	131.49	128.60
26	1H	1324	G	N9-C4-C5	5.79	107.72	105.40
26	14	181	A	C8-N9-C4	5.79	108.11	105.80
26	14	2431	U	C5-C6-N1	-5.79	119.81	122.70
26	14	2726	U	O5'-P-OP2	-5.79	100.49	105.70
1	13	580	U	N1-C2-N3	5.78	118.37	114.90
26	1H	129	C	C2-N1-C1'	5.78	125.16	118.80
26	1H	428	A	OP1-P-O3'	5.78	117.92	105.20
26	1H	1021	A	C6-C5-N7	-5.78	128.25	132.30
26	1H	1815	A	O5'-P-OP2	-5.78	100.49	105.70
27	16	41	U	C6-N1-C2	5.78	124.47	121.00
26	14	2606	C	N3-C4-C5	5.78	124.21	121.90
1	13	1530	G	C5-C6-O6	-5.78	125.13	128.60
1	1G	721	G	C6-C5-N7	-5.78	126.93	130.40
26	14	201	C	C6-N1-C2	5.78	122.61	120.30
26	14	2033	A	C5-C6-N1	5.78	120.59	117.70
26	14	2068	U	O5'-P-OP1	-5.78	100.50	105.70
26	14	2358	G	C4-C5-N7	-5.78	108.49	110.80
1	13	607	A	C2-N3-C4	-5.78	107.71	110.60
26	14	2871	C	N3-C2-O2	-5.78	117.86	121.90
26	1H	834	C	OP2-P-O3'	5.78	117.91	105.20
26	1H	1988	C	N3-C4-C5	-5.78	119.59	121.90
26	14	2711	A	C6-N1-C2	5.78	122.07	118.60
1	13	49	U	N1-C2-O2	-5.78	118.76	122.80
1	13	887	G	C5-C6-O6	-5.78	125.14	128.60
26	1H	335	C	N3-C4-N4	5.78	122.04	118.00
1	1G	721	G	N7-C8-N9	5.77	115.99	113.10
1	13	1084	G	N3-C4-C5	-5.77	125.71	128.60
26	1H	245	G	N7-C8-N9	5.77	115.99	113.10
26	1H	1564	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	1644	C	N3-C2-O2	-5.77	117.86	121.90
26	1H	2259	G	N1-C6-O6	5.77	123.36	119.90
26	1H	2367	G	C5-N7-C8	-5.77	101.41	104.30
26	1H	2559	C	C4-C5-C6	5.77	120.29	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	149	A	C4-C5-C6	5.77	119.89	117.00
26	14	449	A	N1-C6-N6	5.77	122.06	118.60
26	14	1857	G	N1-C6-O6	5.77	123.36	119.90
22	1L	71	C	N1-C2-O2	5.77	122.36	118.90
26	14	854	G	C5-C6-N1	-5.77	108.61	111.50
26	14	1321	A	N7-C8-N9	-5.77	110.91	113.80
1	13	50	A	C2-N3-C4	5.77	113.48	110.60
26	1H	732	C	C4-C5-C6	5.77	120.28	117.40
26	1H	919	G	O5'-P-OP1	-5.77	100.51	105.70
26	1H	945	A	N9-C4-C5	-5.77	103.49	105.80
26	1H	2076	U	O5'-P-OP1	-5.77	100.51	105.70
26	1H	2261	C	OP1-P-OP2	-5.77	110.95	119.60
26	1H	2748	A	N1-C2-N3	5.77	132.18	129.30
26	14	1570	A	C5-C6-N1	-5.77	114.82	117.70
1	13	58	C	N3-C4-C5	5.77	124.21	121.90
1	13	952	U	C5-C6-N1	-5.77	119.82	122.70
1	13	1409	C	C5-C6-N1	-5.77	118.12	121.00
26	1H	271(B)	G	C8-N9-C1'	-5.77	119.50	127.00
26	1H	1021	A	N3-C4-C5	5.77	130.84	126.80
26	1H	1819	A	C5-C6-N1	5.77	120.58	117.70
26	1H	2764	A	C5-C6-N1	-5.77	114.82	117.70
26	14	1586	A	N1-C6-N6	5.77	122.06	118.60
26	14	1671	U	N1-C2-N3	-5.77	111.44	114.90
26	14	2429	G	C5-C6-O6	-5.77	125.14	128.60
26	1H	922	U	N1-C2-O2	-5.76	118.76	122.80
26	1H	1296	G	C5-C6-O6	5.76	132.06	128.60
26	1H	1453	A	C4-C5-C6	5.76	119.88	117.00
26	1H	1784	A	O4'-C1'-N9	-5.76	103.59	108.20
26	1H	1901	A	C2-N3-C4	5.76	113.48	110.60
26	14	603	A	O4'-C1'-N9	5.76	112.81	108.20
26	14	811	U	N1-C2-N3	5.76	118.36	114.90
26	14	2075	U	OP2-P-O3'	5.76	117.88	105.20
26	14	2083	G	C4-C5-C6	5.76	122.26	118.80
27	1J	22	U	N3-C2-O2	-5.76	118.17	122.20
26	1H	1776	G	C8-N9-C4	5.76	108.70	106.40
26	14	1519	G	C4-C5-N7	-5.76	108.50	110.80
26	1H	650	C	N1-C2-O2	-5.76	115.44	118.90
26	1H	827	U	N3-C4-O4	5.76	123.43	119.40
26	1H	1964	G	OP2-P-O3'	5.76	117.88	105.20
26	1H	2068	U	C2-N3-C4	5.76	130.46	127.00
26	1H	2562	U	N1-C2-N3	5.76	118.36	114.90
1	1G	497	U	N3-C2-O2	-5.76	118.17	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	897	C	C5-C6-N1	5.76	123.88	121.00
26	14	947	G	C8-N9-C4	-5.76	104.10	106.40
26	14	1257	C	C4-C5-C6	5.76	120.28	117.40
26	14	2511	U	N3-C2-O2	-5.76	118.17	122.20
1	13	690	G	N1-C2-N3	5.76	127.36	123.90
26	1H	1004	C	N3-C4-C5	-5.76	119.60	121.90
26	1H	1313	U	C2-N1-C1'	5.76	124.61	117.70
26	1H	1336	A	N9-C4-C5	5.76	108.10	105.80
26	14	455	C	N3-C2-O2	-5.76	117.87	121.90
26	14	2067	G	OP1-P-O3'	5.76	117.87	105.20
26	14	2637	U	N3-C4-O4	5.76	123.43	119.40
26	1H	1595	G	O5'-P-OP1	-5.76	100.52	105.70
22	1L	20	U	N1-C2-O2	5.76	126.83	122.80
26	14	35	G	O5'-P-OP2	-5.76	100.52	105.70
26	14	1416	G	N7-C8-N9	-5.76	110.22	113.10
1	13	645	C	N1-C2-O2	5.76	122.35	118.90
26	1H	124	G	N1-C2-N3	-5.76	120.45	123.90
26	1H	842	G	N3-C4-C5	5.76	131.48	128.60
1	1G	437	U	N3-C2-O2	-5.76	118.17	122.20
26	14	2006	C	N1-C2-N3	-5.76	115.17	119.20
24	3K	2	G	C6-C5-N7	-5.75	126.95	130.40
26	14	1659	U	C5-C4-O4	-5.75	122.45	125.90
26	14	1695	G	C4-N9-C1'	5.75	133.98	126.50
26	14	1802	A	C5-C6-N6	-5.75	119.10	123.70
26	1H	764	A	N1-C6-N6	5.75	122.05	118.60
26	1H	1634	A	C4-C5-C6	5.75	119.88	117.00
1	1G	1228	C	N1-C2-O2	5.75	122.35	118.90
26	14	122	G	OP1-P-O3'	-5.75	92.55	105.20
26	14	1475	G	N1-C6-O6	5.75	123.35	119.90
26	14	2253	G	C5-N7-C8	-5.75	101.42	104.30
1	13	861	G	O5'-P-OP1	-5.75	100.53	105.70
26	1H	751	A	N1-C6-N6	-5.75	115.15	118.60
26	14	585	G	C5-N7-C8	-5.75	101.42	104.30
1	13	651	C	N3-C2-O2	-5.75	117.88	121.90
1	13	1518	A	C4-C5-N7	-5.75	107.83	110.70
26	1H	410	G	C5-C6-O6	-5.75	125.15	128.60
26	1H	2573	C	C6-N1-C2	-5.75	118.00	120.30
1	1G	668	G	C8-N9-C4	-5.75	104.10	106.40
26	14	2489	G	N1-C6-O6	5.75	123.35	119.90
26	1H	298	G	N3-C4-C5	5.75	131.47	128.60
26	1H	1375	C	C5-C4-N4	-5.75	116.18	120.20
26	1H	2578	G	C5-C6-O6	5.75	132.05	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	307	C	C6-N1-C2	5.75	122.60	120.30
23	2L	77	A	N3-C4-C5	5.75	130.82	126.80
26	14	567	A	C5-N7-C8	-5.75	101.03	103.90
26	14	2276	G	C5-C6-N1	-5.75	108.63	111.50
26	14	2688	U	C4-C5-C6	5.75	123.15	119.70
1	13	572	A	O4'-C1'-N9	5.75	112.80	108.20
24	3K	72	C	C4-C5-C6	-5.75	114.53	117.40
26	1H	1244	G	C4-C5-N7	5.75	113.10	110.80
26	1H	1366	A	N1-C6-N6	5.75	122.05	118.60
26	1H	2335	A	C6-N1-C2	-5.75	115.15	118.60
26	1H	2457	U	N3-C2-O2	5.75	126.22	122.20
1	1G	402	G	O5'-P-OP1	5.75	117.59	110.70
26	14	489	G	C4-C5-N7	5.75	113.10	110.80
26	14	2766	G	C6-C5-N7	-5.75	126.95	130.40
26	1H	2259	G	C8-N9-C4	5.74	108.70	106.40
26	1H	2488	A	N1-C6-N6	5.74	122.05	118.60
26	14	2607	G	N1-C6-O6	5.74	123.35	119.90
26	14	2779	U	C5-C6-N1	-5.74	119.83	122.70
1	13	843	U	C6-N1-C2	-5.74	117.56	121.00
26	1H	212	G	N3-C2-N2	5.74	123.92	119.90
26	1H	1203	G	C8-N9-C4	-5.74	104.10	106.40
1	1G	38	G	N1-C6-O6	5.74	123.34	119.90
1	1G	525	C	C5-C6-N1	5.74	123.87	121.00
22	1L	74	C	C5-C4-N4	-5.74	116.18	120.20
26	14	1688	U	N1-C2-O2	-5.74	118.78	122.80
26	1H	1342	A	C5-N7-C8	-5.74	101.03	103.90
26	1H	2279	G	O5'-P-OP1	-5.74	100.53	105.70
26	14	739	G	N3-C4-N9	-5.74	122.56	126.00
26	14	1022	G	C4-C5-N7	-5.74	108.50	110.80
26	14	1370	C	N3-C2-O2	5.74	125.92	121.90
26	14	1476	C	C6-N1-C2	5.74	122.60	120.30
1	13	130	A	O5'-P-OP1	-5.74	100.53	105.70
1	13	1331	G	O5'-P-OP1	5.74	117.59	110.70
22	1K	63	U	N1-C2-O2	5.74	126.82	122.80
26	1H	141(A)	C	OP1-P-O3'	-5.74	92.58	105.20
26	1H	1389	G	C5-C6-N1	5.74	114.37	111.50
26	1H	2505	G	C5-C6-N1	-5.74	108.63	111.50
26	14	2818	G	N7-C8-N9	-5.74	110.23	113.10
1	13	1530	G	C5-N7-C8	-5.74	101.43	104.30
26	1H	837	C	N3-C4-N4	5.74	122.02	118.00
26	1H	422	A	N1-C6-N6	5.74	122.04	118.60
26	1H	509	C	N3-C2-O2	-5.74	117.89	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	692	C	C4-C5-C6	5.74	120.27	117.40
26	1H	1333	C	C5-C4-N4	-5.74	116.19	120.20
26	1H	1971	A	C6-N1-C2	-5.74	115.16	118.60
26	1H	2639	A	C2-N3-C4	-5.74	107.73	110.60
26	1H	2778	A	OP1-P-O3'	5.74	117.82	105.20
35	58	21	LYS	C-N-CA	-5.74	107.36	121.70
1	1G	774	G	N1-C6-O6	5.74	123.34	119.90
1	1G	795	C	C6-N1-C2	-5.74	118.00	120.30
26	14	2489	G	OP2-P-O3'	5.73	117.81	105.20
26	14	2585	U	C2-N1-C1'	5.73	124.58	117.70
1	13	455	C	C5-C4-N4	-5.73	116.19	120.20
26	1H	130	C	N1-C2-O2	5.73	122.34	118.90
26	1H	217	G	N3-C2-N2	-5.73	115.89	119.90
26	1H	2268	A	N9-C4-C5	-5.73	103.51	105.80
1	1G	1417	G	C5-C6-N1	-5.73	108.63	111.50
1	1G	1479	C	N1-C2-O2	5.73	122.34	118.90
26	14	862	G	C5-C6-O6	5.73	132.04	128.60
26	14	1313	U	N1-C2-O2	-5.73	118.79	122.80
26	14	1702	G	C8-N9-C1'	-5.73	119.55	127.00
26	1H	30	G	C6-C5-N7	-5.73	126.96	130.40
26	1H	208	C	OP1-P-OP2	5.73	128.19	119.60
26	1H	650	C	C6-N1-C2	-5.73	118.01	120.30
26	1H	1389	G	C6-N1-C2	-5.73	121.66	125.10
26	1H	1700	A	OP1-P-OP2	5.73	128.20	119.60
26	1H	1937	A	C4-C5-N7	-5.73	107.83	110.70
26	1H	2856	C	C5-C6-N1	5.73	123.86	121.00
26	14	102	G	O4'-C1'-N9	5.73	112.78	108.20
26	14	570	G	C4-N9-C1'	5.73	133.95	126.50
26	14	1966	A	C8-N9-C4	-5.73	103.51	105.80
26	14	2227	A	C5-C6-N6	5.73	128.28	123.70
26	1H	175	G	C5-C6-O6	5.73	132.04	128.60
26	14	604	G	C8-N9-C4	5.73	108.69	106.40
26	1H	144	C	N3-C4-N4	-5.73	113.99	118.00
26	1H	659	C	OP1-P-O3'	-5.73	92.60	105.20
26	1H	1361	G	N1-C6-O6	-5.73	116.46	119.90
26	1H	1819	A	N9-C4-C5	-5.73	103.51	105.80
26	1H	2451	A	N9-C4-C5	5.73	108.09	105.80
26	14	684	G	N1-C6-O6	-5.73	116.46	119.90
26	14	862	G	N1-C6-O6	-5.73	116.46	119.90
26	14	2239	G	N9-C4-C5	-5.73	103.11	105.40
1	13	1252	A	O5'-P-OP2	-5.73	100.55	105.70
1	13	1504	G	C8-N9-C4	5.73	108.69	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1130	U	N1-C2-N3	5.73	118.33	114.90
26	14	2195	C	C6-N1-C2	5.73	122.59	120.30
1	13	1397	C	N3-C2-O2	5.72	125.91	121.90
26	1H	651	G	O5'-P-OP2	5.72	117.57	110.70
27	16	49	C	C5-C6-N1	5.72	123.86	121.00
26	14	3	U	C6-N1-C1'	-5.72	113.19	121.20
26	14	463	G	C4-C5-N7	5.72	113.09	110.80
26	14	751	A	N7-C8-N9	-5.72	110.94	113.80
26	14	817	C	C5-C6-N1	5.72	123.86	121.00
26	14	2565	A	O5'-P-OP2	5.72	117.57	110.70
1	13	50	A	C5-C6-N1	5.72	120.56	117.70
20	BI	99	LEU	CA-CB-CG	5.72	128.46	115.30
26	1H	56	A	C2-N3-C4	-5.72	107.74	110.60
26	1H	756	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	974(A)	C	C5-C4-N4	5.72	124.21	120.20
1	1G	137	C	C6-N1-C2	5.72	122.59	120.30
26	14	764	A	OP1-P-OP2	-5.72	111.02	119.60
26	14	1673	U	C5-C6-N1	-5.72	119.84	122.70
26	14	1976	U	C6-N1-C2	-5.72	117.57	121.00
26	1H	813	U	N1-C2-N3	5.72	118.33	114.90
26	1H	1599	C	O5'-P-OP2	-5.72	100.55	105.70
26	1H	2451	A	C5-C6-N6	5.72	128.28	123.70
1	1G	953	G	N1-C6-O6	-5.72	116.47	119.90
26	14	1277	G	N9-C4-C5	-5.72	103.11	105.40
26	14	1654	A	N1-C6-N6	-5.72	115.17	118.60
26	14	2380	C	C2-N3-C4	-5.72	117.04	119.90
26	1H	231	C	C5-C4-N4	5.72	124.20	120.20
26	14	778	G	C5-C6-O6	5.72	132.03	128.60
26	14	2089	U	N3-C2-O2	5.72	126.20	122.20
26	14	2210	G	C4-N9-C1'	5.72	133.94	126.50
1	13	1469	G	C6-C5-N7	-5.72	126.97	130.40
26	1H	592	G	C4-C5-N7	-5.72	108.51	110.80
26	1H	964	C	N3-C4-N4	5.72	122.00	118.00
26	14	828	U	C2-N1-C1'	5.72	124.56	117.70
26	14	939	G	C4-C5-C6	5.72	122.23	118.80
26	14	1563	G	N1-C6-O6	-5.72	116.47	119.90
1	13	1516	G	C5-C6-O6	5.72	132.03	128.60
26	1H	576	U	N1-C2-O2	5.72	126.80	122.80
27	16	49	C	C6-N1-C2	-5.72	118.01	120.30
1	13	1326	C	O5'-P-OP2	-5.71	100.56	105.70
26	1H	405	U	N1-C2-O2	5.71	126.80	122.80
26	1H	582	G	C5-C6-O6	-5.71	125.17	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1321	A	O5'-P-OP1	-5.71	100.56	105.70
26	1H	1343	G	N3-C4-C5	-5.71	125.74	128.60
26	14	407	G	C5-C6-N1	5.71	114.36	111.50
26	14	1659	U	N3-C2-O2	5.71	126.20	122.20
26	14	2429	G	O5'-P-OP2	-5.71	100.56	105.70
26	1H	866	A	N9-C4-C5	-5.71	103.52	105.80
26	1H	1422	G	OP1-P-OP2	-5.71	111.03	119.60
26	1H	2338	G	O5'-P-OP1	-5.71	100.56	105.70
1	13	656	C	C2-N3-C4	5.71	122.76	119.90
1	13	968	A	C8-N9-C4	5.71	108.08	105.80
26	1H	2386	C	C4-C5-C6	5.71	120.26	117.40
1	1G	771	G	C5-C6-O6	5.71	132.03	128.60
26	14	744	G	N1-C2-N3	5.71	127.33	123.90
26	14	1642	G	C5-C6-O6	-5.71	125.17	128.60
26	14	1836	C	C5-C4-N4	5.71	124.20	120.20
26	14	2499	C	N3-C4-C5	-5.71	119.61	121.90
26	14	1381	G	C8-N9-C4	5.71	108.68	106.40
26	14	1607	C	C6-N1-C2	5.71	122.58	120.30
26	14	2081	C	N1-C2-O2	5.71	122.33	118.90
26	14	2082	A	C2-N3-C4	-5.71	107.75	110.60
26	14	2281	C	N3-C4-N4	5.71	122.00	118.00
1	13	956	U	C6-N1-C2	-5.71	117.58	121.00
1	13	1359	C	C6-N1-C2	5.71	122.58	120.30
26	1H	1808	U	N1-C2-N3	-5.71	111.47	114.90
26	1H	2869	G	N1-C6-O6	5.71	123.33	119.90
50	K8	64	LEU	CB-CG-CD2	5.71	120.71	111.00
1	1G	430	A	O5'-P-OP2	-5.71	100.56	105.70
1	1G	664	G	N3-C4-C5	5.71	131.46	128.60
26	14	516	C	C5-C4-N4	-5.71	116.20	120.20
26	14	1932	A	O5'-P-OP2	5.71	117.55	110.70
26	14	2367	G	N7-C8-N9	5.71	115.95	113.10
26	14	2374	C	C5-C4-N4	-5.71	116.20	120.20
26	1H	180	G	C8-N9-C1'	-5.71	119.58	127.00
26	1H	1758	G	N1-C6-O6	5.71	123.32	119.90
26	14	570	G	C4-C5-C6	5.71	122.22	118.80
26	14	926	A	C5-C6-N1	5.71	120.55	117.70
26	14	1395	A	OP2-P-O3'	5.71	117.75	105.20
26	14	1779	U	C6-N1-C2	5.71	124.42	121.00
26	14	2510	C	C5-C6-N1	-5.71	118.15	121.00
26	14	1110	G	C8-N9-C1'	5.71	134.42	127.00
27	16	48	A	C5-C6-N6	-5.70	119.14	123.70
27	16	61	G	C8-N9-C4	-5.70	104.12	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	93	C	C6-N1-C2	-5.70	118.02	120.30
26	14	2338	G	O5'-P-OP1	-5.70	100.57	105.70
1	13	730	G	C4-C5-N7	-5.70	108.52	110.80
26	1H	1187	G	C2-N3-C4	-5.70	109.05	111.90
26	1H	2856	C	C6-N1-C2	-5.70	118.02	120.30
1	13	582	U	N3-C2-O2	-5.70	118.21	122.20
1	13	1315	U	C5-C6-N1	5.70	125.55	122.70
1	1G	607	A	N1-C6-N6	5.70	122.02	118.60
24	3L	34	U	C4-C5-C6	5.70	123.12	119.70
26	14	795	C	OP1-P-OP2	5.70	128.15	119.60
26	14	831	G	N1-C6-O6	5.70	123.32	119.90
26	14	2067	G	N1-C2-N2	5.70	121.33	116.20
1	13	325	A	C4-C5-N7	5.70	113.55	110.70
26	1H	2574	G	C5-C6-O6	-5.70	125.18	128.60
1	1G	121	C	C6-N1-C1'	-5.70	113.96	120.80
26	14	97	C	C6-N1-C2	5.70	122.58	120.30
26	14	551	G	N1-C6-O6	5.70	123.32	119.90
26	14	681	G	OP2-P-O3'	5.70	117.74	105.20
26	14	1697	G	N1-C6-O6	-5.70	116.48	119.90
26	14	2038	G	C8-N9-C4	5.70	108.68	106.40
27	1J	103	U	C6-N1-C2	5.70	124.42	121.00
26	1H	1790	C	OP2-P-O3'	5.70	117.73	105.20
1	1G	1157	A	P-O3'-C3'	5.70	126.54	119.70
26	14	236	C	N3-C4-N4	-5.70	114.01	118.00
26	14	1294	U	C5-C6-N1	-5.70	119.85	122.70
1	13	253	U	OP2-P-O3'	5.70	117.73	105.20
1	13	564	C	N3-C4-C5	-5.70	119.62	121.90
26	1H	1364	G	N3-C4-N9	5.70	129.42	126.00
26	1H	1624	G	N1-C2-N3	5.70	127.32	123.90
26	1H	2037	G	N3-C4-N9	5.70	129.42	126.00
26	14	1373	A	C6-N1-C2	-5.70	115.18	118.60
26	14	1646	C	C6-N1-C2	5.70	122.58	120.30
26	14	2504	U	C5-C6-N1	5.70	125.55	122.70
26	14	2619	C	N3-C4-C5	5.70	124.18	121.90
26	14	2873	A	C4-C5-N7	5.70	113.55	110.70
33	51	7	LEU	CB-CG-CD1	5.69	120.68	111.00
26	14	1324	G	O5'-P-OP1	-5.69	100.58	105.70
1	13	858	G	C5-C6-O6	5.69	132.02	128.60
23	2K	32	G	O5'-P-OP2	5.69	117.53	110.70
26	1H	654(S)	G	O4'-C1'-N9	5.69	112.75	108.20
26	1H	865	C	C4-C5-C6	-5.69	114.55	117.40
26	1H	1954	G	C2-N3-C4	-5.69	109.05	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2291	U	OP2-P-O3'	5.69	117.72	105.20
26	1H	2326	C	C6-N1-C2	-5.69	118.02	120.30
31	31	164	ARG	NE-CZ-NH2	-5.69	117.45	120.30
33	51	153	LYS	C-N-CA	5.69	145.91	122.00
26	14	837	C	C5-C4-N4	-5.69	116.22	120.20
26	14	921	G	C8-N9-C4	-5.69	104.12	106.40
26	14	1428	C	C2-N1-C1'	-5.69	112.54	118.80
1	13	480	U	C6-N1-C2	5.69	124.42	121.00
1	13	1091	U	N1-C2-N3	5.69	118.31	114.90
1	13	1302	U	N3-C2-O2	-5.69	118.22	122.20
26	1H	250	G	N7-C8-N9	5.69	115.94	113.10
26	1H	1551	C	N1-C2-O2	5.69	122.31	118.90
26	1H	1630	G	C6-N1-C2	-5.69	121.69	125.10
26	1H	1899	G	C5-C6-O6	-5.69	125.19	128.60
26	14	507	A	C2-N3-C4	5.69	113.44	110.60
26	14	1597	A	C8-N9-C4	5.69	108.08	105.80
26	1H	1806	C	OP2-P-O3'	5.69	117.72	105.20
26	1H	1857	G	C8-N9-C4	5.69	108.68	106.40
1	13	118	U	C5-C4-O4	5.69	129.31	125.90
1	13	664	G	C5-C6-O6	5.69	132.01	128.60
26	1H	647	G	OP1-P-OP2	-5.69	111.07	119.60
26	1H	1440	G	N1-C6-O6	-5.69	116.49	119.90
26	1H	2463	C	O5'-P-OP2	-5.69	100.58	105.70
26	1H	2690	C	N3-C2-O2	-5.69	117.92	121.90
26	1H	2757	A	C8-N9-C4	-5.69	103.53	105.80
26	14	2013	A	C2-N3-C4	-5.69	107.76	110.60
45	B5	63	LYS	CD-CE-NZ	-5.69	98.62	111.70
1	13	1279	A	C4-C5-C6	5.69	119.84	117.00
26	1H	1395	A	C8-N9-C4	5.69	108.07	105.80
26	1H	1648	C	N1-C2-O2	-5.69	115.49	118.90
1	1G	818	G	C5-C6-N1	-5.69	108.66	111.50
26	14	731	C	N3-C2-O2	5.69	125.88	121.90
26	14	1455	G	OP1-P-OP2	5.69	128.13	119.60
1	13	571	U	C5-C6-N1	5.68	125.54	122.70
26	1H	303	U	N1-C2-N3	5.68	118.31	114.90
26	1H	461	C	C6-N1-C2	-5.68	118.03	120.30
26	1H	1192	G	O5'-P-OP1	5.68	117.52	110.70
26	1H	1406	U	OP1-P-O3'	5.68	117.71	105.20
26	1H	2843	G	N1-C6-O6	-5.68	116.49	119.90
26	14	1489	U	C6-N1-C2	-5.68	117.59	121.00
1	13	1404	C	C4-C5-C6	-5.68	114.56	117.40
24	3K	56	C	C6-N1-C2	-5.68	118.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2575	C	C5-C6-N1	-5.68	118.16	121.00
1	13	353	A	C8-N9-C4	-5.68	103.53	105.80
1	13	373	A	C8-N9-C4	5.68	108.07	105.80
26	1H	79	G	C8-N9-C4	-5.68	104.13	106.40
26	1H	1053	C	C5-C6-N1	5.68	123.84	121.00
26	1H	1393	A	OP1-P-OP2	5.68	128.12	119.60
26	14	686	G	C6-C5-N7	-5.68	126.99	130.40
26	14	1791	A	C6-N1-C2	-5.68	115.19	118.60
26	14	2590	A	O5'-P-OP2	5.68	117.52	110.70
26	14	2861	G	C8-N9-C4	-5.68	104.13	106.40
26	1H	119	A	C5-C6-N6	5.68	128.24	123.70
26	1H	928	G	N1-C2-N2	5.68	121.31	116.20
26	1H	1298	C	N1-C2-O2	5.68	122.31	118.90
26	1H	1506	C	C5-C6-N1	5.68	123.84	121.00
26	1H	1704	G	C5-C6-N1	-5.68	108.66	111.50
27	16	47	C	OP1-P-O3'	5.68	117.69	105.20
26	14	270(Z)	U	N3-C2-O2	-5.68	118.22	122.20
26	14	1319	G	O5'-P-OP1	-5.68	100.59	105.70
26	14	1936	A	OP1-P-OP2	-5.68	111.08	119.60
26	14	2058	A	O5'-P-OP2	-5.68	100.59	105.70
1	13	19	C	N3-C4-C5	-5.68	119.63	121.90
1	13	1488	G	C5-C6-N1	5.68	114.34	111.50
26	1H	350	U	C5-C4-O4	5.68	129.31	125.90
26	1H	411	G	N3-C4-C5	-5.68	125.76	128.60
26	1H	1917	U	OP1-P-O3'	5.68	117.69	105.20
26	14	400	G	N1-C6-O6	5.68	123.31	119.90
54	L5	28	ARG	NE-CZ-NH2	5.68	123.14	120.30
26	1H	654(B)	C	C6-N1-C2	-5.68	118.03	120.30
1	1G	1274	G	N7-C8-N9	5.68	115.94	113.10
26	14	1644	C	O5'-P-OP2	-5.68	100.59	105.70
26	14	1669	A	O5'-P-OP2	-5.68	100.59	105.70
26	14	2573	C	C5-C4-N4	-5.68	116.23	120.20
27	1J	84	C	C5-C6-N1	-5.68	118.16	121.00
26	1H	436	C	N1-C2-N3	-5.67	115.23	119.20
1	1G	698	G	N1-C2-N2	5.67	121.31	116.20
1	1G	876	G	N1-C6-O6	-5.67	116.50	119.90
26	14	460	A	N1-C2-N3	5.67	132.14	129.30
26	14	499	U	N3-C2-O2	-5.67	118.23	122.20
26	14	1681	G	C5-N7-C8	-5.67	101.46	104.30
26	14	1703	G	N9-C4-C5	-5.67	103.13	105.40
26	1H	18	C	N3-C4-C5	5.67	124.17	121.90
26	1H	270(G)	C	C5-C6-N1	5.67	123.84	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1674	G	OP1-P-O3'	5.67	117.68	105.20
26	1H	2510	C	N3-C4-N4	-5.67	114.03	118.00
26	14	856	C	C6-N1-C2	-5.67	118.03	120.30
26	14	2146	C	O4'-C1'-N1	5.67	112.74	108.20
1	13	265	G	OP1-P-OP2	5.67	128.11	119.60
1	13	1252	A	N1-C6-N6	-5.67	115.20	118.60
26	1H	307	G	C4-C5-N7	5.67	113.07	110.80
26	1H	2431	U	O5'-P-OP1	-5.67	100.59	105.70
1	1G	721	G	C5-C6-N1	-5.67	108.66	111.50
1	1G	1126	U	N1-C2-N3	-5.67	111.50	114.90
1	1G	1406	U	O5'-P-OP1	5.67	117.51	110.70
26	14	2295	C	C5-C4-N4	-5.67	116.23	120.20
26	1H	398	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	2695	C	OP1-P-OP2	5.67	128.10	119.60
26	14	71	A	P-O3'-C3'	5.67	126.50	119.70
26	14	2019	A	N7-C8-N9	-5.67	110.97	113.80
1	13	354	G	C4-C5-N7	5.67	113.07	110.80
1	13	365	U	N3-C4-O4	5.67	123.37	119.40
26	1H	27	G	C8-N9-C4	-5.67	104.13	106.40
24	3L	76	A	C8-N9-C4	-5.67	103.53	105.80
26	14	1122	G	C8-N9-C4	5.67	108.67	106.40
26	14	1775	U	C6-N1-C2	5.67	124.40	121.00
26	14	2008	C	N3-C2-O2	5.67	125.87	121.90
1	13	117	G	N1-C6-O6	5.67	123.30	119.90
1	13	1512	U	N1-C2-N3	5.67	118.30	114.90
26	1H	1363	C	O5'-P-OP2	-5.67	100.60	105.70
26	1H	1789	A	N1-C6-N6	-5.67	115.20	118.60
26	1H	2585	U	C6-N1-C2	5.67	124.40	121.00
1	1G	230	G	C5-C6-N1	-5.67	108.67	111.50
26	1H	2430	A	C4-C5-N7	5.67	113.53	110.70
1	1G	585	G	N3-C4-C5	-5.67	125.77	128.60
1	13	1353	G	N1-C6-O6	-5.66	116.50	119.90
1	13	1493	A	C5-C6-N1	-5.66	114.87	117.70
26	1H	491	G	N3-C2-N2	-5.66	115.94	119.90
26	1H	511	U	N1-C2-O2	-5.66	118.84	122.80
26	1H	673	C	OP1-P-OP2	-5.66	111.11	119.60
26	1H	741	G	C5-N7-C8	-5.66	101.47	104.30
26	1H	946	G	N3-C2-N2	-5.66	115.94	119.90
26	1H	2352	A	OP1-P-O3'	5.66	117.66	105.20
26	1H	2401	U	C2-N1-C1'	5.66	124.50	117.70
26	1H	2447	G	N1-C2-N3	5.66	127.30	123.90
26	1H	2464	C	O5'-P-OP2	-5.66	100.60	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	21	111	ARG	NE-CZ-NH2	5.66	123.13	120.30
1	1G	400	C	C6-N1-C2	5.66	122.56	120.30
1	1G	1200	C	C2-N3-C4	5.66	122.73	119.90
26	14	1342	A	C4-C5-C6	5.66	119.83	117.00
26	14	2503	A	N1-C6-N6	5.66	122.00	118.60
26	14	2880	C	N3-C4-C5	-5.66	119.63	121.90
1	13	910	C	C2-N3-C4	-5.66	117.07	119.90
26	1H	211	A	N9-C4-C5	-5.66	103.53	105.80
26	14	2325	G	OP1-P-OP2	5.66	128.09	119.60
26	14	2461	C	C5-C6-N1	-5.66	118.17	121.00
26	1H	190	A	C8-N9-C4	5.66	108.06	105.80
26	1H	1277	G	C8-N9-C4	5.66	108.66	106.40
26	14	463	G	N1-C6-O6	5.66	123.30	119.90
26	14	499	U	C2-N3-C4	-5.66	123.60	127.00
26	14	2030	A	C8-N9-C4	5.66	108.06	105.80
26	14	2629	A	OP2-P-O3'	5.66	117.66	105.20
26	1H	1005	C	N3-C2-O2	-5.66	117.94	121.90
26	1H	1373	A	C5-C6-N1	5.66	120.53	117.70
23	2L	77	A	C5-C6-N6	-5.66	119.17	123.70
26	14	664	C	C5-C4-N4	5.66	124.16	120.20
26	14	1950	G	N3-C4-C5	-5.66	125.77	128.60
26	14	2673	G	C4-N9-C1'	5.66	133.86	126.50
26	1H	404	C	P-O3'-C3'	5.66	126.49	119.70
26	1H	2256	G	N3-C4-C5	5.66	131.43	128.60
26	14	430	G	O5'-P-OP1	-5.66	100.61	105.70
26	14	2598	A	C2'-C3'-O3'	5.66	122.75	113.70
1	13	46	G	N1-C6-O6	5.66	123.29	119.90
1	13	191(A)	G	O5'-P-OP1	-5.66	100.61	105.70
26	1H	1013	C	C2-N1-C1'	-5.66	112.58	118.80
26	1H	1586	A	C5-N7-C8	-5.66	101.07	103.90
26	1H	2066	C	OP1-P-O3'	5.66	117.64	105.20
26	1H	2447	G	C6-N1-C2	-5.66	121.71	125.10
26	14	80	G	N1-C2-N3	5.66	127.29	123.90
26	14	556	G	N3-C4-N9	5.66	129.39	126.00
26	14	1825	A	C5-C6-N1	5.66	120.53	117.70
1	13	1467	G	O5'-P-OP2	-5.65	100.61	105.70
26	1H	663	G	C4-C5-C6	5.65	122.19	118.80
26	1H	2331	G	N1-C2-N2	-5.65	111.11	116.20
27	16	48	A	C4-C5-N7	5.65	113.53	110.70
1	1G	1096	C	C6-N1-C2	-5.65	118.04	120.30
26	14	1762	A	C4-C5-N7	5.65	113.53	110.70
26	14	2426	A	N7-C8-N9	5.65	116.63	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	23	G	N1-C6-O6	-5.65	116.51	119.90
26	1H	1470	G	OP2-P-O3'	5.65	117.64	105.20
26	1H	1574	C	C5-C6-N1	-5.65	118.17	121.00
26	1H	2706	G	C4-C5-N7	5.65	113.06	110.80
26	14	470	A	O5'-P-OP1	-5.65	100.61	105.70
26	14	2211	G	P-O3'-C3'	5.65	126.48	119.70
1	13	760	G	C5-C6-O6	-5.65	125.21	128.60
1	13	916	G	OP1-P-O3'	5.65	117.63	105.20
26	1H	809	G	C5-C6-O6	-5.65	125.21	128.60
26	1H	1297	C	OP2-P-O3'	-5.65	92.77	105.20
26	1H	1344	G	OP1-P-OP2	-5.65	111.12	119.60
26	1H	1780	A	N1-C6-N6	-5.65	115.21	118.60
26	1H	2048	G	N7-C8-N9	5.65	115.92	113.10
26	14	492	A	C5-C6-N6	-5.65	119.18	123.70
26	14	760	G	N3-C2-N2	-5.65	115.94	119.90
26	1H	988	A	C8-N9-C4	-5.65	103.54	105.80
26	1H	1639	U	C2-N3-C4	-5.65	123.61	127.00
1	13	117	G	C6-C5-N7	-5.65	127.01	130.40
1	13	1467	G	N1-C6-O6	5.65	123.29	119.90
26	1H	1200	C	C4-C5-C6	5.65	120.22	117.40
26	1H	1333	C	C5-C6-N1	5.65	123.82	121.00
26	1H	1775	U	OP1-P-O3'	5.65	117.62	105.20
26	1H	1814	G	O5'-P-OP2	-5.65	100.62	105.70
26	1H	2542	A	N1-C2-N3	5.65	132.12	129.30
1	1G	898	G	C2-N3-C4	-5.65	109.08	111.90
26	14	2501	C	N3-C4-C5	5.65	124.16	121.90
26	14	2504	U	C2-N1-C1'	5.65	124.48	117.70
1	13	1403	C	O4'-C1'-N1	-5.65	103.68	108.20
26	1H	238	C	C5-C6-N1	-5.65	118.18	121.00
26	1H	1290	C	C5-C6-N1	-5.65	118.18	121.00
26	1H	2567	G	C5-C6-N1	-5.65	108.68	111.50
26	14	747	U	C6-N1-C2	5.65	124.39	121.00
1	13	292	G	N1-C6-O6	-5.64	116.51	119.90
26	1H	2022	U	C5-C4-O4	-5.64	122.51	125.90
27	16	24	G	C4-N9-C1'	5.64	133.84	126.50
26	14	834	C	OP2-P-O3'	5.64	117.62	105.20
26	14	962	G	C4-C5-N7	-5.64	108.54	110.80
26	14	2217	G	N1-C6-O6	5.64	123.29	119.90
26	1H	1350	C	O5'-P-OP2	5.64	117.47	110.70
26	1H	1399	C	C5-C4-N4	-5.64	116.25	120.20
26	1H	1606	G	N9-C4-C5	-5.64	103.14	105.40
26	1H	1630(A)	C	C6-N1-C2	-5.64	118.04	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	772	U	C6-N1-C2	-5.64	117.61	121.00
1	13	1301	U	C5-C4-O4	-5.64	122.52	125.90
26	1H	454	A	O5'-P-OP2	-5.64	100.62	105.70
1	13	249	U	O5'-P-OP1	-5.64	100.62	105.70
26	1H	846	C	O5'-P-OP2	-5.64	100.62	105.70
26	1H	910	A	C4-C5-C6	5.64	119.82	117.00
26	1H	1210	A	C2-N3-C4	-5.64	107.78	110.60
26	1H	1506	C	C6-N1-C2	-5.64	118.04	120.30
26	1H	2227	A	OP1-P-OP2	-5.64	111.14	119.60
26	1H	2349	G	C8-N9-C4	-5.64	104.14	106.40
1	1G	1357	A	C8-N9-C4	-5.64	103.54	105.80
26	14	1446	C	N1-C2-O2	5.64	122.28	118.90
26	14	2395	C	N3-C4-C5	5.64	124.16	121.90
26	14	2439	A	P-O3'-C3'	5.64	126.47	119.70
26	14	2708	G	N7-C8-N9	-5.64	110.28	113.10
26	14	1028	A	N1-C6-N6	5.64	121.98	118.60
26	14	1552	G	C6-C5-N7	5.64	133.78	130.40
1	13	1347	G	N1-C6-O6	-5.64	116.52	119.90
26	1H	270(H)	C	C5-C6-N1	5.64	123.82	121.00
26	1H	759	G	OP1-P-O3'	5.64	117.60	105.20
26	1H	928	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	1196	C	N1-C2-O2	-5.64	115.52	118.90
26	1H	1415	U	N3-C2-O2	-5.64	118.25	122.20
26	14	232	G	C8-N9-C4	5.64	108.66	106.40
26	14	829	A	OP1-P-OP2	5.64	128.05	119.60
26	14	1869	G	N3-C4-N9	-5.64	122.62	126.00
26	14	2581	G	N3-C4-N9	5.64	129.38	126.00
26	1H	734	A	OP1-P-OP2	5.63	128.05	119.60
26	1H	823	G	C2-N3-C4	-5.63	109.08	111.90
26	1H	1379	A	C6-C5-N7	-5.63	128.36	132.30
26	1H	1733	G	C8-N9-C4	5.63	108.65	106.40
26	1H	2729	G	C8-N9-C4	5.63	108.65	106.40
26	14	464	U	OP1-P-OP2	-5.63	111.15	119.60
26	14	465	G	N3-C2-N2	5.63	123.84	119.90
26	14	1433	U	N3-C4-O4	5.63	123.34	119.40
26	1H	195	A	O5'-P-OP1	5.63	117.46	110.70
26	1H	1625	C	N3-C4-C5	5.63	124.15	121.90
1	1G	1417	G	C6-C5-N7	-5.63	127.02	130.40
1	13	287	U	OP2-P-O3'	5.63	117.59	105.20
26	1H	1333	C	N3-C4-C5	5.63	124.15	121.90
26	1H	1528	A	C6-C5-N7	-5.63	128.36	132.30
26	1H	2330	G	N1-C6-O6	5.63	123.28	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2457	U	N1-C2-O2	-5.63	118.86	122.80
1	1G	41	G	C8-N9-C4	5.63	108.65	106.40
26	14	1264	G	N1-C6-O6	-5.63	116.52	119.90
26	14	1979	C	C6-N1-C2	-5.63	118.05	120.30
26	14	2295	C	C5-C6-N1	5.63	123.82	121.00
24	3K	44	U	N1-C2-O2	5.63	126.74	122.80
26	1H	2276	G	C5-N7-C8	5.63	107.11	104.30
26	14	298	G	C5-C6-O6	-5.63	125.22	128.60
26	1H	1253	A	C5-C6-N6	-5.63	119.20	123.70
26	1H	1676	A	N3-C4-C5	5.63	130.74	126.80
29	11	65	ILE	CG1-CB-CG2	-5.63	99.02	111.40
24	3L	3	G	N7-C8-N9	5.63	115.92	113.10
26	14	2755	C	C5-C6-N1	5.63	123.81	121.00
1	13	16	A	O5'-P-OP2	5.63	117.45	110.70
1	13	186	C	C6-N1-C2	-5.63	118.05	120.30
1	13	345	C	C5-C6-N1	5.63	123.81	121.00
1	13	1529	G	C8-N9-C4	-5.63	104.15	106.40
26	1H	1657	C	C4-C5-C6	5.63	120.21	117.40
26	1H	2252	G	OP1-P-OP2	5.63	128.04	119.60
26	1H	2465	C	C2-N3-C4	-5.63	117.09	119.90
26	1H	2494	G	C4-C5-N7	-5.63	108.55	110.80
26	1H	2558	C	C6-N1-C2	5.63	122.55	120.30
33	51	171	LEU	CA-CB-CG	5.63	128.24	115.30
26	14	204	A	C5-C6-N6	-5.63	119.20	123.70
26	14	1175	U	N1-C2-O2	5.63	126.74	122.80
26	14	2255	G	O5'-P-OP2	-5.63	100.64	105.70
26	14	2320	A	P-O3'-C3'	5.63	126.45	119.70
1	13	99	C	C5-C6-N1	5.62	123.81	121.00
1	13	832	C	C4-C5-C6	5.62	120.21	117.40
1	13	1329	A	N1-C6-N6	5.62	121.97	118.60
26	1H	205	G	N1-C6-O6	-5.62	116.53	119.90
26	1H	1554	A	N1-C2-N3	5.62	132.11	129.30
26	1H	1776	G	OP1-P-OP2	-5.62	111.17	119.60
26	1H	1935	G	N9-C4-C5	5.62	107.65	105.40
26	1H	2644	G	N3-C2-N2	-5.62	115.96	119.90
1	1G	23	C	C5-C6-N1	5.62	123.81	121.00
1	1G	1409	C	N3-C2-O2	-5.62	117.96	121.90
26	14	1448	G	C8-N9-C4	-5.62	104.15	106.40
26	14	1469	A	C8-N9-C4	-5.62	103.55	105.80
1	13	1402	C	C5-C4-N4	5.62	124.14	120.20
26	1H	27	G	N9-C4-C5	5.62	107.65	105.40
26	1H	1391	U	O5'-P-OP1	-5.62	100.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1571	A	C6-N1-C2	-5.62	115.23	118.60
27	16	73	A	O5'-P-OP2	-5.62	100.64	105.70
26	14	609	A	N1-C6-N6	5.62	121.97	118.60
26	14	671	C	C4-C5-C6	5.62	120.21	117.40
1	13	1511	G	N9-C4-C5	-5.62	103.15	105.40
26	14	540	G	N3-C4-C5	5.62	131.41	128.60
26	14	1342	A	O4'-C1'-N9	5.62	112.70	108.20
26	14	1985	G	C8-N9-C4	5.62	108.65	106.40
1	13	654	G	C8-N9-C4	5.62	108.65	106.40
1	13	1503	A	C8-N9-C4	5.62	108.05	105.80
26	1H	112	U	N1-C2-O2	-5.62	118.87	122.80
26	1H	1120	G	C5-C6-O6	-5.62	125.23	128.60
26	1H	1506	C	N1-C2-O2	5.62	122.27	118.90
1	1G	467	G	O5'-P-OP1	-5.62	100.64	105.70
26	14	1649	G	C5-C6-O6	5.62	131.97	128.60
26	14	2083	G	N1-C2-N3	5.62	127.27	123.90
26	14	2582	G	N1-C6-O6	5.62	123.27	119.90
26	1H	947	G	N1-C2-N2	5.62	121.25	116.20
26	14	51	G	C8-N9-C4	5.62	108.65	106.40
26	14	2827	C	C6-N1-C2	5.62	122.55	120.30
1	13	1052	U	N3-C2-O2	-5.62	118.27	122.20
1	13	1260	C	C5-C6-N1	5.62	123.81	121.00
26	1H	27	G	OP1-P-O3'	5.62	117.55	105.20
26	1H	1197	G	N1-C6-O6	-5.62	116.53	119.90
1	1G	1259	C	C5-C6-N1	5.62	123.81	121.00
26	14	2243	U	OP1-P-OP2	5.62	128.02	119.60
24	3K	44	U	N3-C2-O2	-5.61	118.27	122.20
26	1H	1958	C	OP1-P-O3'	5.61	117.55	105.20
1	1G	180	U	C6-N1-C2	-5.61	117.63	121.00
26	14	1223	C	N1-C2-O2	-5.61	115.53	118.90
26	14	1765	C	C5-C6-N1	-5.61	118.19	121.00
26	14	2740	A	OP1-P-OP2	5.61	128.02	119.60
1	13	477	G	C4-C5-N7	5.61	113.05	110.80
26	1H	1325	G	O5'-P-OP2	5.61	117.44	110.70
26	14	682	G	N3-C4-N9	5.61	129.37	126.00
26	14	2249	U	C4-C5-C6	5.61	123.07	119.70
26	1H	1780	A	N9-C4-C5	5.61	108.04	105.80
26	1H	1919	A	OP1-P-OP2	5.61	128.01	119.60
26	1H	2297	C	C2-N3-C4	-5.61	117.09	119.90
26	14	765	G	N3-C4-C5	-5.61	125.80	128.60
26	14	2679	A	C8-N9-C4	5.61	108.04	105.80
26	14	2691	C	N1-C2-O2	-5.61	115.53	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1342	A	N1-C6-N6	5.61	121.97	118.60
26	1H	1932	A	N9-C4-C5	-5.61	103.56	105.80
26	1H	2607	G	C6-C5-N7	-5.61	127.03	130.40
1	1G	46	G	N1-C6-O6	5.61	123.27	119.90
1	1G	576	G	C5-C6-N1	-5.61	108.69	111.50
1	13	380	G	C5-C6-O6	5.61	131.96	128.60
1	13	481	G	C8-N9-C1'	-5.61	119.71	127.00
1	13	1424	C	C5-C6-N1	-5.61	118.20	121.00
26	1H	859	G	N3-C4-N9	-5.61	122.64	126.00
55	Q8	46	ARG	C-N-CA	5.61	135.72	121.70
26	14	609(A)	G	N1-C2-N2	-5.61	111.15	116.20
26	14	2609	U	O5'-P-OP2	-5.61	100.65	105.70
1	13	5	U	N1-C2-O2	5.61	126.72	122.80
1	13	67	C	C6-N1-C2	-5.61	118.06	120.30
1	13	1498	U	N3-C4-O4	5.61	123.32	119.40
26	1H	28	A	C2-N3-C4	5.61	113.40	110.60
26	1H	107	C	N1-C2-O2	-5.61	115.54	118.90
26	1H	1122	G	O5'-P-OP1	-5.61	100.66	105.70
26	1H	1604	C	N3-C4-C5	-5.61	119.66	121.90
26	1H	1608	A	N7-C8-N9	-5.61	111.00	113.80
26	1H	1888	G	C6-C5-N7	-5.61	127.04	130.40
26	1H	2551	C	C4-C5-C6	5.61	120.20	117.40
26	1H	2585	U	N3-C2-O2	-5.61	118.28	122.20
26	1H	2593	U	N1-C2-O2	-5.61	118.88	122.80
26	14	956	G	O5'-P-OP2	-5.61	100.66	105.70
26	14	1198	U	N1-C2-O2	5.61	126.72	122.80
26	14	2603	G	O5'-P-OP1	-5.61	100.65	105.70
1	13	130	A	C5-C6-N6	-5.60	119.22	123.70
1	1G	1096	C	N3-C2-O2	-5.60	117.98	121.90
26	14	307	G	C5-N7-C8	-5.60	101.50	104.30
26	14	620	G	N7-C8-N9	5.60	115.90	113.10
26	1H	528	A	C8-N9-C4	-5.60	103.56	105.80
26	1H	693	C	N1-C2-N3	5.60	123.12	119.20
26	1H	919	G	N1-C6-O6	-5.60	116.54	119.90
26	1H	2680	C	N1-C2-O2	-5.60	115.54	118.90
26	14	791	C	P-O3'-C3'	5.60	126.42	119.70
26	14	1776	G	C2-N3-C4	5.60	114.70	111.90
26	1H	743	G	N3-C2-N2	-5.60	115.98	119.90
26	1H	2244	U	OP1-P-OP2	-5.60	111.20	119.60
1	13	1327	C	N3-C4-C5	5.60	124.14	121.90
26	1H	348	G	C4-C5-N7	-5.60	108.56	110.80
26	1H	764	A	O5'-P-OP2	-5.60	100.66	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1275	A	C2-N3-C4	-5.60	107.80	110.60
26	1H	1331	A	C6-N1-C2	-5.60	115.24	118.60
26	1H	1410	G	N7-C8-N9	-5.60	110.30	113.10
26	1H	1775	U	O5'-P-OP2	-5.60	100.66	105.70
26	1H	1856	G	C8-N9-C4	5.60	108.64	106.40
1	1G	1465	C	C6-N1-C2	-5.60	118.06	120.30
26	14	1965	C	C5-C4-N4	5.60	124.12	120.20
1	13	1455	G	N3-C4-C5	5.60	131.40	128.60
26	1H	877	U	C5-C6-N1	5.60	125.50	122.70
26	1H	881	G	C2-N3-C4	5.60	114.70	111.90
26	1H	1106	G	C2-N3-C4	5.60	114.70	111.90
26	1H	1321	A	C5-C6-N1	5.60	120.50	117.70
26	1H	2053	G	N3-C2-N2	-5.60	115.98	119.90
26	14	528	A	C4-N9-C1'	-5.60	116.23	126.30
26	14	733	G	O5'-P-OP2	-5.60	100.66	105.70
33	59	170	ARG	C-N-CA	5.60	135.69	121.70
1	1G	232	G	C5-C6-N1	-5.60	108.70	111.50
26	14	406	G	N1-C6-O6	5.60	123.26	119.90
26	14	2818	G	N1-C6-O6	5.60	123.26	119.90
1	13	222	U	C2-N1-C1'	5.59	124.41	117.70
1	13	756	C	C5-C6-N1	-5.59	118.20	121.00
26	1H	82	G	C4-C5-N7	-5.59	108.56	110.80
26	1H	240	G	N1-C2-N2	5.59	121.23	116.20
26	1H	524	U	N1-C2-N3	5.59	118.26	114.90
26	1H	540	G	N1-C6-O6	5.59	123.26	119.90
26	1H	752	A	P-O3'-C3'	5.59	126.41	119.70
26	1H	1129	A	OP1-P-OP2	5.59	127.99	119.60
26	1H	2064	C	N1-C2-N3	5.59	123.12	119.20
26	1H	2199	A	N3-C4-C5	-5.59	122.88	126.80
27	16	24	G	N3-C4-C5	-5.59	125.80	128.60
26	14	753	C	C6-N1-C2	-5.59	118.06	120.30
26	14	1018	C	C2-N1-C1'	5.59	124.95	118.80
26	14	1372	U	N3-C4-O4	5.59	123.32	119.40
26	14	1695	G	N7-C8-N9	5.59	115.90	113.10
26	14	1771	C	N1-C2-O2	-5.59	115.54	118.90
26	14	1465	G	C4-C5-N7	5.59	113.04	110.80
26	14	1685	C	C5-C4-N4	-5.59	116.28	120.20
26	14	2618	G	C4-C5-N7	-5.59	108.56	110.80
26	1H	690	G	N1-C2-N2	-5.59	111.17	116.20
26	1H	2070	G	N3-C4-N9	5.59	129.35	126.00
24	3L	17	U	C2-N1-C1'	5.59	124.41	117.70
26	14	686	G	C5-N7-C8	-5.59	101.50	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	777	A	O5'-P-OP2	-5.59	100.67	105.70
26	14	2515	C	C5-C6-N1	-5.59	118.20	121.00
26	14	2568	C	C2-N3-C4	-5.59	117.10	119.90
1	13	149	A	N7-C8-N9	5.59	116.59	113.80
1	13	1469	G	N7-C8-N9	5.59	115.89	113.10
26	1H	99	U	C6-N1-C2	-5.59	117.65	121.00
26	1H	328	U	N1-C2-N3	5.59	118.25	114.90
26	1H	464	U	O5'-P-OP2	5.59	117.41	110.70
26	1H	972	G	C5-N7-C8	5.59	107.09	104.30
26	1H	1247	A	N7-C8-N9	-5.59	111.00	113.80
26	1H	1252	G	O4'-C1'-N9	-5.59	103.73	108.20
26	1H	2436	G	C6-C5-N7	5.59	133.75	130.40
26	14	378	C	C5-C6-N1	5.59	123.80	121.00
1	13	1480	G	N3-C2-N2	-5.59	115.99	119.90
26	1H	127	A	C4-C5-N7	5.59	113.49	110.70
1	1G	1411	C	N3-C4-C5	5.59	124.14	121.90
26	14	529	A	C4-C5-C6	5.59	119.79	117.00
26	14	1307	A	C5-N7-C8	-5.59	101.11	103.90
26	1H	218	A	C2-N3-C4	-5.59	107.81	110.60
26	1H	792	G	N1-C6-O6	5.59	123.25	119.90
26	1H	866	A	OP2-P-O3'	5.59	117.49	105.20
26	1H	924	C	OP2-P-O3'	5.59	117.49	105.20
1	1G	82	U	N1-C2-O2	5.59	126.71	122.80
1	1G	1158	C	N3-C4-C5	-5.59	119.67	121.90
26	14	732	C	N3-C4-N4	5.59	121.91	118.00
1	13	1498	U	C2-N1-C1'	5.58	124.40	117.70
1	13	1529	G	N3-C2-N2	-5.58	115.99	119.90
26	1H	265	A	C4-C5-N7	5.58	113.49	110.70
26	1H	392	C	N3-C4-C5	5.58	124.13	121.90
26	1H	669	G	C2-N3-C4	5.58	114.69	111.90
26	14	1953	A	OP1-P-OP2	-5.58	111.22	119.60
26	1H	473	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	607	U	C5-C6-N1	-5.58	119.91	122.70
26	1H	763	G	O5'-P-OP2	-5.58	100.68	105.70
26	1H	1692	U	OP1-P-O3'	5.58	117.48	105.20
26	1H	2379	G	OP1-P-OP2	5.58	127.97	119.60
26	1H	2481	G	C6-C5-N7	-5.58	127.05	130.40
26	1H	757	U	N3-C4-O4	-5.58	115.49	119.40
26	1H	801	G	C6-N1-C2	-5.58	121.75	125.10
26	1H	2706	G	N3-C4-C5	5.58	131.39	128.60
26	1H	2855	C	C5-C6-N1	5.58	123.79	121.00
1	1G	264	U	C5-C4-O4	-5.58	122.55	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	945	G	C8-N9-C4	-5.58	104.17	106.40
26	14	1612	C	C6-N1-C2	5.58	122.53	120.30
26	14	2019	A	C8-N9-C4	5.58	108.03	105.80
26	14	2590	A	C8-N9-C4	5.58	108.03	105.80
26	1H	686	G	N7-C8-N9	-5.58	110.31	113.10
1	1G	521	G	C8-N9-C4	5.58	108.63	106.40
26	14	1671	U	OP1-P-OP2	5.58	127.97	119.60
26	14	2364	C	C4-C5-C6	5.58	120.19	117.40
26	1H	1241	A	C5-C6-N1	-5.58	114.91	117.70
26	1H	1502	C	N1-C2-O2	-5.58	115.55	118.90
26	1H	2054	A	C5-C6-N1	5.58	120.49	117.70
26	14	803	U	C4-C5-C6	5.58	123.05	119.70
26	14	1451	C	OP1-P-OP2	5.58	127.97	119.60
26	14	2059	A	O4'-C1'-N9	5.58	112.66	108.20
22	1K	63	U	N3-C2-O2	-5.58	118.30	122.20
26	1H	2269	A	C2-N3-C4	-5.58	107.81	110.60
26	1H	570	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	1241	A	N1-C6-N6	5.58	121.94	118.60
26	1H	1259	G	OP2-P-O3'	5.58	117.47	105.20
26	1H	1566	A	N9-C4-C5	5.58	108.03	105.80
26	1H	1820	U	O5'-P-OP2	-5.58	100.68	105.70
26	1H	2069	G	OP2-P-O3'	5.58	117.47	105.20
1	1G	748	C	P-O3'-C3'	5.58	126.39	119.70
26	14	1164	G	C2-N3-C4	-5.58	109.11	111.90
26	14	2005	A	N7-C8-N9	-5.58	111.01	113.80
1	13	12	U	N1-C2-N3	5.57	118.24	114.90
1	13	942	G	OP1-P-O3'	5.57	117.46	105.20
1	13	1215	G	C5-C6-N1	-5.57	108.71	111.50
1	13	1313	U	C5-C6-N1	5.57	125.49	122.70
24	3K	72	C	C5-C6-N1	5.57	123.79	121.00
26	1H	194	G	C8-N9-C4	5.57	108.63	106.40
26	1H	239	U	N1-C2-O2	5.57	126.70	122.80
26	1H	794	G	O5'-P-OP2	5.57	117.39	110.70
1	1G	1207	G	C8-N9-C4	-5.57	104.17	106.40
26	14	1375	C	C5-C6-N1	5.57	123.79	121.00
26	14	2325	G	N1-C6-O6	5.57	123.24	119.90
26	14	2712	U	C4-C5-C6	5.57	123.04	119.70
27	1J	52	A	N7-C8-N9	-5.57	111.01	113.80
26	1H	854	G	N3-C4-C5	5.57	131.39	128.60
26	1H	2822	G	C5-N7-C8	-5.57	101.51	104.30
26	1H	679	C	C5-C6-N1	-5.57	118.21	121.00
26	1H	1786	A	C4-N9-C1'	5.57	136.33	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2506	U	OP2-P-O3'	5.57	117.46	105.20
26	1H	2780	G	N9-C4-C5	5.57	107.63	105.40
26	14	330	A	N1-C2-N3	5.57	132.09	129.30
26	14	2389	G	C8-N9-C4	-5.57	104.17	106.40
26	1H	2226	C	C2-N3-C4	-5.57	117.11	119.90
1	1G	1487	G	C6-N1-C2	-5.57	121.76	125.10
26	14	1776	G	C5-C6-N1	5.57	114.28	111.50
26	14	2333	A	C5-N7-C8	5.57	106.69	103.90
1	13	495	A	C8-N9-C4	5.57	108.03	105.80
26	1H	848	G	C8-N9-C4	5.57	108.63	106.40
26	1H	2253	G	N9-C4-C5	5.57	107.63	105.40
26	1H	2395	C	O5'-P-OP1	5.57	117.38	110.70
26	1H	2654	A	O5'-P-OP1	-5.57	100.69	105.70
27	16	82	G	O5'-P-OP2	-5.57	100.69	105.70
1	1G	503	C	N1-C2-O2	-5.57	115.56	118.90
26	14	74	A	N3-C4-N9	-5.57	122.95	127.40
26	14	833	U	N3-C4-O4	5.57	123.30	119.40
26	14	1831	G	C8-N9-C4	5.57	108.63	106.40
1	13	960	U	C5-C6-N1	5.57	125.48	122.70
1	1G	786	G	N7-C8-N9	-5.57	110.32	113.10
1	1G	788	U	OP1-P-OP2	-5.57	111.25	119.60
26	14	2035	G	C8-N9-C4	5.57	108.63	106.40
26	14	2542	A	O5'-P-OP2	-5.57	100.69	105.70
49	F5	36	GLY	N-CA-C	5.56	127.01	113.10
1	13	865	A	O5'-P-OP1	-5.56	100.69	105.70
26	1H	1256	G	C2-N3-C4	5.56	114.68	111.90
26	1H	2674	G	C5-C6-O6	5.56	131.94	128.60
1	1G	1412	C	N1-C2-O2	-5.56	115.56	118.90
26	14	736	C	N3-C2-O2	5.56	125.79	121.90
26	14	1475	G	C5-C6-N1	-5.56	108.72	111.50
26	14	2048	G	C5-C6-O6	-5.56	125.26	128.60
26	14	2510	C	C6-N1-C2	5.56	122.53	120.30
26	1H	259	G	C6-C5-N7	-5.56	127.06	130.40
26	1H	2088	G	C5-C6-O6	5.56	131.94	128.60
26	14	1885	A	C8-N9-C4	5.56	108.03	105.80
26	14	2273	A	OP1-P-OP2	5.56	127.94	119.60
26	14	2500	U	C5-C6-N1	-5.56	119.92	122.70
1	13	529	G	C5-C6-O6	-5.56	125.26	128.60
26	1H	663	G	C6-N1-C2	-5.56	121.76	125.10
26	1H	1647	G	N3-C4-C5	-5.56	125.82	128.60
1	1G	433	C	C5-C6-N1	-5.56	118.22	121.00
26	14	1351	C	O5'-P-OP1	5.56	117.37	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2260	C	C4-C5-C6	5.56	120.18	117.40
26	14	2348	U	C4-C5-C6	-5.56	116.36	119.70
26	14	2700	C	C5-C6-N1	-5.56	118.22	121.00
1	13	538	G	C6-N1-C2	-5.56	121.77	125.10
26	1H	1617	C	O5'-P-OP1	-5.56	100.70	105.70
26	14	512	G	C2-N3-C4	-5.56	109.12	111.90
26	14	2347	C	OP2-P-O3'	5.56	117.43	105.20
26	14	2441	C	C5-C6-N1	-5.56	118.22	121.00
26	1H	1469	A	OP1-P-O3'	5.56	117.42	105.20
26	1H	1936	A	C2-N3-C4	-5.56	107.82	110.60
26	14	1851	U	C5-C6-N1	5.56	125.48	122.70
1	13	541	G	C5-C6-O6	-5.55	125.27	128.60
1	13	1469	G	C5-C6-N1	-5.55	108.72	111.50
26	1H	256	A	C2-N3-C4	-5.55	107.82	110.60
26	1H	1676	A	C5-C6-N6	5.55	128.14	123.70
26	1H	2602	A	C8-N9-C4	5.55	108.02	105.80
2	12	118	LEU	CA-CB-CG	5.55	128.07	115.30
26	14	265	A	N1-C6-N6	5.55	121.93	118.60
1	13	582	U	O5'-P-OP1	-5.55	100.70	105.70
26	1H	232	G	O5'-P-OP2	-5.55	100.70	105.70
26	1H	239	U	C6-N1-C2	5.55	124.33	121.00
26	1H	705	A	N9-C4-C5	-5.55	103.58	105.80
26	1H	788	A	C5-C6-N6	-5.55	119.26	123.70
26	1H	1210	A	C5-C6-N1	-5.55	114.92	117.70
26	1H	1809	A	N1-C2-N3	5.55	132.08	129.30
26	14	494	G	N3-C4-N9	-5.55	122.67	126.00
26	14	1221	C	C2-N3-C4	-5.55	117.12	119.90
26	14	1354	A	O4'-C1'-N9	5.55	112.64	108.20
26	14	2383	G	N1-C2-N2	-5.55	111.20	116.20
26	1H	595	C	C5-C6-N1	5.55	123.78	121.00
26	1H	971	C	C2-N3-C4	-5.55	117.12	119.90
26	1H	2008	C	C5-C6-N1	-5.55	118.22	121.00
26	1H	2445	G	C6-C5-N7	-5.55	127.07	130.40
26	14	1311	G	C5-C6-O6	5.55	131.93	128.60
26	14	1829	A	OP1-P-OP2	5.55	127.93	119.60
1	13	1404	C	C5-C4-N4	5.55	124.08	120.20
1	13	1455	G	N9-C4-C5	-5.55	103.18	105.40
26	1H	558	G	N7-C8-N9	-5.55	110.33	113.10
26	1H	588	U	C2-N3-C4	-5.55	123.67	127.00
26	1H	1449	A	O5'-P-OP2	-5.55	100.71	105.70
26	1H	1992	G	C6-N1-C2	-5.55	121.77	125.10
26	1H	2273	A	O5'-P-OP1	-5.55	100.71	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1785	A	C8-N9-C4	-5.55	103.58	105.80
26	14	2146	C	C2-N1-C1'	-5.55	112.70	118.80
26	1H	69	C	O5'-P-OP1	-5.55	100.71	105.70
26	1H	254	G	C4-C5-N7	5.55	113.02	110.80
26	1H	764	A	C2-N3-C4	-5.55	107.83	110.60
26	1H	2500	U	C5-C4-O4	-5.55	122.57	125.90
26	14	44	A	C4-C5-C6	5.55	119.77	117.00
26	14	405	U	P-O3'-C3'	5.55	126.36	119.70
26	14	1770	G	N3-C2-N2	-5.55	116.02	119.90
27	1J	117	G	N3-C4-N9	-5.55	122.67	126.00
26	1H	760	G	C5-C6-O6	-5.55	125.27	128.60
26	1H	1022	G	C4-C5-N7	-5.55	108.58	110.80
26	1H	1879	C	C5-C6-N1	5.55	123.77	121.00
26	1H	1920	C	N3-C4-N4	-5.55	114.12	118.00
26	1H	1957	C	C6-N1-C1'	5.55	127.46	120.80
26	1H	2494	G	N3-C2-N2	-5.55	116.02	119.90
27	16	72	G	O5'-P-OP1	-5.55	100.71	105.70
1	13	883	C	N3-C4-C5	-5.54	119.68	121.90
1	13	1338	G	C5-C6-O6	5.54	131.93	128.60
26	1H	2546	U	C5-C6-N1	-5.54	119.93	122.70
1	1G	887	G	N1-C6-O6	5.54	123.23	119.90
26	14	576	U	N3-C2-O2	5.54	126.08	122.20
26	14	668	G	OP1-P-O3'	5.54	117.40	105.20
26	14	1374	G	OP1-P-O3'	5.54	117.40	105.20
26	14	2053	G	C5-C6-O6	-5.54	125.27	128.60
1	13	550	G	C8-N9-C4	5.54	108.62	106.40
26	14	802	A	OP1-P-OP2	5.54	127.92	119.60
26	14	945	A	N7-C8-N9	5.54	116.57	113.80
26	14	1125	G	N1-C6-O6	-5.54	116.57	119.90
26	14	1555	G	C4-N9-C1'	5.54	133.71	126.50
26	14	1597	A	N7-C8-N9	-5.54	111.03	113.80
26	14	1939	U	OP2-P-O3'	5.54	117.39	105.20
26	14	2249	U	N1-C2-N3	5.54	118.23	114.90
26	14	2256	G	C4-C5-N7	5.54	113.02	110.80
1	13	391	G	C5-C6-O6	5.54	131.93	128.60
1	13	1054	C	C2-N1-C1'	5.54	124.90	118.80
1	13	1144	G	N1-C6-O6	-5.54	116.58	119.90
26	1H	477	A	O5'-P-OP2	-5.54	100.71	105.70
26	1H	2498	C	O5'-P-OP1	5.54	117.35	110.70
27	16	32	C	N3-C2-O2	-5.54	118.02	121.90
1	1G	649	G	C4-C5-N7	-5.54	108.58	110.80
1	1G	1196	U	C6-N1-C2	-5.54	117.67	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1142(A)	A	C2-N3-C4	-5.54	107.83	110.60
26	1H	1228	G	N7-C8-N9	5.54	115.87	113.10
26	1H	2740	A	N1-C6-N6	5.54	121.92	118.60
26	1H	493	G	C8-N9-C4	-5.54	104.19	106.40
26	1H	561	G	C5-C6-O6	5.54	131.92	128.60
26	1H	762	U	C2-N1-C1'	5.54	124.35	117.70
1	1G	525	C	N3-C4-C5	-5.54	119.69	121.90
1	1G	1142	G	N1-C6-O6	-5.54	116.58	119.90
1	13	1228	C	C6-N1-C2	-5.54	118.08	120.30
29	11	43	ARG	CA-CB-CG	-5.54	101.22	113.40
1	13	418	C	O5'-P-OP2	-5.54	100.72	105.70
26	14	130	C	C2-N3-C4	-5.54	117.13	119.90
26	14	1661	G	N7-C8-N9	-5.54	110.33	113.10
26	14	1938	A	OP1-P-OP2	5.54	127.90	119.60
26	14	2581	G	C4-C5-C6	5.54	122.12	118.80
26	14	2593	U	N3-C2-O2	-5.54	118.33	122.20
26	1H	928	G	N3-C4-C5	5.53	131.37	128.60
26	1H	1580	A	N1-C6-N6	5.53	121.92	118.60
26	1H	1642	G	N1-C6-O6	5.53	123.22	119.90
26	1H	2546	U	N1-C2-O2	-5.53	118.93	122.80
26	14	58	G	N7-C8-N9	5.53	115.87	113.10
26	14	499	U	C5-C6-N1	-5.53	119.93	122.70
26	14	728	G	C4-C5-N7	-5.53	108.59	110.80
26	14	803	U	O5'-P-OP1	5.53	117.34	110.70
26	14	808	G	N3-C4-C5	-5.53	125.83	128.60
26	14	984	A	O5'-P-OP2	-5.53	100.72	105.70
26	14	1276	A	C4-C5-N7	5.53	113.47	110.70
26	14	2248	C	N3-C2-O2	-5.53	118.03	121.90
27	16	14	U	O5'-P-OP1	-5.53	100.72	105.70
26	1H	245	G	C8-N9-C1'	-5.53	119.81	127.00
26	1H	586	A	N1-C6-N6	-5.53	115.28	118.60
26	1H	859	G	N1-C6-O6	5.53	123.22	119.90
26	1H	2714	G	N3-C4-N9	5.53	129.32	126.00
27	16	54	G	C5-N7-C8	-5.53	101.53	104.30
1	1G	529	G	C6-C5-N7	-5.53	127.08	130.40
1	1G	688	G	N1-C6-O6	-5.53	116.58	119.90
26	14	1465	G	C6-C5-N7	-5.53	127.08	130.40
27	1J	84	C	C6-N1-C2	5.53	122.51	120.30
1	13	299	G	N1-C6-O6	-5.53	116.58	119.90
26	1H	744	G	C5-C6-O6	5.53	131.92	128.60
26	1H	1270	C	C5-C6-N1	-5.53	118.24	121.00
26	1H	2269	A	N1-C6-N6	5.53	121.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	915	C	C5-C6-N1	5.53	123.76	121.00
26	14	2301	C	N3-C4-C5	-5.53	119.69	121.90
1	13	442	C	C6-N1-C2	-5.53	118.09	120.30
26	1H	2501	C	C2-N3-C4	-5.53	117.14	119.90
27	16	36	C	C5-C6-N1	-5.53	118.24	121.00
1	1G	793	U	N3-C4-C5	-5.53	111.28	114.60
26	14	2304	G	C5-C6-N1	-5.53	108.74	111.50
1	13	960	U	C2-N1-C1'	5.53	124.33	117.70
26	1H	205	G	N1-C2-N2	-5.53	111.23	116.20
26	1H	782	A	OP1-P-OP2	-5.53	111.31	119.60
26	1H	1108	U	P-O3'-C3'	5.53	126.33	119.70
1	1G	390	C	C5-C6-N1	-5.53	118.24	121.00
26	14	1615	C	C6-N1-C2	-5.53	118.09	120.30
26	14	1969	A	N9-C4-C5	5.53	108.01	105.80
26	14	2071	A	C6-N1-C2	-5.53	115.28	118.60
26	1H	62	C	C6-N1-C2	5.52	122.51	120.30
26	1H	463	G	N3-C2-N2	5.52	123.77	119.90
26	1H	2311	A	C4-C5-N7	5.52	113.46	110.70
26	1H	2431	U	N3-C4-C5	-5.52	111.28	114.60
1	13	40	C	C6-N1-C2	5.52	122.51	120.30
1	13	115	G	C8-N9-C4	-5.52	104.19	106.40
1	13	380	G	C8-N9-C1'	5.52	134.18	127.00
1	13	926	G	C5-C6-O6	-5.52	125.29	128.60
26	1H	451	C	C2-N1-C1'	-5.52	112.73	118.80
26	1H	764	A	C5-C6-N1	-5.52	114.94	117.70
26	1H	957	A	C5-C6-N1	-5.52	114.94	117.70
26	1H	1655	A	N1-C2-N3	5.52	132.06	129.30
26	1H	2432	A	N3-C4-N9	-5.52	122.98	127.40
26	1H	2488	A	C8-N9-C4	5.52	108.01	105.80
26	14	823	G	N1-C2-N2	-5.52	111.23	116.20
26	14	2227	A	C2-N3-C4	-5.52	107.84	110.60
26	14	2284	C	N1-C2-O2	-5.52	115.59	118.90
26	14	2432	A	C4-C5-C6	5.52	119.76	117.00
26	14	2673	G	C8-N9-C1'	-5.52	119.82	127.00
26	1H	602	G	N1-C2-N2	-5.52	111.23	116.20
26	1H	1031	G	C6-N1-C2	-5.52	121.79	125.10
26	1H	1630	G	N3-C4-C5	-5.52	125.84	128.60
23	2L	48	U	P-O3'-C3'	5.52	126.33	119.70
1	13	1190	G	C5-C6-N1	-5.52	108.74	111.50
26	1H	967	C	C2-N3-C4	-5.52	117.14	119.90
26	1H	1920	C	N1-C2-O2	5.52	122.21	118.90
26	14	801	G	N1-C6-O6	-5.52	116.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	929	G	C5-C6-O6	-5.52	125.29	128.60
26	14	2584	U	N3-C2-O2	-5.52	118.34	122.20
26	1H	1030	G	N3-C2-N2	5.52	123.76	119.90
1	1G	1513	A	C5-C6-N6	-5.52	119.29	123.70
26	14	495	G	N3-C2-N2	-5.52	116.04	119.90
26	14	1570	A	C4-C5-C6	5.52	119.76	117.00
26	14	2606	C	N3-C4-N4	-5.52	114.14	118.00
26	1H	1698	A	O4'-C1'-N9	5.52	112.61	108.20
44	E8	18	ARG	NE-CZ-NH1	5.52	123.06	120.30
23	2L	35	C	C4-C5-C6	-5.52	114.64	117.40
24	3K	3	G	N7-C8-N9	5.51	115.86	113.10
26	1H	1209	G	N9-C4-C5	-5.51	103.19	105.40
26	1H	2555	U	N1-C2-N3	5.51	118.21	114.90
1	1G	555	C	OP1-P-O3'	5.51	117.33	105.20
26	14	34	C	O4'-C1'-N1	5.51	112.61	108.20
26	14	603	A	C5-C6-N1	-5.51	114.94	117.70
26	14	1367	A	O5'-P-OP1	5.51	117.32	110.70
26	14	2327	A	N7-C8-N9	-5.51	111.04	113.80
27	1J	46	A	N1-C6-N6	-5.51	115.29	118.60
26	14	2302	G	C8-N9-C4	-5.51	104.19	106.40
23	2K	60	A	O5'-P-OP1	-5.51	100.74	105.70
26	1H	374	A	C8-N9-C4	-5.51	103.59	105.80
26	1H	1324	G	O4'-C1'-N9	5.51	112.61	108.20
26	14	254	G	OP1-P-OP2	5.51	127.87	119.60
26	14	1449(A)	G	N1-C6-O6	5.51	123.21	119.90
26	14	1964	G	O5'-P-OP1	-5.51	100.74	105.70
26	14	2251	G	C6-N1-C2	-5.51	121.79	125.10
26	14	2330	G	C4-N9-C1'	5.51	133.66	126.50
26	14	2447	G	N9-C4-C5	5.51	107.61	105.40
26	1H	499	U	O5'-P-OP1	-5.51	100.74	105.70
26	1H	1622	G	N1-C2-N3	5.51	127.21	123.90
26	1H	1653	G	OP1-P-O3'	5.51	117.32	105.20
26	1H	1924	C	N3-C4-C5	5.51	124.10	121.90
26	1H	2500	U	OP2-P-O3'	5.51	117.32	105.20
1	1G	514	C	O5'-P-OP2	5.51	117.31	110.70
1	1G	898	G	C5-C6-O6	-5.51	125.29	128.60
1	1G	1196	U	N1-C2-O2	5.51	126.66	122.80
26	14	187	G	N9-C4-C5	-5.51	103.20	105.40
26	14	226	G	O4'-C1'-N9	5.51	112.61	108.20
26	14	1605	C	N3-C4-N4	5.51	121.86	118.00
26	14	2582	G	C5-C6-O6	-5.51	125.30	128.60
1	13	1079	G	C5-C6-N1	-5.51	108.75	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1812	A	N1-C2-N3	5.51	132.05	129.30
1	1G	44	G	C8-N9-C4	5.51	108.60	106.40
1	1G	503	C	N3-C4-N4	5.51	121.86	118.00
26	1H	838	C	C5-C4-N4	-5.51	116.35	120.20
26	1H	1372	U	C5-C6-N1	-5.51	119.95	122.70
26	1H	1569	A	C6-N1-C2	5.51	121.90	118.60
26	1H	2446	G	C4-C5-N7	5.51	113.00	110.80
26	1H	2785	C	N1-C2-O2	-5.51	115.60	118.90
26	14	460	A	C4-C5-C6	5.51	119.75	117.00
26	1H	389	G	N1-C2-N2	-5.50	111.25	116.20
26	1H	1197	G	C8-N9-C4	5.50	108.60	106.40
27	16	103	U	C5-C6-N1	-5.50	119.95	122.70
1	1G	1395	C	C6-N1-C2	-5.50	118.10	120.30
1	13	60	A	OP1-P-OP2	-5.50	111.34	119.60
18	9I	66	LEU	CA-CB-CG	-5.50	102.64	115.30
26	1H	67	U	OP1-P-O3'	5.50	117.31	105.20
26	1H	1180	C	C6-N1-C2	5.50	122.50	120.30
26	1H	1195	G	N3-C2-N2	-5.50	116.05	119.90
26	1H	1622	G	C4-C5-N7	-5.50	108.60	110.80
26	1H	2278	A	OP1-P-OP2	-5.50	111.34	119.60
26	14	113	G	C4-N9-C1'	-5.50	119.35	126.50
26	14	1283	G	N3-C4-C5	-5.50	125.85	128.60
1	13	317	G	C6-C5-N7	-5.50	127.10	130.40
26	1H	1158	C	OP1-P-OP2	5.50	127.85	119.60
26	1H	1229(A)	G	OP1-P-OP2	5.50	127.85	119.60
26	1H	1967	C	N1-C2-O2	5.50	122.20	118.90
26	14	659	C	C6-N1-C2	5.50	122.50	120.30
26	14	1977	A	N1-C6-N6	-5.50	115.30	118.60
1	13	222	U	C6-N1-C2	-5.50	117.70	121.00
1	13	665	A	N1-C6-N6	5.50	121.90	118.60
24	3K	9	A	C8-N9-C4	5.50	108.00	105.80
26	1H	589	C	C2-N3-C4	-5.50	117.15	119.90
26	1H	1209	G	N3-C4-C5	5.50	131.35	128.60
26	1H	1418	G	C5-C6-O6	5.50	131.90	128.60
26	1H	1971	A	OP1-P-OP2	-5.50	111.35	119.60
1	13	394	G	N3-C2-N2	-5.50	116.05	119.90
26	1H	1145	C	O5'-P-OP1	-5.50	100.75	105.70
26	1H	1568	G	C4-N9-C1'	-5.50	119.35	126.50
26	1H	2376	A	N7-C8-N9	-5.50	111.05	113.80
26	1H	2401	U	N3-C4-O4	5.50	123.25	119.40
26	1H	2522	U	C4-C5-C6	5.50	123.00	119.70
1	1G	833	U	N3-C2-O2	-5.50	118.35	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	503	A	C6-N1-C2	-5.50	115.30	118.60
26	14	946	G	C8-N9-C4	5.50	108.60	106.40
1	13	545	C	C6-N1-C2	5.50	122.50	120.30
26	1H	198	C	C6-N1-C2	5.50	122.50	120.30
26	1H	2620	C	C6-N1-C2	5.50	122.50	120.30
26	14	1248	G	N3-C4-C5	5.50	131.35	128.60
1	1G	51	A	OP1-P-OP2	5.50	127.84	119.60
1	1G	1286	A	C8-N9-C4	-5.50	103.60	105.80
26	14	2385	C	N3-C4-N4	5.50	121.85	118.00
26	1H	470	A	O5'-P-OP1	-5.49	100.76	105.70
26	1H	906	G	N3-C2-N2	-5.49	116.06	119.90
26	1H	1002	G	C4-C5-N7	-5.49	108.60	110.80
26	1H	1344	G	C4-C5-N7	5.49	113.00	110.80
26	1H	1551	C	N3-C2-O2	-5.49	118.06	121.90
26	1H	1565	C	OP2-P-O3'	5.49	117.28	105.20
26	1H	2054	A	C8-N9-C4	-5.49	103.60	105.80
26	14	1808	U	N1-C2-N3	-5.49	111.60	114.90
26	14	2674	G	OP1-P-OP2	5.49	127.84	119.60
1	13	1052	U	C6-N1-C2	-5.49	117.70	121.00
26	1H	146	G	N3-C4-C5	5.49	131.35	128.60
26	1H	729	G	C4-N9-C1'	5.49	133.64	126.50
27	1J	113	C	C6-N1-C2	5.49	122.50	120.30
1	13	400	C	N1-C2-O2	-5.49	115.61	118.90
1	13	509	A	P-O3'-C3'	5.49	126.29	119.70
1	13	912	C	C2-N3-C4	-5.49	117.16	119.90
26	1H	609	A	C6-C5-N7	-5.49	128.46	132.30
26	14	314	A	OP1-P-OP2	5.49	127.83	119.60
26	14	741	G	O5'-P-OP2	5.49	117.29	110.70
26	14	1759	A	OP1-P-OP2	5.49	127.84	119.60
26	1H	565	C	O5'-P-OP1	-5.49	100.76	105.70
26	1H	831	G	N1-C6-O6	5.49	123.19	119.90
26	1H	1408	C	N3-C2-O2	5.49	125.74	121.90
26	1H	1438	U	C5-C6-N1	5.49	125.44	122.70
26	1H	2009	G	C8-N9-C4	5.49	108.59	106.40
26	1H	2607	G	C4-C5-C6	5.49	122.09	118.80
26	14	200	U	C2-N3-C4	-5.49	123.71	127.00
26	1H	1562	A	OP1-P-OP2	-5.49	111.37	119.60
26	1H	1234	U	N3-C2-O2	-5.49	118.36	122.20
1	1G	509	A	C5-C6-N6	-5.49	119.31	123.70
26	14	683	C	N3-C4-C5	5.49	124.09	121.90
26	14	685	A	C5-C6-N1	5.49	120.44	117.70
26	14	1253	A	C5-C6-N1	5.49	120.44	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1292	U	OP1-P-O3'	5.49	117.27	105.20
1	13	145	G	C8-N9-C4	-5.48	104.21	106.40
26	1H	1804	C	O5'-P-OP1	5.48	117.28	110.70
26	1H	51	G	O5'-P-OP1	-5.48	100.77	105.70
26	1H	602	G	N3-C4-N9	5.48	129.29	126.00
26	1H	638	G	O5'-P-OP1	-5.48	100.77	105.70
26	1H	2376	A	C5-N7-C8	5.48	106.64	103.90
26	1H	2521	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	2537	U	C5-C6-N1	-5.48	119.96	122.70
26	1H	2589	A	O5'-P-OP2	-5.48	100.77	105.70
26	14	205	G	C8-N9-C4	5.48	108.59	106.40
26	14	983	A	OP1-P-OP2	-5.48	111.38	119.60
26	14	1926	U	N1-C2-N3	5.48	118.19	114.90
26	14	2393	A	O5'-P-OP1	-5.48	100.77	105.70
1	13	1032	A	N1-C6-N6	-5.48	115.31	118.60
26	1H	663	G	O5'-P-OP2	-5.48	100.77	105.70
26	1H	1807	G	N7-C8-N9	-5.48	110.36	113.10
26	1H	2445	G	C5-C6-N1	-5.48	108.76	111.50
26	1H	2476	A	O4'-C1'-N9	5.48	112.58	108.20
26	1H	2611	U	P-O3'-C3'	5.48	126.28	119.70
26	1H	2712	U	P-O3'-C3'	5.48	126.28	119.70
26	1H	2714	G	N3-C4-C5	-5.48	125.86	128.60
1	1G	951	G	O5'-P-OP1	-5.48	100.77	105.70
1	1G	1514	C	C5-C4-N4	-5.48	116.36	120.20
25	4L	12	A	O4'-C1'-N9	5.48	112.58	108.20
26	14	760	G	N7-C8-N9	5.48	115.84	113.10
26	14	2070	G	N3-C2-N2	5.48	123.74	119.90
26	14	2766	G	C8-N9-C4	-5.48	104.21	106.40
1	13	386	C	C5-C6-N1	-5.48	118.26	121.00
1	13	1200	C	C6-N1-C2	5.48	122.49	120.30
26	1H	197	A	C5-N7-C8	-5.48	101.16	103.90
26	1H	600	G	N9-C4-C5	-5.48	103.21	105.40
26	1H	1323	U	N1-C2-O2	-5.48	118.97	122.80
1	1G	1206	G	C6-C5-N7	-5.48	127.11	130.40
1	13	1517	G	C5-C6-O6	-5.48	125.31	128.60
26	1H	162	U	C2-N1-C1'	5.48	124.27	117.70
26	14	278	A	OP1-P-O3'	5.48	117.25	105.20
26	14	516	C	N3-C2-O2	5.48	125.73	121.90
26	14	1489	U	N1-C2-N3	5.48	118.19	114.90
1	13	647	C	C6-N1-C2	-5.48	118.11	120.30
26	1H	452	G	C8-N9-C4	-5.48	104.21	106.40
26	1H	906	G	N1-C6-O6	5.48	123.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2506	U	P-O3'-C3'	5.48	126.27	119.70
26	14	2256	G	C6-C5-N7	-5.48	127.11	130.40
1	13	67	C	N3-C2-O2	-5.47	118.07	121.90
26	1H	436	C	C6-N1-C2	5.47	122.49	120.30
26	1H	745	G	N3-C4-N9	5.47	129.28	126.00
26	1H	1215	G	OP1-P-O3'	5.47	117.24	105.20
26	1H	2307	G	N1-C6-O6	5.47	123.19	119.90
26	1H	2732	G	C8-N9-C4	-5.47	104.21	106.40
27	16	87	G	C8-N9-C4	5.47	108.59	106.40
1	1G	1313	U	C5-C6-N1	5.47	125.44	122.70
1	13	1194	U	N1-C2-N3	5.47	118.18	114.90
26	1H	137(A)	G	N3-C2-N2	-5.47	116.07	119.90
26	1H	203	C	C5-C4-N4	-5.47	116.37	120.20
26	1H	587	C	C6-N1-C2	5.47	122.49	120.30
26	1H	1031	G	C5-C6-N1	5.47	114.24	111.50
26	1H	2680	C	C5-C6-N1	-5.47	118.26	121.00
1	1G	47	C	N1-C2-O2	-5.47	115.62	118.90
1	1G	1502	A	C8-N9-C4	-5.47	103.61	105.80
26	14	2601	C	N3-C2-O2	-5.47	118.07	121.90
26	1H	38	A	N1-C6-N6	-5.47	115.32	118.60
26	1H	1498	C	N3-C2-O2	5.47	125.73	121.90
26	1H	2261	C	C6-N1-C2	-5.47	118.11	120.30
27	1J	60	C	C5-C6-N1	5.47	123.74	121.00
1	13	111	G	N3-C4-C5	5.47	131.34	128.60
1	13	391	G	C6-C5-N7	5.47	133.68	130.40
1	13	752	G	C5-C6-O6	-5.47	125.32	128.60
1	13	833	U	C5-C4-O4	5.47	129.18	125.90
26	1H	952	G	C5-C6-O6	-5.47	125.32	128.60
26	1H	1250	G	C5-C6-O6	-5.47	125.32	128.60
26	1H	2506	U	C2-N1-C1'	5.47	124.26	117.70
26	1H	2575	C	N1-C2-N3	5.47	123.03	119.20
26	14	433	C	C2-N3-C4	5.47	122.64	119.90
26	14	1372	U	C6-N1-C2	-5.47	117.72	121.00
26	14	1653	G	C5-C6-N1	5.47	114.23	111.50
26	14	1850	G	C8-N9-C4	5.47	108.59	106.40
26	14	2252	G	N3-C2-N2	5.47	123.73	119.90
26	1H	90	U	N1-C2-N3	-5.47	111.62	114.90
26	1H	930	U	OP2-P-O3'	-5.47	93.17	105.20
26	1H	1626	G	C2-N3-C4	-5.47	109.17	111.90
26	1H	1627	G	N3-C2-N2	5.47	123.73	119.90
26	1H	2665	A	N1-C6-N6	5.47	121.88	118.60
26	14	2333	A	C4-C5-N7	-5.47	107.97	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1226	C	N3-C2-O2	5.47	125.73	121.90
26	1H	639	U	O5'-P-OP2	-5.47	100.78	105.70
26	1H	1770	G	OP1-P-O3'	5.47	117.22	105.20
1	1G	750	G	N3-C4-C5	-5.47	125.87	128.60
26	14	59	U	OP2-P-O3'	5.47	117.23	105.20
26	14	71	A	N1-C6-N6	5.47	121.88	118.60
26	14	209	C	C6-N1-C2	5.47	122.49	120.30
26	14	523	C	C4-C5-C6	-5.47	114.67	117.40
26	14	762	U	N3-C4-O4	5.47	123.23	119.40
1	13	1450	U	N3-C2-O2	-5.46	118.38	122.20
27	16	14	U	N1-C2-N3	5.46	118.18	114.90
26	14	768	G	N1-C2-N3	5.46	127.18	123.90
26	14	1279	G	C4-C5-N7	-5.46	108.61	110.80
26	14	1765	C	C6-N1-C2	5.46	122.49	120.30
26	14	2623	G	N1-C6-O6	-5.46	116.62	119.90
1	13	477	G	C5-N7-C8	-5.46	101.57	104.30
26	1H	797	C	O5'-P-OP1	5.46	117.26	110.70
26	1H	1222	C	N3-C2-O2	-5.46	118.08	121.90
26	1H	1548	C	N1-C2-O2	5.46	122.18	118.90
26	1H	1992	G	C2'-C3'-O3'	5.46	122.44	113.70
26	1H	2450	A	N1-C2-N3	5.46	132.03	129.30
26	1H	2574	G	C6-N1-C2	-5.46	121.82	125.10
26	14	933	A	N7-C8-N9	5.46	116.53	113.80
26	14	2380	C	N3-C4-C5	5.46	124.08	121.90
26	1H	1644	C	C6-N1-C2	-5.46	118.12	120.30
26	1H	2198	A	OP1-P-O3'	5.46	117.21	105.20
1	1G	664	G	N3-C4-N9	-5.46	122.72	126.00
1	1G	688	G	C5-C6-O6	5.46	131.88	128.60
1	1G	772	U	C5-C4-O4	5.46	129.18	125.90
23	2L	5	G	C5-C6-O6	5.46	131.88	128.60
26	14	1786	A	N1-C6-N6	5.46	121.88	118.60
26	14	2713	A	N1-C2-N3	5.46	132.03	129.30
1	13	50	A	C6-N1-C2	-5.46	115.32	118.60
1	13	963	G	C5-N7-C8	5.46	107.03	104.30
26	1H	150	C	C5-C4-N4	5.46	124.02	120.20
1	13	449	C	N3-C2-O2	-5.46	118.08	121.90
26	1H	695	G	O5'-P-OP2	5.46	117.25	110.70
26	1H	1252	G	N7-C8-N9	-5.46	110.37	113.10
26	1H	1438	U	N3-C4-C5	-5.46	111.33	114.60
26	1H	1547	C	N3-C4-N4	-5.46	114.18	118.00
26	1H	2043	C	C6-N1-C2	-5.46	118.12	120.30
26	1H	2055	C	OP2-P-O3'	5.46	117.21	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2362	G	N9-C4-C5	-5.46	103.22	105.40
1	1G	1008	C	C5-C6-N1	5.46	123.73	121.00
26	14	527	C	N1-C2-O2	5.46	122.17	118.90
26	14	528	A	C8-N9-C1'	5.46	137.53	127.70
26	14	1373	A	N7-C8-N9	-5.46	111.07	113.80
26	1H	700	G	N1-C2-N2	5.46	121.11	116.20
26	1H	2383	G	C6-C5-N7	-5.46	127.13	130.40
26	14	462	C	OP1-P-OP2	5.46	127.78	119.60
26	14	1904	G	O5'-P-OP2	-5.46	100.79	105.70
26	1H	635	C	N3-C2-O2	-5.46	118.08	121.90
26	1H	1123	C	C2-N3-C4	-5.46	117.17	119.90
26	1H	1339	G	O5'-P-OP1	-5.46	100.79	105.70
26	1H	1899	G	N3-C4-C5	5.46	131.33	128.60
26	1H	2382	G	C6-C5-N7	-5.46	127.13	130.40
27	16	39	A	N1-C6-N6	5.46	121.87	118.60
1	1G	890	G	O4'-C1'-N9	5.46	112.56	108.20
26	14	1943	U	N1-C2-N3	5.46	118.17	114.90
1	13	892	A	N9-C4-C5	-5.45	103.62	105.80
26	1H	389	G	C8-N9-C1'	-5.45	119.91	127.00
26	1H	541	C	C4-C5-C6	5.45	120.13	117.40
26	1H	657	U	OP2-P-O3'	5.45	117.20	105.20
26	1H	740	U	N3-C4-O4	-5.45	115.58	119.40
26	1H	1122	G	N9-C4-C5	-5.45	103.22	105.40
26	1H	1325	G	C5-N7-C8	-5.45	101.57	104.30
26	1H	2246	G	N1-C2-N3	5.45	127.17	123.90
26	14	645	C	N1-C2-O2	5.45	122.17	118.90
26	14	1028	A	C5-C6-N6	-5.45	119.34	123.70
26	14	1567	A	C8-N9-C4	5.45	107.98	105.80
26	14	1702	G	N3-C4-N9	5.45	129.27	126.00
26	14	2067	G	C4-C5-C6	5.45	122.07	118.80
26	14	2516	G	OP2-P-O3'	5.45	117.20	105.20
1	13	622	A	O5'-P-OP2	-5.45	100.79	105.70
26	1H	2374	C	OP1-P-OP2	5.45	127.78	119.60
26	1H	2698	U	O5'-P-OP2	-5.45	100.79	105.70
1	1G	1422	G	C5-C6-O6	5.45	131.87	128.60
26	14	1586	A	N7-C8-N9	5.45	116.53	113.80
26	14	2272	U	C5-C6-N1	5.45	125.43	122.70
22	1K	72	C	N1-C2-O2	5.45	122.17	118.90
26	1H	27	G	C5-C6-O6	5.45	131.87	128.60
26	1H	599	G	N3-C2-N2	5.45	123.72	119.90
26	1H	797	C	C4-C5-C6	5.45	120.12	117.40
26	1H	1002	G	N1-C6-O6	-5.45	116.63	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1327	C	C6-N1-C2	-5.45	118.12	120.30
26	1H	1992	G	N1-C6-O6	-5.45	116.63	119.90
26	1H	2469	A	N9-C4-C5	-5.45	103.62	105.80
26	1H	2509	G	C6-C5-N7	5.45	133.67	130.40
27	16	111	U	C5-C4-O4	5.45	129.17	125.90
26	14	44	A	C8-N9-C4	-5.45	103.62	105.80
26	14	518	G	N1-C2-N2	-5.45	111.29	116.20
26	14	680	G	C5-C6-O6	5.45	131.87	128.60
26	14	760	G	C8-N9-C4	-5.45	104.22	106.40
26	14	1681	G	N7-C8-N9	5.45	115.83	113.10
26	14	1956	U	N1-C2-O2	5.45	126.62	122.80
26	14	2775	A	N1-C6-N6	5.45	121.87	118.60
26	14	2830	G	N3-C4-N9	-5.45	122.73	126.00
26	1H	553	U	C5-C4-O4	5.45	129.17	125.90
26	1H	866	A	C8-N9-C1'	-5.45	117.89	127.70
26	1H	1988	C	C2-N3-C4	5.45	122.62	119.90
26	1H	2398	U	O5'-P-OP2	-5.45	100.80	105.70
26	1H	2712	U	O5'-P-OP1	-5.45	100.80	105.70
26	1H	388	G	OP1-P-OP2	5.45	127.77	119.60
1	1G	1374	A	C5-C6-N1	-5.45	114.98	117.70
26	1H	207	A	N1-C6-N6	5.45	121.87	118.60
26	1H	815	C	C2-N3-C4	-5.45	117.18	119.90
26	1H	1009	A	C8-N9-C4	5.45	107.98	105.80
1	1G	721	G	C8-N9-C4	-5.45	104.22	106.40
24	3L	57	G	C4-N9-C1'	5.45	133.58	126.50
26	14	666	G	N1-C6-O6	5.45	123.17	119.90
26	14	1962	C	C5-C4-N4	-5.45	116.39	120.20
1	13	266	G	P-O3'-C3'	5.44	126.23	119.70
26	14	1336	A	C6-N1-C2	-5.44	115.33	118.60
23	2K	75	C	C5-C6-N1	-5.44	118.28	121.00
26	1H	1663	C	N3-C4-C5	5.44	124.08	121.90
26	1H	2616	C	N1-C2-O2	-5.44	115.64	118.90
26	1H	2724	C	N3-C4-C5	-5.44	119.72	121.90
26	14	2512	C	N3-C4-C5	5.44	124.08	121.90
1	13	813	U	C5'-C4'-O4'	5.44	115.63	109.10
26	1H	1406	U	C6-N1-C2	-5.44	117.73	121.00
26	1H	2427	C	OP2-P-O3'	5.44	117.17	105.20
26	1H	2455	G	C8-N9-C4	5.44	108.58	106.40
42	C8	33	ARG	NE-CZ-NH1	-5.44	117.58	120.30
26	14	836	G	OP1-P-OP2	-5.44	111.44	119.60
26	14	1271	G	C8-N9-C4	5.44	108.58	106.40
26	14	1902	C	C5-C4-N4	5.44	124.01	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2092	U	N3-C4-O4	-5.44	115.59	119.40
1	13	504	C	C6-N1-C2	-5.44	118.12	120.30
26	1H	582	G	N9-C4-C5	-5.44	103.22	105.40
26	14	1187	G	N1-C6-O6	5.44	123.16	119.90
1	13	181	G	N3-C4-C5	-5.44	125.88	128.60
26	1H	1022	G	O5'-P-OP1	-5.44	100.81	105.70
26	1H	1447	G	C8-N9-C4	-5.44	104.22	106.40
26	1H	2380	C	C4-C5-C6	5.44	120.12	117.40
1	1G	668	G	N1-C2-N2	5.44	121.09	116.20
26	14	1241	A	C2-N3-C4	-5.44	107.88	110.60
26	1H	740	U	O5'-P-OP1	5.44	117.22	110.70
26	14	1396	U	N1-C2-O2	5.44	126.61	122.80
26	14	2210	G	N3-C4-C5	-5.44	125.88	128.60
1	13	749	C	N1-C2-O2	5.43	122.16	118.90
1	13	890	G	OP1-P-OP2	5.43	127.75	119.60
1	13	1082	G	OP1-P-O3'	5.43	117.16	105.20
26	1H	110	G	C8-N9-C4	5.43	108.57	106.40
26	1H	843	G	OP2-P-O3'	5.43	117.16	105.20
26	1H	2011	U	O5'-P-OP2	5.43	117.22	110.70
26	1H	2405	G	O5'-P-OP2	-5.43	100.81	105.70
26	14	270(B)	A	N1-C6-N6	5.43	121.86	118.60
26	14	1555	G	C4-C5-C6	5.43	122.06	118.80
26	14	1619	G	OP1-P-O3'	5.43	117.15	105.20
26	14	1626	G	N9-C4-C5	5.43	107.57	105.40
26	14	2320	A	N9-C4-C5	-5.43	103.63	105.80
26	1H	127	A	N9-C4-C5	-5.43	103.63	105.80
26	1H	970	C	N3-C4-N4	5.43	121.80	118.00
26	1H	1162	G	N7-C8-N9	5.43	115.82	113.10
26	1H	1349	A	C2-N3-C4	-5.43	107.88	110.60
26	1H	2560	C	O5'-P-OP1	-5.43	100.81	105.70
26	14	1322	A	C2-N3-C4	5.43	113.32	110.60
1	13	1126	U	C4-C5-C6	5.43	122.96	119.70
26	1H	119	A	N1-C6-N6	-5.43	115.34	118.60
26	1H	1443	G	N1-C2-N3	5.43	127.16	123.90
26	1H	1898	U	OP1-P-OP2	5.43	127.75	119.60
26	1H	1992	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	2040	C	C5-C4-N4	-5.43	116.40	120.20
1	1G	115	G	P-O3'-C3'	5.43	126.22	119.70
1	13	811	C	C6-N1-C2	5.43	122.47	120.30
26	1H	788	A	C4-C5-N7	5.43	113.42	110.70
26	1H	1274	A	C4-C5-C6	5.43	119.72	117.00
26	1H	1820	U	C5-C6-N1	-5.43	119.98	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2031	A	C5-C6-N6	-5.43	119.36	123.70
26	14	2126	A	O4'-C1'-N9	5.43	112.54	108.20
26	14	2168	G	C4-N9-C1'	5.43	133.56	126.50
27	1J	96	G	N3-C2-N2	-5.43	116.10	119.90
26	1H	1421	G	N1-C6-O6	5.43	123.16	119.90
26	1H	1888	G	O4'-C1'-N9	5.43	112.54	108.20
1	13	254	G	O5'-P-OP1	-5.43	100.82	105.70
1	13	294	U	N1-C2-N3	5.43	118.16	114.90
26	1H	352	G	C5-C6-N1	-5.43	108.79	111.50
26	1H	385	C	C5-C6-N1	5.43	123.71	121.00
26	1H	1355	G	N9-C4-C5	5.43	107.57	105.40
26	1H	1968	G	N9-C4-C5	-5.43	103.23	105.40
26	1H	2608	G	O5'-P-OP2	5.43	117.21	110.70
1	1G	354	G	C2-N3-C4	-5.43	109.19	111.90
1	1G	489	C	C5-C6-N1	-5.43	118.29	121.00
26	14	1791	A	OP1-P-OP2	-5.43	111.46	119.60
26	1H	275	G	C8-N9-C4	5.42	108.57	106.40
26	1H	583	G	C5-C6-N1	5.42	114.21	111.50
26	1H	2031	A	C8-N9-C4	5.42	107.97	105.80
26	1H	2545	G	N1-C6-O6	-5.42	116.65	119.90
26	14	22	C	C2-N3-C4	-5.42	117.19	119.90
26	14	131	G	O4'-C1'-N9	5.42	112.54	108.20
26	14	468	G	N1-C6-O6	5.42	123.16	119.90
26	14	2023	G	C4-C5-N7	5.42	112.97	110.80
26	1H	298	G	C4-C5-C6	-5.42	115.55	118.80
26	14	936	C	N1-C2-O2	-5.42	115.65	118.90
1	13	382	A	C8-N9-C4	5.42	107.97	105.80
1	13	1455	G	N1-C6-O6	5.42	123.15	119.90
26	1H	646	A	N7-C8-N9	5.42	116.51	113.80
26	1H	2409	G	N9-C4-C5	-5.42	103.23	105.40
1	1G	266	G	N3-C4-C5	-5.42	125.89	128.60
26	14	1771	C	N3-C4-C5	5.42	124.07	121.90
26	14	2518	A	C5-C6-N6	-5.42	119.36	123.70
26	14	2844	G	C4-C5-N7	5.42	112.97	110.80
1	13	843	U	C5-C6-N1	5.42	125.41	122.70
26	14	459	U	O5'-P-OP2	-5.42	100.82	105.70
26	1H	659	C	C6-N1-C2	5.42	122.47	120.30
26	1H	802	A	C5-C6-N1	5.42	120.41	117.70
27	16	47	C	C5-C6-N1	-5.42	118.29	121.00
26	14	458	G	OP1-P-OP2	5.42	127.73	119.60
1	13	134	A	N9-C4-C5	-5.42	103.63	105.80
26	1H	841	A	OP2-P-O3'	5.42	117.12	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1000	A	OP2-P-O3'	5.42	117.12	105.20
1	1G	1246	C	C6-N1-C2	-5.42	118.13	120.30
26	14	1571	A	N1-C6-N6	5.42	121.85	118.60
26	14	1994	C	O5'-P-OP2	-5.42	100.83	105.70
26	14	2288	A	N1-C6-N6	5.42	121.85	118.60
1	13	243	A	N7-C8-N9	5.42	116.51	113.80
1	13	578	C	C4-C5-C6	5.42	120.11	117.40
1	13	32	A	C8-N9-C4	-5.41	103.64	105.80
1	13	690	G	C8-N9-C1'	-5.41	119.96	127.00
26	1H	2372	G	N1-C2-N3	5.41	127.15	123.90
26	1H	2437	U	C5-C4-O4	5.41	129.15	125.90
26	1H	2675	A	C8-N9-C4	-5.41	103.64	105.80
1	1G	858	G	N7-C8-N9	5.41	115.81	113.10
26	14	743	G	OP1-P-OP2	5.41	127.72	119.60
26	14	783	A	C4-C5-C6	5.41	119.71	117.00
26	14	810	U	C2-N3-C4	-5.41	123.75	127.00
26	14	2028	U	O5'-P-OP1	-5.41	100.83	105.70
26	14	2330	G	C8-N9-C1'	-5.41	119.96	127.00
1	13	1018	C	C6-N1-C2	5.41	122.47	120.30
26	1H	763	G	OP2-P-O3'	5.41	117.11	105.20
26	1H	816	C	C2-N3-C4	5.41	122.61	119.90
26	1H	1619	G	N7-C8-N9	-5.41	110.39	113.10
1	1G	932	C	C2-N1-C1'	5.41	124.75	118.80
26	14	2491	U	N3-C2-O2	5.41	125.99	122.20
1	13	500	G	C5-N7-C8	5.41	107.00	104.30
26	1H	1300	U	OP1-P-O3'	5.41	117.11	105.20
26	1H	1776	G	O5'-P-OP1	5.41	117.19	110.70
26	1H	2248	C	N3-C2-O2	-5.41	118.11	121.90
26	1H	2336	A	N7-C8-N9	-5.41	111.09	113.80
26	1H	2428	G	N3-C4-C5	-5.41	125.89	128.60
29	11	157	ARG	NE-CZ-NH1	-5.41	117.59	120.30
26	14	530	G	N7-C8-N9	5.41	115.81	113.10
26	14	852	G	N1-C6-O6	-5.41	116.65	119.90
26	14	1664	A	C5-C6-N1	-5.41	115.00	117.70
26	14	1969	A	N1-C6-N6	-5.41	115.35	118.60
1	13	704	A	N1-C6-N6	-5.41	115.36	118.60
1	13	884	U	O5'-P-OP2	-5.41	100.83	105.70
1	13	1299	A	C5-N7-C8	-5.41	101.20	103.90
1	13	1517	G	N9-C4-C5	-5.41	103.24	105.40
26	1H	127	A	C5-C6-N6	-5.41	119.37	123.70
26	1H	967	C	O5'-P-OP1	5.41	117.19	110.70
26	1H	1390	U	OP1-P-O3'	5.41	117.10	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1614	A	N3-C4-N9	-5.41	123.07	127.40
26	1H	2337	G	C5-C6-O6	-5.41	125.36	128.60
26	1H	2520	C	C4-C5-C6	5.41	120.10	117.40
26	1H	2582	G	N7-C8-N9	5.41	115.80	113.10
27	16	54	G	N7-C8-N9	5.41	115.80	113.10
27	16	64	C	OP1-P-O3'	5.41	117.10	105.20
26	14	740	U	N3-C4-O4	-5.41	115.61	119.40
26	14	1614	A	N3-C4-C5	5.41	130.59	126.80
26	14	1783	A	C4-C5-C6	5.41	119.70	117.00
26	14	2246	G	N1-C6-O6	5.41	123.14	119.90
1	13	1227	A	N3-C4-N9	-5.41	123.07	127.40
1	13	1519	A	C6-N1-C2	5.41	121.84	118.60
26	1H	377	C	O5'-P-OP2	5.41	117.19	110.70
26	1H	1606	G	N3-C4-N9	5.41	129.24	126.00
27	16	49	C	N3-C4-N4	5.41	121.78	118.00
27	16	56	G	C8-N9-C4	-5.41	104.24	106.40
1	1G	24	U	O5'-P-OP2	-5.41	100.83	105.70
26	14	1663	C	C2-N3-C4	-5.41	117.20	119.90
26	14	1858	G	P-O3'-C3'	5.41	126.19	119.70
1	13	798	G	OP2-P-O3'	5.41	117.09	105.20
1	13	949	A	OP1-P-OP2	-5.41	111.49	119.60
1	13	972	C	OP1-P-OP2	-5.41	111.49	119.60
26	1H	1825	A	O5'-P-OP1	5.41	117.19	110.70
1	1G	853	G	C8-N9-C4	-5.41	104.24	106.40
1	1G	954	G	C4-C5-N7	5.41	112.96	110.80
26	14	706	A	O5'-P-OP1	5.41	117.19	110.70
26	14	1658	C	N3-C4-N4	5.41	121.78	118.00
26	1H	467	G	C5-N7-C8	5.40	107.00	104.30
26	1H	683	C	C5-C6-N1	-5.40	118.30	121.00
26	1H	2595	G	N3-C4-C5	5.40	131.30	128.60
26	14	1925	C	O5'-P-OP1	-5.40	100.84	105.70
1	13	748	C	P-O3'-C3'	5.40	126.18	119.70
26	1H	30	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	972	G	C6-N1-C2	-5.40	121.86	125.10
26	1H	1974	C	O5'-P-OP2	-5.40	100.84	105.70
26	1H	2428	G	OP1-P-OP2	-5.40	111.50	119.60
26	1H	2602	A	N1-C2-N3	-5.40	126.60	129.30
26	1H	2659	G	N1-C6-O6	5.40	123.14	119.90
1	1G	46	G	C5-C6-O6	-5.40	125.36	128.60
1	1G	392	G	O5'-P-OP2	-5.40	100.84	105.70
26	14	1775	U	C2-N1-C1'	-5.40	111.22	117.70
26	14	2332	U	N3-C2-O2	-5.40	118.42	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	19	215	LEU	CA-CB-CG	-5.40	102.88	115.30
26	1H	140	A	C2-N3-C4	-5.40	107.90	110.60
26	1H	604	G	O5'-P-OP1	-5.40	100.84	105.70
26	1H	738	G	N7-C8-N9	5.40	115.80	113.10
26	1H	780	G	C5-C6-O6	5.40	131.84	128.60
26	1H	2606	C	N1-C2-O2	-5.40	115.66	118.90
1	1G	899	C	C5-C6-N1	5.40	123.70	121.00
26	14	835	A	C2-N3-C4	5.40	113.30	110.60
26	14	1110	G	C4-N9-C1'	-5.40	119.48	126.50
26	14	1991	U	C5-C6-N1	-5.40	120.00	122.70
26	14	2433	A	N1-C2-N3	5.40	132.00	129.30
11	2I	124	LYS	CD-CE-NZ	5.40	124.12	111.70
26	14	1559	G	C5-C6-N1	-5.40	108.80	111.50
26	14	1586	A	C6-C5-N7	-5.40	128.52	132.30
26	14	1980	G	N1-C2-N2	5.40	121.06	116.20
26	1H	199	A	C4-C5-C6	-5.40	114.30	117.00
26	1H	557	U	OP1-P-OP2	5.40	127.70	119.60
26	1H	2494	G	C5-C6-N1	-5.40	108.80	111.50
26	14	768	G	O5'-P-OP2	-5.40	100.84	105.70
26	14	1349	A	N1-C6-N6	5.40	121.84	118.60
26	14	1664	A	C2-N3-C4	-5.40	107.90	110.60
26	14	1790	C	C2-N1-C1'	-5.40	112.86	118.80
26	14	2329	G	N1-C2-N2	-5.40	111.34	116.20
1	13	325	A	C5-N7-C8	-5.40	101.20	103.90
1	13	1096	C	C5-C6-N1	5.40	123.70	121.00
1	13	1405	G	C5-C6-O6	5.40	131.84	128.60
26	1H	1290	C	C6-N1-C2	5.40	122.46	120.30
37	78	49	ARG	CG-CD-NE	5.40	123.13	111.80
26	14	2251	G	C4-N9-C1'	5.40	133.51	126.50
1	13	520	A	C5-C6-N1	-5.39	115.00	117.70
26	1H	107	C	N3-C4-N4	5.39	121.78	118.00
26	1H	705	A	C5-C6-N6	-5.39	119.38	123.70
26	1H	1988	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	2337	G	C5-N7-C8	-5.39	101.60	104.30
26	1H	2645	G	N3-C4-C5	5.39	131.30	128.60
26	1H	2743	C	N3-C4-N4	-5.39	114.22	118.00
26	14	897	C	C6-N1-C2	-5.39	118.14	120.30
26	14	1037	G	C5-C6-O6	-5.39	125.36	128.60
26	14	1326	U	N1-C2-N3	5.39	118.14	114.90
26	14	2722	G	N1-C6-O6	5.39	123.14	119.90
26	1H	57	C	N3-C4-N4	-5.39	114.23	118.00
26	1H	207	A	C5-N7-C8	-5.39	101.20	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	592	G	C5-C6-O6	5.39	131.84	128.60
26	1H	1856	G	N3-C2-N2	-5.39	116.13	119.90
26	1H	1955	U	C4-C5-C6	5.39	122.94	119.70
26	14	581	C	C5-C4-N4	5.39	123.97	120.20
26	14	2732	G	C6-C5-N7	-5.39	127.17	130.40
29	19	29	PRO	N-CA-C	-5.39	98.08	112.10
26	1H	2764	A	C2-N3-C4	-5.39	107.90	110.60
26	14	839	U	C5-C4-O4	5.39	129.13	125.90
1	13	1057	G	C5-C6-O6	5.39	131.83	128.60
26	1H	568	U	C5-C6-N1	-5.39	120.01	122.70
26	1H	695	G	C8-N9-C4	-5.39	104.24	106.40
26	1H	1184	G	N3-C4-N9	-5.39	122.77	126.00
26	1H	1309	G	O5'-P-OP1	5.39	117.17	110.70
26	1H	1927	A	N1-C2-N3	5.39	132.00	129.30
26	1H	2773	C	N3-C4-C5	5.39	124.06	121.90
26	1H	2782	G	C5-C6-O6	-5.39	125.37	128.60
26	14	507	A	N1-C2-N3	-5.39	126.61	129.30
26	1H	796	C	C2-N3-C4	-5.39	117.21	119.90
1	13	901	A	C5-N7-C8	-5.39	101.21	103.90
1	13	910	C	C2-N1-C1'	-5.39	112.87	118.80
1	13	1347	G	O4'-C1'-N9	5.39	112.51	108.20
26	1H	266	G	O5'-P-OP2	-5.39	100.85	105.70
26	1H	414	C	C2-N3-C4	-5.39	117.21	119.90
26	1H	672	C	C6-N1-C2	5.39	122.45	120.30
26	1H	706	A	C5-N7-C8	-5.39	101.21	103.90
26	1H	1255	U	C6-N1-C2	5.39	124.23	121.00
26	1H	1523	U	N1-C2-O2	-5.39	119.03	122.80
26	1H	1799	G	N3-C2-N2	5.39	123.67	119.90
26	1H	1936	A	C4-C5-N7	5.39	113.39	110.70
26	1H	2561	A	N7-C8-N9	-5.39	111.11	113.80
27	16	78	A	O5'-P-OP2	-5.39	100.85	105.70
26	14	75	G	C5-C6-O6	-5.39	125.37	128.60
26	14	918	A	N7-C8-N9	5.39	116.49	113.80
1	13	873	A	N9-C4-C5	5.38	107.95	105.80
1	13	886	G	C5-C6-N1	-5.38	108.81	111.50
26	1H	339	U	OP1-P-OP2	-5.38	111.53	119.60
26	1H	1297	C	C6-N1-C2	-5.38	118.15	120.30
26	1H	2226	C	C5-C6-N1	-5.38	118.31	121.00
26	1H	2562	U	C5-C6-N1	-5.38	120.01	122.70
1	1G	902	G	C8-N9-C4	-5.38	104.25	106.40
26	14	768	G	N1-C2-N2	-5.38	111.35	116.20
26	14	830	G	OP1-P-O3'	5.38	117.05	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	70	G	C8-N9-C4	-5.38	104.25	106.40
26	1H	1446	C	C6-N1-C2	-5.38	118.15	120.30
26	14	1395	A	C8-N9-C4	5.38	107.95	105.80
26	14	2495	G	N3-C4-C5	5.38	131.29	128.60
1	13	1128	C	C4-C5-C6	5.38	120.09	117.40
26	1H	663	G	C5-N7-C8	5.38	106.99	104.30
26	1H	1201	C	C5-C4-N4	-5.38	116.43	120.20
26	1H	1415	U	N1-C2-O2	5.38	126.57	122.80
26	1H	2071	A	C4-C5-C6	5.38	119.69	117.00
26	1H	2635	C	C5-C6-N1	-5.38	118.31	121.00
1	1G	1529	G	N3-C4-C5	-5.38	125.91	128.60
26	14	2	G	C8-N9-C1'	-5.38	120.00	127.00
26	14	1835	G	C4-N9-C1'	5.38	133.50	126.50
26	14	2374	C	O5'-P-OP2	-5.38	100.86	105.70
23	2K	32	G	N1-C6-O6	5.38	123.13	119.90
26	1H	209	C	C2-N3-C4	-5.38	117.21	119.90
26	1H	1326	U	C5-C6-N1	-5.38	120.01	122.70
1	1G	904	C	N1-C2-O2	-5.38	115.67	118.90
26	14	1154	G	N1-C6-O6	5.38	123.13	119.90
1	13	50	A	OP2-P-O3'	5.38	117.03	105.20
1	13	117	G	C5-C6-O6	-5.38	125.37	128.60
1	13	575	G	N3-C4-N9	-5.38	122.77	126.00
1	13	1266	G	N3-C4-N9	-5.38	122.77	126.00
26	1H	1417	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	2628	C	C5-C6-N1	-5.38	118.31	121.00
1	1G	666	G	C6-C5-N7	-5.38	127.17	130.40
26	14	945	A	C5-C6-N1	-5.38	115.01	117.70
26	14	1253	A	N9-C4-C5	-5.38	103.65	105.80
26	14	1516	U	N1-C2-O2	5.38	126.56	122.80
26	14	1570	A	N1-C2-N3	5.38	131.99	129.30
26	14	1976	U	OP1-P-OP2	5.38	127.67	119.60
26	14	2362	G	C5-C6-O6	-5.38	125.37	128.60
1	13	817	C	N3-C4-C5	5.38	124.05	121.90
1	13	869	G	N7-C8-N9	5.38	115.79	113.10
26	1H	1817	G	C4-C5-N7	-5.38	108.65	110.80
26	1H	1990	C	N3-C2-O2	-5.38	118.14	121.90
26	14	213	A	C8-N9-C4	5.38	107.95	105.80
26	14	2497	A	O5'-P-OP1	-5.38	100.86	105.70
1	13	712	A	C5-C6-N6	5.38	128.00	123.70
26	1H	1361	G	C5-C6-N1	5.38	114.19	111.50
26	1H	1457	A	N9-C4-C5	-5.38	103.65	105.80
26	14	622	G	C5-C6-O6	5.38	131.82	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	821	A	C8-N9-C4	-5.38	103.65	105.80
1	13	124	G	C8-N9-C4	5.37	108.55	106.40
1	13	268	C	O5'-P-OP2	5.37	117.15	110.70
1	13	564	C	OP1-P-O3'	5.37	117.02	105.20
1	13	1227	A	C8-N9-C4	-5.37	103.65	105.80
1	13	1364	U	N1-C2-O2	-5.37	119.04	122.80
1	1G	649	G	C6-C5-N7	5.37	133.62	130.40
8	72	127	LEU	CA-CB-CG	5.37	127.66	115.30
26	14	315	G	C8-N9-C4	5.37	108.55	106.40
26	14	970	C	N3-C2-O2	5.37	125.66	121.90
26	14	1784	A	C4-C5-N7	5.37	113.39	110.70
27	1J	7	G	N3-C4-C5	5.37	131.29	128.60
1	13	523	A	C8-N9-C4	5.37	107.95	105.80
26	1H	512	G	N1-C6-O6	-5.37	116.68	119.90
26	1H	742	G	N3-C2-N2	-5.37	116.14	119.90
26	1H	997	G	C2-N3-C4	-5.37	109.21	111.90
26	1H	2337	G	N7-C8-N9	5.37	115.79	113.10
1	1G	244	U	N1-C2-O2	5.37	126.56	122.80
26	14	1329	U	O5'-P-OP1	-5.37	100.87	105.70
26	14	2005	A	C8-N9-C4	5.37	107.95	105.80
26	14	2889	C	C6-N1-C2	-5.37	118.15	120.30
26	1H	1701	A	C8-N9-C4	5.37	107.95	105.80
26	1H	2032	G	N3-C2-N2	-5.37	116.14	119.90
26	1H	2689	U	C2-N1-C1'	-5.37	111.25	117.70
26	14	1260	G	C4-C5-C6	5.37	122.02	118.80
26	14	2438	U	C5-C4-O4	-5.37	122.68	125.90
1	13	577	G	OP1-P-OP2	5.37	127.65	119.60
1	13	1430	C	C4-C5-C6	5.37	120.08	117.40
26	1H	967	C	C5-C6-N1	-5.37	118.32	121.00
26	1H	2425	A	O5'-P-OP2	-5.37	100.87	105.70
26	1H	2485	G	N1-C2-N3	5.37	127.12	123.90
26	14	760	G	OP1-P-O3'	5.37	117.01	105.20
26	14	2429	G	N1-C6-O6	5.37	123.12	119.90
26	14	2766	G	C4-C5-N7	5.37	112.95	110.80
26	14	2830	G	C2-N3-C4	-5.37	109.22	111.90
23	2K	23	G	N3-C4-C5	5.37	131.28	128.60
26	1H	1660	C	N1-C2-O2	5.37	122.12	118.90
26	14	621	A	C8-N9-C4	-5.37	103.65	105.80
1	13	593	G	C5-C6-N1	-5.37	108.82	111.50
23	2K	73	A	N7-C8-N9	-5.37	111.12	113.80
26	1H	426	C	C6-N1-C2	5.37	122.45	120.30
26	1H	446	G	N1-C6-O6	5.37	123.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2085	C	O5'-P-OP2	-5.37	100.87	105.70
1	1G	680	C	C5-C6-N1	5.37	123.68	121.00
26	14	512	G	C5-C6-N1	-5.37	108.82	111.50
26	14	2635	C	N3-C2-O2	5.37	125.66	121.90
1	13	247	G	C8-N9-C4	-5.36	104.25	106.40
26	1H	1157	G	N1-C6-O6	5.36	123.12	119.90
26	1H	1199	U	C4-C5-C6	5.36	122.92	119.70
26	1H	1905	C	OP1-P-O3'	5.36	117.00	105.20
26	1H	1993	U	N1-C2-O2	-5.36	119.05	122.80
26	14	90	U	O4'-C1'-N1	5.36	112.49	108.20
26	14	381	G	C5-C6-O6	5.36	131.82	128.60
26	14	2038	G	N9-C4-C5	-5.36	103.25	105.40
1	1G	266	G	OP2-P-O3'	5.36	117.00	105.20
26	14	774	A	C5-N7-C8	-5.36	101.22	103.90
1	13	346	G	C8-N9-C1'	-5.36	120.03	127.00
1	13	1089	G	C5-C6-N1	-5.36	108.82	111.50
24	3K	61	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	133	C	N3-C4-C5	5.36	124.04	121.90
26	1H	662	G	N1-C6-O6	-5.36	116.68	119.90
26	1H	2297	C	C5-C6-N1	-5.36	118.32	121.00
26	1H	2443	C	N1-C2-N3	5.36	122.95	119.20
26	1H	2686	G	N1-C6-O6	5.36	123.12	119.90
26	14	245	G	OP1-P-OP2	5.36	127.64	119.60
26	14	2216	G	N1-C2-N2	5.36	121.02	116.20
1	13	736	C	N3-C4-N4	-5.36	114.25	118.00
26	1H	1153	C	N1-C2-O2	-5.36	115.69	118.90
1	1G	576	G	C4-C5-C6	5.36	122.02	118.80
26	14	510	C	C2-N1-C1'	5.36	124.69	118.80
26	14	2332	U	O5'-P-OP1	5.36	117.13	110.70
1	13	967	C	C5-C4-N4	-5.36	116.45	120.20
26	1H	139	G	N3-C4-C5	-5.36	125.92	128.60
26	1H	596	G	N1-C6-O6	5.36	123.11	119.90
26	1H	2062	A	C5-N7-C8	5.36	106.58	103.90
26	1H	2281	C	C5-C6-N1	-5.36	118.32	121.00
26	1H	2394	C	OP2-P-O3'	5.36	116.99	105.20
1	1G	787	A	C8-N9-C4	-5.36	103.66	105.80
26	14	586	A	OP1-P-O3'	5.36	116.99	105.20
26	14	671	C	N3-C4-N4	-5.36	114.25	118.00
26	14	1309	G	N1-C6-O6	5.36	123.11	119.90
26	14	1366	A	OP1-P-O3'	-5.36	93.42	105.20
26	14	2673	G	N1-C6-O6	5.36	123.11	119.90
26	14	2814	C	O5'-P-OP1	-5.36	100.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2843	G	O5'-P-OP1	5.36	117.13	110.70
27	1J	47	C	OP1-P-O3'	5.36	116.99	105.20
1	13	1499	A	N1-C2-N3	5.36	131.98	129.30
26	1H	324	A	OP2-P-O3'	5.36	116.98	105.20
26	1H	330	A	N7-C8-N9	5.36	116.48	113.80
26	1H	508	G	N1-C6-O6	5.36	123.11	119.90
26	1H	965	C	N3-C2-O2	-5.36	118.15	121.90
26	1H	1544	C	N1-C2-O2	5.36	122.11	118.90
26	1H	1618	A	C5-N7-C8	-5.36	101.22	103.90
26	1H	1646	C	N1-C2-O2	5.36	122.11	118.90
26	14	129	C	C4-C5-C6	5.36	120.08	117.40
26	14	694	U	N1-C2-O2	5.36	126.55	122.80
26	1H	401	A	C2-N3-C4	-5.35	107.92	110.60
26	1H	1624	G	N1-C2-N2	-5.35	111.38	116.20
37	78	138	LEU	CA-CB-CG	5.35	127.61	115.30
26	14	1903	G	O5'-P-OP1	-5.35	100.88	105.70
1	13	1205	U	N1-C2-O2	-5.35	119.05	122.80
26	1H	1164	G	O5'-P-OP1	-5.35	100.88	105.70
26	1H	1212	G	N1-C6-O6	5.35	123.11	119.90
26	14	342	G	N1-C6-O6	5.35	123.11	119.90
26	14	1914	C	O4'-C1'-N1	5.35	112.48	108.20
26	14	1929	G	C4-C5-N7	5.35	112.94	110.80
26	1H	321	G	C8-N9-C4	5.35	108.54	106.40
1	1G	1081	G	N7-C8-N9	-5.35	110.42	113.10
1	13	1089	G	N3-C4-C5	5.35	131.28	128.60
1	13	1240	U	O5'-P-OP1	-5.35	100.89	105.70
1	13	1479	C	N1-C2-N3	-5.35	115.46	119.20
26	1H	191	A	C8-N9-C4	5.35	107.94	105.80
26	1H	601	C	C2-N3-C4	-5.35	117.22	119.90
26	1H	1818	U	OP1-P-OP2	5.35	127.62	119.60
26	14	1599	C	N3-C4-C5	-5.35	119.76	121.90
26	14	2365	G	N1-C6-O6	5.35	123.11	119.90
26	14	2418	A	N1-C6-N6	5.35	121.81	118.60
26	14	2463	C	C6-N1-C2	5.35	122.44	120.30
26	1H	1810	A	N1-C2-N3	-5.35	126.63	129.30
26	1H	1852	C	O5'-P-OP1	-5.35	100.89	105.70
26	1H	2023	G	N9-C4-C5	5.35	107.54	105.40
1	1G	554	C	C6-N1-C2	-5.35	118.16	120.30
26	14	263	C	N1-C2-O2	5.35	122.11	118.90
26	14	755	C	N3-C4-C5	-5.35	119.76	121.90
26	14	2013	A	N9-C4-C5	-5.35	103.66	105.80
1	13	1480	G	C8-N9-C4	5.35	108.54	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1524	C	C5-C6-N1	-5.35	118.33	121.00
26	1H	702	G	OP1-P-OP2	5.35	127.62	119.60
26	1H	960	A	N1-C6-N6	-5.35	115.39	118.60
26	1H	1237	A	C2-N3-C4	-5.35	107.93	110.60
26	1H	2601	C	N3-C4-C5	5.35	124.04	121.90
26	1H	2618	G	C5-C6-O6	5.35	131.81	128.60
26	1H	2676	C	N1-C2-O2	5.35	122.11	118.90
26	14	1255	U	N3-C4-O4	5.35	123.14	119.40
26	14	2348	U	N1-C2-N3	-5.35	111.69	114.90
1	13	219	C	C6-N1-C2	-5.34	118.16	120.30
26	1H	403	U	O5'-P-OP1	-5.34	100.89	105.70
26	1H	436	C	C2-N3-C4	5.34	122.57	119.90
26	1H	762	U	N1-C2-N3	-5.34	111.69	114.90
26	1H	958	U	OP1-P-OP2	-5.34	111.58	119.60
26	1H	1213	A	N1-C2-N3	5.34	131.97	129.30
26	1H	2245	U	N3-C4-C5	-5.34	111.39	114.60
26	14	71	A	O4'-C1'-N9	-5.34	103.92	108.20
26	14	251	A	N7-C8-N9	-5.34	111.13	113.80
26	14	1436	G	OP1-P-O3'	5.34	116.96	105.20
26	14	2421	G	C8-N9-C4	5.34	108.54	106.40
1	13	668	G	C2-N3-C4	5.34	114.57	111.90
1	13	1370	G	C5-C6-N1	-5.34	108.83	111.50
26	1H	1569	A	N7-C8-N9	5.34	116.47	113.80
26	1H	26	G	N3-C4-C5	-5.34	125.93	128.60
26	1H	138	G	O4'-C1'-N9	5.34	112.47	108.20
26	1H	1885	A	C5-N7-C8	5.34	106.57	103.90
26	1H	2304	G	O5'-P-OP1	-5.34	100.89	105.70
1	1G	858	G	C8-N9-C4	-5.34	104.26	106.40
26	14	769	G	OP1-P-O3'	5.34	116.95	105.20
26	14	971	C	C6-N1-C2	-5.34	118.16	120.30
26	14	1225	C	N1-C2-O2	-5.34	115.69	118.90
26	14	1301	A	O4'-C1'-N9	5.34	112.47	108.20
1	13	901	A	O5'-P-OP2	5.34	117.11	110.70
1	13	1089	G	N3-C2-N2	-5.34	116.16	119.90
1	13	1469	G	C2-N3-C4	-5.34	109.23	111.90
26	1H	212	G	N1-C2-N2	-5.34	111.39	116.20
26	1H	270(K)	C	C6-N1-C2	-5.34	118.16	120.30
26	1H	1398	C	N1-C2-O2	-5.34	115.70	118.90
26	1H	1615	C	N3-C2-O2	-5.34	118.16	121.90
26	1H	1621	U	OP1-P-OP2	5.34	127.61	119.60
26	1H	2534	A	N1-C6-N6	5.34	121.80	118.60
26	14	1975	G	N9-C4-C5	-5.34	103.26	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2314	C	N3-C2-O2	-5.34	118.16	121.90
26	14	2428	G	N1-C6-O6	-5.34	116.70	119.90
26	14	2624	G	C8-N9-C4	5.34	108.54	106.40
26	14	2639	A	C8-N9-C4	5.34	107.94	105.80
26	1H	2675	A	C6-N1-C2	-5.34	115.40	118.60
27	16	45	A	C8-N9-C4	-5.34	103.67	105.80
26	14	772	C	C4-C5-C6	5.34	120.07	117.40
26	14	1836	C	O5'-P-OP1	5.34	117.11	110.70
26	1H	728	G	OP2-P-O3'	5.34	116.94	105.20
1	1G	400	C	C5-C6-N1	-5.34	118.33	121.00
26	14	171	G	N3-C4-N9	5.34	129.20	126.00
26	14	537	C	C5-C6-N1	5.34	123.67	121.00
26	14	1328	G	C5-C6-O6	-5.34	125.40	128.60
1	13	1054	C	C5-C4-N4	-5.33	116.47	120.20
1	13	1427	U	N3-C2-O2	-5.33	118.47	122.20
1	1G	1203	C	C6-N1-C2	-5.33	118.17	120.30
26	14	265	A	N1-C2-N3	5.33	131.97	129.30
26	14	556	G	C8-N9-C1'	-5.33	120.06	127.00
1	13	1404	C	N3-C4-C5	5.33	124.03	121.90
26	1H	1385	G	N3-C4-C5	5.33	131.27	128.60
26	1H	1912	A	C5-C6-N1	5.33	120.37	117.70
26	1H	2709	G	N1-C2-N2	-5.33	111.40	116.20
26	14	876	C	N1-C2-O2	5.33	122.10	118.90
26	14	1702	G	N9-C4-C5	-5.33	103.27	105.40
26	14	2050	C	N1-C2-O2	5.33	122.10	118.90
26	14	2371	G	N1-C2-N2	5.33	121.00	116.20
26	14	2766	G	C5-N7-C8	-5.33	101.63	104.30
1	13	1405	G	N7-C8-N9	5.33	115.77	113.10
26	1H	1968	G	C8-N9-C4	5.33	108.53	106.40
26	1H	1979	C	C5-C4-N4	5.33	123.93	120.20
26	1H	2518	A	N9-C4-C5	-5.33	103.67	105.80
26	1H	2891	G	N1-C6-O6	5.33	123.10	119.90
38	88	5	ARG	CD-NE-CZ	5.33	131.06	123.60
1	1G	774	G	C5-C6-O6	-5.33	125.40	128.60
26	14	1662	C	C5-C4-N4	5.33	123.93	120.20
26	14	1771	C	C2-N3-C4	-5.33	117.23	119.90
26	14	2287	A	N1-C2-N3	5.33	131.97	129.30
26	1H	1787	A	OP1-P-O3'	5.33	116.93	105.20
26	1H	1939	U	N3-C2-O2	5.33	125.93	122.20
26	1H	2136	C	N3-C2-O2	-5.33	118.17	121.90
26	1H	2862	G	OP1-P-O3'	5.33	116.93	105.20
26	14	831	G	C4-C5-N7	5.33	112.93	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	359	U	C5-C6-N1	-5.33	120.04	122.70
1	13	1341	U	N1-C2-N3	5.33	118.10	114.90
26	1H	141	A	C5-C6-N6	-5.33	119.44	123.70
26	1H	446	G	N9-C4-C5	-5.33	103.27	105.40
26	1H	511	U	C5-C4-O4	5.33	129.10	125.90
26	1H	815	C	O5'-P-OP1	5.33	117.09	110.70
26	1H	2039	C	C6-N1-C2	-5.33	118.17	120.30
26	14	561	G	O5'-P-OP1	-5.33	100.90	105.70
26	14	672	C	C5-C4-N4	5.33	123.93	120.20
26	14	1621	U	C6-N1-C2	5.33	124.20	121.00
27	1J	22	U	C5-C6-N1	5.33	125.36	122.70
26	1H	125	G	C6-N1-C2	-5.33	121.90	125.10
26	1H	2032	G	N1-C2-N3	5.33	127.10	123.90
26	14	1203	G	N3-C2-N2	5.33	123.63	119.90
26	14	1613	G	N1-C2-N2	-5.33	111.41	116.20
26	14	2385	C	N1-C2-O2	-5.33	115.70	118.90
37	35	59	LEU	CA-CB-CG	5.33	127.55	115.30
1	13	1511	G	C8-N9-C1'	-5.33	120.08	127.00
26	1H	640	C	N3-C2-O2	-5.33	118.17	121.90
26	1H	721	C	N3-C4-N4	-5.33	114.27	118.00
26	1H	1204	A	N7-C8-N9	5.33	116.46	113.80
26	1H	1292	U	OP1-P-OP2	-5.33	111.61	119.60
26	1H	2640	G	O5'-P-OP2	-5.33	100.91	105.70
27	16	105	G	C5-C6-O6	-5.33	125.40	128.60
26	14	691	C	C5-C4-N4	-5.33	116.47	120.20
26	14	2598	A	OP1-P-OP2	-5.33	111.61	119.60
26	14	2866	U	O5'-P-OP2	-5.33	100.91	105.70
1	13	197	A	N1-C6-N6	-5.32	115.41	118.60
23	2K	69	C	C6-N1-C2	5.32	122.43	120.30
26	1H	606	U	N1-C2-N3	5.32	118.09	114.90
26	1H	755	C	N1-C2-N3	5.32	122.93	119.20
26	1H	1984	G	N3-C2-N2	5.32	123.63	119.90
26	1H	2033	A	N1-C6-N6	-5.32	115.41	118.60
26	1H	2330	G	C6-N1-C2	-5.32	121.91	125.10
26	1H	2645	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	2714	G	C5-C6-O6	-5.32	125.41	128.60
26	14	1125	G	N9-C4-C5	5.32	107.53	105.40
26	14	2255	G	C6-N1-C2	-5.32	121.91	125.10
26	14	2304	G	N9-C4-C5	5.32	107.53	105.40
1	13	1052	U	N3-C4-C5	-5.32	111.41	114.60
23	2K	1	C	N1-C2-O2	5.32	122.09	118.90
26	1H	649	G	N1-C6-O6	5.32	123.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	777	A	OP2-P-O3'	5.32	116.91	105.20
1	1G	899	C	C2-N3-C4	5.32	122.56	119.90
26	14	1302	A	N1-C6-N6	-5.32	115.41	118.60
26	14	1496	A	O4'-C1'-N9	5.32	112.46	108.20
26	14	1789	A	N1-C6-N6	5.32	121.79	118.60
26	14	2446	G	N1-C2-N2	-5.32	111.41	116.20
1	13	921	U	OP2-P-O3'	5.32	116.91	105.20
1	13	1376	U	N3-C4-O4	-5.32	115.67	119.40
26	1H	790	C	C6-N1-C2	5.32	122.43	120.30
26	1H	1200	C	C2-N3-C4	-5.32	117.24	119.90
26	1H	1428	C	N3-C4-C5	5.32	124.03	121.90
26	1H	1897	G	O5'-P-OP2	-5.32	100.91	105.70
26	1H	2065	C	OP1-P-O3'	5.32	116.90	105.20
26	1H	2506	U	N3-C2-O2	-5.32	118.47	122.20
26	1H	2603	G	OP1-P-O3'	5.32	116.91	105.20
26	1H	2721	A	C8-N9-C4	5.32	107.93	105.80
26	14	1025	G	C2-N3-C4	-5.32	109.24	111.90
26	14	1799	G	O5'-P-OP2	-5.32	100.91	105.70
26	14	2362	G	N9-C4-C5	-5.32	103.27	105.40
26	14	2455	G	OP2-P-O3'	5.32	116.91	105.20
26	14	2901	C	C6-N1-C2	-5.32	118.17	120.30
1	13	645	C	C2-N1-C1'	5.32	124.65	118.80
1	13	1488	G	N3-C4-C5	-5.32	125.94	128.60
26	1H	113	G	N1-C6-O6	5.32	123.09	119.90
26	1H	1246	A	O5'-P-OP2	-5.32	100.91	105.70
26	14	1966	A	N1-C6-N6	-5.32	115.41	118.60
1	13	145	G	N7-C8-N9	5.32	115.76	113.10
26	1H	219	G	N1-C6-O6	-5.32	116.71	119.90
26	1H	1839	G	C8-N9-C1'	-5.32	120.09	127.00
26	1H	1981	A	C5-C6-N1	5.32	120.36	117.70
26	1H	2209	C	C6-N1-C2	5.32	122.43	120.30
26	1H	2439	A	C6-C5-N7	-5.32	128.58	132.30
26	1H	2685	G	C2-N3-C4	-5.32	109.24	111.90
1	1G	692	U	C5-C4-O4	-5.32	122.71	125.90
1	1G	1139	G	C4-N9-C1'	-5.32	119.59	126.50
26	14	2401	U	C5-C4-O4	-5.32	122.71	125.90
26	14	2593	U	OP1-P-OP2	-5.32	111.62	119.60
1	13	400	C	C6-N1-C2	5.32	122.43	120.30
1	13	1530	G	C4-C5-N7	5.32	112.93	110.80
26	1H	486	C	N3-C4-N4	5.32	121.72	118.00
26	1H	1370	C	C2-N1-C1'	-5.32	112.95	118.80
26	1H	1616	A	N9-C4-C5	-5.32	103.67	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1967	C	C5-C6-N1	-5.32	118.34	121.00
26	14	746	A	O5'-P-OP1	-5.32	100.92	105.70
26	14	2006	C	C5-C4-N4	-5.32	116.48	120.20
1	13	880	C	O5'-P-OP2	-5.31	100.92	105.70
26	1H	640	C	OP1-P-O3'	5.31	116.89	105.20
26	1H	2346	A	N9-C1'-C2'	5.31	120.91	114.00
1	13	913	A	P-O3'-C3'	5.31	126.08	119.70
23	2K	49	C	N1-C2-O2	5.31	122.09	118.90
26	1H	580	C	C6-N1-C2	-5.31	118.17	120.30
26	1H	700	G	N9-C4-C5	5.31	107.53	105.40
26	1H	1927	A	C8-N9-C4	-5.31	103.67	105.80
26	1H	2649	U	N3-C2-O2	-5.31	118.48	122.20
26	14	1815	A	C5-C6-N1	5.31	120.36	117.70
1	13	914	A	O5'-P-OP1	-5.31	100.92	105.70
26	1H	1395	A	C2-N3-C4	-5.31	107.94	110.60
26	1H	1574	C	C6-N1-C2	5.31	122.42	120.30
1	1G	1511	G	C4-C5-C6	5.31	121.99	118.80
1	13	557	G	N9-C4-C5	-5.31	103.28	105.40
1	13	1236	A	N9-C4-C5	-5.31	103.68	105.80
1	13	1253	G	N3-C2-N2	5.31	123.62	119.90
26	1H	1385	G	N3-C4-N9	-5.31	122.81	126.00
26	1H	1817	G	N1-C2-N2	-5.31	111.42	116.20
26	1H	1831	G	N3-C2-N2	-5.31	116.18	119.90
1	1G	354	G	N9-C4-C5	-5.31	103.28	105.40
26	14	768	G	C2-N3-C4	-5.31	109.25	111.90
1	13	62	U	O5'-P-OP2	-5.31	100.92	105.70
1	13	584	G	N9-C4-C5	5.31	107.52	105.40
1	13	808	C	N1-C2-O2	-5.31	115.72	118.90
1	13	924	C	C6-N1-C2	-5.31	118.18	120.30
1	13	1099	G	C8-N9-C4	-5.31	104.28	106.40
26	1H	783	A	N3-C4-C5	5.31	130.51	126.80
26	1H	1602	U	N3-C4-O4	5.31	123.11	119.40
26	1H	1787	A	O4'-C1'-N9	-5.31	103.95	108.20
26	1H	2510	C	C2-N1-C1'	-5.31	112.96	118.80
26	1H	2617	C	C2-N3-C4	-5.31	117.25	119.90
26	14	191	A	N1-C2-N3	-5.31	126.65	129.30
26	14	396	G	C4-C5-C6	5.31	121.98	118.80
26	14	1775	U	C2-N3-C4	-5.31	123.81	127.00
1	13	235	C	N1-C2-N3	-5.31	115.49	119.20
26	1H	1915	U	C4-C5-C6	-5.31	116.52	119.70
26	14	251	A	N1-C6-N6	-5.31	115.42	118.60
26	14	906	G	C8-N9-C4	-5.31	104.28	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2429	G	N3-C2-N2	-5.31	116.19	119.90
26	14	2755	C	C2-N1-C1'	5.31	124.64	118.80
1	13	371	G	C8-N9-C4	5.30	108.52	106.40
1	13	667	G	N3-C2-N2	-5.30	116.19	119.90
26	1H	787	U	C2-N1-C1'	-5.30	111.33	117.70
26	1H	819	A	C4-C5-N7	5.30	113.35	110.70
26	1H	1683	C	C2-N3-C4	-5.30	117.25	119.90
27	16	74	U	OP1-P-OP2	5.30	127.56	119.60
22	1L	3	G	P-O3'-C3'	5.30	126.06	119.70
23	2L	24	C	C6-N1-C2	-5.30	118.18	120.30
26	14	147	U	C5-C6-N1	-5.30	120.05	122.70
26	14	572	A	C6-N1-C2	-5.30	115.42	118.60
26	14	1196	C	N3-C4-N4	-5.30	114.29	118.00
1	13	317	G	N1-C6-O6	5.30	123.08	119.90
1	13	942	G	C5-C6-O6	-5.30	125.42	128.60
26	1H	770	G	C5-N7-C8	-5.30	101.65	104.30
26	1H	1244	G	C5-N7-C8	-5.30	101.65	104.30
26	1H	2032	G	C2-N3-C4	-5.30	109.25	111.90
26	1H	2489	G	OP2-P-O3'	5.30	116.87	105.20
1	1G	232	G	C4-C5-C6	5.30	121.98	118.80
1	1G	495	A	N1-C6-N6	-5.30	115.42	118.60
26	14	251	A	C8-N9-C4	5.30	107.92	105.80
26	14	1207	C	C5-C6-N1	5.30	123.65	121.00
26	1H	1364	G	O4'-C1'-N9	5.30	112.44	108.20
26	1H	1440	G	N7-C8-N9	-5.30	110.45	113.10
26	1H	1469	A	N7-C8-N9	5.30	116.45	113.80
26	1H	1969	A	N1-C6-N6	-5.30	115.42	118.60
26	1H	2046	G	N3-C4-C5	-5.30	125.95	128.60
26	1H	2272	U	O5'-P-OP1	5.30	117.06	110.70
26	1H	2367	G	N1-C6-O6	5.30	123.08	119.90
1	1G	898	G	N1-C6-O6	5.30	123.08	119.90
26	14	58	G	C6-C5-N7	-5.30	127.22	130.40
26	14	479	A	C5-C6-N6	5.30	127.94	123.70
26	14	1257	C	N1-C2-N3	5.30	122.91	119.20
26	14	1685	C	N3-C4-C5	5.30	124.02	121.90
26	14	2365	G	N3-C4-C5	-5.30	125.95	128.60
30	29	51	PHE	C-N-CA	5.30	134.95	121.70
1	13	826	C	C5-C6-N1	5.30	123.65	121.00
26	1H	110	G	C5-C6-N1	5.30	114.15	111.50
26	1H	467	G	N3-C4-C5	-5.30	125.95	128.60
26	1H	1324	G	C8-N9-C4	-5.30	104.28	106.40
26	1H	2532	G	C4-C5-N7	5.30	112.92	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	481	G	N7-C8-N9	-5.30	110.45	113.10
26	14	2595	G	C4-C5-C6	-5.30	115.62	118.80
1	13	1533	C	C2-N1-C1'	5.30	124.63	118.80
25	4K	13	A	C2-N3-C4	-5.30	107.95	110.60
26	1H	757	U	C5-C6-N1	-5.30	120.05	122.70
26	14	1613	G	C5-C6-O6	5.30	131.78	128.60
26	14	2595	G	C4-N9-C1'	-5.30	119.61	126.50
26	14	2612	C	C5-C4-N4	-5.30	116.49	120.20
26	1H	473	G	N1-C2-N2	-5.30	111.43	116.20
26	1H	572	A	C5-N7-C8	-5.30	101.25	103.90
24	3L	4	U	C6-N1-C2	-5.30	117.82	121.00
26	14	955	C	C6-N1-C2	-5.30	118.18	120.30
26	14	1641	A	OP1-P-OP2	-5.30	111.66	119.60
26	14	2056	G	C4-C5-N7	5.30	112.92	110.80
26	14	2581	G	N3-C4-C5	-5.30	125.95	128.60
26	14	2728	U	N1-C2-O2	-5.30	119.09	122.80
27	1J	22	U	N1-C2-O2	5.30	126.51	122.80
27	1J	98	G	N1-C6-O6	5.29	123.08	119.90
37	35	45	LEU	CB-CG-CD2	-5.29	102.00	111.00
47	D5	71	VAL	CG1-CB-CG2	-5.29	102.43	110.90
1	13	1478	C	C2-N3-C4	-5.29	117.25	119.90
26	1H	450	G	C5-C6-N1	-5.29	108.85	111.50
26	1H	1342	A	N9-C4-C5	-5.29	103.68	105.80
26	1H	2059	A	O4'-C1'-N9	5.29	112.43	108.20
26	1H	2358	G	N1-C2-N3	5.29	127.08	123.90
26	1H	2442	C	C6-N1-C2	5.29	122.42	120.30
27	16	56	G	N3-C4-C5	-5.29	125.95	128.60
26	14	500	G	N7-C8-N9	-5.29	110.45	113.10
26	14	1186	G	O5'-P-OP1	-5.29	100.94	105.70
26	14	1451	C	C5-C6-N1	5.29	123.65	121.00
26	14	1806	C	C2-N1-C1'	-5.29	112.98	118.80
29	19	60	ARG	NE-CZ-NH1	-5.29	117.65	120.30
1	13	760	G	N1-C6-O6	5.29	123.08	119.90
26	1H	95	G	N1-C2-N3	5.29	127.07	123.90
26	1H	1259	G	N1-C2-N2	-5.29	111.44	116.20
26	1H	1856	G	N1-C6-O6	5.29	123.08	119.90
26	1H	2332	U	C6-N1-C2	5.29	124.17	121.00
26	1H	2484	G	OP1-P-OP2	5.29	127.54	119.60
26	1H	2729	G	N1-C6-O6	5.29	123.08	119.90
26	1H	2826	A	N7-C8-N9	-5.29	111.15	113.80
1	1G	808	C	C5-C4-N4	5.29	123.90	120.20
1	1G	815	A	C8-N9-C4	5.29	107.92	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	71	G	N3-C4-C5	5.29	131.25	128.60
26	14	2238	G	C8-N9-C4	5.29	108.52	106.40
26	14	2581	G	N7-C8-N9	5.29	115.75	113.10
1	13	786	G	C2-N3-C4	5.29	114.55	111.90
26	1H	1676	A	N3-C4-N9	-5.29	123.17	127.40
26	1H	1971	A	N7-C8-N9	-5.29	111.16	113.80
26	1H	2352	A	N9-C4-C5	-5.29	103.68	105.80
26	1H	2490	G	O4'-C1'-N9	5.29	112.43	108.20
1	13	417	C	C5-C4-N4	5.29	123.90	120.20
26	1H	177	G	N1-C6-O6	-5.29	116.73	119.90
26	1H	428	A	C4-C5-C6	5.29	119.64	117.00
26	1H	1846	G	N3-C2-N2	-5.29	116.20	119.90
26	1H	2659	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	2857	G	O5'-P-OP1	-5.29	100.94	105.70
4	32	135	LEU	CA-CB-CG	5.29	127.46	115.30
26	14	342	G	C5-C6-O6	-5.29	125.43	128.60
26	14	987	G	C5-C6-N1	5.29	114.14	111.50
1	13	697	U	C5-C6-N1	-5.29	120.06	122.70
26	1H	509	C	OP1-P-O3'	-5.29	93.57	105.20
26	14	1616	A	C8-N9-C4	-5.29	103.69	105.80
1	13	40	C	C5-C6-N1	-5.29	118.36	121.00
1	13	757	U	O5'-P-OP1	5.29	117.04	110.70
26	1H	902	C	C2-N1-C1'	-5.29	112.98	118.80
26	1H	1776	G	N3-C4-N9	5.29	129.17	126.00
26	1H	2061	G	N1-C6-O6	-5.29	116.73	119.90
26	1H	2199	A	OP1-P-OP2	-5.29	111.67	119.60
26	1H	2299	G	C5-N7-C8	-5.29	101.66	104.30
26	1H	2439	A	OP1-P-OP2	5.29	127.53	119.60
1	1G	169	C	C6-N1-C2	-5.29	118.19	120.30
1	1G	1108	G	C5-C6-O6	5.29	131.77	128.60
24	3L	1	G	C8-N9-C4	-5.29	104.29	106.40
26	14	252	G	O5'-P-OP2	-5.29	100.94	105.70
26	14	693	C	N3-C4-C5	5.29	124.01	121.90
26	14	1566	A	C8-N9-C4	5.29	107.92	105.80
26	14	2731	G	N1-C2-N3	5.29	127.07	123.90
27	1J	87	G	C8-N9-C4	5.29	108.51	106.40
1	13	738	C	C6-N1-C2	-5.28	118.19	120.30
26	1H	224	G	N3-C4-C5	5.28	131.24	128.60
26	1H	707	G	N9-C4-C5	5.28	107.51	105.40
26	1H	1264	G	OP1-P-OP2	5.28	127.53	119.60
26	1H	1317	A	OP1-P-O3'	5.28	116.82	105.20
26	1H	1558	A	P-O3'-C3'	5.28	126.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	4L	20	A	C8-N9-C4	-5.28	103.69	105.80
26	14	1394	U	N3-C2-O2	-5.28	118.50	122.20
26	14	2424	C	C6-N1-C2	5.28	122.41	120.30
26	1H	263	C	N3-C2-O2	-5.28	118.20	121.90
26	1H	865	C	N3-C4-C5	5.28	124.01	121.90
26	1H	1322	A	N7-C8-N9	-5.28	111.16	113.80
26	1H	1726	G	N9-C4-C5	-5.28	103.29	105.40
26	1H	2205	C	N3-C4-C5	5.28	124.01	121.90
1	1G	899	C	N3-C4-N4	5.28	121.70	118.00
26	14	947	G	N9-C4-C5	5.28	107.51	105.40
1	13	11	G	N9-C4-C5	5.28	107.51	105.40
26	1H	751	A	N9-C4-C5	5.28	107.91	105.80
26	1H	781	A	OP1-P-OP2	5.28	127.52	119.60
27	16	19	G	N3-C4-C5	5.28	131.24	128.60
1	1G	251	G	O5'-P-OP1	-5.28	100.95	105.70
26	14	755	C	C6-N1-C2	-5.28	118.19	120.30
26	14	932	G	C8-N9-C4	5.28	108.51	106.40
26	14	2235	G	C8-N9-C1'	-5.28	120.14	127.00
26	1H	1332	G	C4-N9-C1'	5.28	133.36	126.50
1	13	1219	U	C6-N1-C2	-5.28	117.83	121.00
26	1H	785	G	N1-C6-O6	-5.28	116.73	119.90
26	1H	795	C	C6-N1-C2	5.28	122.41	120.30
26	1H	1350	C	C5-C6-N1	-5.28	118.36	121.00
26	14	706	A	C6-N1-C2	-5.28	115.43	118.60
26	14	1299	G	O5'-P-OP2	5.28	117.03	110.70
26	14	1570	A	C6-C5-N7	-5.28	128.61	132.30
26	14	2261	C	N3-C2-O2	-5.28	118.20	121.90
26	14	2331	G	C2-N3-C4	-5.28	109.26	111.90
26	14	2678	C	OP2-P-O3'	5.28	116.81	105.20
1	13	283	C	N1-C2-O2	5.28	122.06	118.90
1	13	664	G	O5'-P-OP2	-5.28	100.95	105.70
1	13	720	C	N1-C2-O2	5.28	122.06	118.90
26	1H	828	U	N3-C2-O2	-5.28	118.51	122.20
26	1H	1196	C	C6-N1-C2	5.28	122.41	120.30
26	1H	1939	U	C4-C5-C6	-5.28	116.53	119.70
26	1H	2600	A	C6-N1-C2	-5.28	115.44	118.60
1	1G	733	A	OP1-P-OP2	5.28	127.51	119.60
26	14	2213	U	C2-N1-C1'	5.28	124.03	117.70
26	14	2307	G	C8-N9-C1'	-5.28	120.14	127.00
26	14	2351	G	OP1-P-OP2	5.28	127.52	119.60
1	13	970	C	N1-C2-O2	5.27	122.06	118.90
1	13	1334	G	N7-C8-N9	5.27	115.74	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	726	G	C5-C6-N1	-5.27	108.86	111.50
26	1H	1464	C	C6-N1-C2	-5.27	118.19	120.30
26	1H	2874	C	C6-N1-C1'	-5.27	114.47	120.80
26	14	220	G	N9-C4-C5	5.27	107.51	105.40
26	14	2262	U	O5'-P-OP1	5.27	117.03	110.70
26	14	2325	G	N3-C2-N2	-5.27	116.21	119.90
1	13	858	G	OP1-P-O3'	5.27	116.80	105.20
1	13	975	A	C5-N7-C8	-5.27	101.26	103.90
26	1H	210	C	N1-C2-O2	-5.27	115.74	118.90
26	1H	970	C	N1-C2-O2	-5.27	115.74	118.90
26	1H	1669	A	C5-C6-N6	-5.27	119.48	123.70
26	1H	1790	C	C2-N1-C1'	-5.27	113.00	118.80
26	1H	2260	C	N3-C4-C5	5.27	124.01	121.90
1	1G	400	C	N3-C2-O2	5.27	125.59	121.90
1	1G	1519	A	OP1-P-OP2	5.27	127.51	119.60
26	14	1353	A	N9-C4-C5	5.27	107.91	105.80
26	14	1950	G	C6-C5-N7	-5.27	127.24	130.40
26	14	2496	C	N3-C4-N4	5.27	121.69	118.00
26	1H	1204	A	N1-C2-N3	5.27	131.94	129.30
26	1H	2281	C	C6-N1-C1'	-5.27	114.47	120.80
26	1H	2595	G	C2-N3-C4	-5.27	109.26	111.90
1	13	808	C	C2-N3-C4	-5.27	117.27	119.90
1	13	1156	G	N1-C6-O6	5.27	123.06	119.90
1	13	1502	A	N9-C1'-C2'	5.27	120.85	114.00
26	1H	37	C	N1-C2-O2	5.27	122.06	118.90
26	1H	880	G	N1-C6-O6	5.27	123.06	119.90
26	1H	920	G	N3-C2-N2	5.27	123.59	119.90
26	1H	2331	G	C4-C5-N7	5.27	112.91	110.80
1	1G	108	G	C5-N7-C8	-5.27	101.67	104.30
1	13	455	C	C6-N1-C1'	-5.27	114.48	120.80
1	13	1526	G	N7-C8-N9	5.27	115.73	113.10
26	1H	182	A	C8-N9-C4	5.27	107.91	105.80
26	1H	473	G	C4-C5-N7	5.27	112.91	110.80
26	1H	1550	C	C2-N1-C1'	-5.27	113.01	118.80
26	14	672	C	C6-N1-C2	-5.27	118.19	120.30
26	14	1322	A	C5-C6-N1	5.27	120.33	117.70
26	14	1669	A	OP1-P-OP2	5.27	127.50	119.60
26	14	2067	G	C6-N1-C2	-5.27	121.94	125.10
26	14	2435	A	C5-N7-C8	-5.27	101.27	103.90
12	3I	86	ARG	NE-CZ-NH1	-5.27	117.67	120.30
26	1H	598	G	N1-C6-O6	5.27	123.06	119.90
26	1H	1249	U	C2-N3-C4	-5.27	123.84	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2446	G	N1-C6-O6	5.27	123.06	119.90
26	14	1409	C	C5-C6-N1	-5.27	118.37	121.00
26	14	2430	A	C4-N9-C1'	-5.27	116.82	126.30
1	13	575	G	N1-C6-O6	-5.26	116.74	119.90
1	13	1301	U	N3-C4-O4	5.26	123.08	119.40
26	1H	70	G	OP1-P-O3'	5.26	116.78	105.20
1	1G	821	G	N1-C6-O6	-5.26	116.74	119.90
26	14	270	A	C2-N3-C4	-5.26	107.97	110.60
26	14	752	A	N7-C8-N9	5.26	116.43	113.80
26	14	773	U	C4-C5-C6	5.26	122.86	119.70
26	14	1450	C	N3-C4-C5	-5.26	119.80	121.90
26	14	2056	G	C6-C5-N7	-5.26	127.24	130.40
1	13	1183	A	C8-N9-C4	5.26	107.91	105.80
26	1H	491	G	C5-C6-O6	-5.26	125.44	128.60
26	1H	766	C	C2-N3-C4	-5.26	117.27	119.90
26	1H	1277	G	C5-N7-C8	5.26	106.93	104.30
26	1H	2382	G	N7-C8-N9	5.26	115.73	113.10
1	1G	899	C	OP1-P-OP2	5.26	127.50	119.60
26	14	939	G	C5-C6-N1	-5.26	108.87	111.50
26	14	2388	A	O4'-C1'-N9	5.26	112.41	108.20
26	1H	768	G	C8-N9-C4	5.26	108.50	106.40
26	1H	1623	G	C5-N7-C8	5.26	106.93	104.30
26	1H	2870	C	OP2-P-O3'	5.26	116.78	105.20
1	1G	1411	C	C6-N1-C2	5.26	122.41	120.30
22	1L	11	C	C6-N1-C2	-5.26	118.20	120.30
26	14	599	G	C5-C6-O6	5.26	131.76	128.60
26	14	780	G	O5'-P-OP2	5.26	117.01	110.70
26	14	1327	C	N1-C2-O2	-5.26	115.74	118.90
26	14	1381	G	N1-C2-N3	-5.26	120.74	123.90
26	14	1935	G	OP1-P-O3'	5.26	116.77	105.20
26	14	1938	A	N1-C2-N3	5.26	131.93	129.30
1	13	1495	U	N3-C2-O2	-5.26	118.52	122.20
26	1H	721	C	C6-N1-C2	5.26	122.40	120.30
26	1H	865	C	O5'-P-OP1	-5.26	100.97	105.70
26	1H	1698	A	N3-C4-N9	-5.26	123.19	127.40
26	14	605	C	C6-N1-C2	5.26	122.40	120.30
26	14	1570	A	C2-N3-C4	-5.26	107.97	110.60
26	14	1695	G	N3-C4-C5	-5.26	125.97	128.60
26	14	1805	U	C5-C6-N1	-5.26	120.07	122.70
26	14	2068	U	N1-C2-N3	-5.26	111.75	114.90
26	14	2445	G	N1-C6-O6	-5.26	116.75	119.90
27	1J	89	G	N3-C4-N9	5.26	129.16	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1436	G	C8-N9-C4	-5.26	104.30	106.40
26	14	1031	G	C5-C6-O6	-5.26	125.44	128.60
26	14	1606	G	C5-C6-O6	-5.26	125.44	128.60
43	95	34	GLU	C-N-CA	-5.26	108.55	121.70
1	13	943	U	O5'-P-OP2	5.26	117.01	110.70
26	1H	463	G	C5-C6-O6	5.26	131.75	128.60
26	1H	1428	C	O5'-P-OP1	-5.26	100.97	105.70
26	1H	1623	G	C5-C6-O6	5.26	131.75	128.60
26	1H	2490	G	C8-N9-C4	-5.26	104.30	106.40
26	14	2083	G	N1-C2-N2	-5.26	111.47	116.20
26	14	2871	C	N3-C4-N4	-5.26	114.32	118.00
1	13	407	G	C8-N9-C4	5.25	108.50	106.40
1	13	745	C	C6-N1-C2	-5.25	118.20	120.30
1	13	1080	A	N1-C6-N6	5.25	121.75	118.60
26	1H	2198	A	C8-N9-C4	5.25	107.90	105.80
1	1G	14	U	C5-C6-N1	5.25	125.33	122.70
1	1G	438	G	N3-C4-C5	-5.25	125.97	128.60
26	14	914	C	OP1-P-O3'	5.25	116.76	105.20
26	14	2086	U	C5-C6-N1	-5.25	120.07	122.70
26	1H	845	G	C8-N9-C1'	5.25	133.83	127.00
26	1H	915	C	OP1-P-OP2	-5.25	111.72	119.60
26	1H	1586	A	N7-C8-N9	5.25	116.43	113.80
26	1H	1805	U	OP1-P-O3'	-5.25	93.64	105.20
26	1H	2797	U	P-O3'-C3'	5.25	126.00	119.70
44	E8	96	ILE	CG1-CB-CG2	-5.25	99.84	111.40
26	14	263	C	N3-C4-C5	5.25	124.00	121.90
26	14	599	G	N1-C2-N2	-5.25	111.47	116.20
26	14	1559	G	C6-C5-N7	-5.25	127.25	130.40
26	14	2840	C	O5'-P-OP2	-5.25	100.97	105.70
24	3K	76	A	C2-N3-C4	-5.25	107.97	110.60
26	1H	180	G	N1-C2-N2	-5.25	111.47	116.20
26	1H	513	A	C5-C6-N1	5.25	120.33	117.70
26	1H	624	C	C6-N1-C2	5.25	122.40	120.30
26	1H	855	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	1467	C	N1-C2-O2	-5.25	115.75	118.90
26	1H	1525	G	N1-C6-O6	-5.25	116.75	119.90
26	1H	2036	C	O5'-P-OP1	5.25	117.00	110.70
26	1H	2737	G	N3-C4-C5	5.25	131.23	128.60
29	11	39	LYS	N-CA-C	5.25	125.18	111.00
27	1J	89	G	N3-C4-C5	-5.25	125.97	128.60
1	13	320	C	C6-N1-C2	5.25	122.40	120.30
22	1K	76	A	C4-N9-C1'	5.25	135.75	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	254	G	N3-C4-N9	5.25	129.15	126.00
26	1H	1640	C	O5'-P-OP1	5.25	117.00	110.70
26	14	1305	C	C4-C5-C6	5.25	120.03	117.40
26	14	2359	C	C2-N1-C1'	-5.25	113.03	118.80
1	13	966	G	C4-C5-N7	5.25	112.90	110.80
26	1H	745	G	C8-N9-C4	5.25	108.50	106.40
26	1H	2331	G	C5-C6-O6	-5.25	125.45	128.60
1	1G	649	G	N1-C6-O6	-5.25	116.75	119.90
26	14	2337	G	C5-N7-C8	-5.25	101.68	104.30
1	13	302	G	N1-C6-O6	-5.25	116.75	119.90
26	1H	513	A	O4'-C1'-N9	-5.25	104.00	108.20
26	1H	1447	G	N1-C6-O6	-5.25	116.75	119.90
1	1G	95	G	C6-C5-N7	-5.25	127.25	130.40
26	14	475	U	C6-N1-C2	-5.25	117.85	121.00
26	14	510	C	C5-C6-N1	5.25	123.62	121.00
26	14	758	C	O5'-P-OP2	-5.25	100.98	105.70
26	14	2409	G	C5-N7-C8	-5.25	101.68	104.30
1	13	853	G	C2-N3-C4	-5.25	109.28	111.90
26	1H	575	A	O4'-C1'-N9	5.25	112.40	108.20
26	1H	1374	G	C4-C5-C6	5.25	121.95	118.80
26	1H	1941	C	O5'-P-OP1	-5.25	100.98	105.70
1	1G	1056	U	C6-N1-C2	-5.25	117.85	121.00
26	14	443	A	C5-C6-N6	-5.25	119.50	123.70
26	14	603	A	C8-N9-C4	-5.25	103.70	105.80
1	13	884	U	N3-C2-O2	5.24	125.87	122.20
1	13	1526	G	N9-C4-C5	5.24	107.50	105.40
26	1H	49	A	N9-C4-C5	-5.24	103.70	105.80
26	1H	426	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	2329	G	N1-C6-O6	-5.24	116.75	119.90
26	1H	2508	G	N1-C2-N3	5.24	127.05	123.90
26	1H	2577	A	C8-N9-C4	-5.24	103.70	105.80
26	1H	2707	G	O5'-P-OP2	-5.24	100.98	105.70
26	1H	2821	A	N1-C6-N6	5.24	121.75	118.60
23	2L	24	C	OP1-P-OP2	5.24	127.47	119.60
26	14	512	G	O5'-P-OP1	-5.24	100.98	105.70
26	14	670	A	OP1-P-O3'	5.24	116.73	105.20
26	14	2629	A	P-O3'-C3'	5.24	125.99	119.70
1	13	858	G	N9-C4-C5	5.24	107.50	105.40
26	1H	2706	G	C5-N7-C8	-5.24	101.68	104.30
1	1G	183	G	N1-C6-O6	5.24	123.05	119.90
1	13	106	C	N1-C2-O2	-5.24	115.76	118.90
1	13	762	C	C5-C6-N1	-5.24	118.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	42	A	C8-N9-C4	-5.24	103.70	105.80
26	1H	925	C	O5'-P-OP2	-5.24	100.98	105.70
26	1H	2461	C	C5-C4-N4	5.24	123.87	120.20
1	13	365	U	N3-C4-C5	-5.24	111.46	114.60
1	13	373	A	N1-C2-N3	-5.24	126.68	129.30
1	13	1263	C	C6-N1-C2	5.24	122.40	120.30
26	1H	1158	C	N3-C4-N4	-5.24	114.33	118.00
26	1H	1262	A	N9-C4-C5	-5.24	103.70	105.80
26	1H	1313	U	N3-C4-O4	5.24	123.07	119.40
26	1H	1330	C	C5-C4-N4	-5.24	116.53	120.20
26	1H	1563	G	C4-C5-N7	-5.24	108.70	110.80
26	1H	2617	C	C5-C6-N1	-5.24	118.38	121.00
26	14	6	A	N3-C4-C5	-5.24	123.13	126.80
26	14	201	C	O5'-P-OP2	-5.24	100.98	105.70
26	14	2278	A	O5'-P-OP2	-5.24	100.99	105.70
1	13	57	G	OP2-P-O3'	5.24	116.72	105.20
1	13	305	G	O4'-C1'-N9	-5.24	104.01	108.20
1	13	1518	A	C5-N7-C8	5.24	106.52	103.90
26	1H	1579	A	N1-C2-N3	5.24	131.92	129.30
26	1H	2577	A	C5-C6-N6	5.24	127.89	123.70
26	14	725	G	C4-C5-C6	5.24	121.94	118.80
26	14	1267	U	OP2-P-O3'	5.24	116.72	105.20
26	14	1635	G	O5'-P-OP2	-5.24	100.99	105.70
26	14	1863	G	C5-C6-N1	-5.24	108.88	111.50
1	13	481	G	C4-N9-C1'	5.24	133.31	126.50
1	13	1279	A	C4-N9-C1'	5.24	135.72	126.30
26	1H	16	G	N3-C2-N2	-5.24	116.23	119.90
26	1H	2607	G	O5'-P-OP1	5.24	116.98	110.70
26	1H	2847	U	O5'-P-OP2	5.24	116.98	110.70
26	14	778	G	N1-C2-N2	-5.24	111.49	116.20
1	13	380	G	C4-N9-C1'	-5.23	119.70	126.50
26	1H	149	A	N7-C8-N9	5.23	116.42	113.80
26	1H	580	C	N3-C4-C5	-5.23	119.81	121.90
26	1H	968	G	C5-C6-N1	-5.23	108.88	111.50
26	1H	1779	U	N3-C4-O4	5.23	123.06	119.40
1	1G	967	C	N3-C4-C5	5.23	123.99	121.90
26	14	291	C	N3-C4-C5	-5.23	119.81	121.90
26	14	707	G	N1-C6-O6	5.23	123.04	119.90
26	14	2593	U	C4-C5-C6	5.23	122.84	119.70
26	1H	541	C	N1-C2-O2	5.23	122.04	118.90
26	1H	1652	A	OP1-P-OP2	5.23	127.45	119.60
26	1H	1700	A	O5'-P-OP2	-5.23	100.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1900	A	O5'-P-OP2	-5.23	100.99	105.70
26	1H	2289	G	C8-N9-C4	5.23	108.49	106.40
26	1H	2780	G	C8-N9-C4	-5.23	104.31	106.40
26	1H	842	G	N7-C8-N9	-5.23	110.48	113.10
26	1H	1429	G	OP1-P-OP2	5.23	127.45	119.60
26	1H	1667	G	N1-C6-O6	5.23	123.04	119.90
26	1H	1949	G	N3-C2-N2	-5.23	116.24	119.90
26	1H	2335	A	P-O3'-C3'	5.23	125.98	119.70
27	16	61	G	N3-C2-N2	-5.23	116.24	119.90
26	14	2089	U	C5-C6-N1	5.23	125.31	122.70
22	1K	9	A	O4'-C1'-N9	-5.23	104.02	108.20
26	1H	2022	U	O5'-P-OP1	5.23	116.97	110.70
27	16	78	A	O5'-P-OP1	5.23	116.97	110.70
1	1G	522	C	N3-C4-N4	-5.23	114.34	118.00
26	14	2711	A	N3-C4-C5	5.23	130.46	126.80
1	13	5	U	P-O3'-C3'	5.23	125.97	119.70
26	1H	758	C	C2-N3-C4	-5.23	117.29	119.90
26	1H	1445	C	N1-C2-O2	5.23	122.04	118.90
26	1H	1681	G	C5-N7-C8	-5.23	101.69	104.30
26	1H	2779	U	C4-C5-C6	5.23	122.84	119.70
23	2L	48	U	OP2-P-O3'	5.23	116.70	105.20
26	14	46	C	N3-C4-C5	5.23	123.99	121.90
26	1H	1155	A	C6-N1-C2	-5.23	115.46	118.60
26	1H	1364	G	N3-C4-C5	-5.23	125.99	128.60
26	1H	2286	A	C5-N7-C8	-5.23	101.29	103.90
26	1H	2574	G	C5-C6-N1	5.23	114.11	111.50
26	14	188	G	OP1-P-OP2	5.23	127.44	119.60
26	14	738	G	C6-C5-N7	-5.23	127.26	130.40
27	1J	27	C	C2-N3-C4	5.23	122.51	119.90
1	13	1199	U	C5-C4-O4	5.22	129.03	125.90
1	13	1432	G	OP1-P-OP2	5.22	127.44	119.60
23	2K	24	C	C5-C6-N1	-5.22	118.39	121.00
26	1H	108	U	N1-C2-O2	5.22	126.46	122.80
26	1H	372	G	C5-C6-O6	5.22	131.73	128.60
26	1H	404	C	C6-N1-C2	5.22	122.39	120.30
26	1H	735	A	C2-N3-C4	-5.22	107.99	110.60
26	1H	966	G	OP1-P-OP2	5.22	127.44	119.60
26	1H	1397	U	C5-C4-O4	5.22	129.03	125.90
26	1H	1607	C	N3-C4-N4	5.22	121.66	118.00
26	1H	1857	G	N9-C4-C5	-5.22	103.31	105.40
26	1H	2083	G	C5-C6-O6	-5.22	125.47	128.60
1	1G	402	G	N1-C6-O6	5.22	123.03	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1113	C	C5-C6-N1	5.22	123.61	121.00
26	14	396	G	N3-C2-N2	-5.22	116.24	119.90
26	14	1698	A	C4-C5-N7	5.22	113.31	110.70
26	14	1809	A	C5-N7-C8	-5.22	101.29	103.90
26	14	2014	A	N7-C8-N9	-5.22	111.19	113.80
1	1G	668	G	N9-C4-C5	5.22	107.49	105.40
26	14	462	C	C5-C6-N1	-5.22	118.39	121.00
26	14	2045	C	C6-N1-C2	5.22	122.39	120.30
1	13	874	G	N3-C4-C5	-5.22	125.99	128.60
26	1H	48	G	OP1-P-OP2	5.22	127.43	119.60
26	1H	2285	C	N3-C4-N4	-5.22	114.34	118.00
26	14	1030	G	C5-C6-O6	-5.22	125.47	128.60
26	14	1341	U	O5'-P-OP1	-5.22	101.00	105.70
26	1H	391	G	C5-C6-O6	-5.22	125.47	128.60
1	1G	550	G	OP1-P-O3'	5.22	116.68	105.20
1	13	1106	G	C8-N9-C4	-5.22	104.31	106.40
26	1H	909	A	C6-C5-N7	5.22	135.95	132.30
26	1H	1193	G	C5-C6-O6	5.22	131.73	128.60
26	1H	1985	G	C6-N1-C2	-5.22	121.97	125.10
26	1H	2498	C	C5-C4-N4	-5.22	116.55	120.20
26	1H	2837	G	N1-C6-O6	5.22	123.03	119.90
1	1G	521	G	OP1-P-OP2	5.22	127.43	119.60
26	14	763	G	N1-C2-N2	-5.22	111.50	116.20
26	14	871	U	N3-C4-O4	5.22	123.05	119.40
1	13	265	G	O5'-P-OP2	-5.22	101.00	105.70
1	13	1113	C	C6-N1-C2	-5.22	118.21	120.30
26	1H	119	A	C5-N7-C8	5.22	106.51	103.90
26	1H	971	C	N3-C2-O2	-5.22	118.25	121.90
26	1H	1349	A	C5-C6-N1	-5.22	115.09	117.70
26	1H	2084	C	N1-C2-O2	-5.22	115.77	118.90
1	1G	179	A	N1-C6-N6	-5.22	115.47	118.60
26	14	252	G	C5-C6-N1	5.22	114.11	111.50
26	14	621	A	C6-N1-C2	5.22	121.73	118.60
26	14	1484	G	C8-N9-C4	5.22	108.49	106.40
53	J5	19	ARG	NE-CZ-NH1	-5.22	117.69	120.30
1	13	410	G	OP1-P-OP2	-5.21	111.78	119.60
1	13	522	C	OP1-P-OP2	5.21	127.42	119.60
1	13	935	A	O5'-P-OP1	-5.21	101.01	105.70
1	13	1301	U	C5-C6-N1	5.21	125.31	122.70
26	1H	373	U	OP1-P-OP2	5.21	127.42	119.60
26	1H	837	C	C2-N3-C4	-5.21	117.29	119.90
26	1H	1575	C	N1-C2-O2	5.21	122.03	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1620	G	N1-C6-O6	5.21	123.03	119.90
26	1H	2271	G	N3-C4-N9	5.21	129.13	126.00
26	1H	2382	G	C8-N9-C4	-5.21	104.31	106.40
26	1H	2547	U	C6-N1-C2	5.21	124.13	121.00
1	1G	1142	G	C6-C5-N7	5.21	133.53	130.40
1	1G	1502	A	C4-C5-N7	5.21	113.31	110.70
26	14	1781	C	C2-N1-C1'	5.21	124.53	118.80
1	13	1512	U	O5'-P-OP2	-5.21	101.01	105.70
26	1H	589	C	N3-C2-O2	-5.21	118.25	121.90
2	12	219	VAL	C-N-CA	5.21	134.73	121.70
26	14	113	G	N3-C4-C5	5.21	131.21	128.60
26	14	750	A	C8-N9-C4	-5.21	103.72	105.80
26	14	2235	G	C6-C5-N7	-5.21	127.27	130.40
26	14	2440	C	N1-C2-O2	5.21	122.03	118.90
30	29	53	PRO	C-N-CA	5.21	134.73	121.70
26	1H	2330	G	C8-N9-C4	5.21	108.48	106.40
47	H8	76	LEU	CA-CB-CG	5.21	127.29	115.30
26	14	1258	C	C5-C6-N1	5.21	123.61	121.00
26	14	1673	U	N1-C2-O2	-5.21	119.15	122.80
27	1J	70	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	77	C	N3-C4-N4	5.21	121.65	118.00
26	1H	2320	A	N1-C6-N6	5.21	121.73	118.60
23	2L	11	A	N1-C6-N6	5.21	121.73	118.60
26	14	838	C	O5'-P-OP2	-5.21	101.01	105.70
26	14	970	C	N3-C4-C5	-5.21	119.82	121.90
1	13	303	A	C5-N7-C8	5.21	106.50	103.90
1	13	934	C	N3-C2-O2	-5.21	118.25	121.90
1	13	980	C	N3-C4-N4	-5.21	114.35	118.00
26	1H	96	G	C5-C6-O6	-5.21	125.47	128.60
26	1H	878	A	N3-C4-C5	-5.21	123.15	126.80
26	1H	1312	U	C2-N1-C1'	-5.21	111.45	117.70
26	1H	2057	A	OP1-P-O3'	5.21	116.66	105.20
1	1G	117	G	C4-C5-N7	5.21	112.88	110.80
22	1L	5	C	C6-N1-C2	-5.21	118.22	120.30
26	14	775	G	C6-N1-C2	-5.21	121.97	125.10
26	14	2328	A	C6-N1-C2	-5.21	115.47	118.60
26	14	2385	C	C5-C4-N4	-5.21	116.55	120.20
1	13	965	A	C5-C6-N6	-5.21	119.53	123.70
26	1H	330	A	N3-C4-N9	-5.21	123.23	127.40
26	1H	1249	U	N3-C4-O4	5.21	123.05	119.40
26	1H	1779	U	O5'-P-OP2	-5.21	101.02	105.70
26	1H	2251	G	N1-C2-N2	5.21	120.89	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2558	C	N3-C4-C5	5.21	123.98	121.90
26	14	26	G	N1-C6-O6	5.21	123.02	119.90
26	14	1129	A	O5'-P-OP2	-5.21	101.01	105.70
26	14	1602	U	N3-C4-C5	-5.21	111.48	114.60
26	14	1807	G	O5'-P-OP1	-5.21	101.02	105.70
26	14	2062	A	C4-C5-N7	5.21	113.30	110.70
26	1H	130	C	C5-C4-N4	-5.21	116.56	120.20
26	1H	1006	C	O5'-P-OP2	5.21	116.95	110.70
26	1H	2224	G	C5-C6-N1	-5.21	108.90	111.50
26	14	454	A	O5'-P-OP2	-5.21	101.02	105.70
26	14	584	C	N3-C2-O2	5.21	125.54	121.90
26	14	1342	A	N1-C6-N6	5.21	121.72	118.60
26	14	1594	G	C8-N9-C4	-5.21	104.32	106.40
27	1J	23	G	N3-C2-N2	-5.21	116.26	119.90
1	13	332	G	O5'-P-OP1	-5.20	101.02	105.70
25	4K	18	G	P-O3'-C3'	5.20	125.94	119.70
26	1H	348	G	C5-C6-O6	5.20	131.72	128.60
26	1H	563	G	C2-N3-C4	5.20	114.50	111.90
26	1H	750	A	C8-N9-C4	5.20	107.88	105.80
26	1H	1024	G	C8-N9-C1'	-5.20	120.23	127.00
26	1H	1248	G	N1-C2-N2	5.20	120.88	116.20
26	1H	1423	G	N1-C2-N2	-5.20	111.52	116.20
26	1H	2084	C	N1-C2-N3	5.20	122.84	119.20
26	1H	2257	U	OP2-P-O3'	5.20	116.65	105.20
26	1H	2581	G	OP2-P-O3'	5.20	116.65	105.20
26	1H	2619	C	N3-C2-O2	5.20	125.54	121.90
26	14	111	A	C8-N9-C4	5.20	107.88	105.80
26	14	133	C	C6-N1-C2	5.20	122.38	120.30
26	14	753	C	O5'-P-OP2	-5.20	101.02	105.70
26	14	761	A	C8-N9-C4	5.20	107.88	105.80
26	14	1430	C	N3-C4-C5	5.20	123.98	121.90
26	14	2546	U	N3-C4-C5	-5.20	111.48	114.60
26	14	2869	G	N1-C2-N2	5.20	120.88	116.20
1	13	712	A	N1-C2-N3	5.20	131.90	129.30
26	1H	188	G	C2-N3-C4	-5.20	109.30	111.90
26	1H	722	A	C5-C6-N1	-5.20	115.10	117.70
26	1H	1941	C	N1-C2-O2	-5.20	115.78	118.90
26	1H	2307	G	C6-C5-N7	-5.20	127.28	130.40
26	1H	2336	A	C5-N7-C8	5.20	106.50	103.90
29	11	272	ALA	C-N-CA	5.20	134.70	121.70
26	14	949	C	OP2-P-O3'	5.20	116.64	105.20
26	14	1489	U	C2-N1-C1'	-5.20	111.46	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1831	G	C5-C6-O6	-5.20	125.48	128.60
26	14	1976	U	N1-C2-N3	5.20	118.02	114.90
26	14	2364	C	C2-N3-C4	-5.20	117.30	119.90
26	1H	2254	C	N1-C2-O2	-5.20	115.78	118.90
1	13	1353	G	C5-C6-O6	5.20	131.72	128.60
26	1H	870	A	OP1-P-O3'	5.20	116.64	105.20
26	1H	1227	A	OP2-P-O3'	5.20	116.64	105.20
26	1H	1559	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	2250	G	OP1-P-O3'	5.20	116.64	105.20
26	1H	2428	G	C8-N9-C4	-5.20	104.32	106.40
26	14	806	C	C5-C4-N4	-5.20	116.56	120.20
1	13	1359	C	O5'-P-OP1	-5.20	101.02	105.70
26	1H	602	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	629	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	2059	A	C8-N9-C4	5.20	107.88	105.80
26	1H	2673	G	N1-C2-N3	5.20	127.02	123.90
26	14	298	G	N7-C8-N9	5.20	115.70	113.10
26	1H	377	C	C6-N1-C2	5.20	122.38	120.30
26	1H	581	C	N1-C2-O2	-5.20	115.78	118.90
26	1H	611	C	C5-C6-N1	-5.20	118.40	121.00
26	1H	696	G	N1-C6-O6	-5.20	116.78	119.90
26	1H	997	G	C8-N9-C4	5.20	108.48	106.40
26	1H	1142	U	C5-C6-N1	5.20	125.30	122.70
26	1H	1248	G	N9-C4-C5	5.20	107.48	105.40
26	1H	1554	A	O5'-P-OP2	-5.20	101.02	105.70
26	1H	2450	A	C5-C6-N6	5.20	127.86	123.70
26	1H	2552	U	C4-C5-C6	5.20	122.82	119.70
27	16	61	G	N9-C4-C5	5.20	107.48	105.40
1	1G	103	C	OP1-P-O3'	5.20	116.63	105.20
1	1G	610	G	N3-C4-C5	5.20	131.20	128.60
26	14	455	C	N3-C4-C5	5.20	123.98	121.90
26	14	1789	A	C5-C6-N6	-5.20	119.54	123.70
26	14	2164	C	O4'-C1'-N1	5.20	112.36	108.20
26	14	2433	A	O5'-P-OP2	5.20	116.94	110.70
1	13	899	C	O5'-P-OP2	-5.19	101.03	105.70
26	1H	345	A	C8-N9-C4	-5.19	103.72	105.80
26	1H	1341	U	O5'-P-OP2	5.19	116.93	110.70
27	16	47	C	C5-C4-N4	-5.19	116.56	120.20
26	14	1902	C	N3-C4-N4	-5.19	114.36	118.00
1	13	917	G	C4-C5-N7	5.19	112.88	110.80
23	2K	43	G	C2-N3-C4	-5.19	109.30	111.90
26	1H	141	A	O4'-C1'-N9	5.19	112.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	929	G	O5'-P-OP1	-5.19	101.03	105.70
26	1H	1334	G	C4-N9-C1'	5.19	133.25	126.50
26	1H	2418	A	C2-N3-C4	5.19	113.20	110.60
26	1H	2428	G	C2-N3-C4	5.19	114.50	111.90
26	1H	2449	U	C6-N1-C2	-5.19	117.89	121.00
27	16	47	C	O5'-P-OP2	-5.19	101.03	105.70
1	1G	108	G	C2-N3-C4	5.19	114.50	111.90
26	14	1130	U	C5-C6-N1	-5.19	120.10	122.70
26	14	1823	G	C2-N3-C4	-5.19	109.30	111.90
26	14	2212	A	N1-C6-N6	5.19	121.72	118.60
26	14	2686	G	C5-C6-O6	-5.19	125.48	128.60
26	14	2689	U	P-O3'-C3'	5.19	125.93	119.70
26	14	2861	G	N7-C8-N9	5.19	115.70	113.10
26	1H	86	C	C5-C6-N1	-5.19	118.41	121.00
26	1H	835	A	N3-C4-C5	-5.19	123.17	126.80
26	1H	1334	G	C5-C6-O6	-5.19	125.48	128.60
26	1H	1618	A	N7-C8-N9	5.19	116.39	113.80
26	1H	1678	G	C8-N9-C4	-5.19	104.32	106.40
26	1H	2055	C	C2-N1-C1'	-5.19	113.09	118.80
26	1H	2065	C	C5-C6-N1	5.19	123.59	121.00
1	1G	975	A	O4'-C1'-N9	-5.19	104.05	108.20
26	14	265	A	C4-C5-N7	5.19	113.30	110.70
26	14	745	G	N7-C8-N9	-5.19	110.50	113.10
26	14	1422	G	C5-C6-N1	-5.19	108.91	111.50
26	14	1442	G	N3-C2-N2	-5.19	116.27	119.90
26	14	1687	G	N1-C6-O6	-5.19	116.79	119.90
26	14	1780	A	C5-N7-C8	-5.19	101.31	103.90
26	14	2068	U	OP2-P-O3'	-5.19	93.78	105.20
26	14	2500	U	O5'-P-OP1	5.19	116.93	110.70
26	14	2583	G	C6-C5-N7	5.19	133.51	130.40
26	1H	1974	C	N3-C4-C5	5.19	123.98	121.90
26	14	1809	A	O5'-P-OP2	5.19	116.93	110.70
1	13	1479	C	C5-C6-N1	5.19	123.59	121.00
1	13	1513	A	N7-C8-N9	-5.19	111.21	113.80
24	3K	27	G	N3-C4-C5	-5.19	126.01	128.60
26	1H	132	G	C2-N3-C4	-5.19	109.31	111.90
26	1H	514	A	N9-C4-C5	5.19	107.88	105.80
26	1H	1325	G	C4-C5-C6	5.19	121.91	118.80
26	1H	1936	A	C6-N1-C2	-5.19	115.49	118.60
26	1H	2327	A	N7-C8-N9	-5.19	111.21	113.80
26	1H	2373	G	C2-N3-C4	-5.19	109.31	111.90
26	1H	2552	U	N3-C4-O4	5.19	123.03	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	50	A	O5'-P-OP1	-5.19	101.03	105.70
26	14	393	C	C5-C4-N4	5.19	123.83	120.20
26	14	1307	A	C4-C5-N7	5.19	113.29	110.70
26	14	1790	C	C2-N3-C4	-5.19	117.31	119.90
1	13	346	G	C6-C5-N7	-5.19	127.29	130.40
1	13	755	G	C8-N9-C4	5.19	108.47	106.40
26	1H	1626	G	C6-C5-N7	-5.19	127.29	130.40
26	1H	2536	G	C5-C6-N1	5.19	114.09	111.50
26	14	1206	G	C4-N9-C1'	5.19	133.24	126.50
1	13	480	U	C5-C6-N1	-5.18	120.11	122.70
23	2K	48	U	OP2-P-O3'	5.18	116.60	105.20
26	1H	1667	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	2527	C	N3-C4-N4	5.18	121.63	118.00
26	1H	2592	G	O5'-P-OP2	-5.18	101.03	105.70
1	1G	690	G	N3-C2-N2	-5.18	116.27	119.90
1	1G	1096	C	N1-C2-O2	5.18	122.01	118.90
1	1G	1108	G	C4-C5-N7	-5.18	108.73	110.80
26	14	1221	C	C6-N1-C2	5.18	122.37	120.30
26	14	1601	G	N3-C2-N2	5.18	123.53	119.90
26	14	1930	G	N9-C1'-C2'	5.18	120.74	114.00
26	14	2501	C	C2-N1-C1'	-5.18	113.10	118.80
37	35	33	ARG	C-N-CA	5.18	133.19	122.30
1	13	1128	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	177	G	C5-C6-O6	5.18	131.71	128.60
26	1H	698	C	N1-C2-O2	-5.18	115.79	118.90
26	1H	2327	A	N1-C6-N6	-5.18	115.49	118.60
1	1G	1502	A	C4-N9-C1'	5.18	135.63	126.30
26	14	493	G	C5-C6-N1	-5.18	108.91	111.50
26	14	1681	G	N3-C4-N9	-5.18	122.89	126.00
26	14	1869	G	C4-N9-C1'	-5.18	119.76	126.50
1	13	703	G	C3'-C2'-C1'	5.18	105.64	101.50
1	13	1289	A	O5'-P-OP2	-5.18	101.04	105.70
26	1H	119	A	C4-C5-N7	-5.18	108.11	110.70
26	1H	1429	G	C4-N9-C1'	5.18	133.24	126.50
26	1H	2476	A	C2-N3-C4	5.18	113.19	110.60
29	11	263	ARG	NE-CZ-NH1	5.18	122.89	120.30
1	1G	129	U	C5-C4-O4	5.18	129.01	125.90
1	1G	230	G	N1-C6-O6	5.18	123.01	119.90
1	1G	1498	U	P-O3'-C3'	5.18	125.92	119.70
1	13	963	G	C6-N1-C2	-5.18	121.99	125.10
1	13	1479	C	N3-C2-O2	5.18	125.53	121.90
26	1H	134	C	N1-C2-N3	5.18	122.83	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	147	U	C5-C4-O4	5.18	129.01	125.90
26	1H	1642	G	O5'-P-OP1	-5.18	101.04	105.70
27	16	29	A	N7-C8-N9	5.18	116.39	113.80
26	14	247	G	C2-N3-C4	-5.18	109.31	111.90
26	14	537	C	N1-C2-O2	5.18	122.01	118.90
26	14	1336	A	N9-C4-C5	5.18	107.87	105.80
26	14	1616	A	C6-C5-N7	-5.18	128.68	132.30
26	14	2197	U	C6-N1-C2	5.18	124.11	121.00
26	14	2707	G	C5-C6-N1	5.18	114.09	111.50
1	13	1506	U	C5-C4-O4	-5.18	122.79	125.90
23	2K	75	C	N1-C2-O2	5.18	122.01	118.90
26	1H	1415	U	C5-C4-O4	5.18	129.01	125.90
26	14	788	A	OP2-P-O3'	5.18	116.59	105.20
26	14	989	G	C5-C6-O6	5.18	131.71	128.60
1	13	1128	C	N3-C2-O2	-5.18	118.28	121.90
26	1H	263	C	N1-C2-O2	5.18	122.01	118.90
26	1H	1623	G	N1-C2-N2	-5.18	111.54	116.20
26	1H	2556	C	N3-C4-C5	5.18	123.97	121.90
26	14	1412	A	N1-C2-N3	-5.18	126.71	129.30
26	14	1603	A	C8-N9-C4	-5.18	103.73	105.80
26	14	2235	G	C6-N1-C2	-5.18	121.99	125.10
26	14	2367	G	C5-C6-O6	-5.18	125.49	128.60
1	13	112	G	C5-C6-O6	-5.17	125.50	128.60
1	13	855	G	O5'-P-OP1	-5.17	101.04	105.70
1	13	889	A	N3-C4-C5	5.17	130.42	126.80
26	1H	97	C	OP1-P-OP2	5.17	127.36	119.60
26	1H	575	A	N3-C4-N9	5.17	131.54	127.40
26	1H	2245	U	OP1-P-OP2	-5.17	111.84	119.60
26	1H	2421	G	C5-C6-N1	5.17	114.09	111.50
47	H8	117	LEU	CA-CB-CG	5.17	127.20	115.30
26	1H	840	C	N3-C4-C5	5.17	123.97	121.90
1	13	856	C	N3-C4-N4	5.17	121.62	118.00
1	13	1126	U	N1-C2-O2	5.17	126.42	122.80
26	1H	593	G	C2-N3-C4	-5.17	109.31	111.90
26	1H	1199	U	O5'-P-OP2	-5.17	101.05	105.70
26	1H	1236	G	OP1-P-O3'	5.17	116.58	105.20
26	1H	1537	C	N1-C2-O2	5.17	122.00	118.90
26	1H	1842	G	C8-N9-C4	5.17	108.47	106.40
26	1H	2043	C	C5-C6-N1	5.17	123.59	121.00
26	1H	2432	A	N3-C4-C5	5.17	130.42	126.80
26	14	1687	G	C5-C6-O6	5.17	131.70	128.60
26	14	1929	G	O5'-P-OP2	-5.17	101.05	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	86	G	C8-N9-C4	5.17	108.47	106.40
1	13	1052	U	OP1-P-OP2	-5.17	111.84	119.60
26	1H	716	A	OP1-P-OP2	-5.17	111.84	119.60
26	1H	1780	A	C2-N3-C4	-5.17	108.02	110.60
26	1H	2210	G	C4-N9-C1'	5.17	133.22	126.50
26	1H	2509	G	C5-C6-N1	5.17	114.08	111.50
26	1H	56	A	OP2-P-O3'	5.17	116.57	105.20
26	1H	662	G	OP1-P-OP2	5.17	127.35	119.60
26	1H	796	C	OP1-P-OP2	5.17	127.35	119.60
26	1H	944	G	C8-N9-C1'	-5.17	120.28	127.00
26	1H	1772	G	N1-C6-O6	-5.17	116.80	119.90
26	14	1283	G	OP1-P-OP2	5.17	127.35	119.60
26	14	1728	G	C5-C6-N1	5.17	114.08	111.50
1	13	534	U	N3-C4-O4	-5.17	115.78	119.40
26	1H	774	A	N1-C2-N3	-5.17	126.72	129.30
26	1H	783	A	N9-C1'-C2'	-5.17	106.32	112.00
26	1H	1803	A	C5-C6-N1	5.17	120.28	117.70
1	1G	1527	C	N1-C2-O2	-5.17	115.80	118.90
26	14	623	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	1308	A	C5-C6-N6	5.17	127.83	123.70
26	14	46	C	N3-C4-N4	-5.17	114.39	118.00
26	14	1955	U	C5-C6-N1	-5.17	120.12	122.70
26	14	2766	G	N1-C6-O6	5.17	123.00	119.90
26	1H	552	G	N3-C4-C5	5.16	131.18	128.60
26	1H	956	G	O5'-P-OP2	-5.16	101.05	105.70
26	1H	1688	U	N1-C2-N3	5.16	118.00	114.90
26	1H	2510	C	C5-C6-N1	-5.16	118.42	121.00
1	1G	224	C	C6-N1-C2	5.16	122.37	120.30
26	14	709	U	N3-C4-O4	-5.16	115.78	119.40
26	14	825	C	N3-C2-O2	5.16	125.51	121.90
26	14	1271	G	O5'-P-OP2	-5.16	101.05	105.70
26	14	1801	G	C6-C5-N7	-5.16	127.30	130.40
26	14	1950	G	C5-N7-C8	-5.16	101.72	104.30
1	13	899	C	N1-C2-O2	-5.16	115.80	118.90
1	13	1521	G	C5-C6-O6	-5.16	125.50	128.60
26	1H	592	G	OP1-P-OP2	5.16	127.34	119.60
26	1H	831	G	N7-C8-N9	-5.16	110.52	113.10
26	1H	1670	C	C4-C5-C6	5.16	119.98	117.40
34	61	77	LEU	CA-CB-CG	5.16	127.17	115.30
1	1G	37	U	OP1-P-OP2	-5.16	111.86	119.60
26	14	570	G	C8-N9-C1'	-5.16	120.29	127.00
26	14	1758	G	O5'-P-OP1	-5.16	101.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1776	G	C5-C6-O6	-5.16	125.50	128.60
26	14	2012	G	C4-C5-N7	5.16	112.86	110.80
26	14	2241	A	C2-N3-C4	-5.16	108.02	110.60
26	14	2494	G	O5'-P-OP1	-5.16	101.05	105.70
1	13	905	U	C2-N3-C4	-5.16	123.90	127.00
26	1H	847	U	C5-C4-O4	5.16	129.00	125.90
26	14	774	A	C6-N1-C2	5.16	121.70	118.60
26	14	1535	U	C5-C6-N1	5.16	125.28	122.70
26	14	1727	U	C5-C4-O4	5.16	129.00	125.90
26	14	1783	A	N1-C6-N6	5.16	121.70	118.60
26	14	2307	G	C6-C5-N7	-5.16	127.30	130.40
1	13	108	G	C4-N9-C1'	5.16	133.21	126.50
1	13	542	G	O5'-P-OP1	-5.16	101.06	105.70
1	13	789	U	C5-C6-N1	-5.16	120.12	122.70
26	1H	50	U	C5-C6-N1	-5.16	120.12	122.70
26	1H	996	A	N7-C8-N9	-5.16	111.22	113.80
26	1H	1301	A	OP1-P-OP2	5.16	127.34	119.60
26	1H	1691	C	OP1-P-O3'	5.16	116.55	105.20
26	1H	1829	A	OP1-P-OP2	5.16	127.34	119.60
26	1H	1975	G	N9-C4-C5	-5.16	103.34	105.40
26	1H	2258	C	C4-C5-C6	5.16	119.98	117.40
26	1H	2494	G	N1-C2-N3	5.16	127.00	123.90
1	1G	906	G	C2-N3-C4	-5.16	109.32	111.90
26	14	149	A	C5-C6-N1	-5.16	115.12	117.70
26	14	726	G	O5'-P-OP1	-5.16	101.06	105.70
26	14	817	C	C4-C5-C6	-5.16	114.82	117.40
26	14	932	G	N3-C4-C5	5.16	131.18	128.60
26	14	1558	A	N1-C6-N6	5.16	121.69	118.60
26	14	2583	G	N3-C2-N2	-5.16	116.29	119.90
1	13	294	U	OP2-P-O3'	5.16	116.55	105.20
26	1H	1642	G	N1-C2-N2	5.16	120.84	116.20
26	14	396	G	N3-C4-C5	-5.16	126.02	128.60
26	14	831	G	C5-C6-O6	-5.16	125.51	128.60
26	14	1992	G	N9-C4-C5	5.16	107.46	105.40
26	14	2375	G	N9-C1'-C2'	-5.16	106.33	112.00
26	1H	509	C	O5'-P-OP2	-5.16	101.06	105.70
26	1H	1430	C	N3-C2-O2	-5.16	118.29	121.90
26	1H	1559	G	C2-N3-C4	-5.16	109.32	111.90
26	1H	1775	U	C6-N1-C2	5.16	124.09	121.00
1	1G	444	C	C6-N1-C2	5.16	122.36	120.30
1	1G	1449	C	N1-C2-O2	5.16	121.99	118.90
26	14	396	G	N9-C4-C5	5.16	107.46	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1566	A	C4-C5-N7	5.16	113.28	110.70
1	13	307	C	C5-C6-N1	-5.15	118.42	121.00
26	1H	552	G	C2-N3-C4	-5.15	109.32	111.90
26	1H	765	G	N9-C4-C5	5.15	107.46	105.40
26	1H	1157	G	C8-N9-C1'	-5.15	120.30	127.00
26	1H	1311	G	N9-C4-C5	-5.15	103.34	105.40
26	1H	1667	G	C4-C5-N7	5.15	112.86	110.80
26	1H	2243	U	C6-N1-C2	-5.15	117.91	121.00
1	1G	353	A	C5-N7-C8	-5.15	101.32	103.90
26	14	1795	C	OP1-P-OP2	5.15	127.33	119.60
1	13	705	U	O5'-P-OP2	-5.15	101.06	105.70
26	1H	1700	A	N1-C6-N6	5.15	121.69	118.60
26	1H	1814	G	C4-C5-C6	5.15	121.89	118.80
26	1H	2599	G	N1-C2-N3	5.15	126.99	123.90
1	1G	1437	C	N3-C4-C5	5.15	123.96	121.90
26	14	68	G	N1-C6-O6	5.15	122.99	119.90
26	14	331	A	OP1-P-OP2	5.15	127.33	119.60
26	14	1307	A	OP1-P-OP2	5.15	127.33	119.60
26	14	1653	G	N3-C2-N2	5.15	123.51	119.90
42	85	98	LEU	CA-CB-CG	5.15	127.15	115.30
1	13	40	C	O5'-P-OP2	-5.15	101.06	105.70
1	13	110	C	C5-C6-N1	-5.15	118.42	121.00
1	13	578	C	OP2-P-O3'	5.15	116.53	105.20
1	13	908	A	C5-C6-N1	-5.15	115.12	117.70
1	13	968	A	C5-C6-N6	-5.15	119.58	123.70
1	13	1519	A	C5-N7-C8	5.15	106.47	103.90
26	1H	38	A	C2-N3-C4	5.15	113.17	110.60
26	1H	222	A	O5'-P-OP1	-5.15	101.06	105.70
26	1H	1313	U	C6-N1-C2	-5.15	117.91	121.00
26	1H	2545	G	N7-C8-N9	-5.15	110.53	113.10
1	1G	230	G	C2-N3-C4	-5.15	109.33	111.90
1	1G	232	G	N1-C6-O6	5.15	122.99	119.90
1	1G	886	G	N9-C4-C5	-5.15	103.34	105.40
1	1G	1087	G	C4-C5-N7	5.15	112.86	110.80
26	14	929	G	C6-C5-N7	-5.15	127.31	130.40
26	14	1125	G	C4-C5-N7	-5.15	108.74	110.80
26	14	1555	G	C6-C5-N7	-5.15	127.31	130.40
26	14	1626	G	C6-C5-N7	5.15	133.49	130.40
26	14	1991	U	C4-C5-C6	5.15	122.79	119.70
26	14	2391	G	C4-C5-N7	-5.15	108.74	110.80
26	14	2699	C	C2-N3-C4	-5.15	117.33	119.90
1	13	113	G	N1-C6-O6	-5.15	116.81	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	266	G	C2-N3-C4	-5.15	109.33	111.90
1	13	299	G	C5-C6-O6	5.15	131.69	128.60
1	13	484	G	P-O3'-C3'	5.15	125.88	119.70
1	13	1007	C	O4'-C1'-N1	5.15	112.32	108.20
26	1H	1157	G	N1-C2-N3	5.15	126.99	123.90
26	1H	2018	G	C8-N9-C4	-5.15	104.34	106.40
26	1H	2599	G	C2-N3-C4	-5.15	109.33	111.90
27	16	79	C	N3-C4-N4	5.15	121.61	118.00
26	14	1559	G	C4-C5-N7	5.15	112.86	110.80
26	14	2501	C	C4-C5-C6	-5.15	114.83	117.40
26	1H	255	A	OP2-P-O3'	5.15	116.53	105.20
26	1H	919	G	OP1-P-OP2	5.15	127.32	119.60
26	1H	1343	G	N7-C8-N9	5.15	115.67	113.10
26	1H	1997	G	N9-C4-C5	5.15	107.46	105.40
26	1H	2318	G	C4-N9-C1'	5.15	133.19	126.50
1	1G	332	G	C8-N9-C4	5.15	108.46	106.40
25	4L	14	A	N9-C4-C5	-5.15	103.74	105.80
26	14	1798	U	OP1-P-OP2	5.15	127.32	119.60
26	14	1977	A	C2-N3-C4	-5.15	108.03	110.60
1	13	1257	U	C6-N1-C2	5.15	124.09	121.00
26	1H	2508	G	N3-C2-N2	-5.15	116.30	119.90
26	14	510	C	N1-C2-O2	5.15	121.99	118.90
27	1J	79	C	N3-C4-C5	-5.15	119.84	121.90
1	13	136	C	N1-C2-O2	5.14	121.99	118.90
26	1H	991	C	C6-N1-C2	-5.14	118.24	120.30
26	1H	2274	A	OP2-P-O3'	5.14	116.52	105.20
48	18	75	LEU	CA-CB-CG	-5.14	103.47	115.30
26	14	1241	A	O4'-C1'-N9	5.14	112.32	108.20
26	14	2436	G	N1-C2-N3	5.14	126.99	123.90
1	13	31	G	C5-C6-O6	-5.14	125.52	128.60
1	13	786	G	C6-C5-N7	5.14	133.49	130.40
1	13	1285	A	P-O3'-C3'	5.14	125.87	119.70
1	13	1388	C	N3-C2-O2	5.14	125.50	121.90
26	1H	179	G	C5-C6-O6	-5.14	125.51	128.60
26	1H	729	G	OP1-P-OP2	-5.14	111.89	119.60
26	1H	859	G	C8-N9-C4	5.14	108.46	106.40
26	1H	1625	C	C2-N3-C4	-5.14	117.33	119.90
26	1H	2240	C	C2-N3-C4	5.14	122.47	119.90
26	1H	2610	C	N3-C2-O2	5.14	125.50	121.90
26	14	914	C	N1-C2-O2	5.14	121.98	118.90
26	14	1205	U	N1-C2-N3	5.14	117.99	114.90
26	1H	320	A	C4-C5-N7	5.14	113.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2246	G	C4-C5-C6	5.14	121.88	118.80
23	2L	25	U	N1-C2-N3	5.14	117.98	114.90
1	13	253	U	O5'-P-OP1	-5.14	101.07	105.70
1	13	346	G	N3-C4-C5	-5.14	126.03	128.60
1	13	1439	C	C6-N1-C2	5.14	122.36	120.30
26	1H	118	A	C2-N3-C4	-5.14	108.03	110.60
26	1H	1224	G	C5-C6-N1	5.14	114.07	111.50
26	1H	1398	C	N3-C4-C5	5.14	123.96	121.90
26	1H	2476	A	C4-C5-C6	5.14	119.57	117.00
26	14	1943	U	N1-C2-O2	-5.14	119.20	122.80
1	1G	699	C	C6-N1-C2	-5.14	118.25	120.30
22	1L	76	A	N3-C4-C5	-5.14	123.20	126.80
26	14	71	A	OP2-P-O3'	5.14	116.50	105.20
26	14	1260	G	C6-C5-N7	-5.14	127.32	130.40
26	14	1790	C	N1-C2-O2	-5.14	115.82	118.90
1	13	7	G	O5'-P-OP2	-5.14	101.08	105.70
26	1H	188	G	C6-C5-N7	-5.14	127.32	130.40
26	1H	974(A)	C	C2-N3-C4	5.14	122.47	119.90
26	1H	1367	A	C4-C5-N7	5.14	113.27	110.70
26	1H	1586	A	C4-C5-N7	5.14	113.27	110.70
26	1H	1604	C	N3-C2-O2	5.14	125.50	121.90
26	1H	1648	C	C6-N1-C1'	5.14	126.96	120.80
26	1H	2330	G	C6-C5-N7	-5.14	127.32	130.40
26	1H	2837	G	OP1-P-O3'	5.14	116.50	105.20
1	1G	509	A	N1-C6-N6	5.14	121.68	118.60
26	14	663	G	N1-C6-O6	-5.14	116.82	119.90
26	14	1271	G	OP2-P-O3'	5.14	116.50	105.20
26	14	1496	A	C4-C5-N7	5.14	113.27	110.70
26	14	1629	U	N3-C4-C5	-5.14	111.52	114.60
26	14	1663	C	N3-C2-O2	5.14	125.50	121.90
27	1J	23	G	N1-C2-N2	5.14	120.82	116.20
1	13	838	G	N3-C4-C5	5.13	131.17	128.60
26	1H	834	C	C5-C4-N4	-5.13	116.61	120.20
26	1H	968	G	N1-C2-N2	-5.13	111.58	116.20
26	1H	1578	U	N3-C4-C5	-5.13	111.52	114.60
26	1H	1789	A	N9-C4-C5	5.13	107.85	105.80
26	1H	2061	G	OP1-P-O3'	5.13	116.50	105.20
26	1H	2238	G	C5-N7-C8	-5.13	101.73	104.30
1	1G	754	C	N1-C2-O2	5.13	121.98	118.90
26	14	65	C	N3-C4-C5	-5.13	119.85	121.90
26	14	974	G	OP1-P-O3'	5.13	116.50	105.20
26	14	1463	C	C6-N1-C2	-5.13	118.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2045	C	C5-C6-N1	-5.13	118.43	121.00
26	14	2506	U	N3-C4-O4	5.13	122.99	119.40
26	1H	782	A	C6-N1-C2	-5.13	115.52	118.60
26	1H	2213	U	O4'-C1'-N1	5.13	112.31	108.20
26	1H	2826	A	C8-N9-C4	5.13	107.85	105.80
1	1G	1128	C	N3-C2-O2	-5.13	118.31	121.90
26	14	471	A	C2-N3-C4	-5.13	108.03	110.60
26	14	698	C	C5-C4-N4	5.13	123.79	120.20
26	14	737	C	O5'-P-OP1	5.13	116.86	110.70
26	14	2539	C	C5-C6-N1	-5.13	118.43	121.00
1	13	577	G	C2-N3-C4	-5.13	109.33	111.90
26	1H	310	A	O5'-P-OP1	-5.13	101.08	105.70
26	1H	703	U	N1-C2-N3	5.13	117.98	114.90
38	88	6	ARG	NE-CZ-NH1	-5.13	117.73	120.30
1	1G	1473	A	C8-N9-C4	5.13	107.85	105.80
26	14	315	G	N7-C8-N9	-5.13	110.53	113.10
26	14	1229(A)	G	C2-N3-C4	-5.13	109.33	111.90
26	14	1331	A	C5-C6-N1	5.13	120.27	117.70
26	14	1382	G	N1-C6-O6	5.13	122.98	119.90
26	1H	1844	C	C4-C5-C6	5.13	119.97	117.40
26	1H	2713	A	C4-C5-N7	5.13	113.27	110.70
1	13	369	C	C2-N1-C1'	5.13	124.44	118.80
26	1H	520	G	C8-N9-C4	5.13	108.45	106.40
26	1H	1246	A	OP1-P-OP2	5.13	127.29	119.60
26	1H	1661	G	C5-N7-C8	5.13	106.86	104.30
26	1H	2063	C	C6-N1-C2	5.13	122.35	120.30
26	1H	2514	U	N3-C4-C5	-5.13	111.52	114.60
26	1H	2692	C	N1-C2-O2	5.13	121.98	118.90
23	2L	17	C	O5'-P-OP2	-5.13	101.08	105.70
26	14	388	G	N3-C2-N2	-5.13	116.31	119.90
1	13	5	U	OP2-P-O3'	5.13	116.48	105.20
1	13	621	A	OP1-P-OP2	5.13	127.29	119.60
24	3K	4	U	C5-C6-N1	5.13	125.26	122.70
26	1H	989	G	C6-N1-C2	-5.13	122.02	125.10
26	1H	1555	G	O5'-P-OP1	-5.13	101.09	105.70
26	1H	1826	G	C4-C5-N7	-5.13	108.75	110.80
26	1H	1990	C	N3-C4-C5	-5.13	119.85	121.90
26	1H	2874	C	C6-N1-C2	5.13	122.35	120.30
26	14	51	G	O5'-P-OP2	-5.13	101.09	105.70
26	14	179	G	N7-C8-N9	-5.13	110.54	113.10
26	14	1271	G	C5-C6-N1	-5.13	108.94	111.50
26	14	1595	G	O5'-P-OP2	5.13	116.85	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1928	A	C5-C6-N6	5.13	127.80	123.70
26	14	2018	G	C2-N3-C4	5.13	114.46	111.90
26	14	2060	A	C5-C6-N6	5.13	127.80	123.70
26	14	2275	C	C5'-C4'-O4'	-5.13	102.95	109.10
1	13	300	A	N7-C8-N9	5.12	116.36	113.80
1	13	1488	G	C6-N1-C2	-5.12	122.03	125.10
26	1H	599	G	C5-C6-O6	5.12	131.68	128.60
1	1G	1053	G	O4'-C1'-N9	5.12	112.30	108.20
1	13	1422	G	O5'-P-OP2	-5.12	101.09	105.70
26	1H	134	C	N3-C4-N4	-5.12	114.41	118.00
26	1H	654(B)	C	C2-N1-C1'	5.12	124.44	118.80
26	1H	670	A	C8-N9-C4	5.12	107.85	105.80
26	1H	974	G	N1-C2-N2	5.12	120.81	116.20
26	1H	1270	C	C4-C5-C6	5.12	119.96	117.40
26	1H	1694	C	N3-C2-O2	5.12	125.49	121.90
26	1H	1780	A	C8-N9-C4	-5.12	103.75	105.80
26	1H	1964	G	O4'-C1'-N9	-5.12	104.10	108.20
26	1H	2639	A	C4-C5-N7	5.12	113.26	110.70
26	1H	2644	G	C2-N3-C4	-5.12	109.34	111.90
26	14	1018	C	C5-C6-N1	5.12	123.56	121.00
26	14	2830	G	N3-C4-C5	5.12	131.16	128.60
27	1J	81	G	N9-C4-C5	-5.12	103.35	105.40
1	13	1214	C	C2-N1-C1'	-5.12	113.17	118.80
4	3E	85	LYS	N-CA-C	5.12	124.83	111.00
26	1H	195	A	OP1-P-OP2	-5.12	111.92	119.60
26	1H	1367	A	N9-C4-C5	-5.12	103.75	105.80
26	1H	1836	C	N3-C4-C5	-5.12	119.85	121.90
26	1H	2262	U	N3-C2-O2	-5.12	118.61	122.20
26	1H	2544	G	C4-C5-N7	5.12	112.85	110.80
26	1H	2886	G	N1-C6-O6	-5.12	116.83	119.90
26	14	1145	C	C5-C6-N1	5.12	123.56	121.00
26	14	2065	C	C6-N1-C2	-5.12	118.25	120.30
26	14	2279	G	N3-C4-C5	5.12	131.16	128.60
26	14	2415	G	C6-C5-N7	-5.12	127.33	130.40
26	1H	1568	G	N3-C4-N9	-5.12	122.93	126.00
26	1H	2036	C	C5-C6-N1	5.12	123.56	121.00
26	14	149	A	C2-N3-C4	-5.12	108.04	110.60
26	14	1519	G	O5'-P-OP1	-5.12	101.09	105.70
26	14	2053	G	C2-N3-C4	5.12	114.46	111.90
26	14	2329	G	C6-N1-C2	-5.12	122.03	125.10
1	13	660	G	O5'-P-OP2	5.12	116.84	110.70
24	3K	45	G	P-O3'-C3'	5.12	125.84	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1571	A	O5'-P-OP2	-5.12	101.09	105.70
26	1H	1984	G	C8-N9-C4	5.12	108.45	106.40
26	1H	2370	G	N3-C2-N2	-5.12	116.32	119.90
1	1G	1519	A	N1-C6-N6	-5.12	115.53	118.60
26	14	961	C	O4'-C1'-N1	5.12	112.30	108.20
1	13	484	G	C4-N9-C1'	5.12	133.15	126.50
1	13	1364	U	N3-C2-O2	5.12	125.78	122.20
26	1H	1830	C	N3-C4-N4	5.12	121.58	118.00
1	1G	315	A	C5-C6-N6	-5.12	119.61	123.70
1	13	251	G	C8-N9-C4	-5.12	104.35	106.40
1	13	525	C	C5-C4-N4	-5.12	116.62	120.20
26	1H	945	A	OP2-P-O3'	5.12	116.45	105.20
26	1H	1164	G	C4-C5-N7	-5.12	108.75	110.80
26	1H	1547	C	C5-C4-N4	5.12	123.78	120.20
26	1H	1549	C	N3-C4-N4	-5.12	114.42	118.00
27	16	49	C	N3-C4-C5	-5.12	119.85	121.90
40	A8	54	LEU	CA-CB-CG	5.12	127.07	115.30
26	14	728	G	C5-C6-N1	-5.12	108.94	111.50
26	14	1370	C	N1-C2-O2	-5.12	115.83	118.90
26	14	1476	C	N3-C2-O2	5.12	125.48	121.90
26	14	1977	A	OP1-P-OP2	-5.12	111.93	119.60
26	14	2364	C	C5-C6-N1	-5.12	118.44	121.00
26	14	2464	C	N3-C4-C5	5.12	123.95	121.90
1	13	575	G	N9-C4-C5	5.11	107.45	105.40
26	1H	548	A	O4'-C1'-N9	-5.11	104.11	108.20
26	1H	961	C	O4'-C1'-N1	5.11	112.29	108.20
26	1H	1174	A	N7-C8-N9	5.11	116.36	113.80
26	1H	1457	A	C8-N9-C4	5.11	107.85	105.80
26	1H	2210	G	C8-N9-C1'	-5.11	120.35	127.00
26	1H	2335	A	OP2-P-O3'	5.11	116.45	105.20
1	1G	1533	C	P-O3'-C3'	5.11	125.84	119.70
26	14	406	G	C6-C5-N7	-5.11	127.33	130.40
26	1H	1001	A	N9-C4-C5	5.11	107.84	105.80
26	1H	2443	C	C4-C5-C6	5.11	119.96	117.40
27	16	74	U	C2-N1-C1'	-5.11	111.56	117.70
1	1G	570	G	C8-N9-C4	-5.11	104.36	106.40
26	14	752	A	N1-C2-N3	5.11	131.86	129.30
26	14	1031	G	N1-C6-O6	5.11	122.97	119.90
1	13	902	G	OP1-P-OP2	5.11	127.27	119.60
26	1H	140	A	C4-C5-C6	5.11	119.56	117.00
26	1H	522	G	N3-C2-N2	-5.11	116.32	119.90
26	1H	732	C	N3-C4-N4	5.11	121.58	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1253	A	C5-C6-N1	5.11	120.25	117.70
26	1H	2637	U	C5-C4-O4	-5.11	122.83	125.90
29	11	229	VAL	CG1-CB-CG2	-5.11	102.72	110.90
26	14	815	C	C4-C5-C6	-5.11	114.84	117.40
26	14	1954	G	C5-C6-N1	5.11	114.06	111.50
1	13	1327	C	C5-C6-N1	-5.11	118.45	121.00
26	1H	1618	A	OP1-P-O3'	5.11	116.44	105.20
26	1H	2026	C	C6-N1-C2	5.11	122.34	120.30
26	1H	2258	C	C5-C4-N4	-5.11	116.62	120.20
26	14	2377	A	N9-C4-C5	-5.11	103.76	105.80
26	14	2691	C	N3-C4-C5	-5.11	119.86	121.90
1	13	901	A	C4-C5-N7	5.11	113.25	110.70
26	1H	44	A	C8-N9-C4	-5.11	103.76	105.80
26	1H	527	C	N3-C4-N4	5.11	121.58	118.00
26	1H	809	G	C5-N7-C8	5.11	106.85	104.30
26	1H	1334	G	N1-C6-O6	5.11	122.97	119.90
26	1H	1888	G	N3-C2-N2	5.11	123.47	119.90
26	1H	2711	A	OP2-P-O3'	-5.11	93.96	105.20
27	16	5	C	C5-C4-N4	-5.11	116.62	120.20
29	11	28	GLU	C-N-CA	5.11	143.45	122.00
1	1G	7	G	O5'-P-OP1	-5.11	101.10	105.70
1	1G	545	C	O5'-P-OP2	-5.11	101.10	105.70
1	1G	953	G	N3-C4-C5	-5.11	126.05	128.60
26	14	149	A	OP1-P-OP2	-5.11	111.94	119.60
26	14	481	G	O5'-P-OP2	-5.11	101.10	105.70
26	14	1607	C	OP1-P-O3'	5.11	116.44	105.20
26	14	1869	G	C8-N9-C1'	5.11	133.64	127.00
26	14	1903	G	C5-C6-N1	-5.11	108.95	111.50
26	14	2073	C	OP1-P-OP2	-5.11	111.94	119.60
26	14	2409	G	C6-C5-N7	-5.11	127.34	130.40
26	14	2435	A	C4-C5-N7	5.11	113.25	110.70
26	14	2582	G	C6-C5-N7	-5.11	127.33	130.40
1	13	908	A	C2-N3-C4	-5.11	108.05	110.60
26	1H	817	C	C5-C6-N1	5.11	123.55	121.00
26	1H	1252	G	OP1-P-OP2	5.11	127.26	119.60
26	1H	2312	U	N3-C4-O4	5.11	122.97	119.40
1	1G	27	G	N3-C2-N2	-5.11	116.33	119.90
1	13	303	A	N3-C4-C5	-5.10	123.23	126.80
1	13	1499	A	N7-C8-N9	-5.10	111.25	113.80
26	14	458	G	N7-C8-N9	5.10	115.65	113.10
1	13	733	A	N7-C8-N9	-5.10	111.25	113.80
26	1H	86	C	C6-N1-C2	5.10	122.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	116	C	OP1-P-OP2	-5.10	111.95	119.60
26	1H	629	G	N7-C8-N9	-5.10	110.55	113.10
26	1H	670	A	O4'-C1'-N9	-5.10	104.12	108.20
26	1H	866	A	C4-N9-C1'	5.10	135.48	126.30
26	1H	1346	G	N1-C2-N2	-5.10	111.61	116.20
26	1H	1936	A	C5-N7-C8	-5.10	101.35	103.90
26	1H	2295	C	O5'-P-OP2	5.10	116.82	110.70
26	1H	2373	G	OP1-P-OP2	5.10	127.25	119.60
26	1H	2485	G	N1-C2-N2	-5.10	111.61	116.20
26	1H	2569	G	N3-C4-C5	-5.10	126.05	128.60
26	1H	2684	U	C5-C6-N1	-5.10	120.15	122.70
27	16	54	G	C8-N9-C4	-5.10	104.36	106.40
1	1G	1422	G	N1-C6-O6	-5.10	116.84	119.90
26	14	1627	G	N1-C2-N2	-5.10	111.61	116.20
26	14	2020	A	N1-C6-N6	-5.10	115.54	118.60
26	14	2164	C	N3-C2-O2	-5.10	118.33	121.90
26	14	2354	G	C4-C5-N7	5.10	112.84	110.80
29	19	44	ASN	CA-C-N	5.10	128.43	117.20
26	14	915	C	C2-N3-C4	5.10	122.45	119.90
26	14	1126	A	OP1-P-O3'	5.10	116.42	105.20
26	14	2610	C	C5-C6-N1	-5.10	118.45	121.00
1	13	729	A	N1-C2-N3	-5.10	126.75	129.30
1	13	903	G	N1-C2-N3	5.10	126.96	123.90
1	13	1347	G	C4-C5-N7	-5.10	108.76	110.80
26	1H	416	C	N3-C4-N4	-5.10	114.43	118.00
26	1H	902	C	C5-C6-N1	-5.10	118.45	121.00
1	1G	257	G	C5-C6-N1	-5.10	108.95	111.50
1	1G	509	A	C4-C5-N7	5.10	113.25	110.70
26	14	530	G	N1-C2-N2	-5.10	111.61	116.20
26	14	599	G	N1-C2-N3	5.10	126.96	123.90
26	14	864	G	N3-C4-C5	-5.10	126.05	128.60
26	14	1688	U	N3-C4-O4	-5.10	115.83	119.40
26	14	2032	G	C5-C6-N1	5.10	114.05	111.50
26	14	2060	A	C6-N1-C2	5.10	121.66	118.60
1	13	1525	G	OP1-P-OP2	-5.10	111.95	119.60
26	1H	44	A	N7-C8-N9	5.10	116.35	113.80
26	1H	982	C	OP1-P-O3'	5.10	116.41	105.20
26	1H	1606	G	C8-N9-C1'	-5.10	120.37	127.00
26	1H	1937	A	N1-C2-N3	5.10	131.85	129.30
26	1H	2074	U	C4-C5-C6	5.10	122.76	119.70
26	1H	2639	A	N3-C4-C5	5.10	130.37	126.80
26	1H	2684	U	N3-C4-O4	-5.10	115.83	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2709	G	C5-C6-O6	5.10	131.66	128.60
1	1G	174	C	OP1-P-OP2	5.10	127.25	119.60
1	1G	1188	A	N1-C6-N6	-5.10	115.54	118.60
26	14	509	C	C5-C6-N1	-5.10	118.45	121.00
26	14	1809	A	OP1-P-OP2	-5.10	111.95	119.60
26	1H	974	G	O5'-P-OP1	5.10	116.81	110.70
26	1H	1917	U	N3-C4-O4	-5.10	115.83	119.40
26	1H	2067	G	C5-C6-O6	5.10	131.66	128.60
26	1H	2199	A	C8-N9-C4	-5.10	103.76	105.80
27	16	77	U	N3-C2-O2	5.10	125.77	122.20
1	1G	529	G	C4-C5-N7	5.10	112.84	110.80
26	14	1642	G	N7-C8-N9	5.10	115.65	113.10
26	1H	238	C	C4-C5-C6	5.09	119.95	117.40
26	1H	773	U	O5'-P-OP2	-5.09	101.12	105.70
26	1H	1261	C	N3-C4-N4	5.09	121.57	118.00
26	1H	2068	U	OP1-P-O3'	5.09	116.41	105.20
26	1H	2372	G	C2-N3-C4	-5.09	109.35	111.90
26	1H	2382	G	C4-C5-C6	5.09	121.86	118.80
26	1H	2495	G	C2-N3-C4	-5.09	109.35	111.90
26	1H	2539	C	N3-C4-N4	-5.09	114.43	118.00
46	G8	85	VAL	CG1-CB-CG2	-5.09	102.75	110.90
26	14	380	U	OP1-P-OP2	5.09	127.24	119.60
26	14	749	C	C5-C6-N1	-5.09	118.45	121.00
26	14	1775	U	N3-C4-C5	5.09	117.66	114.60
27	1J	16	G	N3-C4-C5	5.09	131.15	128.60
1	13	300	A	C2-N3-C4	-5.09	108.05	110.60
26	1H	1651	G	C5-N7-C8	-5.09	101.75	104.30
26	14	1968	G	C5-C6-O6	-5.09	125.54	128.60
26	14	2686	G	N9-C4-C5	-5.09	103.36	105.40
1	13	118	U	N3-C4-O4	-5.09	115.84	119.40
1	13	558	G	C4-C5-C6	5.09	121.86	118.80
26	1H	258	G	N1-C2-N2	-5.09	111.62	116.20
26	1H	371	A	O5'-P-OP1	-5.09	101.12	105.70
26	1H	1438	U	C2-N3-C4	5.09	130.06	127.00
26	1H	2500	U	N3-C2-O2	-5.09	118.64	122.20
26	1H	2542	A	O5'-P-OP2	-5.09	101.12	105.70
26	1H	2595	G	C4-C5-N7	5.09	112.84	110.80
1	1G	315	A	N1-C6-N6	5.09	121.66	118.60
1	1G	1432	G	N1-C6-O6	5.09	122.95	119.90
26	14	73	A	OP1-P-OP2	5.09	127.24	119.60
26	14	568	U	N3-C4-O4	5.09	122.96	119.40
26	14	2603	G	C2-N3-C4	5.09	114.45	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	240	C	OP1-P-O3'	5.09	116.40	105.20
1	13	1266	G	C8-N9-C1'	5.09	133.62	127.00
22	1K	69	A	P-O3'-C3'	5.09	125.81	119.70
26	1H	247	G	OP1-P-OP2	-5.09	111.97	119.60
26	1H	1979	C	N3-C4-N4	-5.09	114.44	118.00
26	1H	2238	G	C8-N9-C4	-5.09	104.36	106.40
26	1H	2249	U	N3-C4-C5	-5.09	111.55	114.60
1	1G	1200	C	C6-N1-C1'	-5.09	114.69	120.80
26	14	574	C	C2-N1-C1'	-5.09	113.20	118.80
26	14	1409	C	C2-N1-C1'	-5.09	113.20	118.80
26	14	2724	C	C5-C6-N1	-5.09	118.45	121.00
27	1J	16	G	C5-N7-C8	-5.09	101.76	104.30
1	13	977	A	C2-N3-C4	5.09	113.14	110.60
26	1H	432	A	C5-C6-N6	-5.09	119.63	123.70
26	1H	702	G	C4-C5-N7	-5.09	108.77	110.80
26	1H	1578	U	C4-C5-C6	5.09	122.75	119.70
26	1H	1784	A	N1-C2-N3	5.09	131.84	129.30
26	1H	2849	U	OP1-P-OP2	-5.09	111.97	119.60
24	3L	17	U	C5-C6-N1	5.09	125.24	122.70
26	14	453	C	N3-C4-C5	5.09	123.94	121.90
26	14	2707	G	C8-N9-C4	5.09	108.44	106.40
1	13	636	U	C5-C6-N1	5.09	125.24	122.70
1	13	726	C	OP1-P-O3'	5.09	116.39	105.20
1	13	793	U	N1-C2-O2	-5.09	119.24	122.80
1	13	912	C	C4-C5-C6	5.09	119.94	117.40
26	1H	204	A	C5-C6-N1	5.09	120.24	117.70
26	1H	651	G	C8-N9-C4	-5.09	104.36	106.40
26	1H	824	A	N1-C6-N6	-5.09	115.55	118.60
26	1H	1164	G	N9-C4-C5	5.09	107.44	105.40
26	1H	1673	U	C2-N1-C1'	-5.09	111.60	117.70
26	1H	2276	G	N1-C2-N3	5.09	126.95	123.90
26	1H	2499	C	N3-C2-O2	5.09	125.46	121.90
26	14	1025	G	N7-C8-N9	-5.09	110.56	113.10
26	14	1300	U	N1-C2-N3	5.09	117.95	114.90
26	14	2396	G	C5-C6-O6	-5.09	125.55	128.60
26	1H	523	C	C6-N1-C2	-5.08	118.27	120.30
26	1H	942	G	N1-C6-O6	5.08	122.95	119.90
26	1H	1548	C	C5-C6-N1	5.08	123.54	121.00
26	14	1359	A	N9-C4-C5	-5.08	103.77	105.80
26	14	2017	U	N1-C2-O2	-5.08	119.24	122.80
26	14	2197	U	O5'-P-OP1	-5.08	101.12	105.70
26	14	2430	A	C6-N1-C2	5.08	121.65	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	54	C	C2-N3-C4	-5.08	117.36	119.90
1	13	950	U	OP1-P-O3'	5.08	116.38	105.20
24	3K	71	C	O4'-C1'-N1	5.08	112.27	108.20
26	1H	474	G	N3-C4-N9	-5.08	122.95	126.00
26	1H	648	G	N9-C4-C5	5.08	107.43	105.40
26	1H	2430	A	N9-C4-C5	5.08	107.83	105.80
26	14	24	G	C2-N3-C4	-5.08	109.36	111.90
26	14	1428	C	C5-C6-N1	-5.08	118.46	121.00
1	13	867	G	N7-C8-N9	5.08	115.64	113.10
1	13	1529	G	O5'-P-OP2	5.08	116.80	110.70
26	1H	141(A)	C	N1-C2-O2	-5.08	115.85	118.90
26	1H	1264	G	O5'-P-OP1	-5.08	101.13	105.70
26	1H	1283	G	N3-C2-N2	5.08	123.46	119.90
26	1H	1357	U	N3-C4-C5	-5.08	111.55	114.60
26	1H	1784	A	OP1-P-O3'	5.08	116.38	105.20
26	1H	2609	U	C4-C5-C6	5.08	122.75	119.70
1	1G	576	G	C4-N9-C1'	5.08	133.10	126.50
22	1L	74	C	C5-C6-N1	5.08	123.54	121.00
26	14	255	A	N9-C4-C5	-5.08	103.77	105.80
26	14	1258	C	C6-N1-C2	-5.08	118.27	120.30
26	14	1968	G	O5'-P-OP2	5.08	116.80	110.70
26	14	2432	A	C6-C5-N7	-5.08	128.74	132.30
27	1J	30	C	C5-C6-N1	5.08	123.54	121.00
1	13	1052	U	C5-C4-O4	5.08	128.95	125.90
26	1H	1673	U	N1-C2-O2	-5.08	119.24	122.80
1	1G	815	A	C2-N3-C4	-5.08	108.06	110.60
26	14	1241	A	C5-N7-C8	-5.08	101.36	103.90
26	14	1394	U	OP1-P-OP2	-5.08	111.98	119.60
26	1H	668	G	OP1-P-O3'	5.08	116.37	105.20
26	1H	1398	C	C6-N1-C2	5.08	122.33	120.30
26	1H	2012	G	N1-C2-N3	5.08	126.95	123.90
26	14	297	C	C6-N1-C2	-5.08	118.27	120.30
26	14	808	G	O5'-P-OP2	-5.08	101.13	105.70
26	14	918	A	O5'-P-OP1	-5.08	101.13	105.70
26	14	1247	A	N1-C6-N6	5.08	121.65	118.60
26	14	2452	C	O5'-P-OP2	-5.08	101.13	105.70
1	13	1336	C	N3-C4-C5	-5.08	119.87	121.90
26	1H	595	C	C6-N1-C2	-5.08	118.27	120.30
26	1H	1122	G	C4-C5-N7	5.08	112.83	110.80
26	1H	1142	U	OP1-P-OP2	-5.08	111.98	119.60
26	1H	1984	G	N9-C4-C5	-5.08	103.37	105.40
27	16	14	U	O4'-C1'-N1	-5.08	104.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2583	G	C8-N9-C1'	5.08	133.60	127.00
1	13	255	G	N1-C2-N2	-5.08	111.63	116.20
1	13	346	G	N3-C4-N9	5.08	129.05	126.00
26	1H	962	G	N3-C4-N9	5.08	129.04	126.00
26	1H	1196	C	C5-C6-N1	-5.08	118.46	121.00
26	1H	1269	A	C5-N7-C8	-5.08	101.36	103.90
26	1H	2320	A	O4'-C1'-N9	5.08	112.26	108.20
26	1H	2674	G	N3-C4-C5	-5.08	126.06	128.60
26	1H	2833	G	N3-C4-C5	5.08	131.14	128.60
26	14	773	U	C2-N1-C1'	-5.08	111.61	117.70
26	14	833	U	C4-C5-C6	5.08	122.75	119.70
26	14	1268	A	N7-C8-N9	-5.08	111.26	113.80
26	14	2344	U	C5-C4-O4	5.08	128.94	125.90
26	1H	775	G	N1-C2-N3	5.07	126.94	123.90
26	1H	1701	A	OP1-P-O3'	5.07	116.36	105.20
26	1H	1985	G	C5-C6-N1	5.07	114.04	111.50
26	1H	2866	U	N3-C4-C5	-5.07	111.56	114.60
27	16	38	C	C2-N3-C4	-5.07	117.36	119.90
26	14	208	C	C5-C4-N4	-5.07	116.65	120.20
26	14	455	C	OP2-P-O3'	5.07	116.36	105.20
26	14	739	G	N3-C2-N2	-5.07	116.35	119.90
26	14	1332	G	OP1-P-O3'	5.07	116.36	105.20
26	1H	767	U	C5-C4-O4	5.07	128.94	125.90
26	1H	1336	A	C2-N3-C4	5.07	113.14	110.60
26	14	1206	G	N7-C8-N9	5.07	115.64	113.10
1	13	309	G	N1-C6-O6	5.07	122.94	119.90
1	13	567	G	O5'-P-OP1	-5.07	101.14	105.70
1	13	854	G	N1-C6-O6	5.07	122.94	119.90
1	13	942	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	929	G	C5-C6-N1	5.07	114.03	111.50
26	1H	2592	G	N1-C2-N2	-5.07	111.64	116.20
26	1H	2599	G	N1-C6-O6	-5.07	116.86	119.90
1	1G	911	U	C2-N1-C1'	-5.07	111.61	117.70
26	14	683	C	C5-C4-N4	-5.07	116.65	120.20
26	14	2211	G	C4-N9-C1'	5.07	133.09	126.50
1	13	326	G	C8-N9-C4	5.07	108.43	106.40
1	13	332	G	OP1-P-OP2	5.07	127.20	119.60
1	13	576	G	C4-N9-C1'	5.07	133.09	126.50
1	13	935	A	N1-C6-N6	-5.07	115.56	118.60
1	13	1082	G	N1-C6-O6	5.07	122.94	119.90
26	1H	1437	C	OP1-P-OP2	-5.07	112.00	119.60
26	1H	2373	G	N1-C2-N2	-5.07	111.64	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	331	A	C2-N3-C4	-5.07	108.07	110.60
1	13	312	C	C6-N1-C2	-5.07	118.27	120.30
26	1H	540	G	C5-C6-O6	-5.07	125.56	128.60
26	1H	621	A	O4'-C1'-N9	5.07	112.25	108.20
26	1H	794	G	C4-C5-N7	-5.07	108.77	110.80
26	1H	974(A)	C	N3-C2-O2	-5.07	118.35	121.90
26	1H	1198	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	1300	U	C2-N3-C4	-5.07	123.96	127.00
26	1H	1304	C	C2-N1-C1'	-5.07	113.22	118.80
26	1H	1449	A	C4-C5-C6	5.07	119.53	117.00
26	1H	2446	G	OP2-P-O3'	5.07	116.35	105.20
1	1G	73	G	C5-C6-N1	-5.07	108.97	111.50
1	1G	345	C	P-O3'-C3'	5.07	125.78	119.70
1	1G	481	G	C6-C5-N7	-5.07	127.36	130.40
1	1G	573	A	C8-N9-C4	-5.07	103.77	105.80
26	14	400	G	C5-C6-O6	-5.07	125.56	128.60
26	14	1475	G	N3-C2-N2	-5.07	116.35	119.90
26	14	1653	G	N3-C4-N9	5.07	129.04	126.00
26	14	1908	C	N3-C2-O2	-5.07	118.35	121.90
26	14	2239	G	N3-C2-N2	5.07	123.45	119.90
26	14	2404	C	N3-C4-C5	5.07	123.93	121.90
26	14	2596	U	N1-C2-N3	5.07	117.94	114.90
26	1H	1185	C	O5'-P-OP1	-5.07	101.14	105.70
26	1H	1198	U	N1-C2-N3	5.07	117.94	114.90
26	1H	1279	G	C5-C6-O6	5.07	131.64	128.60
26	1H	1771	C	N1-C2-O2	-5.07	115.86	118.90
26	1H	1924	C	C2-N3-C4	-5.07	117.37	119.90
26	1H	2199	A	C2-N3-C4	5.07	113.13	110.60
26	1H	2232	U	C2-N3-C4	5.07	130.04	127.00
24	3L	51	A	C2-N3-C4	5.07	113.13	110.60
26	14	192	C	C2-N1-C1'	-5.07	113.23	118.80
1	13	905	U	C6-N1-C2	5.06	124.04	121.00
1	13	950	U	O5'-P-OP2	5.06	116.78	110.70
26	1H	162	U	N1-C2-O2	5.06	126.34	122.80
26	1H	736	C	O5'-P-OP1	-5.06	101.14	105.70
26	14	609(A)	G	N1-C2-N3	5.06	126.94	123.90
26	14	682	G	N3-C2-N2	5.06	123.44	119.90
1	13	550	G	N7-C8-N9	-5.06	110.57	113.10
26	1H	271(A)	C	C5-C6-N1	5.06	123.53	121.00
26	1H	1400	G	N3-C4-C5	-5.06	126.07	128.60
26	1H	1627	G	N1-C2-N2	-5.06	111.64	116.20
26	1H	1941	C	C6-N1-C2	-5.06	118.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2371	G	C5-C6-N1	-5.06	108.97	111.50
1	1G	934	C	N3-C2-O2	-5.06	118.36	121.90
26	14	2869	G	N3-C2-N2	-5.06	116.36	119.90
27	1J	3	C	N3-C4-C5	-5.06	119.88	121.90
26	1H	270(K)	C	C5-C6-N1	5.06	123.53	121.00
26	1H	1997	G	N7-C8-N9	5.06	115.63	113.10
26	1H	2316	C	O5'-P-OP2	5.06	116.77	110.70
26	14	121	G	N1-C2-N3	5.06	126.94	123.90
26	14	1410	G	O5'-P-OP2	-5.06	101.14	105.70
26	14	1992	G	C2'-C3'-O3'	5.06	121.80	113.70
1	13	371	G	N3-C4-C5	5.06	131.13	128.60
1	13	910	C	N3-C4-N4	-5.06	114.46	118.00
1	13	1327	C	N3-C4-N4	-5.06	114.46	118.00
26	1H	484	C	N1-C2-O2	5.06	121.94	118.90
26	1H	1267	U	N3-C2-O2	-5.06	118.66	122.20
26	1H	2035	G	O4'-C1'-N9	5.06	112.25	108.20
26	1H	2607	G	C2-N3-C4	-5.06	109.37	111.90
1	1G	260	G	C4-C5-N7	-5.06	108.78	110.80
1	1G	536	C	N3-C4-C5	-5.06	119.88	121.90
1	1G	1142	G	C4-N9-C1'	-5.06	119.92	126.50
26	14	133	C	N3-C4-C5	5.06	123.92	121.90
26	14	2348	U	N3-C4-C5	5.06	117.64	114.60
26	1H	533	G	O5'-P-OP1	-5.06	101.15	105.70
26	1H	1123	C	C5-C6-N1	-5.06	118.47	121.00
26	1H	1274	A	N1-C6-N6	5.06	121.63	118.60
26	1H	1364	G	OP2-P-O3'	5.06	116.33	105.20
26	1H	1869	G	C5-C6-N1	-5.06	108.97	111.50
26	1H	2227	A	C5-C6-N6	-5.06	119.65	123.70
1	1G	197	A	N7-C8-N9	5.06	116.33	113.80
26	14	1391	U	C2-N1-C1'	5.06	123.77	117.70
26	14	2026	C	N3-C4-C5	5.06	123.92	121.90
26	14	2226	C	OP2-P-O3'	5.06	116.33	105.20
26	14	2256	G	C5-N7-C8	-5.06	101.77	104.30
26	14	2546	U	C6-N1-C2	-5.06	117.97	121.00
26	14	2570	G	C8-N9-C4	-5.06	104.38	106.40
26	1H	2679	A	C8-N9-C4	5.06	107.82	105.80
26	14	1617	C	C4-C5-C6	5.06	119.93	117.40
26	14	2230	G	N1-C6-O6	-5.06	116.87	119.90
26	1H	663	G	C5-C6-O6	5.05	131.63	128.60
26	1H	817	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	932	G	N1-C2-N2	-5.05	111.65	116.20
1	1G	277	C	N1-C2-O2	-5.05	115.87	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	786	G	C5-C6-N1	5.05	114.03	111.50
26	14	199	A	O5'-P-OP2	-5.05	101.15	105.70
26	14	2065	C	C2-N1-C1'	5.05	124.36	118.80
26	1H	1967	C	O5'-P-OP2	-5.05	101.15	105.70
26	14	1815	A	C2-N3-C4	5.05	113.13	110.60
26	14	2358	G	N3-C2-N2	-5.05	116.36	119.90
1	13	9	G	O5'-P-OP2	5.05	116.76	110.70
1	13	551	U	OP1-P-OP2	-5.05	112.02	119.60
1	13	635	G	N1-C6-O6	5.05	122.93	119.90
1	13	758	G	N1-C2-N2	5.05	120.75	116.20
1	13	1086	U	C5-C4-O4	-5.05	122.87	125.90
1	13	1366	C	O5'-P-OP1	-5.05	101.15	105.70
26	1H	26	G	N3-C4-N9	5.05	129.03	126.00
26	1H	511	U	N3-C4-C5	-5.05	111.57	114.60
26	1H	847	U	C2-N3-C4	-5.05	123.97	127.00
26	1H	1614	A	O4'-C1'-N9	5.05	112.24	108.20
26	1H	1639	U	N1-C2-O2	5.05	126.34	122.80
26	1H	2022	U	C6-N1-C2	5.05	124.03	121.00
26	1H	2597	G	C5-C6-O6	-5.05	125.57	128.60
1	1G	197	A	C8-N9-C4	-5.05	103.78	105.80
26	14	643	A	C5-C6-N6	-5.05	119.66	123.70
26	14	2021	C	C5-C4-N4	-5.05	116.67	120.20
26	14	2330	G	N3-C4-N9	5.05	129.03	126.00
26	14	2558	C	OP1-P-O3'	5.05	116.31	105.20
1	13	1299	A	C6-C5-N7	-5.05	128.76	132.30
26	1H	5	A	C2-N3-C4	5.05	113.12	110.60
26	1H	508	G	C8-N9-C1'	-5.05	120.44	127.00
26	1H	706	A	O5'-P-OP2	5.05	116.76	110.70
26	1H	788	A	OP2-P-O3'	5.05	116.31	105.20
26	1H	1774	C	OP1-P-O3'	5.05	116.31	105.20
26	1H	2285	C	N3-C4-C5	5.05	123.92	121.90
26	1H	2503	A	N1-C6-N6	5.05	121.63	118.60
26	1H	2684	U	N3-C2-O2	-5.05	118.67	122.20
1	1G	1084	G	O5'-P-OP2	-5.05	101.16	105.70
1	1G	1363	A	C8-N9-C4	5.05	107.82	105.80
26	14	959	A	C6-N1-C2	5.05	121.63	118.60
26	14	1694	C	N3-C4-C5	5.05	123.92	121.90
26	14	1772	G	N3-C4-C5	5.05	131.12	128.60
26	1H	414	C	C4-C5-C6	5.05	119.92	117.40
26	1H	1247	A	C5-N7-C8	5.05	106.42	103.90
26	1H	1366	A	C4-C5-N7	5.05	113.22	110.70
26	1H	1552	G	N1-C2-N2	5.05	120.74	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	47	C	N1-C2-O2	-5.05	115.87	118.90
1	1G	885	G	C8-N9-C4	5.05	108.42	106.40
26	14	130	C	N3-C4-N4	-5.05	114.47	118.00
26	14	2438	U	OP2-P-O3'	5.05	116.31	105.20
1	13	138	G	C4-C5-N7	5.05	112.82	110.80
1	13	355	C	C5-C6-N1	-5.05	118.48	121.00
26	1H	236	C	C2-N3-C4	-5.05	117.38	119.90
26	1H	586	A	C5-C6-N6	5.05	127.74	123.70
26	1H	1357	U	N1-C2-N3	5.05	117.93	114.90
26	1H	1773	A	C5-C6-N1	-5.05	115.18	117.70
26	1H	2342	C	C5-C6-N1	5.05	123.52	121.00
26	1H	2706	G	C2-N3-C4	-5.05	109.38	111.90
26	1H	2731	G	C5-C6-O6	-5.05	125.57	128.60
26	14	74	A	C8-N9-C4	-5.05	103.78	105.80
26	14	1609	A	C6-N1-C2	-5.05	115.57	118.60
26	14	1831	G	C4-C5-N7	5.05	112.82	110.80
26	14	2235	G	C4-N9-C1'	5.05	133.06	126.50
26	14	2781	A	C2-N3-C4	-5.05	108.08	110.60
26	1H	1936	A	C6-C5-N7	-5.04	128.77	132.30
26	1H	2617	C	C6-N1-C2	5.04	122.32	120.30
26	14	982	C	OP1-P-O3'	5.04	116.30	105.20
26	14	2555	U	N3-C2-O2	5.04	125.73	122.20
26	14	2713	A	OP1-P-OP2	5.04	127.17	119.60
1	13	569	C	O5'-P-OP1	-5.04	101.16	105.70
25	4K	11	U	C5-C6-N1	5.04	125.22	122.70
26	1H	618(A)	C	C6-N1-C2	5.04	122.32	120.30
26	1H	1332	G	C4-C5-C6	5.04	121.83	118.80
26	1H	1771	C	C2-N3-C4	-5.04	117.38	119.90
26	1H	2441	C	OP1-P-OP2	-5.04	112.03	119.60
26	1H	2621	A	N7-C8-N9	-5.04	111.28	113.80
40	A8	4	LEU	CB-CG-CD2	-5.04	102.42	111.00
26	14	188	G	N1-C2-N3	5.04	126.93	123.90
26	14	474	G	N1-C6-O6	-5.04	116.87	119.90
26	14	765	G	C8-N9-C4	-5.04	104.38	106.40
26	14	2391	G	N9-C4-C5	5.04	107.42	105.40
26	14	2569	G	C6-N1-C2	-5.04	122.07	125.10
26	14	2776	A	P-O3'-C3'	5.04	125.75	119.70
1	13	300	A	O5'-P-OP2	5.04	116.75	110.70
1	13	971	G	O5'-P-OP1	5.04	116.75	110.70
22	1K	43	U	C5-C6-N1	5.04	125.22	122.70
26	1H	333	G	O5'-P-OP2	-5.04	101.16	105.70
26	1H	640	C	C6-N1-C2	-5.04	118.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	661	C	N3-C2-O2	5.04	125.43	121.90
26	1H	665	C	C6-N1-C2	5.04	122.32	120.30
26	1H	952	G	C5-C6-N1	5.04	114.02	111.50
26	1H	1280	G	OP1-P-OP2	-5.04	112.04	119.60
26	1H	2777	G	O4'-C1'-N9	-5.04	104.17	108.20
26	1H	2827	C	N1-C2-O2	-5.04	115.88	118.90
26	14	307	G	OP1-P-OP2	5.04	127.16	119.60
26	14	1338	G	C4-C5-N7	5.04	112.82	110.80
26	14	1930	G	C5-N7-C8	5.04	106.82	104.30
26	14	1935	G	N7-C8-N9	5.04	115.62	113.10
26	14	2365	G	C4-C5-N7	5.04	112.82	110.80
1	13	38	G	N1-C6-O6	5.04	122.92	119.90
1	1G	1405	G	C8-N9-C4	5.04	108.42	106.40
26	14	461	C	N3-C4-C5	5.04	123.92	121.90
26	14	2361	A	C5-N7-C8	-5.04	101.38	103.90
27	1J	16	G	N3-C4-N9	-5.04	122.98	126.00
1	13	731	G	C8-N9-C4	-5.04	104.38	106.40
1	13	776	G	N3-C4-C5	5.04	131.12	128.60
26	1H	2393	A	C4-C5-N7	-5.04	108.18	110.70
26	1H	2608	G	N3-C2-N2	-5.04	116.37	119.90
27	16	99	A	OP1-P-OP2	5.04	127.16	119.60
1	1G	784	C	N3-C2-O2	5.04	125.43	121.90
26	14	533	G	N1-C2-N2	-5.04	111.67	116.20
26	14	2447	G	C6-N1-C2	-5.04	122.08	125.10
1	13	1227	A	C6-C5-N7	-5.04	128.77	132.30
26	1H	2522	U	N3-C2-O2	-5.04	118.67	122.20
26	14	703	U	N1-C2-N3	5.04	117.92	114.90
26	14	1496	A	C6-C5-N7	-5.04	128.77	132.30
26	1H	33	U	OP1-P-O3'	5.04	116.28	105.20
26	14	136	G	C8-N9-C4	-5.04	104.39	106.40
26	14	251	A	C5-N7-C8	5.04	106.42	103.90
26	14	2311	A	O4'-C1'-N9	5.04	112.23	108.20
22	1K	42	A	N7-C8-N9	5.03	116.32	113.80
26	1H	686	G	N9-C4-C5	-5.03	103.39	105.40
26	14	666	G	O5'-P-OP1	5.03	116.74	110.70
26	14	806	C	O5'-P-OP1	-5.03	101.17	105.70
26	14	1639	U	N3-C2-O2	-5.03	118.68	122.20
26	14	2769	C	N3-C2-O2	-5.03	118.38	121.90
1	13	587	G	C5-C6-O6	-5.03	125.58	128.60
26	1H	273(A)	G	N9-C4-C5	-5.03	103.39	105.40
26	1H	758	C	N3-C4-C5	5.03	123.91	121.90
26	1H	1305	C	N3-C4-C5	5.03	123.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2285	C	C4-C5-C6	-5.03	114.88	117.40
26	1H	2342	C	OP1-P-O3'	5.03	116.27	105.20
26	1H	2501	C	P-O3'-C3'	5.03	125.74	119.70
26	14	489	G	C5-C6-O6	-5.03	125.58	128.60
26	14	1276	A	C5-C6-N6	-5.03	119.67	123.70
26	1H	96	G	N1-C6-O6	5.03	122.92	119.90
26	1H	118	A	O4'-C1'-N9	-5.03	104.18	108.20
26	1H	835	A	C8-N9-C4	-5.03	103.79	105.80
26	1H	1346	G	N9-C4-C5	-5.03	103.39	105.40
26	1H	1704	G	C2-N3-C4	-5.03	109.39	111.90
26	1H	1896	G	N1-C6-O6	-5.03	116.88	119.90
26	1H	1914	C	C5-C4-N4	-5.03	116.68	120.20
1	1G	940	C	OP1-P-O3'	5.03	116.27	105.20
26	14	33	U	N3-C2-O2	5.03	125.72	122.20
26	14	128	C	C4-C5-C6	5.03	119.92	117.40
26	14	469	G	N1-C2-N3	-5.03	120.88	123.90
26	14	1248	G	N1-C6-O6	5.03	122.92	119.90
26	14	1575	C	OP2-P-O3'	5.03	116.27	105.20
26	14	1804	C	N3-C2-O2	-5.03	118.38	121.90
26	14	2094	G	N7-C8-N9	-5.03	110.58	113.10
1	13	945	G	N1-C2-N2	5.03	120.73	116.20
26	1H	425	G	N7-C8-N9	-5.03	110.59	113.10
1	1G	1192	C	C6-N1-C2	-5.03	118.29	120.30
23	2L	6	G	O5'-P-OP2	-5.03	101.17	105.70
26	14	795	C	N3-C2-O2	-5.03	118.38	121.90
1	13	346	G	C4-C5-C6	5.03	121.82	118.80
26	1H	130	C	N1-C2-N3	-5.03	115.68	119.20
26	1H	250	G	O4'-C1'-N9	5.03	112.22	108.20
26	1H	452	G	O5'-P-OP2	-5.03	101.18	105.70
26	1H	1224	G	C4-C5-C6	-5.03	115.78	118.80
26	1H	1229	G	N7-C8-N9	-5.03	110.59	113.10
26	1H	1673	U	N3-C2-O2	5.03	125.72	122.20
26	1H	2046	G	N3-C4-N9	5.03	129.02	126.00
26	1H	2137	C	N1-C2-O2	5.03	121.92	118.90
26	14	922	U	O4'-C1'-N1	5.03	112.22	108.20
26	14	1769	G	N9-C4-C5	-5.03	103.39	105.40
26	14	1796	U	C2-N1-C1'	-5.03	111.67	117.70
26	14	1948	G	C5-C6-O6	5.03	131.62	128.60
1	13	729	A	C2-N3-C4	5.03	113.11	110.60
1	13	890	G	O4'-C1'-N9	5.03	112.22	108.20
1	13	1502	A	C5-C6-N1	-5.03	115.19	117.70
26	1H	220	G	N1-C6-O6	5.03	122.92	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	259	G	C5-C6-O6	-5.03	125.58	128.60
26	1H	298	G	C8-N9-C4	5.03	108.41	106.40
26	1H	809	G	O5'-P-OP2	-5.03	101.18	105.70
26	1H	1019	U	C5-C4-O4	5.03	128.91	125.90
26	1H	1502	C	C5-C4-N4	-5.03	116.68	120.20
26	1H	1781	C	N3-C4-N4	5.03	121.52	118.00
26	1H	2550	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	2732	G	C6-N1-C2	-5.03	122.08	125.10
26	14	1453	A	C6-N1-C2	-5.03	115.58	118.60
26	14	1585	C	N3-C2-O2	-5.03	118.38	121.90
26	14	2024	G	C5-C6-O6	-5.03	125.58	128.60
26	14	2594	C	N3-C2-O2	5.03	125.42	121.90
45	B5	63	LYS	CG-CD-CE	5.03	126.98	111.90
26	1H	1840	G	C6-C5-N7	-5.02	127.39	130.40
26	14	80	G	O5'-P-OP1	-5.02	101.18	105.70
26	14	659	C	OP2-P-O3'	5.02	116.25	105.20
26	14	945	A	C6-N1-C2	-5.02	115.58	118.60
1	13	485	G	N1-C6-O6	5.02	122.91	119.90
26	1H	1249	U	C6-N1-C2	5.02	124.01	121.00
26	1H	1399	C	C5-C6-N1	5.02	123.51	121.00
26	1H	1496	A	C4-N9-C1'	5.02	135.34	126.30
26	1H	1597	A	OP2-P-O3'	5.02	116.25	105.20
26	1H	1810	A	C5-C6-N1	5.02	120.21	117.70
26	1H	2004	G	OP2-P-O3'	5.02	116.25	105.20
26	1H	2030	A	C5-C6-N1	5.02	120.21	117.70
1	1G	231	G	C4-C5-N7	-5.02	108.79	110.80
1	1G	1499	A	N9-C4-C5	-5.02	103.79	105.80
26	14	193	U	C6-N1-C2	5.02	124.01	121.00
26	14	1784	A	C6-C5-N7	-5.02	128.78	132.30
1	13	523	A	N9-C4-C5	-5.02	103.79	105.80
24	3K	70	C	N1-C2-O2	5.02	121.91	118.90
26	1H	275	G	N7-C8-N9	-5.02	110.59	113.10
26	1H	1135	C	C2-N1-C1'	5.02	124.32	118.80
26	1H	2577	A	N1-C6-N6	-5.02	115.59	118.60
1	13	1334	G	C8-N9-C4	-5.02	104.39	106.40
1	13	1511	G	N3-C2-N2	5.02	123.41	119.90
22	1K	74	C	C2-N1-C1'	5.02	124.32	118.80
26	1H	107	C	C6-N1-C2	5.02	122.31	120.30
26	1H	324	A	O5'-P-OP1	-5.02	101.18	105.70
26	1H	960	A	C5-C6-N6	5.02	127.72	123.70
26	1H	1174	A	C3'-C2'-C1'	-5.02	97.48	101.50
26	1H	1840	G	C2-N3-C4	-5.02	109.39	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2345	G	O5'-P-OP2	-5.02	101.18	105.70
26	1H	2530	A	C5-N7-C8	-5.02	101.39	103.90
26	14	195	A	N1-C2-N3	5.02	131.81	129.30
26	14	943	U	N1-C2-O2	-5.02	119.29	122.80
1	13	26	A	N7-C8-N9	-5.02	111.29	113.80
1	13	871	U	P-O3'-C3'	5.02	125.72	119.70
1	13	981	U	C5-C4-O4	-5.02	122.89	125.90
1	13	1045	C	N3-C4-C5	-5.02	119.89	121.90
26	1H	1632	A	N3-C4-C5	5.02	130.31	126.80
26	1H	1781	C	N1-C2-N3	-5.02	115.69	119.20
26	1H	1967	C	N1-C2-N3	5.02	122.71	119.20
26	1H	2818	G	C8-N9-C4	5.02	108.41	106.40
27	16	81	G	C2-N3-C4	-5.02	109.39	111.90
26	14	199	A	OP2-P-O3'	5.02	116.24	105.20
26	14	243	U	N3-C2-O2	-5.02	118.69	122.20
26	14	298	G	C4-C5-N7	5.02	112.81	110.80
26	14	333	G	N7-C8-N9	5.02	115.61	113.10
26	14	2382	G	N3-C2-N2	5.02	123.41	119.90
55	M5	48	PHE	CA-C-N	5.02	128.24	117.20
26	1H	722	A	N3-C4-C5	5.02	130.31	126.80
26	1H	2268	A	O5'-P-OP1	-5.02	101.19	105.70
26	1H	2602	A	N7-C8-N9	-5.02	111.29	113.80
26	14	1279	G	C5-C6-O6	5.02	131.61	128.60
1	13	1530	G	N1-C6-O6	5.01	122.91	119.90
26	1H	516	C	C5-C4-N4	-5.01	116.69	120.20
26	1H	531	C	OP1-P-O3'	5.01	116.23	105.20
26	1H	531	C	C2-N1-C1'	-5.01	113.28	118.80
26	1H	902	C	C5-C4-N4	5.01	123.71	120.20
26	1H	1707	G	C8-N9-C4	-5.01	104.39	106.40
26	1H	1795	C	N1-C2-O2	-5.01	115.89	118.90
26	14	1805	U	C2-N3-C4	-5.01	123.99	127.00
26	14	2233	U	OP2-P-O3'	5.01	116.23	105.20
1	13	108	G	N1-C2-N3	-5.01	120.89	123.90
26	1H	409	C	C5-C4-N4	-5.01	116.69	120.20
26	1H	2680	C	C5-C4-N4	5.01	123.71	120.20
26	14	1923	U	C6-N1-C2	-5.01	117.99	121.00
29	19	111	LEU	CA-CB-CG	5.01	126.83	115.30
1	13	502	G	C5-C6-O6	-5.01	125.59	128.60
1	13	580	U	C2-N3-C4	-5.01	123.99	127.00
1	13	739	C	N3-C2-O2	5.01	125.41	121.90
1	13	1027	C	N3-C4-C5	-5.01	119.89	121.90
22	1K	9	A	C5-C6-N6	-5.01	119.69	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	250	G	N1-C2-N3	5.01	126.91	123.90
26	1H	1639	U	OP1-P-OP2	-5.01	112.08	119.60
26	1H	1765	C	C5-C4-N4	5.01	123.71	120.20
26	1H	1819	A	OP1-P-OP2	5.01	127.12	119.60
26	1H	1969	A	C5-C6-N1	-5.01	115.19	117.70
26	1H	2218	G	N1-C6-O6	5.01	122.91	119.90
26	1H	2257	U	N1-C2-O2	5.01	126.31	122.80
1	1G	569	C	C5-C6-N1	5.01	123.51	121.00
26	14	148	C	N3-C2-O2	5.01	125.41	121.90
26	14	2046	G	O5'-P-OP2	-5.01	101.19	105.70
1	13	400	C	N3-C2-O2	5.01	125.41	121.90
1	13	877	C	N3-C4-C5	-5.01	119.90	121.90
1	13	1493	A	C4-C5-C6	5.01	119.50	117.00
26	1H	251	A	C4-C5-C6	5.01	119.50	117.00
26	1H	563	G	C8-N9-C4	5.01	108.40	106.40
26	1H	1337	G	N3-C2-N2	5.01	123.41	119.90
22	1L	19	G	N3-C4-C5	-5.01	126.09	128.60
26	14	806	C	N1-C2-O2	5.01	121.91	118.90
26	14	809	G	C6-N1-C2	-5.01	122.09	125.10
26	14	1198	U	N3-C2-O2	-5.01	118.69	122.20
26	14	1824	G	OP2-P-O3'	5.01	116.22	105.20
26	14	2680	C	O5'-P-OP2	-5.01	101.19	105.70
1	13	21	G	C5-C6-N1	-5.01	109.00	111.50
1	13	1332	A	OP2-P-O3'	5.01	116.22	105.20
26	1H	591	C	C2-N3-C4	-5.01	117.40	119.90
26	1H	2048	G	C4-C5-N7	-5.01	108.80	110.80
26	1H	2375	G	N9-C1'-C2'	-5.01	106.49	112.00
1	1G	416	G	C4-N9-C1'	5.01	133.01	126.50
26	14	529	A	N1-C6-N6	5.01	121.61	118.60
1	13	1301	U	OP1-P-O3'	5.01	116.21	105.20
1	13	1512	U	C5-C6-N1	-5.01	120.20	122.70
26	1H	1170	G	C8-N9-C4	-5.01	104.40	106.40
26	1H	1695	G	N1-C2-N2	-5.01	111.69	116.20
26	1H	1785	A	N1-C2-N3	5.01	131.80	129.30
42	C8	12	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	1G	511	C	P-O3'-C3'	5.01	125.71	119.70
26	14	898	C	N3-C4-C5	5.01	123.90	121.90
26	14	1610	A	OP1-P-O3'	5.01	116.22	105.20
26	14	1761	C	OP1-P-OP2	5.01	127.11	119.60
26	14	2432	A	N1-C6-N6	5.01	121.60	118.60
26	1H	1303	G	O5'-P-OP2	-5.00	101.19	105.70
26	1H	1834	U	C5-C4-O4	5.00	128.90	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2684	U	C5-C4-O4	5.00	128.90	125.90
26	14	184	C	C6-N1-C2	5.00	122.30	120.30
26	14	2360	A	C2-N3-C4	-5.00	108.10	110.60
24	3K	2	G	N7-C8-N9	5.00	115.60	113.10
26	1H	220	G	C8-N9-C4	-5.00	104.40	106.40
26	1H	234	C	C6-N1-C2	5.00	122.30	120.30
26	1H	1937	A	C6-N1-C2	-5.00	115.60	118.60
26	1H	2460	U	C5-C6-N1	-5.00	120.20	122.70
26	1H	2564	A	C4-C5-N7	-5.00	108.20	110.70
33	51	98	LEU	CA-CB-CG	5.00	126.81	115.30
35	58	90	MET	CA-CB-CG	5.00	121.81	113.30
1	1G	480	U	C5-C6-N1	-5.00	120.20	122.70
26	14	706	A	N1-C2-N3	5.00	131.80	129.30
26	14	921	G	OP1-P-O3'	5.00	116.21	105.20
26	14	2428	G	C5-C6-O6	5.00	131.60	128.60
53	J5	51	TYR	CB-CG-CD1	5.00	124.00	121.00
26	1H	148	C	C4-C5-C6	5.00	119.90	117.40
26	1H	196	A	OP1-P-OP2	5.00	127.10	119.60
26	1H	1999	C	C2-N3-C4	-5.00	117.40	119.90
26	1H	2137	C	C2-N1-C1'	5.00	124.30	118.80
26	1H	2419	U	N3-C4-O4	5.00	122.90	119.40
26	1H	2538	C	OP1-P-OP2	5.00	127.10	119.60
26	1H	2655	G	O4'-C1'-N9	5.00	112.20	108.20
1	1G	898	G	N1-C2-N3	5.00	126.90	123.90
22	1L	65	C	C5-C6-N1	5.00	123.50	121.00
26	14	171	G	N3-C2-N2	5.00	123.40	119.90
26	14	764	A	C6-N1-C2	5.00	121.60	118.60
26	14	1453	A	C5-C6-N1	5.00	120.20	117.70
26	14	1828	G	C8-N9-C4	-5.00	104.40	106.40
26	14	2818	G	C4-C5-N7	5.00	112.80	110.80

There are no chirality outliers.

All (191) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	122	ASP	Peptide
29	11	197	GLY	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
29	11	27	THR	Peptide

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Mol	Chain	Res	Type	Group
29	11	29	PRO	Peptide
2	12	12	GLU	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	221	LEU	Peptide
2	12	44	LEU	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	28	GLU	Peptide
29	19	43	ARG	Peptide
10	1A	55	LYS	Peptide
10	1A	60	ARG	Peptide
2	1E	12	GLU	Peptide
2	1E	15	VAL	Peptide
2	1E	194	PRO	Peptide
2	1E	237	ALA	Peptide
2	1E	9	GLU	Peptide
30	21	1	MET	Peptide
30	21	187	ALA	Peptide
30	21	20	ALA	Peptide
30	21	21	VAL	Peptide
30	21	56	PRO	Peptide
30	21	57	LYS	Peptide
30	21	64	LYS	Peptide
30	21	67	PHE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
30	29	186	GLY	Peptide
30	29	201	THR	Peptide
30	29	202	LYS	Peptide
30	29	61	ARG	Peptide
30	29	88	GLY	Peptide
30	29	89	ASP	Peptide
11	2A	49	GLY	Peptide
31	31	130	ALA	Peptide
31	31	196	LEU	Peptide
4	32	165	MET	Peptide
4	32	29	PRO	Peptide
4	32	81	GLU	Peptide
4	32	83	SER	Peptide
4	32	84	LYS	Peptide

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Mol	Chain	Res	Type	Group
4	32	85	LYS	Peptide
37	35	110	TYR	Peptide
37	35	18	ARG	Peptide
37	35	36	LYS	Peptide
37	35	70	GLN	Peptide
31	39	12	LEU	Peptide
31	39	127	GLU	Peptide
31	39	15	SER	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	82	ILE	Peptide
31	39	89	VAL	Peptide
4	3E	151	LYS	Peptide
4	3E	82	ALA	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
5	42	23	GLY	Peptide
38	45	134	ARG	Peptide
38	45	135	ASP	Peptide
38	45	58	PHE	Peptide
38	45	80	GLU	Peptide
38	45	86	GLY	Peptide
38	45	87	LYS	Peptide
32	49	117	PHE	Peptide
32	49	13	GLU	Peptide
32	49	142	PRO	Peptide
13	4A	100	GLY	Peptide
13	4A	11	ARG	Peptide
13	4A	115	LYS	Peptide
13	4A	83	ASP	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
33	51	12	PRO	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	3	ARG	Peptide
33	51	91	GLY	Peptide
39	55	106	GLY	Peptide

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Mol	Chain	Res	Type	Group
35	58	6	PRO	Peptide
33	59	150	ALA	Peptide
33	59	155	SER	Peptide
33	59	159	GLU	Peptide
33	59	171	LEU	Peptide
33	59	52	VAL	Peptide
14	5A	27	CYS	Peptide
14	5I	3	ARG	Peptide
34	61	11	ASN	Peptide
34	61	114	LEU	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
7	62	87	VAL	Peptide
40	65	55	ALA	Peptide
40	65	59	LYS	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	75	LEU	Peptide
28	71	178	ALA	Peptide
28	71	180	PHE	Peptide
28	71	218	MET	Peptide
8	72	74	PRO	Peptide
41	75	12	SER	Peptide
37	78	11	GLY	Peptide
37	78	115	LEU	Peptide
37	78	13	ASN	Peptide
37	78	19	VAL	Peptide
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
42	85	99	ALA	Peptide
38	88	21	THR	Peptide
38	88	24	GLY	Peptide
38	88	58	PHE	Peptide
43	95	44	LYS	Peptide
43	95	49	THR	Peptide
43	95	52	VAL	Peptide

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Mol	Chain	Res	Type	Group
39	98	2	ARG	Peptide
39	98	44	LEU	Peptide
44	A5	43	GLY	Peptide
40	A8	110	LEU	Peptide
19	AA	12	ASP	Peptide
19	AA	13	ASP	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
20	BI	12	ALA	Peptide
20	BI	96	GLY	Peptide
46	C5	39	VAL	Peptide
46	C5	50	ARG	Peptide
46	C5	81	LYS	Peptide
46	C5	91	GLU	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide
42	C8	96	ALA	Peptide
47	D5	159	PRO	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
49	F5	85	LEU	Peptide
45	F8	2	LYS	Peptide
45	F8	24	GLY	Peptide
45	F8	3	THR	Peptide
50	G5	17	SER	Peptide
50	G5	42	GLY	Peptide
50	G5	43	GLN	Peptide
46	G8	101	LYS	Peptide
46	G8	104	GLY	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	80	GLY	Peptide
46	G8	84	ARG	Peptide
46	G8	94	LYS	Peptide

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Mol	Chain	Res	Type	Group
47	H8	164	ALA	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
50	K8	15	LYS	Peptide
50	K8	17	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
52	M8	35	VAL	Peptide
52	M8	38	LYS	Peptide
52	M8	39	CYS	Peptide
52	M8	40	HIS	Peptide
54	P8	45	ALA	Peptide
55	Q8	49	VAL	Peptide
55	Q8	52	LYS	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	901	0
1	1G	32391	0	16353	955	1
2	12	1721	0	1758	123	0
2	1E	1874	0	1926	124	0
3	22	1541	0	1606	89	0
3	2E	1605	0	1668	68	0
4	32	1702	0	1765	145	0
4	3E	1698	0	1760	124	0
5	42	1134	0	1200	78	0
5	4E	1142	0	1204	67	0
6	52	842	0	857	29	0
6	5E	837	0	852	43	0
7	62	1110	0	1163	63	0
7	6E	1242	0	1286	49	0
8	72	1107	0	1165	63	0
8	7E	1115	0	1177	71	0
9	82	953	0	983	91	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	8E	1000	0	1031	64	0
10	1A	646	0	662	42	0
10	1I	734	0	761	48	0
11	2A	835	0	847	36	0
11	2I	823	0	833	42	0
12	3A	956	0	1046	70	0
12	3I	956	0	1046	49	0
13	4A	893	0	946	71	0
13	4I	942	0	997	66	0
14	5A	486	0	525	50	0
14	5I	491	0	529	31	0
15	6A	729	0	768	29	0
15	6I	729	0	768	40	0
16	7A	705	0	725	44	0
16	7I	700	0	720	53	0
17	8A	823	0	891	39	0
17	8I	834	0	904	55	0
18	9A	544	0	605	22	0
18	9I	549	0	607	29	0
19	AA	481	0	468	45	0
19	AI	658	0	678	51	0
20	BA	762	0	861	44	0
20	BI	746	0	843	60	0
21	1B	188	0	195	11	0
21	1F	199	0	208	15	0
22	1K	1477	0	758	51	0
22	1L	1563	0	799	55	0
23	2K	1646	0	844	33	0
23	2L	1646	0	844	58	0
24	3K	1611	0	817	79	0
24	3L	1611	0	817	54	0
25	4K	439	0	219	11	0
25	4L	395	0	196	12	0
26	14	61630	0	31073	1520	1
26	1H	61028	0	30758	1551	0
27	16	2617	0	1328	65	0
27	1J	2617	0	1328	87	0
28	71	1033	0	1048	76	0
28	79	456	0	460	51	0
29	11	2120	0	2197	142	0
29	19	2125	0	2199	130	0
30	21	1558	0	1623	113	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	29	1563	0	1629	130	0
31	31	1585	0	1632	103	0
31	39	1602	0	1649	134	0
32	41	1457	0	1514	106	0
32	49	1458	0	1515	81	0
33	51	1312	0	1384	72	0
33	59	539	0	563	38	0
34	61	1136	0	1223	58	0
34	69	1131	0	1218	60	0
35	15	1104	0	1180	40	0
35	58	1104	0	1180	69	0
36	25	932	0	996	44	0
36	68	932	0	996	42	0
37	35	1122	0	1206	96	0
37	78	1122	0	1206	105	0
38	45	1099	0	1154	88	0
38	88	1113	0	1157	60	0
39	55	967	0	1033	65	0
39	98	967	0	1033	54	0
40	65	876	0	938	76	0
40	A8	881	0	943	58	0
41	75	1109	0	1170	64	0
41	B8	1101	0	1158	61	0
42	85	959	0	1019	64	0
42	C8	950	0	1011	65	0
43	95	774	0	849	64	0
43	D8	774	0	849	56	0
44	A5	886	0	948	31	0
44	E8	890	0	951	30	0
45	B5	735	0	785	37	0
45	F8	743	0	794	32	0
46	C5	799	0	888	67	0
46	G8	796	0	886	60	0
47	D5	1074	0	1087	75	0
47	H8	1373	0	1402	79	0
48	E5	608	0	622	33	0
48	I8	606	0	625	29	0
49	F5	737	0	813	52	0
49	J8	737	0	813	29	0
50	G5	568	0	614	43	0
50	K8	568	0	614	39	0
51	H5	459	0	512	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	L8	459	0	512	13	0
52	M8	366	0	370	51	0
53	J5	434	0	454	23	0
53	N8	369	0	388	24	0
54	L5	401	0	436	21	0
54	P8	401	0	436	21	0
55	M5	516	0	582	35	0
55	Q8	516	0	582	39	0
56	13	131	0	0	0	0
56	14	382	0	0	0	0
56	16	11	0	0	0	0
56	1G	81	0	0	0	0
56	1H	429	0	0	0	0
56	1J	5	0	0	0	0
56	1K	1	0	0	0	0
56	21	2	0	0	0	0
56	29	1	0	0	0	0
56	2K	3	0	0	0	0
56	2L	3	0	0	0	0
56	35	1	0	0	0	0
56	39	1	0	0	0	0
56	3E	1	0	0	0	0
56	3I	1	0	0	0	0
56	3K	1	0	0	0	0
56	41	1	0	0	0	0
56	45	3	0	0	0	0
56	4K	1	0	0	0	0
56	5E	1	0	0	0	0
56	5I	1	0	0	0	0
56	78	1	0	0	0	0
56	85	1	0	0	0	0
56	88	2	0	0	0	0
56	C5	1	0	0	0	0
56	E5	1	0	0	0	0
56	I8	3	0	0	0	0
56	L8	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	13	42	0	45	3	0
57	1G	42	0	45	2	0
58	32	8	0	0	3	0
58	3E	8	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	5A	1	0	0	0	0
59	5I	1	0	0	0	0
59	C5	1	0	0	0	0
59	G8	1	0	0	0	0
60	11	10	0	0	3	0
60	13	144	0	0	15	0
60	14	367	0	0	32	0
60	16	22	0	0	1	0
60	19	8	0	0	0	0
60	1G	68	0	0	4	0
60	1H	540	0	0	71	0
60	1I	2	0	0	0	0
60	1J	12	0	0	3	0
60	29	2	0	0	1	0
60	31	7	0	0	0	0
60	32	2	0	0	0	0
60	35	2	0	0	0	0
60	39	3	0	0	1	0
60	3E	2	0	0	1	0
60	3K	1	0	0	0	0
60	4K	3	0	0	1	0
60	55	2	0	0	2	0
60	58	2	0	0	0	0
60	5I	2	0	0	0	0
60	6I	1	0	0	0	0
60	78	4	0	0	1	0
60	7I	1	0	0	0	0
60	98	1	0	0	1	0
60	BI	1	0	0	0	0
60	G8	1	0	0	0	0
60	H5	1	0	0	0	0
60	I8	2	0	0	0	0
60	L5	1	0	0	0	0
60	L8	3	0	0	1	0
60	P8	1	0	0	0	0
All	All	294257	0	196338	9801	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (9801) 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)
31:39:38:ARG:NH2	31:39:99:TYR:CE1	1.96	1.30
26:1H:943:U:OP2	37:78:36:LYS:NZ	1.64	1.30
44:E8:92:ARG:NH1	44:E8:94:ASP:OD1	1.71	1.22
35:58:49:GLY:O	35:58:119:ARG:NH1	1.77	1.16
29:11:183:ARG:NH1	29:11:269:PHE:HB2	1.61	1.15
31:39:38:ARG:NH2	31:39:99:TYR:HE1	1.35	1.12
31:39:38:ARG:NE	31:39:99:TYR:OH	1.80	1.12
26:14:606:U:OP1	31:39:104:LYS:HD3	1.50	1.08
26:14:606:U:OP2	31:39:104:LYS:HE2	1.51	1.07
37:78:49:ARG:NH1	55:Q8:61:LEU:CD2	2.17	1.07
12:3A:41:ARG:HH22	12:3A:57:LYS:HE2	0.91	1.07
47:D5:53:ILE:HG22	47:D5:71:VAL:HG23	1.38	1.06
29:19:262:ARG:HD3	29:19:262:ARG:H	1.14	1.06
32:49:59:GLU:OE1	32:49:153:ARG:NH2	1.90	1.05
26:1H:1359:A:N1	26:1H:1372:U:N3	2.05	1.04
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.35	1.04
10:1I:64:GLU:OE1	14:5I:59:ALA:HB2	1.57	1.03
27:16:44:G:OP1	52:M8:1:MET:SD	2.16	1.03
50:K8:4:SER:HB2	50:K8:7:ARG:HG2	1.38	1.01
12:3A:41:ARG:NH2	12:3A:57:LYS:HE2	1.74	1.01
12:3A:39:VAL:HG11	12:3A:41:ARG:NH2	1.74	1.00
43:95:85:LYS:HG3	43:95:87:HIS:H	1.26	1.00
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.25	1.00
27:16:44:G:OP1	52:M8:1:MET:CE	2.10	0.99
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.27	0.99
1:13:1502:A:H2	1:13:1505:G:H1	1.09	0.99
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.45	0.99
26:14:1757:U:H3	26:14:1762:A:H2	1.11	0.98
32:49:34:LEU:C	32:49:35:GLU:OE2	2.01	0.98
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.42	0.98
26:1H:862:G:OP2	60:1H:3502:HOH:O	1.79	0.97
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	1.97	0.96
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.44	0.96
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.47	0.96
51:L8:10:LYS:NZ	60:L8:201:HOH:O	1.97	0.96
26:14:602:G:N2	26:14:655:A:N7	2.12	0.96
29:11:182:LEU:H	29:11:272:ALA:HB3	1.30	0.96
26:14:606:U:P	31:39:104:LYS:HD3	2.06	0.95
55:M5:48:PHE:HB2	55:M5:49:VAL:HG22	1.45	0.95
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.31	0.95
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.47	0.95
2:12:220:ASP:HB2	2:12:224:GLN:HG3	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:171:LEU:HD13	33:59:172:LYS:H	1.29	0.95
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.48	0.95
28:79:49:ILE:HG21	28:79:204:ALA:HB1	1.48	0.95
26:1H:2714:G:OP2	60:1H:3501:HOH:O	1.84	0.95
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.31	0.95
47:D5:53:ILE:HG13	47:D5:54:HIS:HD2	1.32	0.95
5:42:24:ARG:NH2	25:4L:23:A:N7	2.14	0.94
26:1H:2032:G:H21	30:21:146:THR:HG23	1.30	0.94
26:1H:442:G:H1'	31:31:48:THR:HG21	1.48	0.94
26:1H:1899:G:N2	26:1H:1902:C:H41	1.65	0.94
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.01	0.94
26:1H:2502:G:OP2	60:1H:3503:HOH:O	1.84	0.94
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.01	0.94
19:AI:18:LYS:NZ	19:AI:22:LEU:HD13	1.81	0.94
26:1H:2308:G:H1	26:1H:2311:A:H2	1.11	0.94
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.50	0.94
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.48	0.94
3:2E:123:GLN:HE22	3:2E:136:GLN:HE21	1.16	0.93
26:1H:2469:A:H2	26:1H:2481:G:H21	1.05	0.93
24:3L:18:G:H1	24:3L:55:U:HO2'	1.05	0.93
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.02	0.93
1:13:1305:G:N2	1:13:1331:G:H2'	1.83	0.93
2:12:11:LEU:HG	2:12:217:ARG:HH22	1.30	0.93
37:35:52:GLU:N	37:35:52:GLU:OE2	2.02	0.93
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.50	0.93
26:1H:620:G:H4'	26:1H:621:A:H5''	1.49	0.92
38:45:25:ASP:HB3	38:45:102:VAL:H	1.34	0.92
22:1L:1:G:H1	22:1L:72:C:H42	1.17	0.92
19:AI:18:LYS:NZ	19:AI:18:LYS:O	2.02	0.92
29:11:183:ARG:HH12	29:11:269:PHE:HB2	1.30	0.92
22:1K:76:A:H8	26:1H:2583:G:H21	1.17	0.92
26:14:1899:G:H22	26:14:1902:C:H41	1.14	0.91
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.52	0.91
46:C5:50:ARG:HB3	46:C5:53:PRO:HD3	1.50	0.91
10:II:64:GLU:OE1	14:5I:59:ALA:CB	2.17	0.91
1:1G:1348:U:H3	1:1G:1374:A:H2	1.18	0.91
39:98:33:ARG:HG3	39:98:115:GLU:HB3	1.51	0.91
44:E8:92:ARG:HH12	44:E8:94:ASP:CG	1.72	0.91
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.04	0.90
23:2L:50:G:H1	23:2L:66:C:H42	1.16	0.90
38:88:139:GLU:HG3	47:H8:122:ARG:HH12	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:38:ASP:HB3	28:71:177:LYS:HD3	1.53	0.90
26:14:1022:G:O2'	26:14:1023:U:OP2	1.89	0.90
26:14:780:G:H21	26:14:783:A:H62	1.16	0.90
26:1H:780:G:H21	26:1H:783:A:H62	1.18	0.90
27:16:15:A:H5'	27:16:16:G:C8	2.07	0.90
4:3E:86:LYS:HB3	4:3E:87:GLY:HA3	1.53	0.90
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.33	0.90
40:65:64:GLU:O	40:65:68:GLN:NE2	2.05	0.90
37:78:49:ARG:NH1	55:Q8:61:LEU:HD22	1.87	0.89
1:1G:147:G:H1	1:1G:175:C:H42	1.20	0.89
26:14:662:G:H5'	37:35:15:ARG:HA	1.52	0.89
39:98:103:ARG:NH1	39:98:108:GLY:O	2.05	0.89
26:14:676:A:H8	26:14:2069:G:H21	1.19	0.89
1:1G:998:G:N2	1:1G:1043:C:N3	2.19	0.89
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.55	0.89
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.05	0.89
26:14:974:G:O2'	26:14:975:G:N7	2.04	0.89
26:14:270(Q):C:OP1	34:69:45:LYS:NZ	2.05	0.89
26:1H:1899:G:H22	26:1H:1902:C:H41	0.90	0.89
26:14:275:G:N2	26:14:276:A:N7	2.21	0.88
26:14:141:A:H8	26:14:1595:G:H21	1.18	0.88
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.56	0.88
46:G8:85:VAL:HG23	46:G8:96:ILE:HG13	1.54	0.88
27:16:80:U:H2'	27:16:81:G:H21	1.38	0.88
24:3L:27:G:H22	24:3L:44:U:H3	1.21	0.88
33:51:30:LYS:HE2	33:51:81:GLU:H	1.38	0.88
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.05	0.88
32:49:151:ALA:H	32:49:153:ARG:HH12	1.21	0.88
1:13:664:G:H22	1:13:741:G:H1	1.20	0.88
4:32:18:LYS:NZ	58:32:301:SF4:S4	2.47	0.88
26:1H:676:A:H8	26:1H:2069:G:H21	1.22	0.88
47:H8:77:ASP:OD2	47:H8:80:ARG:NH1	2.05	0.88
2:12:18:GLY:O	2:12:19:HIS:ND1	2.06	0.88
26:1H:1899:G:H22	26:1H:1902:C:N4	1.71	0.88
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.53	0.88
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.08	0.88
39:55:3:HIS:NE2	60:55:201:HOH:O	2.06	0.88
9:82:53:VAL:HG13	9:82:95:LYS:HZ2	1.39	0.88
26:1H:733:G:OP2	60:1H:3504:HOH:O	1.92	0.87
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.07	0.87
28:71:177:LYS:HE3	28:71:179:SER:H	1.39	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.57	0.87
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.38	0.87
1:1G:1047:G:H1	1:1G:1210:C:H42	1.21	0.87
4:32:82:ALA:HA	4:32:85:LYS:HB2	1.57	0.87
43:D8:35:LEU:HB3	43:D8:57:VAL:HG13	1.56	0.87
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.07	0.87
5:4E:11:ILE:HG13	5:4E:31:LEU:HB3	1.56	0.86
1:13:1286:A:H2'	1:13:1287:A:H4'	1.55	0.86
26:14:2836:U:H2'	26:14:2837:G:C8	2.10	0.86
26:14:606:U:OP2	31:39:104:LYS:CE	2.23	0.86
1:13:143:A:H5''	1:13:144:G:H5'	1.56	0.86
26:1H:2312:U:H5'	32:41:88:ILE:HD13	1.58	0.86
26:14:511:U:H3'	26:14:512:G:H5''	1.54	0.86
26:1H:452:G:OP2	60:1H:3505:HOH:O	1.92	0.86
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.57	0.86
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.57	0.86
1:13:619:U:H3	4:3E:134:ASP:HB2	1.40	0.86
26:14:945:A:N3	60:14:3409:HOH:O	2.09	0.86
2:1E:80:ILE:HG12	2:1E:212:GLN:HB2	1.57	0.86
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.56	0.86
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.41	0.86
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.08	0.86
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.41	0.86
47:H8:105:VAL:HG13	47:H8:140:ASP:HB3	1.57	0.86
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.58	0.85
37:78:49:ARG:HH11	55:Q8:61:LEU:HD21	1.38	0.85
4:32:3:ARG:HE	4:32:118:ARG:NE	1.74	0.85
26:14:1899:G:H22	26:14:1902:C:N4	1.74	0.85
31:39:38:ARG:HE	31:39:99:TYR:HH	1.20	0.85
39:55:33:ARG:NH1	39:55:115:GLU:OE2	2.08	0.85
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.58	0.85
9:8E:47:LEU:HD12	9:8E:50:LEU:HD12	1.58	0.85
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.39	0.85
41:B8:3:ARG:HB2	41:B8:6:LEU:HB2	1.57	0.85
1:1G:108:G:OP1	1:1G:326:G:N2	2.10	0.85
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.59	0.85
26:14:938:G:OP2	55:M5:52:LYS:NZ	2.10	0.85
1:1G:1441:G:H5''	1:1G:1442:G:H5'	1.56	0.85
1:1G:926:G:N2	25:4L:15:A:OP2	2.08	0.85
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.59	0.85
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.22	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:6:VAL:HB	31:39:124:LEU:HA	1.59	0.84
26:1H:1534:G:N1	26:1H:1539:G:N3	2.24	0.84
31:39:25:PRO:HB2	31:39:27:GLU:H	1.41	0.84
40:65:12:PHE:O	40:65:16:ASN:ND2	2.10	0.84
8:7E:82:HIS:CE1	8:7E:138:TRP:CE2	2.65	0.84
37:78:39:LYS:HA	37:78:45:LEU:CD1	2.06	0.84
43:95:37:VAL:HG21	43:95:57:VAL:HG22	1.58	0.84
26:14:843:G:H1	26:14:935:C:H42	1.24	0.84
1:1G:961:U:O2	1:1G:1201:A:N6	2.11	0.84
52:M8:37:SER:OG	52:M8:42:PHE:CD1	2.28	0.84
10:1I:75:ILE:HD12	10:1I:76:ASN:H	1.41	0.84
4:32:23:GLY:N	4:32:26:CYS:SG	2.50	0.84
26:1H:1675:C:OP2	60:1H:3508:HOH:O	1.95	0.84
22:1K:25:C:N4	22:1K:26:A:N3	2.26	0.84
18:9A:53:ARG:HG3	18:9A:63:GLN:HE21	1.40	0.84
47:D5:91:LEU:HD13	47:D5:130:PRO:HG3	1.60	0.84
26:14:879:G:O2'	26:14:898:C:N4	2.11	0.84
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.58	0.84
26:1H:910:A:N7	38:88:13:GLN:HG3	1.92	0.83
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.59	0.83
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.60	0.83
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.60	0.83
30:29:81:ILE:HG22	30:29:82:ARG:H	1.43	0.83
1:13:1028(B):C:O2	1:13:1032:A:N6	2.11	0.83
26:14:71:A:H3'	26:14:71:A:OP2	1.77	0.83
22:1K:7:U:O4	22:1K:66:A:N6	2.11	0.83
47:H8:9:TYR:HE2	47:H8:35:ARG:HH11	1.23	0.83
53:N8:41:PRO:O	53:N8:44:THR:OG1	1.96	0.83
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.51	0.83
29:19:182:LEU:H	29:19:272:ALA:HB3	1.42	0.83
10:1A:17:ASP:OD1	10:1A:70:ARG:NH1	2.11	0.83
26:1H:761:A:OP1	60:1H:3509:HOH:O	1.96	0.83
32:49:35:GLU:OE2	32:49:35:GLU:N	2.11	0.83
26:14:2012:G:H4'	44:A5:96:ILE:HD11	1.59	0.83
10:1I:24:VAL:O	10:1I:28:ARG:N	2.11	0.83
1:13:837:G:OP2	1:13:842:C:N4	2.10	0.83
2:12:130:ARG:O	2:12:135:GLN:NE2	2.12	0.82
1:1G:838:G:N2	1:1G:848:C:N3	2.26	0.82
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.59	0.82
1:13:812:C:N3	60:13:1805:HOH:O	2.12	0.82
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.14	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:52:G:N2	22:1K:62:C:N3	2.26	0.82
4:32:157:LEU:O	4:32:161:ASN:ND2	2.12	0.82
26:14:2380:C:P	40:65:20:ARG:HH12	2.01	0.82
24:3K:8:U:N3	24:3K:15:G:O6	2.13	0.82
26:14:2379:G:O3'	40:65:20:ARG:NH1	2.12	0.82
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.61	0.82
1:1G:54:C:N4	1:1G:353:A:OP2	2.12	0.82
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.12	0.82
14:5A:29:ARG:HG3	14:5A:31:ARG:H	1.43	0.82
26:14:34:C:HO2'	26:14:35:G:H8	1.27	0.82
28:79:43:VAL:HG22	28:79:224:ILE:HD13	1.62	0.82
50:G5:47:ASN:O	50:G5:49:LYS:N	2.12	0.82
26:1H:780:G:H21	26:1H:783:A:N6	1.77	0.82
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.43	0.82
26:14:1899:G:N2	26:14:1902:C:H41	1.78	0.81
26:14:2176:A:O2'	28:79:44:HIS:ND1	2.11	0.81
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.45	0.81
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.27	0.81
1:1G:1070:U:OP1	5:42:25:ARG:NH1	2.12	0.81
26:14:2140:C:O2	26:14:2151:G:N2	2.13	0.81
26:1H:900:A:H3'	26:1H:901:A:H8	1.45	0.81
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.60	0.81
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.21	0.81
26:14:2649:U:H3	26:14:2671:A:H61	1.25	0.81
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.13	0.81
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.13	0.81
26:14:2392:A:H2	26:14:2424:C:H42	1.28	0.81
1:1G:474:G:H2'	1:1G:475:G:C8	2.16	0.81
27:1J:80:U:H2'	27:1J:81:G:H21	1.44	0.81
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.60	0.81
1:13:1455:G:H5''	20:BI:31:SER:HB2	1.62	0.81
31:39:4:VAL:HA	31:39:19:GLU:HB3	1.61	0.81
37:78:39:LYS:HA	37:78:45:LEU:HD13	1.61	0.81
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.13	0.81
26:1H:1639:U:OP1	60:1H:3510:HOH:O	1.97	0.81
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.13	0.81
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.44	0.81
46:C5:28:LYS:O	46:C5:38:ILE:HG13	1.80	0.81
26:14:1022:G:H22	26:14:1142(A):A:H2	1.27	0.81
26:1H:2588:G:OP1	60:1H:3511:HOH:O	1.99	0.81
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.63	0.81
8:7E:109:ILE:HG23	8:7E:137:VAL:HG23	1.60	0.81
26:14:1037:G:N2	26:14:1118:C:O2	2.14	0.81
26:14:1048:A:N6	26:14:1112:G:O2'	2.13	0.81
2:1E:211:ILE:HA	2:1E:214:ILE:HD12	1.61	0.81
26:1H:1021:A:H62	26:1H:1141:U:H3	1.28	0.81
30:29:35:GLN:NE2	30:29:37:ARG:NH2	2.28	0.81
26:14:751:A:H5'	44:A5:90:ARG:HA	1.62	0.80
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.62	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.14	0.80
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.30	0.80
22:1L:2:G:N2	22:1L:71:C:N3	2.29	0.80
37:78:49:ARG:NH1	55:Q8:61:LEU:HD21	1.93	0.80
5:42:137:GLU:O	5:42:141:GLN:HG2	1.82	0.80
7:62:116:ALA:HA	7:62:119:ARG:HE	1.45	0.80
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.46	0.80
27:16:44:G:P	52:M8:1:MET:SD	2.80	0.80
26:14:1532:C:H42	26:14:1539:G:H1	1.28	0.80
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.64	0.80
23:2L:8:4SU:O2	23:2L:14:A:N6	2.13	0.80
12:3A:41:ARG:HH22	12:3A:57:LYS:CE	1.85	0.80
26:14:1315:C:OP2	60:14:3402:HOH:O	2.00	0.80
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.14	0.80
26:1H:1578:U:OP2	60:1H:3512:HOH:O	1.99	0.80
44:A5:20:VAL:HA	44:A5:23:LEU:HD23	1.62	0.80
26:14:1041:C:O2	26:14:1114:G:N2	2.14	0.80
26:14:249:C:OP1	60:14:3401:HOH:O	1.98	0.80
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.15	0.80
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.64	0.80
2:1E:209:ARG:HH22	2:1E:239:VAL:HG22	1.47	0.80
26:1H:1299:G:N7	60:1H:3532:HOH:O	2.14	0.80
27:1J:73:A:OP2	60:1J:301:HOH:O	2.00	0.79
26:14:2380:C:P	40:65:20:ARG:NH1	2.55	0.79
40:A8:78:LEU:HD11	40:A8:108:GLY:HA3	1.64	0.79
46:C5:76:CYS:HB3	46:C5:97:ARG:HE	1.46	0.79
26:1H:2169:A:N7	26:1H:2170:A:N6	2.30	0.79
30:29:54:GLN:NE2	30:29:72:VAL:O	2.16	0.79
37:35:81:GLN:HG2	37:35:106:LEU:HA	1.63	0.79
1:1G:1120:G:O6	1:1G:1152:A:N6	2.16	0.79
26:1H:1050:A:H2'	26:1H:1051:G:H8	1.47	0.79
26:1H:141:A:H8	26:1H:1595:G:H21	1.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:47:LEU:O	3:22:51:GLY:N	2.15	0.79
28:79:52:ARG:NH1	28:79:52:ARG:O	2.15	0.79
9:82:121:ARG:NH1	9:82:122:ALA:O	2.15	0.79
1:13:1346:A:H5''	9:8E:120:ARG:NH1	1.97	0.79
26:1H:1533:C:H2'	26:1H:1534:G:C8	2.17	0.79
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.14	0.79
26:14:1416:G:O2'	26:14:1417:C:O5'	2.01	0.79
1:1G:975:A:H4'	1:1G:976:G:H5''	1.64	0.79
22:1L:5:C:N3	22:1L:68:G:N2	2.29	0.79
8:72:30:ARG:HG3	8:72:31:PHE:H	1.47	0.79
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.64	0.79
26:14:602:G:O2'	26:14:604:G:O2'	2.00	0.79
5:42:79:GLU:OE1	8:72:104:ARG:HA	1.83	0.79
26:14:2315:G:OP1	32:49:36:LYS:NZ	2.15	0.79
32:41:112:PRO:HB3	52:M8:37:SER:H	1.47	0.79
1:13:1028(A):C:N3	1:13:1032(A):G:N2	2.31	0.79
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.65	0.79
8:72:35:ILE:O	8:72:39:LEU:HD13	1.83	0.79
8:72:36:LEU:HA	8:72:39:LEU:HD22	1.63	0.79
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.65	0.79
2:12:105:PHE:HA	2:12:108:ILE:HG22	1.64	0.79
1:13:1448:C:H42	1:13:1455:G:H1	1.30	0.79
24:3K:22:G:N7	24:3K:46:G:N2	2.30	0.79
1:13:573:A:H5'	1:13:573:A:H8	1.48	0.79
29:19:69:ARG:NH2	29:19:128:GLY:O	2.16	0.79
47:D5:10:ARG:NH2	47:D5:26:GLY:O	2.16	0.79
26:1H:642:G:H21	26:1H:646:A:H2	1.31	0.79
3:22:70:VAL:HG12	3:22:72:LYS:H	1.48	0.79
4:3E:31:CYS:HB3	4:3E:34:GLU:HG2	1.65	0.79
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.16	0.79
26:1H:2502:G:OP2	60:1H:3513:HOH:O	2.01	0.78
11:2A:14:VAL:HG12	11:2A:15:ALA:H	1.48	0.78
5:42:100:VAL:HG23	5:42:118:ILE:HG22	1.63	0.78
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.65	0.78
33:51:153:LYS:HB2	33:51:155:SER:H	1.49	0.78
1:1G:957:U:H1'	1:1G:960:U:H5	1.47	0.78
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.48	0.78
53:N8:16:ARG:NH1	53:N8:17:ASP:OD1	2.16	0.78
26:1H:1678:G:N2	26:1H:1989:G:H22	1.81	0.78
30:21:197:ILE:HD11	30:21:199:ARG:HE	1.45	0.78
1:13:445:G:H1	1:13:489:C:H42	1.29	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.64	0.78
29:19:262:ARG:HH11	29:19:262:ARG:N	1.81	0.78
26:1H:674:G:H1'	31:31:74:ARG:HD2	1.64	0.78
6:52:11:ASN:HB3	6:52:14:LEU:HD22	1.66	0.78
2:12:12:GLU:HG2	2:12:15:VAL:HB	1.66	0.78
26:14:2377:A:H4'	40:65:111:GLU:HG3	1.66	0.78
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.47	0.78
26:1H:1635:G:OP1	60:1H:3516:HOH:O	2.02	0.78
26:1H:376:C:OP2	60:1H:3514:HOH:O	2.02	0.78
4:3E:122:ARG:NH1	4:3E:134:ASP:HB3	1.98	0.78
28:79:47:LEU:HD13	28:79:49:ILE:H	1.48	0.78
27:16:12:C:O2	48:I8:74:ARG:NH1	2.13	0.78
26:14:1021:A:H62	26:14:1141:U:H3	1.30	0.78
26:14:1063:G:O6	26:14:1075:C:O2'	2.02	0.78
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.14	0.78
22:1L:9:A:C8	22:1L:45:G:H1'	2.18	0.78
32:49:151:ALA:N	32:49:153:ARG:HH12	1.77	0.78
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.49	0.78
26:1H:1022:G:N2	26:1H:1023:U:O4	2.17	0.78
26:1H:1253:A:N7	60:1H:3506:HOH:O	2.15	0.78
32:41:25:TYR:CD2	32:41:31:VAL:HG12	2.19	0.78
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.65	0.78
2:1E:198:ASP:HA	8:7E:68:ARG:HH12	1.47	0.78
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.17	0.78
26:14:34:C:O2'	26:14:35:G:O5'	2.01	0.77
1:1G:1026:G:O6	1:1G:1036:G:N2	2.17	0.77
24:3K:6:G:N1	24:3K:67:C:O2	2.15	0.77
28:71:214:VAL:HG23	28:71:224:ILE:HD13	1.66	0.77
46:C5:76:CYS:HB3	46:C5:97:ARG:NE	1.99	0.77
50:G5:50:ILE:HD12	50:G5:51:ARG:N	1.99	0.77
1:13:324:G:OP2	60:13:1803:HOH:O	2.02	0.77
26:14:288:C:O2	26:14:353:G:N2	2.18	0.77
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.64	0.77
3:22:42:LEU:HA	3:22:45:LYS:HE3	1.67	0.77
5:4E:15:ARG:HH11	25:4K:25:A:H5'	1.48	0.77
1:13:1015:A:H2'	1:13:1016:A:C8	2.19	0.77
26:14:2306:C:H2'	26:14:2307:G:H21	1.48	0.77
26:1H:1047:G:N2	26:1H:1110:G:O2'	2.16	0.77
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.19	0.77
35:58:96:GLU:O	35:58:98:VAL:N	2.14	0.77
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.50	0.77
1:13:608:A:OP2	60:13:1801:HOH:O	2.01	0.77
1:1G:429:U:H3'	4:32:9:CYS:SG	2.24	0.77
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.50	0.77
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.49	0.77
35:15:56:ASN:H	35:15:125:GLY:HA3	1.47	0.77
38:45:81:VAL:O	38:45:82:ARG:NH1	2.16	0.77
1:13:768:A:OP2	60:13:1802:HOH:O	2.02	0.77
26:1H:1418:G:OP2	60:1H:3515:HOH:O	2.02	0.77
26:1H:563:G:OP2	60:1H:3518:HOH:O	2.03	0.77
8:72:120:THR:HG23	8:72:123:GLU:H	1.49	0.77
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.65	0.77
26:1H:2572:A:C8	30:21:144:ARG:HG2	2.20	0.77
26:1H:942:G:OP2	37:78:39:LYS:NZ	2.18	0.77
3:22:114:PRO:O	3:22:118:GLN:HG2	1.85	0.77
3:22:106:VAL:HB	3:22:109:PRO:HB3	1.66	0.77
28:71:48:GLY:HA3	28:71:208:PHE:HA	1.67	0.77
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.18	0.77
1:1G:142:G:H1	1:1G:221:C:H42	1.33	0.77
23:2K:17:C:OP2	23:2K:18:C:O2'	2.02	0.77
4:3E:122:ARG:NH1	4:3E:134:ASP:O	2.17	0.77
5:42:101:ILE:O	5:42:120:THR:OG1	2.01	0.77
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.65	0.77
26:14:848:G:H2'	26:14:849:A:C8	2.20	0.76
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.50	0.76
1:1G:413:G:H2'	1:1G:428:G:H22	1.50	0.76
26:1H:1016:G:N7	60:1H:3548:HOH:O	2.18	0.76
26:1H:226:G:H21	26:1H:228:A:H2	1.32	0.76
26:1H:2656:U:H3	26:1H:2665:A:H2	1.32	0.76
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.64	0.76
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.66	0.76
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.00	0.76
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.64	0.76
1:13:1128:C:O2'	1:13:1146:A:N1	2.17	0.76
26:14:2808:U:O2	26:14:2892:A:N6	2.19	0.76
1:1G:1347:G:N7	9:82:10:ARG:NH2	2.33	0.76
26:1H:847:U:OP2	60:1H:3517:HOH:O	2.02	0.76
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.66	0.76
26:1H:270(J):G:N2	26:1H:270(P):C:O2	2.17	0.76
37:35:14:LYS:O	37:35:16:ARG:N	2.19	0.76
24:3K:3:G:N2	24:3K:70:C:N3	2.32	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:157:TYR:H	33:51:170:ARG:HA	1.50	0.76
1:13:64:G:O6	1:13:99:C:N4	2.18	0.76
26:14:833:U:O2	37:35:55:ARG:NH1	2.17	0.76
4:3E:187:ARG:NH2	4:3E:193:ASP:OD2	2.18	0.76
26:14:1330:C:OP1	60:14:3405:HOH:O	2.02	0.76
44:A5:18:ARG:HE	44:A5:76:VAL:HG13	1.50	0.76
26:1H:2791:C:N4	26:1H:2805:G:O6	2.18	0.76
27:1J:5:C:H42	27:1J:115:G:H1	1.32	0.76
26:14:1678:G:H22	26:14:1989:G:H22	1.33	0.76
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.84	0.76
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.51	0.76
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.50	0.76
22:1K:9:A:N6	22:1K:22:G:N7	2.33	0.76
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.68	0.76
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.17	0.76
1:13:112:G:OP1	16:7I:27:LYS:HD2	1.86	0.76
26:14:929:G:O6	60:14:3404:HOH:O	2.01	0.76
26:1H:67:U:H3	26:1H:74:A:H2	1.33	0.76
30:29:25:VAL:HG12	30:29:26:ILE:H	1.50	0.76
30:29:54:GLN:H	30:29:74:PRO:HB3	1.51	0.76
47:D5:5:LEU:HD11	47:D5:44:PHE:HA	1.67	0.76
49:F5:91:LYS:HD3	49:F5:92:LYS:N	2.00	0.76
1:1G:458:C:O2	1:1G:474:G:N2	2.19	0.76
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.66	0.76
41:75:26:ASP:OD1	41:75:120:ARG:NH2	2.13	0.76
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.67	0.76
42:85:74:LEU:HD13	42:85:79:PHE:HB2	1.68	0.76
29:11:206:LEU:HD13	29:11:211:ARG:HG2	1.68	0.75
26:14:2098:U:N3	26:14:2191:G:O6	2.12	0.75
26:1H:1040:C:N4	26:1H:1115:G:O6	2.20	0.75
41:75:11:GLU:OE1	41:75:11:GLU:N	2.18	0.75
42:C8:92:ARG:O	42:C8:94:ASN:N	2.19	0.75
1:1G:353:A:H8	1:1G:353:A:H5'	1.49	0.75
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.69	0.75
1:13:410:G:OP1	4:3E:30:LYS:NZ	2.19	0.75
42:85:90:VAL:HA	43:95:39:LEU:HD13	1.68	0.75
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.50	0.75
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.18	0.75
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.18	0.75
39:55:85:PRO:O	39:55:88:ARG:HD2	1.86	0.75
38:88:37:LEU:HD21	38:88:130:LYS:HG2	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:4:SER:CB	50:K8:7:ARG:H	2.00	0.75
26:14:2685:G:O6	60:14:3406:HOH:O	2.03	0.75
30:21:201:THR:HG22	30:21:203:LYS:H	1.50	0.75
24:3L:52:G:N2	24:3L:62:C:O2	2.19	0.75
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.66	0.75
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.69	0.75
38:88:65:PHE:O	38:88:66:ILE:HG13	1.85	0.75
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.67	0.75
2:12:50:GLU:HG3	2:12:201:ILE:HG12	1.67	0.75
1:13:975:A:H4'	1:13:976:G:H5''	1.69	0.75
26:14:1210:A:H5'	26:14:1212:G:H5'	1.68	0.75
26:14:597:U:H2'	26:14:598:G:C8	2.21	0.75
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.51	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.69	0.75
46:G8:43:ASN:O	46:G8:64:GLU:HA	1.87	0.75
26:14:71:A:C8	26:14:71:A:H5'	2.21	0.75
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.19	0.75
1:1G:1133:G:N2	1:1G:1141:C:O2	2.19	0.75
26:1H:309:G:N3	26:1H:329:G:O2'	2.19	0.75
3:2E:107:GLN:N	3:2E:107:GLN:OE1	2.20	0.75
31:39:66:PRO:O	31:39:67:GLN:HB3	1.86	0.75
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.69	0.75
1:1G:1179:A:H4'	9:82:103:THR:HA	1.69	0.75
19:AI:18:LYS:HZ1	19:AI:22:LEU:HD13	1.50	0.75
50:K8:42:GLY:O	50:K8:44:LEU:N	2.20	0.75
26:14:1056:G:O2'	26:14:1087:G:O6	2.05	0.75
1:1G:1368:G:H4'	10:1A:46:ARG:HH22	1.52	0.75
41:B8:102:ILE:HD12	41:B8:102:ILE:H	1.52	0.75
26:14:1332:G:OP1	60:14:3407:HOH:O	2.04	0.75
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.20	0.75
26:14:2415:G:H4'	37:35:67:MET:H	1.52	0.75
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.05	0.75
35:58:129:PRO:O	35:58:134:ARG:NH1	2.19	0.75
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	1.69	0.75
43:D8:44:LYS:O	43:D8:46:VAL:N	2.18	0.75
51:H5:7:LYS:HG3	51:H5:34:GLU:HG2	1.69	0.75
50:K8:47:ASN:O	50:K8:49:LYS:N	2.18	0.75
1:13:200:G:N2	1:13:218:C:O2	2.20	0.74
26:14:1332:G:H5'	26:14:1332:G:C8	2.22	0.74
6:5E:18:GLN:HA	6:5E:21:LEU:HG	1.68	0.74
9:82:27:THR:HG22	9:82:32:ASP:HA	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2079:U:O3'	49:F5:35:THR:OG1	2.05	0.74
4:3E:122:ARG:CZ	4:3E:134:ASP:HB3	2.17	0.74
28:71:16:PRO:HA	28:71:223:ARG:HB2	1.69	0.74
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.67	0.74
30:29:50:GLY:HA2	30:29:78:LEU:HB3	1.69	0.74
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.70	0.74
26:14:1730:U:H3'	26:14:1731:G:H21	1.53	0.74
24:3L:58:A:O2'	24:3L:60:U:OP2	2.05	0.74
26:14:395:U:H2'	26:14:396:G:N7	2.02	0.74
1:1G:1432:G:N1	60:1G:1701:HOH:O	2.19	0.74
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.22	0.74
26:1H:2308:G:N1	26:1H:2311:A:H2	1.86	0.74
36:68:35:VAL:HG11	36:68:103:ALA:HB3	1.68	0.74
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.20	0.74
1:13:396:G:O2'	1:13:398:C:OP1	2.05	0.74
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.23	0.74
3:2E:36:ASP:OD1	3:2E:59:ARG:NH2	2.21	0.74
8:7E:106:GLY:O	8:7E:122:ARG:NH2	2.21	0.74
26:14:198:C:H5'	26:14:2244:U:OP1	1.88	0.74
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.87	0.74
3:22:57:ILE:HG12	3:22:66:VAL:HG22	1.70	0.74
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.69	0.74
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.69	0.74
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.03	0.74
1:13:1391:U:H2'	1:13:1392:G:C8	2.23	0.74
30:29:48:GLN:NE2	30:29:78:LEU:HD13	2.02	0.74
43:95:85:LYS:HG3	43:95:87:HIS:N	2.03	0.74
52:M8:40:HIS:HB2	52:M8:47:GLN:HE22	1.52	0.74
1:13:1305:G:H22	1:13:1331:G:H2'	1.52	0.74
1:13:538:G:H5''	12:3I:114:LYS:HB2	1.70	0.74
1:1G:1239:A:H4'	1:1G:1240:U:H5''	1.69	0.74
1:1G:978:A:O2'	1:1G:1322:C:N3	2.21	0.74
26:1H:2287:A:H62	26:1H:2344:U:H3	1.35	0.74
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.23	0.74
26:1H:945:A:N3	60:1H:3557:HOH:O	2.20	0.74
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.19	0.74
14:5I:3:ARG:O	14:5I:6:LEU:N	2.19	0.74
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.70	0.74
2:12:58:ILE:HG23	2:12:62:ALA:HB3	1.69	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.23	0.74
22:1L:9:A:H3'	22:1L:10:G:C8	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:98:VAL:HG23	13:4I:99:ARG:HG3	1.70	0.74
1:13:1316:G:H4'	14:5I:18:VAL:HG11	1.69	0.74
1:1G:278:G:OP2	17:8A:41:LYS:NZ	2.21	0.73
1:1G:371:G:O2'	1:1G:373:A:N7	2.19	0.73
41:B8:42:ILE:HD12	41:B8:42:ILE:O	1.88	0.73
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.13	0.73
26:14:1496:A:H8	26:14:1577:C:HO2'	1.35	0.73
2:1E:212:GLN:NE2	2:1E:216:SER:OG	2.21	0.73
1:1G:1258:G:H1	1:1G:1277:C:H42	1.36	0.73
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.21	0.73
26:1H:49:A:N7	26:1H:120:U:H5	1.86	0.73
1:1G:1392:G:H21	1:1G:1502:A:H8	1.36	0.73
49:F5:52:ARG:HD2	49:F5:57:GLU:HG3	1.70	0.73
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.21	0.73
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.21	0.73
27:1J:15:A:H1'	27:1J:109:G:C8	2.24	0.73
3:22:6:HIS:CE1	3:22:8:ILE:HB	2.23	0.73
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.70	0.73
42:85:97:ASP:OD1	42:85:98:LEU:N	2.20	0.73
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.53	0.73
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.21	0.73
1:1G:673:G:H2'	1:1G:674:G:C8	2.24	0.73
30:21:82:ARG:O	30:21:84:PHE:N	2.21	0.73
24:3K:11:C:H42	24:3K:24:G:H1	1.35	0.73
40:A8:61:ASN:ND2	40:A8:64:GLU:OE1	2.21	0.73
26:14:1225:C:O3'	43:95:85:LYS:HA	1.88	0.73
2:1E:8:LYS:HG2	2:1E:9:GLU:HG2	1.70	0.73
10:1I:84:GLN:HG3	10:1I:88:LEU:HD13	1.69	0.73
28:71:177:LYS:HG3	28:71:179:SER:HB2	1.70	0.73
41:75:3:ARG:HG2	41:75:6:LEU:H	1.53	0.73
1:13:877:C:H5''	8:7E:88:LYS:HD3	1.70	0.73
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.70	0.73
1:13:1331:G:OP1	1:13:1331:G:H4'	1.87	0.73
26:14:84:A:N6	26:14:102:G:O2'	2.19	0.73
26:14:2032:G:H21	30:29:146:THR:HG23	1.53	0.73
1:1G:614:A:H61	1:1G:626:U:H3	1.33	0.73
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.04	0.73
4:3E:122:ARG:NH2	4:3E:134:ASP:HB3	2.03	0.73
9:82:71:SER:HA	9:82:74:ILE:HD12	1.69	0.73
1:13:1062:U:H2'	1:13:1063:C:C6	2.24	0.73
26:14:2415:G:H4'	37:35:67:MET:N	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.24	0.73
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.21	0.73
29:11:183:ARG:HH11	29:11:269:PHE:HB2	1.51	0.73
1:13:505:G:N7	60:13:1811:HOH:O	2.22	0.73
1:1G:1001:G:H2'	1:1G:1002:G:H8	1.54	0.73
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.21	0.73
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.24	0.73
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.29	0.73
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.70	0.73
4:32:168:ARG:NH1	4:32:169:LYS:O	2.22	0.73
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.88	0.73
26:1H:459:U:H5''	54:P8:40:TRP:CD2	2.23	0.73
55:Q8:33:ASN:OD1	55:Q8:36:LYS:NZ	2.16	0.73
29:11:38:LYS:HD2	29:11:38:LYS:C	2.10	0.72
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.70	0.72
12:3A:27:LEU:HD22	12:3A:60:LEU:HB3	1.71	0.72
45:B5:57:LEU:HD11	45:B5:78:LYS:HE2	1.71	0.72
1:13:1030:C:H2'	1:13:1031:G:C8	2.23	0.72
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.21	0.72
26:1H:55:G:H2'	26:1H:56:A:H8	1.54	0.72
11:2A:27:ASN:HD22	11:2A:55:LYS:HB3	1.54	0.72
28:71:14:VAL:HA	28:71:222:VAL:HG22	1.69	0.72
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.25	0.72
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.22	0.72
1:13:1536:C:N4	25:4K:10:G:O2'	2.22	0.72
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.69	0.72
18:9I:33:ASP:O	18:9I:36:ASN:ND2	2.22	0.72
44:E8:92:ARG:HH22	44:E8:94:ASP:HA	1.55	0.72
2:12:41:ILE:HD12	2:12:42:ILE:HD12	1.70	0.72
1:13:1006:C:O2	1:13:1023:G:N2	2.17	0.72
1:13:1450:U:H3	1:13:1452:C:H5'	1.53	0.72
26:1H:1664:A:OP2	60:1H:3521:HOH:O	2.07	0.72
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.23	0.72
1:13:143:A:H2	1:13:220:G:H1	1.36	0.72
26:1H:1509:C:O2'	26:1H:1510:A:OP1	2.06	0.72
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.70	0.72
26:14:459:U:H5''	54:L5:40:TRP:CD2	2.24	0.72
27:16:15:A:H5'	27:16:16:G:H8	1.55	0.72
1:1G:425:G:O3'	4:32:45:GLN:NE2	2.23	0.72
30:21:116:VAL:O	30:21:117:MET:HB3	1.89	0.72
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1060:U:H4'	26:14:1061:U:H5''	1.72	0.72
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.71	0.72
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.25	0.72
26:1H:1330:C:OP1	60:1H:3519:HOH:O	2.05	0.72
33:59:171:LEU:CD1	33:59:172:LYS:H	2.03	0.72
47:D5:60:GLU:HB2	47:D5:66:SER:HB2	1.72	0.72
1:13:835:U:H3	1:13:851:G:H1	1.36	0.72
26:14:1109:C:H2'	26:14:1110:G:H1'	1.71	0.72
1:1G:1373:G:H5''	7:62:36:LYS:HB2	1.70	0.72
1:1G:762:C:H2'	1:1G:763:G:H8	1.55	0.71
1:1G:980:C:H5'	1:1G:981:U:C5	2.24	0.71
27:1J:18:G:H1	27:1J:65:C:H42	1.37	0.71
26:14:2873:A:H8	39:55:6:SER:H	1.37	0.71
41:75:106:SER:HA	41:75:110:ILE:HD12	1.72	0.71
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.72	0.71
45:B5:1:MET:N	50:G5:29:LYS:HE3	2.05	0.71
42:C8:97:ASP:OD2	42:C8:101:ARG:NH1	2.23	0.71
46:G8:34:LYS:HG2	46:G8:36:ALA:HB2	1.70	0.71
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.20	0.71
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.55	0.71
1:13:1034:G:N2	1:13:1035:A:N7	2.35	0.71
1:13:190:G:H3'	1:13:191(A):G:H5'	1.73	0.71
26:14:2131:G:N2	26:14:2158:A:OP2	2.24	0.71
29:19:72:LYS:NZ	29:19:99:ASP:OD2	2.17	0.71
30:21:2:LYS:HD2	30:21:95:ILE:HG23	1.70	0.71
27:16:42:C:O2'	32:41:67:LYS:O	2.05	0.71
33:59:10:PRO:O	33:59:51:ARG:NH1	2.21	0.71
49:F5:5:CYS:SG	49:F5:8:SER:OG	2.47	0.71
26:14:70:G:H21	26:14:71:A:H62	1.36	0.71
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.73	0.71
4:32:106:TYR:O	4:32:109:GLY:N	2.22	0.71
12:3I:36:VAL:HG12	12:3I:59:ARG:HB3	1.72	0.71
1:1G:1080:A:H5'	5:42:14:ARG:HH21	1.54	0.71
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.24	0.71
40:A8:85:VAL:HG23	40:A8:112:PHE:CZ	2.24	0.71
1:13:1322:C:H5''	13:4I:100:GLY:HA2	1.70	0.71
1:13:262:A:H2'	1:13:263:A:C8	2.25	0.71
1:1G:1502:A:H2	1:1G:1505:G:H1	1.38	0.71
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.25	0.71
26:1H:2287:A:N6	26:1H:2344:U:H3	1.89	0.71
26:1H:882:G:H1	26:1H:894:C:H42	1.37	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:91:LEU:HD12	5:4E:118:ILE:HD11	1.72	0.71
35:58:49:GLY:C	35:58:119:ARG:HH12	1.93	0.71
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.71	0.71
34:69:81:VAL:H	34:69:143:SER:HB3	1.55	0.71
20:BA:33:ILE:O	20:BA:37:SER:OG	2.05	0.71
26:14:629:G:H1	26:14:634:C:H42	1.38	0.71
1:1G:1111:A:H61	3:22:176:HIS:HB3	1.56	0.71
26:1H:1265:A:OP2	60:1H:3522:HOH:O	2.07	0.71
26:1H:1352:U:OP1	60:1H:3520:HOH:O	2.07	0.71
3:22:87:LEU:H	3:22:88:ARG:HH21	1.38	0.71
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.72	0.71
32:49:129:GLY:O	32:49:130:ASN:ND2	2.23	0.71
6:5E:43:LEU:CD2	6:5E:46:ARG:HD2	2.20	0.71
1:13:711:G:OP1	6:5E:54:LYS:NZ	2.24	0.71
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.72	0.71
48:E5:21:LEU:HD11	48:E5:41:ARG:HH11	1.55	0.71
1:13:649:G:H2'	1:13:650:G:H8	1.55	0.71
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.08	0.71
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.72	0.71
9:8E:50:LEU:HD22	9:8E:55:ALA:HB3	1.72	0.71
19:AI:18:LYS:HZ3	19:AI:22:LEU:HD13	1.53	0.71
20:BI:43:LEU:HD13	20:BI:51:GLU:OE1	1.91	0.71
47:H8:76:LEU:HA	47:H8:83:PRO:HA	1.72	0.71
26:14:943:U:OP2	37:35:36:LYS:NZ	2.21	0.71
26:1H:458:G:O2'	26:1H:469:G:O6	2.06	0.71
27:1J:83:G:N2	27:1J:93:C:O2	2.16	0.71
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.72	0.71
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.73	0.71
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.24	0.71
43:95:70:ILE:N	43:95:86:GLY:O	2.24	0.71
1:1G:108:G:H5'	1:1G:109:A:H5''	1.73	0.71
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.91	0.71
26:1H:270(P):C:H1'	34:61:50:ARG:HH12	1.54	0.71
4:32:199:ASN:O	4:32:200:GLU:HG2	1.90	0.71
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.23	0.71
28:79:44:HIS:CD2	28:79:172:HIS:HA	2.26	0.71
44:A5:88:ARG:NH1	44:A5:94:ASP:OD2	2.23	0.71
37:78:63:PRO:HB3	55:Q8:30:ARG:HH21	1.55	0.71
29:11:106:ILE:HD11	29:11:143:HIS:HD2	1.56	0.71
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.73	0.71
2:1E:74:LYS:HB2	2:1E:208:ILE:HD13	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.56	0.71
26:1H:2111:C:N4	26:1H:2147:G:O6	2.24	0.71
5:4E:50:GLU:HB2	5:4E:53:LEU:HD13	1.72	0.71
26:1H:910:A:H62	38:88:12:GLN:HA	1.55	0.71
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.25	0.70
26:14:1314:C:OP1	60:14:3408:HOH:O	2.09	0.70
26:14:2232:U:P	49:F5:40:ARG:HH22	2.14	0.70
26:14:2287:A:N6	26:14:2344:U:H3	1.88	0.70
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.26	0.70
37:78:39:LYS:CA	37:78:45:LEU:CD1	2.68	0.70
37:78:39:LYS:HB2	37:78:45:LEU:HD11	1.70	0.70
1:13:321:A:H62	1:13:328:C:H1'	1.54	0.70
26:1H:50:U:H3'	26:1H:51:G:H5'	1.73	0.70
12:3A:82:VAL:N	12:3A:106:ASP:OD2	2.18	0.70
38:45:79:LEU:HG	38:45:79:LEU:O	1.91	0.70
26:14:329:G:H1	46:C5:19:LYS:NZ	1.88	0.70
49:F5:91:LYS:HD3	49:F5:92:LYS:H	1.57	0.70
2:12:80:ILE:HD13	2:12:212:GLN:HG3	1.72	0.70
26:1H:2588:G:OP1	60:1H:3523:HOH:O	2.08	0.70
26:1H:831:G:OP1	60:1H:3526:HOH:O	2.09	0.70
5:4E:43:LEU:HD11	5:4E:132:ALA:HB1	1.73	0.70
1:1G:1114:C:H1'	14:5A:60:SER:HB3	1.74	0.70
40:65:74:ALA:HB1	40:65:107:GLU:HB2	1.72	0.70
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.73	0.70
26:1H:910:A:C5	38:88:13:GLN:HG3	2.26	0.70
55:M5:33:ASN:O	55:M5:35:GLN:N	2.24	0.70
29:11:72:LYS:HD2	29:11:75:ILE:HD12	1.73	0.70
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.57	0.70
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.26	0.70
1:13:5:U:H3	4:3E:87:GLY:HA3	1.56	0.70
24:3K:11:C:N4	24:3K:24:G:H1	1.88	0.70
28:71:30:LYS:NZ	28:71:39:GLU:OE2	2.25	0.70
41:75:50:ILE:HD11	41:75:102:ILE:HG12	1.73	0.70
26:14:138:G:N2	45:B5:44:GLU:OE2	2.22	0.70
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.73	0.70
1:13:1279:A:O2'	1:13:1281:U:OP2	2.09	0.70
29:19:25:THR:CG2	29:19:82:ILE:H	2.05	0.70
26:14:2622:C:H5'	30:29:159:HIS:ND1	2.07	0.70
32:41:161:THR:HG22	32:41:163:ALA:H	1.57	0.70
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.21	0.70
26:1H:1040:C:N3	26:1H:1115:G:N1	2.37	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:15:A:H3'	27:1J:16:G:H5'	1.73	0.70
22:1L:28:U:H3	22:1L:42:A:H2	1.37	0.70
3:2E:7:PRO:O	3:2E:11:ARG:HG2	1.91	0.70
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.27	0.70
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.26	0.70
27:16:90:C:H5'	38:88:18:LYS:HA	1.72	0.70
44:E8:57:ASN:HA	44:E8:61:ASN:HD22	1.55	0.70
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.72	0.70
26:14:67:U:H3	26:14:74:A:H2	1.39	0.70
1:1G:448:A:P	1:1G:485:G:H22	2.15	0.70
1:1G:660:G:H1	1:1G:745:C:H42	1.40	0.70
24:3K:76:A:H8	26:1H:2394:C:H42	1.39	0.70
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.06	0.70
41:B8:88:ILE:HD13	41:B8:91:ARG:CZ	2.20	0.70
26:14:2118:U:O2'	26:14:2145:C:O2	2.10	0.70
26:14:2162:G:O2'	26:14:2173:A:OP1	2.08	0.70
26:1H:2401:U:H2'	26:1H:2402:C:H5''	1.74	0.70
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.25	0.70
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.25	0.70
41:75:54:ARG:HA	41:75:59:THR:HG23	1.74	0.70
1:13:1280:A:H3'	1:13:1281:U:H5'	1.73	0.70
26:14:2878:U:O4	60:14:3410:HOH:O	2.09	0.70
26:14:71:A:H2	45:B5:31:HIS:CE1	2.10	0.70
26:1H:1728:G:H8	26:1H:1732:A:H62	1.39	0.70
7:6E:22:LEU:HD22	7:6E:62:PHE:CE2	2.27	0.70
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.74	0.70
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.06	0.70
17:8I:88:TYR:HD1	17:8I:89:LEU:HD22	1.57	0.70
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.74	0.70
26:1H:2124:G:N2	26:1H:2175:C:N3	2.39	0.70
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.74	0.70
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.73	0.70
47:D5:94:GLU:O	47:D5:129:SER:HA	1.91	0.70
26:14:389:G:OP1	49:F5:25:LYS:HE2	1.90	0.70
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.31	0.70
26:1H:2359:C:OP2	60:1H:3525:HOH:O	2.09	0.69
31:39:38:ARG:HH21	31:39:99:TYR:HE1	0.72	0.69
5:42:68:GLU:OE1	5:42:143:ARG:NH1	2.25	0.69
6:52:76:ALA:HB1	6:52:80:ARG:HH21	1.57	0.69
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.74	0.69
45:B5:63:LYS:N	45:B5:63:LYS:HD3	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1171:G:O2'	26:14:1173:G:O4'	2.07	0.69
26:14:1486:A:H2'	26:14:1487:G:C8	2.27	0.69
26:14:635:C:O2'	26:14:639:U:OP1	2.09	0.69
2:1E:209:ARG:NH1	2:1E:235:SER:O	2.25	0.69
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.74	0.69
26:1H:2588:G:OP1	60:1H:3524:HOH:O	2.08	0.69
3:2E:150:LYS:HE2	3:2E:152:ILE:HD11	1.73	0.69
13:4I:16:ASP:HB2	13:4I:31:LYS:HE3	1.74	0.69
15:6I:82:ILE:O	15:6I:86:GLY:N	2.25	0.69
28:71:10:LEU:HA	28:71:13:LYS:HD3	1.72	0.69
41:B8:3:ARG:O	41:B8:7:ILE:N	2.25	0.69
48:E5:56:ASP:OD2	48:E5:58:THR:OG1	2.07	0.69
1:13:1238:A:H62	1:13:1301:U:H3	1.39	0.69
35:15:7:LYS:HE2	35:15:7:LYS:HA	1.74	0.69
29:19:262:ARG:HD3	29:19:262:ARG:N	1.92	0.69
1:1G:1181:G:N2	1:1G:1182:G:O2'	2.25	0.69
26:1H:1900:A:C8	26:1H:1900:A:H5'	2.26	0.69
3:2E:123:GLN:HE22	3:2E:136:GLN:NE2	1.89	0.69
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.73	0.69
26:14:960:A:H61	38:45:82:ARG:HH21	1.39	0.69
28:71:32:LEU:HD23	28:71:220:PRO:HG2	1.74	0.69
40:A8:85:VAL:HG23	40:A8:112:PHE:HZ	1.56	0.69
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.73	0.69
26:14:2353:G:N2	26:14:2364:C:O2	2.25	0.69
26:1H:1278:A:OP1	39:98:36:THR:HG22	1.92	0.69
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.74	0.69
26:14:606:U:P	31:39:104:LYS:CD	2.80	0.69
31:39:107:LYS:HZ2	31:39:205:ARG:HD2	1.57	0.69
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.56	0.69
37:78:49:ARG:HB2	37:78:49:ARG:HH11	1.57	0.69
38:88:19:GLY:O	38:88:21:THR:OG1	2.05	0.69
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.16	0.69
1:13:1240:U:OP2	7:6E:116:ALA:N	2.26	0.69
26:1H:2475:C:H1'	26:1H:2477:C:H5	1.58	0.69
26:1H:660:G:H21	37:78:12:ALA:HA	1.57	0.69
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.92	0.69
26:14:582:G:H2'	26:14:583:G:C8	2.28	0.69
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.24	0.69
4:32:24:GLU:HG2	4:32:25:ARG:H	1.57	0.69
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.74	0.69
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:22:ILE:HG12	28:71:189:ILE:HG21	1.74	0.69
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.73	0.69
29:11:39:LYS:HG3	29:11:40:THR:H	1.58	0.69
26:14:1786:A:H1'	26:14:1938:A:N6	2.06	0.69
26:14:486:C:O2'	44:A5:60:ASN:ND2	2.22	0.69
2:1E:69:LEU:HD23	2:1E:159:PRO:HG3	1.74	0.69
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.25	0.69
1:1G:979:C:H3'	1:1G:980:C:H5''	1.75	0.69
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.25	0.69
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.56	0.69
29:11:182:LEU:N	29:11:272:ALA:HB3	2.06	0.69
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.25	0.69
26:14:2250:G:C4	38:45:82:ARG:HG3	2.28	0.69
26:14:801:G:OP2	60:14:3413:HOH:O	2.11	0.69
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.28	0.69
26:1H:1678:G:H22	26:1H:1989:G:H22	1.40	0.69
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.25	0.69
3:2E:21:ARG:NH2	3:2E:56:ASP:OD2	2.26	0.69
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.74	0.69
26:14:2820:A:C6	39:55:4:LEU:HD11	2.28	0.69
8:72:51:VAL:HG21	8:72:60:ARG:HB2	1.75	0.69
26:14:329:G:H1	46:C5:19:LYS:HZ1	1.40	0.69
1:13:323:U:OP2	60:13:1804:HOH:O	2.10	0.69
1:13:353:A:H5'	1:13:353:A:H8	1.57	0.69
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.56	0.69
33:51:40:GLU:HB2	33:51:41:MET:HE2	1.75	0.69
34:61:88:ILE:O	34:61:121:LYS:NZ	2.26	0.69
19:AA:15:LEU:HD11	19:AA:33:THR:HB	1.72	0.69
41:B8:26:ASP:O	41:B8:49:VAL:HG12	1.92	0.69
1:13:145:G:N2	1:13:178:C:N3	2.41	0.69
1:13:859:A:H2'	1:13:860:A:H8	1.58	0.69
26:14:2781:A:H5''	26:14:2782:G:H5'	1.75	0.69
3:2E:91:LEU:HB3	3:2E:99:VAL:HG11	1.74	0.69
23:2K:30:G:H1	23:2K:42:C:H42	1.37	0.69
24:3L:15:G:N2	24:3L:48:C:H41	1.91	0.69
32:49:97:ASP:H	32:49:100:TRP:HD1	1.41	0.69
13:4A:64:TRP:CD1	13:4A:66:LEU:HD23	2.28	0.69
40:A8:27:SER:HA	40:A8:88:ASP:HB3	1.74	0.69
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.08	0.69
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.75	0.69
35:15:42:TRP:O	42:85:64:ARG:NH2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.11	0.69
26:14:1191:G:OP1	37:35:18:ARG:NH2	2.25	0.69
32:41:29:TRP:O	32:41:33:ARG:NH1	2.26	0.69
38:45:75:THR:HA	38:45:89:ASN:HA	1.72	0.69
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.74	0.69
33:51:40:GLU:HB2	33:51:41:MET:CE	2.22	0.69
1:13:110:C:O2'	16:7I:25:ARG:O	2.11	0.69
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.75	0.69
50:K8:15:LYS:HZ2	50:K8:15:LYS:H	1.41	0.69
55:M5:48:PHE:HA	55:M5:49:VAL:HG13	1.75	0.69
1:13:677:U:H3	1:13:713:G:H22	1.41	0.68
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.26	0.68
26:14:1048:A:H8	26:14:1110:G:H22	1.40	0.68
26:14:2489:G:N2	26:14:2491:U:O4	2.24	0.68
26:1H:118:A:H5'	26:1H:119:A:H8	1.57	0.68
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.73	0.68
12:3A:47:LYS:O	12:3A:49:ASN:N	2.25	0.68
13:4I:39:ILE:HG13	13:4I:56:LEU:HD21	1.76	0.68
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.75	0.68
43:95:21:ARG:NH2	43:95:65:GLY:O	2.26	0.68
43:95:85:LYS:HD2	43:95:86:GLY:H	1.57	0.68
26:14:2118:U:H1'	26:14:2147:G:H21	1.56	0.68
26:14:603:A:H8	26:14:604:G:H1'	1.58	0.68
26:14:817:C:O2'	26:14:839:U:OP1	2.09	0.68
26:14:990:A:H8	26:14:990:A:H5'	1.59	0.68
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.23	0.68
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.07	0.68
30:21:120:TRP:CE3	30:21:155:LYS:HD3	2.29	0.68
31:31:67:GLN:HE22	31:31:74:ARG:HD3	1.57	0.68
31:39:181:LEU:HD21	31:39:186:ILE:HD11	1.75	0.68
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.75	0.68
39:98:72:ASP:O	39:98:76:VAL:HG23	1.93	0.68
1:13:221:C:H2'	1:13:222:U:H6	1.58	0.68
26:14:1203:G:H3'	26:14:1204:A:H5''	1.75	0.68
26:14:574:C:OP2	60:14:3411:HOH:O	2.10	0.68
4:32:170:VAL:HB	4:32:176:LEU:HD11	1.74	0.68
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.74	0.68
1:13:1159:U:O4'	1:13:1182:G:N2	2.26	0.68
26:14:127:A:H5''	26:14:128:C:C6	2.28	0.68
26:14:2468:G:H3'	26:14:2476:A:N1	2.08	0.68
26:1H:731:C:OP2	60:1H:3509:HOH:O	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:35:GLN:HE22	30:29:37:ARG:NH2	1.90	0.68
31:31:67:GLN:HG3	31:31:67:GLN:O	1.92	0.68
9:82:48:GLU:HA	9:82:51:ARG:HD3	1.75	0.68
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.75	0.68
46:C5:46:LYS:HD3	46:C5:48:ALA:HB2	1.74	0.68
2:12:219:VAL:HA	2:12:220:ASP:OD2	1.93	0.68
26:14:273(C):C:H42	26:14:363(C):G:H1	1.41	0.68
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.75	0.68
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.58	0.68
36:25:92:GLU:HG2	36:25:113:LYS:NZ	2.08	0.68
32:41:98:ARG:NH2	52:M8:1:MET:CE	2.57	0.68
34:69:65:ALA:O	34:69:69:LYS:N	2.25	0.68
29:11:30:GLU:HB3	29:11:104:TYR:OH	1.94	0.68
1:13:1316:G:N2	1:13:1319:A:OP2	2.25	0.68
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.28	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.42	0.68
1:1G:266:G:N3	1:1G:266:G:H5'	2.09	0.68
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.29	0.68
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.57	0.68
26:14:2547:U:O2	36:25:23:ARG:NH2	2.25	0.68
28:79:44:HIS:HD2	28:79:172:HIS:HA	1.57	0.68
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.25	0.68
26:14:19:C:H2'	26:14:20:C:H6	1.59	0.68
26:1H:719:C:H2'	26:1H:720:C:H6	1.56	0.68
23:2K:48:U:O2'	23:2K:49:C:OP2	2.11	0.68
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.28	0.68
32:41:67:LYS:HD2	52:M8:6:HIS:CD2	2.28	0.68
33:51:98:LEU:HD21	33:51:125:VAL:H	1.57	0.68
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.75	0.68
41:B8:58:ASN:O	41:B8:58:ASN:ND2	2.26	0.68
26:14:1752:C:P	41:75:115:ARG:HH22	2.17	0.68
27:16:8:U:O2	27:16:112:G:N1	2.20	0.68
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.74	0.68
22:1L:9:A:N6	22:1L:22:G:N7	2.42	0.68
30:29:8:LYS:HD3	30:29:192:ASN:HA	1.75	0.68
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.76	0.68
9:82:5:TYR:N	9:82:87:GLN:OE1	2.27	0.68
20:BA:29:LYS:HG3	20:BA:71:THR:HG21	1.76	0.68
45:F8:55:ASN:HB2	45:F8:80:ILE:HG13	1.76	0.68
26:14:1486:A:H2'	26:14:1487:G:H8	1.58	0.68
26:14:2121:G:O6	26:14:2177:C:N4	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:539:A:H2'	1:1G:540:G:C8	2.28	0.68
35:58:57:ALA:C	35:58:59:LYS:H	1.97	0.68
40:65:33:LYS:HB3	40:65:34:HIS:CD2	2.29	0.68
28:79:53:ARG:HE	28:79:54:SER:H	1.42	0.68
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.28	0.68
26:14:1639:U:OP2	60:14:3412:HOH:O	2.11	0.68
26:14:2611:U:H5'	26:14:2611:U:H6	1.59	0.68
26:14:993:G:OP1	42:85:50:ARG:NH2	2.27	0.68
26:14:994:C:OP1	42:85:53:ARG:NH2	2.26	0.68
1:13:1104:G:OP1	2:1E:144:ARG:NH2	2.27	0.68
4:32:86:LYS:H	4:32:86:LYS:HE2	1.59	0.68
4:3E:88:VAL:O	4:3E:89:THR:OG1	2.12	0.68
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.75	0.68
9:82:53:VAL:HG13	9:82:95:LYS:NZ	2.09	0.68
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.59	0.68
26:1H:336:C:OP1	46:G8:83:THR:HB	1.94	0.68
50:K8:42:GLY:C	50:K8:44:LEU:H	1.96	0.68
1:13:189:U:O2	17:8I:63:ARG:NH2	2.27	0.67
26:14:1225:C:O2'	43:95:85:LYS:N	2.26	0.67
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.30	0.67
31:39:107:LYS:NZ	31:39:205:ARG:HD2	2.09	0.67
9:82:111:ARG:HG3	9:82:113:LYS:HE3	1.76	0.67
19:AI:29:ARG:NH1	19:AI:30:LEU:O	2.27	0.67
26:14:2656:U:H3	26:14:2665:A:H2	1.40	0.67
26:14:998:C:OP2	42:85:58:ARG:NH2	2.22	0.67
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.29	0.67
26:1H:1528:A:H2	26:1H:1542:G:C2	2.12	0.67
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.10	0.67
26:1H:10:G:N2	26:1H:2801:A:O2'	2.27	0.67
31:39:110:LEU:HD11	31:39:205:ARG:HH21	1.59	0.67
13:4A:49:THR:H	13:4A:52:GLU:HG3	1.58	0.67
13:4A:79:LYS:O	13:4A:82:MET:HG2	1.93	0.67
33:59:10:PRO:HG2	33:59:51:ARG:HG2	1.76	0.67
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.27	0.67
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.76	0.67
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.76	0.67
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.76	0.67
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.76	0.67
26:14:813:U:OP1	43:95:83:ARG:NH2	2.27	0.67
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.07	0.67
29:11:182:LEU:HB3	29:11:271:ILE:HG13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2191:G:H5'	26:14:2192:G:OP2	1.95	0.67
26:14:72:U:OP1	60:14:3415:HOH:O	2.12	0.67
1:1G:407:G:H2'	1:1G:408:A:C8	2.30	0.67
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.43	0.67
26:1H:2098:U:H3	26:1H:2191:G:H1	1.41	0.67
3:22:37:GLN:O	3:22:41:GLY:N	2.27	0.67
36:25:115:VAL:HG13	36:25:121:VAL:HG21	1.75	0.67
30:29:55:ASN:O	30:29:57:LYS:NZ	2.27	0.67
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.26	0.67
39:55:51:LEU:HD22	39:55:66:VAL:HG23	1.76	0.67
34:69:37:VAL:HG12	34:69:38:LEU:H	1.60	0.67
2:12:49:GLU:N	2:12:49:GLU:OE2	2.26	0.67
26:14:2108:C:N3	26:14:2181:G:N2	2.42	0.67
26:14:2168:G:N2	26:14:2170:A:OP2	2.27	0.67
26:14:94:G:N3	50:G5:47:ASN:ND2	2.42	0.67
29:19:43:ARG:HG2	29:19:49:ILE:HA	1.77	0.67
2:1E:18:GLY:H	2:1E:42:ILE:HG13	1.60	0.67
31:39:192:LEU:O	31:39:193:VAL:HG23	1.95	0.67
24:3L:5:C:H2'	24:3L:6:G:C8	2.29	0.67
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.09	0.67
41:B8:5:ALA:HA	41:B8:8:LYS:HE2	1.75	0.67
47:H8:4:ARG:HD3	47:H8:60:GLU:OE1	1.95	0.67
26:14:1730:U:H5''	26:14:1731:G:H22	1.60	0.67
26:14:2537:U:H2'	26:14:2538:C:C6	2.29	0.67
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.77	0.67
29:19:182:LEU:N	29:19:272:ALA:HB3	2.10	0.67
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.27	0.67
26:1H:2428:G:H21	37:78:61:ARG:HH21	1.43	0.67
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.26	0.67
31:39:141:ALA:HA	31:39:144:LYS:HB2	1.77	0.67
12:3A:41:ARG:HG2	12:3A:42:THR:H	1.59	0.67
32:49:136:ARG:HG3	32:49:137:GLU:HG3	1.74	0.67
1:13:1290:G:O3'	7:6E:37:ASN:ND2	2.26	0.67
28:79:207:THR:O	28:79:210:ARG:NH1	2.28	0.67
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.77	0.67
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.28	0.67
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.28	0.67
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.77	0.67
41:B8:50:ILE:HD11	41:B8:102:ILE:HD13	1.75	0.67
1:13:455:C:H42	1:13:477:G:N2	1.92	0.67
26:14:1434:A:H61	26:14:1558:A:H62	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:607:U:OP1	31:39:102:PRO:HA	1.94	0.67
1:1G:1055:A:O2'	3:22:156:ARG:NH1	2.26	0.67
26:1H:187:G:N7	60:1H:3577:HOH:O	2.27	0.67
26:1H:2032:G:H21	30:21:146:THR:CG2	2.05	0.67
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.76	0.67
30:21:116:VAL:HG22	30:21:122:PHE:CG	2.30	0.67
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.27	0.67
23:2L:30:G:N2	23:2L:42:C:O2	2.27	0.67
1:13:490:G:H5''	4:3E:151:LYS:HZ2	1.59	0.67
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.77	0.67
5:42:152:ARG:NH1	8:72:42:GLU:O	2.28	0.67
1:1G:1360:A:OP2	14:5A:35:ARG:NH2	2.28	0.67
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.76	0.67
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.28	0.67
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.76	0.67
1:13:474:G:H5''	16:7I:81:ARG:NH2	2.08	0.67
26:14:1165:U:H2'	26:14:1166:C:C6	2.29	0.67
26:1H:2714:G:OP1	60:1H:3529:HOH:O	2.13	0.67
12:3A:111:LYS:HD2	12:3A:111:LYS:H	1.59	0.67
4:3E:82:ALA:HB1	4:3E:90:GLY:HA2	1.75	0.67
27:1J:113:C:H4'	40:65:46:VAL:HG23	1.75	0.67
41:B8:50:ILE:HG13	41:B8:99:LEU:O	1.95	0.67
1:13:1323:G:H2'	1:13:1324:A:C8	2.30	0.67
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.27	0.67
29:19:242:ARG:HG3	29:19:246:PRO:HG3	1.76	0.67
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.30	0.67
26:1H:2139:C:H42	26:1H:2153:G:H1'	1.60	0.67
4:32:94:LEU:HD11	4:32:200:GLU:OE1	1.95	0.67
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.77	0.67
46:G8:10:GLY:O	46:G8:26:LYS:NZ	2.26	0.67
26:14:590:A:H2'	26:14:591:C:C6	2.30	0.67
29:19:34:VAL:HB	29:19:64:ILE:HG23	1.77	0.67
26:1H:2392:A:H2	26:1H:2424:C:H42	1.43	0.67
26:1H:567:A:OP1	60:1H:3528:HOH:O	2.12	0.67
23:2L:24:C:H2'	23:2L:25:U:C6	2.29	0.67
26:14:1579:A:H2'	26:14:1580:A:C8	2.29	0.67
26:14:708:C:H42	26:14:723:G:H1	1.41	0.67
1:1G:690:G:H2'	1:1G:691:G:O4'	1.94	0.67
1:1G:857:C:H3'	1:1G:858:G:H8	1.60	0.67
26:1H:1429:G:O2'	26:1H:1430:C:H5'	1.95	0.67
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.75	0.67
4:3E:122:ARG:HH12	4:3E:134:ASP:HB3	1.60	0.67
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.60	0.67
24:3K:50:C:N3	24:3K:51:A:N6	2.43	0.67
19:AA:19:VAL:HG21	19:AA:44:MET:HA	1.76	0.67
26:14:1188:U:O2'	26:14:1189:A:H5'	1.95	0.66
26:14:780:G:H21	26:14:783:A:N6	1.92	0.66
1:1G:501:C:P	12:3A:124:LYS:HE2	2.35	0.66
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.31	0.66
26:1H:428:A:OP1	60:1H:3531:HOH:O	2.13	0.66
5:42:148:VAL:HG21	8:72:107:LEU:HD23	1.76	0.66
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.22	0.66
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.30	0.66
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.94	0.66
1:13:1218:C:H2'	1:13:1219:U:C6	2.31	0.66
26:14:1210:A:H5''	26:14:1211:U:H3'	1.77	0.66
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.27	0.66
26:14:660:G:H21	37:35:12:ALA:HB2	1.59	0.66
26:14:779:U:OP1	29:19:49:ILE:HG23	1.96	0.66
26:1H:1138:G:H21	35:58:106:MET:HE3	1.60	0.66
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.75	0.66
33:59:54:ARG:HB3	33:59:65:HIS:HB2	1.76	0.66
6:5E:43:LEU:HD22	6:5E:46:ARG:HD2	1.76	0.66
1:13:1182:G:H4'	1:13:1183:A:H5''	1.77	0.66
1:13:129(A):G:H4'	1:13:130:A:H5''	1.76	0.66
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.78	0.66
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.30	0.66
26:1H:1113:U:OP1	33:51:2:SER:N	2.28	0.66
26:1H:1568:G:OP1	29:11:63:ARG:NH1	2.25	0.66
26:1H:2518:A:C8	26:1H:2518:A:H5'	2.29	0.66
26:1H:719:C:H2'	26:1H:720:C:C6	2.30	0.66
24:3K:3:G:H1	24:3K:70:C:H42	1.42	0.66
38:45:85:LYS:HG2	38:45:86:GLY:H	1.61	0.66
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.78	0.66
35:58:96:GLU:O	35:58:98:VAL:HG12	1.95	0.66
26:1H:2124:G:H5'	28:71:174:PRO:HD3	1.76	0.66
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.77	0.66
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.77	0.66
1:13:224:C:H2'	1:13:225:C:C6	2.30	0.66
26:14:2100:G:O6	26:14:2189:U:N3	2.28	0.66
26:14:2475:C:H5''	26:14:2476:A:H5''	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1206:G:C6	1:1G:1207:G:C6	2.83	0.66
1:1G:828:A:H2'	1:1G:829:G:O4'	1.95	0.66
26:1H:2019:A:N7	53:N8:9:LYS:NZ	2.38	0.66
36:25:1:MET:HB3	36:25:32:TYR:HB3	1.76	0.66
1:1G:619:U:O2	4:32:135:LEU:CD2	2.43	0.66
4:32:202:LEU:O	4:32:206:PHE:N	2.28	0.66
4:32:31:CYS:C	4:32:33:MET:H	1.99	0.66
2:12:12:GLU:HG3	2:12:16:HIS:CG	2.30	0.66
26:14:275:G:O2'	26:14:276:A:O4'	2.11	0.66
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.77	0.66
1:1G:1255:G:HO2'	1:1G:1258:G:HO2'	1.41	0.66
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.10	0.66
26:1H:805:G:OP1	60:1H:3533:HOH:O	2.14	0.66
26:14:2784:C:O2'	30:29:37:ARG:NH2	2.29	0.66
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.77	0.66
15:6I:70:LEU:HG	15:6I:78:TYR:HB2	1.78	0.66
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.77	0.66
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.10	0.66
26:14:1027:A:H2	26:14:2487:G:HO2'	1.41	0.66
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.78	0.66
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.78	0.66
1:1G:422:C:O2'	1:1G:423:G:N2	2.28	0.66
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.27	0.66
26:1H:1433:U:O2	26:1H:1561:G:C2	2.48	0.66
5:42:31:LEU:HD22	5:42:45:PHE:HB3	1.78	0.66
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.10	0.66
28:79:47:LEU:HD22	28:79:48:GLY:H	1.59	0.66
40:A8:28:VAL:HG11	40:A8:98:VAL:HG13	1.78	0.66
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.43	0.66
1:13:1213:A:O2'	1:13:1215:G:N7	2.26	0.66
1:13:680:C:H2'	1:13:681:C:H6	1.60	0.66
1:13:973:G:H3'	1:13:974:A:H5''	1.77	0.66
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.77	0.66
1:1G:1432:G:N2	60:1G:1704:HOH:O	2.28	0.66
26:1H:1970:A:OP1	60:1H:3530:HOH:O	2.13	0.66
27:1J:15:A:OP2	27:1J:69:G:N2	2.28	0.66
24:3K:19:G:N2	24:3K:56:C:N3	2.40	0.66
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.77	0.66
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.78	0.66
19:AI:5:LEU:HD13	19:AI:10:PHE:CD2	2.31	0.66
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:75:ILE:HD13	29:11:99:ASP:OD2	1.95	0.66
1:13:1238:A:N3	1:13:1241:G:O2'	2.28	0.66
26:14:2681:C:H5	26:14:2725:A:H62	1.41	0.66
26:14:271(B):G:N7	26:14:421:U:H2'	2.11	0.66
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.17	0.66
26:1H:2298:A:H62	26:1H:2318:G:H8	1.44	0.66
4:32:31:CYS:HB2	4:32:33:MET:O	1.96	0.66
4:3E:122:ARG:HH12	4:3E:135:LEU:HD13	1.61	0.66
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.28	0.66
26:14:1169:G:N2	26:14:1180:C:N3	2.39	0.66
26:14:1871:A:H2'	26:14:1872:A:C8	2.30	0.66
26:14:2022:U:HO2'	26:14:2616:C:HO2'	1.41	0.66
26:14:2820:A:C5	39:55:4:LEU:HD11	2.31	0.66
27:16:77:U:OP1	47:H8:19:ARG:NH2	2.29	0.66
2:1E:121:LEU:HA	2:1E:124:SER:HB2	1.76	0.66
1:1G:1008:C:H42	1:1G:1021:G:H22	1.44	0.66
26:1H:1434:A:H61	26:1H:1558:A:N6	1.92	0.66
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.30	0.66
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.61	0.66
26:1H:2577:A:H5''	26:1H:2578:G:H5'	1.78	0.66
26:1H:754:C:H2'	26:1H:755:C:H6	1.61	0.66
30:29:37:ARG:HE	30:29:42:ASP:CG	1.98	0.66
31:31:67:GLN:NE2	31:31:74:ARG:HD3	2.11	0.66
33:59:171:LEU:HD13	33:59:172:LYS:N	2.08	0.66
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.76	0.66
34:69:59:ALA:HA	34:69:62:LYS:HB3	1.78	0.66
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.78	0.66
1:13:1151:A:HO2'	1:13:1152:A:H8	1.44	0.66
1:13:1263:C:H2'	1:13:1264:C:H6	1.60	0.66
26:14:30:G:H2'	26:14:31:C:C6	2.30	0.66
1:1G:1095:U:P	1:1G:1108:G:H1	2.19	0.66
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.11	0.66
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.61	0.66
4:3E:89:THR:HG22	5:4E:97:GLY:HA2	1.78	0.66
12:3I:83:VAL:HG13	12:3I:100:ILE:HG23	1.78	0.66
8:72:39:LEU:HB3	8:72:45:ILE:HG12	1.78	0.66
1:1G:1160:G:OP1	2:12:133:LYS:NZ	2.29	0.65
26:14:2250:G:O2'	26:14:2496:C:OP1	2.12	0.65
26:1H:2068:U:N3	26:1H:2430:A:C2	2.64	0.65
26:1H:547:A:N3	26:1H:548:A:N6	2.44	0.65
30:21:1:MET:N	30:21:83:ASP:O	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:109:VAL:HG11	18:9I:84:LYS:HE2	1.77	0.65
31:39:101:LEU:O	31:39:106:ARG:NH1	2.30	0.65
20:BA:56:MET:HG2	20:BA:84:LEU:HD11	1.77	0.65
47:D5:59:LEU:HD12	47:D5:69:THR:CG2	2.25	0.65
48:E5:32:ARG:O	48:E5:34:GLY:N	2.25	0.65
1:13:682:G:H1	1:13:708:C:H42	1.43	0.65
26:14:273(F):C:H3'	26:14:274:G:H5''	1.77	0.65
26:14:34:C:O2'	26:14:35:G:H8	1.78	0.65
26:14:397:G:N7	60:14:3436:HOH:O	2.28	0.65
26:14:863:A:H2'	26:14:864:G:C8	2.31	0.65
29:19:10:THR:OG1	29:19:13:ARG:HG2	1.96	0.65
2:1E:11:LEU:HD12	2:1E:14:GLY:H	1.61	0.65
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.93	0.65
22:1L:15:G:N2	22:1L:48:C:N3	2.44	0.65
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.78	0.65
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.78	0.65
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.44	0.65
2:12:27:LYS:HE2	2:12:194:PRO:HD2	1.79	0.65
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.25	0.65
26:14:1131:G:H4'	35:15:82:LEU:HB2	1.77	0.65
2:1E:100:GLY:O	2:1E:104:ASN:N	2.24	0.65
2:1E:197:VAL:CG2	2:1E:200:ILE:HG12	2.26	0.65
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.15	0.65
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.31	0.65
26:1H:1828:G:OP1	60:1H:3536:HOH:O	2.14	0.65
1:13:35:G:O2'	12:3I:118:SER:O	2.13	0.65
1:1G:1070:U:P	5:42:25:ARG:HH12	2.20	0.65
33:51:23:ARG:HD2	33:51:25:LYS:HE2	1.76	0.65
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	1.97	0.65
26:14:498:G:H21	46:C5:47:LYS:HZ1	1.44	0.65
46:C5:63:LYS:HA	46:C5:63:LYS:HE2	1.78	0.65
42:C8:75:ASN:HB2	42:C8:78:THR:HG23	1.77	0.65
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.77	0.65
1:13:730:G:C5	1:13:731:G:H1'	2.30	0.65
1:1G:40:C:H42	1:1G:402:G:H1	1.42	0.65
26:1H:1000:A:N6	26:1H:1154:G:O2'	2.29	0.65
26:1H:2125:G:H1	26:1H:2171:A:H5''	1.61	0.65
26:1H:270(X):G:O6	60:1H:3527:HOH:O	2.12	0.65
26:1H:768:G:O2'	26:1H:1379:A:N6	2.28	0.65
4:32:3:ARG:NE	4:32:118:ARG:HE	1.94	0.65
32:41:66:GLN:NE2	32:41:93:THR:O	2.24	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.77	0.65
38:88:5:ARG:HH22	38:88:6:ARG:NH2	1.94	0.65
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.62	0.65
26:14:1717:G:H1	26:14:1742:C:H42	1.43	0.65
26:14:2134:A:H8	26:14:2134:A:OP1	1.79	0.65
1:1G:1209:C:O2'	1:1G:1214:C:N4	2.29	0.65
26:1H:1532:C:N3	26:1H:1539:G:N2	2.42	0.65
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.31	0.65
37:35:55:ARG:HG2	37:35:56:SER:H	1.60	0.65
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.96	0.65
32:41:98:ARG:NH2	52:M8:1:MET:HE3	2.12	0.65
32:49:119:GLY:H	32:49:181:ARG:HB2	1.61	0.65
16:7I:71:ARG:O	16:7I:75:ARG:N	2.29	0.65
1:13:1226:C:H2'	13:4I:103:THR:HB	1.77	0.65
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.31	0.65
26:14:900:A:H2'	26:14:901:A:C8	2.32	0.65
26:1H:1171:G:N7	26:1H:1174:A:N6	2.43	0.65
26:1H:2773:C:H5''	30:21:164:ARG:HG2	1.79	0.65
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.78	0.65
31:39:108:LYS:O	31:39:112:MET:HG3	1.97	0.65
43:D8:47:VAL:HG13	43:D8:48:GLY:H	1.61	0.65
32:41:112:PRO:HB3	52:M8:37:SER:N	2.11	0.65
1:13:1:U:C2	1:13:630:G:H1'	2.31	0.65
1:13:247:G:OP2	17:8I:100:LYS:HG2	1.97	0.65
26:14:1314:C:OP1	60:14:3407:HOH:O	2.14	0.65
26:1H:2590:A:OP2	29:11:237:GLU:HB3	1.97	0.65
26:1H:771:G:N7	60:1H:3585:HOH:O	2.30	0.65
27:1J:80:U:H2'	27:1J:81:G:N2	2.11	0.65
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.79	0.65
29:11:183:ARG:NH1	29:11:269:PHE:CB	2.51	0.65
26:1H:1535:U:H5''	26:1H:1537:C:H41	1.61	0.65
26:1H:1997:G:OP2	60:1H:3537:HOH:O	2.15	0.65
26:1H:2713:A:OP2	60:1H:3534:HOH:O	2.14	0.65
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.32	0.65
37:35:13:ASN:C	37:35:15:ARG:H	2.00	0.65
24:3L:3:G:N2	24:3L:70:C:N3	2.40	0.65
32:41:95:ARG:HA	32:41:99:MET:HB2	1.78	0.65
28:71:182:PRO:HA	28:71:185:LEU:HG	1.79	0.65
8:72:97:VAL:HG22	8:72:129:VAL:O	1.97	0.65
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.78	0.65
42:C8:88:ILE:O	42:C8:90:VAL:N	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:47:ASN:C	50:K8:49:LYS:H	2.00	0.65
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.77	0.65
1:13:1177:G:OP1	1:13:1177:G:H4'	1.95	0.65
1:13:427:U:OP1	4:3E:13:ARG:NH2	2.29	0.65
26:14:108:U:H2'	26:14:109:G:C8	2.32	0.65
26:14:2745:C:H4'	33:59:145:ALA:HB3	1.78	0.65
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.62	0.65
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.30	0.65
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.32	0.65
3:2E:73:PRO:O	3:2E:76:VAL:HG22	1.96	0.65
37:35:85:LEU:HA	37:35:88:LEU:HB2	1.78	0.65
14:5I:2:ALA:HB3	14:5I:6:LEU:HD23	1.78	0.65
8:72:36:LEU:HD23	8:72:39:LEU:HD22	1.79	0.65
26:1H:2599:G:N7	29:11:236:GLY:HA2	2.12	0.65
2:12:189:ASP:HB3	2:12:203:GLY:O	1.97	0.65
26:14:1198:U:H2'	26:14:1199:U:C6	2.32	0.65
26:14:1384:A:N3	26:14:1405:U:H1'	2.11	0.65
26:14:2032:G:O6	60:14:3414:HOH:O	2.11	0.65
26:14:2134:A:H2	26:14:2159:G:H1'	1.62	0.65
1:1G:32:A:H2'	1:1G:33:A:C8	2.32	0.65
26:1H:860:U:H5	26:1H:917:A:C2	2.14	0.65
31:31:179:GLU:OE1	31:31:179:GLU:N	2.26	0.65
12:3A:28:LYS:HD3	12:3A:33:ARG:NH1	2.12	0.65
28:71:58:VAL:O	28:71:164:ARG:NH2	2.29	0.65
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.61	0.65
9:8E:21:PRO:HA	9:8E:58:HIS:O	1.96	0.65
19:AA:16:LEU:O	19:AA:20:LEU:HD13	1.96	0.65
26:14:1654:A:H1'	26:14:2823:A:H5'	1.78	0.64
1:1G:631:G:H4'	1:1G:632:A:H5'	1.78	0.64
26:1H:639:U:O2'	26:1H:640:C:H5'	1.96	0.64
26:1H:784:A:C6	29:11:229:VAL:HG11	2.31	0.64
4:32:13:ARG:HD2	4:32:38:TYR:O	1.96	0.64
24:3K:67:C:H2'	24:3K:68:G:C8	2.31	0.64
5:42:81:GLU:OE1	5:42:81:GLU:N	2.29	0.64
6:5E:27:GLN:HA	6:5E:30:LEU:HD12	1.79	0.64
34:69:117:GLU:HG2	34:69:118:LYS:HG2	1.78	0.64
43:95:85:LYS:CG	43:95:87:HIS:H	2.08	0.64
26:14:2331:G:O3'	48:E5:43:THR:HG22	1.96	0.64
26:14:2210:G:H3'	26:14:2211:G:C5	2.32	0.64
26:14:2439:A:C8	26:14:2439:A:H5'	2.32	0.64
29:19:71:ASP:OD1	29:19:71:ASP:N	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:736:C:OP1	18:9A:72:ARG:NH2	2.30	0.64
26:1H:2795:G:H2'	26:1H:2798:C:H5''	1.78	0.64
38:45:89:ASN:O	38:45:89:ASN:ND2	2.29	0.64
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.79	0.64
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.30	0.64
47:H8:9:TYR:HE1	47:H8:61:LEU:HD12	1.62	0.64
26:14:2147:G:C5	26:14:2148:G:H1'	2.31	0.64
26:14:5:A:N6	26:14:7:G:O6	2.31	0.64
26:1H:1899:G:H21	26:1H:1902:C:H5	1.44	0.64
5:42:51:VAL:HB	5:42:52:PRO:HD3	1.78	0.64
26:14:873:G:H1'	38:45:29:PHE:HE2	1.60	0.64
40:65:62:LYS:O	40:65:66:ALA:N	2.30	0.64
38:88:66:ILE:O	38:88:104:PHE:N	2.29	0.64
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.31	0.64
49:F5:82:LEU:HG	49:F5:83:GLU:H	1.62	0.64
1:13:1127:G:H2'	1:13:1128:C:C2	2.32	0.64
26:14:140:A:H8	26:14:1408:C:HO2'	1.41	0.64
1:1G:413:G:H2'	1:1G:428:G:N2	2.12	0.64
10:1I:75:ILE:HD12	10:1I:76:ASN:N	2.13	0.64
22:1L:53:G:H4'	38:45:56:ARG:NH2	2.12	0.64
38:45:21:THR:HG21	38:45:101:ARG:HD2	1.80	0.64
33:59:11:VAL:HG13	33:59:69:ARG:HH22	1.62	0.64
6:5E:33:TYR:HB2	6:5E:75:LEU:HD23	1.79	0.64
43:95:79:VAL:O	43:95:80:GLN:HG2	1.97	0.64
26:14:993:G:N3	43:95:89:GLN:NE2	2.45	0.64
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.12	0.64
1:13:363:A:N7	12:3I:33:ARG:NH1	2.46	0.64
1:13:377:G:H1	1:13:386:C:H42	1.46	0.64
26:14:1041:C:H2'	26:14:1042:G:C8	2.32	0.64
26:14:566:U:H5''	37:35:29:LYS:HE3	1.80	0.64
26:1H:1639:U:H2'	26:1H:1640:C:H5''	1.79	0.64
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.33	0.64
27:1J:44:G:H5''	27:1J:45:A:OP1	1.97	0.64
30:29:110:GLY:O	60:55:201:HOH:O	2.14	0.64
37:35:95:VAL:HG23	37:35:99:LEU:HD22	1.79	0.64
24:3K:35:U:H2'	24:3K:36:U:H6	1.62	0.64
24:3K:19:G:O2'	24:3K:57:G:N3	2.29	0.64
32:41:50:ALA:O	32:41:53:LEU:HD23	1.97	0.64
13:4A:89:GLY:HA2	13:4A:92:HIS:HB2	1.78	0.64
43:95:22:VAL:HG22	43:95:23:GLU:H	1.61	0.64
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.27	0.64
1:13:504:C:OP1	60:13:1807:HOH:O	2.15	0.64
1:13:780:A:OP2	60:13:1806:HOH:O	2.15	0.64
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.78	0.64
10:1A:33:GLN:HB3	10:1A:75:ILE:HD11	1.79	0.64
1:1G:317:G:H1	1:1G:336:C:H42	1.43	0.64
26:1H:106:C:H2'	26:1H:107:C:H6	1.63	0.64
26:1H:730:C:OP2	60:1H:3535:HOH:O	2.14	0.64
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.11	0.64
3:22:14:ILE:HG23	3:22:15:THR:HG23	1.80	0.64
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.80	0.64
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.63	0.64
23:2L:1:C:H2'	23:2L:2:G:H5'	1.78	0.64
4:32:108:LEU:HD13	4:32:174:LEU:HD22	1.79	0.64
26:14:2429:G:O6	37:35:61:ARG:NH2	2.30	0.64
38:45:18:LYS:H	38:45:98:LYS:NZ	1.96	0.64
40:65:78:LEU:HD12	40:65:107:GLU:HB3	1.79	0.64
36:68:63:VAL:HG23	36:68:64:ARG:HG2	1.80	0.64
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.79	0.64
41:75:16:ARG:NH1	41:75:83:ILE:O	2.29	0.64
37:78:49:ARG:HH11	55:Q8:61:LEU:CD2	1.94	0.64
8:7E:82:HIS:CE1	8:7E:138:TRP:CZ2	2.85	0.64
46:G8:38:ILE:HD12	46:G8:64:GLU:O	1.97	0.64
1:13:452:A:OP2	16:7I:43:LYS:NZ	2.20	0.64
1:13:576:G:OP1	60:13:1808:HOH:O	2.15	0.64
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.12	0.64
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.14	0.64
26:1H:210:C:OP2	54:P8:29:LYS:NZ	2.30	0.64
26:1H:287:C:H2'	26:1H:288:C:H6	1.62	0.64
27:1J:101:A:N7	60:1J:302:HOH:O	2.30	0.64
24:3K:36:U:H2'	24:3K:37:A:H8	1.62	0.64
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.79	0.64
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.63	0.64
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	1.79	0.64
28:71:43:VAL:HG22	28:71:215:THR:H	1.63	0.64
17:8I:43:LEU:HB3	17:8I:69:LYS:HG3	1.78	0.64
39:98:13:HIS:CD2	39:98:15:SER:HB2	2.32	0.64
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.79	0.64
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.78	0.64
1:13:631:G:HO2'	1:13:632:A:H8	1.45	0.64
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:77:C:H42	26:14:109:G:H1	1.46	0.64
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.79	0.64
2:1E:163:PHE:HD1	2:1E:185:ILE:HG13	1.63	0.64
1:1G:977:A:HO2'	1:1G:981:U:H3	1.45	0.64
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.33	0.64
26:1H:1639:U:C2'	26:1H:1640:C:H5''	2.28	0.64
26:1H:184:C:H2'	26:1H:185:U:H6	1.62	0.64
26:1H:660:G:N2	37:78:12:ALA:HA	2.12	0.64
22:1L:57:G:OP2	38:45:60:ARG:NH2	2.31	0.64
5:42:9:LYS:HB3	5:42:112:LEU:HD11	1.78	0.64
26:14:2250:G:C5	38:45:82:ARG:HG3	2.33	0.64
26:14:2749:A:H4'	33:59:62:LYS:HG3	1.80	0.64
34:61:117:GLU:OE1	34:61:117:GLU:N	2.28	0.64
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.80	0.64
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.79	0.64
39:98:10:LEU:O	39:98:12:ARG:N	2.31	0.64
39:98:96:ARG:HD2	39:98:98:LEU:HD11	1.80	0.64
19:AI:5:LEU:HD13	19:AI:10:PHE:CG	2.33	0.64
1:1G:192:U:H4'	20:BA:57:ARG:HD3	1.78	0.64
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.61	0.64
52:M8:34:GLU:HG2	52:M8:35:VAL:N	2.12	0.64
2:12:74:LYS:HE2	2:12:169:LYS:HG3	1.78	0.64
26:14:1771:C:HO2'	26:14:1786:A:H8	1.46	0.64
1:1G:1181:G:N2	1:1G:1182:G:HO2'	1.95	0.64
1:1G:19:C:OP1	5:42:125:SER:OG	2.16	0.64
26:1H:29:U:H2'	26:1H:30:G:C8	2.33	0.64
4:32:161:ASN:O	4:32:165:MET:HB2	1.97	0.64
13:4A:51:ALA:HA	13:4A:54:VAL:HG12	1.80	0.64
38:88:139:GLU:HG3	47:H8:122:ARG:NH1	2.11	0.64
47:H8:120:ILE:HG22	47:H8:121:HIS:ND1	2.12	0.64
55:Q8:54:GLU:O	55:Q8:58:ILE:HG12	1.98	0.64
26:14:1341:U:OP2	26:14:1394:U:O2'	2.14	0.64
26:14:1342:A:H2	26:14:1602:U:H3	1.46	0.64
26:14:2267:A:OP2	60:14:3416:HOH:O	2.15	0.64
26:14:270(N):G:H1'	26:14:270(P):C:O4'	1.98	0.64
2:1E:237:ALA:O	2:1E:239:VAL:N	2.31	0.64
1:1G:827:U:H3	1:1G:872:A:H62	1.46	0.64
26:1H:1556:C:H2'	26:1H:1557:C:H6	1.62	0.64
26:1H:184:C:H2'	26:1H:185:U:C6	2.33	0.64
22:1K:6:G:H2'	22:1K:7:U:H6	1.63	0.64
31:31:29:ASN:HB3	31:31:112:MET:HE1	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:39:VAL:HG11	12:3A:41:ARG:CZ	2.27	0.64
4:3E:85:LYS:N	4:3E:86:LYS:HA	2.13	0.64
24:3K:27:G:H22	24:3K:44:U:H1'	1.61	0.64
5:4E:79:GLU:HG2	5:4E:92:LYS:HG3	1.79	0.64
1:13:392:G:H5'	16:7I:12:LYS:HD2	1.80	0.64
20:BI:35:THR:HA	20:BI:38:LYS:HE2	1.80	0.64
26:14:108:U:H2'	26:14:109:G:H8	1.63	0.63
26:14:2147:G:H2'	26:14:2148:G:H4'	1.80	0.63
26:14:2327:A:H2'	26:14:2328:A:C8	2.33	0.63
26:14:479:A:N3	26:14:481:G:H5''	2.13	0.63
1:1G:359:U:H2'	1:1G:360:A:C8	2.33	0.63
1:1G:736:C:H2'	1:1G:737:A:C8	2.33	0.63
31:31:66:PRO:O	31:31:67:GLN:HB3	1.98	0.63
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.32	0.63
26:14:2311:A:H62	32:49:47:LYS:HE3	1.62	0.63
47:H8:165:VAL:HG12	47:H8:167:PRO:HD3	1.77	0.63
32:41:113:ARG:NE	52:M8:34:GLU:OE1	2.29	0.63
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.43	0.63
31:39:63:LYS:HE3	31:39:67:GLN:HB2	1.80	0.63
24:3K:56:C:H2'	24:3K:57:G:H8	1.63	0.63
24:3L:8:U:O2'	24:3L:48:C:O2	2.15	0.63
8:7E:29:SER:HB3	8:7E:32:LYS:H	1.63	0.63
26:14:559:G:O2'	42:85:52:ARG:NH1	2.32	0.63
42:85:66:ASN:HD21	42:85:70:ARG:HH21	1.44	0.63
20:BA:57:ARG:HA	20:BA:60:GLU:HB2	1.80	0.63
47:D5:93:ASP:HB3	47:D5:131:ARG:NH2	2.14	0.63
1:13:345:C:O2'	1:13:346:G:N2	2.30	0.63
1:13:76:G:O4'	1:13:95:G:N2	2.30	0.63
26:14:459:U:H5''	54:L5:40:TRP:CE2	2.33	0.63
26:14:943:U:P	37:35:36:LYS:HG3	2.38	0.63
29:19:44:ASN:HB3	29:19:45:ASN:C	2.18	0.63
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.81	0.63
1:1G:1305:G:H21	1:1G:1331:G:H2'	1.64	0.63
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.62	0.63
26:1H:1111:A:H4'	33:51:3:ARG:HH11	1.63	0.63
26:1H:1496:A:H5'	26:1H:1497:U:OP1	1.98	0.63
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.33	0.63
26:1H:836:G:H5''	26:1H:837:C:OP2	1.99	0.63
3:22:34:LEU:HD13	14:5A:25:VAL:HG21	1.80	0.63
30:29:54:GLN:N	30:29:74:PRO:HB3	2.13	0.63
34:69:117:GLU:HG2	34:69:118:LYS:N	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:81:VAL:H	34:69:143:SER:CB	2.11	0.63
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.80	0.63
45:F8:68:ARG:NH2	45:F8:69:TYR:OH	2.16	0.63
29:11:35:LYS:HZ2	29:11:35:LYS:N	1.96	0.63
1:13:600:C:OP1	8:7E:98:LYS:NZ	2.26	0.63
26:14:1041:C:H2'	26:14:1042:G:H8	1.64	0.63
26:14:819:A:OP2	26:14:1187:G:N2	2.31	0.63
26:14:1537:C:H2'	26:14:1538:G:C8	2.33	0.63
26:14:2324:C:H5''	26:14:2325:G:H5'	1.80	0.63
26:14:2380:C:OP1	40:65:20:ARG:NH1	2.32	0.63
29:19:262:ARG:NH1	29:19:263:ARG:H	1.97	0.63
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.15	0.63
1:1G:1053:G:H5''	1:1G:1054:C:H3'	1.79	0.63
26:1H:2129:C:OP1	28:71:6:ARG:NE	2.31	0.63
26:1H:860:U:C5	26:1H:917:A:C2	2.86	0.63
4:32:70:ILE:HD11	4:32:75:PHE:HD2	1.64	0.63
4:3E:103:ASN:OD1	4:3E:114:ARG:NH2	2.31	0.63
32:41:16:ARG:O	32:41:20:ILE:HG13	1.97	0.63
34:61:65:ALA:O	34:61:68:LEU:N	2.31	0.63
28:71:208:PHE:CZ	28:71:209:LEU:HG	2.32	0.63
16:7I:20:VAL:HG21	16:7I:32:TYR:CG	2.34	0.63
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.80	0.63
47:D5:65:GLN:HE21	47:D5:67:LEU:HD21	1.64	0.63
26:14:1485:G:H1	26:14:1504:C:H42	1.45	0.63
26:14:91:A:H2'	26:14:92:G:H8	1.64	0.63
1:1G:552:U:H2'	1:1G:553:A:H8	1.64	0.63
26:1H:1130:U:O2	30:21:149:ARG:NH2	2.27	0.63
26:1H:2794:C:N4	26:1H:2804:C:N3	2.46	0.63
30:29:60:ASN:OD1	30:29:63:LEU:HD22	1.99	0.63
31:31:29:ASN:H	31:31:112:MET:HE3	1.64	0.63
38:45:37:LEU:HD21	38:45:130:LYS:HD3	1.80	0.63
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.29	0.63
15:6I:48:LYS:HE3	15:6I:48:LYS:HA	1.80	0.63
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.64	0.63
42:85:74:LEU:HB2	42:85:78:THR:HB	1.79	0.63
1:13:756:C:H1'	8:7E:1:MET:HE1	1.79	0.63
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.64	0.63
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.64	0.63
3:22:109:PRO:HB2	3:22:115:LEU:HD13	1.79	0.63
3:2E:16:ARG:HH22	3:2E:183:ASP:HA	1.63	0.63
23:2L:23:G:H2'	23:2L:24:C:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:81:GLU:HB3	4:32:85:LYS:HD3	1.80	0.63
32:49:119:GLY:N	32:49:181:ARG:HB2	2.14	0.63
28:79:14:VAL:HA	28:79:222:VAL:HG22	1.81	0.63
9:8E:24:GLY:HA2	9:8E:59:PHE:O	1.99	0.63
42:C8:44:ASN:ND2	43:D8:75:PHE:O	2.28	0.63
1:13:1171:G:H2'	1:13:1172:C:H6	1.62	0.63
1:13:1502:A:H2	1:13:1505:G:N1	1.90	0.63
1:13:964:A:O2'	10:1I:55:LYS:HE3	1.99	0.63
26:14:1525:G:H2'	26:14:1526:G:C8	2.34	0.63
26:14:1332:G:N2	26:14:1609:A:O2'	2.31	0.63
1:1G:222:U:H2'	1:1G:223:U:H6	1.63	0.63
26:1H:2795:G:O6	26:1H:2803:C:N4	2.32	0.63
30:21:28:ALA:HB3	30:21:93:VAL:HG12	1.79	0.63
31:31:130:ALA:HA	31:31:132:VAL:HG22	1.81	0.63
31:39:53:THR:HG23	31:39:55:GLY:H	1.63	0.63
32:41:67:LYS:CD	32:41:67:LYS:H	2.12	0.63
39:55:97:VAL:HG22	39:55:114:VAL:HG22	1.80	0.63
6:5E:41:GLU:HB2	6:5E:62:TRP:HB3	1.80	0.63
20:BA:72:LEU:HD11	20:BA:80:ARG:HH21	1.64	0.63
46:C5:82:PRO:HB3	46:C5:99:CYS:HB2	1.81	0.63
47:D5:93:ASP:HB3	47:D5:131:ARG:HH21	1.63	0.63
26:1H:1568:G:P	29:11:63:ARG:HH12	2.22	0.63
26:14:2123:G:O6	26:14:2173:A:N6	2.31	0.63
26:14:620:G:H5''	26:14:620:G:N3	2.13	0.63
26:1H:1012:U:OP1	42:C8:75:ASN:ND2	2.30	0.63
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.99	0.63
26:1H:654(O):G:H3'	26:1H:654(P):G:O4'	1.99	0.63
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.63	0.63
12:3A:33:ARG:H	12:3A:85:ILE:HG22	1.64	0.63
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.32	0.63
14:5A:9:LYS:HA	14:5A:12:ARG:NH1	2.14	0.63
17:8A:76:LEU:HD11	17:8A:79:SER:HB3	1.81	0.63
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.14	0.63
47:D5:53:ILE:HG13	47:D5:54:HIS:CD2	2.24	0.63
38:88:134:ARG:NH1	47:H8:122:ARG:HD2	2.14	0.63
1:13:1494:G:N7	57:13:1730:PAR:N32	2.47	0.63
1:13:686:U:O2'	1:13:687:A:OP2	2.15	0.63
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.79	0.63
23:2L:62:C:H2'	23:2L:63:C:H6	1.64	0.63
7:62:115:ARG:HB2	7:62:118:VAL:HG13	1.81	0.63
47:H8:33:LEU:HD21	47:H8:90:VAL:HG11	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:I8:83:PRO:O	48:I8:84:LEU:HB2	1.97	0.63
1:13:1347:G:H5''	9:8E:107:ARG:HB3	1.80	0.62
1:13:1391:U:H2'	1:13:1392:G:H8	1.64	0.62
26:14:270(L):U:O2	34:69:50:ARG:NH1	2.32	0.62
1:1G:1157:A:H2	1:1G:1180:A:C6	2.16	0.62
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.34	0.62
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.31	0.62
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.59	0.62
36:25:47:ILE:HG23	36:25:48:PRO:HD2	1.81	0.62
36:25:64:ARG:HB2	36:25:83:ALA:HB3	1.81	0.62
24:3K:15:G:H1	24:3K:48:C:N4	1.97	0.62
34:61:38:LEU:HD13	34:61:40:THR:HG23	1.81	0.62
28:79:19:ILE:HA	28:79:223:ARG:HB3	1.81	0.62
42:85:102:GLU:HB3	42:85:105:VAL:HG22	1.81	0.62
2:12:61:LEU:HD12	2:12:160:ASP:HB2	1.80	0.62
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.31	0.62
26:14:2660:A:OP1	26:14:2660:A:H8	1.82	0.62
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.27	0.62
26:14:863:A:H2'	26:14:864:G:H8	1.64	0.62
29:19:206:LEU:HA	29:19:211:ARG:HE	1.63	0.62
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.31	0.62
31:39:182:ASN:ND2	31:39:185:ASP:OD2	2.28	0.62
12:3A:39:VAL:HG11	12:3A:41:ARG:HH21	1.62	0.62
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.79	0.62
7:62:93:PRO:HA	7:62:96:GLN:HB2	1.81	0.62
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.79	0.62
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.81	0.62
29:11:29:PRO:HB2	29:11:30:GLU:CA	2.21	0.62
26:14:1418:G:H8	26:14:1418:G:O5'	1.82	0.62
26:14:2542:A:H5''	26:14:2542:A:N3	2.14	0.62
26:14:2647:U:H3	26:14:2673:G:H1	1.45	0.62
1:1G:1333:A:H3'	1:1G:1334:G:H8	1.64	0.62
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.64	0.62
26:1H:2098:U:O2	26:1H:2191:G:N2	2.22	0.62
26:1H:2032:G:N2	30:21:146:THR:HG23	2.07	0.62
1:13:1189:C:H5'	3:2E:5:ILE:HD13	1.81	0.62
12:3A:66:VAL:HG11	12:3A:98:TYR:HE2	1.64	0.62
8:7E:88:LYS:N	8:7E:91:ARG:O	2.29	0.62
1:1G:664:G:P	18:9A:64:ARG:HH21	2.22	0.62
46:C5:82:PRO:HG3	46:C5:97:ARG:HB3	1.81	0.62
47:D5:161:VAL:HG12	47:D5:162:GLU:H	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:129(A):G:N2	1:13:188:U:O2'	2.32	0.62
1:13:156:G:H2'	1:13:157:G:C8	2.35	0.62
26:14:925:C:H2'	26:14:926:A:C8	2.35	0.62
1:1G:1001:G:H2'	1:1G:1002:G:C8	2.34	0.62
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.62	0.62
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.80	0.62
26:14:588:U:H1'	31:39:90:PHE:CG	2.34	0.62
34:61:110:ASP:OD1	34:61:110:ASP:N	2.27	0.62
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.32	0.62
40:A8:106:ARG:HH11	40:A8:107:GLU:HG2	1.63	0.62
1:13:1118:C:H1'	1:13:1179:A:C4	2.34	0.62
1:13:451:A:OP1	1:13:481:G:N2	2.28	0.62
26:14:382:G:H1	26:14:392:C:H42	1.48	0.62
1:1G:420:U:H1'	1:1G:424:G:N2	2.14	0.62
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.82	0.62
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.14	0.62
26:1H:389:G:H1	37:78:71:VAL:HG12	1.63	0.62
26:1H:589:C:H2'	26:1H:590:A:C8	2.34	0.62
26:1H:754:C:H2'	26:1H:755:C:C6	2.34	0.62
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.81	0.62
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.81	0.62
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.81	0.62
47:D5:71:VAL:HG12	47:D5:88:PHE:CE1	2.34	0.62
29:11:101:GLU:OE1	29:11:103:ARG:NH1	2.32	0.62
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.99	0.62
1:13:991:U:C4	1:13:1212:U:H1'	2.34	0.62
26:14:1657:C:H2'	26:14:1658:C:C6	2.34	0.62
1:1G:643:C:H2'	1:1G:644:G:H8	1.64	0.62
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.15	0.62
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.35	0.62
26:1H:270(H):C:H42	26:1H:270(R):G:H1	1.47	0.62
31:31:6:VAL:N	31:31:24:LEU:O	2.33	0.62
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.63	0.62
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.80	0.62
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.82	0.62
26:1H:566:U:OP1	37:78:29:LYS:HD2	1.99	0.62
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	1.81	0.62
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.80	0.62
26:14:1945:G:H2'	26:14:1946:U:C6	2.35	0.62
26:14:2512:C:H5''	26:14:2513:G:OP2	1.99	0.62
26:14:460:A:OP1	54:L5:41:ARG:NH2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1213:A:N6	1:1G:1215:G:N3	2.48	0.62
26:1H:234:C:H2'	26:1H:235:U:H6	1.64	0.62
4:3E:191:ARG:NH1	4:3E:200:GLU:OE1	2.33	0.62
1:13:1178:G:OP2	9:8E:93:ARG:NH1	2.33	0.62
46:C5:46:LYS:HB2	46:C5:61:ILE:H	1.65	0.62
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.00	0.62
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.31	0.62
26:14:1292:U:H2'	26:14:1293:C:C6	2.35	0.62
26:14:1403:C:OP1	26:14:1522:G:N2	2.25	0.62
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.64	0.62
26:14:706:A:H2'	26:14:707:G:O4'	2.00	0.62
1:1G:501:C:H2'	1:1G:502:G:H8	1.65	0.62
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.33	0.62
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.00	0.62
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.65	0.62
26:1H:2689:U:H5''	26:1H:2713:A:C2	2.35	0.62
11:2I:69:ALA:HB1	11:2I:73:MET:HE2	1.81	0.62
31:39:5:ALA:H	31:39:19:GLU:HA	1.65	0.62
29:11:33:LEU:H	29:11:33:LEU:HD23	1.64	0.62
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.24	0.62
10:1A:16:LEU:HD23	10:1A:68:HIS:HB3	1.82	0.62
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.13	0.62
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.14	0.62
1:1G:448:A:OP2	1:1G:485:G:N2	2.32	0.62
1:1G:991:U:O2	1:1G:993:G:H8	1.83	0.62
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.29	0.62
26:1H:934:G:H2'	26:1H:935:C:H6	1.64	0.62
31:31:39:TRP:O	31:31:43:LYS:HG2	2.00	0.62
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.32	0.62
32:41:150:ASP:OD1	32:41:151:ALA:N	2.33	0.62
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.82	0.62
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.82	0.62
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.81	0.62
26:1H:2362:G:OP2	55:Q8:44:LYS:NZ	2.32	0.62
1:13:1028:C:N4	1:13:1033:G:O6	2.32	0.62
26:14:1176:G:H8	26:14:1177:A:H2	1.47	0.62
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.35	0.62
35:15:39:ARG:NH2	35:15:41:ASP:OD2	2.33	0.62
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.82	0.62
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.80	0.62
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:56:GLN:HE22	49:F5:84:GLY:H	1.46	0.62
29:11:79:VAL:O	29:11:113:VAL:HG23	2.00	0.61
1:13:1171:G:H2'	1:13:1172:C:C6	2.35	0.61
26:14:646:A:H2'	26:14:647:G:O4'	1.99	0.61
6:5E:43:LEU:HG	6:5E:43:LEU:O	1.99	0.61
38:88:20:ALA:HB1	38:88:99:PRO:HB2	1.80	0.61
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.81	0.61
29:11:23:GLU:HG3	29:11:82:ILE:HG21	1.82	0.61
2:12:22:LYS:NZ	2:12:35:GLU:OE1	2.30	0.61
26:14:901:A:H5'	26:14:902:C:OP2	2.00	0.61
1:1G:601:C:H2'	1:1G:602:A:C8	2.34	0.61
1:1G:677:U:H3	1:1G:713:G:H22	1.48	0.61
1:1G:938:A:N3	1:1G:1376:U:O2'	2.28	0.61
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.35	0.61
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.30	0.61
26:1H:1466:G:N2	26:1H:1547:C:N3	2.48	0.61
26:1H:1332:G:H21	26:1H:1610:A:H8	1.48	0.61
26:1H:2164:C:H5''	26:1H:2165:G:OP2	2.00	0.61
26:1H:330:A:HO2'	26:1H:331:A:H8	1.48	0.61
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.30	0.61
27:1J:44:G:H1'	27:1J:47:C:H42	1.66	0.61
3:22:172:ARG:HH12	3:22:174:PRO:HG3	1.65	0.61
1:1G:581:G:OP1	15:6A:61:GLY:HA3	1.99	0.61
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.81	0.61
41:75:62:THR:HG22	41:75:75:ILE:HG12	1.81	0.61
6:5E:97:PHE:CD1	18:9I:31:LEU:HD11	2.36	0.61
26:14:71:A:H5'	26:14:71:A:H8	1.64	0.61
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.00	0.61
30:21:78:LEU:C	30:21:79:ARG:HD2	2.20	0.61
4:3E:89:THR:O	4:3E:92:VAL:HG23	2.00	0.61
7:62:51:GLN:HG3	7:62:58:PRO:HD3	1.80	0.61
40:65:56:LEU:HD23	40:65:58:LEU:HD11	1.82	0.61
8:72:110:ALA:O	8:72:121:ASP:N	2.32	0.61
40:A8:34:HIS:NE2	40:A8:54:LEU:HD23	2.14	0.61
43:D8:56:SER:H	43:D8:100:ARG:HB2	1.64	0.61
1:13:864:A:H2'	1:13:865:A:C8	2.36	0.61
26:14:997:G:O2'	26:14:998:C:H5'	2.01	0.61
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.36	0.61
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.64	0.61
22:1L:48:C:O2'	22:1L:59:A:O4'	2.18	0.61
1:13:640:A:O2'	8:7E:115:SER:HB2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:28:MET:O	47:D5:35:ARG:N	2.27	0.61
2:12:141:GLU:O	2:12:145:LEU:HB2	2.00	0.61
1:13:1013:G:N2	1:13:1016:A:OP2	2.33	0.61
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.83	0.61
1:1G:1139:G:H4'	1:1G:1140:C:H5'	1.82	0.61
26:1H:1214:A:OP2	60:1H:3542:HOH:O	2.16	0.61
26:1H:155:C:H5'	26:1H:161:U:OP2	2.00	0.61
31:39:117:ARG:NH2	37:35:1:MET:O	2.33	0.61
13:4A:29:ARG:HB3	13:4A:64:TRP:CH2	2.36	0.61
18:9A:25:THR:HG22	18:9A:42:ARG:HH21	1.64	0.61
18:9I:59:SER:OG	18:9I:60:ALA:N	2.33	0.61
48:E5:17:GLN:O	48:E5:19:LYS:NZ	2.30	0.61
1:13:1190:G:H5''	3:2E:176:HIS:NE2	2.16	0.61
26:14:1210:A:H5'	26:14:1212:G:C5'	2.31	0.61
26:14:1329:U:H5''	26:14:1330:C:H5	1.66	0.61
26:14:305:U:H2'	26:14:306:U:C6	2.35	0.61
29:19:262:ARG:HH11	29:19:262:ARG:H	1.48	0.61
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.36	0.61
1:1G:533:A:O2'	1:1G:534:U:H5''	2.01	0.61
1:1G:591:U:H2'	1:1G:592:G:C8	2.36	0.61
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.65	0.61
26:1H:1455:G:OP2	60:1H:3543:HOH:O	2.16	0.61
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.66	0.61
26:1H:607:U:OP1	31:31:102:PRO:HA	2.01	0.61
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.00	0.61
3:22:18:TRP:HE3	3:22:18:TRP:H	1.49	0.61
37:35:79:ARG:HG3	37:35:110:TYR:HB2	1.81	0.61
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.34	0.61
39:55:67:LEU:HD12	39:55:76:VAL:HG21	1.83	0.61
34:61:5:LEU:HD13	34:61:13:GLY:O	1.99	0.61
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.82	0.61
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.34	0.61
52:M8:39:CYS:HB3	52:M8:40:HIS:HA	1.82	0.61
1:13:67:C:H2'	1:13:68:G:H8	1.65	0.61
26:14:1204:A:H2	26:14:1241:A:N1	1.99	0.61
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.33	0.61
26:14:2115:G:H22	26:14:2117:A:H62	1.48	0.61
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.34	0.61
2:1E:60:ASP:HB3	2:1E:64:ARG:NH2	2.09	0.61
1:1G:401:C:H2'	1:1G:402:G:C8	2.35	0.61
26:1H:1045:A:H1'	26:1H:1047:G:C5	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.35	0.61
26:1H:1535:U:H5''	26:1H:1537:C:N4	2.15	0.61
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.00	0.61
26:1H:543:C:H42	26:1H:550:G:H1	1.48	0.61
27:1J:88:C:H5''	27:1J:89:G:C6	2.34	0.61
26:1H:323:G:C8	31:31:171:PRO:HG3	2.34	0.61
13:4A:66:LEU:HD13	13:4A:67:GLU:HB2	1.83	0.61
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.82	0.61
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.01	0.61
19:AA:10:PHE:HD2	19:AA:11:VAL:HG23	1.66	0.61
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.83	0.61
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.65	0.61
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.31	0.61
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.35	0.61
1:1G:411:A:C5	1:1G:413:G:H1'	2.36	0.61
26:1H:1443:G:H2'	26:1H:1444:G:H8	1.65	0.61
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.01	0.61
26:1H:2396:G:H5''	49:J8:25:LYS:HE2	1.82	0.61
26:1H:723:G:H2'	26:1H:724:U:O4'	2.00	0.61
22:1L:24:G:H2'	22:1L:25:C:C6	2.35	0.61
38:45:25:ASP:CB	38:45:102:VAL:H	2.10	0.61
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.16	0.61
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.00	0.61
19:AI:22:LEU:HD21	19:AI:29:ARG:HG2	1.81	0.61
19:AI:51:VAL:O	19:AI:58:VAL:N	2.31	0.61
1:13:659:U:H2'	1:13:660:G:C8	2.36	0.61
26:14:140:A:C8	26:14:1408:C:O2'	2.53	0.61
26:14:1678:G:N2	26:14:1989:G:H22	1.99	0.61
26:14:1568:G:P	29:19:63:ARG:HH12	2.24	0.61
10:1A:38:ILE:HG13	10:1A:71:LEU:HB3	1.82	0.61
26:1H:2133:G:O2'	26:1H:2157:G:N2	2.34	0.61
26:1H:732:C:OP2	60:1H:3538:HOH:O	2.15	0.61
27:1J:2:C:H2'	27:1J:3:C:C6	2.36	0.61
36:25:7:TYR:CE1	36:25:20:MET:HB2	2.36	0.61
26:14:606:U:OP2	31:39:104:LYS:CD	2.49	0.61
24:3K:15:G:H1	24:3K:48:C:H42	1.49	0.61
32:49:153:ARG:HD3	32:49:153:ARG:N	2.15	0.61
14:5A:45:ARG:O	14:5A:49:HIS:HD2	1.84	0.61
34:69:77:LEU:HD12	34:69:78:THR:H	1.64	0.61
37:78:39:LYS:CB	37:78:45:LEU:HD11	2.31	0.61
53:J5:16:ARG:HG3	53:J5:17:ASP:N	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:50:A:H1'	1:13:52:G:C8	2.35	0.61
26:14:2507:C:H5''	26:14:2573:C:N4	2.16	0.61
30:29:151:TYR:HB3	35:15:79:PRO:HG3	1.81	0.61
1:1G:157:G:H1	1:1G:164:U:H3	1.47	0.61
26:1H:2123:G:H1'	28:71:172:HIS:ND1	2.16	0.61
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.32	0.61
26:1H:732:C:H3'	60:1H:3504:HOH:O	2.01	0.61
35:58:35:ARG:HD3	35:58:37:LYS:HD2	1.83	0.61
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.16	0.61
1:13:1080:A:H5'	5:4E:14:ARG:NH2	2.16	0.60
1:13:737:A:H2'	1:13:738:C:H6	1.63	0.60
26:14:2287:A:H62	26:14:2344:U:H3	1.49	0.60
26:14:287:C:H2'	26:14:288:C:H6	1.66	0.60
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.34	0.60
26:1H:2096:U:H3	26:1H:2193:G:H1	1.46	0.60
26:1H:270(P):C:H1'	34:61:50:ARG:NH1	2.16	0.60
3:2E:5:ILE:HD11	3:2E:10:PHE:CD1	2.35	0.60
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.83	0.60
28:71:41:VAL:HG22	28:71:216:THR:HG22	1.83	0.60
8:7E:11:THR:HG23	8:7E:14:ARG:HH12	1.66	0.60
49:F5:92:LYS:O	49:F5:94:LEU:N	2.34	0.60
29:11:158:ALA:O	29:11:161:THR:OG1	2.12	0.60
29:11:65:ILE:HD11	29:11:67:PHE:CZ	2.35	0.60
26:14:1316:U:H2'	26:14:1317:A:C8	2.36	0.60
26:14:259:G:H21	26:14:621:A:H8	1.48	0.60
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.36	0.60
24:3K:5:C:O2'	24:3K:68:G:N2	2.22	0.60
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.81	0.60
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.83	0.60
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.65	0.60
44:A5:45:TYR:CZ	44:A5:49:LYS:HD2	2.37	0.60
19:AI:21:GLU:O	19:AI:25:LYS:HB2	2.01	0.60
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.37	0.60
26:14:1754:C:H2'	26:14:1755:A:C8	2.36	0.60
35:15:15:LEU:HB2	35:15:134:ARG:HB2	1.83	0.60
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.65	0.60
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.34	0.60
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.34	0.60
4:32:18:LYS:NZ	58:32:301:SF4:S1	2.71	0.60
31:39:7:TYR:HE2	31:39:10:PRO:HG3	1.66	0.60
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.82	0.60
40:65:15:ARG:O	40:65:19:LYS:HD3	2.02	0.60
8:7E:17:THR:HG21	8:7E:80:ILE:HD11	1.83	0.60
50:K8:4:SER:HB3	50:K8:6:VAL:N	2.16	0.60
1:13:1348:U:H3	1:13:1374:A:H2	1.48	0.60
26:14:1169:G:H1	26:14:1180:C:H42	1.50	0.60
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.35	0.60
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.82	0.60
30:21:116:VAL:HG21	30:21:122:PHE:CE2	2.36	0.60
25:4L:13:A:H2'	25:4L:14:A:O4'	2.01	0.60
6:52:7:ASN:HD21	18:9A:34:TYR:HE2	1.48	0.60
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.83	0.60
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.82	0.60
47:D5:45:ASP:O	47:D5:49:ARG:HG2	2.01	0.60
55:Q8:38:GLY:O	55:Q8:42:ARG:HB2	2.01	0.60
1:13:1145:C:H4'	1:13:1146:A:H8	1.67	0.60
26:14:1451:C:H6	26:14:1451:C:H5''	1.64	0.60
26:14:162:U:H4'	26:14:171:G:O4'	2.02	0.60
26:14:666:G:H5''	37:35:47:ASP:O	2.02	0.60
1:1G:142:G:H2'	1:1G:143:A:H8	1.65	0.60
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.65	0.60
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.36	0.60
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.14	0.60
26:1H:730:C:OP2	60:1H:3509:HOH:O	2.16	0.60
26:1H:760:G:OP1	60:1H:3541:HOH:O	2.16	0.60
27:1J:13:A:N1	27:1J:69:G:O2'	2.31	0.60
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.81	0.60
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.02	0.60
38:45:32:TYR:HE1	38:45:133:ARG:HG3	1.67	0.60
32:49:73:ALA:HB3	32:49:85:GLY:H	1.67	0.60
42:85:100:VAL:O	42:85:101:ARG:HG2	2.01	0.60
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.36	0.60
40:A8:83:LYS:HA	40:A8:109:GLY:HA2	1.82	0.60
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.32	0.60
1:13:221:C:H2'	1:13:222:U:C6	2.35	0.60
1:13:659:U:H2'	1:13:660:G:H8	1.66	0.60
26:14:1636:C:H2'	26:14:1637:A:C8	2.36	0.60
26:14:1786:A:H2	26:14:2606:C:H1'	1.67	0.60
26:14:2294:C:P	40:65:89:ARG:HH22	2.23	0.60
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.66	0.60
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.08	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:59:ARG:HB3	3:22:64:VAL:HG23	1.83	0.60
3:2E:88:ARG:HH11	3:2E:101:LEU:HB3	1.65	0.60
31:31:197:ASP:N	31:31:197:ASP:OD1	2.31	0.60
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.84	0.60
8:7E:82:HIS:HE1	8:7E:138:TRP:NE1	2.00	0.60
45:F8:26:TYR:CD2	45:F8:89:ILE:HD12	2.37	0.60
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.31	0.60
1:13:343:U:H2'	1:13:345:C:H1'	1.82	0.60
1:1G:762:C:H2'	1:1G:763:G:C8	2.37	0.60
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.37	0.60
30:29:35:GLN:NE2	30:29:37:ARG:CZ	2.64	0.60
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.83	0.60
16:7A:67:THR:H	16:7A:70:ALA:HB3	1.67	0.60
1:1G:1178:G:H5''	9:82:93:ARG:HH22	1.66	0.60
1:13:1368:G:OP1	9:8E:111:ARG:NH2	2.34	0.60
2:12:70:PHE:N	2:12:92:TYR:HA	2.17	0.60
1:13:601:C:H2'	1:13:602:A:C8	2.37	0.60
26:14:1639:U:OP1	60:14:3417:HOH:O	2.16	0.60
1:1G:269:C:H2'	1:1G:270:A:C8	2.37	0.60
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.37	0.60
26:1H:2106:G:H22	26:1H:2184:G:H1'	1.67	0.60
26:1H:2336:A:H61	48:I8:43:THR:HB	1.66	0.60
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.30	0.60
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.83	0.60
30:21:77:ILE:O	30:21:79:ARG:N	2.34	0.60
23:2L:24:C:H2'	23:2L:25:U:H6	1.65	0.60
31:31:126:VAL:O	31:31:196:LEU:HD22	2.02	0.60
4:3E:10:ARG:HG3	4:3E:11:LEU:N	2.15	0.60
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.34	0.60
35:58:131:GLN:OE1	35:58:132:ALA:N	2.35	0.60
1:1G:1320:C:N4	19:AA:36:ARG:HG3	2.17	0.60
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.82	0.60
26:14:1106:G:C8	26:14:1107:G:C8	2.90	0.60
26:14:2520:C:H41	26:14:2542:A:H62	1.49	0.60
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.35	0.60
26:1H:1042:G:H1	26:1H:1113:U:H3	1.49	0.60
26:1H:1170:G:N2	26:1H:1180:C:O2	2.35	0.60
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.30	0.60
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.37	0.60
30:21:105:THR:HG22	30:21:106:GLY:H	1.66	0.60
24:3K:53:G:O6	24:3K:61:C:N4	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:12:ARG:HG2	35:58:13:TRP:H	1.66	0.60
7:62:148:ASN:O	7:62:149:ARG:HD3	2.00	0.60
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.83	0.60
1:13:1131:G:OP1	9:8E:20:ARG:NH2	2.35	0.60
47:D5:71:VAL:HG12	47:D5:88:PHE:HE1	1.66	0.60
51:H5:5:LYS:HG3	51:H5:36:VAL:HG22	1.84	0.60
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG2	1.83	0.60
1:13:983:A:H5''	1:13:984:C:OP2	2.02	0.60
26:14:1784:A:OP1	60:14:3418:HOH:O	2.16	0.60
26:14:19:C:H2'	26:14:20:C:C6	2.37	0.60
26:1H:528:A:C2	26:1H:2043:C:H4'	2.37	0.60
23:2K:20:G:C2	23:2K:58:A:N3	2.70	0.60
31:31:178:PRO:HB3	31:31:198:ALA:HA	1.84	0.60
4:3E:85:LYS:C	4:3E:88:VAL:HG23	2.22	0.60
35:58:57:ALA:O	35:58:59:LYS:N	2.35	0.60
34:61:37:VAL:HG11	34:61:43:ASN:HD22	1.67	0.60
40:65:41:ASP:OD2	40:65:44:LYS:HE3	2.02	0.60
44:A5:72:LYS:HE2	44:A5:108:GLY:HA3	1.84	0.60
47:D5:137:ILE:HG23	47:D5:156:LYS:H	1.66	0.60
46:G8:87:LYS:H	46:G8:94:LYS:HG2	1.67	0.60
1:13:658:G:H2'	1:13:659:U:H6	1.67	0.59
1:13:917:G:H2'	1:13:918:A:C8	2.36	0.59
26:14:2346:A:H5''	26:14:2383:G:H1'	1.84	0.59
26:14:2712:U:H2'	26:14:2714:G:H5''	1.83	0.59
26:14:2689:U:OP2	26:14:2719:G:N2	2.32	0.59
26:14:654(C):G:N1	26:14:654(R):C:O2'	2.23	0.59
2:1E:5:ILE:HG22	2:1E:224:GLN:OE1	2.02	0.59
1:1G:112:G:OP1	16:7A:27:LYS:HE3	2.01	0.59
1:1G:618:C:H5'	1:1G:619:U:H5''	1.83	0.59
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.66	0.59
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.28	0.59
30:29:25:VAL:HG12	30:29:26:ILE:N	2.17	0.59
24:3K:65:C:H2'	24:3K:66:A:H8	1.66	0.59
26:14:870:A:H5''	38:45:6:ARG:HB3	1.84	0.59
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.37	0.59
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.17	0.59
28:79:201:PRO:HD2	28:79:208:PHE:CZ	2.37	0.59
50:K8:4:SER:HB2	50:K8:7:ARG:CG	2.24	0.59
2:12:158:LEU:HD23	2:12:158:LEU:H	1.67	0.59
2:12:71:VAL:HG12	2:12:170:GLU:HG2	1.84	0.59
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.22	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2689:U:H5''	26:14:2713:A:C2	2.36	0.59
26:14:2849:U:O4	41:75:23:ARG:NH2	2.35	0.59
1:1G:1177:G:O2'	1:1G:1178:G:O5'	2.19	0.59
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.37	0.59
26:1H:176:G:O2'	26:1H:177:G:H5'	2.02	0.59
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.37	0.59
26:1H:455:C:N3	26:1H:472:A:H2'	2.17	0.59
26:1H:848:G:H2'	26:1H:849:A:C8	2.37	0.59
27:1J:102:G:N7	60:1J:303:HOH:O	2.32	0.59
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.02	0.59
23:2L:50:G:H1	23:2L:66:C:N4	1.95	0.59
4:3E:18:LYS:HG2	58:3E:302:SF4:S1	2.42	0.59
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.66	0.59
52:M8:15:ILE:HG13	52:M8:20:ASN:OD1	2.02	0.59
2:12:18:GLY:HA2	2:12:41:ILE:HD13	1.85	0.59
2:12:53:ARG:HB3	2:12:57:PHE:CZ	2.36	0.59
1:13:976:G:N2	1:13:1362(A):C:OP2	2.23	0.59
1:13:196:A:O2'	1:13:197:A:H2'	2.03	0.59
1:13:504:C:OP1	60:13:1810:HOH:O	2.17	0.59
1:1G:1289:A:OP2	21:1B:9:ARG:NH2	2.36	0.59
1:1G:983:A:H2	1:1G:984:C:C6	2.20	0.59
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.66	0.59
26:1H:747:U:O2	26:1H:2014:A:H1'	2.01	0.59
26:1H:969:U:H2'	26:1H:970:C:C6	2.37	0.59
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.02	0.59
22:1K:17:U:O2'	22:1K:57:G:N2	2.34	0.59
30:29:112:GLY:O	30:29:159:HIS:HA	2.03	0.59
31:31:153:SER:H	31:31:190:GLU:HG3	1.65	0.59
5:42:67:VAL:HG21	5:42:140:ARG:HA	1.84	0.59
34:69:2:LYS:HA	34:69:20:ASP:HA	1.83	0.59
15:6I:54:ARG:HA	15:6I:57:LEU:HD12	1.84	0.59
28:71:35:ALA:HB2	28:71:218:MET:HG2	1.82	0.59
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	1.82	0.59
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.01	0.59
43:D8:30:GLY:H	43:D8:61:VAL:HG23	1.68	0.59
48:E5:46:LYS:HB2	48:E5:77:ARG:O	2.02	0.59
29:11:242:ARG:N	29:11:242:ARG:HD2	2.17	0.59
1:13:510:A:OP2	60:13:1809:HOH:O	2.17	0.59
26:14:2125:G:OP1	28:79:42:GLU:HB3	2.03	0.59
26:14:579:G:H2'	26:14:580:C:C6	2.37	0.59
26:1H:1534:G:N1	26:1H:1539:G:H1'	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.59
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.38	0.59
4:3E:122:ARG:HH22	4:3E:134:ASP:HB3	1.65	0.59
1:13:427:U:OP2	4:3E:36:ARG:NH2	2.31	0.59
32:41:139:LEU:HD13	32:41:146:TYR:HD2	1.67	0.59
33:51:3:ARG:NE	33:51:3:ARG:HA	2.18	0.59
6:5E:62:TRP:HH2	6:5E:64:GLN:HG2	1.67	0.59
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.84	0.59
36:68:75:SER:CB	41:B8:74:ARG:HH12	2.14	0.59
8:7E:95:VAL:HG21	8:7E:133:LEU:HD12	1.84	0.59
8:7E:82:HIS:HE1	8:7E:138:TRP:CE2	2.17	0.59
29:11:183:ARG:HD3	29:11:270:ILE:HG12	1.84	0.59
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.35	0.59
26:14:923:C:H2'	26:14:924:C:C6	2.38	0.59
26:1H:1053:C:H5''	26:1H:1107:G:N2	2.17	0.59
26:1H:2052:G:H4'	30:21:143:ASN:O	2.02	0.59
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.67	0.59
22:1K:26:A:H3'	22:1K:27:G:C8	2.37	0.59
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.82	0.59
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.67	0.59
7:6E:77:SER:OG	7:6E:84:ASN:OD1	2.19	0.59
8:72:114:THR:OG1	8:72:116:LYS:O	2.19	0.59
17:8A:7:THR:HG22	17:8A:58:GLU:HG2	1.84	0.59
46:C5:46:LYS:HB3	46:C5:60:PHE:HA	1.83	0.59
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.83	0.59
27:16:77:U:P	47:H8:19:ARG:HH22	2.25	0.59
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.36	0.59
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.67	0.59
1:13:813:U:OP2	1:13:816:A:N6	2.34	0.59
26:14:1729:A:H2'	26:14:1731:G:N2	2.16	0.59
26:14:2134:A:C2	26:14:2159:G:H1'	2.38	0.59
26:14:70:G:H21	26:14:71:A:N6	2.00	0.59
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.03	0.59
1:1G:187:C:H2'	1:1G:188:U:O4'	2.02	0.59
1:1G:490:G:P	4:32:132:ARG:HH22	2.25	0.59
22:1K:5:C:O2'	22:1K:68:G:N2	2.35	0.59
3:2E:19:GLU:HG2	3:2E:54:ARG:HH11	1.67	0.59
5:42:80:ILE:HG22	8:72:104:ARG:HD2	1.83	0.59
38:45:74:TYR:O	38:45:89:ASN:HB2	2.02	0.59
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.85	0.59
39:55:97:VAL:HA	39:55:113:LEU:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:154:PRO:HA	33:59:161:GLY:HA3	1.84	0.59
40:65:23:ARG:HH12	40:65:84:GLN:HB2	1.67	0.59
15:6A:28:GLN:HA	15:6A:31:LEU:HD22	1.84	0.59
28:71:192:PHE:O	28:71:196:LEU:HB2	2.03	0.59
19:AA:66:MET:N	19:AA:67:VAL:HB	2.18	0.59
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.38	0.59
20:BA:10:LEU:HD13	20:BA:12:ALA:H	1.67	0.59
51:L8:9:VAL:HG21	51:L8:55:ARG:HB2	1.83	0.59
53:N8:31:VAL:HB	53:N8:42:PRO:HG3	1.83	0.59
29:11:106:ILE:HD11	29:11:143:HIS:CD2	2.36	0.59
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.35	0.59
26:14:161:U:H5'	26:14:171:G:H21	1.67	0.59
26:14:1754:C:P	41:75:96:ARG:HH12	2.26	0.59
26:14:2134:A:H61	26:14:2156:G:H2'	1.67	0.59
26:14:2320:A:H61	26:14:2333:A:H2'	1.67	0.59
26:14:2022:U:O2'	26:14:2617:C:H5'	2.03	0.59
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.84	0.59
2:1E:166:ASP:C	2:1E:168:THR:H	2.06	0.59
1:1G:987:G:H1	1:1G:1218:C:H42	1.50	0.59
26:1H:2505:G:O6	26:1H:2576:G:H2'	2.03	0.59
26:1H:2611:U:H2'	53:N8:3:LYS:HG2	1.84	0.59
22:1K:75:C:O2	26:1H:2507:C:O2'	2.17	0.59
40:A8:4:LEU:HD23	40:A8:8:GLU:HG3	1.85	0.59
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.18	0.59
1:13:1446:A:OP1	1:13:1446:A:H4'	2.01	0.59
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.35	0.59
26:14:2173:A:O2'	26:14:2174:C:OP1	2.20	0.59
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.35	0.59
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.33	0.59
26:14:796:C:H2'	26:14:797:C:C6	2.38	0.59
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.51	0.59
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.38	0.59
1:1G:598:U:H2'	1:1G:599:C:C6	2.36	0.59
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	0.59
26:1H:818:G:H4'	26:1H:838:C:O3'	2.02	0.59
4:32:3:ARG:HH11	4:32:118:ARG:HD3	1.66	0.59
12:3A:6:THR:OG1	12:3A:9:GLN:HB2	2.01	0.59
5:42:61:TYR:HA	5:42:64:ARG:HG3	1.83	0.59
3:2E:5:ILE:HD12	14:5I:58:LYS:HZ3	1.68	0.59
50:G5:45:SER:O	50:G5:46:GLN:OE1	2.21	0.59
55:M5:22:VAL:HG12	55:M5:50:LEU:HG	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.68	0.59
1:13:1127:G:H1'	1:13:1148:U:H3	1.66	0.59
26:14:140:A:H8	26:14:1408:C:O2'	1.86	0.59
26:14:2567:G:H2'	26:14:2568:C:C6	2.38	0.59
26:14:2784:C:H2'	26:14:2785:C:C6	2.38	0.59
1:1G:817:C:H5'	60:1G:1727:HOH:O	2.02	0.59
26:1H:2324:C:O2'	26:1H:2337:G:H5''	2.01	0.59
26:1H:957:A:N1	26:1H:2458:G:H4'	2.17	0.59
4:32:173:TRP:CE3	4:32:189:PRO:HB3	2.38	0.59
13:4I:79:LYS:O	13:4I:83:ASP:HB3	2.03	0.59
33:51:81:GLU:O	33:51:81:GLU:HG2	2.03	0.59
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.66	0.59
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.85	0.59
43:95:76:LYS:HD2	43:95:80:GLN:O	2.02	0.59
39:98:15:SER:OG	60:98:301:HOH:O	2.15	0.59
39:98:78:LYS:O	39:98:83:ILE:HG13	2.02	0.59
45:B5:1:MET:H2	50:G5:29:LYS:HE3	1.67	0.59
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.85	0.59
26:14:1187:G:O5'	26:14:1187:G:H8	1.85	0.59
26:14:1316:U:H2'	26:14:1317:A:H8	1.67	0.59
26:14:1332:G:H21	26:14:1610:A:H8	1.50	0.59
26:14:1519:G:H2'	26:14:1520:U:O4'	2.03	0.59
26:14:1794:U:H2'	26:14:1795:C:H6	1.68	0.59
26:14:2134:A:N6	26:14:2156:G:H2'	2.16	0.59
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.37	0.59
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.25	0.59
1:1G:122:G:H1	1:1G:239:U:H3	1.51	0.59
26:1H:265:A:H8	26:1H:266:G:H1'	1.68	0.59
26:1H:315:G:H2'	26:1H:316:C:C6	2.38	0.59
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.84	0.59
8:7E:23:SER:HA	8:7E:61:VAL:O	2.02	0.59
20:BA:45:GLN:HA	20:BA:91:LEU:HB3	1.83	0.59
46:C5:50:ARG:HB3	46:C5:53:PRO:CD	2.30	0.59
50:K8:2:LYS:O	50:K8:4:SER:HA	2.03	0.59
52:M8:1:MET:N	52:M8:1:MET:HE3	2.17	0.59
1:13:1122:U:O4	1:13:1123:A:N6	2.36	0.58
1:13:1510:U:H2'	1:13:1511:G:C8	2.37	0.58
1:13:156:G:H2'	1:13:157:G:H8	1.67	0.58
1:13:589:C:H42	1:13:650:G:H1	1.51	0.58
26:14:2734:A:H2'	26:14:2735:G:O4'	2.03	0.58
26:14:71:A:H4'	26:14:72:U:H5''	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.66	0.58
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.68	0.58
30:29:51:PHE:CG	30:29:52:LEU:N	2.71	0.58
31:39:28:ILE:HA	31:39:112:MET:HB3	1.84	0.58
24:3L:27:G:H21	24:3L:45:G:H22	1.50	0.58
38:45:22:LYS:N	38:45:23:GLY:HA3	2.18	0.58
38:45:37:LEU:HD11	38:45:130:LYS:HB3	1.85	0.58
38:45:66:ILE:HG22	38:45:104:PHE:CE1	2.37	0.58
35:58:96:GLU:C	35:58:98:VAL:H	2.05	0.58
28:71:215:THR:HG23	28:71:219:GLY:O	2.03	0.58
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.33	0.58
9:82:33:PHE:O	9:82:37:PHE:HB2	2.02	0.58
38:88:2:LEU:H	38:88:2:LEU:HD12	1.67	0.58
43:D8:10:LYS:NZ	43:D8:23:GLU:OE1	2.36	0.58
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.68	0.58
2:12:136:VAL:O	2:12:139:LYS:HG2	2.03	0.58
2:12:188:ALA:HB1	2:12:192:SER:HB2	1.85	0.58
1:13:1128:C:H2'	1:13:1139:G:O6	2.01	0.58
1:13:652:U:O2'	1:13:653:A:O5'	2.19	0.58
35:15:13:TRP:O	35:15:135:PRO:HD2	2.02	0.58
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.04	0.58
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.85	0.58
11:2A:20:TYR:CE2	11:2A:83:ILE:HD12	2.38	0.58
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.02	0.58
4:32:172:PRO:HB2	4:32:187:ARG:NH2	2.19	0.58
7:62:68:ASN:ND2	7:62:127:ALA:O	2.26	0.58
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.85	0.58
37:78:31:ALA:O	37:78:32:THR:HB	2.02	0.58
26:1H:389:G:N1	37:78:71:VAL:HG12	2.17	0.58
26:14:2176:A:H1'	28:79:44:HIS:CE1	2.37	0.58
28:79:49:ILE:HD13	28:79:56:GLN:HB3	1.84	0.58
9:8E:55:ALA:HB1	9:8E:59:PHE:HD2	1.67	0.58
20:BA:29:LYS:O	20:BA:33:ILE:HG12	2.03	0.58
1:13:223:U:H2'	1:13:224:C:H6	1.67	0.58
1:13:266:G:H5''	1:13:267:C:C5	2.38	0.58
26:14:1005:C:H2'	26:14:1006:C:C6	2.39	0.58
26:14:1198:U:H2'	26:14:1199:U:H6	1.68	0.58
26:14:1427:A:H4'	26:14:1428:C:O4'	2.02	0.58
26:14:2176:A:HO2'	28:79:44:HIS:CE1	2.17	0.58
26:14:270(N):G:O2'	26:14:270(O):U:H5'	2.03	0.58
26:14:2720:U:H3	26:14:2873:A:H2	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:459:U:H2'	26:14:460:A:H8	1.66	0.58
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.35	0.58
1:1G:841:U:H4'	1:1G:842:C:C6	2.38	0.58
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.33	0.58
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.68	0.58
7:62:148:ASN:ND2	7:62:148:ASN:O	2.36	0.58
40:65:10:ARG:HA	40:65:13:ARG:HE	1.68	0.58
40:65:23:ARG:NH1	40:65:85:VAL:O	2.36	0.58
16:7I:5:ARG:HE	16:7I:22:THR:CG2	2.16	0.58
9:82:9:ARG:HA	9:82:13:ALA:O	2.03	0.58
19:AA:41:VAL:HG22	19:AA:44:MET:HG3	1.86	0.58
53:J5:47:PRO:HA	53:J5:56:LYS:NZ	2.18	0.58
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	2.02	0.58
26:14:2103:C:O2	26:14:2186:G:N2	2.33	0.58
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.38	0.58
26:1H:1299:G:OP1	60:1H:3540:HOH:O	2.16	0.58
26:1H:1332:G:C8	26:1H:1332:G:H5'	2.38	0.58
26:1H:2068:U:N3	26:1H:2430:A:H2	2.02	0.58
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.38	0.58
26:1H:55:G:H2'	26:1H:56:A:C8	2.37	0.58
26:1H:987:G:OP2	60:1H:3547:HOH:O	2.17	0.58
36:25:20:MET:HE3	36:25:44:LYS:HE3	1.86	0.58
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.86	0.58
5:4E:91:LEU:HD13	5:4E:120:THR:HG22	1.85	0.58
34:69:133:HIS:CG	34:69:134:PRO:HD3	2.38	0.58
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.38	0.58
49:F5:51:VAL:HG23	49:F5:58:ILE:HB	1.85	0.58
47:H8:9:TYR:CE1	47:H8:61:LEU:HD12	2.38	0.58
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.33	0.58
55:M5:14:VAL:HG21	55:M5:58:ILE:HD11	1.84	0.58
2:12:136:VAL:HA	2:12:139:LYS:HD3	1.86	0.58
1:13:1189:C:OP1	14:5I:58:LYS:NZ	2.36	0.58
1:13:279:A:H4'	1:13:280:C:H5''	1.85	0.58
1:13:859:A:H2'	1:13:860:A:C8	2.37	0.58
26:14:1149:G:H2'	26:14:1150:C:C6	2.39	0.58
26:14:1835:G:H5'	26:14:1836:C:OP2	2.04	0.58
26:14:2233:U:H2'	26:14:2234:G:C8	2.38	0.58
26:14:730:C:C2'	26:14:731:C:H5'	2.33	0.58
29:19:3:VAL:HG13	29:19:17:THR:HB	1.86	0.58
26:1H:1194:A:OP2	26:1H:1194:A:H8	1.86	0.58
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:664:C:OP1	37:78:18:ARG:NH2	2.37	0.58
26:1H:739:G:OP1	60:1H:3544:HOH:O	2.16	0.58
27:1J:3:C:H2'	27:1J:4:C:C6	2.39	0.58
24:3L:3:G:H2'	24:3L:4:U:O4'	2.04	0.58
13:4A:16:ASP:N	13:4A:16:ASP:OD1	2.36	0.58
13:4I:3:ARG:CB	13:4I:9:ILE:HG12	2.29	0.58
17:8A:99:SER:OG	17:8A:100:LYS:N	2.37	0.58
20:BA:35:THR:HG22	20:BA:36:LEU:HD23	1.86	0.58
20:BI:29:LYS:O	20:BI:33:ILE:HD12	2.04	0.58
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.03	0.58
1:13:1011:G:H1	1:13:1018:C:H42	1.50	0.58
1:13:592:G:H2'	1:13:593:G:H8	1.69	0.58
26:14:2675:A:H4'	36:25:29:ASN:ND2	2.17	0.58
26:14:2872:G:C4	26:14:2873:A:C2	2.92	0.58
29:19:242:ARG:H	29:19:242:ARG:HH11	1.52	0.58
1:1G:67:C:H2'	1:1G:68:G:C8	2.38	0.58
26:1H:118:A:H5'	26:1H:119:A:C8	2.38	0.58
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.04	0.58
26:1H:2133:G:HO2'	26:1H:2157:G:N2	2.02	0.58
26:1H:928:G:OP2	60:1H:3546:HOH:O	2.17	0.58
22:1L:34:U8U:H5''	22:1L:34:U8U:H6	1.86	0.58
22:1L:73:A:O3'	22:1L:74:C:H4'	2.02	0.58
30:21:176:ILE:HB	30:21:181:LEU:HB2	1.85	0.58
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.85	0.58
31:39:83:PHE:O	31:39:84:VAL:HB	2.03	0.58
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.85	0.58
26:14:870:A:OP1	38:45:6:ARG:NH1	2.37	0.58
28:71:64:LEU:HD23	28:71:65:PRO:HD2	1.86	0.58
37:78:83:VAL:O	37:78:114:ILE:HD12	2.04	0.58
16:7I:20:VAL:HG22	16:7I:32:TYR:HB2	1.86	0.58
50:G5:32:LEU:HB2	50:G5:53:LEU:HD13	1.84	0.58
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.02	0.58
51:L8:8:LEU:HD22	51:L8:31:LEU:CD2	2.33	0.58
52:M8:16:CYS:SG	52:M8:36:CYS:HB2	2.44	0.58
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.19	0.58
1:13:1003:G:H2'	1:13:1004:A:H4'	1.84	0.58
26:14:1689:A:H62	26:14:1698:A:H2	1.51	0.58
26:14:2107:C:O2	26:14:2182:G:N2	2.30	0.58
26:14:673:C:O2'	31:39:82:ILE:HD11	2.03	0.58
26:14:686:G:N2	26:14:788:A:H61	2.02	0.58
26:14:910:A:H62	38:45:12:GLN:HA	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:118:VAL:HG22	29:19:119:ALA:H	1.69	0.58
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.38	0.58
1:1G:1532:U:O2'	1:1G:1534:A:OP2	2.20	0.58
26:1H:1021:A:C8	26:1H:1022:G:H5'	2.38	0.58
26:1H:2572:A:N7	30:21:144:ARG:HG2	2.19	0.58
30:21:31:CYS:HB2	30:21:91:VAL:HG23	1.86	0.58
26:14:2675:A:H4'	36:25:29:ASN:HD21	1.68	0.58
30:29:33:VAL:HG13	30:29:47:VAL:HG13	1.85	0.58
9:82:20:ARG:HH12	9:82:22:GLY:HA3	1.68	0.58
1:13:957:U:N3	1:13:960:U:OP2	2.33	0.58
26:14:2180:U:H2'	26:14:2181:G:O4'	2.04	0.58
26:14:90:U:H1'	26:14:91:A:C8	2.39	0.58
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.86	0.58
2:1E:11:LEU:O	2:1E:14:GLY:N	2.36	0.58
1:1G:954:G:O6	13:4A:104:ARG:NH1	2.37	0.58
26:1H:274:G:N2	26:1H:276:A:H61	2.02	0.58
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.37	0.58
30:29:150:VAL:HG13	30:29:154:LYS:HD2	1.84	0.58
30:29:197:ILE:HD11	30:29:199:ARG:HE	1.68	0.58
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.68	0.58
31:31:29:ASN:H	31:31:112:MET:CE	2.16	0.58
9:82:24:GLY:HA2	9:82:59:PHE:O	2.03	0.58
20:BI:30:LYS:HZ1	20:BI:80:ARG:HH12	1.50	0.58
47:D5:65:GLN:NE2	47:D5:67:LEU:HD21	2.18	0.58
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.85	0.58
54:P8:29:LYS:HA	54:P8:32:LYS:HB2	1.86	0.58
2:12:187:LEU:HD21	2:12:203:GLY:HA3	1.86	0.58
1:13:664:G:N2	1:13:741:G:H1	1.97	0.58
26:14:1332:G:H8	26:14:1332:G:H5'	1.68	0.58
26:14:1757:U:N3	26:14:1762:A:H2	1.91	0.58
26:14:2009:G:N3	39:55:107:ASP:HA	2.18	0.58
26:14:2197:U:H1'	26:14:2198:A:C8	2.38	0.58
26:14:581:C:H2'	26:14:582:G:C8	2.38	0.58
1:1G:10:A:H2'	1:1G:11:G:H8	1.69	0.58
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.37	0.58
1:1G:422:C:HO2'	1:1G:423:G:N2	2.01	0.58
1:1G:512:U:H2'	1:1G:513:C:C6	2.39	0.58
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.39	0.58
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.84	0.58
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.04	0.58
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:13:ARG:NH2	4:3E:36:ARG:HH21	2.02	0.58
1:13:362:G:H4'	12:3I:33:ARG:HH21	1.69	0.58
6:5E:23:LYS:HA	6:5E:26:ILE:HD12	1.86	0.58
26:14:2875:C:O2'	41:75:3:ARG:NE	2.36	0.58
37:78:106:LEU:HD23	37:78:112:LEU:HD23	1.86	0.58
9:8E:95:LYS:O	9:8E:96:LEU:HD12	2.04	0.58
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.14	0.58
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.04	0.58
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.86	0.58
52:M8:9:LEU:HD12	52:M8:27:THR:N	2.18	0.58
26:14:5:A:H2'	26:14:6:A:H5''	1.85	0.58
1:1G:280:C:H3'	1:1G:281:G:H5'	1.86	0.58
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.04	0.58
3:22:190:ARG:NE	3:22:190:ARG:HA	2.19	0.58
12:3A:84:LEU:HB2	12:3A:104:VAL:HG21	1.85	0.58
38:45:34:LEU:HD11	38:45:129:THR:HB	1.86	0.58
13:4A:108:ARG:HD3	13:4A:114:ARG:HG2	1.85	0.58
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.86	0.58
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.86	0.58
37:78:1:MET:HE2	37:78:5:ASP:OD1	2.04	0.58
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.69	0.58
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.85	0.58
50:G5:14:ARG:O	50:G5:15:LYS:HG2	2.04	0.58
46:G8:82:PRO:HG3	46:G8:97:ARG:HB3	1.86	0.58
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.67	0.58
29:11:146:GLU:HG3	29:11:190:TYR:N	2.19	0.57
2:12:93:VAL:HG22	2:12:152:PHE:HB2	1.85	0.57
1:13:1429:C:H2'	1:13:1430:C:H6	1.69	0.57
1:13:168:G:H21	1:13:169:C:H41	1.52	0.57
1:13:625:G:H4'	16:7I:16:HIS:CG	2.39	0.57
26:14:2129:C:H5''	26:14:2130:U:H5	1.69	0.57
26:14:829:A:N7	26:14:2248:C:H5'	2.19	0.57
26:14:2306:C:H2'	26:14:2307:G:N2	2.17	0.57
27:16:44:G:H1'	27:16:47:C:N4	2.19	0.57
29:19:66:ASP:HB3	29:19:105:ILE:HD12	1.85	0.57
26:1H:1138:G:H21	35:58:106:MET:CE	2.17	0.57
26:1H:125:G:H5'	26:1H:125:G:C8	2.39	0.57
26:1H:2120:G:N2	26:1H:2178:C:O2	2.28	0.57
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.86	0.57
26:1H:2863:C:H2'	26:1H:2864:G:H8	1.69	0.57
26:1H:817:C:H4'	26:1H:932:G:C5	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:68:ALA:C	30:29:70:ALA:H	2.08	0.57
30:29:70:ALA:HB1	30:29:72:VAL:HG22	1.86	0.57
24:3K:15:G:N1	24:3K:48:C:N4	2.52	0.57
5:4E:15:ARG:NH1	25:4K:25:A:H5'	2.18	0.57
33:59:53:GLU:OE1	33:59:53:GLU:HA	2.04	0.57
14:5A:4:LYS:O	14:5A:7:ILE:HG12	2.04	0.57
1:13:1139:G:N2	1:13:1143:G:H1	2.02	0.57
1:13:317:G:H1	1:13:336:C:H42	1.52	0.57
1:13:658:G:H2'	1:13:659:U:C6	2.40	0.57
1:13:67:C:H2'	1:13:68:G:C8	2.39	0.57
26:14:2788:C:O2'	26:14:2809:A:N3	2.36	0.57
29:19:23:GLU:HG2	29:19:24:ILE:HD12	1.84	0.57
2:1E:17:PHE:HA	2:1E:42:ILE:HB	1.85	0.57
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.01	0.57
1:1G:1015:A:O2'	14:5A:15:LYS:NZ	2.33	0.57
1:1G:977:A:O2'	1:1G:981:U:N3	2.33	0.57
27:1J:15:A:H1'	27:1J:109:G:N7	2.18	0.57
30:21:128:SER:OG	30:21:129:HIS:N	2.37	0.57
3:2E:122:GLU:O	3:2E:126:ARG:HG2	2.04	0.57
34:61:14:ASP:N	34:61:17:GLN:OE1	2.37	0.57
34:61:47:LEU:O	34:61:51:ILE:N	2.30	0.57
28:79:50:ASP:O	28:79:56:GLN:NE2	2.36	0.57
1:13:1318:A:H5''	19:AI:10:PHE:CD2	2.39	0.57
26:14:498:G:H21	46:C5:47:LYS:NZ	2.01	0.57
1:13:1030:C:H2'	1:13:1031:G:H8	1.66	0.57
1:13:680:C:H2'	1:13:681:C:C6	2.39	0.57
26:14:1298:C:H5''	26:14:1299:G:OP2	2.04	0.57
26:14:1999:C:H4'	26:14:2723:C:O2	2.04	0.57
26:14:806:C:O2	26:14:2444:G:O2'	2.21	0.57
1:1G:538:G:H5''	12:3A:114:LYS:HB2	1.85	0.57
26:1H:86:C:H4'	26:1H:104:U:H1'	1.86	0.57
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.87	0.57
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.03	0.57
26:1H:2119:A:C2	26:1H:2171:A:H2	2.22	0.57
26:1H:307:G:H21	26:1H:330:A:H62	1.52	0.57
4:32:190:ASP:HB3	4:32:192:GLU:HG2	1.87	0.57
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.34	0.57
24:3K:48:C:H41	24:3K:59:A:N6	2.02	0.57
5:4E:126:ARG:HH11	5:4E:126:ARG:HG3	1.69	0.57
34:69:75:LEU:HD22	34:69:77:LEU:N	2.18	0.57
28:71:212:VAL:HB	28:71:226:PRO:HD3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:78:PRO:O	38:88:79:LEU:HB3	2.05	0.57
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.36	0.57
45:B5:5:TYR:HB3	50:G5:33:MET:HB2	1.87	0.57
32:41:98:ARG:HH21	52:M8:1:MET:CE	2.16	0.57
2:12:58:ILE:HD12	2:12:219:VAL:HG22	1.86	0.57
1:13:1285:A:H8	1:13:1285:A:O5'	1.87	0.57
1:13:870:U:H4'	1:13:871:U:O5'	2.04	0.57
26:14:581:C:H2'	26:14:582:G:H8	1.68	0.57
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.38	0.57
1:1G:411:A:H62	1:1G:413:G:H21	1.53	0.57
26:1H:459:U:H2'	26:1H:460:A:H8	1.70	0.57
26:1H:991:C:H2'	26:1H:992:C:H6	1.69	0.57
23:2K:63:C:H2'	23:2K:64:G:H8	1.69	0.57
38:45:35:VAL:HG12	38:45:36:ALA:H	1.69	0.57
13:4A:55:ARG:O	13:4A:59:TYR:N	2.37	0.57
7:62:51:GLN:HB2	7:62:58:PRO:HG3	1.85	0.57
34:69:143:SER:O	34:69:144:VAL:HG22	2.04	0.57
28:71:194:ARG:NH2	28:71:226:PRO:O	2.32	0.57
37:78:126:VAL:HG12	37:78:147:LEU:HD11	1.87	0.57
8:7E:100:ILE:O	8:7E:125:ARG:NH2	2.37	0.57
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.32	0.57
41:B8:99:LEU:HB2	41:B8:102:ILE:HD11	1.86	0.57
20:BI:89:ARG:HH21	20:BI:104:LEU:HD11	1.69	0.57
50:K8:2:LYS:O	50:K8:5:GLU:HB2	2.04	0.57
26:14:1430:C:H2'	26:14:1431:U:C6	2.39	0.57
26:14:2064:C:H2'	26:14:2065:C:C6	2.40	0.57
1:1G:1448:C:H42	1:1G:1455:G:H1	1.51	0.57
1:1G:519:C:H2'	1:1G:520:A:O4'	2.03	0.57
3:22:26:LYS:HG3	3:22:27:LYS:H	1.68	0.57
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.05	0.57
5:4E:8:GLU:HG3	5:4E:34:VAL:HG22	1.86	0.57
26:14:1653:G:C6	39:55:9:LYS:HB2	2.39	0.57
34:69:142:VAL:HG12	34:69:143:SER:H	1.68	0.57
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.38	0.57
2:12:119:GLU:HG3	2:12:142:LEU:HD11	1.85	0.57
1:13:572:A:H5'	1:13:573:A:OP2	2.03	0.57
26:14:1558:A:O2'	26:14:1559:G:OP2	2.20	0.57
26:14:2033:A:O2'	26:14:2035:G:OP2	2.19	0.57
1:1G:198:G:H8	1:1G:198:G:OP2	1.88	0.57
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.51	0.57
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.67	0.57
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.05	0.57
26:1H:732:C:OP2	60:1H:3545:HOH:O	2.17	0.57
26:1H:870:A:OP1	38:88:6:ARG:NH2	2.37	0.57
24:3K:58:A:O2'	24:3K:59:A:OP1	2.21	0.57
7:62:11:GLN:NE2	7:62:12:LEU:O	2.38	0.57
48:E5:72:ARG:HE	48:E5:75:LEU:HD12	1.69	0.57
1:13:1044:A:C5	1:13:1045:C:H1'	2.40	0.57
26:14:303:U:H2'	26:14:304:G:C8	2.40	0.57
26:14:582:G:H2'	26:14:583:G:H8	1.69	0.57
26:14:860:U:H1'	26:14:2268:A:H5'	1.87	0.57
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.40	0.57
1:1G:929:G:H1	1:1G:1388:C:H42	1.52	0.57
26:1H:1193:G:H2'	26:1H:1194:A:C8	2.40	0.57
26:1H:1565:C:O2'	26:1H:1567:A:N7	2.33	0.57
26:1H:298:G:OP2	46:G8:84:ARG:HD2	2.04	0.57
26:1H:833:U:O2	37:78:55:ARG:NH2	2.34	0.57
30:29:179:GLU:HB3	30:29:181:LEU:HD13	1.87	0.57
1:1G:620:C:C4	4:32:135:LEU:HD11	2.39	0.57
32:49:20:ILE:HG23	32:49:25:TYR:HB2	1.86	0.57
33:59:69:ARG:O	33:59:72:ILE:HG12	2.05	0.57
42:85:97:ASP:OD2	42:85:101:ARG:NH2	2.37	0.57
44:E8:12:ILE:HG12	44:E8:13:SER:H	1.70	0.57
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.87	0.57
1:13:222:U:H2'	1:13:223:U:C6	2.40	0.57
1:13:324:G:N1	1:13:327:A:OP2	2.36	0.57
1:13:490:G:H5''	4:3E:151:LYS:NZ	2.19	0.57
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.40	0.57
26:14:1963:U:H5''	26:14:1963:U:O2	2.05	0.57
26:14:879:G:H2'	26:14:897:C:N4	2.20	0.57
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.70	0.57
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.39	0.57
1:1G:620:C:N3	4:32:135:LEU:HD11	2.20	0.57
26:1H:1863:G:H2'	26:1H:1864:U:O4'	2.05	0.57
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.39	0.57
26:1H:355:G:H2'	26:1H:356:G:C8	2.40	0.57
10:1I:75:ILE:HD12	10:1I:76:ASN:HD22	1.68	0.57
30:29:12:THR:O	30:29:23:VAL:HG22	2.05	0.57
23:2L:54:G:O2'	23:2L:55:5MU:H5''	2.05	0.57
38:45:134:ARG:HG2	38:45:134:ARG:O	2.04	0.57
32:49:41:GLN:NE2	32:49:154:GLY:O	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:45:ARG:HA	39:55:95:THR:HG21	1.87	0.57
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.27	0.57
34:69:77:LEU:HD12	34:69:78:THR:N	2.20	0.57
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.39	0.57
32:41:105:LYS:HE2	52:M8:26:SER:HB2	1.86	0.57
1:13:186(E):C:H42	1:13:191(B):G:H1	1.52	0.57
1:13:209:U:H4'	1:13:216:G:C2	2.40	0.57
1:13:407:G:H2'	1:13:408:A:C8	2.40	0.57
1:13:612:C:O2	1:13:629:G:N2	2.37	0.57
1:13:804:U:H5''	1:13:805:C:OP2	2.05	0.57
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.40	0.57
26:14:649:G:H2'	26:14:650:C:C6	2.40	0.57
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.38	0.57
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.69	0.57
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.40	0.57
26:1H:2175:C:H1'	28:71:217:THR:O	2.05	0.57
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.70	0.57
30:29:23:VAL:HA	30:29:184:VAL:O	2.05	0.57
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.86	0.57
4:3E:90:GLY:O	4:3E:93:PHE:HB2	2.05	0.57
24:3K:35:U:H2'	24:3K:36:U:C6	2.39	0.57
32:41:98:ARG:NH2	52:M8:1:MET:HE1	2.20	0.57
3:2E:162:GLN:HG2	25:4K:24:A:H3'	1.87	0.57
35:58:73:THR:HB	35:58:82:LEU:HD11	1.86	0.57
33:59:67:LEU:O	33:59:71:LEU:HD13	2.05	0.57
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.86	0.57
37:78:116:GLY:H	37:78:134:ALA:HB2	1.70	0.57
37:78:37:GLY:HA2	37:78:41:ARG:NH2	2.20	0.57
20:BA:63:ILE:HG21	20:BA:81:LYS:HG3	1.86	0.57
47:H8:60:GLU:O	47:H8:61:LEU:CD2	2.53	0.57
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.85	0.57
27:16:44:G:OP1	52:M8:1:MET:HE1	2.00	0.57
2:12:30:ARG:HH22	2:12:194:PRO:HB2	1.70	0.57
26:14:1434:A:H2'	26:14:1435:G:C8	2.40	0.57
26:14:2086:U:P	29:19:262:ARG:NH2	2.77	0.57
26:14:918:A:O2'	27:1J:96:G:N2	2.38	0.57
29:19:39:LYS:O	29:19:40:THR:HG23	2.04	0.57
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.39	0.57
30:21:35:GLN:HG3	30:21:36:ARG:N	2.20	0.57
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.87	0.57
4:32:61:LYS:HB2	4:32:203:VAL:HG13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:25:PRO:C	31:39:27:GLU:N	2.56	0.57
26:14:960:A:H61	38:45:82:ARG:NH2	2.02	0.57
20:BI:75:ASN:O	20:BI:79:ARG:N	2.36	0.57
1:13:524:G:H2'	1:13:525:C:C6	2.40	0.56
26:14:1729:A:H2'	26:14:1731:G:H22	1.70	0.56
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.87	0.56
26:14:2178:C:O2'	28:79:168:THR:OG1	2.22	0.56
26:14:2308:G:O2'	26:14:2309:A:OP1	2.21	0.56
26:14:753:C:H2'	26:14:754:C:H6	1.70	0.56
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.70	0.56
29:19:25:THR:HG23	29:19:81:ALA:HB1	1.86	0.56
26:1H:1400:G:H2'	26:1H:1401:G:H8	1.70	0.56
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.70	0.56
26:1H:2125:G:N1	26:1H:2171:A:H5''	2.20	0.56
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.39	0.56
22:1K:41:A:H2'	22:1K:42:A:C8	2.40	0.56
22:1L:53:G:H2'	22:1L:54:5MU:H5''	1.87	0.56
4:32:196:LEU:HD13	4:32:198:VAL:HG22	1.87	0.56
4:3E:31:CYS:HB3	4:3E:34:GLU:CG	2.34	0.56
5:42:41:VAL:O	5:42:67:VAL:N	2.36	0.56
13:4I:82:MET:O	13:4I:84:ILE:N	2.37	0.56
35:58:56:ASN:N	35:58:125:GLY:O	2.21	0.56
35:58:47:ALA:HB2	35:58:112:LEU:CD1	2.33	0.56
7:62:92:SER:HB2	7:62:94:ARG:HE	1.70	0.56
1:1G:449:C:O2'	16:7A:43:LYS:HE2	2.05	0.56
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.86	0.56
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.87	0.56
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.38	0.56
19:AA:11:VAL:HG12	19:AA:12:ASP:N	2.20	0.56
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.38	0.56
47:H8:60:GLU:O	47:H8:61:LEU:HD23	2.05	0.56
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.05	0.56
29:11:242:ARG:H	29:11:242:ARG:HD2	1.70	0.56
1:13:111:G:O5'	1:13:111:G:H8	1.88	0.56
26:14:648:G:O2'	26:14:2351:G:OP1	2.15	0.56
26:14:27:G:N2	26:14:512:G:H1'	2.20	0.56
35:15:35:ARG:HB3	35:15:42:TRP:CZ3	2.40	0.56
1:1G:630:G:H5'	1:1G:631:G:OP2	2.05	0.56
26:1H:1930:G:N2	26:1H:1968:G:H2'	2.20	0.56
26:1H:2661:G:H8	26:1H:2661:G:OP2	1.87	0.56
22:1K:6:G:H2'	22:1K:7:U:C6	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.85	0.56
11:2A:109:VAL:HG12	18:9A:86:VAL:HG22	1.86	0.56
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.04	0.56
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.04	0.56
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.02	0.56
1:13:54:C:N4	1:13:353:A:OP2	2.34	0.56
1:13:491:G:H2'	1:13:492:G:O4'	2.05	0.56
26:14:1106:G:H3'	26:14:1107:G:C8	2.39	0.56
26:14:1593:G:H2'	26:14:1594:G:C8	2.40	0.56
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.40	0.56
2:1E:18:GLY:H	2:1E:42:ILE:CG1	2.18	0.56
1:1G:518:C:H5''	1:1G:519:C:C6	2.40	0.56
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.40	0.56
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.05	0.56
30:21:131:ALA:HB1	30:21:135:HIS:CE1	2.41	0.56
38:45:54:MET:O	38:45:57:HIS:N	2.35	0.56
39:55:78:LYS:O	39:55:83:ILE:HG13	2.05	0.56
39:98:103:ARG:HA	39:98:111:LEU:HD12	1.87	0.56
45:B5:67:GLY:C	45:B5:69:TYR:H	2.09	0.56
45:F8:65:ARG:HG3	45:F8:67:GLY:H	1.70	0.56
46:G8:94:LYS:HG3	46:G8:95:LYS:N	2.21	0.56
46:G8:9:LYS:O	46:G8:27:VAL:HG13	2.05	0.56
53:J5:41:PRO:HG2	53:J5:44:THR:HG21	1.87	0.56
1:13:1264:C:H2'	1:13:1265:G:C8	2.41	0.56
1:13:376:G:H5''	16:7I:5:ARG:HB2	1.87	0.56
1:13:649:G:H2'	1:13:650:G:C8	2.40	0.56
26:14:2165:G:H3'	26:14:2166:G:H5'	1.87	0.56
2:1E:59:GLU:HB2	2:1E:221:LEU:HD21	1.88	0.56
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.40	0.56
26:1H:2213:U:H1'	49:J8:52:ARG:CZ	2.35	0.56
31:31:127:GLU:HA	31:31:127:GLU:OE2	2.06	0.56
7:62:115:ARG:O	7:62:118:VAL:HG22	2.06	0.56
8:72:33:GLU:HB3	8:72:59:LEU:HD13	1.86	0.56
38:88:111:GLU:OE1	38:88:133:ARG:NH1	2.38	0.56
43:95:44:LYS:O	43:95:46:VAL:N	2.24	0.56
50:K8:28:LYS:HE3	50:K8:56:GLN:NE2	2.20	0.56
1:13:1429:C:H2'	1:13:1430:C:C6	2.40	0.56
1:13:243:A:H5''	1:13:244:U:H3'	1.87	0.56
26:14:1425:G:H2'	26:14:1426:G:C8	2.40	0.56
26:14:2572:A:C4	30:29:144:ARG:NH1	2.71	0.56
1:1G:1136:U:H5''	1:1G:1137:C:C5	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.70	0.56
26:1H:568:U:O4	60:1H:3539:HOH:O	2.16	0.56
26:1H:674:G:C1'	31:31:74:ARG:HD2	2.35	0.56
27:1J:2:C:H2'	27:1J:3:C:H6	1.70	0.56
23:2L:41:C:H2'	23:2L:42:C:C6	2.41	0.56
4:32:81:GLU:N	4:32:81:GLU:OE2	2.39	0.56
40:65:88:ASP:OD1	40:65:90:GLY:N	2.36	0.56
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.05	0.56
8:72:30:ARG:HG3	8:72:31:PHE:N	2.19	0.56
9:82:27:THR:HG22	9:82:32:ASP:CA	2.35	0.56
38:88:12:GLN:HE21	38:88:73:PRO:HD2	1.68	0.56
46:C5:86:ARG:NE	46:C5:87:LYS:O	2.38	0.56
46:G8:83:THR:OG1	46:G8:84:ARG:N	2.37	0.56
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.45	0.56
29:11:183:ARG:HD2	29:11:269:PHE:O	2.05	0.56
1:13:793:U:H5'	1:13:794:A:H5''	1.88	0.56
26:14:154:G:O6	26:14:172:C:N4	2.38	0.56
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.40	0.56
1:1G:114:U:H2'	1:1G:115:G:C8	2.40	0.56
26:1H:1177:A:OP1	26:1H:1178:C:N4	2.38	0.56
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.71	0.56
26:1H:2122:U:O2'	28:71:172:HIS:HE1	1.88	0.56
26:1H:827:U:H5'	26:1H:828:U:O5'	2.04	0.56
9:8E:128:ARG:HH21	23:2K:36:A:P	2.29	0.56
4:32:93:PHE:O	4:32:96:LEU:HB2	2.05	0.56
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	1.88	0.56
12:3I:36:VAL:O	12:3I:59:ARG:N	2.39	0.56
24:3K:71:C:O2	26:1H:1851:U:O2'	2.18	0.56
13:4A:49:THR:N	13:4A:52:GLU:HG3	2.20	0.56
13:4A:81:LEU:HD23	13:4A:88:ARG:HH21	1.70	0.56
13:4I:5:ALA:HB2	13:4I:61:GLU:HG2	1.87	0.56
33:51:158:HIS:HA	33:51:170:ARG:HE	1.70	0.56
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.06	0.56
26:1H:2870:C:H5''	39:98:65:LEU:HD21	1.87	0.56
51:H5:6:VAL:O	51:H5:34:GLU:HA	2.06	0.56
1:13:976:G:H5'	1:13:1358:U:O2'	2.06	0.56
26:14:2887:U:H2'	26:14:2888:C:H6	1.70	0.56
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.53	0.56
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.40	0.56
1:1G:439:A:OP2	1:1G:493:G:N1	2.38	0.56
26:1H:1334:G:H2'	26:1H:1335:U:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2091:U:OP2	26:1H:2092:U:O2'	2.20	0.56
26:1H:674:G:O2'	31:31:74:ARG:HD3	2.06	0.56
26:14:617:G:OP1	31:39:40:GLN:HG3	2.05	0.56
24:3K:49:G:H1'	24:3K:66:A:C2	2.41	0.56
24:3L:2:G:H2'	24:3L:3:G:C8	2.40	0.56
33:51:40:GLU:C	33:51:41:MET:HE3	2.26	0.56
7:62:26:PHE:CD1	7:62:30:ILE:HD11	2.40	0.56
8:72:87:SER:HB2	8:72:93:VAL:HB	1.88	0.56
9:82:26:VAL:HG22	9:82:60:ASP:HB3	1.85	0.56
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.88	0.56
43:D8:36:PRO:O	43:D8:38:LEU:N	2.39	0.56
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.86	0.56
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.41	0.56
1:13:128:G:H5'	17:8I:2:PRO:O	2.06	0.56
26:14:1727:U:H3	26:14:1733:G:H1	1.53	0.56
26:14:1794:U:H2'	26:14:1795:C:C6	2.41	0.56
26:14:2306:C:H3'	26:14:2307:G:H5''	1.87	0.56
26:14:2343:C:O2'	26:14:2373:G:O2'	2.22	0.56
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.06	0.56
26:1H:234:C:H2'	26:1H:235:U:C6	2.40	0.56
27:1J:93:C:H2'	27:1J:94:C:H6	1.69	0.56
26:14:39:C:O2	31:39:46:ARG:NH2	2.39	0.56
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	1.88	0.56
38:45:25:ASP:HB3	38:45:102:VAL:N	2.14	0.56
41:75:11:GLU:O	41:75:13:ARG:HD3	2.05	0.56
28:79:202:GLU:CD	28:79:203:GLY:H	2.09	0.56
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.39	0.56
51:L8:7:LYS:HG3	51:L8:34:GLU:HG2	1.87	0.56
1:13:1031:G:H2'	1:13:1032:A:H5'	1.87	0.56
1:13:1080:A:H5'	5:4E:14:ARG:HH21	1.70	0.56
26:14:1599:C:H2'	26:14:1600:C:H6	1.71	0.56
26:14:2129:C:H3'	26:14:2130:U:C6	2.41	0.56
26:14:2146:C:H4'	26:14:2147:G:C8	2.41	0.56
26:14:2275:C:H5'	26:14:2275:C:C6	2.41	0.56
26:14:2887:U:H2'	26:14:2888:C:C6	2.41	0.56
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.26	0.56
1:1G:1325:C:H2'	1:1G:1326:C:C6	2.41	0.56
26:1H:65:C:H2'	26:1H:66:C:C6	2.40	0.56
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.71	0.56
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.06	0.56
33:51:103:LEU:HD22	33:51:131:VAL:HG21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:35:ARG:O	35:58:42:TRP:HZ3	1.89	0.56
14:5A:29:ARG:HG3	14:5A:31:ARG:N	2.19	0.56
40:65:49:VAL:HG11	40:65:77:ALA:HB2	1.87	0.56
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.87	0.56
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.39	0.56
37:78:35:HIS:HA	60:78:302:HOH:O	2.05	0.56
16:7A:43:LYS:HA	16:7A:48:TRP:CE3	2.41	0.56
17:8A:40:LYS:HD3	17:8A:42:TYR:CZ	2.41	0.56
40:A8:21:THR:HG23	40:A8:23:ARG:H	1.70	0.56
46:G8:34:LYS:O	46:G8:34:LYS:HG3	2.05	0.56
2:12:73:THR:HG21	2:12:97:TRP:H	1.71	0.56
1:13:1442:G:C6	1:13:1446:A:C6	2.93	0.56
1:13:601:C:H2'	1:13:602:A:H8	1.71	0.56
26:14:2819:G:H2'	26:14:2821:A:N7	2.21	0.56
10:1A:17:ASP:O	10:1A:21:GLN:HB2	2.06	0.56
26:1H:1021:A:H61	26:1H:1142(A):A:H61	1.54	0.56
26:1H:106:C:H2'	26:1H:107:C:C6	2.40	0.56
26:1H:503:A:H4'	26:1H:504:U:H5''	1.87	0.56
30:29:11:MET:SD	30:29:24:THR:HG22	2.46	0.56
32:41:8:LYS:NZ	32:41:97:ASP:OD1	2.33	0.56
36:68:17:ARG:HG3	36:68:47:ILE:HD13	1.88	0.56
8:72:36:LEU:HD23	8:72:39:LEU:CD2	2.36	0.56
26:14:2129:C:OP1	28:79:6:ARG:NE	2.39	0.56
9:82:20:ARG:NH1	9:82:22:GLY:HA3	2.21	0.56
43:D8:19:LYS:HE2	43:D8:95:LEU:HD23	1.87	0.56
49:J8:65:SER:OG	49:J8:66:HIS:ND1	2.36	0.56
26:14:1180:C:H2'	26:14:1181:C:C6	2.41	0.56
26:14:1784:A:H5''	60:14:3418:HOH:O	2.06	0.56
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.69	0.56
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.31	0.56
1:1G:78:G:H2'	1:1G:79:G:O4'	2.06	0.56
1:1G:862:C:H1'	1:1G:874:G:H5''	1.88	0.56
26:1H:1338:G:H2'	26:1H:1339:G:H8	1.71	0.56
26:1H:2019:A:H4'	42:C8:34:LYS:HD2	1.87	0.56
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.87	0.56
4:3E:82:ALA:HB2	4:3E:92:VAL:HB	1.88	0.56
1:1G:9:G:H5''	5:42:126:ARG:HD2	1.88	0.56
33:59:60:ARG:O	33:59:63:SER:OG	2.24	0.56
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.39	0.56
28:71:59:ARG:HB2	28:71:164:ARG:HE	1.71	0.56
9:82:95:LYS:HZ1	9:82:96:LEU:HD13	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:83:ARG:N	43:95:83:ARG:HD2	2.21	0.56
18:9A:53:ARG:CG	18:9A:63:GLN:HE21	2.14	0.56
1:13:346:G:C8	41:B8:41:ARG:NH1	2.74	0.56
47:H8:4:ARG:NH1	47:H8:60:GLU:OE1	2.36	0.56
1:13:1423:G:P	36:68:49:ARG:HH22	2.29	0.55
26:14:528:A:C2	26:14:2043:C:H4'	2.41	0.55
26:14:607:U:H3	26:14:621:A:H2	1.53	0.55
26:14:839:U:H2'	26:14:840:C:C6	2.42	0.55
2:1E:28:PHE:CE1	2:1E:31:TYR:HD2	2.24	0.55
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.39	0.55
27:1J:16:G:N2	27:1J:68:C:O2	2.31	0.55
30:21:38:THR:HG23	30:21:41:LYS:H	1.71	0.55
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.41	0.55
4:3E:57:ARG:HG2	4:3E:202:LEU:HD22	1.88	0.55
33:59:61:HIS:O	33:59:65:HIS:N	2.31	0.55
43:95:71:LEU:O	43:95:72:VAL:HG12	2.06	0.55
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.05	0.55
1:13:1171:G:O2'	1:13:1172:C:H5'	2.05	0.55
1:13:1239:A:H62	1:13:1299:A:H62	1.55	0.55
1:13:417:C:H2'	1:13:418:C:H6	1.70	0.55
1:13:501:C:H2'	1:13:502:G:H8	1.71	0.55
26:14:1525:G:H2'	26:14:1526:G:H8	1.71	0.55
26:14:1786:A:C2	26:14:2606:C:H1'	2.42	0.55
26:14:89:G:H3'	26:14:90:U:H5''	1.87	0.55
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.41	0.55
26:1H:1265:A:OP1	26:1H:1265:A:H8	1.88	0.55
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.70	0.55
26:1H:1526:G:H2'	26:1H:1527:G:C8	2.41	0.55
26:1H:1442:G:C2	26:1H:1550:C:O2	2.60	0.55
26:1H:2048:G:C2	26:1H:2621:A:C2	2.94	0.55
26:1H:2160:G:H2'	26:1H:2161:C:H4'	1.88	0.55
26:1H:2287:A:H2	26:1H:2346:A:C2	2.24	0.55
26:1H:2360:A:C2	26:1H:2361:A:H1'	2.41	0.55
26:1H:2812:G:H1	26:1H:2888:C:H42	1.54	0.55
26:1H:654(O):G:H8	26:1H:654(P):G:H1'	1.69	0.55
3:22:70:VAL:HG12	3:22:72:LYS:N	2.18	0.55
23:2L:10:G:N2	23:2L:27:G:H1'	2.22	0.55
23:2L:8:4SU:H6	23:2L:8:4SU:O5'	2.06	0.55
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.71	0.55
31:39:67:GLN:HG3	31:39:67:GLN:O	2.06	0.55
32:49:76:SER:HB2	32:49:84:LYS:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.87	0.55
8:72:68:ARG:NH1	8:72:69:ARG:O	2.39	0.55
1:1G:1372:U:OP1	9:82:72:GLY:N	2.39	0.55
38:88:10:ARG:HH21	38:88:11:LYS:HE3	1.72	0.55
40:A8:106:ARG:HD2	40:A8:106:ARG:C	2.25	0.55
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.39	0.55
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.06	0.55
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.06	0.55
1:13:1061:G:OP1	10:1I:59:SER:OG	2.20	0.55
1:13:233:C:H2'	1:13:234:C:H6	1.70	0.55
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.38	0.55
26:14:1022:G:C6	26:14:1140:C:C4	2.94	0.55
26:14:1040:C:O2	26:14:1115:G:N2	2.35	0.55
26:14:1484:G:H2'	26:14:1485:G:H8	1.70	0.55
26:14:2292:C:P	40:65:17:ARG:HH21	2.29	0.55
26:14:2329:G:H21	48:E5:41:ARG:HD3	1.70	0.55
26:14:2280:G:O2'	26:14:2388:A:N1	2.37	0.55
26:14:2006:C:O2'	26:14:2823:A:N3	2.35	0.55
26:14:548:A:C5	26:14:549:G:H1'	2.41	0.55
26:14:557:U:H2'	26:14:558:G:C8	2.41	0.55
26:14:709:U:H3	26:14:722:A:H61	1.55	0.55
27:16:73:A:C4	27:16:104:A:C2	2.94	0.55
1:1G:198:G:H2'	1:1G:199:G:H8	1.71	0.55
1:1G:594:G:H1	1:1G:645:C:H42	1.54	0.55
26:1H:2863:C:H2'	26:1H:2864:G:C8	2.42	0.55
27:1J:118:G:C5	27:1J:119:A:N7	2.74	0.55
27:1J:17:C:H2'	27:1J:18:G:O4'	2.06	0.55
36:25:9:GLU:O	36:25:83:ALA:HA	2.06	0.55
1:13:1257:U:O4	3:2E:27:LYS:HE2	2.06	0.55
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.21	0.55
4:32:28:SER:HB3	4:32:29:PRO:HA	1.89	0.55
24:3L:58:A:H1'	24:3L:60:U:C5	2.42	0.55
1:13:995:C:O2	14:5I:4:LYS:NZ	2.36	0.55
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.07	0.55
36:68:52:VAL:C	36:68:53:LYS:HD2	2.26	0.55
1:1G:739:C:O2'	15:6A:42:HIS:ND1	2.31	0.55
38:88:31:ASP:H	38:88:107:ALA:HB2	1.71	0.55
43:D8:37:VAL:C	43:D8:38:LEU:HG	2.27	0.55
48:E5:38:VAL:HG12	48:E5:59:LEU:HG	1.87	0.55
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.20	0.55
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1126:U:H5	1:13:1127:G:C2	2.25	0.55
1:13:1318:A:H2'	1:13:1319:A:H5''	1.87	0.55
1:13:1367:C:OP2	9:8E:112:LYS:NZ	2.40	0.55
1:13:812:C:OP1	1:13:902:G:N2	2.32	0.55
26:14:2320:A:N6	26:14:2333:A:H2'	2.21	0.55
1:1G:1243:C:OP2	21:1B:10:ARG:NH1	2.40	0.55
1:1G:1308:U:OP1	13:4A:98:VAL:N	2.34	0.55
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.41	0.55
26:14:662:G:OP1	37:35:15:ARG:NH2	2.39	0.55
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.89	0.55
7:62:15:ASP:OD1	7:62:19:GLY:N	2.39	0.55
40:65:27:SER:HA	40:65:88:ASP:HB2	1.88	0.55
26:1H:2684:U:H1'	36:68:70:LYS:HE2	1.87	0.55
39:98:13:HIS:NE2	39:98:15:SER:HB2	2.22	0.55
19:AI:18:LYS:CG	19:AI:31:ILE:HD12	2.36	0.55
47:H8:104:PHE:HA	47:H8:139:VAL:HB	1.89	0.55
47:H8:28:MET:HB2	47:H8:35:ARG:HB2	1.88	0.55
29:11:165:ILE:HD13	29:11:175:LEU:HD21	1.89	0.55
1:13:413:G:N2	1:13:428:G:H1'	2.22	0.55
26:14:2184:G:H2'	26:14:2185:C:C6	2.41	0.55
26:14:2432:A:H2'	26:14:2433:A:C8	2.41	0.55
26:14:2443:C:H2'	26:14:2444:G:H8	1.71	0.55
26:14:2612:C:H2'	26:14:2613:U:H5'	1.89	0.55
26:14:2747:G:H21	26:14:2757:A:H62	1.54	0.55
1:1G:991:U:C5	1:1G:1212:U:H1'	2.42	0.55
1:1G:155:C:H2'	1:1G:156:G:C8	2.41	0.55
1:1G:359:U:H2'	1:1G:360:A:H8	1.70	0.55
26:1H:2747:G:OP1	33:51:138:LYS:NZ	2.37	0.55
26:1H:493:G:H2'	26:1H:494:G:O4'	2.07	0.55
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.89	0.55
26:1H:654(N):G:N7	26:1H:654(P):G:N2	2.54	0.55
26:1H:736:C:O5'	26:1H:736:C:H6	1.90	0.55
22:1L:42:A:H2'	22:1L:43:U:C5	2.41	0.55
30:21:24:THR:HG21	30:21:188:VAL:HG22	1.89	0.55
37:35:105:LEU:O	37:35:106:LEU:HB3	2.05	0.55
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.42	0.55
32:49:161:THR:HG22	32:49:163:ALA:H	1.72	0.55
13:4I:78:ILE:HA	13:4I:81:LEU:HB2	1.87	0.55
40:65:23:ARG:NH1	40:65:84:GLN:HB2	2.22	0.55
19:AI:28:LYS:HD2	19:AI:47:HIS:HA	1.87	0.55
46:C5:52:SER:HB2	46:C5:56:PRO:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.88	0.55
47:H8:93:ASP:O	47:H8:94:GLU:HG3	2.07	0.55
1:13:1014:A:C2	1:13:1219:U:H1'	2.42	0.55
26:14:1425:G:N2	26:14:1573:G:N7	2.53	0.55
26:14:1826:G:H2'	26:14:1827:C:C6	2.41	0.55
26:14:2439:A:O2'	26:14:2440:C:OP2	2.23	0.55
26:14:2655:G:N2	26:14:2665:A:OP2	2.38	0.55
27:16:11:C:H3'	27:16:12:C:C6	2.41	0.55
29:19:137:PRO:O	29:19:140:THR:OG1	2.20	0.55
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.38	0.55
26:1H:2054:A:H5''	26:1H:2055:C:O5'	2.07	0.55
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.87	0.55
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.42	0.55
26:1H:539:G:H2'	26:1H:540:G:H8	1.72	0.55
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.55
22:1K:37:T6A:H2'	22:1K:38:A:O4'	2.06	0.55
3:22:14:ILE:HG13	3:22:15:THR:H	1.70	0.55
11:2A:27:ASN:ND2	11:2A:55:LYS:HD2	2.22	0.55
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.46	0.55
33:51:167:GLU:N	33:51:167:GLU:OE2	2.39	0.55
6:52:27:GLN:O	6:52:31:GLU:HG3	2.06	0.55
1:1G:1217:C:OP1	14:5A:9:LYS:HE2	2.07	0.55
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.37	0.55
38:88:39:PRO:HA	38:88:97:VAL:O	2.07	0.55
41:B8:11:GLU:OE2	41:B8:11:GLU:HA	1.97	0.55
41:B8:28:VAL:HB	41:B8:86:ILE:HD11	1.87	0.55
26:14:2391:G:O6	26:14:2425:A:H8	1.89	0.55
26:14:636:G:N7	37:35:113:LYS:NZ	2.41	0.55
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.07	0.55
26:1H:673:C:H5''	31:31:81:PRO:HD2	1.87	0.55
36:25:25:LEU:HB2	36:25:38:VAL:HG23	1.88	0.55
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.88	0.55
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.39	0.55
40:65:7:TYR:CZ	40:65:91:PRO:HG3	2.42	0.55
28:71:184:LYS:HA	28:71:187:ASP:HB2	1.87	0.55
28:71:10:LEU:HD22	28:71:32:LEU:HA	1.88	0.55
1:1G:1369:C:OP1	9:82:111:ARG:HB3	2.06	0.55
17:8I:100:LYS:HG3	17:8I:101:ARG:HG3	1.88	0.55
19:AA:10:PHE:CD2	19:AA:11:VAL:HG23	2.41	0.55
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.28	0.55
1:13:1041:A:H2'	1:13:1042:G:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:256:U:H2'	1:13:257:G:C8	2.41	0.55
1:13:131:C:O2'	1:13:262:A:N3	2.31	0.55
26:14:1399:C:H2'	26:14:1400:G:H8	1.71	0.55
26:14:2313:C:H2'	26:14:2314:C:C6	2.42	0.55
26:14:329:G:P	46:C5:71:LYS:HE3	2.46	0.55
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.89	0.55
1:1G:1123:A:H4'	10:1A:36:GLY:HA3	1.89	0.55
1:1G:955:U:H1'	1:1G:1227:A:N6	2.21	0.55
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.41	0.55
26:1H:248:G:H5'	26:1H:250:G:N7	2.22	0.55
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.72	0.55
26:1H:285:C:H2'	26:1H:286:C:C6	2.42	0.55
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.89	0.55
31:39:135:LYS:HB3	31:39:138:GLU:HG3	1.88	0.55
31:39:7:TYR:O	31:39:15:SER:HA	2.07	0.55
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.39	0.55
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.42	0.55
32:49:136:ARG:NH1	32:49:137:GLU:OE2	2.39	0.55
33:51:10:PRO:O	33:51:11:VAL:HG23	2.06	0.55
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.06	0.55
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.07	0.55
43:95:35:LEU:O	43:95:37:VAL:HG22	2.07	0.55
46:C5:88:LYS:O	46:C5:89:PHE:HD1	1.89	0.55
47:D5:131:ARG:C	47:D5:132:ASN:HD22	2.10	0.55
47:D5:127:LYS:O	47:D5:162:GLU:HB3	2.07	0.55
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.40	0.55
29:11:140:THR:HG22	29:11:141:VAL:O	2.06	0.55
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.39	0.55
1:13:339:C:OP2	36:68:97:ARG:HD3	2.06	0.55
26:14:2836:U:H2'	26:14:2837:G:H8	1.65	0.55
26:14:6:A:N7	26:14:2899:G:N2	2.55	0.55
21:1B:6:ARG:HD3	21:1B:15:ARG:NH1	2.21	0.55
2:1E:28:PHE:HE1	2:1E:31:TYR:HD2	1.53	0.55
1:1G:637:G:H2'	1:1G:638:G:H8	1.72	0.55
26:1H:1338:G:O2'	26:1H:1339:G:H5'	2.07	0.55
26:1H:2131:G:H5''	26:1H:2132:U:H5''	1.89	0.55
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.22	0.55
26:1H:2845:G:O6	60:1H:3549:HOH:O	2.18	0.55
30:29:33:VAL:HG23	30:29:89:ASP:H	1.72	0.55
31:31:184:TYR:O	31:31:188:ARG:HG2	2.07	0.55
47:H8:100:VAL:HG11	47:H8:137:ILE:HG13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:46:GLN:OE1	50:K8:46:GLN:N	2.40	0.55
29:11:32:SER:HA	29:11:35:LYS:HZ3	1.71	0.55
1:13:232:G:H2'	1:13:233:C:H6	1.72	0.55
1:13:890:G:O2'	1:13:906:G:O6	2.18	0.55
26:14:1336:A:H2'	26:14:1337:G:C8	2.42	0.55
26:14:2689:U:P	26:14:2719:G:H22	2.30	0.55
26:14:492:A:H2'	26:14:493:G:O4'	2.07	0.55
26:14:91:A:H2'	26:14:92:G:C8	2.40	0.55
29:19:27:THR:HG22	29:19:29:PRO:O	2.07	0.55
26:1H:1171:G:N2	26:1H:1178:C:O2	2.37	0.55
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.90	0.55
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.42	0.55
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.06	0.55
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.42	0.55
26:1H:287:C:H2'	26:1H:288:C:C6	2.42	0.55
26:1H:527:C:H4'	26:1H:528:A:O5'	2.07	0.55
27:1J:11:C:OP2	27:1J:12:C:N4	2.35	0.55
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.07	0.55
39:55:44:LEU:HD22	39:55:48:VAL:HG23	1.87	0.55
34:69:143:SER:OG	34:69:144:VAL:N	2.39	0.55
26:1H:2428:G:N2	37:78:61:ARG:HH21	2.04	0.55
8:7E:98:LYS:HD2	8:7E:98:LYS:H	1.72	0.55
9:8E:79:LEU:O	9:8E:83:ARG:N	2.40	0.55
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.89	0.55
55:M5:37:SER:OG	55:M5:39:LYS:O	2.24	0.55
52:M8:34:GLU:HG2	52:M8:35:VAL:H	1.72	0.55
1:13:628:G:H2'	1:13:629:G:C8	2.42	0.54
1:13:843:U:H5''	1:13:848:C:C5	2.43	0.54
26:14:1164:G:H1	26:14:1185:C:H42	1.55	0.54
26:14:2649:U:H3	26:14:2671:A:N6	1.99	0.54
10:1A:28:ARG:NH2	10:1A:34:VAL:HB	2.21	0.54
10:1A:78:ASN:O	10:1A:81:THR:OG1	2.21	0.54
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.06	0.54
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.42	0.54
1:1G:1502:A:H4'	1:1G:1503:A:OP2	2.07	0.54
1:1G:446:G:H1	1:1G:488:C:H42	1.55	0.54
26:1H:1359:A:H2	26:1H:1372:U:O4	1.90	0.54
26:1H:2147:G:H3'	26:1H:2148:G:H8	1.71	0.54
26:1H:2705:A:H2'	26:1H:2706:G:O4'	2.07	0.54
26:1H:620:G:H4'	26:1H:621:A:C5'	2.31	0.54
26:1H:817:C:O2'	26:1H:839:U:OP1	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:89:ASP:OD1	30:21:90:THR:N	2.40	0.54
31:31:130:ALA:H	31:31:132:VAL:HG13	1.72	0.54
1:13:7:G:H2'	5:4E:119:LEU:HD22	1.88	0.54
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.89	0.54
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.88	0.54
35:58:49:GLY:O	35:58:119:ARG:CZ	2.53	0.54
26:1H:1196:C:H41	37:78:16:ARG:HH12	1.55	0.54
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.06	0.54
26:14:2010:G:H5''	44:A5:42:ARG:HB2	1.88	0.54
32:41:65:GLY:HA3	52:M8:9:LEU:HD13	1.89	0.54
2:12:19:HIS:ND1	2:12:204:ASN:HB3	2.21	0.54
1:13:1075:C:H2'	1:13:1076:C:H6	1.72	0.54
1:13:1455:G:H8	1:13:1455:G:O5'	1.90	0.54
26:14:1826:G:H2'	26:14:1827:C:H6	1.73	0.54
26:14:957:A:OP1	38:45:76:LYS:HD3	2.07	0.54
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.89	0.54
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.42	0.54
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.71	0.54
3:22:88:ARG:HG3	3:22:101:LEU:HD12	1.89	0.54
4:32:3:ARG:NE	4:32:118:ARG:NE	2.47	0.54
32:49:36:LYS:HG3	32:49:93:THR:HG23	1.88	0.54
14:5A:9:LYS:HB3	14:5A:12:ARG:HH12	1.71	0.54
6:5E:16:GLN:HG2	6:5E:17:SER:H	1.70	0.54
42:85:92:ARG:C	42:85:94:ASN:H	2.09	0.54
42:85:97:ASP:O	42:85:100:VAL:N	2.38	0.54
18:9I:50:ILE:HD11	18:9I:70:ILE:HG21	1.88	0.54
1:13:262:A:H5'	20:BI:74:LYS:HG3	1.89	0.54
1:13:51:A:OP2	1:13:52:G:H8	1.90	0.54
1:13:57:G:H2'	1:13:58:C:C6	2.42	0.54
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.43	0.54
26:14:1444(A):A:O2'	26:14:1445:C:O5'	2.26	0.54
26:14:1657:C:H2'	26:14:1658:C:H6	1.72	0.54
26:14:1678:G:H22	26:14:1989:G:N2	2.04	0.54
26:14:2643:G:H2'	26:14:2644:G:O4'	2.07	0.54
26:14:278:A:H2'	26:14:278:A:OP2	2.08	0.54
26:14:336:C:OP1	46:C5:83:THR:HG23	2.07	0.54
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.89	0.54
26:14:95:G:O2'	50:G5:48:HIS:ND1	2.39	0.54
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.41	0.54
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.43	0.54
26:1H:286:C:H2'	26:1H:287:C:C6	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:175:SER:HB3	4:32:184:LYS:HB2	1.88	0.54
1:1G:364:A:N6	12:3A:28:LYS:HZ3	2.05	0.54
12:3A:39:VAL:HB	12:3A:57:LYS:HD3	1.89	0.54
5:42:42:GLY:HA3	5:42:66:MET:HA	1.89	0.54
5:42:42:GLY:HA3	5:42:65:ASN:O	2.07	0.54
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.90	0.54
34:61:9:LEU:O	34:61:10:GLU:HG3	2.06	0.54
7:6E:123:GLU:O	7:6E:127:ALA:N	2.34	0.54
28:71:29:VAL:HG13	28:71:30:LYS:HG3	1.90	0.54
28:71:62:VAL:HG21	28:71:192:PHE:CZ	2.42	0.54
41:75:108:ARG:HA	41:75:111:ARG:HB2	1.89	0.54
9:82:102:LEU:O	9:82:103:THR:OG1	2.23	0.54
9:82:117:HIS:O	9:82:118:LYS:HB2	2.06	0.54
9:82:19:LEU:HD13	9:82:88:TYR:CD2	2.43	0.54
38:88:34:LEU:HB2	38:88:118:LEU:HD22	1.89	0.54
9:8E:16:ARG:NE	9:8E:64:THR:OG1	2.41	0.54
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.89	0.54
50:K8:4:SER:HB3	50:K8:7:ARG:N	2.21	0.54
29:11:11:PRO:O	29:11:12:SER:OG	2.17	0.54
2:12:32:ILE:HD11	2:12:40:HIS:HB3	1.89	0.54
1:13:237:C:H5''	17:8I:25:ARG:CZ	2.38	0.54
1:13:682:G:H2'	1:13:683:G:H8	1.71	0.54
1:13:838:G:H1	1:13:848:C:H42	1.52	0.54
26:14:1568:G:H5'	29:19:60:ARG:HA	1.89	0.54
26:14:1730:U:H3'	26:14:1731:G:N2	2.22	0.54
26:14:1662:C:O2'	26:14:2687:U:OP1	2.22	0.54
26:14:77:C:H5''	50:G5:10:LEU:HD21	1.90	0.54
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.37	0.54
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.54
1:1G:397:A:N3	1:1G:397:A:H3'	2.22	0.54
1:1G:857:C:H3'	1:1G:858:G:C8	2.42	0.54
26:1H:2111:C:N3	26:1H:2118:U:O2'	2.41	0.54
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.42	0.54
27:1J:5:C:N4	27:1J:115:G:H1	2.04	0.54
30:21:131:ALA:HB1	30:21:135:HIS:HE1	1.72	0.54
30:21:55:ASN:HB3	30:21:58:ARG:HG3	1.89	0.54
1:1G:407:G:OP1	4:32:115:ARG:NE	2.40	0.54
4:3E:155:LEU:O	4:3E:158:ILE:N	2.39	0.54
8:7E:27:PRO:HA	8:7E:58:TYR:HA	1.89	0.54
26:14:1225:C:H4'	43:95:85:LYS:CG	2.38	0.54
40:A8:8:GLU:O	40:A8:11:LYS:HB3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.89	0.54
49:F5:53:VAL:HG21	49:F5:74:VAL:HG22	1.90	0.54
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.23	0.54
55:M5:43:GLN:HG3	55:M5:46:ARG:HH21	1.72	0.54
1:13:110:C:H2'	1:13:111:G:O4'	2.07	0.54
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.40	0.54
26:14:2789:C:H1'	26:14:2892:A:H2	1.72	0.54
26:14:958:U:OP2	38:45:14:ARG:NH1	2.34	0.54
1:1G:222:U:H2'	1:1G:223:U:C6	2.41	0.54
1:1G:512:U:H2'	1:1G:513:C:H6	1.72	0.54
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.72	0.54
26:1H:530:G:C5	26:1H:2022:U:H5''	2.42	0.54
26:1H:2615:U:OP2	60:1H:3551:HOH:O	2.18	0.54
26:1H:459:U:H2'	26:1H:460:A:C8	2.42	0.54
26:1H:528:A:O2'	26:1H:529:A:H5''	2.07	0.54
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.40	0.54
1:1G:620:C:C2	4:32:135:LEU:HG	2.42	0.54
13:4A:32:GLU:O	13:4A:36:LYS:N	2.34	0.54
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.43	0.54
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.88	0.54
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.07	0.54
15:6I:71:GLN:HG2	15:6I:78:TYR:CD1	2.43	0.54
41:75:50:ILE:HD11	41:75:102:ILE:CG1	2.37	0.54
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.07	0.54
46:C5:48:ALA:HB1	46:C5:50:ARG:HD2	1.88	0.54
52:M8:14:ILE:HG13	52:M8:31:ILE:HB	1.90	0.54
2:12:24:TRP:HE3	2:12:190:THR:HB	1.70	0.54
26:14:2647:U:H2'	26:14:2648:C:C6	2.43	0.54
27:16:54:G:H2'	27:16:55:U:H6	1.73	0.54
26:14:1500:G:O2'	29:19:100:GLY:O	2.20	0.54
2:1E:114:ARG:HG3	2:1E:118:LEU:HD23	1.89	0.54
2:1E:36:ARG:HD2	2:1E:37:ASN:H	1.73	0.54
2:1E:73:THR:HG22	2:1E:74:LYS:HG3	1.89	0.54
1:1G:1161:C:H2'	1:1G:1162:C:C6	2.42	0.54
1:1G:458:C:N4	1:1G:464:G:O6	2.41	0.54
1:1G:481:G:O2'	1:1G:483:C:N4	2.41	0.54
26:1H:2776:A:H4'	26:1H:2777:G:H5''	1.90	0.54
26:1H:616:A:C4	31:31:180:GLY:HA2	2.43	0.54
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.19	0.54
7:6E:143:ARG:NH1	24:3K:41:A:O3'	2.34	0.54
32:41:3:LEU:HD23	32:41:3:LEU:O	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:125:VAL:O	37:78:144:GLU:HB2	2.07	0.54
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.07	0.54
17:8A:51:TYR:CE1	17:8A:73:VAL:HG11	2.43	0.54
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.07	0.54
42:C8:65:ILE:HG12	42:C8:96:ALA:HB2	1.89	0.54
44:E8:76:VAL:HG21	44:E8:101:SER:HB3	1.90	0.54
29:11:236:GLY:O	29:11:237:GLU:O	2.26	0.54
2:12:105:PHE:HA	2:12:108:ILE:CG2	2.35	0.54
26:14:1106:G:H3'	26:14:1107:G:H8	1.71	0.54
26:14:673:C:H5''	31:39:81:PRO:HD2	1.89	0.54
27:16:24:G:N7	27:16:56:G:H2'	2.23	0.54
1:1G:1106:G:H5''	3:22:172:ARG:HG2	1.89	0.54
1:1G:149:A:H2'	1:1G:150:C:C6	2.42	0.54
1:1G:165:C:H2'	1:1G:166:G:C8	2.43	0.54
1:1G:501:C:H2'	1:1G:502:G:C8	2.41	0.54
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.72	0.54
26:1H:1534:G:H21	26:1H:1535:U:H5	1.55	0.54
26:1H:2346:A:C2	26:1H:2383:G:C2	2.96	0.54
26:1H:2690:C:N4	60:1H:3529:HOH:O	2.40	0.54
27:1J:53:A:H2'	27:1J:54:G:O4'	2.08	0.54
3:22:6:HIS:ND1	14:5A:49:HIS:HB3	2.22	0.54
30:29:53:PRO:HA	30:29:74:PRO:HB3	1.89	0.54
23:2L:44:A:H2'	23:2L:45:A:C8	2.42	0.54
31:31:63:LYS:NZ	31:31:75:HIS:O	2.40	0.54
37:35:57:THR:HG23	37:35:60:MET:HB2	1.88	0.54
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.43	0.54
32:41:109:VAL:O	32:41:113:ARG:HG3	2.08	0.54
32:41:56:ALA:O	32:41:59:GLU:N	2.41	0.54
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.90	0.54
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.08	0.54
33:51:68:THR:O	33:51:72:ILE:HG12	2.08	0.54
34:61:29:TYR:HD2	34:61:30:LEU:HD23	1.73	0.54
7:62:120:ILE:HG22	7:62:124:LEU:HD12	1.88	0.54
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.73	0.54
1:1G:582:U:OP1	15:6A:68:ARG:NH2	2.41	0.54
37:78:49:ARG:CB	37:78:49:ARG:HH11	2.19	0.54
46:C5:46:LYS:CB	46:C5:61:ILE:H	2.20	0.54
1:13:457:C:H2'	1:13:458:C:C6	2.43	0.54
1:13:22:G:H4'	1:13:885:G:C8	2.43	0.54
26:14:1729:A:C5	26:14:1731:G:C6	2.96	0.54
26:14:2733:A:H61	30:29:202:LYS:HB3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:848:G:C4	26:14:933:A:H8	2.26	0.54
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.22	0.54
1:1G:1386:G:C2	1:1G:1387:G:C8	2.95	0.54
1:1G:147:G:H2'	1:1G:148:G:H8	1.72	0.54
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.39	0.54
1:1G:353:A:H5'	1:1G:353:A:C8	2.38	0.54
26:1H:1209:G:H21	26:1H:1210:A:H62	1.56	0.54
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.07	0.54
23:2L:60:A:H2'	23:2L:61:U:H5'	1.90	0.54
31:31:196:LEU:O	31:31:200:GLU:HB2	2.07	0.54
31:39:7:TYR:CD1	31:39:18:ARG:HB2	2.43	0.54
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.89	0.54
24:3K:59:A:H5'	24:3K:60:U:H5	1.73	0.54
32:41:106:LEU:HD12	32:41:110:ALA:HB3	1.89	0.54
6:52:14:LEU:HB2	6:52:18:GLN:OE1	2.08	0.54
7:62:126:ASP:HB3	7:62:131:LYS:O	2.08	0.54
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.23	0.54
42:85:76:TYR:O	42:85:80:ILE:HG22	2.08	0.54
45:B5:63:LYS:CD	45:B5:63:LYS:N	2.70	0.54
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.07	0.54
55:M5:34:TRP:CE3	55:M5:34:TRP:HA	2.42	0.54
1:13:1015:A:H2'	1:13:1016:A:H8	1.71	0.54
1:13:38:G:H22	1:13:397:A:P	2.31	0.54
26:14:10:G:H2'	26:14:11:G:C8	2.43	0.54
26:14:2370:G:C6	26:14:2371:G:C6	2.96	0.54
26:14:89:G:H3'	26:14:90:U:C5'	2.38	0.54
2:1E:8:LYS:CG	2:1E:9:GLU:H	2.21	0.54
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.08	0.54
1:1G:589:C:H42	1:1G:650:G:H1	1.55	0.54
26:1H:1021:A:H3'	26:1H:1022:G:H5''	1.89	0.54
26:1H:1899:G:N2	26:1H:1902:C:N4	2.42	0.54
26:1H:460:A:H5''	26:1H:461:C:OP2	2.08	0.54
26:1H:532:A:OP1	26:1H:561:G:N2	2.30	0.54
30:29:81:ILE:HG22	30:29:82:ARG:N	2.19	0.54
4:32:133:VAL:HG12	4:32:135:LEU:H	1.71	0.54
26:14:660:G:H21	37:35:12:ALA:CB	2.21	0.54
31:39:89:VAL:HG12	31:39:90:PHE:H	1.73	0.54
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.73	0.54
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.43	0.54
36:68:107:ARG:HB2	36:68:107:ARG:NH1	2.23	0.54
8:72:34:GLU:OE1	8:72:37:ARG:NH1	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.38	0.54
19:AA:66:MET:HA	19:AA:67:VAL:O	2.08	0.54
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.90	0.54
1:13:618:C:H5''	1:13:619:U:H5''	1.89	0.54
26:14:1572:A:H2'	26:14:1573:G:O4'	2.08	0.54
26:14:1771:C:O2'	26:14:1786:A:H8	1.89	0.54
1:1G:1292:U:OP2	7:62:41:ARG:NH1	2.41	0.54
1:1G:1408:A:N1	57:1G:1681:PAR:H611	2.23	0.54
1:1G:666:G:H5'	1:1G:726:C:H1'	1.90	0.54
26:1H:1053:C:H5''	26:1H:1107:G:H22	1.72	0.54
26:1H:1551:C:C2	26:1H:1552:G:C8	2.96	0.54
26:1H:2709:G:H1'	60:1H:3976:HOH:O	2.08	0.54
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.08	0.54
3:22:134:ILE:HD12	3:22:151:VAL:HG11	1.90	0.54
3:22:32:LEU:HD23	3:22:59:ARG:HH12	1.73	0.54
30:29:108:SER:OG	30:29:163:GLU:HG2	2.08	0.54
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.41	0.54
38:45:50:ALA:HB1	38:45:121:ALA:HB1	1.90	0.54
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.90	0.54
33:59:144:VAL:HG13	33:59:147:ASN:HD21	1.73	0.54
43:95:38:LEU:HD23	43:95:40:LEU:O	2.08	0.54
39:98:12:ARG:HB3	39:98:16:HIS:HB3	1.90	0.54
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.43	0.54
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.07	0.54
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	2.08	0.54
47:D5:30:ASN:OD1	47:D5:32:HIS:N	2.33	0.54
55:Q8:50:LEU:O	55:Q8:50:LEU:HD13	2.07	0.54
1:13:1003:G:H1	1:13:1037:C:H42	1.54	0.53
1:13:539:A:OP1	12:3I:114:LYS:HE2	2.08	0.53
26:14:2126:A:H1'	26:14:2127:G:H5''	1.89	0.53
26:14:528:A:O2'	26:14:529:A:H5'	2.08	0.53
1:1G:1137:C:H4'	1:1G:1138:G:O5'	2.08	0.53
1:1G:636:U:H2'	1:1G:637:G:C8	2.43	0.53
26:1H:1187:G:H5''	43:D8:81:TYR:CE2	2.42	0.53
26:1H:125:G:H5'	26:1H:125:G:H8	1.74	0.53
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.44	0.53
26:1H:33:U:H4'	26:1H:34:C:OP1	2.07	0.53
36:25:13:ASN:ND2	36:25:96:THR:OG1	2.41	0.53
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.90	0.53
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.89	0.53
4:3E:160:GLN:HA	4:3E:163:GLU:HB3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:133:ARG:O	38:45:134:ARG:HB3	2.08	0.53
26:14:2839:G:H21	39:55:92:GLY:HA2	1.73	0.53
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.42	0.53
43:D8:4:ILE:HG22	43:D8:39:LEU:HD12	1.89	0.53
43:D8:49:THR:HG23	43:D8:51:VAL:H	1.73	0.53
1:13:1263:C:H2'	1:13:1264:C:C6	2.43	0.53
1:13:157:G:H2'	1:13:158:G:C8	2.42	0.53
1:13:158:G:H2'	1:13:159:G:H8	1.73	0.53
1:13:7:G:H5'	1:13:298:A:O4'	2.07	0.53
26:14:1533:C:N4	26:14:1534:G:HO2'	2.05	0.53
26:14:2086:U:P	29:19:262:ARG:HH21	2.32	0.53
26:14:468:G:N7	54:L5:39:ARG:NH2	2.52	0.53
26:14:536:A:H2'	26:14:537:C:C6	2.43	0.53
26:14:670:A:H4'	26:14:671:C:O5'	2.07	0.53
35:15:91:LEU:O	35:15:95:PRO:HB3	2.08	0.53
27:16:90:C:P	38:88:16:ARG:HH21	2.30	0.53
2:1E:15:VAL:H	2:1E:16:HIS:CD2	2.26	0.53
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.32	0.53
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.09	0.53
26:1H:1045:A:H1'	26:1H:1047:G:C6	2.43	0.53
26:1H:1483:G:O6	26:1H:1506:C:N4	2.40	0.53
26:1H:205:G:O6	49:J8:39:LYS:NZ	2.40	0.53
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.90	0.53
3:22:16:ARG:HH22	3:22:181:ASN:HD22	1.55	0.53
30:29:9:VAL:HG23	30:29:26:ILE:O	2.09	0.53
23:2K:2:G:H2'	23:2K:3:C:C6	2.43	0.53
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.89	0.53
24:3L:51:A:H62	24:3L:63:U:H3	1.55	0.53
33:51:95:ARG:HB2	33:51:128:PRO:HB2	1.90	0.53
34:69:81:VAL:HG12	34:69:143:SER:HB3	1.90	0.53
1:13:750:G:N3	15:6I:23:GLY:HA3	2.24	0.53
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.43	0.53
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.90	0.53
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.41	0.53
47:D5:3:TYR:O	47:D5:58:VAL:N	2.28	0.53
26:14:2396:G:H4'	49:F5:30:VAL:H	1.73	0.53
55:Q8:52:LYS:O	55:Q8:55:ALA:N	2.38	0.53
26:14:1027:A:C2	26:14:2488:A:H5'	2.43	0.53
26:14:1946:U:H2'	26:14:1947:C:C6	2.42	0.53
26:14:2845:G:OP2	60:14:3419:HOH:O	2.19	0.53
26:14:635:C:H2'	26:14:636:G:O4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.73	0.53
1:1G:411:A:H61	1:1G:430:A:H62	1.57	0.53
1:1G:529:G:O6	12:3A:49:ASN:HA	2.08	0.53
1:1G:660:G:N2	1:1G:745:C:N3	2.48	0.53
26:1H:1533:C:H2'	26:1H:1534:G:H8	1.72	0.53
26:1H:16:G:H2'	26:1H:17:G:H8	1.73	0.53
26:1H:2062:A:O2'	26:1H:2063:C:P	2.66	0.53
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.90	0.53
23:2L:32:G:O6	23:2L:33:OMC:N4	2.42	0.53
4:32:71:SER:HB3	4:32:74:GLN:OE1	2.08	0.53
26:14:674:G:C1'	31:39:74:ARG:HD3	2.38	0.53
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.71	0.53
32:41:46:ALA:HB2	32:41:52:ILE:HB	1.89	0.53
5:4E:57:LYS:HA	5:4E:60:TYR:HB3	1.88	0.53
37:78:39:LYS:CA	37:78:45:LEU:HD11	2.38	0.53
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.07	0.53
2:12:11:LEU:HG	2:12:217:ARG:NH2	2.11	0.53
1:13:1497:G:H2'	1:13:1498:U:H5'	1.89	0.53
1:13:417:C:H2'	1:13:418:C:C6	2.43	0.53
1:1G:1240:U:H3'	1:1G:1241:G:H8	1.73	0.53
1:1G:1494:G:N7	57:1G:1681:PAR:N32	2.56	0.53
1:1G:5:U:H4'	1:1G:6:G:H5'	1.89	0.53
1:1G:868:C:H2'	1:1G:869:G:O4'	2.08	0.53
26:1H:1260:G:C6	26:1H:1261:C:C4	2.96	0.53
26:1H:1359:A:C2	26:1H:1372:U:O4	2.62	0.53
26:1H:2052:G:C8	30:21:141:ILE:HD11	2.43	0.53
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.44	0.53
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.08	0.53
9:8E:114:TYR:CE1	10:1I:59:SER:HA	2.44	0.53
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.91	0.53
30:29:7:VAL:HG12	30:29:193:GLY:HA2	1.91	0.53
23:2L:36:A:H2'	23:2L:37:U:C6	2.44	0.53
26:14:2250:G:C2	38:45:82:ARG:HB3	2.44	0.53
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.91	0.53
5:4E:15:ARG:HB2	5:4E:28:PHE:CE2	2.44	0.53
33:51:102:ALA:HB2	33:51:116:GLU:OE1	2.09	0.53
33:51:158:HIS:CA	33:51:170:ARG:HE	2.22	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.43	0.53
7:62:51:GLN:HG2	7:62:56:GLN:O	2.08	0.53
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.24	0.53
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:35:LEU:C	43:95:37:VAL:HG13	2.28	0.53
18:9A:21:LYS:HZ1	18:9A:57:GLY:HA3	1.73	0.53
50:G5:48:HIS:O	50:G5:52:ASP:HB2	2.09	0.53
29:11:168:ARG:HG2	29:11:173:VAL:HG12	1.91	0.53
2:12:32:ILE:HG12	2:12:33:TYR:N	2.24	0.53
1:13:1177:G:H2'	1:13:1178:G:C8	2.43	0.53
1:13:8:A:N7	4:3E:208:SER:OG	2.32	0.53
26:14:1448:G:H1'	26:14:1528:A:H62	1.73	0.53
26:14:2641:G:P	35:15:74:ARG:HH21	2.31	0.53
26:14:460:A:H62	26:14:469:G:H21	1.57	0.53
29:19:267:SER:C	29:19:269:PHE:H	2.12	0.53
1:1G:946:A:O2'	1:1G:1333:A:N3	2.34	0.53
1:1G:617:G:H4'	16:7A:44:THR:HB	1.91	0.53
1:1G:854:G:C2	1:1G:855:G:C8	2.96	0.53
1:1G:90:C:H2'	1:1G:91:C:O4'	2.09	0.53
26:1H:1799:G:O6	29:11:179:SER:HB3	2.09	0.53
26:1H:910:A:C4	38:88:13:GLN:NE2	2.77	0.53
22:1K:38:A:H5'	26:1H:1913:A:C6	2.43	0.53
3:22:91:LEU:HD21	3:22:101:LEU:HD21	1.90	0.53
4:32:19:LEU:HB2	4:32:21:LEU:HD13	1.91	0.53
24:3K:6:G:N2	24:3K:67:C:O2'	2.39	0.53
24:3K:72:C:H3'	24:3K:73:A:H5''	1.89	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.44	0.53
28:79:17:ASN:HB2	28:79:18:LYS:HD2	1.89	0.53
9:82:7:THR:O	9:82:83:ARG:HD2	2.09	0.53
43:95:85:LYS:HE3	43:95:88:ARG:H	1.73	0.53
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.23	0.53
45:B5:66:LEU:HD23	45:B5:66:LEU:O	2.09	0.53
45:B5:72:LYS:NZ	45:B5:75:ASP:OD1	2.41	0.53
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.09	0.53
26:14:1533:C:N4	26:14:1534:G:O2'	2.42	0.53
26:14:2115:G:N1	26:14:2117:A:N7	2.57	0.53
26:14:2562:U:H4'	36:25:25:LEU:HD21	1.91	0.53
26:14:606:U:OP1	31:39:104:LYS:CD	2.41	0.53
26:14:89:G:OP2	26:14:90:U:H3'	2.09	0.53
27:16:80:U:H2'	27:16:81:G:N2	2.16	0.53
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.44	0.53
26:1H:880:G:H8	26:1H:880:G:O5'	1.91	0.53
3:2E:7:PRO:HG2	3:2E:184:TYR:HB2	1.90	0.53
31:31:192:LEU:HD23	31:31:193:VAL:N	2.23	0.53
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:4:U:H2'	24:3L:5:C:O4'	2.08	0.53
32:49:73:ALA:HB3	32:49:84:LYS:HA	1.90	0.53
35:58:26:LEU:O	35:58:30:ILE:HG13	2.08	0.53
35:58:20:GLY:HA2	35:58:61:ARG:HD3	1.89	0.53
36:68:13:ASN:ND2	36:68:97:ARG:HB2	2.23	0.53
34:69:63:ALA:HA	34:69:66:GLU:HG2	1.91	0.53
8:72:35:ILE:HD13	8:72:118:VAL:HG11	1.90	0.53
44:A5:72:LYS:HB3	44:A5:106:ILE:HG13	1.90	0.53
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.89	0.53
41:B8:54:ARG:HA	41:B8:59:THR:HG23	1.90	0.53
45:F8:25:LYS:HA	45:F8:81:VAL:O	2.09	0.53
46:G8:94:LYS:HE3	46:G8:96:ILE:HG23	1.90	0.53
47:H8:1:MET:HE3	47:H8:55:HIS:HB3	1.90	0.53
2:12:221:LEU:HA	2:12:223:ILE:HD12	1.91	0.53
1:13:403:C:OP1	4:3E:137:SER:OG	2.20	0.53
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.40	0.53
26:14:1399:C:H2'	26:14:1400:G:C8	2.43	0.53
26:14:2250:G:C6	38:45:82:ARG:HD2	2.44	0.53
26:14:2360:A:H2'	26:14:2361:A:O4'	2.09	0.53
27:16:3:C:H2'	27:16:4:C:C6	2.44	0.53
1:1G:1031:G:H2'	1:1G:1032:A:C8	2.44	0.53
1:1G:41:G:H2'	1:1G:42:G:C8	2.44	0.53
1:1G:560:U:O2'	1:1G:561:U:OP2	2.25	0.53
1:1G:737:A:H2'	1:1G:738:C:H6	1.74	0.53
26:1H:1470:G:H5''	26:1H:1471:A:OP1	2.08	0.53
26:1H:2209:C:O2	26:1H:2216:G:C2	2.62	0.53
26:1H:731:C:H2'	26:1H:732:C:H6	1.74	0.53
27:1J:57:A:H2'	27:1J:58:A:O4'	2.08	0.53
5:42:144:THR:HG23	5:42:147:ASP:H	1.74	0.53
13:4I:3:ARG:HD3	13:4I:7:VAL:HA	1.91	0.53
6:52:3:ARG:HG3	6:52:93:SER:HB2	1.91	0.53
26:1H:6:A:H1'	35:58:131:GLN:HB3	1.90	0.53
33:59:62:LYS:HA	33:59:65:HIS:HB3	1.91	0.53
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.90	0.53
6:5E:78:GLU:O	6:5E:81:ILE:HG22	2.09	0.53
7:6E:15:ASP:HB3	7:6E:19:GLY:N	2.23	0.53
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	1.91	0.53
28:71:28:LEU:HD12	28:71:31:GLU:OE2	2.09	0.53
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.23	0.53
43:D8:36:PRO:C	43:D8:38:LEU:H	2.11	0.53
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1006:C:H2'	1:13:1007:C:C6	2.43	0.53
1:13:232:G:H2'	1:13:233:C:C6	2.44	0.53
1:13:429:U:H1'	1:13:430:A:H5''	1.91	0.53
26:14:1159:U:H2'	26:14:1160:G:H8	1.73	0.53
26:14:828:U:H3	26:14:2247:A:H4'	1.73	0.53
26:14:2789:C:H1'	26:14:2892:A:C2	2.44	0.53
35:15:133:GLN:O	35:15:134:ARG:HG3	2.08	0.53
1:1G:1244:C:OP2	21:1B:8:THR:OG1	2.27	0.53
2:1E:197:VAL:HG21	2:1E:200:ILE:HG12	1.90	0.53
1:1G:297:G:N2	1:1G:300:A:OP2	2.41	0.53
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.08	0.53
31:39:155:LEU:HB3	31:39:192:LEU:HD23	1.91	0.53
13:4I:7:VAL:HB	32:4I:115:ARG:HH22	1.72	0.53
26:1H:2750:A:H3'	33:5I:4:ILE:HD12	1.91	0.53
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.91	0.53
8:7E:109:ILE:CG2	8:7E:137:VAL:HG23	2.36	0.53
49:J8:81:LYS:HD2	49:J8:81:LYS:N	2.24	0.53
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	1.91	0.53
26:1H:779:U:OP1	29:11:49:ILE:HG13	2.08	0.53
1:13:963:G:H5'	60:13:1837:HOH:O	2.08	0.53
26:14:1146:C:C2'	26:14:1147:C:H5'	2.39	0.53
26:14:2688:U:H2'	26:14:2719:G:N2	2.24	0.53
26:14:2779:U:H4'	26:14:2780:G:H5''	1.91	0.53
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.44	0.53
10:1A:13:HIS:HB3	10:1A:68:HIS:CE1	2.44	0.53
1:1G:147:G:N2	1:1G:175:C:N3	2.49	0.53
1:1G:584:G:OP1	17:8A:91:ARG:NH2	2.42	0.53
26:1H:1171:G:C5	26:1H:1174:A:C6	2.96	0.53
26:1H:1899:G:N2	26:1H:1902:C:C5	2.77	0.53
27:1J:15:A:H1'	27:1J:109:G:C5	2.44	0.53
22:1L:41:A:H2'	22:1L:42:A:O4'	2.09	0.53
30:29:54:GLN:HG2	30:29:72:VAL:HB	1.91	0.53
11:2A:18:ARG:HH21	11:2A:37:GLY:N	2.06	0.53
31:39:158:THR:C	31:39:178:PRO:HD3	2.30	0.53
13:4A:19:LEU:HG	13:4A:25:ILE:HG21	1.91	0.53
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.72	0.53
9:82:97:LYS:HD3	9:82:102:LEU:HB2	1.91	0.53
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.42	0.53
42:85:60:LEU:O	42:85:63:VAL:HG12	2.08	0.53
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.74	0.53
41:B8:30:VAL:HB	41:B8:86:ILE:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B5:1:MET:H1	50:G5:29:LYS:HE3	1.74	0.53
47:H8:1:MET:CE	47:H8:55:HIS:HB3	2.39	0.53
47:H8:61:LEU:HB2	47:H8:62:PRO:HD2	1.91	0.53
1:13:642:A:N3	8:7E:113:SER:OG	2.35	0.53
26:14:987:G:O2'	26:14:1000:A:N3	2.39	0.53
26:14:1042:G:H2'	26:14:1043:C:O4'	2.09	0.53
26:14:303:U:H2'	26:14:304:G:H8	1.73	0.53
26:14:813:U:H2'	26:14:814:C:C6	2.44	0.53
26:14:1971:A:C4	29:19:241:PRO:HD3	2.44	0.53
1:1G:309:G:O2'	1:1G:607:A:N1	2.42	0.53
1:1G:373:A:C2	1:1G:374:A:C8	2.96	0.53
26:1H:1444:G:C2	26:1H:1548:C:N3	2.77	0.53
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.23	0.53
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.75	0.53
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.74	0.53
30:21:31:CYS:HB3	30:21:49:LEU:HG	1.91	0.53
38:45:66:ILE:HD12	38:45:67:ARG:N	2.24	0.53
32:49:118:ARG:H	32:49:118:ARG:HD2	1.74	0.53
13:4I:3:ARG:HB2	13:4I:7:VAL:O	2.09	0.53
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.28	0.53
39:55:55:ALA:HB2	39:55:79:LEU:CD1	2.39	0.53
33:59:154:PRO:HB3	33:59:162:ILE:O	2.08	0.53
40:65:100:ALA:HA	40:65:103:GLU:HG3	1.91	0.53
26:1H:1665:A:H1'	36:68:1:MET:HG3	1.90	0.53
16:7A:23:ASP:OD2	16:7A:25:ARG:NH1	2.42	0.53
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.12	0.53
26:14:814:C:P	43:95:83:ARG:HH11	2.31	0.53
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.08	0.53
20:BI:50:GLU:HG2	20:BI:100:ILE:HD12	1.90	0.53
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.09	0.53
1:13:1004:A:N1	1:13:1024:G:H2'	2.24	0.52
1:13:154:C:N4	1:13:167:G:H1	2.07	0.52
1:13:682:G:H1	1:13:708:C:N4	2.07	0.52
26:14:247:G:H4'	26:14:386:G:C5	2.44	0.52
26:14:602:G:H8	26:14:602:G:OP2	1.92	0.52
26:14:824:A:H1'	26:14:2358:G:N7	2.24	0.52
10:1A:51:ARG:HB2	10:1A:59:SER:O	2.09	0.52
2:1E:11:LEU:HD23	2:1E:213:LEU:HD22	1.90	0.52
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.43	0.52
1:1G:143:A:H4'	1:1G:144:G:C8	2.44	0.52
26:1H:2125:G:H21	26:1H:2173:A:N6	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.24	0.52
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.44	0.52
26:1H:270(L):U:N1	34:61:50:ARG:HG2	2.24	0.52
26:1H:286:C:H2'	26:1H:287:C:H6	1.74	0.52
23:2K:30:G:H1	23:2K:42:C:N4	2.07	0.52
4:32:82:ALA:HB1	4:32:89:THR:HA	1.91	0.52
5:42:99:GLY:O	5:42:117:ASP:HA	2.08	0.52
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.43	0.52
6:52:62:TRP:CH2	6:52:64:GLN:HB2	2.44	0.52
34:61:57:ARG:HG2	34:61:61:ARG:HH22	1.73	0.52
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.42	0.52
28:79:6:ARG:O	28:79:10:LEU:HG	2.09	0.52
8:7E:104:ARG:O	8:7E:107:LEU:HB2	2.08	0.52
1:1G:1117:G:H4'	9:82:104:ARG:NH1	2.24	0.52
9:82:24:GLY:N	9:82:60:ASP:OD1	2.42	0.52
42:85:92:ARG:CZ	43:95:11:GLN:H	2.22	0.52
45:B5:67:GLY:O	45:B5:69:TYR:N	2.34	0.52
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.73	0.52
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.78	0.52
47:H8:5:LEU:HD23	47:H8:47:VAL:HG21	1.91	0.52
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.74	0.52
1:13:149:A:H8	1:13:149:A:O5'	1.92	0.52
1:13:389:A:H2'	1:13:390:C:O4'	2.10	0.52
26:14:1131:G:OP2	26:14:2515:C:H4'	2.10	0.52
26:14:1259:G:H2'	26:14:1260:G:C8	2.44	0.52
26:14:1374:G:H2'	26:14:1375:C:H6	1.74	0.52
26:14:1342:A:H2	26:14:1602:U:N3	2.07	0.52
26:14:2416:C:H2'	26:14:2417:C:C6	2.44	0.52
26:14:2704:C:H2'	26:14:2705:A:O4'	2.09	0.52
1:1G:108:G:H5'	1:1G:109:A:C5'	2.38	0.52
1:1G:1321:C:H3'	1:1G:1322:C:H5''	1.91	0.52
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.45	0.52
1:1G:922:G:N3	1:1G:1398:A:H2	2.07	0.52
26:1H:1173:G:H5'	26:1H:1174:A:C2	2.44	0.52
26:1H:1517:G:H2'	26:1H:1518:C:H6	1.73	0.52
26:1H:2266:A:H4'	26:1H:2267:A:N3	2.25	0.52
26:1H:2516:G:C6	26:1H:2517:C:N4	2.77	0.52
26:1H:35:G:H2'	26:1H:36:G:O4'	2.09	0.52
26:1H:863:A:H2'	26:1H:864:G:C8	2.44	0.52
10:1I:37:PRO:HA	10:1I:72:VAL:HG22	1.91	0.52
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:52:G:H2'	22:1K:53:G:H8	1.74	0.52
30:21:48:GLN:OE1	30:21:77:ILE:HG21	2.09	0.52
24:3L:3:G:H1	24:3L:70:C:H42	1.57	0.52
33:51:84:SER:O	33:51:85:LYS:HB2	2.09	0.52
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.42	0.52
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.39	0.52
49:F5:80:LEU:HD12	49:F5:82:LEU:HB2	1.91	0.52
45:F8:52:VAL:HG23	45:F8:82:GLN:HB3	1.90	0.52
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.90	0.52
46:G8:54:LYS:HG2	46:G8:55:TYR:H	1.74	0.52
46:G8:8:LYS:O	46:G8:27:VAL:HG11	2.09	0.52
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.91	0.52
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.73	0.52
1:13:1142:G:H2'	1:13:1143:G:O4'	2.09	0.52
26:14:118:A:N3	26:14:178:G:H1'	2.23	0.52
26:14:2138:C:H42	26:14:2153:G:H1	1.55	0.52
26:14:2812:G:N2	26:14:2889:C:O2	2.42	0.52
26:14:821:A:O2'	26:14:946:G:OP2	2.26	0.52
2:1E:55:PHE:HD1	2:1E:221:LEU:HG	1.74	0.52
1:1G:229:U:H2'	1:1G:230:G:C8	2.44	0.52
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.42	0.52
1:1G:855:G:OP2	1:1G:871:U:N3	2.39	0.52
1:1G:977:A:H2'	1:1G:978:A:H5'	1.91	0.52
22:1K:3:G:N2	22:1K:71:C:H1'	2.25	0.52
30:21:197:ILE:CD1	30:21:199:ARG:HE	2.20	0.52
5:4E:71:LEU:HD13	5:4E:114:GLY:HA3	1.91	0.52
13:4I:31:LYS:H	13:4I:31:LYS:HD2	1.75	0.52
7:62:116:ALA:O	7:62:120:ILE:HG12	2.09	0.52
1:13:310:G:P	16:7I:27:LYS:NZ	2.83	0.52
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.92	0.52
9:82:58:HIS:HB3	9:82:59:PHE:CE1	2.45	0.52
45:B5:63:LYS:HA	45:B5:72:LYS:HA	1.91	0.52
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.09	0.52
20:BI:89:ARG:NH2	20:BI:104:LEU:HD11	2.24	0.52
50:G5:63:VAL:HA	50:G5:66:GLU:HG2	1.92	0.52
55:M5:14:VAL:HG21	55:M5:58:ILE:CD1	2.39	0.52
1:13:99:C:H42	1:13:101:A:H62	1.56	0.52
26:14:1372:U:H2'	26:14:1373:A:O4'	2.10	0.52
26:14:2023:G:H5'	26:14:2617:C:H4'	1.92	0.52
26:14:287:C:H2'	26:14:288:C:C6	2.44	0.52
26:14:2882:A:OP1	39:55:96:ARG:NE	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:6:A:N3	26:14:6:A:H2'	2.23	0.52
26:14:925:C:H2'	26:14:926:A:H8	1.74	0.52
29:19:71:ASP:OD2	29:19:103:ARG:NH2	2.42	0.52
21:1F:6:ARG:HH11	21:1F:15:ARG:HE	1.57	0.52
1:1G:1153:C:H2'	1:1G:1154:G:O4'	2.09	0.52
26:1H:2115:G:H2'	26:1H:2116:G:H8	1.73	0.52
26:1H:2135:A:N6	26:1H:2136:C:O2	2.41	0.52
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.44	0.52
26:1H:671:C:OP1	37:78:42:SER:O	2.28	0.52
30:29:36:ARG:NH2	30:29:86:PRO:O	2.39	0.52
3:2E:77:ILE:HA	3:2E:84:ILE:HB	1.91	0.52
3:2E:82:GLU:HA	3:2E:85:ARG:HB3	1.91	0.52
23:2K:63:C:H2'	23:2K:64:G:C8	2.44	0.52
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.44	0.52
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.74	0.52
32:41:114:ILE:HG22	32:41:115:ARG:O	2.09	0.52
38:45:20:ALA:HA	38:45:99:PRO:HG2	1.92	0.52
32:49:170:ARG:HH22	32:49:182:LYS:HD3	1.74	0.52
25:4L:11:U:H2'	25:4L:12:A:H5''	1.91	0.52
35:58:130:HIS:HA	35:58:134:ARG:HH22	1.74	0.52
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	1.92	0.52
19:AA:11:VAL:HG13	19:AA:39:THR:HB	1.92	0.52
47:H8:7:ALA:HB3	47:H8:61:LEU:HB3	1.91	0.52
1:13:1266:G:N2	1:13:1270:C:N3	2.57	0.52
1:13:264:U:O2	17:8I:64:PRO:HG2	2.10	0.52
26:14:1174:A:H2'	26:14:1176:G:OP1	2.09	0.52
26:14:90:U:O2'	26:14:91:A:O5'	2.28	0.52
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.90	0.52
10:1A:37:PRO:HA	10:1A:72:VAL:HG22	1.90	0.52
1:1G:1069:C:H42	1:1G:1106:G:H1	1.56	0.52
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.44	0.52
1:1G:1151:A:H4'	10:1A:39:PRO:HB2	1.92	0.52
1:1G:885:G:O2'	1:1G:914:A:N1	2.36	0.52
26:1H:1051:G:C6	26:1H:1052:C:H1'	2.44	0.52
26:1H:1682:G:C2	26:1H:1683:C:C2	2.97	0.52
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.09	0.52
26:1H:274:G:H2'	26:1H:275:G:O4'	2.08	0.52
1:13:1124:G:O2'	10:1I:38:ILE:HD12	2.10	0.52
27:1J:16:G:H2'	27:1J:17:C:H6	1.74	0.52
30:21:49:LEU:HD21	30:21:91:VAL:HG21	1.92	0.52
36:25:120:GLU:HB2	41:75:68:TYR:HE2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:46:GLY:HA2	11:2A:50:TYR:O	2.09	0.52
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.92	0.52
11:2I:21:ILE:HD13	11:2I:94:ALA:HB1	1.91	0.52
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.37	0.52
26:14:588:U:H1'	31:39:90:PHE:CB	2.40	0.52
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.74	0.52
5:42:8:GLU:HG2	5:42:34:VAL:HG23	1.90	0.52
33:51:107:VAL:HG11	33:51:162:ILE:HD11	1.90	0.52
34:69:14:ASP:OD1	34:69:15:VAL:N	2.42	0.52
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.91	0.52
37:78:49:ARG:HH12	37:78:50:ARG:HH21	1.58	0.52
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.92	0.52
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.73	0.52
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.09	0.52
1:13:1179:A:H4'	9:8E:103:THR:HA	1.92	0.52
9:8E:9:ARG:N	9:8E:9:ARG:HD2	2.24	0.52
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.91	0.52
18:9I:82:THR:HG22	18:9I:83:GLU:O	2.09	0.52
41:B8:51:ARG:HB2	41:B8:98:LYS:HD2	1.91	0.52
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.10	0.52
47:H8:59:LEU:O	47:H8:60:GLU:HB2	2.09	0.52
26:14:2577:A:H5'	53:J5:3:LYS:HD3	1.91	0.52
55:Q8:41:ILE:HG13	55:Q8:42:ARG:N	2.24	0.52
29:11:40:THR:HG23	29:11:41:GLY:N	2.24	0.52
1:13:1006:C:H2'	1:13:1007:C:H6	1.75	0.52
1:13:103:C:C2	1:13:104:G:C8	2.98	0.52
1:13:468:A:O2'	16:7I:81:ARG:HA	2.09	0.52
1:13:560:U:O2'	1:13:561:U:OP2	2.24	0.52
1:13:821:G:H5''	60:13:1938:HOH:O	2.10	0.52
1:13:953:G:H5'	1:13:965:A:H61	1.75	0.52
26:14:205:G:O2'	26:14:206:U:OP2	2.27	0.52
26:14:2074:U:H2'	26:14:2075:U:C6	2.44	0.52
26:14:2542:A:C8	26:14:2544:G:O6	2.62	0.52
26:14:718:A:H3'	26:14:719:C:H6	1.75	0.52
2:1E:23:ARG:NH2	2:1E:191:ASP:OD1	2.43	0.52
1:1G:396:G:O2'	1:1G:398:C:OP1	2.13	0.52
31:39:192:LEU:HD13	31:39:194:MET:HE1	1.92	0.52
31:39:38:ARG:NH2	31:39:99:TYR:CZ	2.58	0.52
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.45	0.52
24:3L:29:U:H2'	24:3L:30:G:O4'	2.09	0.52
7:62:26:PHE:O	7:62:30:ILE:HG13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:102:SER:O	34:69:106:GLY:N	2.42	0.52
41:75:112:ARG:HD2	41:75:113:LYS:HD2	1.91	0.52
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.40	0.52
17:8I:75:ARG:NH1	17:8I:76:LEU:O	2.43	0.52
47:H8:61:LEU:HD22	47:H8:67:LEU:HD12	1.92	0.52
51:L8:8:LEU:HD22	51:L8:31:LEU:HD22	1.91	0.52
29:11:231:HIS:HD2	29:11:249:PRO:HA	1.73	0.52
2:12:42:ILE:HG21	2:12:202:PRO:HB2	1.91	0.52
1:13:1369:C:H2'	1:13:1370:G:C8	2.45	0.52
1:13:912:C:O2'	1:13:913:A:H5'	2.10	0.52
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.45	0.52
26:14:329:G:O6	46:C5:19:LYS:HE2	2.09	0.52
35:15:13:TRP:HB2	35:15:133:GLN:HB2	1.92	0.52
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.10	0.52
1:1G:1106:G:H2'	1:1G:1107:C:H6	1.75	0.52
1:1G:1347:G:N1	1:1G:1374:A:OP2	2.37	0.52
1:1G:631:G:H1'	1:1G:632:A:N7	2.23	0.52
1:1G:902:G:O2'	1:1G:903:G:H5'	2.10	0.52
27:1J:16:G:H2'	27:1J:17:C:C6	2.45	0.52
26:1H:2811:G:OP1	30:21:60:ASN:HB2	2.10	0.52
1:1G:1190:G:H4'	3:22:176:HIS:CE1	2.45	0.52
36:25:73:ASP:N	36:25:73:ASP:OD1	2.41	0.52
23:2L:16:C:O2'	23:2L:62:C:OP1	2.23	0.52
31:31:20:LEU:HD12	31:31:21:ALA:N	2.25	0.52
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.44	0.52
12:3A:28:LYS:HD3	12:3A:33:ARG:HH12	1.74	0.52
32:41:16:ARG:HH21	32:41:31:VAL:CG2	2.23	0.52
32:41:67:LYS:HD2	32:41:67:LYS:H	1.75	0.52
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.40	0.52
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.25	0.52
39:55:78:LYS:O	39:55:82:GLU:HG2	2.09	0.52
34:61:112:LYS:HB2	34:61:113:ARG:HG3	1.91	0.52
1:1G:1298:C:C5	7:62:114:ARG:HD3	2.43	0.52
34:69:38:LEU:HD12	34:69:38:LEU:H	1.74	0.52
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.92	0.52
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.42	0.52
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.91	0.52
1:13:114:U:H2'	1:13:115:G:C8	2.45	0.52
1:13:573:A:H5'	1:13:573:A:C8	2.36	0.52
26:14:1771:C:H1'	26:14:1786:A:C8	2.45	0.52
26:14:2108:C:H2'	26:14:2109:U:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2607:G:H2'	26:14:2608:G:O4'	2.10	0.52
27:16:11:C:H3'	27:16:12:C:H6	1.74	0.52
21:1B:9:ARG:HA	21:1B:22:ARG:HB2	1.91	0.52
2:1E:52:GLU:HG2	2:1E:56:ARG:HD3	1.92	0.52
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.09	0.52
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.10	0.52
26:1H:2272:U:H5''	26:1H:2273:A:OP1	2.10	0.52
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.39	0.52
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.44	0.52
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.10	0.52
26:1H:325:G:O2'	26:1H:326:G:H5'	2.10	0.52
26:1H:565:C:O3'	60:1H:3554:HOH:O	2.19	0.52
30:21:52:LEU:HD23	30:21:53:PRO:HD2	1.92	0.52
26:14:1952:A:C6	36:25:22:ILE:HD12	2.44	0.52
30:29:117:MET:HB2	30:29:122:PHE:O	2.10	0.52
32:41:37:VAL:O	32:41:94:LEU:HD23	2.10	0.52
5:42:12:LEU:HD22	5:42:13:ILE:H	1.74	0.52
32:49:59:GLU:OE1	32:49:153:ARG:CZ	2.58	0.52
32:49:77:ILE:HG23	32:49:79:ASN:OD1	2.10	0.52
26:14:2708:G:H5'	39:55:68:ARG:HG2	1.90	0.52
8:72:49:GLU:OE1	8:72:51:VAL:HG22	2.10	0.52
1:1G:228:A:H4'	16:7A:62:VAL:HG11	1.92	0.52
38:88:66:ILE:HD12	38:88:67:ARG:H	1.73	0.52
18:9A:25:THR:HG22	18:9A:42:ARG:NH2	2.24	0.52
40:A8:106:ARG:HD2	40:A8:107:GLU:HG2	1.91	0.52
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.32	0.52
1:13:1292:U:H2'	1:13:1293:G:C8	2.45	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.44	0.52
26:14:2766:G:H5''	26:14:2767:C:OP2	2.10	0.52
26:14:639:U:O2'	26:14:640:C:H5'	2.10	0.52
26:14:721:C:H2'	26:14:722:A:C8	2.44	0.52
26:14:878:A:N1	26:14:899:A:H2	2.07	0.52
26:14:960:A:H2'	26:14:962:G:H5'	1.91	0.52
35:15:7:LYS:O	35:15:9:VAL:HG13	2.10	0.52
1:1G:1028(B):C:H41	1:1G:1032(B):G:H1	1.58	0.52
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.45	0.52
1:1G:1260:C:H6	1:1G:1260:C:H3'	1.74	0.52
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.45	0.52
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.25	0.52
26:1H:511:U:C5	26:1H:512:G:C5	2.97	0.52
26:1H:582:G:H2'	26:1H:583:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:613:U:O2	26:1H:613:U:O4'	2.27	0.52
22:1K:72:C:H2'	22:1K:73:A:H5''	1.91	0.52
4:32:12:CYS:SG	4:32:18:LYS:HA	2.50	0.52
4:32:107:ARG:HH12	4:32:194:LEU:HB3	1.75	0.52
31:39:25:PRO:CB	31:39:27:GLU:H	2.19	0.52
12:3A:39:VAL:CG1	12:3A:41:ARG:NH2	2.63	0.52
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.10	0.52
24:3K:54:U:H2'	24:3K:55:U:C2	2.45	0.52
24:3L:27:G:N2	24:3L:45:G:H22	2.08	0.52
13:4A:56:LEU:HA	13:4A:59:TYR:HB3	1.92	0.52
13:4I:15:VAL:O	13:4I:19:LEU:HG	2.09	0.52
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.45	0.52
34:61:79:ILE:HD11	34:61:100:ALA:HB2	1.91	0.52
36:68:75:SER:HB2	41:B8:74:ARG:HH12	1.75	0.52
28:71:10:LEU:HD13	28:71:32:LEU:HA	1.91	0.52
40:A8:103:GLU:O	40:A8:106:ARG:NE	2.23	0.52
19:A1:40:ILE:HD11	19:A1:62:ILE:HD12	1.92	0.52
41:B8:50:ILE:HG22	41:B8:62:THR:OG1	2.10	0.52
43:D8:65:GLY:N	43:D8:91:TYR:O	2.36	0.52
45:F8:34:ALA:HA	45:F8:38:GLU:OE1	2.10	0.52
26:14:61:G:H5'	50:G5:50:ILE:HG12	1.92	0.52
47:H8:150:LEU:HD22	47:H8:171:ILE:HD12	1.91	0.52
50:K8:41:ILE:HD13	50:K8:44:LEU:HD23	1.91	0.52
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.24	0.52
2:12:12:GLU:OE2	2:12:15:VAL:N	2.43	0.52
2:12:165:VAL:HG23	2:12:166:ASP:H	1.75	0.52
1:13:1218:C:H2'	1:13:1219:U:H6	1.75	0.52
1:13:1292:U:H2'	1:13:1293:G:H8	1.74	0.52
26:14:1142(A):A:N7	26:14:1144:G:C5	2.78	0.52
26:14:2317:C:H2'	26:14:2318:G:O4'	2.09	0.52
26:14:629:G:H1	26:14:634:C:N4	2.06	0.52
26:14:71:A:H5''	26:14:73:A:C8	2.45	0.52
29:19:273:ARG:O	29:19:273:ARG:HG2	2.10	0.52
21:1B:2:GLY:O	21:1B:4:GLY:N	2.43	0.52
2:1E:68:ILE:O	2:1E:91:PRO:HD2	2.09	0.52
1:1G:1244:C:O2	1:1G:1293:G:N2	2.42	0.52
1:1G:147:G:H1	1:1G:175:C:N4	1.98	0.52
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.74	0.52
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.92	0.52
26:1H:2640:G:OP1	35:58:74:ARG:NH1	2.43	0.52
26:1H:2572:A:H62	30:21:145:LYS:HD3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:141:VAL:HA	3:22:144:SER:HB3	1.91	0.52
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.91	0.52
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.10	0.52
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.10	0.52
26:1H:2310:A:C8	32:41:77:ILE:HD11	2.45	0.52
38:45:43:THR:HG22	38:45:94:VAL:HG12	1.91	0.52
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.92	0.52
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.45	0.52
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.45	0.52
45:B5:63:LYS:CD	45:B5:63:LYS:H	2.23	0.52
49:F5:19:GLN:HB3	49:F5:35:THR:O	2.10	0.52
49:F5:89:GLU:O	49:F5:93:GLU:HB2	2.10	0.52
46:G8:55:TYR:CE1	46:G8:61:ILE:HD11	2.45	0.52
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.09	0.52
1:13:1390:U:H2'	1:13:1391:U:C6	2.45	0.51
26:14:1027:A:H2	26:14:2487:G:O2'	1.93	0.51
26:14:1332:G:N2	26:14:1610:A:C8	2.78	0.51
26:14:1688:U:O2	26:14:1700:A:H5'	2.09	0.51
26:14:1909:C:H2'	26:14:1910:G:H8	1.76	0.51
26:14:2134:A:C5	26:14:2158:A:H8	2.27	0.51
26:14:2273:A:H2'	26:14:2274:A:C8	2.46	0.51
26:14:2275:C:H6	26:14:2275:C:H5'	1.75	0.51
26:14:2438:U:O3'	26:14:2439:A:H3'	2.10	0.51
26:14:1462:C:H4'	26:14:2703:C:H5'	1.92	0.51
1:1G:1151:A:OP1	10:1A:42:THR:N	2.40	0.51
1:1G:1502:A:H5''	1:1G:1504:G:N7	2.24	0.51
1:1G:317:G:H1	1:1G:336:C:N4	2.07	0.51
1:1G:641:U:H4'	8:72:115:SER:O	2.09	0.51
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.10	0.51
26:1H:569:U:C4	26:1H:570:G:C6	2.98	0.51
22:1L:76:A:H2	23:2L:77:A:H4'	1.75	0.51
3:22:26:LYS:HG3	3:22:27:LYS:N	2.24	0.51
23:2K:19:G:C2	23:2K:59:A:C5	2.98	0.51
23:2L:41:C:H2'	23:2L:42:C:H6	1.74	0.51
37:35:52:GLU:HG2	37:35:53:GLY:N	2.24	0.51
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.09	0.51
24:3L:8:U:H5'	24:3L:49:G:H5'	1.91	0.51
38:45:4:PRO:HD3	38:45:70:PRO:O	2.09	0.51
32:49:102:PHE:O	32:49:106:LEU:N	2.41	0.51
1:1G:1226:C:HO2'	13:4A:111:LYS:HZ3	1.53	0.51
39:55:104:ARG:HD2	39:55:109:ALA:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:72:LEU:HD11	34:61:107:VAL:HG11	1.92	0.51
34:61:93:THR:O	34:61:97:ILE:HG13	2.10	0.51
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.91	0.51
42:85:98:LEU:HA	42:85:100:VAL:O	2.09	0.51
43:95:76:LYS:HB2	43:95:79:VAL:HG23	1.91	0.51
20:BI:46:GLU:HB3	20:BI:48:LYS:HG3	1.91	0.51
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.10	0.51
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.45	0.51
44:E8:12:ILE:HG12	44:E8:13:SER:N	2.24	0.51
53:N8:40:LYS:HE2	53:N8:47:PRO:HD2	1.93	0.51
53:N8:40:LYS:HE2	53:N8:46:CYS:HA	1.92	0.51
1:13:1112:C:H1'	3:2E:179:ARG:HH11	1.75	0.51
1:13:244:U:H4'	1:13:245:C:O5'	2.10	0.51
1:13:580:U:P	15:6I:54:ARG:HH21	2.33	0.51
26:14:1050:A:N7	26:14:1051:G:N2	2.59	0.51
26:14:528:A:C2	26:14:2042:A:H2'	2.45	0.51
26:14:2175:C:N4	26:14:2176:A:N7	2.59	0.51
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.45	0.51
26:14:631:A:H2'	26:14:632:A:O4'	2.10	0.51
26:14:1568:G:OP2	29:19:63:ARG:NH2	2.43	0.51
1:1G:1079:G:H5''	5:42:45:PHE:HZ	1.75	0.51
1:1G:1244:C:H2'	1:1G:1245:A:C8	2.45	0.51
1:1G:1348:U:N3	1:1G:1374:A:H2	1.99	0.51
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.45	0.51
26:1H:192:C:O2'	26:1H:802:A:N3	2.39	0.51
26:1H:934:G:H2'	26:1H:935:C:C6	2.44	0.51
30:29:54:GLN:HE21	30:29:72:VAL:HA	1.74	0.51
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.44	0.51
31:39:7:TYR:CE2	31:39:10:PRO:HG3	2.44	0.51
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.11	0.51
12:3I:89:ARG:NH2	12:3I:91:LYS:HD2	2.25	0.51
5:42:84:PHE:N	5:42:87:SER:O	2.38	0.51
5:4E:15:ARG:HG3	5:4E:26:PHE:HD2	1.75	0.51
13:4I:81:LEU:HD11	13:4I:88:ARG:NH1	2.25	0.51
35:58:76:SER:N	35:58:81:GLY:O	2.44	0.51
34:61:77:LEU:HD12	34:61:140:LEU:HB3	1.93	0.51
40:65:62:LYS:HD2	40:65:97:ARG:HD2	1.92	0.51
28:71:200:LYS:HG2	28:71:201:PRO:O	2.10	0.51
28:71:59:ARG:HG2	28:71:60:GLY:H	1.75	0.51
41:75:3:ARG:NE	41:75:6:LEU:HD13	2.26	0.51
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:30:LYS:HZ1	20:BI:80:ARG:NH1	2.08	0.51
43:D8:17:GLY:N	43:D8:96:ILE:O	2.34	0.51
1:13:540:G:H2'	1:13:541:G:O4'	2.08	0.51
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.45	0.51
26:14:321:G:OP1	31:39:135:LYS:NZ	2.38	0.51
26:14:962:G:H2'	26:14:963:U:C6	2.46	0.51
1:1G:222:U:C2	1:1G:223:U:C5	2.98	0.51
26:1H:2103:C:H2'	26:1H:2104:G:C8	2.46	0.51
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.45	0.51
26:1H:710:G:H2'	26:1H:711:G:H8	1.75	0.51
26:1H:881:G:H2'	26:1H:881:G:N3	2.26	0.51
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	1.90	0.51
27:1J:78:A:H61	27:1J:98:G:H1'	1.75	0.51
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.45	0.51
4:32:88:VAL:HA	5:42:97:GLY:HA3	1.91	0.51
24:3K:48:C:H5	24:3K:59:A:C6	2.29	0.51
5:42:12:LEU:HD22	5:42:13:ILE:N	2.25	0.51
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.92	0.51
33:51:153:LYS:HB2	33:51:155:SER:N	2.23	0.51
26:14:2748:A:H2	33:59:63:SER:HB2	1.75	0.51
33:59:68:THR:HA	33:59:71:LEU:HD22	1.91	0.51
34:61:37:VAL:HG11	34:61:43:ASN:ND2	2.25	0.51
34:61:64:GLU:O	34:61:67:ARG:HB2	2.10	0.51
41:75:118:ARG:NH2	41:75:121:ILE:HG21	2.25	0.51
26:1H:2873:A:C2	39:98:5:LYS:HB2	2.45	0.51
18:9I:56:THR:HB	18:9I:58:LEU:HD13	1.93	0.51
40:A8:69:VAL:HA	40:A8:72:ALA:HB3	1.92	0.51
19:AI:5:LEU:HB2	19:AI:8:GLY:HA3	1.92	0.51
49:F5:5:CYS:HG	49:F5:8:SER:HG	1.39	0.51
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.11	0.51
2:12:118:LEU:HD13	2:12:142:LEU:HD12	1.93	0.51
26:14:1464:C:HO2'	26:14:1528:A:H8	1.58	0.51
26:14:1927:A:H2'	26:14:1928:A:C8	2.45	0.51
26:14:2137:C:H2'	26:14:2138:C:H6	1.76	0.51
26:14:2271:G:H2'	26:14:2272:U:C6	2.45	0.51
26:14:414:C:O2	26:14:1864:U:O2'	2.28	0.51
26:14:548:A:C6	26:14:549:G:H1'	2.45	0.51
26:14:1005:C:O2'	35:15:28:THR:HG23	2.10	0.51
2:1E:83:MET:HA	2:1E:86:GLU:OE2	2.10	0.51
1:1G:630:G:H3'	1:1G:631:G:H5'	1.92	0.51
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.11	0.51
26:1H:2477:C:H2'	26:1H:2529:G:O6	2.10	0.51
26:1H:910:A:C8	38:88:13:GLN:HG3	2.46	0.51
22:1L:58:A:O2'	22:1L:60:U:OP2	2.22	0.51
30:21:119:ARG:NH2	30:21:157:ALA:C	2.63	0.51
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.09	0.51
30:29:61:ARG:HA	30:29:63:LEU:HD23	1.92	0.51
31:31:184:TYR:CE1	37:78:3:LEU:HD11	2.45	0.51
31:39:164:ARG:O	31:39:167:ALA:HB3	2.11	0.51
31:39:183:VAL:O	31:39:187:VAL:HG23	2.10	0.51
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.09	0.51
39:55:37:THR:OG1	39:55:40:LYS:NZ	2.43	0.51
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.92	0.51
1:13:1320:C:N4	19:AI:36:ARG:HG3	2.25	0.51
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.91	0.51
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.64	0.51
44:E8:59:VAL:HG23	44:E8:60:ASN:H	1.75	0.51
1:13:1347:G:N2	1:13:1373:G:H2'	2.26	0.51
1:13:153:C:H42	1:13:168:G:N2	2.09	0.51
1:13:317:G:H1	1:13:336:C:N4	2.09	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.45	0.51
26:14:2104:G:H1	26:14:2185:C:H42	1.57	0.51
26:14:241:A:H8	26:14:241:A:OP1	1.93	0.51
26:14:2464:C:H2'	26:14:2465:C:O4'	2.10	0.51
1:1G:1505:G:H4'	1:1G:1506:U:H5''	1.92	0.51
1:1G:665:A:H2'	1:1G:732:C:O2	2.10	0.51
26:1H:1443:G:H2'	26:1H:1444:G:C8	2.44	0.51
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.74	0.51
26:1H:1675:C:N3	30:21:128:SER:OG	2.41	0.51
26:1H:2475:C:H1'	26:1H:2477:C:C5	2.43	0.51
26:1H:2685:G:OP2	41:B8:51:ARG:NH2	2.44	0.51
26:1H:278:A:H5'	26:1H:279:C:C5	2.45	0.51
30:29:112:GLY:C	30:29:159:HIS:HD2	2.14	0.51
4:32:166:LYS:HA	4:32:178:VAL:HG11	1.92	0.51
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.92	0.51
31:39:107:LYS:HD3	31:39:206:ILE:HG22	1.92	0.51
4:3E:84:LYS:C	4:3E:86:LYS:HA	2.31	0.51
24:3K:29:U:H2'	24:3K:30:G:H8	1.76	0.51
39:55:13:HIS:CE1	39:55:15:SER:HB3	2.46	0.51
26:14:2873:A:C8	39:55:5:LYS:HA	2.46	0.51
33:59:152:ARG:HG3	33:59:153:LYS:HG3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:50:ASP:OD1	28:79:52:ARG:HB3	2.11	0.51
9:82:10:ARG:HD3	9:82:11:LYS:HB2	1.92	0.51
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.92	0.51
48:I8:11:ARG:NH1	48:I8:11:ARG:HB2	2.26	0.51
2:12:101:MET:HB2	2:12:102:LEU:HD12	1.92	0.51
1:13:1227:A:OP1	19:AI:80:TYR:OH	2.18	0.51
1:13:129(A):G:N2	1:13:188:U:HO2'	2.06	0.51
1:13:8:A:N6	4:3E:205:GLU:O	2.43	0.51
1:13:917:G:H2'	1:13:918:A:H8	1.76	0.51
26:14:1159:U:H2'	26:14:1160:G:C8	2.46	0.51
26:14:1771:C:C1'	26:14:1786:A:H8	2.23	0.51
26:14:2031:A:N3	26:14:2455:G:O2'	2.33	0.51
26:14:2232:U:OP1	49:F5:40:ARG:NH2	2.44	0.51
35:15:91:LEU:CD2	35:15:98:VAL:HG11	2.40	0.51
29:19:70:TRP:C	29:19:70:TRP:CD1	2.83	0.51
26:1H:1387:C:O2	26:1H:1388:G:C8	2.64	0.51
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.34	0.51
26:1H:270(K):C:H1'	26:1H:270(N):G:H1	1.76	0.51
26:1H:910:A:N1	26:1H:2277:G:H1'	2.25	0.51
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.93	0.51
1:13:675:A:H1'	11:2I:116:HIS:CD2	2.46	0.51
31:39:131:GLY:H	31:39:142:TRP:HB2	1.75	0.51
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.43	0.51
32:41:173:LEU:HB3	32:41:178:PHE:CD2	2.45	0.51
32:49:44:GLY:HA2	32:49:47:LYS:HG3	1.93	0.51
5:4E:65:ASN:OD1	5:4E:140:ARG:NH2	2.42	0.51
40:65:24:LEU:HB2	40:65:85:VAL:HG12	1.93	0.51
8:72:17:THR:HB	8:72:18:ARG:NH1	2.26	0.51
1:1G:449:C:H5	16:7A:42:ARG:NH1	2.09	0.51
1:13:280:C:O2	17:8I:38:ARG:HG3	2.11	0.51
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.45	0.51
46:C5:62:GLU:OE1	46:C5:64:GLU:HG3	2.10	0.51
26:14:270(S):G:OP1	49:F5:76:ARG:NH2	2.44	0.51
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.11	0.51
46:G8:38:ILE:CD1	46:G8:64:GLU:O	2.58	0.51
1:13:1289:A:H5'	21:1F:10:ARG:HH22	1.75	0.51
1:13:1319:A:O2'	19:AI:3:ARG:HD3	2.11	0.51
1:13:359:U:OP1	34:69:87:LYS:HE3	2.11	0.51
1:13:875:C:O2	8:7E:15:ASN:ND2	2.43	0.51
26:14:1607:C:H4'	26:14:1608:A:O5'	2.11	0.51
26:14:1685:C:H2'	26:14:1686:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2176:A:O2'	26:14:2177:C:H5'	2.11	0.51
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.54	0.51
26:14:747:U:O2	26:14:2014:A:H1'	2.10	0.51
1:1G:1014:A:P	1:1G:1014:A:H8	2.33	0.51
1:1G:1022:G:C6	1:1G:1023:G:C8	2.98	0.51
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.45	0.51
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.58	0.51
26:1H:845:G:H8	26:1H:845:G:OP2	1.94	0.51
27:1J:88:C:H3'	27:1J:89:G:N7	2.25	0.51
22:1L:33:U:H2'	22:1L:35:U:OP2	2.11	0.51
30:21:88:GLY:O	30:21:89:ASP:HB2	2.10	0.51
11:2A:98:LEU:O	11:2A:101:SER:OG	2.16	0.51
23:2L:26:C:H2'	23:2L:27:G:O4'	2.10	0.51
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.11	0.51
31:31:63:LYS:HG2	31:31:65:TRP:O	2.09	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.75	0.51
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.10	0.51
16:7A:67:THR:HG22	16:7A:68:ASP:H	1.75	0.51
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.92	0.51
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.92	0.51
18:9I:66:LEU:HD21	18:9I:70:ILE:HD11	1.92	0.51
40:A8:14:VAL:O	40:A8:18:ILE:HD13	2.11	0.51
42:C8:109:LEU:HD21	43:D8:47:VAL:HG21	1.93	0.51
2:12:208:ILE:HA	2:12:211:ILE:HG22	1.92	0.51
2:12:24:TRP:HA	2:12:191:ASP:HA	1.91	0.51
1:13:826:C:H2'	1:13:827:U:O2	2.11	0.51
1:13:827:U:C5	1:13:872:A:N1	2.78	0.51
26:14:1537:C:O2'	26:14:1538:G:O4'	2.17	0.51
26:14:1950:G:C2	26:14:1951:U:C5	2.98	0.51
26:14:323:G:H2'	31:39:169:ASN:ND2	2.26	0.51
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.11	0.51
26:1H:1374:G:H2'	26:1H:1375:C:H6	1.76	0.51
26:1H:2725:A:C4	26:1H:2727:G:C8	2.99	0.51
4:32:107:ARG:HD3	4:32:173:TRP:CZ2	2.45	0.51
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.75	0.51
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.76	0.51
24:3L:2:G:H2'	24:3L:3:G:H8	1.76	0.51
33:51:24:VAL:HG22	33:51:35:VAL:HB	1.92	0.51
39:55:28:LEU:HD21	39:55:114:VAL:HG12	1.93	0.51
6:5E:70:ASP:N	6:5E:70:ASP:OD1	2.43	0.51
40:65:102:ALA:HA	40:65:105:ALA:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.11	0.51
7:6E:15:ASP:HB3	7:6E:19:GLY:H	1.76	0.51
28:71:10:LEU:HB3	28:71:32:LEU:HG	1.93	0.51
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.93	0.51
37:78:39:LYS:CB	37:78:45:LEU:CD1	2.89	0.51
16:7I:51:VAL:HG12	16:7I:52:ASP:O	2.11	0.51
38:88:134:ARG:HH12	47:H8:122:ARG:HD2	1.75	0.51
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.92	0.51
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.10	0.51
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.22	0.51
37:78:50:ARG:HD3	55:Q8:7:HIS:HD2	1.75	0.51
2:12:41:ILE:HD12	2:12:42:ILE:H	1.76	0.51
1:13:280:C:H4'	1:13:281:G:OP2	2.11	0.51
26:14:2313:C:H2'	26:14:2314:C:H6	1.74	0.51
26:14:2584:U:H2'	26:14:2585:U:H2'	1.93	0.51
27:16:15:A:H1'	27:16:109:G:C4	2.46	0.51
1:1G:1080:A:H5''	1:1G:1081:G:OP2	2.11	0.51
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.26	0.51
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.74	0.51
26:1H:2106:G:N1	26:1H:2184:G:N3	2.58	0.51
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.27	0.51
10:1I:32:ALA:HB1	10:1I:76:ASN:OD1	2.10	0.51
3:22:33:LEU:O	3:22:36:ASP:N	2.43	0.51
3:22:87:LEU:H	3:22:88:ARG:NH2	2.07	0.51
30:29:65:GLY:N	30:29:73:GLU:OE1	2.44	0.51
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.92	0.51
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.46	0.51
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.93	0.51
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.25	0.51
41:75:11:GLU:N	41:75:11:GLU:CD	2.64	0.51
37:78:106:LEU:O	37:78:106:LEU:HD13	2.11	0.51
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.92	0.51
9:8E:55:ALA:HB1	9:8E:59:PHE:CD2	2.46	0.51
47:D5:39:VAL:HG21	47:D5:44:PHE:HD2	1.76	0.51
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.41	0.51
55:M5:31:HIS:O	55:M5:32:LEU:HB2	2.11	0.51
26:1H:1500:G:O2'	29:11:100:GLY:O	2.27	0.51
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.39	0.51
26:14:991:C:O2	26:14:1164:G:C2	2.64	0.51
26:14:1668:A:H4'	26:14:1669:A:H5'	1.92	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2099:U:H2'	26:14:2100:G:H5''	1.92	0.51
26:14:2292:C:H2'	26:14:2293:C:C6	2.46	0.51
26:14:2805:G:H2'	26:14:2807:G:O4'	2.09	0.51
26:14:753:C:H2'	26:14:754:C:C6	2.46	0.51
27:16:12:C:H6	27:16:12:C:OP2	1.93	0.51
2:1E:72:GLY:HA2	2:1E:165:VAL:HG22	1.94	0.51
1:1G:552:U:H2'	1:1G:553:A:C8	2.46	0.51
1:1G:664:G:H22	1:1G:741:G:H1	1.59	0.51
26:1H:1337:G:C4	26:1H:1338:G:C8	2.99	0.51
26:1H:1416:G:O2'	26:1H:1417:C:H6	1.92	0.51
26:1H:1477:A:C6	26:1H:1478:G:C5	2.99	0.51
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.42	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:994:C:H3'	42:C8:54:LYS:HE3	1.92	0.51
22:1K:9:A:H3'	22:1K:10:G:H8	1.76	0.51
30:29:201:THR:HG22	30:29:202:LYS:H	1.75	0.51
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.93	0.51
24:3K:72:C:C3'	24:3K:73:A:H5''	2.41	0.51
5:42:148:VAL:O	5:42:152:ARG:HG2	2.10	0.51
39:55:55:ALA:HB2	39:55:79:LEU:HD13	1.93	0.51
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.26	0.51
42:85:47:TYR:CE1	42:85:51:LYS:HE2	2.46	0.51
9:8E:78:LYS:HE3	9:8E:101:PHE:CE1	2.46	0.51
39:98:104:ARG:HB2	39:98:107:ASP:HB3	1.92	0.51
39:98:34:ILE:HG22	39:98:114:VAL:CG2	2.41	0.51
40:A8:67:ARG:HH21	40:A8:103:GLU:HB2	1.76	0.51
48:E5:12:ASN:HA	48:E5:14:ARG:NH2	2.22	0.51
55:M5:14:VAL:HG12	55:M5:15:LYS:N	2.26	0.51
2:12:168:THR:HG23	2:12:192:SER:HA	1.93	0.50
1:13:1405:G:OP2	57:13:1730:PAR:H34	2.11	0.50
1:13:179:A:H2'	1:13:180:U:H6	1.75	0.50
1:13:927:G:H4'	1:13:927:G:OP2	2.10	0.50
26:14:1127:A:N3	26:14:2518:A:H5'	2.27	0.50
26:14:2461:C:H2'	26:14:2462:U:H6	1.76	0.50
26:14:774:A:H2	26:14:787:U:HO2'	1.57	0.50
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.45	0.50
1:1G:339:C:H2'	1:1G:340:U:C6	2.47	0.50
1:1G:999:U:H2'	1:1G:1000:A:C8	2.47	0.50
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.11	0.50
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1385:G:O6	26:1H:1403:C:N4	2.44	0.50
26:1H:1534:G:H1	26:1H:1539:G:H1'	1.75	0.50
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.47	0.50
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.46	0.50
26:1H:2792:G:H22	26:1H:2804:C:H2'	1.76	0.50
26:1H:353:G:H2'	26:1H:354:G:H8	1.76	0.50
26:1H:864:G:C6	26:1H:865:C:N4	2.79	0.50
3:22:72:LYS:HB3	3:22:75:VAL:HB	1.92	0.50
26:14:2773:C:OP1	30:29:166:THR:OG1	2.28	0.50
31:31:149:ASP:OD1	31:31:149:ASP:N	2.33	0.50
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.50	0.50
24:3L:32:C:H2'	24:3L:33:U:C4	2.47	0.50
35:58:9:VAL:HG11	35:58:39:ARG:HH12	1.76	0.50
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.41	0.50
3:2E:5:ILE:CD1	14:5I:58:LYS:HZ3	2.24	0.50
36:68:105:GLU:O	36:68:109:LYS:HG2	2.11	0.50
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.93	0.50
9:82:45:ALA:O	9:82:48:GLU:HB2	2.12	0.50
38:88:58:PHE:HB3	38:88:113:GLN:HE21	1.76	0.50
38:88:6:ARG:HG2	38:88:7:MET:H	1.77	0.50
19:AA:15:LEU:HD11	19:AA:33:THR:CB	2.42	0.50
29:11:68:LYS:HA	29:11:70:TRP:CZ3	2.46	0.50
1:13:455:C:H42	1:13:477:G:H22	1.58	0.50
26:14:1484:G:H2'	26:14:1485:G:C8	2.46	0.50
26:14:2129:C:H5''	26:14:2130:U:C5	2.46	0.50
26:14:2865:U:C4	26:14:2866:U:C4	2.99	0.50
26:14:299:A:OP2	60:14:3420:HOH:O	2.19	0.50
26:14:628:G:H5''	55:M5:18:ALA:HB2	1.93	0.50
26:14:764:A:O4'	29:19:213:ARG:HG3	2.11	0.50
26:14:981:A:N1	26:14:2027:G:O2'	2.34	0.50
35:15:30:ILE:HG22	35:15:34:LEU:HD23	1.93	0.50
29:19:44:ASN:CB	29:19:47:GLY:H	2.23	0.50
29:19:44:ASN:HB3	29:19:47:GLY:H	1.76	0.50
2:1E:183:PRO:HA	2:1E:198:ASP:OD2	2.11	0.50
1:1G:532:A:N6	1:1G:1206:G:O2'	2.36	0.50
26:1H:1035:U:H2'	26:1H:1036:G:H8	1.74	0.50
26:1H:1187:G:H8	26:1H:1187:G:O5'	1.94	0.50
26:1H:1416:G:O2'	26:1H:1417:C:C6	2.63	0.50
26:1H:1728:G:H5'	26:1H:1729:A:OP2	2.11	0.50
26:1H:265:A:H1'	26:1H:266:G:O4'	2.11	0.50
26:1H:780:G:N2	26:1H:783:A:N6	2.52	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:52:A:N6	40:65:33:LYS:HD3	2.27	0.50
30:29:58:ARG:HD2	30:29:58:ARG:H	1.76	0.50
23:2K:70:C:H2'	23:2K:71:G:O4'	2.11	0.50
23:2L:6:G:N2	23:2L:69:C:H1'	2.26	0.50
12:3I:89:ARG:O	12:3I:99:HIS:HE1	1.95	0.50
32:41:109:VAL:HG11	32:41:142:PRO:HD3	1.93	0.50
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.11	0.50
32:41:41:GLN:O	32:41:89:GLY:HA3	2.11	0.50
38:45:18:LYS:H	38:45:98:LYS:HZ3	1.59	0.50
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.46	0.50
40:65:26:LEU:O	40:65:88:ASP:HB2	2.11	0.50
42:85:8:VAL:HB	42:85:12:ARG:HE	1.76	0.50
1:1G:584:G:C5'	17:8A:91:ARG:HH21	2.24	0.50
20:BA:26:ASN:HA	20:BA:71:THR:HG23	1.92	0.50
27:1J:75:G:H21	47:D5:85:HIS:CE1	2.29	0.50
48:I8:49:LYS:HB2	48:I8:80:HIS:HB3	1.92	0.50
1:13:1194:U:H2'	1:13:1195:C:C6	2.46	0.50
1:13:1347:G:OP2	9:8E:107:ARG:HG2	2.11	0.50
1:13:264:U:O2'	17:8I:63:ARG:HG3	2.11	0.50
1:13:501:C:H2'	1:13:502:G:C8	2.47	0.50
26:14:1328:G:H2'	26:14:1330:C:C5	2.46	0.50
26:14:2186:G:H2'	26:14:2187:G:H8	1.76	0.50
26:14:579:G:H2'	26:14:580:C:H6	1.77	0.50
29:19:184:LYS:HD3	29:19:269:PHE:HA	1.93	0.50
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.00	0.50
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.16	0.50
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.92	0.50
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.44	0.50
1:1G:757:U:H2'	1:1G:758:G:O4'	2.11	0.50
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.11	0.50
26:1H:1678:G:N2	26:1H:1989:G:N2	2.57	0.50
26:1H:1728:G:O6	26:1H:1730:U:H5''	2.10	0.50
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.46	0.50
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.77	0.50
26:1H:529:A:H4'	26:1H:530:G:H5'	1.93	0.50
26:1H:860:U:C5	26:1H:917:A:H2	2.28	0.50
26:1H:941:A:H3'	26:1H:942:G:H8	1.77	0.50
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.75	0.50
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.11	0.50
31:31:51:THR:HB	31:31:88:VAL:HG11	1.92	0.50
1:1G:404:U:OP2	4:32:118:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:130:ALA:O	31:39:132:VAL:HG12	2.12	0.50
24:3K:16:U:O2'	24:3K:18:G:OP2	2.19	0.50
5:4E:126:ARG:NH1	5:4E:126:ARG:HG3	2.26	0.50
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.92	0.50
34:69:75:LEU:HD13	34:69:77:LEU:HD23	1.93	0.50
15:6A:39:LEU:HD13	15:6A:56:LEU:HD12	1.93	0.50
15:6I:33:THR:HA	15:6I:36:ILE:HD12	1.92	0.50
28:71:43:VAL:HG13	28:71:214:VAL:HA	1.92	0.50
37:78:19:VAL:HB	37:78:21:ARG:H	1.76	0.50
37:78:46:LYS:O	37:78:47:ASP:HB3	2.11	0.50
37:78:49:ARG:NH1	37:78:49:ARG:HB2	2.24	0.50
8:7E:81:HIS:N	8:7E:138:TRP:O	2.43	0.50
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.93	0.50
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.93	0.50
43:95:85:LYS:CD	43:95:86:GLY:H	2.24	0.50
20:BI:35:THR:O	20:BI:38:LYS:HG2	2.12	0.50
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.41	0.50
42:C8:14:HIS:O	42:C8:18:LEU:HD12	2.11	0.50
49:J8:91:LYS:O	49:J8:94:LEU:N	2.45	0.50
29:11:30:GLU:HG3	29:11:63:ARG:NE	2.27	0.50
2:12:80:ILE:HD13	2:12:212:GLN:CG	2.40	0.50
1:13:277:C:H2'	1:13:278:G:H8	1.76	0.50
26:14:1138:G:H2'	35:15:106:MET:HE2	1.93	0.50
26:14:1991:U:H2'	26:14:1992:G:H5''	1.94	0.50
35:15:43:THR:HB	35:15:46:VAL:HG22	1.93	0.50
29:19:43:ARG:HG2	29:19:49:ILE:CA	2.41	0.50
2:1E:21:ARG:HB2	2:1E:39:ILE:HD13	1.92	0.50
1:1G:571:U:O2	1:1G:918:A:H5'	2.11	0.50
1:1G:859:A:H2'	1:1G:860:A:O4'	2.11	0.50
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.76	0.50
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.46	0.50
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.12	0.50
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.47	0.50
26:1H:654:A:H2'	26:1H:654(A):A:H8	1.76	0.50
26:1H:859:G:O2'	26:1H:916:G:O6	2.24	0.50
22:1K:17:U:H4'	22:1K:60:U:C2	2.46	0.50
30:21:8:LYS:HA	30:21:26:ILE:HG22	1.92	0.50
26:14:2512:C:H1'	30:29:140:SER:O	2.11	0.50
30:29:54:GLN:O	30:29:75:VAL:HG13	2.10	0.50
26:14:2786:U:O2	30:29:62:PRO:HB3	2.12	0.50
30:29:65:GLY:O	30:29:68:ALA:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:8:4SU:C2	23:2L:14:A:H62	2.20	0.50
31:39:38:ARG:CZ	31:39:99:TYR:OH	2.56	0.50
4:3E:155:LEU:O	4:3E:157:LEU:N	2.44	0.50
13:4A:14:ARG:HA	13:4A:43:THR:O	2.10	0.50
33:59:50:VAL:O	33:59:51:ARG:HG3	2.11	0.50
34:61:4:ILE:HG13	34:61:39:ALA:HB2	1.93	0.50
40:65:19:LYS:O	40:65:19:LYS:HG2	2.12	0.50
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.92	0.50
26:1H:806:C:OP2	37:78:41:ARG:NH2	2.42	0.50
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.11	0.50
17:8A:41:LYS:NZ	17:8A:92:ARG:HH21	2.09	0.50
39:98:34:ILE:HG22	39:98:114:VAL:HG23	1.93	0.50
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.27	0.50
48:I8:25:ARG:HD3	48:I8:29:GLN:NE2	2.26	0.50
48:I8:40:GLN:OE1	48:I8:44:ARG:HB2	2.11	0.50
54:P8:37:LYS:HG2	54:P8:37:LYS:O	2.11	0.50
29:11:31:LYS:HZ1	29:11:102:LYS:HZ3	1.59	0.50
26:1H:1805:U:O2	29:11:50:THR:HB	2.11	0.50
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.93	0.50
2:12:185:ILE:HG23	2:12:199:TYR:HB2	1.93	0.50
1:13:502:G:C6	1:13:503:C:C4	2.99	0.50
1:13:986:A:H2'	1:13:987:G:O4'	2.11	0.50
26:14:723:G:H2'	26:14:724:U:O4'	2.12	0.50
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.93	0.50
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.27	0.50
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.12	0.50
26:1H:1204:A:H2	26:1H:1241:A:N1	2.10	0.50
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.94	0.50
26:1H:194:G:H2'	26:1H:195:A:O4'	2.12	0.50
26:1H:479:A:HO2'	26:1H:481:G:H8	1.56	0.50
10:1I:55:LYS:HD3	10:1I:55:LYS:O	2.11	0.50
27:1J:78:A:H2'	27:1J:79:C:O4'	2.12	0.50
27:1J:95:U:OP2	47:D5:14:LYS:NZ	2.26	0.50
22:1K:14:A:C5	22:1K:22:G:C6	3.00	0.50
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.94	0.50
4:3E:31:CYS:O	4:3E:32:ALA:HB3	2.11	0.50
32:41:11:TYR:HA	32:41:15:VAL:HB	1.93	0.50
26:14:2175:C:OP1	28:79:6:ARG:NH2	2.44	0.50
1:1G:377:G:H5'	16:7A:5:ARG:HH12	1.75	0.50
9:8E:47:LEU:HD23	9:8E:47:LEU:H	1.76	0.50
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.12	0.50
46:C5:63:LYS:HA	46:C5:63:LYS:CE	2.42	0.50
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.92	0.50
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.93	0.50
45:F8:89:ILE:HG22	45:F8:92:LEU:H	1.75	0.50
47:H8:48:PHE:CE1	47:H8:71:VAL:HG11	2.44	0.50
2:12:187:LEU:HD22	2:12:188:ALA:H	1.76	0.50
1:13:266:G:H5''	1:13:267:C:H5	1.77	0.50
1:13:814:A:N7	1:13:816:A:C4	2.80	0.50
26:14:1011:G:H1	26:14:1150:C:H42	1.58	0.50
26:14:1878:G:H2'	26:14:1879:C:C6	2.47	0.50
26:14:2128:C:H42	26:14:2160:G:H1	1.59	0.50
26:14:2340:G:H2'	26:14:2341:G:H8	1.76	0.50
26:14:2346:A:H5''	26:14:2383:G:C1'	2.41	0.50
26:14:26:G:C6	26:14:27:G:N1	2.80	0.50
26:14:2745:C:H42	26:14:2759:G:H1	1.57	0.50
26:14:489:G:O6	44:A5:45:TYR:OH	2.28	0.50
26:14:899:A:H2'	26:14:900:A:C8	2.47	0.50
26:14:94:G:H21	50:G5:47:ASN:HD22	1.59	0.50
27:16:73:A:OP2	60:16:301:HOH:O	2.19	0.50
27:16:90:C:OP2	38:88:16:ARG:NH2	2.41	0.50
10:1A:84:GLN:N	10:1A:84:GLN:NE2	2.60	0.50
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.22	0.50
1:1G:186(D):C:H42	1:1G:191(C):G:H1	1.60	0.50
1:1G:404:U:O4	4:32:2:GLY:N	2.44	0.50
1:1G:406:G:H1	1:1G:436:C:H42	1.59	0.50
1:1G:967:C:H2'	1:1G:968:A:N7	2.25	0.50
26:1H:1454:U:H5'	39:98:63:ARG:NE	2.26	0.50
26:1H:97:C:H5''	50:K8:2:LYS:HA	1.94	0.50
11:2A:62:GLN:O	11:2A:66:LEU:HG	2.12	0.50
12:3A:47:LYS:HD2	12:3A:48:PRO:HD2	1.92	0.50
5:4E:64:ARG:HH11	5:4E:64:ARG:HG2	1.77	0.50
39:55:58:GLY:HA2	39:55:80:PHE:CE2	2.46	0.50
1:1G:1373:G:OP1	7:62:36:LYS:HD2	2.12	0.50
7:6E:144:MET:SD	24:3K:41:A:H1'	2.52	0.50
42:85:8:VAL:O	42:85:12:ARG:HG2	2.12	0.50
42:85:20:LEU:HB3	42:85:39:LEU:HD11	1.94	0.50
38:88:20:ALA:HA	38:88:98:LYS:HB3	1.94	0.50
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.12	0.50
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.12	0.50
44:A5:17:VAL:O	44:A5:20:VAL:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1262:A:P	44:A5:99:ARG:HH12	2.35	0.50
19:AA:11:VAL:HG21	19:AA:41:VAL:HG12	1.94	0.50
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.92	0.50
47:H8:110:GLY:H	47:H8:112:ARG:HG3	1.77	0.50
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	1.92	0.50
49:J8:87:PRO:O	49:J8:91:LYS:N	2.43	0.50
50:K8:38:GLN:HB3	50:K8:44:LEU:HB3	1.94	0.50
29:11:164:GLN:HG2	29:11:166:GLN:OE1	2.12	0.50
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.21	0.50
1:13:1305:G:O2'	1:13:1331:G:N2	2.33	0.50
1:13:1360:A:H2'	1:13:1361:G:O4'	2.12	0.50
1:13:200:G:H1	1:13:217:C:H42	1.60	0.50
1:13:222:U:H2'	1:13:223:U:H6	1.76	0.50
1:13:653:A:H5'	8:7E:56:LYS:HE2	1.92	0.50
1:13:952:U:O4	13:4I:104:ARG:HD3	2.12	0.50
26:14:1197:G:N2	26:14:1250:G:C5	2.79	0.50
26:14:1568:G:H4'	29:19:59:LYS:HD3	1.94	0.50
26:14:270(Z):U:O3'	26:14:271(A):C:H6	1.95	0.50
26:14:433:C:C4	26:14:434:U:O4	2.65	0.50
26:14:656:G:H2'	26:14:657:U:O4'	2.12	0.50
26:14:868:U:C4	26:14:869:G:N7	2.80	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.50
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.42	0.50
1:1G:9:G:C6	1:1G:26:A:N6	2.79	0.50
1:1G:352:C:O2	1:1G:355:C:N4	2.43	0.50
1:1G:45:U:H2'	1:1G:46:G:C8	2.47	0.50
1:1G:486:U:H2'	1:1G:487:A:C8	2.46	0.50
1:1G:6:G:P	4:32:84:LYS:HB3	2.52	0.50
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.92	0.50
26:1H:2135:A:C6	26:1H:2136:C:H1'	2.47	0.50
26:1H:639:U:H2'	26:1H:640:C:C6	2.46	0.50
26:1H:699:A:H2'	26:1H:700:G:O4'	2.12	0.50
36:25:14:THR:HG22	36:25:52:VAL:HG22	1.94	0.50
31:31:197:ASP:O	31:31:199:TRP:N	2.44	0.50
31:31:32:LEU:CD2	31:31:105:VAL:HG13	2.42	0.50
31:39:27:GLU:HB3	31:39:112:MET:HG2	1.94	0.50
12:3A:54:LYS:HD2	12:3A:54:LYS:H	1.76	0.50
24:3K:52:G:H2'	24:3K:53:G:C8	2.47	0.50
24:3K:49:G:H1'	24:3K:66:A:C4	2.47	0.50
24:3L:21:A:N3	24:3L:21:A:H2'	2.26	0.50
1:1G:1329:A:H5''	13:4A:25:ILE:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.45	0.50
13:4I:108:ARG:NH2	13:4I:111:LYS:HD3	2.27	0.50
14:5A:23:ARG:HH11	14:5A:28:GLY:HA2	1.77	0.50
7:62:88:PRO:HD2	7:62:148:ASN:HB3	1.93	0.50
1:1G:376:G:H5''	16:7A:5:ARG:HD2	1.94	0.50
9:82:42:ARG:NH1	9:82:75:ASP:OD1	2.45	0.50
38:88:32:TYR:CE1	38:88:133:ARG:HG3	2.47	0.50
40:A8:58:LEU:HD13	40:A8:68:GLN:OE1	2.12	0.50
41:B8:111:ARG:H	41:B8:111:ARG:HD3	1.77	0.50
20:BA:54:LYS:HA	20:BA:57:ARG:NH2	2.26	0.50
20:BI:53:LEU:HB3	20:BI:57:ARG:NH1	2.26	0.50
47:D5:25:PRO:O	47:D5:85:HIS:HA	2.12	0.50
47:H8:8:TYR:HB2	47:H8:38:TYR:CE1	2.47	0.50
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.47	0.50
26:1H:1971:A:C5	29:11:241:PRO:HG3	2.47	0.50
2:12:54:THR:HA	2:12:57:PHE:CD2	2.47	0.50
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.92	0.50
1:13:1239:A:H62	1:13:1299:A:N6	2.10	0.50
1:13:1323:G:H2'	1:13:1324:A:H8	1.77	0.50
1:13:757:U:H2'	1:13:758:G:O4'	2.12	0.50
26:14:1225:C:H5''	43:95:85:LYS:HD3	1.93	0.50
26:14:1332:G:H5''	60:14:3408:HOH:O	2.11	0.50
26:14:195:A:H4'	26:14:251:A:O2'	2.11	0.50
26:14:2108:C:H42	26:14:2181:G:H1	1.60	0.50
26:14:34:C:H1'	26:14:35:G:OP1	2.11	0.50
26:14:49:A:H5''	26:14:51:G:O4'	2.12	0.50
1:1G:1127:G:N2	1:1G:1144:G:H1	2.10	0.50
1:1G:1255:G:N2	1:1G:1259:C:O2	2.31	0.50
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.11	0.50
1:1G:1382:C:HO2'	24:3L:34:U:H5	1.57	0.50
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.74	0.50
26:1H:1467:C:O2'	26:1H:1468:C:H5'	2.12	0.50
26:1H:1689:A:C6	26:1H:1700:A:C2	3.00	0.50
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.41	0.50
26:1H:2564:A:OP1	26:1H:2648:C:H4'	2.12	0.50
30:29:41:LYS:HG3	30:29:42:ASP:N	2.27	0.50
23:2K:62:C:H2'	23:2K:63:C:H6	1.77	0.50
23:2L:32:G:C6	23:2L:33:OMC:N4	2.79	0.50
31:39:120:GLU:HG3	31:39:122:LYS:HG2	1.94	0.50
31:39:122:LYS:O	31:39:123:LEU:HG	2.11	0.50
26:14:1257:C:OP1	31:39:75:HIS:HE1	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:89:VAL:O	31:39:90:PHE:C	2.50	0.50
32:41:25:TYR:OH	32:41:168:GLU:OE2	2.28	0.50
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.46	0.50
32:49:27:ASN:HB3	32:49:30:GLU:HG3	1.93	0.50
13:4I:2:ALA:HB3	13:4I:53:VAL:HG11	1.93	0.50
13:4I:67:GLU:CG	13:4I:71:ARG:HH21	2.25	0.50
39:55:12:ARG:HB3	39:55:16:HIS:HB3	1.94	0.50
26:1H:6:A:H4'	35:58:129:PRO:HB3	1.94	0.50
35:58:13:TRP:O	35:58:135:PRO:HD2	2.11	0.50
37:78:96:THR:C	37:78:98:GLU:H	2.14	0.50
17:8I:85:VAL:HG13	17:8I:89:LEU:HD23	1.93	0.50
18:9A:21:LYS:NZ	18:9A:22:VAL:O	2.44	0.50
19:AI:18:LYS:HG3	19:AI:31:ILE:HD12	1.94	0.50
41:B8:107:ASP:O	41:B8:110:ILE:HG12	2.12	0.50
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.94	0.50
26:1H:2019:A:C4'	42:C8:34:LYS:HD2	2.41	0.50
42:C8:50:ARG:HG2	42:C8:53:ARG:NH2	2.27	0.50
42:C8:90:VAL:CG2	43:D8:39:LEU:HB3	2.41	0.50
47:H8:40:ASP:OD2	47:H8:43:GLU:HG3	2.11	0.50
26:1H:1354:A:H4'	29:11:39:LYS:HE3	1.93	0.50
2:12:78:GLN:O	2:12:94:ASN:ND2	2.40	0.50
1:13:998:G:N2	1:13:1043:C:O2	2.43	0.50
1:13:1121:U:C4	1:13:1122:U:C4	2.99	0.50
1:13:38:G:C2	1:13:397:A:C2	3.00	0.50
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.12	0.50
26:14:1374:G:H2'	26:14:1375:C:C6	2.47	0.50
26:14:1449:A:H8	26:14:1449:A:OP2	1.94	0.50
26:14:1858:G:N2	26:14:1883:G:H2'	2.27	0.50
26:14:1970:A:H4'	26:14:1970:A:OP1	2.12	0.50
26:14:571:A:H5'	26:14:2030:A:N7	2.27	0.50
26:14:2037:G:H2'	26:14:2038:G:C8	2.47	0.50
26:14:234:C:H2'	26:14:235:U:H6	1.77	0.50
29:19:16:MET:HE1	29:19:208:LYS:HE2	1.92	0.50
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.47	0.50
1:1G:224:C:H2'	1:1G:225:C:C6	2.47	0.50
1:1G:256:U:H2'	1:1G:257:G:C8	2.46	0.50
1:1G:980:C:H5'	1:1G:981:U:C6	2.46	0.50
1:1G:994:A:C4	14:5A:5:ALA:HB2	2.46	0.50
26:1H:1480:G:N1	26:1H:1482:U:O2	2.45	0.50
30:21:34:VAL:HG21	30:21:77:ILE:HD13	1.93	0.50
3:22:91:LEU:HD21	3:22:101:LEU:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:92:GLU:HG2	36:25:113:LYS:HZ2	1.75	0.50
30:29:120:TRP:CG	30:29:155:LYS:HB3	2.47	0.50
23:2L:8:4SU:O2'	23:2L:22:A:N1	2.33	0.50
5:4E:15:ARG:CG	5:4E:26:PHE:HD2	2.25	0.50
27:1J:7:G:N2	40:65:38:GLN:OE1	2.40	0.50
34:69:130:TYR:O	34:69:131:LYS:HD3	2.12	0.50
8:7E:134:ILE:HG22	8:7E:135:CYS:SG	2.52	0.50
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.93	0.50
9:82:21:PRO:HA	9:82:59:PHE:HB3	1.94	0.50
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.93	0.50
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.12	0.50
18:9A:36:ASN:ND2	18:9A:38:GLU:OE1	2.45	0.50
20:BA:49:ALA:HB3	20:BA:100:ILE:HD13	1.93	0.50
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.41	0.50
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.11	0.50
47:H8:126:VAL:HG12	47:H8:163:LEU:HD23	1.94	0.50
53:J5:51:TYR:O	53:J5:55:ARG:NH1	2.40	0.50
55:Q8:34:TRP:CZ2	55:Q8:35:GLN:NE2	2.80	0.50
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.46	0.49
2:12:35:GLU:HA	2:12:40:HIS:HD1	1.77	0.49
1:13:1127:G:N7	1:13:1128:C:N4	2.59	0.49
1:13:1533:C:O2'	1:13:1534:A:OP1	2.24	0.49
1:13:664:G:P	18:9I:64:ARG:HH21	2.34	0.49
1:13:68:G:C2	1:13:69:G:C8	2.99	0.49
26:14:172:C:H2'	26:14:173:G:H8	1.77	0.49
26:14:184:C:H2'	26:14:185:U:C6	2.47	0.49
26:14:2839:G:H21	39:55:92:GLY:CA	2.24	0.49
26:14:389:G:N1	37:35:71:VAL:HG12	2.26	0.49
26:14:817:C:H2'	26:14:818:G:O4'	2.12	0.49
35:15:35:ARG:HB3	35:15:42:TRP:HZ3	1.75	0.49
29:19:141:VAL:HG23	29:19:162:SER:HB2	1.93	0.49
1:1G:1453:G:H3'	20:BA:39:LYS:NZ	2.26	0.49
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.23	0.49
1:1G:583:A:H2'	1:1G:584:G:O4'	2.12	0.49
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.94	0.49
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.47	0.49
26:1H:1751:C:H2'	26:1H:1752:C:C6	2.47	0.49
22:1K:76:A:O5'	26:1H:2602:A:N6	2.45	0.49
26:1H:276:A:C8	26:1H:278:A:N6	2.80	0.49
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.12	0.49
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:572:A:H5'	26:1H:573:G:OP2	2.12	0.49
27:1J:70:C:H2'	27:1J:71:C:H6	1.76	0.49
30:21:34:VAL:HG22	30:21:48:GLN:HB3	1.94	0.49
30:29:52:LEU:HD12	30:29:53:PRO:HD2	1.92	0.49
11:2A:27:ASN:ND2	11:2A:55:LYS:HB3	2.23	0.49
11:2I:73:MET:CE	11:2I:103:LEU:HD13	2.42	0.49
4:32:70:ILE:HD11	4:32:75:PHE:CD2	2.46	0.49
24:3L:37:A:H2'	24:3L:38:A:C8	2.47	0.49
32:41:144:ILE:HG22	32:41:146:TYR:H	1.77	0.49
32:41:139:LEU:HD13	32:41:146:TYR:CD2	2.46	0.49
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.77	0.49
7:62:67:GLU:HA	7:62:70:LYS:NZ	2.26	0.49
1:13:1116:C:O2'	9:8E:108:VAL:HG21	2.12	0.49
17:8I:13:ASP:OD2	17:8I:53:LEU:HD13	2.12	0.49
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.94	0.49
39:98:97:VAL:HG22	39:98:114:VAL:HG12	1.94	0.49
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.45	0.49
40:A8:34:HIS:CD2	40:A8:54:LEU:HD23	2.47	0.49
40:A8:26:LEU:HD23	40:A8:87:PHE:HD1	1.76	0.49
42:C8:50:ARG:HH12	43:D8:72:VAL:HG23	1.77	0.49
47:H8:48:PHE:CE1	47:H8:52:SER:HA	2.46	0.49
55:M5:33:ASN:O	55:M5:34:TRP:C	2.50	0.49
1:13:1128:C:C5	1:13:1139:G:C2	3.00	0.49
1:13:1264:C:H2'	1:13:1265:G:H8	1.76	0.49
1:13:376:G:H2'	1:13:377:G:H8	1.77	0.49
1:13:827:U:C5	1:13:870:U:C4	3.00	0.49
26:14:1581:G:H2'	26:14:1582:C:O4'	2.12	0.49
26:14:1789:A:H2'	26:14:1790:C:O4'	2.13	0.49
26:14:2760:C:H2'	26:14:2761:G:H8	1.77	0.49
26:14:57:C:H2'	26:14:58:G:O4'	2.12	0.49
27:16:8:U:O3'	40:A8:25:ARG:NH2	2.45	0.49
1:1G:1157:A:H61	1:1G:1177:G:H1	1.59	0.49
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.46	0.49
1:1G:1222:G:C6	1:1G:1223:C:C4	3.01	0.49
1:1G:5:U:O3'	4:32:84:LYS:HB3	2.11	0.49
1:1G:625:G:H2'	1:1G:626:U:C6	2.47	0.49
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.13	0.49
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.13	0.49
26:1H:2138:C:N3	26:1H:2153:G:N2	2.60	0.49
26:1H:2301:C:H2'	26:1H:2302:G:C8	2.47	0.49
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2703:C:H2'	26:1H:2704:C:H6	1.77	0.49
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.48	0.49
26:1H:455:C:N3	26:1H:473:G:H5'	2.28	0.49
27:1J:44:G:H1'	27:1J:47:C:N4	2.26	0.49
22:1K:14:A:C6	22:1K:22:G:C5	3.00	0.49
36:25:68:GLU:H	36:25:68:GLU:CD	2.14	0.49
30:29:37:ARG:HA	30:29:42:ASP:OD2	2.12	0.49
37:35:85:LEU:HD22	37:35:115:LEU:O	2.12	0.49
37:35:19:VAL:HG13	37:35:21:ARG:HG2	1.94	0.49
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.47	0.49
24:3K:17:U:H3'	24:3K:18:G:C5'	2.42	0.49
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.27	0.49
32:49:101:ILE:O	32:49:105:LYS:N	2.23	0.49
33:51:4:ILE:HG21	33:51:6:ARG:CZ	2.43	0.49
35:58:130:HIS:C	35:58:134:ARG:HH22	2.15	0.49
34:61:138:ILE:HG12	34:61:139:GLN:H	1.78	0.49
7:62:47:CYS:O	7:62:50:ILE:HG22	2.11	0.49
7:62:92:SER:HB2	7:62:94:ARG:HH21	1.77	0.49
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.47	0.49
37:78:30:THR:HG21	37:78:35:HIS:H	1.77	0.49
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.12	0.49
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.94	0.49
46:G8:30:VAL:HG13	46:G8:37:VAL:HG12	1.93	0.49
51:H5:8:LEU:HD12	51:H5:28:LEU:HB3	1.94	0.49
50:K8:42:GLY:C	50:K8:44:LEU:N	2.65	0.49
1:13:1163:C:H2'	1:13:1164:G:H8	1.77	0.49
1:13:868:C:H2'	1:13:869:G:O4'	2.11	0.49
1:13:887:G:H1	1:13:910:C:H42	1.59	0.49
26:14:1003:G:N2	26:14:1153:C:C2	2.81	0.49
26:14:1003:G:O2'	26:14:1010:A:N1	2.32	0.49
26:14:1259:G:O2'	26:14:1260:G:H5'	2.12	0.49
26:14:2152:G:H2'	26:14:2152:G:N3	2.26	0.49
26:14:2151:G:H2'	26:14:2152:G:O4'	2.13	0.49
26:14:2168:G:H21	26:14:2170:A:P	2.35	0.49
26:14:251:A:C5	26:14:252:G:H1'	2.47	0.49
26:14:374:A:H3'	26:14:375:C:H6	1.77	0.49
26:14:760:G:H2'	26:14:761:A:O4'	2.11	0.49
26:14:90:U:O2'	26:14:91:A:H8	1.95	0.49
1:1G:1023:G:H5'	1:1G:1024:G:OP2	2.11	0.49
26:1H:1374:G:H2'	26:1H:1375:C:C6	2.46	0.49
26:1H:1428:C:N4	26:1H:1570:A:OP2	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.76	0.49
26:1H:2166:G:H2'	26:1H:2168:G:OP2	2.12	0.49
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.12	0.49
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.58	0.49
26:1H:710:G:H2'	26:1H:711:G:C8	2.46	0.49
38:45:19:GLY:O	38:45:99:PRO:HD2	2.11	0.49
38:45:52:VAL:HG12	38:45:56:ARG:HH11	1.77	0.49
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.76	0.49
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.42	0.49
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.95	0.49
36:68:113:LYS:O	36:68:116:SER:OG	2.27	0.49
7:6E:113:GLU:HG3	7:6E:118:VAL:HG12	1.94	0.49
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.12	0.49
8:72:17:THR:HG22	8:72:78:GLN:NE2	2.27	0.49
9:82:20:ARG:HG3	9:82:60:ASP:HB2	1.94	0.49
44:A5:110:LYS:HG3	44:A5:111:HIS:ND1	2.27	0.49
40:A8:106:ARG:HH11	40:A8:107:GLU:CG	2.25	0.49
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.47	0.49
49:F5:15:ALA:O	49:F5:40:ARG:HG3	2.11	0.49
26:14:1062:G:O6	26:14:1074:G:N2	2.37	0.49
26:14:1225:C:H4'	43:95:85:LYS:HB2	1.93	0.49
26:14:1665:A:H2'	26:14:1666:G:O4'	2.12	0.49
26:14:2789:C:C2	26:14:2894:G:N2	2.80	0.49
10:1A:26:ALA:O	10:1A:84:GLN:HG2	2.11	0.49
1:1G:198:G:H2'	1:1G:199:G:C8	2.47	0.49
1:1G:685:G:O2'	1:1G:686:U:H5'	2.11	0.49
26:1H:1168:G:H1	26:1H:1181:C:H42	1.60	0.49
26:1H:1331:A:O2'	26:1H:1332:G:C8	2.66	0.49
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.47	0.49
26:1H:1860:G:OP1	28:71:210:ARG:NH2	2.45	0.49
26:1H:1949:G:H1	26:1H:1957:C:H42	1.60	0.49
26:1H:384:U:H2'	26:1H:385:C:H6	1.76	0.49
26:1H:539:G:H2'	26:1H:540:G:C8	2.47	0.49
27:1J:88:C:H5''	27:1J:89:G:C5	2.47	0.49
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.48	0.49
3:22:33:LEU:HD12	3:22:36:ASP:HB3	1.95	0.49
3:2E:111:LEU:HD21	3:2E:145:GLY:O	2.12	0.49
23:2L:23:G:H2'	23:2L:24:C:C6	2.46	0.49
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.12	0.49
1:1G:501:C:OP2	12:3A:124:LYS:HE2	2.11	0.49
24:3K:45:G:H4'	24:3K:46:G:OP1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:107:LEU:HD21	32:41:178:PHE:CE1	2.47	0.49
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.11	0.49
38:45:117:ALA:HA	38:45:120:ILE:HB	1.94	0.49
33:51:157:TYR:O	33:51:158:HIS:ND1	2.45	0.49
35:58:55:VAL:HB	35:58:126:PRO:HA	1.92	0.49
36:68:120:GLU:OE1	41:B8:67:SER:OG	2.22	0.49
38:88:51:ARG:HH21	38:88:52:VAL:CG2	2.26	0.49
39:98:18:LEU:HD11	39:98:22:ARG:CZ	2.41	0.49
39:98:48:VAL:HA	39:98:51:LEU:HB2	1.95	0.49
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.12	0.49
40:A8:88:ASP:O	40:A8:90:GLY:N	2.44	0.49
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.53	0.49
48:E5:48:GLY:HA3	48:E5:80:HIS:ND1	2.28	0.49
47:H8:139:VAL:HG22	47:H8:155:LEU:HD22	1.95	0.49
47:H8:77:ASP:OD2	47:H8:80:ARG:HD2	2.12	0.49
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.53	0.49
1:13:1197:G:C2'	1:13:1198:G:H5'	2.43	0.49
1:13:700:G:H4'	1:13:704:A:H1'	1.95	0.49
26:14:1028:A:N6	26:14:1125:G:H2'	2.27	0.49
26:14:1036:G:OP2	26:14:1036:G:H8	1.94	0.49
26:14:106:C:H2'	26:14:107:C:H6	1.78	0.49
26:14:1784:A:H4'	26:14:1785:A:O5'	2.13	0.49
26:14:2298:A:H1'	26:14:2321:G:N2	2.28	0.49
26:14:2346:A:C2	26:14:2383:G:C2	3.01	0.49
26:14:459:U:H2'	26:14:460:A:C8	2.47	0.49
26:14:521:G:H2'	26:14:522:G:H8	1.78	0.49
26:14:780:G:N2	26:14:783:A:H62	1.96	0.49
27:16:6:C:H2'	27:16:7:G:O4'	2.13	0.49
29:19:35:LYS:HD2	29:19:61:LEU:HG	1.94	0.49
1:1G:1061:G:H2'	1:1G:1062:U:H6	1.78	0.49
1:1G:1187:G:H3'	1:1G:1188:A:H8	1.76	0.49
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.47	0.49
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.12	0.49
26:1H:29:U:H2'	26:1H:30:G:H8	1.74	0.49
26:1H:302:C:H2'	26:1H:303:U:C6	2.47	0.49
26:1H:32:C:C2'	26:1H:33:U:H5'	2.43	0.49
26:1H:580:C:H2'	26:1H:581:C:H6	1.77	0.49
27:1J:22:U:H5'	27:1J:23:G:OP2	2.11	0.49
23:2K:47:G7M:HN72	23:2K:48:U:O4	2.12	0.49
31:31:39:TRP:CH2	31:31:106:ARG:HD2	2.48	0.49
24:3L:15:G:H2'	24:3L:59:A:N1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:19:G:OP2	24:3L:57:G:N2	2.43	0.49
32:49:16:ARG:O	32:49:20:ILE:HG13	2.12	0.49
13:4I:31:LYS:N	13:4I:31:LYS:HD2	2.27	0.49
40:65:15:ARG:HB3	40:65:19:LYS:NZ	2.28	0.49
40:65:42:ASP:O	40:65:43:GLU:HG2	2.12	0.49
7:6E:149:ARG:HG2	11:2I:59:TYR:CZ	2.48	0.49
28:71:22:ILE:HG23	28:71:189:ILE:HD12	1.93	0.49
45:B5:27:THR:HG22	45:B5:80:ILE:HG13	1.94	0.49
20:BI:79:ARG:HG2	20:BI:83:ARG:HH11	1.76	0.49
48:I8:40:GLN:NE2	48:I8:45:PHE:O	2.40	0.49
1:13:1023:G:H3'	1:13:1024:G:H5''	1.95	0.49
1:13:1417:G:C6	1:13:1482:G:C6	3.00	0.49
26:14:1050:A:H2	26:14:2751:G:HO2'	1.58	0.49
26:14:1454:U:OP1	39:55:77:ARG:HD3	2.12	0.49
26:14:1762:A:N6	60:14:3480:HOH:O	2.45	0.49
26:14:2462:U:H2'	26:14:2463:C:C6	2.47	0.49
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.12	0.49
26:14:654(B):C:HO2'	26:14:654(C):G:H8	1.61	0.49
26:14:815:C:H2'	26:14:816:C:H6	1.78	0.49
35:15:96:GLU:O	35:15:100:GLU:HG3	2.12	0.49
35:15:21:LYS:O	35:15:60:ILE:HG13	2.12	0.49
29:19:133:LEU:HD13	29:19:173:VAL:CG1	2.42	0.49
1:1G:1225:A:H5''	1:1G:1226:C:OP2	2.13	0.49
1:1G:1232:U:H2'	1:1G:1233:G:O4'	2.12	0.49
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.12	0.49
1:1G:1386:G:O2'	1:1G:1387:G:H5'	2.13	0.49
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.27	0.49
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.12	0.49
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.60	0.49
26:1H:276:A:N7	26:1H:278:A:N6	2.57	0.49
26:1H:307:G:N2	26:1H:309:G:H3'	2.28	0.49
26:1H:330:A:O2'	26:1H:331:A:H8	1.96	0.49
27:1J:109:G:C6	27:1J:110:G:C5	3.01	0.49
22:1K:43:U:H6	22:1K:43:U:O5'	1.95	0.49
22:1L:53:G:C2'	22:1L:54:5MU:H5''	2.42	0.49
30:29:7:VAL:HG12	30:29:8:LYS:H	1.77	0.49
37:35:85:LEU:HA	37:35:88:LEU:HD22	1.94	0.49
31:39:23:ASP:OD1	31:39:23:ASP:N	2.43	0.49
12:3A:117:ARG:NH2	12:3A:124:LYS:HG3	2.28	0.49
5:4E:64:ARG:NH1	5:4E:64:ARG:HG2	2.26	0.49
13:4I:3:ARG:HH21	13:4I:9:ILE:HD11	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:40:GLU:HB3	33:51:55:PRO:HG2	1.94	0.49
6:52:91:VAL:HG21	18:9A:72:ARG:HD3	1.94	0.49
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.77	0.49
46:C5:87:LYS:NZ	46:C5:89:PHE:CD1	2.81	0.49
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.12	0.49
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.27	0.49
1:13:1126:U:C5	1:13:1127:G:C2	3.00	0.49
1:13:475:G:H3'	1:13:476:G:H8	1.78	0.49
1:13:652:U:O4	1:13:752:G:O2'	2.13	0.49
26:14:1203:G:OP2	26:14:1204:A:H2'	2.13	0.49
26:14:1590:U:H2'	26:14:1591:G:C8	2.48	0.49
26:14:1729:A:C6	26:14:1731:G:C5	3.01	0.49
26:14:2208:U:H4'	29:19:151:LYS:HG2	1.92	0.49
26:14:2384:G:OP2	48:E5:55:ARG:NH1	2.43	0.49
26:14:717:G:H2'	26:14:718:A:O4'	2.12	0.49
27:16:44:G:C2	27:16:48:A:C2	3.00	0.49
1:1G:1084:G:C5	1:1G:1085:U:C4	3.00	0.49
1:1G:1145:C:H5''	1:1G:1146:A:OP1	2.13	0.49
1:1G:1180:A:OP2	9:82:97:LYS:NZ	2.46	0.49
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.47	0.49
1:1G:1382:C:O2'	24:3L:34:U:H5	1.94	0.49
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.12	0.49
1:1G:181:G:O2'	1:1G:183:G:O6	2.31	0.49
26:1H:1210:A:H8	26:1H:1210:A:H5'	1.76	0.49
26:1H:1443:G:C2	26:1H:1549:C:N3	2.81	0.49
26:1H:1626:G:H5''	26:1H:1627:G:OP1	2.13	0.49
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.77	0.49
26:1H:164:U:H5'	26:1H:165:U:OP2	2.12	0.49
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.47	0.49
26:1H:2123:G:N2	28:71:42:GLU:OE2	2.45	0.49
26:1H:250:G:H2'	26:1H:251:A:C8	2.48	0.49
26:1H:701:G:N2	26:1H:731:C:O2	2.45	0.49
10:1I:34:VAL:HG12	10:1I:74:ILE:HG12	1.95	0.49
22:1L:8:U:H2'	22:1L:13:C:H42	1.77	0.49
3:22:50:ALA:HB1	3:22:72:LYS:HB2	1.94	0.49
36:25:71:ARG:HG2	36:25:105:GLU:OE2	2.13	0.49
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.95	0.49
23:2L:17:C:H3'	23:2L:18:C:H2'	1.93	0.49
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.48	0.49
4:32:31:CYS:C	4:32:33:MET:N	2.64	0.49
26:14:389:G:H1	37:35:71:VAL:HG12	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:66:VAL:HG22	12:3I:67:THR:N	2.28	0.49
24:3K:66:A:H5'	24:3K:67:C:OP2	2.13	0.49
32:4I:37:VAL:HA	32:4I:158:ALA:O	2.13	0.49
32:49:103:LEU:HD22	32:49:178:PHE:HZ	1.76	0.49
33:5I:158:HIS:HA	33:5I:170:ARG:HH21	1.78	0.49
7:62:106:GLN:O	7:62:110:GLN:HG2	2.12	0.49
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.13	0.49
9:82:17:VAL:HG11	9:82:81:ILE:HA	1.94	0.49
45:B5:23:GLU:HG3	45:B5:25:LYS:HD2	1.95	0.49
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.94	0.49
26:14:372:G:OP2	49:F5:69:LYS:HE3	2.13	0.49
45:B5:5:TYR:HD1	50:G5:33:MET:SD	2.36	0.49
52:M8:14:ILE:CG2	52:M8:21:VAL:HB	2.43	0.49
29:11:183:ARG:CD	29:11:270:ILE:HG12	2.42	0.49
1:13:965:A:OP1	1:13:1198:G:H5''	2.12	0.49
26:14:1181:C:H2'	26:14:1182:A:C8	2.47	0.49
26:14:1970:A:OP2	60:14:3421:HOH:O	2.20	0.49
26:14:443:A:H1'	26:14:1201:C:O4'	2.13	0.49
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.12	0.49
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.48	0.49
1:1G:1317:C:C3'	1:1G:1318:A:H5'	2.43	0.49
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.76	0.49
1:1G:250:A:H4'	1:1G:251:G:O5'	2.13	0.49
26:1H:1535:U:H3'	26:1H:1537:C:C5	2.48	0.49
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.24	0.49
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.28	0.49
26:1H:227:A:C2	26:1H:2407:G:H1'	2.48	0.49
26:1H:2705:A:H3'	26:1H:2706:G:H8	1.77	0.49
26:1H:665:C:H2'	26:1H:666:G:C8	2.48	0.49
10:1I:32:ALA:H	10:1I:78:ASN:HB2	1.78	0.49
22:1L:28:U:N3	22:1L:42:A:H2	2.08	0.49
30:21:117:MET:O	30:21:118:LYS:HB3	2.13	0.49
30:21:36:ARG:NH1	30:21:85:ASN:OD1	2.46	0.49
30:29:111:ARG:HB2	30:29:160:TYR:HB3	1.94	0.49
31:39:25:PRO:HA	31:39:27:GLU:OE1	2.13	0.49
32:4I:110:ALA:HA	32:4I:140:ILE:O	2.12	0.49
32:49:60:LEU:HD21	32:49:92:VAL:HG11	1.95	0.49
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.95	0.49
14:5A:3:ARG:O	14:5A:6:LEU:HD13	2.12	0.49
34:69:133:HIS:CD2	34:69:134:PRO:HD3	2.47	0.49
7:6E:63:LYS:HD2	7:6E:63:LYS:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:119:ALA:O	9:82:120:ARG:HB2	2.13	0.49
9:82:21:PRO:HA	9:82:59:PHE:HD1	1.78	0.49
42:85:47:TYR:CZ	42:85:51:LYS:HE2	2.48	0.49
17:8A:5:VAL:HA	17:8A:59:ILE:O	2.13	0.49
1:13:237:C:O3'	17:8I:25:ARG:NH2	2.46	0.49
44:A5:29:LEU:O	44:A5:33:ARG:HB2	2.13	0.49
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.13	0.49
38:45:132:VAL:HG21	47:D5:81:ARG:HE	1.76	0.49
49:F5:35:THR:O	49:F5:35:THR:HG23	2.13	0.49
1:13:1167:A:H2'	1:13:1169:A:C8	2.48	0.49
1:13:590:C:N3	1:13:649:G:N2	2.60	0.49
1:13:926:G:H5''	1:13:927:G:O5'	2.13	0.49
26:14:1047:G:N3	26:14:1047:G:H2'	2.28	0.49
26:14:2117:A:H2'	26:14:2118:U:C6	2.48	0.49
26:14:29:U:H2'	26:14:30:G:C8	2.48	0.49
26:14:864:G:C6	26:14:865:C:N4	2.80	0.49
2:1E:16:HIS:N	2:1E:16:HIS:CD2	2.81	0.49
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.27	0.49
1:1G:1279:A:H5''	1:1G:1280:A:OP2	2.13	0.49
1:1G:976:G:N2	1:1G:1362:C:H2'	2.28	0.49
1:1G:643:C:H2'	1:1G:644:G:C8	2.45	0.49
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.13	0.49
1:1G:900:A:H2'	1:1G:901:A:O4'	2.13	0.49
1:1G:947:G:H5''	13:4A:109:THR:HG23	1.95	0.49
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.13	0.49
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.37	0.49
26:1H:207:A:H2'	26:1H:208:C:O4'	2.13	0.49
26:1H:2106:G:C6	26:1H:2184:G:C2	3.01	0.49
26:1H:2355:C:H5''	26:1H:2356:C:OP2	2.13	0.49
26:1H:2880:C:O2'	39:98:90:ARG:NH1	2.41	0.49
26:1H:621:A:O4'	26:1H:621:A:N3	2.43	0.49
22:1K:4:U:H3'	22:1K:5:C:H6	1.78	0.49
30:21:201:THR:CG2	30:21:203:LYS:H	2.24	0.49
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.13	0.49
31:31:107:LYS:HD2	31:31:207:GLY:H	1.78	0.49
31:31:164:ARG:HG3	31:31:175:THR:HB	1.94	0.49
4:32:8:VAL:HG22	4:32:115:ARG:HH12	1.78	0.49
31:39:126:VAL:N	31:39:194:MET:O	2.46	0.49
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.42	0.49
4:3E:122:ARG:NH2	4:3E:134:ASP:CB	2.74	0.49
4:3E:50:ARG:HG3	4:3E:50:ARG:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:173:LEU:HD22	32:41:178:PHE:CE2	2.48	0.49
5:42:122:GLU:HG2	5:42:131:ILE:HD12	1.95	0.49
13:4I:37:THR:O	13:4I:55:ARG:NH1	2.46	0.49
3:22:6:HIS:HB3	14:5A:49:HIS:ND1	2.28	0.49
28:71:175:VAL:HG23	28:71:176:GLY:H	1.78	0.49
16:7A:43:LYS:HG2	16:7A:48:TRP:HZ3	1.78	0.49
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.77	0.49
19:AA:11:VAL:HG13	19:AA:39:THR:H	1.77	0.49
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.13	0.49
47:D5:100:VAL:O	47:D5:124:ILE:HG22	2.13	0.49
47:D5:100:VAL:HG11	47:D5:134:PRO:HB2	1.93	0.49
48:E5:36:ILE:HD12	48:E5:39:ARG:HG2	1.94	0.49
45:F8:12:VAL:HG23	45:F8:17:ALA:HB2	1.93	0.49
46:G8:55:TYR:HB3	46:G8:58:GLY:HA3	1.95	0.49
47:H8:30:ASN:ND2	47:H8:90:VAL:HG13	2.27	0.49
53:J5:11:THR:HG23	53:J5:15:ARG:HB3	1.95	0.49
2:12:35:GLU:HG3	2:12:40:HIS:CE1	2.48	0.49
1:13:421:U:OP2	1:13:422:C:N4	2.40	0.49
26:14:1110:G:O2'	26:14:1111:A:H5'	2.13	0.49
26:14:1115:G:C6	26:14:1116:C:C4	3.01	0.49
26:14:11:G:H2'	26:14:12:U:H5'	1.95	0.49
26:14:1278:A:H5''	39:55:36:THR:HG22	1.94	0.49
26:14:1590:U:H2'	26:14:1591:G:H8	1.77	0.49
26:14:2123:G:N2	26:14:2124:G:H1'	2.28	0.49
26:14:2162:G:H3'	26:14:2164:C:C5	2.48	0.49
26:14:455:C:N3	26:14:473:G:H5'	2.27	0.49
26:14:852:G:H2'	26:14:853:G:H8	1.78	0.49
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.46	0.49
1:1G:1306:A:C6	1:1G:1307:U:C2	3.01	0.49
1:1G:34:C:H2'	1:1G:35:G:C8	2.48	0.49
26:1H:1324:G:C4	26:1H:1328:G:O6	2.66	0.49
26:1H:1440:G:H2'	26:1H:1441:G:H8	1.77	0.49
26:1H:176:G:C2'	26:1H:177:G:H5'	2.42	0.49
26:1H:1952:A:O5'	26:1H:1952:A:H8	1.96	0.49
26:1H:2094:G:H2'	26:1H:2095:C:O4'	2.13	0.49
26:1H:298:G:H5''	26:1H:299:A:OP1	2.13	0.49
26:1H:960:A:C8	26:1H:962:G:C8	3.00	0.49
3:2E:57:ILE:HG12	3:2E:66:VAL:HG22	1.94	0.49
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.48	0.49
24:3K:21:A:H61	24:3K:46:G:H2'	1.78	0.49
13:4I:77:ASN:O	13:4I:81:LEU:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:143:GLN:O	33:51:146:ALA:N	2.46	0.49
7:6E:121:ALA:O	7:6E:125:MET:HB2	2.12	0.49
41:75:35:LYS:HA	41:75:40:THR:HG22	1.95	0.49
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.95	0.49
54:L5:11:LYS:HE3	54:L5:15:THR:OG1	2.13	0.49
29:11:201:HIS:O	29:11:204:ILE:HG13	2.13	0.48
1:13:1053:G:H4'	1:13:1054:C:H5'	1.95	0.48
1:13:255:G:C6	1:13:256:U:C4	3.01	0.48
1:13:262:A:C6	1:13:263:A:C6	3.01	0.48
26:14:2137:C:H42	26:14:2154:G:H1	1.60	0.48
26:14:2652:C:H2'	26:14:2653:U:O4'	2.12	0.48
26:14:521:G:H2'	26:14:522:G:C8	2.48	0.48
29:19:121:PRO:HB3	29:19:135:PHE:CE2	2.48	0.48
2:1E:8:LYS:HD3	2:1E:8:LYS:H	1.77	0.48
1:1G:1502:A:H2	1:1G:1505:G:N1	2.06	0.48
1:1G:264:U:H2'	1:1G:265:G:O4'	2.13	0.48
1:1G:409:G:H1	1:1G:433:C:H42	1.61	0.48
1:1G:955:U:H2'	1:1G:956:U:H6	1.78	0.48
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.48	0.48
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.13	0.48
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.46	0.48
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.48	0.48
26:1H:253:C:H2'	26:1H:254:G:O4'	2.13	0.48
26:1H:547:A:O2'	26:1H:548:A:N7	2.39	0.48
26:1H:552:G:C6	26:1H:553:U:C4	3.01	0.48
30:29:98:PRO:HG3	30:29:175:VAL:HG12	1.94	0.48
23:2L:54:G:C5	23:2L:55:5MU:H72	2.48	0.48
12:3A:117:ARG:HH22	12:3A:124:LYS:HG3	1.78	0.48
5:42:92:LYS:HB2	5:42:119:LEU:HB2	1.95	0.48
34:69:7:GLU:HB2	34:69:8:PRO:HD2	1.94	0.48
7:6E:6:ARG:O	7:6E:6:ARG:HG3	2.12	0.48
1:13:587:G:H4'	8:7E:3:THR:O	2.13	0.48
42:85:29:SER:OG	42:85:30:LYS:NZ	2.32	0.48
1:1G:247:G:OP2	17:8A:100:LYS:HG3	2.13	0.48
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.13	0.48
13:4A:84:ILE:HG23	19:AA:74:PHE:CE1	2.48	0.48
42:C8:88:ILE:C	42:C8:90:VAL:H	2.16	0.48
50:K8:64:LEU:CD2	50:K8:68:ARG:HD2	2.42	0.48
55:M5:22:VAL:O	55:M5:50:LEU:HB2	2.13	0.48
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.49	0.48
1:13:1145:C:H4'	1:13:1146:A:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1145:C:H5''	1:13:1146:A:OP1	2.14	0.48
1:13:411:A:O2'	1:13:413:G:H5'	2.14	0.48
26:14:1312:U:H4'	26:14:1313:U:O5'	2.13	0.48
26:14:2140:C:H2'	26:14:2141:G:H8	1.78	0.48
26:14:228:A:OP1	37:35:76:LYS:NZ	2.36	0.48
26:14:2688:U:H5	26:14:2720:U:OP2	1.97	0.48
26:14:2832:U:H3'	26:14:2833:G:C8	2.47	0.48
26:14:2850:A:H2'	26:14:2851:A:C8	2.48	0.48
26:14:273(C):C:N4	26:14:363(C):G:H1	2.09	0.48
26:14:971:C:H2'	26:14:972:G:O4'	2.13	0.48
26:14:97:C:H5''	50:G5:2:LYS:HA	1.95	0.48
27:16:17:C:H2'	27:16:18:G:O4'	2.13	0.48
2:1E:209:ARG:NH1	2:1E:239:VAL:HA	2.28	0.48
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.95	0.48
1:1G:1129:C:C5	1:1G:1139:G:N1	2.81	0.48
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.13	0.48
1:1G:265:G:H2'	1:1G:267:C:H5	1.78	0.48
1:1G:652:U:H2'	1:1G:653:A:H5''	1.96	0.48
1:1G:737:A:H2'	1:1G:738:C:C6	2.47	0.48
1:1G:995:C:O2'	1:1G:996:A:H5'	2.13	0.48
1:1G:996:A:H8	1:1G:996:A:OP2	1.96	0.48
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.12	0.48
26:1H:1466:G:N3	26:1H:1547:C:N4	2.61	0.48
26:1H:1561:G:H2'	26:1H:1562:A:H8	1.77	0.48
26:1H:2472:G:O2'	26:1H:2478:A:N6	2.46	0.48
26:1H:2575:C:H6	26:1H:2575:C:O5'	1.96	0.48
26:1H:2576:G:O2'	26:1H:2579:C:OP2	2.23	0.48
26:1H:1050:A:C8	26:1H:2751:G:C8	3.01	0.48
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.78	0.48
30:29:173:VAL:N	30:29:183:LEU:O	2.33	0.48
31:31:36:VAL:O	31:31:40:GLN:HG3	2.12	0.48
12:3A:27:LEU:CD2	12:3A:60:LEU:HB3	2.42	0.48
32:41:145:THR:HG23	52:M8:28:LYS:HZ1	1.78	0.48
32:49:120:LEU:HG	32:49:179:PRO:O	2.13	0.48
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.95	0.48
13:4I:82:MET:O	13:4I:83:ASP:HB3	2.14	0.48
39:55:106:GLY:O	39:55:107:ASP:HB3	2.12	0.48
15:6A:10:LYS:HG2	15:6A:11:VAL:N	2.27	0.48
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.94	0.48
8:7E:102:ARG:N	8:7E:102:ARG:HD3	2.27	0.48
9:8E:25:LYS:HG2	9:8E:26:VAL:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:53:ASN:O	19:AI:77:THR:HG22	2.12	0.48
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.13	0.48
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.95	0.48
29:11:34:VAL:C	29:11:35:LYS:HZ2	2.16	0.48
1:13:1070:U:H2'	1:13:1071:C:H6	1.78	0.48
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.13	0.48
1:13:340:U:H2'	1:13:341:C:O4'	2.14	0.48
1:13:44:G:C2	1:13:45:U:H1'	2.48	0.48
1:13:967:C:H3'	1:13:968:A:C8	2.48	0.48
26:14:1210:A:C5'	26:14:1212:G:H5'	2.42	0.48
26:14:1505:C:H2'	26:14:1506:C:C6	2.49	0.48
26:14:2068:U:N3	26:14:2430:A:C2	2.70	0.48
26:14:445:C:O2'	26:14:446:G:H5'	2.13	0.48
26:14:686:G:H21	26:14:788:A:H61	1.59	0.48
26:14:878:A:H5'	26:14:900:A:H61	1.78	0.48
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.13	0.48
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.48	0.48
1:1G:539:A:H2'	1:1G:540:G:H8	1.73	0.48
1:1G:789:U:O2	1:1G:792:A:H8	1.96	0.48
26:1H:1348:G:C3'	26:1H:1349:A:H5''	2.42	0.48
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.47	0.48
26:1H:562:U:C4	26:1H:2036:C:O4'	2.66	0.48
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.49	0.48
26:1H:2649:U:H2'	26:1H:2650:U:C6	2.48	0.48
26:1H:2705:A:O2'	26:1H:2852:G:OP1	2.23	0.48
26:1H:552:G:H2'	26:1H:553:U:O4'	2.13	0.48
26:1H:945:A:OP2	60:1H:3553:HOH:O	2.19	0.48
10:1I:80:LYS:HE3	10:1I:84:GLN:HE21	1.77	0.48
27:1J:18:G:H1	27:1J:65:C:N4	2.09	0.48
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.28	0.48
23:2L:62:C:H2'	23:2L:63:C:C6	2.46	0.48
37:35:124:LYS:HA	37:35:143:GLY:O	2.14	0.48
26:14:2416:C:OP1	37:35:65:ARG:O	2.31	0.48
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.95	0.48
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.77	0.48
5:42:142:LEU:O	5:42:143:ARG:HD2	2.14	0.48
5:4E:6:PHE:HD2	5:4E:63:ARG:HH11	1.60	0.48
1:1G:669:U:OP1	15:6A:48:LYS:HE3	2.13	0.48
28:7I:4:GLY:HA3	28:7I:6:ARG:HH22	1.78	0.48
16:7I:20:VAL:CG2	16:7I:32:TYR:HB2	2.44	0.48
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:50:LEU:HD23	9:82:85:LEU:HD22	1.95	0.48
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.42	0.48
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.13	0.48
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.94	0.48
37:35:59:LEU:HD23	55:M5:58:ILE:HD12	1.95	0.48
52:M8:15:ILE:O	52:M8:33:VAL:HB	2.13	0.48
29:11:183:ARG:HH11	29:11:269:PHE:CB	2.16	0.48
2:12:168:THR:CG2	2:12:192:SER:HA	2.42	0.48
1:13:1175:G:H2'	1:13:1176:A:C8	2.48	0.48
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.95	0.48
27:16:44:G:OP1	52:M8:1:MET:HE3	2.07	0.48
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.44	0.48
1:1G:1008:C:N4	1:1G:1021:G:H22	2.09	0.48
1:1G:1330:U:H5'	13:4A:24:GLY:H	1.78	0.48
1:1G:1354:C:H6	1:1G:1354:C:O5'	1.95	0.48
1:1G:452:A:O2'	1:1G:453:A:O5'	2.31	0.48
1:1G:831:U:H3	1:1G:855:G:H1	1.62	0.48
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.12	0.48
26:1H:1320:C:O2'	26:1H:1329:U:OP2	2.20	0.48
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.55	0.48
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.14	0.48
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.25	0.48
26:1H:2638:G:OP1	30:21:82:ARG:NH2	2.46	0.48
26:1H:2682:U:H6	26:1H:2682:U:H5'	1.78	0.48
26:1H:862:G:H2'	26:1H:863:A:O4'	2.14	0.48
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.95	0.48
4:32:22:LYS:O	4:32:113:SER:HB3	2.13	0.48
4:32:36:ARG:HB2	4:32:38:TYR:CZ	2.48	0.48
37:35:6:LEU:HA	37:35:6:LEU:HD12	1.46	0.48
4:3E:122:ARG:HH22	4:3E:134:ASP:CB	2.25	0.48
42:85:108:GLU:OE2	43:95:44:LYS:HB3	2.13	0.48
19:AA:11:VAL:HG12	19:AA:12:ASP:H	1.78	0.48
19:AI:41:VAL:H	19:AI:44:MET:HG3	1.78	0.48
19:AI:64:GLU:O	19:AI:67:VAL:HG23	2.13	0.48
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.44	0.48
36:68:76:ALA:HB3	41:B8:75:ILE:HD12	1.93	0.48
43:D8:3:ALA:HB1	43:D8:38:LEU:HD22	1.94	0.48
42:C8:50:ARG:HH22	43:D8:72:VAL:HG23	1.79	0.48
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.28	0.48
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.94	0.48
1:13:179:A:H2'	1:13:180:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:223:U:H2'	1:13:224:C:C6	2.47	0.48
1:13:316:G:O2'	1:13:317:G:H5'	2.12	0.48
1:13:874:G:C6	1:13:875:C:C4	3.01	0.48
26:14:1015:G:O2'	26:14:1016:G:H5'	2.13	0.48
26:14:1106:G:H8	26:14:1107:G:C8	2.32	0.48
26:14:1839:G:C8	26:14:1927:A:H1'	2.49	0.48
1:1G:1517:G:H1'	26:14:1919:A:O3'	2.13	0.48
26:14:1939:U:OP1	26:14:2604:U:O2'	2.24	0.48
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.34	0.48
26:14:2488:A:H8	26:14:2488:A:O5'	1.95	0.48
26:14:839:U:H2'	26:14:840:C:H6	1.77	0.48
26:14:946:G:H2'	26:14:947:G:C8	2.49	0.48
10:1A:24:VAL:HG21	10:1A:37:PRO:HD3	1.94	0.48
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.94	0.48
1:1G:1259:C:N4	1:1G:1260:C:O2	2.47	0.48
1:1G:1369:C:H2'	1:1G:1370:G:H8	1.77	0.48
1:1G:193:C:H2'	1:1G:194:C:C6	2.49	0.48
1:1G:438:G:N1	1:1G:495:A:OP2	2.43	0.48
1:1G:580:U:H2'	1:1G:581:G:O4'	2.13	0.48
1:1G:998(A):C:H2'	1:1G:999:U:H6	1.78	0.48
26:1H:1183:G:O2'	51:L8:29:ARG:NH1	2.46	0.48
26:1H:182:A:C6	26:1H:183:C:C4	3.02	0.48
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.78	0.48
26:1H:2139:C:H41	26:1H:2152:G:N2	2.12	0.48
26:1H:2663:G:C2	26:1H:2664:G:H1'	2.48	0.48
26:1H:430:G:H5''	26:1H:431:U:OP2	2.14	0.48
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.62	0.48
30:21:152:LYS:HG2	35:58:78:TYR:CE1	2.49	0.48
4:32:150:GLU:O	4:32:152:SER:N	2.46	0.48
4:32:63:LYS:O	4:32:67:ILE:HG13	2.14	0.48
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.94	0.48
38:45:27:VAL:HG12	47:D5:81:ARG:NH2	2.29	0.48
6:52:5:GLU:HB3	6:52:62:TRP:HE1	1.78	0.48
7:62:23:VAL:O	7:62:27:ILE:HG12	2.13	0.48
40:65:26:LEU:O	40:65:88:ASP:N	2.47	0.48
36:68:53:LYS:N	36:68:53:LYS:HD2	2.27	0.48
26:1H:2122:U:O2	28:71:172:HIS:NE2	2.47	0.48
8:72:110:ALA:HB3	8:72:121:ASP:HB2	1.95	0.48
8:72:55:GLY:C	8:72:56:LYS:HD3	2.33	0.48
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.13	0.48
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:10:ARG:HH21	9:82:107:ARG:HB2	1.77	0.48
42:85:91:ASP:OD1	42:85:96:ALA:HB2	2.13	0.48
41:B8:20:PRO:HD2	41:B8:86:ILE:HG23	1.95	0.48
47:D5:99:TYR:HA	47:D5:124:ILE:O	2.13	0.48
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.34	0.48
45:F8:57:LEU:HD23	45:F8:57:LEU:N	2.28	0.48
46:G8:49:VAL:HG21	46:G8:55:TYR:CE2	2.49	0.48
51:H5:8:LEU:HD22	51:H5:31:LEU:HD12	1.95	0.48
26:1H:690:G:O2'	29:11:43:ARG:NH2	2.46	0.48
2:12:219:VAL:CG2	2:12:221:LEU:H	2.26	0.48
1:13:158:G:C4	1:13:159:G:C8	3.02	0.48
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.27	0.48
1:13:413:G:H21	1:13:428:G:H1'	1.79	0.48
1:13:663:A:O3'	18:9I:64:ARG:NH2	2.45	0.48
1:13:827:U:C4	1:13:870:U:N3	2.82	0.48
26:14:1421:G:C2	26:14:1422:G:C8	3.02	0.48
26:14:279:C:H42	26:14:361:G:H1	1.60	0.48
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.96	0.48
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.77	0.48
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.48	0.48
1:1G:613:C:H2'	1:1G:614:A:O4'	2.14	0.48
1:1G:694:A:O2'	24:3L:38:A:O2'	2.24	0.48
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.14	0.48
26:1H:1534:G:N3	26:1H:1534:G:H2'	2.29	0.48
26:1H:1793:C:H2'	26:1H:1794:U:H6	1.79	0.48
26:1H:184:C:H1'	26:1H:217:G:H1'	1.94	0.48
26:1H:950:G:H2'	26:1H:951:C:C6	2.49	0.48
10:1I:55:LYS:O	10:1I:56:HIS:CG	2.66	0.48
30:21:64:LYS:O	30:21:70:ALA:HB2	2.14	0.48
3:22:11:ARG:HB3	3:22:15:THR:OG1	2.14	0.48
30:29:52:LEU:HA	30:29:52:LEU:HD12	1.55	0.48
3:2E:77:ILE:HG22	3:2E:81:GLY:HA2	1.95	0.48
11:2I:50:TYR:HD2	11:2I:54:ARG:HB2	1.77	0.48
31:31:6:VAL:HG12	31:31:7:TYR:H	1.77	0.48
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.14	0.48
4:3E:194:LEU:HG	4:3E:196:LEU:HG	1.94	0.48
38:45:102:VAL:O	38:45:102:VAL:HG12	2.13	0.48
38:45:126:PRO:O	38:45:127:ILE:HG23	2.13	0.48
38:45:75:THR:HB	38:45:86:GLY:HA3	1.96	0.48
39:55:13:HIS:ND1	39:55:15:SER:HB3	2.29	0.48
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:88:ILE:HG12	41:75:91:ARG:NH2	2.28	0.48
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.14	0.48
38:88:55:VAL:HG12	38:88:64:ILE:HD12	1.95	0.48
38:88:66:ILE:O	38:88:67:ARG:HB2	2.12	0.48
17:8A:56:VAL:O	17:8A:77:VAL:N	2.37	0.48
40:A8:11:LYS:O	40:A8:15:ARG:HG2	2.13	0.48
40:A8:15:ARG:HB3	40:A8:19:LYS:HE2	1.96	0.48
49:F5:80:LEU:HD12	49:F5:82:LEU:CB	2.44	0.48
55:M5:48:PHE:CB	55:M5:49:VAL:HG22	2.30	0.48
2:12:18:GLY:CA	2:12:41:ILE:HD13	2.44	0.48
1:13:153:C:H42	1:13:168:G:H22	1.61	0.48
1:13:302:G:C6	1:13:303:A:C5	3.02	0.48
1:13:49:U:C2	1:13:361:G:N2	2.82	0.48
1:13:686:U:O4	1:13:703:G:H1'	2.14	0.48
26:14:1569:A:H2'	26:14:1570:A:C8	2.49	0.48
26:14:1410:G:N2	26:14:1592:C:O2	2.45	0.48
26:14:1891:G:C6	26:14:1892:C:C4	3.01	0.48
26:14:2286:A:H4'	26:14:2287:A:O4'	2.14	0.48
26:14:2320:A:H1'	26:14:2321:G:C6	2.49	0.48
26:14:2690:C:OP1	39:55:17:ARG:NH1	2.40	0.48
26:14:2698:U:H2'	26:14:2699:C:C6	2.48	0.48
26:14:590:A:H2'	26:14:591:C:H6	1.79	0.48
26:14:718:A:H3'	26:14:719:C:C6	2.48	0.48
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.29	0.48
2:1E:11:LEU:C	2:1E:13:ALA:N	2.66	0.48
1:1G:1117:G:H4'	9:82:104:ARG:HD2	1.94	0.48
1:1G:948:C:OP1	13:4A:109:THR:OG1	2.29	0.48
26:1H:1260:G:C5	26:1H:1261:C:C5	3.02	0.48
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.78	0.48
26:1H:1394:U:H4'	26:1H:1603:A:H4'	1.95	0.48
26:1H:1533:C:C5	26:1H:1534:G:H3'	2.48	0.48
26:1H:195:A:H4'	26:1H:251:A:O2'	2.13	0.48
26:1H:774:A:HO2'	26:1H:775:G:H8	1.61	0.48
26:1H:863:A:H2'	26:1H:864:G:H8	1.78	0.48
27:1J:15:A:H5'	27:1J:16:G:C8	2.48	0.48
22:1K:23:A:H2'	22:1K:24:G:C1'	2.43	0.48
22:1L:1:G:H1	22:1L:72:C:N4	1.99	0.48
22:1L:25:C:C2	22:1L:26:A:H1'	2.49	0.48
30:21:17:ASP:C	30:21:19:ARG:H	2.17	0.48
11:2I:69:ALA:O	11:2I:73:MET:HG3	2.14	0.48
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:84:ASN:ND2	37:35:117:GLU:HB3	2.29	0.48
31:39:130:ALA:H	31:39:142:TRP:HD1	1.61	0.48
24:3K:24:G:O5'	24:3K:24:G:H8	1.96	0.48
32:41:76:SER:OG	32:41:84:LYS:N	2.46	0.48
26:14:870:A:C5'	38:45:6:ARG:HB3	2.44	0.48
34:69:130:TYR:N	34:69:136:VAL:O	2.43	0.48
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.96	0.48
28:79:20:TYR:N	28:79:223:ARG:O	2.45	0.48
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.14	0.48
19:AI:5:LEU:HD22	19:AI:10:PHE:CE2	2.48	0.48
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.13	0.48
48:E5:24:LYS:N	48:E5:37:LEU:O	2.37	0.48
51:H5:40:THR:HG23	51:H5:43:ILE:HG13	1.95	0.48
50:K8:8:LYS:O	50:K8:11:GLU:HG2	2.13	0.48
1:13:1203:C:H2'	1:13:1204:A:O4'	2.14	0.48
1:13:454:C:H3'	1:13:455:C:C5	2.48	0.48
1:13:595:G:H1'	1:13:596:C:H5	1.77	0.48
1:13:715:A:H2'	1:13:716:A:C8	2.49	0.48
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.48
26:14:2822:G:O2'	26:14:2825:C:N4	2.47	0.48
26:14:557:U:H2'	26:14:558:G:H8	1.79	0.48
29:19:12:SER:O	29:19:16:MET:HB2	2.14	0.48
29:19:49:ILE:HD12	29:19:52:ARG:HA	1.96	0.48
10:1A:39:PRO:HA	10:1A:70:ARG:HD3	1.96	0.48
2:1E:161:ALA:O	2:1E:162:ILE:HD13	2.13	0.48
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.14	0.48
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.77	0.48
1:1G:450:G:N7	1:1G:481:G:C6	2.82	0.48
1:1G:681:C:H2'	1:1G:682:G:C8	2.49	0.48
1:1G:985:C:H2'	1:1G:986:A:C8	2.48	0.48
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.49	0.48
26:1H:2352:A:C4	26:1H:2366:A:C2	3.02	0.48
30:29:81:ILE:O	30:29:82:ARG:HB2	2.12	0.48
3:2E:124:ILE:HG21	3:2E:196:LEU:HD12	1.96	0.48
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.49	0.48
1:1G:363:A:N7	12:3A:33:ARG:NH1	2.62	0.48
4:3E:67:ILE:HD13	4:3E:196:LEU:HD22	1.95	0.48
12:3I:90:VAL:HB	12:3I:96:VAL:CG2	2.43	0.48
32:41:101:ILE:HD12	32:41:102:PHE:N	2.28	0.48
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.14	0.48
33:51:155:SER:HB2	33:51:160:LYS:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2880:C:O2'	39:55:90:ARG:HD3	2.13	0.48
7:62:73:MET:HA	7:62:91:VAL:HG23	1.94	0.48
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.95	0.48
37:78:97:PRO:HD3	37:78:126:VAL:O	2.13	0.48
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.95	0.48
41:B8:125:ARG:O	41:B8:129:ARG:N	2.36	0.48
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.77	0.48
46:G8:87:LYS:HB2	46:G8:96:ILE:HD13	1.95	0.48
55:Q8:52:LYS:HB3	55:Q8:53:PRO:CD	2.44	0.48
1:13:632:A:H2'	1:13:633:G:O4'	2.12	0.48
26:14:1101:U:H2'	26:14:1102:C:O4'	2.13	0.48
26:14:173:G:N3	26:14:173:G:H2'	2.28	0.48
26:14:2400:G:H3'	26:14:2401:U:H6	1.79	0.48
26:14:1999:C:H5''	26:14:2723:C:O2'	2.14	0.48
26:14:2862:G:H2'	26:14:2863:C:C6	2.49	0.48
26:14:433:C:H2'	26:14:434:U:C6	2.48	0.48
26:14:901:A:H3'	26:14:902:C:C6	2.48	0.48
1:1G:690:G:C6	1:1G:691:G:C6	3.02	0.48
26:1H:1359:A:N3	26:1H:1359:A:H5'	2.28	0.48
26:1H:1818:U:O4	29:11:154:LYS:HE3	2.13	0.48
26:1H:2369:A:H2'	26:1H:2370:G:H8	1.79	0.48
26:1H:271(B):G:H4'	26:1H:271(C):U:O5'	2.13	0.48
37:35:95:VAL:HG13	37:35:125:VAL:HA	1.94	0.48
26:14:322:A:OP2	31:39:169:ASN:HB2	2.14	0.48
24:3K:51:A:N6	24:3K:63:U:H3	2.12	0.48
24:3L:11:C:H42	24:3L:13:C:H41	1.60	0.48
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.94	0.48
33:51:83:TYR:HB2	33:51:84:SER:H	1.55	0.48
33:59:9:ILE:HG22	33:59:52:VAL:H	1.78	0.48
34:61:42:SER:O	34:61:45:LYS:N	2.47	0.48
7:62:47:CYS:HB3	7:62:58:PRO:HB3	1.96	0.48
40:65:35:ILE:HB	40:65:97:ARG:NH2	2.27	0.48
26:14:2176:A:H2	28:79:172:HIS:CD2	2.32	0.48
9:82:49:PRO:HB3	9:82:101:PHE:CD2	2.49	0.48
17:8A:48:GLU:CB	17:8A:50:LYS:HB2	2.36	0.48
39:98:22:ARG:HG2	39:98:69:ASP:HB3	1.96	0.48
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.96	0.48
19:AI:25:LYS:HD2	19:AI:25:LYS:HA	1.66	0.48
45:B5:63:LYS:O	45:B5:63:LYS:HD3	2.13	0.48
47:D5:72:ARG:HA	47:D5:72:ARG:HD3	1.70	0.48
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:651:G:H4'	55:Q8:18:ALA:HB3	1.96	0.48
29:11:26:LYS:HB3	29:11:29:PRO:HG3	1.95	0.48
2:12:55:PHE:O	2:12:59:GLU:N	2.39	0.48
1:13:1289:A:H5'	21:1F:10:ARG:NH2	2.29	0.48
1:13:474:G:C2	1:13:475:G:C4	3.01	0.48
1:13:598:U:H4'	8:7E:94:TYR:CG	2.49	0.48
1:13:765:G:H5''	1:13:766:A:OP1	2.14	0.48
1:13:872:A:N3	1:13:872:A:H2'	2.29	0.48
26:14:1512:G:H2'	26:14:1513:C:C6	2.49	0.48
1:1G:1106:G:H4'	3:22:171:GLY:O	2.14	0.48
1:1G:920:U:H2'	1:1G:921:U:C6	2.48	0.48
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.43	0.48
26:1H:1705:G:H2'	26:1H:1706:U:H5'	1.95	0.48
26:1H:152:G:H1	26:1H:174:C:H42	1.62	0.48
26:1H:2128:C:H2'	26:1H:2129:C:O4'	2.14	0.48
26:1H:2171:A:H2'	26:1H:2172:U:C6	2.49	0.48
26:1H:355:G:H2'	26:1H:356:G:H8	1.79	0.48
26:1H:588:U:H2'	26:1H:589:C:C6	2.49	0.48
27:1J:56:G:H4'	27:1J:57:A:H8	1.79	0.48
11:2I:19:ALA:HB2	11:2I:32:ILE:HG23	1.96	0.48
23:2K:10:G:N2	23:2K:27:G:H1'	2.29	0.48
37:35:101:VAL:HA	37:35:105:LEU:O	2.14	0.48
37:35:138:LEU:HD12	37:35:144:GLU:OE2	2.14	0.48
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.43	0.48
33:51:15:VAL:HG22	33:51:29:PRO:HD2	1.95	0.48
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.14	0.48
34:61:144:VAL:HG13	34:61:145:VAL:HG12	1.96	0.48
15:6I:53:HIS:CD2	15:6I:57:LEU:HD11	2.49	0.48
37:78:15:ARG:O	37:78:16:ARG:C	2.51	0.48
28:79:46:LYS:HB2	28:79:210:ARG:C	2.34	0.48
8:7E:98:LYS:CD	8:7E:98:LYS:H	2.26	0.48
9:82:16:ARG:CZ	9:82:64:THR:HG21	2.44	0.48
1:13:635:G:O2'	17:8I:2:PRO:HD3	2.14	0.48
44:A5:20:VAL:O	44:A5:23:LEU:HB2	2.14	0.48
19:AA:66:MET:H	19:AA:67:VAL:HB	1.79	0.48
20:BA:67:ALA:HB2	20:BA:77:ALA:HB2	1.96	0.48
27:16:43:C:OP1	52:M8:2:LYS:HB3	2.13	0.48
2:12:114:ARG:O	2:12:118:LEU:HG	2.13	0.47
1:13:105:G:H2'	1:13:106:C:C6	2.49	0.47
1:13:687:A:N1	1:13:700:G:O2'	2.41	0.47
26:14:1005:C:H2'	26:14:1006:C:H6	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1100:C:HO2'	26:14:1101:U:H6	1.59	0.47
26:14:1161:C:H2'	26:14:1162:G:C8	2.49	0.47
26:14:1186:G:H2'	26:14:1187:G:O4'	2.14	0.47
26:14:2105:C:H2'	26:14:2106:G:H5'	1.96	0.47
26:14:2295:C:N3	26:14:2296:U:H5	2.12	0.47
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.14	0.47
26:14:482:A:H5''	26:14:483:A:OP1	2.14	0.47
26:14:952:G:C6	26:14:966:G:C6	3.01	0.47
1:1G:1165:C:H2'	1:1G:1166:G:O4'	2.13	0.47
1:1G:308:C:H2'	1:1G:309:G:C8	2.49	0.47
1:1G:113:G:O4'	1:1G:354:G:H4'	2.13	0.47
1:1G:373:A:N3	1:1G:374:A:C8	2.82	0.47
1:1G:614:A:C4	1:1G:615:C:C5	3.02	0.47
1:1G:922:G:C6	1:1G:923:A:C6	3.02	0.47
26:1H:1026:U:O2	26:1H:1027:A:H3'	2.14	0.47
26:1H:1468:C:H2'	26:1H:1469:A:H8	1.79	0.47
26:1H:1887:C:N4	26:1H:1888:G:N7	2.62	0.47
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.94	0.47
26:1H:2164:C:OP1	26:1H:2166:G:N1	2.46	0.47
26:1H:2714:G:P	60:1H:3529:HOH:O	2.72	0.47
10:1I:80:LYS:HE3	10:1I:84:GLN:NE2	2.29	0.47
3:22:76:VAL:HG23	3:22:84:ILE:HG13	1.96	0.47
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.94	0.47
24:3K:27:G:N2	24:3K:44:U:H1'	2.29	0.47
24:3K:60:U:H6	24:3K:60:U:O5'	1.97	0.47
24:3K:75:C:O2'	24:3K:76:A:H2	1.97	0.47
38:45:31:ASP:H	38:45:107:ALA:HB2	1.79	0.47
32:49:42:GLY:O	32:49:43:LEU:HD13	2.13	0.47
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.14	0.47
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.14	0.47
13:4I:92:HIS:O	13:4I:95:GLY:N	2.46	0.47
33:51:81:GLU:HB2	33:51:83:TYR:CZ	2.49	0.47
36:68:52:VAL:O	36:68:53:LYS:HD2	2.14	0.47
15:6A:33:THR:HG21	15:6A:85:LEU:HD22	1.95	0.47
28:71:15:ASP:H	28:71:222:VAL:HG13	1.79	0.47
28:71:20:TYR:CB	28:71:25:ALA:HB2	2.44	0.47
37:78:71:VAL:HG13	37:78:72:PRO:CD	2.44	0.47
28:79:48:GLY:HA3	28:79:208:PHE:HA	1.95	0.47
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.44	0.47
38:88:51:ARG:HH21	38:88:52:VAL:HG22	1.79	0.47
46:C5:82:PRO:CG	46:C5:97:ARG:HB3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:I8:36:ILE:C	48:I8:36:ILE:HD12	2.34	0.47
2:12:86:GLU:O	2:12:89:GLY:N	2.47	0.47
1:13:186(F):C:N3	1:13:191(B):G:N2	2.62	0.47
26:14:1160:G:C6	26:14:1161:C:C4	3.02	0.47
26:14:1197:G:C2	26:14:1250:G:C6	3.01	0.47
26:14:1310:G:OP2	54:L5:9:ARG:NE	2.47	0.47
26:14:1358:G:O2'	26:14:1373:A:N6	2.47	0.47
26:14:1480:G:C6	26:14:1482:U:C4	3.02	0.47
26:14:1507:A:C4	26:14:1508:A:H1'	2.48	0.47
26:14:2055:C:H4'	26:14:2056:G:H5''	1.96	0.47
26:14:2190:G:H2'	26:14:2191:G:C1'	2.43	0.47
26:14:2327:A:H2'	26:14:2328:A:H8	1.77	0.47
26:14:2051:A:H5'	26:14:2578:G:O4'	2.15	0.47
26:14:523:C:H4'	26:14:541:C:O2	2.14	0.47
10:1A:27:ALA:HB1	10:1A:32:ALA:HB3	1.94	0.47
2:1E:107:THR:HA	2:1E:110:GLN:OE1	2.14	0.47
1:1G:262:A:C6	1:1G:263:A:C6	3.01	0.47
1:1G:668:G:O4'	15:6A:49:ASP:HB2	2.14	0.47
1:1G:764:C:C2'	1:1G:765:G:H5'	2.44	0.47
1:1G:865:A:H8	1:1G:865:A:O5'	1.97	0.47
26:1H:1021:A:C3'	26:1H:1021:A:C8	2.95	0.47
26:1H:1482:U:O4	26:1H:1510:A:H8	1.97	0.47
26:1H:1475:G:C2	26:1H:1519:G:C2	3.01	0.47
26:1H:1700:A:H5'	26:1H:1701:A:OP2	2.14	0.47
26:1H:721:C:H2'	26:1H:722:A:H8	1.79	0.47
26:1H:805:G:OP2	37:78:41:ARG:HG2	2.14	0.47
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.29	0.47
11:2I:66:LEU:HG	11:2I:97:ALA:HB1	1.96	0.47
23:2K:26:C:H2'	23:2K:27:G:O4'	2.14	0.47
23:2L:24:C:C2	23:2L:25:U:C5	3.02	0.47
1:1G:364:A:H61	12:3A:28:LYS:HZ3	1.62	0.47
38:45:66:ILE:HD12	38:45:67:ARG:H	1.77	0.47
32:49:77:ILE:H	32:49:82:LEU:HD12	1.79	0.47
7:62:4:ARG:HG2	7:62:5:ARG:HH11	1.79	0.47
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.14	0.47
8:7E:27:PRO:HG3	8:7E:58:TYR:CE2	2.49	0.47
42:85:55:ARG:HB2	42:85:55:ARG:HE	1.50	0.47
19:AI:31:ILE:HG23	19:AI:49:ILE:HG12	1.96	0.47
45:B5:75:ASP:C	45:B5:76:ARG:HG3	2.33	0.47
46:C5:38:ILE:HG23	46:C5:66:PRO:HA	1.96	0.47
42:C8:27:LEU:HB3	42:C8:31:SER:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:49:CYS:O	53:J5:56:LYS:HB3	2.13	0.47
49:J8:20:ARG:HB3	49:J8:32:LYS:HD2	1.96	0.47
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.14	0.47
29:11:26:LYS:HB2	29:11:83:GLU:HB3	1.95	0.47
1:13:1036:G:H3'	1:13:1037:C:C6	2.49	0.47
1:13:130:A:N3	1:13:263:A:O2'	2.39	0.47
1:13:1347:G:H22	1:13:1373:G:H2'	1.79	0.47
1:13:372:C:H42	1:13:389:A:H62	1.62	0.47
1:13:431:A:H2'	1:13:432:A:O4'	2.14	0.47
1:13:60:A:H4'	1:13:61:G:H5'	1.96	0.47
26:14:239:U:H2'	26:14:240:G:O4'	2.13	0.47
26:14:2751:G:H4'	26:14:2752:C:OP2	2.14	0.47
26:14:547:A:C6	26:14:548:A:N6	2.82	0.47
26:14:848:G:H2'	26:14:849:A:H8	1.76	0.47
1:1G:1359:C:H1'	1:1G:1362:C:H41	1.78	0.47
1:1G:125:U:H3	1:1G:236:G:H1	1.63	0.47
1:1G:468:A:H4'	16:7A:80:PHE:O	2.14	0.47
26:1H:1533:C:C2	26:1H:1534:G:C5	3.03	0.47
26:1H:1665:A:N6	60:1H:3612:HOH:O	2.37	0.47
26:1H:2443:C:OP1	31:31:68:LYS:HD3	2.15	0.47
26:1H:285:C:H2'	26:1H:286:C:H6	1.78	0.47
26:1H:537:C:H2'	26:1H:539:G:C8	2.49	0.47
26:1H:568:U:H5'	26:1H:945:A:C2	2.49	0.47
26:1H:945:A:OP2	60:1H:3556:HOH:O	2.20	0.47
3:22:125:GLU:HG2	3:22:190:ARG:O	2.15	0.47
11:2I:121:PRO:HG2	11:2I:126:ARG:HG3	1.95	0.47
23:2K:54:G:O2'	23:2K:55:5MU:H5''	2.14	0.47
23:2L:2:G:H4'	48:E5:8:GLY:HA2	1.95	0.47
31:31:123:LEU:HD12	31:31:124:LEU:H	1.79	0.47
1:1G:509:A:H5'	4:32:54:TYR:HD2	1.79	0.47
4:32:88:VAL:O	4:32:92:VAL:HG23	2.14	0.47
4:3E:155:LEU:HD12	4:3E:158:ILE:HD11	1.95	0.47
5:42:98:THR:HB	5:42:117:ASP:HB3	1.97	0.47
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.14	0.47
34:61:93:THR:HA	34:61:119:PRO:HB3	1.96	0.47
6:5E:100:ASN:OD1	18:9I:23:LYS:HE2	2.14	0.47
41:B8:51:ARG:HB2	41:B8:98:LYS:CD	2.44	0.47
20:BA:41:ILE:HA	20:BA:44:ALA:HB3	1.96	0.47
20:BI:49:ALA:O	20:BI:52:ALA:N	2.47	0.47
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	1.96	0.47
49:F5:24:ALA:HB3	49:F5:27:GLU:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:7:ILE:CD1	49:F5:91:LYS:HZ1	2.27	0.47
45:F8:27:THR:HB	45:F8:80:ILE:HG22	1.96	0.47
46:G8:84:ARG:O	46:G8:85:VAL:HG13	2.14	0.47
53:N8:16:ARG:NH1	53:N8:17:ASP:CG	2.68	0.47
55:Q8:46:ARG:HG2	55:Q8:47:LYS:HB3	1.96	0.47
1:13:1259:C:N4	1:13:1260:C:O2	2.47	0.47
1:13:9:G:C6	1:13:26:A:N6	2.83	0.47
1:13:113:G:O2'	1:13:354:G:H5'	2.15	0.47
1:13:68:G:H1	1:13:101:A:H61	1.62	0.47
1:13:704:A:OP2	1:13:704:A:H8	1.95	0.47
26:14:1672:C:H4'	26:14:2553:G:H5''	1.96	0.47
26:14:1716:U:O2'	26:14:1717:G:H5'	2.14	0.47
26:14:2134:A:C4	26:14:2158:A:C8	3.02	0.47
26:14:213:A:H5''	26:14:214:G:OP2	2.14	0.47
26:14:239:U:C2'	26:14:240:G:H5'	2.45	0.47
26:14:957:A:N6	26:14:2459:A:C8	2.83	0.47
27:16:11:C:O5'	27:16:12:C:H5	1.97	0.47
27:16:3:C:H2'	27:16:4:C:H6	1.79	0.47
1:1G:1448:C:N4	1:1G:1455:G:H1	2.12	0.47
26:1H:1647:G:P	26:1H:1647:G:H3'	2.54	0.47
26:1H:2110:G:C5	26:1H:2120:G:C8	3.02	0.47
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.49	0.47
26:1H:975:G:H1'	26:1H:990:A:C2	2.48	0.47
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.14	0.47
22:1L:49:G:H2'	22:1L:50:C:C6	2.49	0.47
30:21:170:LEU:HD11	30:21:187:ALA:HB3	1.96	0.47
3:2E:44:GLU:HA	3:2E:52:LEU:HD11	1.96	0.47
23:2K:59:A:H4'	23:2K:60:A:OP1	2.15	0.47
26:14:587:C:O2	37:35:33:ARG:NH1	2.46	0.47
31:39:12:LEU:HD23	31:39:14:PRO:HD3	1.97	0.47
25:4L:13:A:C4	25:4L:14:A:H1'	2.48	0.47
6:52:25:ILE:HD13	6:52:82:ARG:HD2	1.95	0.47
6:52:5:GLU:HG3	6:52:93:SER:OG	2.14	0.47
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.29	0.47
34:61:67:ARG:O	34:61:71:ILE:HG22	2.13	0.47
7:62:75:VAL:HA	7:62:88:PRO:HA	1.96	0.47
36:68:68:GLU:OE2	36:68:68:GLU:N	2.47	0.47
34:69:125:GLU:OE2	34:69:141:LYS:NZ	2.29	0.47
15:6A:67:LEU:HD23	15:6A:67:LEU:HA	1.75	0.47
26:1H:1191:G:OP1	37:78:32:THR:HG23	2.13	0.47
9:82:46:ALA:HB2	9:82:74:ILE:CG2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:35:LYS:HG3	41:B8:36:GLU:N	2.29	0.47
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.50	0.47
1:13:1053:G:O5'	1:13:1054:C:H3'	2.14	0.47
1:13:1060:C:HO2'	10:11:56:HIS:CE1	2.32	0.47
1:13:1097:C:O2'	1:13:1169:A:N3	2.38	0.47
1:13:1424:C:H2'	1:13:1425:U:O4'	2.15	0.47
1:13:415:A:H3'	1:13:416:G:H8	1.79	0.47
1:13:650:G:H2'	1:13:651:C:H6	1.79	0.47
26:14:1340:U:H4'	26:14:1394:U:O2'	2.14	0.47
26:14:1379:A:H4'	26:14:1380:G:OP2	2.12	0.47
26:14:121:G:H4'	26:14:149:A:H5'	1.96	0.47
26:14:184:C:H2'	26:14:185:U:H6	1.78	0.47
26:14:2141:G:H1	26:14:2150:U:H3	1.61	0.47
26:14:2190:G:H2'	26:14:2191:G:H1'	1.96	0.47
26:14:2473:U:H2'	26:14:2473:U:O2	2.14	0.47
26:14:2493:U:H2'	26:14:2494:G:O4'	2.14	0.47
26:14:270(L):U:C2	34:69:50:ARG:NH1	2.83	0.47
26:14:2747:G:O6	26:14:2755:C:H5''	2.15	0.47
26:14:909:A:O2'	26:14:910:A:H5''	2.14	0.47
26:1H:1174:A:H1'	26:1H:1178:C:N3	2.30	0.47
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.49	0.47
26:1H:1475:G:N2	26:1H:1519:G:C4	2.82	0.47
26:1H:2165:G:O2'	26:1H:2166:G:H5'	2.14	0.47
26:1H:2199:A:C4	26:1H:2205:C:C6	3.02	0.47
26:1H:49:A:H5''	26:1H:51:G:O4'	2.15	0.47
22:1L:29:U:H2'	22:1L:30:G:O4'	2.13	0.47
30:21:65:GLY:HA2	30:21:70:ALA:HB3	1.96	0.47
3:22:131:ARG:NH2	3:22:166:GLU:OE1	2.42	0.47
11:2A:96:ARG:H	11:2A:96:ARG:HD3	1.79	0.47
11:2I:33:THR:HA	11:2I:39:PRO:HA	1.96	0.47
37:35:39:LYS:HG3	37:35:45:LEU:HD13	1.95	0.47
26:14:389:G:H22	37:35:72:PRO:CD	2.28	0.47
24:3K:25:C:C4	24:3K:26:A:C8	3.03	0.47
24:3K:26:A:H2'	24:3K:27:G:H5'	1.96	0.47
24:3L:37:A:H2'	24:3L:38:A:O4'	2.15	0.47
32:41:80:PHE:O	32:41:82:LEU:HB2	2.15	0.47
32:49:115:ARG:HG3	32:49:136:ARG:HH12	1.79	0.47
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.96	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.47
26:14:61:G:P	50:G5:50:ILE:HD13	2.55	0.47
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:15:ILE:HB	52:M8:32:TYR:HA	1.97	0.47
2:12:53:ARG:HA	2:12:56:ARG:HD2	1.95	0.47
1:13:1316:G:H22	1:13:1319:A:H5'	1.78	0.47
1:13:244:U:H4'	1:13:245:C:C5'	2.44	0.47
1:13:321:A:C2	1:13:333:G:C2	3.03	0.47
1:13:112:G:H4'	1:13:389:A:H4'	1.96	0.47
1:13:729:A:H2'	1:13:730:G:H8	1.79	0.47
1:13:838:G:H1	1:13:848:C:N4	2.13	0.47
26:14:1288:U:C2	26:14:1327:C:O2	2.67	0.47
26:14:1580:A:H8	26:14:1580:A:OP2	1.97	0.47
26:14:1731:G:C8	26:14:1732:A:C8	3.02	0.47
26:14:1936:A:C8	26:14:1940:U:O2	2.67	0.47
22:1L:63:U:HO2'	26:14:2482:G:HO2'	1.58	0.47
26:14:522:G:H2'	26:14:523:C:H6	1.79	0.47
26:14:806:C:OP2	37:35:41:ARG:NH2	2.45	0.47
35:15:59:LYS:HA	35:15:59:LYS:HD2	1.50	0.47
1:1G:147:G:H2'	1:1G:148:G:C8	2.49	0.47
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.49	0.47
1:1G:647:C:H2'	1:1G:648:A:C8	2.50	0.47
26:1H:1440:G:H2'	26:1H:1441:G:C8	2.49	0.47
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.50	0.47
26:1H:2106:G:C6	26:1H:2107:C:C2	3.03	0.47
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.79	0.47
26:1H:2358:G:C5	26:1H:2359:C:C5	3.03	0.47
26:1H:2552:U:H2'	26:1H:2554:U:OP2	2.14	0.47
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.30	0.47
26:1H:518:G:H2'	26:1H:519:U:C6	2.49	0.47
26:1H:654(O):G:H5''	26:1H:654(P):G:C4	2.50	0.47
23:2L:44:A:H2'	23:2L:45:A:H8	1.78	0.47
4:32:119:GLN:HG2	4:32:123:HIS:ND1	2.30	0.47
4:32:150:GLU:C	4:32:152:SER:H	2.18	0.47
37:35:52:GLU:HG3	37:35:55:ARG:HD2	1.97	0.47
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.45	0.47
38:45:118:LEU:HA	38:45:118:LEU:HD23	1.69	0.47
38:45:52:VAL:CG1	38:45:56:ARG:HH11	2.28	0.47
14:5A:24:CYS:HB3	14:5A:27:CYS:O	2.14	0.47
6:5E:61:LEU:HB3	6:5E:63:TYR:HE1	1.80	0.47
26:1H:2563:U:H4'	36:68:28:SER:HA	1.95	0.47
8:72:99:GLU:O	8:72:102:ARG:NH1	2.46	0.47
42:85:39:LEU:HA	42:85:39:LEU:HD23	1.66	0.47
38:88:109:VAL:CG1	38:88:113:GLN:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:15:GLU:HG3	43:95:16:PRO:HD2	1.96	0.47
43:95:64:HIS:ND1	43:95:92:THR:OG1	2.44	0.47
19:AI:23:ASN:OD1	19:AI:43:GLU:HB2	2.13	0.47
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	1.97	0.47
45:B5:35:THR:HG23	45:B5:38:GLU:H	1.80	0.47
20:BI:20:LEU:O	20:BI:23:ARG:N	2.48	0.47
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.97	0.47
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.96	0.47
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.15	0.47
37:78:49:ARG:HH12	55:Q8:61:LEU:HD22	1.74	0.47
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.14	0.47
29:11:228:PRO:O	60:11:401:HOH:O	2.21	0.47
1:13:1053:G:O2'	1:13:1199:U:H5	1.98	0.47
1:13:1315:U:H2'	1:13:1316:G:O4'	2.15	0.47
1:13:134:A:H61	16:7I:25:ARG:NH1	2.12	0.47
26:14:1222:C:C2	26:14:1229(A):G:C2	3.02	0.47
26:14:2577:A:H2'	26:14:2614:A:N6	2.29	0.47
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.79	0.47
35:15:23:LEU:HD12	35:15:99:LEU:HD23	1.96	0.47
10:1A:16:LEU:HD13	10:1A:94:VAL:HG13	1.97	0.47
2:1E:166:ASP:O	2:1E:168:THR:N	2.43	0.47
2:1E:220:ASP:HA	2:1E:223:ILE:HD11	1.96	0.47
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.50	0.47
1:1G:99:C:H2'	1:1G:101:A:C8	2.49	0.47
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.47	0.47
26:1H:1528:A:C6	26:1H:1529:A:N1	2.83	0.47
26:1H:1826:G:H4'	29:11:242:ARG:NH2	2.30	0.47
26:1H:1985:G:C2	26:1H:1986:A:C8	3.02	0.47
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.79	0.47
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.48	0.47
26:1H:2342:C:O2'	26:1H:2374:C:OP1	2.28	0.47
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.14	0.47
26:1H:764:A:H5'	29:11:210:GLY:HA2	1.97	0.47
22:1K:41:A:H2'	22:1K:42:A:H8	1.77	0.47
22:1L:14:A:C5	22:1L:22:G:C2	3.03	0.47
30:29:89:ASP:OD2	30:29:91:VAL:HA	2.15	0.47
4:32:13:ARG:O	4:32:14:ARG:HB3	2.14	0.47
4:32:18:LYS:HE3	4:32:31:CYS:HB3	1.96	0.47
37:35:60:MET:HA	55:M5:13:ARG:NH1	2.30	0.47
1:13:362:G:H4'	12:3I:33:ARG:NH2	2.30	0.47
24:3L:31:A:H5'	24:3L:32:C:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:14:ARG:HG2	13:4A:42:ALA:O	2.14	0.47
5:4E:15:ARG:HD2	5:4E:26:PHE:CD2	2.49	0.47
35:58:51:PHE:CE1	35:58:119:ARG:NE	2.83	0.47
6:5E:10:LEU:HD22	6:5E:61:LEU:HD11	1.97	0.47
15:6I:27:VAL:HG12	15:6I:31:LEU:HD23	1.97	0.47
8:72:29:SER:HB3	8:72:32:LYS:CG	2.37	0.47
9:82:78:LYS:HE3	9:82:101:PHE:CD2	2.50	0.47
1:1G:277:C:P	17:8A:68:ARG:HH12	2.38	0.47
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.47	0.47
1:13:735:C:H5'	18:9I:71:LYS:HD2	1.97	0.47
19:AI:13:ASP:OD1	19:AI:13:ASP:N	2.48	0.47
43:D8:48:GLY:O	43:D8:49:THR:O	2.32	0.47
51:L8:5:LYS:HD2	51:L8:34:GLU:OE1	2.14	0.47
1:13:1127:G:H2'	1:13:1128:C:N1	2.29	0.47
1:13:228:A:H2'	1:13:229:U:O4'	2.14	0.47
1:13:953:G:C2	1:13:954:G:H1'	2.50	0.47
26:14:1167:U:O2	26:14:1183:G:N2	2.47	0.47
26:14:323:G:H1'	26:14:1205:U:O2	2.14	0.47
26:14:1323:U:H2'	26:14:1324:G:H5'	1.96	0.47
26:14:1759:A:H4'	26:14:2715:C:O4'	2.15	0.47
26:14:1859:A:N6	26:14:1883:G:O2'	2.47	0.47
26:14:2305:A:H2'	26:14:2306:C:O4'	2.15	0.47
26:14:2400:G:H3'	26:14:2401:U:C6	2.50	0.47
26:14:362:U:H5'	26:14:363:G:OP2	2.15	0.47
26:14:522:G:H2'	26:14:523:C:C6	2.50	0.47
26:14:815:C:H2'	26:14:816:C:C6	2.49	0.47
29:19:130:ALA:HA	29:19:192:THR:HA	1.97	0.47
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.15	0.47
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.47
1:1G:1254:C:H41	10:1A:43:ARG:HH12	1.62	0.47
1:1G:296:U:H2'	1:1G:297:G:C8	2.49	0.47
1:1G:617:G:N1	1:1G:618:C:C4	2.83	0.47
1:1G:707:C:H2'	1:1G:708:C:H6	1.80	0.47
1:1G:953:G:N7	13:4A:104:ARG:NH2	2.62	0.47
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.46	0.47
26:1H:1796:U:H4'	29:11:256:GLY:H	1.80	0.47
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.15	0.47
26:1H:2521:C:H2'	26:1H:2522:U:C6	2.49	0.47
26:1H:2792:G:C6	26:1H:2805:G:C6	3.03	0.47
36:25:35:VAL:HG11	36:25:103:ALA:CB	2.40	0.47
3:2E:10:PHE:CZ	3:2E:178:LEU:HD21	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:111:LEU:HD11	3:2E:144:SER:O	2.15	0.47
3:2E:157:ILE:HD12	3:2E:164:ARG:HG2	1.97	0.47
4:32:59:ARG:O	4:32:63:LYS:N	2.40	0.47
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.96	0.47
24:3K:19:G:H1	26:1H:2112:G:C1'	2.28	0.47
24:3L:62:C:H1'	28:79:52:ARG:HH21	1.79	0.47
1:1G:1059:C:O3'	14:5A:45:ARG:NH2	2.48	0.47
34:61:69:LYS:HA	34:61:136:VAL:HB	1.97	0.47
40:65:49:VAL:HG22	40:65:80:LEU:HD12	1.95	0.47
34:69:127:VAL:HA	34:69:138:ILE:O	2.14	0.47
37:78:15:ARG:HA	37:78:15:ARG:HD3	1.55	0.47
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.47
1:13:310:G:H4'	16:7I:31:LYS:HE3	1.96	0.47
43:95:39:LEU:HD21	43:95:50:PRO:O	2.15	0.47
43:95:49:THR:OG1	43:95:50:PRO:HD2	2.14	0.47
39:98:24:GLN:HE22	39:98:36:THR:HG21	1.79	0.47
39:98:50:HIS:O	39:98:54:LEU:HD23	2.14	0.47
18:9A:25:THR:CG2	18:9A:42:ARG:HH21	2.27	0.47
41:B8:104:ASN:ND2	41:B8:104:ASN:O	2.48	0.47
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.30	0.47
1:13:1454:G:H2'	1:13:1455:G:C8	2.50	0.47
1:13:1417:G:N2	1:13:1482:G:H2'	2.29	0.47
1:13:292:G:C5	1:13:293:G:H1'	2.49	0.47
1:13:381:C:H2'	1:13:382:A:O4'	2.14	0.47
1:13:637:G:H2'	1:13:638:G:H8	1.79	0.47
1:13:767:A:H2'	1:13:768:A:O4'	2.15	0.47
26:14:1340:U:OP1	45:B5:16:LYS:HE2	2.15	0.47
26:14:1731:G:H2'	26:14:1732:A:C8	2.50	0.47
26:14:1853:A:H2'	26:14:1854:A:C8	2.50	0.47
26:14:322:A:H3'	31:39:169:ASN:OD1	2.15	0.47
26:14:39:C:H2'	26:14:40:C:C6	2.49	0.47
26:14:608:A:H2'	26:14:609:A:C8	2.50	0.47
29:19:25:THR:OG1	29:19:26:LYS:N	2.48	0.47
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.78	0.47
1:1G:1213:A:C6	1:1G:1215:G:C4	3.03	0.47
1:1G:637:G:H2'	1:1G:638:G:C8	2.49	0.47
1:1G:747:C:H3'	1:1G:748:C:C6	2.50	0.47
1:1G:790:A:H2'	1:1G:791:G:C8	2.50	0.47
26:1H:139:G:N3	26:1H:141:A:N1	2.62	0.47
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.45	0.47
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:55:G:C2	26:1H:116:C:C2	3.02	0.47
22:1K:39:PSU:H2'	22:1K:40:C:C6	2.50	0.47
22:1K:52:G:H2'	22:1K:53:G:C8	2.50	0.47
22:1L:22:G:H2'	22:1L:23:A:C8	2.50	0.47
30:21:20:ALA:O	30:21:21:VAL:HG22	2.14	0.47
23:2L:25:U:H2'	23:2L:26:C:O4'	2.14	0.47
13:4A:91:ARG:HG3	13:4A:98:VAL:HA	1.97	0.47
34:61:62:LYS:O	34:61:66:GLU:HG2	2.15	0.47
40:65:5:THR:O	40:65:8:GLU:N	2.48	0.47
34:69:23:PRO:O	34:69:27:ARG:HG2	2.14	0.47
1:13:1240:U:OP1	7:6E:119:ARG:NH2	2.48	0.47
7:6E:71:PRO:HG3	7:6E:103:TRP:CZ3	2.50	0.47
9:82:95:LYS:NZ	9:82:96:LEU:HD13	2.30	0.47
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	1.96	0.47
48:E5:32:ARG:HG2	48:E5:33:ALA:H	1.80	0.47
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.14	0.47
51:L8:37:LEU:HD12	51:L8:43:ILE:HD13	1.95	0.47
1:13:1129:C:H4'	1:13:1130:A:C8	2.50	0.47
1:13:1366:C:H2'	1:13:1367:C:C6	2.50	0.47
1:13:1469:G:H2'	1:13:1470:G:C8	2.49	0.47
1:13:21:G:H2'	1:13:22:G:C8	2.50	0.47
1:13:376:G:H2'	1:13:377:G:C8	2.50	0.47
1:13:652:U:HO2'	1:13:653:A:P	2.38	0.47
26:14:1048:A:C8	26:14:1110:G:N2	2.83	0.47
26:14:1054:A:C6	26:14:1104:C:N3	2.82	0.47
1:1G:1418:A:H2	26:14:1948:G:N3	2.12	0.47
26:14:2038:G:H2'	26:14:2039:C:O4'	2.14	0.47
26:14:2312:U:O5'	32:49:74:LYS:NZ	2.47	0.47
26:14:2747:G:O6	26:14:2754:U:H3'	2.15	0.47
26:14:1654:A:C1'	26:14:2823:A:H5'	2.44	0.47
26:14:573:G:O2'	26:14:574:C:H3'	2.15	0.47
26:14:708:C:N4	26:14:723:G:H1	2.09	0.47
26:14:921:G:C6	26:14:922:U:C4	3.03	0.47
29:19:108:PRO:HD2	29:19:111:LEU:HG	1.96	0.47
1:1G:142:G:H2'	1:1G:143:A:C8	2.47	0.47
1:1G:176:C:H2'	1:1G:177:C:C6	2.50	0.47
1:1G:976:G:P	14:5A:32:SER:H	2.38	0.47
26:1H:1358:G:N2	26:1H:1372:U:C5	2.83	0.47
26:1H:1553:A:HO2'	26:1H:1554:A:H8	1.61	0.47
26:1H:1684:C:N3	26:1H:1705:G:C2	2.83	0.47
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:216:A:C4	26:1H:432:A:C2	3.03	0.47
26:1H:747:U:C4	26:1H:2613:U:C5	3.02	0.47
26:1H:2667:C:H2'	26:1H:2668:G:O4'	2.15	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.47
26:1H:38:A:H2'	26:1H:39:C:C6	2.50	0.47
26:1H:70:G:H21	26:1H:71:A:H62	1.63	0.47
23:2L:15:G:N2	23:2L:22:A:H1'	2.30	0.47
4:3E:78:LEU:HB3	4:3E:93:PHE:HE1	1.80	0.47
5:42:91:LEU:HD23	5:42:120:THR:HG22	1.96	0.47
13:4I:27:LYS:HA	13:4I:31:LYS:NZ	2.30	0.47
33:51:30:LYS:HE2	33:51:81:GLU:N	2.19	0.47
14:5A:12:ARG:HH11	14:5A:12:ARG:HG3	1.80	0.47
1:1G:1216:G:H5''	14:5A:5:ALA:HB3	1.96	0.47
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.50	0.47
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.14	0.47
15:6I:26:GLU:OE1	15:6I:81:LEU:HD22	2.15	0.47
41:75:5:ALA:O	41:75:8:LYS:HB3	2.14	0.47
8:7E:29:SER:HB3	8:7E:32:LYS:HB2	1.95	0.47
42:85:66:ASN:HD21	42:85:70:ARG:NH2	2.12	0.47
43:95:69:LYS:HD3	43:95:86:GLY:HA3	1.97	0.47
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.30	0.47
40:A8:11:LYS:HE2	40:A8:91:PRO:HD3	1.97	0.47
45:B5:84:ALA:HB3	45:B5:87:GLN:NE2	2.30	0.47
41:B8:25:GLY:HA2	41:B8:99:LEU:HD21	1.96	0.47
55:M5:43:GLN:HG3	55:M5:46:ARG:NH2	2.30	0.47
32:41:98:ARG:HH21	52:M8:1:MET:HE3	1.76	0.47
29:11:6:PHE:HE1	29:11:18:VAL:HG23	1.79	0.47
2:12:217:ARG:C	2:12:219:VAL:H	2.18	0.47
1:13:1497:G:C2'	1:13:1498:U:H5'	2.45	0.47
1:13:37:U:O2'	1:13:500:G:H4'	2.15	0.47
1:13:948:C:O2'	1:13:949:A:H5'	2.14	0.47
26:14:1116:C:H2'	26:14:1117:G:C8	2.49	0.47
26:14:1268:A:H2'	26:14:1269:A:O4'	2.14	0.47
26:14:1461:G:H2'	26:14:1462:C:C6	2.50	0.47
26:14:146:G:H2'	26:14:147:U:O4'	2.15	0.47
26:14:150:C:H2'	26:14:151:C:C6	2.50	0.47
26:14:1731:G:H2'	26:14:1732:A:H8	1.79	0.47
26:14:1794:U:O2'	26:14:1795:C:H5'	2.15	0.47
26:14:2082:A:H2'	26:14:2083:G:O4'	2.15	0.47
26:14:2104:G:C2	26:14:2105:C:N4	2.83	0.47
26:14:2536:G:C6	26:14:2537:U:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:398:G:H2'	26:14:399:G:C8	2.50	0.47
26:14:654(S):G:N2	26:14:654(T):A:C5	2.83	0.47
26:14:908:C:OP1	38:45:22:LYS:HD3	2.14	0.47
27:16:66:A:H61	27:16:107:U:H2'	1.80	0.47
29:19:126:GLN:O	29:19:193:VAL:HG13	2.15	0.47
1:1G:256:U:H3	1:1G:270:A:H61	1.63	0.47
1:1G:87:A:C5	1:1G:88:C:C4	3.02	0.47
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.15	0.47
26:1H:1988:C:H2'	26:1H:1989:G:O4'	2.15	0.47
26:1H:2682:U:C6	30:21:11:MET:HE2	2.50	0.47
26:1H:412:A:H2'	26:1H:412:A:N3	2.30	0.47
26:1H:609:A:H8	26:1H:609:A:O5'	1.98	0.47
3:22:110:ASN:HB3	3:22:141:VAL:CG1	2.45	0.47
11:2A:17:GLY:N	11:2A:77:MET:SD	2.88	0.47
12:3A:59:ARG:HE	12:3A:59:ARG:HB2	1.52	0.47
1:1G:922:G:H1'	5:42:19:MET:HB3	1.97	0.47
32:49:47:LYS:HD3	32:49:81:LYS:HG3	1.97	0.47
1:1G:673:G:H5''	6:52:87:ARG:CZ	2.45	0.47
6:5E:23:LYS:O	6:5E:27:GLN:HG3	2.15	0.47
7:6E:70:LYS:HG2	7:6E:96:GLN:HB3	1.97	0.47
28:71:4:GLY:HA3	28:71:6:ARG:NH2	2.30	0.47
41:75:90:GLN:OE1	41:75:121:ILE:HD11	2.14	0.47
9:82:86:VAL:HB	9:82:96:LEU:HD23	1.95	0.47
38:88:11:LYS:NZ	38:88:88:GLY:O	2.37	0.47
1:13:130:A:P	17:8I:63:ARG:HE	2.38	0.47
19:AI:30:LEU:HA	19:AI:48:THR:O	2.15	0.47
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.15	0.47
42:C8:49:HIS:HA	42:C8:52:ARG:HB3	1.96	0.47
47:D5:77:ASP:OD1	47:D5:80:ARG:NH1	2.47	0.47
43:D8:71:LEU:HD22	43:D8:84:LYS:HE2	1.97	0.47
44:E8:76:VAL:CG2	44:E8:101:SER:HB3	2.45	0.47
47:H8:28:MET:SD	47:H8:37:VAL:HG11	2.55	0.47
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.48	0.47
1:13:538:G:OP2	12:3I:115:LYS:HD3	2.15	0.46
1:13:663:A:H5'	1:13:836:G:OP1	2.16	0.46
1:13:723:U:H5''	1:13:724:G:OP2	2.16	0.46
1:13:954:G:H2'	1:13:955:U:C6	2.50	0.46
26:14:1751:C:O2'	26:14:1752:C:H5'	2.15	0.46
26:14:2377:A:H2'	26:14:2378:A:C8	2.50	0.46
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.46
1:1G:1157:A:H2	1:1G:1180:A:C5	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:164:U:H2'	1:1G:165:C:C6	2.50	0.46
1:1G:164:U:H2'	1:1G:165:C:H6	1.80	0.46
1:1G:532:A:H2	1:1G:1055:A:H1'	1.81	0.46
1:1G:620:C:C2	4:32:135:LEU:CD1	2.97	0.46
1:1G:636:U:H2'	1:1G:637:G:H8	1.80	0.46
1:1G:681:C:H2'	1:1G:682:G:H8	1.80	0.46
1:1G:749:C:H2'	1:1G:750:G:H8	1.80	0.46
1:1G:889:A:H61	1:1G:907:A:H5''	1.80	0.46
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.15	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.83	0.46
26:1H:1408:C:C2	26:1H:1595:G:N2	2.83	0.46
26:1H:2270:G:H2'	26:1H:2271:G:O4'	2.15	0.46
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.15	0.46
26:1H:634:C:H2'	26:1H:635:C:C6	2.50	0.46
26:1H:709:U:H2'	26:1H:710:G:C8	2.51	0.46
26:1H:973:A:O4'	26:1H:1188:U:C6	2.68	0.46
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.15	0.46
10:1I:15:THR:HA	10:1I:18:ALA:HB3	1.98	0.46
22:1L:39:PSU:H2'	22:1L:40:C:H6	1.79	0.46
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.59	0.46
3:22:19:GLU:O	3:22:56:ASP:HA	2.14	0.46
36:25:92:GLU:HG2	36:25:113:LYS:HZ1	1.78	0.46
30:29:51:PHE:O	30:29:74:PRO:HB2	2.15	0.46
11:2A:100:ALA:O	11:2A:102:GLY:N	2.48	0.46
3:2E:188:LEU:HD13	3:2E:189:ALA:N	2.30	0.46
23:2K:24:C:H2'	23:2K:25:U:C6	2.50	0.46
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.50	0.46
4:3E:22:LYS:HB2	58:3E:302:SF4:S4	2.55	0.46
4:3E:81:GLU:HG2	4:3E:81:GLU:H	1.49	0.46
12:3I:93:LEU:HD23	12:3I:93:LEU:HA	1.66	0.46
7:6E:77:SER:HB3	24:3K:33:U:OP1	2.16	0.46
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	1.97	0.46
33:51:116:GLU:HG3	33:51:117:PRO:HD2	1.98	0.46
7:6E:133:GLY:HA2	7:6E:136:LYS:HG2	1.97	0.46
8:7E:109:ILE:HD11	8:7E:120:THR:CG2	2.45	0.46
19:AA:33:THR:HG23	19:AA:35:SER:H	1.80	0.46
41:B8:111:ARG:O	41:B8:112:ARG:HG2	2.14	0.46
41:B8:88:ILE:O	41:B8:88:ILE:HG13	2.16	0.46
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.96	0.46
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.96	0.46
2:12:189:ASP:OD1	2:12:189:ASP:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.98	0.46
1:13:429:U:H3'	4:3E:9:CYS:SG	2.55	0.46
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.46
26:14:1044:G:O2'	26:14:1047:G:O2'	2.22	0.46
26:14:1055:G:N3	26:14:1055:G:H2'	2.31	0.46
26:14:142:G:H5''	26:14:1598:C:O2'	2.15	0.46
26:14:1434:A:H61	26:14:1558:A:N6	2.10	0.46
26:14:2134:A:C5	26:14:2158:A:C8	3.03	0.46
26:14:235:U:H2'	26:14:236:C:C6	2.50	0.46
26:14:2408:U:H2'	26:14:2409:G:C8	2.50	0.46
26:14:784:A:H5'	26:14:785:G:OP1	2.16	0.46
26:14:820:A:N3	26:14:943:U:H4'	2.31	0.46
26:14:858:U:OP2	48:E5:77:ARG:NH2	2.42	0.46
26:14:2208:U:O4'	29:19:151:LYS:HE2	2.15	0.46
2:1E:131:PRO:HD2	2:1E:134:GLU:HB3	1.98	0.46
1:1G:1291:G:H5''	9:82:39:GLY:O	2.16	0.46
1:1G:269:C:H2'	1:1G:270:A:H8	1.79	0.46
1:1G:420:U:O2'	1:1G:423:G:O6	2.22	0.46
1:1G:626:U:C2	1:1G:627:G:C8	3.03	0.46
26:1H:1431:U:C2	26:1H:1563:G:N2	2.83	0.46
26:1H:1684:C:C2	26:1H:1705:G:N2	2.84	0.46
26:1H:2030:A:H4'	26:1H:2031:A:C8	2.50	0.46
26:1H:2093:G:C6	26:1H:2225:A:C8	3.04	0.46
26:1H:646:A:H2'	26:1H:647:G:O4'	2.15	0.46
22:1L:68:G:H2'	22:1L:69:A:N7	2.30	0.46
30:21:52:LEU:HD23	30:21:52:LEU:HA	1.75	0.46
23:2L:22:A:N6	23:2L:47:G7M:H1'	2.30	0.46
31:31:134:GLY:H	31:31:162:LEU:HB3	1.80	0.46
37:35:15:ARG:HH21	37:35:17:LYS:HD2	1.79	0.46
31:39:9:ILE:HB	31:39:128:ALA:HB2	1.97	0.46
4:3E:12:CYS:SG	4:3E:18:LYS:HA	2.55	0.46
5:42:139:LEU:HA	5:42:142:LEU:HD11	1.97	0.46
32:49:50:ALA:HA	32:49:53:LEU:HD22	1.96	0.46
1:1G:948:C:C6	13:4A:106:ASN:ND2	2.83	0.46
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.98	0.46
4:3E:20:TYR:CZ	6:52:15:ASP:HB3	2.51	0.46
35:58:114:ARG:O	35:58:118:LYS:HG3	2.16	0.46
28:71:64:LEU:HD21	28:71:192:PHE:HB2	1.98	0.46
16:7I:20:VAL:CG2	16:7I:32:TYR:CG	2.98	0.46
42:85:65:ILE:O	42:85:68:ALA:N	2.48	0.46
40:A8:87:PHE:HZ	40:A8:98:VAL:HG12	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.74	0.46
45:F8:35:THR:HG22	45:F8:38:GLU:OE1	2.15	0.46
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.33	0.46
50:K8:64:LEU:O	50:K8:68:ARG:HG3	2.14	0.46
29:11:37:LEU:HG	29:11:37:LEU:H	1.18	0.46
26:1H:1569:A:O5'	29:11:61:LEU:HD21	2.15	0.46
1:13:130:A:O5'	17:8I:63:ARG:NE	2.47	0.46
1:13:484:G:O2'	1:13:485:G:OP2	2.24	0.46
1:13:735:C:H2'	1:13:736:C:H6	1.80	0.46
26:14:1204:A:C2	26:14:1241:A:N1	2.82	0.46
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.46
27:16:78:A:C2	27:16:99:A:C4	3.03	0.46
2:1E:19:HIS:O	2:1E:39:ILE:HD12	2.15	0.46
1:1G:1004:A:H61	1:1G:1023:G:H1	1.62	0.46
1:1G:1039:C:H2'	1:1G:1040:U:C5	2.50	0.46
1:1G:134:A:H1'	1:1G:325:A:C5	2.51	0.46
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.15	0.46
26:1H:1125:G:C6	26:1H:1126:A:N6	2.83	0.46
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.30	0.46
26:1H:1204:A:C2	26:1H:1241:A:N1	2.83	0.46
26:1H:150:C:H2'	26:1H:151:C:C6	2.50	0.46
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.50	0.46
26:1H:2061:G:C2	26:1H:2063:C:C4	3.03	0.46
26:1H:2173:A:H8	26:1H:2173:A:OP1	1.97	0.46
26:1H:446:G:OP1	42:C8:3:ARG:NH1	2.49	0.46
26:1H:496:G:H1'	44:E8:61:ASN:OD1	2.14	0.46
26:1H:49:A:N7	26:1H:120:U:C5	2.76	0.46
26:1H:55:G:N3	26:1H:56:A:C8	2.84	0.46
26:1H:880:G:H2'	26:1H:881:G:N7	2.31	0.46
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.30	0.46
27:1J:21:G:H2'	27:1J:22:U:O4'	2.14	0.46
30:29:117:MET:HA	30:29:122:PHE:N	2.29	0.46
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.97	0.46
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.50	0.46
31:31:116:ASP:HA	31:31:119:ARG:NH2	2.30	0.46
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.46	0.46
4:32:85:LYS:HB3	4:32:85:LYS:HE2	1.71	0.46
12:3A:83:VAL:HG13	12:3A:100:ILE:HG23	1.97	0.46
1:1G:1536:C:H42	25:4L:8:A:H62	1.62	0.46
33:51:8:PRO:O	33:51:10:PRO:HD3	2.15	0.46
35:58:34:LEU:HA	35:58:34:LEU:HD12	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:7:TYR:CE2	40:65:91:PRO:HG3	2.51	0.46
34:69:76:THR:HA	34:69:105:HIS:CE1	2.51	0.46
7:6E:140:ASP:OD2	7:6E:143:ARG:NH2	2.48	0.46
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.96	0.46
15:6I:17:ARG:HG3	15:6I:17:ARG:HH11	1.80	0.46
28:71:28:LEU:HD21	28:71:222:VAL:HG11	1.97	0.46
38:88:19:GLY:O	38:88:98:LYS:HD3	2.15	0.46
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.98	0.46
40:A8:7:TYR:HA	40:A8:10:ARG:NH2	2.31	0.46
41:B8:34:VAL:CG2	41:B8:41:ARG:HG3	2.45	0.46
20:BA:10:LEU:O	20:BA:10:LEU:HD13	2.14	0.46
48:E5:38:VAL:HG12	48:E5:59:LEU:CG	2.45	0.46
49:F5:87:PRO:O	49:F5:91:LYS:N	2.48	0.46
46:G8:76:CYS:HB2	46:G8:82:PRO:HG3	1.96	0.46
49:J8:8:SER:OG	49:J8:10:LYS:HG3	2.16	0.46
1:13:66:G:O4'	1:13:173:U:C4	2.69	0.46
26:14:13:A:N1	26:14:525:U:H2'	2.31	0.46
26:14:2315:G:H2'	26:14:2316:C:C6	2.50	0.46
26:14:643:A:H61	26:14:2369:A:H2	1.62	0.46
26:14:2461:C:H2'	26:14:2462:U:C6	2.49	0.46
26:14:2690:C:H6	26:14:2690:C:OP2	1.99	0.46
26:14:2760:C:H2'	26:14:2761:G:C8	2.50	0.46
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.51	0.46
1:1G:1189:C:H5''	1:1G:1190:G:OP2	2.15	0.46
1:1G:751:U:H2'	1:1G:752:G:O4'	2.16	0.46
1:1G:843:U:H3'	1:1G:848:C:O4'	2.14	0.46
1:1G:862:C:O2'	1:1G:863:U:H5'	2.16	0.46
26:1H:1845:G:O2'	26:1H:1846:G:H5'	2.15	0.46
26:1H:2057:A:H2'	26:1H:2058:A:C8	2.51	0.46
26:1H:2081:C:O2'	26:1H:2082:A:H5'	2.15	0.46
26:1H:2250:G:C6	38:88:83:MET:HB3	2.50	0.46
22:1K:74:C:H42	26:1H:2508:G:H5'	1.81	0.46
26:1H:470:A:H2'	26:1H:471:A:O4'	2.14	0.46
26:1H:731:C:H2'	26:1H:732:C:C6	2.50	0.46
26:1H:803:U:C4	26:1H:804:A:N7	2.84	0.46
26:1H:992:C:H2'	26:1H:993:G:H8	1.81	0.46
27:1J:104:A:H2'	27:1J:105:G:O4'	2.15	0.46
22:1L:68:G:H2'	22:1L:69:A:C8	2.51	0.46
30:21:116:VAL:CG2	30:21:122:PHE:CD2	2.98	0.46
30:21:201:THR:HG22	30:21:202:LYS:N	2.30	0.46
30:29:4:ILE:CD1	30:29:198:VAL:HB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:191:ARG:HB3	31:31:191:ARG:HH11	1.80	0.46
4:32:4:TYR:CZ	4:32:11:LEU:HD11	2.50	0.46
31:39:27:GLU:O	31:39:28:ILE:HG12	2.15	0.46
31:39:65:TRP:HB3	31:39:66:PRO:HD2	1.97	0.46
24:3K:29:U:H2'	24:3K:30:G:C8	2.50	0.46
32:49:139:LEU:HD22	32:49:146:TYR:CE2	2.51	0.46
32:49:165:THR:OG1	32:49:168:GLU:HG3	2.16	0.46
13:4I:34:LEU:HD13	13:4I:41:PRO:HB3	1.96	0.46
35:58:51:PHE:CZ	35:58:119:ARG:HG2	2.51	0.46
33:59:74:ASN:O	33:59:78:GLY:N	2.49	0.46
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.15	0.46
40:65:89:ARG:O	40:65:92:TYR:N	2.47	0.46
34:69:112:LYS:O	34:69:113:ARG:HG2	2.16	0.46
34:69:91:SER:HB3	34:69:119:PRO:HB2	1.98	0.46
7:6E:143:ARG:HH11	24:3K:42:A:P	2.38	0.46
28:71:207:THR:O	28:71:210:ARG:HD3	2.15	0.46
37:78:37:GLY:N	37:78:40:SER:OG	2.47	0.46
16:7A:1:MET:O	16:7A:24:ALA:N	2.32	0.46
1:1G:377:G:H5'	16:7A:5:ARG:NH1	2.30	0.46
8:7E:39:LEU:HD11	8:7E:111:ILE:HD11	1.97	0.46
42:85:18:LEU:HA	42:85:18:LEU:HD23	1.81	0.46
26:14:17:G:H4'	42:85:25:TRP:CH2	2.50	0.46
41:B8:92:GLY:HA2	41:B8:116:ALA:HA	1.97	0.46
41:B8:2:ASN:HB3	41:B8:3:ARG:H	1.56	0.46
52:M8:1:MET:H3	52:M8:1:MET:HE3	1.79	0.46
29:11:28:GLU:HA	29:11:29:PRO:HD2	1.44	0.46
1:13:1301:U:H2'	1:13:1301:U:O2	2.14	0.46
1:13:173:U:H5''	1:13:197:A:O4'	2.15	0.46
1:13:198:G:O6	1:13:219:C:N4	2.49	0.46
1:13:329:A:C4	1:13:332:G:C5	3.04	0.46
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.43	0.46
26:14:1582:C:O2'	26:14:1586:A:H8	1.99	0.46
26:14:1771:C:H1'	26:14:1786:A:H8	1.80	0.46
26:14:499:U:H4'	46:C5:45:VAL:HG21	1.98	0.46
26:14:654(A):A:H2	26:14:654(T):A:N7	2.13	0.46
35:15:118:LYS:HA	35:15:118:LYS:HD2	1.72	0.46
29:19:182:LEU:HB3	29:19:271:ILE:HG13	1.97	0.46
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.96	0.46
1:1G:1077:G:N2	1:1G:1080:A:OP2	2.46	0.46
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.33	0.46
1:1G:894:G:C6	1:1G:895:G:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1266:G:O4'	44:E8:15:ARG:NH2	2.49	0.46
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.80	0.46
26:1H:1434:A:H61	26:1H:1558:A:H62	1.63	0.46
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.31	0.46
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.51	0.46
22:1L:26:A:OP1	22:1L:26:A:H4'	2.15	0.46
22:1L:51:A:N3	22:1L:64:G:N2	2.63	0.46
36:25:71:ARG:HE	36:25:105:GLU:CD	2.19	0.46
31:31:157:VAL:HB	31:31:194:MET:HG2	1.96	0.46
31:31:184:TYR:HE1	37:78:3:LEU:HD11	1.80	0.46
4:32:108:LEU:HB2	4:32:174:LEU:HD22	1.98	0.46
4:32:177:ASP:O	4:32:180:GLY:N	2.43	0.46
4:3E:85:LYS:O	4:3E:88:VAL:HG23	2.15	0.46
12:3I:38:THR:HB	12:3I:57:LYS:HB3	1.98	0.46
24:3K:49:G:H2'	24:3K:49:G:N3	2.30	0.46
5:42:152:ARG:O	8:72:64:LYS:HD3	2.15	0.46
32:49:78:SER:HA	32:49:81:LYS:O	2.15	0.46
33:51:40:GLU:O	33:51:41:MET:HE3	2.15	0.46
33:51:4:ILE:O	33:51:6:ARG:HG3	2.15	0.46
33:51:88:LEU:HD12	33:51:129:THR:O	2.16	0.46
14:5A:28:GLY:O	14:5A:29:ARG:HG2	2.15	0.46
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.98	0.46
15:6I:10:LYS:NZ	15:6I:11:VAL:HA	2.29	0.46
37:78:85:LEU:HA	37:78:85:LEU:HD23	1.82	0.46
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.80	0.46
1:1G:1369:C:OP2	9:82:111:ARG:HA	2.15	0.46
44:A5:20:VAL:HG23	44:A5:47:VAL:HG21	1.97	0.46
19:AA:12:ASP:HB2	19:AA:38:SER:HA	1.98	0.46
49:F5:27:GLU:H	49:F5:27:GLU:HG2	1.47	0.46
47:H8:10:ARG:HH21	47:H8:26:GLY:H	1.62	0.46
49:J8:86:SER:O	49:J8:90:ILE:HG12	2.16	0.46
2:12:91:PRO:CG	2:12:154:LEU:HB2	2.45	0.46
2:12:213:LEU:HG	2:12:214:ILE:HD13	1.97	0.46
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.51	0.46
1:13:1424:C:H42	1:13:1476:G:H1	1.64	0.46
1:13:164:U:H2'	1:13:165:C:C6	2.50	0.46
1:13:384:G:H2'	1:13:385:C:C6	2.51	0.46
1:13:297:G:H4'	1:13:557:G:H4'	1.98	0.46
1:13:724:G:C2	1:13:725:G:C8	3.04	0.46
1:13:848:C:H2'	1:13:849:C:O4'	2.16	0.46
1:13:968:A:H4'	1:13:969:A:OP2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1366:A:H2'	26:14:1367:A:O4'	2.15	0.46
26:14:1810:A:H2'	26:14:1811:G:O4'	2.15	0.46
26:14:2068:U:H3	26:14:2430:A:H2	1.56	0.46
26:14:1889:A:N1	26:14:2234:G:H1'	2.31	0.46
26:14:2695:C:H2'	26:14:2696:U:C6	2.50	0.46
26:14:569:U:C4	26:14:570:G:C6	3.04	0.46
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.51	0.46
29:19:119:ALA:HA	29:19:130:ALA:O	2.15	0.46
2:1E:162:ILE:HG13	2:1E:177:ALA:HB2	1.97	0.46
2:1E:49:GLU:N	2:1E:49:GLU:OE1	2.46	0.46
1:1G:628:G:H2'	1:1G:629:G:C8	2.50	0.46
26:1H:1047:G:H4'	26:1H:1048:A:O5'	2.15	0.46
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.97	0.46
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.16	0.46
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.16	0.46
26:1H:2118:U:C1'	26:1H:2147:G:H1	2.28	0.46
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.81	0.46
26:1H:2635:C:H5''	30:21:78:LEU:HA	1.98	0.46
3:22:47:LEU:HD12	3:22:50:ALA:HB3	1.98	0.46
31:31:108:LYS:HE2	31:31:108:LYS:HB3	1.86	0.46
31:31:197:ASP:O	31:31:198:ALA:HB3	2.16	0.46
31:31:20:LEU:HD12	31:31:21:ALA:H	1.81	0.46
4:32:64:LEU:HA	4:32:67:ILE:HD12	1.97	0.46
12:3A:92:ASP:O	12:3A:93:LEU:HD23	2.15	0.46
4:3E:84:LYS:HA	4:3E:84:LYS:HD3	1.51	0.46
1:13:585:G:H4'	12:3I:8:ASN:OD1	2.15	0.46
32:41:107:LEU:HD11	32:41:178:PHE:HE1	1.81	0.46
5:42:92:LYS:N	5:42:119:LEU:O	2.33	0.46
13:4A:64:TRP:NE1	13:4A:66:LEU:HD23	2.30	0.46
5:4E:27:ARG:HB2	5:4E:27:ARG:HE	1.54	0.46
6:52:42:GLU:HG2	6:52:61:LEU:HG	1.96	0.46
39:55:8:ARG:O	39:55:17:ARG:HD3	2.16	0.46
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.97	0.46
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.97	0.46
9:82:17:VAL:HG21	9:82:81:ILE:HG13	1.97	0.46
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.96	0.46
44:A5:65:LEU:HD13	44:A5:68:ARG:CD	2.46	0.46
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.15	0.46
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.16	0.46
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.14	0.46
47:D5:24:LEU:O	47:D5:38:TYR:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:37:VAL:HG12	43:D8:56:SER:HB2	1.98	0.46
44:A5:23:LEU:HD21	53:J5:25:LEU:HB3	1.98	0.46
1:1G:1158:C:HO2'	2:12:133:LYS:HZ2	1.56	0.46
2:12:172:ILE:H	2:12:172:ILE:HD12	1.79	0.46
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.31	0.46
1:13:422:C:H4'	1:13:423:G:O5'	2.15	0.46
1:13:464:G:O6	1:13:466:C:H4'	2.16	0.46
1:13:663:A:H2'	1:13:664:G:O4'	2.15	0.46
1:13:922:G:C6	1:13:923:A:C6	3.04	0.46
26:14:1057:A:H3'	26:14:1058:U:C6	2.51	0.46
26:14:1359:A:H5'	26:14:1359:A:H8	1.81	0.46
26:14:1942:C:OP2	26:14:1943:U:O2'	2.11	0.46
26:14:1991:U:C2'	26:14:1992:G:H5''	2.46	0.46
26:14:315:G:H2'	26:14:316:C:C6	2.51	0.46
26:14:463:G:N2	26:14:466:A:OP2	2.46	0.46
26:14:597:U:H2'	26:14:598:G:H8	1.76	0.46
26:14:754:C:H2'	26:14:755:C:H6	1.80	0.46
26:14:674:G:H2'	26:14:804:A:H61	1.81	0.46
26:14:946:G:H2'	26:14:947:G:H8	1.81	0.46
29:19:136:ILE:HG23	29:19:137:PRO:HD2	1.98	0.46
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.30	0.46
2:1E:21:ARG:C	2:1E:23:ARG:H	2.18	0.46
1:1G:1129:C:N4	1:1G:1139:G:H22	2.14	0.46
1:1G:1236:A:H4'	1:1G:1304:G:H4'	1.97	0.46
1:1G:1359:C:H5''	60:1G:1760:HOH:O	2.14	0.46
1:1G:584:G:OP1	17:8A:87:LYS:HD2	2.15	0.46
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.15	0.46
26:1H:1443:G:N2	26:1H:1549:C:C2	2.83	0.46
26:1H:1808:U:H2'	26:1H:1809:A:O4'	2.16	0.46
26:1H:1913:A:H4'	26:1H:1914:C:O5'	2.15	0.46
26:1H:2355:C:O2	48:I8:39:ARG:NH2	2.46	0.46
26:1H:2453:A:OP2	60:1H:3558:HOH:O	2.21	0.46
26:1H:2468:G:O4'	26:1H:2468:G:N3	2.49	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.51	0.46
26:1H:301:G:C4	26:1H:302:C:C5	3.04	0.46
26:1H:353:G:H2'	26:1H:354:G:C8	2.50	0.46
30:21:203:LYS:HD2	30:21:203:LYS:O	2.16	0.46
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.79	0.46
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.51	0.46
30:29:32:PRO:HG3	30:29:90:THR:HG22	1.97	0.46
12:3A:91:LYS:HG3	12:3A:91:LYS:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:97:ASP:O	32:41:100:TRP:N	2.49	0.46
5:4E:145:LYS:O	5:4E:148:VAL:HB	2.15	0.46
26:1H:1668:A:OP1	36:68:5:GLN:HG3	2.16	0.46
26:14:2123:G:H1'	28:79:172:HIS:CD2	2.50	0.46
8:7E:103:VAL:HG12	8:7E:138:TRP:HD1	1.80	0.46
16:7I:7:ALA:HB3	16:7I:18:ARG:HB2	1.98	0.46
38:88:20:ALA:HB3	47:H8:79:ARG:CZ	2.44	0.46
38:88:23:GLY:H	47:H8:78:LYS:HE3	1.81	0.46
40:A8:12:PHE:HA	40:A8:15:ARG:HB2	1.97	0.46
46:C5:37:VAL:O	46:C5:67:LEU:N	2.48	0.46
47:D5:130:PRO:HA	47:D5:133:ILE:HD11	1.97	0.46
47:D5:53:ILE:CG2	47:D5:71:VAL:HG23	2.28	0.46
50:G5:50:ILE:CD1	50:G5:51:ARG:N	2.73	0.46
46:G8:96:ILE:HD12	46:G8:101:LYS:HE2	1.98	0.46
50:K8:15:LYS:HD3	50:K8:67:LYS:HZ3	1.81	0.46
55:M5:60:LEU:HD23	55:M5:60:LEU:HA	1.79	0.46
52:M8:9:LEU:HD12	52:M8:27:THR:H	1.81	0.46
1:13:109:A:C6	1:13:326:G:C6	3.03	0.46
1:13:240:C:H2'	1:13:241:C:H6	1.81	0.46
1:13:5:U:H3'	4:3E:86:LYS:HE3	1.98	0.46
1:13:953:G:C6	1:13:954:G:C4	3.04	0.46
1:13:992:U:H4'	1:13:993:G:O5'	2.16	0.46
26:14:1728:G:N3	26:14:1728:G:H5''	2.31	0.46
26:14:1812:A:O2'	29:19:45:ASN:HB2	2.15	0.46
26:14:1828:G:O6	29:19:222:ARG:HD3	2.16	0.46
26:14:2505:G:H2'	26:14:2576:G:O6	2.16	0.46
26:14:383:U:H2'	26:14:385:C:H5	1.79	0.46
1:1G:1347:G:H22	1:1G:1374:A:P	2.39	0.46
1:1G:49:U:O4'	12:3A:28:LYS:NZ	2.41	0.46
1:1G:667:G:H2'	1:1G:668:G:C8	2.50	0.46
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.51	0.46
26:1H:551:G:O5'	26:1H:551:G:H8	1.99	0.46
26:1H:681:G:H2'	26:1H:682:G:O4'	2.16	0.46
26:1H:71:A:H4'	26:1H:72:U:H5''	1.97	0.46
26:1H:941:A:H3'	26:1H:942:G:C8	2.50	0.46
22:1K:6:G:O2'	22:1K:7:U:O5'	2.26	0.46
3:22:90:GLU:O	3:22:93:LYS:HE2	2.16	0.46
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.98	0.46
23:2K:17:C:HO2'	23:2K:18:C:H5	1.60	0.46
31:31:185:ASP:OD1	31:31:188:ARG:HD3	2.16	0.46
4:32:100:ARG:HG2	4:32:136:PRO:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.97	0.46
12:3A:111:LYS:H	12:3A:111:LYS:CD	2.20	0.46
4:3E:84:LYS:HB2	4:3E:85:LYS:HE2	1.96	0.46
32:41:67:LYS:HZ2	52:M8:6:HIS:CE1	2.34	0.46
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.96	0.46
32:49:97:ASP:N	32:49:100:TRP:HD1	2.11	0.46
32:49:121:ASN:OD1	32:49:124:SER:N	2.49	0.46
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.97	0.46
26:1H:2751:G:C2	33:51:3:ARG:HB3	2.51	0.46
1:1G:1047:G:H5'	14:5A:4:LYS:HE2	1.97	0.46
34:69:142:VAL:HG12	34:69:143:SER:N	2.29	0.46
15:6I:81:LEU:O	15:6I:85:LEU:HB2	2.16	0.46
8:7E:97:VAL:HG12	8:7E:98:LYS:HE3	1.98	0.46
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.97	0.46
20:BI:79:ARG:HG2	20:BI:83:ARG:NH1	2.30	0.46
42:C8:92:ARG:HH21	43:D8:10:LYS:HG2	1.80	0.46
26:1H:1188:U:H5'	43:D8:79:VAL:HG22	1.98	0.46
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.49	0.46
51:H5:38:GLU:HG3	51:H5:39:ASP:H	1.80	0.46
47:H8:10:ARG:HH21	47:H8:26:GLY:N	2.14	0.46
26:1H:2016:U:H1'	53:N8:6:VAL:CG1	2.46	0.46
1:13:61:G:H1	1:13:106:C:H42	1.64	0.46
1:13:169:C:H2'	1:13:170:U:H5'	1.97	0.46
1:13:352:C:O2'	1:13:353:A:O3'	2.34	0.46
1:13:753:A:H4'	1:13:754:C:C5'	2.46	0.46
26:14:1259:G:H2'	26:14:1260:G:H8	1.80	0.46
26:14:1717:G:H2'	26:14:1718:G:O4'	2.16	0.46
26:14:1921:G:H2'	26:14:1922:G:H8	1.79	0.46
26:14:2552:U:O5'	26:14:2552:U:H6	1.98	0.46
26:14:2615:U:C2	53:J5:7:PRO:HA	2.51	0.46
26:14:2635:C:H5'	30:29:78:LEU:HD12	1.98	0.46
26:14:2799:A:H5'	26:14:2801:A:O4'	2.16	0.46
26:14:547:A:H2'	26:14:548:A:C8	2.51	0.46
26:14:841:A:H61	26:14:937:U:H3	1.63	0.46
29:19:38:LYS:HE3	29:19:38:LYS:HB3	1.46	0.46
1:1G:841:U:H4'	1:1G:842:C:C5	2.51	0.46
1:1G:97:U:H2'	1:1G:99:C:C6	2.51	0.46
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.15	0.46
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.16	0.46
26:1H:2590:A:C2	26:1H:2605:U:C2	3.04	0.46
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:61:G:C6	27:1J:62:C:C4	3.04	0.46
3:2E:47:LEU:HB2	3:2E:52:LEU:HD13	1.98	0.46
31:31:28:ILE:O	31:31:28:ILE:HD12	2.15	0.46
4:32:13:ARG:C	4:32:15:GLU:H	2.19	0.46
4:32:145:GLU:HG3	4:32:182:LYS:HG3	1.98	0.46
4:32:182:LYS:NZ	4:32:184:LYS:HE2	2.31	0.46
37:35:138:LEU:HD13	37:35:138:LEU:O	2.15	0.46
37:35:21:ARG:HE	37:35:21:ARG:HA	1.80	0.46
31:39:184:TYR:CE2	31:39:188:ARG:HD3	2.51	0.46
32:41:79:ASN:N	32:41:79:ASN:OD1	2.49	0.46
13:4A:82:MET:HG3	13:4A:83:ASP:H	1.81	0.46
5:4E:122:GLU:HG2	5:4E:131:ILE:CD1	2.46	0.46
6:52:23:LYS:HG2	6:52:61:LEU:HD21	1.98	0.46
34:61:41:GLU:OE2	34:61:42:SER:OG	2.20	0.46
34:69:101:LEU:H	34:69:101:LEU:HD23	1.81	0.46
41:75:132:LYS:HB2	41:75:133:GLU:OE1	2.16	0.46
37:78:68:GLN:HG2	55:Q8:12:LYS:HD3	1.97	0.46
37:78:94:GLU:HG3	37:78:96:THR:HG23	1.98	0.46
28:79:45:ALA:HB3	28:79:171:ILE:HG21	1.98	0.46
42:85:92:ARG:NH1	43:95:11:GLN:H	2.13	0.46
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.49	0.46
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.97	0.46
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	1.97	0.46
46:G8:28:LYS:HE3	46:G8:40:GLU:HB2	1.98	0.46
2:12:56:ARG:H	2:12:56:ARG:HG3	1.54	0.46
1:13:1004:A:N3	1:13:1004:A:H5''	2.31	0.46
1:13:1333:A:H2'	1:13:1334:G:O4'	2.16	0.46
1:13:1511:G:H2'	1:13:1512:U:O4'	2.15	0.46
1:13:1534:A:H8	1:13:1534:A:P	2.39	0.46
1:13:243:A:H4'	1:13:244:U:H5''	1.97	0.46
1:13:266:G:H8	1:13:266:G:H2'	1.68	0.46
1:13:321:A:N6	1:13:328:C:H1'	2.27	0.46
1:13:946:A:H2'	1:13:947:G:C8	2.51	0.46
26:14:142:G:H2'	26:14:143:C:H6	1.80	0.46
26:14:1946:U:H2'	26:14:1947:C:H6	1.80	0.46
26:14:2173:A:HO2'	26:14:2174:C:P	2.39	0.46
26:14:2438:U:H5''	26:14:2600:A:OP1	2.16	0.46
26:14:2873:A:H3'	26:14:2874:C:C6	2.51	0.46
26:14:528:A:N1	26:14:2042:A:H2'	2.31	0.46
26:14:639:U:H2'	26:14:640:C:C6	2.50	0.46
26:14:661:C:H1'	37:35:12:ALA:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:14:U:O3'	27:16:107:U:O2'	2.29	0.46
29:19:31:LYS:HZ1	29:19:102:LYS:HD3	1.80	0.46
29:19:262:ARG:NH1	29:19:263:ARG:N	2.64	0.46
1:1G:107:G:C2	1:1G:108:G:H1'	2.51	0.46
1:1G:1157:A:O4'	1:1G:1158:C:H6	1.99	0.46
1:1G:1316:G:H22	1:1G:1319:A:P	2.39	0.46
1:1G:176:C:O2'	1:1G:177:C:H5'	2.16	0.46
1:1G:491:G:C6	1:1G:492:G:C5	3.04	0.46
1:1G:771:G:H2'	1:1G:772:U:C6	2.50	0.46
1:1G:980:C:H3'	1:1G:981:U:C6	2.51	0.46
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.78	0.46
26:1H:1728:G:C3'	26:1H:1729:A:H5'	2.35	0.46
26:1H:2075:U:H2'	26:1H:2238:G:N2	2.31	0.46
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.15	0.46
26:1H:94:G:H2'	26:1H:95:G:O4'	2.16	0.46
22:1K:60:U:H5'	22:1K:61:C:H5	1.81	0.46
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.98	0.46
3:22:182:ILE:HA	3:22:202:ILE:O	2.16	0.46
3:2E:125:GLU:HG2	3:2E:190:ARG:O	2.16	0.46
4:32:26:CYS:SG	58:32:301:SF4:S1	3.12	0.46
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.97	0.46
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.81	0.46
13:4I:16:ASP:N	13:4I:16:ASP:OD1	2.48	0.46
39:55:115:GLU:HG3	39:55:116:LEU:O	2.16	0.46
35:58:14:VAL:HG21	35:58:33:LEU:HD23	1.98	0.46
15:6A:76:GLU:HA	15:6A:79:ARG:CZ	2.46	0.46
7:6E:22:LEU:HD22	7:6E:62:PHE:CZ	2.51	0.46
28:71:41:VAL:O	28:71:175:VAL:HG22	2.16	0.46
9:82:20:ARG:O	9:82:60:ASP:N	2.47	0.46
38:88:136:ALA:HB1	47:H8:52:SER:HB2	1.98	0.46
17:8I:88:TYR:CD1	17:8I:89:LEU:HD22	2.44	0.46
20:BI:36:LEU:HD12	20:BI:55:ILE:HG23	1.97	0.46
48:E5:21:LEU:HD23	48:E5:21:LEU:HA	1.80	0.46
44:E8:59:VAL:HG11	44:E8:66:GLU:HB2	1.98	0.46
26:1H:298:G:N7	46:G8:84:ARG:NH1	2.64	0.46
29:11:31:LYS:HG3	29:11:33:LEU:HD21	1.98	0.45
29:11:35:LYS:O	29:11:35:LYS:CG	2.65	0.45
2:12:179:LYS:HD3	2:12:180:LEU:HG	1.98	0.45
2:12:187:LEU:HD22	2:12:188:ALA:N	2.31	0.45
1:13:991:U:C5	1:13:1212:U:H1'	2.51	0.45
1:13:1453:G:H2'	20:BI:39:LYS:CE	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1486:G:C6	1:13:1487:G:C6	3.05	0.45
1:13:186(C):G:C6	1:13:191(E):G:C6	3.04	0.45
1:13:329:A:C5	1:13:332:G:C6	3.04	0.45
1:13:57:G:H2'	1:13:58:C:H6	1.79	0.45
1:13:718:G:H5'	11:2I:117:ASN:HB2	1.97	0.45
26:14:1091:G:N2	26:14:1092:C:N3	2.62	0.45
26:14:1190:G:OP1	37:35:32:THR:HA	2.16	0.45
26:14:1204:A:N1	26:14:1241:A:H2	2.14	0.45
26:14:588:U:H2'	26:14:589:C:C6	2.51	0.45
26:14:853:G:H1	26:14:924:C:H42	1.64	0.45
29:19:175:LEU:HD21	29:19:185:VAL:CG2	2.47	0.45
10:1A:36:GLY:O	10:1A:38:ILE:HG23	2.16	0.45
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.51	0.45
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.51	0.45
21:1F:17:THR:O	21:1F:22:ARG:HD3	2.16	0.45
1:1G:146:G:H2'	1:1G:147:G:C8	2.49	0.45
1:1G:414:A:H2'	1:1G:415:A:C8	2.51	0.45
1:1G:639:G:H2'	1:1G:640:A:H8	1.81	0.45
1:1G:837:G:H2'	1:1G:838:G:C8	2.51	0.45
26:1H:1110:G:O2'	26:1H:1111:A:OP2	2.28	0.45
26:1H:858:U:O2	26:1H:2268:A:H2'	2.16	0.45
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.51	0.45
26:1H:507:A:H5''	26:1H:508:G:H3'	1.98	0.45
26:1H:822:U:O2'	26:1H:823:G:H5'	2.15	0.45
22:1K:75:C:H2'	22:1K:76:A:C4	2.51	0.45
22:1L:9:A:H3'	22:1L:10:G:N7	2.31	0.45
3:22:43:LEU:HD21	3:22:68:VAL:HG21	1.97	0.45
30:29:116:VAL:O	30:29:117:MET:HG2	2.16	0.45
4:32:82:ALA:HB3	4:32:89:THR:HG23	1.97	0.45
26:14:1243:G:H1'	37:35:4:SER:O	2.15	0.45
31:39:49:ALA:O	31:39:92:PRO:HB2	2.16	0.45
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.71	0.45
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.16	0.45
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.97	0.45
1:1G:1216:G:H5''	14:5A:5:ALA:CB	2.46	0.45
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.31	0.45
40:65:77:ALA:HB1	40:65:82:ILE:HG12	1.98	0.45
36:68:71:ARG:HH21	36:68:77:ILE:HG21	1.80	0.45
15:6A:76:GLU:OE2	15:6A:79:ARG:NH1	2.49	0.45
28:71:216:THR:HB	28:71:218:MET:H	1.80	0.45
16:7A:2:VAL:HA	16:7A:23:ASP:HA	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:44:PHE:HE2	8:7E:109:ILE:CG2	2.29	0.45
46:C5:47:LYS:HA	46:C5:60:PHE:CE2	2.51	0.45
47:D5:102:LEU:HD23	47:D5:137:ILE:O	2.15	0.45
43:D8:15:GLU:O	43:D8:96:ILE:HB	2.17	0.45
26:1H:484:C:OP1	46:G8:51:VAL:HG22	2.16	0.45
47:H8:151:HIS:HA	47:H8:170:THR:HA	1.97	0.45
50:K8:47:ASN:ND2	50:K8:47:ASN:H	2.14	0.45
54:P8:13:ALA:O	54:P8:17:GLY:HA3	2.16	0.45
55:Q8:49:VAL:O	55:Q8:51:ALA:N	2.48	0.45
29:11:146:GLU:HG3	29:11:190:TYR:H	1.81	0.45
2:12:12:GLU:HG3	2:12:16:HIS:ND1	2.30	0.45
1:13:123:C:OP1	1:13:312:C:H5'	2.16	0.45
1:13:609:A:H2'	1:13:610:G:H5'	1.98	0.45
1:13:626:U:C2	1:13:627:G:C8	3.05	0.45
26:14:1358:G:O2'	26:14:1359:A:H5''	2.15	0.45
26:14:2232:U:O2'	26:14:2233:U:H5'	2.15	0.45
26:14:860:U:C2	26:14:2268:A:C8	3.04	0.45
26:14:2647:U:O2	26:14:2673:G:N2	2.33	0.45
26:14:2841:C:H2'	26:14:2842:G:C8	2.51	0.45
26:14:2873:A:H8	39:55:6:SER:N	2.09	0.45
26:14:49:A:H4'	26:14:50:U:H5''	1.98	0.45
26:14:642:G:H3'	26:14:642:G:C8	2.51	0.45
26:14:649:G:H2'	26:14:650:C:H6	1.80	0.45
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.52	0.45
26:14:1798:U:H5'	29:19:259:THR:OG1	2.17	0.45
2:1E:165:VAL:HG23	2:1E:166:ASP:N	2.29	0.45
2:1E:187:LEU:HD21	2:1E:211:ILE:HG22	1.96	0.45
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.16	0.45
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.33	0.45
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.17	0.45
1:1G:1524:C:H2'	1:1G:1525:G:C8	2.51	0.45
1:1G:184:G:C2'	1:1G:185:A:H5'	2.46	0.45
1:1G:555:C:H2'	1:1G:556:C:C6	2.51	0.45
26:1H:1287:A:H3'	26:1H:1288:U:C6	2.52	0.45
26:1H:1423:G:C4	26:1H:1424:G:C8	3.04	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.64	0.45
26:1H:1799:G:C5'	26:1H:1819:A:H61	2.30	0.45
26:1H:1906:G:O2'	26:1H:1907:G:H5'	2.16	0.45
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.80	0.45
26:1H:2315:G:H5''	26:1H:2316:C:OP2	2.16	0.45
26:1H:2335:A:C8	26:1H:2337:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:103:ASP:N	30:29:200:GLU:O	2.44	0.45
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.81	0.45
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.56	0.45
3:2E:42:LEU:HD13	3:2E:42:LEU:HA	1.85	0.45
4:32:24:GLU:O	4:32:27:TYR:N	2.48	0.45
24:3L:18:G:H2'	24:3L:57:G:N2	2.31	0.45
32:41:96:ARG:O	32:41:97:ASP:HB2	2.16	0.45
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.98	0.45
13:4I:82:MET:C	13:4I:84:ILE:H	2.20	0.45
33:51:2:SER:O	33:51:2:SER:OG	2.33	0.45
6:52:76:ALA:HB1	6:52:80:ARG:NH2	2.26	0.45
26:1H:558:G:P	35:58:111:PRO:HD2	2.57	0.45
35:58:130:HIS:CA	35:58:134:ARG:HH22	2.30	0.45
34:61:145:VAL:HG22	34:61:146:ALA:H	1.81	0.45
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.98	0.45
28:71:22:ILE:HD11	28:71:226:PRO:O	2.15	0.45
8:7E:109:ILE:HG23	8:7E:137:VAL:CG2	2.39	0.45
26:1H:2867:G:P	41:B8:119:LYS:HZ1	2.37	0.45
41:B8:19:LEU:HD22	41:B8:86:ILE:HG22	1.97	0.45
26:14:483:A:H5'	46:C5:49:VAL:HG23	1.99	0.45
50:K8:62:THR:O	50:K8:66:GLU:HG2	2.16	0.45
54:L5:5:TRP:CD1	54:L5:7:PRO:HG3	2.51	0.45
52:M8:38:LYS:HE3	52:M8:44:THR:HG21	1.97	0.45
54:P8:35:ARG:HG3	54:P8:42:LEU:HD11	1.98	0.45
1:13:22:G:H2'	1:13:23:C:C6	2.51	0.45
1:13:380:G:C2	1:13:384:G:C6	3.04	0.45
1:13:590:C:N4	1:13:649:G:H1	2.15	0.45
1:13:690:G:H2'	1:13:691:G:O4'	2.17	0.45
1:13:696:A:N1	1:13:797:C:O2'	2.39	0.45
26:14:1109:C:H2'	26:14:1110:G:C1'	2.44	0.45
26:14:1418:G:H2'	26:14:1579:A:N6	2.31	0.45
26:14:1753:G:N1	26:14:1756:G:C2	2.85	0.45
26:14:1973:G:H2'	26:14:1974:C:C6	2.50	0.45
26:14:2165:G:C3'	26:14:2166:G:H5'	2.46	0.45
26:14:2637:U:C4	26:14:2638:G:C6	3.04	0.45
26:14:638:G:H2'	26:14:639:U:O4'	2.17	0.45
26:14:958:U:O2	27:1J:89(A):A:O2'	2.29	0.45
1:1G:1023:G:H5''	1:1G:1024:G:N2	2.31	0.45
1:1G:1122:U:C2'	1:1G:1123:A:H5'	2.47	0.45
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.16	0.45
1:1G:1296:C:H5'	13:4A:14:ARG:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:888:G:H4'	1:1G:1489:G:H5'	1.98	0.45
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.51	0.45
26:1H:1371:G:H2'	26:1H:1372:U:C5	2.51	0.45
26:1H:1466:G:H2'	26:1H:1547:C:N4	2.31	0.45
26:1H:1550:C:O2'	26:1H:1551:C:H5'	2.16	0.45
26:1H:1696:G:C6	26:1H:1697:G:C4	3.04	0.45
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.15	0.45
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.81	0.45
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.51	0.45
26:1H:274:G:H1'	26:1H:276:A:C2	2.51	0.45
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.05	0.45
27:1J:52:A:H61	40:65:33:LYS:HD3	1.80	0.45
27:1J:4:C:H2'	27:1J:5:C:C6	2.51	0.45
30:29:54:GLN:H	30:29:74:PRO:CB	2.27	0.45
4:32:15:GLU:OE1	4:32:59:ARG:NH2	2.46	0.45
26:14:389:G:H22	37:35:72:PRO:HD3	1.81	0.45
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.46	0.45
32:49:18:GLU:O	32:49:22:ARG:N	2.50	0.45
32:49:56:ALA:HA	32:49:59:GLU:HB3	1.98	0.45
33:59:56:SER:HB3	33:59:61:HIS:CE1	2.52	0.45
33:59:6:ARG:HH22	33:59:54:ARG:HH12	1.63	0.45
15:6I:71:GLN:HG2	15:6I:78:TYR:CE1	2.51	0.45
9:82:58:HIS:HB3	9:82:59:PHE:CZ	2.52	0.45
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.16	0.45
42:C8:65:ILE:CG1	42:C8:96:ALA:HB2	2.46	0.45
45:F8:44:GLU:HG2	45:F8:49:VAL:O	2.16	0.45
45:F8:52:VAL:HG22	45:F8:82:GLN:O	2.16	0.45
50:K8:38:GLN:NE2	50:K8:44:LEU:O	2.47	0.45
26:1H:851:U:O2'	51:L8:42:ALA:O	2.35	0.45
1:13:1422:G:O3'	36:68:49:ARG:NH2	2.49	0.45
1:13:807:A:H2'	1:13:808:C:C6	2.51	0.45
26:14:2104:G:H2'	26:14:2105:C:C6	2.51	0.45
26:14:2459:A:C4	26:14:2460:U:C5	3.05	0.45
35:15:128:HIS:NE2	35:15:134:ARG:HD3	2.31	0.45
29:19:44:ASN:HB3	29:19:46:GLN:N	2.31	0.45
2:1E:197:VAL:O	8:7E:68:ARG:NH2	2.47	0.45
2:1E:67:THR:HG22	2:1E:68:ILE:N	2.31	0.45
1:1G:1063:C:H5	1:1G:1064:G:HO2'	1.63	0.45
1:1G:115:G:H4'	1:1G:116:A:O5'	2.15	0.45
1:1G:678:U:H2'	1:1G:679:C:C6	2.52	0.45
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.17	0.45
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.51	0.45
26:1H:1782:C:O4'	26:1H:2609:U:C2	2.69	0.45
26:1H:2886:G:H2'	26:1H:2887:U:C6	2.51	0.45
26:1H:518:G:H2'	26:1H:519:U:H6	1.81	0.45
26:1H:628:G:H2'	26:1H:629:G:C8	2.51	0.45
26:1H:649:G:C5	26:1H:650:C:C4	3.05	0.45
26:1H:862:G:H5'	27:16:79:C:H4'	1.99	0.45
3:22:190:ARG:HE	3:22:190:ARG:HA	1.80	0.45
4:32:24:GLU:HG2	4:32:25:ARG:N	2.28	0.45
12:3A:89:ARG:HG2	12:3A:90:VAL:N	2.31	0.45
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.49	0.45
4:3E:122:ARG:NH1	4:3E:135:LEU:HD13	2.30	0.45
32:41:143:GLU:HG2	52:M8:27:THR:HG22	1.98	0.45
32:49:73:ALA:HB1	32:49:82:LEU:HD11	1.97	0.45
22:1K:34:U8U:HN3	25:4K:21:A:H2	1.65	0.45
1:13:1350:A:H2	7:6E:34:GLY:HA3	1.82	0.45
28:71:66:HIS:NE2	28:71:184:LYS:HB3	2.31	0.45
41:75:18:ASP:OD1	41:75:18:ASP:N	2.50	0.45
28:79:207:THR:HG22	28:79:209:LEU:H	1.80	0.45
38:88:5:ARG:HH22	38:88:6:ARG:CZ	2.29	0.45
17:8I:27:PHE:O	17:8I:35:VAL:HA	2.16	0.45
40:A8:8:GLU:H	40:A8:8:GLU:HG2	1.53	0.45
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.98	0.45
41:B8:50:ILE:CD1	41:B8:102:ILE:HD13	2.45	0.45
20:BA:86:ARG:NH1	20:BA:86:ARG:HB2	2.31	0.45
46:C5:67:LEU:HA	46:C5:67:LEU:HD12	1.70	0.45
42:C8:15:LYS:HE2	42:C8:15:LYS:HB3	1.55	0.45
47:D5:101:PRO:HA	47:D5:123:ASP:N	2.32	0.45
29:11:218:ARG:HB3	29:11:219:PRO:HD2	1.98	0.45
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.17	0.45
2:12:127:ILE:HG12	2:12:135:GLN:NE2	2.32	0.45
1:13:1313:U:O4	19:AI:3:ARG:HA	2.16	0.45
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.16	0.45
1:13:355:C:H2'	1:13:356:A:O4'	2.17	0.45
1:13:445:G:H1	1:13:489:C:N4	2.04	0.45
1:13:458:C:H42	1:13:474:G:H1	1.65	0.45
1:13:657:G:H4'	15:6I:28:GLN:HG2	1.99	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.13	0.45
26:14:1728:G:O6	26:14:1730:U:H5'	2.16	0.45
26:14:2155:G:H2'	26:14:2156:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2557:G:H2'	26:14:2558:C:C6	2.51	0.45
26:14:270(E):G:C2	26:14:270(V):G:C2	3.05	0.45
26:14:510:C:H2'	26:14:511:U:O4'	2.17	0.45
26:14:995:C:OP2	42:85:54:LYS:NZ	2.45	0.45
27:16:44:G:H1'	27:16:47:C:H42	1.80	0.45
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.52	0.45
29:19:143:HIS:NE2	29:19:192:THR:OG1	2.49	0.45
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.16	0.45
1:1G:1243:C:O2	1:1G:1295:G:N2	2.49	0.45
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.15	0.45
1:1G:631:G:H1'	1:1G:632:A:C8	2.52	0.45
26:1H:1176:G:H2'	26:1H:1177:A:C2	2.52	0.45
26:1H:1212:G:O2'	26:1H:1213:A:OP2	2.30	0.45
26:1H:1449:A:N7	26:1H:1449(A):G:C8	2.85	0.45
26:1H:1443:G:N2	26:1H:1549:C:O2	2.49	0.45
26:1H:1911:U:O4	26:1H:1918:A:H2'	2.17	0.45
26:1H:2127:G:C6	26:1H:2128:C:C4	3.04	0.45
26:1H:2329:G:H2'	26:1H:2330:G:C8	2.52	0.45
26:1H:637:A:H4'	26:1H:638:G:O5'	2.16	0.45
26:1H:724:U:H2'	26:1H:725:G:O4'	2.16	0.45
22:1K:3:G:C2	22:1K:71:C:H1'	2.52	0.45
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.61	0.45
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.51	0.45
11:2A:50:TYR:HD2	11:2A:54:ARG:HB3	1.81	0.45
24:3L:56:C:H2'	24:3L:57:G:C8	2.52	0.45
32:41:38:VAL:HB	32:41:158:ALA:HB3	1.97	0.45
32:41:16:ARG:HH21	32:41:31:VAL:HG21	1.81	0.45
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.98	0.45
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.45
35:58:96:GLU:HG2	35:58:97:ARG:N	2.32	0.45
27:1J:114:G:O2'	40:65:50:SER:OG	2.34	0.45
16:7I:35:LYS:HE2	16:7I:37:GLY:O	2.17	0.45
43:95:5:VAL:HA	43:95:37:VAL:HB	1.99	0.45
19:AA:41:VAL:HG23	19:AA:43:GLU:H	1.81	0.45
41:B8:7:ILE:O	41:B8:10:VAL:N	2.49	0.45
47:D5:48:PHE:O	47:D5:52:SER:OG	2.30	0.45
50:G5:46:GLN:HA	50:G5:46:GLN:OE1	2.17	0.45
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.16	0.45
1:13:1142:G:H3'	1:13:1143:G:H8	1.82	0.45
1:13:1305:G:H8	1:13:1305:G:OP2	1.99	0.45
1:13:627:G:H2'	1:13:628:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:720:C:OP2	1:13:721:G:O2'	2.30	0.45
1:13:725:G:C2	1:13:726:C:C6	3.05	0.45
26:14:1430:C:H2'	26:14:1431:U:H6	1.79	0.45
26:14:2335:A:C8	26:14:2337:G:C5	3.04	0.45
26:14:2443:C:H2'	26:14:2444:G:C8	2.48	0.45
29:19:121:PRO:HB3	29:19:135:PHE:CD2	2.51	0.45
1:1G:1028(A):C:N4	1:1G:1028(B):C:H41	2.15	0.45
1:1G:1086:U:H2'	1:1G:1087:G:H8	1.81	0.45
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.51	0.45
1:1G:619:U:O2	4:32:135:LEU:HD22	2.16	0.45
1:1G:947:G:H2'	1:1G:948:C:C6	2.52	0.45
26:1H:1287:A:C5	26:1H:1288:U:C4	3.05	0.45
26:1H:1392:A:C6	26:1H:1393:A:C6	3.05	0.45
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.34	0.45
26:1H:1845:G:OP1	29:11:258:LYS:NZ	2.37	0.45
26:1H:2450:A:C2	26:1H:2451:A:C4	3.05	0.45
26:1H:2505:G:O2'	26:1H:2506:U:H5'	2.17	0.45
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.51	0.45
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.52	0.45
26:1H:2881:C:O3'	39:98:96:ARG:HG3	2.16	0.45
26:1H:649:G:C6	26:1H:650:C:C4	3.05	0.45
26:1H:657:U:H2'	26:1H:658:C:C6	2.51	0.45
26:1H:805:G:H4'	26:1H:806:C:OP2	2.17	0.45
27:1J:5:C:O2'	27:1J:27:C:O2	2.34	0.45
31:39:178:PRO:HG2	31:39:179:GLU:OE1	2.16	0.45
12:3A:41:ARG:HG2	12:3A:42:THR:N	2.30	0.45
4:3E:111:ALA:HB1	4:3E:116:GLN:HB3	1.99	0.45
4:3E:151:LYS:HE2	4:3E:151:LYS:HB3	1.80	0.45
32:41:125:PHE:HB3	32:41:166:ASP:CG	2.36	0.45
32:41:67:LYS:CD	32:41:67:LYS:N	2.76	0.45
5:42:110:LEU:HD23	5:42:110:LEU:HA	1.84	0.45
5:42:43:LEU:HD11	5:42:132:ALA:HB1	1.97	0.45
32:49:36:LYS:O	32:49:160:VAL:HG23	2.17	0.45
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.51	0.45
13:4I:49:THR:HG22	13:4I:51:ALA:N	2.26	0.45
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.51	0.45
10:1I:64:GLU:OE1	14:5I:59:ALA:CA	2.64	0.45
28:71:214:VAL:HB	28:71:224:ILE:HG21	1.99	0.45
41:75:16:ARG:HB2	41:75:79:HIS:CD2	2.51	0.45
28:79:46:LYS:O	28:79:210:ARG:N	2.40	0.45
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:94:GLU:H	47:D5:130:PRO:HD2	1.80	0.45
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.31	0.45
6:5E:81:ILE:HD11	29:11:125:ILE:HB	1.98	0.45
1:13:1124:G:H3'	1:13:1145:C:N4	2.32	0.45
1:13:119:A:N7	1:13:288:A:C2	2.85	0.45
1:13:303:A:C5	1:13:304:U:C5	3.05	0.45
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.15	0.45
26:14:142:G:H2'	26:14:143:C:C6	2.52	0.45
26:14:1774:C:H6	26:14:1774:C:O5'	1.99	0.45
26:14:2290:G:H2'	26:14:2291:U:O4'	2.17	0.45
26:14:951:C:O2'	26:14:952:G:H5'	2.16	0.45
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.82	0.45
2:1E:124:SER:HB3	2:1E:125:PRO:HD2	1.99	0.45
1:1G:1053:G:N7	1:1G:1199:U:H3'	2.32	0.45
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.50	0.45
1:1G:1178:G:OP2	9:82:93:ARG:NH2	2.50	0.45
1:1G:1343:G:C5	1:1G:1344:C:C4	3.04	0.45
1:1G:507:C:H3'	1:1G:508:C:H2'	1.99	0.45
1:1G:614:A:N6	1:1G:626:U:H3	2.08	0.45
1:1G:707:C:H2'	1:1G:708:C:C6	2.51	0.45
26:1H:1047:G:H2'	26:1H:1110:G:N7	2.32	0.45
26:1H:118:A:OP2	26:1H:119:A:H2'	2.16	0.45
26:1H:1344:G:H4'	26:1H:1384:A:C5	2.52	0.45
26:1H:1348:G:H5''	26:1H:1349:A:OP2	2.17	0.45
26:1H:2205:C:H2'	26:1H:2206:C:H6	1.82	0.45
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.39	0.45
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.52	0.45
26:1H:386:G:H4'	26:1H:387:U:OP2	2.16	0.45
26:1H:880:G:HO2'	26:1H:881:G:P	2.40	0.45
22:1L:9:A:H2'	22:1L:9:A:N3	2.31	0.45
3:22:134:ILE:HG23	3:22:151:VAL:HB	1.98	0.45
3:22:21:ARG:O	3:22:58:GLU:HA	2.17	0.45
36:25:111:PHE:N	36:25:111:PHE:CD1	2.84	0.45
36:25:22:ILE:HD13	36:25:22:ILE:HA	1.58	0.45
30:29:201:THR:HG22	30:29:202:LYS:N	2.32	0.45
26:1H:674:G:HO2'	31:31:67:GLN:HE22	1.63	0.45
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.97	0.45
24:3K:55:U:N3	24:3K:58:A:C8	2.83	0.45
32:49:15:VAL:HG13	32:49:175:LEU:HB2	1.99	0.45
14:5I:29:ARG:HD3	14:5I:31:ARG:O	2.17	0.45
34:61:29:TYR:O	34:61:32:PRO:HD2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:107:GLU:H	40:65:110:LEU:HD11	1.82	0.45
40:65:69:VAL:HG13	40:65:101:LEU:HD13	1.98	0.45
34:69:116:LEU:HD11	34:69:120:ILE:HG13	1.99	0.45
28:71:47:LEU:HB2	28:71:169:GLY:O	2.17	0.45
8:72:29:SER:O	8:72:32:LYS:HB2	2.17	0.45
8:7E:37:ARG:HH21	8:7E:41:ARG:HH11	1.64	0.45
9:82:34:ASN:O	9:82:38:GLN:HB3	2.17	0.45
9:8E:11:LYS:O	9:8E:13:ALA:N	2.49	0.45
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.31	0.45
46:C5:52:SER:O	46:C5:52:SER:OG	2.26	0.45
49:F5:56:GLN:NE2	49:F5:83:GLU:HA	2.32	0.45
49:F5:82:LEU:CG	49:F5:83:GLU:H	2.28	0.45
47:H8:44:PHE:HE2	47:H8:86:VAL:HG11	1.82	0.45
48:I8:26:TYR:O	48:I8:67:VAL:HG13	2.17	0.45
54:P8:35:ARG:O	54:P8:38:GLY:N	2.36	0.45
1:13:16:A:O2'	1:13:17:U:H5'	2.17	0.45
1:13:486:U:H2'	1:13:487:A:H8	1.81	0.45
1:13:782:A:H62	1:13:800:G:H21	1.64	0.45
1:13:947:G:H2'	1:13:948:C:O4'	2.16	0.45
26:14:1138:G:C4	26:14:1139:G:H1'	2.51	0.45
26:14:1159:U:OP1	51:H5:30:ARG:NH1	2.50	0.45
26:14:1169:G:H1	26:14:1180:C:N4	2.15	0.45
26:14:1312:U:O5'	45:B5:63:LYS:HE3	2.17	0.45
26:14:1412:A:H2'	26:14:1413:G:C8	2.52	0.45
26:14:139:G:N2	26:14:141:A:N1	2.63	0.45
26:14:1730:U:H5''	26:14:1731:G:N2	2.27	0.45
26:14:2864:G:OP1	41:75:119:LYS:HD2	2.17	0.45
26:14:2845:G:N2	26:14:2871:C:O2	2.36	0.45
26:14:587:C:H4'	26:14:588:U:C6	2.52	0.45
26:14:674:G:O2'	31:39:74:ARG:HD3	2.16	0.45
26:14:7:G:H2'	26:14:8:A:C8	2.51	0.45
26:14:910:A:C6	26:14:911:A:C6	3.05	0.45
26:14:848:G:C4	26:14:933:A:C8	3.04	0.45
1:1G:1377:A:H2'	7:62:7:ALA:HB3	1.99	0.45
1:1G:1430:C:H2'	1:1G:1431:C:C6	2.52	0.45
1:1G:38:G:C2	1:1G:397:A:C2	3.05	0.45
1:1G:620:C:N3	4:32:135:LEU:CD1	2.79	0.45
1:1G:730:G:C5	1:1G:731:G:H1'	2.51	0.45
26:1H:2097:C:H2'	26:1H:2098:U:O4'	2.16	0.45
26:1H:844:C:H3'	26:1H:845:G:C8	2.52	0.45
26:1H:929:G:O6	60:1H:3517:HOH:O	2.21	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:43:LEU:HA	3:22:46:GLU:HG2	1.99	0.45
30:29:201:THR:C	30:29:202:LYS:HZ2	2.20	0.45
11:2A:14:VAL:HG12	11:2A:15:ALA:N	2.25	0.45
23:2K:29:C:H2'	23:2K:30:G:H8	1.81	0.45
31:31:126:VAL:O	31:31:195:ASP:HA	2.17	0.45
37:35:80:TYR:HA	37:35:111:ARG:O	2.17	0.45
32:41:145:THR:HG23	52:M8:28:LYS:NZ	2.32	0.45
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.50	0.45
5:4E:13:ILE:HA	5:4E:13:ILE:HD13	1.72	0.45
33:51:153:LYS:HE2	33:51:153:LYS:HB3	1.86	0.45
34:61:68:LEU:HA	34:61:71:ILE:CG2	2.46	0.45
7:62:132:GLY:H	7:62:135:VAL:HB	1.81	0.45
40:65:102:ALA:O	40:65:105:ALA:N	2.50	0.45
40:65:99:LYS:HE2	40:65:103:GLU:OE2	2.16	0.45
28:79:15:ASP:HB3	28:79:20:TYR:OH	2.17	0.45
6:5E:89:MET:HE1	18:9I:72:ARG:HB3	1.98	0.45
30:21:18:ASP:HA	41:B8:82:LEU:HD11	1.98	0.45
20:BI:100:ILE:HG12	20:BI:101:GLY:N	2.31	0.45
42:C8:28:ARG:HD3	42:C8:38:THR:OG1	2.17	0.45
49:F5:91:LYS:HE2	49:F5:91:LYS:HB2	1.78	0.45
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.17	0.45
54:L5:8:ASN:OD1	54:L5:11:LYS:N	2.29	0.45
32:41:104:GLU:CD	52:M8:23:GLU:HG3	2.37	0.45
53:N8:20:ARG:HA	53:N8:23:HIS:CE1	2.50	0.45
29:11:30:GLU:HG3	29:11:63:ARG:NH2	2.31	0.45
1:13:300:A:H1'	1:13:565:U:O2	2.16	0.45
1:13:942:G:C2	1:13:943:U:C6	3.04	0.45
26:14:330:A:H2	26:14:1210:A:O2'	2.00	0.45
26:14:1226:G:H5'	43:95:85:LYS:HA	1.99	0.45
26:14:1229:G:N2	26:14:1229(A):G:H1'	2.31	0.45
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.51	0.45
26:14:1515:C:H2'	26:14:1516:U:H6	1.80	0.45
26:14:1709:U:H2'	26:14:1710:C:C6	2.51	0.45
26:14:1907:G:C6	26:14:1908:C:C4	3.05	0.45
26:14:2053:G:C2	26:14:2617:C:C2	3.05	0.45
26:14:1954:G:C2	26:14:2551:C:H5''	2.52	0.45
26:14:2859:G:H3'	26:14:2859:G:C8	2.52	0.45
26:14:446:G:OP2	60:14:3426:HOH:O	2.21	0.45
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.45	0.45
1:1G:1240:U:OP2	7:62:116:ALA:N	2.50	0.45
1:1G:1347:G:C6	9:82:107:ARG:NH2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:451:A:N6	1:1G:480:U:H2'	2.32	0.45
26:1H:1826:G:O2'	29:11:242:ARG:NH2	2.50	0.45
26:1H:486:C:H4'	44:E8:60:ASN:OD1	2.17	0.45
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.28	0.45
26:1H:654(S):G:O2'	26:1H:654(T):A:OP2	2.31	0.45
22:1L:39:PSU:H2'	22:1L:40:C:C6	2.52	0.45
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.52	0.45
3:22:88:ARG:O	3:22:91:LEU:HD13	2.16	0.45
31:31:164:ARG:NH1	31:31:164:ARG:HG2	2.32	0.45
26:1H:443:A:H3'	31:31:45:ARG:NH2	2.32	0.45
31:31:66:PRO:O	31:31:67:GLN:CB	2.58	0.45
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.17	0.45
4:32:107:ARG:HD3	4:32:173:TRP:CH2	2.52	0.45
4:32:32:ALA:CA	4:32:35:ARG:HB3	2.47	0.45
37:35:15:ARG:CZ	37:35:15:ARG:HB2	2.47	0.45
26:14:675:A:H4'	31:39:67:GLN:OE1	2.17	0.45
1:13:8:A:H62	4:3E:208:SER:HB3	1.82	0.45
12:3I:8:ASN:O	12:3I:11:VAL:N	2.49	0.45
38:45:77:LYS:HB3	38:45:77:LYS:HE2	1.80	0.45
32:49:39:ILE:HD11	32:49:102:PHE:CE2	2.51	0.45
32:49:49:ASP:HB3	32:49:52:ILE:HG22	1.99	0.45
32:49:76:SER:OG	32:49:82:LEU:O	2.35	0.45
33:51:137:ASP:HB2	33:51:140:LYS:HE2	1.98	0.45
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.50	0.45
6:5E:45:LEU:HD12	6:5E:45:LEU:HA	1.73	0.45
34:69:37:VAL:HG12	34:69:38:LEU:HD12	1.99	0.45
8:72:111:ILE:HD12	8:72:135:CYS:SG	2.57	0.45
30:29:18:ASP:HB3	41:75:82:LEU:HD11	1.99	0.45
37:78:113:LYS:HA	37:78:129:ALA:O	2.17	0.45
1:13:130:A:C8	17:8I:63:ARG:HD3	2.51	0.45
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.50	0.45
45:F8:18:TYR:O	45:F8:20:GLY:N	2.50	0.45
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.98	0.45
29:11:6:PHE:CE1	29:11:18:VAL:HG23	2.52	0.45
2:12:95:GLN:HB3	2:12:148:TYR:HD1	1.81	0.45
1:13:1118:C:H1'	1:13:1179:A:C5	2.52	0.45
1:13:1137:C:H1'	1:13:1138:G:C2	2.52	0.45
1:13:1260:C:H3'	1:13:1260:C:H6	1.82	0.45
1:13:1277:C:H2'	1:13:1279:A:H8	1.82	0.45
1:13:418:C:H2'	1:13:419:C:C6	2.52	0.45
1:13:681:C:H2'	1:13:682:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:767:A:H3'	60:13:1802:HOH:O	2.17	0.45
1:13:843:U:H5''	1:13:848:C:H5	1.81	0.45
26:14:174:C:OP2	26:14:174:C:H6	2.00	0.45
26:14:2050:C:H2'	26:14:2051:A:O4'	2.17	0.45
26:14:2472:G:H1	26:14:2477:C:P	2.40	0.45
26:14:2849:U:H4'	26:14:2868:A:C2	2.52	0.45
26:14:565:C:H2'	26:14:566:U:O4'	2.17	0.45
26:14:909:A:C6	26:14:912:C:C2	3.05	0.45
2:1E:8:LYS:CG	2:1E:9:GLU:N	2.79	0.45
1:1G:1008:C:H1'	1:1G:1022:G:N2	2.32	0.45
1:1G:1125:U:H2'	1:1G:1126:U:H5	1.80	0.45
1:1G:1277:C:H1'	1:1G:1282:C:H1'	1.99	0.45
1:1G:437:U:H1'	4:32:119:GLN:HE22	1.82	0.45
26:1H:1207:C:H2'	26:1H:1208:C:C6	2.51	0.45
26:1H:1346:G:C4	26:1H:1347:G:N7	2.85	0.45
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.77	0.45
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.52	0.45
26:1H:217:G:OP2	60:1H:3559:HOH:O	2.21	0.45
26:1H:2324:C:H5''	26:1H:2325:G:H5'	1.98	0.45
26:1H:2392:A:H2'	26:1H:2393:A:O4'	2.17	0.45
26:1H:2841:C:H42	26:1H:2876:G:H1	1.65	0.45
26:1H:311:A:C6	26:1H:328:U:C4	3.05	0.45
26:1H:349:G:H2'	26:1H:350:U:O4'	2.17	0.45
26:1H:442:G:C4	26:1H:444:C:C5	3.05	0.45
26:1H:654(A):A:H2'	26:1H:654(B):C:H6	1.82	0.45
26:1H:796:C:H2'	26:1H:797:C:C6	2.52	0.45
26:1H:880:G:N3	26:1H:881:G:N7	2.65	0.45
9:8E:115:GLY:HA2	10:1I:58:ASP:OD2	2.17	0.45
27:1J:10:C:C4	27:1J:11:C:C5	3.05	0.45
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.82	0.45
11:2I:21:ILE:HD12	11:2I:84:VAL:HG12	1.98	0.45
23:2K:17:C:H3'	23:2K:18:C:H2'	1.99	0.45
23:2L:53:G:H2'	23:2L:54:G:H8	1.82	0.45
38:45:3:MET:HG3	38:45:4:PRO:O	2.16	0.45
32:49:10:LYS:NZ	32:49:175:LEU:O	2.49	0.45
39:55:8:ARG:HH11	39:55:39:PRO:HB3	1.82	0.45
26:14:2759:G:H21	33:59:143:GLN:HE22	1.65	0.45
6:5E:12:PRO:HG3	6:5E:57:GLN:HG3	1.99	0.45
6:5E:75:LEU:HD13	6:5E:79:LEU:HD11	1.99	0.45
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.98	0.45
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:72:LEU:HD21	34:69:107:VAL:HG21	1.97	0.45
7:6E:88:PRO:HB3	7:6E:145:ALA:HB1	1.98	0.45
9:82:26:VAL:HG13	9:82:61:ALA:O	2.17	0.45
38:88:139:GLU:OE2	38:88:141:GLN:HG2	2.16	0.45
39:98:32:GLY:HA2	39:98:116:LEU:CD1	2.47	0.45
19:AA:9:VAL:HG22	19:AA:10:PHE:H	1.81	0.45
47:D5:126:VAL:HG12	47:D5:163:LEU:HA	1.98	0.45
47:D5:124:ILE:HD11	47:D5:165:VAL:HG11	1.99	0.45
49:F5:62:VAL:HB	49:F5:67:ILE:HD13	1.99	0.45
29:11:223:GLY:HA3	29:11:231:HIS:CE1	2.52	0.44
1:13:1144:G:H21	1:13:1146:A:H62	1.65	0.44
1:13:1157:A:O2'	1:13:1158:C:OP2	2.28	0.44
1:13:971:G:N2	1:13:1363:A:OP2	2.42	0.44
1:13:1435:G:H2'	1:13:1436:U:C6	2.52	0.44
1:13:1528:U:C2	1:13:1530:G:C8	3.05	0.44
1:13:115:G:C2	1:13:289:G:N7	2.85	0.44
1:13:323:U:H2'	1:13:324:G:O4'	2.17	0.44
1:13:370:C:HO2'	1:13:482:A:HO2'	1.64	0.44
1:13:608:A:H2'	1:13:609:A:O4'	2.17	0.44
1:13:843:U:OP1	1:13:848:C:N4	2.50	0.44
26:14:1170:G:C2'	26:14:1171:G:H5'	2.47	0.44
26:14:1278:A:H2'	26:14:1279:G:C8	2.52	0.44
26:14:1301:A:C8	26:14:1303:G:C8	3.04	0.44
26:14:1370:C:N4	26:14:1371:G:C6	2.85	0.44
26:14:1424:G:H2'	26:14:1425:G:C8	2.51	0.44
26:14:1332:G:N2	26:14:1610:A:H8	2.14	0.44
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.50	0.44
26:14:2465:C:O2	26:14:2486:G:C2	2.70	0.44
26:14:249:C:H4'	26:14:250:G:O5'	2.17	0.44
26:14:618:G:H5''	31:39:107:LYS:HZ1	1.82	0.44
26:14:843:G:H1	26:14:935:C:N4	2.03	0.44
26:14:878:A:C6	26:14:899:A:H2	2.35	0.44
27:16:15:A:H1'	27:16:109:G:N9	2.32	0.44
27:16:40:U:H1'	27:16:45:A:N6	2.32	0.44
2:1E:127:ILE:HD11	2:1E:139:LYS:NZ	2.32	0.44
1:1G:1027:C:O2'	1:1G:1034:G:N2	2.50	0.44
1:1G:186(F):C:H2'	1:1G:187:C:O4'	2.17	0.44
1:1G:35:G:C2	1:1G:550:G:N3	2.86	0.44
1:1G:464:G:O6	1:1G:466:C:H4'	2.17	0.44
26:1H:140:A:H8	26:1H:1408:C:O2'	2.00	0.44
26:1H:1696:G:C6	26:1H:1697:G:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1826:G:H4'	29:11:242:ARG:HE	1.82	0.44
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.99	0.44
26:1H:638:G:C5	26:1H:651:G:C2	3.05	0.44
26:1H:70:G:H21	26:1H:71:A:N6	2.15	0.44
10:1I:27:ALA:HB1	10:1I:34:VAL:HG11	1.98	0.44
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.51	0.44
10:1I:81:THR:HA	10:1I:84:GLN:HB3	2.00	0.44
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.47	0.44
30:21:69:LYS:HD2	30:21:89:ASP:OD2	2.17	0.44
3:2E:12:LEU:HA	3:2E:12:LEU:HD23	1.80	0.44
23:2L:48:U:H1'	23:2L:49:C:OP2	2.17	0.44
4:32:132:ARG:HB3	4:32:132:ARG:HE	1.60	0.44
4:32:108:LEU:HA	4:32:174:LEU:HD13	2.00	0.44
37:35:132:LYS:HZ1	37:35:135:LEU:HD11	1.82	0.44
5:42:107:ARG:NH2	5:42:108:ALA:HB2	2.32	0.44
38:45:18:LYS:H	38:45:98:LYS:HZ2	1.64	0.44
23:2L:20:G:N2	32:49:78:SER:OG	2.50	0.44
1:13:1397:C:OP2	5:4E:24:ARG:NH2	2.50	0.44
5:4E:53:LEU:HD12	5:4E:53:LEU:H	1.82	0.44
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.50	0.44
35:58:62:VAL:HG22	35:58:63:THR:H	1.82	0.44
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.68	0.44
36:68:50:GLY:N	36:68:53:LYS:NZ	2.64	0.44
34:69:128:LEU:O	34:69:138:ILE:N	2.49	0.44
34:69:131:LYS:HA	34:69:135:GLU:OE1	2.16	0.44
28:71:7:TYR:CE1	28:71:220:PRO:HB3	2.52	0.44
38:88:43:THR:HA	38:88:94:VAL:HG12	1.99	0.44
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.17	0.44
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.98	0.44
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.53	0.44
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.17	0.44
48:I8:12:ASN:HA	48:I8:14:ARG:HH21	1.82	0.44
49:J8:78:LYS:CD	49:J8:78:LYS:N	2.80	0.44
50:K8:4:SER:HB2	50:K8:7:ARG:H	1.76	0.44
13:4I:3:ARG:HD2	52:M8:34:GLU:CD	2.38	0.44
2:12:136:VAL:HG13	2:12:139:LYS:HE2	1.99	0.44
2:12:137:ARG:HG3	2:12:138:LEU:N	2.32	0.44
1:13:1074:G:N3	1:13:1102:A:C2	2.86	0.44
1:13:1177:G:O2'	1:13:1178:G:O4'	2.26	0.44
1:13:1178:G:N2	1:13:1181:G:C8	2.86	0.44
1:13:1277:C:H2'	1:13:1279:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1412:C:H2'	1:13:1413:A:C8	2.52	0.44
1:13:145:G:H8	1:13:145:G:OP2	1.99	0.44
1:13:536:C:H2'	1:13:537:G:C8	2.52	0.44
1:13:582:U:H2'	1:13:583:A:C8	2.52	0.44
1:13:682:G:H2'	1:13:683:G:C8	2.50	0.44
1:13:574:A:N3	1:13:883:C:H1'	2.31	0.44
26:14:1568:G:P	29:19:63:ARG:HH22	2.41	0.44
26:14:2147:G:H2'	26:14:2148:G:C4'	2.46	0.44
26:14:2292:C:H2'	26:14:2293:C:H6	1.82	0.44
26:14:2392:A:OP2	55:M5:31:HIS:NE2	2.39	0.44
29:19:176:ARG:HA	29:19:181:GLU:O	2.17	0.44
1:1G:1032(A):G:H2'	1:1G:1032(B):G:C8	2.52	0.44
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.17	0.44
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.52	0.44
1:1G:1385:G:C2	1:1G:1386:G:C8	3.05	0.44
1:1G:325:A:H2'	1:1G:326:G:O4'	2.16	0.44
1:1G:428:G:C5	1:1G:430:A:C6	3.05	0.44
1:1G:437:U:C2'	1:1G:438:G:H5'	2.46	0.44
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.44	0.44
26:1H:1561:G:H2'	26:1H:1562:A:C8	2.52	0.44
26:1H:14:A:H5''	26:1H:15:G:OP2	2.17	0.44
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.17	0.44
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.17	0.44
26:1H:280:C:N3	26:1H:361:G:C2	2.85	0.44
26:1H:2831:G:O4'	26:1H:2883:A:C2	2.70	0.44
26:1H:459:U:H4'	54:P8:40:TRP:CZ3	2.53	0.44
26:1H:482:A:H5''	26:1H:483:A:OP1	2.17	0.44
27:1J:56:G:H4'	27:1J:57:A:C8	2.51	0.44
30:21:131:ALA:CB	30:21:135:HIS:HE1	2.30	0.44
36:25:34:THR:HG22	36:25:37:ASP:OD2	2.17	0.44
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.98	0.44
31:31:40:GLN:NE2	31:31:184:TYR:HB3	2.33	0.44
4:32:108:LEU:HD22	4:32:174:LEU:HD22	1.99	0.44
12:3A:85:ILE:HA	12:3A:85:ILE:HD12	1.77	0.44
12:3I:55:VAL:HG12	12:3I:69:TYR:HA	1.98	0.44
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.51	0.44
5:42:12:LEU:HD11	5:42:14:ARG:HB3	1.98	0.44
5:42:24:ARG:NH2	25:4L:23:A:C8	2.84	0.44
38:45:32:TYR:CE1	38:45:133:ARG:HG3	2.50	0.44
38:45:51:ARG:NH1	38:45:55:VAL:HG21	2.33	0.44
38:45:29:PHE:HD2	38:45:65:PHE:CE1	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:4:TYR:CE2	42:C8:100:VAL:HG11	2.52	0.44
33:59:55:PRO:O	33:59:56:SER:HB2	2.17	0.44
40:65:106:ARG:O	40:65:106:ARG:HD2	2.16	0.44
34:69:66:GLU:HA	34:69:69:LYS:HB3	2.00	0.44
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.83	0.44
8:72:51:VAL:HG12	8:72:52:ASP:N	2.31	0.44
9:82:69:GLY:O	9:82:73:GLN:N	2.45	0.44
17:8A:86:GLU:OE1	17:8A:90:ILE:HD11	2.17	0.44
9:8E:108:VAL:HG12	9:8E:109:VAL:H	1.82	0.44
26:1H:2837:G:H21	39:98:45:ARG:NH2	2.15	0.44
19:AA:11:VAL:HG21	19:AA:41:VAL:CG1	2.47	0.44
20:BI:49:ALA:HB3	20:BI:99:LEU:HB2	2.00	0.44
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.47	0.44
45:F8:29:TRP:CZ3	45:F8:78:LYS:HD3	2.52	0.44
29:11:145:VAL:HG12	29:11:146:GLU:O	2.17	0.44
29:11:204:ILE:O	29:11:204:ILE:HD12	2.17	0.44
2:12:84:GLU:OE1	2:12:84:GLU:N	2.50	0.44
1:13:148:G:H2'	1:13:149:A:C8	2.53	0.44
1:13:200:G:H2'	1:13:201:C:C6	2.52	0.44
1:13:292:G:N7	1:13:293:G:H1'	2.33	0.44
1:13:521:G:OP2	12:3I:54:LYS:NZ	2.48	0.44
1:13:558:G:C4	1:13:559:A:C2	3.05	0.44
1:13:604:G:H2'	1:13:605:U:O4'	2.17	0.44
26:14:996:A:N6	26:14:1160:G:C6	2.85	0.44
26:14:1178:C:H2'	26:14:1179:C:C6	2.53	0.44
26:14:2115:G:H1'	26:14:2171:A:H61	1.82	0.44
26:14:2511:U:H2'	26:14:2512:C:C6	2.53	0.44
26:14:273(F):C:H3'	26:14:274:G:C5'	2.46	0.44
26:14:2816:C:O2	26:14:2883:A:O2'	2.32	0.44
26:14:340:A:H2'	26:14:341:G:O4'	2.17	0.44
26:14:830:G:H4'	26:14:831:G:OP2	2.18	0.44
29:19:236:GLY:O	29:19:237:GLU:O	2.35	0.44
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.17	0.44
2:1E:24:TRP:N	2:1E:24:TRP:CD1	2.84	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.17	0.44
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.52	0.44
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.16	0.44
1:1G:450:G:H4'	16:7A:41:PRO:HB2	1.98	0.44
26:1H:1145:C:H2'	26:1H:1146:C:H6	1.82	0.44
26:1H:1416:G:O2'	26:1H:1417:C:P	2.75	0.44
26:1H:1931:U:O4'	26:1H:1931:U:O2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:197:A:N6	26:1H:2430:A:H2'	2.32	0.44
26:1H:2638:G:P	30:21:82:ARG:HH21	2.40	0.44
26:1H:270(A):A:N3	26:1H:365:C:O2'	2.41	0.44
26:1H:2720:U:H2'	26:1H:2720:U:O2	2.17	0.44
26:1H:272:G:H2'	26:1H:273:G:O4'	2.17	0.44
26:1H:30:G:H2'	26:1H:31:C:C6	2.52	0.44
26:1H:363:G:O2'	26:1H:363(A):A:H5'	2.17	0.44
26:1H:46:C:H2'	26:1H:47:C:C6	2.52	0.44
26:1H:543:C:N4	26:1H:550:G:H1	2.13	0.44
26:1H:589:C:H2'	26:1H:590:A:H8	1.79	0.44
27:1J:18:G:H2'	27:1J:19:G:C8	2.53	0.44
30:21:119:ARG:HD3	30:21:160:TYR:HB2	1.99	0.44
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.98	0.44
36:25:87:ILE:HG23	36:25:88:ASN:O	2.17	0.44
30:29:171:GLU:O	30:29:184:VAL:HA	2.18	0.44
37:35:13:ASN:O	37:35:15:ARG:N	2.50	0.44
31:39:63:LYS:CE	31:39:67:GLN:HB2	2.46	0.44
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.32	0.44
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.48	0.44
4:3E:86:LYS:HB2	4:3E:86:LYS:HE2	1.52	0.44
32:49:70:VAL:HA	32:49:90:LEU:HD23	1.99	0.44
25:4K:17:U:H4'	60:4K:201:HOH:O	2.17	0.44
33:51:113:VAL:HG11	33:51:151:ILE:HD13	2.00	0.44
6:52:53:ALA:HB3	6:52:86:ARG:HD3	1.98	0.44
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.33	0.44
34:61:92:VAL:HG13	34:61:120:ILE:CG2	2.47	0.44
7:62:100:ALA:O	7:62:104:LEU:HD13	2.17	0.44
36:68:68:GLU:CD	36:68:68:GLU:H	2.17	0.44
15:6I:53:HIS:NE2	15:6I:57:LEU:HD11	2.31	0.44
28:71:68:LEU:O	28:71:176:GLY:HA3	2.16	0.44
37:78:79:ARG:HB2	37:78:110:TYR:CD1	2.52	0.44
13:4I:90:LEU:HD22	19:AI:78:ARG:NH2	2.32	0.44
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.17	0.44
50:G5:15:LYS:HG3	50:G5:15:LYS:O	2.17	0.44
47:H8:15:PRO:O	47:H8:19:ARG:HB2	2.18	0.44
53:J5:25:LEU:HD23	53:J5:25:LEU:HA	1.74	0.44
26:14:459:U:H4'	54:L5:40:TRP:CH2	2.52	0.44
1:13:1072:G:C5	1:13:1073:U:C4	3.05	0.44
1:13:107:G:H2'	1:13:108:G:O4'	2.17	0.44
1:13:1091:U:C2	1:13:1095:U:C4	3.06	0.44
1:13:316:G:OP2	1:13:351:G:O2'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:625:G:H2'	1:13:626:U:H6	1.82	0.44
1:13:639:G:H2'	1:13:640:A:H8	1.81	0.44
26:14:1091:G:N2	26:14:1092:C:C2	2.86	0.44
26:14:1131:G:C8	26:14:2025:C:H4'	2.53	0.44
26:14:1154:G:O5'	26:14:1154:G:H8	2.00	0.44
26:14:1194:A:H2'	26:14:1195:G:O4'	2.17	0.44
26:14:1219:G:H1	26:14:1230:C:H42	1.64	0.44
26:14:1813:G:OP1	29:19:39:LYS:HE2	2.18	0.44
26:14:2162:G:C8	26:14:2164:C:N4	2.86	0.44
26:14:233:A:C5	26:14:234:C:C5	3.06	0.44
26:14:2646:C:OP2	26:14:2732:G:O2'	2.23	0.44
26:14:221:A:C4	26:14:266:G:N7	2.85	0.44
26:14:2748:A:H2'	26:14:2749:A:C8	2.53	0.44
26:14:285:C:H42	26:14:356:G:H1	1.65	0.44
26:14:559:G:H2'	26:14:560:C:O4'	2.17	0.44
26:14:641:C:H5''	26:14:642:G:OP2	2.17	0.44
26:14:770:G:OP2	60:14:3424:HOH:O	2.21	0.44
26:14:770:G:H5''	26:14:771:G:OP2	2.17	0.44
1:1G:1217:C:H2'	1:1G:1218:C:C6	2.53	0.44
1:1G:176:C:H2'	1:1G:177:C:H6	1.83	0.44
1:1G:224:C:H2'	1:1G:225:C:H6	1.82	0.44
1:1G:278:G:O4'	1:1G:282:A:H1'	2.17	0.44
1:1G:310:G:OP2	16:7A:27:LYS:HD3	2.17	0.44
1:1G:371:G:H1	1:1G:390:C:H42	1.64	0.44
1:1G:5:U:H4'	1:1G:6:G:C5'	2.46	0.44
26:1H:1011:G:OP1	42:C8:75:ASN:HB3	2.18	0.44
26:1H:1337:G:H2'	26:1H:1338:G:O4'	2.18	0.44
26:1H:18:C:O3'	42:C8:23:GLY:HA2	2.17	0.44
26:1H:2331:G:H4'	48:I8:42:GLY:HA3	1.99	0.44
26:1H:2837:G:C6	26:1H:2838:G:N7	2.86	0.44
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.80	0.44
26:1H:566:U:OP1	37:78:29:LYS:NZ	2.48	0.44
26:1H:713:G:H2'	26:1H:714:U:C6	2.53	0.44
26:1H:725:G:C6	26:1H:726:G:N1	2.86	0.44
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	2.00	0.44
23:2K:63:C:O2	23:2K:64:G:C8	2.71	0.44
26:14:637:A:H2'	37:35:117:GLU:OE2	2.18	0.44
31:39:110:LEU:HD23	31:39:110:LEU:HA	1.73	0.44
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.21	0.44
32:41:61:ALA:HB2	32:41:67:LYS:HA	1.98	0.44
5:42:104:ALA:O	5:42:107:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.99	0.44
38:45:46:GLN:HE22	38:45:126:PRO:HG3	1.81	0.44
32:49:182:LYS:HB2	32:49:182:LYS:HE3	1.86	0.44
32:49:81:LYS:HB3	32:49:82:LEU:H	1.66	0.44
13:4A:83:ASP:O	13:4A:84:ILE:HB	2.16	0.44
5:4E:71:LEU:CD1	5:4E:114:GLY:HA3	2.48	0.44
13:4I:3:ARG:HH11	13:4I:7:VAL:HG22	1.82	0.44
35:58:87:LEU:HD22	35:58:87:LEU:O	2.18	0.44
6:5E:75:LEU:O	6:5E:79:LEU:HG	2.17	0.44
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.16	0.44
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.17	0.44
28:71:197:GLU:HG2	28:71:208:PHE:HZ	1.83	0.44
28:79:207:THR:HB	28:79:210:ARG:NH1	2.32	0.44
44:A5:46:PHE:O	44:A5:50:VAL:HG12	2.18	0.44
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.17	0.44
46:C5:82:PRO:HB3	46:C5:99:CYS:CB	2.47	0.44
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.32	0.44
43:D8:71:LEU:HD23	43:D8:71:LEU:HA	1.83	0.44
50:G5:35:LEU:HD12	50:G5:53:LEU:HD12	1.98	0.44
49:J8:73:LEU:HD21	49:J8:90:ILE:O	2.17	0.44
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.31	0.44
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.81	0.44
1:13:155:C:H2'	1:13:156:G:C8	2.53	0.44
1:13:198:G:C2	1:13:199:G:C8	3.06	0.44
1:13:51:A:OP2	1:13:52:G:C8	2.70	0.44
1:13:99:C:N4	1:13:101:A:H62	2.16	0.44
26:14:1002:G:H2'	26:14:1003:G:O4'	2.18	0.44
26:14:1342:A:C2	26:14:1397:U:C2	3.05	0.44
26:14:2176:A:H1'	28:79:44:HIS:HE1	1.82	0.44
26:14:2386:C:H2'	26:14:2387:U:O4'	2.17	0.44
26:14:2528:U:O2'	26:14:2530:A:OP1	2.28	0.44
26:14:2737:G:H2'	26:14:2738:A:C8	2.52	0.44
26:14:1050:A:N3	26:14:2751:G:H2'	2.32	0.44
10:1A:48:THR:OG1	10:1A:62:HIS:HB3	2.18	0.44
1:1G:1064:G:OP1	1:1G:1386:G:H4'	2.15	0.44
1:1G:390:C:H2'	1:1G:391:G:C8	2.53	0.44
1:1G:428:G:C8	1:1G:430:A:C4	3.06	0.44
1:1G:980:C:C5	1:1G:981:U:C2	3.05	0.44
26:1H:109:G:H2'	26:1H:110:G:O4'	2.18	0.44
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.53	0.44
26:1H:1838:C:C2	26:1H:1898:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:250:G:C6	26:1H:251:A:C6	3.06	0.44
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.49	0.44
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.18	0.44
26:1H:84:A:H3'	46:G8:8:LYS:HB2	1.99	0.44
27:1J:116:G:H2'	27:1J:117:G:O4'	2.16	0.44
22:1L:45:G:C6	22:1L:48:C:C4	3.06	0.44
22:1L:50:C:H2'	22:1L:51:A:H8	1.83	0.44
3:22:46:GLU:O	3:22:49:SER:OG	2.36	0.44
30:29:127:ASP:OD2	60:29:401:HOH:O	2.21	0.44
30:29:41:LYS:HG3	30:29:42:ASP:H	1.82	0.44
31:31:77:ASP:OD1	31:31:77:ASP:N	2.46	0.44
4:32:3:ARG:NH1	4:32:118:ARG:HD3	2.32	0.44
37:35:65:ARG:HD2	37:35:65:ARG:O	2.18	0.44
32:49:32:PRO:HB3	32:49:163:ALA:HB2	1.99	0.44
33:51:25:LYS:HG2	33:51:34:GLU:HG2	1.99	0.44
35:58:94:HIS:HB2	35:58:97:ARG:HE	1.83	0.44
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.44
40:65:15:ARG:HB3	40:65:19:LYS:HZ2	1.82	0.44
40:65:6:ALA:HA	40:65:9:ARG:NH1	2.32	0.44
34:69:4:ILE:HG21	34:69:47:LEU:HD13	2.00	0.44
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.17	0.44
42:85:91:ASP:OD1	42:85:96:ALA:N	2.49	0.44
18:9A:37:VAL:HG12	18:9A:78:LEU:HB3	2.00	0.44
40:A8:41:ASP:OD2	40:A8:44:LYS:HB2	2.17	0.44
1:13:263:A:OP1	20:BI:79:ARG:HD3	2.17	0.44
43:D8:35:LEU:HD22	43:D8:36:PRO:HD2	1.98	0.44
44:E8:31:GLU:O	44:E8:35:ILE:HG13	2.17	0.44
44:E8:86:LEU:HD12	44:E8:86:LEU:C	2.37	0.44
48:I8:53:MET:HA	48:I8:58:THR:O	2.17	0.44
49:J8:71:TYR:O	49:J8:74:VAL:HG12	2.18	0.44
51:L8:4:LEU:HD23	51:L8:4:LEU:HA	1.80	0.44
55:Q8:32:LEU:O	55:Q8:36:LYS:HE3	2.17	0.44
29:11:233:HIS:HB3	60:11:402:HOH:O	2.18	0.44
2:12:178:ARG:HD3	2:12:196:LEU:O	2.18	0.44
2:12:27:LYS:O	2:12:30:ARG:NH1	2.50	0.44
1:13:1145:C:H4'	1:13:1146:A:C8	2.49	0.44
1:13:1152:A:OP1	10:1I:68:HIS:ND1	2.48	0.44
1:13:491:G:P	4:3E:151:LYS:NZ	2.91	0.44
1:13:858:G:O6	1:13:869:G:H3'	2.18	0.44
1:13:953:G:H2'	1:13:954:G:O4'	2.18	0.44
26:14:1115:G:C5	26:14:1116:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2290:G:O2'	26:14:2381:C:H1'	2.17	0.44
26:14:2776:A:H3'	26:14:2776:A:OP1	2.18	0.44
26:14:37:C:H2'	26:14:38:A:C8	2.52	0.44
26:14:511:U:C3'	26:14:512:G:H5''	2.38	0.44
26:14:71:A:H3'	26:14:71:A:P	2.57	0.44
26:14:807:U:H2'	26:14:808:G:H8	1.82	0.44
29:19:65:ILE:HD13	29:19:65:ILE:HG21	1.53	0.44
1:1G:1008:C:H1'	1:1G:1022:G:H22	1.82	0.44
1:1G:1112:C:N3	3:22:178:LEU:HD23	2.32	0.44
1:1G:191(C):G:C2	1:1G:191(D):U:C2	3.06	0.44
1:1G:947:G:C6	1:1G:948:C:C4	3.06	0.44
26:1H:1379:A:H4'	26:1H:1380:G:OP1	2.15	0.44
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.52	0.44
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.33	0.44
26:1H:2349:G:OP2	55:Q8:42:ARG:HD3	2.18	0.44
26:1H:2644:G:H8	26:1H:2644:G:O5'	2.01	0.44
26:1H:2789:C:H1'	26:1H:2892:A:C2	2.46	0.44
26:1H:259:G:O2'	26:1H:621:A:O2'	2.08	0.44
26:1H:928:G:H2'	26:1H:929:G:O4'	2.17	0.44
26:1H:954:G:H4'	38:88:13:GLN:OE1	2.17	0.44
26:1H:991:C:H2'	26:1H:992:C:C6	2.51	0.44
22:1K:18:G:C5	22:1K:57:G:N2	2.85	0.44
22:1K:6:G:H4'	22:1K:7:U:OP1	2.17	0.44
3:22:124:ILE:HG13	3:22:130:VAL:HG22	1.99	0.44
3:22:3:ASN:N	3:22:3:ASN:OD1	2.50	0.44
11:2A:20:TYR:CZ	11:2A:83:ILE:HD12	2.52	0.44
11:2I:116:HIS:N	11:2I:116:HIS:CD2	2.86	0.44
23:2L:36:A:H2'	23:2L:37:U:H6	1.82	0.44
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.44
4:32:18:LYS:HE3	4:32:31:CYS:SG	2.57	0.44
4:32:196:LEU:HG	4:32:196:LEU:H	1.49	0.44
37:35:101:VAL:HB	37:35:106:LEU:HD23	1.99	0.44
37:35:52:GLU:O	37:35:54:GLY:N	2.50	0.44
31:39:11:VAL:HG23	31:39:12:LEU:H	1.82	0.44
13:4I:11:ARG:HG3	13:4I:12:ASN:H	1.83	0.44
13:4I:81:LEU:HA	13:4I:81:LEU:HD23	1.57	0.44
33:51:6:ARG:CZ	33:51:54:ARG:HH12	2.30	0.44
33:51:72:ILE:O	33:51:76:VAL:HG23	2.17	0.44
35:58:95:PRO:O	35:58:96:GLU:CD	2.56	0.44
3:2E:30:ARG:NH1	14:5I:35:ARG:O	2.50	0.44
7:62:99:LEU:HD22	7:62:103:TRP:CE2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:12:SER:HA	41:75:14:TYR:H	1.82	0.44
37:78:96:THR:O	37:78:100:LEU:HD23	2.18	0.44
28:79:44:HIS:HD2	28:79:171:ILE:O	2.00	0.44
16:7A:62:VAL:HG12	16:7A:62:VAL:O	2.17	0.44
9:82:26:VAL:HG12	9:82:27:THR:N	2.32	0.44
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.18	0.44
19:AA:14:HIS:CG	19:AA:15:LEU:N	2.85	0.44
19:AI:12:ASP:OD2	19:AI:37:ARG:HD3	2.18	0.44
1:1G:1454:G:H5''	20:BA:35:THR:HG21	1.99	0.44
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.72	0.44
43:D8:49:THR:HG23	43:D8:51:VAL:N	2.32	0.44
2:12:168:THR:HG21	2:12:191:ASP:O	2.18	0.44
1:13:1439:C:H2'	1:13:1440:C:H6	1.83	0.44
1:13:713:G:H2'	1:13:714:G:C8	2.53	0.44
1:13:749:C:H2'	1:13:750:G:H8	1.83	0.44
26:14:1444(A):A:O2'	26:14:1445:C:P	2.76	0.44
26:14:1728:G:H2'	26:14:1731:G:O6	2.17	0.44
26:14:2543:G:H2'	26:14:2544:G:C8	2.53	0.44
26:14:493:G:H2'	26:14:494:G:O4'	2.17	0.44
26:14:591:C:H1'	55:M5:2:PRO:N	2.33	0.44
26:14:754:C:H2'	26:14:755:C:C6	2.53	0.44
27:16:16:G:N2	27:16:69:G:H1'	2.32	0.44
27:16:82:G:H2'	27:16:83:G:O4'	2.17	0.44
29:19:223:GLY:HA2	29:19:226:MET:HG3	2.00	0.44
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.98	0.44
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.18	0.44
1:1G:1033:G:N3	1:1G:1033:G:H2'	2.33	0.44
1:1G:1103:C:C2	1:1G:1104:G:C8	3.05	0.44
1:1G:1237:C:OP1	1:1G:1238:A:H1'	2.18	0.44
1:1G:1254:C:N4	10:1A:43:ARG:HH12	2.15	0.44
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.17	0.44
1:1G:1486:G:H2'	1:1G:1487:G:O4'	2.16	0.44
1:1G:596:C:H2'	1:1G:597:G:H8	1.81	0.44
26:1H:1170:G:N2	26:1H:1180:C:C2	2.85	0.44
26:1H:1322:A:H2'	26:1H:1323:U:H6	1.83	0.44
26:1H:1479:G:C6	26:1H:1480:G:C5	3.05	0.44
26:1H:1523:U:C2	26:1H:1524:G:C8	3.05	0.44
26:1H:1638:C:H5''	26:1H:2710:C:O2'	2.17	0.44
26:1H:2162:G:C5	26:1H:2163:C:C4	3.05	0.44
26:1H:2170:A:OP2	26:1H:2170:A:H8	2.00	0.44
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2439:A:C8	26:1H:2439:A:H5'	2.53	0.44
26:1H:2604:U:C2'	26:1H:2605:U:H5'	2.48	0.44
26:1H:756:C:C4	26:1H:757:U:C5	3.06	0.44
26:1H:901:A:N3	26:1H:901:A:H2'	2.32	0.44
30:21:116:VAL:HG21	30:21:122:PHE:CD2	2.53	0.44
30:21:47:VAL:O	30:21:80:GLU:HA	2.17	0.44
3:22:121:ALA:O	3:22:125:GLU:HG3	2.18	0.44
30:29:81:ILE:HG23	30:29:81:ILE:HD12	1.73	0.44
11:2A:96:ARG:HD3	11:2A:96:ARG:N	2.32	0.44
11:2I:31:THR:HG22	11:2I:42:TRP:HB2	2.00	0.44
23:2L:33:OMC:O2'	23:2L:34:U:H6	2.00	0.44
37:35:127:ALA:O	37:35:147:LEU:N	2.50	0.44
4:3E:13:ARG:NH1	4:3E:38:TYR:O	2.51	0.44
32:41:117:PHE:CZ	32:41:119:GLY:HA2	2.53	0.44
38:45:35:VAL:HG12	38:45:36:ALA:N	2.32	0.44
38:45:89:ASN:O	38:45:92:GLY:N	2.46	0.44
32:49:61:ALA:HB2	32:49:68:PRO:HD3	2.00	0.44
26:1H:558:G:OP1	35:58:111:PRO:HD2	2.17	0.44
7:6E:46:ALA:O	7:6E:50:ILE:N	2.44	0.44
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	2.00	0.44
8:72:24:THR:O	8:72:60:ARG:HA	2.17	0.44
9:82:24:GLY:HA2	9:82:59:PHE:C	2.38	0.44
9:82:21:PRO:HA	9:82:59:PHE:CD1	2.52	0.44
9:82:99:LEU:HB3	9:82:101:PHE:HE1	1.82	0.44
9:8E:49:PRO:O	9:8E:53:VAL:HG22	2.17	0.44
46:C5:8:LYS:O	46:C5:27:VAL:HG11	2.17	0.44
42:C8:79:PHE:CE1	42:C8:83:LEU:HD22	2.53	0.44
47:D5:9:TYR:CZ	47:D5:35:ARG:NH1	2.85	0.44
47:D5:5:LEU:HA	47:D5:5:LEU:HD23	1.74	0.44
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	1.99	0.44
43:D8:72:VAL:CG1	43:D8:85:LYS:HB3	2.48	0.44
49:F5:82:LEU:HG	49:F5:83:GLU:N	2.31	0.44
46:G8:96:ILE:HD12	46:G8:101:LYS:HG2	1.99	0.44
47:H8:111:VAL:HG12	47:H8:146:ILE:CG1	2.48	0.44
54:L5:22:MET:O	54:L5:28:ARG:NH1	2.51	0.44
29:11:119:ALA:CB	29:11:130:ALA:HB3	2.48	0.44
1:13:1020:U:H2'	1:13:1021:G:C8	2.53	0.44
1:13:344:A:H5''	1:13:345:C:H6	1.83	0.44
1:13:358:U:H2'	1:13:359:U:O4'	2.18	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.51	0.44
1:13:734:G:C2	1:13:735:C:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:939:G:H2'	1:13:940:C:C6	2.52	0.44
26:14:1335:U:H2'	26:14:1336:A:O4'	2.18	0.44
26:14:1416:G:H2'	26:14:1417:C:C6	2.53	0.44
26:14:1786:A:H1'	26:14:1938:A:H61	1.78	0.44
26:14:2141:G:C4	26:14:2151:G:C2	3.06	0.44
26:14:2416:C:H2'	26:14:2417:C:H6	1.82	0.44
26:14:580:C:H2'	26:14:581:C:C6	2.53	0.44
2:1E:166:ASP:HB2	2:1E:205:ASP:OD2	2.17	0.44
2:1E:215:LEU:O	2:1E:218:ALA:HB3	2.17	0.44
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.18	0.44
1:1G:1224:G:O2'	1:1G:1322:C:OP2	2.36	0.44
1:1G:1368:G:H5''	9:82:112:LYS:HB3	2.00	0.44
1:1G:1493:A:H2'	26:14:1913:A:N1	2.33	0.44
1:1G:449:C:C5	16:7A:42:ARG:NH1	2.85	0.44
26:1H:1042:G:H2'	26:1H:1043:C:O4'	2.18	0.44
26:1H:2287:A:C4	26:1H:2289:G:C8	3.05	0.44
26:1H:2747:G:O6	26:1H:2755:C:H5''	2.18	0.44
26:1H:587:C:H4'	26:1H:588:U:C6	2.53	0.44
26:1H:911:A:H2'	38:88:9:TYR:OH	2.17	0.44
27:1J:11:C:H3'	27:1J:12:C:C6	2.53	0.44
3:22:116:VAL:O	3:22:119:ARG:HB3	2.17	0.44
3:2E:7:PRO:HG2	3:2E:184:TYR:CB	2.47	0.44
3:2E:195:VAL:O	3:2E:196:LEU:HD23	2.18	0.44
23:2L:76:C:H2'	23:2L:77:A:C8	2.52	0.44
31:31:17:ARG:HG3	31:31:17:ARG:O	2.18	0.44
37:35:13:ASN:C	37:35:15:ARG:N	2.66	0.44
37:35:71:VAL:CG1	37:35:72:PRO:HD3	2.46	0.44
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.33	0.44
26:14:615:G:H2'	31:39:44:ARG:HH11	1.82	0.44
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.82	0.44
12:3I:78:GLN:HG3	12:3I:79:GLU:H	1.83	0.44
5:42:60:TYR:O	5:42:64:ARG:HG2	2.18	0.44
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	1.99	0.44
13:4A:61:GLU:H	13:4A:61:GLU:HG3	1.37	0.44
13:4A:23:TYR:CZ	13:4A:71:ARG:HG2	2.53	0.44
5:4E:103:GLY:O	5:4E:107:ARG:HB3	2.18	0.44
33:51:86:GLU:N	33:51:86:GLU:OE1	2.49	0.44
39:55:33:ARG:HD3	39:55:115:GLU:OE2	2.18	0.44
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.51	0.44
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.82	0.44
8:7E:4:ASP:CG	8:7E:85:ARG:HH12	2.19	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:55:ASP:HA	17:8A:79:SER:HA	2.00	0.44
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.32	0.44
17:8I:45:HIS:HB3	17:8I:72:ARG:HG2	1.98	0.44
46:C5:60:PHE:HD1	46:C5:60:PHE:H	1.64	0.44
42:C8:88:ILE:C	42:C8:90:VAL:N	2.71	0.44
47:D5:78:LYS:HG3	47:D5:78:LYS:H	1.62	0.44
49:F5:46:LEU:HD12	49:F5:46:LEU:HA	1.76	0.44
46:G8:63:LYS:NZ	46:G8:64:GLU:HG3	2.33	0.44
29:11:31:LYS:NZ	29:11:102:LYS:NZ	2.66	0.44
29:11:272:ALA:HB1	29:11:273:ARG:H	1.57	0.44
2:12:17:PHE:CZ	2:12:44:LEU:HG	2.52	0.44
2:12:217:ARG:O	2:12:219:VAL:HG13	2.17	0.44
1:13:1028(A):C:N4	1:13:1032(A):G:H22	2.16	0.44
1:13:1151:A:H4'	10:1I:70:ARG:NH2	2.32	0.44
1:13:438:G:H5'	4:3E:123:HIS:CG	2.53	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44
26:14:1028:A:H61	26:14:1125:G:H2'	1.83	0.44
26:14:1387:C:C2	26:14:1388:G:C8	3.06	0.44
26:14:1636:C:H2'	26:14:1637:A:H8	1.78	0.44
26:14:2095:C:C4	26:14:2096:U:C5	3.06	0.44
26:14:2649:U:H2'	26:14:2650:U:C6	2.53	0.44
26:14:677:A:H61	26:14:800:A:H61	1.64	0.44
26:14:959:A:C6	26:14:960:A:N1	2.85	0.44
29:19:115:GLN:HG2	29:19:116:GLN:H	1.83	0.44
29:19:11:PRO:O	29:19:12:SER:OG	2.24	0.44
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.82	0.44
2:1E:121:LEU:HA	2:1E:124:SER:CB	2.45	0.44
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.53	0.44
1:1G:1280:A:H5''	10:1A:40:LEU:HG	1.98	0.44
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.53	0.44
26:1H:1197:G:H5'	26:1H:1228:G:O2'	2.18	0.44
26:1H:1684:C:H2'	26:1H:1685:C:C6	2.53	0.44
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.17	0.44
26:1H:1853:A:N1	26:1H:2087:G:H1'	2.32	0.44
26:1H:2115:G:H2'	26:1H:2116:G:C8	2.53	0.44
26:1H:2532:G:H2'	26:1H:2533:A:O4'	2.18	0.44
27:1J:94:C:H2'	27:1J:95:U:C6	2.53	0.44
22:1K:66:A:N7	22:1K:67:C:C2	2.86	0.44
22:1L:63:U:H2'	22:1L:64:G:O4'	2.18	0.44
3:22:111:LEU:H	3:22:111:LEU:HD12	1.83	0.44
3:2E:12:LEU:O	3:2E:13:GLY:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:437:U:H1'	4:32:119:GLN:NE2	2.33	0.44
4:32:126:ILE:HG22	4:32:127:THR:H	1.82	0.44
4:32:138:TYR:HD1	4:32:139:ARG:N	2.16	0.44
37:35:36:LYS:HB2	37:35:36:LYS:HZ3	1.83	0.44
4:3E:159:ARG:O	4:3E:163:GLU:N	2.38	0.44
4:3E:176:LEU:HD12	4:3E:177:ASP:N	2.33	0.44
12:3I:70:ILE:HG12	12:3I:100:ILE:HG13	2.00	0.44
38:45:73:PRO:HB3	38:45:93:TYR:CE1	2.52	0.44
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.52	0.44
5:4E:91:LEU:HD12	5:4E:118:ILE:CD1	2.43	0.44
25:4L:10:G:H2'	25:4L:11:U:H5'	2.00	0.44
6:5E:62:TRP:C	6:5E:63:TYR:HD1	2.21	0.44
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.33	0.44
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.81	0.44
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.33	0.44
7:62:47:CYS:HB3	7:62:58:PRO:CB	2.48	0.44
34:69:37:VAL:HG12	34:69:38:LEU:N	2.30	0.44
28:71:37:PHE:CG	28:71:38:ASP:N	2.86	0.44
16:7A:66:PRO:HG2	16:7A:71:ARG:HH21	1.82	0.44
17:8A:40:LYS:HB3	17:8A:42:TYR:CE1	2.53	0.44
26:1H:1649:G:O2'	39:98:107:ASP:OD1	2.25	0.44
19:AA:10:PHE:HB2	19:AA:11:VAL:HG23	2.00	0.44
43:D8:85:LYS:HB2	43:D8:85:LYS:HE2	1.89	0.44
45:F8:31:HIS:CE1	45:F8:33:LYS:HB2	2.53	0.44
47:H8:112:ARG:HE	47:H8:112:ARG:HB3	1.36	0.44
26:1H:728:G:H4'	29:11:13:ARG:HD3	2.00	0.43
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.18	0.43
29:11:96:HIS:CE1	29:11:102:LYS:HE2	2.53	0.43
2:12:44:LEU:H	2:12:44:LEU:HD12	1.83	0.43
1:13:1021:G:C6	1:13:1022:G:C5	3.06	0.43
1:13:1316:G:H2'	1:13:1318:A:OP2	2.18	0.43
1:13:1442:G:H2'	1:13:1443:G:C5'	2.48	0.43
1:13:1503:A:N3	25:4K:12:A:C2	2.86	0.43
1:13:191(E):G:H2'	1:13:191(F):U:C6	2.53	0.43
1:13:609:A:C2'	1:13:610:G:H5'	2.47	0.43
1:13:768:A:H2'	1:13:769:G:O4'	2.17	0.43
26:14:1069:A:H5''	26:14:1070:A:OP1	2.18	0.43
26:14:1646:C:H5''	26:14:1647:G:H5'	2.00	0.43
26:14:1717:G:H1	26:14:1742:C:N4	2.11	0.43
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.99	0.43
26:14:1878:G:H2'	26:14:1879:C:H6	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2176:A:H2'	26:14:2177:C:C6	2.53	0.43
26:14:2737:G:H2'	26:14:2738:A:H8	1.83	0.43
26:14:852:G:H2'	26:14:853:G:C8	2.53	0.43
2:1E:49:GLU:H	2:1E:49:GLU:CD	2.20	0.43
1:1G:994:A:N7	1:1G:1216:G:H4'	2.33	0.43
1:1G:1321:C:C4	1:1G:1322:C:C4	3.06	0.43
1:1G:1368:G:O2'	1:1G:1369:C:H5'	2.18	0.43
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.53	0.43
1:1G:304:U:H2'	1:1G:305:G:C8	2.53	0.43
1:1G:57:G:C5	1:1G:58:C:C4	3.06	0.43
1:1G:597:G:C6	1:1G:644:G:C6	3.05	0.43
26:1H:105:C:H6	26:1H:105:C:O5'	2.01	0.43
26:1H:10:G:H2'	26:1H:11:G:O4'	2.18	0.43
26:1H:1389:G:C2	26:1H:1399:C:O2	2.72	0.43
26:1H:216:A:H2'	26:1H:217:G:H8	1.83	0.43
26:1H:2404:C:N4	26:1H:2405:G:C6	2.86	0.43
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.01	0.43
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.18	0.43
26:1H:419:C:H2'	26:1H:420:C:O4'	2.17	0.43
27:1J:63:G:C2	27:1J:64:C:C2	3.06	0.43
30:21:31:CYS:HA	30:21:32:PRO:HD3	1.83	0.43
30:29:47:VAL:HG23	30:29:84:PHE:O	2.18	0.43
11:2I:85:ARG:CG	11:2I:112:THR:H	2.31	0.43
1:13:690:G:H22	11:2I:55:LYS:HE2	1.81	0.43
31:31:51:THR:CB	31:31:88:VAL:HG11	2.48	0.43
24:3L:36:U:H3'	24:3L:37:A:C8	2.52	0.43
24:3L:53:G:H1	24:3L:61:C:H42	1.65	0.43
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.73	0.43
5:42:76:ILE:HD12	5:42:142:LEU:HD13	2.00	0.43
13:4I:51:ALA:O	13:4I:54:VAL:N	2.48	0.43
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.80	0.43
14:5A:47:LEU:HD23	14:5A:47:LEU:HA	1.70	0.43
15:6A:55:GLY:O	15:6A:59:MET:HB2	2.18	0.43
8:72:116:LYS:H	8:72:116:LYS:HG2	1.58	0.43
37:78:112:LEU:HD12	37:78:127:ALA:CB	2.47	0.43
8:7E:95:VAL:HG12	8:7E:96:GLY:O	2.18	0.43
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.18	0.43
26:14:1151:G:O3'	42:85:81:HIS:HB2	2.18	0.43
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	2.00	0.43
26:14:1223:C:P	43:95:88:ARG:HH22	2.40	0.43
19:AA:65:ASN:OD1	19:AA:66:MET:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:41:ARG:HH12	41:B8:43:GLN:HG3	1.82	0.43
20:BI:53:LEU:HD13	20:BI:53:LEU:HA	1.81	0.43
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.18	0.43
46:C5:59:GLY:O	46:C5:61:ILE:HG13	2.18	0.43
50:G5:46:GLN:CA	50:G5:46:GLN:OE1	2.66	0.43
48:I8:74:ARG:HB3	48:I8:74:ARG:NH1	2.33	0.43
53:N8:36:CYS:SG	53:N8:37:LYS:NZ	2.91	0.43
29:11:148:GLU:HB2	29:11:151:LYS:HD2	2.00	0.43
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.00	0.43
29:11:46:GLN:H	29:11:46:GLN:HG2	1.70	0.43
2:12:61:LEU:HD21	2:12:157:ARG:HH22	1.83	0.43
1:13:103:C:H2'	1:13:104:G:H8	1.82	0.43
1:13:1121:U:H2'	1:13:1122:U:O4'	2.17	0.43
1:13:1306:A:H62	1:13:1331:G:N2	2.16	0.43
1:13:603:U:H2'	1:13:604:G:C8	2.52	0.43
1:13:820:U:H4'	1:13:821:G:OP2	2.18	0.43
1:13:575:G:C4	1:13:881:G:C2	3.06	0.43
26:14:1204:A:H61	26:14:1240:U:H2'	1.83	0.43
26:14:1356:G:H2'	26:14:1357:U:O4'	2.18	0.43
26:14:1685:C:H2'	26:14:1686:C:H6	1.83	0.43
26:14:1269:A:H61	26:14:2011:U:H3	1.65	0.43
26:14:2366:A:H2'	26:14:2367:G:O4'	2.18	0.43
26:14:2577:A:H4'	53:J5:2:ALA:HA	1.99	0.43
26:14:2720:U:N3	26:14:2873:A:H2	2.16	0.43
26:14:28:A:C5	26:14:29:U:C5	3.06	0.43
26:14:302:C:N4	60:14:3484:HOH:O	2.51	0.43
2:1E:15:VAL:HG11	2:1E:210:SER:OG	2.18	0.43
2:1E:231:GLU:HA	2:1E:232:PRO:HD3	1.71	0.43
1:1G:1032(B):G:H2'	1:1G:1033:G:O4'	2.17	0.43
1:1G:1039:C:H5''	1:1G:1040:U:OP1	2.18	0.43
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.53	0.43
1:1G:1145:C:H4'	1:1G:1146:A:H8	1.81	0.43
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.47	0.43
1:1G:38:G:O2'	1:1G:39:G:H5''	2.17	0.43
1:1G:509:A:H5''	4:32:55:ALA:HB2	1.98	0.43
1:1G:57:G:H2'	1:1G:58:C:C6	2.53	0.43
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.50	0.43
26:1H:1799:G:H5''	26:1H:1819:A:N6	2.33	0.43
26:1H:1826:G:H4'	29:11:242:ARG:HH21	1.83	0.43
26:1H:1926:U:O2	26:1H:1928:A:C8	2.72	0.43
26:1H:2299:G:H8	26:1H:2299:G:O5'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.53	0.43
26:1H:2478:A:C8	26:1H:2529:G:C6	3.06	0.43
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.53	0.43
26:1H:2660:A:H8	26:1H:2660:A:O5'	2.00	0.43
26:1H:2813:A:C5	26:1H:2814:C:C5	3.06	0.43
26:1H:289:A:N6	26:1H:351:G:H1'	2.33	0.43
26:1H:492:A:H2'	26:1H:493:G:O4'	2.18	0.43
30:29:195:LEU:HA	30:29:195:LEU:HD12	1.65	0.43
11:2A:27:ASN:HD22	11:2A:55:LYS:HD2	1.83	0.43
11:2A:66:LEU:HD23	11:2A:97:ALA:HB1	2.01	0.43
37:35:131:SER:HB3	37:35:134:ALA:HB2	1.99	0.43
12:3A:89:ARG:HB3	12:3A:89:ARG:HE	1.55	0.43
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.17	0.43
1:13:402:G:OP1	4:3E:74:GLN:HG2	2.18	0.43
12:3I:65:GLU:HG3	12:3I:65:GLU:O	2.17	0.43
24:3K:61:C:H2'	24:3K:62:C:O4'	2.18	0.43
24:3L:18:G:H2'	24:3L:57:G:H21	1.82	0.43
38:45:45:GLN:CD	38:45:45:GLN:H	2.21	0.43
13:4A:79:LYS:HG3	13:4A:82:MET:CE	2.48	0.43
5:4E:48:ALA:HB3	5:4E:54:ALA:HB2	2.00	0.43
14:5A:7:ILE:HG22	14:5A:23:ARG:NH1	2.33	0.43
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.32	0.43
7:62:65:ALA:CB	7:62:124:LEU:HD23	2.45	0.43
1:13:1423:G:P	36:68:49:ARG:NH2	2.91	0.43
34:69:75:LEU:HD22	34:69:77:LEU:H	1.83	0.43
15:6I:27:VAL:O	15:6I:31:LEU:HD23	2.19	0.43
37:78:49:ARG:HH12	37:78:50:ARG:NH2	2.16	0.43
28:79:45:ALA:C	28:79:171:ILE:HB	2.39	0.43
1:13:607:A:C2	16:7I:31:LYS:HG3	2.52	0.43
9:82:89:ASN:OD1	9:82:89:ASN:N	2.51	0.43
42:85:90:VAL:HG12	42:85:91:ASP:HA	2.01	0.43
9:8E:11:LYS:C	9:8E:13:ALA:H	2.22	0.43
9:8E:34:ASN:N	9:8E:34:ASN:OD1	2.52	0.43
9:8E:5:TYR:CG	9:8E:6:GLY:N	2.86	0.43
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.17	0.43
1:13:247:G:OP1	17:8I:100:LYS:HD2	2.18	0.43
40:A8:66:ALA:HA	40:A8:69:VAL:HG12	1.99	0.43
19:AI:25:LYS:HB3	19:AI:27:GLU:H	1.84	0.43
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.22	0.43
46:G8:34:LYS:CG	46:G8:34:LYS:O	2.66	0.43
26:1H:2611:U:C2	53:N8:3:LYS:HB3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:254:G:H2'	1:13:255:G:O4'	2.17	0.43
1:13:982:U:H4'	1:13:983:A:O5'	2.17	0.43
26:14:1170:G:H2'	26:14:1171:G:H5'	1.99	0.43
26:14:161:U:H5'	26:14:171:G:N2	2.33	0.43
26:14:1674:G:H1'	26:14:1676:A:N6	2.33	0.43
26:14:2622:C:H5'	30:29:159:HIS:CE1	2.52	0.43
26:14:2844:G:C6	26:14:2845:G:C4	3.07	0.43
26:14:2844:G:C5	26:14:2845:G:C5	3.06	0.43
26:14:631:A:O2'	37:35:67:MET:HB3	2.18	0.43
26:14:769:G:H2'	26:14:770:G:H8	1.82	0.43
26:14:943:U:OP1	37:35:36:LYS:HG3	2.19	0.43
27:16:41:U:C5	32:41:70:VAL:HG12	2.54	0.43
29:19:228:PRO:HD3	29:19:234:GLY:O	2.19	0.43
29:19:70:TRP:O	29:19:73:VAL:HG23	2.18	0.43
29:19:8:PRO:HB3	29:19:14:ARG:HB2	2.01	0.43
1:1G:1127:G:H2'	1:1G:1128:C:C6	2.47	0.43
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.51	0.43
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.22	0.43
1:1G:223:U:H2'	1:1G:224:C:C6	2.53	0.43
1:1G:617:G:C6	1:1G:618:C:C5	3.06	0.43
26:1H:1211:U:H4'	26:1H:1212:G:OP2	2.18	0.43
26:1H:1335:U:H2'	26:1H:1336:A:O4'	2.19	0.43
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.49	0.43
26:1H:1999:C:OP1	30:21:118:LYS:NZ	2.50	0.43
26:1H:530:G:N1	26:1H:2022:U:OP1	2.52	0.43
26:1H:2565:A:H5''	26:1H:2566:A:OP2	2.18	0.43
26:1H:654(N):G:C8	26:1H:654(P):G:N2	2.86	0.43
26:1H:90:U:H1'	26:1H:91:A:C8	2.54	0.43
30:21:14:ILE:O	30:21:15:PHE:HB2	2.18	0.43
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.90	0.43
4:32:25:ARG:HG3	4:32:30:LYS:O	2.18	0.43
4:32:63:LYS:HE3	4:32:63:LYS:HB2	1.71	0.43
4:3E:83:SER:O	4:3E:86:LYS:HG3	2.18	0.43
1:13:5:U:N3	4:3E:87:GLY:HA3	2.30	0.43
32:41:103:LEU:HD21	32:41:178:PHE:HZ	1.83	0.43
32:49:145:THR:C	32:49:147:ASP:H	2.21	0.43
33:51:20:ALA:HB3	33:51:23:ARG:HG2	1.99	0.43
39:55:100:LEU:HD12	39:55:111:LEU:HB2	2.00	0.43
35:58:12:ARG:HG2	35:58:13:TRP:N	2.32	0.43
34:61:124:GLY:H	34:61:142:VAL:HG23	1.81	0.43
7:62:20:ASP:HB3	7:62:23:VAL:CG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:7:TYR:HA	40:65:10:ARG:HH21	1.83	0.43
15:6I:40:SER:O	15:6I:44:LYS:HG3	2.18	0.43
8:72:120:THR:CG2	8:72:123:GLU:H	2.26	0.43
17:8A:60:ILE:HG23	17:8A:62:SER:OG	2.18	0.43
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.18	0.43
18:9A:37:VAL:CG1	18:9A:78:LEU:HB3	2.48	0.43
26:14:71:A:C2	45:B5:31:HIS:CE1	2.98	0.43
46:C5:2:ARG:HA	46:C5:2:ARG:HD3	1.73	0.43
50:K8:58:ALA:O	50:K8:62:THR:HG22	2.19	0.43
54:L5:29:LYS:O	54:L5:33:ARG:HG3	2.18	0.43
2:12:139:LYS:O	2:12:143:GLU:HG3	2.17	0.43
1:13:51:A:N3	1:13:116:A:HI'	2.34	0.43
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.63	0.43
1:13:1197:G:H2'	1:13:1198:G:H5'	2.00	0.43
1:13:1448:C:N4	1:13:1455:G:H1	2.07	0.43
1:13:187:C:O2	1:13:191(A):G:C6	2.71	0.43
1:13:235:C:H5'	17:8I:70:ARG:CG	2.39	0.43
1:13:291:C:H42	1:13:309:G:H1	1.66	0.43
1:13:724:G:O2'	1:13:725:G:H5'	2.18	0.43
1:13:738:C:H2'	1:13:739:C:C6	2.53	0.43
1:13:827:U:C4	1:13:870:U:C4	3.07	0.43
1:13:871:U:HO2'	1:13:872:A:P	2.41	0.43
26:14:1282:U:H2'	26:14:1283:G:O4'	2.18	0.43
26:14:2303:G:C2'	26:14:2304:G:H5'	2.48	0.43
26:14:2688:U:C5	26:14:2720:U:OP2	2.72	0.43
26:14:2837:G:H2'	26:14:2838:G:H8	1.83	0.43
26:14:2841:C:H2'	26:14:2842:G:H8	1.82	0.43
26:14:2869:G:H2'	26:14:2870:C:O4'	2.18	0.43
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.83	0.43
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.33	0.43
1:1G:457:C:H2'	1:1G:458:C:O4'	2.18	0.43
1:1G:565:U:H3'	1:1G:566:G:H2'	1.99	0.43
1:1G:888:G:HO2'	1:1G:1488:G:HO2'	1.61	0.43
1:1G:909:A:H2'	1:1G:910:C:O4'	2.18	0.43
26:1H:1392:A:N6	26:1H:1393:A:N6	2.67	0.43
26:1H:1532:C:H2'	26:1H:1533:C:O4'	2.18	0.43
26:1H:394:A:C6	26:1H:395:U:N3	2.87	0.43
26:1H:606:U:H4'	26:1H:658:C:H4'	2.00	0.43
26:1H:633:A:H2'	26:1H:634:C:H5'	1.99	0.43
26:1H:658:C:H2'	26:1H:659:C:C6	2.54	0.43
26:1H:729:G:O5'	29:11:208:LYS:NZ	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:66:A:H61	27:1J:107:U:H2'	1.83	0.43
30:21:116:VAL:HG23	30:21:120:TRP:HD1	1.83	0.43
30:21:134:ILE:HD12	30:21:134:ILE:C	2.38	0.43
3:22:35:GLU:HA	3:22:38:ARG:HE	1.83	0.43
30:29:107:THR:O	30:29:190:GLY:HA2	2.19	0.43
3:2E:139:GLN:O	3:2E:143:GLU:HG3	2.17	0.43
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.99	0.43
23:2L:40:C:H2'	23:2L:41:C:C6	2.53	0.43
31:31:101:LEU:HD23	31:31:101:LEU:HA	1.68	0.43
31:39:66:PRO:O	31:39:67:GLN:CB	2.61	0.43
4:3E:80:GLU:O	4:3E:83:SER:HB2	2.19	0.43
12:3I:84:LEU:HD22	12:3I:104:VAL:HG11	1.99	0.43
5:42:18:ARG:HH21	5:42:25:ARG:HH11	1.67	0.43
38:45:103:MET:O	38:45:104:PHE:HB2	2.18	0.43
22:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.18	0.43
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.53	0.43
6:52:7:ASN:OD1	6:52:7:ASN:N	2.52	0.43
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	2.00	0.43
34:61:95:LYS:HB3	34:61:95:LYS:HE3	1.52	0.43
27:1J:47:C:H5'	40:65:10:ARG:HH12	1.83	0.43
40:65:43:GLU:HG3	40:65:44:LYS:HE2	2.00	0.43
34:69:122:GLU:HB3	34:69:126:TYR:OH	2.17	0.43
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.18	0.43
41:75:86:ILE:HG21	41:75:86:ILE:HD13	1.71	0.43
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.39	0.43
43:95:34:GLU:OE2	43:95:56:SER:HB2	2.18	0.43
43:95:94:LEU:HA	43:95:94:LEU:HD23	1.78	0.43
26:1H:2840:C:H4'	39:98:53:HIS:CE1	2.53	0.43
18:9I:37:VAL:O	18:9I:41:LYS:HG2	2.19	0.43
40:A8:32:LEU:N	40:A8:32:LEU:HD23	2.34	0.43
20:BI:11:SER:O	20:BI:14:LYS:HB3	2.19	0.43
50:G5:42:GLY:HA2	50:G5:43:GLN:OE1	2.19	0.43
48:I8:42:GLY:O	48:I8:57:PHE:HD2	2.01	0.43
49:J8:71:TYR:HA	49:J8:74:VAL:HG12	2.00	0.43
55:Q8:6:THR:HG23	55:Q8:64:TYR:CD2	2.50	0.43
29:11:73:VAL:HG13	29:11:120:GLY:HA3	2.00	0.43
1:13:1286:A:C2	21:1F:18:TYR:OH	2.71	0.43
1:13:1450:U:O2'	1:13:1451:A:C5	2.71	0.43
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.40	0.43
1:13:468:A:H3'	1:13:474:G:H8	1.84	0.43
1:13:807:A:H2'	1:13:808:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1022:G:C5	26:14:1140:C:N4	2.86	0.43
26:14:123:G:H2'	26:14:124:G:O4'	2.19	0.43
26:14:1509:C:H5'	26:14:1510:A:O4'	2.18	0.43
26:14:234:C:H2'	26:14:235:U:C6	2.54	0.43
26:14:311:A:C6	26:14:328:U:C4	3.07	0.43
26:14:911:A:C6	38:45:9:TYR:CD2	3.07	0.43
27:16:24:G:C5	27:16:56:G:C4	3.07	0.43
27:16:31:C:H2'	27:16:32:C:H6	1.84	0.43
1:1G:1004:A:O2'	1:1G:1027:C:N4	2.52	0.43
1:1G:992:U:H3	1:1G:1044:A:N6	2.16	0.43
1:1G:1138:G:O2'	1:1G:1139:G:H5'	2.19	0.43
1:1G:1328:C:O2'	13:4A:29:ARG:NH2	2.50	0.43
1:1G:1344:C:H5''	9:82:120:ARG:O	2.18	0.43
1:1G:171:A:H2'	1:1G:172:A:C8	2.54	0.43
1:1G:591:U:H2'	1:1G:592:G:H8	1.80	0.43
1:1G:957:U:H1'	1:1G:960:U:C5	2.39	0.43
26:1H:1425:G:H2'	26:1H:1426:G:O4'	2.18	0.43
26:1H:1473:G:H2'	26:1H:1474:C:O4'	2.18	0.43
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.19	0.43
26:1H:1380:G:N2	26:1H:1570:A:C2	2.86	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.19	0.43
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.19	0.43
26:1H:218:A:OP2	60:1H:3560:HOH:O	2.21	0.43
26:1H:2392:A:H1'	37:78:61:ARG:HH11	1.82	0.43
26:1H:2561:A:N3	36:68:23:ARG:HD2	2.34	0.43
26:1H:478:A:C6	26:1H:480:A:C6	3.07	0.43
26:1H:607:U:H3	26:1H:621:A:H2	1.58	0.43
26:1H:806:C:P	37:78:41:ARG:NH2	2.92	0.43
1:13:1191:A:H5''	3:2E:4:LYS:HE2	2.01	0.43
23:2L:14:A:C4	23:2L:23:G:C2	3.06	0.43
4:32:201:GLN:HA	4:32:204:ILE:HB	2.01	0.43
37:35:52:GLU:HG2	37:35:55:ARG:HB3	2.00	0.43
4:3E:22:LYS:HD3	4:3E:25:ARG:HD2	2.01	0.43
4:3E:64:LEU:O	4:3E:67:ILE:N	2.52	0.43
24:3L:40:C:H2'	24:3L:41:A:C8	2.53	0.43
24:3L:60:U:H5''	24:3L:61:C:OP2	2.18	0.43
32:41:137:GLU:HG3	32:41:140:ILE:HG23	2.00	0.43
13:4A:92:HIS:NE2	13:4A:98:VAL:HG21	2.33	0.43
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.99	0.43
13:4I:65:LYS:HD2	13:4I:65:LYS:H	1.82	0.43
33:59:61:HIS:HA	33:59:64:LEU:HG	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:5:LEU:HD11	34:69:19:VAL:HB	1.99	0.43
28:71:21:THR:OG1	28:71:24:GLU:HG2	2.19	0.43
1:1G:600:C:H4'	8:72:128:GLY:O	2.19	0.43
8:72:12:ARG:CZ	8:72:27:PRO:HD3	2.49	0.43
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.54	0.43
8:7E:87:SER:CB	8:7E:93:VAL:H	2.31	0.43
9:8E:7:THR:O	9:8E:83:ARG:HG3	2.18	0.43
43:95:20:LEU:O	43:95:94:LEU:N	2.50	0.43
6:52:7:ASN:ND2	18:9A:34:TYR:HE2	2.14	0.43
40:A8:69:VAL:HG13	40:A8:101:LEU:HD13	2.00	0.43
40:A8:78:LEU:HD11	40:A8:108:GLY:CA	2.43	0.43
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.33	0.43
2:12:51:LEU:HA	2:12:54:THR:HB	2.01	0.43
1:13:1188:A:N6	60:13:1828:HOH:O	2.45	0.43
1:13:1483:A:C8	1:13:1484:C:C6	3.07	0.43
1:13:17:U:O2'	1:13:18:C:H5'	2.18	0.43
1:13:186(E):C:N4	1:13:191(B):G:H1	2.16	0.43
1:13:345:C:O2	1:13:345:C:H2'	2.17	0.43
1:13:390:C:H2'	1:13:391:G:C8	2.53	0.43
1:13:458:C:H2'	1:13:464:G:O4'	2.18	0.43
1:13:590:C:H42	1:13:649:G:H1	1.66	0.43
1:13:841:U:H2'	1:13:841:U:H6	1.64	0.43
26:14:1171:G:H8	26:14:1171:G:OP2	2.01	0.43
26:14:1429:G:H2'	26:14:1430:C:C6	2.54	0.43
26:14:2356:C:H4'	48:E5:20:ARG:HG3	1.99	0.43
26:14:2600:A:H2'	26:14:2601:C:C6	2.54	0.43
26:14:2677:G:H2'	26:14:2678:C:C6	2.53	0.43
26:14:579:G:C4	26:14:580:C:C5	3.07	0.43
29:19:133:LEU:HD13	29:19:173:VAL:HG13	2.00	0.43
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.47	0.43
1:1G:20:U:H2'	1:1G:21:G:O4'	2.18	0.43
1:1G:236:G:H2'	1:1G:237:C:C6	2.53	0.43
1:1G:745:C:H2'	1:1G:746:A:C8	2.53	0.43
1:1G:782:A:O3'	1:1G:1515:C:H4'	2.18	0.43
26:1H:1223:C:C2	26:1H:1229:G:C2	3.07	0.43
26:1H:1585:C:H2'	26:1H:1586:A:H5'	2.00	0.43
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.43
26:1H:1817:G:C6	26:1H:1818:U:C4	3.06	0.43
26:1H:2110:G:C6	26:1H:2120:G:C8	3.06	0.43
26:1H:2216:G:C2	26:1H:2217:G:C4	3.06	0.43
26:1H:2469:A:H2'	38:88:56:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2779:U:O4'	26:1H:2779:U:O2	2.33	0.43
26:1H:506:G:H5''	26:1H:509:C:H1'	2.01	0.43
26:1H:900:A:H3'	26:1H:901:A:C8	2.37	0.43
27:1J:88:C:H4'	27:1J:89:G:OP2	2.18	0.43
22:1K:60:U:H5'	22:1K:61:C:C5	2.53	0.43
22:1L:72:C:H3'	22:1L:73:A:H5''	2.01	0.43
30:21:11:MET:HE2	30:21:11:MET:HB3	1.88	0.43
23:2L:41:C:C2	23:2L:42:C:C5	3.07	0.43
31:31:28:ILE:HG12	31:31:119:ARG:NH2	2.33	0.43
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.99	0.43
4:32:184:LYS:HB2	4:32:184:LYS:HE3	1.82	0.43
31:39:110:LEU:HD11	31:39:205:ARG:NH2	2.31	0.43
31:39:123:LEU:HA	31:39:192:LEU:C	2.39	0.43
31:39:143:ALA:HB1	31:39:148:LEU:CB	2.48	0.43
4:3E:15:GLU:OE1	4:3E:59:ARG:NH2	2.40	0.43
24:3K:18:G:H1'	24:3K:58:A:C2	2.54	0.43
32:41:142:PRO:HB2	52:M8:31:ILE:HG21	1.99	0.43
38:45:42:ILE:HD13	38:45:97:VAL:HG21	2.01	0.43
38:45:81:VAL:HG23	38:45:82:ARG:H	1.84	0.43
32:49:52:ILE:HG23	32:49:53:LEU:N	2.33	0.43
33:51:94:TYR:HA	33:51:106:THR:O	2.18	0.43
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.18	0.43
39:55:38:VAL:HG22	39:55:112:ALA:HB2	2.01	0.43
3:22:29:TYR:OH	14:5A:54:PRO:HD2	2.18	0.43
14:5A:60:SER:C	14:5A:61:TRP:HE3	2.22	0.43
7:62:22:LEU:H	7:62:22:LEU:HG	1.60	0.43
26:14:2378:A:O2'	40:65:23:ARG:HD2	2.19	0.43
7:6E:95:ARG:HH11	7:6E:99:LEU:HD21	1.83	0.43
26:14:2178:C:H5'	28:79:46:LYS:HD3	2.01	0.43
1:1G:377:G:P	16:7A:5:ARG:HH11	2.42	0.43
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.99	0.43
42:85:12:ARG:HG2	42:85:12:ARG:H	1.60	0.43
9:8E:50:LEU:HA	9:8E:50:LEU:HD23	1.87	0.43
17:8I:11:VAL:HG22	17:8I:20:THR:O	2.18	0.43
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.19	0.43
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.49	0.43
47:D5:27:VAL:HG23	47:D5:36:LYS:HA	1.99	0.43
49:F5:92:LYS:HG2	49:F5:93:GLU:H	1.83	0.43
54:L5:29:LYS:HA	54:L5:32:LYS:HB3	1.99	0.43
2:12:182:ILE:H	2:12:182:ILE:HD12	1.83	0.43
1:13:1316:G:N2	1:13:1319:A:H5'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:554:C:H2'	1:13:555:C:C6	2.54	0.43
1:13:872:A:C5	1:13:874:G:C8	3.06	0.43
1:13:948:C:OP1	13:4I:109:THR:OG1	2.35	0.43
26:14:1142:U:O2	26:14:1142:U:H2'	2.17	0.43
26:14:123:G:O3'	26:14:1376:C:H4'	2.18	0.43
26:14:1573:G:C8	26:14:1574:C:C5	3.06	0.43
26:14:2197:U:O2'	26:14:2198:A:H2'	2.18	0.43
26:14:2259:G:C2	26:14:2282:G:N1	2.87	0.43
26:14:2309:A:C6	26:14:2310:A:C6	3.07	0.43
26:14:2861:G:C2	26:14:2862:G:C4	3.07	0.43
27:16:31:C:H2'	27:16:32:C:C6	2.54	0.43
26:14:1813:G:H1'	29:19:50:THR:OG1	2.19	0.43
1:1G:960:U:O2'	1:1G:1223:C:H5''	2.19	0.43
1:1G:946:A:H61	1:1G:1234:C:H42	1.67	0.43
1:1G:777:A:C6	1:1G:778:G:C4	3.07	0.43
1:1G:979:C:OP1	1:1G:1223:C:N4	2.50	0.43
26:1H:1311:G:N7	54:P8:9:ARG:NH2	2.66	0.43
26:1H:1942:C:OP2	26:1H:1943:U:O2'	2.27	0.43
26:1H:2056:G:C2	26:1H:2057:A:C8	3.06	0.43
26:1H:271(B):G:H8	26:1H:271(B):G:H2'	1.67	0.43
26:1H:43:G:H2'	26:1H:44:A:O4'	2.19	0.43
26:1H:602:G:N2	26:1H:655:A:C8	2.79	0.43
27:1J:115:G:H8	27:1J:115:G:OP2	2.02	0.43
3:22:35:GLU:O	3:22:39:ILE:HD12	2.19	0.43
23:2K:65:G:C2	23:2K:66:C:C2	3.07	0.43
23:2L:5:G:H2'	23:2L:6:G:O4'	2.19	0.43
24:3K:59:A:H3'	24:3K:60:U:C6	2.54	0.43
24:3K:51:A:H61	24:3K:63:U:H3	1.66	0.43
24:3L:59:A:C6	24:3L:60:U:H1'	2.54	0.43
32:41:139:LEU:H	32:41:139:LEU:HD23	1.83	0.43
27:16:43:C:P	32:41:67:LYS:HZ1	2.37	0.43
32:49:76:SER:HA	32:49:82:LEU:HD12	2.01	0.43
32:49:96:ARG:C	32:49:98:ARG:H	2.22	0.43
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.83	0.43
33:51:24:VAL:HG21	33:51:72:ILE:HD12	2.00	0.43
35:58:46:VAL:O	35:58:47:ALA:HB3	2.18	0.43
14:5A:17:LYS:NZ	14:5A:18:VAL:HG13	2.33	0.43
14:5A:9:LYS:CA	14:5A:12:ARG:HH12	2.32	0.43
6:5E:23:LYS:HE2	6:5E:23:LYS:HB3	1.80	0.43
6:5E:24:GLU:HG3	6:5E:28:ARG:NE	2.33	0.43
26:1H:2093:G:H5'	34:61:22:LYS:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:26:ASP:O	41:75:49:VAL:HG22	2.18	0.43
18:9I:40:LEU:HD23	18:9I:40:LEU:HA	1.66	0.43
26:14:483:A:H5'	46:C5:49:VAL:HA	2.01	0.43
26:1H:996:A:O3'	42:C8:92:ARG:HG2	2.19	0.43
43:D8:58:VAL:CG2	43:D8:98:GLU:HG3	2.49	0.43
26:14:2271:G:H5''	48:E5:20:ARG:NE	2.33	0.43
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.19	0.43
29:11:31:LYS:HZ1	29:11:102:LYS:NZ	2.17	0.43
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.53	0.43
1:13:1120:G:H2'	1:13:1121:U:C6	2.53	0.43
1:13:1137:C:O2'	1:13:1138:G:N3	2.52	0.43
1:13:1338:G:C6	1:13:1339:A:C6	3.06	0.43
1:13:1478:C:H2'	1:13:1479:C:C6	2.53	0.43
1:13:324:G:OP1	20:BI:70:SER:OG	2.23	0.43
1:13:456:C:H42	1:13:476:G:H1	1.66	0.43
1:13:545:C:H5'	4:3E:72:GLU:HG2	2.00	0.43
1:13:660:G:H2'	1:13:661:G:O4'	2.19	0.43
1:13:691:G:O2'	1:13:797:C:H4'	2.19	0.43
1:13:936:C:O2'	24:3K:34:U:H5'	2.18	0.43
26:14:1496:A:C8	26:14:1577:C:O2'	2.71	0.43
26:14:1655:A:H3'	26:14:1656:C:H6	1.84	0.43
26:14:1945:G:C6	26:14:1946:U:C4	3.06	0.43
26:14:2146:C:H4'	26:14:2147:G:N7	2.33	0.43
26:14:2137:C:N4	26:14:2154:G:H1	2.17	0.43
26:14:2748:A:H2'	26:14:2749:A:H8	1.83	0.43
26:14:2884:U:H2'	26:14:2885:C:O4'	2.19	0.43
26:14:1141:U:P	35:15:25:ARG:HH21	2.42	0.43
27:16:6:C:C2	27:16:115:G:N2	2.86	0.43
10:1A:94:VAL:HG12	10:1A:95:GLU:N	2.34	0.43
1:1G:1219:U:OP1	14:5A:19:ARG:NH2	2.49	0.43
1:1G:1348:U:H4'	9:82:120:ARG:HD2	2.00	0.43
1:1G:837:G:H2'	1:1G:838:G:H8	1.84	0.43
26:1H:99:U:C6	26:1H:102:G:N1	2.87	0.43
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.83	0.43
26:1H:2027:G:C5	26:1H:2028:U:C5	3.07	0.43
26:1H:2144:U:N3	26:1H:2146:C:O2	2.52	0.43
26:1H:2369:A:H2'	26:1H:2370:G:C8	2.54	0.43
26:1H:2393:A:H2'	26:1H:2394:C:C6	2.54	0.43
26:1H:55:G:C2	26:1H:116:C:N3	2.87	0.43
26:1H:564:C:H2'	26:1H:565:C:O4'	2.19	0.43
26:1H:57:C:H2'	26:1H:58:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:604:G:P	37:78:90:ARG:HH21	2.42	0.43
26:1H:792:G:H5''	26:1H:793:A:H5'	2.01	0.43
27:1J:14:U:H5'	27:1J:70:C:O2	2.19	0.43
22:1K:52:G:H22	22:1K:62:C:N4	2.16	0.43
22:1L:42:A:H8	22:1L:42:A:O5'	2.02	0.43
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.54	0.43
31:31:23:ASP:OD1	31:31:24:LEU:N	2.46	0.43
1:1G:437:U:H5''	4:32:155:LEU:HD13	2.00	0.43
4:32:201:GLN:O	4:32:205:GLU:HB2	2.19	0.43
12:3I:83:VAL:HG11	12:3I:100:ILE:HD12	2.01	0.43
24:3K:58:A:HO2'	24:3K:59:A:P	2.38	0.43
24:3K:58:A:O2'	24:3K:59:A:P	2.77	0.43
24:3L:58:A:OP1	24:3L:58:A:H8	2.02	0.43
32:41:111:LEU:HA	32:41:114:ILE:HG13	2.01	0.43
32:41:46:ALA:HB1	32:41:53:LEU:HD22	2.01	0.43
5:42:110:LEU:HD21	5:42:139:LEU:HD21	2.01	0.43
13:4A:8:GLU:CD	13:4A:9:ILE:H	2.22	0.43
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.83	0.43
25:4L:10:G:OP2	25:4L:10:G:H8	2.02	0.43
39:55:59:ASP:OD1	39:55:61:HIS:HB3	2.18	0.43
14:5A:60:SER:O	14:5A:61:TRP:HB3	2.18	0.43
36:68:6:THR:HG22	36:68:7:TYR:O	2.19	0.43
34:69:82:ARG:O	34:69:89:TYR:HD2	2.01	0.43
15:6A:61:GLY:O	15:6A:65:ARG:HD2	2.19	0.43
7:6E:16:LEU:CD1	9:8E:42:ARG:HA	2.48	0.43
41:75:63:VAL:O	41:75:73:GLU:HA	2.19	0.43
28:79:46:LYS:HB2	28:79:210:ARG:CB	2.49	0.43
16:7A:16:HIS:N	16:7A:16:HIS:CD2	2.85	0.43
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.19	0.43
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.84	0.43
16:7I:21:VAL:HG22	16:7I:34:GLU:O	2.19	0.43
16:7I:72:ARG:HA	16:7I:75:ARG:HB3	1.99	0.43
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.54	0.43
42:85:100:VAL:O	42:85:102:GLU:N	2.50	0.43
38:88:20:ALA:CB	38:88:99:PRO:HB2	2.47	0.43
17:8I:28:PRO:HA	17:8I:35:VAL:HA	2.01	0.43
43:95:79:VAL:O	43:95:80:GLN:CG	2.64	0.43
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	2.00	0.43
51:L8:7:LYS:HA	51:L8:33:GLN:O	2.19	0.43
2:12:219:VAL:HB	2:12:221:LEU:N	2.34	0.43
2:12:25:ASN:OD1	2:12:27:LYS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1005:A:H5''	1:13:1006:C:C6	2.54	0.43
1:13:1053:G:N7	1:13:1199:U:H3'	2.34	0.43
1:13:1053:G:N7	1:13:1200:C:H5''	2.34	0.43
1:13:1216:G:OP1	14:5I:2:ALA:HB1	2.18	0.43
1:13:1525:G:OP1	11:2I:120:ARG:NH2	2.51	0.43
1:13:167:G:H2'	1:13:168:G:H8	1.83	0.43
1:13:641:U:O2'	1:13:642:A:OP2	2.32	0.43
1:13:577:G:N2	1:13:764:C:O2	2.41	0.43
1:13:994:A:H2'	1:13:994:A:N3	2.34	0.43
26:14:1324:G:H4'	26:14:1616:A:C2	2.54	0.43
26:14:2210:G:H5'	26:14:2211:G:C6	2.53	0.43
26:14:227:A:C2	26:14:2407:G:H1'	2.54	0.43
26:14:312:G:H5'	26:14:331:A:O2'	2.19	0.43
26:14:529:A:C8	26:14:530:G:C6	3.07	0.43
26:14:603:A:H1'	26:14:604:G:O4'	2.19	0.43
29:19:2:ALA:HB3	29:19:20:ASP:HB2	2.01	0.43
2:1E:155:LEU:HA	2:1E:155:LEU:HD13	1.83	0.43
1:1G:1090:U:H2'	1:1G:1091:U:C6	2.53	0.43
1:1G:1050:G:N2	1:1G:1209:C:H1'	2.34	0.43
1:1G:956:U:C2	1:1G:1225:A:C2	3.07	0.43
1:1G:567:G:C2	1:1G:568:G:H1'	2.54	0.43
1:1G:586:C:H1'	1:1G:878:G:O2'	2.18	0.43
1:1G:895:G:H2'	1:1G:896:C:C6	2.54	0.43
26:1H:1126:A:O5'	26:1H:1126:A:H8	2.01	0.43
26:1H:1271:G:O3'	26:1H:1272:A:H4'	2.19	0.43
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.19	0.43
26:1H:1387:C:C2	26:1H:1388:G:C8	3.07	0.43
26:1H:1485:G:C2	26:1H:1486:A:C4	3.07	0.43
26:1H:1512:G:H2'	26:1H:1513:C:H6	1.81	0.43
26:1H:1749:A:C4	26:1H:1750:G:C8	3.07	0.43
26:1H:1819:A:O4'	26:1H:1821:A:C5	2.72	0.43
26:1H:1823:G:OP1	29:11:54:ARG:NH2	2.45	0.43
26:1H:1996:C:OP1	26:1H:1996:C:H6	2.01	0.43
26:1H:2062:A:HO2'	26:1H:2063:C:P	2.42	0.43
26:1H:2470:G:H8	26:1H:2470:G:O5'	2.01	0.43
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.83	0.43
26:1H:2653:U:H2'	26:1H:2654:A:C8	2.54	0.43
26:1H:669:G:N3	26:1H:669:G:C2'	2.81	0.43
30:21:84:PHE:CZ	30:21:86:PRO:HB3	2.53	0.43
36:25:113:LYS:HG2	36:25:113:LYS:H	1.28	0.43
30:29:10:GLY:C	41:75:8:LYS:HZ3	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:54:ARG:O	11:2I:57:THR:HG22	2.19	0.43
23:2K:53:G:C6	23:2K:54:G:N7	2.87	0.43
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.50	0.43
31:39:123:LEU:O	31:39:193:VAL:HA	2.19	0.43
31:39:25:PRO:C	31:39:27:GLU:H	2.21	0.43
4:3E:126:ILE:HA	4:3E:126:ILE:HD13	1.88	0.43
24:3K:1:G:H2'	24:3K:1:G:N3	2.34	0.43
32:41:117:PHE:HZ	32:41:179:PRO:HG2	1.83	0.43
32:41:95:ARG:CA	32:41:99:MET:HB2	2.45	0.43
5:42:74:GLY:HA3	5:42:116:THR:OG1	2.19	0.43
38:45:125:LEU:HA	38:45:125:LEU:HD23	1.68	0.43
38:45:82:ARG:HD3	38:45:82:ARG:HA	1.68	0.43
32:49:109:VAL:O	32:49:113:ARG:HG3	2.19	0.43
32:49:77:ILE:O	32:49:82:LEU:HB3	2.19	0.43
39:55:107:ASP:OD1	39:55:107:ASP:C	2.57	0.43
39:55:60:LEU:HA	39:55:60:LEU:HD12	1.67	0.43
7:62:73:MET:HG2	7:62:90:GLU:HA	2.00	0.43
40:65:34:HIS:HB3	40:65:53:SER:OG	2.18	0.43
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.18	0.43
41:75:53:ARG:O	41:75:53:ARG:HG3	2.19	0.43
28:79:200:LYS:HB3	28:79:208:PHE:CG	2.54	0.43
1:13:449:C:C6	16:7I:42:ARG:HD2	2.54	0.43
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	2.01	0.43
39:98:29:LEU:HB2	39:98:75:LEU:HD21	1.99	0.43
39:98:52:ILE:O	39:98:55:ALA:N	2.52	0.43
18:9I:59:SER:HB3	18:9I:62:GLU:CG	2.49	0.43
40:A8:83:LYS:O	40:A8:109:GLY:HA2	2.19	0.43
40:A8:24:LEU:CD1	40:A8:41:ASP:HB2	2.49	0.43
40:A8:30:ARG:HG3	40:A8:30:ARG:O	2.19	0.43
19:AA:13:ASP:HA	19:AA:16:LEU:HD23	2.01	0.43
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.49	0.43
45:F8:55:ASN:HB2	45:F8:80:ILE:CG1	2.46	0.43
45:F8:66:LEU:HA	45:F8:66:LEU:HD12	1.67	0.43
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.19	0.43
45:B5:11:PRO:HD3	50:G5:37:PHE:CE2	2.53	0.43
47:H8:67:LEU:HD22	47:H8:90:VAL:HG21	2.00	0.43
1:13:1032:A:H3'	1:13:1032(A):G:H4'	2.01	0.43
1:13:959:A:C2	1:13:1222:G:O4'	2.71	0.43
1:13:1531:A:H2'	1:13:1531:A:N3	2.34	0.43
1:13:22:G:H2'	1:13:23:C:H6	1.84	0.43
1:13:232:G:C5	1:13:233:C:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:243:A:H4'	1:13:244:U:H3'	2.01	0.43
1:13:277:C:H2'	1:13:278:G:C8	2.53	0.43
1:13:450:G:N7	1:13:481:G:C6	2.87	0.43
1:13:457:C:H2'	1:13:458:C:H6	1.83	0.43
1:13:639:G:O2'	1:13:640:A:H5'	2.19	0.43
1:13:739:C:O2	15:6I:42:HIS:HE1	2.01	0.43
1:13:838:G:O6	1:13:848:C:N4	2.52	0.43
26:14:1052:C:H2'	26:14:1053:C:H5'	2.01	0.43
26:14:1054:A:N3	26:14:1054:A:H2'	2.34	0.43
26:14:1317:A:H2'	26:14:1318:C:C6	2.53	0.43
26:14:1514:U:H2'	26:14:1515:C:C6	2.53	0.43
26:14:2439:A:C5'	26:14:2439:A:C8	3.00	0.43
26:14:2631:G:C6	26:14:2632:A:N7	2.87	0.43
26:14:2845:G:H2'	26:14:2846:G:C8	2.54	0.43
26:14:451:C:H41	26:14:454:A:H5'	1.84	0.43
26:14:491:G:H2'	26:14:492:A:C8	2.54	0.43
26:14:587:C:OP2	37:35:21:ARG:NH2	2.52	0.43
26:14:775:G:C5	26:14:794:G:C8	3.07	0.43
29:19:267:SER:O	29:19:268:ARG:HG2	2.18	0.43
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.19	0.43
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.01	0.43
1:1G:1178:G:O2'	1:1G:1180:A:N7	2.52	0.43
1:1G:1205:U:H2'	1:1G:1206:G:H8	1.84	0.43
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.19	0.43
1:1G:49:U:C2	1:1G:361:G:N2	2.87	0.43
1:1G:977:A:N3	1:1G:977:A:H3'	2.34	0.43
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.35	0.43
26:1H:1533:C:C6	26:1H:1534:G:H5''	2.53	0.43
26:1H:153:C:H2'	26:1H:154:G:H8	1.84	0.43
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.48	0.43
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.83	0.43
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.34	0.43
26:1H:2019:A:H62	53:N8:9:LYS:NZ	2.17	0.43
26:1H:2135:A:H5'	26:1H:2159:G:H21	1.84	0.43
26:1H:2208:U:O2	26:1H:2217:G:C2	2.72	0.43
26:1H:340:A:H2'	26:1H:341:G:O4'	2.19	0.43
26:1H:68:G:H2'	26:1H:69:C:O4'	2.19	0.43
26:1H:764:A:N3	29:11:213:ARG:NH1	2.64	0.43
26:1H:977:G:C5	26:1H:987:G:C2	3.07	0.43
27:1J:78:A:C2	27:1J:99:A:C4	3.06	0.43
27:1J:93:C:H2'	27:1J:94:C:C6	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:22:G:OP1	22:1K:48:C:N4	2.51	0.43
30:21:38:THR:CG2	30:21:41:LYS:H	2.30	0.43
3:22:32:LEU:HD23	3:22:59:ARG:NH1	2.34	0.43
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.53	0.43
31:31:160:ASN:CG	31:31:163:VAL:HG23	2.39	0.43
31:31:165:ARG:HA	31:31:168:ARG:HD3	2.01	0.43
26:1H:1257:C:OP1	31:31:75:HIS:HE1	2.01	0.43
4:32:61:LYS:HD2	4:32:206:PHE:CE2	2.54	0.43
24:3K:49:G:C8	24:3K:66:A:C6	3.07	0.43
13:4I:70:LEU:HA	13:4I:70:LEU:HD23	1.77	0.43
35:58:1:MET:CE	43:D8:12:TYR:HA	2.49	0.43
33:59:68:THR:O	33:59:71:LEU:HB2	2.18	0.43
40:65:30:ARG:HB3	40:65:30:ARG:HE	1.66	0.43
37:78:127:ALA:HB3	37:78:130:PHE:CZ	2.53	0.43
28:79:200:LYS:H	28:79:200:LYS:HG2	1.56	0.43
38:88:109:VAL:HG13	38:88:113:GLN:HB3	2.01	0.43
17:8I:63:ARG:HG3	17:8I:64:PRO:HD2	2.01	0.43
43:95:35:LEU:O	43:95:37:VAL:HG13	2.18	0.43
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	2.01	0.43
20:BA:54:LYS:HE3	20:BA:54:LYS:HB3	1.74	0.43
20:BI:13:LEU:C	20:BI:13:LEU:HD12	2.39	0.43
50:G5:57:ILE:HG13	50:G5:57:ILE:H	1.57	0.43
26:1H:99:U:O4	46:G8:8:LYS:NZ	2.52	0.43
48:I8:47:PRO:HB3	48:I8:59:LEU:HD22	2.00	0.43
53:J5:52:TYR:CD1	53:J5:53:ALA:N	2.87	0.43
29:11:31:LYS:C	29:11:35:LYS:HZ1	2.17	0.42
29:11:70:TRP:CD1	29:11:70:TRP:C	2.93	0.42
1:13:1149:C:H2'	1:13:1150:U:H6	1.84	0.42
1:13:1217:C:OP1	14:5I:9:LYS:NZ	2.46	0.42
1:13:1298:C:H4'	1:13:1299:A:C4	2.54	0.42
1:13:20:U:H2'	1:13:21:G:O4'	2.18	0.42
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.46	0.42
1:13:476:G:N2	1:13:477:G:H1'	2.34	0.42
1:13:593:G:H2'	1:13:594:G:H8	1.83	0.42
1:13:626:U:N3	1:13:627:G:N7	2.66	0.42
1:13:681:C:H2'	1:13:682:G:C8	2.54	0.42
26:14:51:G:N3	26:14:119:A:C2	2.87	0.42
26:14:1686:C:H2'	26:14:1687:G:O4'	2.19	0.42
26:14:1697:G:OP2	26:14:1698:A:O2'	2.31	0.42
26:14:2723:C:H6	26:14:2723:C:O5'	2.02	0.42
26:14:2729:G:H1'	30:29:187:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2728:U:O2'	26:14:2729:G:H5'	2.19	0.42
26:14:388:G:O2'	26:14:389:G:N7	2.47	0.42
26:14:587:C:H4'	26:14:588:U:H6	1.83	0.42
29:19:267:SER:O	29:19:269:PHE:N	2.52	0.42
10:1A:21:GLN:O	10:1A:24:VAL:HG12	2.19	0.42
10:1A:16:LEU:CD2	10:1A:68:HIS:HB3	2.48	0.42
1:1G:1014:A:O5'	1:1G:1014:A:H8	2.02	0.42
1:1G:1055:A:C6	1:1G:1206:G:C4	3.07	0.42
1:1G:991:U:H5	1:1G:1212:U:H1'	1.83	0.42
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.54	0.42
1:1G:1525:G:H2'	1:1G:1526:G:O4'	2.18	0.42
1:1G:604:G:H2'	1:1G:605:U:O4'	2.19	0.42
1:1G:804:U:H5''	1:1G:805:C:OP2	2.19	0.42
1:1G:80:G:O2'	1:1G:81:G:OP1	2.35	0.42
1:1G:955:U:H2'	1:1G:956:U:C6	2.54	0.42
26:1H:1053:C:H6	26:1H:1107:G:C6	2.37	0.42
26:1H:2070:G:C2	26:1H:2442:C:C2	3.07	0.42
26:1H:2213:U:H1'	49:J8:52:ARG:NH2	2.34	0.42
26:1H:2256:G:H2'	26:1H:2257:U:O4'	2.19	0.42
26:1H:2320:A:N3	26:1H:2320:A:H2'	2.34	0.42
26:1H:2469:A:H2'	38:88:56:ARG:HH21	1.83	0.42
26:1H:2830:G:H8	26:1H:2830:G:H5''	1.84	0.42
26:1H:34:C:P	26:1H:34:C:O4'	2.77	0.42
26:1H:937:U:H2'	26:1H:938:G:O4'	2.19	0.42
27:1J:40:U:O2	27:1J:43:C:H5''	2.18	0.42
30:21:84:PHE:HZ	30:21:91:VAL:HG11	1.84	0.42
30:29:53:PRO:CA	30:29:74:PRO:HB3	2.49	0.42
11:2A:87:THR:O	11:2A:87:THR:OG1	2.34	0.42
3:2E:131:ARG:HD3	3:2E:166:GLU:HG2	2.01	0.42
31:31:181:LEU:O	31:31:205:ARG:NH2	2.50	0.42
12:3A:45:PRO:HD3	12:3A:51:ALA:O	2.19	0.42
4:3E:10:ARG:HG3	4:3E:11:LEU:H	1.80	0.42
24:3K:48:C:C5	24:3K:59:A:C6	3.07	0.42
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.18	0.42
5:4E:29:GLY:HA2	5:4E:46:GLY:O	2.18	0.42
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.19	0.42
33:51:118:PRO:O	33:51:121:ILE:HB	2.19	0.42
33:51:41:MET:HE1	33:51:64:LEU:HD12	2.01	0.42
35:58:96:GLU:HB2	35:58:122:VAL:HG12	2.00	0.42
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.54	0.42
26:1H:811:U:H3'	37:78:22:GLY:HA2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:7:TYR:CD1	28:79:10:LEU:HB2	2.54	0.42
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.18	0.42
16:7I:20:VAL:HG21	16:7I:32:TYR:CB	2.49	0.42
42:85:66:ASN:ND2	42:85:70:ARG:HE	2.17	0.42
1:1G:254:G:OP1	17:8A:67:LYS:O	2.37	0.42
9:8E:17:VAL:HG11	9:8E:80:GLY:C	2.39	0.42
17:8I:25:ARG:HG2	17:8I:25:ARG:H	1.71	0.42
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.52	0.42
43:95:18:LEU:O	43:95:96:ILE:HG12	2.18	0.42
19:AA:35:SER:O	19:AA:71:LEU:HD23	2.19	0.42
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.82	0.42
47:D5:94:GLU:N	47:D5:130:PRO:HD2	2.35	0.42
44:E8:7:ALA:HB2	44:E8:50:VAL:HG22	2.01	0.42
49:F5:40:ARG:NH2	49:F5:42:GLN:HG2	2.34	0.42
51:L8:31:LEU:HB3	51:L8:32:GLN:HG2	2.01	0.42
26:1H:1568:G:N7	29:11:28:GLU:HG3	2.35	0.42
1:13:1028(A):C:H42	1:13:1032(A):G:H22	1.68	0.42
1:13:1131:G:O2'	1:13:1132:C:H5'	2.20	0.42
1:13:1366:C:H2'	1:13:1367:C:H6	1.84	0.42
1:13:511:C:C2	1:13:512:U:C5	3.07	0.42
1:13:692:U:O2'	1:13:694:A:N7	2.42	0.42
26:14:142:G:OP1	26:14:1598:C:H1'	2.19	0.42
26:14:1496:A:H8	26:14:1577:C:O2'	1.96	0.42
26:14:1858:G:H2'	26:14:1883:G:H22	1.85	0.42
26:14:2212:A:H1'	26:14:2215:G:C5	2.54	0.42
26:14:860:U:C1'	26:14:2268:A:H5'	2.49	0.42
26:14:273(C):C:H2'	26:14:273(D):C:O4'	2.19	0.42
26:14:2892:A:H3'	26:14:2893:G:H4'	2.00	0.42
27:16:13:A:O2'	27:16:14:U:H3'	2.18	0.42
10:1A:13:HIS:CD2	10:1A:14:LYS:N	2.87	0.42
2:1E:131:PRO:O	2:1E:135:GLN:HB2	2.19	0.42
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.31	0.42
1:1G:1275:A:C6	1:1G:1276:G:C6	3.07	0.42
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.19	0.42
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.54	0.42
1:1G:641:U:O3'	1:1G:642:A:H8	2.02	0.42
26:1H:127:A:H5''	26:1H:128:C:C6	2.53	0.42
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.84	0.42
26:1H:1534:G:N2	26:1H:1538:G:N3	2.65	0.42
26:1H:1664:A:N6	26:1H:1665:A:N6	2.68	0.42
26:1H:1790:C:H5''	26:1H:1791:A:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2153:G:C2	26:1H:2154:G:C6	3.07	0.42
26:1H:2187:G:C2	26:1H:2188:C:C2	3.07	0.42
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.83	0.42
26:1H:2636:U:H3	26:1H:2782:G:H1	1.68	0.42
26:1H:557:U:H2'	26:1H:558:G:C8	2.54	0.42
26:1H:674:G:O2'	31:31:74:ARG:CD	2.66	0.42
26:1H:686:G:H4'	26:1H:687:C:OP2	2.19	0.42
22:1L:24:G:C2	22:1L:25:C:C2	3.07	0.42
22:1L:44:U:H5''	22:1L:45:G:OP2	2.19	0.42
36:25:17:ARG:NH1	36:25:47:ILE:HD11	2.34	0.42
30:29:105:THR:HG21	30:29:164:ARG:HE	1.84	0.42
30:29:27:LEU:HA	30:29:180:ASN:O	2.19	0.42
23:2L:69:C:H2'	23:2L:70:C:C6	2.54	0.42
4:32:86:LYS:HE2	4:32:86:LYS:N	2.31	0.42
37:35:95:VAL:HA	37:35:99:LEU:HD13	2.00	0.42
31:39:146:ALA:CB	31:39:148:LEU:HG	2.49	0.42
1:1G:537:G:H5''	12:3A:113:ARG:NH1	2.34	0.42
12:3I:45:PRO:HD3	12:3I:51:ALA:O	2.19	0.42
24:3K:29:U:C2'	24:3K:30:G:H5'	2.49	0.42
24:3K:68:G:H2'	24:3K:69:A:C8	2.54	0.42
32:41:47:LYS:HD2	32:41:81:LYS:CB	2.46	0.42
13:4A:33:ALA:O	13:4A:37:THR:HB	2.18	0.42
25:4K:11:U:H6	25:4K:11:U:OP2	2.02	0.42
6:52:33:TYR:CZ	6:52:78:GLU:HG3	2.54	0.42
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.01	0.42
33:59:9:ILE:HB	33:59:51:ARG:HB3	2.01	0.42
7:62:26:PHE:CE1	7:62:30:ILE:HD11	2.54	0.42
7:62:93:PRO:O	7:62:97:GLN:N	2.49	0.42
34:69:144:VAL:O	34:69:144:VAL:HG23	2.19	0.42
41:75:91:ARG:HD3	41:75:120:ARG:HB3	2.01	0.42
28:79:53:ARG:HE	28:79:54:SER:N	2.13	0.42
16:7A:48:TRP:N	16:7A:48:TRP:CD1	2.87	0.42
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.53	0.42
1:13:376:G:OP2	16:7I:67:THR:HG21	2.19	0.42
16:7I:74:LEU:HD23	16:7I:74:LEU:HA	1.80	0.42
1:1G:1119:C:OP1	9:82:83:ARG:NH1	2.52	0.42
39:98:9:LYS:HA	39:98:17:ARG:CD	2.49	0.42
39:98:51:LEU:HD23	39:98:51:LEU:HA	1.71	0.42
26:14:494:G:OP1	44:A5:8:ARG:HD3	2.18	0.42
19:AA:11:VAL:HG12	19:AA:12:ASP:O	2.19	0.42
19:AI:6:LYS:HD2	19:AI:6:LYS:HA	1.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:63:ILE:CG2	20:BI:77:ALA:HB1	2.49	0.42
47:D5:53:ILE:CG1	47:D5:54:HIS:HD2	2.17	0.42
48:E5:46:LYS:HA	48:E5:47:PRO:HD3	1.78	0.42
44:E8:78:GLU:OE1	44:E8:99:ARG:HG2	2.19	0.42
26:1H:1599:C:P	45:F8:36:LYS:HB2	2.59	0.42
46:G8:10:GLY:HA3	46:G8:106:LEU:O	2.19	0.42
47:H8:100:VAL:HG21	47:H8:134:PRO:HG2	2.01	0.42
40:A8:20:ARG:NH1	48:I8:47:PRO:O	2.52	0.42
55:Q8:49:VAL:O	55:Q8:50:LEU:C	2.58	0.42
29:11:77:ALA:HB3	29:11:117:VAL:HG23	2.02	0.42
26:1H:1826:G:H4'	29:11:242:ARG:NE	2.34	0.42
1:13:186(E):C:N3	1:13:191(C):G:C2	2.87	0.42
1:13:259:G:H2'	1:13:260:G:O4'	2.19	0.42
1:13:558:G:C5	1:13:559:A:C2	3.07	0.42
1:13:998(A):C:H2'	1:13:999:U:C6	2.54	0.42
26:14:1005:C:O2	26:14:1143:A:C6	2.72	0.42
26:14:1453:A:O2'	26:14:1454:U:H2'	2.19	0.42
26:14:1556:C:H2'	26:14:1557:C:H6	1.84	0.42
26:14:1592:C:H2'	26:14:1593:G:C8	2.54	0.42
26:14:1670:C:O2	30:29:129:HIS:NE2	2.44	0.42
26:14:2432:A:H2'	26:14:2433:A:H8	1.82	0.42
26:14:270(T):G:C6	26:14:270(U):C:C4	3.08	0.42
26:14:2855:C:H2'	26:14:2856:C:H6	1.83	0.42
26:14:2892:A:C5	26:14:2893:G:H1'	2.54	0.42
26:14:855:G:C6	26:14:856:C:C4	3.07	0.42
26:14:870:A:H2'	26:14:871:U:O4'	2.20	0.42
26:14:917:A:H2'	26:14:917:A:N3	2.35	0.42
26:14:922:U:H2'	26:14:923:C:C6	2.54	0.42
26:14:933:A:C5	26:14:934:G:C8	3.07	0.42
10:1A:75:ILE:O	10:1A:77:PRO:HD3	2.18	0.42
2:1E:136:VAL:O	2:1E:140:HIS:N	2.41	0.42
21:1F:3:LYS:HB3	21:1F:14:TRP:CD1	2.54	0.42
1:1G:1122:U:N3	1:1G:1123:A:N7	2.67	0.42
1:1G:1178:G:H5''	9:82:93:ARG:NH2	2.33	0.42
1:1G:1246:C:H2'	1:1G:1247:U:O4'	2.19	0.42
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.53	0.42
1:1G:131:C:H2'	1:1G:132:C:C6	2.54	0.42
1:1G:15:G:H2'	1:1G:16:A:O4'	2.19	0.42
1:1G:32:A:C2	1:1G:33:A:C4	3.06	0.42
1:1G:619:U:O2	4:32:135:LEU:HD21	2.19	0.42
1:1G:803:G:C6	1:1G:804:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1144:G:C6	26:1H:1145:C:C4	3.07	0.42
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.55	0.42
26:1H:1322:A:H2'	26:1H:1323:U:C6	2.55	0.42
26:1H:1355:G:H2'	26:1H:1356:G:O4'	2.20	0.42
26:1H:1392:A:C6	26:1H:1393:A:N1	2.87	0.42
26:1H:1899:G:C2	26:1H:1903:G:C6	3.07	0.42
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.19	0.42
26:1H:2531:A:H2'	26:1H:2532:G:C8	2.54	0.42
26:1H:254:G:O2'	26:1H:384:U:H5'	2.18	0.42
26:1H:2636:U:P	30:21:79:ARG:HA	2.59	0.42
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.20	0.42
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.07	0.42
26:1H:53:A:C8	26:1H:54:G:C8	3.07	0.42
26:1H:731:C:C2	26:1H:732:C:C5	3.07	0.42
22:1K:56:C:N4	26:1H:897:C:O2'	2.52	0.42
27:1J:79:C:H2'	27:1J:80:U:O4'	2.20	0.42
22:1K:67:C:H2'	22:1K:68:G:C8	2.54	0.42
3:22:90:GLU:N	3:22:90:GLU:OE2	2.45	0.42
30:29:68:ALA:C	30:29:70:ALA:N	2.72	0.42
3:2E:47:LEU:HD12	3:2E:47:LEU:N	2.34	0.42
23:2K:20:G:C4	23:2K:58:A:C2	3.07	0.42
31:31:183:VAL:O	31:31:187:VAL:HG23	2.19	0.42
37:35:107:LYS:O	37:35:109:GLY:N	2.49	0.42
37:35:11:GLY:C	37:35:13:ASN:H	2.22	0.42
31:39:132:VAL:HG13	31:39:133:ASN:ND2	2.34	0.42
31:39:143:ALA:HB1	31:39:148:LEU:HB2	2.02	0.42
24:3K:22:G:H2'	24:3K:22:G:N3	2.34	0.42
39:55:87:TYR:CE1	39:55:117:VAL:HG12	2.55	0.42
39:55:87:TYR:HE1	39:55:117:VAL:HG12	1.83	0.42
35:58:65:LYS:HE3	35:58:65:LYS:HB2	1.76	0.42
7:62:116:ALA:HA	7:62:119:ARG:NE	2.25	0.42
34:69:78:THR:HG21	34:69:104:GLN:HG3	2.01	0.42
28:71:207:THR:O	28:71:210:ARG:NH1	2.49	0.42
28:71:31:GLU:H	28:71:31:GLU:HG2	1.65	0.42
41:75:16:ARG:NH2	41:75:18:ASP:OD2	2.51	0.42
37:78:17:LYS:H	37:78:17:LYS:HG3	1.71	0.42
8:7E:109:ILE:HG13	8:7E:120:THR:HB	2.02	0.42
42:85:41:ALA:O	42:85:45:TYR:CD1	2.73	0.42
17:8I:22:LEU:HD13	17:8I:41:LYS:HG3	2.01	0.42
43:95:21:ARG:HH22	43:95:65:GLY:C	2.21	0.42
26:14:1161:C:H1'	43:95:8:GLY:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:56:THR:HB	18:9A:58:LEU:HD12	2.02	0.42
48:E5:72:ARG:CB	48:E5:75:LEU:HB2	2.47	0.42
44:E8:18:ARG:NH1	44:E8:76:VAL:O	2.50	0.42
26:1H:857:C:H4'	48:I8:23:VAL:HG21	2.00	0.42
53:N8:18:ALA:O	53:N8:21:SER:OG	2.29	0.42
54:P8:30:VAL:O	54:P8:34:ARG:HG3	2.19	0.42
2:12:97:TRP:CE2	2:12:101:MET:HG3	2.55	0.42
1:13:1009:G:C2	1:13:1010:G:C8	3.07	0.42
1:13:1298:C:P	7:6E:114:ARG:HH22	2.43	0.42
1:13:262:A:H2'	1:13:263:A:H8	1.80	0.42
26:14:1167:U:C2	26:14:1183:G:N2	2.87	0.42
26:14:2646:C:H2'	26:14:2647:U:O4'	2.20	0.42
26:14:270(E):G:C6	26:14:270(F):U:C4	3.07	0.42
26:14:959:A:N6	26:14:960:A:N1	2.67	0.42
26:14:962:G:H2'	26:14:963:U:O4'	2.19	0.42
35:15:128:HIS:NE2	35:15:130:HIS:HB3	2.34	0.42
2:1E:222:ILE:HG13	2:1E:223:ILE:H	1.84	0.42
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.65	0.42
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.19	0.42
1:1G:1468:A:H5''	1:1G:1469:G:OP2	2.18	0.42
1:1G:1534:A:H2'	1:1G:1534:A:N3	2.34	0.42
1:1G:37:U:O2'	1:1G:547:A:N1	2.39	0.42
1:1G:731:G:O2'	1:1G:732:C:H5'	2.20	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.54	0.42
1:1G:73:G:C6	1:1G:74:C:C4	3.07	0.42
26:1H:15:G:H4'	53:N8:21:SER:HB3	2.01	0.42
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.20	0.42
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.20	0.42
26:1H:242:G:H5'	55:Q8:64:TYR:CE2	2.55	0.42
26:1H:308:G:N2	26:1H:477:A:C8	2.88	0.42
26:1H:992:C:C2	26:1H:993:G:C8	3.07	0.42
10:1I:46:ARG:NH1	10:1I:46:ARG:HB2	2.34	0.42
1:1G:1106:G:H5''	3:22:172:ARG:CG	2.49	0.42
30:29:102:VAL:HB	30:29:199:ARG:O	2.18	0.42
23:2L:25:U:O2	26:14:1923:U:H5''	2.19	0.42
31:39:68:LYS:HG3	31:39:69:HIS:CE1	2.54	0.42
31:39:93:LYS:HA	31:39:93:LYS:HD2	1.80	0.42
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	2.00	0.42
12:3I:64:TYR:O	12:3I:65:GLU:HB3	2.20	0.42
24:3K:56:C:C2'	24:3K:57:G:H8	2.31	0.42
24:3K:59:A:H5'	24:3K:60:U:C5	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:78:HIS:CE1	5:42:80:ILE:HG23	2.55	0.42
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.20	0.42
6:52:77:ARG:HH21	6:52:78:GLU:HG2	1.85	0.42
26:1H:1006:C:H5'	35:58:28:THR:HG23	2.01	0.42
35:58:57:ALA:C	35:58:59:LYS:N	2.67	0.42
14:5A:9:LYS:CA	14:5A:12:ARG:NH1	2.81	0.42
26:14:2198:A:C2	34:69:29:TYR:HB2	2.54	0.42
1:13:939:G:H5'	7:6E:102:ARG:CZ	2.50	0.42
41:75:11:GLU:H	41:75:11:GLU:CD	2.13	0.42
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.19	0.42
16:7I:33:ILE:H	16:7I:33:ILE:HG13	1.69	0.42
17:8A:4:LYS:O	17:8A:60:ILE:HD12	2.19	0.42
39:98:81:ASP:O	39:98:85:PRO:HG2	2.19	0.42
40:A8:11:LYS:HB2	40:A8:11:LYS:HE3	1.85	0.42
20:BI:46:GLU:CB	20:BI:48:LYS:HG3	2.49	0.42
20:BI:30:LYS:NZ	20:BI:80:ARG:NH1	2.67	0.42
46:C5:88:LYS:O	46:C5:89:PHE:CD1	2.71	0.42
46:G8:63:LYS:HD2	46:G8:64:GLU:H	1.83	0.42
29:11:193:VAL:HG12	29:11:193:VAL:H	1.60	0.42
1:13:104:G:C2	1:13:105:G:C8	3.07	0.42
1:13:1051:C:H2'	1:13:1052:U:C6	2.55	0.42
1:13:1288:A:N1	1:13:1371:G:H1'	2.35	0.42
1:13:753:A:H4'	1:13:754:C:H5''	2.02	0.42
26:14:1049:C:H5''	26:14:1051:G:H22	1.84	0.42
26:14:1321:A:H2'	26:14:1322:A:O4'	2.20	0.42
26:14:1405:U:H2'	26:14:1406:U:C6	2.55	0.42
26:14:1676:A:OP2	60:14:3423:HOH:O	2.21	0.42
26:14:1921:G:H2'	26:14:1922:G:C8	2.53	0.42
26:14:196:A:H2'	26:14:196:A:N3	2.34	0.42
26:14:2230:G:C2'	26:14:2231:C:H5'	2.48	0.42
26:14:2392:A:H2	26:14:2424:C:N4	2.06	0.42
26:14:2418:A:H2'	26:14:2419:U:O4'	2.20	0.42
26:14:28:A:O2'	26:14:583:G:H5'	2.19	0.42
26:14:752:A:H4'	26:14:753:C:H5'	2.02	0.42
26:14:875:G:H2'	26:14:875:G:N3	2.34	0.42
29:19:182:LEU:CB	29:19:271:ILE:HG13	2.50	0.42
1:1G:17:U:H2'	1:1G:18:C:C6	2.55	0.42
1:1G:287:U:H2'	1:1G:288:A:C8	2.53	0.42
1:1G:573:A:N3	1:1G:883:C:O2'	2.48	0.42
1:1G:579:G:C6	1:1G:580:U:C4	3.08	0.42
1:1G:599:C:H2'	1:1G:600:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1053:C:C6	26:1H:1107:G:C6	3.07	0.42
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.42
26:1H:1279:G:N2	26:1H:1292:U:C2	2.88	0.42
26:1H:1364:G:OP2	49:J8:61:ARG:NH2	2.52	0.42
26:1H:16:G:H1	26:1H:524:U:H3	1.68	0.42
26:1H:2144:U:H4'	26:1H:2144:U:OP1	2.19	0.42
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.20	0.42
26:1H:2620:C:O2'	30:21:119:ARG:NH2	2.40	0.42
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.54	0.42
26:1H:275:G:N7	26:1H:363:G:C2	2.88	0.42
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.18	0.42
26:1H:281:G:H1'	26:1H:359:A:H61	1.84	0.42
26:1H:46:C:H2'	26:1H:47:C:H6	1.83	0.42
26:1H:665:C:H2'	26:1H:666:G:H8	1.83	0.42
26:1H:722:A:H2'	26:1H:723:G:C8	2.54	0.42
26:1H:7:G:H2'	26:1H:8:A:O4'	2.19	0.42
36:25:13:ASN:HD21	36:25:97:ARG:H	1.66	0.42
30:29:79:ARG:HD2	30:29:79:ARG:N	2.34	0.42
31:31:62:ARG:HG3	31:31:63:LYS:N	2.34	0.42
4:32:154:ASN:O	4:32:159:ARG:HB2	2.20	0.42
4:32:173:TRP:CD2	4:32:189:PRO:HB3	2.55	0.42
4:32:22:LYS:N	4:32:26:CYS:SG	2.84	0.42
37:35:101:VAL:N	37:35:106:LEU:HD23	2.34	0.42
37:35:41:ARG:N	37:35:41:ARG:HD2	2.34	0.42
37:35:68:GLN:HA	37:35:68:GLN:OE1	2.19	0.42
37:35:84:ASN:OD1	37:35:115:LEU:HB2	2.20	0.42
31:39:132:VAL:HG22	31:39:133:ASN:H	1.85	0.42
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.54	0.42
31:39:25:PRO:O	31:39:27:GLU:HG3	2.20	0.42
32:41:58:GLN:NE2	32:41:59:GLU:HG3	2.35	0.42
32:41:8:LYS:O	32:41:11:TYR:HB3	2.20	0.42
5:42:144:THR:O	5:42:148:VAL:HG23	2.19	0.42
6:52:1:MET:HE2	6:52:67:MET:HA	2.02	0.42
39:55:54:LEU:HD12	39:55:62:ALA:HA	2.00	0.42
14:5A:29:ARG:CG	14:5A:31:ARG:H	2.23	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.70	0.42
34:61:83:ALA:HB2	34:61:144:VAL:HG23	2.01	0.42
36:68:22:ILE:HG21	36:68:22:ILE:HD13	1.72	0.42
36:68:34:THR:HG22	36:68:37:ASP:OD2	2.19	0.42
16:7A:43:LYS:HG2	16:7A:48:TRP:CZ3	2.54	0.42
18:9A:84:LYS:HG2	18:9A:84:LYS:H	1.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:34:ASN:OD1	53:J5:39:MET:HG3	2.19	0.42
45:B5:72:LYS:HE3	45:B5:73:ARG:O	2.20	0.42
41:B8:27:THR:CG2	41:B8:90:GLN:HB3	2.48	0.42
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.84	0.42
47:H8:70:LEU:HD23	47:H8:70:LEU:HA	1.87	0.42
26:1H:126:A:O5'	54:P8:19:ARG:HG3	2.19	0.42
54:P8:5:TRP:HA	54:P8:5:TRP:CE3	2.53	0.42
1:13:1164:G:C6	1:13:1165:C:C4	3.08	0.42
1:13:1272:G:C6	1:13:1273:G:C5	3.07	0.42
1:13:1256:A:N6	1:13:1278:U:OP2	2.30	0.42
1:13:148:G:H1	1:13:174:C:H42	1.68	0.42
1:13:1536:C:N3	25:4K:9:G:N2	2.67	0.42
1:13:255:G:C5	1:13:256:U:C5	3.07	0.42
1:13:359:U:H2'	1:13:360:A:C8	2.55	0.42
1:13:369:C:O2	1:13:392:G:N2	2.37	0.42
26:14:1029:A:H8	26:14:1029:A:OP2	2.03	0.42
26:14:1743:G:C2	26:14:1746:G:C8	3.07	0.42
26:14:2488:A:H2'	26:14:2489:G:O4'	2.20	0.42
26:14:2795:G:N3	26:14:2795:G:H2'	2.35	0.42
26:14:730:C:H2'	26:14:731:C:H5'	1.99	0.42
26:14:733:G:O6	26:14:761:A:C8	2.73	0.42
26:14:864:G:O2'	26:14:865:C:H5'	2.20	0.42
35:15:85:ILE:HD12	35:15:85:ILE:O	2.19	0.42
29:19:50:THR:O	29:19:51:VAL:HG23	2.20	0.42
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.19	0.42
1:1G:1100:C:C2	1:1G:1102:A:H5'	2.55	0.42
1:1G:1157:A:O4'	1:1G:1158:C:C6	2.73	0.42
1:1G:867:G:H8	1:1G:867:G:OP2	2.01	0.42
26:1H:1042:G:C6	26:1H:1043:C:C4	3.08	0.42
26:1H:1106:G:O2'	26:1H:1107:G:N7	2.52	0.42
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.34	0.42
26:1H:1516:U:C2	26:1H:1517:G:C8	3.08	0.42
26:1H:182:A:O2'	26:1H:183:C:H5'	2.19	0.42
26:1H:1831:G:C4	26:1H:1975:G:N2	2.88	0.42
26:1H:2184:G:C2	26:1H:2185:C:C2	3.07	0.42
26:1H:2394:C:H2'	26:1H:2395:C:C6	2.55	0.42
26:1H:531:C:H4'	26:1H:532:A:H5''	2.01	0.42
26:1H:675:A:C8	26:1H:804:A:C6	3.08	0.42
26:1H:860:U:H5	26:1H:917:A:N1	2.17	0.42
22:1K:37:T6A:N11	22:1K:37:T6A:N1	2.56	0.42
22:1L:26:A:H5'	22:1L:27:G:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:38:THR:H	30:21:42:ASP:HB2	1.84	0.42
3:2E:15:THR:HG21	3:2E:181:ASN:HA	2.01	0.42
31:31:140:LEU:HD13	31:31:170:LEU:HD11	2.00	0.42
4:32:141:ARG:HB2	4:32:142:PRO:HD2	2.02	0.42
31:39:129:PHE:CD2	31:39:163:VAL:HG21	2.55	0.42
31:39:185:ASP:HA	31:39:188:ARG:HB3	2.02	0.42
24:3K:13:C:C2'	24:3K:14:A:H5'	2.49	0.42
24:3K:5:C:H2'	24:3K:6:G:N7	2.34	0.42
32:41:66:GLN:HA	52:M8:6:HIS:NE2	2.34	0.42
5:42:91:LEU:CD2	5:42:120:THR:HG22	2.50	0.42
38:45:19:GLY:O	38:45:98:LYS:HD2	2.19	0.42
32:49:117:PHE:CG	32:49:117:PHE:O	2.72	0.42
33:51:96:ALA:HB1	33:51:103:LEU:HD11	2.02	0.42
39:55:103:ARG:NH1	39:55:110:PRO:HD3	2.34	0.42
35:58:90:MET:SD	35:58:97:ARG:HD2	2.59	0.42
6:5E:22:GLU:OE1	6:5E:84:ASN:HB2	2.20	0.42
1:13:657:G:C1'	15:6I:28:GLN:HE21	2.32	0.42
37:78:62:LEU:HA	37:78:63:PRO:HD3	1.91	0.42
16:7A:5:ARG:HE	16:7A:22:THR:CG2	2.33	0.42
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.00	0.42
1:13:279:A:C5	17:8I:98:LEU:HD12	2.55	0.42
43:95:34:GLU:OE1	43:95:58:VAL:HG22	2.19	0.42
26:14:1225:C:H4'	43:95:85:LYS:CB	2.50	0.42
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	2.00	0.42
41:B8:62:THR:CG2	41:B8:75:ILE:HG12	2.50	0.42
20:BA:31:SER:HA	20:BA:34:LYS:HE2	2.00	0.42
20:BI:66:ALA:HB1	20:BI:71:THR:HB	2.01	0.42
47:D5:44:PHE:CZ	47:D5:86:VAL:HG21	2.55	0.42
43:D8:45:THR:O	43:D8:47:VAL:HG12	2.20	0.42
44:E8:110:LYS:HD3	44:E8:110:LYS:HA	1.85	0.42
26:14:95:G:H4'	50:G5:46:GLN:CB	2.49	0.42
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.68	0.42
53:N8:40:LYS:HE2	53:N8:46:CYS:CA	2.50	0.42
2:12:219:VAL:HG23	2:12:221:LEU:H	1.84	0.42
1:13:1364:U:O2'	1:13:1365:G:H5'	2.19	0.42
1:13:1452:C:H5''	1:13:1454:G:C8	2.54	0.42
1:13:294:U:O4	1:13:295:C:N4	2.53	0.42
1:13:648:A:N1	1:13:649:G:C5	2.88	0.42
1:13:745:C:H5''	1:13:851:G:H1'	2.01	0.42
1:13:843:U:H2'	1:13:843:U:O2	2.20	0.42
1:13:883:C:C2'	1:13:884:U:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1073:A:C5	26:14:1074:G:H8	2.37	0.42
26:14:1142(A):A:C5	26:14:1144:G:C5	3.08	0.42
26:14:1410:G:N2	26:14:1593:G:C4	2.88	0.42
26:14:1790:C:H2'	26:14:1791:A:C5	2.54	0.42
26:14:2563:U:H2'	26:14:2565:A:OP2	2.20	0.42
26:14:2453:A:O2'	26:14:2572:A:H1'	2.20	0.42
26:14:2629:A:OP2	26:14:2629:A:H3'	2.20	0.42
26:14:2543:G:H21	26:14:2646:C:H5''	1.85	0.42
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.83	0.42
26:14:483:A:H3'	26:14:484:C:H6	1.85	0.42
27:16:69:G:C5	27:16:70:C:C5	3.07	0.42
29:19:242:ARG:N	29:19:242:ARG:HH11	2.14	0.42
21:1B:6:ARG:HG3	21:1B:6:ARG:H	1.70	0.42
2:1E:92:TYR:CE2	2:1E:151:GLY:HA3	2.54	0.42
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.19	0.42
1:1G:1127:G:H22	1:1G:1144:G:H1	1.66	0.42
1:1G:1516:G:H2'	1:1G:1518:A:OP2	2.20	0.42
1:1G:335:C:O2	1:1G:1433:A:H2	2.02	0.42
1:1G:608:A:H2'	1:1G:609:A:O4'	2.19	0.42
1:1G:861:G:H2'	1:1G:862:C:C6	2.54	0.42
1:1G:861:G:O2'	1:1G:862:C:H5'	2.20	0.42
26:1H:1171:G:C5	26:1H:1174:A:N6	2.88	0.42
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.20	0.42
26:1H:1188:U:C5'	43:D8:79:VAL:HG22	2.50	0.42
26:1H:1753:G:H2'	26:1H:1755:A:OP2	2.20	0.42
26:1H:2019:A:C6	26:1H:2020:A:N7	2.88	0.42
26:1H:531:C:C5	26:1H:2035:G:C2	3.07	0.42
26:1H:347:A:H2'	26:1H:348:G:C8	2.54	0.42
22:1L:57:G:H2'	22:1L:58:A:H5'	2.02	0.42
26:14:2822:G:P	30:29:110:GLY:HA3	2.60	0.42
26:14:1993:U:H4'	30:29:128:SER:HB3	2.02	0.42
30:29:57:LYS:HD3	30:29:57:LYS:HA	1.81	0.42
3:2E:123:GLN:NE2	3:2E:136:GLN:NE2	2.64	0.42
3:2E:73:PRO:O	3:2E:77:ILE:HG13	2.19	0.42
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.85	0.42
23:2K:1:C:C2	23:2K:2:G:C8	3.08	0.42
1:13:407:G:O2'	4:3E:116:GLN:HG3	2.19	0.42
4:3E:192:GLU:OE1	4:3E:192:GLU:N	2.51	0.42
4:3E:31:CYS:HA	58:3E:302:SF4:S3	2.60	0.42
24:3L:2:G:H8	24:3L:2:G:P	2.43	0.42
32:41:139:LEU:HA	32:41:144:ILE:HG21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:143:ARG:HG3	8:72:77:GLU:OE2	2.19	0.42
5:42:53:LEU:O	5:42:57:LYS:HB2	2.19	0.42
25:4K:20:A:C2'	25:4K:21:A:H5'	2.50	0.42
35:58:127:ASP:O	35:58:128:HIS:HB3	2.19	0.42
3:2E:18:TRP:CZ2	14:5I:55:GLY:HA2	2.54	0.42
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.53	0.42
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.55	0.42
41:75:129:ARG:HA	41:75:132:LYS:HE3	2.02	0.42
8:7E:2:LEU:HD23	8:7E:2:LEU:HA	1.85	0.42
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.49	0.42
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.60	0.42
46:C5:14:LEU:HD23	46:C5:15:VAL:N	2.34	0.42
44:E8:4:LYS:NZ	44:E8:6:ILE:HD11	2.34	0.42
46:G8:49:VAL:HG11	46:G8:61:ILE:HD13	2.01	0.42
47:H8:109:ALA:HB3	47:H8:142:SER:O	2.19	0.42
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.19	0.42
53:J5:45:VAL:HG12	53:J5:56:LYS:HD2	2.01	0.42
49:J8:4:VAL:HG23	49:J8:10:LYS:O	2.18	0.42
26:1H:72:U:H1'	50:K8:58:ALA:CB	2.50	0.42
55:M5:7:HIS:O	55:M5:7:HIS:ND1	2.52	0.42
52:M8:37:SER:OG	52:M8:42:PHE:HD1	1.94	0.42
53:N8:41:PRO:HG2	53:N8:44:THR:OG1	2.20	0.42
2:12:98:LEU:O	2:12:101:MET:HG2	2.19	0.42
1:13:1028(B):C:C4	1:13:1032(B):G:C6	3.07	0.42
1:13:1133:G:H2'	1:13:1134:G:H8	1.83	0.42
1:13:1392:G:O2'	1:13:1393:U:H5'	2.18	0.42
1:13:1466:C:H2'	1:13:1467:G:O4'	2.20	0.42
1:13:266:G:O2'	17:8I:67:LYS:HD3	2.20	0.42
1:13:375:U:H5''	16:7I:6:LEU:HD12	2.02	0.42
1:13:554:C:H2'	1:13:555:C:H6	1.83	0.42
1:13:947:G:H2'	1:13:948:C:C6	2.55	0.42
1:13:993:G:N3	1:13:993:G:H2'	2.35	0.42
26:14:1049:C:N3	26:14:2751:G:N1	2.54	0.42
26:14:1166:C:H1'	26:14:1184:G:N2	2.34	0.42
26:14:1542:G:O5'	26:14:1543:A:H5''	2.20	0.42
26:14:1729:A:N3	26:14:1730:U:H5	2.18	0.42
26:14:1808:U:H5''	26:14:1809:A:OP2	2.20	0.42
26:14:1834:U:H4'	26:14:1969:A:C6	2.54	0.42
26:14:1870:C:H5''	26:14:1871:A:OP2	2.20	0.42
26:14:2171:A:N7	26:14:2172:U:C6	2.87	0.42
26:14:2162:G:H4'	26:14:2173:A:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2331:G:H4'	48:E5:43:THR:H	1.85	0.42
26:14:2415:G:C6	26:14:2416:C:C4	3.08	0.42
26:14:2419:U:H2'	26:14:2420:C:C6	2.55	0.42
26:14:2687:U:C4	26:14:2688:U:C5	3.08	0.42
26:14:28:A:C2	26:14:513:A:C8	3.06	0.42
26:14:600:G:H2'	26:14:601:C:C6	2.54	0.42
26:14:776:G:H4'	26:14:777:A:O5'	2.19	0.42
26:14:907:U:O2'	38:45:101:ARG:NH2	2.47	0.42
26:14:974(A):C:H2'	26:14:974(A):C:O2	2.20	0.42
35:15:47:ALA:CB	35:15:112:LEU:HD21	2.48	0.42
35:15:73:THR:HG22	35:15:84:LYS:HB3	2.01	0.42
27:16:20:C:H2'	27:16:21:G:O4'	2.20	0.42
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.43	0.42
2:1E:185:ILE:HA	2:1E:199:TYR:O	2.19	0.42
1:1G:1021:G:H2'	1:1G:1022:G:H8	1.84	0.42
1:1G:1037:C:C2	1:1G:1038:C:C5	3.08	0.42
1:1G:1143:G:H2'	1:1G:1144:G:H8	1.77	0.42
1:1G:449:C:H2'	1:1G:450:G:O4'	2.20	0.42
1:1G:634:C:H2'	1:1G:635:G:H8	1.85	0.42
26:1H:1176:G:H2'	26:1H:1177:A:N3	2.35	0.42
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.19	0.42
26:1H:1824:G:N3	29:11:254:THR:OG1	2.53	0.42
26:1H:1956:U:H2'	26:1H:1957:C:H5'	2.02	0.42
26:1H:2023:G:H5'	26:1H:2617:C:H4'	2.02	0.42
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.20	0.42
26:1H:2452:C:N4	26:1H:2453:A:N6	2.67	0.42
26:1H:251:A:C5	26:1H:252:G:H1'	2.55	0.42
26:1H:2531:A:H2	26:1H:2658:C:O2	2.03	0.42
26:1H:2680:C:O2'	26:1H:2681:C:H5'	2.20	0.42
26:1H:610:C:H2'	26:1H:611:C:H6	1.85	0.42
26:1H:780:G:O5'	26:1H:780:G:H8	2.03	0.42
26:1H:1993:U:H4'	30:21:128:SER:HB3	2.02	0.42
30:29:49:LEU:HD22	30:29:91:VAL:HG21	2.02	0.42
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.42
31:31:164:ARG:HH11	31:31:164:ARG:HG2	1.83	0.42
4:32:133:VAL:HG11	4:32:138:TYR:CD2	2.55	0.42
4:32:162:LEU:HA	4:32:165:MET:HB3	2.00	0.42
4:32:145:GLU:OE1	4:32:182:LYS:HD2	2.20	0.42
24:3K:3:G:H8	24:3K:3:G:O5'	2.03	0.42
5:42:105:VAL:CG2	5:42:128:PRO:HB3	2.48	0.42
13:4I:87:TYR:O	13:4I:90:LEU:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:19:U:C2	25:4L:20:A:C8	3.07	0.42
6:52:82:ARG:HB2	6:52:85:VAL:HG23	2.02	0.42
36:68:117:LEU:HD23	36:68:117:LEU:HA	1.73	0.42
28:71:5:LYS:HA	28:71:8:ARG:HB3	2.02	0.42
8:72:29:SER:H	8:72:32:LYS:HB2	1.85	0.42
37:78:30:THR:CG2	37:78:35:HIS:H	2.32	0.42
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.54	0.42
9:8E:18:PHE:O	9:8E:61:ALA:HA	2.20	0.42
39:98:55:ALA:HB1	39:98:80:PHE:HA	2.00	0.42
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.46	0.42
19:AA:37:ARG:O	19:AA:70:LYS:HE3	2.19	0.42
20:BA:62:LEU:HA	20:BA:62:LEU:HD23	1.83	0.42
20:BI:55:ILE:HA	20:BI:55:ILE:HD13	1.93	0.42
42:C8:101:ARG:O	42:C8:103:PRO:HD3	2.20	0.42
26:14:2352:A:C2	48:E5:33:ALA:O	2.73	0.42
49:F5:91:LYS:HZ3	49:F5:95:LEU:HD22	1.85	0.42
52:M8:34:GLU:HG2	52:M8:35:VAL:HG22	2.01	0.42
1:13:1149:C:H2'	1:13:1150:U:C6	2.55	0.42
1:13:319:G:H2'	1:13:320:C:O4'	2.20	0.42
1:13:498:A:C4	1:13:546:G:N2	2.81	0.42
1:13:539:A:H2'	1:13:540:G:C8	2.54	0.42
26:14:1109:C:H5''	26:14:1110:G:OP2	2.20	0.42
26:14:1142(A):A:C8	26:14:1144:G:N7	2.88	0.42
26:14:1329:U:H5''	26:14:1330:C:C5	2.51	0.42
26:14:1582:C:HO2'	26:14:1586:A:H8	1.66	0.42
26:14:1914:C:H2'	26:14:1915:U:O4'	2.19	0.42
26:14:2210:G:H5'	26:14:2211:G:N1	2.35	0.42
26:14:2319:G:N2	26:14:2334:G:OP1	2.38	0.42
26:14:2766:G:H2'	26:14:2766:G:N3	2.35	0.42
26:14:500:G:N2	26:14:502:A:H3'	2.34	0.42
27:16:116:G:H2'	27:16:117:G:O4'	2.20	0.42
27:16:11:C:OP2	27:16:12:C:N4	2.40	0.42
27:16:89(A):A:N7	27:16:90:C:H1'	2.35	0.42
2:1E:214:ILE:H	2:1E:214:ILE:HG13	1.50	0.42
21:1F:6:ARG:NH1	21:1F:15:ARG:HE	2.18	0.42
1:1G:1004:A:N1	1:1G:1006:C:C2	2.88	0.42
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.55	0.42
1:1G:1026:G:H2'	1:1G:1027:C:H5'	2.02	0.42
1:1G:341:C:H2'	1:1G:342:C:C6	2.54	0.42
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.55	0.42
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2365:G:H4'	48:I8:60:PHE:CZ	2.54	0.42
26:1H:2850:A:OP2	26:1H:2866:U:N3	2.43	0.42
26:1H:2629:A:N6	26:1H:2895:U:C2	2.88	0.42
26:1H:43:G:N2	26:1H:438:G:C4	2.88	0.42
26:1H:475:U:C4	26:1H:481:G:O6	2.72	0.42
26:1H:818:G:H5'	26:1H:839:U:OP1	2.19	0.42
26:1H:839:U:H2'	26:1H:840:C:C6	2.54	0.42
22:1K:68:G:H2'	22:1K:69:A:N7	2.35	0.42
22:1L:19:G:H3'	22:1L:19:G:P	2.60	0.42
22:1L:22:G:H2'	22:1L:23:A:H8	1.85	0.42
30:21:116:VAL:HG22	30:21:122:PHE:CD1	2.54	0.42
30:21:84:PHE:CZ	30:21:91:VAL:HG11	2.55	0.42
30:29:1:MET:HG3	30:29:200:GLU:HB3	2.02	0.42
30:29:64:LYS:C	30:29:66:HIS:H	2.23	0.42
23:2L:11:A:H8	23:2L:11:A:O5'	2.02	0.42
4:32:133:VAL:HG11	4:32:138:TYR:HD2	1.84	0.42
26:14:671:C:OP1	37:35:42:SER:O	2.37	0.42
13:4A:17:VAL:O	13:4A:20:THR:OG1	2.20	0.42
13:4A:29:ARG:HD3	13:4A:64:TRP:CH2	2.54	0.42
5:4E:84:PHE:CZ	5:4E:133:TYR:HD2	2.38	0.42
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.19	0.42
33:51:152:ARG:HD3	33:51:152:ARG:HA	1.86	0.42
33:51:97:ARG:HG2	33:51:98:LEU:N	2.35	0.42
34:69:76:THR:HG23	34:69:77:LEU:N	2.35	0.42
37:78:79:ARG:HB2	37:78:110:TYR:HD1	1.84	0.42
28:79:46:LYS:HE2	28:79:210:ARG:HB3	2.01	0.42
8:7E:129:VAL:HG23	8:7E:130:GLY:H	1.83	0.42
9:82:118:LYS:HB3	9:82:121:ARG:HB3	2.02	0.42
17:8A:41:LYS:HZ1	17:8A:92:ARG:HH21	1.67	0.42
9:8E:4:TYR:CD1	9:8E:88:TYR:HB2	2.54	0.42
39:98:10:LEU:O	39:98:11:ASN:C	2.58	0.42
50:G5:25:VAL:HA	50:G5:28:LYS:HB2	2.01	0.42
37:78:59:LEU:HB2	55:Q8:58:ILE:HD12	2.01	0.42
2:12:188:ALA:HB1	2:12:192:SER:CB	2.49	0.42
2:12:31:TYR:O	2:12:32:ILE:HB	2.19	0.42
1:13:122:G:H4'	1:13:312:C:O2'	2.20	0.42
1:13:1464:G:H2'	1:13:1465:C:H6	1.84	0.42
1:13:191:G:C2	1:13:192:U:C2	3.08	0.42
1:13:27:G:C6	1:13:28:G:C5	3.07	0.42
1:13:690:G:N2	11:2I:55:LYS:HE2	2.35	0.42
1:13:821:G:C2	1:13:880:C:N3	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:141:A:C8	26:14:1408:C:H1'	2.55	0.42
26:14:1669:A:H2'	26:14:1670:C:H5'	2.01	0.42
26:14:1899:G:N2	26:14:1902:C:C5	2.88	0.42
26:14:2262:U:O2'	26:14:2263:C:H5'	2.20	0.42
26:14:2567:G:H2'	26:14:2568:C:H6	1.83	0.42
26:14:848:G:C2	26:14:849:A:C5	3.08	0.42
27:16:73:A:N3	27:16:73:A:H2'	2.34	0.42
26:14:1826:G:H4'	29:19:242:ARG:HH21	1.84	0.42
1:1G:1068:G:N7	1:1G:1094:G:C8	2.88	0.42
1:1G:1158:C:N3	1:1G:1160:G:C8	2.87	0.42
1:1G:197:A:H8	1:1G:198:G:C8	2.38	0.42
1:1G:411:A:C6	1:1G:413:G:H1'	2.54	0.42
26:1H:1021:A:H61	26:1H:1142(A):A:N6	2.18	0.42
26:1H:1413:G:C4	26:1H:1414:G:C8	3.08	0.42
26:1H:1580:A:OP2	26:1H:1580:A:H8	2.03	0.42
26:1H:2127:G:C5	26:1H:2162:G:C8	3.08	0.42
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.27	0.42
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.19	0.42
26:1H:363(F):A:H4'	26:1H:364:C:H5'	2.02	0.42
26:1H:55:G:N2	26:1H:116:C:C2	2.88	0.42
26:1H:514:A:H1'	26:1H:581:C:O2'	2.19	0.42
27:1J:110:G:C5	27:1J:111:U:C5	3.08	0.42
27:1J:74:U:H2'	27:1J:75:G:O4'	2.20	0.42
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.50	0.42
31:31:64:ILE:HG23	31:31:64:ILE:HD12	1.65	0.42
31:39:146:ALA:HB3	31:39:148:LEU:HG	2.01	0.42
24:3L:9:A:O2'	24:3L:10:G:N7	2.41	0.42
24:3L:76:A:C8	26:14:2394:C:N4	2.87	0.42
32:41:112:PRO:HA	52:M8:37:SER:HB2	2.02	0.42
5:42:63:ARG:HH11	5:42:63:ARG:HG2	1.84	0.42
13:4A:56:LEU:HD22	13:4A:60:VAL:HG23	2.01	0.42
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.88	0.42
14:5A:24:CYS:SG	14:5A:39:LEU:HA	2.60	0.42
14:5I:4:LYS:HA	14:5I:7:ILE:HG13	2.02	0.42
40:65:56:LEU:HD12	40:65:56:LEU:HA	1.84	0.42
40:65:74:ALA:O	40:65:78:LEU:HB2	2.20	0.42
36:68:70:LYS:HE3	36:68:70:LYS:HB2	1.75	0.42
34:69:101:LEU:HB2	34:69:105:HIS:HB2	2.02	0.42
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	2.01	0.42
15:6I:4:THR:OG1	15:6I:7:GLU:HG3	2.20	0.42
26:1H:2124:G:O3'	28:71:174:PRO:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:103:VAL:HG11	8:72:109:ILE:O	2.20	0.42
8:72:105:ARG:HA	8:72:105:ARG:HD3	1.67	0.42
26:1H:587:C:P	37:78:21:ARG:HH22	2.42	0.42
42:85:90:VAL:CG2	43:95:39:LEU:HD22	2.50	0.42
38:88:59:ARG:C	38:88:61:GLY:H	2.23	0.42
1:1G:192:U:C4'	20:BA:103:GLY:HA2	2.50	0.42
20:BA:83:ARG:O	20:BA:87:LYS:HG3	2.20	0.42
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.85	0.42
44:E8:74:ALA:HA	44:E8:104:THR:O	2.20	0.42
49:F5:91:LYS:NZ	49:F5:95:LEU:HD22	2.35	0.42
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.50	0.42
47:H8:77:ASP:CG	47:H8:80:ARG:HD2	2.40	0.42
55:Q8:65:GLU:N	55:Q8:65:GLU:OE1	2.53	0.42
2:12:71:VAL:HG21	2:12:164:VAL:HA	2.02	0.41
1:13:1004:A:H8	1:13:1036:G:H22	1.67	0.41
1:13:1126:U:H2'	1:13:1127:G:C8	2.55	0.41
1:13:1124:G:C2	1:13:1127:G:N2	2.88	0.41
1:13:1262:C:O5'	1:13:1262:C:H6	2.03	0.41
1:13:1238:A:N6	1:13:1301:U:H3	2.13	0.41
1:13:437:U:O4	1:13:438:G:C6	2.72	0.41
1:13:998(A):C:O2'	1:13:999:U:H5'	2.20	0.41
26:14:1000:A:H62	26:14:1154:G:H2'	1.84	0.41
26:14:1291:C:H2'	26:14:1292:U:C6	2.54	0.41
26:14:1436:G:O2'	26:14:1477:A:H4'	2.19	0.41
26:14:1551:C:C4	26:14:1552:G:C5	3.08	0.41
26:14:171:G:H2'	26:14:172:C:C6	2.55	0.41
26:14:176:G:O2'	26:14:177:G:H5'	2.20	0.41
26:14:1804:C:O5'	26:14:1804:C:H6	2.02	0.41
26:14:1895:C:C2	26:14:1896:G:C8	3.08	0.41
26:14:2506:U:H4'	26:14:2507:C:OP1	2.18	0.41
26:14:2572:A:C5	30:29:144:ARG:NH1	2.85	0.41
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.54	0.41
26:14:289:A:H3'	26:14:290:G:H8	1.85	0.41
26:14:307:G:N2	26:14:309:G:H3'	2.35	0.41
26:14:443:A:H5''	26:14:444:C:OP1	2.20	0.41
27:16:15:A:OP1	27:16:15:A:H4'	2.19	0.41
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.68	0.41
1:1G:1036:G:H3'	1:1G:1037:C:O4'	2.20	0.41
1:1G:1121:U:H2'	1:1G:1122:U:C6	2.55	0.41
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.85	0.41
1:1G:1291:G:C6	1:1G:1292:U:O4	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1360:A:OP1	1:1G:1360:A:H8	2.03	0.41
1:1G:1368:G:H4'	10:1A:46:ARG:NH2	2.27	0.41
1:1G:587:G:N2	1:1G:755:G:C5	2.88	0.41
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.35	0.41
26:1H:1328:G:H2'	26:1H:1330:C:C4	2.55	0.41
26:1H:1550:C:C6	26:1H:1551:C:H5	2.38	0.41
26:1H:1639:U:OP1	60:1H:3563:HOH:O	2.22	0.41
26:1H:1788:C:H2'	26:1H:1789:A:O4'	2.20	0.41
26:1H:1869:G:H5''	26:1H:1869:G:H8	1.85	0.41
26:1H:2122:U:O2'	28:71:172:HIS:CE1	2.70	0.41
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.25	0.41
26:1H:2634:G:H2'	26:1H:2635:C:O4'	2.20	0.41
26:1H:278:A:H3'	26:1H:279:C:C6	2.55	0.41
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.20	0.41
26:1H:2855:C:H2'	26:1H:2856:C:C6	2.53	0.41
30:29:180:ASN:HD22	30:29:180:ASN:N	2.17	0.41
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.20	0.41
11:2I:22:HIS:HB3	11:2I:29:ILE:CG2	2.50	0.41
4:32:104:VAL:O	4:32:108:LEU:HB3	2.20	0.41
37:35:11:GLY:O	37:35:12:ALA:HB3	2.20	0.41
31:39:128:ALA:O	31:39:129:PHE:C	2.58	0.41
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.20	0.41
5:42:78:HIS:HA	8:72:105:ARG:HG3	2.02	0.41
32:49:130:ASN:ND2	32:49:161:THR:H	2.17	0.41
32:49:173:LEU:HD22	32:49:178:PHE:CE2	2.55	0.41
13:4A:53:VAL:O	13:4A:56:LEU:N	2.53	0.41
33:51:98:LEU:HD13	33:51:125:VAL:HG23	2.02	0.41
33:51:137:ASP:HB3	33:51:140:LYS:HB3	2.01	0.41
26:1H:2780:G:OP2	35:58:118:LYS:HD3	2.20	0.41
7:62:15:ASP:OD1	7:62:20:ASP:N	2.53	0.41
28:71:177:LYS:HD2	28:71:178:ALA:H	1.84	0.41
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	0.41
41:75:8:LYS:CA	41:75:8:LYS:HE3	2.50	0.41
37:78:98:GLU:O	37:78:101:VAL:HG22	2.20	0.41
26:14:17:G:H4'	42:85:25:TRP:CZ3	2.54	0.41
42:85:91:ASP:C	42:85:93:LYS:H	2.24	0.41
43:95:48:GLY:N	43:95:52:VAL:HG23	2.35	0.41
46:C5:46:LYS:HD2	46:C5:61:ILE:H	1.85	0.41
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	2.01	0.41
47:D5:128:VAL:HG22	47:D5:129:SER:H	1.85	0.41
47:D5:29:TYR:HA	47:D5:34:ASN:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:69:THR:HA	47:D5:89:PHE:O	2.20	0.41
49:F5:87:PRO:O	49:F5:88:LYS:C	2.57	0.41
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.20	0.41
29:11:264:LYS:HE2	29:11:266:SER:HB3	2.02	0.41
1:13:1057:G:H2'	1:13:1058:G:O4'	2.20	0.41
1:13:1135:U:H4'	1:13:1136:U:N3	2.35	0.41
1:13:1273:G:H3'	1:13:1274:G:H8	1.85	0.41
26:14:1055:G:C2	26:14:1085:A:H1'	2.55	0.41
26:14:1181:C:H2'	26:14:1182:A:H8	1.85	0.41
26:14:1257:C:H2'	26:14:1258:C:C6	2.55	0.41
26:14:1260:G:H2'	26:14:1261:C:C6	2.55	0.41
26:14:1441:G:H2'	26:14:1442:G:H8	1.85	0.41
26:14:1532:C:N3	26:14:1539:G:N2	2.53	0.41
26:14:2242:G:H2'	26:14:2243:U:O4'	2.20	0.41
26:14:1297:C:OP1	26:14:2710:C:H4'	2.20	0.41
26:14:465:G:H5''	54:L5:44:PRO:HG3	2.03	0.41
26:14:572:A:H2'	26:14:573:G:O4'	2.20	0.41
26:14:628:G:H2'	26:14:629:G:C8	2.56	0.41
26:14:677:A:H61	26:14:800:A:N6	2.18	0.41
26:14:709:U:H2'	26:14:710:G:C8	2.55	0.41
2:1E:184:VAL:HG23	2:1E:198:ASP:OD2	2.20	0.41
2:1E:69:LEU:HD23	2:1E:159:PRO:CG	2.47	0.41
1:1G:1224:G:N2	1:1G:1322:C:H4'	2.35	0.41
1:1G:1355:G:C6	1:1G:1368:G:C6	3.09	0.41
1:1G:191(F):U:H2'	1:1G:191:G:H8	1.86	0.41
1:1G:310:G:H5''	16:7A:31:LYS:HB3	2.01	0.41
1:1G:310:G:P	16:7A:27:LYS:HD3	2.60	0.41
1:1G:332:G:C2	1:1G:333:G:C8	3.08	0.41
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.19	0.41
1:1G:626:U:H2'	1:1G:627:G:H8	1.85	0.41
26:1H:1371:G:H2'	26:1H:1372:U:H5	1.85	0.41
26:1H:1851:U:H2'	26:1H:1852:C:O4'	2.20	0.41
26:1H:2131:G:C5'	26:1H:2132:U:H5''	2.50	0.41
26:1H:2356:C:O3'	48:I8:20:ARG:HD3	2.20	0.41
26:1H:2472:G:O6	26:1H:2475:C:H2'	2.20	0.41
26:1H:293:U:H5''	26:1H:294:A:OP2	2.20	0.41
26:1H:597:U:H2'	26:1H:598:G:H5'	2.01	0.41
26:1H:644:A:H4'	26:1H:645:C:C5	2.55	0.41
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.41
27:1J:28:C:H2'	27:1J:29:A:C8	2.54	0.41
3:22:129:ALA:HB3	3:22:132:ARG:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.20	0.41
30:29:182:LEU:C	30:29:183:LEU:HD12	2.41	0.41
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.34	0.41
30:29:31:CYS:O	30:29:90:THR:HA	2.19	0.41
24:3L:25:C:H2'	24:3L:26:A:O4'	2.20	0.41
24:3L:51:A:N6	24:3L:63:U:C2	2.87	0.41
5:42:76:ILE:HG12	5:42:118:ILE:CD1	2.50	0.41
32:49:107:LEU:HA	32:49:107:LEU:HD23	1.89	0.41
13:4A:14:ARG:HB3	13:4A:16:ASP:OD1	2.20	0.41
13:4A:20:THR:HG22	13:4A:26:GLY:C	2.41	0.41
13:4I:67:GLU:O	13:4I:71:ARG:HB2	2.20	0.41
33:51:40:GLU:C	33:51:41:MET:CE	2.89	0.41
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.19	0.41
35:58:5:VAL:HA	35:58:6:PRO:HD3	1.94	0.41
40:65:7:TYR:O	40:65:11:LYS:HB2	2.20	0.41
28:71:175:VAL:HG23	28:71:176:GLY:N	2.34	0.41
41:75:8:LYS:HA	41:75:8:LYS:HE3	2.02	0.41
37:78:49:ARG:NH1	37:78:50:ARG:HH21	2.17	0.41
42:85:17:ILE:HG23	42:85:17:ILE:HD12	1.71	0.41
17:8I:74:LEU:HD12	17:8I:75:ARG:HG2	2.02	0.41
43:95:44:LYS:HB2	43:95:45:THR:OG1	2.20	0.41
39:98:44:LEU:O	39:98:47:PHE:N	2.45	0.41
44:A5:12:ILE:HD12	44:A5:42:ARG:HD3	2.03	0.41
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	2.01	0.41
49:F5:7:ILE:HD13	49:F5:91:LYS:HZ1	1.84	0.41
46:G8:97:ARG:O	46:G8:101:LYS:HA	2.20	0.41
55:M5:28:GLY:O	55:M5:36:LYS:NZ	2.50	0.41
52:M8:13:ARG:NH2	52:M8:22:ILE:HD12	2.36	0.41
26:1H:1789:A:OP1	29:11:221:VAL:HA	2.20	0.41
29:11:228:PRO:HG3	29:11:234:GLY:O	2.19	0.41
1:13:1491:G:N7	57:13:1730:PAR:O53	2.48	0.41
1:13:344:A:H5''	1:13:345:C:C6	2.55	0.41
1:13:429:U:H4'	1:13:430:A:OP1	2.19	0.41
1:13:456:C:N3	1:13:476:G:N2	2.40	0.41
1:13:668:G:C6	1:13:669:U:C5	3.09	0.41
26:14:1013:C:N3	26:14:1149:G:N2	2.57	0.41
26:14:1474:C:H2'	26:14:1475:G:C8	2.56	0.41
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.41
26:14:468:G:H2'	26:14:469:G:O4'	2.20	0.41
26:14:4:C:O2	26:14:4:C:H2'	2.20	0.41
26:14:520:G:H2'	26:14:521:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:621:A:H3'	26:14:622:G:H8	1.85	0.41
27:16:109:G:C6	27:16:110:G:C5	3.08	0.41
27:16:71:C:C2	27:16:72:G:C8	3.08	0.41
29:19:46:GLN:HG3	29:19:46:GLN:H	1.55	0.41
2:1E:185:ILE:HG22	2:1E:199:TYR:O	2.21	0.41
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.20	0.41
1:1G:1086:U:H3	1:1G:1099:G:H22	1.68	0.41
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.55	0.41
1:1G:1248:A:H2'	9:82:70:LYS:HZ3	1.84	0.41
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.20	0.41
1:1G:147:G:N2	1:1G:148:G:C4	2.88	0.41
1:1G:186(E):C:C2	1:1G:191(C):G:N2	2.87	0.41
1:1G:272:C:H2'	1:1G:273:A:H8	1.84	0.41
1:1G:362:G:O2'	1:1G:364:A:N7	2.49	0.41
1:1G:861:G:N2	1:1G:872:A:H2	2.18	0.41
26:1H:1270:C:H5''	26:1H:1271:G:O5'	2.20	0.41
26:1H:1705:G:C6	26:1H:1706:U:N3	2.88	0.41
26:1H:2147:G:O5'	26:1H:2147:G:H8	2.03	0.41
26:1H:1493:C:C4	26:1H:2210:G:C8	3.08	0.41
26:1H:2259:G:C2	26:1H:2282:G:N1	2.88	0.41
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.55	0.41
26:1H:1638:C:H4'	26:1H:2710:C:O2	2.20	0.41
26:1H:463:G:N2	26:1H:466:A:OP2	2.43	0.41
26:1H:571:A:H5'	26:1H:2030:A:N7	2.35	0.41
26:1H:593:G:C6	26:1H:594:U:C4	3.08	0.41
26:1H:775:G:C5	26:1H:794:G:C8	3.08	0.41
26:1H:922:U:H2'	26:1H:923:C:C6	2.55	0.41
3:22:195:VAL:O	3:22:196:LEU:HD22	2.20	0.41
1:1G:1256:A:H3'	3:22:27:LYS:NZ	2.35	0.41
36:25:71:ARG:HB2	36:25:73:ASP:OD1	2.20	0.41
23:2L:17:C:OP1	23:2L:62:C:H5'	2.20	0.41
26:1H:588:U:H1'	31:31:90:PHE:CG	2.55	0.41
4:32:148:VAL:HG12	4:32:152:SER:OG	2.21	0.41
26:14:616:A:C5	31:39:180:GLY:HA3	2.56	0.41
4:3E:196:LEU:HB3	4:3E:198:VAL:HG23	2.02	0.41
12:3I:111:LYS:HA	12:3I:111:LYS:HD2	1.82	0.41
24:3L:76:A:H8	26:14:2394:C:N4	2.18	0.41
32:41:73:ALA:HA	32:41:88:ILE:HD11	2.01	0.41
26:14:910:A:C5	38:45:13:GLN:HG3	2.55	0.41
7:62:99:LEU:HD22	7:62:103:TRP:NE1	2.35	0.41
34:69:97:ILE:O	34:69:100:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:80:VAL:HB	7:6E:85:TYR:CE1	2.54	0.41
15:6I:78:TYR:O	15:6I:81:LEU:N	2.54	0.41
28:71:46:LYS:HB3	28:71:210:ARG:HB2	2.03	0.41
1:1G:607:A:C2	16:7A:31:LYS:HB2	2.55	0.41
16:7I:38:TYR:CZ	16:7I:50:LYS:HB3	2.55	0.41
1:13:130:A:C8	17:8I:63:ARG:HB2	2.55	0.41
19:AA:11:VAL:HG13	19:AA:39:THR:CB	2.51	0.41
19:AA:38:SER:O	19:AA:70:LYS:HG3	2.20	0.41
46:G8:63:LYS:HZ3	46:G8:64:GLU:HG3	1.86	0.41
47:H8:132:ASN:CG	47:H8:160:GLY:HA3	2.40	0.41
47:H8:99:TYR:CE1	47:H8:125:LEU:HB2	2.54	0.41
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.55	0.41
29:11:24:ILE:HG23	29:11:83:GLU:HA	2.02	0.41
2:12:42:ILE:HG22	2:12:43:ASP:O	2.20	0.41
1:13:983:A:H1'	1:13:1049:U:O2	2.20	0.41
1:13:592:G:O2'	1:13:593:G:H5'	2.21	0.41
1:13:706:A:N3	11:2I:31:THR:HG21	2.34	0.41
26:14:1802:A:N1	26:14:1822:G:H1'	2.36	0.41
26:14:2148:G:H2'	26:14:2149:G:H8	1.84	0.41
26:14:2141:G:C6	26:14:2151:G:C6	3.09	0.41
26:14:2162:G:H8	26:14:2164:C:H41	1.66	0.41
26:14:226:G:H21	26:14:228:A:H62	1.68	0.41
26:14:2290:G:C2	26:14:2343:C:O2	2.72	0.41
26:14:289:A:C2'	26:14:290:G:H5'	2.50	0.41
26:14:541:C:H2'	26:14:542:C:C6	2.56	0.41
27:16:87:G:N2	27:16:89:G:H3'	2.34	0.41
29:19:272:ALA:HB1	29:19:273:ARG:H	1.52	0.41
29:19:49:ILE:HD13	29:19:49:ILE:HG21	1.72	0.41
1:1G:1128:C:O2	1:1G:1128:C:H2'	2.19	0.41
1:1G:1177:G:O2'	1:1G:1178:G:C8	2.69	0.41
1:1G:949:A:C2	1:1G:1233:G:N3	2.88	0.41
1:1G:123:C:H2'	1:1G:124:G:H8	1.86	0.41
1:1G:1404:C:H2'	1:1G:1405:G:C8	2.55	0.41
1:1G:243:A:H62	1:1G:281:G:H1'	1.86	0.41
1:1G:426:G:OP1	4:32:38:TYR:OH	2.22	0.41
1:1G:446:G:H2'	1:1G:447:G:O4'	2.20	0.41
1:1G:802:A:H3'	1:1G:803:G:H8	1.85	0.41
26:1H:1183:G:OP2	26:1H:1183:G:H8	2.03	0.41
26:1H:1324:G:N2	26:1H:1331:A:C4	2.89	0.41
26:1H:1349:A:N6	26:1H:1598:C:N4	2.68	0.41
26:1H:1351:C:H5''	60:1H:3790:HOH:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1465:G:C4	26:1H:1466:G:C8	3.08	0.41
26:1H:1545(A):A:N7	26:1H:1546:C:C2	2.88	0.41
26:1H:17:G:H2'	26:1H:18:C:C6	2.55	0.41
26:1H:2118:U:H6	26:1H:2118:U:O5'	2.04	0.41
26:1H:2147:G:H3'	26:1H:2148:G:C8	2.53	0.41
26:1H:2259:G:C2	26:1H:2282:G:C6	3.09	0.41
26:1H:249:C:O2	55:Q8:12:LYS:NZ	2.41	0.41
26:1H:2663:G:H3'	26:1H:2664:G:H8	1.85	0.41
26:1H:314:A:C2'	26:1H:315:G:H5'	2.51	0.41
26:1H:582:G:H2'	26:1H:583:G:H8	1.85	0.41
26:1H:654(O):G:C8	26:1H:654(P):G:H1'	2.52	0.41
26:1H:657:U:H2'	26:1H:658:C:H6	1.86	0.41
1:13:1367:C:H4'	10:1I:48:THR:HG21	2.01	0.41
10:1I:55:LYS:O	10:1I:56:HIS:CD2	2.74	0.41
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.41
22:1K:67:C:H5''	22:1K:68:G:OP1	2.20	0.41
3:22:73:PRO:HG3	3:22:105:GLU:HA	2.02	0.41
30:29:111:ARG:HD3	30:29:160:TYR:CD2	2.56	0.41
30:29:64:LYS:HE3	30:29:64:LYS:HB3	1.89	0.41
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.52	0.41
31:31:110:LEU:HA	31:31:183:VAL:HG12	2.02	0.41
4:32:172:PRO:HB2	4:32:187:ARG:HH22	1.85	0.41
31:39:53:THR:HG22	31:39:56:GLU:CG	2.39	0.41
1:1G:585:G:H4'	12:3A:8:ASN:OD1	2.21	0.41
4:3E:111:ALA:HB2	4:3E:120:LEU:HD11	2.02	0.41
4:3E:49:ARG:NH2	60:3E:401:HOH:O	2.53	0.41
24:3L:63:U:H2'	24:3L:64:G:C8	2.55	0.41
32:41:91:ARG:HD2	32:41:91:ARG:C	2.40	0.41
13:4A:31:LYS:O	13:4A:34:LEU:HG	2.20	0.41
33:51:97:ARG:HE	33:51:97:ARG:HB3	1.77	0.41
35:58:48:MET:SD	35:58:48:MET:O	2.78	0.41
34:61:131:LYS:HD3	34:61:131:LYS:HA	1.95	0.41
34:61:33:ARG:O	34:61:35:LEU:HD12	2.20	0.41
40:65:110:LEU:HD13	40:65:112:PHE:CZ	2.56	0.41
34:69:128:LEU:O	34:69:138:ILE:HG22	2.21	0.41
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.85	0.41
37:78:35:HIS:O	37:78:36:LYS:C	2.58	0.41
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.21	0.41
16:7I:19:ILE:HB	16:7I:36:ILE:HG13	2.02	0.41
40:A8:88:ASP:C	40:A8:90:GLY:H	2.23	0.41
19:AA:7:LYS:HB2	19:AA:7:LYS:HE2	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:40:GLU:OE2	46:C5:40:GLU:N	2.54	0.41
46:C5:81:LYS:HD2	46:C5:99:CYS:SG	2.61	0.41
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.52	0.41
47:H8:28:MET:HE2	47:H8:28:MET:HB2	1.75	0.41
47:H8:56:VAL:HA	47:H8:70:LEU:HD23	2.03	0.41
50:K8:17:SER:HB3	50:K8:67:LYS:HE3	2.03	0.41
29:11:32:SER:HA	29:11:35:LYS:NZ	2.36	0.41
2:12:185:ILE:H	2:12:185:ILE:HG13	1.75	0.41
1:13:110:C:H3'	1:13:111:G:C8	2.55	0.41
1:13:1176:A:N6	1:13:1177:G:C6	2.89	0.41
26:14:1317:A:H2'	26:14:1318:C:H6	1.86	0.41
26:14:151:C:O2'	26:14:152:G:H5'	2.21	0.41
26:14:1684:C:C2	26:14:1705:G:N2	2.89	0.41
26:14:1731:G:N3	26:14:1731:G:O4'	2.52	0.41
26:14:1735:C:H6	26:14:1735:C:O5'	2.02	0.41
26:14:2261:C:O2'	26:14:2262:U:H5'	2.20	0.41
26:14:2758:A:H2'	26:14:2759:G:O4'	2.21	0.41
26:14:2789:C:N3	26:14:2894:G:N2	2.68	0.41
26:14:2822:G:O5'	26:14:2822:G:H8	2.04	0.41
26:14:298:G:OP1	46:C5:85:VAL:HA	2.19	0.41
26:14:702:G:C2	26:14:731:C:C2	3.08	0.41
26:14:753:C:O2'	26:14:754:C:H5'	2.21	0.41
26:14:814:C:N3	26:14:1194:A:C2	2.88	0.41
27:16:22:U:H2'	27:16:23:G:C8	2.55	0.41
29:19:162:SER:HB3	29:19:195:ALA:HB1	2.03	0.41
2:1E:222:ILE:H	2:1E:222:ILE:HG12	1.61	0.41
1:1G:117:G:H2'	1:1G:118:U:H6	1.86	0.41
1:1G:1255:G:H3'	1:1G:1279:A:N6	2.35	0.41
1:1G:1299:A:C6	1:1G:1301:U:C2	3.08	0.41
1:1G:1317:C:H2'	1:1G:1318:A:H5'	2.01	0.41
1:1G:1442:G:HO2'	1:1G:1443:G:P	2.43	0.41
1:1G:162:A:H8	1:1G:162:A:O5'	2.04	0.41
1:1G:184:G:O2'	1:1G:185:A:H5'	2.20	0.41
1:1G:223:U:H2'	1:1G:224:C:H6	1.85	0.41
1:1G:385:C:H2'	1:1G:386:C:C6	2.55	0.41
1:1G:407:G:H2'	1:1G:408:A:H8	1.82	0.41
1:1G:66:G:C2	1:1G:67:C:C6	3.08	0.41
26:1H:1019:U:OP1	26:1H:1035:U:O2'	2.29	0.41
26:1H:1127:A:H2'	26:1H:1128:A:H5''	2.02	0.41
26:1H:1019:U:H3	26:1H:1142(A):A:H62	1.66	0.41
26:1H:1477:A:C2	26:1H:1517:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.55	0.41
26:1H:1601:G:C6	26:1H:1602:U:N3	2.89	0.41
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.51	0.41
26:1H:2148:G:C2	26:1H:2149:G:C8	3.09	0.41
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.20	0.41
26:1H:2688:U:OP1	26:1H:2713:A:N6	2.46	0.41
26:1H:37:C:O2'	26:1H:38:A:H5'	2.20	0.41
26:1H:600:G:N2	26:1H:605:C:O3'	2.52	0.41
26:1H:775:G:C4	26:1H:794:G:C8	3.09	0.41
26:1H:845:G:C8	26:1H:845:G:OP2	2.73	0.41
27:1J:72:G:O2'	27:1J:104:A:N6	2.53	0.41
22:1K:30:G:H5'	22:1K:31:A:OP2	2.20	0.41
30:21:108:SER:O	30:21:162:ALA:HA	2.21	0.41
30:21:35:GLN:HG3	30:21:36:ARG:H	1.86	0.41
36:25:7:TYR:HE1	36:25:20:MET:HE3	1.85	0.41
36:25:47:ILE:HD13	36:25:47:ILE:HA	1.71	0.41
30:29:26:ILE:HG22	30:29:27:LEU:C	2.40	0.41
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.20	0.41
3:2E:11:ARG:HH21	3:2E:180:ALA:CB	2.34	0.41
3:2E:188:LEU:HD22	3:2E:188:LEU:HA	1.86	0.41
23:2K:48:U:HO2'	23:2K:49:C:P	2.42	0.41
31:31:64:ILE:HG22	31:31:65:TRP:CG	2.55	0.41
26:14:805:G:H4'	37:35:38:GLN:HB2	2.01	0.41
12:3A:41:ARG:HD2	12:3A:41:ARG:HH11	1.76	0.41
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.85	0.41
24:3L:26:A:H61	24:3L:45:G:H1	1.69	0.41
32:41:13:GLU:O	32:41:14:GLU:HG2	2.20	0.41
32:41:41:GLN:HG2	32:41:154:GLY:O	2.20	0.41
32:41:170:ARG:HE	32:41:174:GLU:HG2	1.86	0.41
5:42:79:GLU:HB3	5:42:93:PRO:HD2	2.02	0.41
26:14:911:A:C5	38:45:9:TYR:CD2	3.09	0.41
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.54	0.41
13:4I:117:VAL:HG13	13:4I:118:ALA:H	1.84	0.41
39:55:76:VAL:HA	39:55:79:LEU:HB3	2.02	0.41
35:58:31:ALA:O	35:58:35:ARG:HG3	2.20	0.41
36:68:35:VAL:HG11	36:68:103:ALA:CB	2.43	0.41
15:6A:41:GLU:O	15:6A:45:VAL:HG22	2.21	0.41
28:71:10:LEU:HD23	28:71:13:LYS:HD3	2.01	0.41
37:78:62:LEU:HD23	37:78:62:LEU:HA	1.80	0.41
8:7E:20:TYR:CE2	8:7E:75:ARG:HD2	2.35	0.41
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:28:VAL:HG22	9:82:63:ILE:O	2.21	0.41
9:8E:8:GLY:C	9:8E:9:ARG:HD2	2.41	0.41
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	2.03	0.41
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.35	0.41
20:BI:48:LYS:HE2	20:BI:51:GLU:HG3	2.03	0.41
46:C5:90:LEU:HA	46:C5:91:GLU:HA	1.83	0.41
47:D5:16:SER:O	47:D5:20:ARG:HG3	2.20	0.41
47:D5:96:VAL:HG12	47:D5:97:GLU:N	2.36	0.41
46:G8:27:VAL:HA	46:G8:39:VAL:HA	2.01	0.41
46:G8:39:VAL:HG12	46:G8:42:VAL:HG13	2.02	0.41
47:H8:76:LEU:HD23	47:H8:76:LEU:H	1.85	0.41
49:J8:80:LEU:C	49:J8:81:LYS:HD2	2.40	0.41
29:11:106:ILE:O	29:11:108:PRO:HD3	2.20	0.41
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.20	0.41
2:12:131:PRO:HD2	2:12:134:GLU:OE1	2.20	0.41
1:13:1003:G:H1	1:13:1037:C:N4	2.19	0.41
1:13:186(F):C:N3	1:13:191(B):G:C2	2.88	0.41
1:13:21:G:C2	1:13:22:G:C6	3.09	0.41
1:13:571:U:O2	1:13:918:A:H5'	2.21	0.41
1:13:748:C:O5'	1:13:748:C:H6	2.02	0.41
26:14:106:C:H2'	26:14:107:C:C6	2.55	0.41
26:14:1093:G:H1'	26:14:1098:A:H62	1.85	0.41
26:14:1022:G:C5	26:14:1140:C:C4	3.08	0.41
26:14:1677:A:H2'	26:14:1678:G:C8	2.55	0.41
26:14:1909:C:H2'	26:14:1910:G:C8	2.56	0.41
26:14:2402:C:H5'	26:14:2403:C:OP2	2.21	0.41
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.55	0.41
26:14:866:A:N6	26:14:914:C:C5	2.88	0.41
29:19:45:ASN:HB3	29:19:46:GLN:H	1.50	0.41
2:1E:180:LEU:HB2	2:1E:182:ILE:HG13	2.01	0.41
1:1G:1071:C:H2'	1:1G:1072:G:C8	2.55	0.41
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.83	0.41
1:1G:186(A):C:O2'	20:BA:89:ARG:NH2	2.53	0.41
1:1G:288:A:H2'	1:1G:289:G:H4'	2.02	0.41
1:1G:341:C:H2'	1:1G:342:C:H6	1.86	0.41
1:1G:348:G:N2	1:1G:349:A:H1'	2.35	0.41
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.41
1:1G:439:A:OP2	1:1G:493:G:N2	2.53	0.41
1:1G:457:C:H2'	1:1G:458:C:H6	1.86	0.41
1:1G:596:C:H2'	1:1G:597:G:C8	2.56	0.41
1:1G:622:A:C8	1:1G:623:C:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:632:A:H2'	1:1G:633:G:O4'	2.20	0.41
1:1G:996:A:H2'	1:1G:997:U:O4'	2.21	0.41
26:1H:1357:U:C4	26:1H:1358:G:C5	3.08	0.41
26:1H:1479:G:C4	26:1H:1480:G:C8	3.08	0.41
26:1H:1509:C:C2	26:1H:1511:A:C8	3.09	0.41
26:1H:2152:G:O6	26:1H:2153:G:N1	2.53	0.41
26:1H:2436:G:C6	26:1H:2437:U:C4	3.08	0.41
26:1H:270(J):G:N1	26:1H:270(P):C:N3	2.56	0.41
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.33	0.41
26:1H:459:U:H5''	54:P8:40:TRP:CG	2.54	0.41
26:1H:773:U:H5'	29:11:47:GLY:HA3	2.02	0.41
26:1H:81:G:O6	60:1H:3561:HOH:O	2.21	0.41
11:2A:103:LEU:HA	11:2A:103:LEU:HD12	1.86	0.41
11:2I:19:ALA:HA	11:2I:32:ILE:HA	2.03	0.41
11:2I:32:ILE:HD11	11:2I:68:ALA:HB1	2.02	0.41
23:2L:53:G:H2'	23:2L:54:G:C8	2.56	0.41
31:31:134:GLY:HA3	31:31:162:LEU:O	2.20	0.41
4:32:9:CYS:SG	4:32:22:LYS:HE3	2.60	0.41
32:41:103:LEU:O	32:41:103:LEU:HD23	2.20	0.41
32:41:143:GLU:OE1	52:M8:26:SER:OG	2.37	0.41
32:41:34:LEU:HD23	32:41:34:LEU:HA	1.85	0.41
38:45:46:GLN:NE2	38:45:126:PRO:HG3	2.35	0.41
13:4I:67:GLU:HG3	13:4I:71:ARG:HH21	1.85	0.41
39:55:79:LEU:O	39:55:79:LEU:HD22	2.21	0.41
26:14:2745:C:H1'	33:59:143:GLN:O	2.21	0.41
7:62:73:MET:CG	7:62:90:GLU:HA	2.51	0.41
7:6E:20:ASP:O	7:6E:24:THR:HG23	2.20	0.41
42:85:43:GLY:HA3	43:95:73:SER:OG	2.20	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.71	0.41
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.21	0.41
36:68:78:ARG:HH11	41:B8:73:GLU:HB2	1.85	0.41
26:1H:559:G:H22	42:C8:49:HIS:CE1	2.39	0.41
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.77	0.41
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.43	0.41
54:L5:30:VAL:HG22	54:L5:33:ARG:HH12	1.85	0.41
2:12:211:ILE:HA	2:12:211:ILE:HD12	1.69	0.41
2:12:95:GLN:HB2	2:12:148:TYR:HA	2.01	0.41
1:13:1207:G:H2'	1:13:1208:C:C6	2.56	0.41
1:13:122:G:OP1	1:13:122:G:H8	2.03	0.41
1:13:692:U:H2'	1:13:694:A:OP2	2.21	0.41
26:14:1019:U:H3	26:14:1142(A):A:H62	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:565:C:H4'	26:14:1253:A:C6	2.55	0.41
26:14:1331:A:O2'	26:14:1332:G:H8	2.02	0.41
26:14:1337:G:H2'	26:14:1338:G:H8	1.85	0.41
26:14:1410:G:H2'	26:14:1411:C:C6	2.56	0.41
26:14:1484:G:C4	26:14:1485:G:C8	3.09	0.41
26:14:1534:G:H5'	26:14:1535:U:O5'	2.20	0.41
26:14:1899:G:O2'	26:14:1900:A:H5''	2.20	0.41
26:14:2078:C:H2'	26:14:2079:U:C6	2.56	0.41
26:14:2127:G:H2'	26:14:2128:C:O4'	2.20	0.41
26:14:2129:C:N3	26:14:2160:G:C2	2.89	0.41
26:14:2820:A:O5'	39:55:4:LEU:HD23	2.21	0.41
26:14:288:C:H2'	26:14:289:A:C8	2.56	0.41
26:14:38:A:H2'	26:14:39:C:C6	2.56	0.41
26:14:568:U:H3'	60:14:3444:HOH:O	2.21	0.41
26:14:948:G:N2	26:14:970:C:O2	2.54	0.41
35:15:137:LYS:HD3	35:15:137:LYS:HA	1.68	0.41
29:19:115:GLN:HG2	29:19:116:GLN:N	2.35	0.41
10:1A:78:ASN:HB2	10:1A:79:ARG:NH1	2.35	0.41
2:1E:164:VAL:HB	2:1E:186:ALA:HB2	2.01	0.41
2:1E:19:HIS:HB3	2:1E:20:GLU:HG2	2.03	0.41
2:1E:86:GLU:C	2:1E:89:GLY:H	2.24	0.41
1:1G:1126:U:C5	1:1G:1281:U:C6	3.08	0.41
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.86	0.41
1:1G:1260:C:O5'	1:1G:1284:C:H4'	2.21	0.41
1:1G:1472:U:H2'	1:1G:1473:A:O4'	2.20	0.41
1:1G:174:C:H6	1:1G:174:C:H5'	1.85	0.41
1:1G:747:C:H3'	1:1G:748:C:C5	2.56	0.41
1:1G:924:C:H42	1:1G:1392:G:H1	1.69	0.41
26:1H:1009:A:OP1	35:58:37:LYS:NZ	2.54	0.41
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.20	0.41
26:1H:146:G:C6	26:1H:147:U:C4	3.09	0.41
26:1H:1614:A:N1	44:E8:91:GLY:HA2	2.36	0.41
26:1H:1651:G:H5'	39:98:39:PRO:HG2	2.03	0.41
26:1H:1697:G:N1	26:1H:1698:A:N1	2.68	0.41
26:1H:1906:G:C8	26:1H:1929:G:C4	3.08	0.41
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.21	0.41
26:1H:2074:U:N3	26:1H:2075:U:C4	2.89	0.41
26:1H:2443:C:H2'	26:1H:2444:G:H8	1.85	0.41
26:1H:2709:G:H2'	26:1H:2710:C:O4'	2.21	0.41
26:1H:2801:A:C8	26:1H:2802:G:C8	3.08	0.41
26:1H:2845:G:H5''	41:B8:54:ARG:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:300:A:N6	60:1H:3591:HOH:O	2.31	0.41
26:1H:36:G:C5	26:1H:37:C:C5	3.09	0.41
26:1H:760:G:H2'	26:1H:761:A:O4'	2.21	0.41
26:1H:2785:C:O2'	30:21:64:LYS:HD3	2.21	0.41
3:22:40:ARG:O	3:22:44:GLU:N	2.52	0.41
30:29:109:LYS:O	30:29:161:GLY:HA3	2.21	0.41
30:29:64:LYS:C	30:29:66:HIS:N	2.73	0.41
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.51	0.41
23:2L:20:G:C4	23:2L:58:A:C2	3.09	0.41
37:35:121:LYS:HG3	37:35:122:PRO:HD2	2.02	0.41
37:35:55:ARG:HG2	37:35:56:SER:N	2.33	0.41
26:14:618(A):C:OP2	31:39:103:LYS:HE2	2.20	0.41
31:39:125:LEU:HD12	31:39:125:LEU:O	2.20	0.41
31:39:169:ASN:ND2	31:39:169:ASN:O	2.54	0.41
31:39:32:LEU:O	31:39:32:LEU:HD23	2.20	0.41
12:3A:62:SER:O	12:3A:64:TYR:N	2.53	0.41
4:3E:162:LEU:HD22	4:3E:178:VAL:HG13	2.03	0.41
4:3E:31:CYS:C	4:3E:33:MET:H	2.24	0.41
24:3K:56:C:C2	24:3K:57:G:C8	3.08	0.41
24:3K:71:C:H1'	26:1H:1851:U:H1'	2.02	0.41
14:5A:59:ALA:HB1	14:5A:61:TRP:CZ3	2.55	0.41
40:65:110:LEU:HD13	40:65:112:PHE:CE1	2.56	0.41
41:75:106:SER:HA	41:75:110:ILE:CD1	2.45	0.41
42:85:100:VAL:C	42:85:102:GLU:H	2.24	0.41
42:85:41:ALA:O	42:85:45:TYR:HD1	2.04	0.41
42:85:52:ARG:O	42:85:52:ARG:HG3	2.20	0.41
17:8I:29:HIS:N	17:8I:34:LYS:O	2.54	0.41
39:98:75:LEU:O	39:98:75:LEU:HD23	2.20	0.41
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.21	0.41
46:C5:13:VAL:HG13	46:C5:27:VAL:HG23	2.02	0.41
47:D5:129:SER:OG	47:D5:130:PRO:HD2	2.21	0.41
47:D5:10:ARG:HD2	47:D5:36:LYS:HD2	2.03	0.41
44:E8:29:LEU:HD13	44:E8:51:LEU:HD22	2.03	0.41
2:12:166:ASP:HB3	2:12:169:LYS:HB2	2.03	0.41
1:13:1053:G:C4'	1:13:1054:C:H5'	2.50	0.41
1:13:1133:G:C2	1:13:1134:G:C8	3.09	0.41
1:13:1431:C:H2'	1:13:1432:G:O4'	2.21	0.41
1:13:406:G:H2'	1:13:407:G:C8	2.56	0.41
1:13:676:A:H5''	11:2I:113:PRO:HB3	2.02	0.41
1:13:980:C:H2'	1:13:981:U:O4'	2.21	0.41
26:14:1702:G:H2'	26:14:1703:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:161:U:C5'	26:14:171:G:H21	2.30	0.41
26:14:2107:C:H2'	26:14:2108:C:C6	2.55	0.41
26:14:2136:C:H2'	26:14:2137:C:C6	2.55	0.41
26:14:2299:G:C6	26:14:2318:G:C8	3.08	0.41
26:14:2302:G:N1	26:14:2315:G:C6	2.89	0.41
26:14:2740:A:C6	26:14:2741:A:C6	3.08	0.41
26:14:2850:A:H2'	26:14:2851:A:O4'	2.20	0.41
26:14:537:C:H5'	26:14:539:G:OP2	2.21	0.41
26:14:937:U:H2'	26:14:938:G:O4'	2.21	0.41
2:1E:8:LYS:NZ	2:1E:10:LEU:HB2	2.35	0.41
2:1E:55:PHE:CZ	2:1E:218:ALA:HA	2.56	0.41
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.56	0.41
1:1G:1508:G:H2'	1:1G:1509:C:O4'	2.20	0.41
1:1G:303:A:H2'	1:1G:304:U:O4'	2.21	0.41
1:1G:350:G:H5'	1:1G:351:G:OP2	2.21	0.41
1:1G:384:G:H2'	1:1G:385:C:C6	2.55	0.41
1:1G:616:G:C2	1:1G:617:G:C8	3.09	0.41
1:1G:95:G:H2'	1:1G:96:G:O4'	2.20	0.41
1:1G:973:G:O6	1:1G:974:A:N6	2.54	0.41
26:1H:152:G:H2'	26:1H:153:C:C6	2.55	0.41
26:1H:1582:C:HO2'	26:1H:1586:A:H8	1.65	0.41
26:1H:1931:U:H5	26:1H:1969:A:N7	2.19	0.41
26:1H:2238:G:N3	26:1H:2238:G:H2'	2.36	0.41
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.20	0.41
26:1H:384:U:O2'	26:1H:385:C:H5'	2.21	0.41
26:1H:528:A:N1	26:1H:2042:A:H2'	2.36	0.41
26:1H:635:C:H2'	26:1H:636:G:O4'	2.20	0.41
26:1H:652:C:N4	26:1H:653:A:H62	2.18	0.41
26:1H:780:G:N2	26:1H:783:A:H62	1.99	0.41
27:1J:16:G:O6	27:1J:66:A:H2	2.02	0.41
30:21:34:VAL:HG21	30:21:77:ILE:CD1	2.51	0.41
30:21:47:VAL:HG11	30:21:86:PRO:CD	2.51	0.41
30:29:47:VAL:HG21	30:29:86:PRO:HD2	2.02	0.41
11:2I:73:MET:HE1	11:2I:103:LEU:HD13	2.03	0.41
37:35:39:LYS:HA	37:35:45:LEU:CD1	2.51	0.41
31:39:143:ALA:O	31:39:148:LEU:HB2	2.20	0.41
26:14:673:C:HO2'	31:39:82:ILE:HD11	1.86	0.41
24:3L:57:G:N3	24:3L:57:G:H2'	2.36	0.41
5:4E:69:VAL:HA	5:4E:70:PRO:HD3	1.89	0.41
41:75:50:ILE:HD13	41:75:99:LEU:HB2	2.03	0.41
1:1G:1128:C:H5''	9:82:16:ARG:HH22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:958:U:OP2	38:88:14:ARG:HD3	2.21	0.41
17:8A:10:VAL:HA	17:8A:20:THR:O	2.21	0.41
35:58:40:PRO:O	42:C8:100:VAL:HG22	2.20	0.41
44:E8:41:LYS:HE3	44:E8:41:LYS:HB3	1.94	0.41
50:G5:30:ARG:HG3	50:G5:31:GLU:N	2.36	0.41
47:H8:92:SER:OG	47:H8:94:GLU:OE1	2.39	0.41
26:1H:2331:G:C4'	48:I8:42:GLY:HA3	2.50	0.41
2:12:220:ASP:HB2	2:12:224:GLN:CG	2.35	0.41
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.35	0.41
1:13:1368:G:C2'	1:13:1369:C:H5'	2.51	0.41
1:13:1473:A:H2'	1:13:1474:G:C8	2.56	0.41
1:13:247:G:O6	1:13:278:G:C6	2.74	0.41
1:13:31:G:H2'	1:13:48:C:N4	2.36	0.41
1:13:360:A:H2'	1:13:361:G:C8	2.56	0.41
1:13:467:G:H3'	1:13:467:G:OP2	2.21	0.41
1:13:519:C:H2'	1:13:520:A:C8	2.56	0.41
1:13:639:G:C2	1:13:640:A:C8	3.09	0.41
1:13:643:C:H2'	1:13:644:G:H8	1.84	0.41
1:13:687:A:H2'	1:13:701:C:H41	1.86	0.41
1:13:781:A:H5'	1:13:782:A:OP2	2.21	0.41
1:13:920:U:O2'	1:13:921:U:H5'	2.20	0.41
26:14:1146:C:H2'	26:14:1147:C:H5'	2.01	0.41
26:14:1543:A:H1'	26:14:1545:A:H1'	2.03	0.41
26:14:2086:U:H2'	26:14:2087:G:C8	2.55	0.41
26:14:244:A:C2	26:14:255:A:C4	3.09	0.41
26:14:2872:G:C5	26:14:2873:A:C2	3.09	0.41
26:14:398:G:H2'	26:14:399:G:H8	1.84	0.41
26:14:442:G:C4	26:14:444:C:C5	3.08	0.41
26:14:529:A:H8	26:14:530:G:C6	2.38	0.41
26:14:577:G:C6	26:14:578:A:C6	3.09	0.41
26:14:729:G:H2'	26:14:1775:U:O2	2.21	0.41
27:16:44:G:OP1	32:41:98:ARG:NH2	2.45	0.41
27:16:4:C:H42	27:16:116:G:H1	1.68	0.41
2:1E:71:VAL:HG23	2:1E:164:VAL:HG13	2.03	0.41
2:1E:238:LEU:O	2:1E:239:VAL:HB	2.21	0.41
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.53	0.41
1:1G:1040:U:H2'	1:1G:1041:A:O4'	2.21	0.41
1:1G:1207:G:C6	1:1G:1208:C:C4	3.09	0.41
1:1G:977:A:C8	1:1G:1223:C:N3	2.89	0.41
1:1G:1357:A:N7	1:1G:1358:U:C4	2.88	0.41
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.41
1:1G:42:G:H2'	1:1G:43:C:O4'	2.21	0.41
1:1G:127:G:OP1	1:1G:635:G:H1'	2.21	0.41
1:1G:790:A:C2	1:1G:1497:G:H5''	2.56	0.41
1:1G:952:U:H4'	1:1G:964:A:N1	2.36	0.41
26:1H:1045:A:OP1	26:1H:1045:A:H4'	2.20	0.41
26:1H:2314:C:OP1	32:41:91:ARG:NH1	2.53	0.41
26:1H:2430:A:H8	26:1H:2431:U:C5	2.39	0.41
26:1H:2455:G:H2'	26:1H:2456:C:C6	2.56	0.41
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.26	0.41
27:1J:15:A:H5'	27:1J:16:G:H8	1.85	0.41
22:1L:41:A:C2	22:1L:42:A:H1'	2.56	0.41
31:31:53:THR:N	31:31:56:GLU:OE2	2.42	0.41
4:32:60:GLU:OE2	4:32:198:VAL:HA	2.21	0.41
4:32:4:TYR:C	4:32:4:TYR:CD1	2.94	0.41
31:39:156:LEU:HD21	31:39:163:VAL:HG12	2.03	0.41
24:3L:17:U:H5'	24:3L:18:G:OP2	2.21	0.41
32:49:59:GLU:CD	32:49:153:ARG:NH2	2.70	0.41
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.56	0.41
39:55:33:ARG:HD3	39:55:115:GLU:HB3	2.03	0.41
14:5I:50:LYS:HB2	14:5I:52:GLN:HG3	2.02	0.41
34:61:10:GLU:O	34:61:11:ASN:HB2	2.20	0.41
34:61:120:ILE:HD11	34:61:126:TYR:CZ	2.55	0.41
40:65:42:ASP:C	40:65:44:LYS:H	2.24	0.41
7:6E:103:TRP:CH2	7:6E:141:VAL:HG21	2.56	0.41
7:6E:22:LEU:HD22	7:6E:62:PHE:HE2	1.78	0.41
28:71:181:PRO:HD2	28:71:184:LYS:HG3	2.03	0.41
26:14:2177:C:O2'	28:79:170:ALA:HB1	2.20	0.41
28:79:42:GLU:OE1	28:79:44:HIS:CE1	2.74	0.41
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	2.03	0.41
17:8I:58:GLU:O	17:8I:74:LEU:N	2.31	0.41
39:98:117:VAL:HG22	39:98:118:GLU:H	1.85	0.41
26:1H:2880:C:H1'	39:98:92:GLY:O	2.20	0.41
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.39	0.41
20:BA:24:LEU:HD13	20:BA:24:LEU:HA	1.62	0.41
26:1H:1219:G:OP2	42:C8:19:LYS:NZ	2.54	0.41
42:C8:95:LEU:HA	42:C8:97:ASP:HB3	2.02	0.41
49:F5:40:ARG:HD2	49:F5:41:ARG:N	2.36	0.41
47:H8:60:GLU:HA	47:H8:65:GLN:O	2.20	0.41
55:M5:58:ILE:H	55:M5:58:ILE:HG22	1.57	0.41
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1106:G:C4	1:13:1107:C:C5	3.09	0.41
1:13:1306:A:H62	1:13:1331:G:H21	1.68	0.41
1:13:195:A:C5	1:13:196:A:N1	2.89	0.41
1:13:516:U:C4	1:13:517:G:C6	3.09	0.41
1:13:591:U:H2'	1:13:592:G:C8	2.56	0.41
1:13:945:G:H2'	1:13:945:G:N3	2.36	0.41
26:14:1107:G:H2'	26:14:1108:U:H5'	2.03	0.41
26:14:1142(A):A:N7	26:14:1144:G:C6	2.89	0.41
26:14:1517:G:H2'	26:14:1518:C:C6	2.56	0.41
26:14:1791:A:OP2	26:14:1791:A:H8	2.04	0.41
26:14:1925:C:C2'	26:14:1926:U:H5'	2.51	0.41
26:14:2380:C:OP1	40:65:20:ARG:CZ	2.69	0.41
26:14:2570:G:H2'	26:14:2571:C:O4'	2.21	0.41
26:14:2648:C:H2'	26:14:2649:U:C6	2.56	0.41
26:14:2654:A:OP1	26:14:2654:A:H8	2.04	0.41
26:14:315:G:C6	26:14:316:C:C4	3.09	0.41
26:14:431:U:O5'	26:14:431:U:H6	2.04	0.41
26:14:432:A:C6	26:14:433:C:C4	3.09	0.41
26:14:533:G:H2'	26:14:534:U:O4'	2.20	0.41
26:14:654(A):A:C2	26:14:654(T):A:N7	2.89	0.41
26:14:672:C:H2'	26:14:673:C:C6	2.56	0.41
26:14:678:C:H2'	26:14:679:C:C6	2.56	0.41
26:14:67:U:H2'	26:14:68:G:H8	1.85	0.41
1:1G:1004:A:H8	1:1G:1026:G:C8	2.39	0.41
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.86	0.41
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.34	0.41
1:1G:1157:A:OP1	1:1G:1158:C:C5	2.73	0.41
1:1G:1207:G:C2	1:1G:1208:C:C2	3.09	0.41
1:1G:1267:C:O2	21:1B:20:LYS:HD2	2.21	0.41
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.21	0.41
1:1G:1408:A:C5	1:1G:1409:C:C5	3.09	0.41
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.86	0.41
1:1G:186(C):G:H2'	1:1G:186(D):C:C6	2.56	0.41
1:1G:238:G:C6	1:1G:239:U:C4	3.09	0.41
1:1G:382:A:H8	1:1G:382:A:O5'	2.04	0.41
1:1G:543:C:C2'	1:1G:544:G:H5'	2.51	0.41
1:1G:658:G:C6	1:1G:659:U:C4	3.09	0.41
1:1G:582:U:C2	1:1G:760:G:C6	3.09	0.41
26:1H:330:A:H2	26:1H:1210:A:O2'	2.03	0.41
26:1H:1329:U:H3'	26:1H:1330:C:C6	2.56	0.41
26:1H:1534:G:N2	26:1H:1535:U:H5	2.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.55	0.41
26:1H:2688:U:H3'	26:1H:2688:U:O2	2.21	0.41
26:1H:324:A:C8	26:1H:325:G:C8	3.08	0.41
26:1H:311:A:C8	26:1H:332:A:N7	2.89	0.41
26:1H:547:A:N3	26:1H:548:A:C6	2.89	0.41
26:1H:717:G:H2'	26:1H:718:A:O4'	2.21	0.41
27:1J:12:C:O2'	48:E5:74:ARG:HB3	2.21	0.41
27:1J:84:C:OP1	51:H5:15:TYR:OH	2.31	0.41
22:1K:24:G:C5	22:1K:25:C:C4	3.09	0.41
30:21:102:VAL:HG22	30:21:170:LEU:O	2.20	0.41
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.21	0.41
22:1L:76:A:C2	23:2L:77:A:H4'	2.54	0.41
4:32:96:LEU:HD13	4:32:139:ARG:NH1	2.36	0.41
4:32:23:GLY:O	4:32:27:TYR:HD2	2.04	0.41
37:35:63:PRO:HB3	55:M5:30:ARG:NH2	2.36	0.41
31:39:85:GLY:O	60:39:401:HOH:O	2.22	0.41
12:3A:117:ARG:HH21	12:3A:124:LYS:N	2.19	0.41
5:42:103:GLY:C	5:42:106:PRO:HD2	2.41	0.41
39:55:98:LEU:HD23	39:55:98:LEU:HA	1.89	0.41
35:58:23:LEU:HD12	35:58:23:LEU:HA	1.70	0.41
6:5E:75:LEU:CD1	6:5E:79:LEU:HD11	2.51	0.41
7:62:141:VAL:HA	7:62:142:GLU:CB	2.50	0.41
34:69:60:GLU:HG3	34:69:61:ARG:N	2.35	0.41
7:6E:38:LEU:HD13	7:6E:38:LEU:O	2.21	0.41
15:6I:32:LEU:O	15:6I:35:ARG:N	2.54	0.41
8:72:8:ASP:OD2	8:72:12:ARG:HD2	2.20	0.41
41:75:13:ARG:CD	41:75:13:ARG:H	2.34	0.41
37:78:15:ARG:NH1	37:78:17:LYS:HD2	2.36	0.41
37:78:82:GLY:HA2	37:78:113:LYS:O	2.21	0.41
28:79:46:LYS:HB2	28:79:210:ARG:HB2	2.03	0.41
26:14:2132:U:O4'	28:79:5:LYS:HD3	2.21	0.41
16:7I:37:GLY:HA3	16:7I:50:LYS:O	2.20	0.41
9:82:54:ASP:OD1	9:82:54:ASP:N	2.54	0.41
38:88:35:VAL:HG23	38:88:101:ARG:O	2.20	0.41
39:98:29:LEU:CB	39:98:75:LEU:HD21	2.50	0.41
40:A8:62:LYS:HA	40:A8:65:VAL:HB	2.01	0.41
19:AI:80:TYR:HD1	19:AI:80:TYR:HA	1.74	0.41
42:C8:5:LYS:HZ3	42:C8:7:GLY:H	1.68	0.41
47:D5:137:ILE:HD12	47:D5:156:LYS:O	2.21	0.41
47:D5:48:PHE:HE1	47:D5:71:VAL:HG21	1.86	0.41
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:86:SER:N	49:F5:87:PRO:CD	2.84	0.41
45:F8:40:LYS:HG3	45:F8:51:VAL:HB	2.03	0.41
50:G5:10:LEU:HD12	50:G5:10:LEU:HA	1.95	0.41
47:H8:98:MET:O	47:H8:125:LEU:HD12	2.21	0.41
26:1H:2261:C:C5	48:I8:16:SER:HB3	2.55	0.41
49:J8:83:GLU:H	49:J8:83:GLU:HG2	1.62	0.41
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.59	0.41
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.21	0.41
55:Q8:25:MET:SD	55:Q8:47:LYS:HB2	2.61	0.41
1:13:112:G:C4'	1:13:389:A:H4'	2.51	0.41
1:13:1178:G:N2	1:13:1181:G:H8	2.19	0.41
1:13:128:G:O3'	17:8I:3:LYS:NZ	2.54	0.41
1:13:1363:A:H4'	1:13:1364:U:H2'	2.01	0.41
1:13:146:G:C2	1:13:177:C:N3	2.89	0.41
1:13:455:C:N4	1:13:477:G:N2	2.63	0.41
1:13:477:G:H2'	1:13:478:A:C8	2.56	0.41
1:13:892:A:O2'	1:13:1415:G:H4'	2.20	0.41
26:14:1011:G:C2	26:14:1151:G:C2	3.09	0.41
26:14:1225:C:H4'	43:95:85:LYS:HG2	2.03	0.41
26:14:1732:A:H2'	26:14:1733:G:O4'	2.21	0.41
26:14:2001:A:H2'	26:14:2002:G:C8	2.56	0.41
26:14:2025:C:H2'	26:14:2026:C:C6	2.56	0.41
26:14:2365:G:H2'	26:14:2366:A:C8	2.56	0.41
26:14:2475:C:C5'	26:14:2476:A:H5''	2.48	0.41
26:14:2531:A:H5''	33:59:157:TYR:CE2	2.57	0.41
26:14:2547:U:H2'	26:14:2548:G:H8	1.86	0.41
26:14:2849:U:H1'	26:14:2866:U:O2	2.21	0.41
26:14:2863:C:O2'	26:14:2864:G:H5'	2.21	0.41
26:14:35:G:H2'	26:14:36:G:O4'	2.21	0.41
26:14:880:G:N7	26:14:897:C:N4	2.68	0.41
29:19:133:LEU:HB3	29:19:173:VAL:HG11	2.03	0.41
29:19:267:SER:C	29:19:269:PHE:N	2.75	0.41
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.35	0.41
1:1G:1013:G:O2'	1:1G:1014:A:N7	2.47	0.41
1:1G:1022:G:N3	1:1G:1023:G:H1'	2.36	0.41
1:1G:1111:A:O5'	1:1G:1111:A:H8	2.04	0.41
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.21	0.41
1:1G:1261:A:H3'	1:1G:1262:C:C6	2.57	0.41
1:1G:1265:G:C2	1:1G:1271:G:C6	3.09	0.41
1:1G:199:G:H2'	1:1G:200:G:H8	1.86	0.41
1:1G:318:G:H2'	1:1G:319:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:620:C:H2'	1:1G:621:A:O4'	2.21	0.41
1:1G:890:G:O2'	1:1G:906:G:O6	2.28	0.41
26:1H:1184:G:C5	26:1H:1185:C:C5	3.09	0.41
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.56	0.41
26:1H:1347:G:C2	26:1H:1600:C:O2	2.74	0.41
26:1H:185:U:H4'	26:1H:218:A:H4'	2.02	0.41
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.83	0.41
26:1H:537:C:H2'	26:1H:539:G:H8	1.86	0.41
26:1H:56:A:C2	26:1H:57:C:C2	3.09	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.56	0.41
26:1H:807:U:C2	26:1H:808:G:C8	3.09	0.41
30:21:45:THR:O	30:21:83:ASP:N	2.54	0.41
3:22:172:ARG:NH1	3:22:172:ARG:HB3	2.35	0.41
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.56	0.41
30:29:4:ILE:HD11	30:29:198:VAL:HB	2.02	0.41
30:29:35:GLN:HG2	30:29:37:ARG:HG2	2.02	0.41
30:29:55:ASN:O	30:29:57:LYS:N	2.47	0.41
23:2K:20:G:N3	23:2K:58:A:N3	2.69	0.41
31:31:116:ASP:OD2	37:78:1:MET:HB3	2.21	0.41
37:35:85:LEU:HD12	37:35:120:ALA:HA	2.03	0.41
37:35:132:LYS:NZ	37:35:135:LEU:HD11	2.35	0.41
31:39:80:ALA:O	31:39:83:PHE:HB2	2.21	0.41
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.20	0.41
4:3E:190:ASP:O	4:3E:193:ASP:HB2	2.21	0.41
12:3I:60:LEU:HD12	12:3I:60:LEU:HA	1.69	0.41
24:3K:3:G:H2'	24:3K:4:U:O4'	2.20	0.41
24:3K:9:A:H3'	24:3K:10:G:C8	2.56	0.41
38:45:26:TYR:O	38:45:28:ALA:N	2.54	0.41
38:45:98:LYS:HB3	38:45:99:PRO:HD2	2.03	0.41
5:4E:19:MET:HE1	5:4E:24:ARG:HH21	1.86	0.41
39:55:28:LEU:CD2	39:55:114:VAL:HG12	2.50	0.41
14:5A:9:LYS:CB	14:5A:12:ARG:HH12	2.33	0.41
40:65:77:ALA:HA	40:65:80:LEU:HB2	2.02	0.41
8:72:17:THR:HB	8:72:18:ARG:HH11	1.86	0.41
8:72:86:ILE:HD11	8:72:136:GLU:HG2	2.03	0.41
37:78:50:ARG:NH2	37:78:50:ARG:HG3	2.36	0.41
16:7A:4:ILE:HB	16:7A:66:PRO:HA	2.04	0.41
9:82:51:ARG:HA	9:82:56:LEU:HD22	2.03	0.41
42:85:27:LEU:O	42:85:31:SER:N	2.46	0.41
9:8E:10:ARG:HD2	9:8E:75:ASP:HB2	2.03	0.41
17:8I:90:ILE:O	17:8I:93:GLN:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:9:LYS:HA	39:98:17:ARG:HD3	2.02	0.41
26:14:751:A:H4'	44:A5:90:ARG:NH1	2.36	0.41
46:C5:46:LYS:HD2	46:C5:61:ILE:N	2.36	0.41
42:C8:90:VAL:HG22	43:D8:39:LEU:HD22	2.02	0.41
42:C8:91:ASP:O	42:C8:92:ARG:C	2.59	0.41
43:D8:44:LYS:HB3	43:D8:45:THR:H	1.75	0.41
55:M5:10:ALA:HB3	55:M5:62:LEU:HD21	2.03	0.41
52:M8:38:LYS:HD2	52:M8:38:LYS:N	2.36	0.41
29:11:65:ILE:HG21	29:11:65:ILE:HD13	1.65	0.40
2:12:108:ILE:HA	2:12:108:ILE:HD12	1.92	0.40
1:13:1060:C:H2'	1:13:1061:G:C8	2.56	0.40
1:13:1138:G:C5	1:13:1140:C:H1'	2.56	0.40
1:13:11:G:C5	1:13:12:U:C4	3.08	0.40
1:13:1360:A:H3'	1:13:1361:G:H8	1.86	0.40
1:13:1442:G:C8	1:13:1442:G:H3'	2.56	0.40
1:13:303:A:C4	1:13:304:U:C6	3.09	0.40
1:13:370:C:O2'	1:13:371:G:H5'	2.22	0.40
1:13:526:C:H6	1:13:526:C:O5'	2.04	0.40
1:13:562:C:H1'	12:3I:15:ARG:HB3	2.03	0.40
1:13:606:G:H2'	1:13:630:G:O6	2.20	0.40
1:13:637:G:H2'	1:13:638:G:C8	2.56	0.40
1:13:784:C:H2'	1:13:785:G:C8	2.56	0.40
1:13:827:U:H5	1:13:872:A:N1	2.18	0.40
26:14:1000:A:C6	26:14:1001:A:N1	2.90	0.40
26:14:1010:A:N3	26:14:1153:C:H1'	2.36	0.40
26:14:1138:G:C5	26:14:1139:G:H1'	2.56	0.40
26:14:1165:U:H2'	26:14:1166:C:H6	1.82	0.40
26:14:2104:G:C2	26:14:2186:G:C2	3.09	0.40
26:14:2498:C:OP2	60:14:3422:HOH:O	2.20	0.40
26:14:2572:A:O5'	26:14:2574:G:H4'	2.21	0.40
26:14:2590:A:OP2	29:19:237:GLU:HB3	2.21	0.40
26:14:2749:A:N1	26:14:2750:A:N6	2.70	0.40
26:14:282:A:C6	26:14:284:U:C2	3.10	0.40
26:14:289:A:H2'	26:14:290:G:H5'	2.03	0.40
26:14:527:C:OP2	26:14:2779:U:H5	2.04	0.40
29:19:143:HIS:HD2	29:19:144:ALA:CB	2.33	0.40
1:1G:1025:U:C5'	1:1G:1026:G:H5'	2.49	0.40
1:1G:1035:A:H2'	1:1G:1036:G:H4'	2.03	0.40
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.21	0.40
1:1G:1082:G:H8	1:1G:1082:G:OP2	2.04	0.40
1:1G:1137:C:O2'	1:1G:1138:G:H5''	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:123:C:H2'	1:1G:124:G:C8	2.56	0.40
1:1G:1247:U:H2'	1:1G:1248:A:O4'	2.20	0.40
1:1G:1269:A:H2	1:1G:1312:G:N3	2.19	0.40
1:1G:186(B):C:H2'	1:1G:186(C):G:H8	1.86	0.40
1:1G:51:A:C2	1:1G:353:A:N1	2.89	0.40
1:1G:960:U:O5'	1:1G:961:U:H5'	2.21	0.40
26:1H:122:G:H2'	26:1H:123:G:H5''	2.03	0.40
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.56	0.40
26:1H:1469:A:C6	26:1H:1524:G:C6	3.10	0.40
26:1H:1696:G:C5	26:1H:1697:G:C8	3.09	0.40
26:1H:2136:C:N4	26:1H:2156:G:N3	2.69	0.40
26:1H:2199:A:H5''	26:1H:2205:C:OP2	2.21	0.40
26:1H:2389:G:H5''	26:1H:2390:U:O4'	2.21	0.40
26:1H:2390:U:C2'	26:1H:2391:G:H5'	2.51	0.40
26:1H:2684:U:C4	26:1H:2685:G:N7	2.90	0.40
26:1H:270(E):G:H1	26:1H:270(U):C:N4	2.19	0.40
26:1H:270(F):U:H3	26:1H:270(T):G:H1	1.68	0.40
26:1H:354:G:H2'	26:1H:355:G:C8	2.56	0.40
26:1H:389:G:H22	37:78:72:PRO:HD3	1.86	0.40
26:1H:882:G:H1	26:1H:894:C:N4	2.10	0.40
26:1H:906:G:OP1	38:88:26:TYR:OH	2.15	0.40
22:1K:6:G:N2	22:1K:67:C:O2'	2.53	0.40
30:21:25:VAL:HG23	30:21:181:LEU:HD12	2.02	0.40
36:25:107:ARG:HG2	36:25:115:VAL:HG11	2.03	0.40
23:2L:15:G:H21	23:2L:22:A:H1'	1.86	0.40
31:31:33:LEU:HD11	31:31:112:MET:HB2	2.03	0.40
31:31:64:ILE:HA	31:31:64:ILE:HD13	1.75	0.40
31:39:196:LEU:HA	31:39:196:LEU:HD22	1.76	0.40
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.54	0.40
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.64	0.40
24:3L:26:A:H2'	24:3L:27:G:O4'	2.21	0.40
32:41:116:ASP:O	52:M8:42:PHE:CZ	2.73	0.40
32:41:142:PRO:HG2	32:41:143:GLU:OE2	2.20	0.40
12:3I:47:LYS:NZ	25:4K:21:A:OP1	2.54	0.40
25:4L:13:A:N3	25:4L:14:A:H1'	2.37	0.40
26:1H:2749:A:OP1	33:51:6:ARG:HG2	2.21	0.40
26:14:1278:A:C5'	39:55:36:THR:HG22	2.51	0.40
33:59:9:ILE:HB	33:59:51:ARG:HD3	2.03	0.40
1:1G:1202:G:O2'	14:5A:27:CYS:HB2	2.21	0.40
41:75:107:ASP:OD1	41:75:107:ASP:N	2.54	0.40
37:78:11:GLY:O	37:78:13:ASN:N	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:663:G:OP1	37:78:17:LYS:HB3	2.21	0.40
26:1H:1250:G:OP2	37:78:21:ARG:HD2	2.22	0.40
28:79:202:GLU:OE2	28:79:203:GLY:N	2.55	0.40
17:8A:74:LEU:HA	17:8A:74:LEU:HD23	1.86	0.40
40:A8:24:LEU:HD12	40:A8:41:ASP:HB2	2.03	0.40
46:C5:12:THR:HG22	46:C5:75:ILE:HG13	2.02	0.40
49:F5:87:PRO:HA	49:F5:90:ILE:HG23	2.04	0.40
50:G5:64:LEU:HD21	50:G5:68:ARG:NH1	2.36	0.40
49:J8:85:LEU:HD12	49:J8:88:LYS:HB2	2.02	0.40
29:11:242:ARG:O	29:11:244:ARG:HG2	2.21	0.40
29:11:271:ILE:HD13	29:11:271:ILE:HG21	1.88	0.40
1:13:1002:G:C6	1:13:1003:G:C5	3.09	0.40
1:13:1106:G:H2'	1:13:1107:C:H6	1.86	0.40
1:13:1113:C:H2'	1:13:1114:C:H6	1.85	0.40
1:13:1129:C:O2	1:13:1143:G:N2	2.54	0.40
1:13:1305:G:C8	1:13:1305:G:OP2	2.74	0.40
1:13:1455:G:C8	1:13:1455:G:O5'	2.73	0.40
1:13:22:G:C6	1:13:23:C:C4	3.09	0.40
1:13:416:G:C5	1:13:417:C:C4	3.10	0.40
1:13:524:G:C6	1:13:525:C:N4	2.90	0.40
1:13:927:G:N2	1:13:1391:U:H1'	2.37	0.40
1:13:951:G:C6	1:13:1231:G:C6	3.09	0.40
26:14:1014:U:H2'	26:14:1015:G:H8	1.85	0.40
26:14:1389:G:H2'	26:14:1390:U:O4'	2.22	0.40
26:14:141:A:H8	26:14:1595:G:N2	2.00	0.40
26:14:1542:G:H3'	26:14:1543:A:H5''	2.04	0.40
26:14:185:U:H2'	26:14:186:G:O4'	2.22	0.40
26:14:2544:G:O5'	26:14:2544:G:H8	2.04	0.40
26:14:2663:G:C5	26:14:2664:G:C5	3.10	0.40
26:14:280:C:N3	26:14:361:G:N2	2.70	0.40
26:14:875:G:N3	26:14:876:C:H5'	2.37	0.40
26:14:90:U:O2'	26:14:91:A:C8	2.74	0.40
29:19:125:ILE:HG22	29:19:193:VAL:HG21	2.03	0.40
29:19:222:ARG:HE	29:19:222:ARG:HB2	1.67	0.40
10:1A:84:GLN:H	10:1A:84:GLN:NE2	2.19	0.40
2:1E:97:TRP:HH2	2:1E:176:GLU:HG3	1.85	0.40
2:1E:209:ARG:CZ	2:1E:239:VAL:HA	2.51	0.40
1:1G:1080:A:H3'	1:1G:1081:G:O4'	2.21	0.40
1:1G:10:A:H2'	1:1G:11:G:C8	2.51	0.40
1:1G:1157:A:C5	1:1G:1181:G:H1'	2.56	0.40
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1399:C:C4	1:1G:1502:A:N6	2.89	0.40
1:1G:1442:G:C6	1:1G:1446:A:N6	2.89	0.40
1:1G:1535:C:O2'	1:1G:1536:C:H5'	2.22	0.40
1:1G:193:C:H2'	1:1G:194:C:H6	1.87	0.40
1:1G:561:U:HO2'	1:1G:562:C:P	2.44	0.40
1:1G:660:G:H1	1:1G:745:C:N4	2.13	0.40
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.75	0.40
26:1H:1826:G:H2'	26:1H:1827:C:C6	2.56	0.40
26:1H:2117:A:H2'	26:1H:2147:G:N2	2.36	0.40
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.36	0.40
26:1H:746:A:H2'	26:1H:2612:C:H5''	2.03	0.40
26:1H:1663:C:O2'	26:1H:2686:G:H4'	2.21	0.40
26:1H:277:C:H3'	26:1H:278:A:O4'	2.21	0.40
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.36	0.40
26:1H:446:G:OP2	60:1H:3562:HOH:O	2.22	0.40
26:1H:469:G:O6	54:P8:37:LYS:HE2	2.21	0.40
26:1H:557:U:H2'	26:1H:558:G:H8	1.86	0.40
26:1H:593:G:H1	26:1H:664:C:H42	1.69	0.40
27:1J:102:G:O5'	27:1J:102:G:H8	2.04	0.40
22:1K:3:G:O2'	22:1K:4:U:OP2	2.29	0.40
1:1G:404:U:P	4:32:118:ARG:HH11	2.45	0.40
31:39:5:ALA:CB	31:39:125:LEU:HD21	2.52	0.40
4:3E:99:SER:HB2	4:3E:139:ARG:HG3	2.04	0.40
24:3L:9:A:H4'	24:3L:10:G:OP2	2.20	0.40
5:42:30:ALA:O	5:42:45:PHE:HB2	2.20	0.40
5:42:51:VAL:O	5:42:55:VAL:HG23	2.20	0.40
32:49:147:ASP:C	32:49:149:VAL:HG22	2.41	0.40
32:49:22:ARG:NH1	32:49:175:LEU:HD21	2.37	0.40
33:51:124:GLU:O	33:51:132:ARG:N	2.52	0.40
34:61:1:MET:O	34:61:20:ASP:HA	2.22	0.40
7:62:27:ILE:H	7:62:27:ILE:HG12	1.71	0.40
34:69:62:LYS:HG3	34:69:63:ALA:N	2.37	0.40
7:6E:13:GLN:HG2	7:6E:14:PRO:HD2	2.03	0.40
41:75:27:THR:HB	41:75:89:VAL:HG22	2.03	0.40
42:85:100:VAL:HG13	42:85:101:ARG:HD3	2.02	0.40
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.53	0.40
20:BI:90:GLN:HG2	20:BI:90:GLN:H	1.52	0.40
20:BI:90:GLN:HA	20:BI:93:GLU:HB3	2.03	0.40
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	2.03	0.40
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.92	0.40
48:E5:38:VAL:CG1	48:E5:59:LEU:HG	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.56	0.40
48:I8:75:LEU:HA	48:I8:75:LEU:HD23	1.58	0.40
53:N8:20:ARG:HA	53:N8:23:HIS:ND1	2.37	0.40
54:P8:11:LYS:HE2	54:P8:15:THR:OG1	2.22	0.40
2:12:140:HIS:HA	2:12:143:GLU:CD	2.42	0.40
2:12:78:GLN:NE2	2:12:95:GLN:HA	2.35	0.40
1:13:674:G:N2	1:13:717:C:O2	2.54	0.40
1:13:691:G:H1'	1:13:696:A:N6	2.36	0.40
1:13:972:C:OP2	10:11:57:LYS:HE2	2.21	0.40
26:14:1161:C:H2'	26:14:1162:G:H8	1.86	0.40
26:14:1161:C:O2'	43:95:23:GLU:HG2	2.21	0.40
26:14:1357:U:H2'	26:14:1358:G:O4'	2.22	0.40
26:14:1534:G:H2'	26:14:1537:C:H42	1.85	0.40
26:14:910:A:H2'	26:14:2264:C:O2'	2.21	0.40
26:14:2271:G:H2'	26:14:2272:U:H6	1.85	0.40
26:14:2753:A:H2'	26:14:2754:U:O4'	2.21	0.40
26:14:1710:C:H4'	26:14:2858:C:O2	2.20	0.40
26:14:464:U:H4'	54:L5:5:TRP:CZ3	2.57	0.40
26:14:836:G:C5	26:14:837:C:C4	3.08	0.40
26:14:969:U:OP1	51:H5:17:LYS:N	2.54	0.40
1:1G:1028(A):C:H42	1:1G:1028(B):C:H41	1.69	0.40
1:1G:1298:C:HO2'	1:1G:1299:A:P	2.45	0.40
1:1G:1338:G:C6	1:1G:1339:A:C6	3.09	0.40
1:1G:318:G:H2'	1:1G:319:G:H8	1.87	0.40
1:1G:414:A:H2'	1:1G:415:A:H8	1.85	0.40
1:1G:562:C:O2'	12:3A:17:LYS:HG2	2.21	0.40
1:1G:599:C:H2'	1:1G:600:C:C6	2.56	0.40
1:1G:570:G:H1'	1:1G:820:U:C4	2.57	0.40
1:1G:969:A:H2'	1:1G:970:C:O4'	2.21	0.40
26:1H:1526:G:N2	26:1H:1545(A):A:H62	2.19	0.40
26:1H:1697:G:C6	26:1H:1698:A:N1	2.89	0.40
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.57	0.40
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.50	0.40
26:1H:2011:U:H2'	26:1H:2012:G:O4'	2.22	0.40
26:1H:2056:G:H2'	26:1H:2056:G:N3	2.37	0.40
26:1H:2679:A:C2	26:1H:2729:G:C2	3.09	0.40
26:1H:270:A:OP2	26:1H:270(Y):G:N1	2.41	0.40
26:1H:2821:A:OP2	39:98:3:HIS:NE2	2.53	0.40
26:1H:247:G:H4'	26:1H:386:G:C5	2.56	0.40
26:1H:753:C:O2'	26:1H:754:C:H5'	2.20	0.40
22:1K:64:G:H3'	22:1K:65:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:55:PSU:H6	22:1L:55:PSU:O5'	2.05	0.40
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.51	0.40
30:21:120:TRP:CD2	30:21:155:LYS:HD3	2.56	0.40
30:21:37:ARG:HB2	30:21:46:ALA:HB3	2.03	0.40
30:21:59:VAL:O	30:21:60:ASN:CG	2.59	0.40
30:21:77:ILE:HG21	30:21:77:ILE:HD13	1.79	0.40
3:22:180:ALA:O	3:22:181:ASN:HB3	2.21	0.40
30:29:38:THR:HG23	30:29:38:THR:H	1.65	0.40
11:2A:31:THR:HA	11:2A:42:TRP:HA	2.03	0.40
3:2E:134:ILE:HD11	3:2E:153:VAL:HG23	2.04	0.40
23:2L:38:A:H2'	23:2L:39:A:O4'	2.20	0.40
4:32:18:LYS:HE2	4:32:18:LYS:HB2	1.82	0.40
4:32:30:LYS:HB3	4:32:35:ARG:NH1	2.36	0.40
4:32:93:PHE:CZ	4:32:97:LEU:HD11	2.56	0.40
31:39:192:LEU:HD13	31:39:194:MET:CE	2.50	0.40
1:1G:363:A:C5	12:3A:31:PRO:HD2	2.57	0.40
12:3I:50:SER:O	12:3I:51:ALA:HB2	2.22	0.40
24:3K:14:A:C6	24:3K:15:G:C6	3.09	0.40
32:41:18:GLU:O	32:41:22:ARG:HB2	2.21	0.40
32:41:82:LEU:HD23	32:41:82:LEU:HA	1.84	0.40
5:42:144:THR:CG2	5:42:146:ALA:HB3	2.51	0.40
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.21	0.40
13:4A:81:LEU:CD2	13:4A:88:ARG:HH21	2.34	0.40
5:4E:113:ALA:O	5:4E:115:VAL:HG23	2.21	0.40
34:61:79:ILE:HD11	34:61:100:ALA:CB	2.51	0.40
7:62:149:ARG:HH12	11:2A:58:PRO:HG2	1.86	0.40
40:65:59:LYS:HD2	40:65:60:GLY:H	1.87	0.40
36:68:78:ARG:HH11	36:68:78:ARG:HG2	1.87	0.40
15:6A:82:ILE:HB	15:6A:87:ILE:HB	2.03	0.40
15:6I:17:ARG:HG2	15:6I:21:ASP:OD2	2.20	0.40
28:71:68:LEU:HG	28:71:176:GLY:HA2	2.03	0.40
41:75:20:PRO:HD2	41:75:86:ILE:HG23	2.03	0.40
37:78:127:ALA:O	37:78:147:LEU:HG	2.21	0.40
16:7I:20:VAL:CG2	16:7I:32:TYR:CB	3.00	0.40
9:82:5:TYR:HA	9:82:17:VAL:O	2.21	0.40
45:B5:31:HIS:ND1	45:B5:32:PRO:HD3	2.36	0.40
20:BA:72:LEU:HD11	20:BA:80:ARG:NH2	2.35	0.40
46:C5:17:SER:OG	46:C5:18:GLY:O	2.34	0.40
42:C8:112:ARG:HH12	43:D8:45:THR:HG23	1.86	0.40
47:D5:158:PRO:HB2	47:D5:160:GLY:H	1.85	0.40
49:F5:58:ILE:HD12	49:F5:87:PRO:HD3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:156:LYS:HG3	47:H8:158:PRO:HD3	2.02	0.40
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.95	0.40
26:1H:96:G:H4'	50:K8:48:HIS:CD2	2.56	0.40
2:12:11:LEU:CG	2:12:217:ARG:HH22	2.16	0.40
2:12:58:ILE:HG21	2:12:219:VAL:HG23	2.02	0.40
2:12:44:LEU:O	2:12:47:THR:OG1	2.28	0.40
1:13:1006:C:O2'	1:13:1007:C:O5'	2.32	0.40
1:13:131:C:H2'	1:13:132:C:C6	2.56	0.40
1:13:144:G:C6	1:13:145:G:C4	3.10	0.40
1:13:724:G:H2'	1:13:725:G:H8	1.86	0.40
1:13:828:A:H2'	1:13:829:G:O4'	2.21	0.40
26:14:1250:G:OP2	37:35:21:ARG:NH1	2.52	0.40
26:14:1421:G:C2	26:14:1422:G:N7	2.89	0.40
26:14:1926:U:H2'	26:14:1928:A:OP2	2.21	0.40
26:14:2090:G:C6	26:14:2091:U:C4	3.09	0.40
26:14:2152:G:C6	26:14:2153:G:H1'	2.56	0.40
26:14:2178:C:C2	26:14:2179:C:H5	2.39	0.40
26:14:2190:G:H2'	26:14:2191:G:O4'	2.21	0.40
26:14:2193:G:C6	26:14:2194:G:C5	3.09	0.40
26:14:2210:G:H3'	26:14:2211:G:C4	2.55	0.40
26:14:2608:G:H5''	26:14:2609:U:OP1	2.21	0.40
26:14:2674:G:H4'	36:25:30:ALA:HB2	2.04	0.40
26:14:2720:U:C2	26:14:2721:A:C8	3.09	0.40
26:14:2736:G:N1	26:14:2737:G:C5	2.90	0.40
26:14:2873:A:H3'	26:14:2874:C:C5	2.56	0.40
26:14:2:G:N2	26:14:2900:A:N1	2.70	0.40
26:14:340:A:C2'	26:14:341:G:H5'	2.51	0.40
26:14:375:C:H5''	26:14:408:G:H5''	2.03	0.40
35:15:111:PRO:HA	35:15:114:ARG:CZ	2.51	0.40
10:1A:23:ILE:O	10:1A:26:ALA:N	2.55	0.40
10:1A:47:PHE:O	10:1A:63:PHE:N	2.38	0.40
2:1E:16:HIS:ND1	2:1E:214:ILE:HG12	2.35	0.40
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.46	0.40
1:1G:129(A):G:N2	1:1G:191(A):G:C5	2.89	0.40
1:1G:1319:A:OP1	19:AA:70:LYS:NZ	2.55	0.40
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.86	0.40
1:1G:1346:A:H61	1:1G:1374:A:H3'	1.86	0.40
1:1G:255:G:C2	1:1G:272:C:C2	3.10	0.40
1:1G:46:G:O2'	1:1G:365:U:H1'	2.22	0.40
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.54	0.40
1:1G:929:G:H1	1:1G:1388:C:N4	2.18	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1170:G:H2'	26:1H:1171:G:H5'	2.04	0.40
26:1H:1275:A:H62	39:98:15:SER:HB3	1.87	0.40
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.87	0.40
26:1H:2420:C:H6	26:1H:2420:C:O5'	2.04	0.40
26:1H:2516:G:C6	26:1H:2517:C:C4	3.09	0.40
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.21	0.40
26:1H:654(Q):C:H5'	26:1H:654(R):C:OP2	2.21	0.40
26:1H:748:G:O6	26:1H:751:A:H5'	2.22	0.40
26:1H:774:A:C2	26:1H:787:U:O2'	2.73	0.40
22:1K:52:G:H22	22:1K:62:C:H42	1.67	0.40
22:1L:58:A:C8	22:1L:61:C:C4	3.09	0.40
22:1L:76:A:N3	22:1L:76:A:H3'	2.36	0.40
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.04	0.40
3:22:70:VAL:O	3:22:106:VAL:HG23	2.21	0.40
30:29:7:VAL:HG12	30:29:8:LYS:N	2.37	0.40
23:2K:17:C:H4'	23:2K:18:C:OP2	2.21	0.40
23:2L:2:G:N3	23:2L:2:G:H2'	2.37	0.40
31:31:195:ASP:O	31:31:197:ASP:O	2.40	0.40
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.95	0.40
12:3I:42:THR:HG22	12:3I:54:LYS:HE3	2.04	0.40
32:41:101:ILE:O	32:41:105:LYS:HE3	2.22	0.40
5:42:35:GLY:HA3	5:42:112:LEU:HB3	2.02	0.40
32:49:37:VAL:N	32:49:94:LEU:O	2.54	0.40
33:51:137:ASP:CB	33:51:140:LYS:HB3	2.51	0.40
6:52:68:PRO:HG2	6:52:71:ARG:HB2	2.03	0.40
35:58:94:HIS:HA	35:58:95:PRO:HD2	1.91	0.40
34:61:79:ILE:HD13	34:61:79:ILE:HA	1.92	0.40
7:62:141:VAL:HA	7:62:142:GLU:HB2	2.03	0.40
7:6E:28:ASN:HA	7:6E:31:MET:CE	2.51	0.40
7:6E:27:ILE:CD1	7:6E:40:ALA:HA	2.49	0.40
7:6E:77:SER:HB2	7:6E:85:TYR:O	2.21	0.40
41:75:27:THR:HB	41:75:89:VAL:CG2	2.51	0.40
41:75:3:ARG:CZ	41:75:6:LEU:HD13	2.51	0.40
37:78:91:PHE:CD2	37:78:99:LEU:HD21	2.56	0.40
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.35	0.40
8:7E:104:ARG:HD2	8:7E:138:TRP:CG	2.56	0.40
39:98:2:ARG:O	39:98:5:LYS:HG2	2.22	0.40
1:13:263:A:P	20:BI:79:ARG:HH11	2.44	0.40
42:C8:79:PHE:CD1	42:C8:79:PHE:C	2.95	0.40
44:E8:92:ARG:NH2	44:E8:94:ASP:HA	2.28	0.40
45:F8:35:THR:O	45:F8:39:ILE:HG13	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:94:G:N2	50:G5:47:ASN:HD22	2.20	0.40
50:G5:4:SER:HA	50:G5:6:VAL:N	2.36	0.40
50:K8:63:VAL:HA	50:K8:66:GLU:CG	2.52	0.40
29:11:240:ALA:HB1	60:11:407:HOH:O	2.21	0.40
29:11:232:PRO:HB3	29:11:244:ARG:NH1	2.36	0.40
29:11:31:LYS:HD3	29:11:94:LEU:CD1	2.52	0.40
2:12:55:PHE:CE2	2:12:221:LEU:HD21	2.57	0.40
2:12:54:THR:HA	2:12:57:PHE:HB2	2.04	0.40
1:13:1028(A):C:H1'	1:13:1033:G:N2	2.37	0.40
1:13:1044:A:C6	1:13:1045:C:H1'	2.56	0.40
1:13:317:G:C5	1:13:318:G:N7	2.90	0.40
26:14:1012:U:O2	35:15:25:ARG:NH1	2.54	0.40
26:14:1106:G:H5'	26:14:1107:G:OP2	2.21	0.40
26:14:1111:A:H5''	26:14:1112:G:OP1	2.22	0.40
26:14:1118:C:H2'	26:14:1119:C:C6	2.57	0.40
26:14:1366:A:C2	26:14:1367:A:H1'	2.57	0.40
26:14:1385:G:O2'	26:14:1396:U:C6	2.68	0.40
26:14:1762:A:N6	60:14:3510:HOH:O	2.55	0.40
26:14:1793:C:H2'	26:14:1794:U:C6	2.57	0.40
26:14:2029:G:H2'	26:14:2031:A:OP1	2.21	0.40
26:14:2353:G:H8	26:14:2353:G:O5'	2.04	0.40
26:14:2364:C:H2'	26:14:2365:G:O4'	2.22	0.40
26:14:2520:C:H41	26:14:2542:A:N6	2.17	0.40
26:14:2543:G:N3	26:14:2765:A:H2'	2.36	0.40
26:14:270(S):G:H4'	49:F5:78:LYS:NZ	2.36	0.40
26:14:2728:U:H2'	26:14:2729:G:C8	2.56	0.40
26:14:284:U:H2'	26:14:285:C:C6	2.57	0.40
26:14:2721:A:H1'	26:14:2873:A:O2'	2.21	0.40
26:14:642:G:C3'	26:14:642:G:C8	3.03	0.40
26:14:657:U:H2'	26:14:658:C:C6	2.56	0.40
26:14:764:A:H5'	29:19:210:GLY:HA2	2.02	0.40
26:14:90:U:HO2'	26:14:91:A:P	2.44	0.40
35:15:15:LEU:HD13	35:15:16:ILE:N	2.37	0.40
35:15:16:ILE:HB	35:15:54:VAL:HG22	2.04	0.40
10:1A:48:THR:HA	10:1A:62:HIS:HB3	2.03	0.40
1:1G:575:G:H4'	1:1G:575:G:OP1	2.21	0.40
1:1G:579:G:C5	1:1G:580:U:C5	3.10	0.40
26:1H:1145:C:H2'	26:1H:1146:C:C6	2.56	0.40
26:1H:1154:G:H8	26:1H:1154:G:O5'	2.05	0.40
26:1H:1319:G:C6	26:1H:1320:C:N4	2.90	0.40
26:1H:1447:G:H1'	26:1H:1545(A):A:H1'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:239:U:H2'	26:1H:240:G:C8	2.56	0.40
26:1H:2496:C:C2'	26:1H:2497:A:H5'	2.50	0.40
26:1H:322:A:H3'	31:31:169:ASN:OD1	2.21	0.40
27:1J:117:G:H8	27:1J:117:G:O5'	2.05	0.40
30:21:27:LEU:HD12	30:21:180:ASN:O	2.22	0.40
3:22:153:VAL:O	3:22:165:THR:HG23	2.22	0.40
3:22:153:VAL:HA	3:22:197:GLY:O	2.21	0.40
26:14:2572:A:C8	30:29:144:ARG:HD3	2.56	0.40
3:2E:71:ALA:HA	3:2E:106:VAL:HB	2.03	0.40
11:2I:54:ARG:H	11:2I:54:ARG:HG3	1.63	0.40
23:2K:50:G:H2'	23:2K:51:U:O4'	2.21	0.40
23:2L:38:A:H2'	23:2L:39:A:C8	2.56	0.40
31:31:123:LEU:HD12	31:31:124:LEU:N	2.36	0.40
37:35:52:GLU:CD	37:35:52:GLU:C	2.79	0.40
1:13:553:A:H5"	12:3I:24:VAL:HG21	2.04	0.40
24:3L:11:C:N4	24:3L:13:C:H41	2.20	0.40
24:3L:40:C:H2'	24:3L:41:A:H8	1.86	0.40
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.21	0.40
13:4A:67:GLU:O	13:4A:71:ARG:HG3	2.22	0.40
5:4E:43:LEU:CD1	5:4E:132:ALA:HB1	2.48	0.40
33:51:118:PRO:HD2	33:51:121:ILE:HG21	2.02	0.40
39:55:66:VAL:HG11	39:55:80:PHE:HE1	1.86	0.40
14:5A:24:CYS:HB2	14:5A:33:VAL:HG12	2.04	0.40
34:61:124:GLY:H	34:61:142:VAL:CG2	2.34	0.40
34:69:128:LEU:O	34:69:137:PRO:HA	2.21	0.40
15:6I:10:LYS:HZ3	15:6I:14:GLU:HB2	1.87	0.40
28:71:6:ARG:HA	28:71:34:THR:OG1	2.22	0.40
8:72:68:ARG:CZ	8:72:74:PRO:HB3	2.52	0.40
18:9I:59:SER:N	18:9I:62:GLU:HB2	2.27	0.40
27:16:29:A:OP2	40:A8:31:SER:HB2	2.21	0.40
19:AI:18:LYS:HD2	19:AI:18:LYS:HA	1.92	0.40
45:B5:63:LYS:H	45:B5:63:LYS:HD2	1.87	0.40
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	2.03	0.40
47:D5:70:LEU:HA	47:D5:70:LEU:HD23	1.88	0.40
43:D8:35:LEU:HD22	43:D8:35:LEU:HA	1.77	0.40
43:D8:25:LEU:H	43:D8:92:THR:CG2	2.33	0.40
49:F5:92:LYS:O	49:F5:93:GLU:C	2.59	0.40
50:G5:23:LYS:HG3	50:G5:24:LEU:N	2.37	0.40
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.36	0.40
47:H8:7:ALA:HB3	47:H8:61:LEU:CB	2.50	0.40
53:J5:41:PRO:HA	53:J5:42:PRO:HD3	1.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:54:GLY:O	53:J5:55:ARG:NH1	2.55	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:82:U:O2'	26:14:271(C):U:O4[3_545]	2.16	0.04

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	12	206/256 (80%)	171 (83%)	30 (15%)	5 (2%)	6	27
2	1E	227/256 (89%)	188 (83%)	36 (16%)	3 (1%)	12	42
3	22	192/239 (80%)	172 (90%)	20 (10%)	0	100	100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100	100
4	32	206/209 (99%)	175 (85%)	29 (14%)	2 (1%)	15	49
4	3E	205/209 (98%)	188 (92%)	15 (7%)	2 (1%)	15	49
5	42	146/162 (90%)	135 (92%)	10 (7%)	1 (1%)	22	57
5	4E	147/162 (91%)	139 (95%)	7 (5%)	1 (1%)	22	57
6	52	99/101 (98%)	93 (94%)	6 (6%)	0	100	100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
7	62	134/156 (86%)	122 (91%)	12 (9%)	0	100	100
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100	100
8	72	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	22	57
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	22	57
9	82	119/128 (93%)	111 (93%)	7 (6%)	1 (1%)	19	54

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	8E	124/128 (97%)	106 (86%)	16 (13%)	2 (2%)	9	37
10	1A	76/105 (72%)	70 (92%)	6 (8%)	0	100	100
10	1I	89/105 (85%)	80 (90%)	9 (10%)	0	100	100
11	2A	111/129 (86%)	100 (90%)	9 (8%)	2 (2%)	8	34
11	2I	109/129 (84%)	98 (90%)	9 (8%)	2 (2%)	8	34
12	3A	120/132 (91%)	98 (82%)	19 (16%)	3 (2%)	5	27
12	3I	120/132 (91%)	105 (88%)	14 (12%)	1 (1%)	19	54
13	4A	109/126 (86%)	93 (85%)	15 (14%)	1 (1%)	17	52
13	4I	117/126 (93%)	95 (81%)	22 (19%)	0	100	100
14	5A	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	8	34
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3	21
15	6A	85/89 (96%)	78 (92%)	7 (8%)	0	100	100
15	6I	85/89 (96%)	77 (91%)	7 (8%)	1 (1%)	13	44
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100	100
16	7I	81/88 (92%)	78 (96%)	3 (4%)	0	100	100
17	8A	97/105 (92%)	92 (95%)	5 (5%)	0	100	100
17	8I	98/105 (93%)	92 (94%)	6 (6%)	0	100	100
18	9A	65/88 (74%)	61 (94%)	4 (6%)	0	100	100
18	9I	66/88 (75%)	62 (94%)	2 (3%)	2 (3%)	4	23
19	AA	56/93 (60%)	47 (84%)	7 (12%)	2 (4%)	3	20
19	AI	80/93 (86%)	67 (84%)	10 (12%)	3 (4%)	3	19
20	BA	97/106 (92%)	86 (89%)	9 (9%)	2 (2%)	7	30
20	BI	95/106 (90%)	84 (88%)	11 (12%)	0	100	100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100	100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
28	7I	129/229 (56%)	119 (92%)	10 (8%)	0	100	100
28	79	45/229 (20%)	41 (91%)	4 (9%)	0	100	100
29	11	271/276 (98%)	243 (90%)	19 (7%)	9 (3%)	4	21
29	19	272/276 (99%)	242 (89%)	23 (8%)	7 (3%)	5	26
30	21	201/206 (98%)	158 (79%)	35 (17%)	8 (4%)	3	17
30	29	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	3	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	31	200/210 (95%)	183 (92%)	14 (7%)	3 (2%)	10	39
31	39	202/210 (96%)	155 (77%)	40 (20%)	7 (4%)	3	20
32	41	177/182 (97%)	154 (87%)	21 (12%)	2 (1%)	14	46
32	49	177/182 (97%)	152 (86%)	23 (13%)	2 (1%)	14	46
33	51	169/180 (94%)	135 (80%)	25 (15%)	9 (5%)	2	12
33	59	63/180 (35%)	48 (76%)	13 (21%)	2 (3%)	4	22
34	61	144/148 (97%)	120 (83%)	22 (15%)	2 (1%)	11	40
34	69	143/148 (97%)	114 (80%)	28 (20%)	1 (1%)	22	57
35	15	136/140 (97%)	122 (90%)	13 (10%)	1 (1%)	22	57
35	58	136/140 (97%)	114 (84%)	18 (13%)	4 (3%)	4	24
36	25	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
36	68	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
37	35	145/150 (97%)	115 (79%)	25 (17%)	5 (3%)	3	21
37	78	145/150 (97%)	117 (81%)	24 (17%)	4 (3%)	5	25
38	45	136/141 (96%)	115 (85%)	18 (13%)	3 (2%)	6	29
38	88	139/141 (99%)	118 (85%)	17 (12%)	4 (3%)	4	24
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	17	52
39	98	116/118 (98%)	100 (86%)	15 (13%)	1 (1%)	17	52
40	65	108/112 (96%)	84 (78%)	23 (21%)	1 (1%)	17	52
40	A8	109/112 (97%)	87 (80%)	22 (20%)	0	100	100
41	75	131/146 (90%)	121 (92%)	10 (8%)	0	100	100
41	B8	130/146 (89%)	115 (88%)	14 (11%)	1 (1%)	19	54
42	85	114/118 (97%)	105 (92%)	7 (6%)	2 (2%)	8	34
42	C8	113/118 (96%)	103 (91%)	7 (6%)	3 (3%)	5	25
43	95	98/101 (97%)	73 (74%)	20 (20%)	5 (5%)	2	13
43	D8	98/101 (97%)	86 (88%)	8 (8%)	4 (4%)	3	16
44	A5	109/113 (96%)	103 (94%)	4 (4%)	2 (2%)	8	34
44	E8	110/113 (97%)	103 (94%)	7 (6%)	0	100	100
45	B5	92/96 (96%)	81 (88%)	9 (10%)	2 (2%)	6	29
45	F8	93/96 (97%)	84 (90%)	9 (10%)	0	100	100
46	C5	103/110 (94%)	72 (70%)	24 (23%)	7 (7%)	1	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
46	G8	103/110 (94%)	87 (84%)	13 (13%)	3 (3%)	4	24
47	D5	128/206 (62%)	104 (81%)	20 (16%)	4 (3%)	4	23
47	H8	169/206 (82%)	136 (80%)	26 (15%)	7 (4%)	3	16
48	E5	75/85 (88%)	67 (89%)	5 (7%)	3 (4%)	3	17
48	I8	74/85 (87%)	69 (93%)	5 (7%)	0	100	100
49	F5	92/98 (94%)	85 (92%)	5 (5%)	2 (2%)	6	29
49	J8	92/98 (94%)	84 (91%)	7 (8%)	1 (1%)	14	46
50	G5	66/72 (92%)	62 (94%)	2 (3%)	2 (3%)	4	23
50	K8	66/72 (92%)	59 (89%)	4 (6%)	3 (4%)	2	15
51	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
51	L8	56/60 (93%)	54 (96%)	2 (4%)	0	100	100
52	M8	45/71 (63%)	31 (69%)	13 (29%)	1 (2%)	6	29
53	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100	100
53	N8	46/60 (77%)	43 (94%)	3 (6%)	0	100	100
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100	100
54	P8	45/49 (92%)	41 (91%)	4 (9%)	0	100	100
55	M5	62/65 (95%)	50 (81%)	9 (14%)	3 (5%)	2	14
55	Q8	62/65 (95%)	51 (82%)	8 (13%)	3 (5%)	2	14
All	All	10971/12333 (89%)	9586 (87%)	1202 (11%)	183 (2%)	9	36

All (183) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	8E	127	LYS
18	9I	22	VAL
29	11	28	GLU
29	11	40	THR
30	21	83	ASP
33	51	10	PRO
39	98	11	ASN
42	C8	89	GLU
46	G8	81	LYS
50	K8	48	HIS
55	Q8	52	LYS
2	12	219	VAL
9	82	118	LYS

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Mol	Chain	Res	Type
20	BA	73	HIS
29	19	237	GLU
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
38	45	27	VAL
39	55	107	ASP
43	95	45	THR
47	D5	53	ILE
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
55	M5	49	VAL
2	1E	238	LEU
4	3E	90	GLY
8	7E	86	ILE
12	3I	48	PRO
29	11	3	VAL
29	11	237	GLU
29	11	273	ARG
30	21	79	ARG
33	51	157	TYR
37	78	25	SER
38	88	66	ILE
42	C8	93	LYS
46	G8	54	LYS
47	H8	6	LYS
47	H8	165	VAL
2	12	32	ILE
11	2A	48	ILE
12	3A	18	VAL
30	29	51	PHE
30	29	59	VAL
30	29	81	ILE
31	39	25	PRO
31	39	132	VAL
34	69	113	ARG
37	35	15	ARG
43	95	44	LYS
46	C5	29	GLU
47	D5	165	VAL
55	M5	34	TRP

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Mol	Chain	Res	Type
55	M5	35	GLN
14	5I	14	PRO
30	21	118	LYS
32	41	97	ASP
34	61	145	VAL
35	58	128	HIS
37	78	6	LEU
38	88	6	ARG
38	88	7	MET
38	88	134	ARG
43	D8	45	THR
47	H8	60	GLU
52	M8	5	ILE
55	Q8	35	GLN
55	Q8	53	PRO
20	BA	49	ALA
29	19	44	ASN
29	19	273	ARG
29	19	274	ARG
31	39	124	LEU
35	15	128	HIS
38	45	78	PRO
38	45	81	VAL
40	65	87	PHE
43	95	80	GLN
45	B5	68	ARG
9	8E	94	ALA
29	11	122	ASP
30	21	78	LEU
33	51	169	VAL
35	58	97	ARG
35	58	135	PRO
42	C8	90	VAL
47	H8	61	LEU
50	K8	43	GLN
2	12	220	ASP
11	2A	101	SER
14	5A	29	ARG
19	AA	9	VAL
30	29	9	VAL
30	29	26	ILE
31	39	167	ALA

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Mol	Chain	Res	Type
37	35	35	HIS
37	35	57	THR
44	A5	44	ALA
46	C5	17	SER
47	D5	60	GLU
47	D5	161	VAL
48	E5	44	ARG
49	F5	93	GLU
50	G5	47	ASN
19	AI	67	VAL
29	11	29	PRO
29	11	123	ALA
30	21	56	PRO
31	31	23	ASP
33	51	137	ASP
33	51	138	LYS
34	61	133	HIS
41	B8	106	SER
43	D8	49	THR
46	G8	53	PRO
47	H8	59	LEU
50	K8	47	ASN
4	32	73	ARG
5	42	60	TYR
12	3A	19	ARG
29	19	39	LYS
29	19	118	VAL
32	49	149	VAL
37	35	6	LEU
42	85	93	LYS
46	C5	63	LYS
46	C5	99	CYS
2	1E	230	VAL
4	3E	89	THR
14	5I	13	THR
30	21	55	ASN
30	21	89	ASP
32	41	5	VAL
33	51	12	PRO
33	51	154	PRO
33	51	167	GLU
49	J8	76	ARG

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Mol	Chain	Res	Type
30	29	77	ILE
31	39	128	ALA
37	35	34	GLY
46	C5	92	ASN
11	2I	82	VAL
19	AI	41	VAL
30	21	21	VAL
31	31	24	LEU
2	12	223	ILE
4	32	28	SER
8	72	73	ASP
12	3A	47	LYS
29	19	3	VAL
43	95	72	VAL
2	1E	214	ILE
15	6I	36	ILE
35	58	95	PRO
43	D8	47	VAL
2	12	39	ILE
13	4A	84	ILE
19	AA	67	VAL
30	29	62	PRO
32	49	5	VAL
45	B5	51	VAL
11	2I	108	ILE
29	11	240	ALA
37	78	7	ARG
37	78	95	VAL
43	D8	48	GLY
47	H8	53	ILE
47	H8	141	VAL
43	95	99	ILE
48	E5	63	VAL
5	4E	115	VAL
31	31	132	VAL
33	59	167	GLU
33	59	169	VAL
42	85	90	VAL
44	A5	59	VAL
46	C5	55	TYR
18	9I	39	VAL
19	AI	9	VAL

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Mol	Chain	Res	Type
33	51	127	GLU
46	C5	3	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	182/220 (83%)	170 (93%)	12 (7%)	16	47
2	1E	200/220 (91%)	186 (93%)	14 (7%)	15	45
3	22	154/188 (82%)	143 (93%)	11 (7%)	14	44
3	2E	159/188 (85%)	150 (94%)	9 (6%)	20	52
4	32	180/181 (99%)	168 (93%)	12 (7%)	16	46
4	3E	180/181 (99%)	166 (92%)	14 (8%)	12	40
5	42	114/123 (93%)	105 (92%)	9 (8%)	12	40
5	4E	115/123 (94%)	112 (97%)	3 (3%)	46	74
6	52	90/90 (100%)	85 (94%)	5 (6%)	21	52
6	5E	90/90 (100%)	87 (97%)	3 (3%)	38	69
7	62	114/127 (90%)	107 (94%)	7 (6%)	18	49
7	6E	125/127 (98%)	117 (94%)	8 (6%)	17	48
8	72	118/119 (99%)	109 (92%)	9 (8%)	13	41
8	7E	119/119 (100%)	109 (92%)	10 (8%)	11	38
9	82	92/99 (93%)	78 (85%)	14 (15%)	3	12
9	8E	97/99 (98%)	87 (90%)	10 (10%)	7	27
10	1A	71/92 (77%)	61 (86%)	10 (14%)	3	15
10	1I	81/92 (88%)	75 (93%)	6 (7%)	13	42
11	2A	85/99 (86%)	83 (98%)	2 (2%)	49	76
11	2I	84/99 (85%)	80 (95%)	4 (5%)	25	58
12	3A	103/109 (94%)	93 (90%)	10 (10%)	8	30
12	3I	103/109 (94%)	95 (92%)	8 (8%)	12	40

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	4A	91/101 (90%)	82 (90%)	9 (10%)	8	29
13	4I	94/101 (93%)	87 (93%)	7 (7%)	13	42
14	5A	49/50 (98%)	44 (90%)	5 (10%)	7	27
14	5I	49/50 (98%)	49 (100%)	0	100	100
15	6A	79/80 (99%)	76 (96%)	3 (4%)	33	66
15	6I	79/80 (99%)	73 (92%)	6 (8%)	13	41
16	7A	72/74 (97%)	69 (96%)	3 (4%)	30	62
16	7I	72/74 (97%)	66 (92%)	6 (8%)	11	38
17	8A	94/97 (97%)	93 (99%)	1 (1%)	73	89
17	8I	95/97 (98%)	90 (95%)	5 (5%)	22	54
18	9A	58/77 (75%)	55 (95%)	3 (5%)	23	55
18	9I	58/77 (75%)	55 (95%)	3 (5%)	23	55
19	AA	52/80 (65%)	48 (92%)	4 (8%)	13	41
19	AI	71/80 (89%)	70 (99%)	1 (1%)	67	86
20	BA	76/82 (93%)	74 (97%)	2 (3%)	46	74
20	BI	75/82 (92%)	72 (96%)	3 (4%)	31	65
21	1B	17/22 (77%)	17 (100%)	0	100	100
21	1F	18/22 (82%)	15 (83%)	3 (17%)	2	9
28	7I	109/181 (60%)	102 (94%)	7 (6%)	17	48
28	79	48/181 (26%)	44 (92%)	4 (8%)	11	38
29	11	214/218 (98%)	199 (93%)	15 (7%)	15	45
29	19	214/218 (98%)	201 (94%)	13 (6%)	18	49
30	21	165/166 (99%)	158 (96%)	7 (4%)	30	62
30	29	165/166 (99%)	154 (93%)	11 (7%)	16	46
31	31	161/166 (97%)	155 (96%)	6 (4%)	34	66
31	39	163/166 (98%)	152 (93%)	11 (7%)	16	46
32	41	153/156 (98%)	140 (92%)	13 (8%)	10	37
32	49	153/156 (98%)	139 (91%)	14 (9%)	9	33
33	51	142/148 (96%)	134 (94%)	8 (6%)	21	52
33	59	56/148 (38%)	52 (93%)	4 (7%)	14	44
34	61	122/124 (98%)	111 (91%)	11 (9%)	9	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	69	122/124 (98%)	115 (94%)	7 (6%)	20	52
35	15	117/119 (98%)	113 (97%)	4 (3%)	37	69
35	58	117/119 (98%)	109 (93%)	8 (7%)	16	45
36	25	100/100 (100%)	93 (93%)	7 (7%)	15	45
36	68	100/100 (100%)	95 (95%)	5 (5%)	24	57
37	35	114/116 (98%)	105 (92%)	9 (8%)	12	40
37	78	114/116 (98%)	102 (90%)	12 (10%)	7	26
38	45	109/111 (98%)	103 (94%)	6 (6%)	21	53
38	88	109/111 (98%)	103 (94%)	6 (6%)	21	53
39	55	101/101 (100%)	95 (94%)	6 (6%)	19	50
39	98	101/101 (100%)	96 (95%)	5 (5%)	24	57
40	65	87/88 (99%)	79 (91%)	8 (9%)	9	33
40	A8	87/88 (99%)	83 (95%)	4 (5%)	27	59
41	75	117/127 (92%)	110 (94%)	7 (6%)	19	49
41	B8	116/127 (91%)	105 (90%)	11 (10%)	8	31
42	85	93/94 (99%)	89 (96%)	4 (4%)	29	62
42	C8	92/94 (98%)	82 (89%)	10 (11%)	6	25
43	95	82/82 (100%)	77 (94%)	5 (6%)	18	49
43	D8	82/82 (100%)	79 (96%)	3 (4%)	34	66
44	A5	91/92 (99%)	88 (97%)	3 (3%)	38	69
44	E8	91/92 (99%)	86 (94%)	5 (6%)	21	53
45	B5	74/78 (95%)	70 (95%)	4 (5%)	22	53
45	F8	75/78 (96%)	72 (96%)	3 (4%)	31	65
46	C5	85/91 (93%)	79 (93%)	6 (7%)	14	44
46	G8	85/91 (93%)	83 (98%)	2 (2%)	49	76
47	D5	118/179 (66%)	109 (92%)	9 (8%)	13	41
47	H8	152/179 (85%)	142 (93%)	10 (7%)	16	47
48	E5	61/67 (91%)	57 (93%)	4 (7%)	16	47
48	I8	61/67 (91%)	61 (100%)	0	100	100
49	F5	79/83 (95%)	76 (96%)	3 (4%)	33	66
49	J8	79/83 (95%)	74 (94%)	5 (6%)	18	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	G5	62/67 (92%)	57 (92%)	5 (8%)	11	39
50	K8	62/67 (92%)	60 (97%)	2 (3%)	39	69
51	H5	50/52 (96%)	45 (90%)	5 (10%)	7	28
51	L8	50/52 (96%)	50 (100%)	0	100	100
52	M8	42/63 (67%)	36 (86%)	6 (14%)	3	14
53	J5	48/52 (92%)	41 (85%)	7 (15%)	3	13
53	N8	43/52 (83%)	40 (93%)	3 (7%)	15	45
54	L5	38/42 (90%)	37 (97%)	1 (3%)	46	74
54	P8	38/42 (90%)	36 (95%)	2 (5%)	22	54
55	M5	54/55 (98%)	51 (94%)	3 (6%)	21	52
55	Q8	54/55 (98%)	50 (93%)	4 (7%)	13	42
All	All	9272/10193 (91%)	8675 (94%)	597 (6%)	17	48

All (597) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	24	TRP
2	1E	28	PHE
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	122	PHE
2	1E	126	GLU
2	1E	135	GLN
2	1E	160	ASP
2	1E	163	PHE
2	1E	178	ARG
2	1E	191	ASP
2	1E	236	TYR
3	2E	36	ASP
3	2E	48	TYR
3	2E	79	ARG
3	2E	102	ASN
3	2E	131	ARG
3	2E	136	GLN
3	2E	166	GLU
3	2E	167	TRP

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Mol	Chain	Res	Type
3	2E	190	ARG
4	3E	10	ARG
4	3E	12	CYS
4	3E	38	TYR
4	3E	46	LYS
4	3E	47	ARG
4	3E	50	ARG
4	3E	59	ARG
4	3E	61	LYS
4	3E	93	PHE
4	3E	106	TYR
4	3E	122	ARG
4	3E	160	GLN
4	3E	168	ARG
4	3E	187	ARG
5	4E	31	LEU
5	4E	147	ASP
5	4E	153	LYS
6	5E	41	GLU
6	5E	55	ASP
6	5E	64	GLN
7	6E	5	ARG
7	6E	8	GLU
7	6E	20	ASP
7	6E	52	GLU
7	6E	78	ARG
7	6E	95	ARG
7	6E	149	ARG
7	6E	155	ARG
8	7E	12	ARG
8	7E	18	ARG
8	7E	31	PHE
8	7E	52	ASP
8	7E	60	ARG
8	7E	65	TYR
8	7E	84	ARG
8	7E	98	LYS
8	7E	102	ARG
8	7E	112	LEU
9	8E	9	ARG
9	8E	10	ARG
9	8E	34	ASN

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Mol	Chain	Res	Type
9	8E	70	LYS
9	8E	83	ARG
9	8E	92	TYR
9	8E	105	ASP
9	8E	113	LYS
9	8E	118	LYS
9	8E	121	ARG
10	1I	16	LEU
10	1I	25	GLU
10	1I	55	LYS
10	1I	58	ASP
10	1I	62	HIS
10	1I	76	ASN
11	2I	18	ARG
11	2I	54	ARG
11	2I	75	TYR
11	2I	111	ASP
12	3I	8	ASN
12	3I	19	ARG
12	3I	20	LYS
12	3I	33	ARG
12	3I	47	LYS
12	3I	54	LYS
12	3I	79	GLU
12	3I	115	LYS
13	4I	11	ARG
13	4I	47	ASP
13	4I	64	TRP
13	4I	65	LYS
13	4I	70	LEU
13	4I	102	ARG
13	4I	106	ASN
15	6I	14	GLU
15	6I	38	ARG
15	6I	39	LEU
15	6I	62	GLN
15	6I	65	ARG
15	6I	78	TYR
16	7I	8	ARG
16	7I	18	ARG
16	7I	47	ASP
16	7I	68	ASP

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Mol	Chain	Res	Type
16	7I	72	ARG
16	7I	76	GLN
17	8I	4	LYS
17	8I	52	LYS
17	8I	63	ARG
17	8I	68	ARG
17	8I	101	ARG
18	9I	26	LEU
18	9I	31	LEU
18	9I	85	LEU
19	AI	13	ASP
20	BI	42	GLN
20	BI	83	ARG
20	BI	86	ARG
21	1F	6	ARG
21	1F	15	ARG
21	1F	24	ARG
28	7I	6	ARG
28	7I	44	HIS
28	7I	55	ASP
28	7I	172	HIS
28	7I	180	PHE
28	7I	208	PHE
28	7I	218	MET
29	11	13	ARG
29	11	20	ASP
29	11	33	LEU
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	46	GLN
29	11	88	ARG
29	11	95	LEU
29	11	154	LYS
29	11	211	ARG
29	11	233	HIS
29	11	260	ARG
29	11	264	LYS
30	21	78	LEU
30	21	79	ARG
30	21	101	ARG

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Mol	Chain	Res	Type
30	21	111	ARG
30	21	113	PHE
30	21	144	ARG
30	21	202	LYS
31	31	7	TYR
31	31	72	ARG
31	31	164	ARG
31	31	181	LEU
31	31	188	ARG
31	31	203	GLN
32	41	51	ARG
32	41	58	GLN
32	41	60	LEU
32	41	67	LYS
32	41	79	ASN
32	41	80	PHE
32	41	95	ARG
32	41	97	ASP
32	41	116	ASP
32	41	118	ARG
32	41	133	LEU
32	41	139	LEU
32	41	155	MET
33	51	3	ARG
33	51	7	LEU
33	51	41	MET
33	51	42	ARG
33	51	83	TYR
33	51	104	GLU
33	51	116	GLU
33	51	139	GLN
34	61	17	GLN
34	61	20	ASP
34	61	25	TYR
34	61	38	LEU
34	61	41	GLU
34	61	50	ARG
34	61	64	GLU
34	61	77	LEU
34	61	85	GLU
34	61	87	LYS
34	61	95	LYS

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Mol	Chain	Res	Type
35	58	7	LYS
35	58	48	MET
35	58	58	ASP
35	58	99	LEU
35	58	119	ARG
35	58	131	GLN
35	58	134	ARG
35	58	136	GLU
36	68	3	GLN
36	68	8	LEU
36	68	53	LYS
36	68	64	ARG
36	68	78	ARG
37	78	1	MET
37	78	4	SER
37	78	5	ASP
37	78	14	LYS
37	78	15	ARG
37	78	41	ARG
37	78	61	ARG
37	78	65	ARG
37	78	79	ARG
37	78	98	GLU
37	78	135	LEU
37	78	144	GLU
38	88	5	ARG
38	88	10	ARG
38	88	45	GLN
38	88	58	PHE
38	88	83	MET
38	88	119	ARG
39	98	9	LYS
39	98	24	GLN
39	98	98	LEU
39	98	103	ARG
39	98	105	ARG
40	A8	17	ARG
40	A8	58	LEU
40	A8	73	LEU
40	A8	89	ARG
41	B8	6	LEU
41	B8	16	ARG

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Mol	Chain	Res	Type
41	B8	23	ARG
41	B8	43	GLN
41	B8	44	ASP
41	B8	53	ARG
41	B8	58	ASN
41	B8	85	LYS
41	B8	108	ARG
41	B8	111	ARG
41	B8	112	ARG
42	C8	5	LYS
42	C8	18	LEU
42	C8	51	LYS
42	C8	70	ARG
42	C8	72	HIS
42	C8	74	LEU
42	C8	79	PHE
42	C8	89	GLU
42	C8	94	ASN
42	C8	108	GLU
43	D8	6	LYS
43	D8	21	ARG
43	D8	53	GLU
44	E8	51	LEU
44	E8	52	GLU
44	E8	66	GLU
44	E8	88	ARG
44	E8	92	ARG
45	F8	53	LYS
45	F8	65	ARG
45	F8	76	ARG
46	G8	55	TYR
46	G8	86	ARG
47	H8	1	MET
47	H8	2	GLU
47	H8	6	LYS
47	H8	77	ASP
47	H8	80	ARG
47	H8	81	ARG
47	H8	121	HIS
47	H8	123	ASP
47	H8	132	ASN
47	H8	154	ASP

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Mol	Chain	Res	Type
49	J8	33	LYS
49	J8	41	ARG
49	J8	61	ARG
49	J8	78	LYS
49	J8	81	LYS
50	K8	7	ARG
50	K8	48	HIS
52	M8	1	MET
52	M8	2	LYS
52	M8	18	CYS
52	M8	25	TYR
52	M8	32	TYR
52	M8	42	PHE
53	N8	3	LYS
53	N8	37	LYS
53	N8	49	CYS
54	P8	8	ASN
54	P8	32	LYS
55	Q8	30	ARG
55	Q8	31	HIS
55	Q8	34	TRP
55	Q8	46	ARG
2	12	17	PHE
2	12	24	TRP
2	12	31	TYR
2	12	36	ARG
2	12	37	ASN
2	12	111	ARG
2	12	118	LEU
2	12	122	PHE
2	12	158	LEU
2	12	175	ARG
2	12	179	LYS
2	12	220	ASP
3	22	11	ARG
3	22	12	LEU
3	22	16	ARG
3	22	22	TRP
3	22	29	TYR
3	22	45	LYS
3	22	59	ARG
3	22	88	ARG

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Mol	Chain	Res	Type
3	22	164	ARG
3	22	179	ARG
3	22	190	ARG
4	32	4	TYR
4	32	12	CYS
4	32	24	GLU
4	32	47	ARG
4	32	53	ASP
4	32	73	ARG
4	32	134	ASP
4	32	138	TYR
4	32	168	ARG
4	32	187	ARG
4	32	193	ASP
4	32	209	ARG
5	42	10	MET
5	42	45	PHE
5	42	47	LYS
5	42	50	GLU
5	42	61	TYR
5	42	68	GLU
5	42	78	HIS
5	42	79	GLU
5	42	107	ARG
6	52	7	ASN
6	52	28	ARG
6	52	46	ARG
6	52	54	LYS
6	52	64	GLN
7	62	15	ASP
7	62	51	GLN
7	62	60	LYS
7	62	72	ARG
7	62	97	GLN
7	62	142	GLU
7	62	143	ARG
8	72	25	ASP
8	72	50	ARG
8	72	56	LYS
8	72	73	ASP
8	72	82	HIS
8	72	102	ARG

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Mol	Chain	Res	Type
8	72	116	LYS
8	72	121	ASP
8	72	126	LYS
9	82	10	ARG
9	82	33	PHE
9	82	35	GLU
9	82	36	TYR
9	82	42	ARG
9	82	54	ASP
9	82	56	LEU
9	82	60	ASP
9	82	88	TYR
9	82	89	ASN
9	82	95	LYS
9	82	113	LYS
9	82	117	HIS
9	82	125	TYR
10	1A	13	HIS
10	1A	17	ASP
10	1A	29	ARG
10	1A	43	ARG
10	1A	45	ARG
10	1A	55	LYS
10	1A	62	HIS
10	1A	69	ASN
10	1A	70	ARG
10	1A	79	ARG
11	2A	81	ASP
11	2A	99	GLN
12	3A	17	LYS
12	3A	20	LYS
12	3A	33	ARG
12	3A	34	ARG
12	3A	54	LYS
12	3A	64	TYR
12	3A	65	GLU
12	3A	80	HIS
12	3A	111	LYS
12	3A	117	ARG
13	4A	47	ASP
13	4A	57	ARG
13	4A	64	TRP

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Mol	Chain	Res	Type
13	4A	82	MET
13	4A	86	CYS
13	4A	88	ARG
13	4A	93	ARG
13	4A	108	ARG
13	4A	115	LYS
14	5A	8	GLU
14	5A	12	ARG
14	5A	17	LYS
14	5A	29	ARG
14	5A	60	SER
15	6A	35	ARG
15	6A	48	LYS
15	6A	88	ARG
16	7A	8	ARG
16	7A	48	TRP
16	7A	81	ARG
17	8A	81	ARG
18	9A	28	GLU
18	9A	38	GLU
18	9A	74	ARG
19	AA	7	LYS
19	AA	10	PHE
19	AA	18	LYS
19	AA	65	ASN
20	BA	60	GLU
20	BA	74	LYS
28	79	55	ASP
28	79	165	ASN
28	79	208	PHE
28	79	210	ARG
29	19	13	ARG
29	19	28	GLU
29	19	31	LYS
29	19	37	LEU
29	19	38	LYS
29	19	104	TYR
29	19	175	LEU
29	19	200	ASP
29	19	237	GLU
29	19	244	ARG
29	19	262	ARG

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Mol	Chain	Res	Type
29	19	268	ARG
29	19	273	ARG
30	29	16	ARG
30	29	49	LEU
30	29	58	ARG
30	29	76	ARG
30	29	78	LEU
30	29	79	ARG
30	29	111	ARG
30	29	119	ARG
30	29	154	LYS
30	29	160	TYR
30	29	200	GLU
31	39	7	TYR
31	39	23	ASP
31	39	38	ARG
31	39	68	LYS
31	39	74	ARG
31	39	83	PHE
31	39	104	LYS
31	39	192	LEU
31	39	197	ASP
31	39	202	PHE
31	39	205	ARG
32	49	4	ASP
32	49	12	TYR
32	49	13	GLU
32	49	26	GLN
32	49	53	LEU
32	49	75	LYS
32	49	80	PHE
32	49	115	ARG
32	49	128	ARG
32	49	130	ASN
32	49	136	ARG
32	49	138	GLN
32	49	153	ARG
32	49	156	ASP
33	59	6	ARG
33	59	155	SER
33	59	157	TYR
33	59	160	LYS

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Mol	Chain	Res	Type
34	69	1	MET
34	69	33	ARG
34	69	45	LYS
34	69	69	LYS
34	69	75	LEU
34	69	101	LEU
34	69	105	HIS
35	15	17	ASP
35	15	38	HIS
35	15	48	MET
35	15	87	LEU
36	25	1	MET
36	25	23	ARG
36	25	49	ARG
36	25	78	ARG
36	25	80	ASP
36	25	97	ARG
36	25	99	PHE
37	35	1	MET
37	35	15	ARG
37	35	41	ARG
37	35	77	ARG
37	35	79	ARG
37	35	81	GLN
37	35	91	PHE
37	35	111	ARG
37	35	144	GLU
38	45	5	ARG
38	45	45	GLN
38	45	58	PHE
38	45	83	MET
38	45	89	ASN
38	45	134	ARG
39	55	2	ARG
39	55	33	ARG
39	55	71	GLN
39	55	81	ASP
39	55	88	ARG
39	55	103	ARG
40	65	12	PHE
40	65	17	ARG
40	65	19	LYS

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Mol	Chain	Res	Type
40	65	33	LYS
40	65	44	LYS
40	65	73	LEU
40	65	80	LEU
40	65	106	ARG
41	75	1	MET
41	75	13	ARG
41	75	41	ARG
41	75	91	ARG
41	75	93	ARG
41	75	96	ARG
41	75	112	ARG
42	85	58	ARG
42	85	59	ARG
42	85	74	LEU
42	85	92	ARG
43	95	12	TYR
43	95	19	LYS
43	95	35	LEU
43	95	66	ARG
43	95	91	TYR
44	A5	11	ARG
44	A5	67	ASP
44	A5	70	TYR
45	B5	25	LYS
45	B5	57	LEU
45	B5	63	LYS
45	B5	69	TYR
46	C5	6	HIS
46	C5	55	TYR
46	C5	63	LYS
46	C5	84	ARG
46	C5	89	PHE
46	C5	94	LYS
47	D5	9	TYR
47	D5	34	ASN
47	D5	59	LEU
47	D5	63	ASP
47	D5	70	LEU
47	D5	89	PHE
47	D5	91	LEU
47	D5	136	PHE

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Mol	Chain	Res	Type
47	D5	162	GLU
48	E5	9	SER
48	E5	41	ARG
48	E5	55	ARG
48	E5	68	GLU
49	F5	40	ARG
49	F5	76	ARG
49	F5	78	LYS
50	G5	23	LYS
50	G5	30	ARG
50	G5	35	LEU
50	G5	53	LEU
50	G5	55	ARG
51	H5	30	ARG
51	H5	32	GLN
51	H5	33	GLN
51	H5	39	ASP
51	H5	55	ARG
53	J5	16	ARG
53	J5	23	HIS
53	J5	25	LEU
53	J5	46	CYS
53	J5	49	CYS
53	J5	51	TYR
53	J5	52	TYR
54	L5	32	LYS
55	M5	31	HIS
55	M5	34	TRP
55	M5	42	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	16	HIS
2	1E	212	GLN
3	2E	123	GLN
4	3E	161	ASN
7	6E	37	ASN
8	7E	82	HIS
10	1I	76	ASN
10	1I	84	GLN
18	9I	36	ASN

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Mol	Chain	Res	Type
19	AI	83	HIS
28	71	172	HIS
29	11	96	HIS
29	11	143	HIS
29	11	231	HIS
31	31	67	GLN
38	88	12	GLN
52	M8	47	GLN
3	22	181	ASN
10	1A	84	GLN
11	2A	27	ASN
14	5A	49	HIS
15	6A	46	HIS
16	7A	82	GLN
18	9A	36	ASN
18	9A	63	GLN
32	49	130	ASN
47	D5	54	HIS
47	D5	65	GLN
48	E5	70	GLN
50	G5	47	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	348 (23%)	32 (2%)
1	1G	1505/1522 (98%)	383 (25%)	30 (1%)
22	1K	65/76 (85%)	31 (47%)	3 (4%)
22	1L	70/76 (92%)	30 (42%)	5 (7%)
23	2K	76/77 (98%)	23 (30%)	1 (1%)
23	2L	76/77 (98%)	19 (25%)	2 (2%)
24	3K	75/76 (98%)	45 (60%)	3 (4%)
24	3L	75/76 (98%)	33 (44%)	0
25	4K	18/27 (66%)	10 (55%)	1 (5%)
25	4L	17/27 (62%)	10 (58%)	0
26	14	2852/2912 (97%)	735 (25%)	51 (1%)
26	1H	2828/2912 (97%)	733 (25%)	51 (1%)
27	16	121/122 (99%)	17 (14%)	2 (1%)
27	1J	121/122 (99%)	33 (27%)	2 (1%)
All	All	9392/9624 (97%)	2450 (26%)	183 (1%)

All (2450) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	7	G
1	13	8	A
1	13	19	C
1	13	31	G
1	13	32	A
1	13	33	A
1	13	39	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	68	G
1	13	75	C
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	116	A
1	13	121	C
1	13	130	A
1	13	131	C
1	13	142	G
1	13	143	A
1	13	144	G
1	13	147	G
1	13	151	A
1	13	159	G
1	13	160	A
1	13	163	C
1	13	164	U
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	188	U

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Mol	Chain	Res	Type
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	191(C)	G
1	13	195	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	216	G
1	13	222	U
1	13	243	A
1	13	244	U
1	13	245	C
1	13	246	A
1	13	247	G
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	274	A
1	13	289	G
1	13	318	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	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	373	A
1	13	382	A

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Mol	Chain	Res	Type
1	13	389	A
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	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	446	G
1	13	451	A
1	13	452	A
1	13	455	C
1	13	457	C
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	478	A
1	13	485	G
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
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	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	564	C

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Mol	Chain	Res	Type
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	596	C
1	13	607	A
1	13	610	G
1	13	618	C
1	13	619	U
1	13	620	C
1	13	629	G
1	13	630	G
1	13	631	G
1	13	632	A
1	13	639	G
1	13	648	A
1	13	661	G
1	13	665	A
1	13	666	G
1	13	683	G
1	13	687	A
1	13	688	G
1	13	703	G
1	13	704	A
1	13	720	C
1	13	723	U
1	13	749	C
1	13	753	A
1	13	755	G
1	13	764	C
1	13	769	G
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	795	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	828	A

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Mol	Chain	Res	Type
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	855	G
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	873	A
1	13	885	G
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	936	C
1	13	938	A
1	13	960	U
1	13	966	G
1	13	968	A
1	13	969	A
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	983	A
1	13	992	U
1	13	993	G
1	13	999	U
1	13	1002	G
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1016	A

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Mol	Chain	Res	Type
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1037	C
1	13	1039	C
1	13	1042	G
1	13	1046	A
1	13	1054	C
1	13	1055	A
1	13	1063	C
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1131	G
1	13	1132	C
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
1	13	1146	A
1	13	1148	U
1	13	1154	G
1	13	1157	A
1	13	1158	C

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Mol	Chain	Res	Type
1	13	1159	U
1	13	1160	G
1	13	1170	A
1	13	1176	A
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1193	G
1	13	1196	U
1	13	1197	G
1	13	1198	G
1	13	1204	A
1	13	1213	A
1	13	1218	C
1	13	1220	G
1	13	1221	G
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1250	A
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1266	G
1	13	1270	C
1	13	1273	G
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1290	G
1	13	1292	U
1	13	1297	C

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Mol	Chain	Res	Type
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1303	C
1	13	1312	G
1	13	1317	C
1	13	1320	C
1	13	1323	G
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1339	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1360	A
1	13	1363	A
1	13	1368	G
1	13	1369	C
1	13	1370	G
1	13	1381	U
1	13	1398	A
1	13	1401	G
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	1450	U
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1462	G
1	13	1463	C
1	13	1467	G
1	13	1487	G
1	13	1492	A
1	13	1497	G

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Mol	Chain	Res	Type
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	2	G
22	1K	4	U
22	1K	6	G
22	1K	7	U
22	1K	8	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	12	U
22	1K	15	G
22	1K	18	G
22	1K	24	G
22	1K	25	C
22	1K	26	A
22	1K	27	G
22	1K	29	U
22	1K	30	G
22	1K	41	A
22	1K	43	U
22	1K	49	G
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	64	G
22	1K	66	A
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	72	C
22	1K	73	A
22	1K	74	C

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Mol	Chain	Res	Type
23	2K	2	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	15	G
23	2K	16	C
23	2K	17	C
23	2K	18	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	27	G
23	2K	28	U
23	2K	32	G
23	2K	35	C
23	2K	44	A
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	57	C
23	2K	68	C
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	5	C
24	3K	6	G
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	14	A
24	3K	15	G
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	23	A
24	3K	26	A
24	3K	27	G
24	3K	30	G

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Mol	Chain	Res	Type
24	3K	33	U
24	3K	34	U
24	3K	35	U
24	3K	38	A
24	3K	42	A
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	G
24	3K	50	C
24	3K	51	A
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	62	C
24	3K	63	U
24	3K	65	C
24	3K	66	A
24	3K	67	C
24	3K	68	G
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	7	G
25	4K	8	A
25	4K	10	G
25	4K	11	U
25	4K	13	A
25	4K	15	A
25	4K	19	U
25	4K	21	A
25	4K	23	A
25	4K	24	A
26	1H	7	G
26	1H	11	G
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	27	G

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Mol	Chain	Res	Type
26	1H	31	C
26	1H	33	U
26	1H	34	C
26	1H	35	G
26	1H	39	C
26	1H	41	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	56	A
26	1H	61	G
26	1H	64	A
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	111	A
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	122	G
26	1H	123	G
26	1H	125	G
26	1H	131	G
26	1H	138	G
26	1H	155	C
26	1H	162	U
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	214	G
26	1H	215	G
26	1H	216	A
26	1H	220	G
26	1H	221	A
26	1H	222	A

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Mol	Chain	Res	Type
26	1H	223	A
26	1H	224	G
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	244	A
26	1H	245	G
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	260	G
26	1H	261	G
26	1H	264	C
26	1H	266	G
26	1H	267	C
26	1H	269	U
26	1H	270(F)	U
26	1H	270(H)	C
26	1H	270(I)	G
26	1H	270(K)	C
26	1H	270(L)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(Q)	C
26	1H	270(S)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	279	C
26	1H	280	C
26	1H	283	A
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	315	G
26	1H	323	G
26	1H	324	A

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Mol	Chain	Res	Type
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	333	G
26	1H	334	C
26	1H	335	C
26	1H	342	G
26	1H	346	A
26	1H	347	A
26	1H	352	G
26	1H	363	G
26	1H	363(A)	A
26	1H	363(E)	U
26	1H	363(F)	A
26	1H	364	C
26	1H	372	G
26	1H	386	G
26	1H	389	G
26	1H	396	G
26	1H	404	C
26	1H	405	U
26	1H	406	G
26	1H	411	G
26	1H	418	G
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	452	G
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	470	A
26	1H	481	G
26	1H	482	A
26	1H	489	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C

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Mol	Chain	Res	Type
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	537	C
26	1H	545	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G
26	1H	564	C
26	1H	573	G
26	1H	575	A
26	1H	598	G
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	632	A
26	1H	637	A
26	1H	640	C
26	1H	645	C
26	1H	646	A
26	1H	647	G
26	1H	651	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(B)	C
26	1H	654(C)	G
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A

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Mol	Chain	Res	Type
26	1H	668	G
26	1H	669	G
26	1H	672	C
26	1H	677	A
26	1H	686	G
26	1H	703	U
26	1H	704	G
26	1H	712	G
26	1H	715	G
26	1H	717	G
26	1H	730	C
26	1H	736	C
26	1H	738	G
26	1H	747	U
26	1H	748	G
26	1H	751	A
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	792	G
26	1H	793	A
26	1H	802	A
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	830	G
26	1H	832	G
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

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Mol	Chain	Res	Type
26	1H	870	A
26	1H	879	G
26	1H	881	G
26	1H	882	G
26	1H	894	C
26	1H	895	U
26	1H	898	C
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	926	A
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	982	C
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
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

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Mol	Chain	Res	Type
26	1H	1038	C
26	1H	1039	G
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1048	A
26	1H	1051	G
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C
26	1H	1110	G
26	1H	1111	A
26	1H	1112	G
26	1H	1122	G
26	1H	1126	A
26	1H	1128	A
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	1149	G
26	1H	1151	G
26	1H	1156	A
26	1H	1170	G
26	1H	1171	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1192	G
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U

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Mol	Chain	Res	Type
26	1H	1206	G
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1225	C
26	1H	1228	G
26	1H	1229(A)	G
26	1H	1234	U
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1287	A
26	1H	1288	U
26	1H	1296	G
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1303	G
26	1H	1329	U
26	1H	1332	G
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1373	A
26	1H	1380	G
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A

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Mol	Chain	Res	Type
26	1H	1403	C
26	1H	1416	G
26	1H	1417	C
26	1H	1419	A
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1429	G
26	1H	1430	C
26	1H	1431	U
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1455	G
26	1H	1456	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1462	C
26	1H	1467	C
26	1H	1471	A
26	1H	1490	A
26	1H	1492	G
26	1H	1493	C
26	1H	1494	A
26	1H	1496	A
26	1H	1497	U
26	1H	1506	C
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1519	G
26	1H	1520	U
26	1H	1522	G
26	1H	1526	G
26	1H	1533	C
26	1H	1534	G
26	1H	1535	U

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Mol	Chain	Res	Type
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1565	C
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1618	A
26	1H	1626	G
26	1H	1635	G
26	1H	1636	C
26	1H	1639	U
26	1H	1640	C
26	1H	1644	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1666	G
26	1H	1674	G
26	1H	1675	C
26	1H	1706	U
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G

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Mol	Chain	Res	Type
26	1H	1732	A
26	1H	1733	G
26	1H	1734	C
26	1H	1735	C
26	1H	1746	G
26	1H	1756	G
26	1H	1758	G
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1776	G
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1833	U
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1853	A
26	1H	1858	G
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1882	C
26	1H	1889	A
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1919	A
26	1H	1920	C
26	1H	1929	G
26	1H	1930	G

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Mol	Chain	Res	Type
26	1H	1931	U
26	1H	1933	G
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1963	U
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	1992	G
26	1H	1993	U
26	1H	1994	C
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2035	G
26	1H	2036	C
26	1H	2043	C
26	1H	2047	U
26	1H	2049	G
26	1H	2052	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2077	A
26	1H	2082	A
26	1H	2096	U
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U

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Mol	Chain	Res	Type
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2120	G
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2150	U
26	1H	2151	G
26	1H	2153	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2159	G
26	1H	2161	C
26	1H	2164	C
26	1H	2165	G
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2177	C
26	1H	2180	U

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Mol	Chain	Res	Type
26	1H	2181	G
26	1H	2186	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2193	G
26	1H	2197	U
26	1H	2198	A
26	1H	2199	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2232	U
26	1H	2235	G
26	1H	2237	G
26	1H	2238	G
26	1H	2240	C
26	1H	2267	A
26	1H	2269	A
26	1H	2273	A
26	1H	2275	C
26	1H	2279	G
26	1H	2280	G
26	1H	2281	C
26	1H	2283	C
26	1H	2287	A
26	1H	2296	U
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2311	A
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2317	C
26	1H	2320	A
26	1H	2324	C

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Mol	Chain	Res	Type
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2345	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2352	A
26	1H	2355	C
26	1H	2356	C
26	1H	2357	U
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2391	G
26	1H	2393	A
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2418	A
26	1H	2422	A
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	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2442	C
26	1H	2445	G
26	1H	2448	A
26	1H	2453	A

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Mol	Chain	Res	Type
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2474	C
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2481	G
26	1H	2484	G
26	1H	2494	G
26	1H	2497	A
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2520	C
26	1H	2525	G
26	1H	2529	G
26	1H	2554	U
26	1H	2564	A
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2574	G
26	1H	2582	G
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	2632	A
26	1H	2636	U
26	1H	2637	U
26	1H	2647	U
26	1H	2654	A
26	1H	2661	G
26	1H	2665	A
26	1H	2673	G
26	1H	2679	A
26	1H	2682	U

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Mol	Chain	Res	Type
26	1H	2683	C
26	1H	2689	U
26	1H	2699	C
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2718	G
26	1H	2719	G
26	1H	2721	A
26	1H	2723	C
26	1H	2726	U
26	1H	2733	A
26	1H	2736	G
26	1H	2738	A
26	1H	2739	U
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
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	2801	A
26	1H	2803	C
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	2833	G

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Mol	Chain	Res	Type
26	1H	2834	G
26	1H	2835	A
26	1H	2836	U
26	1H	2849	U
26	1H	2850	A
26	1H	2864	G
26	1H	2872	G
26	1H	2874	C
26	1H	2876	G
26	1H	2887	U
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
27	16	0	A
27	16	3	C
27	16	8	U
27	16	12	C
27	16	13	A
27	16	15	A
27	16	25	A
27	16	33	G
27	16	39	A
27	16	45	A
27	16	56	G
27	16	65	C
27	16	67	G
27	16	73	A
27	16	74	U
27	16	81	G
27	16	109	G
1	1G	5	U
1	1G	6	G
1	1G	7	G
1	1G	9	G
1	1G	13	U
1	1G	21	G
1	1G	23	C
1	1G	27	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	47	C

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Mol	Chain	Res	Type
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	65	U
1	1G	76	G
1	1G	79	G
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	89	U
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	95	G
1	1G	101	A
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	157	G
1	1G	161	A
1	1G	162	A
1	1G	163	C
1	1G	170	U
1	1G	173	U
1	1G	174	C
1	1G	179	A
1	1G	182	U
1	1G	185	A
1	1G	186	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	191(E)	G
1	1G	195	A
1	1G	196	A

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Mol	Chain	Res	Type
1	1G	197	A
1	1G	198	G
1	1G	201	C
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	256	U
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	279	A
1	1G	281	G
1	1G	289	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	344	A
1	1G	346	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	417	C
1	1G	421	U

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Mol	Chain	Res	Type
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	433	C
1	1G	439	A
1	1G	451	A
1	1G	452	A
1	1G	456	C
1	1G	458	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	476	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	505	G
1	1G	508	C
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	536	C
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	596	C

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Mol	Chain	Res	Type
1	1G	604	G
1	1G	607	A
1	1G	614	A
1	1G	618	C
1	1G	621	A
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	635	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	663	A
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	706	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	744	C
1	1G	749	C
1	1G	755	G
1	1G	762	C
1	1G	765	G
1	1G	769	G
1	1G	777	A
1	1G	793	U
1	1G	794	A
1	1G	802	A
1	1G	816	A
1	1G	817	C
1	1G	819	A
1	1G	821	G
1	1G	828	A
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	853	G
1	1G	854	G
1	1G	857	C
1	1G	858	G

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Mol	Chain	Res	Type
1	1G	859	A
1	1G	862	C
1	1G	874	G
1	1G	914	A
1	1G	916	G
1	1G	922	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	942	G
1	1G	953	G
1	1G	960	U
1	1G	961	U
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	978	A
1	1G	980	C
1	1G	982	U
1	1G	983	A
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	994	A
1	1G	996	A
1	1G	1001	G
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1023	G
1	1G	1024	G
1	1G	1026	G
1	1G	1028	C

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Mol	Chain	Res	Type
1	1G	1028(A)	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1034	G
1	1G	1036	G
1	1G	1037	C
1	1G	1040	U
1	1G	1041	A
1	1G	1042	G
1	1G	1046	A
1	1G	1050	G
1	1G	1051	C
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1060	C
1	1G	1064	G
1	1G	1081	G
1	1G	1082	G
1	1G	1084	G
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1098	C
1	1G	1099	G
1	1G	1101	A
1	1G	1114	C
1	1G	1117	G
1	1G	1118	C
1	1G	1123	A
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C

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Mol	Chain	Res	Type
1	1G	1131	G
1	1G	1134	G
1	1G	1135	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
1	1G	1141	C
1	1G	1144	G
1	1G	1146	A
1	1G	1150	U
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1164	G
1	1G	1171	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1184	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G
1	1G	1191	A
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1203	C
1	1G	1204	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1215	G
1	1G	1220	G
1	1G	1223	C
1	1G	1227	A
1	1G	1238	A

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Mol	Chain	Res	Type
1	1G	1240	U
1	1G	1241	G
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1265	G
1	1G	1267	C
1	1G	1268	A
1	1G	1275	A
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1282	C
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1289	A
1	1G	1293	G
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1302	U
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1318	A
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	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1358	U
1	1G	1362(A)	C
1	1G	1363	A

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Mol	Chain	Res	Type
1	1G	1364	U
1	1G	1369	C
1	1G	1370	G
1	1G	1379	G
1	1G	1381	U
1	1G	1392	G
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1448	C
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1472	U
1	1G	1478	C
1	1G	1492	A
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
1	1G	1531	A
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
1	1G	1535	C
22	1L	2	G
22	1L	3	G
22	1L	4	U
22	1L	6	G
22	1L	7	U
22	1L	8	U
22	1L	9	A

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Mol	Chain	Res	Type
22	1L	10	G
22	1L	12	U
22	1L	13	C
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	20	U
22	1L	26	A
22	1L	30	G
22	1L	36	U
22	1L	41	A
22	1L	44	U
22	1L	45	G
22	1L	49	G
22	1L	53	G
22	1L	54	5MU
22	1L	66	A
22	1L	67	C
22	1L	69	A
22	1L	70	C
22	1L	73	A
22	1L	74	C
22	1L	75	C
23	2L	2	G
23	2L	8	4SU
23	2L	9	G
23	2L	16	C
23	2L	18	C
23	2L	19	G
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	32	G
23	2L	34	U
23	2L	47	G7M
23	2L	48	U
23	2L	49	C
23	2L	50	G
23	2L	55	5MU
23	2L	57	C
23	2L	68	C
23	2L	77	A

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Mol	Chain	Res	Type
24	3L	2	G
24	3L	7	U
24	3L	9	A
24	3L	11	C
24	3L	12	U
24	3L	13	C
24	3L	15	G
24	3L	16	U
24	3L	17	U
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	21	A
24	3L	26	A
24	3L	31	A
24	3L	33	U
24	3L	35	U
24	3L	36	U
24	3L	40	C
24	3L	41	A
24	3L	42	A
24	3L	43	U
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	51	A
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	61	C
24	3L	65	C
24	3L	73	A
24	3L	76	A
25	4L	8	A
25	4L	9	G
25	4L	11	U
25	4L	13	A
25	4L	14	A
25	4L	15	A
25	4L	19	U
25	4L	21	A
25	4L	22	A

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Mol	Chain	Res	Type
25	4L	23	A
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	10	G
26	14	11	G
26	14	15	G
26	14	16	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	58	G
26	14	60	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	83	G
26	14	90	U
26	14	91	A
26	14	93	C
26	14	95	G
26	14	99	U
26	14	101	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	131	G
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U

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Mol	Chain	Res	Type
26	14	172	C
26	14	174	C
26	14	175	G
26	14	181	A
26	14	182	A
26	14	196	A
26	14	199	A
26	14	201	C
26	14	205	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	240	G
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	267	C
26	14	270(F)	U
26	14	270(K)	C
26	14	270(L)	U
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(D)	C
26	14	273(F)	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	289	A
26	14	290	G
26	14	298	G

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Mol	Chain	Res	Type
26	14	311	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	352	G
26	14	361	G
26	14	362	U
26	14	363	G
26	14	363(D)	G
26	14	372	G
26	14	375	C
26	14	380	U
26	14	386	G
26	14	395	U
26	14	396	G
26	14	404	C
26	14	405	U
26	14	407	G
26	14	411	G
26	14	412	A
26	14	416	C
26	14	428	A
26	14	429	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	460	A
26	14	467	G
26	14	470	A
26	14	471	A
26	14	478	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	505	A
26	14	508	G

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Mol	Chain	Res	Type
26	14	509	C
26	14	512	G
26	14	528	A
26	14	529	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	564	C
26	14	568	U
26	14	572	A
26	14	573	G
26	14	575	A
26	14	586	A
26	14	593	G
26	14	598	G
26	14	603	A
26	14	604	G
26	14	607	U
26	14	613	U
26	14	615	G
26	14	617	G
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	641	C
26	14	643	A
26	14	645	C
26	14	646	A
26	14	649	G
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C

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Mol	Chain	Res	Type
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	664	C
26	14	668	G
26	14	669	G
26	14	671	C
26	14	673	C
26	14	682	G
26	14	686	G
26	14	708	C
26	14	709	U
26	14	717	G
26	14	722	A
26	14	730	C
26	14	731	C
26	14	738	G
26	14	740	U
26	14	748	G
26	14	751	A
26	14	753	C
26	14	764	A
26	14	765	G
26	14	770	G
26	14	771	G
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	789	A
26	14	792	G
26	14	805	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	824	A
26	14	827	U
26	14	828	U
26	14	831	G

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Mol	Chain	Res	Type
26	14	832	G
26	14	845	G
26	14	846	C
26	14	848	G
26	14	857	C
26	14	859	G
26	14	865	C
26	14	866	A
26	14	869	G
26	14	875	G
26	14	877	U
26	14	878	A
26	14	879	G
26	14	880	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	910	A
26	14	911	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	926	A
26	14	932	G
26	14	933	A
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	962	G
26	14	974	G
26	14	980	A
26	14	983	A
26	14	990	A
26	14	996	A
26	14	1002	G
26	14	1008	C
26	14	1009	A
26	14	1010	A

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Mol	Chain	Res	Type
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1029	A
26	14	1034	G
26	14	1036	G
26	14	1037	G
26	14	1039	G
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1052	C
26	14	1054	A
26	14	1055	G
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1074	G
26	14	1075	C
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1099	G
26	14	1100	C
26	14	1105	U
26	14	1106	G
26	14	1110	G
26	14	1112	G
26	14	1113	U

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Mol	Chain	Res	Type
26	14	1114	G
26	14	1120	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142	U
26	14	1142(A)	A
26	14	1143	A
26	14	1147	C
26	14	1150	C
26	14	1151	G
26	14	1155	A
26	14	1157	G
26	14	1164	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	1178	C
26	14	1183	G
26	14	1194	A
26	14	1195	G
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1221	C
26	14	1229	G
26	14	1236	G
26	14	1237	A
26	14	1252	G
26	14	1253	A
26	14	1256	G
26	14	1262	A
26	14	1271	G
26	14	1272	A

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Mol	Chain	Res	Type
26	14	1273	U
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1325	G
26	14	1326	U
26	14	1329	U
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1389	G
26	14	1390	U
26	14	1406	U
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1424	G
26	14	1425	G
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1447	G
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1454	U
26	14	1455	G

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Mol	Chain	Res	Type
26	14	1459	G
26	14	1460	A
26	14	1464	C
26	14	1467	C
26	14	1471	A
26	14	1479	G
26	14	1483	G
26	14	1486	A
26	14	1490	A
26	14	1493	C
26	14	1496	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	1523	U
26	14	1528	A
26	14	1533	C
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1554	A
26	14	1555	G
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1562	A
26	14	1566	A
26	14	1569	A
26	14	1570	A
26	14	1578	U
26	14	1580	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1594	G
26	14	1595	G

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Mol	Chain	Res	Type
26	14	1597	A
26	14	1598	C
26	14	1606	G
26	14	1607	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1630(A)	C
26	14	1640	C
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1664	A
26	14	1669	A
26	14	1674	G
26	14	1675	C
26	14	1680	U
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1717	G
26	14	1725	G
26	14	1726	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1776	G
26	14	1780	A
26	14	1781	C
26	14	1782	C
26	14	1791	A

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Mol	Chain	Res	Type
26	14	1800	C
26	14	1801	G
26	14	1808	U
26	14	1816	G
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1839	G
26	14	1847	A
26	14	1858	G
26	14	1860	G
26	14	1870	C
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1917	U
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1947	C
26	14	1955	U
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	2016	U
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2039	C
26	14	2043	C

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Mol	Chain	Res	Type
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	2088	G
26	14	2095	C
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2110	G
26	14	2111	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2122	U
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
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	2139	C
26	14	2140	C
26	14	2142	C
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2150	U
26	14	2151	G

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Mol	Chain	Res	Type
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2168	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2179	C
26	14	2186	G
26	14	2188	C
26	14	2189	U
26	14	2190	G
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	2231	C
26	14	2238	G
26	14	2239	G
26	14	2249	U
26	14	2251	G
26	14	2259	G
26	14	2267	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2277	G
26	14	2278	A
26	14	2280	G

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Mol	Chain	Res	Type
26	14	2283	C
26	14	2287	A
26	14	2288	A
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	2312	U
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2327	A
26	14	2328	A
26	14	2334	G
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2357	U
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2400	G
26	14	2402	C
26	14	2406	U
26	14	2414	G
26	14	2422	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2432	A
26	14	2434	A
26	14	2435	A

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Mol	Chain	Res	Type
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2448	A
26	14	2449	U
26	14	2468	G
26	14	2469	A
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2487	G
26	14	2489	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2513	G
26	14	2517	C
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2554	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2585	U
26	14	2599	G
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2634	G
26	14	2636	U

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Mol	Chain	Res	Type
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	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	2729	G
26	14	2730	C
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2756	U
26	14	2758	A
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G

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Mol	Chain	Res	Type
26	14	2805	G
26	14	2808	U
26	14	2810	A
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2849	U
26	14	2860	A
26	14	2864	G
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2879	C
26	14	2880	C
26	14	2891	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2896	C
26	14	2899	G
27	1J	3	C
27	1J	8	U
27	1J	9	G
27	1J	10	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	24	G
27	1J	26	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	40	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	53	A
27	1J	58	A

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Mol	Chain	Res	Type
27	1J	59	A
27	1J	67	G
27	1J	73	A
27	1J	77	U
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	119	A

All (183) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	50	A
1	13	115	G
1	13	163	C
1	13	243	A
1	13	244	U
1	13	266	G
1	13	327	A
1	13	389	A
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	628	G
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	871	U
1	13	913	A
1	13	992	U
1	13	1006	C
1	13	1065	U

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Mol	Chain	Res	Type
1	13	1126	U
1	13	1157	A
1	13	1285	A
1	13	1336	C
1	13	1397	C
1	13	1498	U
1	13	1533	C
22	1K	6	G
22	1K	48	C
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	17	U
24	3K	58	A
25	4K	18	G
26	1H	70	G
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	242	G
26	1H	271(B)	G
26	1H	334	C
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	645	C
26	1H	668	G
26	1H	746	A
26	1H	752	A
26	1H	776	G
26	1H	845	G
26	1H	880	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1047	G
26	1H	1210	A
26	1H	1378	A
26	1H	1379	A
26	1H	1396	U
26	1H	1416	G
26	1H	1493	C

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Mol	Chain	Res	Type
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1757	U
26	1H	1799	G
26	1H	1900	A
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2062	A
26	1H	2172	U
26	1H	2225	A
26	1H	2346	A
26	1H	2422	A
26	1H	2428	G
26	1H	2439	A
26	1H	2448	A
26	1H	2476	A
26	1H	2611	U
26	1H	2681	C
26	1H	2756	U
26	1H	2797	U
27	16	44	G
27	16	108	C
1	1G	64	G
1	1G	80	G
1	1G	89	U
1	1G	115	G
1	1G	143	A
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	353	A
1	1G	412	A
1	1G	413	G
1	1G	429	U
1	1G	509	A
1	1G	560	U

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Mol	Chain	Res	Type
1	1G	687	A
1	1G	748	C
1	1G	913	A
1	1G	992	U
1	1G	1126	U
1	1G	1137	C
1	1G	1139	G
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1442	G
1	1G	1498	U
1	1G	1533	C
22	1L	3	G
22	1L	6	G
22	1L	18	G
22	1L	48	C
22	1L	69	A
23	2L	33	OMC
23	2L	48	U
26	14	34	C
26	14	49	A
26	14	71	A
26	14	83	G
26	14	90	U
26	14	128	C
26	14	278	A
26	14	528	A
26	14	530	G
26	14	627	A
26	14	752	A
26	14	764	A
26	14	784	A
26	14	791	C
26	14	930	U
26	14	960	A
26	14	1022	G
26	14	1141	U
26	14	1177	A
26	14	1379	A
26	14	1396	U

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Mol	Chain	Res	Type
26	14	1416	G
26	14	1444(A)	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1819	A
26	14	1899	G
26	14	1936	A
26	14	1992	G
26	14	2107	C
26	14	2133	G
26	14	2173	A
26	14	2211	G
26	14	2238	G
26	14	2275	C
26	14	2308	G
26	14	2335	A
26	14	2406	U
26	14	2439	A
26	14	2477	C
26	14	2572	A
26	14	2598	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2790	A
26	14	2859	G
27	1J	88	C
27	1J	89	G

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

22 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	OMC	2L	33	23	15,22,23	2.37	4 (26%)	17,31,34	2.03	4 (23%)
22	U8U	1L	34	25,22	17,24,25	2.61	5 (29%)	19,34,37	1.69	3 (15%)
22	T6A	1K	37	22	24,34,35	2.63	4 (16%)	24,49,52	3.20	5 (20%)
22	PSU	1K	39	22	17,21,22	0.90	1 (5%)	20,30,33	3.33	5 (25%)
23	4SU	2K	8	23	14,21,22	3.17	2 (14%)	15,30,33	1.36	2 (13%)
22	U8U	1K	34	22	17,24,25	2.59	5 (29%)	19,34,37	1.47	3 (15%)
23	G7M	2L	47	23	20,26,27	3.49	8 (40%)	20,39,42	1.79	4 (20%)
24	PSU	3L	39	24	17,21,22	1.10	1 (5%)	20,30,33	3.46	5 (25%)
23	PSU	2L	56	23	17,21,22	1.05	1 (5%)	20,30,33	2.93	5 (25%)
23	4SU	2L	8	23	14,21,22	3.37	2 (14%)	15,30,33	0.91	1 (6%)
22	5MU	1K	54	22	15,22,23	2.11	3 (20%)	16,32,35	2.01	2 (12%)
24	PSU	3K	39	24	17,21,22	1.38	3 (17%)	20,30,33	3.29	7 (35%)
22	5MU	1L	54	22	15,22,23	2.21	3 (20%)	16,32,35	1.79	2 (12%)
23	PSU	2K	56	23	17,21,22	1.06	1 (5%)	20,30,33	3.05	5 (25%)
22	PSU	1K	55	22	17,21,22	1.02	1 (5%)	20,30,33	3.70	5 (25%)
23	5MU	2L	55	23	15,22,23	2.19	3 (20%)	16,32,35	1.85	2 (12%)
23	G7M	2K	47	23	20,26,27	3.47	7 (35%)	20,39,42	1.96	4 (20%)
22	PSU	1L	55	22	17,21,22	1.18	3 (17%)	20,30,33	3.47	7 (35%)
23	OMC	2K	33	23	15,22,23	2.19	4 (26%)	17,31,34	1.81	2 (11%)
22	PSU	1L	39	22	17,21,22	1.01	1 (5%)	20,30,33	3.31	5 (25%)
23	5MU	2K	55	23	15,22,23	2.18	3 (20%)	16,32,35	1.78	2 (12%)
22	T6A	1L	37	22	24,34,35	2.65	5 (20%)	24,49,52	2.45	6 (25%)

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	OMC	2L	33	23	-	3/7/27/28	0/2/2/2
22	U8U	1L	34	25,22	-	4/7/28/29	0/2/2/2
22	T6A	1K	37	22	-	1/15/41/42	0/3/3/3
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	2/5/25/26	0/2/2/2
22	U8U	1K	34	22	-	0/7/28/29	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	G7M	2L	47	23	-	2/3/25/26	0/3/3/3
24	PSU	3L	39	24	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	1/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	1/5/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/5/25/26	0/2/2/2
24	PSU	3K	39	24	-	0/7/25/26	0/2/2/2
22	5MU	1L	54	22	-	3/5/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	3/5/25/26	0/2/2/2
23	G7M	2K	47	23	-	1/3/25/26	0/3/3/3
22	PSU	1L	55	22	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/7/27/28	0/2/2/2
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/5/25/26	0/2/2/2
22	T6A	1L	37	22	-	4/15/41/42	0/3/3/3

All (70) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	8	4SU	C5-C4	9.70	1.49	1.38
23	2K	8	4SU	C5-C4	9.57	1.49	1.38
23	2K	47	G7M	C4-N3	8.70	1.49	1.35
23	2L	47	G7M	C4-N3	8.38	1.48	1.35
23	2L	8	4SU	C6-N1	7.71	1.45	1.35
23	2K	47	G7M	C6-C5	7.69	1.54	1.41
22	1L	37	T6A	C6-N6	7.58	1.49	1.36
22	1L	34	U8U	C4-N3	7.40	1.45	1.33
22	1K	37	T6A	C6-N6	7.38	1.49	1.36
23	2L	47	G7M	C6-C5	7.36	1.54	1.41
22	1L	37	T6A	C10-N11	7.10	1.50	1.35
22	1K	34	U8U	C4-N3	6.55	1.44	1.33
22	1K	37	T6A	C10-N11	6.54	1.49	1.35
23	2K	8	4SU	C6-N1	6.42	1.43	1.35
23	2L	33	OMC	C6-N1	6.29	1.43	1.35
22	1K	37	T6A	C10-N6	6.09	1.50	1.37
22	1L	37	T6A	C10-N6	6.07	1.50	1.37
23	2L	47	G7M	C6-N1	6.05	1.43	1.33
23	2K	47	G7M	C6-N1	6.04	1.43	1.33
23	2L	47	G7M	C2-N2	5.85	1.45	1.33
22	1L	54	5MU	C4-C5	5.77	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	55	5MU	C4-C5	5.65	1.53	1.41
22	1K	34	U8U	C6-C5	5.50	1.49	1.37
23	2K	33	OMC	C6-N1	5.39	1.42	1.35
22	1K	54	5MU	C4-C5	5.39	1.53	1.41
22	1L	34	U8U	C6-C5	5.38	1.49	1.37
23	2K	55	5MU	C2-N3	5.28	1.48	1.38
23	2K	55	5MU	C4-C5	5.27	1.52	1.41
23	2K	47	G7M	C2-N1	5.19	1.44	1.35
23	2L	47	G7M	C2-N1	5.15	1.44	1.35
22	1L	54	5MU	C2-N3	4.93	1.47	1.38
22	1K	54	5MU	C2-N3	4.91	1.47	1.38
23	2L	55	5MU	C2-N3	4.88	1.47	1.38
23	2K	47	G7M	C2-N2	4.87	1.43	1.33
23	2L	33	OMC	C2-N3	4.26	1.46	1.38
22	1L	34	U8U	C4-C5	3.90	1.49	1.41
22	1K	34	U8U	C4-C5	3.84	1.49	1.41
24	3K	39	PSU	C4-N3	3.69	1.39	1.33
22	1K	34	U8U	C2-S2	-3.68	1.59	1.66
23	2K	33	OMC	C2-N3	3.67	1.45	1.38
23	2L	33	OMC	C5-C4	3.64	1.50	1.41
22	1L	39	PSU	C4-N3	3.56	1.39	1.33
23	2K	33	OMC	C5-C4	3.49	1.49	1.41
23	2L	55	5MU	C4-N3	-3.49	1.27	1.33
22	1K	55	PSU	C4-N3	3.48	1.39	1.33
22	1L	55	PSU	C4-N3	3.38	1.38	1.33
24	3L	39	PSU	C4-N3	3.36	1.38	1.33
22	1L	54	5MU	C4-N3	-3.30	1.27	1.33
23	2L	56	PSU	C4-N3	3.10	1.38	1.33
24	3K	39	PSU	C5-C1'	-3.09	1.49	1.52
23	2K	33	OMC	C4-N4	3.03	1.44	1.35
22	1L	34	U8U	C2-S2	-2.95	1.60	1.66
22	1K	39	PSU	C4-N3	2.93	1.38	1.33
23	2K	55	5MU	C4-N3	-2.92	1.27	1.33
22	1K	54	5MU	C4-N3	-2.80	1.28	1.33
23	2L	33	OMC	C4-N4	2.80	1.43	1.35
23	2K	56	PSU	C4-N3	2.62	1.37	1.33
23	2L	47	G7M	C2-N3	2.57	1.46	1.34
22	1K	37	T6A	C5-C4	-2.48	1.34	1.40
23	2K	47	G7M	C2-N3	2.32	1.45	1.34
22	1L	37	T6A	C2-N3	2.23	1.35	1.32
22	1L	55	PSU	C5-C1'	-2.19	1.50	1.52
22	1K	34	U8U	O4-C4	-2.16	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	3K	39	PSU	O4'-C1'	-2.16	1.41	1.44
23	2L	47	G7M	C5-C4	-2.16	1.36	1.39
23	2L	47	G7M	O6-C6	-2.15	1.19	1.24
22	1L	55	PSU	O4'-C1'	-2.14	1.41	1.44
22	1L	34	U8U	O4-C4	-2.09	1.19	1.24
22	1L	37	T6A	C2-N1	2.05	1.37	1.33
23	2K	47	G7M	O6-C6	-2.02	1.19	1.24

All (86) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3L	39	PSU	N1-C2-N3	-12.11	118.81	128.43
22	1K	55	PSU	N1-C2-N3	-11.88	118.99	128.43
22	1K	39	PSU	N1-C2-N3	-11.79	119.06	128.43
22	1L	55	PSU	N1-C2-N3	-11.77	119.08	128.43
22	1L	39	PSU	N1-C2-N3	-11.38	119.38	128.43
24	3K	39	PSU	N1-C2-N3	-10.86	119.79	128.43
23	2K	56	PSU	N1-C2-N3	-10.68	119.94	128.43
23	2L	56	PSU	N1-C2-N3	-10.02	120.46	128.43
22	1K	37	T6A	C2-N1-C6	9.05	124.35	116.59
22	1K	37	T6A	C12-N11-C10	9.03	132.39	122.75
22	1K	55	PSU	C4-N3-C2	7.84	121.76	115.14
22	1K	37	T6A	N3-C2-N1	-6.62	118.33	128.68
24	3L	39	PSU	C4-N3-C2	6.49	120.62	115.14
22	1L	55	PSU	C4-N3-C2	6.35	120.50	115.14
22	1K	54	5MU	C4-N3-C2	6.29	120.45	115.14
22	1L	39	PSU	C4-N3-C2	6.22	120.40	115.14
22	1L	37	T6A	N6-C10-N11	6.15	122.34	113.76
23	2L	55	5MU	C5-C6-N1	-5.78	115.97	122.19
22	1L	37	T6A	N3-C2-N1	-5.71	119.75	128.68
24	3K	39	PSU	C4-N3-C2	5.70	119.95	115.14
22	1K	39	PSU	C4-N3-C2	5.67	119.93	115.14
23	2K	47	G7M	C1'-N9-C4	-5.58	116.84	126.64
23	2K	56	PSU	C4-N3-C2	5.55	119.83	115.14
22	1L	37	T6A	C2-N1-C6	5.53	121.33	116.59
23	2K	33	OMC	C2-N3-C4	5.46	121.88	116.34
23	2K	55	5MU	C5-C6-N1	-5.24	116.54	122.19
22	1L	54	5MU	C5-C6-N1	-5.17	116.62	122.19
22	1K	55	PSU	C5-C4-N3	-5.15	118.73	125.36
23	2L	56	PSU	C4-N3-C2	4.97	119.34	115.14
22	1L	34	U8U	C2-N3-C4	4.88	120.92	115.93
24	3K	39	PSU	C5-C4-N3	-4.71	119.29	125.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1L	55	PSU	C5-C4-N3	-4.68	119.33	125.36
23	2L	47	G7M	N3-C2-N1	-4.67	120.99	127.22
22	1K	55	PSU	C5-C1'-C2'	-4.63	107.06	115.32
22	1K	54	5MU	C5-C6-N1	-4.60	117.23	122.19
23	2L	33	OMC	O2'-C2'-C1'	4.56	118.14	109.09
23	2L	33	OMC	C2-N3-C4	4.54	120.95	116.34
22	1L	39	PSU	C5-C4-N3	-4.45	119.63	125.36
22	1L	34	U8U	C5-C4-N3	-4.40	118.81	125.25
23	2K	55	5MU	C4-N3-C2	4.27	118.75	115.14
22	1L	37	T6A	O10-C10-N6	-4.25	116.44	123.62
24	3L	39	PSU	C5-C4-N3	-4.24	119.89	125.36
22	1K	37	T6A	N6-C6-N1	4.09	124.20	118.72
23	2L	56	PSU	C5-C4-N3	-3.93	120.30	125.36
22	1L	54	5MU	C4-N3-C2	3.93	118.46	115.14
22	1K	34	U8U	C5-C4-N3	-3.91	119.51	125.25
22	1K	39	PSU	C6-N1-C2	3.90	121.80	115.36
23	2K	47	G7M	N3-C2-N1	-3.83	122.11	127.22
23	2L	47	G7M	C2-N3-C4	3.80	119.70	115.36
23	2K	47	G7M	C5-C6-N1	-3.74	118.31	123.43
22	1K	34	U8U	C2-N3-C4	3.72	119.73	115.93
23	2K	33	OMC	N4-C4-N3	3.67	122.28	116.49
23	2K	56	PSU	C5-C4-N3	-3.64	120.67	125.36
22	1K	39	PSU	C5-C4-N3	-3.61	120.71	125.36
23	2K	8	4SU	C5-C4-N3	-3.61	119.00	123.83
23	2L	33	OMC	N4-C4-N3	3.53	122.08	116.49
23	2L	55	5MU	C4-N3-C2	3.48	118.08	115.14
24	3L	39	PSU	C6-N1-C2	3.45	121.05	115.36
22	1L	55	PSU	C6-N1-C2	3.42	121.00	115.36
24	3K	39	PSU	C5-C6-N1	-3.41	120.25	124.44
22	1L	55	PSU	C5-C6-N1	-3.40	120.27	124.44
22	1L	39	PSU	C6-N1-C2	3.38	120.93	115.36
23	2L	56	PSU	C5-C6-N1	-3.34	120.33	124.44
23	2L	47	G7M	C1'-N9-C4	-3.23	120.97	126.64
23	2L	56	PSU	C6-N1-C2	3.17	120.59	115.36
22	1K	39	PSU	C5-C6-N1	-3.15	120.57	124.44
24	3K	39	PSU	C6-N1-C2	3.09	120.46	115.36
24	3K	39	PSU	C5-C1'-C2'	-3.07	109.84	115.32
24	3L	39	PSU	C5-C6-N1	-3.03	120.72	124.44
23	2K	8	4SU	C2-N3-C4	2.97	119.45	115.15
22	1K	37	T6A	C1'-N9-C4	-2.88	121.58	126.64
23	2K	56	PSU	C5-C6-N1	-2.82	120.97	124.44
23	2K	56	PSU	C6-N1-C2	2.73	119.86	115.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1L	37	T6A	C1'-N9-C4	-2.72	121.87	126.64
22	1K	55	PSU	C6-N1-C2	2.69	119.79	115.36
23	2L	8	4SU	C2-N3-C4	2.68	119.04	115.15
23	2K	47	G7M	C6-N1-C2	2.65	120.14	115.93
22	1K	34	U8U	C6-C5-C4	2.62	119.78	115.73
22	1L	39	PSU	C5-C6-N1	-2.61	121.23	124.44
23	2L	47	G7M	C5-C6-N1	-2.57	119.92	123.43
22	1L	34	U8U	C6-C5-C4	2.43	119.48	115.73
22	1L	55	PSU	C5-C1'-C2'	-2.42	111.00	115.32
22	1L	55	PSU	O4'-C1'-C2'	2.15	108.14	104.66
22	1L	37	T6A	C4-C5-N7	-2.09	107.22	109.40
24	3K	39	PSU	O4'-C1'-C2'	2.05	107.98	104.66
23	2L	33	OMC	C5-C4-N4	-2.00	117.66	121.14

There are no chirality outliers.

All (25) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	2L	33	OMC	C2'-C1'-N1-C6
23	2L	33	OMC	O4'-C1'-N1-C6
23	2L	47	G7M	O4'-C4'-C5'-O5'
22	1L	54	5MU	O4'-C4'-C5'-O5'
22	1L	37	T6A	C5-C6-N6-C10
22	1L	37	T6A	N1-C6-N6-C10
22	1L	34	U8U	O4'-C4'-C5'-O5'
23	2K	8	4SU	O4'-C4'-C5'-O5'
22	1L	34	U8U	C3'-C4'-C5'-O5'
23	2L	47	G7M	C3'-C4'-C5'-O5'
22	1L	54	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	O4'-C4'-C5'-O5'
23	2K	8	4SU	C3'-C4'-C5'-O5'
22	1L	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	C13-C12-N11-C10
22	1L	34	U8U	N-C-C5-C6
22	1L	34	U8U	N-C-C5-C4
22	1L	54	5MU	C4'-C5'-O5'-P
23	2L	55	5MU	C4'-C5'-O5'-P
23	2L	56	PSU	O4'-C4'-C5'-O5'
23	2L	33	OMC	C4'-C5'-O5'-P
23	2L	8	4SU	O4'-C4'-C5'-O5'
23	2K	47	G7M	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
22	1L	37	T6A	N11-C12-C14-C15

There are no ring outliers.

13 monomers are involved in 27 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	33	OMC	3	0
22	1L	34	U8U	1	0
22	1K	37	T6A	2	0
22	1K	39	PSU	1	0
22	1K	34	U8U	1	0
23	2L	47	G7M	1	0
23	2L	8	4SU	4	0
22	1L	54	5MU	2	0
23	2L	55	5MU	4	0
23	2K	47	G7M	1	0
22	1L	55	PSU	2	0
22	1L	39	PSU	2	0
23	2K	55	5MU	3	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 1081 ligands modelled in this entry, 1077 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
58	SF4	32	301	4	0,12,12	0.00	-	-		
57	PAR	13	1730	-	45,45,45	0.87	1 (2%)	64,67,67	2.10	21 (32%)
57	PAR	1G	1681	-	45,45,45	0.82	1 (2%)	64,67,67	1.71	11 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	SF4	3E	302	4	0,12,12	0.00	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	3E	302	4	-	-	0/6/5/5
57	PAR	13	1730	-	-	6/18/94/94	0/4/4/4
57	PAR	1G	1681	-	-	4/18/94/94	0/4/4/4
58	SF4	3E	302	4	-	-	0/6/5/5

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1G	1681	PAR	C31-C21	-2.75	1.50	1.53
57	13	1730	PAR	O54-C14	2.13	1.47	1.41

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	1G	1681	PAR	O52-C13-O43	-6.13	104.79	111.43
57	13	1730	PAR	O52-C13-O43	-5.61	105.35	111.43
57	13	1730	PAR	C32-C22-C12	-4.88	101.16	111.18
57	1G	1681	PAR	C14-O54-C54	4.67	122.86	113.69
57	1G	1681	PAR	C13-O52-C52	-4.49	106.84	117.96
57	13	1730	PAR	C11-C21-N21	-4.48	102.13	110.20
57	1G	1681	PAR	O54-C54-C64	3.77	113.03	106.01
57	13	1730	PAR	O62-C62-C52	3.76	119.92	109.94
57	13	1730	PAR	O51-C11-C21	3.63	118.24	110.06
57	13	1730	PAR	C11-O51-C51	3.58	120.71	113.69
57	13	1730	PAR	C22-C12-C62	-3.47	104.79	110.04
57	13	1730	PAR	C62-C12-N12	-3.45	104.14	110.97
57	1G	1681	PAR	O51-C11-C21	3.43	117.78	110.06
57	13	1730	PAR	O34-C34-C24	-3.30	104.28	110.22
57	13	1730	PAR	O51-C51-C41	3.14	115.39	109.69
57	13	1730	PAR	O11-C11-C21	-3.04	102.98	108.22
57	13	1730	PAR	C44-C34-C24	2.86	115.99	111.07
57	1G	1681	PAR	C14-O33-C33	-2.82	110.97	117.96
57	1G	1681	PAR	C11-O51-C51	2.78	119.14	113.69
57	13	1730	PAR	O54-C54-C64	2.78	111.18	106.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	13	1730	PAR	O11-C42-C32	-2.70	102.74	109.18
57	13	1730	PAR	C31-C21-N21	-2.67	105.57	111.05
57	13	1730	PAR	C11-C21-C31	2.62	117.08	110.21
57	1G	1681	PAR	C62-C12-N12	-2.57	105.88	110.97
57	13	1730	PAR	O33-C14-O54	2.44	117.50	110.67
57	13	1730	PAR	C14-O54-C54	2.31	118.22	113.69
57	13	1730	PAR	C34-C24-N24	2.28	115.72	111.05
57	1G	1681	PAR	C41-C31-C21	-2.25	107.21	111.07
57	13	1730	PAR	O34-C34-C44	-2.24	105.17	110.35
57	13	1730	PAR	C13-C23-C33	2.20	104.75	102.10
57	1G	1681	PAR	O41-C41-C31	-2.11	105.47	110.35
57	1G	1681	PAR	O51-C51-C41	2.09	113.49	109.69

There are no chirality outliers.

All (10) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	13	1730	PAR	O54-C54-C64-N64
57	1G	1681	PAR	O51-C51-C61-O61
57	1G	1681	PAR	C41-C51-C61-O61
57	13	1730	PAR	C41-C51-C61-O61
57	1G	1681	PAR	O51-C11-O11-C42
57	13	1730	PAR	C24-C14-O33-C33
57	13	1730	PAR	O43-C13-O52-C52
57	13	1730	PAR	O51-C51-C61-O61
57	1G	1681	PAR	C33-C43-C53-O53
57	13	1730	PAR	C23-C13-O52-C52

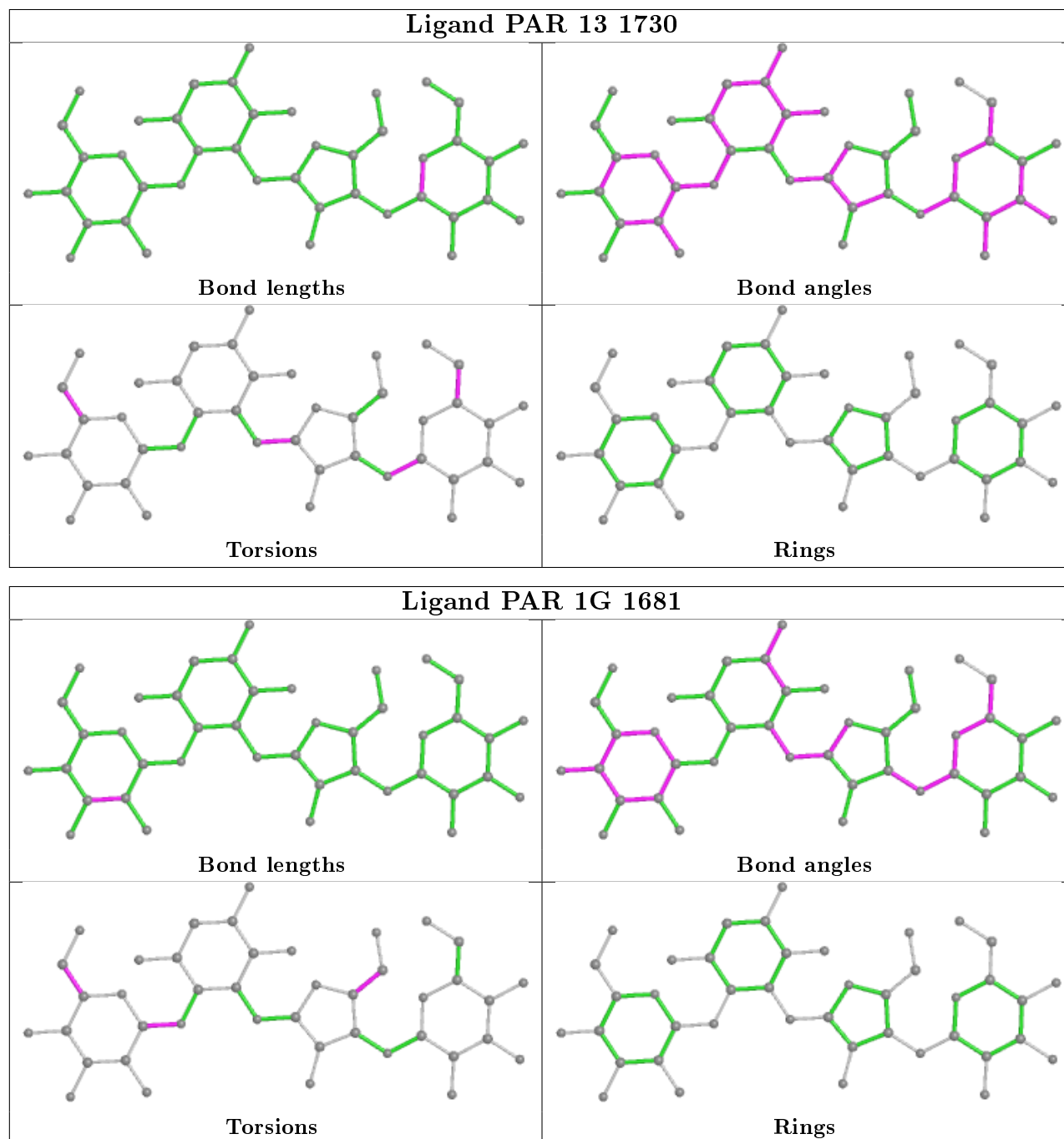
There are no ring outliers.

4 monomers are involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	32	301	SF4	3	0
57	13	1730	PAR	3	0
57	1G	1681	PAR	2	0
58	3E	302	SF4	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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
37	35	1
25	4K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	24:A	O3'	25:A	P	4.27
1	35	121:LYS	C	122:PRO	N	1.61

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	1496/1522 (98%)	-0.70	3 (0%) 95 90	64, 104, 160, 189	0
1	1G	1507/1522 (99%)	-0.75	2 (0%) 95 92	78, 123, 164, 193	0
2	12	210/256 (82%)	0.27	13 (6%) 20 9	121, 148, 157, 163	0
2	1E	231/256 (90%)	-0.08	1 (0%) 92 84	112, 136, 153, 161	0
3	22	196/239 (82%)	0.85	28 (14%) 2 1	128, 141, 155, 161	0
3	2E	205/239 (85%)	1.04	44 (21%) 0 0	90, 109, 133, 144	0
4	32	208/209 (99%)	0.28	11 (5%) 26 12	101, 123, 139, 150	0
4	3E	207/209 (99%)	0.13	8 (3%) 39 20	88, 106, 126, 133	0
5	42	148/162 (91%)	0.32	5 (3%) 45 24	110, 128, 140, 145	0
5	4E	149/162 (91%)	0.30	3 (2%) 65 44	80, 101, 118, 130	0
6	52	101/101 (100%)	0.65	12 (11%) 4 2	96, 111, 126, 136	0
6	5E	100/101 (99%)	0.43	5 (5%) 28 13	84, 102, 119, 129	0
7	62	138/156 (88%)	0.89	24 (17%) 1 0	120, 131, 141, 145	0
7	6E	154/156 (98%)	0.63	16 (10%) 6 2	105, 124, 144, 159	0
8	72	137/138 (99%)	0.47	10 (7%) 15 6	111, 131, 141, 147	0
8	7E	138/138 (100%)	0.29	6 (4%) 35 17	92, 110, 121, 130	0
9	82	121/128 (94%)	-0.21	0 100 100	115, 146, 155, 160	0
9	8E	126/128 (98%)	-0.13	1 (0%) 86 72	93, 132, 149, 152	0
10	1A	80/105 (76%)	-0.28	2 (2%) 57 34	125, 141, 153, 156	0
10	1I	91/105 (86%)	0.50	7 (7%) 13 5	84, 125, 153, 159	0
11	2A	113/129 (87%)	2.19	64 (56%) 0 0	90, 119, 128, 133	0
11	2I	111/129 (86%)	1.24	27 (24%) 0 0	82, 112, 129, 144	0
12	3A	122/132 (92%)	0.73	20 (16%) 1 1	88, 112, 132, 146	0
12	3I	122/132 (92%)	0.95	18 (14%) 2 1	73, 82, 106, 139	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	4A	111/126 (88%)	-0.19	1 (0%) 84 69	124, 141, 150, 165	0
13	4I	119/126 (94%)	-0.54	0 100 100	94, 120, 135, 146	0
14	5A	59/61 (96%)	0.66	11 (18%) 1 0	130, 140, 148, 150	0
14	5I	60/61 (98%)	-0.37	0 100 100	88, 100, 112, 125	0
15	6A	87/89 (97%)	0.17	3 (3%) 45 24	93, 117, 132, 135	0
15	6I	87/89 (97%)	0.21	3 (3%) 45 24	84, 103, 120, 126	0
16	7A	84/88 (95%)	-0.16	1 (1%) 79 61	93, 111, 130, 141	0
16	7I	83/88 (94%)	-0.34	0 100 100	102, 112, 135, 147	0
17	8A	99/105 (94%)	0.92	14 (14%) 2 1	108, 120, 133, 138	0
17	8I	100/105 (95%)	0.74	10 (10%) 7 2	89, 111, 126, 131	0
18	9A	67/88 (76%)	0.47	5 (7%) 14 5	106, 117, 135, 139	0
18	9I	68/88 (77%)	0.12	0 100 100	89, 105, 124, 127	0
19	AA	62/93 (66%)	0.03	2 (3%) 47 25	123, 149, 157, 163	0
19	AI	82/93 (88%)	-0.45	0 100 100	99, 118, 134, 142	0
20	BA	99/106 (93%)	0.85	18 (18%) 1 0	94, 116, 141, 150	0
20	BI	97/106 (91%)	0.52	7 (7%) 15 6	114, 126, 144, 148	0
21	1B	22/27 (81%)	-0.30	0 100 100	124, 136, 143, 147	0
21	1F	23/27 (85%)	-1.05	0 100 100	99, 109, 116, 120	0
22	1K	64/76 (84%)	-0.05	3 (4%) 31 15	93, 158, 171, 173	0
22	1L	68/76 (89%)	-0.37	2 (2%) 51 28	125, 171, 178, 184	0
23	2K	72/77 (93%)	-0.43	0 100 100	77, 104, 130, 146	0
23	2L	72/77 (93%)	-0.28	1 (1%) 75 56	84, 122, 150, 165	0
24	3K	75/76 (98%)	0.36	5 (6%) 17 7	81, 170, 184, 189	0
24	3L	75/76 (98%)	0.28	2 (2%) 54 31	89, 167, 182, 188	0
25	4K	20/27 (74%)	-0.04	1 (5%) 28 13	76, 144, 177, 178	0
25	4L	18/27 (66%)	0.03	0 100 100	103, 157, 182, 183	0
26	14	2861/2912 (98%)	-0.48	20 (0%) 87 75	58, 92, 173, 197	0
26	1H	2833/2912 (97%)	-0.43	6 (0%) 95 90	50, 80, 164, 199	0
27	16	122/122 (100%)	-0.57	0 100 100	75, 98, 119, 170	0
27	1J	122/122 (100%)	-0.99	0 100 100	93, 123, 141, 174	0
28	7I	133/229 (58%)	1.46	46 (34%) 0 0	137, 169, 179, 181	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	79	57/229 (24%)	1.40	17 (29%) 0 0	139, 160, 169, 174	0
29	11	273/276 (98%)	0.93	28 (10%) 6 2	48, 74, 92, 101	0
29	19	274/276 (99%)	0.64	18 (6%) 18 7	60, 82, 99, 116	0
30	21	203/206 (98%)	1.47	62 (30%) 0 0	58, 95, 135, 146	0
30	29	204/206 (99%)	0.16	11 (5%) 25 12	67, 99, 134, 144	0
31	31	202/210 (96%)	0.33	6 (2%) 50 27	54, 85, 119, 138	0
31	39	204/210 (97%)	0.22	9 (4%) 34 17	64, 112, 147, 163	0
32	41	179/182 (98%)	-0.52	0 100 100	87, 107, 136, 148	0
32	49	179/182 (98%)	0.76	30 (16%) 1 0	121, 137, 156, 168	0
33	51	171/180 (95%)	0.35	12 (7%) 16 7	89, 110, 125, 137	0
33	59	69/180 (38%)	0.47	4 (5%) 23 10	131, 151, 162, 166	0
34	61	146/148 (98%)	-0.24	3 (2%) 63 43	85, 129, 142, 149	0
34	69	145/148 (97%)	0.49	22 (15%) 2 1	91, 126, 142, 151	0
35	15	138/140 (98%)	1.33	40 (28%) 0 0	87, 114, 138, 154	0
35	58	138/140 (98%)	0.63	11 (7%) 12 5	69, 97, 124, 140	0
36	25	122/122 (100%)	0.71	13 (10%) 6 2	76, 96, 112, 118	0
36	68	122/122 (100%)	1.44	37 (30%) 0 0	63, 84, 101, 110	0
37	35	147/150 (98%)	1.26	47 (31%) 0 0	65, 110, 135, 148	0
37	78	147/150 (98%)	0.22	4 (2%) 54 31	50, 89, 113, 128	0
38	45	138/141 (97%)	0.77	19 (13%) 2 1	84, 111, 129, 137	0
38	88	141/141 (100%)	-0.38	0 100 100	58, 84, 107, 125	0
39	55	118/118 (100%)	0.26	0 100 100	70, 86, 108, 121	0
39	98	118/118 (100%)	1.15	26 (22%) 0 0	71, 92, 112, 126	0
40	65	110/112 (98%)	-0.13	1 (0%) 84 69	91, 116, 132, 137	0
40	A8	111/112 (99%)	-0.20	2 (1%) 68 47	76, 94, 117, 123	0
41	75	133/146 (91%)	-0.09	4 (3%) 50 27	86, 102, 130, 142	0
41	B8	132/146 (90%)	0.59	11 (8%) 11 4	78, 99, 128, 139	0
42	85	116/118 (98%)	0.74	13 (11%) 5 2	76, 101, 130, 139	0
42	C8	115/118 (97%)	0.25	3 (2%) 56 33	65, 83, 114, 118	0
43	95	100/101 (99%)	1.06	18 (18%) 1 0	76, 123, 139, 141	0
43	D8	100/101 (99%)	0.78	12 (12%) 4 2	64, 105, 129, 134	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	A5	111/113 (98%)	0.67	6 (5%) 25 12	68, 84, 114, 141	0
44	E8	112/113 (99%)	1.04	19 (16%) 1 0	64, 82, 112, 142	0
45	B5	94/96 (97%)	0.24	5 (5%) 26 12	75, 91, 115, 123	0
45	F8	95/96 (98%)	0.65	6 (6%) 20 8	62, 79, 111, 125	0
46	C5	105/110 (95%)	1.70	35 (33%) 0 0	91, 124, 146, 152	0
46	G8	105/110 (95%)	0.12	2 (1%) 66 46	79, 101, 127, 132	0
47	D5	132/206 (64%)	0.70	13 (9%) 7 2	115, 136, 152, 155	0
47	H8	171/206 (83%)	-0.31	1 (0%) 89 78	90, 124, 164, 168	0
48	E5	77/85 (90%)	0.62	8 (10%) 6 2	75, 96, 113, 135	0
48	I8	76/85 (89%)	-0.48	0 100 100	65, 78, 91, 107	0
49	F5	94/98 (95%)	1.21	24 (25%) 0 0	70, 90, 123, 133	0
49	J8	94/98 (95%)	0.74	6 (6%) 19 8	61, 81, 120, 128	0
50	G5	68/72 (94%)	-0.16	3 (4%) 34 17	88, 109, 129, 150	0
50	K8	68/72 (94%)	0.36	1 (1%) 73 54	66, 84, 104, 128	0
51	H5	58/60 (96%)	1.32	11 (18%) 1 0	85, 106, 134, 140	0
51	L8	58/60 (96%)	0.06	1 (1%) 70 49	65, 87, 115, 132	0
52	M8	47/71 (66%)	-0.03	2 (4%) 35 17	111, 137, 156, 163	0
53	J5	56/60 (93%)	0.63	4 (7%) 16 6	67, 92, 137, 147	0
53	N8	48/60 (80%)	0.93	8 (16%) 1 1	61, 87, 134, 141	0
54	L5	47/49 (95%)	-0.19	1 (2%) 63 43	57, 68, 85, 103	0
54	P8	47/49 (95%)	0.57	4 (8%) 10 4	53, 60, 79, 88	0
55	M5	64/65 (98%)	1.24	16 (25%) 0 0	75, 86, 103, 126	0
55	Q8	64/65 (98%)	0.36	1 (1%) 72 51	64, 74, 92, 108	0
All	All	20598/21957 (93%)	0.02	1151 (5%) 24 11	48, 105, 159, 199	0

All (1151) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
26	14	2901	C	10.5
26	14	2902	C	9.9
46	C5	59	GLY	9.1
41	75	1	MET	8.0
43	D8	37	VAL	8.0
28	71	228	SER	7.9

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Mol	Chain	Res	Type	RSRZ
46	C5	53	PRO	7.8
11	2A	92	GLU	7.0
43	95	45	THR	7.0
26	14	2899	G	6.8
46	C5	29	GLU	6.8
46	C5	58	GLY	6.7
46	C5	49	VAL	6.7
37	35	110	TYR	6.7
26	14	2900	A	6.5
30	21	89	ASP	6.4
43	95	1	MET	6.4
12	3A	64	TYR	6.4
46	C5	56	PRO	6.2
12	3I	64	TYR	6.2
32	49	138	GLN	6.1
11	2A	43	SER	6.1
43	D8	45	THR	6.0
53	J5	54	GLY	5.7
30	21	90	THR	5.6
46	C5	44	ILE	5.6
14	5A	37	PHE	5.5
12	3A	27	LEU	5.5
11	2A	49	GLY	5.5
3	22	101	LEU	5.5
7	6E	78	ARG	5.4
38	45	91	GLU	5.4
53	N8	34	PRO	5.4
26	14	2799	A	5.4
46	C5	50	ARG	5.2
14	5A	51	GLY	5.2
22	1K	76	A	5.1
37	35	106	LEU	5.1
3	22	198	VAL	5.1
11	2I	42	TRP	5.1
28	79	202	GLU	5.1
12	3I	61	THR	5.1
11	2A	50	TYR	5.1
45	B5	92	LEU	5.0
12	3A	19	ARG	5.0
39	98	118	GLU	5.0
51	H5	59	VAL	5.0
32	49	150	ASP	4.9

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Mol	Chain	Res	Type	RSRZ
43	95	40	LEU	4.9
32	49	83	ARG	4.9
46	C5	45	VAL	4.9
26	14	229	A	4.9
32	49	39	ILE	4.8
17	8I	99	SER	4.7
3	2E	79	ARG	4.7
28	71	31	GLU	4.7
55	M5	12	LYS	4.7
12	3A	28	LYS	4.7
44	E8	94	ASP	4.7
7	6E	81	GLY	4.7
30	21	174	ASP	4.6
32	49	139	LEU	4.6
36	68	56	ASP	4.6
32	49	177	GLY	4.6
12	3A	65	GLU	4.6
34	69	1	MET	4.6
49	F5	22	GLY	4.6
3	2E	166	GLU	4.6
11	2A	38	ASN	4.6
49	F5	21	ARG	4.5
28	71	49	ILE	4.5
54	P8	46	VAL	4.5
46	C5	61	ILE	4.5
46	C5	54	LYS	4.5
28	71	11	LEU	4.5
30	21	72	VAL	4.5
14	5A	39	LEU	4.4
20	BA	99	LEU	4.4
15	6I	88	ARG	4.4
43	D8	1	MET	4.4
10	1I	88	LEU	4.4
12	3I	19	ARG	4.4
47	D5	68	PRO	4.4
20	BA	55	ILE	4.3
36	68	53	LYS	4.4
11	2A	21	ILE	4.3
51	H5	2	PRO	4.3
30	21	1	MET	4.3
37	35	71	VAL	4.3
35	15	136	GLU	4.3

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Mol	Chain	Res	Type	RSRZ
10	1I	22	LYS	4.3
50	K8	43	GLN	4.3
7	62	89	MET	4.3
11	2A	91	ARG	4.3
42	85	74	LEU	4.3
42	85	72	HIS	4.3
11	2A	83	ILE	4.3
54	P8	1	MET	4.3
35	15	1	MET	4.3
30	21	55	ASN	4.2
46	C5	63	LYS	4.2
32	49	142	PRO	4.2
44	E8	92	ARG	4.2
7	62	139	GLU	4.2
29	11	2	ALA	4.2
36	68	52	VAL	4.2
43	95	38	LEU	4.2
11	2A	40	ILE	4.2
11	2A	96	ARG	4.2
12	3I	62	SER	4.2
46	C5	5	MET	4.2
37	35	126	VAL	4.2
42	85	69	CYS	4.2
29	19	181	GLU	4.2
37	35	75	ILE	4.2
37	35	95	VAL	4.1
42	85	71	GLN	4.1
11	2A	42	TRP	4.1
35	15	9	VAL	4.1
30	21	175	VAL	4.1
7	6E	79	ARG	4.1
14	5A	52	GLN	4.1
11	2A	84	VAL	4.1
46	C5	46	LYS	4.1
46	C5	43	ASN	4.1
7	62	88	PRO	4.1
38	45	103	MET	4.1
30	21	51	PHE	4.0
49	J8	92	LYS	4.0
3	2E	91	LEU	4.0
11	2A	75	TYR	4.0
3	2E	193	TYR	4.0

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Mol	Chain	Res	Type	RSRZ
24	3K	13	C	4.0
45	B5	68	ARG	4.0
46	C5	86	ARG	4.0
11	2A	66	LEU	4.0
34	69	20	ASP	4.0
26	14	2898	U	4.0
7	6E	84	ASN	4.0
6	5E	46	ARG	4.0
28	71	27	HIS	4.0
3	22	7	PRO	3.9
26	14	2795	G	3.9
30	21	87	GLU	3.9
41	B8	106	SER	3.9
3	2E	99	VAL	3.9
49	J8	93	GLU	3.9
3	2E	102	ASN	3.9
7	62	75	VAL	3.9
4	3E	110	PHE	3.9
8	72	44	PHE	3.9
26	14	4	C	3.9
11	2A	108	ILE	3.9
12	3A	68	ALA	3.9
37	35	70	GLN	3.9
17	8I	98	LEU	3.9
30	21	14	ILE	3.8
30	21	88	GLY	3.8
24	3L	12	U	3.8
18	9A	84	LYS	3.8
26	14	2794	C	3.8
32	49	146	TYR	3.8
30	21	54	GLN	3.8
31	39	8	GLN	3.8
44	E8	96	ILE	3.8
46	C5	62	GLU	3.7
37	35	108	LYS	3.7
46	C5	47	LYS	3.7
38	45	7	MET	3.7
38	45	93	TYR	3.7
43	95	12	TYR	3.7
38	45	102	VAL	3.7
49	F5	36	GLY	3.7
32	49	152	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
37	35	125	VAL	3.7
24	3K	12	U	3.7
51	H5	39	ASP	3.7
29	11	18	VAL	3.7
35	15	134	ARG	3.7
51	L8	59	VAL	3.6
3	22	60	ALA	3.6
7	62	74	GLU	3.6
11	2I	50	TYR	3.6
37	35	144	GLU	3.6
1	13	345	C	3.6
3	2E	66	VAL	3.6
53	J5	57	VAL	3.6
7	6E	85	TYR	3.6
37	35	123	LEU	3.6
35	15	48	MET	3.6
11	2A	48	ILE	3.6
19	AA	44	MET	3.6
17	8A	22	LEU	3.6
26	14	2	G	3.6
8	72	111	ILE	3.6
17	8A	7	THR	3.6
3	22	39	ILE	3.5
11	2I	101	SER	3.5
49	F5	28	GLY	3.5
7	62	73	MET	3.5
31	39	10	PRO	3.5
11	2A	72	ALA	3.5
11	2I	36	ASP	3.5
30	21	67	PHE	3.5
39	98	114	VAL	3.5
36	25	1	MET	3.5
36	68	45	GLU	3.5
43	95	15	GLU	3.5
47	D5	69	THR	3.5
3	2E	100	ALA	3.5
44	E8	98	LYS	3.5
32	49	155	MET	3.5
11	2A	85	ARG	3.5
37	35	74	GLU	3.5
42	85	117	GLN	3.5
17	8A	58	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
28	71	193	ILE	3.5
17	8A	11	VAL	3.5
38	45	90	VAL	3.5
28	71	200	LYS	3.5
11	2A	39	PRO	3.4
48	E5	9	SER	3.4
11	2A	14	VAL	3.4
26	14	2897	U	3.4
40	65	108	GLY	3.4
3	22	53	ALA	3.4
28	71	195	ALA	3.4
8	72	133	LEU	3.4
35	15	12	ARG	3.4
3	2E	101	LEU	3.4
29	11	92	ILE	3.4
17	8I	101	ARG	3.4
28	71	199	HIS	3.4
35	58	51	PHE	3.4
45	F8	68	ARG	3.4
47	D5	54	HIS	3.4
42	85	73	GLY	3.4
33	51	27	LYS	3.4
34	69	2	LYS	3.4
11	2I	29	ILE	3.4
20	BA	48	LYS	3.4
30	21	6	GLY	3.4
4	32	110	PHE	3.4
11	2A	77	MET	3.4
11	2I	81	ASP	3.4
28	71	25	ALA	3.4
34	69	5	LEU	3.4
44	E8	111	HIS	3.4
49	F5	32	LYS	3.4
49	F5	61	ARG	3.4
32	49	137	GLU	3.4
2	12	62	ALA	3.3
31	39	128	ALA	3.3
3	22	44	GLU	3.3
3	22	102	ASN	3.3
14	5A	36	PHE	3.3
11	2A	59	TYR	3.3
3	2E	78	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
28	79	203	GLY	3.3
35	15	73	THR	3.3
39	98	104	ARG	3.3
7	62	69	VAL	3.3
11	2A	32	ILE	3.3
32	49	179	PRO	3.3
12	3A	87	GLY	3.3
53	N8	35	GLU	3.3
28	79	56	GLN	3.3
12	3A	21	LYS	3.3
37	35	107	LYS	3.3
34	69	85	GLU	3.3
46	C5	51	VAL	3.3
43	95	36	PRO	3.2
4	32	167	GLY	3.2
32	49	82	LEU	3.2
35	58	15	LEU	3.2
51	H5	26	LEU	3.2
33	59	165	ALA	3.2
43	95	16	PRO	3.2
26	1H	163	U	3.2
11	2A	46	GLY	3.2
30	21	199	ARG	3.2
3	2E	94	LEU	3.2
12	3I	29	GLY	3.2
36	68	122	LEU	3.2
31	31	6	VAL	3.2
36	68	82	ASN	3.2
11	2A	90	GLY	3.2
23	2L	21	U	3.2
36	68	1	MET	3.2
29	19	247	ALA	3.2
11	2A	95	ILE	3.2
29	19	166	GLN	3.2
51	H5	28	LEU	3.2
45	B5	26	TYR	3.2
30	21	78	LEU	3.2
32	49	157	ILE	3.2
43	D8	39	LEU	3.2
1	13	344	A	3.2
11	2I	107	SER	3.2
53	J5	56	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
26	14	2797	U	3.2
35	15	99	LEU	3.2
32	49	151	ALA	3.2
3	2E	71	ALA	3.1
30	21	5	LEU	3.1
31	39	199	TRP	3.1
8	7E	112	LEU	3.1
35	15	90	MET	3.1
36	68	120	GLU	3.1
28	71	201	PRO	3.1
46	C5	60	PHE	3.1
10	1A	65	LEU	3.1
28	71	28	LEU	3.1
7	62	68	ASN	3.1
11	2A	71	LYS	3.1
11	2A	109	VAL	3.1
30	29	76	ARG	3.1
37	78	106	LEU	3.1
14	5A	38	GLY	3.1
3	2E	87	LEU	3.1
20	BI	45	GLN	3.1
35	15	51	PHE	3.1
11	2I	22	HIS	3.1
29	19	262	ARG	3.1
47	D5	56	VAL	3.1
43	D8	35	LEU	3.1
24	3L	1	G	3.1
28	71	12	GLU	3.1
3	22	199	LYS	3.1
44	E8	86	LEU	3.1
38	45	68	ILE	3.1
39	98	102	GLU	3.1
35	15	13	TRP	3.1
28	71	69	GLY	3.1
28	71	29	VAL	3.1
49	F5	10	LYS	3.1
30	21	131	ALA	3.1
30	21	4	ILE	3.1
30	21	24	THR	3.1
36	68	39	ILE	3.1
12	3A	56	ALA	3.1
30	29	4	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
46	C5	42	VAL	3.0
46	C5	64	GLU	3.0
36	68	51	ALA	3.0
34	61	113	ARG	3.0
6	52	89	MET	3.0
37	35	112	LEU	3.0
35	58	130	HIS	3.0
6	5E	55	ASP	3.0
36	68	58	VAL	3.0
36	68	14	THR	3.0
49	J8	95	LEU	3.0
33	51	85	LYS	3.0
36	68	16	ALA	3.0
2	12	152	PHE	3.0
4	3E	144	ASP	3.0
11	2A	57	THR	3.0
26	1H	1536	A	3.0
26	14	1	G	3.0
32	49	48	GLU	3.0
35	15	125	GLY	3.0
49	F5	23	LYS	3.0
37	35	65	ARG	3.0
30	21	27	LEU	3.0
49	F5	33	LYS	3.0
28	71	35	ALA	3.0
2	12	102	LEU	3.0
37	35	142	GLY	3.0
46	C5	80	GLY	3.0
17	8A	59	ILE	3.0
11	2A	35	PRO	3.0
44	E8	109	GLU	3.0
43	95	39	LEU	3.0
38	45	92	GLY	2.9
3	22	43	LEU	2.9
34	69	138	ILE	2.9
2	12	197	VAL	2.9
43	D8	40	LEU	2.9
32	49	80	PHE	2.9
35	15	50	ASP	2.9
35	58	133	GLN	2.9
35	15	138	LEU	2.9
38	45	69	PHE	2.9

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Mol	Chain	Res	Type	RSRZ
17	8I	36	ILE	2.9
29	11	247	ALA	2.9
30	21	91	VAL	2.9
42	85	68	ALA	2.9
53	N8	46	CYS	2.9
37	35	62	LEU	2.9
2	12	112	VAL	2.9
11	2A	89	ALA	2.9
11	2A	112	THR	2.9
22	1L	71	C	2.9
35	15	8	GLN	2.9
35	15	127	ASP	2.9
55	M5	16	ILE	2.9
12	3A	62	SER	2.9
29	11	4	LYS	2.9
35	15	43	THR	2.9
11	2A	25	TYR	2.9
35	58	72	TYR	2.9
35	15	72	TYR	2.9
3	2E	64	VAL	2.9
8	72	112	LEU	2.9
11	2I	73	MET	2.9
30	21	132	HIS	2.9
7	62	76	ARG	2.9
28	79	170	ALA	2.9
49	F5	60	PHE	2.9
38	45	100	GLY	2.9
39	98	99	LYS	2.9
41	B8	6	LEU	2.9
32	49	178	PHE	2.8
28	79	21	THR	2.8
4	32	108	LEU	2.8
30	21	32	PRO	2.8
31	39	191	ARG	2.8
11	2I	60	ALA	2.8
28	71	197	GLU	2.8
36	68	66	LYS	2.8
53	J5	53	ALA	2.8
36	25	21	CYS	2.8
20	BI	55	ILE	2.8
3	2E	199	LYS	2.8
4	3E	111	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
20	BA	42	GLN	2.8
36	68	5	GLN	2.8
35	15	55	VAL	2.8
30	21	33	VAL	2.8
30	21	96	PHE	2.8
36	68	19	ILE	2.8
39	98	97	VAL	2.8
28	71	202	GLU	2.8
11	2A	60	ALA	2.8
50	G5	45	SER	2.8
55	M5	6	THR	2.8
15	6A	2	PRO	2.8
49	F5	24	ALA	2.8
18	9A	85	LEU	2.8
35	15	89	LYS	2.8
7	62	148	ASN	2.8
29	11	15	PHE	2.8
49	F5	49	VAL	2.8
6	5E	71	ARG	2.8
44	E8	90	ARG	2.8
51	H5	35	ARG	2.8
8	7E	119	LEU	2.8
34	69	18	VAL	2.8
29	11	203	ASN	2.8
41	75	2	ASN	2.8
12	3I	28	LYS	2.8
17	8I	91	ARG	2.8
31	31	27	GLU	2.8
55	M5	29	LYS	2.8
35	15	15	LEU	2.8
37	35	76	LYS	2.8
55	M5	40	GLU	2.8
11	2A	31	THR	2.8
3	22	201	TYR	2.8
32	49	34	LEU	2.8
35	15	41	ASP	2.8
4	32	34	GLU	2.8
36	68	84	ALA	2.8
47	D5	9	TYR	2.8
2	12	79	ASP	2.8
3	22	170	GLN	2.8
17	8A	9	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
38	45	6	ARG	2.8
44	E8	84	ARG	2.8
20	BA	46	GLU	2.8
13	4A	82	MET	2.8
28	71	8	ARG	2.8
28	71	181	PRO	2.8
43	95	91	TYR	2.8
11	2A	62	GLN	2.7
29	11	112	GLN	2.7
34	69	12	LEU	2.7
11	2A	51	LYS	2.7
18	9A	43	PHE	2.7
28	71	17	ASN	2.7
37	35	103	ALA	2.7
49	F5	26	ARG	2.7
30	21	184	VAL	2.7
11	2A	41	THR	2.7
20	BI	42	GLN	2.7
28	71	21	THR	2.7
53	N8	48	GLU	2.7
30	21	183	LEU	2.7
47	D5	128	VAL	2.7
43	D8	38	LEU	2.7
3	2E	201	TYR	2.7
29	11	3	VAL	2.7
44	E8	85	VAL	2.7
12	3A	20	LYS	2.7
39	98	33	ARG	2.7
43	95	44	LYS	2.7
35	15	26	LEU	2.7
53	N8	49	CYS	2.7
30	21	59	VAL	2.7
11	2A	26	ASN	2.7
30	21	52	LEU	2.7
37	35	128	HIS	2.7
45	F8	92	LEU	2.7
22	1L	76	A	2.7
28	79	208	PHE	2.7
11	2I	80	VAL	2.7
28	79	7	TYR	2.7
46	G8	98	VAL	2.7
33	51	41	MET	2.7

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Mol	Chain	Res	Type	RSRZ
11	2A	86	GLY	2.7
7	62	7	ALA	2.7
11	2I	68	ALA	2.7
36	25	41	ALA	2.7
44	E8	23	LEU	2.7
43	D8	2	PHE	2.7
44	A5	108	GLY	2.7
37	35	124	LYS	2.7
47	H8	147	GLY	2.7
28	71	34	THR	2.7
7	6E	5	ARG	2.7
7	62	6	ARG	2.7
42	C8	90	VAL	2.7
55	M5	23	VAL	2.7
11	2I	41	THR	2.7
30	21	48	GLN	2.7
34	69	17	GLN	2.7
11	2A	54	ARG	2.7
29	11	91	ARG	2.7
26	14	2793	G	2.7
54	L5	1	MET	2.7
35	58	10	GLU	2.7
12	3A	26	ALA	2.7
54	P8	45	ALA	2.7
37	35	45	LEU	2.6
8	7E	109	ILE	2.6
10	1I	8	LEU	2.6
42	85	70	ARG	2.6
30	21	40	GLU	2.6
30	21	53	PRO	2.6
39	98	103	ARG	2.6
28	71	26	ALA	2.6
30	21	195	LEU	2.6
33	51	33	LEU	2.6
49	F5	18	ILE	2.6
3	2E	89	GLU	2.6
6	52	38	GLU	2.6
6	52	55	ASP	2.6
11	2I	71	LYS	2.6
26	14	2802	G	2.6
35	15	84	LYS	2.6
44	A5	30	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
2	12	39	ILE	2.6
30	21	3	GLY	2.6
33	51	17	VAL	2.6
47	D5	96	VAL	2.6
51	H5	3	ARG	2.6
32	49	63	ILE	2.6
35	15	116	LEU	2.6
30	21	79	ARG	2.6
33	51	86	GLU	2.6
46	C5	30	VAL	2.6
41	B8	45	PHE	2.6
30	21	66	HIS	2.6
3	2E	82	GLU	2.6
10	1I	90	LEU	2.6
2	12	33	TYR	2.6
12	3A	69	TYR	2.6
31	31	133	ASN	2.6
35	15	59	LYS	2.6
55	M5	24	ALA	2.6
36	68	97	ARG	2.6
35	15	46	VAL	2.6
3	2E	55	VAL	2.6
11	2A	80	VAL	2.6
24	3K	70	C	2.6
51	H5	58	VAL	2.6
38	45	130	LYS	2.6
46	C5	4	LYS	2.6
29	11	206	LEU	2.6
30	21	182	LEU	2.6
39	98	44	LEU	2.6
3	22	59	ARG	2.6
6	52	36	ARG	2.6
11	2A	20	TYR	2.6
31	39	14	PRO	2.6
35	15	135	PRO	2.6
15	6A	85	LEU	2.6
37	78	130	PHE	2.6
3	2E	130	VAL	2.6
4	3E	166	LYS	2.6
7	62	91	VAL	2.6
32	49	140	ILE	2.6
39	98	34	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
46	C5	87	LYS	2.6
12	3A	55	VAL	2.6
30	21	76	ARG	2.6
37	35	100	LEU	2.6
28	71	19	ILE	2.6
32	49	182	LYS	2.5
7	6E	80	VAL	2.5
28	71	176	GLY	2.5
35	15	16	ILE	2.5
37	35	97	PRO	2.5
8	7E	136	GLU	2.5
12	3I	33	ARG	2.5
34	69	125	GLU	2.5
3	2E	151	VAL	2.5
8	72	107	LEU	2.5
26	14	2801	A	2.5
36	25	25	LEU	2.5
12	3A	32	PHE	2.5
28	79	171	ILE	2.5
41	B8	38	ASN	2.5
29	11	93	ALA	2.5
29	11	262	ARG	2.5
4	32	170	VAL	2.5
28	71	14	VAL	2.5
30	21	50	GLY	2.5
11	2A	67	ASP	2.5
3	22	164	ARG	2.5
29	11	233	HIS	2.5
49	F5	57	GLU	2.5
55	M5	7	HIS	2.5
28	71	47	LEU	2.5
36	68	25	LEU	2.5
45	B5	89	ILE	2.5
7	62	135	VAL	2.5
34	69	144	VAL	2.5
37	35	127	ALA	2.5
12	3I	27	LEU	2.5
11	2A	101	SER	2.5
44	E8	83	LYS	2.5
2	12	224	GLN	2.5
49	F5	63	ALA	2.5
15	6I	87	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
11	2I	47	VAL	2.5
11	2A	110	ASP	2.5
34	61	107	VAL	2.5
30	29	5	LEU	2.5
7	62	90	GLU	2.5
46	C5	28	LYS	2.5
26	1H	2476	A	2.5
12	3A	66	VAL	2.5
34	69	8	PRO	2.5
34	69	21	VAL	2.5
36	68	17	ARG	2.5
39	98	69	ASP	2.5
46	C5	52	SER	2.5
26	1H	2132	U	2.5
32	49	141	PHE	2.5
29	11	184	LYS	2.5
3	22	64	VAL	2.5
28	71	7	TYR	2.5
36	25	84	ALA	2.5
25	4K	25	A	2.5
11	2A	18	ARG	2.5
11	2I	66	LEU	2.5
29	19	128	GLY	2.5
37	35	105	LEU	2.5
47	D5	126	VAL	2.5
7	6E	56	GLN	2.5
36	68	26	LYS	2.5
14	5A	49	HIS	2.5
3	2E	90	GLU	2.5
32	49	181	ARG	2.5
43	D8	49	THR	2.5
10	1A	55	LYS	2.5
49	F5	25	LYS	2.5
5	42	77	PRO	2.5
28	71	208	PHE	2.5
35	15	126	PRO	2.5
2	12	193	ASP	2.5
39	98	115	GLU	2.5
5	42	43	LEU	2.4
29	19	26	LYS	2.4
34	69	3	VAL	2.4
11	2I	20	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
3	2E	84	ILE	2.4
7	62	143	ARG	2.4
3	2E	122	GLU	2.4
33	51	32	GLU	2.4
37	35	94	GLU	2.4
43	95	99	ILE	2.4
3	22	184	TYR	2.4
39	98	87	TYR	2.4
2	12	157	ARG	2.4
3	2E	72	LYS	2.4
47	D5	28	MET	2.4
17	8A	76	LEU	2.4
34	69	38	LEU	2.4
50	G5	44	LEU	2.4
7	6E	72	ARG	2.4
5	42	109	ILE	2.4
29	19	23	GLU	2.4
35	15	10	GLU	2.4
49	F5	37	ILE	2.4
30	29	78	LEU	2.4
36	25	58	VAL	2.4
43	95	14	VAL	2.4
44	A5	111	HIS	2.4
48	E5	75	LEU	2.4
37	35	111	ARG	2.4
6	52	101	ALA	2.4
46	C5	75	ILE	2.4
20	BA	98	PRO	2.4
36	68	95	GLY	2.4
44	E8	69	LEU	2.4
49	F5	62	VAL	2.4
7	62	103	TRP	2.4
20	BA	40	ALA	2.4
28	71	5	LYS	2.4
12	3I	65	GLU	2.4
31	39	126	VAL	2.4
12	3I	32	PHE	2.4
1	13	346	G	2.4
8	72	109	ILE	2.4
30	21	80	GLU	2.4
49	J8	21	ARG	2.4
3	2E	103	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
30	21	11	MET	2.4
39	98	100	LEU	2.4
3	2E	150	LYS	2.4
32	49	145	THR	2.4
11	2I	75	TYR	2.4
11	2A	97	ALA	2.4
36	68	81	ASP	2.4
11	2I	48	ILE	2.4
3	22	76	VAL	2.4
28	79	209	LEU	2.4
43	95	5	VAL	2.4
46	C5	31	LEU	2.4
11	2A	55	LYS	2.4
30	29	2	LYS	2.4
37	35	91	PHE	2.4
28	79	54	SER	2.4
30	21	133	LYS	2.4
36	68	85	VAL	2.4
29	19	6	PHE	2.4
28	71	174	PRO	2.4
3	2E	85	ARG	2.4
6	52	35	ALA	2.4
36	68	23	ARG	2.4
41	B8	5	ALA	2.4
11	2A	98	LEU	2.4
32	49	135	LEU	2.4
3	22	186	PHE	2.4
29	19	112	GLN	2.4
30	29	3	GLY	2.4
36	68	55	GLY	2.4
7	6E	18	TYR	2.4
4	32	126	ILE	2.4
11	2A	70	LYS	2.4
17	8A	51	TYR	2.4
33	51	18	GLU	2.4
43	95	74	LYS	2.4
7	6E	16	LEU	2.4
32	49	62	LEU	2.4
41	75	106	SER	2.4
22	1K	74	C	2.4
3	22	10	PHE	2.3
6	52	58	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
12	3A	18	VAL	2.3
15	6A	88	ARG	2.3
30	21	99	GLY	2.3
7	6E	11	GLN	2.3
26	1H	165	U	2.3
33	51	16	SER	2.3
49	J8	6	GLU	2.3
2	12	58	ILE	2.3
34	61	146	ALA	2.3
44	E8	93	ALA	2.3
16	7A	49	LEU	2.3
20	BA	53	LEU	2.3
37	35	99	LEU	2.3
3	2E	107	GLN	2.3
6	52	66	GLU	2.3
7	62	8	GLU	2.3
17	8A	21	VAL	2.3
33	59	52	VAL	2.3
7	6E	73	MET	2.3
32	49	41	GLN	2.3
29	11	211	ARG	2.3
39	98	116	LEU	2.3
11	2A	45	GLY	2.3
12	3I	20	LYS	2.3
30	21	93	VAL	2.3
37	35	81	GLN	2.3
1	1G	1536	C	2.3
11	2A	19	ALA	2.3
24	3K	45	G	2.3
48	E5	39	ARG	2.3
29	19	111	LEU	2.3
47	D5	163	LEU	2.3
36	25	10	VAL	2.3
55	M5	5	LYS	2.3
7	62	62	PHE	2.3
30	29	79	ARG	2.3
3	2E	189	ALA	2.3
12	3I	60	LEU	2.3
19	AA	62	ILE	2.3
41	B8	33	LYS	2.3
44	E8	38	TYR	2.3
49	F5	48	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
33	59	76	VAL	2.3
3	22	96	GLY	2.3
11	2A	56	GLY	2.3
55	M5	30	ARG	2.3
37	35	64	LYS	2.3
11	2I	83	ILE	2.3
28	71	191	ALA	2.3
43	95	96	ILE	2.3
3	2E	138	VAL	2.3
42	85	90	VAL	2.3
9	8E	126	SER	2.3
17	8I	96	GLU	2.3
30	21	8	LYS	2.3
3	2E	169	ALA	2.3
12	3A	85	ILE	2.3
36	68	22	ILE	2.3
17	8A	71	PHE	2.3
36	25	44	LYS	2.3
6	5E	57	GLN	2.3
40	A8	48	LEU	2.3
8	7E	83	ILE	2.3
11	2I	30	VAL	2.3
11	2A	94	ALA	2.3
36	68	46	ALA	2.3
31	39	131	GLY	2.3
39	98	35	THR	2.3
30	21	171	GLU	2.3
28	71	220	PRO	2.3
6	52	4	TYR	2.3
28	71	170	ALA	2.3
30	29	96	PHE	2.3
28	71	48	GLY	2.3
39	98	93	GLY	2.3
48	E5	71	ASP	2.3
35	58	11	PRO	2.3
37	35	59	LEU	2.3
38	45	83	MET	2.3
3	2E	182	ILE	2.3
12	3I	26	ALA	2.3
35	15	70	LYS	2.3
39	98	109	ALA	2.3
46	C5	6	HIS	2.3

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Mol	Chain	Res	Type	RSRZ
7	62	140	ASP	2.3
29	11	40	THR	2.3
4	32	49	ARG	2.3
30	21	181	LEU	2.3
37	35	78	PRO	2.3
37	35	79	ARG	2.3
44	E8	24	ILE	2.3
28	71	175	VAL	2.3
45	F8	81	VAL	2.3
53	N8	45	VAL	2.3
30	21	106	GLY	2.2
3	2E	88	ARG	2.2
39	98	48	VAL	2.2
46	C5	39	VAL	2.2
55	Q8	64	TYR	2.2
3	22	40	ARG	2.2
3	22	196	LEU	2.2
35	58	84	LYS	2.2
49	F5	95	LEU	2.2
29	11	109	ASP	2.2
20	BA	106	ALA	2.2
49	F5	31	GLY	2.2
11	2I	43	SER	2.2
17	8A	75	ARG	2.2
33	51	101	ARG	2.2
35	15	39	ARG	2.2
36	25	42	SER	2.2
52	M8	40	HIS	2.2
6	52	39	LYS	2.2
12	3A	57	LYS	2.2
29	19	261	LYS	2.2
2	12	80	ILE	2.2
3	2E	202	ILE	2.2
11	2A	36	ASP	2.2
3	22	55	VAL	2.2
3	22	99	VAL	2.2
41	B8	10	VAL	2.2
48	E5	12	ASN	2.2
44	E8	81	ALA	2.2
3	2E	68	VAL	2.2
14	5A	56	VAL	2.2
36	68	2	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
38	45	105	GLU	2.2
49	F5	20	ARG	2.2
55	M5	55	ALA	2.2
29	11	111	LEU	2.2
44	E8	82	LEU	2.2
3	22	103	VAL	2.2
11	2I	70	LYS	2.2
3	2E	139	GLN	2.2
37	35	58	THR	2.2
53	N8	5	PRO	2.2
32	49	175	LEU	2.2
35	15	33	LEU	2.2
41	B8	67	SER	2.2
42	C8	88	ILE	2.2
42	C8	106	PHE	2.2
12	3I	96	VAL	2.2
7	6E	99	LEU	2.2
29	11	116	GLN	2.2
30	21	105	THR	2.2
31	39	12	LEU	2.2
4	32	178	VAL	2.2
29	11	270	ILE	2.2
34	69	88	ILE	2.2
36	68	18	LYS	2.2
39	98	42	LYS	2.2
43	D8	99	ILE	2.2
11	2A	107	SER	2.2
3	22	197	GLY	2.2
40	A8	111	GLU	2.2
3	2E	98	ASN	2.2
14	5A	50	LYS	2.2
18	9A	55	ARG	2.2
4	3E	185	PHE	2.2
29	11	21	PHE	2.2
30	29	90	THR	2.2
43	95	97	LYS	2.2
30	21	100	GLU	2.2
55	M5	49	VAL	2.2
7	62	147	ALA	2.2
20	BI	44	ALA	2.2
26	14	5	A	2.2
8	7E	63	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
17	8A	6	LEU	2.2
28	79	47	LEU	2.2
28	71	38	ASP	2.2
29	19	13	ARG	2.2
30	21	19	ARG	2.2
47	D5	67	LEU	2.2
3	2E	198	VAL	2.2
30	21	198	VAL	2.2
36	25	2	ILE	2.2
5	4E	59	GLY	2.2
29	11	194	GLY	2.2
35	15	36	GLY	2.2
12	3A	84	LEU	2.2
17	8I	79	SER	2.2
48	E5	21	LEU	2.2
49	J8	82	LEU	2.2
3	2E	123	GLN	2.2
35	15	11	PRO	2.2
45	F8	87	GLN	2.2
14	5A	46	GLU	2.2
28	71	13	LYS	2.2
29	11	9	TYR	2.2
29	19	175	LEU	2.2
37	35	80	TYR	2.2
47	D5	91	LEU	2.2
39	98	14	SER	2.2
8	72	83	ILE	2.2
11	2A	111	ASP	2.2
12	3I	85	ILE	2.2
20	BA	51	GLU	2.2
30	21	21	VAL	2.2
12	3I	63	GLY	2.2
30	21	185	LYS	2.2
35	58	93	THR	2.2
37	35	35	HIS	2.2
37	35	77	ARG	2.2
11	2A	63	LEU	2.1
26	14	2798	C	2.1
39	98	112	ALA	2.1
5	4E	33	VAL	2.1
11	2A	30	VAL	2.1
29	11	200	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
29	19	270	ILE	2.1
41	B8	89	VAL	2.1
30	21	2	LYS	2.1
46	G8	101	LYS	2.1
7	6E	153	HIS	2.1
11	2A	61	ALA	2.1
4	3E	170	VAL	2.1
17	8A	57	VAL	2.1
20	BA	54	LYS	2.1
28	71	63	SER	2.1
30	21	196	VAL	2.1
44	A5	103	ILE	2.1
3	2E	56	ASP	2.1
7	6E	82	GLY	2.1
4	32	19	LEU	2.1
28	71	64	LEU	2.1
39	98	98	LEU	2.1
34	69	11	ASN	2.1
1	1G	1029	G	2.1
30	21	15	PHE	2.1
45	B5	91	ALA	2.1
4	3E	24	GLU	2.1
42	85	104	GLN	2.1
55	M5	11	LYS	2.1
35	58	14	VAL	2.1
36	68	43	VAL	2.1
50	G5	41	ILE	2.1
30	21	74	PRO	2.1
34	69	9	LEU	2.1
39	98	113	LEU	2.1
6	52	63	TYR	2.1
17	8I	29	HIS	2.1
11	2A	87	THR	2.1
28	71	9	ALA	2.1
46	C5	55	TYR	2.1
36	68	65	THR	2.1
41	B8	3	ARG	2.1
36	68	57	VAL	2.1
3	2E	188	LEU	2.1
11	2I	98	LEU	2.1
28	79	51	PRO	2.1
36	68	91	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
4	32	68	TYR	2.1
8	72	84	ARG	2.1
24	3K	11	C	2.1
34	69	36	ALA	2.1
36	68	63	VAL	2.1
37	35	96	THR	2.1
7	62	97	GLN	2.1
55	M5	22	VAL	2.1
12	3I	77	LEU	2.1
20	BA	91	LEU	2.1
48	E5	8	GLY	2.1
17	8A	100	LYS	2.1
26	1H	2799	A	2.1
10	1I	94	VAL	2.1
30	29	73	GLU	2.1
20	BA	9	ASN	2.1
41	B8	30	VAL	2.1
39	98	95	THR	2.1
4	3E	176	LEU	2.1
48	E5	76	GLY	2.1
29	19	5	LYS	2.1
55	M5	25	MET	2.1
55	M5	59	LYS	2.1
3	2E	53	ALA	2.1
28	79	45	ALA	2.1
8	72	119	LEU	2.1
20	BA	84	LEU	2.1
29	11	10	THR	2.1
35	15	56	ASN	2.1
37	35	72	PRO	2.1
10	1I	95	GLU	2.1
18	9A	46	GLU	2.1
29	19	2	ALA	2.1
30	21	28	ALA	2.1
36	68	83	ALA	2.1
5	4E	13	ILE	2.1
7	62	50	ILE	2.1
33	51	26	VAL	2.1
42	85	56	ASP	2.1
38	45	33	GLY	2.1
26	14	3	U	2.1
45	F8	1	MET	2.1

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Mol	Chain	Res	Type	RSRZ
51	H5	4	LEU	2.1
2	1E	152	PHE	2.1
34	69	134	PRO	2.1
37	78	145	PRO	2.1
12	3I	101	VAL	2.1
20	BA	58	LYS	2.1
28	79	204	ALA	2.1
45	F8	84	ALA	2.1
36	25	43	VAL	2.1
31	31	181	LEU	2.1
32	49	176	LEU	2.1
36	25	56	ASP	2.1
44	A5	104	THR	2.1
10	1I	20	ALA	2.1
39	98	21	TYR	2.1
37	78	71	VAL	2.1
38	45	10	ARG	2.1
34	69	35	LEU	2.1
35	15	130	HIS	2.1
28	71	192	PHE	2.1
3	22	15	THR	2.1
5	42	8	GLU	2.1
33	51	34	GLU	2.1
51	H5	44	ARG	2.1
11	2A	47	VAL	2.1
36	25	11	ALA	2.1
3	22	204	LEU	2.1
4	32	70	ILE	2.1
14	5A	53	LEU	2.1
5	42	66	MET	2.1
42	85	55	ARG	2.0
6	52	59	TYR	2.0
11	2I	61	ALA	2.0
15	6I	2	PRO	2.0
29	19	117	VAL	2.0
34	69	86	THR	2.0
35	15	53	VAL	2.0
37	35	129	ALA	2.0
44	E8	105	VAL	2.0
17	8I	22	LEU	2.0
30	21	10	GLY	2.0
44	A5	86	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
7	62	26	PHE	2.0
37	35	51	PHE	2.0
52	M8	42	PHE	2.0
28	71	23	ASP	2.0
33	59	159	GLU	2.0
11	2I	25	TYR	2.0
28	71	33	ALA	2.0
28	79	222	VAL	2.0
46	C5	65	ALA	2.0
51	H5	36	VAL	2.0
53	N8	33	CYS	2.0
17	8I	20	THR	2.0
20	BI	99	LEU	2.0
28	79	206	GLY	2.0
38	45	65	PHE	2.0
22	1K	73	A	2.0
37	35	138	LEU	2.0
43	95	35	LEU	2.0
49	F5	58	ILE	2.0
28	71	163	PHE	2.0
29	11	13	ARG	2.0
35	58	74	ARG	2.0
37	35	130	PHE	2.0
38	45	5	ARG	2.0
47	D5	168	GLU	2.0
35	15	58	ASP	2.0
3	2E	200	ALA	2.0
11	2I	63	LEU	2.0
20	BI	91	LEU	2.0
28	79	49	ILE	2.0
43	D8	44	LYS	2.0
46	C5	84	ARG	2.0
29	11	53	PHE	2.0
11	2A	93	GLN	2.0
36	68	9	GLU	2.0
6	5E	63	TYR	2.0
8	72	86	ILE	2.0
20	BA	36	LEU	2.0
20	BI	101	GLY	2.0
20	BA	100	ILE	2.0
30	29	77	ILE	2.0
31	31	9	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
31	31	123	LEU	2.0
54	P8	3	ARG	2.0
20	BA	101	GLY	2.0
42	85	106	PHE	2.0
37	35	122	PRO	2.0
38	45	99	PRO	2.0
37	35	92	GLU	2.0
43	D8	15	GLU	2.0
29	19	182	LEU	2.0
30	21	188	VAL	2.0
41	75	6	LEU	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
22	PSU	1L	39	20/21	0.87	0.14	135,144,149,150	0
22	T6A	1L	37	32/33	0.88	0.21	132,140,153,154	0
23	OMC	2L	33	21/22	0.90	0.15	105,114,118,121	0
23	4SU	2L	8	20/21	0.90	0.16	114,124,129,130	0
22	PSU	1L	55	20/21	0.91	0.09	129,139,149,150	0
23	PSU	2K	56	20/21	0.91	0.16	99,110,121,122	0
22	PSU	1K	55	20/21	0.91	0.15	102,113,120,131	0
22	U8U	1L	34	23/24	0.92	0.17	123,133,138,150	0
22	5MU	1K	54	21/22	0.92	0.15	110,117,132,137	0
24	PSU	3K	39	20/21	0.92	0.17	141,151,156,159	0
22	T6A	1K	37	32/33	0.92	0.21	79,94,121,123	0
23	PSU	2L	56	20/21	0.93	0.11	115,126,131,135	0
22	PSU	1K	39	20/21	0.93	0.14	98,115,125,127	0
23	G7M	2L	47	24/25	0.93	0.12	126,133,141,145	0
23	5MU	2L	55	21/22	0.94	0.13	119,131,141,145	0
22	5MU	1L	54	21/22	0.94	0.12	133,141,146,152	0
23	4SU	2K	8	20/21	0.94	0.14	91,98,107,109	0
24	PSU	3L	39	20/21	0.94	0.23	145,155,159,162	0
23	G7M	2K	47	24/25	0.95	0.13	102,114,127,133	0
22	U8U	1K	34	23/24	0.95	0.15	84,92,100,108	0
23	5MU	2K	55	21/22	0.96	0.18	106,117,125,127	0
23	OMC	2K	33	21/22	0.96	0.17	77,83,91,93	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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
56	MG	1H	3317	1/1	0.28	0.63	105,105,105,105	0
56	MG	2K	102	1/1	0.28	0.72	126,126,126,126	0
56	MG	1H	3318	1/1	0.30	0.34	96,96,96,96	0
56	MG	14	3229	1/1	0.30	0.52	86,86,86,86	0
56	MG	13	1648	1/1	0.37	0.42	82,82,82,82	0
56	MG	2L	102	1/1	0.42	0.58	98,98,98,98	0
56	MG	14	3302	1/1	0.42	0.51	110,110,110,110	0
56	MG	1H	3281	1/1	0.43	0.36	81,81,81,81	0
56	MG	1G	1647	1/1	0.44	0.28	102,102,102,102	0
56	MG	1G	1633	1/1	0.45	0.35	83,83,83,83	0
56	MG	13	1655	1/1	0.47	0.33	103,103,103,103	0
56	MG	1H	3298	1/1	0.47	0.35	93,93,93,93	0
56	MG	1G	1602	1/1	0.51	0.59	105,105,105,105	0
56	MG	14	3232	1/1	0.55	0.33	127,127,127,127	0
56	MG	1H	3326	1/1	0.55	0.15	91,91,91,91	0
56	MG	14	3224	1/1	0.57	0.57	75,75,75,75	0
56	MG	14	3298	1/1	0.58	0.28	94,94,94,94	0
56	MG	13	1646	1/1	0.58	0.48	95,95,95,95	0
56	MG	1H	3140	1/1	0.58	0.14	69,69,69,69	0
56	MG	3E	301	1/1	0.58	0.48	94,94,94,94	0
56	MG	5I	101	1/1	0.59	0.17	88,88,88,88	0
56	MG	1H	3157	1/1	0.59	0.34	83,83,83,83	0
56	MG	1H	3250	1/1	0.60	0.45	87,87,87,87	0
56	MG	1H	3295	1/1	0.60	0.41	85,85,85,85	0
56	MG	1H	3028	1/1	0.61	0.60	72,72,72,72	0
56	MG	13	1701	1/1	0.61	0.23	121,121,121,121	0
56	MG	1H	3319	1/1	0.61	0.26	102,102,102,102	0
56	MG	1H	3274	1/1	0.61	0.46	85,85,85,85	0
56	MG	1H	3206	1/1	0.61	0.51	94,94,94,94	0
56	MG	1H	3224	1/1	0.62	0.54	88,88,88,88	0
56	MG	14	3381	1/1	0.62	0.15	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1647	1/1	0.63	0.34	95,95,95,95	0
56	MG	14	3250	1/1	0.63	0.31	99,99,99,99	0
56	MG	1G	1640	1/1	0.63	0.14	108,108,108,108	0
56	MG	1G	1646	1/1	0.63	0.32	86,86,86,86	0
56	MG	1H	3264	1/1	0.63	0.18	84,84,84,84	0
56	MG	14	3289	1/1	0.63	0.29	91,91,91,91	0
56	MG	E5	101	1/1	0.64	0.32	83,83,83,83	0
56	MG	1H	3018	1/1	0.64	0.59	78,78,78,78	0
56	MG	13	1642	1/1	0.64	0.19	73,73,73,73	0
56	MG	1H	3308	1/1	0.64	0.57	99,99,99,99	0
56	MG	1H	3110	1/1	0.64	0.28	65,65,65,65	0
56	MG	14	3262	1/1	0.65	0.44	91,91,91,91	0
56	MG	14	3266	1/1	0.65	0.26	90,90,90,90	0
56	MG	1H	3270	1/1	0.65	0.47	70,70,70,70	0
56	MG	14	3181	1/1	0.65	0.18	98,98,98,98	0
56	MG	1H	3248	1/1	0.65	0.32	83,83,83,83	0
56	MG	21	302	1/1	0.65	0.20	78,78,78,78	0
56	MG	14	3153	1/1	0.66	0.38	78,78,78,78	0
56	MG	14	3101	1/1	0.66	0.28	91,91,91,91	0
56	MG	1J	203	1/1	0.66	0.75	113,113,113,113	0
56	MG	1H	3213	1/1	0.67	0.61	84,84,84,84	0
56	MG	1H	3189	1/1	0.67	0.42	84,84,84,84	0
56	MG	1G	1643	1/1	0.67	0.33	91,91,91,91	0
56	MG	14	3162	1/1	0.67	0.51	83,83,83,83	0
56	MG	14	3304	1/1	0.68	0.50	90,90,90,90	0
56	MG	1G	1668	1/1	0.68	0.48	106,106,106,106	0
56	MG	14	3064	1/1	0.68	0.10	84,84,84,84	0
56	MG	14	3192	1/1	0.68	0.23	80,80,80,80	0
56	MG	1H	3052	1/1	0.69	0.84	99,99,99,99	0
56	MG	14	3290	1/1	0.69	0.36	90,90,90,90	0
56	MG	14	3205	1/1	0.69	0.49	80,80,80,80	0
56	MG	14	3169	1/1	0.69	0.10	104,104,104,104	0
56	MG	14	3140	1/1	0.69	0.18	87,87,87,87	0
56	MG	16	203	1/1	0.70	0.27	91,91,91,91	0
56	MG	14	3297	1/1	0.70	0.30	124,124,124,124	0
56	MG	1H	3200	1/1	0.70	0.33	87,87,87,87	0
56	MG	14	3150	1/1	0.70	0.35	91,91,91,91	0
56	MG	14	3032	1/1	0.70	0.52	88,88,88,88	0
56	MG	1H	3423	1/1	0.70	0.06	147,147,147,147	0
56	MG	14	3261	1/1	0.71	0.59	83,83,83,83	0
56	MG	45	202	1/1	0.71	0.20	103,103,103,103	0
56	MG	13	1674	1/1	0.71	0.50	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3275	1/1	0.71	0.42	74,74,74,74	0
56	MG	1G	1644	1/1	0.72	0.70	86,86,86,86	0
56	MG	14	3055	1/1	0.72	0.51	112,112,112,112	0
56	MG	1H	3193	1/1	0.72	0.40	72,72,72,72	0
56	MG	14	3091	1/1	0.72	0.92	87,87,87,87	0
56	MG	14	3220	1/1	0.72	0.37	107,107,107,107	0
56	MG	14	3126	1/1	0.72	1.12	83,83,83,83	0
56	MG	14	3296	1/1	0.72	0.26	91,91,91,91	0
56	MG	13	1695	1/1	0.72	0.42	103,103,103,103	0
56	MG	1H	3214	1/1	0.72	0.25	68,68,68,68	0
56	MG	14	3301	1/1	0.72	0.39	99,99,99,99	0
56	MG	1H	3301	1/1	0.72	0.29	128,128,128,128	0
56	MG	14	3283	1/1	0.72	0.29	80,80,80,80	0
56	MG	13	1661	1/1	0.73	0.09	93,93,93,93	0
56	MG	14	3249	1/1	0.73	0.15	78,78,78,78	0
56	MG	14	3252	1/1	0.73	0.09	73,73,73,73	0
56	MG	1H	3185	1/1	0.74	0.24	78,78,78,78	0
56	MG	1H	3015	1/1	0.74	0.41	77,77,77,77	0
56	MG	1H	3160	1/1	0.74	0.40	69,69,69,69	0
56	MG	13	1693	1/1	0.74	0.41	88,88,88,88	0
56	MG	1H	3284	1/1	0.74	0.18	88,88,88,88	0
56	MG	16	207	1/1	0.74	0.42	76,76,76,76	0
56	MG	14	3272	1/1	0.74	0.40	93,93,93,93	0
56	MG	1H	3302	1/1	0.74	0.51	89,89,89,89	0
56	MG	1H	3032	1/1	0.75	0.21	80,80,80,80	0
56	MG	1H	3198	1/1	0.75	0.20	67,67,67,67	0
56	MG	1H	3277	1/1	0.75	0.30	100,100,100,100	0
56	MG	35	201	1/1	0.75	0.41	76,76,76,76	0
56	MG	13	1699	1/1	0.75	0.31	81,81,81,81	0
56	MG	14	3273	1/1	0.75	0.33	94,94,94,94	0
56	MG	1H	3143	1/1	0.75	0.37	77,77,77,77	0
56	MG	1H	3025	1/1	0.75	0.40	77,77,77,77	0
56	MG	14	3260	1/1	0.75	0.27	90,90,90,90	0
56	MG	14	3127	1/1	0.75	0.27	71,71,71,71	0
56	MG	14	3110	1/1	0.75	0.76	88,88,88,88	0
56	MG	1H	3315	1/1	0.76	0.13	91,91,91,91	0
56	MG	14	3233	1/1	0.76	0.76	80,80,80,80	0
56	MG	1H	3258	1/1	0.76	0.37	72,72,72,72	0
56	MG	1H	3041	1/1	0.76	0.32	77,77,77,77	0
56	MG	1H	3299	1/1	0.76	0.45	86,86,86,86	0
56	MG	14	3254	1/1	0.76	0.73	78,78,78,78	0
56	MG	1G	1638	1/1	0.76	0.54	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3099	1/1	0.76	0.45	75,75,75,75	0
56	MG	1H	3042	1/1	0.76	0.26	93,93,93,93	0
56	MG	14	3198	1/1	0.76	0.30	80,80,80,80	0
56	MG	1H	3125	1/1	0.76	0.23	87,87,87,87	0
56	MG	1G	1616	1/1	0.77	0.49	96,96,96,96	0
56	MG	1H	3273	1/1	0.77	0.64	84,84,84,84	0
56	MG	14	3197	1/1	0.77	0.36	84,84,84,84	0
56	MG	14	3255	1/1	0.77	0.25	87,87,87,87	0
56	MG	13	1623	1/1	0.77	0.33	105,105,105,105	0
56	MG	1H	3039	1/1	0.77	0.55	80,80,80,80	0
56	MG	14	3299	1/1	0.78	0.19	96,96,96,96	0
56	MG	13	1690	1/1	0.78	0.44	81,81,81,81	0
56	MG	14	3278	1/1	0.78	0.35	96,96,96,96	0
56	MG	14	3284	1/1	0.78	0.23	84,84,84,84	0
56	MG	1H	3291	1/1	0.78	0.46	99,99,99,99	0
56	MG	14	3191	1/1	0.78	0.18	76,76,76,76	0
56	MG	Q8	101	1/1	0.78	0.29	83,83,83,83	0
56	MG	1H	3046	1/1	0.78	0.47	87,87,87,87	0
56	MG	1G	1654	1/1	0.78	0.45	86,86,86,86	0
56	MG	1K	101	1/1	0.78	0.54	138,138,138,138	0
56	MG	14	3177	1/1	0.78	0.45	87,87,87,87	0
56	MG	14	3146	1/1	0.78	0.37	61,61,61,61	0
56	MG	1G	1666	1/1	0.78	0.51	85,85,85,85	0
56	MG	1H	3075	1/1	0.78	0.11	79,79,79,79	0
56	MG	1H	3269	1/1	0.78	0.35	97,97,97,97	0
56	MG	14	3291	1/1	0.78	0.66	94,94,94,94	0
56	MG	14	3120	1/1	0.78	0.34	71,71,71,71	0
56	MG	1G	1620	1/1	0.78	0.25	94,94,94,94	0
56	MG	1H	3219	1/1	0.78	0.44	89,89,89,89	0
56	MG	1H	3134	1/1	0.79	0.41	90,90,90,90	0
56	MG	14	3303	1/1	0.79	0.46	98,98,98,98	0
56	MG	2K	101	1/1	0.79	0.55	86,86,86,86	0
56	MG	14	3275	1/1	0.79	0.34	68,68,68,68	0
56	MG	1G	1651	1/1	0.79	0.58	93,93,93,93	0
56	MG	1H	3038	1/1	0.79	0.35	81,81,81,81	0
56	MG	41	201	1/1	0.79	0.27	71,71,71,71	0
56	MG	13	1676	1/1	0.79	0.20	127,127,127,127	0
56	MG	14	3156	1/1	0.79	0.40	62,62,62,62	0
56	MG	14	3222	1/1	0.79	0.42	80,80,80,80	0
56	MG	1H	3316	1/1	0.79	0.47	87,87,87,87	0
56	MG	1G	1637	1/1	0.79	0.46	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3093	1/1	0.79	0.22	72,72,72,72	0
56	MG	14	3202	1/1	0.79	0.18	79,79,79,79	0
56	MG	1H	3034	1/1	0.79	0.35	78,78,78,78	0
56	MG	1H	3278	1/1	0.80	0.75	92,92,92,92	0
56	MG	1G	1622	1/1	0.80	0.68	99,99,99,99	0
56	MG	14	3017	1/1	0.80	0.52	92,92,92,92	0
56	MG	1H	3212	1/1	0.80	0.57	89,89,89,89	0
56	MG	14	3227	1/1	0.80	0.28	81,81,81,81	0
56	MG	13	1608	1/1	0.80	0.30	91,91,91,91	0
56	MG	1H	3155	1/1	0.80	0.36	86,86,86,86	0
56	MG	13	1698	1/1	0.80	0.22	81,81,81,81	0
56	MG	13	1629	1/1	0.80	0.41	90,90,90,90	0
56	MG	I8	102	1/1	0.80	0.45	83,83,83,83	0
56	MG	14	3214	1/1	0.80	0.51	87,87,87,87	0
56	MG	1H	3289	1/1	0.80	0.33	82,82,82,82	0
56	MG	1H	3297	1/1	0.81	0.11	101,101,101,101	0
56	MG	13	1627	1/1	0.81	0.45	81,81,81,81	0
56	MG	14	3143	1/1	0.81	0.29	70,70,70,70	0
56	MG	1H	3045	1/1	0.81	0.39	116,116,116,116	0
56	MG	1H	3249	1/1	0.81	0.79	86,86,86,86	0
56	MG	14	3183	1/1	0.81	0.30	89,89,89,89	0
56	MG	1H	3138	1/1	0.81	0.37	61,61,61,61	0
56	MG	14	3003	1/1	0.81	0.28	69,69,69,69	0
56	MG	1H	3280	1/1	0.81	0.22	88,88,88,88	0
56	MG	14	3221	1/1	0.81	0.17	91,91,91,91	0
56	MG	14	3130	1/1	0.81	0.68	78,78,78,78	0
56	MG	14	3180	1/1	0.81	0.25	79,79,79,79	0
56	MG	1H	3220	1/1	0.81	0.37	87,87,87,87	0
56	MG	1J	202	1/1	0.81	0.25	104,104,104,104	0
56	MG	14	3308	1/1	0.81	0.27	82,82,82,82	0
56	MG	14	3024	1/1	0.81	0.37	74,74,74,74	0
56	MG	1H	3205	1/1	0.81	0.41	83,83,83,83	0
56	MG	1H	3019	1/1	0.81	0.38	89,89,89,89	0
56	MG	13	1604	1/1	0.82	0.29	93,93,93,93	0
56	MG	14	3023	1/1	0.82	0.34	55,55,55,55	0
56	MG	14	3062	1/1	0.82	0.11	81,81,81,81	0
56	MG	1H	3161	1/1	0.82	0.21	84,84,84,84	0
56	MG	14	3031	1/1	0.82	0.43	76,76,76,76	0
56	MG	1H	3096	1/1	0.82	0.34	78,78,78,78	0
56	MG	78	201	1/1	0.82	0.21	75,75,75,75	0
56	MG	1H	3182	1/1	0.82	0.28	77,77,77,77	0
56	MG	14	3114	1/1	0.82	0.25	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1630	1/1	0.82	0.72	108,108,108,108	0
56	MG	1G	1609	1/1	0.82	0.19	94,94,94,94	0
56	MG	1H	3236	1/1	0.82	0.32	91,91,91,91	0
56	MG	1H	3123	1/1	0.82	0.43	77,77,77,77	0
56	MG	1H	3044	1/1	0.82	0.49	89,89,89,89	0
56	MG	1H	3011	1/1	0.82	0.49	71,71,71,71	0
56	MG	1H	3201	1/1	0.82	0.43	70,70,70,70	0
56	MG	14	3117	1/1	0.82	0.55	77,77,77,77	0
56	MG	1H	3107	1/1	0.83	0.36	73,73,73,73	0
56	MG	14	3019	1/1	0.83	0.43	84,84,84,84	0
56	MG	1H	3013	1/1	0.83	0.39	89,89,89,89	0
56	MG	14	3035	1/1	0.83	0.41	84,84,84,84	0
56	MG	1H	3186	1/1	0.83	0.17	71,71,71,71	0
56	MG	1H	3170	1/1	0.83	0.32	81,81,81,81	0
56	MG	1H	3175	1/1	0.83	0.47	70,70,70,70	0
56	MG	1H	3029	1/1	0.83	0.36	69,69,69,69	0
56	MG	13	1694	1/1	0.83	0.15	96,96,96,96	0
56	MG	14	3259	1/1	0.83	0.23	84,84,84,84	0
56	MG	1H	3241	1/1	0.83	0.29	73,73,73,73	0
56	MG	13	1696	1/1	0.83	0.43	111,111,111,111	0
56	MG	14	3186	1/1	0.83	0.79	83,83,83,83	0
56	MG	14	3211	1/1	0.83	0.28	74,74,74,74	0
56	MG	13	1700	1/1	0.83	0.12	111,111,111,111	0
56	MG	85	201	1/1	0.83	0.49	88,88,88,88	0
56	MG	1H	3124	1/1	0.83	0.24	59,59,59,59	0
56	MG	1H	3202	1/1	0.83	0.32	75,75,75,75	0
56	MG	14	3240	1/1	0.83	0.38	87,87,87,87	0
56	MG	14	3168	1/1	0.83	0.45	66,66,66,66	0
56	MG	1H	3141	1/1	0.83	0.17	69,69,69,69	0
56	MG	1H	3083	1/1	0.83	0.17	75,75,75,75	0
56	MG	1H	3053	1/1	0.83	0.54	82,82,82,82	0
56	MG	14	3203	1/1	0.83	0.16	68,68,68,68	0
56	MG	14	3269	1/1	0.83	0.38	75,75,75,75	0
56	MG	14	3277	1/1	0.83	0.52	92,92,92,92	0
56	MG	1H	3135	1/1	0.84	0.29	81,81,81,81	0
56	MG	14	3060	1/1	0.84	0.25	92,92,92,92	0
56	MG	13	1664	1/1	0.84	0.34	99,99,99,99	0
56	MG	14	3245	1/1	0.84	0.23	88,88,88,88	0
56	MG	13	1636	1/1	0.84	0.55	85,85,85,85	0
56	MG	14	3163	1/1	0.84	0.89	76,76,76,76	0
56	MG	14	3166	1/1	0.84	0.32	85,85,85,85	0
56	MG	1H	3271	1/1	0.84	0.46	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3279	1/1	0.84	0.25	73,73,73,73	0
56	MG	14	3257	1/1	0.84	0.38	68,68,68,68	0
56	MG	1H	3112	1/1	0.84	0.24	66,66,66,66	0
56	MG	14	3075	1/1	0.84	1.26	90,90,90,90	0
56	MG	14	3187	1/1	0.84	0.42	75,75,75,75	0
56	MG	1H	3211	1/1	0.84	0.36	71,71,71,71	0
56	MG	13	1637	1/1	0.84	0.50	68,68,68,68	0
56	MG	13	1702	1/1	0.84	0.60	103,103,103,103	0
56	MG	14	3026	1/1	0.84	0.51	68,68,68,68	0
56	MG	13	1689	1/1	0.84	0.21	92,92,92,92	0
56	MG	1H	3040	1/1	0.84	0.66	72,72,72,72	0
56	MG	14	3239	1/1	0.84	0.26	79,79,79,79	0
56	MG	1H	3296	1/1	0.84	0.53	92,92,92,92	0
56	MG	39	301	1/1	0.84	0.12	80,80,80,80	0
56	MG	1H	3151	1/1	0.84	0.10	52,52,52,52	0
56	MG	14	3196	1/1	0.84	0.33	69,69,69,69	0
56	MG	1H	3147	1/1	0.84	0.14	72,72,72,72	0
56	MG	13	1605	1/1	0.84	0.19	75,75,75,75	0
56	MG	14	3216	1/1	0.85	0.22	70,70,70,70	0
56	MG	13	1681	1/1	0.85	0.25	106,106,106,106	0
56	MG	1H	3257	1/1	0.85	0.34	94,94,94,94	0
56	MG	13	1692	1/1	0.85	0.36	100,100,100,100	0
56	MG	1H	3304	1/1	0.85	0.40	73,73,73,73	0
56	MG	1H	3240	1/1	0.85	0.21	56,56,56,56	0
56	MG	13	1677	1/1	0.85	0.33	91,91,91,91	0
56	MG	1H	3192	1/1	0.85	0.24	81,81,81,81	0
56	MG	1H	3162	1/1	0.85	0.38	87,87,87,87	0
56	MG	1H	3287	1/1	0.85	0.65	86,86,86,86	0
56	MG	13	1603	1/1	0.85	0.56	92,92,92,92	0
56	MG	1H	3084	1/1	0.85	0.22	82,82,82,82	0
56	MG	14	3111	1/1	0.85	0.42	69,69,69,69	0
56	MG	1H	3321	1/1	0.85	0.22	85,85,85,85	0
56	MG	1G	1627	1/1	0.85	0.28	85,85,85,85	0
56	MG	1G	1645	1/1	0.85	0.63	88,88,88,88	0
56	MG	2L	103	1/1	0.85	0.39	79,79,79,79	0
56	MG	14	3188	1/1	0.85	0.44	92,92,92,92	0
56	MG	14	3144	1/1	0.85	0.54	58,58,58,58	0
56	MG	14	3070	1/1	0.85	0.39	71,71,71,71	0
56	MG	14	3012	1/1	0.85	0.67	82,82,82,82	0
56	MG	1H	3207	1/1	0.85	0.40	81,81,81,81	0
56	MG	1H	3282	1/1	0.85	0.15	78,78,78,78	0
56	MG	14	3018	1/1	0.86	0.41	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3276	1/1	0.86	0.34	85,85,85,85	0
56	MG	14	3170	1/1	0.86	0.82	81,81,81,81	0
56	MG	4K	101	1/1	0.86	0.22	156,156,156,156	0
56	MG	14	3015	1/1	0.86	0.42	63,63,63,63	0
56	MG	14	3292	1/1	0.86	0.22	86,86,86,86	0
56	MG	14	3247	1/1	0.86	0.36	73,73,73,73	0
56	MG	1G	1679	1/1	0.86	0.05	138,138,138,138	0
56	MG	13	1672	1/1	0.86	0.19	81,81,81,81	0
56	MG	14	3149	1/1	0.86	0.53	92,92,92,92	0
56	MG	16	202	1/1	0.86	0.46	86,86,86,86	0
56	MG	14	3193	1/1	0.86	0.36	78,78,78,78	0
56	MG	1H	3149	1/1	0.86	0.26	65,65,65,65	0
56	MG	14	3133	1/1	0.86	0.38	97,97,97,97	0
56	MG	13	1666	1/1	0.86	0.12	89,89,89,89	0
56	MG	13	1654	1/1	0.86	0.34	88,88,88,88	0
56	MG	1G	1619	1/1	0.86	0.29	89,89,89,89	0
56	MG	45	201	1/1	0.86	0.20	96,96,96,96	0
56	MG	1H	3314	1/1	0.86	0.66	92,92,92,92	0
56	MG	14	3244	1/1	0.86	0.32	74,74,74,74	0
56	MG	1H	3128	1/1	0.86	0.27	83,83,83,83	0
56	MG	14	3079	1/1	0.86	0.42	72,72,72,72	0
56	MG	1H	3043	1/1	0.86	0.51	87,87,87,87	0
56	MG	14	3309	1/1	0.86	0.25	90,90,90,90	0
56	MG	1H	3322	1/1	0.86	0.14	68,68,68,68	0
56	MG	1H	3348	1/1	0.86	0.10	100,100,100,100	0
56	MG	1H	3232	1/1	0.86	0.10	71,71,71,71	0
56	MG	14	3271	1/1	0.86	0.23	74,74,74,74	0
56	MG	1G	1613	1/1	0.86	0.19	100,100,100,100	0
56	MG	1H	3173	1/1	0.86	0.47	79,79,79,79	0
56	MG	14	3210	1/1	0.86	0.38	96,96,96,96	0
56	MG	1G	1659	1/1	0.86	0.82	85,85,85,85	0
56	MG	14	3033	1/1	0.86	0.16	84,84,84,84	0
56	MG	1H	3061	1/1	0.86	0.29	62,62,62,62	0
56	MG	1H	3129	1/1	0.87	0.10	56,56,56,56	0
56	MG	1H	3309	1/1	0.87	0.27	79,79,79,79	0
56	MG	1G	1649	1/1	0.87	0.49	96,96,96,96	0
56	MG	14	3258	1/1	0.87	0.62	99,99,99,99	0
56	MG	L8	101	1/1	0.87	0.66	88,88,88,88	0
56	MG	1G	1663	1/1	0.87	0.18	97,97,97,97	0
56	MG	1H	3190	1/1	0.87	0.48	67,67,67,67	0
56	MG	14	3268	1/1	0.87	0.15	86,86,86,86	0
56	MG	14	3265	1/1	0.87	0.45	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3178	1/1	0.87	0.85	90,90,90,90	0
56	MG	14	3280	1/1	0.87	0.23	99,99,99,99	0
56	MG	1H	3307	1/1	0.87	0.20	82,82,82,82	0
56	MG	14	3088	1/1	0.87	0.40	73,73,73,73	0
56	MG	14	3288	1/1	0.87	0.34	109,109,109,109	0
56	MG	14	3058	1/1	0.87	0.07	80,80,80,80	0
56	MG	1H	3268	1/1	0.87	0.39	79,79,79,79	0
56	MG	1H	3092	1/1	0.87	0.39	67,67,67,67	0
56	MG	1H	3047	1/1	0.87	0.38	92,92,92,92	0
56	MG	14	3148	1/1	0.87	0.20	72,72,72,72	0
56	MG	13	1638	1/1	0.87	0.47	87,87,87,87	0
56	MG	1G	1606	1/1	0.87	0.20	82,82,82,82	0
56	MG	1H	3164	1/1	0.87	0.23	73,73,73,73	0
56	MG	14	3235	1/1	0.87	0.43	104,104,104,104	0
56	MG	13	1620	1/1	0.87	0.24	82,82,82,82	0
56	MG	1H	3300	1/1	0.87	0.30	77,77,77,77	0
56	MG	1H	3290	1/1	0.87	0.32	80,80,80,80	0
56	MG	13	1649	1/1	0.87	0.15	75,75,75,75	0
56	MG	1H	3230	1/1	0.87	0.17	73,73,73,73	0
56	MG	1H	3178	1/1	0.87	0.35	74,74,74,74	0
56	MG	1H	3247	1/1	0.88	0.23	73,73,73,73	0
56	MG	1G	1675	1/1	0.88	0.10	116,116,116,116	0
56	MG	14	3274	1/1	0.88	0.27	99,99,99,99	0
56	MG	1H	3303	1/1	0.88	0.25	73,73,73,73	0
56	MG	1G	1626	1/1	0.88	0.23	95,95,95,95	0
56	MG	14	3176	1/1	0.88	0.43	88,88,88,88	0
56	MG	14	3382	1/1	0.88	0.16	100,100,100,100	0
56	MG	14	3037	1/1	0.88	0.33	70,70,70,70	0
56	MG	14	3212	1/1	0.88	0.31	69,69,69,69	0
56	MG	1H	3244	1/1	0.88	0.19	84,84,84,84	0
56	MG	14	3263	1/1	0.88	0.31	82,82,82,82	0
56	MG	1H	3216	1/1	0.88	0.37	80,80,80,80	0
56	MG	14	3179	1/1	0.88	0.85	84,84,84,84	0
56	MG	13	1641	1/1	0.88	0.45	75,75,75,75	0
59	ZN	G8	201	1/1	0.88	0.15	144,144,144,144	0
56	MG	1H	3242	1/1	0.88	0.33	64,64,64,64	0
56	MG	13	1680	1/1	0.88	0.56	87,87,87,87	0
56	MG	1H	3292	1/1	0.88	0.37	61,61,61,61	0
56	MG	14	3151	1/1	0.88	0.72	81,81,81,81	0
56	MG	1H	3152	1/1	0.88	0.56	99,99,99,99	0
56	MG	14	3305	1/1	0.88	0.32	86,86,86,86	0
56	MG	14	3056	1/1	0.88	0.14	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1658	1/1	0.88	0.09	82,82,82,82	0
56	MG	1G	1661	1/1	0.88	0.23	150,150,150,150	0
56	MG	13	1616	1/1	0.88	0.43	77,77,77,77	0
56	MG	1H	3252	1/1	0.88	0.29	72,72,72,72	0
56	MG	14	3231	1/1	0.88	0.23	84,84,84,84	0
56	MG	14	3238	1/1	0.88	0.36	78,78,78,78	0
56	MG	14	3241	1/1	0.88	0.39	68,68,68,68	0
56	MG	14	3270	1/1	0.88	0.24	84,84,84,84	0
56	MG	1H	3311	1/1	0.88	0.48	96,96,96,96	0
56	MG	14	3068	1/1	0.88	0.34	89,89,89,89	0
56	MG	1G	1642	1/1	0.88	0.30	123,123,123,123	0
56	MG	1H	3132	1/1	0.89	0.52	78,78,78,78	0
56	MG	1H	3327	1/1	0.89	0.23	95,95,95,95	0
56	MG	1G	1664	1/1	0.89	0.39	119,119,119,119	0
56	MG	1H	3209	1/1	0.89	0.35	82,82,82,82	0
56	MG	16	206	1/1	0.89	0.25	84,84,84,84	0
56	MG	1G	1671	1/1	0.89	0.10	90,90,90,90	0
56	MG	13	1691	1/1	0.89	0.27	109,109,109,109	0
56	MG	14	3253	1/1	0.89	0.39	76,76,76,76	0
56	MG	1H	3142	1/1	0.89	0.18	68,68,68,68	0
56	MG	1H	3225	1/1	0.89	0.37	74,74,74,74	0
56	MG	1H	3159	1/1	0.89	0.43	83,83,83,83	0
56	MG	1H	3266	1/1	0.89	0.09	60,60,60,60	0
56	MG	1H	3267	1/1	0.89	0.20	69,69,69,69	0
56	MG	14	3234	1/1	0.89	0.49	89,89,89,89	0
56	MG	1H	3203	1/1	0.89	0.53	75,75,75,75	0
56	MG	14	3282	1/1	0.89	0.51	84,84,84,84	0
56	MG	14	3158	1/1	0.89	0.18	71,71,71,71	0
56	MG	14	3025	1/1	0.89	0.26	69,69,69,69	0
56	MG	1H	3263	1/1	0.89	0.47	94,94,94,94	0
56	MG	1H	3254	1/1	0.89	0.45	95,95,95,95	0
56	MG	14	3154	1/1	0.89	0.28	90,90,90,90	0
56	MG	1H	3154	1/1	0.89	0.39	69,69,69,69	0
56	MG	14	3007	1/1	0.89	0.64	63,63,63,63	0
56	MG	13	1685	1/1	0.89	0.49	95,95,95,95	0
56	MG	13	1686	1/1	0.89	0.50	73,73,73,73	0
56	MG	14	3208	1/1	0.89	0.16	67,67,67,67	0
56	MG	1H	3272	1/1	0.89	0.14	89,89,89,89	0
56	MG	1H	3218	1/1	0.89	0.22	76,76,76,76	0
56	MG	13	1728	1/1	0.90	0.09	127,127,127,127	0
56	MG	1H	3169	1/1	0.90	0.36	95,95,95,95	0
56	MG	1H	3286	1/1	0.90	0.13	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3102	1/1	0.90	0.27	76,76,76,76	0
56	MG	1H	3204	1/1	0.90	0.16	100,100,100,100	0
56	MG	1H	3188	1/1	0.90	0.47	76,76,76,76	0
56	MG	14	3119	1/1	0.90	0.26	86,86,86,86	0
56	MG	1H	3137	1/1	0.90	0.15	73,73,73,73	0
56	MG	1H	3325	1/1	0.90	0.30	76,76,76,76	0
56	MG	16	204	1/1	0.90	0.40	98,98,98,98	0
56	MG	13	1628	1/1	0.90	0.34	95,95,95,95	0
56	MG	1H	3050	1/1	0.90	0.36	78,78,78,78	0
56	MG	14	3310	1/1	0.90	0.25	120,120,120,120	0
56	MG	1G	1618	1/1	0.90	0.13	101,101,101,101	0
56	MG	1H	3102	1/1	0.90	0.33	55,55,55,55	0
56	MG	16	205	1/1	0.90	0.47	84,84,84,84	0
56	MG	1H	3049	1/1	0.90	0.17	65,65,65,65	0
56	MG	14	3161	1/1	0.90	0.46	73,73,73,73	0
56	MG	14	3293	1/1	0.90	0.06	99,99,99,99	0
56	MG	13	1684	1/1	0.90	0.27	114,114,114,114	0
56	MG	C5	201	1/1	0.90	0.27	109,109,109,109	0
56	MG	13	1639	1/1	0.90	0.33	85,85,85,85	0
56	MG	14	3145	1/1	0.90	0.24	67,67,67,67	0
56	MG	1H	3022	1/1	0.90	0.21	52,52,52,52	0
56	MG	13	1632	1/1	0.90	0.50	73,73,73,73	0
56	MG	1H	3283	1/1	0.90	0.24	85,85,85,85	0
56	MG	I8	103	1/1	0.90	0.46	86,86,86,86	0
56	MG	1H	3180	1/1	0.90	0.39	76,76,76,76	0
56	MG	1H	3163	1/1	0.90	0.35	48,48,48,48	0
56	MG	14	3041	1/1	0.90	0.21	49,49,49,49	0
56	MG	14	3199	1/1	0.90	0.33	59,59,59,59	0
56	MG	14	3165	1/1	0.90	0.29	60,60,60,60	0
56	MG	13	1656	1/1	0.91	0.30	88,88,88,88	0
56	MG	14	3039	1/1	0.91	1.32	103,103,103,103	0
56	MG	1G	1625	1/1	0.91	0.60	76,76,76,76	0
56	MG	13	1678	1/1	0.91	0.24	83,83,83,83	0
56	MG	13	1618	1/1	0.91	0.14	97,97,97,97	0
56	MG	13	1673	1/1	0.91	0.12	102,102,102,102	0
56	MG	14	3092	1/1	0.91	0.17	75,75,75,75	0
56	MG	1H	3221	1/1	0.91	0.41	78,78,78,78	0
56	MG	1H	3076	1/1	0.91	0.14	65,65,65,65	0
56	MG	1G	1603	1/1	0.91	0.36	101,101,101,101	0
56	MG	1H	3148	1/1	0.91	0.17	49,49,49,49	0
56	MG	1G	1639	1/1	0.91	0.74	80,80,80,80	0
56	MG	13	1663	1/1	0.91	0.18	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1644	1/1	0.91	0.28	84,84,84,84	0
56	MG	1G	1632	1/1	0.91	0.49	102,102,102,102	0
56	MG	14	3022	1/1	0.91	0.43	83,83,83,83	0
56	MG	1H	3184	1/1	0.91	0.42	96,96,96,96	0
56	MG	1H	3238	1/1	0.91	0.12	82,82,82,82	0
56	MG	1H	3183	1/1	0.91	0.41	90,90,90,90	0
56	MG	1H	3079	1/1	0.91	0.18	61,61,61,61	0
56	MG	1G	1665	1/1	0.91	0.28	93,93,93,93	0
56	MG	1H	3121	1/1	0.91	0.51	53,53,53,53	0
56	MG	P8	101	1/1	0.91	0.08	78,78,78,78	0
56	MG	13	1697	1/1	0.91	0.45	96,96,96,96	0
56	MG	14	3246	1/1	0.91	0.31	72,72,72,72	0
56	MG	1H	3035	1/1	0.91	0.37	76,76,76,76	0
56	MG	14	3069	1/1	0.91	0.74	91,91,91,91	0
56	MG	16	211	1/1	0.91	0.11	85,85,85,85	0
56	MG	14	3076	1/1	0.91	0.43	89,89,89,89	0
56	MG	1H	3187	1/1	0.91	0.38	95,95,95,95	0
56	MG	1H	3231	1/1	0.91	0.31	56,56,56,56	0
56	MG	1G	1652	1/1	0.91	0.15	88,88,88,88	0
56	MG	14	3228	1/1	0.91	0.33	93,93,93,93	0
56	MG	13	1607	1/1	0.91	0.65	85,85,85,85	0
56	MG	14	3256	1/1	0.91	0.60	76,76,76,76	0
56	MG	14	3057	1/1	0.91	0.36	63,63,63,63	0
56	MG	1G	1611	1/1	0.91	0.45	108,108,108,108	0
56	MG	1H	3259	1/1	0.91	0.14	80,80,80,80	0
56	MG	14	3071	1/1	0.91	0.16	84,84,84,84	0
56	MG	14	3087	1/1	0.91	0.34	79,79,79,79	0
56	MG	14	3061	1/1	0.91	0.18	97,97,97,97	0
56	MG	14	3281	1/1	0.91	1.28	89,89,89,89	0
56	MG	14	3159	1/1	0.91	0.44	81,81,81,81	0
56	MG	13	1625	1/1	0.91	0.55	82,82,82,82	0
56	MG	1H	3223	1/1	0.92	0.44	88,88,88,88	0
56	MG	14	3380	1/1	0.92	0.07	83,83,83,83	0
56	MG	1H	3373	1/1	0.92	0.04	82,82,82,82	0
56	MG	14	3013	1/1	0.92	0.20	83,83,83,83	0
56	MG	14	3004	1/1	0.92	0.18	83,83,83,83	0
56	MG	1G	1677	1/1	0.92	0.12	119,119,119,119	0
56	MG	14	3338	1/1	0.92	0.12	111,111,111,111	0
56	MG	1H	3293	1/1	0.92	0.43	98,98,98,98	0
56	MG	1G	1629	1/1	0.92	0.52	104,104,104,104	0
56	MG	14	3083	1/1	0.92	0.37	87,87,87,87	0
56	MG	1H	3098	1/1	0.92	0.20	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1682	1/1	0.92	0.14	91,91,91,91	0
56	MG	13	1652	1/1	0.92	0.26	74,74,74,74	0
56	MG	3I	201	1/1	0.92	0.19	62,62,62,62	0
56	MG	1G	1672	1/1	0.92	0.11	121,121,121,121	0
56	MG	1J	201	1/1	0.92	0.30	90,90,90,90	0
56	MG	14	3230	1/1	0.92	0.36	72,72,72,72	0
56	MG	14	3264	1/1	0.92	0.16	92,92,92,92	0
56	MG	14	3295	1/1	0.92	0.21	114,114,114,114	0
56	MG	1H	3054	1/1	0.92	0.20	87,87,87,87	0
56	MG	14	3374	1/1	0.92	0.08	129,129,129,129	0
56	MG	13	1651	1/1	0.92	0.19	86,86,86,86	0
56	MG	1H	3415	1/1	0.92	0.11	94,94,94,94	0
56	MG	1H	3126	1/1	0.92	0.34	72,72,72,72	0
56	MG	1H	3171	1/1	0.92	0.25	74,74,74,74	0
56	MG	16	201	1/1	0.92	0.21	92,92,92,92	0
56	MG	13	1688	1/1	0.92	0.25	94,94,94,94	0
56	MG	1H	3312	1/1	0.92	0.21	67,67,67,67	0
56	MG	1H	3199	1/1	0.92	0.54	74,74,74,74	0
56	MG	14	3251	1/1	0.92	0.23	106,106,106,106	0
56	MG	13	1650	1/1	0.92	0.34	79,79,79,79	0
56	MG	1H	3024	1/1	0.92	0.46	70,70,70,70	0
56	MG	1G	1614	1/1	0.92	0.28	93,93,93,93	0
56	MG	1H	3027	1/1	0.92	0.35	48,48,48,48	0
56	MG	21	301	1/1	0.92	0.19	57,57,57,57	0
56	MG	1H	3166	1/1	0.92	0.13	68,68,68,68	0
56	MG	1H	3418	1/1	0.92	0.07	88,88,88,88	0
56	MG	1H	3222	1/1	0.92	0.50	79,79,79,79	0
56	MG	1H	3156	1/1	0.92	0.36	77,77,77,77	0
56	MG	14	3285	1/1	0.92	0.56	72,72,72,72	0
56	MG	14	3155	1/1	0.92	0.22	71,71,71,71	0
56	MG	14	3175	1/1	0.92	0.46	96,96,96,96	0
56	MG	1G	1656	1/1	0.92	0.30	138,138,138,138	0
56	MG	1G	1662	1/1	0.92	0.24	133,133,133,133	0
56	MG	1H	3227	1/1	0.92	0.17	50,50,50,50	0
56	MG	13	1643	1/1	0.92	0.30	79,79,79,79	0
56	MG	14	3095	1/1	0.92	0.47	56,56,56,56	0
56	MG	14	3113	1/1	0.92	0.16	78,78,78,78	0
56	MG	14	3242	1/1	0.92	0.32	70,70,70,70	0
56	MG	1H	3153	1/1	0.92	0.16	60,60,60,60	0
56	MG	13	1633	1/1	0.92	0.20	65,65,65,65	0
56	MG	5E	201	1/1	0.92	0.26	84,84,84,84	0
56	MG	14	3020	1/1	0.93	0.48	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1706	1/1	0.93	0.04	87,87,87,87	0
56	MG	14	3040	1/1	0.93	0.49	84,84,84,84	0
56	MG	13	1720	1/1	0.93	0.16	115,115,115,115	0
56	MG	1H	3077	1/1	0.93	0.11	63,63,63,63	0
56	MG	14	3173	1/1	0.93	0.19	82,82,82,82	0
56	MG	14	3317	1/1	0.93	0.16	64,64,64,64	0
56	MG	1H	3057	1/1	0.93	0.26	52,52,52,52	0
56	MG	88	202	1/1	0.93	0.30	87,87,87,87	0
56	MG	1H	3243	1/1	0.93	0.13	56,56,56,56	0
56	MG	14	3164	1/1	0.93	0.44	83,83,83,83	0
56	MG	1H	3009	1/1	0.93	0.24	66,66,66,66	0
56	MG	1H	3014	1/1	0.93	0.26	69,69,69,69	0
56	MG	1H	3226	1/1	0.93	0.29	55,55,55,55	0
56	MG	1H	3037	1/1	0.93	0.48	63,63,63,63	0
56	MG	14	3215	1/1	0.93	0.16	83,83,83,83	0
56	MG	1H	3262	1/1	0.93	0.40	77,77,77,77	0
56	MG	14	3106	1/1	0.93	0.81	69,69,69,69	0
56	MG	14	3219	1/1	0.93	0.55	78,78,78,78	0
56	MG	14	3027	1/1	0.93	0.61	71,71,71,71	0
56	MG	14	3218	1/1	0.93	0.35	60,60,60,60	0
56	MG	1H	3313	1/1	0.93	0.32	66,66,66,66	0
56	MG	14	3107	1/1	0.93	0.45	87,87,87,87	0
56	MG	14	3276	1/1	0.93	0.11	102,102,102,102	0
56	MG	13	1683	1/1	0.93	0.28	91,91,91,91	0
56	MG	14	3073	1/1	0.93	0.53	81,81,81,81	0
56	MG	14	3134	1/1	0.93	0.24	74,74,74,74	0
56	MG	1H	3119	1/1	0.93	0.35	78,78,78,78	0
56	MG	14	3029	1/1	0.93	0.15	83,83,83,83	0
56	MG	14	3036	1/1	0.93	0.17	73,73,73,73	0
56	MG	1H	3008	1/1	0.93	0.32	74,74,74,74	0
56	MG	1H	3055	1/1	0.93	0.41	88,88,88,88	0
56	MG	14	3344	1/1	0.93	0.04	95,95,95,95	0
56	MG	1H	3120	1/1	0.93	0.12	41,41,41,41	0
56	MG	14	3300	1/1	0.93	0.58	89,89,89,89	0
56	MG	1H	3005	1/1	0.93	0.22	62,62,62,62	0
56	MG	1H	3251	1/1	0.93	0.24	63,63,63,63	0
56	MG	1H	3106	1/1	0.93	0.41	77,77,77,77	0
56	MG	13	1671	1/1	0.93	0.44	102,102,102,102	0
56	MG	1G	1674	1/1	0.93	0.06	123,123,123,123	0
56	MG	13	1630	1/1	0.94	0.56	71,71,71,71	0
56	MG	1G	1635	1/1	0.94	0.14	93,93,93,93	0
56	MG	14	3341	1/1	0.94	0.10	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3243	1/1	0.94	0.18	89,89,89,89	0
56	MG	1H	3088	1/1	0.94	0.28	54,54,54,54	0
56	MG	14	3377	1/1	0.94	0.05	60,60,60,60	0
56	MG	1H	3067	1/1	0.94	0.33	63,63,63,63	0
56	MG	14	3081	1/1	0.94	0.39	62,62,62,62	0
56	MG	1H	3323	1/1	0.94	0.50	91,91,91,91	0
56	MG	14	3142	1/1	0.94	0.12	111,111,111,111	0
56	MG	1H	3089	1/1	0.94	0.36	74,74,74,74	0
56	MG	1H	3197	1/1	0.94	0.27	80,80,80,80	0
56	MG	1H	3265	1/1	0.94	0.21	74,74,74,74	0
56	MG	14	3237	1/1	0.94	0.29	62,62,62,62	0
56	MG	1H	3176	1/1	0.94	0.31	68,68,68,68	0
56	MG	14	3137	1/1	0.94	0.18	62,62,62,62	0
56	MG	1H	3414	1/1	0.94	0.11	83,83,83,83	0
56	MG	13	1731	1/1	0.94	0.12	94,94,94,94	0
56	MG	14	3379	1/1	0.94	0.07	107,107,107,107	0
56	MG	14	3362	1/1	0.94	0.09	77,77,77,77	0
56	MG	1H	3016	1/1	0.94	0.41	48,48,48,48	0
56	MG	1H	3094	1/1	0.94	0.26	91,91,91,91	0
56	MG	14	3189	1/1	0.94	0.41	73,73,73,73	0
56	MG	1G	1680	1/1	0.94	0.06	120,120,120,120	0
56	MG	1H	3113	1/1	0.94	0.20	67,67,67,67	0
56	MG	1G	1623	1/1	0.94	0.48	83,83,83,83	0
56	MG	1G	1655	1/1	0.94	0.07	94,94,94,94	0
56	MG	14	3006	1/1	0.94	0.54	58,58,58,58	0
56	MG	14	3167	1/1	0.94	0.40	99,99,99,99	0
56	MG	1H	3412	1/1	0.94	0.11	68,68,68,68	0
56	MG	1H	3425	1/1	0.94	0.12	92,92,92,92	0
56	MG	14	3201	1/1	0.94	0.28	60,60,60,60	0
56	MG	1H	3376	1/1	0.94	0.07	60,60,60,60	0
56	MG	14	3124	1/1	0.94	0.27	70,70,70,70	0
56	MG	14	3294	1/1	0.94	0.38	74,74,74,74	0
56	MG	1H	3210	1/1	0.94	0.28	73,73,73,73	0
56	MG	1H	3369	1/1	0.94	0.17	69,69,69,69	0
56	MG	14	3125	1/1	0.94	0.37	54,54,54,54	0
56	MG	1H	3115	1/1	0.94	0.34	76,76,76,76	0
56	MG	1H	3191	1/1	0.94	0.29	90,90,90,90	0
56	MG	1H	3310	1/1	0.94	0.22	72,72,72,72	0
56	MG	13	1662	1/1	0.94	0.33	82,82,82,82	0
56	MG	1G	1676	1/1	0.94	0.07	111,111,111,111	0
56	MG	1G	1636	1/1	0.94	0.33	101,101,101,101	0
56	MG	1H	3195	1/1	0.94	0.58	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3109	1/1	0.94	0.38	72,72,72,72	0
56	MG	14	3184	1/1	0.94	0.46	86,86,86,86	0
56	MG	13	1621	1/1	0.94	0.27	95,95,95,95	0
56	MG	1H	3239	1/1	0.94	0.28	81,81,81,81	0
56	MG	14	3248	1/1	0.94	0.24	94,94,94,94	0
56	MG	14	3185	1/1	0.94	0.20	74,74,74,74	0
56	MG	13	1613	1/1	0.94	0.29	77,77,77,77	0
56	MG	45	203	1/1	0.94	0.35	73,73,73,73	0
56	MG	14	3063	1/1	0.94	0.07	77,77,77,77	0
56	MG	1H	3017	1/1	0.94	0.36	77,77,77,77	0
56	MG	1H	3150	1/1	0.94	0.14	70,70,70,70	0
56	MG	13	1622	1/1	0.94	0.34	94,94,94,94	0
56	MG	1H	3179	1/1	0.94	0.23	93,93,93,93	0
56	MG	1H	3306	1/1	0.94	0.43	84,84,84,84	0
56	MG	1H	3411	1/1	0.94	0.05	100,100,100,100	0
56	MG	14	3147	1/1	0.94	0.14	93,93,93,93	0
56	MG	14	3132	1/1	0.94	0.40	91,91,91,91	0
56	MG	1H	3391	1/1	0.94	0.08	107,107,107,107	0
56	MG	1H	3352	1/1	0.94	0.12	71,71,71,71	0
56	MG	1H	3167	1/1	0.95	0.28	81,81,81,81	0
56	MG	1H	3145	1/1	0.95	0.30	77,77,77,77	0
56	MG	1H	3246	1/1	0.95	0.53	88,88,88,88	0
56	MG	14	3225	1/1	0.95	0.14	71,71,71,71	0
56	MG	14	3157	1/1	0.95	0.60	66,66,66,66	0
56	MG	14	3236	1/1	0.95	0.11	79,79,79,79	0
56	MG	13	1713	1/1	0.95	0.09	88,88,88,88	0
56	MG	1H	3133	1/1	0.95	0.32	69,69,69,69	0
56	MG	1H	3023	1/1	0.95	0.40	57,57,57,57	0
56	MG	1G	1634	1/1	0.95	0.39	109,109,109,109	0
56	MG	14	3051	1/1	0.95	0.31	90,90,90,90	0
56	MG	1G	1628	1/1	0.95	0.19	98,98,98,98	0
56	MG	1H	3215	1/1	0.95	0.27	81,81,81,81	0
56	MG	1H	3082	1/1	0.95	0.27	65,65,65,65	0
56	MG	14	3367	1/1	0.95	0.09	94,94,94,94	0
56	MG	1H	3111	1/1	0.95	0.18	60,60,60,60	0
56	MG	1H	3217	1/1	0.95	0.20	67,67,67,67	0
56	MG	14	3360	1/1	0.95	0.13	75,75,75,75	0
56	MG	13	1669	1/1	0.95	0.39	72,72,72,72	0
56	MG	13	1624	1/1	0.95	0.14	71,71,71,71	0
56	MG	13	1682	1/1	0.95	0.14	73,73,73,73	0
56	MG	14	3005	1/1	0.95	0.33	44,44,44,44	0
56	MG	14	3370	1/1	0.95	0.06	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1615	1/1	0.95	0.17	119,119,119,119	0
56	MG	14	3287	1/1	0.95	0.63	105,105,105,105	0
56	MG	14	3207	1/1	0.95	0.19	89,89,89,89	0
56	MG	1G	1641	1/1	0.95	0.47	92,92,92,92	0
56	MG	1H	3194	1/1	0.95	0.38	73,73,73,73	0
56	MG	14	3122	1/1	0.95	0.43	91,91,91,91	0
56	MG	14	3038	1/1	0.95	0.23	86,86,86,86	0
56	MG	14	3123	1/1	0.95	0.26	82,82,82,82	0
56	MG	1H	3237	1/1	0.95	0.08	77,77,77,77	0
56	MG	1H	3389	1/1	0.95	0.15	64,64,64,64	0
56	MG	13	1614	1/1	0.95	0.04	81,81,81,81	0
56	MG	1G	1605	1/1	0.95	0.31	85,85,85,85	0
56	MG	14	3059	1/1	0.95	0.32	55,55,55,55	0
56	MG	1H	3429	1/1	0.95	0.20	66,66,66,66	0
56	MG	1H	3305	1/1	0.95	0.30	68,68,68,68	0
56	MG	1H	3288	1/1	0.95	0.08	94,94,94,94	0
56	MG	1H	3064	1/1	0.95	0.24	54,54,54,54	0
56	MG	13	1617	1/1	0.95	0.33	77,77,77,77	0
56	MG	14	3096	1/1	0.95	0.53	60,60,60,60	0
56	MG	1H	3235	1/1	0.95	0.19	85,85,85,85	0
56	MG	14	3141	1/1	0.95	0.22	90,90,90,90	0
56	MG	1H	3260	1/1	0.95	0.42	88,88,88,88	0
56	MG	14	3002	1/1	0.95	0.38	62,62,62,62	0
56	MG	14	3072	1/1	0.95	0.40	55,55,55,55	0
56	MG	13	1714	1/1	0.95	0.06	104,104,104,104	0
56	MG	13	1710	1/1	0.95	0.09	72,72,72,72	0
56	MG	14	3116	1/1	0.95	0.46	63,63,63,63	0
56	MG	13	1687	1/1	0.95	0.33	76,76,76,76	0
56	MG	1H	3320	1/1	0.95	0.20	68,68,68,68	0
56	MG	3K	101	1/1	0.95	0.13	162,162,162,162	0
56	MG	14	3028	1/1	0.95	0.64	79,79,79,79	0
56	MG	1H	3196	1/1	0.95	0.52	80,80,80,80	0
56	MG	14	3348	1/1	0.95	0.07	83,83,83,83	0
56	MG	14	3009	1/1	0.95	0.37	52,52,52,52	0
56	MG	1G	1678	1/1	0.95	0.09	92,92,92,92	0
56	MG	1H	3172	1/1	0.95	0.27	82,82,82,82	0
56	MG	14	3108	1/1	0.95	0.32	75,75,75,75	0
56	MG	13	1631	1/1	0.95	0.60	93,93,93,93	0
56	MG	14	3021	1/1	0.95	0.36	78,78,78,78	0
56	MG	13	1668	1/1	0.95	0.19	80,80,80,80	0
56	MG	1H	3406	1/1	0.95	0.14	65,65,65,65	0
56	MG	1H	3070	1/1	0.95	0.34	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3334	1/1	0.95	0.08	51,51,51,51	0
56	MG	13	1659	1/1	0.96	0.11	87,87,87,87	0
57	PAR	1G	1681	42/42	0.96	0.16	79,90,98,101	0
56	MG	14	3226	1/1	0.96	0.17	72,72,72,72	0
56	MG	1H	3177	1/1	0.96	0.23	82,82,82,82	0
56	MG	1H	3021	1/1	0.96	0.24	57,57,57,57	0
56	MG	14	3136	1/1	0.96	0.26	62,62,62,62	0
56	MG	1G	1660	1/1	0.96	0.46	97,97,97,97	0
56	MG	14	3103	1/1	0.96	0.33	66,66,66,66	0
56	MG	1H	3058	1/1	0.96	0.20	62,62,62,62	0
56	MG	1H	3398	1/1	0.96	0.09	83,83,83,83	0
56	MG	13	1665	1/1	0.96	0.30	64,64,64,64	0
56	MG	1H	3131	1/1	0.96	0.21	62,62,62,62	0
56	MG	1H	3233	1/1	0.96	0.11	50,50,50,50	0
56	MG	1H	3091	1/1	0.96	0.10	61,61,61,61	0
56	MG	1H	3130	1/1	0.96	0.17	60,60,60,60	0
56	MG	14	3340	1/1	0.96	0.10	83,83,83,83	0
56	MG	1J	205	1/1	0.96	0.07	109,109,109,109	0
56	MG	1H	3059	1/1	0.96	0.29	48,48,48,48	0
56	MG	14	3086	1/1	0.96	0.64	82,82,82,82	0
59	ZN	C5	202	1/1	0.96	0.10	165,165,165,165	0
56	MG	1H	3116	1/1	0.96	0.17	56,56,56,56	0
56	MG	14	3355	1/1	0.96	0.05	92,92,92,92	0
56	MG	1H	3080	1/1	0.96	0.18	86,86,86,86	0
56	MG	14	3054	1/1	0.96	0.17	83,83,83,83	0
56	MG	14	3316	1/1	0.96	0.07	67,67,67,67	0
56	MG	14	3152	1/1	0.96	0.15	91,91,91,91	0
56	MG	14	3195	1/1	0.96	0.10	107,107,107,107	0
56	MG	1H	3165	1/1	0.96	0.42	79,79,79,79	0
56	MG	1H	3285	1/1	0.96	0.33	72,72,72,72	0
56	MG	13	1640	1/1	0.96	0.15	91,91,91,91	0
56	MG	1H	3118	1/1	0.96	0.14	61,61,61,61	0
56	MG	13	1612	1/1	0.96	0.24	79,79,79,79	0
56	MG	1H	3228	1/1	0.96	0.16	57,57,57,57	0
56	MG	13	1667	1/1	0.96	0.09	85,85,85,85	0
56	MG	1H	3328	1/1	0.96	0.10	52,52,52,52	0
56	MG	1H	3065	1/1	0.96	0.33	55,55,55,55	0
56	MG	1H	3069	1/1	0.96	0.20	60,60,60,60	0
56	MG	1G	1631	1/1	0.96	0.36	91,91,91,91	0
56	MG	14	3121	1/1	0.96	0.32	84,84,84,84	0
56	MG	14	3376	1/1	0.96	0.13	90,90,90,90	0
56	MG	1G	1612	1/1	0.96	0.41	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3036	1/1	0.96	0.38	77,77,77,77	0
56	MG	1H	3379	1/1	0.96	0.10	61,61,61,61	0
56	MG	14	3307	1/1	0.96	0.30	108,108,108,108	0
56	MG	1H	3351	1/1	0.96	0.09	73,73,73,73	0
56	MG	1H	3294	1/1	0.96	0.51	71,71,71,71	0
56	MG	13	1723	1/1	0.96	0.10	73,73,73,73	0
56	MG	1H	3012	1/1	0.96	0.31	79,79,79,79	0
56	MG	1H	3068	1/1	0.96	0.30	56,56,56,56	0
56	MG	14	3342	1/1	0.96	0.08	94,94,94,94	0
56	MG	14	3172	1/1	0.96	0.14	98,98,98,98	0
56	MG	14	3174	1/1	0.96	0.35	81,81,81,81	0
56	MG	1H	3361	1/1	0.96	0.13	82,82,82,82	0
56	MG	1H	3122	1/1	0.96	0.20	50,50,50,50	0
56	MG	14	3085	1/1	0.96	0.39	51,51,51,51	0
56	MG	1H	3144	1/1	0.96	0.18	54,54,54,54	0
56	MG	13	1611	1/1	0.96	0.34	61,61,61,61	0
56	MG	14	3213	1/1	0.96	0.26	89,89,89,89	0
56	MG	1G	1650	1/1	0.96	0.20	91,91,91,91	0
56	MG	13	1670	1/1	0.96	0.23	95,95,95,95	0
56	MG	1H	3234	1/1	0.96	0.22	99,99,99,99	0
56	MG	1H	3086	1/1	0.96	0.40	41,41,41,41	0
56	MG	1H	3087	1/1	0.96	0.17	65,65,65,65	0
56	MG	1H	3136	1/1	0.96	0.10	68,68,68,68	0
56	MG	1G	1657	1/1	0.96	0.58	90,90,90,90	0
56	MG	14	3332	1/1	0.96	0.15	64,64,64,64	0
56	MG	1H	3146	1/1	0.96	0.27	59,59,59,59	0
56	MG	14	3267	1/1	0.96	0.21	66,66,66,66	0
56	MG	14	3034	1/1	0.96	0.62	74,74,74,74	0
56	MG	13	1609	1/1	0.96	0.22	73,73,73,73	0
56	MG	14	3336	1/1	0.96	0.06	77,77,77,77	0
56	MG	14	3194	1/1	0.96	0.51	86,86,86,86	0
56	MG	1H	3033	1/1	0.96	0.18	68,68,68,68	0
56	MG	1H	3101	1/1	0.96	0.27	64,64,64,64	0
56	MG	14	3356	1/1	0.96	0.04	98,98,98,98	0
56	MG	13	1711	1/1	0.96	0.12	92,92,92,92	0
56	MG	1H	3117	1/1	0.96	0.17	82,82,82,82	0
56	MG	14	3190	1/1	0.96	0.28	95,95,95,95	0
56	MG	1H	3208	1/1	0.96	0.36	63,63,63,63	0
56	MG	1H	3026	1/1	0.96	0.59	50,50,50,50	0
56	MG	14	3052	1/1	0.96	0.27	71,71,71,71	0
56	MG	14	3204	1/1	0.96	0.36	82,82,82,82	0
56	MG	1G	1617	1/1	0.96	0.15	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	16	208	1/1	0.96	0.27	82,82,82,82	0
56	MG	1H	3168	1/1	0.96	0.17	65,65,65,65	0
56	MG	1H	3020	1/1	0.96	0.24	60,60,60,60	0
56	MG	1H	3408	1/1	0.96	0.06	80,80,80,80	0
56	MG	13	1675	1/1	0.96	0.22	124,124,124,124	0
56	MG	14	3371	1/1	0.96	0.08	72,72,72,72	0
56	MG	1G	1610	1/1	0.96	0.28	102,102,102,102	0
56	MG	14	3286	1/1	0.96	0.39	83,83,83,83	0
56	MG	1H	3409	1/1	0.96	0.05	86,86,86,86	0
56	MG	14	3118	1/1	0.96	0.11	66,66,66,66	0
56	MG	1H	3056	1/1	0.96	0.14	40,40,40,40	0
56	MG	13	1635	1/1	0.96	0.18	54,54,54,54	0
56	MG	14	3369	1/1	0.97	0.06	84,84,84,84	0
56	MG	1H	3363	1/1	0.97	0.04	69,69,69,69	0
56	MG	14	3365	1/1	0.97	0.07	88,88,88,88	0
56	MG	1H	3103	1/1	0.97	0.24	51,51,51,51	0
56	MG	1H	3335	1/1	0.97	0.07	50,50,50,50	0
56	MG	13	1703	1/1	0.97	0.15	70,70,70,70	0
56	MG	1H	3387	1/1	0.97	0.10	72,72,72,72	0
56	MG	1H	3081	1/1	0.97	0.42	85,85,85,85	0
56	MG	14	3375	1/1	0.97	0.07	111,111,111,111	0
56	MG	14	3171	1/1	0.97	0.27	56,56,56,56	0
56	MG	1G	1658	1/1	0.97	0.11	124,124,124,124	0
56	MG	14	3366	1/1	0.97	0.11	92,92,92,92	0
56	MG	1H	3114	1/1	0.97	0.26	67,67,67,67	0
56	MG	1G	1653	1/1	0.97	0.27	85,85,85,85	0
56	MG	14	3182	1/1	0.97	0.40	73,73,73,73	0
56	MG	14	3314	1/1	0.97	0.07	73,73,73,73	0
56	MG	1H	3051	1/1	0.97	0.24	84,84,84,84	0
56	MG	14	3078	1/1	0.97	0.25	64,64,64,64	0
56	MG	1H	3085	1/1	0.97	0.40	82,82,82,82	0
56	MG	1H	3100	1/1	0.97	0.22	56,56,56,56	0
56	MG	14	3049	1/1	0.97	0.21	58,58,58,58	0
56	MG	13	1727	1/1	0.97	0.07	115,115,115,115	0
56	MG	14	3359	1/1	0.97	0.10	55,55,55,55	0
56	MG	13	1724	1/1	0.97	0.05	108,108,108,108	0
56	MG	14	3217	1/1	0.97	0.29	87,87,87,87	0
56	MG	13	1729	1/1	0.97	0.11	103,103,103,103	0
56	MG	1H	3104	1/1	0.97	0.30	71,71,71,71	0
56	MG	14	3139	1/1	0.97	0.33	93,93,93,93	0
56	MG	14	3319	1/1	0.97	0.06	62,62,62,62	0
56	MG	1G	1648	1/1	0.97	0.48	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1725	1/1	0.97	0.10	102,102,102,102	0
56	MG	14	3345	1/1	0.97	0.12	118,118,118,118	0
56	MG	14	3200	1/1	0.97	0.26	67,67,67,67	0
56	MG	1H	3405	1/1	0.97	0.09	52,52,52,52	0
56	MG	14	3131	1/1	0.97	0.46	76,76,76,76	0
56	MG	1H	3229	1/1	0.97	0.12	45,45,45,45	0
56	MG	13	1610	1/1	0.97	0.19	72,72,72,72	0
56	MG	13	1615	1/1	0.97	0.18	85,85,85,85	0
56	MG	1H	3006	1/1	0.97	0.18	61,61,61,61	0
56	MG	1H	3390	1/1	0.97	0.05	88,88,88,88	0
56	MG	14	3223	1/1	0.97	0.20	83,83,83,83	0
56	MG	1H	3279	1/1	0.97	0.09	51,51,51,51	0
56	MG	1H	3002	1/1	0.97	0.32	49,49,49,49	0
56	MG	1H	3420	1/1	0.97	0.09	76,76,76,76	0
56	MG	1H	3397	1/1	0.97	0.07	71,71,71,71	0
56	MG	14	3084	1/1	0.97	0.26	73,73,73,73	0
56	MG	1H	3181	1/1	0.97	0.10	74,74,74,74	0
56	MG	14	3128	1/1	0.97	0.18	73,73,73,73	0
56	MG	14	3097	1/1	0.97	0.28	74,74,74,74	0
56	MG	1H	3421	1/1	0.97	0.09	83,83,83,83	0
56	MG	13	1721	1/1	0.97	0.07	79,79,79,79	0
57	PAR	13	1730	42/42	0.97	0.19	67,77,86,91	0
56	MG	14	3030	1/1	0.97	0.49	87,87,87,87	0
56	MG	1H	3424	1/1	0.97	0.07	89,89,89,89	0
56	MG	14	3050	1/1	0.97	0.30	73,73,73,73	0
56	MG	1H	3003	1/1	0.97	0.22	54,54,54,54	0
56	MG	13	1645	1/1	0.97	0.28	66,66,66,66	0
56	MG	18	101	1/1	0.97	0.05	59,59,59,59	0
56	MG	14	3115	1/1	0.97	0.34	66,66,66,66	0
56	MG	13	1709	1/1	0.97	0.10	94,94,94,94	0
56	MG	14	3008	1/1	0.97	0.57	65,65,65,65	0
56	MG	1H	3384	1/1	0.97	0.11	109,109,109,109	0
56	MG	1G	1601	1/1	0.97	0.28	96,96,96,96	0
56	MG	14	3339	1/1	0.97	0.12	64,64,64,64	0
56	MG	14	3011	1/1	0.97	0.55	58,58,58,58	0
56	MG	1H	3380	1/1	0.97	0.13	70,70,70,70	0
56	MG	13	1679	1/1	0.97	0.24	107,107,107,107	0
56	MG	13	1606	1/1	0.97	0.22	115,115,115,115	0
56	MG	1H	3428	1/1	0.97	0.19	54,54,54,54	0
56	MG	1H	3074	1/1	0.97	0.20	69,69,69,69	0
56	MG	13	1653	1/1	0.97	0.17	89,89,89,89	0
56	MG	14	3093	1/1	0.97	0.43	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3046	1/1	0.97	0.33	66,66,66,66	0
56	MG	1H	3378	1/1	0.97	0.10	68,68,68,68	0
56	MG	14	3077	1/1	0.97	0.18	60,60,60,60	0
56	MG	1H	3386	1/1	0.97	0.08	52,52,52,52	0
59	ZN	5A	101	1/1	0.97	0.12	139,139,139,139	0
56	MG	14	3373	1/1	0.97	0.08	87,87,87,87	0
56	MG	1H	3095	1/1	0.97	0.18	73,73,73,73	0
56	MG	16	209	1/1	0.97	0.14	64,64,64,64	0
56	MG	1G	1604	1/1	0.97	0.36	97,97,97,97	0
56	MG	1H	3073	1/1	0.97	0.19	47,47,47,47	0
56	MG	1H	3030	1/1	0.97	0.33	69,69,69,69	0
56	MG	13	1657	1/1	0.97	0.13	80,80,80,80	0
56	MG	1J	204	1/1	0.97	0.09	99,99,99,99	0
56	MG	14	3099	1/1	0.97	0.31	62,62,62,62	0
56	MG	1H	3255	1/1	0.97	0.10	81,81,81,81	0
56	MG	14	3206	1/1	0.97	0.39	82,82,82,82	0
56	MG	1H	3350	1/1	0.97	0.17	72,72,72,72	0
56	MG	1H	3078	1/1	0.97	0.19	57,57,57,57	0
56	MG	14	3082	1/1	0.97	0.44	63,63,63,63	0
56	MG	1H	3413	1/1	0.97	0.05	107,107,107,107	0
56	MG	1H	3324	1/1	0.97	0.32	69,69,69,69	0
56	MG	13	1708	1/1	0.97	0.12	85,85,85,85	0
56	MG	1H	3097	1/1	0.97	0.16	103,103,103,103	0
56	MG	1H	3422	1/1	0.97	0.09	100,100,100,100	0
56	MG	1H	3343	1/1	0.97	0.07	65,65,65,65	0
56	MG	14	3105	1/1	0.97	0.24	52,52,52,52	0
56	MG	14	3067	1/1	0.97	0.21	74,74,74,74	0
56	MG	14	3306	1/1	0.97	0.20	110,110,110,110	0
56	MG	1H	3048	1/1	0.97	0.43	92,92,92,92	0
56	MG	14	3138	1/1	0.97	0.31	55,55,55,55	0
56	MG	1H	3329	1/1	0.97	0.06	59,59,59,59	0
56	MG	14	3135	1/1	0.98	0.19	78,78,78,78	0
56	MG	14	3066	1/1	0.98	0.13	72,72,72,72	0
56	MG	1H	3063	1/1	0.98	0.24	55,55,55,55	0
56	MG	13	1717	1/1	0.98	0.10	74,74,74,74	0
56	MG	1G	1624	1/1	0.98	0.43	76,76,76,76	0
56	MG	14	3325	1/1	0.98	0.11	76,76,76,76	0
56	MG	1H	3404	1/1	0.98	0.07	64,64,64,64	0
56	MG	14	3089	1/1	0.98	0.47	54,54,54,54	0
56	MG	14	3318	1/1	0.98	0.19	71,71,71,71	0
56	MG	1H	3261	1/1	0.98	0.23	90,90,90,90	0
56	MG	1G	1669	1/1	0.98	0.10	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1621	1/1	0.98	0.55	61,61,61,61	0
56	MG	1H	3394	1/1	0.98	0.05	60,60,60,60	0
56	MG	1H	3383	1/1	0.98	0.08	65,65,65,65	0
56	MG	14	3337	1/1	0.98	0.13	79,79,79,79	0
59	ZN	5I	102	1/1	0.98	0.13	99,99,99,99	0
56	MG	14	3320	1/1	0.98	0.07	84,84,84,84	0
56	MG	1H	3416	1/1	0.98	0.17	104,104,104,104	0
56	MG	14	3361	1/1	0.98	0.07	60,60,60,60	0
56	MG	1H	3337	1/1	0.98	0.13	55,55,55,55	0
56	MG	14	3333	1/1	0.98	0.12	79,79,79,79	0
56	MG	1H	3388	1/1	0.98	0.11	63,63,63,63	0
56	MG	14	3044	1/1	0.98	0.45	68,68,68,68	0
56	MG	1H	3071	1/1	0.98	0.16	56,56,56,56	0
56	MG	14	3364	1/1	0.98	0.06	73,73,73,73	0
56	MG	14	3074	1/1	0.98	0.26	45,45,45,45	0
56	MG	14	3315	1/1	0.98	0.04	71,71,71,71	0
56	MG	14	3080	1/1	0.98	0.29	67,67,67,67	0
56	MG	1H	3396	1/1	0.98	0.09	58,58,58,58	0
56	MG	14	3350	1/1	0.98	0.12	76,76,76,76	0
56	MG	13	1707	1/1	0.98	0.11	85,85,85,85	0
56	MG	1H	3331	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3357	1/1	0.98	0.12	58,58,58,58	0
56	MG	1H	3367	1/1	0.98	0.07	71,71,71,71	0
56	MG	1H	3407	1/1	0.98	0.11	86,86,86,86	0
56	MG	1H	3419	1/1	0.98	0.07	73,73,73,73	0
56	MG	1H	3256	1/1	0.98	0.24	76,76,76,76	0
56	MG	1H	3427	1/1	0.98	0.10	84,84,84,84	0
56	MG	14	3129	1/1	0.98	0.39	58,58,58,58	0
56	MG	29	301	1/1	0.98	0.27	63,63,63,63	0
56	MG	1H	3345	1/1	0.98	0.10	58,58,58,58	0
56	MG	1H	3174	1/1	0.98	0.35	85,85,85,85	0
56	MG	14	3335	1/1	0.98	0.07	63,63,63,63	0
56	MG	1H	3400	1/1	0.98	0.06	52,52,52,52	0
56	MG	1H	3365	1/1	0.98	0.05	54,54,54,54	0
56	MG	1H	3060	1/1	0.98	0.34	52,52,52,52	0
56	MG	1H	3395	1/1	0.98	0.04	74,74,74,74	0
56	MG	14	3010	1/1	0.98	0.44	54,54,54,54	0
56	MG	14	3349	1/1	0.98	0.04	90,90,90,90	0
56	MG	1G	1667	1/1	0.98	0.39	100,100,100,100	0
56	MG	14	3104	1/1	0.98	0.26	64,64,64,64	0
56	MG	1H	3382	1/1	0.98	0.10	60,60,60,60	0
56	MG	1H	3354	1/1	0.98	0.17	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3001	1/1	0.98	0.32	53,53,53,53	0
56	MG	1H	3127	1/1	0.98	0.28	53,53,53,53	0
56	MG	14	3001	1/1	0.98	0.15	51,51,51,51	0
56	MG	14	3354	1/1	0.98	0.14	87,87,87,87	0
56	MG	1H	3158	1/1	0.98	0.41	68,68,68,68	0
56	MG	1H	3399	1/1	0.98	0.05	91,91,91,91	0
56	MG	1H	3072	1/1	0.98	0.47	72,72,72,72	0
56	MG	14	3014	1/1	0.98	0.43	49,49,49,49	0
56	MG	1H	3370	1/1	0.98	0.09	76,76,76,76	0
56	MG	14	3343	1/1	0.98	0.09	71,71,71,71	0
56	MG	1H	3344	1/1	0.98	0.13	75,75,75,75	0
56	MG	1H	3330	1/1	0.98	0.10	60,60,60,60	0
56	MG	1H	3253	1/1	0.98	0.16	60,60,60,60	0
56	MG	14	3100	1/1	0.98	0.24	91,91,91,91	0
56	MG	14	3322	1/1	0.98	0.03	72,72,72,72	0
56	MG	1H	3368	1/1	0.98	0.08	57,57,57,57	0
56	MG	13	1722	1/1	0.98	0.05	93,93,93,93	0
56	MG	13	1705	1/1	0.98	0.09	94,94,94,94	0
56	MG	14	3334	1/1	0.98	0.06	85,85,85,85	0
56	MG	1H	3004	1/1	0.98	0.26	41,41,41,41	0
56	MG	1H	3360	1/1	0.98	0.09	57,57,57,57	0
56	MG	13	1626	1/1	0.98	0.35	87,87,87,87	0
56	MG	1H	3341	1/1	0.98	0.10	57,57,57,57	0
56	MG	1H	3007	1/1	0.98	0.21	80,80,80,80	0
56	MG	14	3372	1/1	0.98	0.09	87,87,87,87	0
56	MG	1H	3338	1/1	0.98	0.11	59,59,59,59	0
56	MG	13	1660	1/1	0.98	0.51	81,81,81,81	0
56	MG	1H	3010	1/1	0.98	0.35	57,57,57,57	0
56	MG	13	1704	1/1	0.98	0.07	85,85,85,85	0
56	MG	13	1732	1/1	0.98	0.14	65,65,65,65	0
56	MG	13	1715	1/1	0.98	0.07	100,100,100,100	0
56	MG	1H	3347	1/1	0.98	0.07	78,78,78,78	0
56	MG	14	3053	1/1	0.98	0.36	61,61,61,61	0
56	MG	14	3016	1/1	0.98	0.30	60,60,60,60	0
56	MG	13	1634	1/1	0.98	0.26	53,53,53,53	0
56	MG	14	3098	1/1	0.98	0.33	68,68,68,68	0
56	MG	1H	3392	1/1	0.98	0.14	71,71,71,71	0
56	MG	1H	3374	1/1	0.98	0.09	88,88,88,88	0
56	MG	1G	1673	1/1	0.98	0.12	85,85,85,85	0
56	MG	14	3352	1/1	0.98	0.11	78,78,78,78	0
56	MG	14	3065	1/1	0.98	0.13	68,68,68,68	0
56	MG	14	3313	1/1	0.98	0.16	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	2L	101	1/1	0.98	0.41	72,72,72,72	0
56	MG	14	3048	1/1	0.99	0.48	55,55,55,55	0
56	MG	14	3329	1/1	0.99	0.08	55,55,55,55	0
56	MG	1H	3385	1/1	0.99	0.12	78,78,78,78	0
56	MG	1H	3090	1/1	0.99	0.41	72,72,72,72	0
56	MG	1H	3358	1/1	0.99	0.17	68,68,68,68	0
56	MG	1H	3105	1/1	0.99	0.26	64,64,64,64	0
56	MG	13	1719	1/1	0.99	0.13	86,86,86,86	0
56	MG	14	3363	1/1	0.99	0.11	51,51,51,51	0
56	MG	1H	3372	1/1	0.99	0.13	53,53,53,53	0
56	MG	14	3209	1/1	0.99	0.20	67,67,67,67	0
56	MG	1H	3402	1/1	0.99	0.08	60,60,60,60	0
56	MG	14	3321	1/1	0.99	0.07	73,73,73,73	0
56	MG	1H	3356	1/1	0.99	0.08	61,61,61,61	0
56	MG	1H	3031	1/1	0.99	0.29	65,65,65,65	0
56	MG	14	3045	1/1	0.99	0.30	64,64,64,64	0
56	MG	13	1716	1/1	0.99	0.09	88,88,88,88	0
56	MG	14	3347	1/1	0.99	0.13	77,77,77,77	0
56	MG	1H	3377	1/1	0.99	0.11	77,77,77,77	0
56	MG	14	3378	1/1	0.99	0.07	62,62,62,62	0
56	MG	1H	3364	1/1	0.99	0.15	56,56,56,56	0
56	MG	14	3330	1/1	0.99	0.11	65,65,65,65	0
58	SF4	3E	302	8/8	0.99	0.18	76,86,96,96	0
56	MG	14	3358	1/1	0.99	0.12	64,64,64,64	0
56	MG	14	3328	1/1	0.99	0.07	64,64,64,64	0
56	MG	14	3323	1/1	0.99	0.14	66,66,66,66	0
56	MG	14	3326	1/1	0.99	0.13	61,61,61,61	0
56	MG	1H	3108	1/1	0.99	0.28	62,62,62,62	0
56	MG	1H	3342	1/1	0.99	0.06	59,59,59,59	0
56	MG	14	3112	1/1	0.99	0.20	61,61,61,61	0
56	MG	14	3094	1/1	0.99	0.32	82,82,82,82	0
56	MG	1H	3410	1/1	0.99	0.12	53,53,53,53	0
56	MG	14	3346	1/1	0.99	0.10	64,64,64,64	0
56	MG	1H	3403	1/1	0.99	0.06	61,61,61,61	0
56	MG	14	3368	1/1	0.99	0.17	49,49,49,49	0
56	MG	1H	3139	1/1	0.99	0.32	64,64,64,64	0
56	MG	14	3311	1/1	0.99	0.22	83,83,83,83	0
56	MG	14	3043	1/1	0.99	0.36	52,52,52,52	0
56	MG	2K	103	1/1	0.99	0.28	71,71,71,71	0
56	MG	13	1726	1/1	0.99	0.04	82,82,82,82	0
56	MG	1G	1608	1/1	0.99	0.11	101,101,101,101	0
56	MG	1H	3062	1/1	0.99	0.19	54,54,54,54	0

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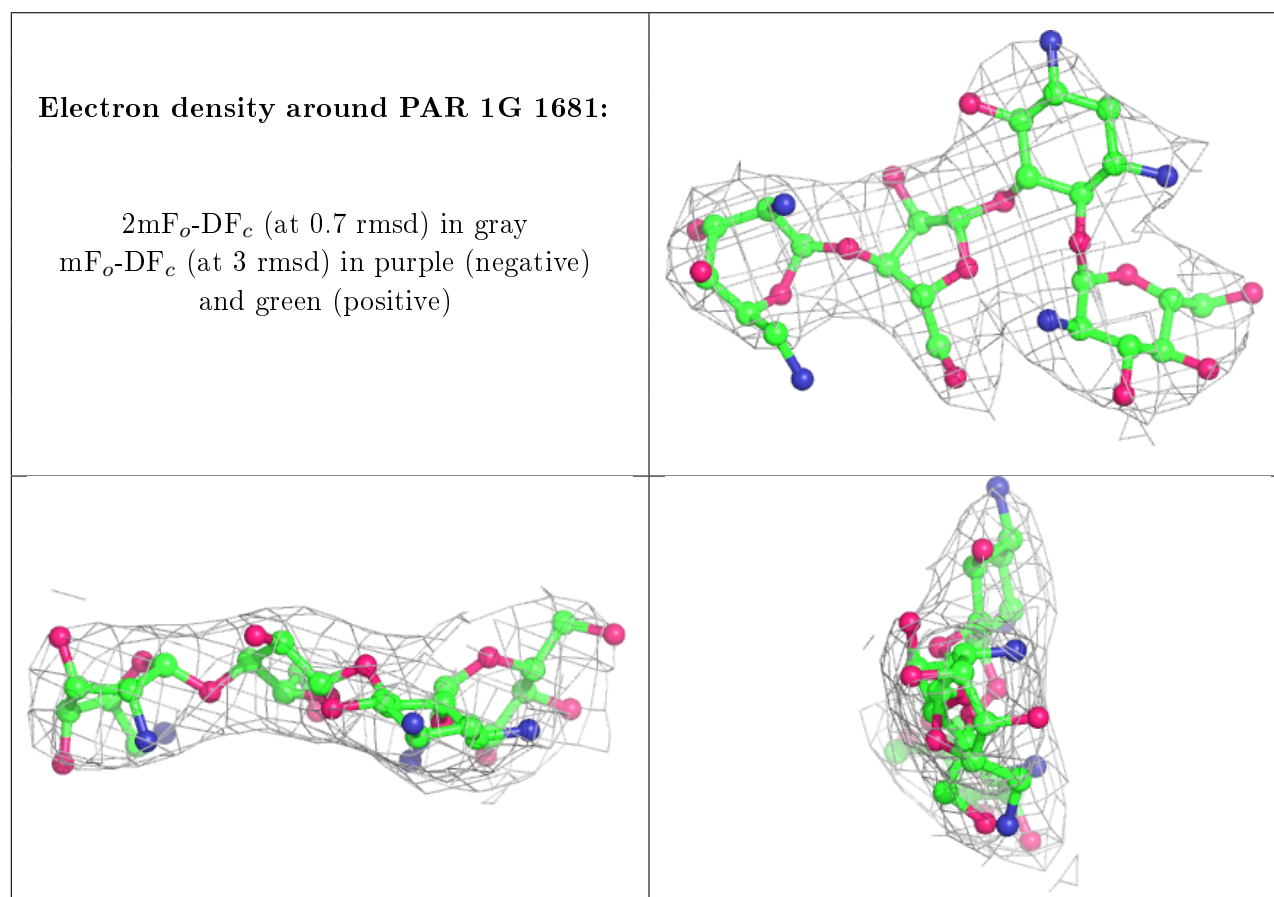
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3357	1/1	0.99	0.06	77,77,77,77	0
56	MG	13	1601	1/1	0.99	0.25	59,59,59,59	0
56	MG	14	3090	1/1	0.99	0.31	70,70,70,70	0
56	MG	1H	3332	1/1	0.99	0.13	66,66,66,66	0
56	MG	1G	1607	1/1	0.99	0.27	77,77,77,77	0
56	MG	1H	3359	1/1	0.99	0.22	66,66,66,66	0
56	MG	13	1718	1/1	0.99	0.05	67,67,67,67	0
56	MG	1H	3375	1/1	0.99	0.10	67,67,67,67	0
56	MG	1H	3340	1/1	0.99	0.10	58,58,58,58	0
56	MG	1H	3381	1/1	0.99	0.12	59,59,59,59	0
56	MG	1H	3353	1/1	0.99	0.10	53,53,53,53	0
56	MG	13	1712	1/1	0.99	0.11	78,78,78,78	0
56	MG	1H	3245	1/1	0.99	0.29	74,74,74,74	0
56	MG	1H	3393	1/1	0.99	0.07	70,70,70,70	0
56	MG	88	201	1/1	0.99	0.19	81,81,81,81	0
56	MG	1H	3355	1/1	0.99	0.10	58,58,58,58	0
56	MG	14	3047	1/1	0.99	0.25	57,57,57,57	0
56	MG	1H	3339	1/1	0.99	0.05	70,70,70,70	0
56	MG	1H	3401	1/1	0.99	0.05	55,55,55,55	0
58	SF4	32	301	8/8	0.99	0.18	92,113,120,129	0
56	MG	1H	3333	1/1	0.99	0.09	63,63,63,63	0
56	MG	1H	3426	1/1	0.99	0.07	54,54,54,54	0
56	MG	1H	3109	1/1	0.99	0.18	59,59,59,59	0
56	MG	16	210	1/1	0.99	0.17	81,81,81,81	0
56	MG	1H	3336	1/1	0.99	0.07	49,49,49,49	0
56	MG	1H	3371	1/1	0.99	0.09	63,63,63,63	0
56	MG	14	3312	1/1	0.99	0.18	70,70,70,70	0
56	MG	13	1602	1/1	0.99	0.38	89,89,89,89	0
56	MG	1H	3362	1/1	0.99	0.10	64,64,64,64	0
56	MG	14	3351	1/1	0.99	0.14	65,65,65,65	0
56	MG	14	3327	1/1	0.99	0.11	84,84,84,84	0
56	MG	14	3331	1/1	0.99	0.06	63,63,63,63	0
56	MG	1H	3417	1/1	0.99	0.07	62,62,62,62	0
56	MG	13	1619	1/1	0.99	0.32	69,69,69,69	0
56	MG	14	3160	1/1	0.99	0.44	57,57,57,57	0
56	MG	14	3042	1/1	0.99	0.28	58,58,58,58	0
56	MG	1H	3066	1/1	1.00	0.16	48,48,48,48	0
56	MG	1H	3346	1/1	1.00	0.07	63,63,63,63	0
56	MG	14	3353	1/1	1.00	0.15	69,69,69,69	0
56	MG	14	3324	1/1	1.00	0.14	77,77,77,77	0
56	MG	1G	1670	1/1	1.00	0.11	88,88,88,88	0
56	MG	1H	3366	1/1	1.00	0.08	59,59,59,59	0

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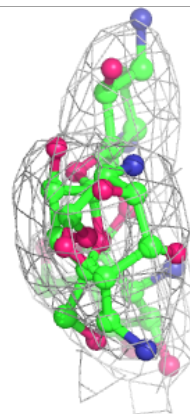
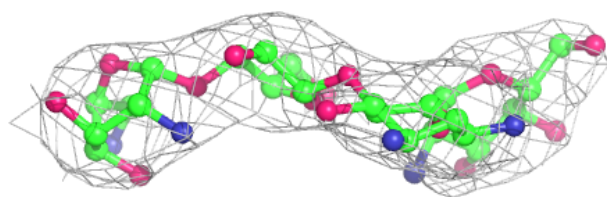
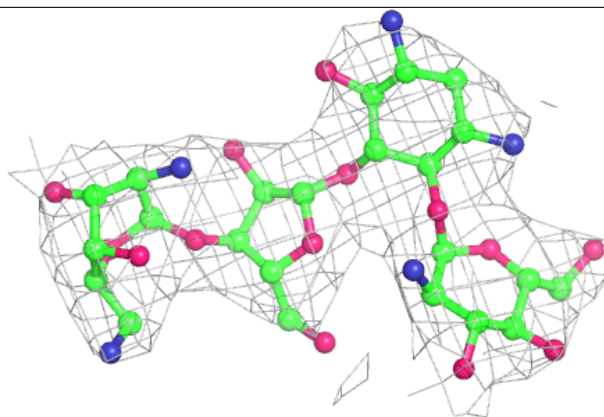
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3349	1/1	1.00	0.09	74,74,74,74	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



Electron density around PAR 13 1730:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.