



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 7, 2024 – 01:37 am GMT

PDB ID : 6GSK
Title : Structure of T. thermophilus 70S ribosome complex with mRNA, tRNA^{fMet} and near-cognate tRNA^{Thr} in the A-site
Authors : Rozov, A.; Yusupov, M.; Yusupova, G.
Deposited on : 2018-06-14
Resolution : 3.36 Å (reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

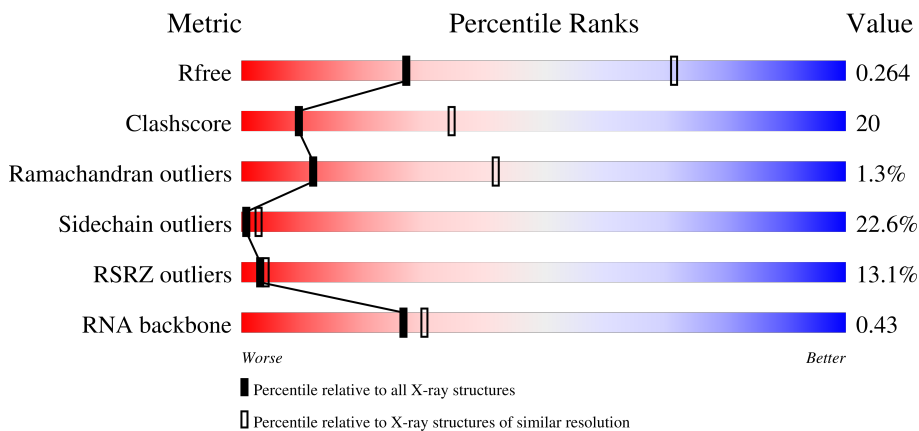
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.36 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.



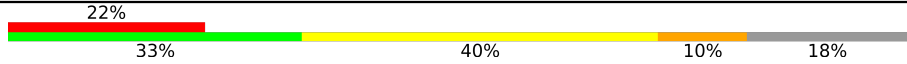

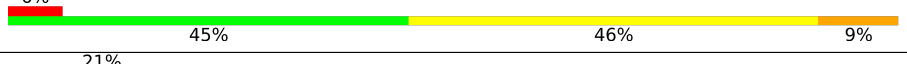
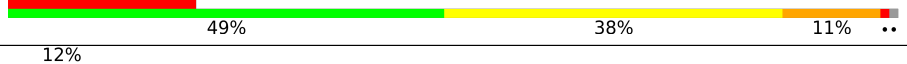
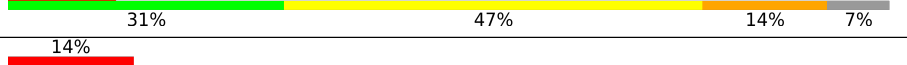


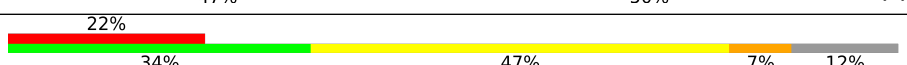
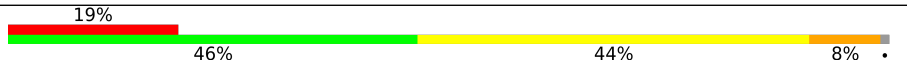

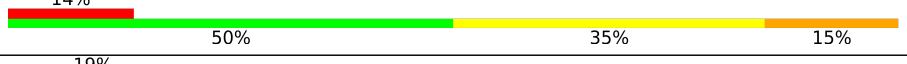
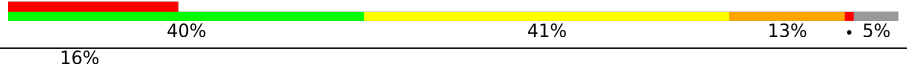
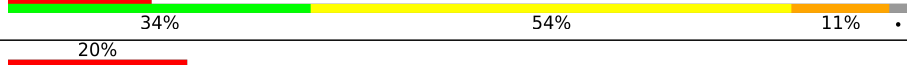

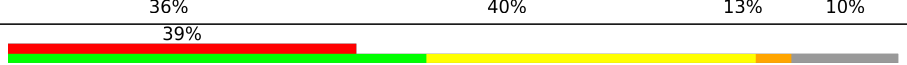
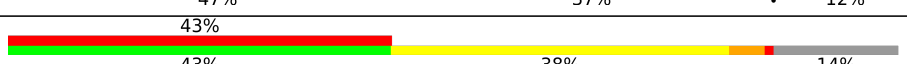
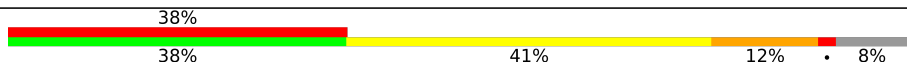
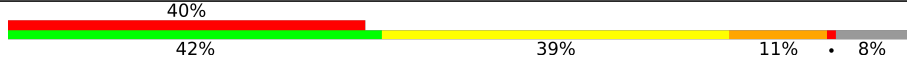
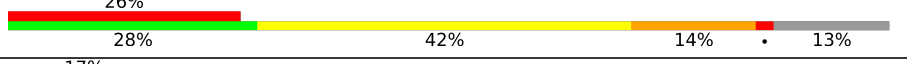






Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1558 (3.42-3.30)
Clashscore	141614	1627 (3.42-3.30)
Ramachandran outliers	138981	1599 (3.42-3.30)
Sidechain outliers	138945	1598 (3.42-3.30)
RSRZ outliers	127900	1507 (3.42-3.30)
RNA backbone	3102	1023 (3.80-2.92)

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

Mol	Chain	Length	Quality of chain
1	13	1522	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 30%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 49%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 17%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 2%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 2%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 20px;">2% 30% 49% 17% . .</p>
1	1G	1522	<div style="display: flex; align-items: center;"> <div style="width: 1%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 28%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 48%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 20%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 3%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 2%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 20px;">% 28% 48% 20% . .</p>
2	12	256	<div style="display: flex; align-items: center;"> <div style="width: 4%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 38%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 32%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 11%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 19%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 20px;">4% 38% 32% 11% 19%</p>
2	1E	256	<div style="display: flex; align-items: center;"> <div style="width: 1%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 39%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 39%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 12%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 10%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 20px;">% 39% 39% 12% 10%</p>



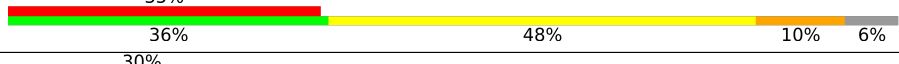
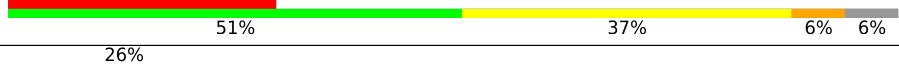
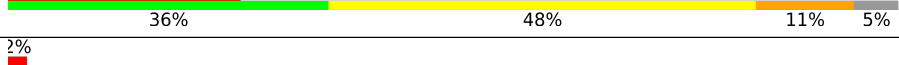
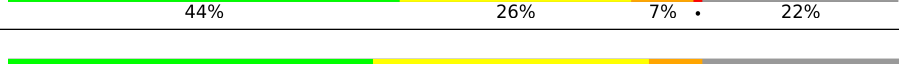
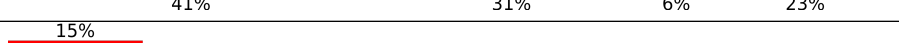

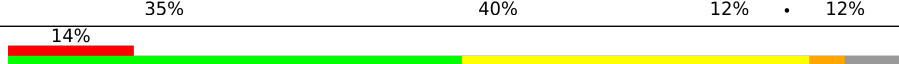
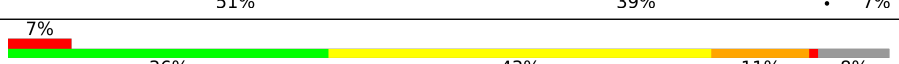
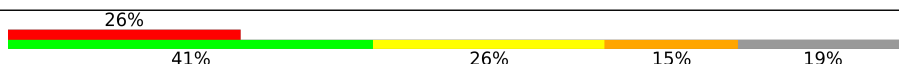
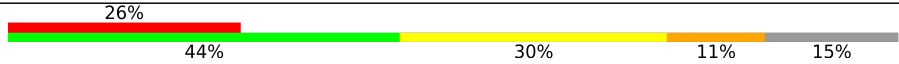
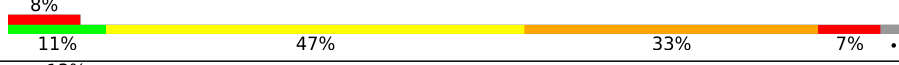
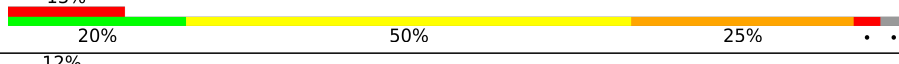
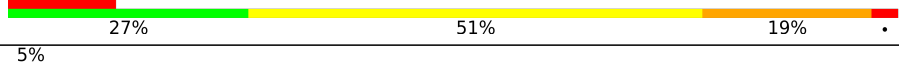
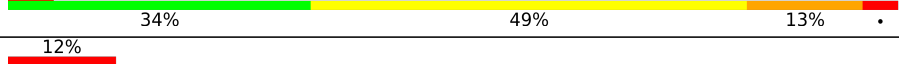
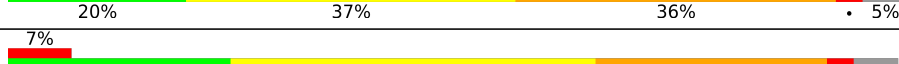
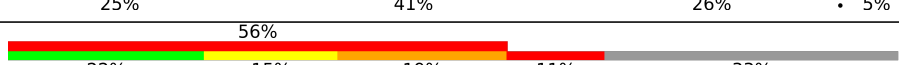
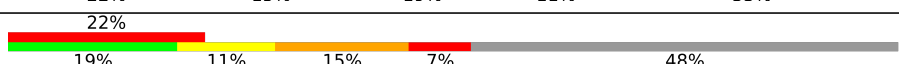
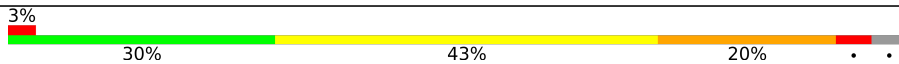
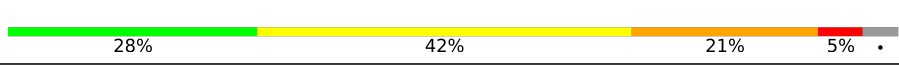

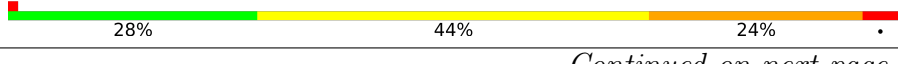


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Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126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





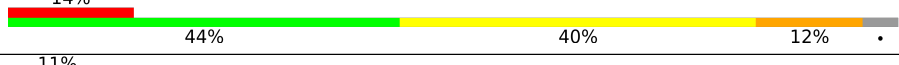
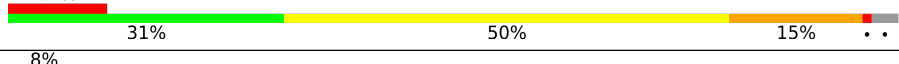
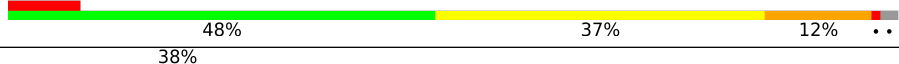
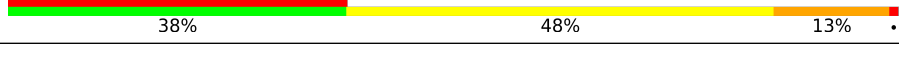
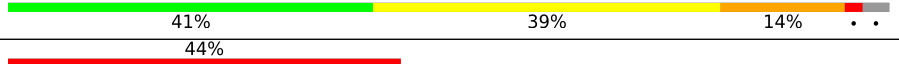
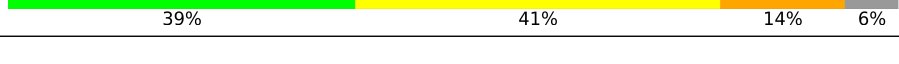


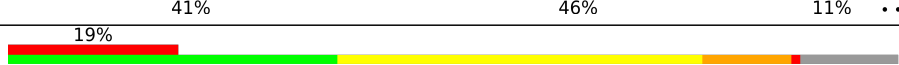


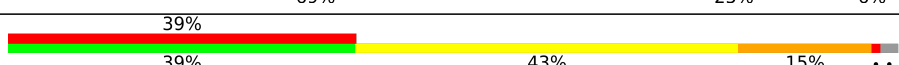
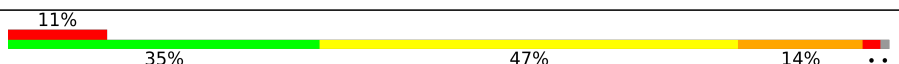

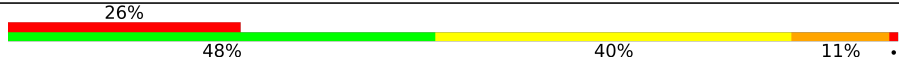


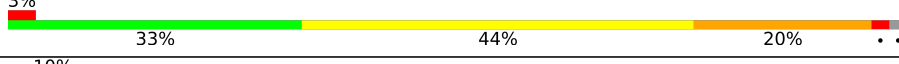

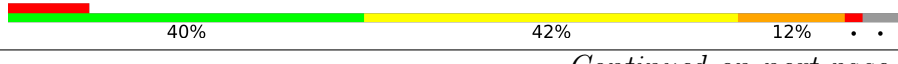

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Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	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

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Mol	Chain	Length	Quality of chain
28	11	276	
28	19	276	
29	21	206	
29	29	206	
30	31	210	
30	39	210	
31	41	182	
31	49	182	
32	51	180	
32	59	180	
33	61	148	
33	69	148	
34	15	140	
34	58	140	
35	25	122	
35	68	122	
36	35	150	
36	78	150	
37	45	141	
37	88	141	
38	55	118	
38	98	118	
39	65	112	
39	A8	112	
40	75	146	

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Mol	Chain	Length	Quality of chain
40	B8	146	
41	85	118	
41	C8	118	
42	95	101	
42	D8	101	
43	A5	113	
43	E8	113	
44	B5	96	
44	F8	96	
45	C5	110	
45	G8	110	
46	D5	206	
46	H8	206	
47	E5	85	
47	I8	85	
48	F5	98	
48	J8	98	
49	G5	72	
49	K8	72	
50	H5	60	
50	L8	60	
51	M8	71	
52	J5	60	
52	N8	60	
53	L5	49	

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Mol	Chain	Length	Quality of chain
53	P8	49	
54	M5	65	
54	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
22	H2U	1L	17	-	-	-	X
55	MG	13	1638	-	-	-	X
55	MG	13	1674	-	-	-	X
55	MG	13	1686	-	-	-	X
55	MG	13	1705	-	-	-	X
55	MG	14	3009	-	-	-	X
55	MG	14	3041	-	-	-	X
55	MG	14	3092	-	-	-	X
55	MG	14	3094	-	-	-	X
55	MG	14	3112	-	-	-	X
55	MG	14	3133	-	-	-	X
55	MG	14	3135	-	-	-	X
55	MG	14	3177	-	-	-	X
55	MG	14	3185	-	-	-	X
55	MG	1G	1618	-	-	-	X
55	MG	1G	1621	-	-	-	X
55	MG	1G	1650	-	-	-	X
55	MG	1G	1662	-	-	-	X
55	MG	1G	1663	-	-	-	X
55	MG	1G	1670	-	-	-	X
55	MG	1H	3045	-	-	-	X
55	MG	1H	3107	-	-	-	X
55	MG	1H	3142	-	-	-	X
55	MG	1H	3149	-	-	-	X
55	MG	1H	3181	-	-	-	X
55	MG	1H	3185	-	-	-	X
55	MG	1H	3212	-	-	-	X
55	MG	1H	3223	-	-	-	X
55	MG	1H	3226	-	-	-	X
55	MG	1H	3229	-	-	-	X
55	MG	1H	3241	-	-	-	X
55	MG	1H	3274	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	1H	3275	-	-	-	X
55	MG	35	201	-	-	-	X
55	MG	5I	101	-	-	-	X
55	MG	8I	201	-	-	-	X
56	SF4	32	302	-	-	X	-

2 Entry composition [i](#)

There are 58 unique types of molecules in this entry. The entry contains 292640 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	13	1500	Total 32246	C 14352	N 5978	O 10416	P 1500	0	0	0
1	1G	1490	Total 32028	C 14255	N 5932	O 10351	P 1490	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
13	1542	G	U	conflict	GB 55771382
1G	1542	G	U	conflict	GB 55771382

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	1E	231	Total 1874	C 1199	N 334	O 336	S 5	0	0	0
2	12	207	Total 1696	C 1083	N 306	O 303	S 4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	2E	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	22	197	Total 1546	C 978	N 299	O 268	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	3E	207	Total 1698	C 1064	N 338	O 289	S 7	0	0	0

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	4E	149	1142	722	216	200	4	0	0	0
5	42	150	1141	719	217	201	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	5E	100	837	528	154	152	3	0	0	0
6	52	101	842	531	155	153	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	6E	154	1242	770	250	216	6	0	0	0
7	62	138	1110	689	221	194	6	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	7E	138	1115	705	215	192	3	0	0	0
8	72	137	1107	700	214	191	2	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	1I	94	Total 749	C 468	N 147	O 133	S 1	0	0	0
10	1A	99	Total 801	C 504	N 157	O 139	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	2I	111	Total 823	C 512	N 154	O 154	S 3	0	0	0
11	2A	113	Total 835	C 520	N 156	O 156	S 3	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	4I	119	Total 942	C 582	N 194	O 164	S 2	0	0	0
13	4A	109	Total 879	C 544	N 181	O 152	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	5I	60	Total 491	C 312	N 104	O 71	S 4	0	0	0
14	5A	59	Total 486	C 309	N 103	O 70	S 4	0	0	0

- 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	69	Total	C	N	O	0	0	0
			554	355	106	93			

- 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
			661	422	123	114	2			
19	AA	65	Total	C	N	O	S	0	0	0
			510	324	92	92	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 tRNAThr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	74	Total	C	N	O	P	0	0	0
			1593	712	285	522	74			
22	1L	74	Total	C	N	O	P	0	0	0
			1593	712	285	522	74			

- Molecule 23 is a RNA chain called tRNAfMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	0	0	0
			1644	733	297	537	77			
23	2L	77	Total	C	N	O	P	0	0	0
			1644	733	297	537	77			

- Molecule 24 is a RNA chain called tRNAThr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	72	Total	C	N	O	P	0	0	0
			1537	686	276	503	72			
24	3L	72	Total	C	N	O	P	0	0	0
			1537	686	276	503	72			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	18	Total	C	N	O	P	0	0	0
			391	176	79	118	18			
25	4L	14	Total	C	N	O	P	0	0	0
			303	137	62	90	14			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
26	1H	2811	60546	26946	11325	19464	2811	0	0	0
26	14	2811	60561	26951	11337	19462	2811	0	0	0

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 ribosomal RNA.

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

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	11	273	2120	1338	421	358	3	0	0	0
28	19	274	2125	1341	422	359	3	0	0	0

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	21	205	Total	C	N	O	S	0	0	0
			1556	984	297	269	6			
29	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
30	39	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
31	49	180	Total	C	N	O	S	0	0	0
			1459	931	266	258	4			

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
32	59	169	Total	C	N	O	S	0	0	0
			1295	823	241	230	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	61	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
33	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	58	125	Total	C	N	O	S	0	0	0
			995	645	183	163	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
34	15	137	1096	707	205	181	3	0	0	0

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
35	68	122	932	588	171	169	4	0	0	0
35	25	122	932	588	171	169	4	0	0	0

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	78	148	1127	701	230	193	3	0	0	0
36	35	147	1122	698	229	192	3	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	88	141	1117	712	211	187	7	0	0	0
37	45	138	1099	702	208	183	6	0	0	0

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	98	118	967	604	203	159	1	0	0	0
38	55	118	967	604	203	159	1	0	0	0

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
39	A8	111	881	556	176	149	0	0	0
39	65	110	876	553	175	148	0	0	0

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B8	136	Total	C	N	O	S	0	0	0
			1128	702	231	194	1			
40	75	140	Total	C	N	O	S	0	0	0
			1164	723	238	202	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	C8	115	Total	C	N	O	S	0	0	0
			950	603	199	147	1			
41	85	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
42	95	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	E8	110	Total	C	N	O	S	0	0	0
			876	552	171	151	2			
43	A5	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	F8	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
44	B5	94	Total	C	N	O		0	0	0
			735	477	133	125				

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	G8	97	Total	C	N	O	S	0	0	0
			734	472	140	117	5			
45	C5	52	Total	C	N	O	S	0	0	0
			396	258	72	65	1			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	H8	170	Total	C	N	O	S	0	0	0
			1365	870	246	246	3			
46	D5	177	Total	C	N	O	S	0	0	0
			1411	901	253	255	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	I8	77	Total	C	N	O	S	0	0	0
			611	378	129	103	1			
47	E5	76	Total	C	N	O	S	0	0	0
			603	372	128	102	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	J8	96	Total	C	N	O	S	0	0	0
			747	469	148	129	1			
48	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			
49	G5	69	Total	C	N	O	S	0	0	0
			576	358	116	101	1			

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	M8	60	475	300	84	86	5	0	0	0

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	N8	48	369	229	75	60	5	0	0	0
52	J5	56	434	272	87	70	5	0	0	0

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	P8	47	401	246	99	54	2	0	0	0
53	L5	48	406	249	100	55	2	0	0	0

- Molecule 54 is a protein called 50S ribosomal protein L35.

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

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	13	140	Total	Mg	0	0
			140	140		
55	5I	2	Total	Mg	0	0
			2	2		
55	8I	1	Total	Mg	0	0
			1	1		

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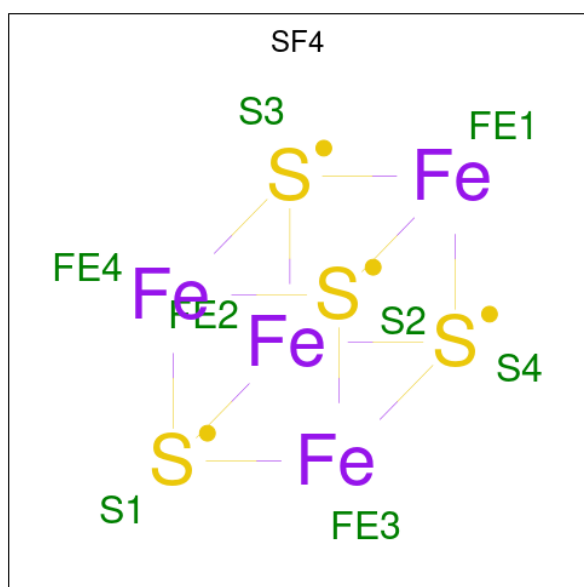
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	BI	1	Total Mg 1 1	0	0
55	1F	2	Total Mg 2 2	0	0
55	2K	1	Total Mg 1 1	0	0
55	1H	473	Total Mg 473 473	0	0
55	16	2	Total Mg 2 2	0	0
55	11	1	Total Mg 1 1	0	0
55	21	3	Total Mg 3 3	0	0
55	41	1	Total Mg 1 1	0	0
55	78	2	Total Mg 2 2	0	0
55	88	3	Total Mg 3 3	0	0
55	C8	2	Total Mg 2 2	0	0
55	D8	1	Total Mg 1 1	0	0
55	I8	1	Total Mg 1 1	0	0
55	J8	1	Total Mg 1 1	0	0
55	P8	1	Total Mg 1 1	0	0
55	1G	126	Total Mg 126 126	0	0
55	32	1	Total Mg 1 1	0	0
55	42	2	Total Mg 2 2	0	0
55	2A	1	Total Mg 1 1	0	0
55	4A	1	Total Mg 1 1	0	0
55	7A	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	BA	1	Total Mg 1 1	0	0
55	2L	1	Total Mg 1 1	0	0
55	14	300	Total Mg 300 300	0	0
55	1J	2	Total Mg 2 2	0	0
55	29	1	Total Mg 1 1	0	0
55	39	1	Total Mg 1 1	0	0
55	35	1	Total Mg 1 1	0	0
55	45	2	Total Mg 2 2	0	0
55	85	1	Total Mg 1 1	0	0
55	E5	1	Total Mg 1 1	0	0
55	F5	1	Total Mg 1 1	0	0

- Molecule 56 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	3E	1	Total	Fe	S	0	0
			8	4	4		
56	32	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	5I	1	Total	Zn	0	0
			1	1		
57	5A	1	Total	Zn	0	0
			1	1		

- Molecule 58 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	13	274	Total	O	0	0
			274	274		
58	4E	6	Total	O	0	0
			6	6		
58	8E	1	Total	O	0	0
			1	1		
58	1I	2	Total	O	0	0
			2	2		
58	3I	1	Total	O	0	0
			1	1		
58	4I	2	Total	O	0	0
			2	2		
58	5I	1	Total	O	0	0
			1	1		
58	7I	3	Total	O	0	0
			3	3		
58	1F	1	Total	O	0	0
			1	1		
58	1K	1	Total	O	0	0
			1	1		
58	1H	1010	Total	O	0	0
			1010	1010		
58	16	8	Total	O	0	0
			8	8		
58	11	8	Total	O	0	0
			8	8		
58	21	4	Total	O	0	0
			4	4		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	31	5	Total 5	O 5	0	0
58	58	1	Total 1	O 1	0	0
58	78	8	Total 8	O 8	0	0
58	98	1	Total 1	O 1	0	0
58	D8	1	Total 1	O 1	0	0
58	E8	1	Total 1	O 1	0	0
58	G8	1	Total 1	O 1	0	0
58	I8	3	Total 3	O 3	0	0
58	J8	2	Total 2	O 2	0	0
58	L8	3	Total 3	O 3	0	0
58	Q8	2	Total 2	O 2	0	0
58	1G	240	Total 240	O 240	0	0
58	32	1	Total 1	O 1	0	0
58	42	1	Total 1	O 1	0	0
58	7A	4	Total 4	O 4	0	0
58	BA	2	Total 2	O 2	0	0
58	2L	6	Total 6	O 6	0	0
58	4L	1	Total 1	O 1	0	0
58	14	586	Total 586	O 586	0	0
58	19	7	Total 7	O 7	0	0
58	29	2	Total 2	O 2	0	0

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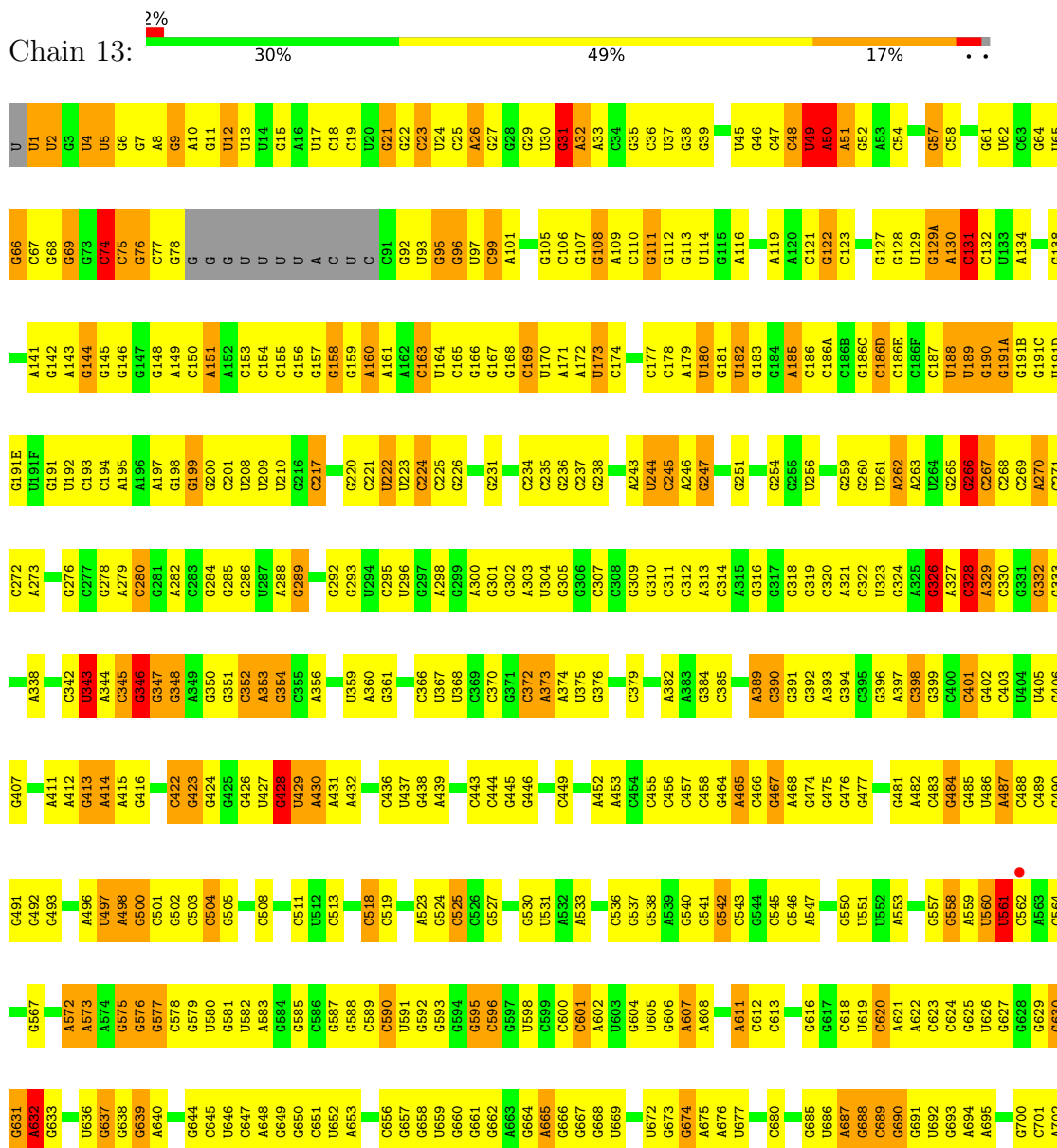
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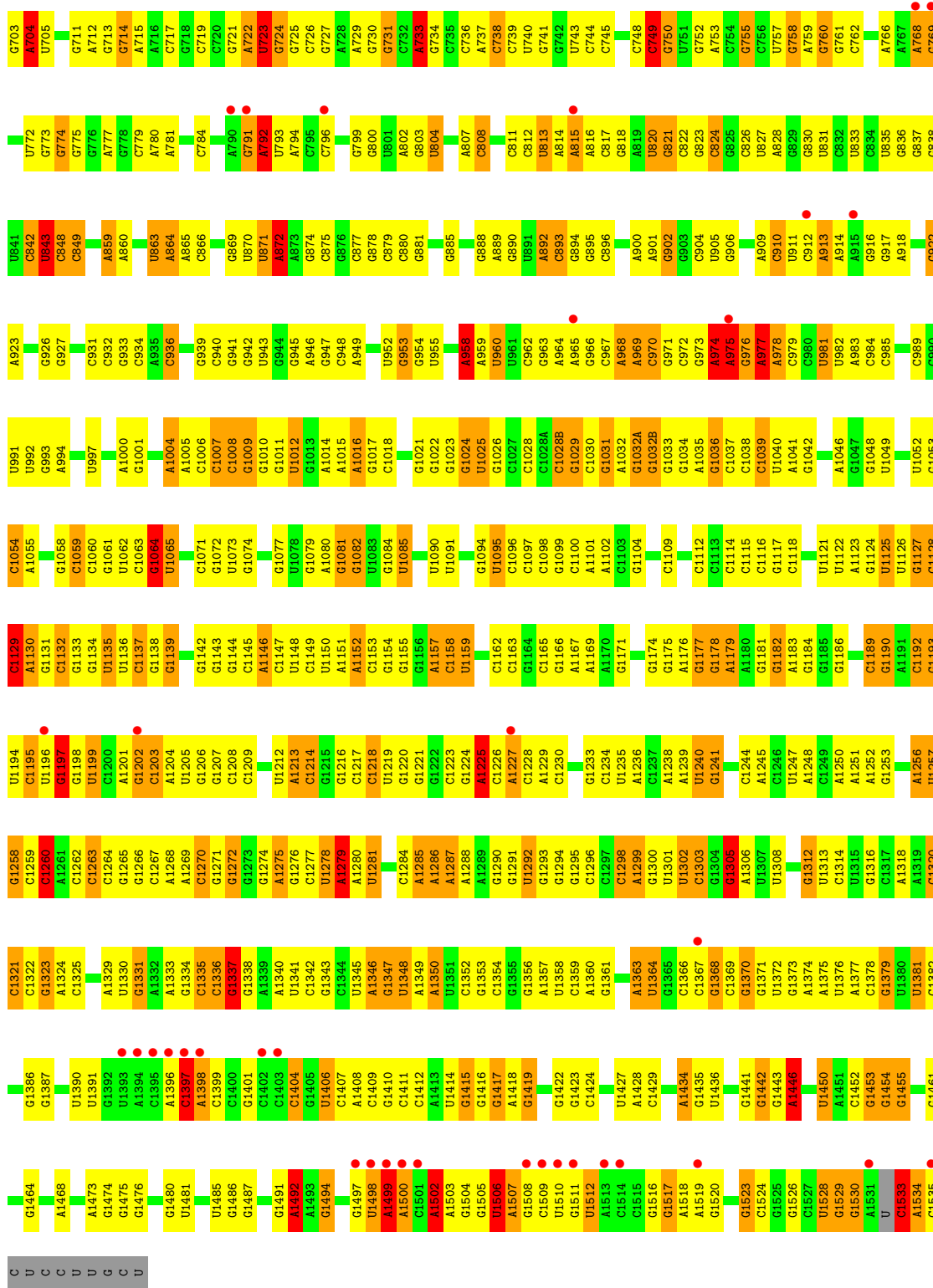
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	39	6	Total 6	O 6	0	0
58	35	5	Total 5	O 5	0	0
58	45	5	Total 5	O 5	0	0
58	B5	2	Total 2	O 2	0	0
58	H5	2	Total 2	O 2	0	0
58	L5	1	Total 1	O 1	0	0

3 Residue-property plots

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

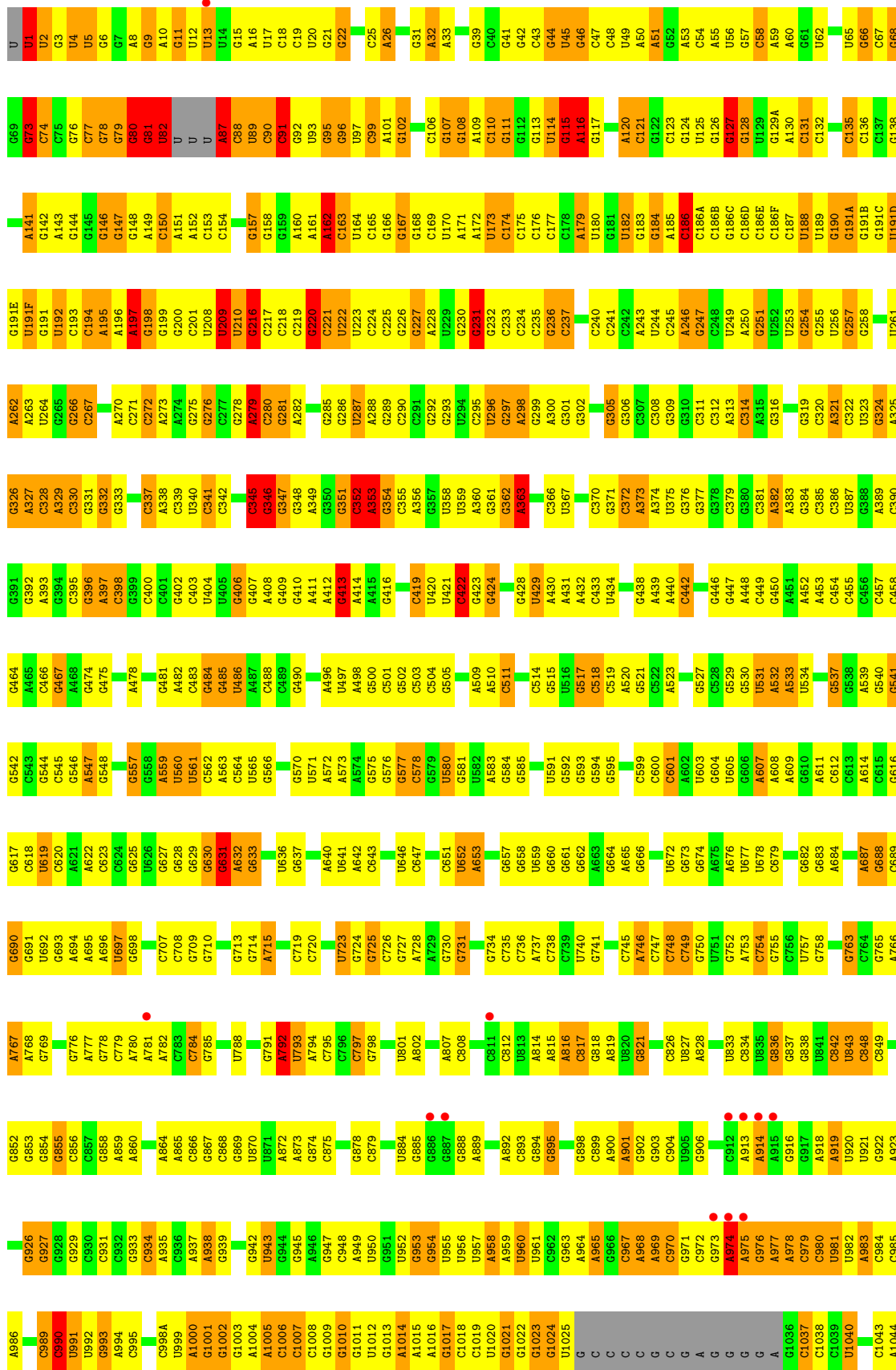
- Molecule 1: 16S ribosomal RNA

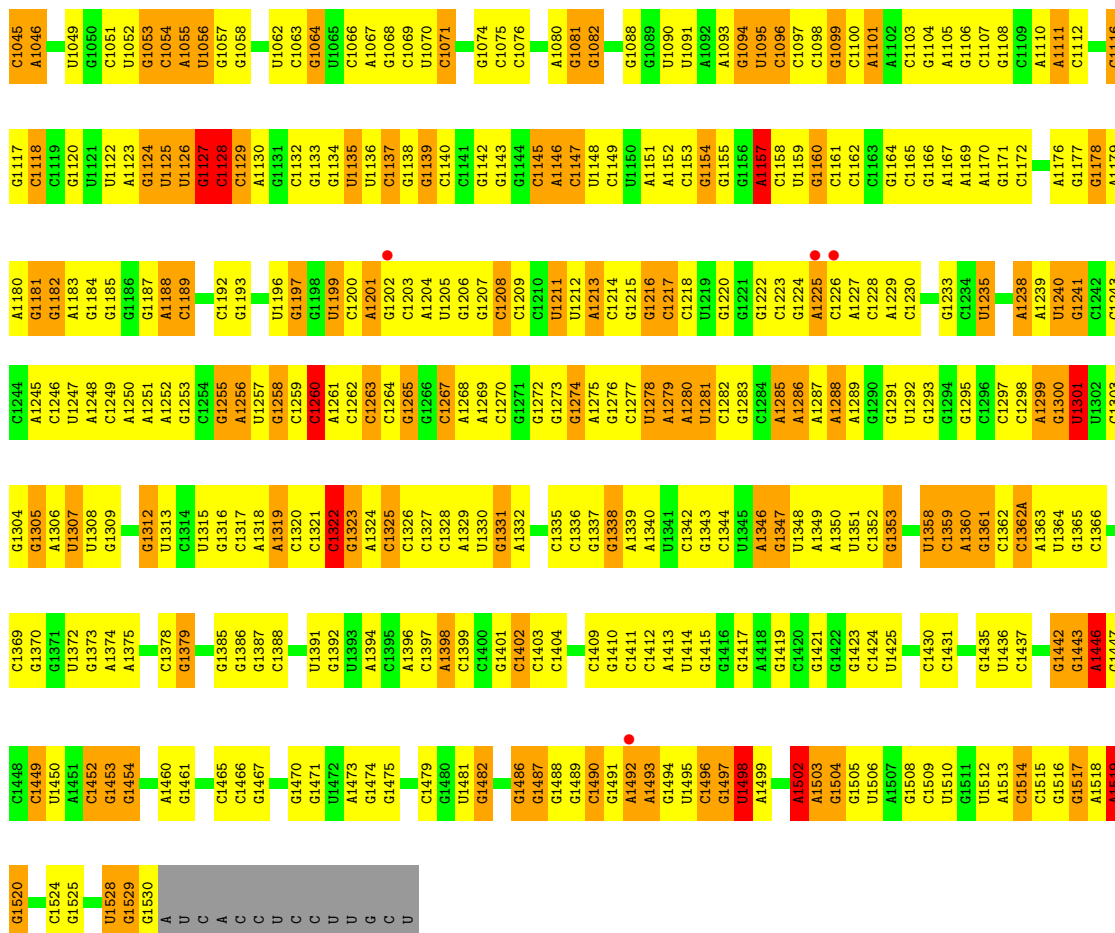




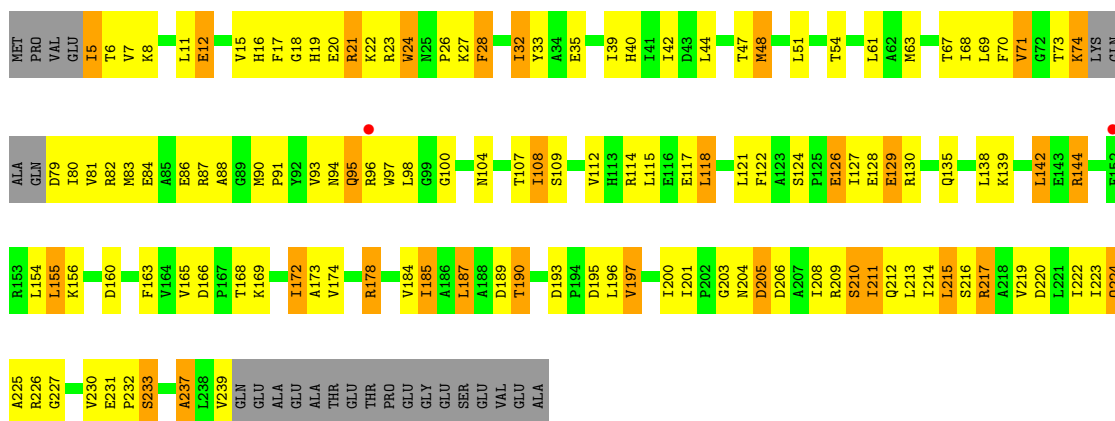
● Molecule 1: 16S ribosomal RNA





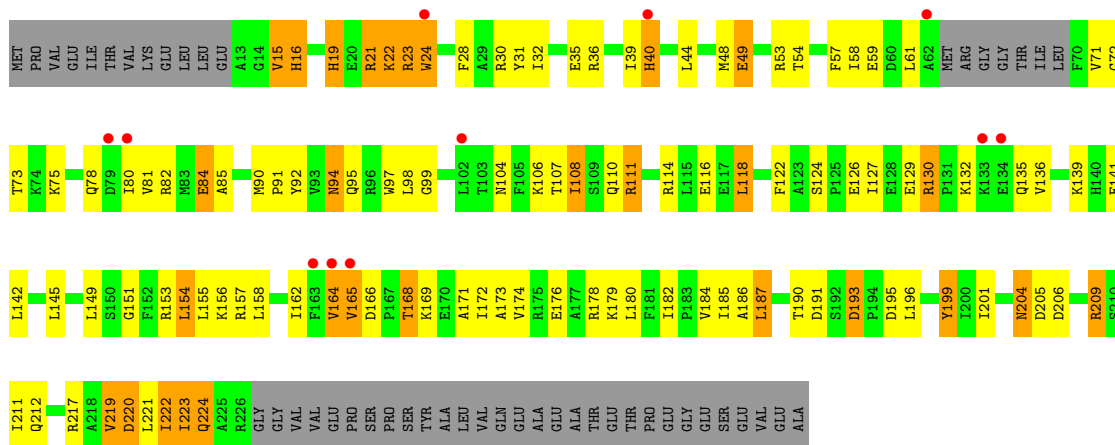


● Molecule 2: 30S ribosomal protein S2

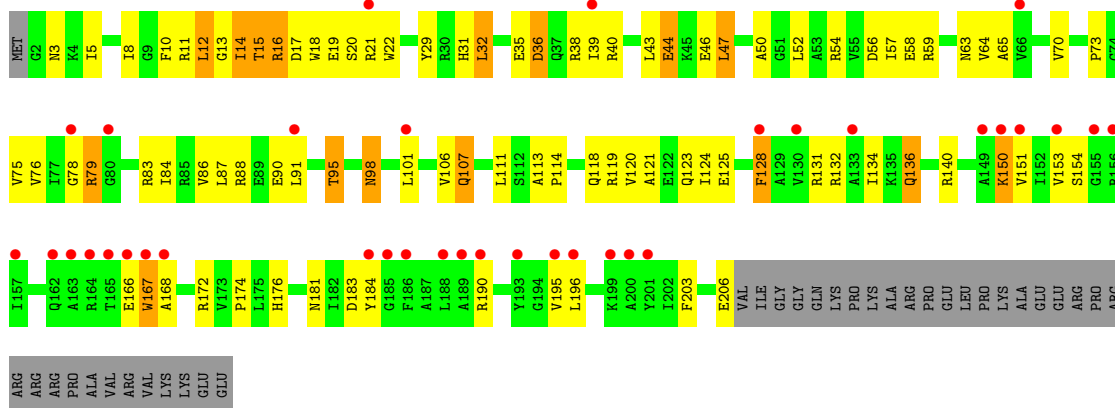


● Molecule 2: 30S ribosomal protein S2

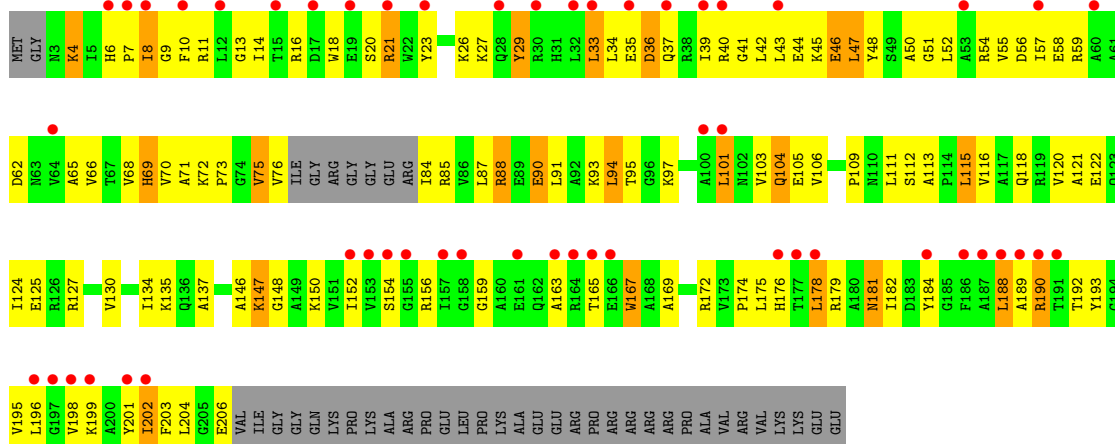




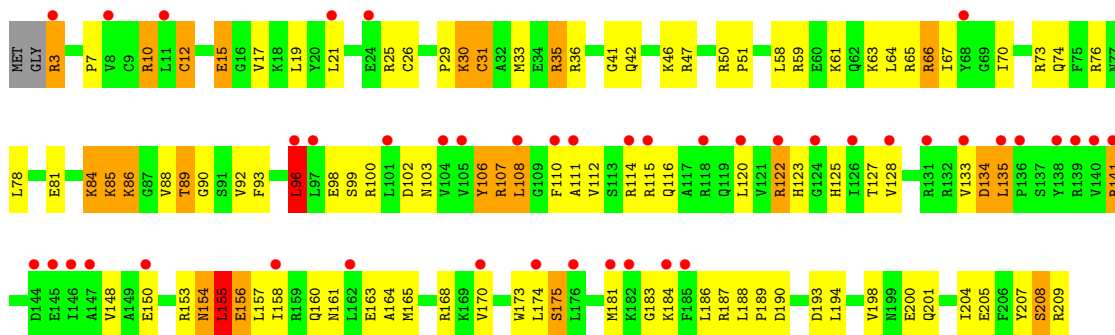
• Molecule 3: 30S ribosomal protein S3



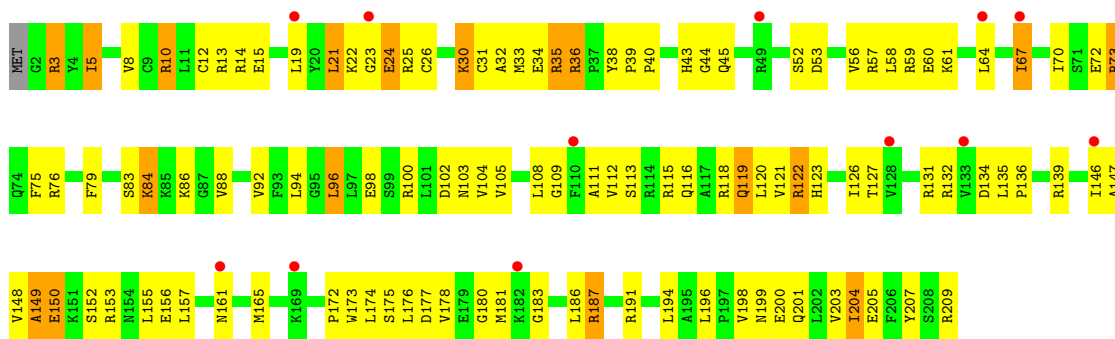
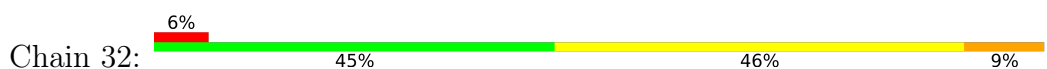
• Molecule 3: 30S ribosomal protein S3



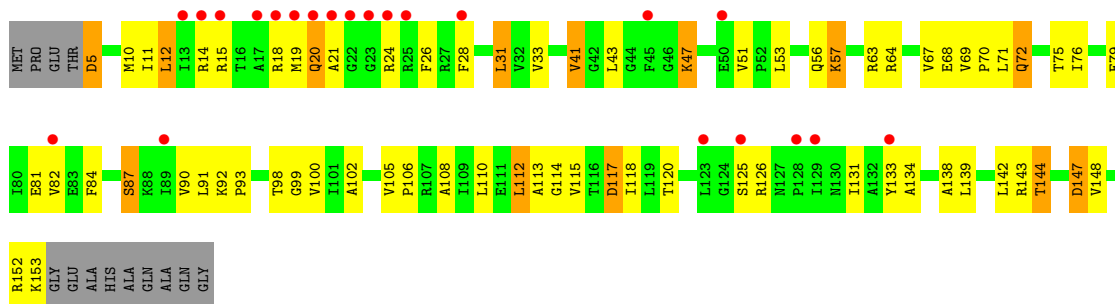
• Molecule 4: 30S ribosomal protein S4



• Molecule 4: 30S ribosomal protein S4

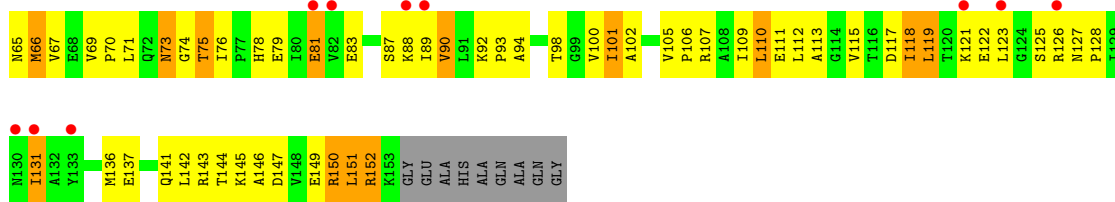


• Molecule 5: 30S ribosomal protein S5

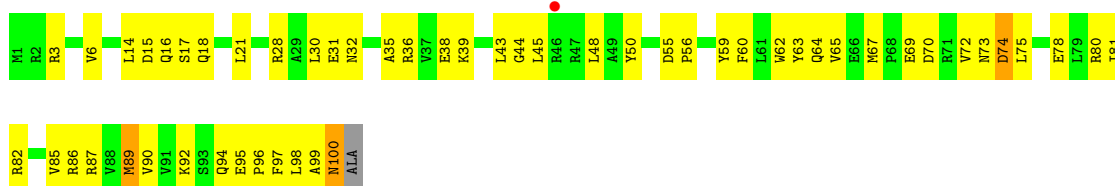


• Molecule 5: 30S ribosomal protein S5

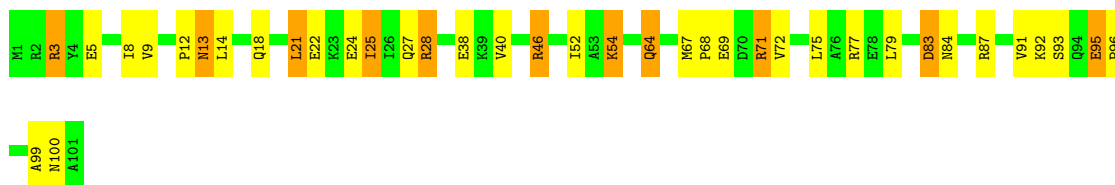




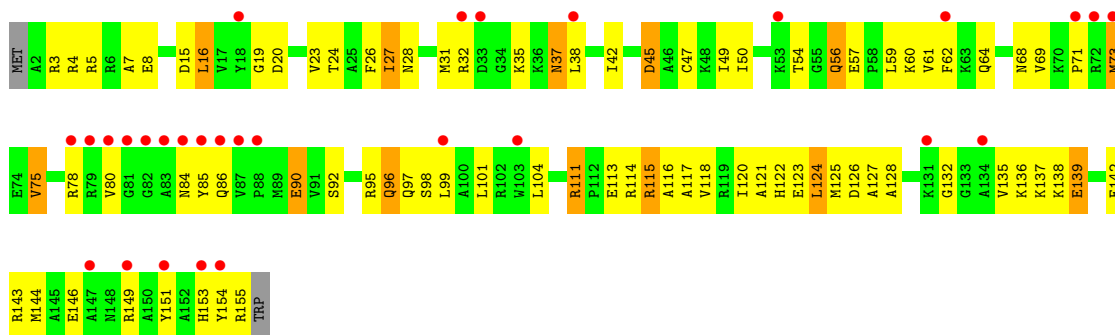
• Molecule 6: 30S ribosomal protein S6



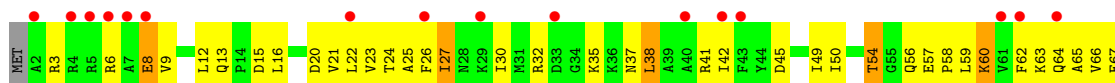
• Molecule 6: 30S ribosomal protein S6

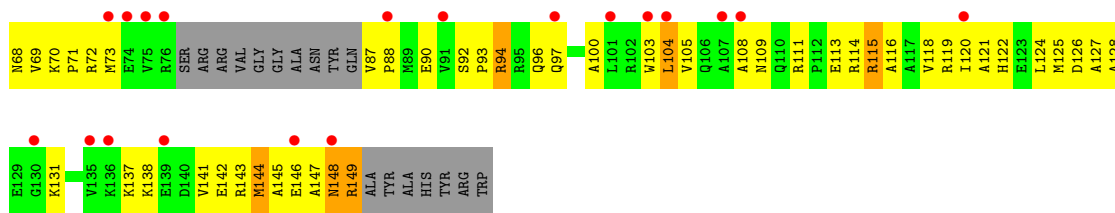


• Molecule 7: 30S ribosomal protein S7

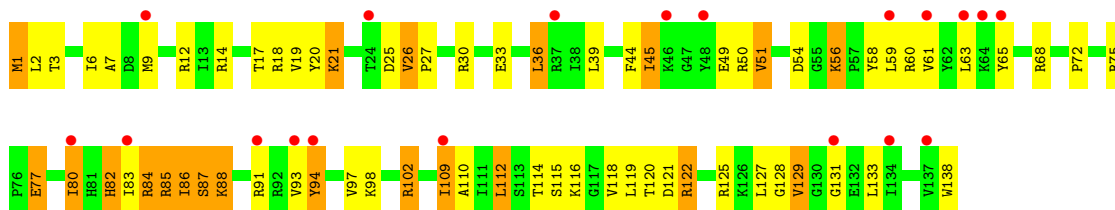


• Molecule 7: 30S ribosomal protein S7

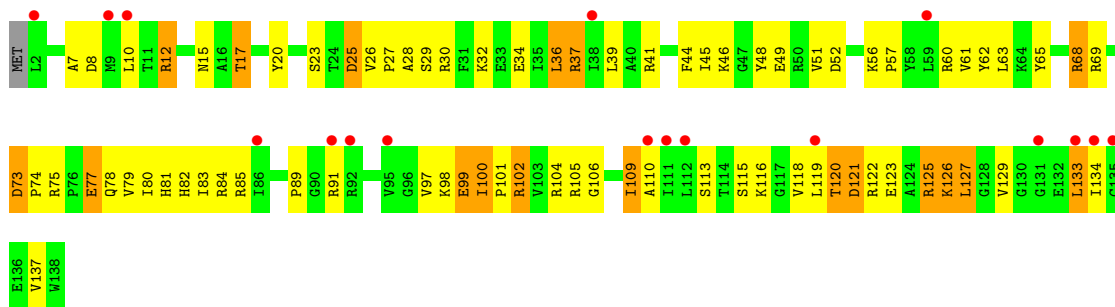
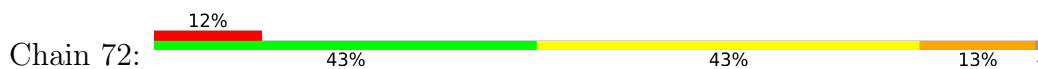




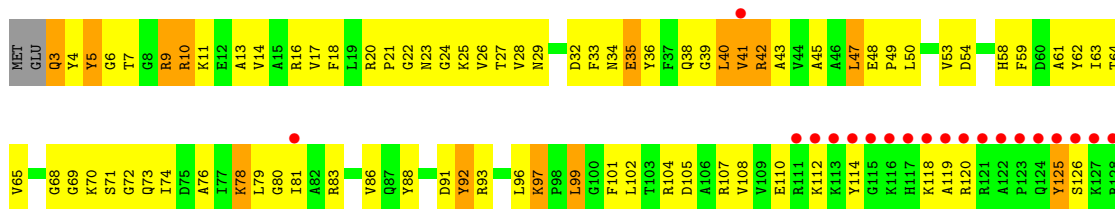
• Molecule 8: 30S ribosomal protein S8



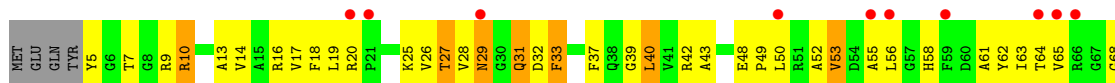
• Molecule 8: 30S ribosomal protein S8

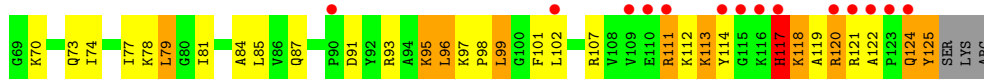


• Molecule 9: 30S ribosomal protein S9

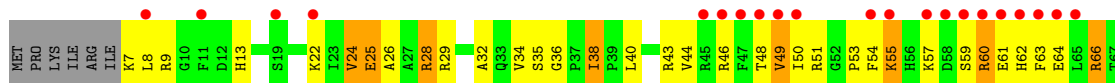


• Molecule 9: 30S ribosomal protein S9

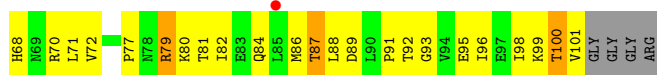
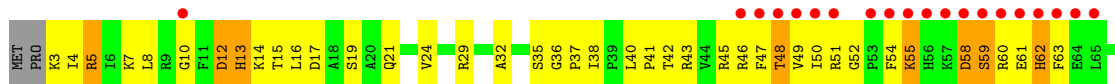




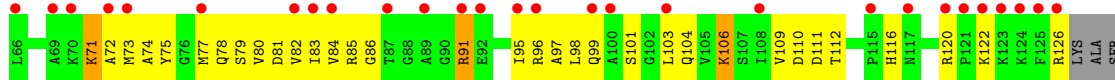
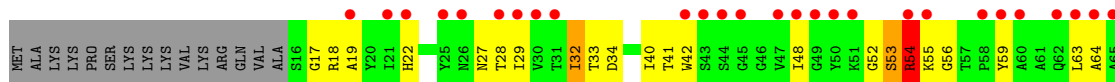
• Molecule 10: 30S ribosomal protein S10



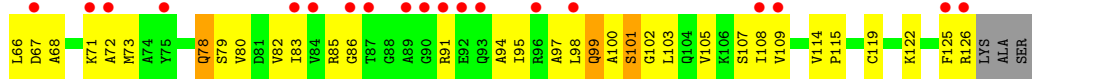
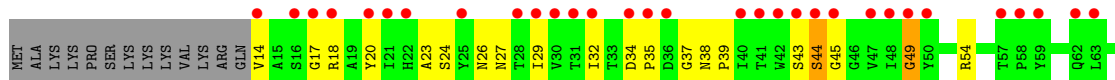
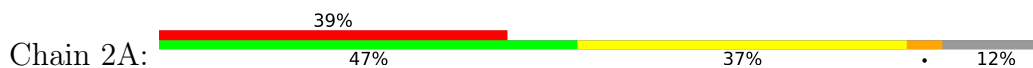
• Molecule 10: 30S ribosomal protein S10



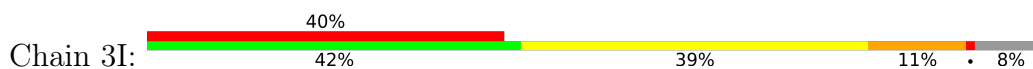
• Molecule 11: 30S ribosomal protein S11

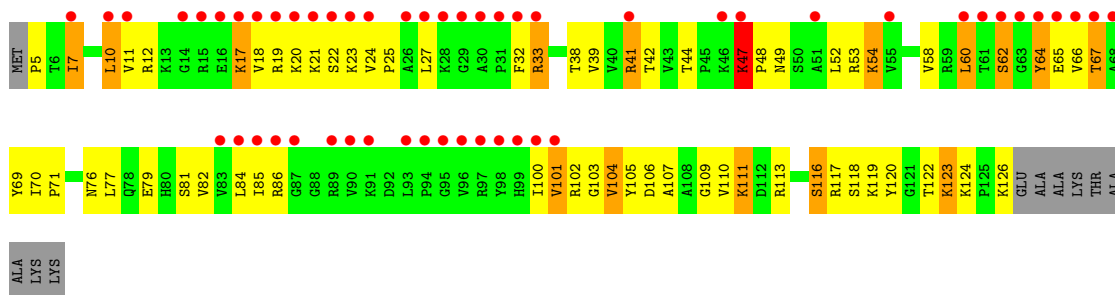


• Molecule 11: 30S ribosomal protein S11

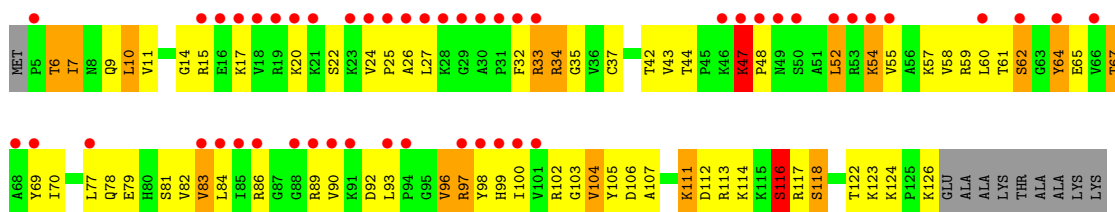
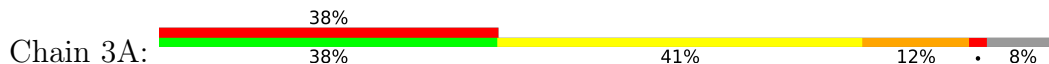


• Molecule 12: 30S ribosomal protein S12

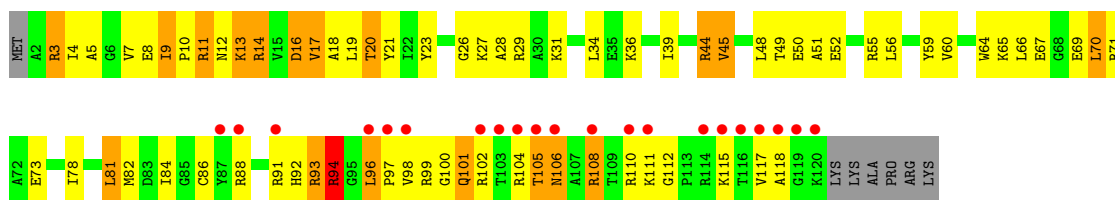




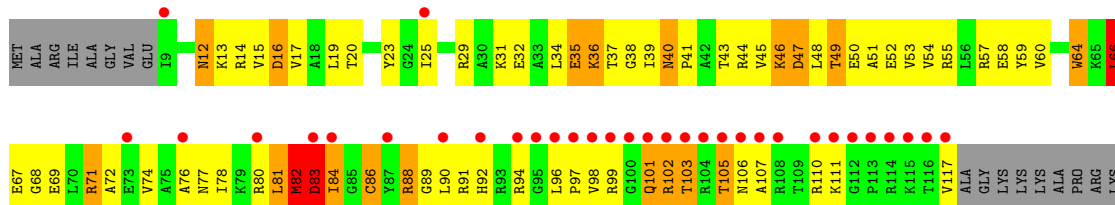
- Molecule 12: 30S ribosomal protein S12



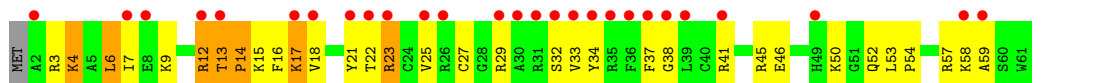
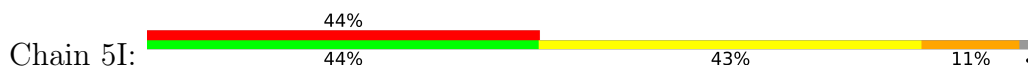
- Molecule 13: 30S ribosomal protein S13



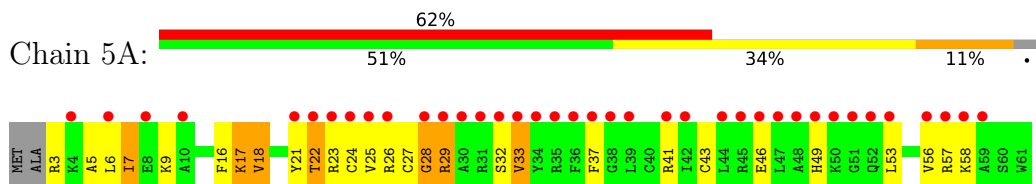
- Molecule 13: 30S ribosomal protein S13



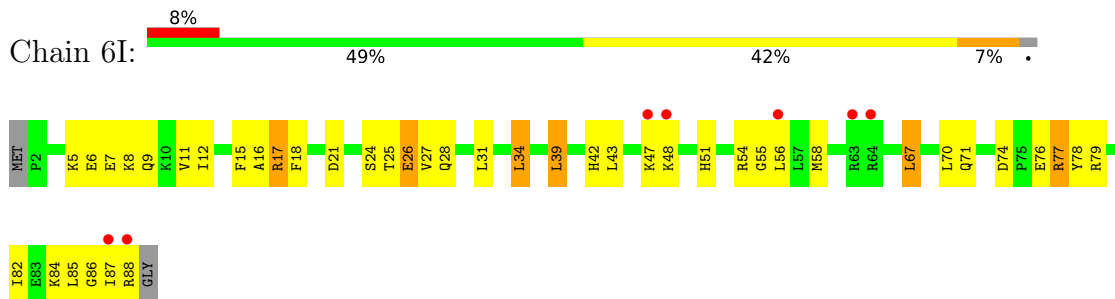
- Molecule 14: 30S ribosomal protein S14 type Z



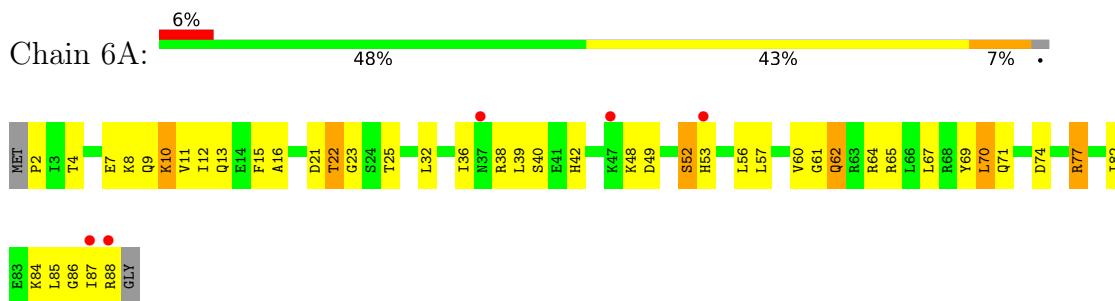
- Molecule 14: 30S ribosomal protein S14 type Z



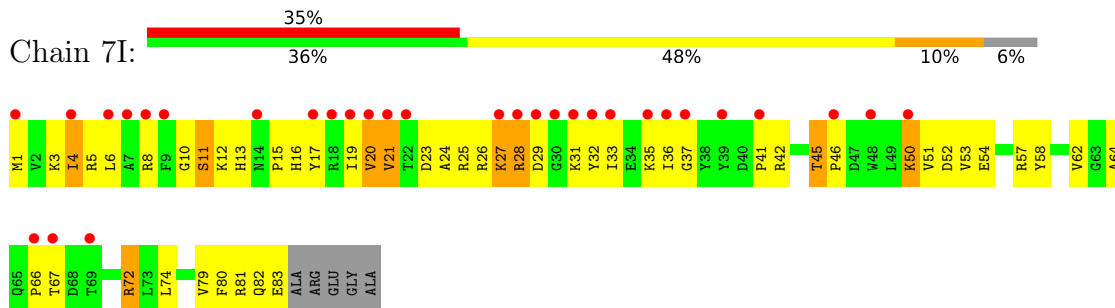
- Molecule 15: 30S ribosomal protein S15



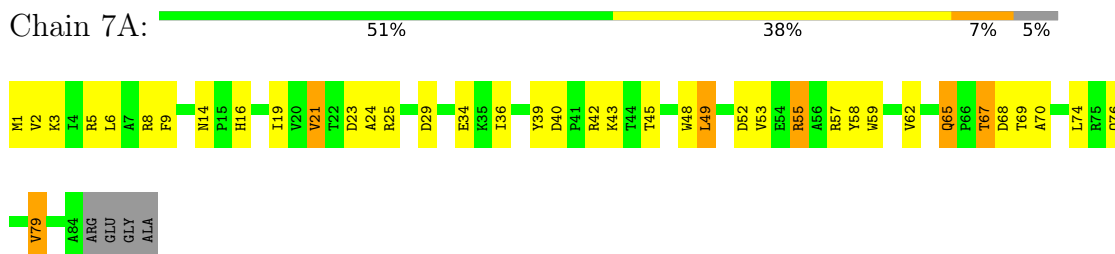
- Molecule 15: 30S ribosomal protein S15



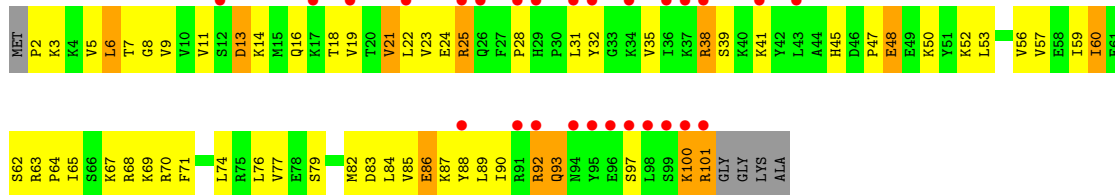
- Molecule 16: 30S ribosomal protein S16



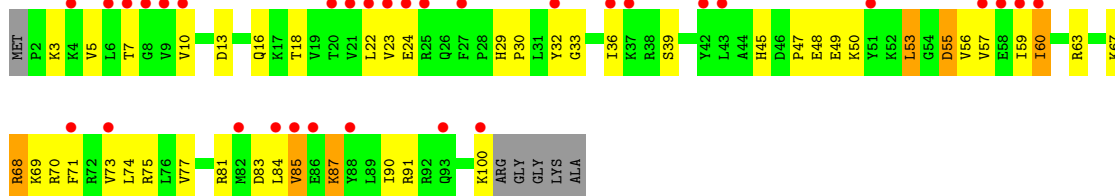
- Molecule 16: 30S ribosomal protein S16



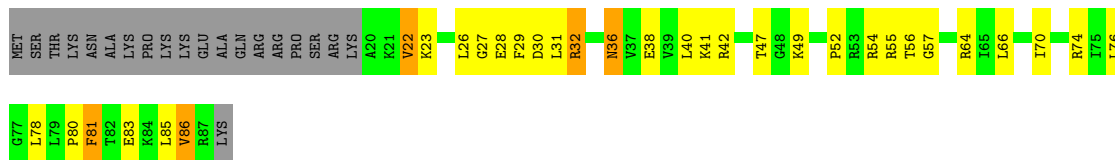
- Molecule 17: 30S ribosomal protein S17



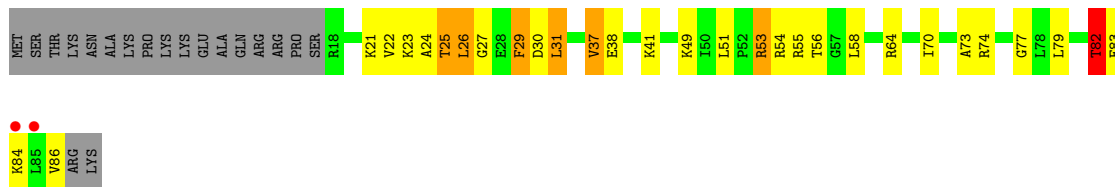
• Molecule 17: 30S ribosomal protein S17



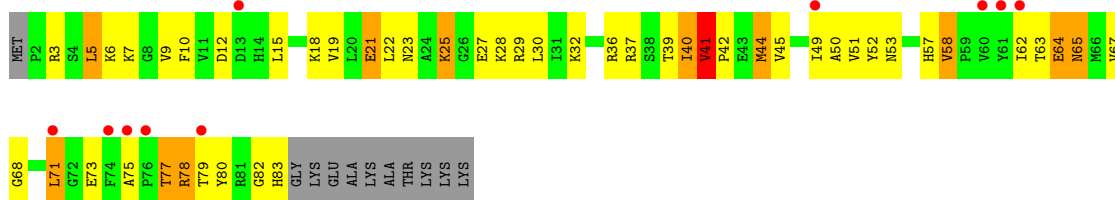
• Molecule 18: 30S ribosomal protein S18



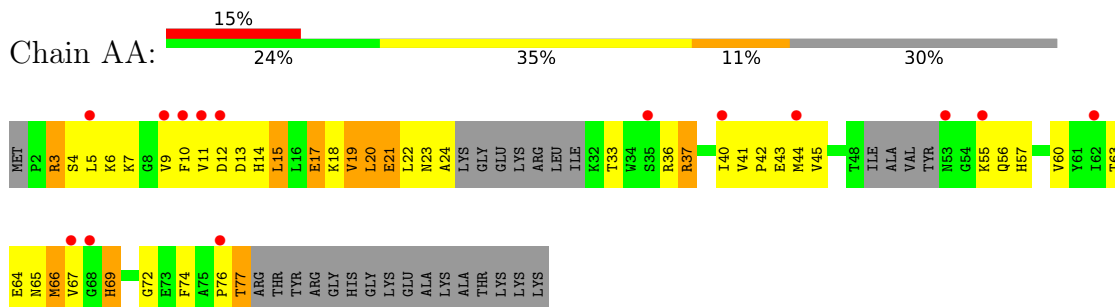
• Molecule 18: 30S ribosomal protein S18



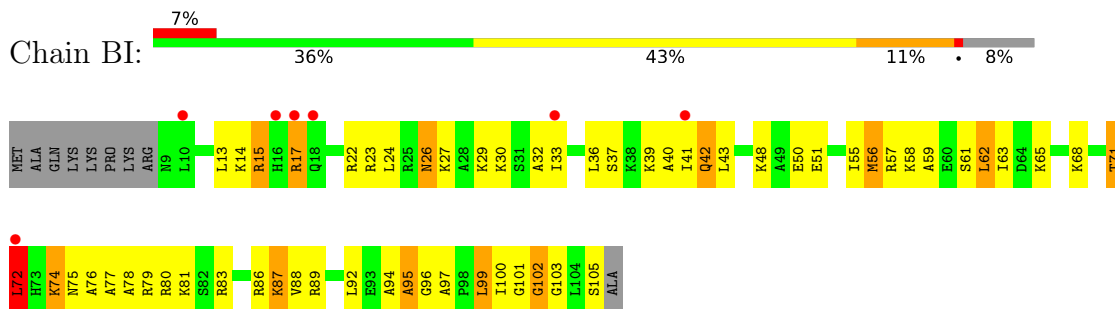
• Molecule 19: 30S ribosomal protein S19



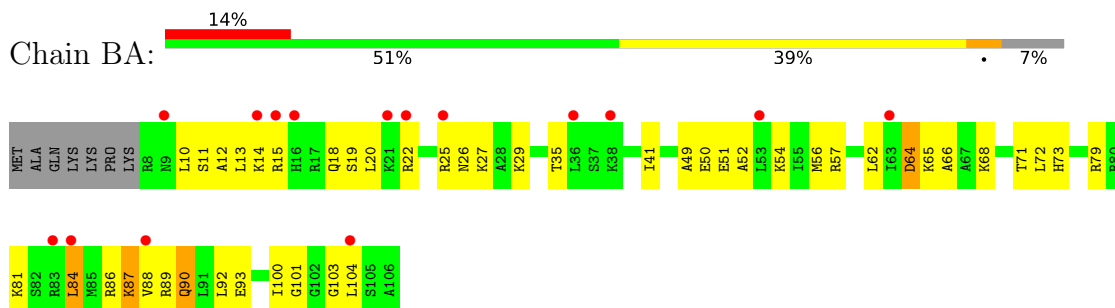
- Molecule 19: 30S ribosomal protein S19



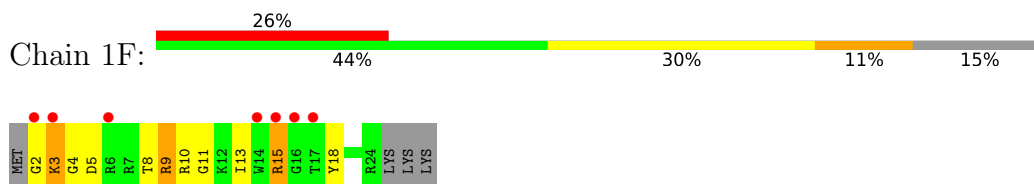
- Molecule 20: 30S ribosomal protein S20



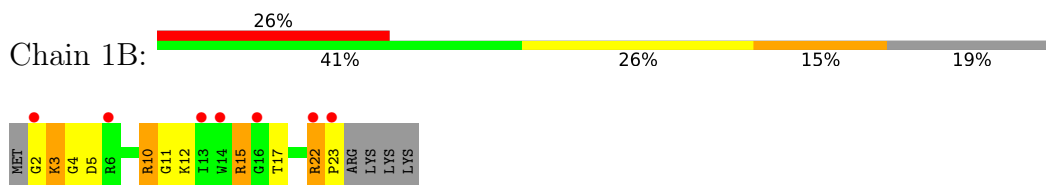
- Molecule 20: 30S ribosomal protein S20



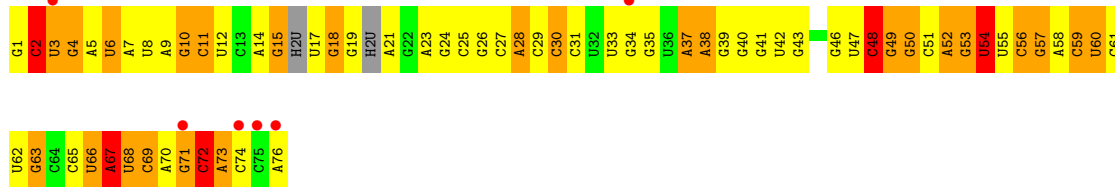
- Molecule 21: 30S ribosomal protein Thx



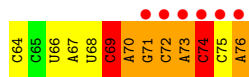
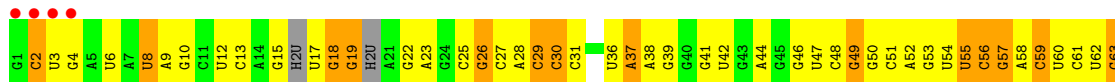
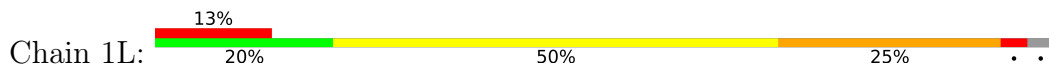
- Molecule 21: 30S ribosomal protein Thx



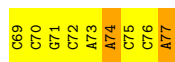
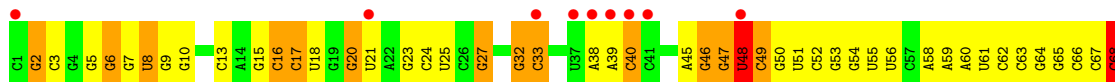
- Molecule 22: tRNAThr



• Molecule 22: tRNAThr



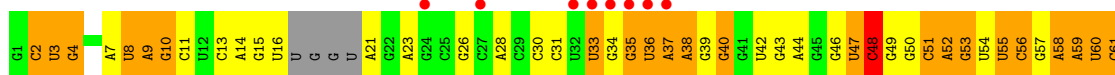
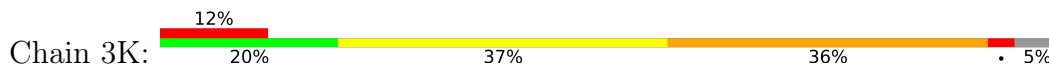
• Molecule 23: tRNAfMet



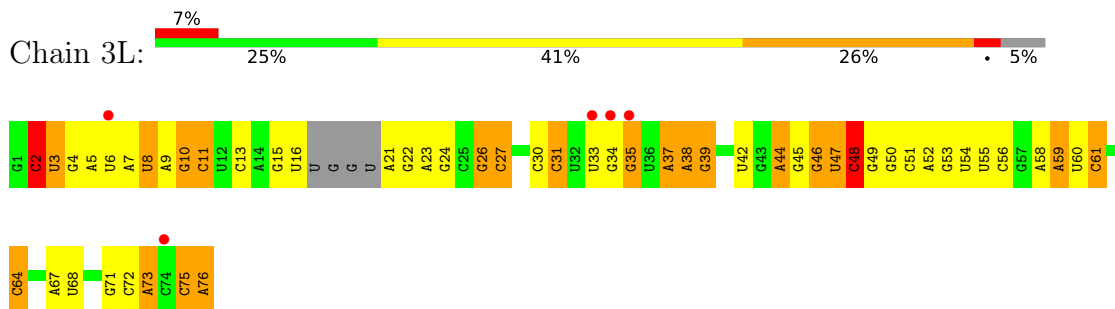
• Molecule 23: tRNAfMet



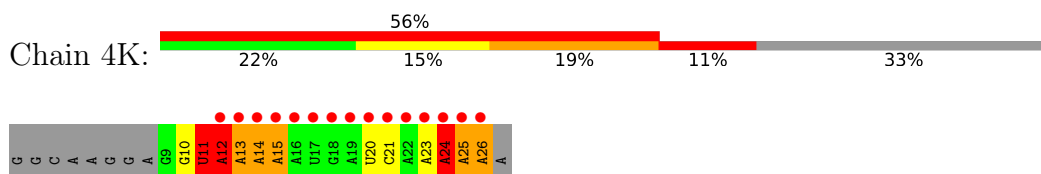
• Molecule 24: tRNAThr



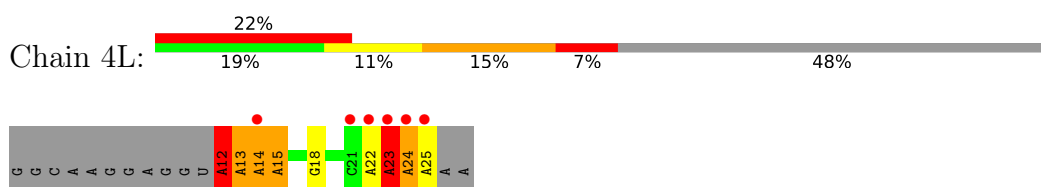
• Molecule 24: tRNAThr



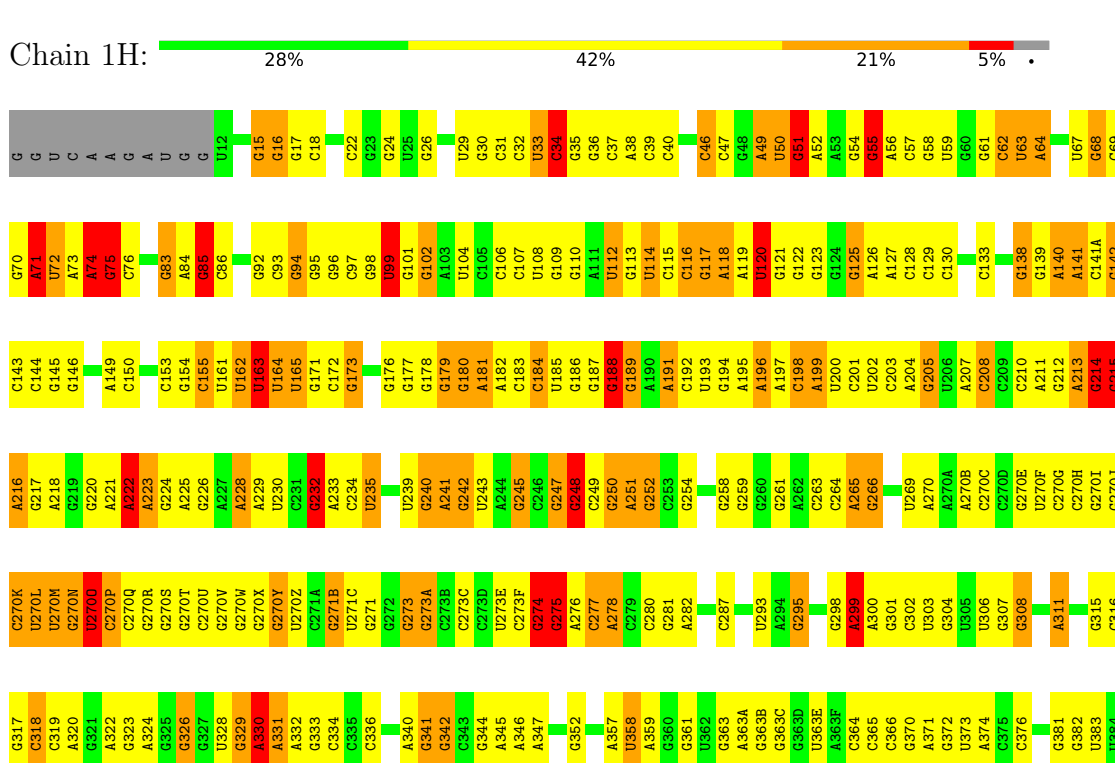
• Molecule 25: mRNA

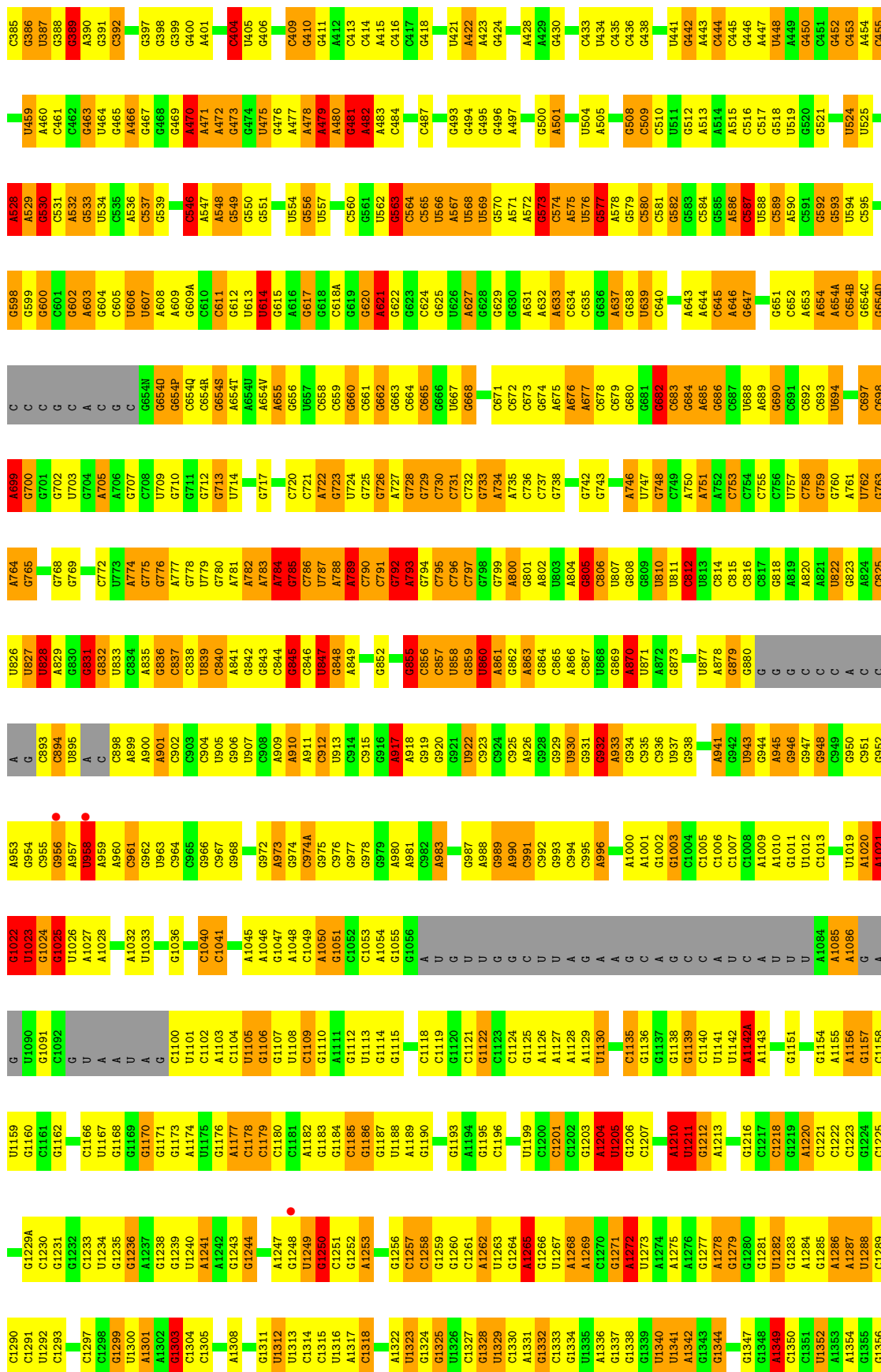


• Molecule 25: mRNA

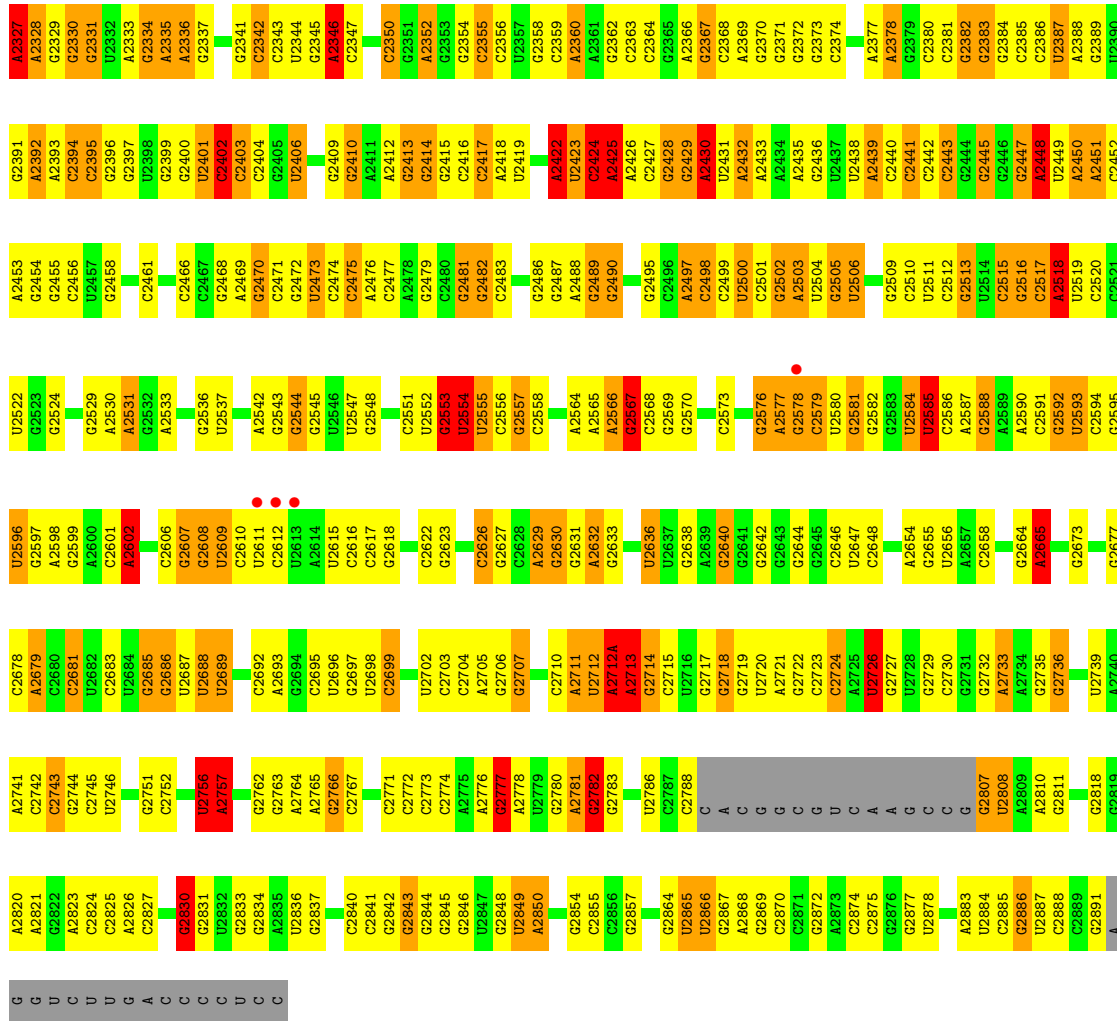


• Molecule 26: 23S ribosomal RNA

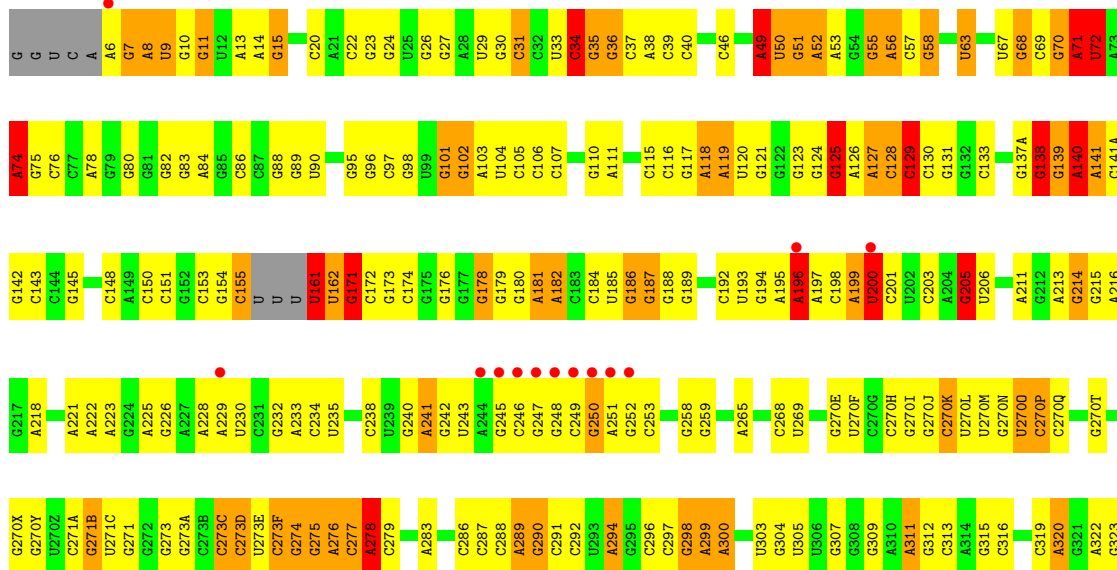


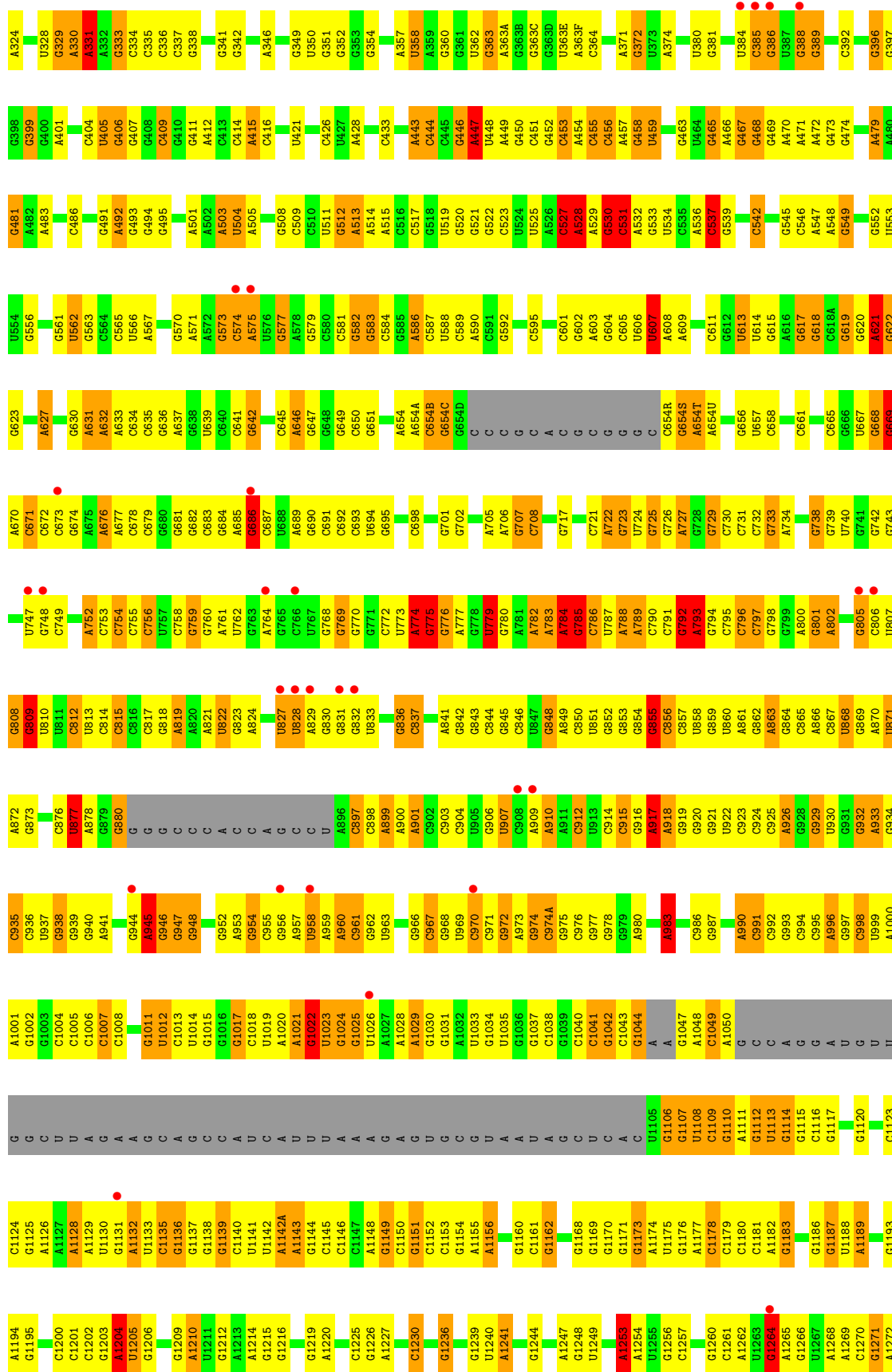


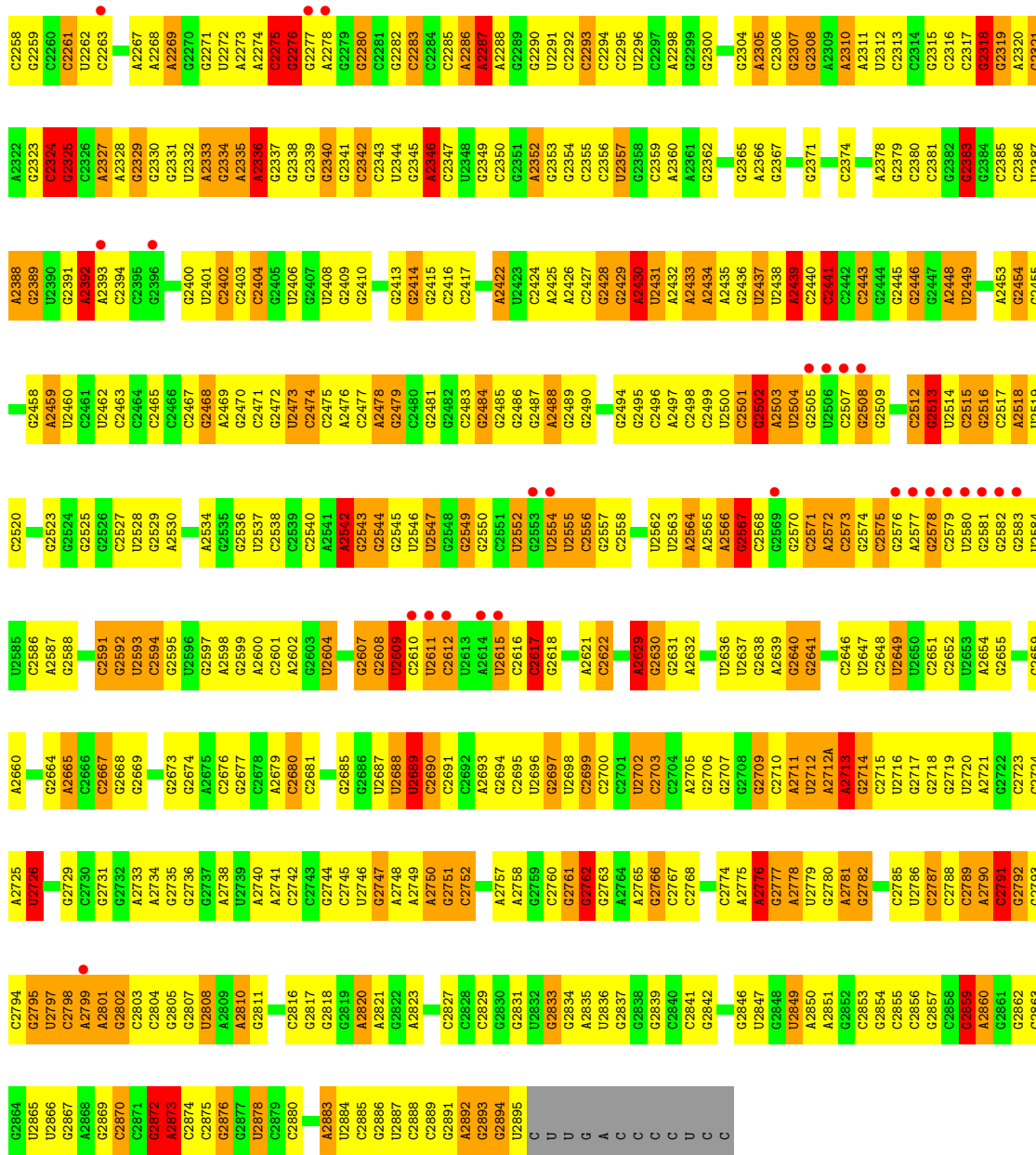
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G2187	C2188	U2189	C2190	G2191	U2192	G2193	C2194	C2195	C2196	C2197	U2197	A2198	C2199	C2200	C2201	C2202	C2203	C2204	C2205	C2206	C2207	C2208	C2209	C2210	C2211	C2212	C2213	C2214	C2215	C2216	C2217	C2218	C2219	C2220	C2221	C2222	C2223	C2224	C2225	C2226	C2227	C2228	U2232	U2233	C2234	C2235	C2236	C2237	C2238	C2239	C2240	U2243	U2244	U2245	C2246	A2247	C2248	U2249	C2250	C2251	C2252	C2253	C2254	C2255	C2256	U2257	C2258	C2259																																											
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G2061	A2062	C2063	C2064	C2065	C2066	C2067	U2068	C2069	C2070	A2071	C2072	C2073	U2074	A2077	C2078	U2079	A2082	C2083	C2084	C2085	U2086	G2087	U2091	U2092	C2093	U2096	C2098	C2099	C2100	C2101	U2102	C2103	C2104	C2105	C2106	C2107	C2108	U2109	C2110	C2111	C2112	U2113	A2114	C2115	C2116	A2117	C2118	A2119	C2120	C2121	U2122	C2123	C2124	C2125																																																									
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C1844	A1847	A1848	C1849	C1855	C1856	C1857	C1858	C1859	C1869	C1870	A1871	A1872	C1873	C1874	C1875	C1882	C1883	C1887	C1888	A1889	A1890	C1891	C1892	U1893	C1894	C1895	C1896	C1897	C1898	A1899	A1900	C1901	C1902	C1903	C1906	A1913	C1914	U1915	A1916	U1917	A1918	C1919	C1920	C1921	C1922	C1925	C1926	C1927	C1928	A1929	C1930	C1931	C1932	C1933	C1934	C1935	C1936	C1937	C1938	C1939	C1940	C1941	C1942	C1943	C1944	C1948	U1951	A1952	A1953	C1954	U1955	C1957	C1958	C1959	A1960	C1961	C1962	U1963	C1964	C1965	C1966	C1967	C1968	A1969	A1970	A1971	A1972	C1973	C1974	C1975	U1976	A1977	C1978	C1979	C1980	A1981	C1982	C1983	C1984	C1985	A1986	C1987	C1988	C1989	A2054	C2055	C2056	A2057	A2058	U2059	A2060
C1780	C1781	C1782	A1783	A1784	A1785	C1786	A1787	C1788	A1789	C1790	A1791	C1792	C1795	C1796	C1797	C1798	C1799	C1800	C1801	A1802	A1803	C1804	U1805	U1808	C1811	A1812	C1813	C1814	A1815	C1816	C1817	U1818	A1819	U1820	A1821	C1824	A1825	C1826	C1827	C1828	C1829	C1830	C1831	C1832	U1833	U1834	C1835	C1836	C1837	C1838	C1839	C1840	U1841	C1842	C1843																																																								
U1693	C1697	A1698	C1699	A1700	A1701	C1702	C1705	A1706	C1707	C1708	U1709	C1710	C1718	C1725	C1726	U1727	C1728	C1729	A1732	C1733	C1734	C1735	C1736	C1737	C1738	C1739	C1740	C1741	C1742	C1743	C1744	C1745	C1746	C1747	C1748	C1749	C1750	C1751	C1752	C1753	C1754	C1755	C1756	U1757	C1758	A1759	C1760	C1761	C1762	A1763	C1764	C1765	U1766	C1767	C1768	C1769	C1770	C1771	C1772	A1773	C1774	C1775	C1776	U1777	C1778	C1779																																													
G1626	G1627	U1628	U1629	G1630	A1632	C1633	A1634	U1635	C1636	A1637	C1638	C1639	C1640	G1647	C1648	C1649	G1650	C1651	A1652	A1653	A1654	A1655	C1656	C1657	C1658	U1659	C1660	C1661	C1662	C1663	A1664	A1665	C1666	C1667	A1668	A1669	C1670	U1671	C1672	U1673	C1674	C1675	A1676	A1677	C1678	C1679	C1680	C1681	C1682	C1686	A1687	C1688	A1689	A1690	C1691	U1692																																																							
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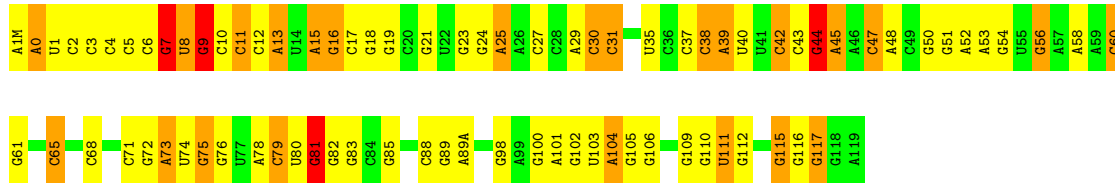
• Molecule 26: 23S ribosomal RNA





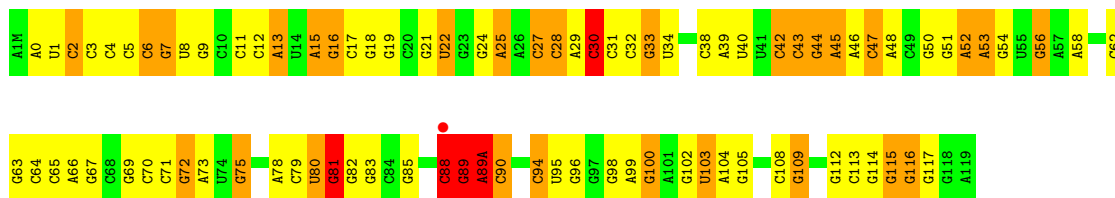


• Molecule 27: 5S ribosomal RNA

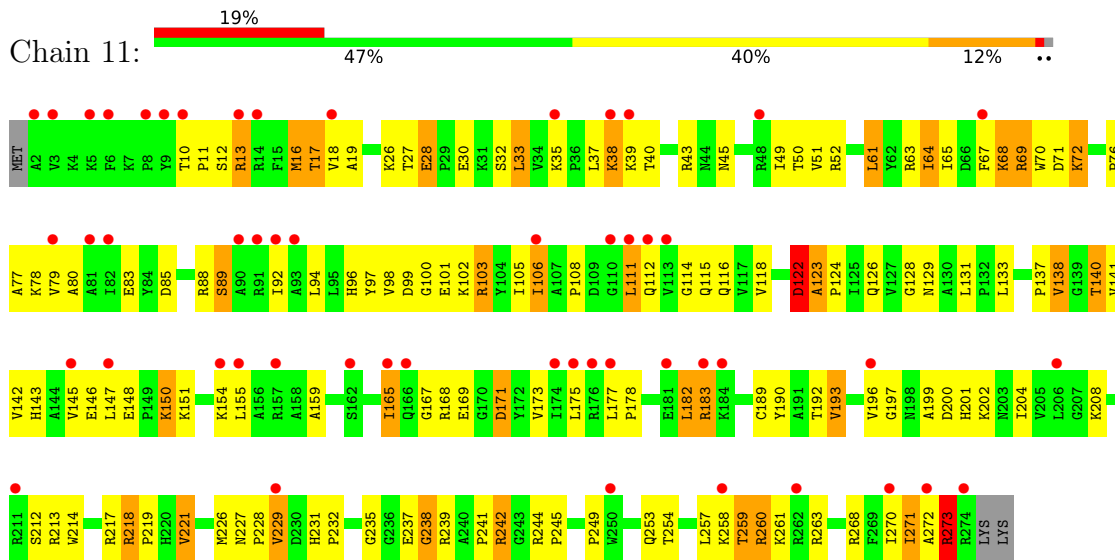


• Molecule 27: 5S ribosomal RNA

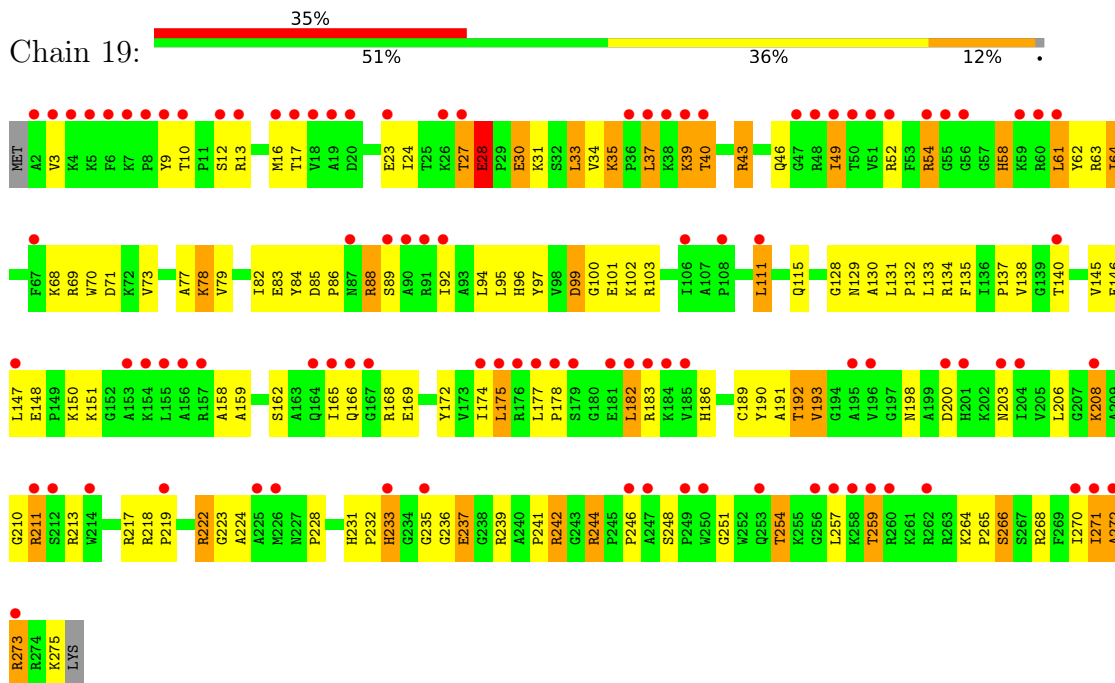




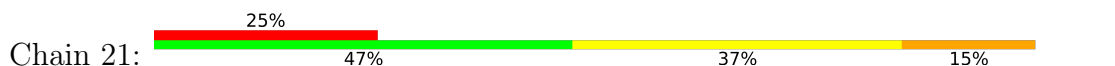
● Molecule 28: 50S ribosomal protein L2

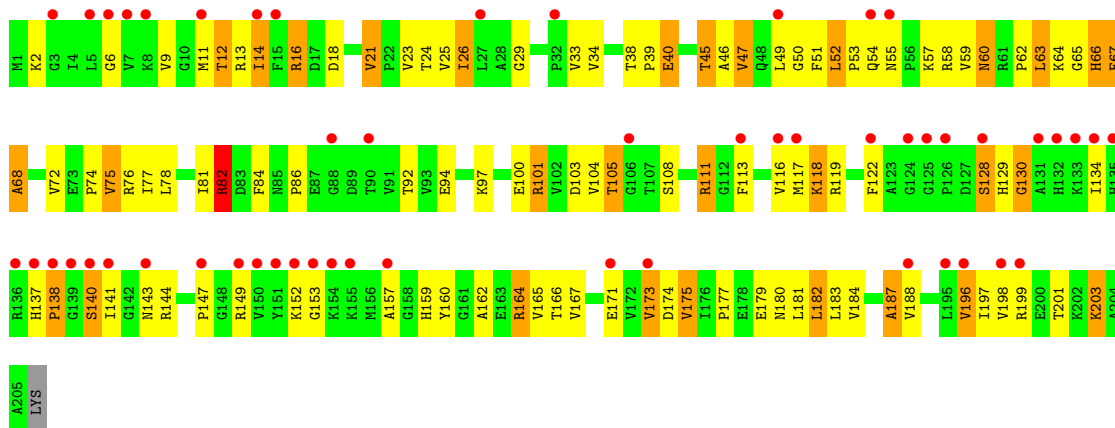


● Molecule 28: 50S ribosomal protein L2

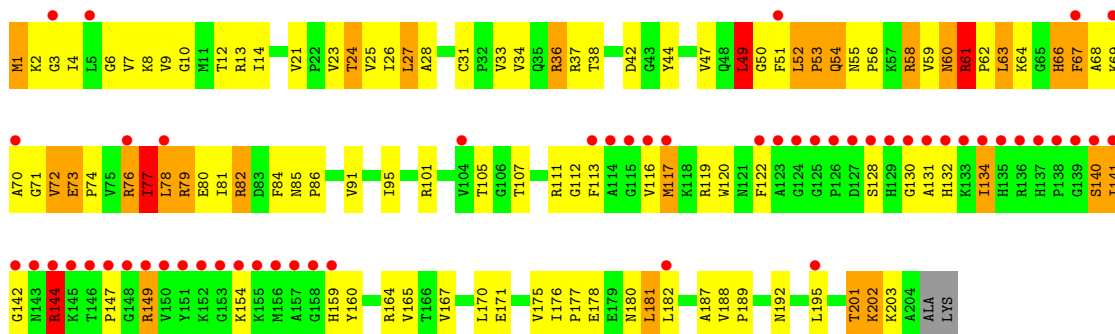


● Molecule 29: 50S ribosomal protein L3

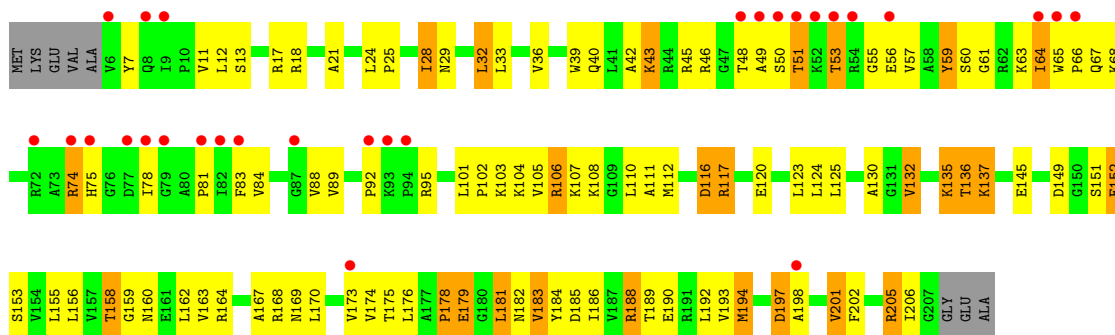




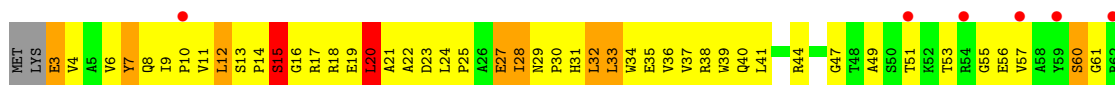
• Molecule 29: 50S ribosomal protein L3

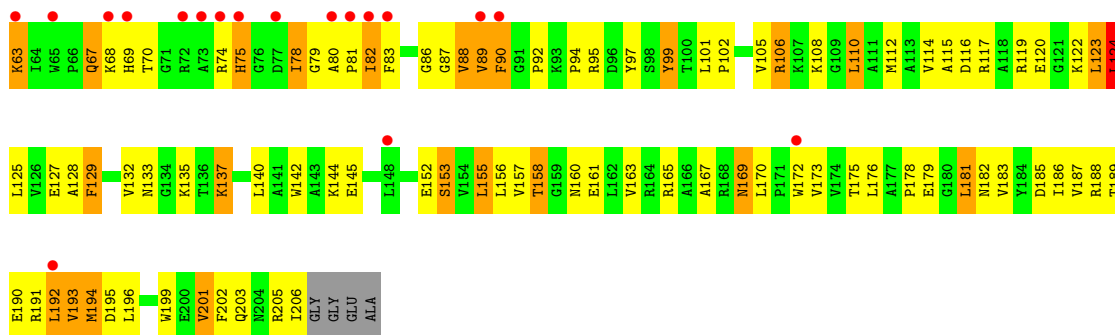


• Molecule 30: 50S ribosomal protein L4

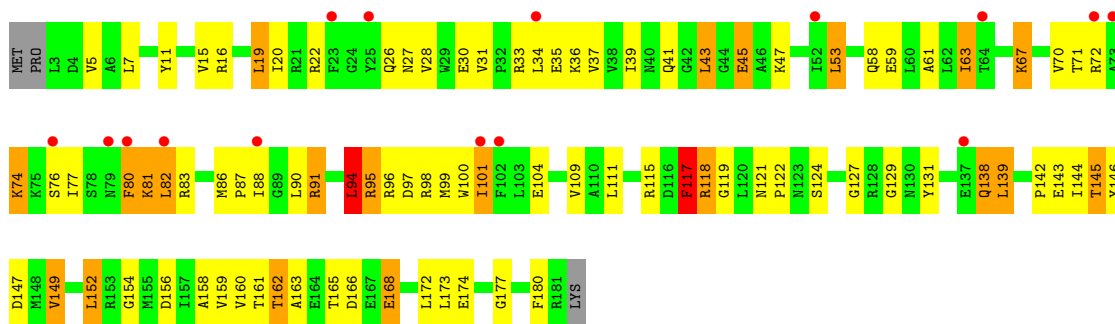


• Molecule 30: 50S ribosomal protein L4

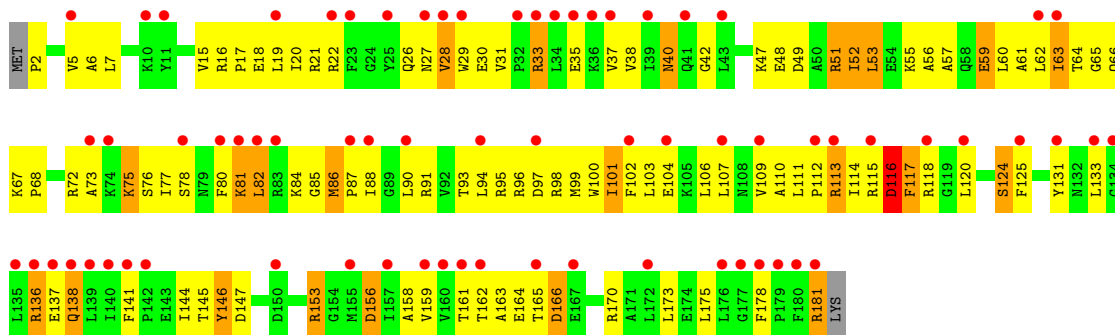




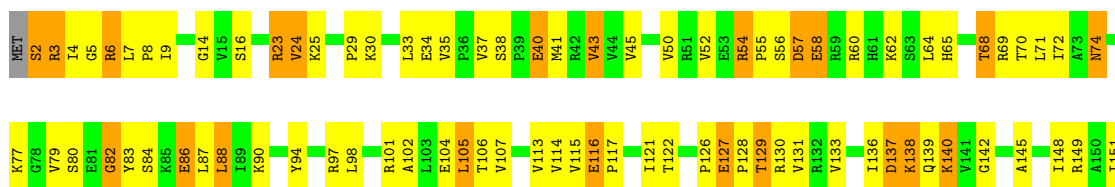
• Molecule 31: 50S ribosomal protein L5

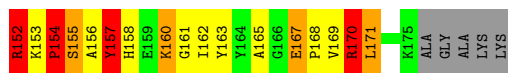


• Molecule 31: 50S ribosomal protein L5

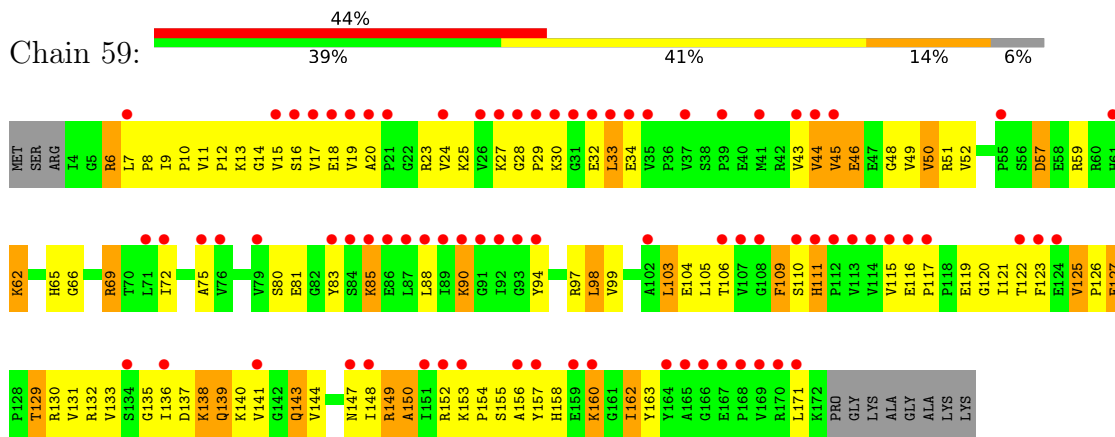


• Molecule 32: 50S ribosomal protein L6

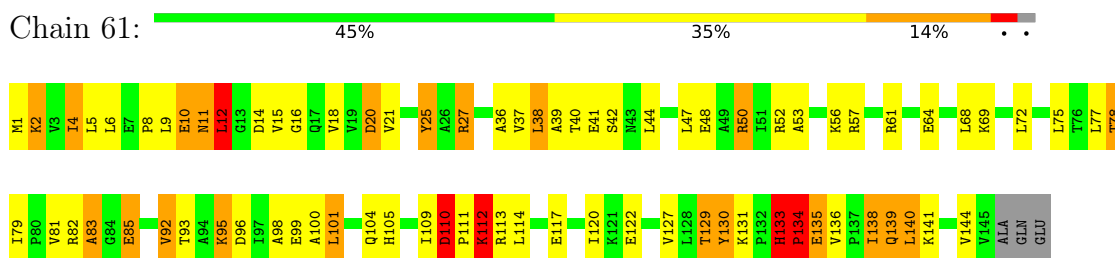




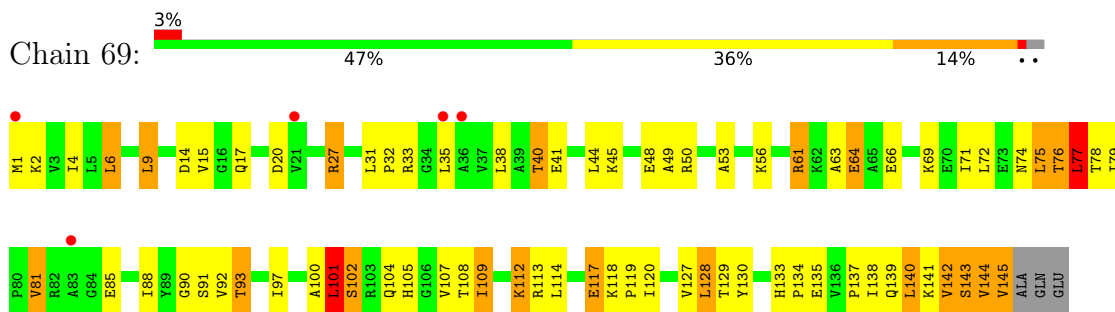
• Molecule 32: 50S ribosomal protein L6



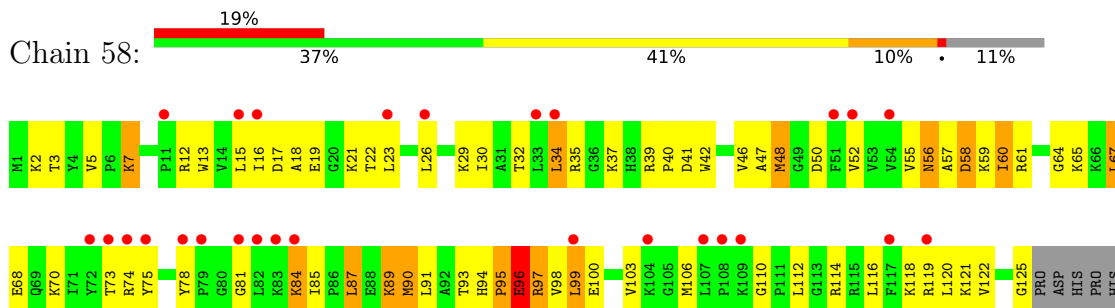
• Molecule 33: 50S ribosomal protein L9



• Molecule 33: 50S ribosomal protein L9

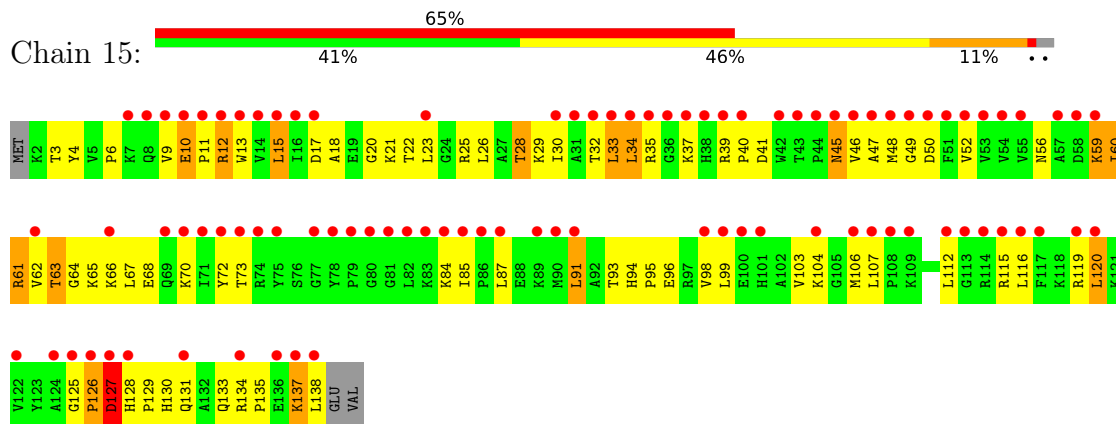


• Molecule 34: 50S ribosomal protein L13

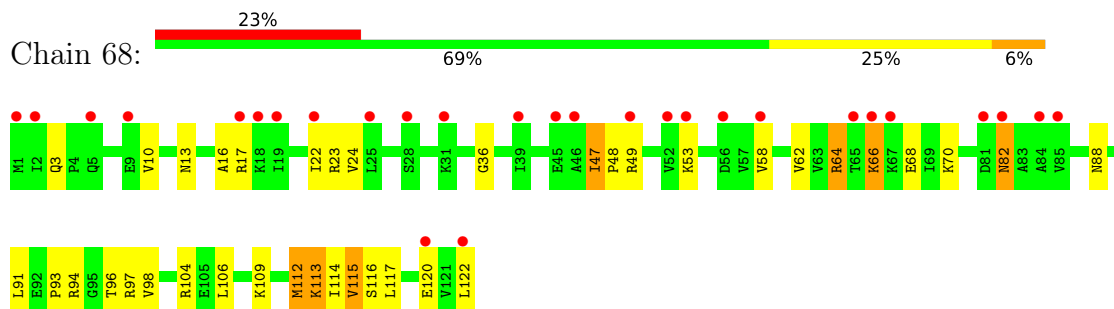


GLN
ALA
GLN
ARG
PRO
GLU
LYS
LEU
GLU
VAL

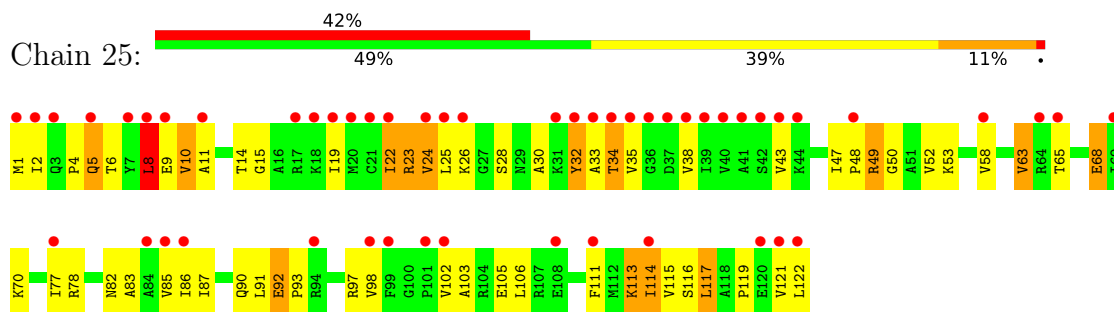
• Molecule 34: 50S ribosomal protein L13



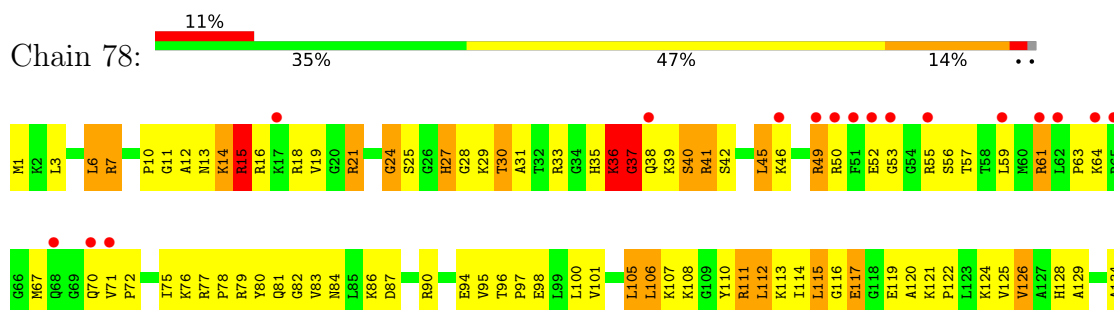
• Molecule 35: 50S ribosomal protein L14



• Molecule 35: 50S ribosomal protein L14

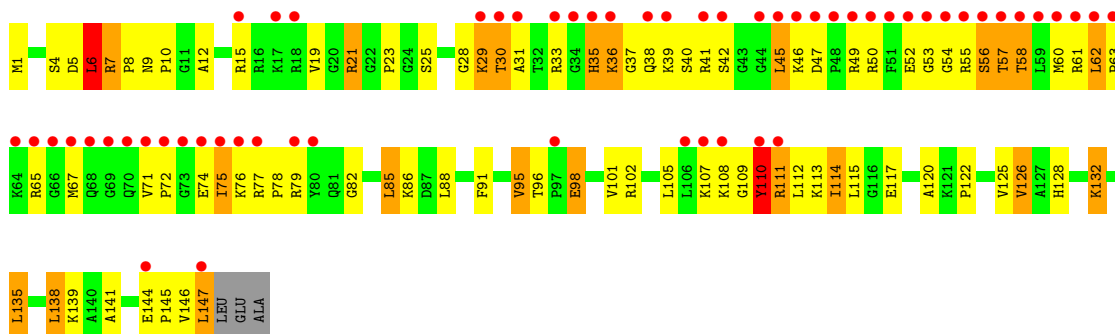


• Molecule 36: 50S ribosomal protein L15

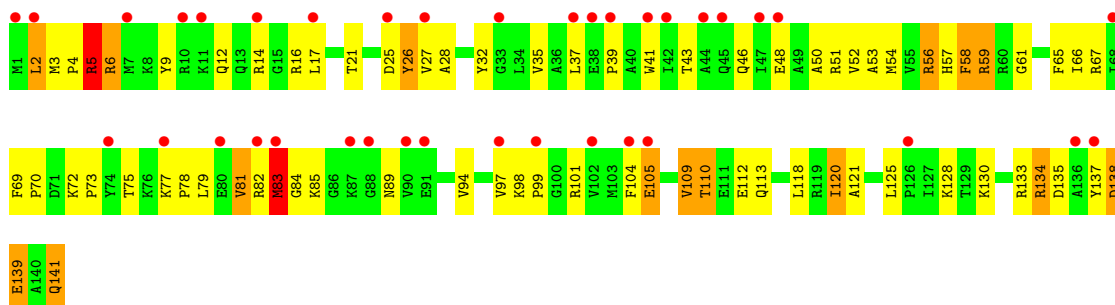




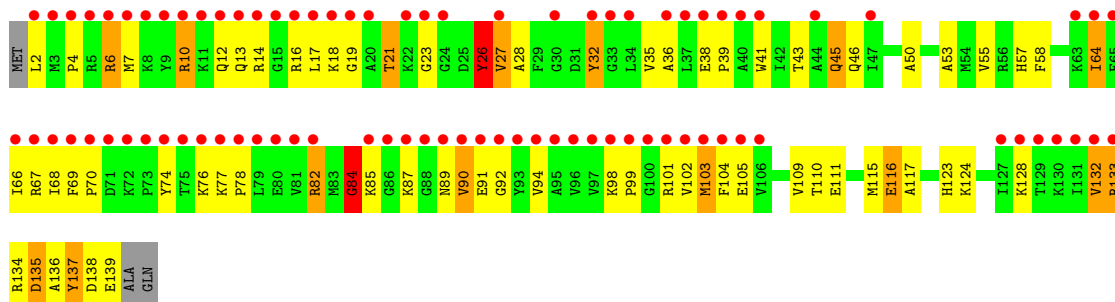
- Molecule 36: 50S ribosomal protein L15



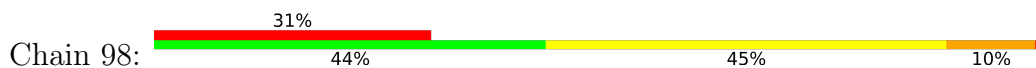
- Molecule 37: 50S ribosomal protein L16

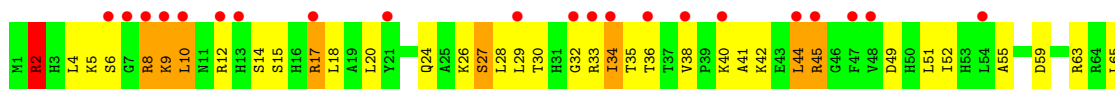


- Molecule 37: 50S ribosomal protein L16

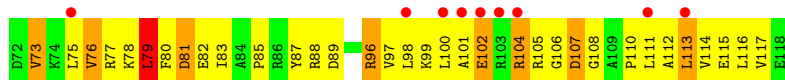
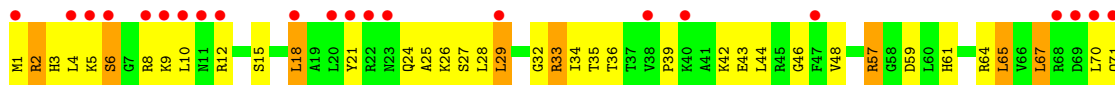


- Molecule 38: 50S ribosomal protein L17

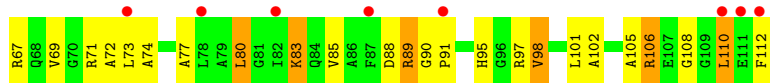
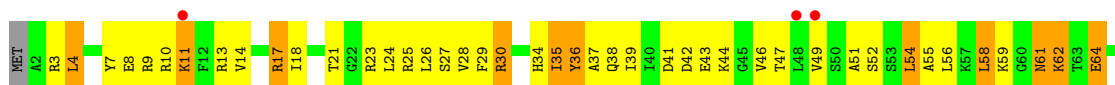




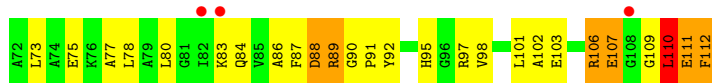
• Molecule 38: 50S ribosomal protein L17



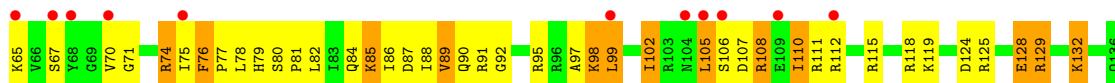
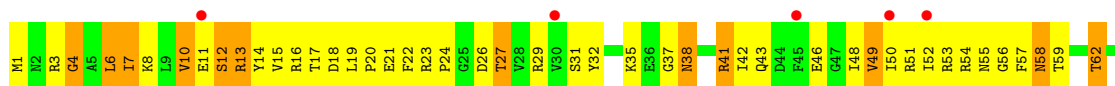
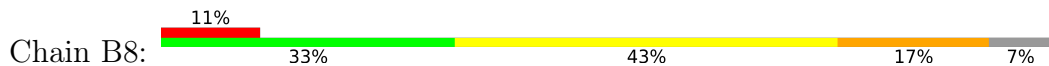
• Molecule 39: 50S ribosomal protein L18



• Molecule 39: 50S ribosomal protein L18

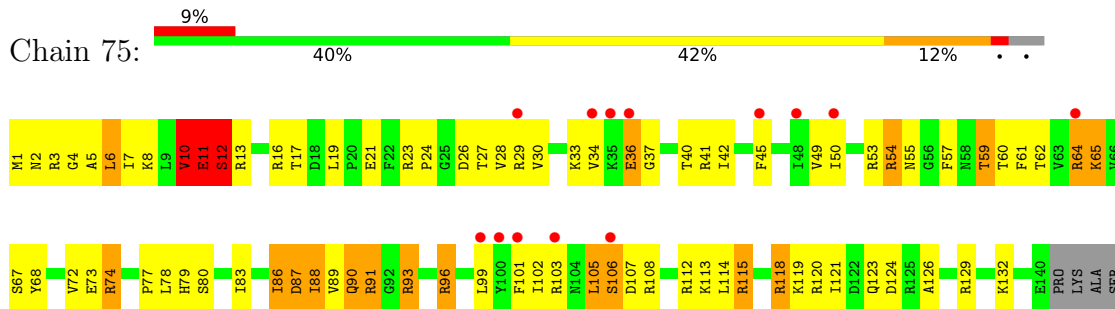


• Molecule 40: 50S ribosomal protein L19



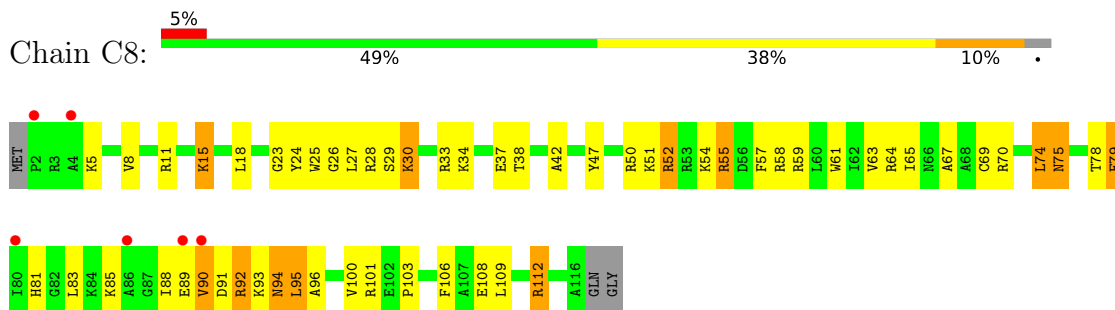
LYS
ALA
GLN
GLU
PRO
LYS
ALA
SER
GLN
GLU

• Molecule 40: 50S ribosomal protein L19

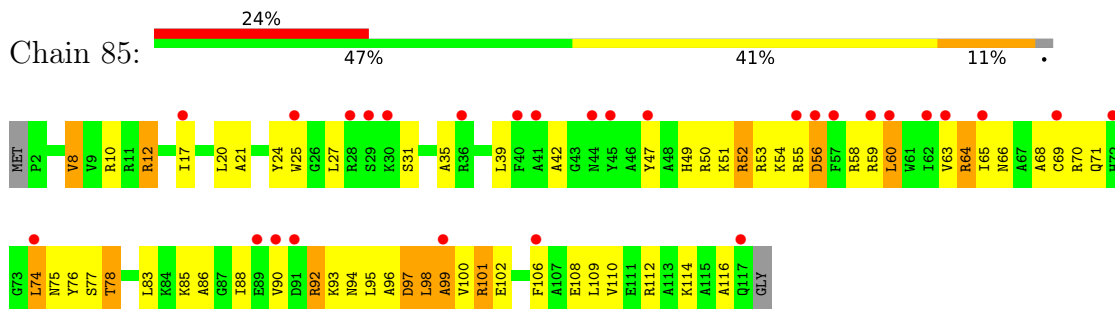


GLN
GLU

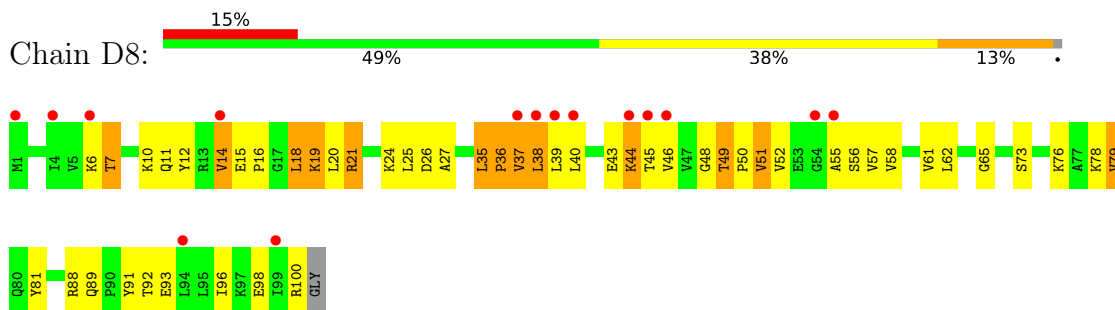
• Molecule 41: 50S ribosomal protein L20



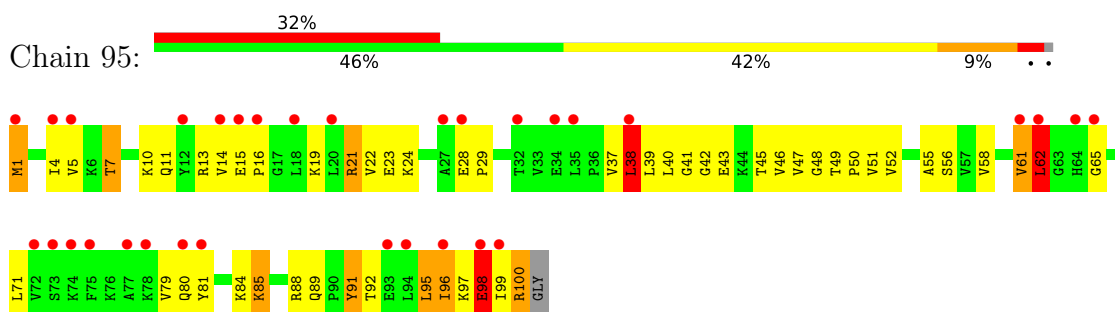
• Molecule 41: 50S ribosomal protein L20



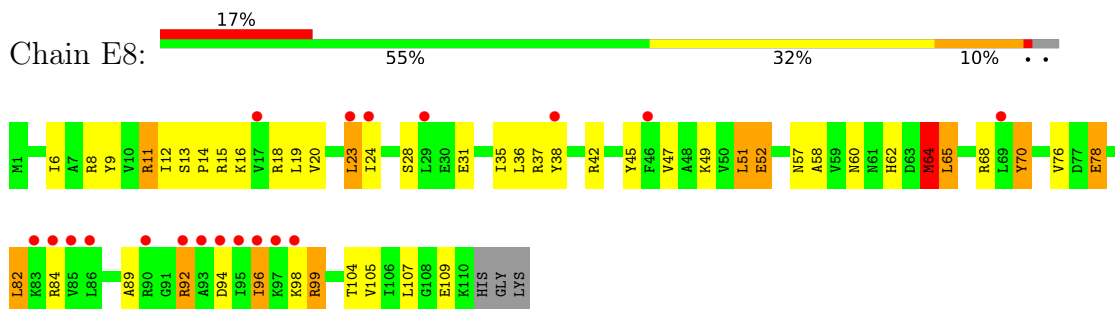
• Molecule 42: 50S ribosomal protein L21



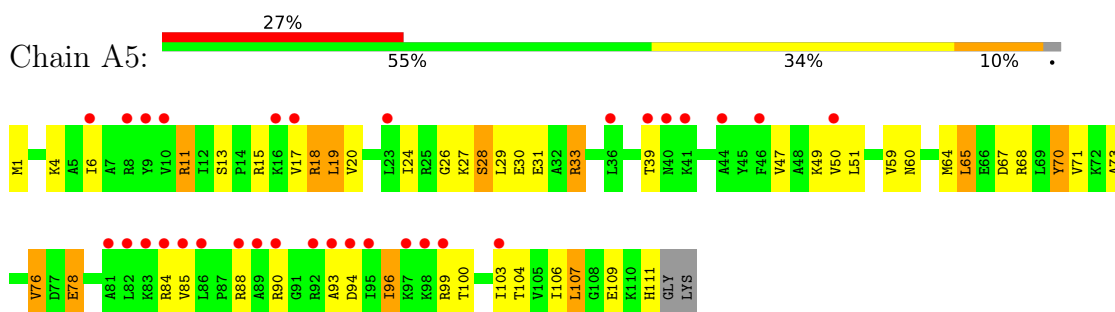
• Molecule 42: 50S ribosomal protein L21



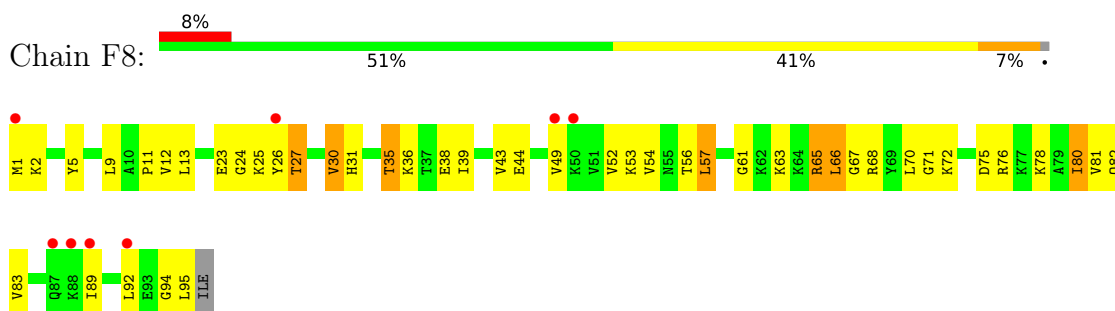
- Molecule 43: 50S ribosomal protein L22



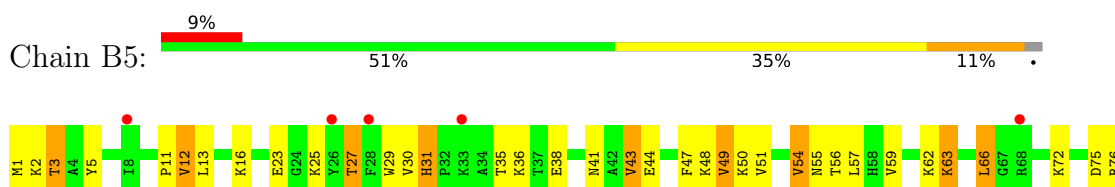
- Molecule 43: 50S ribosomal protein L22

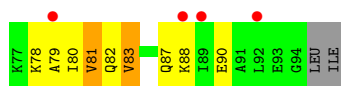


- Molecule 44: 50S ribosomal protein L23

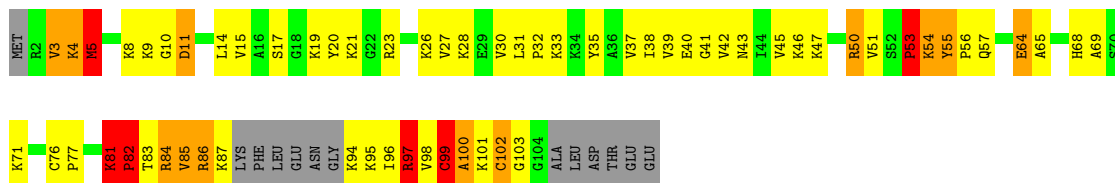


- Molecule 44: 50S ribosomal protein L23

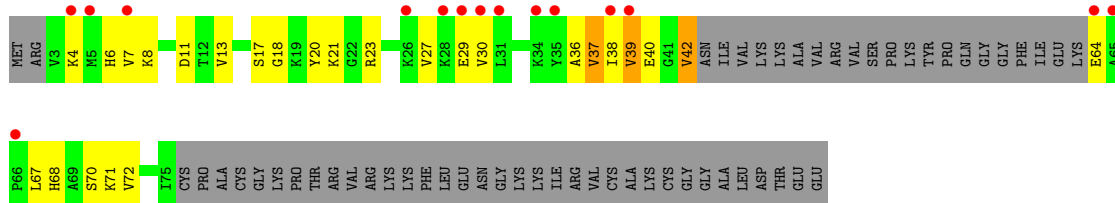




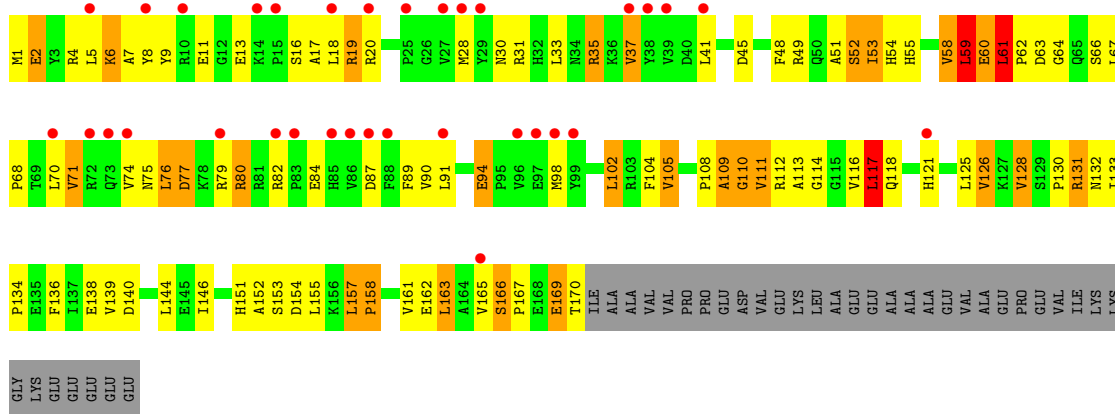
- Molecule 45: 50S ribosomal protein L24



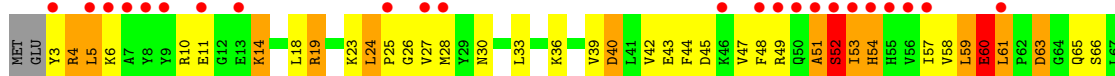
- Molecule 45: 50S ribosomal protein L24

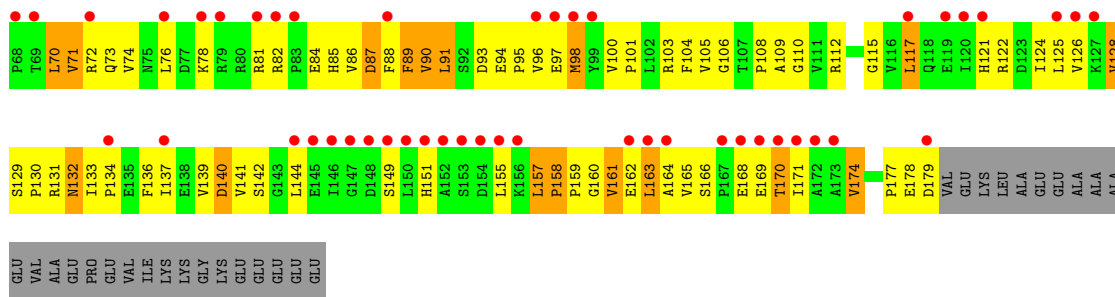


- Molecule 46: 50S ribosomal protein L25

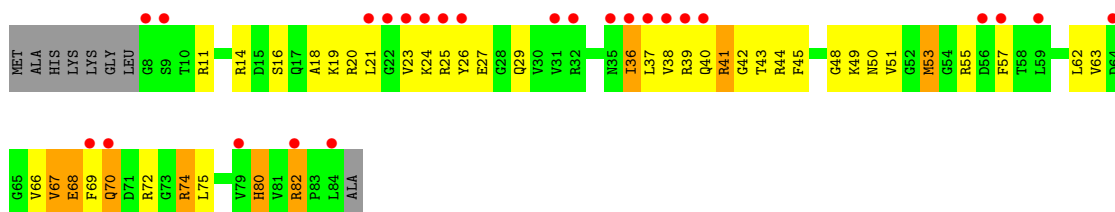


- Molecule 46: 50S ribosomal protein L25

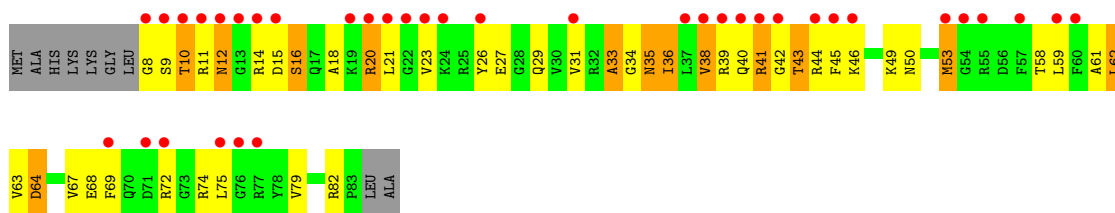




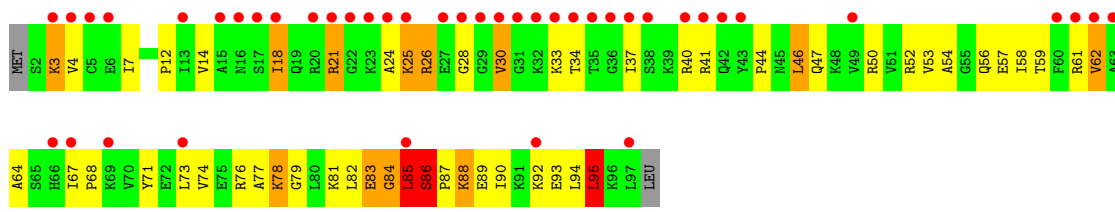
• Molecule 47: 50S ribosomal protein L27



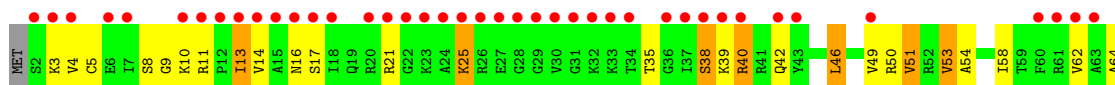
• Molecule 47: 50S ribosomal protein L27

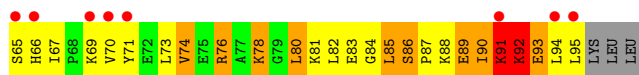


• Molecule 48: 50S ribosomal protein L28

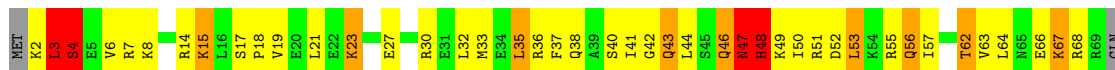
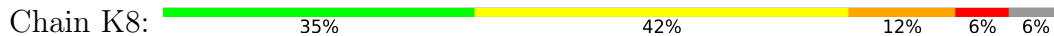


• Molecule 48: 50S ribosomal protein L28





• Molecule 49: 50S ribosomal protein L29



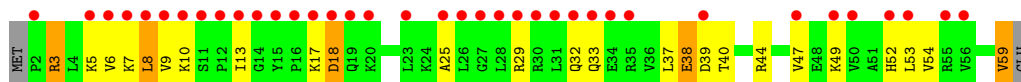
• Molecule 49: 50S ribosomal protein L29



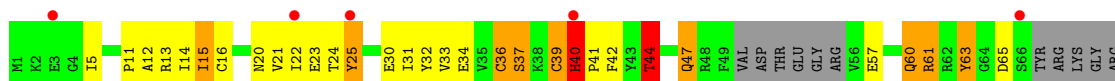
• Molecule 50: 50S ribosomal protein L30



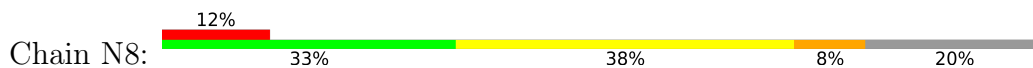
• Molecule 50: 50S ribosomal protein L30



• Molecule 51: 50S ribosomal protein L31

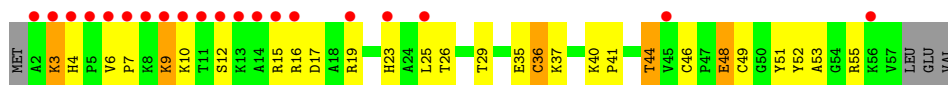


• Molecule 52: 50S ribosomal protein L32

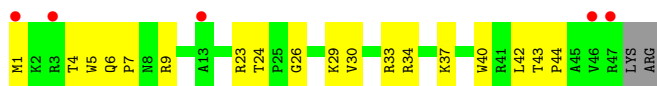




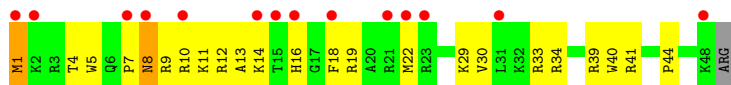
• Molecule 52: 50S ribosomal protein L32



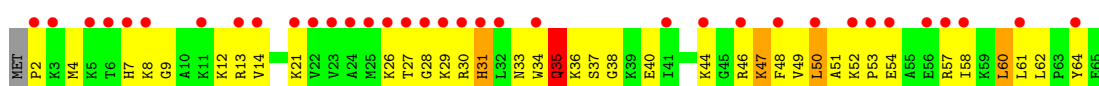
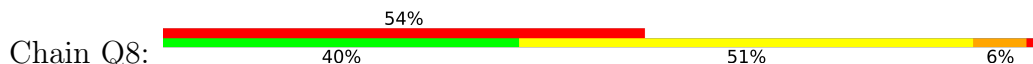
• Molecule 53: 50S ribosomal protein L34



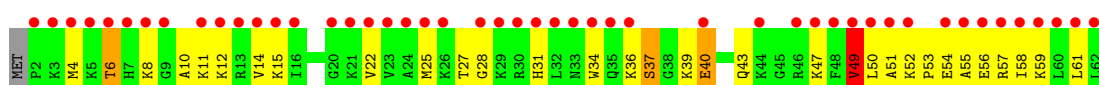
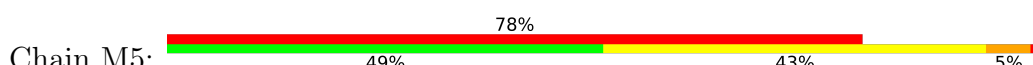
• Molecule 53: 50S ribosomal protein L34



• Molecule 54: 50S ribosomal protein L35



• Molecule 54: 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	209.82Å 449.75Å 618.71Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	224.88 – 3.36 309.36 – 3.36	Depositor EDS
% Data completeness (in resolution range)	99.9 (224.88-3.36) 91.0 (309.36-3.36)	Depositor EDS
R_{merge}	0.36	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.88 (at 3.33Å)	Xtrriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.200 , 0.264 0.200 , 0.264	Depositor DCC
R_{free} test set	1998 reflections (0.24%)	wwPDB-VP
Wilson B-factor (Å ²)	101.0	Xtrriage
Anisotropy	0.195	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 75.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	292640	wwPDB-VP
Average B, all atoms (Å ²)	120.0	wwPDB-VP

Xtrriage'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: H2U, PSU, AET, ZN, SF4, MG, 5MU

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	0.73	4/36095 (0.0%)	1.32	286/56332 (0.5%)
1	1G	0.74	5/35850 (0.0%)	1.34	316/55949 (0.6%)
2	12	0.37	0/1727	0.60	1/2326 (0.0%)
2	1E	0.38	0/1908	0.58	1/2573 (0.0%)
3	22	0.38	0/1569	0.63	1/2116 (0.0%)
3	2E	0.42	0/1629	0.62	0/2195
4	32	0.41	0/1732	0.64	0/2318
4	3E	0.44	0/1728	0.61	1/2313 (0.0%)
5	42	0.42	0/1156	0.58	0/1557
5	4E	0.43	0/1158	0.64	0/1559
6	52	0.47	0/855	0.60	0/1154
6	5E	0.42	0/850	0.59	0/1147
7	62	0.40	0/1122	0.58	0/1500
7	6E	0.42	0/1259	0.55	0/1686
8	72	0.36	0/1127	0.58	0/1517
8	7E	0.40	0/1135	0.62	0/1527
9	82	0.35	0/971	0.59	0/1304
9	8E	0.41	0/1019	0.63	0/1367
10	1A	0.32	0/814	0.57	0/1095
10	1I	0.38	0/762	0.60	0/1027
11	2A	0.43	0/850	0.58	0/1150
11	2I	0.45	0/838	0.68	0/1133
12	3A	0.46	0/972	0.68	0/1301
12	3I	0.52	0/972	0.73	0/1301
13	4A	0.37	0/889	0.71	1/1192 (0.1%)
13	4I	0.47	0/952	0.70	0/1277
14	5A	0.42	0/495	0.64	0/657
14	5I	0.53	0/500	0.70	1/664 (0.2%)
15	6A	0.41	0/740	0.57	0/987
15	6I	0.41	0/740	0.58	0/987
16	7A	0.41	0/721	0.68	0/970
16	7I	0.43	0/716	0.60	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	8A	0.49	0/836	0.62	0/1117
17	8I	0.46	0/847	0.63	0/1131
18	9A	0.44	0/559	0.67	1/746 (0.1%)
18	9I	0.43	0/554	0.60	0/739
19	AA	0.41	0/520	0.74	0/700
19	AI	0.44	0/676	0.70	0/910
20	BA	0.37	0/764	0.57	0/1007
20	BI	0.38	0/748	0.62	1/986 (0.1%)
21	1B	0.32	0/192	0.57	0/252
21	1F	0.40	0/203	0.57	0/266
22	1K	0.59	0/1675	1.31	16/2608 (0.6%)
22	1L	0.50	0/1675	1.10	5/2608 (0.2%)
23	2K	0.77	0/1791	1.35	13/2791 (0.5%)
23	2L	0.68	0/1791	1.30	12/2791 (0.4%)
24	3K	0.59	0/1716	1.22	7/2668 (0.3%)
24	3L	0.53	0/1716	1.20	9/2668 (0.3%)
25	4K	0.96	1/440 (0.2%)	1.40	5/684 (0.7%)
25	4L	0.90	0/341	1.59	4/529 (0.8%)
26	14	0.91	46/67828 (0.1%)	1.54	1168/105880 (1.1%)
26	1H	1.07	92/67804 (0.1%)	1.69	1740/105829 (1.6%)
27	16	0.82	1/2928 (0.0%)	1.57	51/4568 (1.1%)
27	1J	0.67	1/2928 (0.0%)	1.34	26/4568 (0.6%)
28	11	0.60	0/2170	0.81	3/2926 (0.1%)
28	19	0.66	3/2175 (0.1%)	0.77	1/2933 (0.0%)
29	21	0.56	0/1589	0.82	0/2145
29	29	0.51	0/1596	0.78	2/2153 (0.1%)
30	31	0.62	0/1620	0.76	1/2194 (0.0%)
30	39	0.50	0/1637	0.71	1/2218 (0.0%)
31	41	0.46	0/1481	0.70	2/1994 (0.1%)
31	49	0.41	0/1483	0.63	1/1997 (0.1%)
32	51	0.48	0/1354	0.84	2/1833 (0.1%)
32	59	0.38	0/1320	0.67	0/1787
33	61	0.43	0/1146	0.77	4/1551 (0.3%)
33	69	0.41	0/1146	0.69	0/1551
34	15	0.43	0/1123	0.64	0/1515
34	58	0.55	0/1017	0.74	0/1369
35	25	0.53	0/942	0.72	1/1269 (0.1%)
35	68	0.56	0/942	0.69	0/1269
36	35	0.54	0/1139	0.81	1/1514 (0.1%)
36	78	0.60	0/1144	0.93	2/1521 (0.1%)
37	45	0.52	0/1120	0.78	0/1498
37	88	0.60	0/1138	0.83	0/1523
38	55	0.45	0/981	0.74	1/1312 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	98	0.51	0/981	0.74	1/1312 (0.1%)
39	65	0.43	0/886	0.71	2/1180 (0.2%)
39	A8	0.51	0/891	0.73	0/1187
40	75	0.60	1/1178 (0.1%)	0.71	1/1573 (0.1%)
40	B8	0.51	0/1142	0.74	1/1526 (0.1%)
41	85	0.50	0/977	0.69	0/1301
41	C8	0.59	0/968	0.74	1/1289 (0.1%)
42	95	0.46	0/781	0.80	2/1048 (0.2%)
42	D8	0.56	0/785	0.81	2/1052 (0.2%)
43	A5	0.51	0/897	0.69	0/1204
43	E8	0.61	0/886	0.75	1/1189 (0.1%)
44	B5	0.54	0/749	0.70	0/1007
44	F8	0.64	0/764	0.76	0/1025
45	C5	0.60	0/401	0.74	0/535
45	G8	0.65	0/745	0.89	2/993 (0.2%)
46	D5	0.40	0/1443	0.69	2/1960 (0.1%)
46	H8	0.44	0/1395	0.76	1/1890 (0.1%)
47	E5	0.50	0/611	0.77	0/814
47	I8	0.70	1/619 (0.2%)	0.81	0/825
48	F5	0.56	0/744	0.81	0/989
48	J8	0.62	0/754	0.91	2/1003 (0.2%)
49	G5	0.52	0/578	0.73	1/766 (0.1%)
49	K8	0.64	0/577	0.89	2/763 (0.3%)
50	H5	0.45	0/464	0.62	0/623
50	L8	0.51	0/464	0.77	0/623
51	M8	0.53	0/485	0.78	0/652
52	J5	0.52	0/448	0.71	0/606
52	N8	0.59	0/381	0.71	0/516
53	L5	0.56	0/414	0.75	0/547
53	P8	0.70	0/409	0.84	1/540 (0.2%)
54	M5	0.64	1/524 (0.2%)	0.83	0/691
54	Q8	0.61	0/524	0.84	1/691 (0.1%)
All	All	0.80	156/314511 (0.0%)	1.35	3711/471182 (0.8%)

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	5
2	1E	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	2E	0	1
4	32	0	1
4	3E	0	2
5	4E	0	1
9	82	0	1
9	8E	0	3
10	1A	0	1
10	1I	0	1
11	2A	0	1
11	2I	0	2
12	3A	0	4
12	3I	0	2
13	4A	0	6
13	4I	0	3
14	5A	0	1
18	9A	0	1
19	AA	0	4
19	AI	0	1
20	BA	0	1
20	BI	0	1
28	11	0	4
28	19	0	2
29	21	0	7
29	29	0	10
30	31	0	1
30	39	0	4
31	41	0	1
31	49	0	1
32	51	0	5
32	59	0	1
33	61	0	5
33	69	0	5
34	15	0	1
34	58	0	2
35	68	0	1
36	35	0	3
36	78	0	9
37	45	0	5
37	88	0	3
38	98	0	2
39	65	0	1
39	A8	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
40	75	0	2
40	B8	0	2
41	85	0	2
41	C8	0	4
42	95	0	4
42	D8	0	2
43	E8	0	1
44	B5	0	1
45	C5	0	2
45	G8	0	7
46	D5	0	5
46	H8	0	7
47	I8	0	1
48	F5	0	3
48	J8	0	2
49	G5	0	4
49	K8	0	4
51	M8	0	4
52	N8	0	1
54	M5	0	2
54	Q8	0	2
All	All	0	180

All (156) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	75	106	SER	CA-CB	11.86	1.70	1.52
26	14	2593	U	C4-O4	11.75	1.33	1.23
26	1H	676	A	N9-C4	-10.05	1.31	1.37
26	1H	774	A	N9-C4	-10.02	1.31	1.37
26	1H	783	A	N7-C5	-8.90	1.33	1.39
26	14	2211	G	N7-C5	-8.80	1.33	1.39
26	1H	1021	A	N9-C4	-8.79	1.32	1.37
26	1H	1332	G	N9-C4	-8.75	1.30	1.38
26	1H	783	A	N9-C4	-8.57	1.32	1.37
26	14	74	A	N9-C4	-8.55	1.32	1.37
26	1H	783	A	C5-C6	-8.29	1.33	1.41
26	14	774	A	N9-C4	-8.26	1.32	1.37
28	19	237	GLU	CG-CD	8.16	1.64	1.51
26	14	783	A	N9-C4	-8.14	1.32	1.37
26	14	783	A	N7-C5	-8.01	1.34	1.39
26	1H	1899	G	N3-C4	-7.62	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	140	A	C5-C6	-7.51	1.34	1.41
26	1H	1510	A	N9-C4	7.47	1.42	1.37
26	1H	1142(A)	A	N9-C4	-7.41	1.33	1.37
1	1G	209	U	N1-C2	7.38	1.45	1.38
26	1H	71	A	C5-C6	-7.29	1.34	1.41
26	1H	2490	G	N9-C4	-7.28	1.32	1.38
26	1H	783	A	N3-C4	-7.21	1.30	1.34
26	1H	74	A	N9-C4	-7.17	1.33	1.37
26	1H	1899	G	N9-C4	-7.17	1.32	1.38
26	1H	2062	A	N9-C4	7.06	1.42	1.37
26	14	945	A	C5-C6	-6.98	1.34	1.41
26	1H	2518	A	N9-C4	-6.90	1.33	1.37
28	19	237	GLU	CB-CG	6.90	1.65	1.52
26	1H	1786	A	N7-C5	-6.86	1.35	1.39
26	1H	774	A	C5-C6	-6.86	1.34	1.41
26	1H	784	A	C6-N1	-6.82	1.30	1.35
26	1H	2346	A	N3-C4	-6.77	1.30	1.34
26	1H	774	A	N7-C5	-6.77	1.35	1.39
28	19	30	GLU	CG-CD	6.73	1.62	1.51
26	1H	1962	C	N1-C2	6.69	1.46	1.40
26	14	783	A	C5-C6	-6.69	1.35	1.41
26	1H	140	A	N7-C5	-6.68	1.35	1.39
26	14	2593	U	C2-N3	6.66	1.42	1.37
26	1H	472	A	N3-C4	-6.65	1.30	1.34
26	1H	1698	A	N7-C5	-6.62	1.35	1.39
26	1H	2062	A	N3-C4	6.58	1.38	1.34
26	14	528	A	N9-C4	-6.55	1.33	1.37
26	1H	917	A	C5-C6	-6.54	1.35	1.41
26	1H	784	A	N3-C4	-6.53	1.30	1.34
26	1H	621	A	N9-C4	-6.52	1.33	1.37
26	14	2346	A	N3-C4	-6.47	1.30	1.34
26	14	74	A	N3-C4	-6.43	1.30	1.34
26	14	2593	U	N3-C4	6.41	1.44	1.38
26	1H	1899	G	C2-N3	-6.36	1.27	1.32
47	I8	68	GLU	CG-CD	6.33	1.61	1.51
26	14	945	A	N7-C5	-6.31	1.35	1.39
26	1H	1840	G	C6-O6	6.24	1.29	1.24
26	1H	1951	U	C4-O4	6.23	1.28	1.23
26	1H	2451	A	N3-C4	-6.15	1.31	1.34
26	1H	2346	A	N9-C4	-6.12	1.34	1.37
26	14	2062	A	N7-C5	6.11	1.43	1.39
26	1H	471	A	N9-C4	-6.07	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2448	A	N3-C4	-6.07	1.31	1.34
26	14	1342	A	C5-C6	-6.05	1.35	1.41
26	1H	2578	G	C5-C4	-6.05	1.34	1.38
26	14	2518	A	N9-C4	-6.01	1.34	1.37
26	1H	1971	A	N3-C4	-6.00	1.31	1.34
26	1H	789	A	N9-C4	-5.90	1.34	1.37
26	14	1605	C	N1-C6	-5.86	1.33	1.37
1	13	50	A	N9-C4	5.79	1.41	1.37
26	14	1671	U	C4-O4	5.77	1.28	1.23
26	14	1984	G	N9-C8	-5.76	1.33	1.37
1	1G	81	G	N3-C4	5.75	1.39	1.35
26	14	1962	C	N1-C2	5.75	1.45	1.40
26	1H	1698	A	C5-C6	-5.73	1.35	1.41
26	1H	2058	A	N3-C4	-5.72	1.31	1.34
26	1H	2590	A	N9-C4	-5.72	1.34	1.37
26	14	1021	A	N9-C4	-5.71	1.34	1.37
26	1H	2082	A	C5-C4	-5.70	1.34	1.38
26	1H	330	A	N9-C4	-5.70	1.34	1.37
26	1H	2432	A	N9-C4	-5.69	1.34	1.37
26	14	1698	A	C5-C6	-5.69	1.35	1.41
26	1H	138	G	N9-C8	5.68	1.41	1.37
26	1H	2430	A	N9-C4	-5.64	1.34	1.37
26	1H	1142(A)	A	N3-C4	-5.62	1.31	1.34
26	14	1678	G	N9-C4	-5.61	1.33	1.38
26	1H	2451	A	N9-C4	-5.59	1.34	1.37
26	1H	2287	A	N9-C4	-5.56	1.34	1.37
26	14	211	A	N9-C4	-5.54	1.34	1.37
26	1H	1899	G	C6-O6	5.54	1.29	1.24
26	1H	973	A	C6-N1	-5.53	1.31	1.35
26	14	1785	A	N7-C5	-5.52	1.35	1.39
26	14	1308	A	N3-C4	-5.51	1.31	1.34
26	14	2009	G	N3-C4	-5.51	1.31	1.35
26	14	2062	A	C6-N1	5.50	1.39	1.35
54	M5	34	TRP	CB-CG	5.46	1.60	1.50
26	1H	1569	A	N3-C4	-5.44	1.31	1.34
26	1H	676	A	C5-C4	5.44	1.42	1.38
26	14	141	A	N9-C4	-5.40	1.34	1.37
27	1J	89(A)	A	N9-C4	5.40	1.41	1.37
26	1H	828	U	N3-C4	-5.39	1.33	1.38
26	1H	2051	A	N7-C5	-5.39	1.36	1.39
26	14	1342	A	N9-C4	-5.39	1.34	1.37
26	1H	1605	C	N1-C6	-5.39	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1616	A	C5-C6	-5.38	1.36	1.41
1	13	733	A	N9-C4	-5.35	1.34	1.37
26	1H	689	A	C5-C6	-5.34	1.36	1.41
26	1H	1815	A	N3-C4	-5.32	1.31	1.34
26	14	2588	G	C6-N1	-5.32	1.35	1.39
26	1H	2616	C	N1-C6	-5.31	1.33	1.37
26	1H	682	G	C6-N1	-5.31	1.35	1.39
26	1H	2062	A	N7-C5	5.30	1.42	1.39
26	14	792	G	N7-C5	-5.29	1.36	1.39
1	1G	210	U	C2-N3	5.27	1.41	1.37
1	1G	327	A	N9-C4	-5.27	1.34	1.37
26	1H	2616	C	N3-C4	-5.25	1.30	1.33
25	4K	12	A	N9-C4	5.24	1.41	1.37
26	14	1698	A	N7-C5	-5.24	1.36	1.39
26	1H	1786	A	C5-C6	-5.23	1.36	1.41
1	1G	792	A	C5-C4	-5.22	1.35	1.38
26	1H	2452	C	N1-C6	-5.22	1.34	1.37
26	14	1786	A	N9-C4	-5.22	1.34	1.37
26	1H	2448	A	N9-C4	-5.20	1.34	1.37
26	14	2287	A	N9-C4	-5.20	1.34	1.37
26	1H	1616	A	N9-C4	-5.19	1.34	1.37
26	1H	1469	A	N9-C4	-5.19	1.34	1.37
26	1H	1698	A	N3-C4	-5.19	1.31	1.34
26	14	1227	A	N9-C4	-5.18	1.34	1.37
26	1H	2807	G	N9-C4	5.17	1.42	1.38
1	13	894	G	N9-C4	-5.17	1.33	1.38
26	1H	1354	A	C5-C6	-5.17	1.36	1.41
26	1H	1365	A	N3-C4	-5.16	1.31	1.34
26	14	531	C	N1-C6	-5.16	1.34	1.37
1	13	1417	G	C6-O6	5.15	1.28	1.24
26	1H	572	A	C6-N1	-5.15	1.31	1.35
26	1H	127	A	C5-C6	-5.14	1.36	1.41
26	14	793	A	N9-C4	-5.14	1.34	1.37
26	1H	184	C	N1-C6	-5.13	1.34	1.37
26	1H	793	A	N7-C5	-5.10	1.36	1.39
26	14	1571	A	N9-C4	-5.10	1.34	1.37
26	14	56	A	C6-N1	-5.10	1.31	1.35
26	14	1814	G	C6-O6	5.10	1.28	1.24
26	1H	1616	A	N3-C4	-5.09	1.31	1.34
26	1H	197	A	N3-C4	-5.07	1.31	1.34
26	1H	1966	A	N9-C4	-5.07	1.34	1.37
26	14	34	C	N1-C2	5.07	1.45	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	16	101	A	N9-C4	-5.07	1.34	1.37
26	1H	1436	G	C6-N1	-5.06	1.36	1.39
26	1H	2438	U	N1-C6	-5.06	1.33	1.38
26	14	2582	G	N7-C5	-5.06	1.36	1.39
26	14	918	A	N7-C5	-5.06	1.36	1.39
26	1H	2233	U	N1-C2	-5.05	1.34	1.38
26	1H	2271	G	C5-C4	-5.04	1.34	1.38
26	1H	676	A	N9-C8	5.03	1.41	1.37
26	1H	775	G	N7-C5	-5.02	1.36	1.39
26	14	774	A	C5-C6	-5.02	1.36	1.41
26	1H	1890	A	N7-C5	5.02	1.42	1.39
26	1H	390	A	N9-C4	-5.02	1.34	1.37
26	1H	1638	C	N3-C4	-5.01	1.30	1.33
26	1H	2311	A	N9-C4	-5.01	1.34	1.37

All (3711) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1899	G	N3-C4-N9	-20.44	113.73	126.00
26	1H	1962	C	N1-C2-O2	17.31	129.29	118.90
26	1H	774	A	C2-N3-C4	-16.57	102.32	110.60
26	1H	34	C	O5'-P-OP1	-15.77	91.51	105.70
26	1H	1899	G	N9-C4-C5	15.75	111.70	105.40
26	1H	2592	G	O5'-P-OP2	-15.67	91.59	105.70
26	1H	1332	G	N3-C4-N9	-15.56	116.66	126.00
26	14	2593	U	N3-C4-C5	-15.53	105.28	114.60
26	14	1962	C	N1-C2-O2	15.04	127.92	118.90
26	14	945	A	N1-C6-N6	14.91	127.55	118.60
26	1H	1332	G	N3-C4-C5	14.65	135.93	128.60
26	1H	140	A	N1-C6-N6	14.55	127.33	118.60
26	1H	676	A	C2-N3-C4	-14.44	103.38	110.60
26	1H	783	A	C5-N7-C8	-14.44	96.68	103.90
26	1H	676	A	C5-N7-C8	-14.40	96.70	103.90
26	14	783	A	C2-N3-C4	-14.39	103.40	110.60
26	14	774	A	C2-N3-C4	-14.39	103.41	110.60
26	1H	828	U	C5-C4-O4	13.91	134.24	125.90
26	14	1962	C	N3-C2-O2	-13.87	112.19	121.90
26	1H	783	A	C6-C5-N7	-13.78	122.65	132.30
26	14	783	A	N1-C6-N6	13.64	126.79	118.60
26	14	2592	G	O5'-P-OP2	-13.62	93.44	105.70
25	4L	12	A	O4'-C1'-N9	13.49	118.99	108.20
26	1H	1332	G	C2-N3-C4	-13.44	105.18	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	783	A	N1-C6-N6	13.41	126.65	118.60
26	14	945	A	C6-C5-N7	-13.41	122.92	132.30
26	1H	1962	C	N3-C2-O2	-13.39	112.53	121.90
26	1H	1786	A	N7-C8-N9	13.32	120.46	113.80
26	14	201	C	C6-N1-C2	13.30	125.62	120.30
26	1H	1934	C	C6-N1-C2	13.24	125.60	120.30
26	14	2501	C	C6-N1-C2	13.15	125.56	120.30
26	1H	2430	A	C2-N3-C4	-13.09	104.05	110.60
26	14	1698	A	N1-C6-N6	13.06	126.44	118.60
26	1H	2440	C	O5'-P-OP1	-13.02	93.98	105.70
26	1H	945	A	N1-C6-N6	12.99	126.39	118.60
26	14	793	A	O5'-P-OP2	-12.99	94.01	105.70
26	14	34	C	N1-C2-O2	12.98	126.69	118.90
26	1H	783	A	C2-N3-C4	-12.97	104.11	110.60
26	14	2593	U	N3-C4-O4	12.87	128.41	119.40
26	1H	1021	A	C2-N3-C4	-12.82	104.19	110.60
26	14	929	G	N1-C6-O6	12.74	127.54	119.90
26	1H	621	A	C2-N3-C4	-12.73	104.24	110.60
26	1H	1899	G	C5-C6-O6	12.64	136.18	128.60
26	1H	2346	A	C2-N3-C4	-12.56	104.32	110.60
26	1H	2699	C	C6-N1-C2	12.51	125.31	120.30
26	1H	1786	A	C5-N7-C8	-12.44	97.68	103.90
26	14	1786	A	C5-N7-C8	-12.39	97.70	103.90
26	1H	2490	G	N3-C4-C5	12.39	134.79	128.60
26	14	1786	A	N7-C8-N9	12.38	119.99	113.80
26	1H	71	A	C5-N7-C8	-12.37	97.71	103.90
1	13	690	G	C4-N9-C1'	12.32	142.51	126.50
1	1G	254	G	O5'-P-OP1	-12.19	94.73	105.70
26	14	678	C	C6-N1-C2	12.18	125.17	120.30
26	1H	783	A	C4-C5-N7	12.18	116.79	110.70
26	14	783	A	C6-C5-N7	-12.17	123.78	132.30
26	1H	677	A	O5'-P-OP2	-12.14	94.77	105.70
1	13	690	G	C6-C5-N7	-12.13	123.12	130.40
26	1H	2689	U	C5-C4-O4	12.13	133.18	125.90
26	1H	74	A	C2-N3-C4	-12.13	104.54	110.60
26	1H	1840	G	C5-C6-N1	-12.13	105.44	111.50
1	1G	320	C	C6-N1-C2	12.10	125.14	120.30
26	1H	2490	G	C5-N7-C8	-12.05	98.28	104.30
26	14	783	A	C5-N7-C8	-11.99	97.90	103.90
26	14	2211	G	C6-C5-N7	-11.93	123.24	130.40
26	1H	1899	G	N3-C4-C5	11.93	134.56	128.60
26	14	74	A	C2-N3-C4	-11.87	104.67	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1784	A	N1-C6-N6	-11.87	111.48	118.60
26	1H	140	A	C5-N7-C8	-11.84	97.98	103.90
26	1H	140	A	C4-C5-N7	11.82	116.61	110.70
26	14	2211	G	N1-C6-O6	11.79	126.98	119.90
1	13	690	G	C8-N9-C1'	-11.73	111.75	127.00
26	1H	481	G	O5'-P-OP2	-11.72	95.15	105.70
26	1H	2346	A	N1-C2-N3	11.69	135.15	129.30
26	1H	945	A	C2-N3-C4	-11.66	104.77	110.60
26	1H	945	A	C6-C5-N7	-11.64	124.15	132.30
26	1H	917	A	C2-N3-C4	-11.55	104.82	110.60
26	14	1899	G	N1-C2-N2	-11.55	105.81	116.20
26	14	694	U	O5'-P-OP2	-11.48	95.37	105.70
1	1G	197	A	N1-C6-N6	11.44	125.46	118.60
26	1H	1899	G	C8-N9-C4	-11.41	101.84	106.40
26	14	2503	A	O5'-P-OP2	-11.39	95.45	105.70
26	1H	2430	A	C5-C6-N1	-11.37	112.02	117.70
26	1H	140	A	C6-C5-N7	-11.36	124.35	132.30
26	1H	783	A	N7-C8-N9	11.36	119.48	113.80
26	1H	2287	A	C2-N3-C4	-11.34	104.93	110.60
26	1H	676	A	N3-C4-C5	11.29	134.70	126.80
26	1H	2430	A	N1-C6-N6	11.26	125.36	118.60
26	1H	210	C	C6-N1-C2	11.24	124.80	120.30
26	14	2062	A	C8-N9-C4	11.24	110.30	105.80
26	1H	71	A	N1-C6-N6	11.21	125.33	118.60
26	1H	2689	U	C2-N1-C1'	-11.16	104.30	117.70
26	1H	1899	G	C5-C6-N1	-11.13	105.93	111.50
26	1H	676	A	N7-C8-N9	11.11	119.36	113.80
26	1H	2490	G	C4-C5-N7	11.10	115.24	110.80
26	1H	74	A	N1-C6-N6	11.06	125.24	118.60
26	1H	1840	G	N1-C6-O6	11.06	126.54	119.90
26	14	1790	C	C6-N1-C2	11.06	124.72	120.30
26	14	783	A	C4-C5-N7	11.01	116.21	110.70
26	1H	576	U	N1-C2-N3	10.95	121.47	114.90
26	14	929	G	C5-C6-O6	-10.88	122.08	128.60
26	14	203	C	C6-N1-C2	10.86	124.64	120.30
26	14	1342	A	N1-C6-N6	10.85	125.11	118.60
26	1H	1350	C	O5'-P-OP1	-10.84	95.94	105.70
26	14	2329	G	C8-N9-C4	10.81	110.73	106.40
26	14	530	G	C4-C5-N7	10.81	115.12	110.80
26	14	1786	A	C2-N3-C4	-10.80	105.20	110.60
26	1H	917	A	N1-C6-N6	10.79	125.07	118.60
26	14	676	A	C5-N7-C8	-10.79	98.51	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	530	G	C6-C5-N7	-10.74	123.96	130.40
26	1H	2417	C	O5'-P-OP2	-10.67	96.10	105.70
26	1H	71	A	C4-C5-N7	10.66	116.03	110.70
26	1H	140	A	C5-C6-N6	-10.61	115.21	123.70
26	1H	1678	G	C6-C5-N7	-10.54	124.08	130.40
26	1H	2490	G	N3-C4-N9	-10.52	119.69	126.00
26	1H	1786	A	C6-C5-N7	-10.50	124.95	132.30
26	1H	1839	G	C8-N9-C4	10.50	110.60	106.40
26	1H	189	G	C8-N9-C4	10.48	110.59	106.40
26	14	929	G	C4-C5-N7	10.45	114.98	110.80
26	14	1899	G	N3-C2-N2	10.45	127.21	119.90
26	1H	827	U	C5-C4-O4	10.44	132.16	125.90
26	14	1698	A	C6-C5-N7	-10.42	125.00	132.30
26	1H	676	A	C5-C6-N1	-10.42	112.49	117.70
26	1H	194	G	C8-N9-C4	10.41	110.56	106.40
26	14	1332	G	C2-N3-C4	-10.39	106.70	111.90
26	14	2357	U	O5'-P-OP2	-10.39	96.35	105.70
26	1H	1698	A	C6-C5-N7	-10.38	125.03	132.30
26	1H	575	A	O5'-P-OP1	-10.38	96.36	105.70
26	1H	576	U	N3-C2-O2	-10.37	114.94	122.20
26	14	929	G	C6-C5-N7	-10.29	124.23	130.40
1	1G	1128	C	C6-N1-C2	-10.27	116.19	120.30
26	1H	133	C	C6-N1-C2	10.24	124.40	120.30
26	1H	2329	G	C8-N9-C4	10.23	110.49	106.40
26	1H	140	A	N7-C8-N9	10.22	118.91	113.80
26	1H	575	A	C8-N9-C4	10.21	109.88	105.80
26	1H	1678	G	C2-N3-C4	-10.19	106.80	111.90
26	14	2053	G	N1-C6-O6	10.18	126.01	119.90
26	1H	828	U	N3-C4-O4	-10.17	112.28	119.40
1	1G	87	A	N1-C6-N6	10.12	124.67	118.60
26	1H	621	A	N1-C6-N6	10.10	124.66	118.60
26	1H	2555	U	O5'-P-OP1	-10.07	96.64	105.70
22	1K	56	C	N1-C2-O2	10.06	124.94	118.90
26	1H	1962	C	C2-N1-C1'	10.04	129.85	118.80
26	1H	576	U	C2-N3-C4	-10.02	120.99	127.00
26	1H	2689	U	N3-C4-O4	-9.99	112.41	119.40
26	14	1332	G	C6-C5-N7	-9.96	124.43	130.40
26	1H	74	A	C6-C5-N7	-9.95	125.34	132.30
1	1G	366	C	C6-N1-C2	9.94	124.28	120.30
26	14	1585	C	N1-C2-O2	9.92	124.85	118.90
26	1H	1786	A	C8-N9-C4	-9.90	101.84	105.80
1	13	1520	G	N9-C4-C5	-9.89	101.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1786	A	C2-N3-C4	-9.88	105.66	110.60
26	14	527	C	N1-C2-O2	9.88	124.83	118.90
26	1H	2439	A	OP1-P-O3'	9.88	126.92	105.20
1	13	1524	C	C6-N1-C2	9.85	124.24	120.30
1	1G	117	G	N1-C6-O6	9.84	125.80	119.90
26	1H	1761	C	C6-N1-C2	9.83	124.23	120.30
26	1H	676	A	O4'-C1'-N9	9.82	116.06	108.20
1	1G	209	U	N3-C2-O2	-9.82	115.33	122.20
26	1H	774	A	N3-C4-C5	9.79	133.66	126.80
26	14	785	G	O5'-P-OP1	-9.78	96.90	105.70
26	1H	815	C	C6-N1-C2	9.77	124.21	120.30
26	1H	127	A	N1-C6-N6	9.77	124.46	118.60
26	1H	2250	G	C8-N9-C4	-9.75	102.50	106.40
26	14	2610	C	N1-C2-O2	9.75	124.75	118.90
26	1H	1496	A	C8-N9-C4	-9.74	101.90	105.80
26	14	1332	G	C5-N7-C8	-9.73	99.44	104.30
26	14	801	G	N1-C6-O6	-9.71	114.07	119.90
22	1K	56	C	C2-N1-C1'	9.70	129.47	118.80
26	1H	2271	G	N3-C4-N9	9.69	131.81	126.00
26	14	1678	G	C2-N3-C4	-9.65	107.08	111.90
26	1H	676	A	C4-C5-N7	9.63	115.52	110.70
26	1H	1616	A	C5-N7-C8	-9.62	99.09	103.90
26	1H	2551	C	C6-N1-C2	9.60	124.14	120.30
26	1H	1948	G	N1-C6-O6	-9.57	114.16	119.90
1	1G	209	U	N1-C2-O2	9.57	129.50	122.80
1	13	690	G	N3-C4-N9	9.57	131.74	126.00
26	14	1961	C	C6-N1-C2	9.56	124.13	120.30
26	1H	2430	A	C6-C5-N7	-9.56	125.61	132.30
26	1H	945	A	C4-C5-C6	9.54	121.77	117.00
26	14	2080	G	N1-C6-O6	-9.54	114.17	119.90
26	1H	1899	G	C2-N3-C4	-9.54	107.13	111.90
26	1H	71	A	N7-C8-N9	9.53	118.57	113.80
26	14	2211	G	C4-C5-C6	9.53	124.52	118.80
26	1H	1313	U	O5'-P-OP1	-9.52	97.13	105.70
26	1H	2712	U	C5-C4-O4	9.52	131.61	125.90
26	14	1962	C	C6-N1-C2	-9.51	116.50	120.30
26	1H	1786	A	C5-C6-N1	-9.50	112.95	117.70
26	14	945	A	C4-C5-C6	9.48	121.74	117.00
26	1H	71	A	C6-C5-N7	-9.47	125.67	132.30
26	1H	1496	A	N7-C8-N9	9.45	118.52	113.80
26	14	2430	A	N1-C6-N6	9.44	124.26	118.60
26	1H	2598	A	N1-C6-N6	9.43	124.26	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1899	G	N3-C2-N2	-9.40	113.32	119.90
26	1H	859	G	N3-C4-C5	9.40	133.30	128.60
25	4L	14	A	O4'-C1'-N9	9.40	115.72	108.20
26	14	203	C	N3-C4-C5	9.37	125.65	121.90
26	1H	1332	G	N3-C2-N2	-9.36	113.34	119.90
26	1H	1573	G	N3-C4-C5	9.36	133.28	128.60
26	1H	2330	G	C8-N9-C4	9.36	110.14	106.40
26	1H	2346	A	O4'-C1'-N9	9.34	115.67	108.20
26	14	774	A	N1-C6-N6	9.34	124.21	118.60
26	14	801	G	C5-C6-O6	9.34	134.21	128.60
26	1H	621	A	C5-N7-C8	-9.31	99.24	103.90
26	1H	1387	C	C6-N1-C2	-9.31	116.58	120.30
26	14	1786	A	C6-C5-N7	-9.31	125.78	132.30
26	1H	2083	G	N1-C6-O6	9.31	125.49	119.90
1	13	1417	G	C5-C6-N1	-9.30	106.85	111.50
1	1G	257	G	N1-C6-O6	9.29	125.47	119.90
26	14	945	A	C4-C5-N7	9.29	115.34	110.70
26	14	1496	A	N7-C8-N9	9.29	118.44	113.80
26	1H	676	A	N3-C4-N9	-9.28	119.98	127.40
26	14	201	C	C5-C6-N1	-9.28	116.36	121.00
26	14	974(A)	C	N1-C2-O2	9.28	124.47	118.90
26	1H	130	C	C6-N1-C2	9.26	124.00	120.30
26	14	783	A	C5-C6-N1	-9.25	113.07	117.70
26	1H	1678	G	C4-C5-N7	9.24	114.50	110.80
26	1H	2374	C	C6-N1-C2	9.24	124.00	120.30
26	1H	74	A	C5-N7-C8	-9.23	99.28	103.90
26	1H	1665	A	N1-C6-N6	9.22	124.13	118.60
26	14	528	A	C2-N3-C4	-9.22	105.99	110.60
26	14	2513	G	N1-C6-O6	9.22	125.43	119.90
26	14	530	G	N9-C4-C5	-9.21	101.72	105.40
26	14	1597	A	O5'-P-OP2	-9.19	97.43	105.70
26	14	2498	C	C6-N1-C2	9.19	123.98	120.30
26	1H	208	C	C6-N1-C2	9.18	123.97	120.30
26	14	2430	A	C5-C6-N1	-9.16	113.12	117.70
26	1H	1790	C	C5-C6-N1	-9.16	116.42	121.00
26	14	1962	C	C2-N1-C1'	9.16	128.87	118.80
27	16	101	A	C8-N9-C4	9.15	109.46	105.80
26	14	774	A	N3-C4-C5	9.14	133.20	126.80
26	1H	530	G	C4-C5-N7	9.13	114.45	110.80
1	13	690	G	O4'-C1'-N9	9.12	115.50	108.20
26	1H	945	A	N9-C4-C5	-9.12	102.15	105.80
26	1H	450	G	C5-C6-O6	-9.10	123.14	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	148	C	C6-N1-C2	9.10	123.94	120.30
26	1H	2451	A	N9-C4-C5	9.09	109.44	105.80
26	1H	1678	G	C5-N7-C8	-9.06	99.77	104.30
26	1H	466	A	N1-C6-N6	9.04	124.03	118.60
26	1H	1784	A	C5-C6-N6	9.03	130.93	123.70
26	14	801	G	C6-C5-N7	9.03	135.82	130.40
26	14	2593	U	C6-N1-C2	-9.03	115.58	121.00
26	1H	2430	A	N1-C2-N3	9.01	133.80	129.30
26	1H	785	G	N1-C6-O6	-9.00	114.50	119.90
26	1H	2287	A	N1-C2-N3	9.00	133.80	129.30
26	14	2023	G	O5'-P-OP2	-9.00	97.60	105.70
26	14	1992	G	N3-C4-C5	-8.99	124.11	128.60
26	14	1284	A	O5'-P-OP2	-8.98	97.62	105.70
26	14	1332	G	N7-C8-N9	8.98	117.59	113.10
26	14	1899	G	C6-C5-N7	-8.97	125.02	130.40
24	3K	76	A	N1-C6-N6	8.97	123.98	118.60
26	1H	783	A	C8-N9-C4	-8.97	102.21	105.80
26	1H	2585	U	N1-C2-O2	8.96	129.07	122.80
48	J8	95	LEU	CA-CB-CG	8.96	135.90	115.30
27	1J	114	G	C8-N9-C4	8.94	109.98	106.40
26	1H	1258	C	C6-N1-C2	8.92	123.87	120.30
26	14	34	C	N3-C2-O2	-8.92	115.66	121.90
26	1H	1786	A	N1-C6-N6	8.91	123.95	118.60
26	14	213	A	C8-N9-C4	8.91	109.36	105.80
26	1H	2598	A	O5'-P-OP1	-8.90	97.69	105.70
1	13	21	G	O5'-P-OP1	-8.88	97.70	105.70
26	14	2873	A	N1-C6-N6	8.88	123.93	118.60
26	14	676	A	C4-C5-N7	8.87	115.13	110.70
26	1H	2402	C	C6-N1-C2	-8.86	116.76	120.30
26	14	691	C	N1-C2-O2	-8.86	113.58	118.90
26	14	2346	A	C2-N3-C4	-8.85	106.18	110.60
1	1G	483	C	C6-N1-C2	8.84	123.84	120.30
26	1H	189	G	N9-C4-C5	-8.84	101.86	105.40
26	14	2287	A	C2-N3-C4	-8.81	106.19	110.60
26	14	783	A	N7-C8-N9	8.81	118.20	113.80
26	14	1790	C	C5-C6-N1	-8.79	116.61	121.00
26	1H	1396	U	N3-C2-O2	-8.78	116.06	122.20
26	14	678	C	N3-C4-C5	8.77	125.41	121.90
1	1G	246	A	N1-C6-N6	8.77	123.86	118.60
26	14	2211	G	C8-N9-C1'	-8.76	115.61	127.00
26	14	621	A	C2-N3-C4	-8.75	106.23	110.60
26	1H	576	U	C4-C5-C6	8.74	124.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	127	A	O5'-P-OP2	-8.74	97.84	105.70
22	1K	56	C	C6-N1-C2	-8.73	116.81	120.30
26	1H	1898	U	C5-C4-O4	8.71	131.13	125.90
26	1H	1021	A	C5-N7-C8	-8.71	99.55	103.90
26	14	1786	A	C4-C5-N7	8.70	115.05	110.70
26	1H	1786	A	C4-C5-N7	8.70	115.05	110.70
1	13	1260	C	C6-N1-C2	-8.69	116.82	120.30
26	1H	945	A	N1-C2-N3	8.69	133.65	129.30
26	1H	1899	G	C8-N9-C1'	8.69	138.30	127.00
26	14	2513	G	N9-C4-C5	-8.68	101.93	105.40
26	14	1840	G	C5-C6-N1	-8.67	107.17	111.50
26	14	2612	C	O5'-P-OP1	8.66	121.10	110.70
26	1H	2378	A	C8-N9-C4	8.66	109.26	105.80
26	14	1396	U	N3-C2-O2	-8.66	116.14	122.20
1	1G	352	C	N3-C4-C5	-8.64	118.44	121.90
26	1H	1698	A	C4-C5-C6	8.63	121.31	117.00
26	14	1249	U	O5'-P-OP1	-8.63	97.94	105.70
26	1H	128	C	C6-N1-C2	8.62	123.75	120.30
26	14	1814	G	C5-C6-N1	-8.60	107.20	111.50
1	13	900	A	C8-N9-C4	8.60	109.24	105.80
26	14	1786	A	C8-N9-C4	-8.59	102.36	105.80
26	1H	1573	G	C8-N9-C4	8.57	109.83	106.40
26	14	2873	A	C6-C5-N7	-8.57	126.30	132.30
26	14	2087	G	N3-C4-N9	8.56	131.14	126.00
26	1H	1938	A	O5'-P-OP1	-8.56	98.00	105.70
22	1K	56	C	N3-C2-O2	-8.55	115.91	121.90
26	14	2386	C	C6-N1-C2	8.55	123.72	120.30
26	14	2463	C	C6-N1-C2	8.54	123.72	120.30
26	14	1698	A	C4-C5-N7	8.54	114.97	110.70
26	14	2084	C	C6-N1-C2	8.54	123.72	120.30
26	1H	812	C	N1-C2-O2	-8.53	113.78	118.90
1	1G	1338	G	N3-C4-C5	-8.52	124.34	128.60
26	1H	2451	A	C8-N9-C4	-8.52	102.39	105.80
26	1H	1325	G	C6-C5-N7	-8.51	125.29	130.40
26	14	676	A	O4'-C1'-N9	8.50	115.00	108.20
26	1H	920	G	C8-N9-C4	8.50	109.80	106.40
26	14	2211	G	C4-N9-C1'	8.49	137.54	126.50
26	1H	2454	G	N1-C6-O6	-8.49	114.81	119.90
26	14	1814	G	N1-C6-O6	8.49	124.99	119.90
26	1H	1951	U	N3-C4-C5	-8.48	109.51	114.60
26	1H	1340	U	N3-C2-O2	8.48	128.14	122.20
26	14	917	A	O5'-P-OP1	-8.46	98.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1790	C	C2-N3-C4	-8.46	115.67	119.90
26	1H	461	C	C6-N1-C2	8.45	123.68	120.30
26	14	1958	C	C6-N1-C2	8.45	123.68	120.30
26	1H	1265	A	O5'-P-OP2	-8.45	98.10	105.70
26	1H	2035	G	O4'-C1'-N9	8.45	114.96	108.20
26	1H	774	A	N3-C4-N9	-8.44	120.64	127.40
26	1H	1967	C	O5'-P-OP2	-8.44	98.10	105.70
26	1H	1764	G	N1-C6-O6	-8.44	114.84	119.90
26	14	2449	U	C5-C4-O4	-8.44	120.84	125.90
26	1H	2271	G	N3-C4-C5	-8.43	124.38	128.60
26	14	1612	C	C6-N1-C2	8.43	123.67	120.30
26	1H	2324	C	N3-C4-C5	8.43	125.27	121.90
1	13	1520	G	C8-N9-C4	8.43	109.77	106.40
26	1H	120	U	O5'-P-OP2	8.42	120.80	110.70
26	14	1932	A	O5'-P-OP1	-8.42	98.12	105.70
1	13	1533	C	C2-N1-C1'	8.41	128.06	118.80
26	1H	2430	A	C4-C5-C6	8.41	121.21	117.00
26	1H	2442	C	C5-C4-N4	-8.41	114.31	120.20
26	1H	2448	A	N1-C6-N6	8.41	123.64	118.60
26	14	2688	U	N3-C2-O2	-8.40	116.32	122.20
26	1H	1332	G	C5-N7-C8	-8.39	100.10	104.30
26	1H	2689	U	C6-N1-C1'	8.39	132.95	121.20
26	14	956	G	O5'-P-OP2	-8.36	98.18	105.70
26	14	2593	U	C4-C5-C6	8.36	124.71	119.70
26	1H	141	A	C5-N7-C8	-8.35	99.72	103.90
26	14	74	A	C5-C6-N1	-8.35	113.52	117.70
26	14	1332	G	N1-C6-O6	8.35	124.91	119.90
26	1H	1639	U	N3-C2-O2	-8.34	116.36	122.20
26	1H	2438	U	C5-C6-N1	-8.33	118.53	122.70
26	1H	941	A	O5'-P-OP2	-8.33	98.20	105.70
26	1H	943	U	C2-N1-C1'	-8.33	107.70	117.70
26	14	1332	G	C4-C5-N7	8.33	114.13	110.80
26	1H	1698	A	C2-N3-C4	-8.32	106.44	110.60
26	1H	189	G	N1-C6-O6	8.30	124.88	119.90
26	14	74	A	C5-N7-C8	-8.30	99.75	103.90
26	1H	2374	C	C5-C6-N1	-8.29	116.86	121.00
26	1H	565	C	O5'-P-OP1	-8.29	98.24	105.70
26	14	945	A	C5-C6-N6	-8.29	117.07	123.70
26	1H	74	A	C5-C6-N1	-8.28	113.56	117.70
1	1G	413	G	C4-N9-C1'	-8.28	115.74	126.50
26	1H	945	A	C5-C6-N1	-8.27	113.57	117.70
26	1H	1356	G	O5'-P-OP1	-8.26	98.26	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	194	G	N9-C4-C5	-8.26	102.10	105.40
1	1G	194	C	N3-C2-O2	-8.25	116.12	121.90
26	1H	2061	G	O5'-P-OP2	-8.25	98.28	105.70
26	1H	1989	G	N1-C6-O6	8.25	124.85	119.90
1	1G	198	G	C5-C6-O6	8.24	133.55	128.60
26	1H	2554	U	O5'-P-OP1	-8.24	98.28	105.70
26	14	2873	A	C5-N7-C8	-8.24	99.78	103.90
26	1H	1931	U	N3-C2-O2	-8.24	116.44	122.20
26	1H	621	A	C4-C5-N7	8.23	114.82	110.70
26	14	1671	U	N3-C4-O4	8.23	125.17	119.40
26	14	2724	C	C5-C6-N1	-8.23	116.88	121.00
27	16	47	C	C6-N1-C2	8.23	123.59	120.30
26	1H	772	C	O5'-P-OP1	-8.23	98.29	105.70
26	1H	2007	C	O5'-P-OP2	-8.23	98.29	105.70
26	1H	546	C	N1-C2-O2	8.22	123.83	118.90
26	14	2513	G	C4-C5-N7	8.22	114.09	110.80
26	1H	1840	G	N3-C2-N2	-8.22	114.15	119.90
26	1H	1697	G	N9-C4-C5	-8.21	102.12	105.40
1	13	422	C	C2-N1-C1'	8.21	127.83	118.80
26	1H	2286	A	N1-C6-N6	8.20	123.52	118.60
26	14	528	A	N1-C2-N3	8.20	133.40	129.30
1	13	1520	G	N1-C6-O6	8.20	124.82	119.90
1	13	792	A	C8-N9-C4	8.19	109.08	105.80
26	1H	1284	A	N1-C6-N6	8.19	123.52	118.60
26	1H	2490	G	N7-C8-N9	8.19	117.19	113.10
26	14	2711	A	O5'-P-OP2	-8.19	98.33	105.70
1	13	1158	C	C2-N1-C1'	8.18	127.80	118.80
27	16	111	U	C5-C4-O4	8.18	130.81	125.90
1	13	518	C	N1-C2-O2	8.18	123.81	118.90
26	1H	575	A	N7-C8-N9	-8.18	109.71	113.80
26	1H	856	C	O5'-P-OP1	-8.18	98.34	105.70
26	1H	2286	A	C6-C5-N7	-8.18	126.58	132.30
26	1H	2506	U	N1-C2-O2	8.18	128.53	122.80
26	14	801	G	N3-C4-N9	-8.17	121.10	126.00
26	14	1342	A	C2-N3-C4	-8.17	106.52	110.60
1	13	912	C	C6-N1-C2	8.15	123.56	120.30
26	14	1302	A	N1-C6-N6	-8.15	113.71	118.60
26	1H	2741	A	C8-N9-C4	8.15	109.06	105.80
26	1H	1489	U	C5-C4-O4	8.14	130.78	125.90
26	1H	2490	G	C2-N3-C4	-8.14	107.83	111.90
26	1H	548	A	O4'-C1'-N9	8.14	114.71	108.20
26	1H	1396	U	N1-C2-O2	8.13	128.49	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	81	G	N9-C4-C5	-8.13	102.15	105.40
26	1H	2447	G	N1-C6-O6	8.12	124.77	119.90
26	14	738	G	O5'-P-OP2	-8.11	98.40	105.70
26	14	641	C	C6-N1-C2	8.11	123.54	120.30
1	13	1519	A	C5-C6-N6	8.09	130.17	123.70
26	1H	1616	A	C4-C5-N7	8.09	114.75	110.70
26	1H	592	G	N1-C6-O6	-8.08	115.05	119.90
26	1H	2551	C	C5-C6-N1	-8.08	116.96	121.00
27	16	81	G	C6-C5-N7	-8.07	125.56	130.40
26	1H	71	A	C5-C6-N6	-8.05	117.26	123.70
26	14	2275	C	P-O3'-C3'	8.05	129.36	119.70
1	1G	117	G	C6-C5-N7	-8.05	125.57	130.40
26	14	140	A	C5-N7-C8	-8.05	99.87	103.90
26	1H	805	G	C8-N9-C4	8.05	109.62	106.40
26	14	1961	C	C5-C6-N1	-8.05	116.98	121.00
1	13	266	G	C4-C5-N7	8.04	114.02	110.80
26	1H	1839	G	N9-C4-C5	-8.04	102.19	105.40
26	14	1698	A	C2-N3-C4	-8.03	106.58	110.60
26	1H	2311	A	C2-N3-C4	-8.03	106.58	110.60
26	1H	692	C	C6-N1-C2	8.03	123.51	120.30
26	1H	858	U	C5-C6-N1	-8.02	118.69	122.70
26	14	2542	A	C8-N9-C4	8.01	109.00	105.80
13	4A	66	LEU	CA-CB-CG	8.01	133.72	115.30
26	14	991	C	O5'-P-OP1	-8.01	98.49	105.70
26	14	1902	C	N3-C4-C5	8.01	125.10	121.90
26	1H	71	A	C2-N3-C4	-8.00	106.60	110.60
26	14	976	C	N3-C2-O2	-8.00	116.30	121.90
26	14	802	A	O5'-P-OP2	-8.00	98.50	105.70
26	14	729	G	N3-C2-N2	-7.99	114.31	119.90
26	14	530	G	N1-C6-O6	7.99	124.69	119.90
26	14	1899	G	C4-N9-C1'	7.98	136.87	126.50
26	14	2081	C	O5'-P-OP2	-7.98	98.52	105.70
26	14	2779	U	C2-N1-C1'	7.97	127.27	117.70
26	14	1496	A	C8-N9-C4	-7.97	102.61	105.80
26	1H	1698	A	N1-C6-N6	7.96	123.38	118.60
26	1H	865	C	C6-N1-C2	7.95	123.48	120.30
1	13	330	C	N1-C2-O2	7.95	123.67	118.90
26	1H	2325	G	O5'-P-OP1	-7.95	98.55	105.70
26	14	2508	G	C6-C5-N7	-7.95	125.63	130.40
26	14	774	A	C5-N7-C8	-7.94	99.93	103.90
26	14	2392	A	C2-N3-C4	-7.94	106.63	110.60
26	14	2699	C	C6-N1-C2	7.93	123.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2286	A	C4-C5-C6	7.93	120.97	117.00
26	1H	1275	A	C8-N9-C4	7.93	108.97	105.80
26	14	74	A	N1-C6-N6	7.92	123.36	118.60
26	14	1671	U	N3-C4-C5	-7.92	109.85	114.60
26	14	2330	G	C8-N9-C4	7.92	109.57	106.40
26	14	2035	G	O4'-C1'-N9	7.91	114.53	108.20
26	1H	859	G	N3-C4-N9	-7.91	121.25	126.00
26	1H	945	A	C8-N9-C1'	-7.91	113.47	127.70
26	14	2726	U	C5-C4-O4	7.91	130.64	125.90
26	1H	2064	C	C4-C5-C6	7.90	121.35	117.40
1	13	1533	C	N1-C2-O2	7.89	123.63	118.90
26	14	1678	G	N1-C6-O6	7.89	124.63	119.90
26	14	2437	U	O5'-P-OP1	-7.88	98.61	105.70
26	1H	676	A	C6-N1-C2	7.88	123.33	118.60
26	14	140	A	C4-C5-N7	7.88	114.64	110.70
26	1H	859	G	C4-N9-C1'	-7.88	116.26	126.50
26	14	1787	A	N1-C6-N6	7.86	123.31	118.60
1	13	893	C	N1-C2-O2	7.86	123.61	118.90
24	3K	76	A	C5-N7-C8	-7.86	99.97	103.90
26	1H	1785	A	N1-C6-N6	7.84	123.30	118.60
26	14	867	C	O5'-P-OP1	-7.84	98.65	105.70
1	13	802	A	N1-C6-N6	7.83	123.30	118.60
26	1H	699	A	N1-C6-N6	7.83	123.30	118.60
26	1H	2679	A	O5'-P-OP2	-7.83	98.65	105.70
1	1G	197	A	C6-C5-N7	-7.83	126.82	132.30
26	14	621	A	C5-C6-N1	-7.83	113.79	117.70
26	1H	1368	G	C8-N9-C1'	-7.83	116.83	127.00
26	1H	592	G	C5-C6-O6	7.82	133.29	128.60
26	14	298	G	N1-C6-O6	7.81	124.59	119.90
26	14	1661	G	O5'-P-OP2	-7.81	98.67	105.70
26	1H	1992	G	P-O3'-C3'	7.81	129.07	119.70
26	1H	2503	A	C5-C6-N6	-7.81	117.45	123.70
26	1H	265	A	C2-N3-C4	-7.80	106.70	110.60
26	14	1950	G	C5-C6-N1	-7.80	107.60	111.50
1	13	328	C	C2-N1-C1'	7.80	127.38	118.80
26	1H	2380	C	C6-N1-C2	7.79	123.42	120.30
26	1H	1616	A	N1-C6-N6	7.79	123.27	118.60
26	1H	330	A	C2-N3-C4	-7.78	106.71	110.60
26	14	2087	G	C8-N9-C1'	-7.78	116.89	127.00
26	14	2513	G	C5-C6-O6	-7.78	123.94	128.60
26	14	2712	U	C5-C4-O4	7.77	130.56	125.90
26	1H	580	C	C6-N1-C2	-7.77	117.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	77	C	C6-N1-C2	7.77	123.41	120.30
26	1H	676	A	N1-C6-N6	7.77	123.26	118.60
26	14	676	A	C2-N3-C4	-7.76	106.72	110.60
1	13	1520	G	C4-C5-N7	7.75	113.90	110.80
26	1H	2324	C	C6-N1-C2	7.75	123.40	120.30
26	14	2576	G	O5'-P-OP1	7.75	120.00	110.70
26	1H	1835	G	C6-C5-N7	-7.75	125.75	130.40
26	14	1678	G	N3-C4-C5	7.75	132.47	128.60
26	1H	783	A	C5-C6-N1	-7.74	113.83	117.70
26	1H	2331	G	C8-N9-C4	7.74	109.50	106.40
26	14	929	G	N9-C4-C5	-7.74	102.31	105.40
26	1H	1616	A	C6-C5-N7	-7.73	126.89	132.30
26	1H	1023	U	O5'-P-OP1	-7.73	98.74	105.70
26	1H	201	C	C6-N1-C2	7.72	123.39	120.30
26	1H	1697	G	N1-C6-O6	7.71	124.53	119.90
26	1H	2311	A	N1-C2-N3	7.71	133.16	129.30
26	14	2087	G	C4-N9-C1'	7.71	136.53	126.50
26	14	2501	C	N1-C2-N3	-7.71	113.80	119.20
26	14	939	G	N1-C6-O6	7.71	124.53	119.90
26	14	1833	U	O5'-P-OP2	-7.71	98.76	105.70
26	1H	805	G	O5'-P-OP1	-7.70	98.77	105.70
26	14	742	G	O5'-P-OP1	-7.70	98.77	105.70
26	1H	828	U	N3-C2-O2	-7.69	116.81	122.20
26	1H	1586	A	N1-C6-N6	7.69	123.21	118.60
26	14	34	C	C2-N1-C1'	7.67	127.24	118.80
26	1H	1902	C	C5-C4-N4	7.67	125.57	120.20
26	1H	1021	A	C5-C6-N1	-7.67	113.86	117.70
26	1H	1142(A)	A	C2-N3-C4	-7.66	106.77	110.60
26	14	774	A	C4-C5-N7	7.65	114.53	110.70
48	J8	85	LEU	CA-CB-CG	7.65	132.90	115.30
26	14	2873	A	C4-C5-N7	7.65	114.52	110.70
26	1H	1021	A	N1-C6-N6	7.65	123.19	118.60
26	1H	2318	G	O4'-C1'-N9	7.65	114.32	108.20
26	14	1623	G	C8-N9-C4	-7.64	103.34	106.40
1	13	872	A	O4'-C1'-N9	7.64	114.31	108.20
26	14	1343	G	O5'-P-OP1	-7.64	98.83	105.70
26	1H	1358	G	N3-C4-N9	7.63	130.58	126.00
26	14	2226	C	N1-C2-O2	7.63	123.47	118.90
26	1H	528	A	N3-C4-C5	7.62	132.13	126.80
26	1H	1698	A	N1-C2-N3	7.62	133.11	129.30
26	14	1820	U	C5-C6-N1	-7.62	118.89	122.70
26	14	1698	A	C5-N7-C8	-7.61	100.09	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2454	G	C8-N9-C4	7.61	109.44	106.40
26	1H	2247	A	N1-C2-N3	7.60	133.10	129.30
26	1H	2452	C	C6-N1-C2	7.59	123.34	120.30
26	14	687	C	O5'-P-OP1	-7.59	98.87	105.70
26	1H	510	C	O5'-P-OP2	-7.59	98.87	105.70
26	1H	1356	G	O5'-P-OP2	7.59	119.81	110.70
26	14	1644	C	N3-C2-O2	-7.59	116.59	121.90
1	1G	1519	A	C5-C6-N6	7.59	129.77	123.70
26	1H	1665	A	N9-C4-C5	-7.58	102.77	105.80
26	14	2251	G	C4-N9-C1'	7.58	136.36	126.50
26	14	1496	A	C5-N7-C8	-7.58	100.11	103.90
26	14	1678	G	C6-C5-N7	-7.58	125.85	130.40
1	1G	237	C	N3-C2-O2	-7.58	116.60	121.90
26	1H	796	C	C6-N1-C2	7.57	123.33	120.30
26	14	1564	C	N3-C2-O2	-7.57	116.60	121.90
1	13	1354	C	C6-N1-C2	-7.57	117.27	120.30
26	1H	530	G	C5-N7-C8	-7.56	100.52	104.30
26	1H	594	U	C5-C6-N1	-7.56	118.92	122.70
26	14	1900	A	O5'-P-OP1	-7.56	98.90	105.70
26	14	2438	U	O5'-P-OP2	-7.56	98.90	105.70
26	1H	530	G	N3-C4-C5	7.55	132.38	128.60
26	14	74	A	O4'-C1'-N9	-7.55	102.16	108.20
26	1H	2329	G	N7-C8-N9	-7.55	109.33	113.10
26	14	446	G	C6-C5-N7	-7.55	125.87	130.40
26	1H	2584	U	N3-C2-O2	-7.54	116.92	122.20
26	1H	1616	A	N7-C8-N9	7.54	117.57	113.80
1	13	1520	G	C5-C6-O6	-7.54	124.08	128.60
26	1H	1678	G	N7-C8-N9	7.54	116.87	113.10
26	1H	1618	A	N1-C6-N6	7.53	123.12	118.60
26	1H	2601	C	N1-C2-O2	7.53	123.42	118.90
26	1H	1926	U	O5'-P-OP2	-7.53	98.92	105.70
26	14	945	A	C2-N3-C4	-7.52	106.84	110.60
26	14	2504	U	N3-C4-O4	7.52	124.66	119.40
26	1H	774	A	C5-C6-N1	-7.52	113.94	117.70
26	14	2584	U	C2-N1-C1'	7.52	126.72	117.70
26	1H	1790	C	C2-N1-C1'	-7.51	110.53	118.80
26	1H	1955	U	C2-N1-C1'	7.51	126.72	117.70
26	1H	679	C	N3-C4-C5	7.50	124.90	121.90
26	1H	2503	A	C2-N3-C4	7.50	114.35	110.60
26	1H	2454	G	C5-C6-O6	7.49	133.10	128.60
26	14	1396	U	N1-C2-O2	7.49	128.04	122.80
1	13	792	A	N9-C4-C5	-7.49	102.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2259	G	N1-C6-O6	7.49	124.39	119.90
27	16	81	G	C4-C5-N7	7.49	113.80	110.80
26	1H	138	G	C4-C5-N7	7.49	113.79	110.80
26	1H	865	C	N3-C2-O2	7.49	127.14	121.90
26	1H	1431	U	C5-C6-N1	7.49	126.44	122.70
26	14	1616	A	C5-N7-C8	-7.49	100.16	103.90
26	14	155	C	N1-C2-O2	7.48	123.39	118.90
26	1H	1821	A	C2-N3-C4	-7.48	106.86	110.60
26	1H	1826	G	C4-C5-N7	7.48	113.79	110.80
26	14	1342	A	C6-C5-N7	-7.48	127.07	132.30
26	1H	2726	U	C5-C4-O4	7.47	130.38	125.90
26	14	409	C	C6-N1-C2	7.47	123.29	120.30
26	14	2340	G	C8-N9-C4	7.47	109.39	106.40
26	14	2436	G	N1-C6-O6	7.47	124.38	119.90
1	1G	87	A	C5-C6-N1	-7.46	113.97	117.70
26	1H	677	A	O5'-P-OP1	7.46	119.65	110.70
26	1H	865	C	N1-C2-N3	-7.46	113.98	119.20
26	14	1323	U	N1-C2-O2	-7.46	117.58	122.80
26	14	775	G	N3-C4-C5	-7.45	124.87	128.60
1	1G	1260	C	C5-C6-N1	7.45	124.73	121.00
26	1H	2018	G	C8-N9-C4	-7.45	103.42	106.40
27	16	102	G	N1-C6-O6	7.45	124.37	119.90
26	1H	528	A	C2-N3-C4	-7.44	106.88	110.60
26	1H	2504	U	N3-C4-O4	-7.44	114.19	119.40
1	13	346	G	C8-N9-C4	-7.43	103.43	106.40
26	14	796	C	N3-C4-C5	7.43	124.87	121.90
1	1G	320	C	C5-C6-N1	-7.43	117.28	121.00
26	14	2211	G	N3-C4-N9	7.43	130.46	126.00
26	14	2713	A	C5-N7-C8	-7.43	100.19	103.90
1	1G	895	G	C6-C5-N7	-7.42	125.95	130.40
26	1H	74	A	N7-C8-N9	7.42	117.51	113.80
26	1H	2451	A	N3-C4-N9	-7.42	121.47	127.40
26	1H	1333	C	C5-C6-N1	7.41	124.71	121.00
26	14	801	G	N9-C4-C5	7.41	108.36	105.40
26	14	972	G	O5'-P-OP2	-7.41	99.03	105.70
26	14	2713	A	N1-C6-N6	7.41	123.05	118.60
26	1H	2712	U	N3-C4-O4	-7.41	114.21	119.40
26	1H	947	G	N1-C6-O6	7.40	124.34	119.90
26	14	2473	U	N1-C2-O2	7.40	127.98	122.80
1	1G	1417	G	C5-C6-N1	-7.39	107.81	111.50
1	13	690	G	C4-C5-C6	7.39	123.23	118.80
26	1H	1888	G	N3-C4-N9	7.39	130.43	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1342	A	C4-C5-N7	7.38	114.39	110.70
26	14	2873	A	N7-C8-N9	7.38	117.49	113.80
26	14	2490	G	C4-C5-N7	7.38	113.75	110.80
26	1H	917	A	N1-C2-N3	7.38	132.99	129.30
26	14	2014	A	C8-N9-C4	7.38	108.75	105.80
26	14	2053	G	C5-C6-O6	-7.37	124.18	128.60
26	1H	210	C	C5-C6-N1	-7.37	117.32	121.00
1	1G	121	C	N1-C2-O2	7.37	123.32	118.90
1	1G	529	G	N1-C6-O6	7.36	124.32	119.90
26	1H	385	C	N3-C4-C5	-7.35	118.96	121.90
26	1H	1315	C	N3-C2-O2	-7.35	116.75	121.90
26	14	2508	G	N1-C6-O6	7.35	124.31	119.90
26	1H	2016	U	N3-C4-O4	-7.34	114.26	119.40
36	35	46	LYS	C-N-CA	-7.34	103.34	121.70
26	1H	795	C	O5'-P-OP2	-7.34	99.09	105.70
26	14	1678	G	C5-N7-C8	-7.34	100.63	104.30
26	1H	1352	U	C5-C6-N1	-7.34	119.03	122.70
1	1G	46	G	N1-C6-O6	7.34	124.30	119.90
26	1H	144	C	C5-C6-N1	-7.33	117.33	121.00
26	1H	705	A	N9-C4-C5	-7.33	102.87	105.80
26	1H	1899	G	C4-C5-N7	-7.33	107.87	110.80
26	1H	248	G	C5-C6-O6	-7.33	124.20	128.60
26	1H	913	U	O5'-P-OP2	-7.33	99.10	105.70
26	1H	917	A	N9-C4-C5	-7.33	102.87	105.80
1	13	1158	C	N1-C2-O2	7.33	123.30	118.90
26	1H	2503	A	C5-C6-N1	7.33	121.36	117.70
1	13	57	G	N3-C4-C5	-7.32	124.94	128.60
1	1G	1096	C	C6-N1-C2	-7.32	117.37	120.30
26	14	74	A	N1-C2-N3	7.32	132.96	129.30
26	1H	827	U	N3-C4-O4	-7.32	114.28	119.40
26	1H	1586	A	C6-C5-N7	-7.31	127.18	132.30
26	1H	74	A	C4-C5-N7	7.31	114.36	110.70
26	1H	528	A	C6-N1-C2	7.31	122.98	118.60
26	14	2490	G	C5-N7-C8	-7.30	100.65	104.30
26	1H	621	A	N1-C2-N3	7.30	132.95	129.30
26	14	1930	G	C4-C5-N7	-7.30	107.88	110.80
26	1H	1271	G	C8-N9-C4	7.30	109.32	106.40
26	1H	786	C	C4-C5-C6	7.29	121.05	117.40
45	G8	81	LYS	C-N-CD	-7.29	104.55	120.60
23	2L	8	U	C5-C6-N1	7.29	126.35	122.70
26	14	1622	G	O5'-P-OP1	-7.29	99.14	105.70
26	14	2430	A	C4-C5-C6	7.29	120.64	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	933	A	O5'-P-OP2	-7.29	99.14	105.70
26	1H	2346	A	C5-C6-N1	-7.29	114.06	117.70
26	14	583	G	N1-C6-O6	7.29	124.27	119.90
26	1H	621	A	C6-C5-N7	-7.29	127.20	132.30
26	1H	1528	A	C8-N9-C4	-7.29	102.89	105.80
1	1G	900	A	O5'-P-OP1	-7.29	99.14	105.70
26	1H	1598	C	O5'-P-OP1	-7.28	99.15	105.70
26	1H	690	G	C8-N9-C4	7.28	109.31	106.40
28	11	196	VAL	C-N-CA	-7.28	107.02	122.30
26	1H	835	A	C6-N1-C2	-7.27	114.24	118.60
26	14	1842	G	C8-N9-C4	7.27	109.31	106.40
26	1H	62	C	C6-N1-C2	7.27	123.21	120.30
26	1H	577	G	C4-C5-N7	7.27	113.71	110.80
26	1H	1284	A	OP1-P-OP2	7.27	130.50	119.60
26	14	2430	A	N1-C2-N3	7.27	132.93	129.30
26	14	676	A	N7-C8-N9	7.26	117.43	113.80
1	1G	216	G	C5-C6-O6	7.26	132.96	128.60
1	1G	227	G	C8-N9-C4	7.26	109.31	106.40
26	14	801	G	C4-C5-N7	-7.26	107.89	110.80
1	13	1404	C	C4-C5-C6	-7.26	113.77	117.40
26	1H	2586	C	N3-C4-C5	7.26	124.80	121.90
1	1G	413	G	C8-N9-C1'	7.25	136.43	127.00
26	14	2498	C	C5-C6-N1	-7.25	117.37	121.00
32	51	82	GLY	N-CA-C	7.25	131.23	113.10
26	14	2688	U	C5-C6-N1	-7.25	119.07	122.70
26	14	945	A	N9-C4-C5	-7.25	102.90	105.80
24	3L	76	A	C5-N7-C8	-7.25	100.28	103.90
26	14	681	G	C8-N9-C4	7.25	109.30	106.40
26	14	1695	G	N3-C4-N9	7.25	130.35	126.00
26	14	2253	G	N1-C6-O6	7.24	124.25	119.90
26	1H	189	G	C2-N3-C4	-7.24	108.28	111.90
26	14	1202	C	C5-C6-N1	-7.24	117.38	121.00
26	14	796	C	C2-N3-C4	-7.24	116.28	119.90
26	14	1787	A	C6-C5-N7	-7.24	127.24	132.30
26	1H	74	A	N1-C2-N3	7.23	132.92	129.30
1	13	690	G	N9-C4-C5	-7.23	102.51	105.40
26	1H	1586	A	N7-C8-N9	7.22	117.41	113.80
26	14	627	A	N1-C6-N6	7.22	122.93	118.60
1	1G	197	A	C4-C5-N7	7.22	114.31	110.70
26	14	49	A	P-O3'-C3'	7.22	128.36	119.70
26	14	694	U	O5'-P-OP1	7.22	119.36	110.70
26	1H	859	G	C8-N9-C1'	7.21	136.38	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	4K	11	U	N3-C2-O2	-7.21	117.16	122.20
26	14	71	A	N1-C6-N6	7.20	122.92	118.60
26	1H	1672	C	N3-C4-C5	7.20	124.78	121.90
26	1H	120	U	C5-C6-N1	-7.20	119.10	122.70
26	1H	2596	U	OP1-P-OP2	7.19	130.39	119.60
26	14	929	G	C5-N7-C8	-7.19	100.71	104.30
26	1H	2601	C	N3-C2-O2	-7.18	116.87	121.90
26	14	2071	A	N1-C6-N6	-7.18	114.29	118.60
26	1H	2304	G	N3-C4-C5	7.18	132.19	128.60
1	13	575	G	C8-N9-C4	7.18	109.27	106.40
26	1H	16	G	N1-C6-O6	7.18	124.21	119.90
26	1H	2517	C	C6-N1-C2	7.18	123.17	120.30
26	14	1780	A	O5'-P-OP2	7.18	119.32	110.70
26	1H	1573	G	C2-N3-C4	-7.18	108.31	111.90
1	1G	784	C	C6-N1-C2	7.18	123.17	120.30
26	14	2688	U	N3-C4-O4	-7.17	114.38	119.40
26	1H	1840	G	C8-N9-C1'	-7.17	117.68	127.00
1	1G	1338	G	N3-C4-N9	7.17	130.30	126.00
1	1G	353	A	N1-C6-N6	7.17	122.90	118.60
26	14	2566	A	O5'-P-OP2	-7.16	99.25	105.70
26	14	1585	C	C2-N1-C1'	7.16	126.68	118.80
26	1H	1934	C	N3-C4-C5	7.16	124.76	121.90
26	14	1776	G	C4-C5-N7	7.16	113.66	110.80
26	1H	958	U	N3-C2-O2	-7.16	117.19	122.20
26	1H	1799	G	O5'-P-OP1	-7.15	99.26	105.70
1	13	892	A	N1-C6-N6	7.15	122.89	118.60
26	1H	1559	G	N3-C4-C5	7.15	132.18	128.60
26	14	192	C	C6-N1-C2	7.15	123.16	120.30
26	1H	2788	C	N1-C2-O2	7.14	123.19	118.90
26	1H	694	U	O5'-P-OP2	-7.14	99.28	105.70
26	1H	2598	A	C5-C6-N6	-7.13	117.99	123.70
26	1H	2626	C	C6-N1-C2	7.13	123.15	120.30
26	14	197	A	OP2-P-O3'	7.13	120.89	105.20
1	13	1266	G	N3-C4-N9	-7.13	121.72	126.00
26	1H	774	A	C5-N7-C8	-7.13	100.34	103.90
26	1H	1333	C	C5-C4-N4	-7.13	115.21	120.20
26	1H	1496	A	C5-N7-C8	-7.13	100.34	103.90
26	14	1385	G	O4'-C1'-N9	7.13	113.90	108.20
26	1H	2254	C	N1-C2-O2	-7.12	114.63	118.90
1	1G	1267	C	C2-N1-C1'	7.12	126.64	118.80
1	13	690	G	C4-C5-N7	7.12	113.65	110.80
26	1H	205	G	N3-C4-C5	-7.12	125.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2503	A	O5'-P-OP1	7.12	119.24	110.70
26	1H	1616	A	O4'-C1'-N9	7.12	113.89	108.20
26	1H	783	A	C4-C5-C6	7.12	120.56	117.00
26	1H	1241	A	N1-C6-N6	7.11	122.87	118.60
26	14	2057	A	C2-N3-C4	-7.11	107.05	110.60
26	14	453	C	C6-N1-C2	7.11	123.14	120.30
26	14	562	U	C6-N1-C2	-7.11	116.73	121.00
26	1H	2518	A	C2-N3-C4	-7.11	107.05	110.60
26	14	138	G	O5'-P-OP2	-7.11	99.31	105.70
26	14	607	U	O5'-P-OP2	-7.11	99.30	105.70
26	1H	178	G	C8-N9-C4	7.10	109.24	106.40
1	13	1517	G	N1-C6-O6	7.10	124.16	119.90
26	1H	146	G	C8-N9-C4	7.09	109.24	106.40
26	14	948	G	N1-C6-O6	7.09	124.16	119.90
1	1G	197	A	C5-N7-C8	-7.09	100.35	103.90
26	14	211	A	C8-N9-C4	7.09	108.64	105.80
26	14	141	A	C5-N7-C8	-7.09	100.35	103.90
26	14	446	G	N1-C6-O6	7.09	124.15	119.90
1	1G	74	C	O5'-P-OP1	-7.09	99.32	105.70
1	13	346	G	N7-C8-N9	7.08	116.64	113.10
26	1H	2447	G	C5-C6-O6	-7.08	124.35	128.60
24	3K	76	A	C4-C5-N7	7.08	114.24	110.70
26	1H	1248	G	N3-C4-C5	7.08	132.14	128.60
26	14	1992	G	P-O3'-C3'	7.08	128.19	119.70
26	1H	1628	G	N1-C6-O6	7.07	124.14	119.90
26	1H	1764	G	C5-C6-O6	7.07	132.84	128.60
22	1K	67	A	O4'-C1'-N9	7.07	113.86	108.20
26	1H	71	A	O4'-C1'-N9	-7.07	102.54	108.20
1	13	690	G	N1-C6-O6	7.07	124.14	119.90
26	1H	574	C	O5'-P-OP1	-7.07	99.34	105.70
26	1H	49	A	N7-C8-N9	-7.06	110.27	113.80
26	14	1742	C	C6-N1-C2	-7.05	117.48	120.30
1	1G	58	C	N3-C4-C5	7.05	124.72	121.90
26	14	2473	U	C2-N1-C1'	7.05	126.16	117.70
1	1G	150	C	C6-N1-C2	-7.05	117.48	120.30
26	1H	210	C	N3-C4-C5	7.05	124.72	121.90
26	1H	856	C	C2-N1-C1'	7.05	126.55	118.80
26	14	1678	G	C4-C5-N7	7.05	113.62	110.80
1	13	1298	C	C6-N1-C2	7.04	123.12	120.30
26	14	779	U	N3-C2-O2	-7.04	117.27	122.20
1	13	970	C	N1-C2-O2	7.04	123.12	118.90
1	13	843	U	C2-N1-C1'	7.04	126.14	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1665	A	C5-C6-N6	-7.03	118.07	123.70
26	1H	945	A	O4'-C1'-N9	7.03	113.82	108.20
26	14	2741	A	C8-N9-C4	7.03	108.61	105.80
26	14	270(K)	C	C2-N1-C1'	7.03	126.53	118.80
26	14	1314	C	N1-C2-O2	7.03	123.11	118.90
26	1H	1835	G	C4-C5-N7	7.02	113.61	110.80
43	E8	23	LEU	CA-CB-CG	7.02	131.46	115.30
26	1H	2270	G	O5'-P-OP2	-7.02	99.38	105.70
1	1G	186	C	C6-N1-C2	-7.02	117.49	120.30
26	1H	683	C	C5-C4-N4	-7.01	115.29	120.20
26	1H	705	A	N1-C6-N6	7.01	122.81	118.60
1	1G	797	C	C6-N1-C2	7.01	123.10	120.30
26	1H	1417	C	C5-C6-N1	-7.01	117.50	121.00
26	1H	945	A	C4-N9-C1'	7.00	138.91	126.30
26	1H	1962	C	C6-N1-C1'	-7.00	112.40	120.80
26	1H	1451	C	C6-N1-C2	7.00	123.10	120.30
26	1H	2330	G	N9-C4-C5	-7.00	102.60	105.40
26	1H	2516	G	O5'-P-OP2	-7.00	99.40	105.70
26	14	465	G	O5'-P-OP2	7.00	119.10	110.70
26	1H	2857	G	O5'-P-OP1	-7.00	99.40	105.70
26	14	2430	A	C2-N3-C4	-7.00	107.10	110.60
1	13	328	C	N1-C2-O2	6.99	123.10	118.90
26	1H	202	U	C6-N1-C2	6.99	125.19	121.00
26	1H	627	A	C8-N9-C4	6.99	108.60	105.80
26	1H	1972	A	N1-C6-N6	6.98	122.79	118.60
26	14	779	U	N1-C2-O2	6.98	127.69	122.80
26	1H	1142(A)	A	C5-N7-C8	-6.98	100.41	103.90
26	14	775	G	C8-N9-C4	-6.98	103.61	106.40
26	14	855	G	C8-N9-C4	-6.98	103.61	106.40
26	1H	546	C	N3-C2-O2	-6.98	117.02	121.90
26	1H	2328	A	N1-C2-N3	6.98	132.79	129.30
26	1H	2455	G	C8-N9-C4	6.98	109.19	106.40
26	1H	1325	G	N3-C4-N9	6.98	130.19	126.00
26	1H	2807	G	N3-C4-C5	-6.97	125.11	128.60
26	1H	465	G	C5-C6-O6	6.97	132.78	128.60
26	14	2038	G	C4-C5-N7	6.97	113.59	110.80
26	1H	1520	U	N3-C2-O2	-6.96	117.33	122.20
26	1H	793	A	N1-C6-N6	6.96	122.78	118.60
26	1H	1190	G	C2-N3-C4	-6.96	108.42	111.90
26	1H	179	G	C5-C6-N1	-6.96	108.02	111.50
26	1H	391	G	C2-N3-C4	-6.96	108.42	111.90
26	1H	2072	G	O5'-P-OP2	-6.96	99.44	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1340	U	N1-C2-O2	-6.96	117.93	122.80
26	1H	1528	A	O4'-C1'-N9	6.96	113.76	108.20
26	1H	1925	C	O5'-P-OP1	-6.95	99.45	105.70
26	14	465	G	C5-C6-N1	-6.95	108.03	111.50
26	1H	138	G	C5-N7-C8	-6.94	100.83	104.30
26	1H	2074	U	O5'-P-OP1	-6.94	99.45	105.70
26	1H	2503	A	N1-C2-N3	-6.94	125.83	129.30
26	14	2436	G	C5-C6-O6	-6.94	124.44	128.60
26	1H	465	G	C2-N3-C4	6.94	115.37	111.90
1	1G	46	G	C5-C6-O6	-6.94	124.44	128.60
1	1G	1127	G	O5'-P-OP1	-6.94	99.45	105.70
26	14	1840	G	N1-C6-O6	6.94	124.06	119.90
26	14	2689	U	N3-C4-O4	-6.94	114.54	119.40
26	14	1142	U	C2-N1-C1'	6.94	126.02	117.70
26	14	2604	U	C6-N1-C2	6.94	125.16	121.00
26	1H	2032	G	N7-C8-N9	-6.93	109.63	113.10
26	1H	592	G	C4-C5-N7	-6.93	108.03	110.80
26	14	2473	U	N3-C2-O2	-6.93	117.35	122.20
1	13	1494	G	N9-C4-C5	-6.93	102.63	105.40
26	14	686	G	C4-C5-N7	6.93	113.57	110.80
26	14	665	C	C6-N1-C2	6.93	123.07	120.30
26	14	1627	G	N1-C6-O6	-6.93	115.75	119.90
26	1H	2238	G	O5'-P-OP2	-6.92	99.47	105.70
26	1H	1528	A	N7-C8-N9	6.92	117.26	113.80
26	1H	2059	A	N1-C6-N6	6.92	122.75	118.60
1	1G	210	U	N3-C2-O2	6.92	127.04	122.20
26	14	2078	C	O5'-P-OP1	-6.92	99.47	105.70
26	1H	1363	C	C5-C6-N1	-6.91	117.55	121.00
26	14	2513	G	C8-N9-C4	6.91	109.16	106.40
26	1H	1943	U	O5'-P-OP2	-6.91	99.48	105.70
1	1G	249	U	O5'-P-OP2	-6.90	99.49	105.70
26	14	1786	A	N1-C6-N6	6.90	122.74	118.60
26	1H	1323	U	N3-C4-C5	-6.90	110.46	114.60
1	1G	1519	A	C8-N9-C4	-6.90	103.04	105.80
26	1H	789	A	C2-N3-C4	-6.90	107.15	110.60
26	14	71	A	C5-N7-C8	-6.90	100.45	103.90
26	14	1762	A	C2-N3-C4	-6.90	107.15	110.60
26	1H	1825	A	O5'-P-OP1	6.89	118.97	110.70
26	1H	2596	U	O5'-P-OP1	-6.89	99.50	105.70
26	1H	2710	C	C5-C6-N1	-6.89	117.55	121.00
1	1G	557	G	C6-C5-N7	-6.89	126.27	130.40
26	14	915	C	N1-C2-O2	6.89	123.03	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2329	G	N9-C4-C5	-6.89	102.64	105.40
26	14	2689	U	C5-C4-O4	6.89	130.03	125.90
26	14	2433	A	O5'-P-OP2	6.89	118.96	110.70
26	14	2582	G	C5-C6-O6	-6.89	124.47	128.60
26	1H	2710	C	C6-N1-C2	6.88	123.05	120.30
26	14	676	A	N1-C6-N6	6.88	122.73	118.60
26	14	683	C	N3-C4-C5	6.88	124.65	121.90
26	14	945	A	C5-N7-C8	-6.88	100.46	103.90
26	1H	822	U	C2-N1-C1'	6.88	125.96	117.70
26	14	2275	C	OP2-P-O3'	6.88	120.34	105.20
26	1H	222	A	P-O3'-C3'	6.88	127.95	119.70
26	1H	251	A	O5'-P-OP1	-6.88	99.51	105.70
26	1H	2689	U	C5-C6-N1	-6.88	119.26	122.70
26	1H	52	A	O5'-P-OP1	-6.87	99.51	105.70
26	14	2503	A	C2-N3-C4	6.87	114.04	110.60
26	1H	1186	G	C5-C6-N1	6.87	114.94	111.50
26	1H	2026	C	C4-C5-C6	6.87	120.83	117.40
26	1H	2424	C	OP1-P-OP2	6.87	129.90	119.60
26	1H	188	G	N9-C4-C5	-6.86	102.66	105.40
1	1G	114	U	N3-C2-O2	-6.86	117.40	122.20
26	14	1899	G	N3-C4-N9	6.86	130.12	126.00
26	1H	678	C	N3-C4-C5	6.86	124.64	121.90
26	1H	1826	G	O5'-P-OP2	-6.86	99.53	105.70
26	14	2712	U	C5-C6-N1	-6.86	119.27	122.70
26	1H	141	A	C4-C5-N7	6.86	114.13	110.70
26	1H	248	G	N1-C6-O6	6.86	124.01	119.90
26	1H	1758	G	C5-C6-O6	-6.86	124.49	128.60
26	14	2573	C	C2-N1-C1'	6.85	126.34	118.80
1	13	131	C	N1-C2-O2	6.85	123.01	118.90
26	1H	932	G	C8-N9-C4	-6.85	103.66	106.40
26	14	141	A	C4-C5-N7	6.85	114.12	110.70
26	1H	461	C	N3-C2-O2	6.85	126.69	121.90
26	1H	528	A	C5-C6-N1	-6.84	114.28	117.70
26	1H	2392	A	C2-N3-C4	-6.84	107.18	110.60
27	16	11	C	N1-C2-O2	6.84	123.00	118.90
1	1G	240	C	N1-C2-O2	-6.84	114.80	118.90
26	14	2211	G	C5-C6-N1	-6.84	108.08	111.50
1	13	49	U	P-O3'-C3'	6.83	127.90	119.70
26	1H	436	C	C6-N1-C2	6.83	123.03	120.30
1	1G	226	G	C8-N9-C4	6.83	109.13	106.40
26	1H	461	C	N1-C2-O2	-6.83	114.80	118.90
26	1H	639	U	C5-C4-O4	6.83	130.00	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1036	G	C8-N9-C4	6.83	109.13	106.40
26	1H	2518	A	O5'-P-OP2	6.82	118.89	110.70
26	14	107	C	C6-N1-C2	6.82	123.03	120.30
26	14	125	G	C6-C5-N7	6.82	134.49	130.40
1	1G	311	C	C5-C4-N4	-6.82	115.42	120.20
26	14	2080	G	C5-C6-O6	6.82	132.69	128.60
1	13	1528	U	C5-C6-N1	-6.82	119.29	122.70
26	1H	465	G	C8-N9-C4	-6.82	103.67	106.40
26	14	1328	G	C5-C6-O6	-6.82	124.51	128.60
26	1H	663	G	C4-C5-C6	6.81	122.89	118.80
26	1H	958	U	C6-N1-C2	-6.81	116.91	121.00
26	14	2443	C	N1-C2-O2	-6.81	114.81	118.90
26	14	1906	G	N1-C6-O6	6.81	123.98	119.90
26	1H	2607	G	C5-C6-N1	-6.80	108.10	111.50
26	1H	477	A	O5'-P-OP2	-6.80	99.58	105.70
26	1H	2062	A	C2-N3-C4	6.80	114.00	110.60
26	14	2545	G	C8-N9-C4	6.80	109.12	106.40
26	1H	1370	C	C6-N1-C2	6.80	123.02	120.30
26	14	141	A	N3-C4-C5	6.80	131.56	126.80
26	14	784	A	O5'-P-OP1	-6.80	99.58	105.70
26	14	1975	G	N9-C4-C5	-6.80	102.68	105.40
26	14	2318	G	C6-C5-N7	-6.80	126.32	130.40
26	1H	788	A	OP2-P-O3'	6.79	120.15	105.20
26	1H	2450	A	C8-N9-C4	-6.79	103.08	105.80
26	1H	700	G	C8-N9-C4	-6.79	103.68	106.40
1	1G	81	G	C5-C6-O6	-6.79	124.53	128.60
26	14	2352	A	C2-N3-C4	-6.79	107.20	110.60
26	1H	530	G	C2-N3-C4	-6.79	108.51	111.90
26	14	1344	G	C8-N9-C4	-6.79	103.69	106.40
26	14	141	A	C2-N3-C4	-6.78	107.21	110.60
26	1H	2699	C	N1-C2-N3	-6.78	114.45	119.20
26	14	2518	A	O4'-C1'-N9	-6.78	102.78	108.20
1	1G	305	G	N1-C6-O6	-6.78	115.83	119.90
26	14	467	G	O5'-P-OP2	-6.77	99.61	105.70
26	14	530	G	C5-C6-O6	-6.77	124.54	128.60
26	1H	194	G	C5-C6-O6	-6.77	124.54	128.60
26	1H	2392	A	N1-C6-N6	6.77	122.66	118.60
1	1G	557	G	N1-C6-O6	6.77	123.96	119.90
1	1G	81	G	C4-C5-N7	6.77	113.51	110.80
1	13	1	U	O4'-C1'-N1	6.76	113.61	108.20
26	1H	1513	C	C6-N1-C2	-6.76	117.59	120.30
26	14	2352	A	N1-C2-N3	6.76	132.68	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1697	G	C6-C5-N7	-6.76	126.34	130.40
26	1H	945	A	C4-C5-N7	6.75	114.08	110.70
26	1H	2441	C	C5-C6-N1	-6.75	117.62	121.00
26	14	189	G	C8-N9-C4	6.75	109.10	106.40
26	1H	446	G	N1-C6-O6	6.75	123.95	119.90
26	14	1379	A	C4-C5-N7	6.75	114.08	110.70
26	1H	2584	U	N1-C2-O2	6.75	127.52	122.80
1	1G	332	G	N9-C4-C5	-6.74	102.70	105.40
26	14	450	G	N1-C6-O6	6.74	123.95	119.90
26	1H	839	U	C5-C4-O4	6.74	129.94	125.90
26	1H	1771	C	C6-N1-C2	-6.74	117.60	120.30
26	1H	676	A	C8-N9-C4	-6.74	103.11	105.80
26	1H	2579	C	N3-C4-C5	6.74	124.59	121.90
26	14	783	A	N3-C4-C5	6.74	131.52	126.80
26	1H	463	G	C8-N9-C4	6.74	109.09	106.40
26	1H	1313	U	C5-C6-N1	6.74	126.07	122.70
26	1H	1586	A	C5-N7-C8	-6.74	100.53	103.90
26	1H	200	U	O5'-P-OP1	-6.73	99.64	105.70
26	1H	1314	C	N1-C2-O2	6.73	122.94	118.90
1	1G	413	G	N3-C4-N9	-6.73	121.96	126.00
26	14	2512	C	N3-C4-C5	6.73	124.59	121.90
1	1G	895	G	N1-C6-O6	6.73	123.94	119.90
26	14	678	C	C5-C6-N1	-6.73	117.64	121.00
26	14	837	C	C6-N1-C2	-6.73	117.61	120.30
1	13	268	C	O5'-P-OP1	-6.73	99.65	105.70
26	1H	1185	C	O5'-P-OP2	-6.72	99.65	105.70
23	2L	21	U	N3-C2-O2	-6.72	117.49	122.20
1	13	518	C	C2-N1-C1'	6.72	126.19	118.80
26	1H	1668	A	N1-C6-N6	6.72	122.63	118.60
26	1H	1833	U	O5'-P-OP2	-6.72	99.66	105.70
26	14	2542	A	N7-C8-N9	-6.72	110.44	113.80
26	1H	2447	G	C6-C5-N7	-6.71	126.37	130.40
26	14	2593	U	C5-C6-N1	6.71	126.06	122.70
1	13	1524	C	C5-C6-N1	-6.71	117.65	121.00
26	1H	587	C	O5'-P-OP1	-6.71	99.66	105.70
26	1H	1368	G	C4-N9-C1'	6.71	135.22	126.50
26	1H	774	A	N1-C6-N6	6.71	122.62	118.60
26	1H	1840	G	C4-C5-C6	6.70	122.82	118.80
26	1H	1992	G	O4'-C1'-N9	-6.70	102.84	108.20
26	1H	694	U	O5'-P-OP1	6.70	118.74	110.70
26	1H	2699	C	N3-C2-O2	6.70	126.59	121.90
26	1H	203	C	N3-C4-C5	6.70	124.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	573	G	OP2-P-O3'	6.70	119.93	105.20
26	1H	1257	C	C4-C5-C6	6.70	120.75	117.40
26	14	2680	C	O5'-P-OP2	-6.70	99.67	105.70
26	14	2449	U	N1-C2-N3	-6.69	110.88	114.90
1	1G	792	A	C8-N9-C4	6.69	108.48	105.80
26	14	791	C	C6-N1-C2	6.69	122.97	120.30
26	1H	991	C	C6-N1-C2	-6.68	117.63	120.30
26	1H	2713	A	C2-N3-C4	-6.68	107.26	110.60
26	14	1899	G	C4-C5-C6	6.68	122.81	118.80
26	1H	2208	U	C5-C6-N1	-6.68	119.36	122.70
1	1G	197	A	N7-C8-N9	6.68	117.14	113.80
26	14	2859	G	P-O3'-C3'	6.68	127.71	119.70
1	1G	194	C	C6-N1-C2	-6.67	117.63	120.30
46	D5	59	LEU	CA-CB-CG	6.67	130.65	115.30
1	13	12	U	N1-C2-O2	6.67	127.47	122.80
26	1H	1968	G	C5-C6-N1	6.67	114.84	111.50
1	1G	198	G	N1-C6-O6	-6.67	115.90	119.90
26	1H	2346	A	N1-C6-N6	6.67	122.60	118.60
25	4K	11	U	N1-C2-O2	6.66	127.46	122.80
1	1G	1	U	P-O3'-C3'	6.66	127.69	119.70
26	14	2362	G	C8-N9-C4	6.66	109.06	106.40
26	1H	582	G	C6-C5-N7	-6.66	126.40	130.40
26	14	1279	G	C8-N9-C4	6.66	109.06	106.40
26	1H	1572	A	C8-N9-C4	6.66	108.46	105.80
26	1H	2486	G	C8-N9-C4	6.66	109.06	106.40
26	14	1616	A	C4-C5-N7	6.66	114.03	110.70
26	14	2346	A	C5-C6-N1	-6.66	114.37	117.70
1	13	1494	G	C4-C5-N7	6.65	113.46	110.80
49	G5	16	LEU	C-N-CA	-6.65	105.08	121.70
26	1H	144	C	C6-N1-C2	6.65	122.96	120.30
1	1G	237	C	N1-C2-O2	6.65	122.89	118.90
26	14	2062	A	N9-C4-C5	-6.65	103.14	105.80
26	1H	2054	A	C5-N7-C8	-6.64	100.58	103.90
24	3L	76	A	N1-C6-N6	6.64	122.58	118.60
26	14	2518	A	C2-N3-C4	-6.64	107.28	110.60
26	14	2724	C	C6-N1-C2	6.64	122.96	120.30
26	1H	1413	G	N1-C6-O6	6.64	123.88	119.90
49	K8	32	LEU	CA-CB-CG	6.64	130.57	115.30
1	13	1506	U	N3-C4-O4	6.64	124.05	119.40
26	1H	140	A	C8-N9-C4	-6.64	103.14	105.80
26	1H	955	C	O5'-P-OP2	-6.64	99.72	105.70
1	13	12	U	N3-C2-O2	-6.64	117.55	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1225	A	N7-C8-N9	6.64	117.12	113.80
26	1H	475	U	C2-N1-C1'	6.64	125.67	117.70
26	1H	2275	C	O4'-C1'-N1	-6.64	102.89	108.20
26	1H	1308	A	N1-C6-N6	-6.64	114.62	118.60
1	13	1498	U	P-O3'-C3'	6.63	127.66	119.70
26	14	1279	G	N7-C8-N9	-6.63	109.78	113.10
1	13	1519	A	C5-C6-N1	-6.63	114.38	117.70
23	2L	8	U	C2-N1-C1'	6.63	125.66	117.70
26	14	1784	A	N1-C6-N6	-6.63	114.62	118.60
26	1H	274	G	C8-N9-C4	-6.63	103.75	106.40
26	14	2325	G	O5'-P-OP1	-6.63	99.73	105.70
26	1H	1620	G	N3-C4-N9	6.63	129.98	126.00
26	1H	1678	G	N1-C6-O6	6.63	123.88	119.90
1	1G	80	G	C4-C5-N7	6.63	113.45	110.80
26	1H	194	G	N7-C8-N9	-6.62	109.79	113.10
26	1H	1513	C	C5-C6-N1	6.62	124.31	121.00
1	13	1486	G	N1-C6-O6	6.62	123.87	119.90
1	1G	1519	A	N1-C6-N6	-6.62	114.63	118.60
26	14	55	G	N1-C6-O6	6.62	123.87	119.90
1	13	970	C	C2-N1-C1'	6.62	126.08	118.80
26	1H	74	A	C4-C5-C6	6.61	120.31	117.00
26	1H	191	A	N1-C2-N3	6.61	132.61	129.30
26	1H	1934	C	C5-C6-N1	-6.61	117.69	121.00
26	1H	1698	A	C4-N9-C1'	6.61	138.20	126.30
26	14	2232	U	C5-C4-O4	6.61	129.87	125.90
26	1H	1602	U	O5'-P-OP2	6.61	118.63	110.70
26	1H	2380	C	C5-C6-N1	-6.61	117.70	121.00
26	1H	2757	A	O5'-P-OP2	-6.61	99.75	105.70
26	1H	2626	C	N3-C4-C5	6.61	124.54	121.90
27	1J	47	C	C6-N1-C2	6.61	122.94	120.30
26	14	330	A	C2-N3-C4	-6.60	107.30	110.60
26	1H	2451	A	C5-C6-N6	6.60	128.98	123.70
26	1H	2590	A	C2-N3-C4	-6.60	107.30	110.60
26	1H	2596	U	O5'-P-OP2	-6.60	99.76	105.70
26	14	686	G	N9-C4-C5	-6.60	102.76	105.40
26	14	2697	G	C8-N9-C4	6.60	109.04	106.40
26	1H	847	U	N3-C2-O2	-6.60	117.58	122.20
26	1H	1941	C	O5'-P-OP1	-6.60	99.76	105.70
1	1G	631	G	O4'-C1'-N9	6.60	113.48	108.20
26	1H	945	A	OP1-P-OP2	-6.60	109.70	119.60
26	14	1786	A	C5-C6-N1	-6.60	114.40	117.70
26	14	562	U	N1-C2-N3	6.60	118.86	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	133	C	N3-C4-C5	6.59	124.54	121.90
26	14	1600	C	C4-C5-C6	6.59	120.70	117.40
26	14	1616	A	O4'-C1'-N9	6.59	113.47	108.20
24	3K	76	A	C6-C5-N7	-6.59	127.69	132.30
26	1H	584	C	N3-C4-C5	-6.59	119.27	121.90
1	13	500	G	O5'-P-OP2	-6.58	99.78	105.70
26	14	388	G	N3-C4-N9	-6.58	122.05	126.00
26	14	1403	C	N1-C2-O2	6.58	122.85	118.90
26	1H	2490	G	C8-N9-C4	-6.58	103.77	106.40
26	1H	2601	C	C6-N1-C2	-6.58	117.67	120.30
26	1H	814	C	C6-N1-C2	6.58	122.93	120.30
26	1H	1558	A	P-O3'-C3'	6.58	127.59	119.70
1	1G	266	G	C8-N9-C4	-6.58	103.77	106.40
1	13	775	G	N1-C6-O6	6.57	123.84	119.90
26	1H	566	U	C5-C6-N1	-6.57	119.41	122.70
26	14	2430	A	C6-C5-N7	-6.57	127.70	132.30
26	1H	2678	C	C6-N1-C2	6.57	122.93	120.30
26	14	2593	U	N1-C2-O2	-6.57	118.20	122.80
26	1H	2032	G	C5-N7-C8	6.57	107.58	104.30
26	1H	2442	C	N3-C4-N4	6.57	122.60	118.00
26	14	611	C	C6-N1-C2	6.57	122.93	120.30
26	1H	723	G	C8-N9-C1'	-6.57	118.47	127.00
26	14	784	A	C2-N3-C4	-6.57	107.32	110.60
26	14	456	C	C6-N1-C1'	-6.56	112.93	120.80
26	14	1300	U	O5'-P-OP1	6.56	118.57	110.70
26	1H	508	G	C6-C5-N7	-6.56	126.47	130.40
26	1H	435	C	N1-C2-O2	6.55	122.83	118.90
26	14	1585	C	C5-C6-N1	6.55	124.28	121.00
26	1H	1941	C	C6-N1-C2	6.55	122.92	120.30
26	14	2518	A	N1-C6-N6	6.55	122.53	118.60
26	1H	944	G	C8-N9-C4	-6.55	103.78	106.40
26	1H	1230	C	C6-N1-C2	6.55	122.92	120.30
26	14	197	A	OP1-P-O3'	-6.55	90.79	105.20
26	1H	1021	A	N7-C8-N9	6.55	117.07	113.80
26	14	187	G	C8-N9-C1'	-6.55	118.49	127.00
26	14	1786	A	N9-C1'-C2'	6.55	122.51	114.00
26	14	2713	A	C4-C5-N7	6.55	113.97	110.70
26	1H	943	U	C6-N1-C1'	6.54	130.36	121.20
26	1H	1962	C	C6-N1-C2	-6.54	117.68	120.30
26	14	1379	A	N1-C6-N6	6.54	122.53	118.60
1	1G	1473	A	C8-N9-C4	6.54	108.42	105.80
1	13	723	U	C2-N1-C1'	6.54	125.55	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1229(A)	G	O5'-P-OP2	-6.54	99.81	105.70
26	14	2437	U	OP1-P-OP2	6.54	129.41	119.60
1	13	1233	G	N1-C6-O6	-6.54	115.98	119.90
26	1H	1673	U	C5-C6-N1	-6.54	119.43	122.70
26	1H	1564	C	N3-C2-O2	-6.54	117.32	121.90
26	14	1594	G	C8-N9-C4	-6.54	103.78	106.40
1	1G	111	G	C5-C6-O6	6.53	132.52	128.60
1	13	820	U	N3-C4-O4	6.53	123.97	119.40
26	1H	2392	A	C5-N7-C8	-6.53	100.64	103.90
26	14	466	A	O5'-P-OP1	-6.53	99.82	105.70
26	14	2211	G	N9-C4-C5	-6.53	102.79	105.40
26	14	2607	G	N1-C2-N2	-6.53	110.32	116.20
26	14	2726	U	N3-C4-O4	-6.53	114.83	119.40
26	1H	447	A	O5'-P-OP1	-6.53	99.83	105.70
26	1H	1697	G	C5-C6-O6	-6.53	124.68	128.60
26	14	769	G	C8-N9-C4	6.53	109.01	106.40
26	14	1314	C	C2-N3-C4	6.53	123.16	119.90
26	1H	943	U	C5-C4-O4	6.52	129.81	125.90
26	1H	1698	A	N7-C8-N9	6.52	117.06	113.80
26	1H	2406	U	O5'-P-OP1	-6.52	99.83	105.70
26	14	2062	A	C4-C5-C6	-6.52	113.74	117.00
26	1H	1602	U	C5-C4-O4	6.52	129.81	125.90
26	1H	822	U	N3-C2-O2	-6.52	117.64	122.20
26	1H	629	G	N1-C6-O6	-6.52	115.99	119.90
26	1H	2327	A	N1-C6-N6	-6.52	114.69	118.60
24	3L	76	A	C4-C5-N7	6.51	113.96	110.70
26	14	2474	C	N1-C2-O2	6.51	122.81	118.90
1	1G	45	U	C6-N1-C2	6.51	124.91	121.00
24	3K	76	A	N7-C8-N9	6.51	117.06	113.80
1	1G	413	G	O4'-C1'-N9	6.51	113.41	108.20
26	14	140	A	N1-C6-N6	6.51	122.51	118.60
26	1H	2362	G	C8-N9-C4	6.51	109.00	106.40
1	1G	906	G	N1-C6-O6	6.51	123.81	119.90
26	1H	828	U	N1-C2-O2	6.50	127.35	122.80
26	1H	1203	G	N3-C4-C5	-6.50	125.35	128.60
26	1H	1440	G	C8-N9-C4	6.50	109.00	106.40
26	14	1975	G	C8-N9-C4	6.50	109.00	106.40
26	1H	1698	A	C5-N7-C8	-6.50	100.65	103.90
26	1H	16	G	C5-C6-N1	-6.50	108.25	111.50
26	14	55	G	C4-C5-N7	6.50	113.40	110.80
26	14	1779	U	C5-C4-O4	-6.50	122.00	125.90
26	1H	678	C	C6-N1-C2	6.49	122.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	877	U	C5-C6-N1	6.49	125.95	122.70
26	1H	2083	G	C6-C5-N7	-6.49	126.50	130.40
26	14	1332	G	N1-C2-N3	6.49	127.80	123.90
26	14	133	C	O5'-P-OP2	-6.49	99.86	105.70
26	1H	2623	G	N1-C6-O6	-6.49	116.01	119.90
26	14	2709	G	C8-N9-C4	6.49	109.00	106.40
26	14	1585	C	C2-N3-C4	6.49	123.14	119.90
26	14	2057	A	O5'-P-OP2	-6.49	99.86	105.70
26	1H	729	G	C5-C6-O6	-6.48	124.71	128.60
26	1H	860	U	C6-N1-C1'	-6.48	112.12	121.20
1	13	1059	C	C5-C6-N1	6.48	124.24	121.00
26	1H	1376	C	O5'-P-OP1	-6.48	99.87	105.70
26	14	271(A)	C	C2-N1-C1'	6.48	125.93	118.80
27	1J	46	A	N1-C6-N6	-6.48	114.71	118.60
26	14	2702	U	N3-C4-O4	-6.48	114.86	119.40
26	1H	113	G	C8-N9-C4	6.48	108.99	106.40
1	13	1441	G	C5-C6-N1	-6.47	108.26	111.50
26	1H	1021	A	N3-C4-C5	6.47	131.33	126.80
26	1H	1978	A	N1-C6-N6	-6.47	114.72	118.60
26	1H	699	A	C5-C6-N6	-6.47	118.52	123.70
26	14	1374	G	C6-C5-N7	-6.47	126.52	130.40
26	1H	2596	U	N3-C2-O2	6.47	126.73	122.20
27	1J	103	U	C5-C6-N1	-6.47	119.47	122.70
1	13	1519	A	C4-C5-N7	-6.46	107.47	110.70
26	14	791	C	C5-C6-N1	-6.46	117.77	121.00
26	14	55	G	C5-C6-O6	-6.46	124.72	128.60
25	4K	11	U	C2-N1-C1'	6.46	125.45	117.70
26	1H	2506	U	N3-C2-O2	-6.46	117.68	122.20
26	1H	1416	G	O4'-C1'-N9	6.46	113.36	108.20
26	14	773	U	C5-C6-N1	-6.46	119.47	122.70
26	14	2441	C	C6-N1-C2	6.46	122.88	120.30
26	1H	1989	G	C6-C5-N7	-6.45	126.53	130.40
26	14	1671	U	C5-C6-N1	6.45	125.93	122.70
26	1H	1784	A	C6-C5-N7	6.45	136.82	132.30
26	14	2318	G	C4-N9-C1'	6.45	134.89	126.50
26	1H	598	G	O5'-P-OP2	-6.45	99.90	105.70
26	14	622	G	C8-N9-C4	6.45	108.98	106.40
26	1H	1162	G	N1-C6-O6	-6.45	116.03	119.90
26	14	1323	U	N3-C2-O2	6.45	126.71	122.20
26	1H	63	U	C5-C4-O4	6.45	129.77	125.90
26	1H	1325	G	C5-C6-O6	-6.45	124.73	128.60
1	13	723	U	N1-C2-O2	6.44	127.31	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2030	A	O5'-P-OP2	-6.44	99.90	105.70
26	14	1379	A	C5-N7-C8	-6.44	100.68	103.90
26	14	2329	G	N7-C8-N9	-6.44	109.88	113.10
26	14	2346	A	N1-C2-N3	6.44	132.52	129.30
26	14	1671	U	C2-N1-C1'	6.44	125.43	117.70
26	1H	932	G	N1-C6-O6	-6.43	116.04	119.90
23	2L	21	U	C6-N1-C2	-6.43	117.14	121.00
26	14	773	U	N1-C2-N3	6.43	118.76	114.90
26	14	2061	G	C8-N9-C4	6.43	108.97	106.40
26	1H	826	U	N3-C4-C5	-6.43	110.74	114.60
26	14	1337	G	OP1-P-O3'	6.43	119.35	105.20
26	14	1899	G	N3-C4-C5	-6.43	125.38	128.60
26	1H	2236	C	C5-C4-N4	-6.43	115.70	120.20
26	14	1610	A	N1-C6-N6	6.43	122.46	118.60
26	1H	2402	C	C5-C6-N1	6.43	124.21	121.00
26	14	672	C	C5-C4-N4	6.43	124.70	120.20
26	14	1021	A	C2-N3-C4	-6.43	107.39	110.60
26	14	2440	C	N1-C2-O2	-6.42	115.05	118.90
26	1H	678	C	C2-N3-C4	-6.42	116.69	119.90
26	14	1313	U	N3-C4-C5	-6.42	110.75	114.60
26	1H	528	A	O4'-C1'-N9	-6.42	103.06	108.20
26	1H	1262	A	C8-N9-C4	6.42	108.37	105.80
26	1H	1967	C	OP1-P-OP2	6.42	129.23	119.60
26	1H	121	G	C5-C6-O6	-6.42	124.75	128.60
26	1H	2371	G	C5-C6-N1	-6.42	108.29	111.50
26	14	2779	U	N1-C2-O2	6.42	127.29	122.80
26	1H	2597	G	N3-C2-N2	6.42	124.39	119.90
1	1G	194	C	N1-C2-O2	6.41	122.75	118.90
1	1G	413	G	C6-C5-N7	6.41	134.25	130.40
26	1H	1639	U	N1-C2-O2	6.41	127.29	122.80
26	1H	2394	C	O5'-P-OP2	-6.41	99.93	105.70
26	14	2498	C	C2-N3-C4	-6.41	116.69	119.90
46	H8	59	LEU	CA-CB-CG	6.41	130.04	115.30
1	1G	288	A	C8-N9-C4	6.41	108.36	105.80
23	2L	48	U	O4'-C1'-N1	-6.41	103.07	108.20
1	1G	748	C	P-O3'-C3'	6.41	127.39	119.70
26	1H	861	A	C8-N9-C4	6.40	108.36	105.80
26	1H	1888	G	C4-N9-C1'	6.40	134.82	126.50
26	1H	2788	C	C2-N1-C1'	6.40	125.84	118.80
26	1H	860	U	C2-N1-C1'	6.40	125.38	117.70
26	1H	189	G	C5-C6-O6	-6.40	124.76	128.60
26	1H	508	G	C8-N9-C4	-6.39	103.84	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	915	C	N3-C2-O2	-6.39	117.42	121.90
26	1H	1325	G	N1-C6-O6	6.39	123.73	119.90
26	14	786	C	C2-N1-C1'	-6.39	111.77	118.80
26	1H	2439	A	N1-C6-N6	6.38	122.43	118.60
26	14	945	A	N1-C2-N3	6.38	132.49	129.30
27	1J	6	C	C6-N1-C2	6.38	122.85	120.30
26	1H	582	G	N1-C6-O6	6.38	123.73	119.90
26	1H	2466	C	C6-N1-C2	6.38	122.85	120.30
27	16	76	G	C5-C6-O6	6.38	132.43	128.60
26	14	2873	A	C2-N3-C4	-6.38	107.41	110.60
26	1H	609	A	N1-C6-N6	6.38	122.43	118.60
1	1G	11	G	O5'-P-OP1	-6.38	99.96	105.70
1	1G	690	G	O4'-C1'-N9	6.38	113.30	108.20
26	1H	2513	G	O5'-P-OP2	-6.38	99.96	105.70
26	1H	2556	C	N1-C2-O2	6.38	122.72	118.90
1	13	266	G	C5-N7-C8	-6.37	101.11	104.30
26	1H	508	G	N7-C8-N9	6.37	116.29	113.10
26	1H	1978	A	N9-C4-C5	6.37	108.35	105.80
1	13	1397	C	OP2-P-O3'	6.37	119.22	105.20
26	1H	1606	G	C8-N9-C4	6.37	108.95	106.40
26	1H	566	U	C6-N1-C2	6.37	124.82	121.00
26	1H	1381	G	N9-C4-C5	6.37	107.95	105.40
26	1H	446	G	N9-C4-C5	-6.37	102.85	105.40
26	1H	1826	G	N1-C6-O6	6.37	123.72	119.90
1	13	1446	A	O4'-C1'-N9	6.37	113.29	108.20
26	14	2726	U	N3-C2-O2	-6.37	117.74	122.20
26	1H	188	G	C8-N9-C4	6.36	108.95	106.40
26	14	74	A	N7-C8-N9	6.36	116.98	113.80
26	14	2702	U	C5-C6-N1	-6.36	119.52	122.70
26	14	1332	G	O4'-C1'-N9	-6.36	103.11	108.20
26	14	1899	G	N7-C8-N9	6.36	116.28	113.10
1	1G	1519	A	N9-C4-C5	6.36	108.34	105.80
26	14	2776	A	C8-N9-C4	-6.36	103.26	105.80
1	13	1518	A	C5-C6-N1	-6.35	114.52	117.70
26	1H	528	A	N3-C4-N9	-6.35	122.32	127.40
26	1H	2064	C	N3-C4-C5	-6.35	119.36	121.90
26	14	1614	A	N1-C2-N3	6.35	132.47	129.30
26	1H	2423	U	C5-C6-N1	-6.34	119.53	122.70
53	P8	42	LEU	CA-CB-CG	6.34	129.88	115.30
26	14	2433	A	O5'-P-OP1	-6.34	99.99	105.70
26	1H	1839	G	N7-C8-N9	-6.34	109.93	113.10
26	14	2779	U	C6-N1-C1'	-6.34	112.33	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	518	C	C6-N1-C1'	-6.34	113.19	120.80
27	16	103	U	C6-N1-C2	6.33	124.80	121.00
26	14	1934	C	C6-N1-C2	6.33	122.83	120.30
26	1H	805	G	N9-C4-C5	-6.33	102.87	105.40
26	14	2052	G	N1-C6-O6	6.33	123.70	119.90
1	13	900	A	N7-C8-N9	-6.32	110.64	113.80
26	1H	453	C	C6-N1-C2	6.32	122.83	120.30
26	1H	1379	A	C2-N3-C4	-6.32	107.44	110.60
26	14	1698	A	C5-C6-N1	-6.32	114.54	117.70
26	1H	2253	G	C5-C6-O6	-6.32	124.81	128.60
26	1H	2688	U	N3-C2-O2	-6.32	117.78	122.20
26	14	752	A	C8-N9-C4	-6.32	103.27	105.80
26	14	1780	A	N1-C6-N6	-6.32	114.81	118.60
26	1H	2449	U	N3-C4-O4	6.32	123.82	119.40
26	14	2876	G	N1-C6-O6	6.32	123.69	119.90
26	1H	1944	U	C5-C6-N1	-6.32	119.54	122.70
26	1H	2346	A	C5-N7-C8	-6.32	100.74	103.90
26	1H	2328	A	C2-N3-C4	-6.31	107.44	110.60
26	1H	2629	A	O4'-C1'-N9	6.31	113.25	108.20
26	14	1906	G	C5-C6-O6	-6.31	124.81	128.60
26	14	2640	G	N1-C6-O6	6.31	123.69	119.90
26	14	571	A	N1-C6-N6	6.31	122.39	118.60
26	1H	1373	A	C8-N9-C4	6.31	108.32	105.80
27	16	104	A	C8-N9-C4	6.31	108.32	105.80
1	1G	121	C	C5-C4-N4	-6.31	115.78	120.20
26	14	74	A	C6-C5-N7	-6.31	127.88	132.30
26	14	2479	G	C8-N9-C4	-6.31	103.88	106.40
26	14	2688	U	N1-C2-O2	6.31	127.22	122.80
26	1H	138	G	N7-C8-N9	6.30	116.25	113.10
26	14	1612	C	C5-C6-N1	-6.30	117.85	121.00
26	1H	698	C	C5-C6-N1	-6.30	117.85	121.00
26	1H	1605	C	O5'-P-OP1	-6.30	100.03	105.70
26	14	205	G	C5-C6-N1	6.30	114.65	111.50
26	14	232	G	C8-N9-C4	6.30	108.92	106.40
1	13	551	U	C5-C6-N1	-6.30	119.55	122.70
26	1H	837	C	N3-C4-C5	6.30	124.42	121.90
26	1H	1271	G	C5-C6-N1	-6.30	108.35	111.50
26	1H	1662	C	C6-N1-C2	6.30	122.82	120.30
26	14	415	A	O5'-P-OP2	-6.30	100.03	105.70
26	14	1313	U	C2-N1-C1'	6.30	125.26	117.70
26	1H	512	G	O4'-C1'-N9	6.29	113.24	108.20
1	1G	191(B)	G	N1-C6-O6	-6.29	116.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	739	G	C8-N9-C4	6.29	108.92	106.40
26	14	450	G	C2-N3-C4	-6.29	108.75	111.90
26	14	1999	C	C6-N1-C2	6.29	122.82	120.30
26	1H	663	G	C6-C5-N7	-6.29	126.62	130.40
26	1H	2059	A	C5-C6-N6	-6.29	118.67	123.70
26	1H	2346	A	C6-C5-N7	-6.29	127.90	132.30
1	1G	198	G	C4-C5-N7	-6.29	108.28	110.80
1	13	967	C	C6-N1-C2	6.29	122.81	120.30
26	1H	1602	U	N3-C2-O2	-6.29	117.80	122.20
26	1H	2392	A	C6-C5-N7	-6.29	127.90	132.30
26	1H	2588	G	N1-C6-O6	-6.29	116.13	119.90
1	1G	279	A	N1-C6-N6	6.29	122.37	118.60
26	1H	191	A	C6-N1-C2	-6.29	114.83	118.60
1	1G	60	A	C8-N9-C4	6.29	108.31	105.80
27	1J	114	G	N7-C8-N9	-6.29	109.96	113.10
26	1H	737	C	C6-N1-C2	6.29	122.81	120.30
26	1H	2354	G	C8-N9-C1'	-6.29	118.83	127.00
26	14	1698	A	N9-C4-C5	-6.28	103.29	105.80
26	1H	1604	C	C6-N1-C2	-6.28	117.79	120.30
26	1H	2520	C	OP1-P-OP2	-6.28	110.18	119.60
26	1H	2430	A	C5-N7-C8	-6.28	100.76	103.90
26	14	983	A	OP2-P-O3'	6.28	119.01	105.20
26	14	1678	G	C5-C6-N1	-6.28	108.36	111.50
26	14	2597	G	N3-C4-N9	6.28	129.77	126.00
26	1H	735	A	C8-N9-C4	6.28	108.31	105.80
26	1H	948	G	C5-C6-O6	-6.27	124.84	128.60
26	1H	2286	A	C4-N9-C1'	6.27	137.59	126.30
26	14	733	G	N3-C4-N9	6.27	129.76	126.00
26	1H	1968	G	C5-C6-O6	-6.27	124.84	128.60
26	1H	391	G	N1-C6-O6	6.27	123.66	119.90
26	1H	956	G	N9-C4-C5	-6.27	102.89	105.40
26	1H	2044	C	C2-N1-C1'	6.27	125.70	118.80
26	14	530	G	C5-N7-C8	-6.27	101.17	104.30
26	1H	1607	C	O5'-P-OP2	-6.27	100.06	105.70
26	1H	600	G	C8-N9-C4	6.26	108.91	106.40
26	1H	37	C	O5'-P-OP2	-6.26	100.06	105.70
26	1H	1840	G	C4-N9-C1'	6.26	134.64	126.50
26	1H	1962	C	C5-C6-N1	6.26	124.13	121.00
26	1H	2597	G	N1-C2-N2	-6.26	110.56	116.20
26	14	2507	C	C6-N1-C2	6.26	122.80	120.30
26	1H	668	G	C4-C5-N7	6.26	113.30	110.80
26	1H	1373	A	N7-C8-N9	-6.26	110.67	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	302	G	C8-N9-C4	6.26	108.90	106.40
23	2L	35	C	C2-N1-C1'	6.26	125.68	118.80
26	14	618	G	N9-C4-C5	-6.26	102.90	105.40
26	14	1187	G	C8-N9-C4	-6.26	103.90	106.40
26	14	1131	G	N1-C6-O6	6.25	123.65	119.90
26	14	1265	A	OP1-P-OP2	-6.25	110.22	119.60
26	1H	2054	A	C8-N9-C4	-6.25	103.30	105.80
26	1H	2726	U	N3-C2-O2	-6.25	117.82	122.20
1	1G	1188	A	N1-C6-N6	-6.25	114.85	118.60
1	13	1058	G	C8-N9-C4	6.25	108.90	106.40
26	1H	1269	A	C2-N3-C4	-6.25	107.47	110.60
26	1H	1595	G	N3-C2-N2	-6.25	115.52	119.90
26	14	788	A	O5'-P-OP1	-6.25	100.07	105.70
26	14	2500	U	C5-C6-N1	-6.25	119.58	122.70
38	55	79	LEU	CA-CB-CG	6.25	129.68	115.30
26	14	1983	C	C6-N1-C2	6.25	122.80	120.30
26	14	2513	G	C2-N3-C4	-6.25	108.78	111.90
26	1H	241	A	O5'-P-OP2	-6.25	100.08	105.70
26	1H	473	G	N1-C2-N2	-6.25	110.58	116.20
26	14	2443	C	O5'-P-OP1	-6.25	100.08	105.70
26	1H	140	A	O4'-C1'-N9	6.25	113.20	108.20
26	14	1712	C	C6-N1-C2	-6.25	117.80	120.30
26	14	2584	U	C6-N1-C1'	-6.25	112.45	121.20
26	1H	121	G	C8-N9-C1'	-6.24	118.88	127.00
26	1H	208	C	N3-C4-C5	6.24	124.40	121.90
26	1H	2304	G	N3-C4-N9	-6.24	122.25	126.00
26	1H	698	C	C6-N1-C2	6.24	122.80	120.30
26	14	1989	G	N3-C2-N2	-6.24	115.53	119.90
26	14	2440	C	N3-C2-O2	6.24	126.27	121.90
1	13	328	C	C6-N1-C1'	-6.24	113.31	120.80
26	1H	572	A	N1-C2-N3	6.24	132.42	129.30
26	14	1571	A	C8-N9-C4	6.24	108.30	105.80
1	13	620	C	C6-N1-C2	6.24	122.80	120.30
26	1H	2392	A	N7-C8-N9	6.24	116.92	113.80
1	1G	449	C	N3-C2-O2	-6.23	117.54	121.90
26	1H	1761	C	N3-C4-C5	6.23	124.39	121.90
1	1G	1528	U	C5-C6-N1	-6.23	119.58	122.70
26	14	775	G	N1-C6-O6	-6.23	116.16	119.90
26	14	205	G	N3-C2-N2	6.23	124.26	119.90
26	14	656	G	C6-C5-N7	-6.23	126.66	130.40
23	2K	40	C	C5-C4-N4	-6.22	115.84	120.20
26	14	2436	G	N1-C2-N2	6.22	121.80	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	264	U	C5-C4-O4	-6.22	122.17	125.90
26	14	2413	G	C8-N9-C4	6.22	108.89	106.40
26	14	2640	G	C6-C5-N7	-6.22	126.67	130.40
26	1H	784	A	N1-C6-N6	-6.22	114.87	118.60
26	1H	2425	A	C8-N9-C4	6.22	108.29	105.80
1	1G	91	C	N1-C2-O2	6.22	122.63	118.90
26	1H	2330	G	C2-N3-C4	-6.21	108.79	111.90
1	1G	87	A	C5-N7-C8	-6.21	100.79	103.90
26	1H	49	A	C8-N9-C4	6.21	108.28	105.80
1	1G	270	A	C8-N9-C4	6.21	108.28	105.80
1	1G	127	G	C8-N9-C4	6.21	108.88	106.40
26	14	55	G	C6-C5-N7	-6.21	126.67	130.40
35	25	8	LEU	CA-CB-CG	6.21	129.58	115.30
26	14	31	C	O5'-P-OP1	-6.21	100.11	105.70
26	1H	2269	A	N1-C6-N6	6.21	122.32	118.60
26	1H	792	G	C5-C6-O6	6.20	132.32	128.60
26	14	1842	G	N9-C4-C5	-6.20	102.92	105.40
26	1H	1299	G	O5'-P-OP2	6.20	118.14	110.70
26	1H	1409	C	C6-N1-C2	6.20	122.78	120.30
1	1G	111	G	N1-C6-O6	-6.20	116.18	119.90
26	1H	1236	G	C8-N9-C4	6.20	108.88	106.40
26	1H	2392	A	O5'-P-OP1	-6.20	100.12	105.70
1	1G	296	U	O5'-P-OP2	-6.20	100.12	105.70
26	14	1342	A	C5-N7-C8	-6.20	100.80	103.90
1	13	974	A	O4'-C1'-N9	6.20	113.16	108.20
1	1G	1301	U	N3-C2-O2	-6.20	117.86	122.20
26	14	1948	G	O5'-P-OP1	-6.20	100.12	105.70
26	14	2571	C	N1-C2-O2	-6.20	115.18	118.90
1	1G	288	A	N9-C4-C5	-6.19	103.32	105.80
26	14	130	C	C6-N1-C2	6.19	122.78	120.30
26	1H	83	G	C8-N9-C4	6.19	108.88	106.40
26	1H	1616	A	C2-N3-C4	-6.19	107.50	110.60
26	14	388	G	N3-C2-N2	-6.19	115.57	119.90
26	14	2582	G	N1-C6-O6	6.19	123.61	119.90
26	1H	2530	A	N1-C6-N6	6.19	122.31	118.60
26	14	1992	G	C2-N3-C4	6.19	114.99	111.90
26	1H	2212	A	O5'-P-OP1	6.18	118.12	110.70
26	1H	2544	G	N1-C6-O6	6.18	123.61	119.90
27	16	111	U	C6-N1-C1'	6.18	129.86	121.20
27	16	37	C	C6-N1-C2	6.18	122.77	120.30
26	1H	482	A	C8-N9-C4	-6.18	103.33	105.80
26	1H	2250	G	N7-C8-N9	6.18	116.19	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	527	C	C6-N1-C1'	-6.18	113.38	120.80
26	14	1816	G	O5'-P-OP1	-6.18	100.14	105.70
26	14	1314	C	C5-C6-N1	6.18	124.09	121.00
1	13	802	A	N9-C4-C5	-6.17	103.33	105.80
26	1H	235	U	O5'-P-OP2	-6.17	100.14	105.70
26	1H	1763	G	N1-C6-O6	-6.17	116.20	119.90
26	1H	668	G	N9-C4-C5	-6.17	102.93	105.40
26	1H	702	G	C5-C6-N1	-6.17	108.41	111.50
26	1H	1328	G	O5'-P-OP2	-6.17	100.15	105.70
26	1H	737	C	C5-C6-N1	-6.17	117.92	121.00
26	14	1405	U	O5'-P-OP2	-6.17	100.15	105.70
27	16	102	G	N3-C4-C5	6.17	131.68	128.60
1	1G	1157	A	P-O3'-C3'	6.17	127.10	119.70
26	1H	94	G	N1-C6-O6	6.17	123.60	119.90
26	1H	140	A	N9-C4-C5	-6.17	103.33	105.80
26	1H	774	A	C4-C5-N7	6.17	113.78	110.70
26	1H	2048	G	C4-C5-N7	-6.17	108.33	110.80
1	1G	266	G	P-O3'-C3'	6.17	127.10	119.70
26	14	1836	C	O5'-P-OP2	-6.17	100.15	105.70
26	1H	2777	G	C4-N9-C1'	-6.16	118.49	126.50
26	1H	1352	U	C6-N1-C2	6.16	124.69	121.00
26	1H	2518	A	C5-N7-C8	-6.16	100.82	103.90
26	14	2593	U	C2-N3-C4	6.16	130.69	127.00
26	1H	398	G	C8-N9-C4	6.16	108.86	106.40
1	13	687	A	P-O3'-C3'	6.15	127.08	119.70
1	13	1129	C	C5-C6-N1	6.15	124.08	121.00
26	14	186	G	C8-N9-C4	6.15	108.86	106.40
26	14	686	G	C6-C5-N7	-6.15	126.71	130.40
26	14	1489	U	N1-C2-O2	-6.15	118.49	122.80
26	14	1623	G	N9-C4-C5	6.15	107.86	105.40
1	13	1520	G	C6-C5-N7	-6.15	126.71	130.40
26	1H	827	U	N3-C2-O2	-6.15	117.89	122.20
1	1G	121	C	C2-N1-C1'	6.15	125.57	118.80
26	14	1630(A)	C	N1-C2-O2	-6.15	115.21	118.90
26	14	2700	C	C6-N1-C2	6.15	122.76	120.30
26	1H	130	C	N3-C4-C5	6.15	124.36	121.90
45	G8	81	LYS	C-N-CA	6.15	147.82	122.00
1	13	1266	G	N3-C4-C5	6.14	131.67	128.60
26	1H	869	G	N1-C6-O6	6.14	123.59	119.90
26	14	189	G	N9-C4-C5	-6.14	102.94	105.40
26	14	2332	U	O5'-P-OP1	6.14	118.07	110.70
26	1H	465	G	N3-C4-C5	-6.14	125.53	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1943	U	C5-C6-N1	-6.14	119.63	122.70
26	14	298	G	C5-N7-C8	-6.14	101.23	104.30
26	1H	127	A	N9-C4-C5	-6.14	103.34	105.80
26	14	1933	G	C8-N9-C4	6.14	108.86	106.40
26	14	1899	G	C8-N9-C1'	-6.14	119.02	127.00
26	1H	1978	A	C5-C6-N6	6.14	128.61	123.70
1	13	1129	C	C2-N1-C1'	6.13	125.55	118.80
26	1H	71	A	C8-N9-C4	-6.13	103.35	105.80
26	1H	748	G	O4'-C1'-N9	6.13	113.11	108.20
26	14	1992	G	C4-C5-N7	-6.13	108.35	110.80
1	1G	236	G	C5-C6-N1	-6.13	108.43	111.50
26	14	1162	G	O5'-P-OP1	-6.13	100.18	105.70
1	13	567	G	O5'-P-OP1	-6.13	100.18	105.70
26	1H	1902	C	N3-C4-N4	-6.13	113.71	118.00
26	14	1302	A	OP1-P-OP2	6.13	128.79	119.60
26	1H	1821	A	N1-C2-N3	6.12	132.36	129.30
26	1H	2358	G	N3-C4-N9	-6.12	122.33	126.00
27	16	11	C	C2-N1-C1'	6.12	125.54	118.80
1	1G	1358	U	C2-N1-C1'	6.12	125.05	117.70
26	1H	568	U	N1-C2-O2	-6.12	118.51	122.80
26	1H	1142(A)	A	N1-C6-N6	6.12	122.27	118.60
26	1H	1575	C	C6-N1-C2	6.12	122.75	120.30
26	1H	2712(A)	A	N1-C6-N6	6.12	122.27	118.60
26	14	1585	C	N3-C2-O2	-6.12	117.61	121.90
26	14	2060	A	O5'-P-OP1	-6.12	100.19	105.70
26	1H	1698	A	O5'-P-OP2	-6.12	100.19	105.70
26	14	806	C	O5'-P-OP1	-6.12	100.19	105.70
26	14	1247	A	N1-C6-N6	-6.12	114.93	118.60
26	14	2286	A	N1-C6-N6	6.12	122.27	118.60
1	13	910	C	C6-N1-C2	6.12	122.75	120.30
26	1H	1249	U	O5'-P-OP2	-6.12	100.19	105.70
26	14	729	G	N1-C2-N2	6.12	121.70	116.20
26	14	1992	G	N9-C4-C5	6.12	107.85	105.40
26	14	2275	C	C5-C6-N1	6.12	124.06	121.00
26	1H	115	C	C5-C4-N4	-6.12	115.92	120.20
26	1H	2607	G	C4-C5-C6	6.12	122.47	118.80
1	1G	397	A	C8-N9-C4	-6.12	103.35	105.80
1	1G	362	G	N3-C2-N2	-6.11	115.62	119.90
26	1H	774	A	O5'-P-OP1	6.11	118.03	110.70
26	1H	1358	G	N9-C4-C5	-6.11	102.95	105.40
26	1H	1814	G	C4-C5-C6	6.11	122.47	118.80
26	1H	2049	G	C8-N9-C4	6.11	108.84	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	44	G	C8-N9-C4	-6.11	103.96	106.40
26	14	2607	G	N3-C4-N9	6.11	129.66	126.00
26	1H	189	G	C6-C5-N7	-6.11	126.74	130.40
26	1H	239	U	C5-C6-N1	-6.11	119.65	122.70
26	14	1308	A	N1-C6-N6	-6.11	114.94	118.60
1	13	1305	G	N9-C4-C5	6.10	107.84	105.40
26	14	656	G	N1-C6-O6	6.10	123.56	119.90
26	1H	1931	U	C5-C6-N1	-6.10	119.65	122.70
1	1G	120	A	C8-N9-C4	6.10	108.24	105.80
26	14	542	C	N1-C2-O2	6.10	122.56	118.90
26	14	2211	G	C5-C6-O6	-6.10	124.94	128.60
26	1H	2597	G	C6-C5-N7	-6.10	126.74	130.40
26	14	623	G	C8-N9-C4	6.10	108.84	106.40
26	14	871	U	N3-C2-O2	6.10	126.47	122.20
26	14	672	C	O5'-P-OP2	-6.09	100.22	105.70
26	14	2251	G	C8-N9-C4	-6.09	103.96	106.40
1	13	1341	U	N1-C2-O2	-6.09	118.53	122.80
26	1H	1970	A	O5'-P-OP2	-6.09	100.22	105.70
1	1G	305	G	C5-C6-O6	6.09	132.25	128.60
1	1G	893	C	N1-C2-O2	6.09	122.55	118.90
26	14	56	A	N1-C6-N6	-6.09	114.95	118.60
1	13	1494	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	1251	C	N1-C2-O2	6.09	122.55	118.90
26	1H	1899	G	C6-C5-N7	6.09	134.05	130.40
26	14	976	C	N1-C2-O2	6.09	122.55	118.90
26	14	2597	G	C6-C5-N7	-6.09	126.75	130.40
26	14	1308	A	N9-C4-C5	6.08	108.23	105.80
26	1H	212	G	C8-N9-C4	6.08	108.83	106.40
1	1G	120	A	N9-C4-C5	-6.08	103.37	105.80
26	14	2591	C	N1-C2-O2	-6.08	115.25	118.90
1	13	575	G	O5'-P-OP2	-6.08	100.23	105.70
1	13	1533	C	C6-N1-C1'	-6.08	113.51	120.80
26	1H	2240	C	N1-C2-O2	6.08	122.55	118.90
26	14	2504	U	C5-C4-O4	-6.08	122.25	125.90
27	1J	98	G	N1-C6-O6	6.08	123.55	119.90
26	1H	688	U	C5-C6-N1	-6.08	119.66	122.70
26	1H	917	A	C8-N9-C4	6.08	108.23	105.80
26	14	125	G	N3-C4-N9	-6.07	122.36	126.00
26	1H	1021	A	C6-C5-N7	-6.07	128.05	132.30
26	1H	1275	A	N7-C8-N9	-6.07	110.77	113.80
26	1H	1324	G	N1-C6-O6	6.07	123.54	119.90
22	1L	74	C	C5-C6-N1	6.07	124.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	404	C	P-O3'-C3'	6.07	126.98	119.70
26	1H	912	C	C6-N1-C2	-6.07	117.87	120.30
26	1H	611	C	C6-N1-C2	6.07	122.73	120.30
26	1H	783	A	N1-C2-N3	6.07	132.33	129.30
26	1H	1797	C	N3-C4-C5	6.07	124.33	121.90
1	1G	690	G	C2-N3-C4	-6.07	108.87	111.90
1	13	550	G	C8-N9-C4	6.07	108.83	106.40
26	1H	835	A	N1-C6-N6	-6.07	114.96	118.60
26	1H	1142(A)	A	N7-C8-N9	6.07	116.83	113.80
26	1H	2432	A	C2-N3-C4	-6.07	107.57	110.60
26	1H	1814	G	C5-C6-N1	-6.06	108.47	111.50
27	16	31	C	O5'-P-OP2	-6.06	100.24	105.70
22	1K	67	A	N1-C6-N6	-6.06	114.96	118.60
23	2K	76	C	N1-C2-O2	-6.06	115.26	118.90
26	1H	117	G	O5'-P-OP1	6.06	117.97	110.70
26	14	2490	G	N7-C8-N9	6.06	116.13	113.10
26	1H	116	C	OP2-P-O3'	6.06	118.53	105.20
1	1G	91	C	C2-N1-C1'	6.06	125.47	118.80
23	2K	76	C	N3-C2-O2	6.06	126.14	121.90
26	1H	2598	A	C4-C5-N7	6.06	113.73	110.70
26	14	665	C	N3-C4-C5	6.06	124.32	121.90
1	13	1197	G	N1-C6-O6	6.06	123.53	119.90
26	14	2516	G	O5'-P-OP2	-6.06	100.25	105.70
26	1H	1816	G	C4-N9-C1'	6.05	134.37	126.50
26	14	583	G	C4-C5-N7	6.05	113.22	110.80
36	78	15	ARG	C-N-CA	6.05	136.83	121.70
26	14	1698	A	C4-C5-C6	6.05	120.03	117.00
26	1H	655	A	C2-N3-C4	-6.05	107.58	110.60
26	1H	784	A	N9-C4-C5	6.05	108.22	105.80
26	14	1544	C	C2-N1-C1'	6.05	125.45	118.80
1	1G	113	G	N3-C4-N9	6.05	129.63	126.00
26	14	2545	G	N9-C4-C5	-6.05	102.98	105.40
1	13	1	U	P-O3'-C3'	6.04	126.95	119.70
26	1H	2607	G	C6-C5-N7	-6.04	126.77	130.40
26	1H	2629	A	C8-N9-C4	-6.04	103.38	105.80
1	1G	87	A	N7-C8-N9	6.04	116.82	113.80
1	1G	363	A	N1-C6-N6	-6.04	114.97	118.60
26	14	621	A	N1-C6-N6	6.04	122.23	118.60
26	1H	685	A	N9-C4-C5	-6.04	103.38	105.80
26	1H	2372	G	C8-N9-C4	6.04	108.82	106.40
26	14	929	G	N7-C8-N9	6.04	116.12	113.10
26	14	1938	A	C4-C5-N7	6.04	113.72	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2072	G	OP1-P-O3'	6.04	118.49	105.20
1	1G	117	G	C5-C6-O6	-6.04	124.98	128.60
26	14	2607	G	C8-N9-C1'	-6.04	119.15	127.00
1	13	1417	G	C4-C5-C6	6.04	122.42	118.80
26	1H	141	A	N7-C8-N9	6.04	116.82	113.80
26	14	575	A	C8-N9-C4	6.04	108.22	105.80
26	14	2443	C	O5'-P-OP2	6.04	117.95	110.70
1	13	1305	G	N3-C2-N2	-6.04	115.67	119.90
26	14	2243	U	C5-C4-O4	6.04	129.52	125.90
1	13	1129	C	N1-C2-O2	6.03	122.52	118.90
26	14	148	C	C5-C6-N1	-6.03	117.98	121.00
26	14	1558	A	C2-N3-C4	-6.03	107.58	110.60
26	1H	1751	C	C6-N1-C2	6.03	122.71	120.30
26	1H	1814	G	C8-N9-C1'	-6.03	119.16	127.00
26	1H	275	G	N7-C8-N9	-6.03	110.08	113.10
24	3L	48	C	N1-C2-O2	6.03	122.52	118.90
26	14	1375	C	N3-C4-C5	6.03	124.31	121.90
26	14	1302	A	N9-C4-C5	6.03	108.21	105.80
26	1H	438	G	N9-C4-C5	-6.02	102.99	105.40
1	13	804	U	OP2-P-O3'	6.02	118.45	105.20
26	14	922	U	O5'-P-OP1	-6.02	100.28	105.70
26	1H	2579	C	C6-N1-C2	6.02	122.71	120.30
26	14	1772	G	N1-C6-O6	6.02	123.51	119.90
26	14	1788	C	N3-C4-C5	6.02	124.31	121.90
26	14	2731	G	C4-N9-C1'	6.02	134.32	126.50
22	1K	60	U	C2-N1-C1'	6.01	124.92	117.70
26	1H	329	G	O5'-P-OP2	-6.01	100.29	105.70
26	1H	932	G	C5-C6-O6	6.01	132.21	128.60
26	1H	1520	U	C6-N1-C2	-6.01	117.39	121.00
1	1G	81	G	N3-C4-N9	6.01	129.61	126.00
26	1H	94	G	C5-C6-N1	-6.01	108.49	111.50
26	14	809	G	N3-C4-C5	-6.01	125.59	128.60
26	1H	2295	C	C6-N1-C2	-6.01	117.90	120.30
26	1H	2456	C	C6-N1-C2	6.01	122.70	120.30
26	14	725	G	N1-C6-O6	6.01	123.51	119.90
26	14	1342	A	N9-C4-C5	-6.01	103.40	105.80
26	1H	2456	C	N3-C4-C5	6.01	124.30	121.90
26	1H	1416	G	C8-N9-C4	6.01	108.80	106.40
26	1H	1968	G	C4-C5-N7	6.01	113.20	110.80
26	14	2087	G	N3-C4-C5	-6.01	125.60	128.60
27	1J	89	G	O5'-P-OP2	-6.00	100.30	105.70
26	1H	459	U	O5'-P-OP2	-6.00	100.30	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	582	G	N3-C4-N9	6.00	129.60	126.00
26	1H	115	C	O5'-P-OP1	-6.00	100.30	105.70
26	1H	509	C	O5'-P-OP2	-6.00	100.30	105.70
26	1H	746	A	N9-C4-C5	6.00	108.20	105.80
26	14	783	A	C4-C5-C6	6.00	120.00	117.00
1	13	1412	C	C6-N1-C2	6.00	122.70	120.30
26	1H	826	U	C5-C4-O4	6.00	129.50	125.90
26	1H	1469	A	C2-N3-C4	-6.00	107.60	110.60
1	1G	392	G	C8-N9-C4	6.00	108.80	106.40
26	14	1784	A	C5-C6-N6	6.00	128.50	123.70
26	1H	270(O)	U	N1-C2-O2	6.00	127.00	122.80
1	13	1059	C	C6-N1-C2	-6.00	117.90	120.30
26	14	52	A	O5'-P-OP1	-6.00	100.31	105.70
26	14	2833	G	OP2-P-O3'	6.00	118.39	105.20
26	1H	342	G	O5'-P-OP2	-5.99	100.31	105.70
26	14	2872	G	C8-N9-C4	-5.99	104.00	106.40
26	14	1819	A	P-O3'-C3'	5.99	126.89	119.70
1	13	1417	G	C4-N9-C1'	5.99	134.29	126.50
22	1K	56	C	C6-N1-C1'	-5.99	113.61	120.80
26	1H	1786	A	C4-C5-C6	5.99	120.00	117.00
26	1H	2082	A	N7-C8-N9	-5.99	110.81	113.80
1	1G	529	G	C5-C6-O6	-5.99	125.01	128.60
26	14	195	A	O5'-P-OP1	5.99	117.89	110.70
26	14	2439	A	OP1-P-O3'	5.99	118.38	105.20
26	1H	1668	A	N9-C4-C5	-5.99	103.41	105.80
26	14	2056	G	N3-C2-N2	-5.99	115.71	119.90
26	1H	49	A	C5-N7-C8	5.99	106.89	103.90
26	14	1984	G	C8-N9-C4	5.99	108.79	106.40
26	14	34	C	C6-N1-C1'	-5.98	113.62	120.80
26	1H	1381	G	C8-N9-C4	-5.98	104.01	106.40
26	14	2243	U	OP1-P-OP2	5.98	128.57	119.60
26	14	2449	U	N3-C4-O4	5.98	123.59	119.40
26	1H	466	A	C5-C6-N6	-5.98	118.92	123.70
26	1H	723	G	C4-N9-C1'	5.98	134.27	126.50
26	1H	837	C	C5-C4-N4	-5.98	116.02	120.20
26	1H	99	U	C2-N1-C1'	5.97	124.87	117.70
26	1H	736	C	C6-N1-C2	5.97	122.69	120.30
26	1H	2246	G	N9-C4-C5	-5.97	103.01	105.40
1	1G	128	G	C4-C5-N7	-5.97	108.41	110.80
26	14	877	U	O4'-C1'-N1	5.97	112.98	108.20
26	14	1382	G	O5'-P-OP2	-5.97	100.32	105.70
26	14	2612	C	O5'-P-OP2	-5.97	100.32	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	29	61	ARG	C-N-CD	-5.97	107.46	120.60
26	1H	287	C	C6-N1-C2	5.97	122.69	120.30
26	1H	920	G	N7-C8-N9	-5.97	110.11	113.10
42	95	62	LEU	CA-CB-CG	5.97	129.04	115.30
23	2L	48	U	P-O3'-C3'	5.97	126.86	119.70
26	1H	263	C	N3-C2-O2	-5.97	117.72	121.90
26	1H	1775	U	OP1-P-O3'	5.97	118.33	105.20
26	1H	1380	G	C8-N9-C4	5.97	108.79	106.40
26	14	1924	C	C6-N1-C2	5.97	122.69	120.30
23	2K	6	G	C8-N9-C4	5.97	108.79	106.40
26	1H	130	C	C5-C4-N4	-5.97	116.02	120.20
26	1H	621	A	N9-C4-C5	-5.97	103.41	105.80
1	1G	449	C	C6-N1-C2	-5.97	117.91	120.30
26	14	2731	G	C6-C5-N7	-5.96	126.82	130.40
26	1H	685	A	C8-N9-C4	5.96	108.19	105.80
26	1H	811	U	C5-C6-N1	-5.96	119.72	122.70
1	1G	320	C	C2-N1-C1'	-5.96	112.24	118.80
1	1G	322	C	C6-N1-C2	5.96	122.69	120.30
26	1H	2068	U	O5'-P-OP1	-5.96	100.33	105.70
42	D8	18	LEU	CA-CB-CG	5.96	129.01	115.30
26	14	671	C	C2-N3-C4	-5.96	116.92	119.90
26	14	2253	G	C5-C6-O6	-5.96	125.02	128.60
26	1H	22	C	N3-C4-C5	-5.96	119.52	121.90
26	1H	188	G	C6-C5-N7	-5.96	126.82	130.40
26	1H	212	G	N7-C8-N9	-5.96	110.12	113.10
26	1H	1304	C	N3-C4-C5	5.96	124.28	121.90
27	16	13	A	O5'-P-OP2	-5.96	100.34	105.70
26	14	140	A	N7-C8-N9	5.96	116.78	113.80
26	1H	188	G	N1-C6-O6	5.96	123.47	119.90
26	14	2453	A	C8-N9-C4	5.96	108.18	105.80
26	1H	2685	G	C5-C6-N1	-5.95	108.53	111.50
1	1G	1301	U	C2-N1-C1'	5.95	124.84	117.70
26	14	1347	G	C5-C6-N1	-5.95	108.53	111.50
26	14	1762	A	N1-C2-N3	5.95	132.27	129.30
26	14	2323	G	C8-N9-C4	5.94	108.78	106.40
26	1H	205	G	C6-N1-C2	-5.94	121.53	125.10
1	1G	191(A)	G	N1-C6-O6	5.94	123.47	119.90
26	14	970	C	N1-C2-O2	-5.94	115.33	118.90
26	1H	1308	A	C5-C6-N6	5.94	128.45	123.70
26	1H	2271	G	C2-N3-C4	5.94	114.87	111.90
1	1G	352	C	C6-N1-C2	-5.94	117.92	120.30
26	14	179	G	C8-N9-C4	5.94	108.78	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1350	C	N3-C2-O2	5.94	126.06	121.90
22	1L	69	C	P-O3'-C3'	5.94	126.83	119.70
26	1H	593	G	N9-C4-C5	-5.94	103.03	105.40
26	1H	797	C	O5'-P-OP2	-5.94	100.36	105.70
26	1H	1431	U	C5-C4-O4	-5.94	122.34	125.90
26	1H	1799	G	P-O3'-C3'	5.94	126.83	119.70
26	1H	2037	G	O5'-P-OP1	5.94	117.83	110.70
26	14	330	A	N1-C6-N6	5.94	122.16	118.60
26	14	1558	A	P-O3'-C3'	5.94	126.82	119.70
26	1H	181	A	N1-C6-N6	-5.93	115.04	118.60
26	14	2595	G	O5'-P-OP1	-5.93	100.36	105.70
26	1H	113	G	N3-C4-C5	5.93	131.57	128.60
26	1H	438	G	N1-C6-O6	5.93	123.46	119.90
26	1H	947	G	N3-C2-N2	-5.93	115.75	119.90
1	1G	267	C	C6-N1-C2	5.93	122.67	120.30
26	14	1840	G	C4-N9-C1'	5.93	134.21	126.50
26	14	1899	G	P-O3'-C3'	5.93	126.82	119.70
26	1H	330	A	C5-N7-C8	-5.93	100.94	103.90
26	1H	763	G	N9-C4-C5	5.93	107.77	105.40
26	14	537	C	C5-C6-N1	5.93	123.97	121.00
26	14	577	G	OP2-P-O3'	5.93	118.24	105.20
26	1H	733	G	N3-C4-C5	-5.93	125.64	128.60
26	1H	1674	G	O5'-P-OP2	-5.93	100.37	105.70
26	1H	1698	A	O4'-C1'-N9	5.93	112.94	108.20
26	14	774	A	N3-C4-N9	-5.93	122.66	127.40
26	1H	1021	A	C4-C5-N7	5.92	113.66	110.70
26	1H	1618	A	C4-C5-N7	5.92	113.66	110.70
26	1H	856	C	C6-N1-C1'	-5.92	113.69	120.80
26	1H	270(K)	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	1297	C	N3-C2-O2	-5.92	117.76	121.90
1	1G	1446	A	O4'-C1'-N9	5.92	112.93	108.20
26	14	1778	U	C5-C4-O4	5.92	129.45	125.90
26	14	1992	G	C8-N9-C4	-5.92	104.03	106.40
1	1G	305	G	O5'-P-OP2	-5.92	100.38	105.70
26	14	1821	A	N1-C6-N6	5.92	122.15	118.60
26	14	1909	C	O5'-P-OP2	-5.92	100.38	105.70
26	14	1926	U	N1-C2-N3	5.92	118.45	114.90
26	14	2518	A	N9-C4-C5	-5.92	103.43	105.80
26	1H	1417	C	C6-N1-C2	5.92	122.67	120.30
26	1H	2774	C	C6-N1-C2	5.92	122.67	120.30
26	1H	614	U	C5-C6-N1	5.91	125.66	122.70
26	1H	2084	C	C5-C6-N1	-5.91	118.04	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	68	G	N1-C6-O6	5.91	123.45	119.90
26	14	1377	G	C4-N9-C1'	5.91	134.19	126.50
1	13	525	C	C5-C6-N1	5.91	123.96	121.00
26	1H	1157	G	C6-C5-N7	-5.91	126.85	130.40
26	1H	504	U	C2-N1-C1'	5.91	124.79	117.70
26	1H	826	U	C4-C5-C6	5.91	123.25	119.70
26	1H	1835	G	C5-N7-C8	-5.91	101.34	104.30
26	1H	115	C	N3-C2-O2	5.91	126.04	121.90
26	1H	917	A	C4-C5-N7	5.91	113.66	110.70
1	1G	87	A	C6-C5-N7	-5.91	128.16	132.30
26	14	915	C	C6-N1-C2	-5.91	117.94	120.30
26	14	2099	U	C2-N1-C1'	5.91	124.79	117.70
26	14	2251	G	N1-C2-N3	5.91	127.44	123.90
26	14	2712	U	N3-C4-O4	-5.91	115.27	119.40
26	1H	1698	A	C4-C5-N7	5.91	113.65	110.70
26	14	1585	C	C6-N1-C2	-5.91	117.94	120.30
1	13	57	G	N3-C4-N9	5.90	129.54	126.00
26	1H	1196	C	C6-N1-C2	5.90	122.66	120.30
26	1H	1834	U	C2-N1-C1'	5.90	124.78	117.70
1	13	750	G	C4-N9-C1'	5.90	134.17	126.50
26	14	1981	A	N1-C6-N6	5.90	122.14	118.60
26	14	1347	G	N1-C6-O6	5.90	123.44	119.90
26	14	2762	G	C4-C5-N7	5.90	113.16	110.80
26	1H	546	C	C2-N1-C1'	5.90	125.29	118.80
26	14	1938	A	C5-C6-N6	-5.90	118.98	123.70
1	13	1517	G	C5-C6-O6	-5.90	125.06	128.60
26	1H	2688	U	N3-C4-O4	-5.90	115.27	119.40
26	14	945	A	C4-N9-C1'	5.90	136.91	126.30
26	1H	1816	G	C8-N9-C1'	-5.89	119.34	127.00
26	1H	146	G	N9-C4-C5	-5.89	103.04	105.40
26	1H	275	G	C8-N9-C4	5.89	108.76	106.40
26	1H	2084	C	C6-N1-C2	5.89	122.66	120.30
26	1H	2642	G	N1-C6-O6	-5.89	116.36	119.90
26	1H	1820	U	C5-C6-N1	-5.89	119.75	122.70
26	1H	2271	G	C5-C6-N1	5.89	114.44	111.50
26	14	740	U	N1-C2-O2	5.89	126.92	122.80
1	13	573	A	N1-C6-N6	-5.89	115.07	118.60
26	1H	1257	C	N1-C2-N3	5.89	123.32	119.20
26	14	676	A	N3-C4-C5	5.89	130.92	126.80
1	13	768	A	C6-N1-C2	-5.88	115.07	118.60
26	14	389	G	N9-C4-C5	-5.88	103.05	105.40
26	14	1901	A	N1-C6-N6	-5.88	115.07	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1265	G	N1-C6-O6	5.88	123.43	119.90
26	1H	1284	A	O5'-P-OP1	-5.88	100.41	105.70
26	14	1204	A	O4'-C1'-N9	5.88	112.91	108.20
26	14	2555	U	O5'-P-OP1	-5.88	100.41	105.70
27	16	102	G	C5-N7-C8	-5.88	101.36	104.30
1	13	266	G	C6-C5-N7	-5.88	126.87	130.40
23	2K	32	G	C4-C5-N7	5.88	113.15	110.80
24	3L	76	A	N7-C8-N9	5.88	116.74	113.80
1	13	1523	G	C5-C6-N1	-5.88	108.56	111.50
26	1H	956	G	C8-N9-C4	5.88	108.75	106.40
26	1H	1697	G	C8-N9-C4	5.88	108.75	106.40
26	14	801	G	C8-N9-C1'	5.88	134.64	127.00
26	14	1992	G	N1-C6-O6	-5.88	116.37	119.90
26	1H	510	C	OP1-P-OP2	5.88	128.41	119.60
26	1H	1403	C	N3-C2-O2	-5.88	117.79	121.90
26	1H	621	A	N3-C4-C5	5.87	130.91	126.80
1	1G	325	A	N1-C6-N6	5.87	122.12	118.60
1	1G	1081	G	C8-N9-C4	5.87	108.75	106.40
1	1G	1498	U	P-O3'-C3'	5.87	126.75	119.70
26	14	1616	A	C2-N3-C4	-5.87	107.66	110.60
26	1H	293	U	N3-C4-O4	5.87	123.51	119.40
26	14	642	G	C5-C6-N1	-5.87	108.56	111.50
26	14	1695	G	C8-N9-C1'	-5.87	119.37	127.00
26	1H	465	G	O5'-P-OP2	5.87	117.74	110.70
26	1H	1630	G	O5'-P-OP1	-5.87	100.42	105.70
24	3L	48	C	N3-C2-O2	-5.87	117.79	121.90
26	14	2502	G	C6-C5-N7	-5.87	126.88	130.40
27	16	9	G	C4-C5-N7	5.87	113.15	110.80
26	14	1768	U	C5-C4-O4	5.87	129.42	125.90
26	14	2440	C	C2-N1-C1'	-5.87	112.35	118.80
1	13	738	C	C5-C6-N1	5.86	123.93	121.00
26	1H	62	C	C5-C6-N1	-5.86	118.07	121.00
26	1H	917	A	C6-C5-N7	-5.86	128.20	132.30
26	14	863	A	O5'-P-OP2	-5.86	100.42	105.70
26	1H	1948	G	C5-C6-O6	5.86	132.12	128.60
26	14	2022	U	N1-C2-N3	-5.86	111.38	114.90
1	13	50	A	C2-N3-C4	5.86	113.53	110.60
26	1H	676	A	C6-C5-N7	-5.86	128.20	132.30
26	1H	508	G	C4-C5-N7	5.86	113.14	110.80
26	1H	524	U	N3-C2-O2	-5.86	118.10	122.20
26	1H	582	G	C5-C6-O6	-5.86	125.09	128.60
26	1H	1284	A	C6-C5-N7	-5.86	128.20	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	578	C	O5'-P-OP1	-5.86	100.43	105.70
26	1H	330	A	N1-C2-N3	5.85	132.23	129.30
26	14	2253	G	C4-C5-N7	5.85	113.14	110.80
26	1H	205	G	N3-C4-N9	5.85	129.51	126.00
26	1H	1898	U	N3-C4-C5	-5.85	111.09	114.60
26	1H	2387	U	OP2-P-O3'	5.85	118.08	105.20
27	16	115	G	C6-C5-N7	-5.85	126.89	130.40
26	14	68	G	C5-C6-N1	-5.85	108.57	111.50
26	14	783	A	N1-C2-N3	5.85	132.23	129.30
1	1G	326	G	N3-C4-N9	5.85	129.51	126.00
26	1H	1372	U	C5-C4-O4	-5.85	122.39	125.90
26	1H	2083	G	C5-C6-O6	-5.85	125.09	128.60
26	1H	2246	G	N3-C4-N9	5.85	129.51	126.00
1	1G	332	G	C8-N9-C4	5.85	108.74	106.40
26	14	71	A	C2-N3-C4	-5.85	107.67	110.60
26	1H	733	G	C6-C5-N7	-5.85	126.89	130.40
26	1H	1325	G	C4-C5-N7	5.85	113.14	110.80
27	1J	98	G	N9-C4-C5	-5.85	103.06	105.40
26	1H	2512	C	C6-N1-C2	5.84	122.64	120.30
26	14	1698	A	C5-C6-N6	-5.84	119.02	123.70
26	14	2251	G	C8-N9-C1'	-5.84	119.40	127.00
1	13	1158	C	C6-N1-C1'	-5.84	113.79	120.80
26	1H	810	U	OP1-P-O3'	5.84	118.05	105.20
26	1H	2501	C	N3-C4-N4	-5.84	113.91	118.00
26	1H	2712(A)	A	N9-C4-C5	-5.84	103.46	105.80
26	14	2210	G	C8-N9-C4	-5.84	104.06	106.40
26	1H	63	U	C6-N1-C1'	5.84	129.38	121.20
26	1H	690	G	N9-C4-C5	-5.84	103.06	105.40
30	31	156	LEU	CA-CB-CG	5.84	128.73	115.30
26	14	72	U	O5'-P-OP1	-5.84	100.44	105.70
26	14	74	A	N3-C4-C5	5.84	130.89	126.80
26	1H	438	G	C4-C5-N7	5.84	113.14	110.80
1	13	1279	A	N7-C8-N9	5.84	116.72	113.80
26	14	2371	G	N3-C4-C5	5.83	131.52	128.60
26	1H	778	G	N1-C6-O6	-5.83	116.40	119.90
26	14	801	G	C4-N9-C1'	-5.83	118.92	126.50
26	14	1983	C	N1-C2-O2	5.83	122.40	118.90
27	1J	89	G	N3-C4-C5	-5.83	125.69	128.60
26	1H	263	C	N1-C2-O2	5.83	122.40	118.90
26	1H	1021	A	N1-C2-N3	5.83	132.21	129.30
26	1H	1258	C	C5-C6-N1	-5.83	118.08	121.00
26	14	1776	G	C6-C5-N7	-5.83	126.90	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1968	G	C5-C6-O6	-5.83	125.10	128.60
26	14	2023	G	C8-N9-C4	-5.83	104.07	106.40
30	39	32	LEU	CA-CB-CG	-5.83	101.90	115.30
26	1H	2036	C	N1-C2-O2	-5.83	115.40	118.90
1	1G	1358	U	C5-C6-N1	5.83	125.61	122.70
26	14	783	A	N9-C4-C5	-5.83	103.47	105.80
26	14	2287	A	N1-C2-N3	5.83	132.21	129.30
26	1H	211	A	C2-N3-C4	-5.82	107.69	110.60
26	14	1376	C	O5'-P-OP1	-5.82	100.46	105.70
26	1H	1241	A	C2-N3-C4	-5.82	107.69	110.60
26	1H	1825	A	C5-N7-C8	5.82	106.81	103.90
1	13	966	G	C8-N9-C4	5.82	108.73	106.40
26	1H	121	G	N1-C6-O6	5.82	123.39	119.90
26	1H	760	G	N1-C6-O6	5.82	123.39	119.90
26	1H	1938	A	O4'-C1'-N9	5.82	112.86	108.20
26	1H	1992	G	C8-N9-C4	-5.82	104.07	106.40
26	1H	2087	G	C8-N9-C4	5.82	108.73	106.40
27	16	100	G	C8-N9-C4	5.82	108.73	106.40
26	14	2779	U	O4'-C1'-N1	5.82	112.86	108.20
26	1H	318	C	O5'-P-OP1	-5.82	100.46	105.70
26	1H	944	G	N9-C4-C5	5.82	107.73	105.40
26	1H	1278	A	C8-N9-C4	5.82	108.13	105.80
26	14	203	C	C2-N1-C1'	-5.81	112.40	118.80
26	14	465	G	C8-N9-C4	-5.81	104.07	106.40
1	13	1461	G	N1-C6-O6	5.81	123.39	119.90
26	1H	387	U	C6-N1-C2	5.81	124.49	121.00
26	14	200	U	O5'-P-OP1	-5.81	100.47	105.70
26	14	1291	C	O5'-P-OP2	-5.81	100.47	105.70
26	14	2371	G	C8-N9-C4	5.81	108.72	106.40
27	1J	89(A)	A	N1-C6-N6	-5.81	115.11	118.60
1	13	1411	C	C6-N1-C2	5.81	122.62	120.30
26	1H	733	G	C4-C5-C6	5.81	122.29	118.80
27	16	111	U	O4'-C1'-N1	5.81	112.85	108.20
1	1G	1529	G	N3-C4-C5	-5.81	125.69	128.60
26	1H	1278	A	N7-C8-N9	-5.81	110.90	113.80
26	14	788	A	C8-N9-C4	-5.81	103.48	105.80
26	14	1602	U	O5'-P-OP1	-5.81	100.47	105.70
22	1K	56	C	C5-C6-N1	5.81	123.90	121.00
26	1H	1363	C	C2-N3-C4	-5.81	117.00	119.90
31	41	139	LEU	CA-CB-CG	5.80	128.65	115.30
26	1H	662	G	N1-C6-O6	-5.80	116.42	119.90
26	1H	870	A	C8-N9-C4	5.80	108.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2042	A	C8-N9-C4	5.80	108.12	105.80
1	1G	197	A	C5-C6-N6	-5.80	119.06	123.70
26	14	133	C	C6-N1-C2	5.80	122.62	120.30
26	14	848	G	O5'-P-OP2	-5.80	100.48	105.70
26	14	2501	C	N1-C2-O2	5.80	122.38	118.90
26	1H	2713	A	N7-C8-N9	5.80	116.70	113.80
1	13	962	C	C5-C6-N1	-5.79	118.10	121.00
26	1H	189	G	N7-C8-N9	-5.79	110.20	113.10
26	1H	723	G	N3-C4-N9	5.79	129.48	126.00
1	1G	697	U	C6-N1-C2	5.79	124.48	121.00
26	1H	127	A	C5-C6-N6	-5.79	119.07	123.70
1	1G	345	C	N3-C4-C5	-5.79	119.58	121.90
1	1G	372	C	N1-C2-O2	5.79	122.37	118.90
26	14	2640	G	C8-N9-C4	-5.79	104.08	106.40
26	1H	1376	C	C6-N1-C2	-5.79	117.98	120.30
26	1H	2681	C	C6-N1-C2	5.79	122.62	120.30
26	14	2545	G	N1-C6-O6	5.79	123.37	119.90
1	13	1494	G	C6-C5-N7	-5.79	126.93	130.40
26	1H	560	C	O5'-P-OP1	-5.79	100.49	105.70
26	1H	2552	U	C4-C5-C6	5.79	123.17	119.70
26	14	2736	G	C5-C6-N1	-5.79	108.61	111.50
26	1H	2061	G	O5'-P-OP1	5.79	117.64	110.70
1	13	1494	G	N1-C6-O6	5.79	123.37	119.90
26	1H	1516	U	O5'-P-OP2	-5.79	100.49	105.70
26	1H	2741	A	N9-C4-C5	-5.79	103.49	105.80
27	16	79	C	OP2-P-O3'	5.79	117.93	105.20
26	1H	121	G	N9-C4-C5	-5.78	103.09	105.40
27	16	53	A	N1-C6-N6	5.78	122.07	118.60
26	14	2318	G	N3-C4-N9	5.78	129.47	126.00
26	1H	422	A	C8-N9-C4	5.78	108.11	105.80
26	1H	1610	A	N1-C6-N6	5.78	122.07	118.60
26	14	1899	G	C8-N9-C4	-5.78	104.09	106.40
26	14	2549	G	C8-N9-C4	5.78	108.71	106.40
26	1H	755	C	N1-C2-O2	-5.78	115.43	118.90
26	1H	1403	C	N1-C2-O2	5.78	122.37	118.90
26	14	456	C	C2-N1-C1'	5.78	125.16	118.80
26	1H	1352	U	C2-N1-C1'	-5.78	110.77	117.70
26	1H	2063	C	C6-N1-C2	5.78	122.61	120.30
26	14	1264	G	OP2-P-O3'	5.78	117.91	105.20
26	14	1614	A	C2-N3-C4	-5.78	107.71	110.60
26	1H	692	C	N3-C4-C5	5.78	124.21	121.90
26	1H	1826	G	N9-C4-C5	-5.78	103.09	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1519	A	N9-C4-C5	5.78	108.11	105.80
26	1H	1446	C	C6-N1-C2	-5.78	117.99	120.30
26	1H	1816	G	C5-C6-O6	-5.78	125.14	128.60
26	14	2581	G	C5-C6-O6	5.78	132.06	128.60
26	1H	1660	C	C5-C6-N1	-5.77	118.11	121.00
26	1H	2665	A	O4'-C1'-N9	5.77	112.82	108.20
26	14	1780	A	N9-C4-C5	5.77	108.11	105.80
26	1H	1241	A	C5-C6-N1	-5.77	114.81	117.70
1	1G	99	C	C2-N3-C4	-5.77	117.02	119.90
26	1H	1975	G	C6-C5-N7	-5.77	126.94	130.40
26	14	810	U	C5-C4-O4	-5.77	122.44	125.90
26	14	1840	G	C8-N9-C1'	-5.77	119.50	127.00
26	1H	1782	C	C2-N3-C4	5.77	122.78	119.90
26	1H	2584	U	C2-N1-C1'	5.77	124.62	117.70
1	1G	1486	G	C8-N9-C4	5.77	108.71	106.40
26	14	2276	G	N1-C6-O6	5.77	123.36	119.90
26	1H	232	G	N9-C4-C5	-5.77	103.09	105.40
26	1H	2505	G	C4-C5-N7	-5.77	108.49	110.80
49	K8	3	LEU	C-N-CA	5.77	136.12	121.70
1	13	1418	A	C8-N9-C4	5.76	108.11	105.80
26	1H	127	A	C4-C5-N7	5.76	113.58	110.70
26	1H	1858	G	P-O3'-C3'	5.76	126.62	119.70
26	14	1496	A	O4'-C1'-N9	5.76	112.81	108.20
26	14	1990	C	C6-N1-C2	5.76	122.61	120.30
1	13	689	C	C6-N1-C2	-5.76	118.00	120.30
26	1H	1955	U	C6-N1-C1'	-5.76	113.13	121.20
26	1H	2448	A	C6-C5-N7	-5.76	128.27	132.30
26	1H	584	C	N3-C4-N4	5.76	122.03	118.00
26	1H	677	A	C8-N9-C4	5.76	108.11	105.80
26	1H	1328	G	N1-C2-N2	-5.76	111.02	116.20
26	1H	728	G	N9-C4-C5	-5.76	103.10	105.40
26	1H	785	G	C5-C6-O6	5.76	132.05	128.60
26	1H	827	U	C5-C6-N1	-5.76	119.82	122.70
26	1H	2009	G	O5'-P-OP2	-5.76	100.52	105.70
26	1H	2035	G	C5'-C4'-O4'	5.76	116.01	109.10
40	B8	13	ARG	N-CA-C	5.76	126.54	111.00
26	14	1973	G	C2-N3-C4	-5.76	109.02	111.90
26	14	2226	C	N3-C4-C5	5.76	124.20	121.90
26	14	2731	G	C8-N9-C1'	-5.76	119.52	127.00
1	13	422	C	C6-N1-C1'	-5.75	113.89	120.80
1	13	704	A	N9-C4-C5	-5.75	103.50	105.80
26	1H	122	G	C8-N9-C4	5.75	108.70	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	19	G	C8-N9-C4	5.75	108.70	106.40
26	14	2067	G	O5'-P-OP1	-5.75	100.52	105.70
1	13	1518	A	C5-C6-N6	5.75	128.30	123.70
26	1H	358	U	C2-N1-C1'	5.75	124.60	117.70
26	1H	1804	C	N1-C2-O2	5.75	122.35	118.90
26	1H	2054	A	N7-C8-N9	5.75	116.67	113.80
26	14	1353	A	C6-N1-C2	-5.75	115.15	118.60
26	14	2572	A	OP1-P-O3'	5.75	117.85	105.20
1	13	401	C	O5'-P-OP2	-5.75	100.53	105.70
26	1H	2414	G	C8-N9-C4	5.75	108.70	106.40
26	14	2261	C	O5'-P-OP2	-5.75	100.53	105.70
14	5I	12	ARG	C-N-CA	5.75	136.07	121.70
1	1G	337	C	C5-C6-N1	5.75	123.88	121.00
26	14	1906	G	C4-C5-N7	5.75	113.10	110.80
26	1H	1989	G	C5-C6-O6	-5.75	125.15	128.60
26	14	447	A	O5'-P-OP1	-5.75	100.53	105.70
26	14	1678	G	N3-C4-N9	-5.75	122.55	126.00
26	1H	528	A	C8-N9-C1'	5.75	138.04	127.70
26	1H	2247	A	C6-N1-C2	-5.74	115.15	118.60
26	1H	2417	C	O5'-P-OP1	5.74	117.59	110.70
27	16	101	A	N7-C8-N9	-5.74	110.93	113.80
33	61	110	ASP	C-N-CD	-5.74	107.97	120.60
1	1G	102	G	N1-C6-O6	5.74	123.35	119.90
1	1G	175	C	C6-N1-C2	-5.74	118.00	120.30
26	1H	815	C	N3-C4-C5	5.74	124.20	121.90
26	1H	912	C	N3-C2-O2	-5.74	117.88	121.90
26	1H	1672	C	C4-C5-C6	-5.74	114.53	117.40
26	1H	2782	G	O5'-P-OP1	-5.74	100.53	105.70
1	13	644	G	C8-N9-C4	5.74	108.69	106.40
26	1H	463	G	O5'-P-OP2	-5.74	100.54	105.70
26	1H	1597	A	O5'-P-OP2	-5.74	100.53	105.70
23	2L	19	G	N3-C4-C5	5.74	131.47	128.60
26	14	2392	A	C5-C6-N1	-5.74	114.83	117.70
26	14	2640	G	N7-C8-N9	5.74	115.97	113.10
26	1H	845	G	N3-C4-C5	5.74	131.47	128.60
26	1H	2602	A	N1-C6-N6	-5.74	115.16	118.60
22	1L	74	C	N1-C2-O2	5.74	122.34	118.90
26	14	2056	G	N1-C2-N2	5.74	121.36	116.20
26	14	201	C	N3-C4-C5	5.73	124.19	121.90
26	14	679	C	N1-C2-O2	-5.73	115.46	118.90
27	1J	81	G	C4-C5-N7	5.73	113.09	110.80
26	1H	564	C	OP1-P-O3'	5.73	117.81	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	4L	23	A	P-O3'-C3'	5.73	126.58	119.70
1	13	330	C	N3-C2-O2	-5.73	117.89	121.90
26	14	278	A	P-O3'-C3'	5.73	126.57	119.70
26	14	1664	A	O4'-C1'-N9	-5.73	103.62	108.20
1	13	326	G	C5-C6-O6	5.73	132.03	128.60
1	13	1498	U	O4'-C1'-N1	-5.73	103.62	108.20
26	1H	2026	C	C5-C6-N1	-5.73	118.14	121.00
26	14	2388	A	O4'-C1'-N9	5.73	112.78	108.20
26	1H	567	A	C8-N9-C4	5.72	108.09	105.80
1	13	690	G	N3-C4-C5	-5.72	125.74	128.60
26	1H	866	A	O4'-C1'-N9	-5.72	103.62	108.20
1	1G	107	G	N9-C4-C5	-5.72	103.11	105.40
26	14	193	U	C6-N1-C2	5.72	124.43	121.00
26	1H	1778	U	N1-C2-O2	5.72	126.80	122.80
26	1H	68	G	C6-C5-N7	-5.72	126.97	130.40
26	1H	1697	G	C4-C5-N7	5.72	113.09	110.80
26	1H	1958	C	N3-C2-O2	5.72	125.90	121.90
26	1H	2054	A	C4-C5-N7	5.72	113.56	110.70
26	14	1408	C	N1-C2-O2	-5.72	115.47	118.90
26	14	2827	C	C6-N1-C2	5.72	122.59	120.30
1	13	422	C	O4'-C1'-N1	5.71	112.77	108.20
1	13	784	C	C6-N1-C2	5.71	122.59	120.30
26	1H	75	G	C5-C6-O6	-5.71	125.17	128.60
26	1H	663	G	C8-N9-C1'	-5.71	119.57	127.00
26	1H	1250	G	N1-C6-O6	-5.71	116.47	119.90
26	1H	1618	A	O5'-P-OP1	-5.71	100.56	105.70
26	1H	1767	C	N3-C4-C5	5.71	124.19	121.90
26	1H	1804	C	O5'-P-OP1	5.71	117.56	110.70
26	1H	1974	C	N3-C4-C5	5.71	124.19	121.90
26	1H	2318	G	N7-C8-N9	5.71	115.96	113.10
26	1H	2378	A	N9-C4-C5	-5.71	103.52	105.80
26	1H	128	C	N3-C4-C5	5.71	124.19	121.90
26	1H	2377	A	C2-N3-C4	-5.71	107.74	110.60
26	14	2609	U	O5'-P-OP2	-5.71	100.56	105.70
26	1H	2324	C	C5-C4-N4	-5.71	116.20	120.20
26	14	1787	A	C5-C6-N6	-5.71	119.13	123.70
26	1H	860	U	C5-C6-N1	-5.71	119.84	122.70
26	14	2575	C	N1-C2-O2	-5.71	115.47	118.90
26	1H	2287	A	C5-C6-N1	-5.71	114.85	117.70
26	14	2689	U	P-O3'-C3'	5.71	126.55	119.70
26	1H	265	A	C6-C5-N7	-5.71	128.31	132.30
26	1H	2447	G	C4-C5-N7	5.71	113.08	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2777	G	C8-N9-C1'	5.71	134.42	127.00
26	14	1506	C	C2-N1-C1'	5.71	125.08	118.80
26	1H	2021	C	C6-N1-C2	5.70	122.58	120.30
24	3L	2	C	C2-N1-C1'	5.70	125.08	118.80
26	14	815	C	C6-N1-C2	-5.70	118.02	120.30
1	1G	135	C	N3-C2-O2	5.70	125.89	121.90
26	1H	945	A	C5-N7-C8	-5.70	101.05	103.90
26	1H	2329	G	N3-C4-C5	5.70	131.45	128.60
23	2L	29	C	C5-C6-N1	5.70	123.85	121.00
26	1H	1999	C	C6-N1-C2	5.70	122.58	120.30
26	1H	2392	A	C5-C6-N1	-5.70	114.85	117.70
23	2K	68	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	829	A	C2-N3-C4	-5.70	107.75	110.60
26	1H	2712	U	N1-C2-N3	5.70	118.32	114.90
1	1G	1322	C	N1-C2-O2	5.70	122.32	118.90
1	13	572	A	N7-C8-N9	-5.69	110.95	113.80
26	1H	1543	A	C2-N3-C4	-5.69	107.75	110.60
26	1H	2282	G	N1-C6-O6	-5.69	116.48	119.90
26	1H	1951	U	N1-C2-O2	-5.69	118.81	122.80
1	1G	153	C	N1-C2-O2	5.69	122.32	118.90
26	14	2070	G	C2-N3-C4	-5.69	109.05	111.90
26	1H	114	U	C5-C4-O4	-5.69	122.49	125.90
1	1G	197	A	N9-C4-C5	-5.69	103.52	105.80
26	1H	799	G	C8-N9-C4	5.69	108.68	106.40
26	1H	2286	A	C5-C6-N1	-5.69	114.86	117.70
26	14	2509	G	C4-N9-C1'	5.69	133.90	126.50
26	1H	1842	G	C5-C6-N1	-5.69	108.66	111.50
26	1H	2371	G	C8-N9-C4	5.69	108.67	106.40
1	1G	931	C	O4'-C1'-N1	5.69	112.75	108.20
26	1H	2377	A	N9-C4-C5	-5.68	103.53	105.80
39	65	110	LEU	CA-CB-CG	5.68	128.37	115.30
26	1H	863	A	O5'-P-OP2	-5.68	100.59	105.70
26	1H	1752	C	C6-N1-C2	5.68	122.57	120.30
26	1H	265	A	N1-C2-N3	5.68	132.14	129.30
26	14	1444(A)	A	O4'-C1'-N9	5.68	112.75	108.20
26	1H	624	C	C6-N1-C2	5.68	122.57	120.30
26	14	772	C	C6-N1-C2	5.68	122.57	120.30
26	14	1279	G	C5-N7-C8	5.68	107.14	104.30
1	13	953	G	N3-C4-C5	-5.68	125.76	128.60
26	14	459	U	O5'-P-OP2	-5.68	100.59	105.70
26	1H	1303	G	N3-C4-N9	5.68	129.41	126.00
26	1H	1333	C	C2-N1-C1'	5.68	125.05	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1734	C	C6-N1-C2	-5.68	118.03	120.30
26	1H	270(Y)	G	C5-C6-N1	-5.67	108.66	111.50
26	1H	735	A	N1-C6-N6	5.67	122.00	118.60
26	1H	1314	C	C2-N1-C1'	5.67	125.04	118.80
26	14	2213	U	N3-C2-O2	-5.67	118.23	122.20
26	1H	68	G	C5-C6-N1	-5.67	108.66	111.50
26	14	468	G	N9-C4-C5	-5.67	103.13	105.40
26	14	830	G	C5-C6-O6	-5.67	125.20	128.60
1	13	1157	A	P-O3'-C3'	5.67	126.51	119.70
26	1H	769	G	OP1-P-O3'	5.67	117.68	105.20
26	1H	1551	C	C6-N1-C2	5.67	122.57	120.30
26	1H	2238	G	OP1-P-OP2	5.67	128.11	119.60
26	14	2554	U	O5'-P-OP2	5.67	117.50	110.70
26	1H	1332	G	N1-C2-N3	5.67	127.30	123.90
26	1H	2049	G	N9-C4-C5	-5.67	103.13	105.40
26	14	972	G	O5'-P-OP1	5.67	117.50	110.70
26	14	1787	A	C4-C5-C6	5.67	119.83	117.00
26	1H	1796	U	O5'-P-OP1	-5.67	100.60	105.70
26	14	1271	G	C5-C6-N1	-5.67	108.67	111.50
26	14	2021	C	O5'-P-OP1	-5.67	100.60	105.70
26	1H	2010	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	127	A	C6-C5-N7	-5.66	128.34	132.30
26	1H	214	G	N3-C4-C5	-5.66	125.77	128.60
26	1H	788	A	N1-C6-N6	5.66	122.00	118.60
1	1G	198	G	N9-C4-C5	5.66	107.67	105.40
26	14	1337	G	O5'-P-OP2	-5.66	100.60	105.70
26	14	1471	A	C8-N9-C4	-5.66	103.53	105.80
1	13	1199	U	C5-C4-O4	5.66	129.30	125.90
1	13	1203	C	C6-N1-C2	-5.66	118.03	120.30
26	1H	2272	U	N3-C4-O4	-5.66	115.44	119.40
26	1H	2677	G	C8-N9-C4	5.66	108.67	106.40
26	1H	792	G	OP2-P-O3'	5.66	117.65	105.20
26	1H	825	C	N1-C2-O2	-5.66	115.50	118.90
26	1H	835	A	C5-C6-N1	5.66	120.53	117.70
26	1H	1506	C	N1-C2-O2	5.66	122.30	118.90
26	1H	1662	C	C5-C6-N1	-5.66	118.17	121.00
26	1H	1668	A	C8-N9-C4	5.66	108.06	105.80
26	14	2779	U	N3-C2-O2	-5.66	118.24	122.20
26	1H	225	A	C8-N9-C4	5.66	108.06	105.80
26	14	115	C	C6-N1-C2	5.66	122.56	120.30
26	14	1437	C	C5-C4-N4	-5.66	116.24	120.20
26	14	1786	A	C4-N9-C1'	5.66	136.48	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2700	C	N3-C4-C5	5.66	124.16	121.90
1	13	1	U	N1-C1'-C2'	5.66	121.35	114.00
26	1H	1403	C	C2-N1-C1'	5.66	125.02	118.80
26	1H	2278	A	C8-N9-C4	-5.66	103.54	105.80
26	14	171	G	N3-C4-N9	5.65	129.39	126.00
26	1H	1586	A	C4-C5-N7	5.65	113.53	110.70
38	98	18	LEU	CA-CB-CG	5.65	128.30	115.30
26	14	808	G	N3-C4-N9	5.65	129.39	126.00
1	13	729	A	N1-C6-N6	5.65	121.99	118.60
26	1H	620	G	C5-C6-O6	-5.65	125.21	128.60
26	14	2053	G	N3-C2-N2	-5.65	115.94	119.90
26	1H	115	C	N1-C2-O2	-5.65	115.51	118.90
27	16	102	G	C4-C5-N7	5.65	113.06	110.80
1	1G	353	A	C4-C5-N7	5.65	113.53	110.70
26	1H	2440	C	C2-N1-C1'	-5.65	112.59	118.80
26	14	385	C	N3-C2-O2	-5.65	117.95	121.90
26	14	2573	C	C5-C6-N1	5.65	123.82	121.00
26	1H	729	G	N1-C2-N2	5.64	121.28	116.20
26	1H	797	C	C5-C6-N1	-5.64	118.18	121.00
26	1H	814	C	C5-C6-N1	-5.64	118.18	121.00
26	14	512	G	O4'-C1'-N9	5.64	112.72	108.20
26	1H	1799	G	N3-C2-N2	5.64	123.85	119.90
26	1H	1953	A	C8-N9-C4	5.64	108.06	105.80
1	1G	167	G	N3-C4-C5	-5.64	125.78	128.60
26	14	856	C	C6-N1-C2	-5.64	118.04	120.30
26	1H	138	G	O4'-C1'-N9	5.64	112.71	108.20
1	1G	1514	C	C5-C6-N1	5.64	123.82	121.00
26	14	1786	A	N1-C2-N3	5.64	132.12	129.30
27	16	38	C	C2-N1-C1'	-5.64	112.60	118.80
26	14	1142	U	C6-N1-C1'	-5.64	113.31	121.20
26	1H	1972	A	C5-C6-N6	-5.64	119.19	123.70
1	1G	899	C	C6-N1-C2	5.64	122.55	120.30
24	3K	76	A	C2-N3-C4	-5.63	107.78	110.60
26	14	2513	G	N3-C4-C5	5.63	131.42	128.60
26	14	2791	C	P-O3'-C3'	5.63	126.46	119.70
26	1H	1790	C	N1-C2-O2	-5.63	115.52	118.90
1	1G	266	G	N3-C4-C5	-5.63	125.78	128.60
26	14	2449	U	C2-N1-C1'	5.63	124.46	117.70
1	1G	1496	C	N3-C2-O2	-5.63	117.96	121.90
26	1H	34	C	OP2-P-O3'	5.63	117.58	105.20
26	1H	1660	C	C4-C5-C6	5.63	120.22	117.40
1	13	808	C	N3-C2-O2	5.63	125.84	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2346	A	N7-C8-N9	5.63	116.61	113.80
1	1G	1197	G	C4-N9-C1'	5.63	133.82	126.50
22	1L	74	C	C6-N1-C2	-5.63	118.05	120.30
25	4L	23	A	OP1-P-O3'	5.63	117.58	105.20
1	13	513	C	N1-C2-O2	5.63	122.28	118.90
26	1H	1251	C	OP1-P-OP2	5.63	128.04	119.60
1	1G	754	C	C2-N1-C1'	5.62	124.99	118.80
1	13	808	C	N1-C2-O2	-5.62	115.53	118.90
26	1H	1606	G	N7-C8-N9	-5.62	110.29	113.10
26	14	145	G	N1-C6-O6	5.62	123.27	119.90
26	14	583	G	C5-C6-O6	-5.62	125.23	128.60
26	14	1700	A	O5'-P-OP2	5.62	117.45	110.70
1	13	122	G	C6-C5-N7	-5.62	127.03	130.40
26	1H	1370	C	N3-C4-C5	5.62	124.15	121.90
26	14	278	A	OP1-P-O3'	5.62	117.57	105.20
26	14	513	A	N1-C6-N6	5.62	121.97	118.60
27	1J	89	G	C4-N9-C1'	5.62	133.81	126.50
26	1H	2788	C	C6-N1-C1'	-5.62	114.06	120.80
27	16	16	G	N1-C6-O6	5.62	123.27	119.90
1	1G	288	A	N1-C6-N6	5.62	121.97	118.60
26	14	195	A	N1-C6-N6	5.62	121.97	118.60
1	13	1518	A	C4-C5-N7	-5.61	107.89	110.70
26	1H	2240	C	C6-N1-C2	5.61	122.55	120.30
26	14	1520	U	C5-C4-O4	5.61	129.27	125.90
26	14	1673	U	C2-N1-C1'	-5.61	110.96	117.70
26	14	1763	G	C5-C6-O6	5.61	131.97	128.60
26	1H	705	A	C8-N9-C4	5.61	108.04	105.80
26	1H	2712	U	O4'-C1'-N1	5.61	112.69	108.20
1	13	131	C	N3-C2-O2	-5.61	117.97	121.90
26	1H	795	C	C6-N1-C2	5.61	122.54	120.30
1	1G	68	G	N3-C4-C5	-5.61	125.80	128.60
26	1H	16	G	N3-C2-N2	-5.61	115.97	119.90
26	1H	381	G	C8-N9-C4	5.61	108.64	106.40
26	14	193	U	C5-C4-O4	-5.61	122.54	125.90
26	14	2588	G	N1-C6-O6	-5.61	116.54	119.90
1	13	1337	G	N3-C4-C5	5.61	131.40	128.60
26	14	976	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	1890	A	C5-N7-C8	-5.60	101.10	103.90
26	1H	2596	U	C5-C4-O4	-5.60	122.54	125.90
26	1H	240	G	O5'-P-OP1	5.60	117.42	110.70
26	1H	2232	U	N3-C4-C5	-5.60	111.24	114.60
26	14	71	A	C4-C5-N7	5.60	113.50	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	613	U	N3-C2-O2	-5.60	118.28	122.20
26	14	723	G	C8-N9-C4	5.60	108.64	106.40
26	1H	1798	U	C5-C6-N1	-5.60	119.90	122.70
26	14	773	U	C2-N3-C4	-5.60	123.64	127.00
26	1H	178	G	N7-C8-N9	-5.60	110.30	113.10
26	1H	1779	U	C6-N1-C2	5.60	124.36	121.00
1	1G	179	A	C5-C6-N1	5.60	120.50	117.70
1	1G	1116	C	C6-N1-C2	5.60	122.54	120.30
26	1H	2447	G	N9-C4-C5	-5.60	103.16	105.40
26	14	1671	U	C6-N1-C2	-5.60	117.64	121.00
26	14	1770	G	C8-N9-C4	5.60	108.64	106.40
26	14	2061	G	N9-C4-C5	-5.60	103.16	105.40
1	13	970	C	N3-C2-O2	-5.60	117.98	121.90
26	1H	827	U	O5'-P-OP2	-5.59	100.67	105.70
26	1H	2524	G	N1-C6-O6	-5.59	116.54	119.90
26	14	389	G	C4-C5-N7	5.59	113.04	110.80
26	14	2680	C	C6-N1-C2	5.59	122.54	120.30
27	1J	89	G	N3-C4-N9	5.59	129.36	126.00
26	14	691	C	N3-C2-O2	5.59	125.81	121.90
26	1H	1826	G	C6-C5-N7	-5.59	127.05	130.40
26	1H	2299	G	O5'-P-OP2	5.59	117.41	110.70
1	1G	251	G	N1-C6-O6	5.59	123.25	119.90
26	14	783	A	OP1-P-OP2	5.59	127.99	119.60
26	14	1930	G	C6-C5-N7	5.59	133.75	130.40
26	14	2587	A	C4-C5-C6	5.59	119.80	117.00
26	1H	385	C	C6-N1-C2	-5.59	118.06	120.30
26	1H	1003	G	C8-N9-C1'	-5.59	119.73	127.00
26	1H	2830	G	N7-C8-N9	5.59	115.89	113.10
26	14	725	G	C6-C5-N7	-5.59	127.05	130.40
26	1H	438	G	C5-C6-O6	-5.59	125.25	128.60
26	1H	2718	G	N3-C4-N9	5.59	129.35	126.00
26	1H	2777	G	N3-C4-N9	-5.59	122.65	126.00
1	1G	1267	C	N1-C2-O2	5.59	122.25	118.90
26	14	1607	C	C6-N1-C2	5.59	122.53	120.30
26	14	2617	C	C6-N1-C2	5.59	122.53	120.30
26	1H	827	U	O5'-P-OP1	5.58	117.40	110.70
26	1H	845	G	C8-N9-C1'	5.58	134.26	127.00
26	1H	1968	G	N9-C1'-C2'	-5.58	105.86	112.00
26	1H	2046	G	O5'-P-OP2	-5.58	100.67	105.70
26	1H	2253	G	N9-C4-C5	-5.58	103.17	105.40
26	14	1776	G	C5-C6-O6	-5.58	125.25	128.60
26	1H	1279	G	O5'-P-OP2	-5.58	100.68	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1315	C	N1-C2-O2	5.58	122.25	118.90
26	1H	2029	G	O5'-P-OP1	-5.58	100.68	105.70
26	1H	2377	A	C8-N9-C4	5.58	108.03	105.80
26	1H	1835	G	N7-C8-N9	5.58	115.89	113.10
26	1H	792	G	N9-C4-C5	5.58	107.63	105.40
26	14	138	G	N3-C4-C5	-5.58	125.81	128.60
26	14	270(K)	C	C6-N1-C1'	-5.58	114.11	120.80
26	14	1270	C	C6-N1-C2	5.58	122.53	120.30
26	1H	465	G	N9-C4-C5	5.58	107.63	105.40
26	1H	271(B)	G	N3-C4-N9	5.58	129.34	126.00
26	1H	308	G	N3-C4-N9	5.58	129.34	126.00
26	1H	2056	G	N3-C2-N2	-5.58	116.00	119.90
26	1H	2329	G	C2-N3-C4	-5.58	109.11	111.90
26	1H	2329	G	C4-N9-C1'	-5.58	119.25	126.50
26	1H	2622	C	C5-C6-N1	-5.58	118.21	121.00
27	16	103	U	C2-N1-C1'	-5.58	111.01	117.70
26	1H	689	A	N1-C6-N6	5.57	121.94	118.60
26	1H	1122	G	C4-C5-N7	5.57	113.03	110.80
26	1H	2073	C	OP2-P-O3'	5.57	117.46	105.20
26	1H	2504	U	N1-C2-O2	5.57	126.70	122.80
26	14	1342	A	C5-C6-N1	-5.57	114.91	117.70
26	14	2513	G	C6-C5-N7	-5.57	127.06	130.40
26	14	171	G	N3-C4-C5	-5.57	125.81	128.60
26	14	1438	U	C2-N1-C1'	5.57	124.39	117.70
26	1H	1602	U	N3-C4-C5	-5.57	111.26	114.60
26	1H	2266	A	C8-N9-C4	5.57	108.03	105.80
22	1K	33	U	N3-C2-O2	-5.57	118.30	122.20
26	1H	1842	G	N1-C6-O6	5.57	123.24	119.90
26	1H	1895	C	O5'-P-OP1	-5.57	100.69	105.70
26	1H	1500	G	C4-C5-N7	5.57	113.03	110.80
26	1H	1609	A	C8-N9-C4	5.57	108.03	105.80
26	1H	2522	U	C5-C4-O4	-5.57	122.56	125.90
26	14	193	U	N3-C2-O2	5.57	126.10	122.20
26	1H	74	A	O4'-C1'-N9	-5.57	103.75	108.20
26	1H	869	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	1373	A	O5'-P-OP2	-5.57	100.69	105.70
26	1H	2083	G	N9-C4-C5	-5.57	103.17	105.40
26	14	1601	G	C4-C5-N7	5.57	113.03	110.80
1	1G	110	C	C6-N1-C2	5.56	122.53	120.30
1	13	1064	G	N3-C4-N9	-5.56	122.66	126.00
26	1H	1611	C	C6-N1-C2	5.56	122.53	120.30
26	1H	1888	G	C8-N9-C1'	-5.56	119.77	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	990	C	C6-N1-C2	-5.56	118.08	120.30
18	9A	26	LEU	CA-CB-CG	5.56	128.09	115.30
26	14	1283	G	O5'-P-OP2	-5.56	100.69	105.70
1	13	1499	A	OP1-P-OP2	-5.56	111.26	119.60
26	1H	1500	G	N9-C4-C5	-5.56	103.18	105.40
1	1G	44	G	C4-N9-C1'	5.56	133.73	126.50
26	14	812	C	N1-C2-O2	-5.56	115.56	118.90
26	1H	633	A	N1-C6-N6	5.56	121.93	118.60
26	1H	2576	G	C8-N9-C4	-5.56	104.18	106.40
1	1G	246	A	N9-C4-C5	-5.56	103.58	105.80
26	14	2065	C	O5'-P-OP1	5.56	117.37	110.70
26	14	2449	U	C6-N1-C1'	-5.56	113.42	121.20
26	1H	1826	G	O5'-P-OP1	5.55	117.37	110.70
26	1H	2447	G	C2-N3-C4	-5.55	109.12	111.90
1	1G	117	G	N9-C4-C5	-5.55	103.18	105.40
26	14	1630(A)	C	C2-N1-C1'	-5.55	112.69	118.80
26	1H	1543	A	N1-C6-N6	5.55	121.93	118.60
26	14	125	G	N1-C6-O6	-5.55	116.57	119.90
26	14	1379	A	OP2-P-O3'	5.55	117.41	105.20
26	1H	917	A	C5-C6-N6	-5.55	119.26	123.70
26	1H	2513	G	C4-C5-N7	5.55	113.02	110.80
26	1H	845	G	C4-N9-C1'	-5.55	119.29	126.50
26	1H	954	G	N1-C6-O6	-5.55	116.57	119.90
1	13	978	A	N1-C6-N6	5.55	121.93	118.60
1	13	1279	A	C6-C5-N7	-5.55	128.42	132.30
26	1H	672	C	O5'-P-OP1	5.55	117.36	110.70
26	14	945	A	C8-N9-C1'	-5.55	117.72	127.70
1	13	1337	G	N3-C4-N9	-5.54	122.67	126.00
26	1H	967	C	C5-C6-N1	-5.54	118.23	121.00
26	14	1489	U	O4'-C1'-N1	5.54	112.64	108.20
26	14	2087	G	C6-C5-N7	-5.54	127.07	130.40
26	1H	774	A	N1-C2-N3	5.54	132.07	129.30
26	1H	1594	G	OP1-P-O3'	5.54	117.39	105.20
1	1G	1199	U	C5-C4-O4	5.54	129.22	125.90
26	14	270(K)	C	N1-C2-O2	5.54	122.22	118.90
26	14	1840	G	C4-C5-C6	5.54	122.12	118.80
26	14	2386	C	N1-C2-O2	-5.54	115.58	118.90
26	14	2776	A	P-O3'-C3'	5.54	126.35	119.70
26	1H	1993	U	N1-C2-O2	-5.54	118.92	122.80
1	1G	246	A	C5-C6-N6	-5.54	119.27	123.70
1	13	558	G	N3-C4-N9	5.54	129.32	126.00
1	1G	266	G	C4-N9-C1'	5.54	133.70	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	397	G	N3-C4-N9	-5.54	122.68	126.00
26	1H	1573	G	C4-N9-C1'	-5.54	119.31	126.50
1	1G	127	G	N9-C4-C5	-5.54	103.19	105.40
1	13	690	G	N7-C8-N9	5.53	115.87	113.10
26	1H	961	C	C6-N1-C2	-5.53	118.09	120.30
26	1H	1303	G	C8-N9-C1'	-5.53	119.81	127.00
26	1H	1799	G	N3-C4-C5	-5.53	125.83	128.60
26	1H	2044	C	C5-C4-N4	-5.53	116.33	120.20
26	14	669	G	O5'-P-OP2	-5.53	100.72	105.70
26	1H	2056	G	C4-N9-C1'	5.53	133.69	126.50
26	14	2438	U	OP2-P-O3'	5.53	117.37	105.20
1	13	31	G	P-O3'-C3'	5.53	126.34	119.70
26	1H	275	G	C5-N7-C8	5.53	107.06	104.30
26	14	2622	C	C6-N1-C2	5.53	122.51	120.30
1	13	1419	G	N1-C6-O6	5.53	123.22	119.90
26	1H	589	C	O5'-P-OP2	-5.53	100.72	105.70
1	1G	266	G	N3-C2-N2	5.53	123.77	119.90
26	14	1616	A	N1-C6-N6	5.53	121.92	118.60
26	1H	760	G	C2-N3-C4	-5.53	109.14	111.90
26	1H	2392	A	C4-C5-N7	5.53	113.46	110.70
26	1H	2518	A	O4'-C1'-N9	-5.53	103.78	108.20
26	14	1253	A	C4-C5-C6	-5.53	114.24	117.00
1	13	690	G	N1-C2-N2	-5.53	111.23	116.20
20	BI	72	LEU	CA-CB-CG	5.53	128.01	115.30
26	1H	138	G	C8-N9-C4	-5.53	104.19	106.40
26	1H	142	G	C4-N9-C1'	-5.53	119.32	126.50
26	1H	680	G	N3-C2-N2	-5.53	116.03	119.90
26	1H	811	U	C2-N3-C4	-5.53	123.69	127.00
26	1H	867	C	O5'-P-OP1	-5.53	100.73	105.70
26	1H	2505	G	N7-C8-N9	-5.53	110.34	113.10
26	14	1396	U	C2-N1-C1'	5.53	124.33	117.70
26	14	1761	C	C5-C4-N4	-5.53	116.33	120.20
1	13	750	G	C8-N9-C1'	-5.52	119.82	127.00
26	14	2389	G	OP1-P-OP2	-5.52	111.31	119.60
26	1H	1663	C	C6-N1-C2	5.52	122.51	120.30
1	1G	146	G	C5-N7-C8	5.52	107.06	104.30
26	14	1840	G	C6-C5-N7	-5.52	127.09	130.40
26	14	2711	A	O5'-P-OP1	5.52	117.33	110.70
26	1H	734	A	N1-C6-N6	5.52	121.91	118.60
26	1H	1259	G	C4-N9-C1'	-5.52	119.32	126.50
26	1H	391	G	C5-C6-N1	-5.52	108.74	111.50
26	1H	1372	U	N3-C4-O4	5.52	123.26	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2056	G	C5-C6-O6	-5.52	125.29	128.60
26	14	2318	G	C8-N9-C1'	-5.52	119.83	127.00
26	14	2518	A	C4-C5-N7	5.52	113.46	110.70
1	13	518	C	C5-C4-N4	-5.52	116.34	120.20
1	13	1335	C	C6-N1-C2	5.52	122.51	120.30
26	1H	728	G	N1-C6-O6	5.52	123.21	119.90
26	1H	1212	G	C4-C5-N7	-5.52	108.59	110.80
1	1G	687	A	P-O3'-C3'	5.52	126.32	119.70
1	13	647	C	C6-N1-C2	-5.52	118.09	120.30
26	14	797	C	C6-N1-C2	5.52	122.51	120.30
26	1H	1162	G	C5-C6-O6	5.51	131.91	128.60
26	1H	2271	G	C8-N9-C1'	-5.51	119.83	127.00
1	1G	183	G	C5-C6-O6	5.51	131.91	128.60
28	19	272	ALA	C-N-CA	5.51	135.48	121.70
26	1H	2423	U	C6-N1-C2	5.51	124.31	121.00
1	13	561	U	C6-N1-C2	5.51	124.31	121.00
26	1H	790	C	C6-N1-C2	5.51	122.50	120.30
26	14	125	G	C4-N9-C1'	-5.51	119.34	126.50
26	14	2515	C	C6-N1-C2	5.51	122.50	120.30
26	14	2688	U	C5-C4-O4	5.51	129.21	125.90
26	14	53	A	N1-C2-N3	5.51	132.05	129.30
26	14	1597	A	O5'-P-OP1	5.51	117.31	110.70
1	13	913	A	P-O3'-C3'	5.51	126.31	119.70
1	13	1518	A	C4-C5-C6	5.51	119.75	117.00
26	1H	785	G	N9-C4-C5	5.51	107.60	105.40
1	1G	325	A	C4-C5-N7	5.51	113.45	110.70
26	14	2241	A	O5'-P-OP1	-5.51	100.75	105.70
26	14	2791	C	OP2-P-O3'	5.51	117.31	105.20
1	1G	275	G	N1-C2-N2	-5.50	111.25	116.20
26	1H	2274	A	N1-C6-N6	5.50	121.90	118.60
26	1H	2515	C	C5-C6-N1	-5.50	118.25	121.00
26	1H	2553	G	C8-N9-C1'	-5.50	119.84	127.00
26	14	450	G	C5-C6-N1	-5.50	108.75	111.50
26	1H	1284	A	C4-C5-N7	5.50	113.45	110.70
26	1H	1601	G	N9-C4-C5	-5.50	103.20	105.40
26	1H	1618	A	O5'-P-OP2	5.50	117.30	110.70
26	1H	2500	U	C5-C4-O4	-5.50	122.60	125.90
1	1G	146	G	C4-C5-N7	-5.50	108.60	110.80
1	1G	557	G	C5-C6-O6	-5.50	125.30	128.60
26	14	1029	A	C8-N9-C4	5.50	108.00	105.80
26	14	1359	A	C4-C5-C6	-5.50	114.25	117.00
26	14	1359	A	C8-N9-C4	5.50	108.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2592	G	N3-C4-C5	-5.50	125.85	128.60
26	1H	1922	G	C8-N9-C4	5.50	108.60	106.40
26	1H	242	G	O4'-C1'-N9	5.50	112.60	108.20
33	61	83	ALA	C-N-CA	-5.50	110.75	122.30
26	14	785	G	N1-C6-O6	-5.50	116.60	119.90
26	1H	2644	G	C5-C6-O6	5.50	131.90	128.60
26	1H	242	G	N3-C4-C5	5.49	131.35	128.60
1	1G	107	G	N1-C6-O6	5.49	123.20	119.90
26	14	133	C	O5'-P-OP1	5.49	117.29	110.70
26	14	1332	G	C4-N9-C1'	5.49	133.64	126.50
26	14	2446	G	O5'-P-OP2	-5.49	100.76	105.70
24	3K	48	C	N1-C2-O2	5.49	122.19	118.90
26	1H	713	G	N1-C6-O6	5.49	123.19	119.90
1	1G	154	C	N3-C2-O2	-5.49	118.06	121.90
26	14	2518	A	C5-N7-C8	-5.49	101.16	103.90
26	14	791	C	N3-C4-N4	-5.49	114.16	118.00
26	14	1283	G	OP1-P-OP2	5.49	127.83	119.60
26	1H	621	A	C5-C6-N1	-5.49	114.96	117.70
1	1G	192	U	N3-C2-O2	-5.49	118.36	122.20
26	14	1308	A	C5-C6-N6	5.49	128.09	123.70
1	13	904	C	C5-C6-N1	-5.49	118.26	121.00
26	1H	1660	C	C2-N3-C4	-5.49	117.16	119.90
26	1H	2586	C	C5-C4-N4	-5.49	116.36	120.20
23	2L	21	U	N1-C2-O2	5.49	126.64	122.80
26	14	582	G	N1-C6-O6	5.49	123.19	119.90
26	14	1814	G	O5'-P-OP2	-5.49	100.76	105.70
26	14	2508	G	C5-C6-N1	-5.49	108.76	111.50
26	1H	1369	G	C8-N9-C4	5.48	108.59	106.40
26	1H	1882	C	C2-N1-C1'	5.48	124.83	118.80
1	1G	216	G	N1-C6-O6	-5.48	116.61	119.90
26	1H	270(O)	U	C2-N1-C1'	5.48	124.28	117.70
26	1H	665	C	C6-N1-C2	5.48	122.49	120.30
26	1H	736	C	N3-C4-C5	5.48	124.09	121.90
26	1H	1528	A	C5-N7-C8	-5.48	101.16	103.90
26	14	1332	G	C5-C6-N1	-5.48	108.76	111.50
26	1H	1268	A	C2-N3-C4	-5.48	107.86	110.60
26	1H	1313	U	C2-N1-C1'	5.48	124.28	117.70
26	1H	2441	C	C2-N3-C4	-5.48	117.16	119.90
26	14	693	C	C5-C6-N1	-5.48	118.26	121.00
26	14	1202	C	C4-C5-C6	5.48	120.14	117.40
26	14	2011	U	N3-C2-O2	5.48	126.04	122.20
26	1H	1368	G	N3-C4-N9	5.48	129.29	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	198	C	N3-C4-C5	5.48	124.09	121.90
26	1H	528	A	C4-N9-C1'	-5.48	116.44	126.30
26	1H	847	U	C5-C6-N1	-5.48	119.96	122.70
26	1H	2826	A	C8-N9-C4	5.48	107.99	105.80
26	14	1814	G	N3-C2-N2	-5.48	116.07	119.90
26	14	2251	G	C6-C5-N7	-5.48	127.11	130.40
26	14	2612	C	N1-C2-O2	5.48	122.19	118.90
26	1H	508	G	C4-N9-C1'	5.47	133.62	126.50
26	1H	1158	C	C5-C6-N1	-5.47	118.26	121.00
27	16	54	G	N1-C6-O6	5.47	123.18	119.90
1	1G	116	A	O5'-P-OP1	-5.47	100.77	105.70
1	13	131	C	C2-N1-C1'	5.47	124.82	118.80
1	13	952	U	N1-C2-N3	5.47	118.18	114.90
26	1H	2565	A	C8-N9-C4	5.47	107.99	105.80
1	1G	45	U	C5-C6-N1	-5.47	119.96	122.70
26	14	300	A	N1-C6-N6	5.47	121.88	118.60
26	1H	99	U	C5-C6-N1	5.47	125.44	122.70
26	1H	663	G	C4-N9-C1'	5.47	133.61	126.50
26	1H	1244	G	N1-C6-O6	5.47	123.18	119.90
1	13	1533	C	N3-C2-O2	-5.47	118.07	121.90
26	1H	479	A	OP1-P-O3'	5.47	117.23	105.20
26	1H	2555	U	C5-C4-O4	5.47	129.18	125.90
26	14	2251	G	N7-C8-N9	5.47	115.83	113.10
28	11	111	LEU	CA-CB-CG	5.47	127.87	115.30
26	14	1779	U	OP1-P-OP2	5.47	127.80	119.60
26	1H	274	G	N7-C8-N9	5.46	115.83	113.10
26	1H	1678	G	N1-C2-N3	5.46	127.18	123.90
26	1H	2311	A	O4'-C1'-N9	5.46	112.57	108.20
26	14	2070	G	N3-C2-N2	-5.46	116.08	119.90
1	13	1507	A	OP1-P-O3'	5.46	117.22	105.20
26	1H	63	U	C2-N1-C1'	-5.46	111.14	117.70
26	1H	1618	A	C6-C5-N7	-5.46	128.48	132.30
1	1G	697	U	C5-C6-N1	-5.46	119.97	122.70
26	1H	202	U	C6-N1-C1'	-5.46	113.56	121.20
26	1H	647	G	C8-N9-C4	-5.46	104.22	106.40
1	1G	372	C	C2-N1-C1'	5.46	124.81	118.80
26	14	2762	G	C6-C5-N7	-5.46	127.12	130.40
1	13	1321	C	C6-N1-C2	-5.46	118.12	120.30
26	1H	1963	U	C5-C6-N1	5.46	125.43	122.70
26	14	1762	A	OP2-P-O3'	5.46	117.21	105.20
26	14	1627	G	C5-C6-O6	5.46	131.87	128.60
1	13	733	A	C8-N9-C4	5.46	107.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	111	G	C8-N9-C4	5.45	108.58	106.40
1	13	911	U	C5-C6-N1	-5.45	119.97	122.70
1	1G	1188	A	C5-C6-N6	5.45	128.06	123.70
26	14	789	A	OP1-P-OP2	-5.45	111.42	119.60
26	1H	2436	G	N3-C2-N2	-5.45	116.08	119.90
26	1H	2688	U	C5-C6-N1	-5.45	119.97	122.70
26	14	2443	C	N3-C4-N4	5.45	121.82	118.00
1	13	1506	U	C5-C4-O4	-5.45	122.63	125.90
23	2K	27	G	C5-C6-O6	-5.45	125.33	128.60
26	1H	1210	A	N7-C8-N9	5.45	116.53	113.80
26	1H	1857	G	N3-C4-N9	5.45	129.27	126.00
26	1H	2286	A	O5'-P-OP2	-5.45	100.80	105.70
26	1H	2330	G	N3-C4-C5	5.45	131.32	128.60
1	13	822	C	C6-N1-C2	5.45	122.48	120.30
1	13	958	A	O5'-P-OP2	-5.45	100.80	105.70
26	1H	786	C	C5-C6-N1	-5.45	118.28	121.00
26	14	1634	A	C5-N7-C8	5.45	106.62	103.90
26	1H	383	U	O4'-C1'-N1	5.45	112.56	108.20
26	1H	2235	G	C5-C6-O6	-5.45	125.33	128.60
26	14	1385	G	C8-N9-C4	5.45	108.58	106.40
26	14	2072	G	C4-C5-N7	5.45	112.98	110.80
1	13	1524	C	N3-C4-C5	5.45	124.08	121.90
4	3E	96	LEU	CA-CB-CG	5.45	127.82	115.30
26	1H	450	G	N1-C6-O6	5.45	123.17	119.90
26	1H	1201	C	C5-C4-N4	-5.45	116.39	120.20
26	1H	2586	C	C6-N1-C1'	-5.45	114.27	120.80
26	14	1007	C	N3-C2-O2	-5.45	118.09	121.90
26	1H	765	G	N1-C6-O6	5.44	123.17	119.90
26	1H	1598	C	OP1-P-O3'	5.44	117.18	105.20
1	1G	792	A	N7-C8-N9	-5.44	111.08	113.80
26	1H	805	G	OP1-P-OP2	5.44	127.76	119.60
1	1G	141	A	C5-C6-N6	-5.44	119.35	123.70
26	1H	2581	G	C4-C5-N7	5.44	112.98	110.80
26	1H	2718	G	C6-C5-N7	-5.44	127.14	130.40
1	1G	81	G	N1-C6-O6	5.44	123.17	119.90
26	1H	728	G	C8-N9-C4	5.44	108.58	106.40
26	1H	789	A	C8-N9-C4	5.44	107.97	105.80
26	1H	1142(A)	A	C5-C6-N1	-5.44	114.98	117.70
26	1H	1318	C	O5'-P-OP1	-5.44	100.81	105.70
1	1G	1437	C	C6-N1-C2	5.44	122.47	120.30
26	14	1779	U	C6-N1-C1'	-5.44	113.59	121.20
26	1H	915	C	N1-C2-O2	5.43	122.16	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1958	C	C6-N1-C2	5.43	122.47	120.30
26	1H	2870	C	C6-N1-C2	-5.43	118.13	120.30
26	14	320	A	O5'-P-OP2	-5.43	100.81	105.70
26	14	1204	A	C2-N3-C4	-5.43	107.88	110.60
26	14	1314	C	N1-C2-N3	-5.43	115.40	119.20
26	14	2594	C	C4-C5-C6	-5.43	114.68	117.40
26	14	2608	G	N7-C8-N9	-5.43	110.38	113.10
26	1H	466	A	N9-C4-C5	-5.43	103.63	105.80
26	1H	1816	G	C4-C5-N7	5.43	112.97	110.80
1	13	1455	G	N3-C4-C5	5.43	131.31	128.60
26	1H	2288	A	C5-C6-N6	-5.43	119.36	123.70
26	1H	2022	U	OP1-P-OP2	-5.43	111.46	119.60
27	16	60	C	C5-C6-N1	5.43	123.71	121.00
1	1G	1260	C	C6-N1-C2	-5.43	118.13	120.30
26	1H	114	U	OP1-P-O3'	5.43	117.14	105.20
26	1H	787	U	O5'-P-OP1	5.43	117.21	110.70
26	1H	1901	A	N1-C6-N6	-5.43	115.34	118.60
26	1H	2489	G	C8-N9-C4	5.43	108.57	106.40
26	1H	1349	A	O5'-P-OP1	-5.42	100.82	105.70
1	1G	332	G	N1-C6-O6	5.42	123.15	119.90
26	14	1324	G	O5'-P-OP1	-5.42	100.82	105.70
26	14	2336	A	O4'-C1'-N9	-5.42	103.86	108.20
26	1H	1977	A	C2-N3-C4	-5.42	107.89	110.60
26	1H	2208	U	C6-N1-C2	5.42	124.25	121.00
26	1H	2382	G	O5'-P-OP1	5.42	117.21	110.70
27	16	111	U	N3-C4-C5	-5.42	111.35	114.60
26	14	1135	C	N1-C2-O2	5.42	122.15	118.90
26	1H	2036	C	O5'-P-OP1	-5.42	100.82	105.70
26	1H	2297	C	C2-N1-C1'	-5.42	112.84	118.80
26	1H	2807	G	C8-N9-C4	-5.42	104.23	106.40
1	1G	167	G	N1-C6-O6	-5.42	116.65	119.90
1	1G	191(A)	G	N9-C4-C5	-5.42	103.23	105.40
26	14	961	C	N3-C2-O2	-5.42	118.11	121.90
1	1G	135	C	N1-C2-O2	-5.42	115.65	118.90
26	1H	726	G	C5-C6-N1	-5.42	108.79	111.50
26	1H	2618	G	C5-C6-O6	5.42	131.85	128.60
1	1G	66	G	N3-C4-C5	-5.42	125.89	128.60
26	14	127	A	N1-C6-N6	5.42	121.85	118.60
1	13	23	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	1990	C	N3-C4-C5	-5.42	119.73	121.90
26	1H	2530	A	C5-C6-N6	-5.42	119.37	123.70
26	14	998	C	N1-C2-O2	5.42	122.15	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1555	G	C4-N9-C1'	5.42	133.54	126.50
26	1H	943	U	C5-C6-N1	-5.42	119.99	122.70
1	13	749	C	C2-N1-C1'	5.41	124.75	118.80
26	1H	912	C	C2-N1-C1'	5.41	124.75	118.80
26	1H	1665	A	C6-C5-N7	-5.41	128.51	132.30
26	14	583	G	C6-C5-N7	-5.41	127.15	130.40
26	14	1544	C	O4'-C1'-N1	5.41	112.53	108.20
26	1H	2640	G	N1-C6-O6	5.41	123.15	119.90
26	14	2870	C	C6-N1-C2	-5.41	118.14	120.30
1	1G	87	A	C2-N3-C4	-5.41	107.89	110.60
26	14	2508	G	C2-N3-C4	-5.41	109.19	111.90
1	13	893	C	N3-C2-O2	-5.41	118.11	121.90
1	13	1348	U	N1-C2-N3	5.41	118.14	114.90
26	1H	1616	A	OP1-P-O3'	5.41	117.10	105.20
26	1H	120	U	O5'-P-OP1	-5.41	100.83	105.70
26	1H	576	U	C6-N1-C2	-5.41	117.76	121.00
26	1H	1248	G	N3-C4-N9	-5.41	122.76	126.00
26	1H	1953	A	N7-C8-N9	-5.41	111.10	113.80
26	1H	2422	A	C8-N9-C4	-5.41	103.64	105.80
27	16	115	G	C4-C5-N7	5.41	112.96	110.80
26	1H	2066	C	OP1-P-O3'	5.40	117.09	105.20
26	1H	2501	C	C5-C6-N1	-5.40	118.30	121.00
1	13	974	A	N1-C6-N6	5.40	121.84	118.60
1	13	1417	G	C8-N9-C1'	-5.40	119.98	127.00
26	1H	358	U	C5-C6-N1	5.40	125.40	122.70
26	1H	2069	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	2069	G	C6-N1-C2	-5.40	121.86	125.10
26	1H	2250	G	N9-C4-C5	5.40	107.56	105.40
1	1G	87	A	C4-C5-N7	5.40	113.40	110.70
26	14	930	U	O5'-P-OP2	-5.40	100.84	105.70
26	14	2857	G	N1-C6-O6	5.40	123.14	119.90
1	13	656	C	C5-C6-N1	5.40	123.70	121.00
26	1H	1917	U	N3-C2-O2	-5.40	118.42	122.20
1	1G	257	G	C5-C6-O6	-5.40	125.36	128.60
26	14	782	A	C8-N9-C4	5.40	107.96	105.80
26	14	1993	U	O5'-P-OP1	-5.40	100.84	105.70
26	14	2070	G	C8-N9-C1'	5.40	134.02	127.00
23	2K	23	G	O4'-C1'-N9	5.40	112.52	108.20
26	1H	1698	A	C8-N9-C4	-5.40	103.64	105.80
26	1H	1603	A	OP1-P-O3'	5.40	117.07	105.20
1	1G	537	G	O5'-P-OP1	-5.40	100.84	105.70
26	14	2436	G	C8-N9-C4	5.40	108.56	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1288	U	N1-C2-O2	5.40	126.58	122.80
1	1G	227	G	N9-C4-C5	-5.40	103.24	105.40
39	65	24	LEU	CA-CB-CG	5.40	127.71	115.30
1	13	23	C	C5-C6-N1	5.39	123.70	121.00
26	1H	735	A	N9-C4-C5	-5.39	103.64	105.80
26	1H	2056	G	N3-C4-C5	-5.39	125.90	128.60
26	1H	2235	G	C4-C5-N7	5.39	112.96	110.80
26	1H	2685	G	N1-C6-O6	5.39	123.14	119.90
46	D5	165	VAL	C-N-CA	-5.39	108.21	121.70
26	1H	1364	G	C6-C5-N7	-5.39	127.16	130.40
1	1G	80	G	N9-C4-C5	-5.39	103.24	105.40
1	1G	1394	A	N1-C2-N3	-5.39	126.60	129.30
26	14	642	G	N1-C6-O6	5.39	123.14	119.90
1	13	1494	G	N3-C4-N9	5.39	129.24	126.00
26	14	855	G	N7-C8-N9	5.39	115.80	113.10
26	1H	1023	U	O5'-P-OP2	5.39	117.17	110.70
1	13	1485	U	N3-C4-C5	-5.39	111.37	114.60
26	1H	1777	U	O5'-P-OP1	-5.39	100.85	105.70
26	1H	2509	G	C5-C6-O6	-5.39	125.37	128.60
1	13	542	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	594	U	N3-C4-O4	-5.39	115.63	119.40
26	1H	632	A	O5'-P-OP2	5.39	117.16	110.70
26	14	331	A	C8-N9-C4	-5.39	103.64	105.80
26	14	2072	G	N3-C2-N2	5.39	123.67	119.90
26	14	2443	C	C6-N1-C2	-5.39	118.15	120.30
26	14	2552	U	C2-N3-C4	-5.39	123.77	127.00
26	1H	576	U	C2-N1-C1'	5.38	124.16	117.70
26	1H	1573	G	N7-C8-N9	-5.38	110.41	113.10
27	16	115	G	N9-C4-C5	-5.38	103.25	105.40
26	14	74	A	C4-C5-N7	5.38	113.39	110.70
26	14	1785	A	N1-C6-N6	5.38	121.83	118.60
1	1G	186	C	C2-N1-C1'	5.38	124.72	118.80
1	1G	79	G	C8-N9-C4	5.38	108.55	106.40
26	14	2255	G	N1-C6-O6	-5.38	116.67	119.90
1	1G	272	C	C6-N1-C2	5.38	122.45	120.30
1	13	674	G	C6-C5-N7	-5.38	127.17	130.40
27	16	7	G	C4-C5-N7	5.38	112.95	110.80
1	1G	121	C	C6-N1-C1'	-5.38	114.35	120.80
26	14	1128	A	C8-N9-C4	5.38	107.95	105.80
26	14	70	G	N3-C4-N9	5.38	129.22	126.00
26	1H	308	G	C4-N9-C1'	5.37	133.49	126.50
27	16	115	G	N1-C6-O6	5.37	123.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	201	C	C2-N3-C4	-5.37	117.21	119.90
26	14	876	C	N1-C2-O2	5.37	122.12	118.90
26	1H	273	G	C8-N9-C4	5.37	108.55	106.40
26	1H	459	U	O5'-P-OP1	5.37	117.15	110.70
1	1G	82	U	N1-C2-O2	5.37	126.56	122.80
26	1H	476	G	N3-C4-N9	-5.37	122.78	126.00
26	1H	2236	C	N3-C4-N4	5.37	121.76	118.00
26	14	250	G	N1-C6-O6	5.37	123.12	119.90
1	13	319	G	C8-N9-C4	5.37	108.55	106.40
1	13	1158	C	C5-C6-N1	5.37	123.68	121.00
1	13	1492	A	N1-C6-N6	5.37	121.82	118.60
26	1H	47	C	C5-C4-N4	-5.37	116.44	120.20
54	Q8	46	ARG	C-N-CA	5.37	135.12	121.70
26	14	298	G	N7-C8-N9	5.37	115.78	113.10
26	14	1351	C	C6-N1-C2	5.37	122.45	120.30
26	14	1353	A	C5-C6-N1	5.37	120.38	117.70
1	13	714	G	O5'-P-OP1	-5.37	100.87	105.70
26	1H	184	C	C5-C6-N1	-5.37	118.32	121.00
26	1H	2304	G	O5'-P-OP1	-5.37	100.87	105.70
1	1G	157	G	C8-N9-C4	5.37	108.55	106.40
26	14	298	G	C4-C5-N7	5.37	112.95	110.80
26	14	1821	A	C5-C6-N6	-5.37	119.41	123.70
26	1H	1162	G	O5'-P-OP1	-5.36	100.87	105.70
26	1H	1432	C	C6-N1-C2	5.36	122.45	120.30
26	1H	1829	A	O5'-P-OP1	-5.36	100.87	105.70
26	14	1570	A	C8-N9-C4	5.36	107.95	105.80
26	1H	453	C	C2-N3-C4	-5.36	117.22	119.90
26	1H	898	C	N1-C2-O2	5.36	122.12	118.90
26	14	1607	C	N1-C2-O2	5.36	122.12	118.90
1	13	1263	C	C6-N1-C2	5.36	122.44	120.30
26	1H	700	G	N7-C8-N9	5.36	115.78	113.10
26	1H	1396	U	N3-C4-O4	-5.36	115.65	119.40
41	C8	74	LEU	CA-CB-CG	5.36	127.62	115.30
1	1G	113	G	N3-C2-N2	5.36	123.65	119.90
1	1G	1188	A	C4-C5-N7	-5.36	108.02	110.70
26	14	1441	G	N1-C6-O6	5.36	123.11	119.90
26	14	1673	U	C5-C6-N1	-5.36	120.02	122.70
1	13	428	G	N3-C4-N9	-5.36	122.79	126.00
26	14	1886	C	C2-N1-C1'	-5.36	112.91	118.80
1	13	1270	C	C5-C6-N1	5.35	123.68	121.00
26	1H	430	G	N1-C6-O6	-5.35	116.69	119.90
1	13	1279	A	N1-C6-N6	5.35	121.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	438	G	C6-C5-N7	-5.35	127.19	130.40
26	1H	1308	A	N9-C4-C5	5.35	107.94	105.80
1	1G	95	G	O5'-P-OP1	5.35	117.12	110.70
1	1G	117	G	C4-C5-C6	5.35	122.01	118.80
26	14	1241	A	O4'-C1'-N9	5.35	112.48	108.20
26	14	2324	C	C6-N1-C2	5.35	122.44	120.30
26	1H	563	G	C6-C5-N7	5.35	133.61	130.40
26	1H	1697	G	OP1-P-O3'	5.35	116.97	105.20
26	1H	1829	A	N1-C6-N6	-5.35	115.39	118.60
1	1G	442	C	C6-N1-C2	-5.35	118.16	120.30
26	14	2488	A	N1-C6-N6	5.35	121.81	118.60
1	13	1520	G	C2-N3-C4	-5.35	109.22	111.90
23	2K	77	A	C4-C5-N7	5.35	113.38	110.70
26	1H	1323	U	N3-C4-O4	5.35	123.14	119.40
26	1H	138	G	C5-C6-N1	5.35	114.17	111.50
26	1H	1975	G	C4-N9-C1'	5.35	133.45	126.50
26	14	774	A	N1-C2-N3	5.35	131.97	129.30
26	14	948	G	N3-C2-N2	-5.35	116.16	119.90
26	14	1496	A	C6-C5-N7	-5.35	128.56	132.30
26	14	1573	G	N1-C2-N2	-5.35	111.39	116.20
26	14	2087	G	N9-C4-C5	-5.35	103.26	105.40
26	14	2556	C	N1-C2-O2	5.35	122.11	118.90
26	1H	232	G	C8-N9-C1'	-5.35	120.05	127.00
26	1H	392	C	C6-N1-C2	5.35	122.44	120.30
26	14	1288	U	OP1-P-OP2	5.35	127.62	119.60
26	14	1381	G	OP2-P-O3'	5.35	116.96	105.20
1	13	50	A	P-O3'-C3'	5.34	126.11	119.70
26	1H	1818	U	O5'-P-OP2	-5.34	100.89	105.70
26	1H	2640	G	C6-C5-N7	-5.34	127.19	130.40
27	16	102	G	C5-C6-O6	-5.34	125.39	128.60
26	14	2330	G	O5'-P-OP1	5.34	117.11	110.70
26	1H	776	G	N3-C2-N2	-5.34	116.16	119.90
26	1H	1381	G	N3-C2-N2	-5.34	116.16	119.90
26	14	194	G	OP2-P-O3'	5.34	116.95	105.20
26	14	632	A	O5'-P-OP2	5.34	117.11	110.70
26	14	2598	A	N1-C6-N6	5.34	121.81	118.60
29	29	52	LEU	CA-CB-CG	-5.34	103.01	115.30
26	1H	1244	G	C2-N3-C4	-5.34	109.23	111.90
26	14	205	G	C8-N9-C4	5.34	108.54	106.40
26	14	1326	U	O5'-P-OP1	-5.34	100.89	105.70
26	14	2567	G	C8-N9-C1'	-5.34	120.06	127.00
26	1H	1790	C	C6-N1-C2	5.34	122.44	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1898	U	C6-N1-C1'	5.34	128.67	121.20
26	14	1688	U	C2-N1-C1'	-5.34	111.29	117.70
26	14	2072	G	N9-C4-C5	-5.34	103.27	105.40
23	2L	48	U	OP2-P-O3'	5.34	116.94	105.20
26	1H	560	C	C6-N1-C2	5.33	122.43	120.30
26	1H	791	C	C6-N1-C2	5.33	122.43	120.30
26	1H	1284	A	C5-C6-N6	-5.33	119.43	123.70
26	1H	2269	A	N9-C4-C5	-5.33	103.67	105.80
28	11	218	ARG	NE-CZ-NH2	-5.33	117.63	120.30
1	1G	107	G	C5-C6-O6	-5.33	125.40	128.60
26	1H	1610	A	C5-N7-C8	-5.33	101.23	103.90
1	1G	99	C	O5'-P-OP1	-5.33	100.90	105.70
26	14	562	U	N3-C2-O2	-5.33	118.47	122.20
26	1H	1211	U	C6-N1-C2	5.33	124.20	121.00
26	14	2503	A	N1-C2-N3	-5.33	126.63	129.30
26	1H	1603	A	C8-N9-C4	-5.33	103.67	105.80
26	14	1776	G	C5-N7-C8	-5.33	101.64	104.30
1	13	723	U	N3-C2-O2	-5.33	118.47	122.20
26	1H	515	A	C2-N3-C4	5.33	113.26	110.60
26	1H	784	A	N1-C2-N3	5.33	131.96	129.30
26	1H	1394	U	C5-C6-N1	5.33	125.36	122.70
26	1H	2358	G	C4-C5-N7	-5.33	108.67	110.80
1	1G	1322	C	C2-N1-C1'	5.33	124.66	118.80
42	95	41	GLY	N-CA-C	-5.33	99.78	113.10
26	1H	1901	A	C5-C6-N1	5.33	120.36	117.70
26	14	1928	A	N1-C6-N6	5.33	121.80	118.60
22	1K	72	C	C5-C6-N1	5.33	123.66	121.00
26	1H	258	G	N3-C2-N2	5.33	123.63	119.90
1	1G	906	G	C6-C5-N7	-5.33	127.20	130.40
25	4K	24	A	OP1-P-O3'	5.32	116.91	105.20
40	75	6	LEU	N-CA-C	-5.32	96.63	111.00
26	14	725	G	C4-C5-C6	5.32	121.99	118.80
26	1H	189	G	C4-C5-N7	5.32	112.93	110.80
26	1H	247	G	C8-N9-C4	5.32	108.53	106.40
26	1H	627	A	N7-C8-N9	-5.32	111.14	113.80
26	1H	1779	U	C5-C6-N1	-5.32	120.04	122.70
26	14	727	A	O5'-P-OP1	-5.32	100.91	105.70
26	14	1791	A	C5-C6-N6	-5.32	119.44	123.70
26	14	2503	A	N1-C6-N6	-5.32	115.41	118.60
1	13	1305	G	C4-C5-N7	-5.32	108.67	110.80
26	1H	606	U	O5'-P-OP2	-5.32	100.91	105.70
26	1H	2506	U	C2-N1-C1'	5.32	124.08	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	48	C	O4'-C1'-N1	5.32	112.45	108.20
26	1H	508	G	C5-N7-C8	-5.32	101.64	104.30
26	1H	2253	G	C8-N9-C4	5.32	108.53	106.40
1	1G	326	G	N9-C4-C5	-5.32	103.27	105.40
26	1H	2068	U	OP1-P-OP2	5.32	127.57	119.60
26	1H	2598	A	N9-C4-C5	-5.32	103.67	105.80
26	14	566	U	C5-C6-N1	-5.32	120.04	122.70
26	1H	1625	C	N3-C2-O2	-5.31	118.18	121.90
26	1H	2259	G	C5-C6-O6	-5.31	125.41	128.60
26	14	1964	G	N1-C6-O6	-5.31	116.71	119.90
26	1H	1332	G	N7-C8-N9	5.31	115.76	113.10
1	1G	31	G	N1-C6-O6	5.31	123.09	119.90
26	1H	654(B)	C	C2-N1-C1'	5.31	124.64	118.80
26	1H	1305	C	N3-C4-C5	5.31	124.02	121.90
26	1H	1698	A	C8-N9-C1'	-5.31	118.14	127.70
26	14	1930	G	N9-C4-C5	5.31	107.53	105.40
26	1H	1673	U	C2-N3-C4	-5.31	123.81	127.00
26	1H	1782	C	N3-C4-C5	-5.31	119.78	121.90
26	1H	2522	U	C6-N1-C2	5.31	124.19	121.00
1	1G	266	G	C5-C6-O6	5.31	131.78	128.60
26	14	2622	C	C5-C6-N1	-5.31	118.34	121.00
1	13	1512	U	O5'-P-OP2	-5.31	100.92	105.70
26	1H	2286	A	C8-N9-C1'	-5.31	118.15	127.70
26	1H	2331	G	N1-C6-O6	5.31	123.08	119.90
26	14	2383	G	N3-C4-N9	5.31	129.19	126.00
1	13	863	U	C2-N1-C1'	-5.31	111.33	117.70
26	1H	1389	G	OP1-P-O3'	5.31	116.87	105.20
26	14	1610	A	N9-C4-C5	-5.31	103.68	105.80
23	2K	15	G	C5-C6-N1	-5.30	108.85	111.50
26	1H	620	G	N1-C6-O6	5.30	123.08	119.90
1	1G	231	G	N1-C6-O6	5.30	123.08	119.90
26	14	1752	C	C6-N1-C2	-5.30	118.18	120.30
26	1H	2298	A	O5'-P-OP2	-5.30	100.93	105.70
27	16	9	G	O5'-P-OP2	-5.30	100.93	105.70
26	14	1142	U	N1-C2-O2	5.30	126.51	122.80
2	1E	187	LEU	CA-CB-CG	5.30	127.49	115.30
26	1H	608	A	C8-N9-C4	5.30	107.92	105.80
26	1H	2566	A	O5'-P-OP2	-5.30	100.93	105.70
26	1H	2830	G	C5-N7-C8	-5.30	101.65	104.30
27	16	8	U	C5-C4-O4	5.30	129.08	125.90
1	1G	167	G	N3-C2-N2	5.30	123.61	119.90
26	14	2582	G	C4-C5-N7	5.30	112.92	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	54	G	N1-C6-O6	5.30	123.08	119.90
26	1H	792	G	O5'-P-OP2	-5.30	100.93	105.70
26	14	1325	G	O5'-P-OP2	-5.30	100.93	105.70
1	13	611	A	C8-N9-C4	5.30	107.92	105.80
26	1H	299	A	OP2-P-O3'	5.30	116.85	105.20
22	1K	38	A	N9-C4-C5	-5.29	103.68	105.80
26	1H	2016	U	N3-C4-C5	5.29	117.78	114.60
26	1H	2023	G	N3-C2-N2	-5.29	116.19	119.90
26	1H	2386	C	C6-N1-C2	5.29	122.42	120.30
24	3L	11	C	C5-C6-N1	5.29	123.65	121.00
26	14	2238	G	O4'-C1'-N9	-5.29	103.96	108.20
26	1H	2041	U	C5-C6-N1	-5.29	120.05	122.70
26	14	871	U	O5'-P-OP1	-5.29	100.94	105.70
26	14	1906	G	C6-C5-N7	-5.29	127.22	130.40
26	1H	2265	U	N1-C2-O2	5.29	126.50	122.80
26	1H	2518	A	C6-C5-N7	-5.29	128.60	132.30
27	16	53	A	C2-N3-C4	-5.29	107.95	110.60
1	1G	1404	C	N3-C4-C5	5.29	124.02	121.90
26	1H	453	C	C5-C6-N1	-5.29	118.36	121.00
26	1H	609(A)	G	N3-C4-C5	5.29	131.25	128.60
26	14	2430	A	O4'-C1'-N9	-5.29	103.97	108.20
26	1H	660	G	C4-C5-N7	5.29	112.92	110.80
1	1G	324	G	C5-C6-O6	5.29	131.77	128.60
1	1G	345	C	P-O3'-C3'	5.29	126.05	119.70
26	14	203	C	N3-C2-O2	5.29	125.60	121.90
26	14	2782	G	C8-N9-C4	-5.29	104.28	106.40
26	1H	796	C	C2-N3-C4	-5.29	117.26	119.90
26	1H	621	A	N7-C8-N9	5.29	116.44	113.80
26	1H	1992	G	C2'-C3'-O3'	5.29	122.16	113.70
1	1G	1071	C	C6-N1-C2	-5.29	118.19	120.30
26	14	2584	U	O4'-C1'-N1	5.29	112.43	108.20
1	13	1129	C	C6-N1-C1'	-5.28	114.46	120.80
26	1H	602	G	N9-C4-C5	-5.28	103.29	105.40
26	1H	2556	C	N3-C2-O2	-5.28	118.20	121.90
1	1G	121	C	N3-C4-N4	5.28	121.70	118.00
26	14	129	C	C6-N1-C2	5.28	122.41	120.30
26	14	2404	C	C6-N1-C2	5.28	122.41	120.30
26	14	2629	A	P-O3'-C3'	5.28	126.04	119.70
26	1H	722	A	C2-N3-C4	-5.28	107.96	110.60
26	1H	1193	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	1614	A	O5'-P-OP1	-5.28	100.95	105.70
26	1H	1788	C	C5-C4-N4	-5.28	116.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2274	A	N9-C4-C5	-5.28	103.69	105.80
26	1H	2593	U	C2-N1-C1'	-5.28	111.36	117.70
1	1G	68	G	C2-N3-C4	5.28	114.54	111.90
1	13	1404	C	N3-C4-C5	5.28	124.01	121.90
1	1G	297	G	C8-N9-C4	5.28	108.51	106.40
1	1G	326	G	C8-N9-C1'	-5.28	120.14	127.00
1	1G	1188	A	N9-C4-C5	5.28	107.91	105.80
26	14	725	G	C8-N9-C4	-5.28	104.29	106.40
26	14	1594	G	N7-C8-N9	5.28	115.74	113.10
1	13	416	G	C6-C5-N7	-5.28	127.23	130.40
26	1H	678	C	C5-C4-N4	-5.28	116.51	120.20
26	1H	1229(A)	G	N3-C4-C5	5.28	131.24	128.60
26	1H	2021	C	C5-C6-N1	-5.28	118.36	121.00
26	1H	2246	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	2483	C	C6-N1-C2	-5.28	118.19	120.30
26	14	446	G	C4-N9-C1'	5.28	133.36	126.50
26	1H	618(A)	C	C6-N1-C2	5.27	122.41	120.30
26	14	1780	A	C8-N9-C4	-5.27	103.69	105.80
26	1H	1025	G	N1-C6-O6	-5.27	116.74	119.90
26	1H	1157	G	N1-C6-O6	5.27	123.06	119.90
26	1H	2253	G	N1-C6-O6	5.27	123.06	119.90
26	1H	2686	G	C8-N9-C1'	-5.27	120.15	127.00
23	2L	44	A	C8-N9-C4	5.27	107.91	105.80
26	14	503	A	N1-C6-N6	-5.27	115.44	118.60
26	14	1403	C	N3-C2-O2	-5.27	118.21	121.90
26	14	1962	C	C5-C6-N1	5.27	123.64	121.00
1	1G	974	A	P-O3'-C3'	5.27	126.03	119.70
1	1G	1474	G	N3-C4-C5	5.27	131.24	128.60
26	1H	145	G	C8-N9-C4	5.27	108.51	106.40
26	1H	1358	G	C8-N9-C1'	-5.27	120.15	127.00
26	1H	1599	C	O5'-P-OP2	-5.27	100.96	105.70
26	1H	2273	A	N1-C2-N3	-5.27	126.67	129.30
26	1H	2596	U	N1-C2-O2	-5.27	119.11	122.80
26	14	1203	G	C5-C6-O6	5.27	131.76	128.60
26	14	1236	G	C8-N9-C4	5.27	108.51	106.40
26	1H	736	C	N3-C2-O2	5.27	125.59	121.90
26	1H	966	G	O5'-P-OP2	-5.27	100.96	105.70
26	1H	1210	A	C6-C5-N7	-5.27	128.61	132.30
26	1H	1768	U	C5-C4-O4	5.27	129.06	125.90
26	1H	2430	A	O5'-P-OP1	5.27	117.02	110.70
26	1H	2520	C	O5'-P-OP1	5.27	117.02	110.70
1	1G	197	A	O4'-C1'-N9	5.27	112.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	789	A	C4-C5-N7	5.27	113.33	110.70
1	13	238	G	O5'-P-OP2	-5.27	100.96	105.70
1	13	894	G	N3-C4-C5	5.27	131.23	128.60
1	13	1519	A	N1-C6-N6	-5.27	115.44	118.60
26	1H	397	G	N3-C4-C5	5.27	131.23	128.60
26	1H	808	G	C2-N3-C4	-5.26	109.27	111.90
26	14	527	C	C2-N1-C1'	5.26	124.59	118.80
26	1H	1901	A	O5'-P-OP2	-5.26	100.96	105.70
26	1H	1955	U	N1-C1'-C2'	5.26	120.84	114.00
26	1H	2026	C	O5'-P-OP2	-5.26	100.96	105.70
26	1H	2374	C	N3-C4-C5	5.26	124.00	121.90
26	1H	699	A	C4-C5-N7	5.26	113.33	110.70
1	1G	191(B)	G	N3-C4-C5	-5.26	125.97	128.60
26	14	707	G	N1-C6-O6	5.26	123.06	119.90
26	14	774	A	C5-C6-N1	-5.26	115.07	117.70
1	13	1404	C	C5-C6-N1	5.26	123.63	121.00
26	1H	705	A	C6-C5-N7	-5.26	128.62	132.30
26	1H	1618	A	C5-C6-N6	-5.26	119.49	123.70
26	1H	1773	A	O5'-P-OP1	5.26	117.01	110.70
1	1G	188	U	N1-C2-O2	5.26	126.48	122.80
26	14	1379	A	C6-C5-N7	-5.26	128.62	132.30
26	1H	248	G	C6-C5-N7	-5.26	127.25	130.40
26	14	2581	G	C5-C6-N1	-5.26	108.87	111.50
22	1K	2	C	C5-C6-N1	5.26	123.63	121.00
26	1H	121	G	C6-C5-N7	-5.26	127.25	130.40
26	1H	1825	A	OP1-P-OP2	-5.26	111.72	119.60
26	1H	1835	G	N1-C6-O6	5.26	123.05	119.90
26	14	125	G	C5-C6-O6	5.26	131.75	128.60
26	14	479	A	N7-C8-N9	-5.26	111.17	113.80
26	1H	442	G	N9-C4-C5	-5.25	103.30	105.40
26	14	71	A	P-O3'-C3'	5.25	126.01	119.70
26	1H	757	U	C5-C6-N1	-5.25	120.07	122.70
26	1H	785	G	C4-C5-N7	-5.25	108.70	110.80
26	1H	961	C	N3-C2-O2	-5.25	118.22	121.90
26	14	127	A	C5-C6-N6	-5.25	119.50	123.70
26	14	2685	G	C8-N9-C4	5.25	108.50	106.40
1	13	833	U	C2-N1-C1'	-5.25	111.40	117.70
26	1H	215	G	N9-C4-C5	-5.25	103.30	105.40
26	1H	2598	A	C6-C5-N7	-5.25	128.62	132.30
1	1G	1502	A	C6-C5-N7	-5.25	128.62	132.30
26	14	530	G	C2-N3-C4	-5.25	109.28	111.90
26	14	575	A	N7-C8-N9	-5.25	111.17	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1772	G	C6-C5-N7	-5.25	127.25	130.40
26	14	2501	C	C2-N3-C4	5.25	122.53	119.90
1	13	1192	C	C5-C6-N1	5.25	123.62	121.00
26	1H	245	G	O4'-C1'-N9	-5.25	104.00	108.20
26	1H	430	G	C5-C6-O6	5.25	131.75	128.60
1	1G	382	A	C8-N9-C4	5.25	107.90	105.80
26	14	1506	C	C5-C6-N1	5.25	123.62	121.00
26	14	1555	G	C8-N9-C1'	-5.25	120.18	127.00
26	1H	452	G	O5'-P-OP2	-5.25	100.98	105.70
26	1H	755	C	N3-C2-O2	5.25	125.57	121.90
26	1H	1204	A	N1-C6-N6	-5.25	115.45	118.60
26	1H	1259	G	C8-N9-C1'	5.25	133.82	127.00
26	1H	1312	U	N1-C2-O2	-5.25	119.13	122.80
26	1H	1379	A	OP2-P-O3'	5.25	116.74	105.20
26	14	940	G	O5'-P-OP2	-5.25	100.98	105.70
26	14	1156	A	N1-C6-N6	5.25	121.75	118.60
26	14	2346	A	N1-C6-N6	5.25	121.75	118.60
26	1H	991	C	N3-C2-O2	-5.25	118.23	121.90
26	14	72	U	C5-C6-N1	-5.25	120.08	122.70
26	14	495	G	N1-C6-O6	5.24	123.05	119.90
26	14	2787	C	C6-N1-C2	-5.24	118.20	120.30
27	1J	85	G	C8-N9-C4	5.24	108.50	106.40
1	13	523	A	N1-C6-N6	5.24	121.75	118.60
26	1H	703	U	C5-C4-O4	5.24	129.04	125.90
26	1H	1816	G	N1-C2-N3	-5.24	120.75	123.90
26	14	866	A	N9-C4-C5	-5.24	103.70	105.80
26	1H	1025	G	C5-C6-O6	5.24	131.74	128.60
26	1H	1957	C	C2-N3-C4	-5.24	117.28	119.90
26	1H	409	C	C6-N1-C2	5.24	122.39	120.30
26	1H	2586	C	C2-N1-C1'	5.24	124.56	118.80
26	14	1314	C	C4-C5-C6	-5.24	114.78	117.40
26	14	1605	C	C6-N1-C2	5.24	122.40	120.30
26	14	1977	A	N1-C6-N6	-5.24	115.46	118.60
26	14	2544	G	C5-C6-O6	-5.24	125.46	128.60
1	1G	413	G	N3-C4-C5	5.24	131.22	128.60
26	14	1773	A	O5'-P-OP1	5.24	116.98	110.70
26	14	2258	C	N3-C4-N4	5.24	121.67	118.00
26	14	2829	C	C6-N1-C2	5.24	122.39	120.30
26	1H	955	C	OP1-P-OP2	5.24	127.45	119.60
26	1H	1342	A	N1-C6-N6	5.24	121.74	118.60
26	1H	1637	A	N1-C6-N6	-5.24	115.46	118.60
26	1H	1668	A	C5-C6-N6	-5.24	119.51	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1931	U	C4-C5-C6	5.24	122.84	119.70
26	1H	2277	G	C8-N9-C4	5.24	108.49	106.40
26	1H	2726	U	C5-C6-N1	-5.24	120.08	122.70
27	16	111	U	C6-N1-C2	-5.24	117.86	121.00
1	1G	1325	C	O4'-C1'-N1	5.24	112.39	108.20
26	14	385	C	C2-N1-C1'	5.24	124.56	118.80
26	14	2501	C	C2-N1-C1'	-5.24	113.04	118.80
26	1H	593	G	C8-N9-C4	5.23	108.49	106.40
26	1H	2609	U	C2-N1-C1'	-5.23	111.42	117.70
26	14	270(K)	C	C5-C6-N1	5.23	123.62	121.00
1	1G	353	A	C5-N7-C8	-5.23	101.28	103.90
26	14	1821	A	C4-C5-N7	5.23	113.32	110.70
26	14	1926	U	C5-C4-O4	5.23	129.04	125.90
26	14	2275	C	C5'-C4'-O4'	-5.23	102.82	109.10
26	14	2459	A	O5'-P-OP2	-5.23	100.99	105.70
1	13	50	A	N3-C4-C5	-5.23	123.14	126.80
26	1H	952	G	C4-C5-N7	5.23	112.89	110.80
26	1H	1994	C	O5'-P-OP2	-5.23	100.99	105.70
26	14	961	C	N1-C2-O2	5.23	122.04	118.90
26	14	2383	G	C6-C5-N7	-5.23	127.26	130.40
26	1H	1990	C	C6-N1-C2	-5.23	118.21	120.30
1	1G	341	C	C6-N1-C2	5.23	122.39	120.30
1	13	1195	C	C6-N1-C2	-5.23	118.21	120.30
26	1H	1675	C	OP1-P-O3'	5.23	116.70	105.20
26	1H	2040	C	N1-C2-O2	-5.23	115.76	118.90
26	14	754	C	C6-N1-C2	5.23	122.39	120.30
26	1H	470	A	O5'-P-OP1	-5.23	101.00	105.70
26	1H	1690	A	O5'-P-OP1	-5.23	101.00	105.70
1	1G	785	G	C5-C6-N1	-5.23	108.89	111.50
1	13	975	A	O4'-C1'-N9	-5.22	104.02	108.20
1	13	1516	G	C8-N9-C4	5.22	108.49	106.40
26	1H	611	C	C5-C6-N1	-5.22	118.39	121.00
26	1H	783	A	C5-C6-N6	-5.22	119.52	123.70
26	1H	1205	U	N1-C2-N3	5.22	118.03	114.90
26	1H	1381	G	N3-C4-N9	-5.22	122.87	126.00
36	78	49	ARG	NE-CZ-NH2	-5.22	117.69	120.30
26	1H	1305	C	C6-N1-C2	5.22	122.39	120.30
26	1H	1347	G	O5'-P-OP2	5.22	116.97	110.70
26	14	618	G	C4-C5-N7	5.22	112.89	110.80
26	14	1972	A	N1-C6-N6	5.22	121.73	118.60
27	1J	80	U	N3-C2-O2	-5.22	118.54	122.20
26	1H	459	U	C2-N1-C1'	5.22	123.97	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1580	A	N1-C6-N6	5.22	121.73	118.60
26	1H	2501	C	C2-N1-C1'	-5.22	113.06	118.80
1	1G	141	A	N9-C4-C5	-5.22	103.71	105.80
1	13	731	G	OP1-P-O3'	5.22	116.68	105.20
1	13	792	A	N1-C6-N6	5.22	121.73	118.60
26	1H	243	U	N3-C2-O2	-5.22	118.55	122.20
26	1H	461	C	C5-C4-N4	-5.22	116.55	120.20
26	1H	843	G	C8-N9-C4	5.22	108.49	106.40
26	14	1241	A	C2-N3-C4	-5.22	107.99	110.60
26	14	2386	C	N3-C2-O2	5.22	125.55	121.90
26	1H	390	A	C8-N9-C4	5.22	107.89	105.80
26	1H	471	A	C2-N3-C4	-5.22	107.99	110.60
26	14	1342	A	O4'-C1'-N9	5.22	112.37	108.20
26	1H	521	G	C2-N3-C4	-5.22	109.29	111.90
26	1H	2448	A	C8-N9-C4	5.22	107.89	105.80
27	16	44	G	P-O3'-C3'	5.22	125.96	119.70
1	1G	73	G	N1-C6-O6	5.22	123.03	119.90
26	14	188	G	N9-C4-C5	-5.22	103.31	105.40
26	14	682	G	C2-N3-C4	-5.22	109.29	111.90
26	1H	1613	G	C5-C6-O6	5.21	131.73	128.60
26	1H	2233	U	N1-C2-O2	-5.21	119.15	122.80
26	1H	2553	G	C4-N9-C1'	5.21	133.28	126.50
26	14	1377	G	C4-C5-C6	5.21	121.93	118.80
26	1H	2830	G	C6-C5-N7	-5.21	127.27	130.40
1	1G	115	G	P-O3'-C3'	5.21	125.95	119.70
26	1H	464	U	C5-C4-O4	5.21	129.03	125.90
26	1H	759	G	C4-C5-N7	5.21	112.89	110.80
26	1H	2830	G	O5'-P-OP2	-5.21	101.01	105.70
26	14	2827	C	N3-C4-C5	5.21	123.98	121.90
26	1H	465	G	C4-C5-N7	-5.21	108.72	110.80
26	14	55	G	N9-C4-C5	-5.21	103.32	105.40
26	14	2014	A	N7-C8-N9	-5.21	111.19	113.80
1	13	1441	G	N1-C6-O6	5.21	123.03	119.90
26	1H	214	G	N3-C4-N9	5.21	129.12	126.00
26	1H	1612	C	C2-N1-C1'	-5.21	113.07	118.80
26	1H	2439	A	OP2-P-O3'	-5.21	93.74	105.20
27	16	106	G	N9-C4-C5	-5.21	103.32	105.40
1	1G	557	G	N3-C4-N9	5.21	129.12	126.00
1	13	977	A	N1-C6-N6	-5.21	115.48	118.60
1	13	1214	C	C6-N1-C2	5.21	122.38	120.30
26	1H	698	C	C4-C5-C6	5.21	120.00	117.40
26	1H	1244	G	N3-C4-C5	5.21	131.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1611	C	N1-C2-O2	-5.21	115.78	118.90
26	1H	1966	A	O5'-P-OP2	-5.21	101.01	105.70
26	1H	1975	G	C8-N9-C1'	-5.21	120.23	127.00
26	1H	1984	G	N9-C4-C5	-5.21	103.32	105.40
26	14	2084	C	C5-C6-N1	-5.21	118.40	121.00
26	14	2413	G	N9-C4-C5	-5.21	103.32	105.40
26	1H	194	G	OP1-P-O3'	-5.21	93.75	105.20
26	1H	2322	A	O5'-P-OP1	-5.21	101.02	105.70
26	1H	1697	G	N3-C4-N9	5.20	129.12	126.00
26	1H	2473	U	C2-N1-C1'	5.20	123.94	117.70
26	14	672	C	C4-C5-C6	5.20	120.00	117.40
26	14	2713	A	C6-C5-N7	-5.20	128.66	132.30
26	1H	1142(A)	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	1506	C	C2-N1-C1'	5.20	124.52	118.80
26	1H	2827	C	N3-C2-O2	5.20	125.54	121.90
1	1G	78	G	N9-C1'-C2'	-5.20	106.28	112.00
26	14	468	G	C5-C6-O6	-5.20	125.48	128.60
26	14	723	G	O5'-P-OP1	5.20	116.94	110.70
26	1H	948	G	C4-C5-N7	5.20	112.88	110.80
27	16	75	G	C2-N3-C4	-5.20	109.30	111.90
26	1H	389	G	N9-C4-C5	-5.20	103.32	105.40
26	14	205	G	N9-C4-C5	-5.20	103.32	105.40
26	14	1964	G	N3-C4-C5	-5.20	126.00	128.60
26	14	2608	G	C8-N9-C4	5.20	108.48	106.40
26	1H	118	A	C8-N9-C4	5.20	107.88	105.80
26	1H	1379	A	C5-N7-C8	-5.20	101.30	103.90
26	14	213	A	N7-C8-N9	-5.20	111.20	113.80
26	14	2080	G	C4-C5-N7	-5.20	108.72	110.80
26	14	1544	C	C6-N1-C1'	-5.19	114.57	120.80
26	14	1968	G	N1-C6-O6	5.19	123.02	119.90
26	1H	789	A	N3-C4-C5	5.19	130.44	126.80
1	1G	353	A	C6-C5-N7	-5.19	128.66	132.30
1	13	328	C	N3-C2-O2	-5.19	118.27	121.90
1	13	775	G	C5-C6-O6	-5.19	125.49	128.60
1	13	1192	C	C6-N1-C2	-5.19	118.22	120.30
26	1H	273(A)	G	C8-N9-C1'	-5.19	120.25	127.00
26	1H	831	G	C5-C6-O6	5.19	131.71	128.60
26	1H	1840	G	C6-C5-N7	-5.19	127.29	130.40
26	1H	2505	G	C5-C6-O6	5.19	131.72	128.60
26	1H	684	G	N1-C6-O6	-5.19	116.79	119.90
1	1G	87	A	C6-N1-C2	5.19	121.71	118.60
26	14	101	G	C8-N9-C4	-5.19	104.32	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1275	A	O5'-P-OP1	-5.19	101.03	105.70
26	14	189	G	N3-C4-N9	5.19	129.11	126.00
1	13	423	G	C2-N3-C4	5.19	114.49	111.90
26	14	2076	U	O5'-P-OP2	-5.19	101.03	105.70
26	1H	1601	G	C4-C5-N7	5.18	112.87	110.80
26	1H	2743	C	C5-C6-N1	-5.18	118.41	121.00
26	14	671	C	C5-C6-N1	-5.18	118.41	121.00
1	13	74	C	N1-C2-O2	5.18	122.01	118.90
1	13	1142	G	O4'-C1'-N9	5.18	112.35	108.20
26	1H	1781	C	N3-C2-O2	-5.18	118.27	121.90
26	1H	2358	G	N9-C4-C5	5.18	107.47	105.40
26	14	161	U	C5-C6-N1	5.18	125.29	122.70
26	14	1981	A	C4-C5-N7	5.18	113.29	110.70
26	1H	94	G	N3-C4-C5	5.18	131.19	128.60
26	1H	1958	C	C5-C4-N4	-5.18	116.58	120.20
26	14	2330	G	N9-C4-C5	-5.18	103.33	105.40
26	14	446	G	C8-N9-C1'	-5.18	120.27	127.00
26	1H	814	C	N1-C2-O2	-5.18	115.79	118.90
26	1H	1354	A	O5'-P-OP2	-5.18	101.04	105.70
26	1H	1698	A	C5-C6-N1	-5.18	115.11	117.70
26	14	1984	G	N7-C8-N9	-5.18	110.51	113.10
26	1H	121	G	N3-C4-N9	5.17	129.10	126.00
26	14	1566	A	O4'-C1'-N9	-5.17	104.06	108.20
26	14	2053	G	C2-N3-C4	-5.17	109.31	111.90
26	14	1616	A	N7-C8-N9	5.17	116.39	113.80
26	14	815	C	C5-C6-N1	5.17	123.58	121.00
26	14	1309	G	C5-C6-N1	-5.17	108.92	111.50
26	14	1914	C	C6-N1-C2	-5.17	118.23	120.30
26	14	2731	G	N3-C4-N9	5.17	129.10	126.00
31	49	2	PRO	N-CA-CB	5.17	109.51	103.30
26	1H	713	G	C4-C5-N7	5.17	112.87	110.80
26	14	692	C	N3-C4-N4	-5.17	114.38	118.00
26	14	1961	C	C2-N1-C1'	-5.17	113.11	118.80
26	1H	859	G	C4-C5-C6	-5.17	115.70	118.80
26	1H	2277	G	C8-N9-C1'	-5.17	120.28	127.00
26	1H	2843	G	O5'-P-OP2	5.17	116.90	110.70
32	51	157	TYR	CB-CA-C	-5.17	100.06	110.40
1	1G	44	G	N1-C2-N2	-5.17	111.55	116.20
27	1J	30	C	C6-N1-C2	-5.17	118.23	120.30
1	13	329	A	O5'-P-OP2	-5.17	101.05	105.70
1	13	871	U	P-O3'-C3'	5.17	125.90	119.70
26	1H	845	G	N3-C4-N9	-5.17	122.90	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2031	A	C2-N3-C4	5.17	113.18	110.60
26	14	1962	C	C6-N1-C1'	-5.17	114.60	120.80
26	1H	308	G	C8-N9-C1'	-5.16	120.29	127.00
26	1H	1368	G	O5'-P-OP1	-5.16	101.05	105.70
26	1H	1410	G	C4-N9-C1'	-5.16	119.79	126.50
26	14	725	G	C4-N9-C1'	5.16	133.21	126.50
26	14	2304	G	N3-C4-N9	-5.16	122.90	126.00
26	1H	51	G	O5'-P-OP1	-5.16	101.05	105.70
26	1H	341	G	N3-C4-N9	-5.16	122.90	126.00
26	1H	1597	A	O4'-C1'-N9	5.16	112.33	108.20
26	1H	2454	G	N7-C8-N9	-5.16	110.52	113.10
26	1H	2498	C	N3-C4-N4	-5.16	114.39	118.00
26	1H	2830	G	C4-C5-N7	5.16	112.86	110.80
26	1H	1790	C	C6-N1-C1'	5.16	126.99	120.80
26	1H	1364	G	N1-C2-N2	-5.16	111.56	116.20
1	1G	183	G	N1-C6-O6	-5.16	116.81	119.90
26	14	2567	G	N3-C4-N9	5.16	129.09	126.00
26	1H	1272	A	O4'-C1'-N9	5.16	112.33	108.20
26	1H	2354	G	C4-N9-C1'	5.16	133.20	126.50
1	13	1523	G	N1-C6-O6	5.16	122.99	119.90
26	1H	1229(A)	G	N3-C2-N2	-5.16	116.29	119.90
26	1H	1628	G	N3-C2-N2	-5.16	116.29	119.90
26	1H	1825	A	N7-C8-N9	-5.16	111.22	113.80
33	61	27	ARG	NE-CZ-NH1	5.16	122.88	120.30
26	14	155	C	N3-C2-O2	-5.16	118.29	121.90
26	14	848	G	N3-C4-C5	-5.16	126.02	128.60
27	1J	88	C	OP2-P-O3'	5.16	116.54	105.20
26	14	1313	U	C6-N1-C2	-5.15	117.91	121.00
26	14	1805	U	N3-C2-O2	-5.15	118.59	122.20
26	1H	2713	A	C5-C6-N1	-5.15	115.12	117.70
1	1G	422	C	O4'-C1'-N1	5.15	112.32	108.20
26	14	196	A	O4'-C1'-N9	5.15	112.32	108.20
26	14	1430	C	N3-C4-C5	5.15	123.96	121.90
26	14	2610	C	N3-C2-O2	-5.15	118.29	121.90
26	14	2833	G	P-O3'-C3'	5.15	125.88	119.70
1	13	733	A	O4'-C1'-N9	5.15	112.32	108.20
26	1H	83	G	N3-C4-C5	5.15	131.18	128.60
26	1H	961	C	O4'-C1'-N1	5.15	112.32	108.20
26	1H	2374	C	C2-N3-C4	-5.15	117.33	119.90
1	1G	162	A	N9-C4-C5	-5.15	103.74	105.80
1	1G	191(D)	U	N1-C2-O2	5.15	126.41	122.80
26	14	63	U	C6-N1-C2	5.15	124.09	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	85	G	O5'-P-OP2	-5.15	101.07	105.70
26	1H	2448	A	C4-C5-C6	5.15	119.58	117.00
1	13	922	G	C6-C5-N7	-5.15	127.31	130.40
26	14	792	G	C5-C6-O6	5.15	131.69	128.60
26	14	2275	C	C6-N1-C2	-5.15	118.24	120.30
1	13	1202	G	C6-C5-N7	5.15	133.49	130.40
26	1H	1678	G	N1-C2-N2	-5.15	111.57	116.20
26	14	2062	A	C4-N9-C1'	-5.15	117.04	126.30
26	1H	620	G	C8-N9-C4	5.14	108.46	106.40
26	14	298	G	C5-C6-O6	-5.14	125.51	128.60
23	2K	33	C	C5-C4-N4	-5.14	116.60	120.20
26	1H	141	A	O4'-C1'-N9	5.14	112.31	108.20
26	1H	1241	A	C6-C5-N7	-5.14	128.70	132.30
26	1H	2061	G	N3-C4-C5	-5.14	126.03	128.60
26	1H	2358	G	C5-C6-O6	5.14	131.69	128.60
26	1H	2556	C	C5-C4-N4	-5.14	116.60	120.20
1	1G	191(C)	G	N1-C6-O6	-5.14	116.81	119.90
1	1G	222	U	N3-C2-O2	-5.14	118.60	122.20
26	14	194	G	N9-C4-C5	-5.14	103.34	105.40
26	14	253	C	C6-N1-C2	5.14	122.36	120.30
26	14	2012	G	N3-C4-N9	5.14	129.09	126.00
26	1H	144	C	C2-N3-C4	-5.14	117.33	119.90
26	14	1774	C	N3-C4-N4	5.14	121.60	118.00
26	14	2547	U	N1-C2-O2	-5.14	119.20	122.80
26	1H	510	C	C5-C4-N4	-5.14	116.60	120.20
26	1H	2082	A	C8-N9-C4	5.14	107.86	105.80
1	1G	1301	U	N1-C2-O2	5.14	126.40	122.80
1	1G	1338	G	N1-C2-N2	-5.14	111.58	116.20
26	14	187	G	C4-N9-C1'	5.14	133.18	126.50
26	14	1304	C	OP1-P-O3'	5.14	116.50	105.20
1	13	346	G	C4-N9-C1'	5.13	133.17	126.50
23	2K	77	A	N1-C6-N6	5.13	121.68	118.60
1	1G	191(F)	U	C5-C6-N1	5.13	125.27	122.70
1	1G	377	G	N1-C2-N2	-5.13	111.58	116.20
26	14	836	G	C4-C5-N7	5.13	112.85	110.80
26	14	1899	G	N1-C2-N3	5.13	126.98	123.90
26	14	1933	G	N9-C4-C5	-5.13	103.35	105.40
26	1H	203	C	C6-N1-C2	5.13	122.35	120.30
1	1G	275	G	C6-C5-N7	-5.13	127.32	130.40
26	14	2454	G	N7-C8-N9	-5.13	110.53	113.10
1	13	1502	A	C4-C5-N7	5.13	113.27	110.70
26	1H	621	A	O4'-C1'-N9	5.13	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1324	G	O4'-C1'-N9	5.13	112.31	108.20
26	1H	1834	U	N1-C2-O2	5.13	126.39	122.80
26	14	2724	C	C2-N3-C4	-5.13	117.33	119.90
26	1H	1610	A	C4-C5-N7	5.13	113.27	110.70
26	14	1994	C	N3-C4-N4	-5.13	114.41	118.00
1	13	758	G	N3-C4-C5	5.13	131.16	128.60
26	1H	1616	A	C8-N9-C4	-5.13	103.75	105.80
26	1H	1758	G	N9-C4-C5	-5.13	103.35	105.40
1	1G	50	A	C2-N3-C4	-5.13	108.03	110.60
1	1G	231	G	C2-N3-C4	-5.13	109.33	111.90
26	1H	793	A	C6-C5-N7	-5.13	128.71	132.30
26	1H	1365	A	C4-C5-C6	5.13	119.56	117.00
27	16	11	C	C6-N1-C1'	-5.13	114.65	120.80
26	14	693	C	C6-N1-C2	5.13	122.35	120.30
26	14	1022	G	N1-C6-O6	-5.13	116.82	119.90
26	1H	800	A	C2-N3-C4	-5.12	108.04	110.60
1	13	1485	U	C5-C4-O4	5.12	128.97	125.90
26	1H	956	G	N3-C4-N9	5.12	129.07	126.00
26	1H	2360	A	N1-C6-N6	5.12	121.67	118.60
1	1G	1267	C	C6-N1-C2	-5.12	118.25	120.30
26	14	2859	G	C8-N9-C4	-5.12	104.35	106.40
26	1H	2364	C	C2-N1-C1'	-5.12	113.17	118.80
42	D8	38	LEU	CA-CB-CG	-5.12	103.52	115.30
1	1G	690	G	N3-C4-C5	5.12	131.16	128.60
26	1H	866	A	N9-C4-C5	-5.12	103.75	105.80
26	1H	1025	G	C8-N9-C4	-5.12	104.35	106.40
26	1H	1955	U	N3-C2-O2	-5.12	118.62	122.20
26	14	756	C	N3-C4-N4	5.12	121.58	118.00
26	14	1555	G	N3-C4-N9	5.12	129.07	126.00
26	1H	121	G	C4-N9-C1'	5.12	133.15	126.50
26	14	2594	C	N3-C2-O2	5.12	125.48	121.90
26	1H	63	U	O5'-P-OP2	-5.12	101.10	105.70
26	1H	112	U	N3-C2-O2	5.12	125.78	122.20
26	1H	243	U	N1-C2-O2	5.12	126.38	122.80
26	1H	1528	A	C6-C5-N7	-5.12	128.72	132.30
26	1H	1623	G	N1-C6-O6	-5.12	116.83	119.90
27	16	101	A	N9-C4-C5	-5.12	103.75	105.80
1	13	504	C	C5-C4-N4	-5.11	116.62	120.20
1	13	1397	C	P-O3'-C3'	5.11	125.83	119.70
1	13	1415	G	C8-N9-C4	5.11	108.44	106.40
26	1H	2251	G	C4-N9-C1'	5.11	133.15	126.50
26	14	528	A	O4'-C1'-N9	-5.11	104.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	857	C	O5'-P-OP2	-5.11	101.10	105.70
26	1H	1308	A	C4-C5-N7	-5.11	108.14	110.70
26	1H	1814	G	C4-N9-C1'	5.11	133.15	126.50
26	14	1423	G	C8-N9-C4	5.11	108.44	106.40
1	13	967	C	N3-C4-C5	5.11	123.94	121.90
26	1H	85	G	O5'-P-OP1	5.11	116.83	110.70
26	1H	753	C	N3-C4-C5	5.11	123.94	121.90
26	1H	2312	U	N3-C2-O2	5.11	125.78	122.20
26	1H	2869	G	C8-N9-C4	-5.11	104.36	106.40
26	14	1782	C	N3-C2-O2	5.11	125.48	121.90
1	13	775	G	N9-C4-C5	-5.11	103.36	105.40
26	1H	944	G	C4-C5-N7	-5.11	108.76	110.80
26	1H	1669	A	C8-N9-C4	-5.11	103.76	105.80
26	1H	2323	G	C8-N9-C4	5.11	108.44	106.40
26	14	1983	C	C5-C6-N1	-5.11	118.45	121.00
1	13	1158	C	N3-C2-O2	-5.11	118.33	121.90
26	1H	737	C	C2-N1-C1'	-5.11	113.18	118.80
26	1H	1990	C	C4-C5-C6	5.11	119.95	117.40
1	1G	44	G	C8-N9-C1'	-5.11	120.36	127.00
26	14	358	U	C5-C6-N1	5.11	125.25	122.70
26	14	669	G	OP1-P-OP2	5.11	127.26	119.60
26	14	1271	G	C2-N3-C4	-5.11	109.35	111.90
26	14	1473	G	O5'-P-OP2	-5.11	101.10	105.70
26	14	1647	G	N3-C4-C5	5.11	131.15	128.60
26	14	1669	A	N1-C6-N6	-5.11	115.54	118.60
27	1J	94	C	C6-N1-C2	-5.11	118.26	120.30
26	1H	1441	G	C8-N9-C4	5.11	108.44	106.40
26	14	1526	G	C4-C5-N7	5.11	112.84	110.80
26	1H	1858	G	N3-C4-N9	5.10	129.06	126.00
26	14	2503	A	C8-N9-C4	-5.10	103.76	105.80
1	13	1434	A	C8-N9-C4	5.10	107.84	105.80
26	1H	115	C	C6-N1-C2	5.10	122.34	120.30
26	1H	1899	G	C4-N9-C1'	-5.10	119.87	126.50
22	1L	69	C	OP1-P-O3'	5.10	116.43	105.20
26	14	139	G	N1-C6-O6	-5.10	116.84	119.90
27	1J	88	C	P-O3'-C3'	5.10	125.82	119.70
26	1H	2756	U	OP1-P-O3'	5.10	116.42	105.20
26	14	692	C	N3-C4-C5	5.10	123.94	121.90
26	1H	472	A	C6-N1-C2	-5.10	115.54	118.60
26	1H	660	G	C2-N3-C4	-5.10	109.35	111.90
26	1H	825	C	N3-C4-C5	-5.10	119.86	121.90
1	1G	79	G	N9-C4-C5	-5.10	103.36	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	194	G	C8-N9-C4	5.10	108.44	106.40
26	14	458	G	O4'-C1'-N9	5.10	112.28	108.20
1	13	1276	G	C8-N9-C4	-5.10	104.36	106.40
1	13	1381	U	C2-N1-C1'	5.10	123.82	117.70
26	1H	814	C	C2-N3-C4	-5.10	117.35	119.90
26	1H	1534	G	N3-C4-C5	-5.10	126.05	128.60
1	13	1500	A	N1-C2-N3	5.10	131.85	129.30
26	1H	180	G	C8-N9-C4	5.10	108.44	106.40
26	14	141	A	OP2-P-O3'	5.10	116.41	105.20
26	14	1918	A	N9-C4-C5	-5.10	103.76	105.80
1	13	1230	C	N3-C4-C5	5.09	123.94	121.90
26	1H	848	G	N3-C4-N9	5.09	129.06	126.00
26	1H	2380	C	N3-C4-N4	-5.09	114.43	118.00
26	1H	2743	C	C2-N3-C4	-5.09	117.35	119.90
1	1G	1216	G	C4-N9-C1'	-5.09	119.88	126.50
26	14	258	G	C8-N9-C4	5.09	108.44	106.40
1	1G	389	A	C8-N9-C4	-5.09	103.76	105.80
26	14	567	A	N1-C6-N6	5.09	121.66	118.60
26	1H	133	C	N3-C4-C5	5.09	123.94	121.90
26	1H	2440	C	N1-C2-O2	-5.09	115.84	118.90
26	1H	2443	C	C5-C4-N4	-5.09	116.64	120.20
26	1H	2451	A	N1-C6-N6	-5.09	115.55	118.60
1	1G	965	A	C8-N9-C4	5.09	107.84	105.80
1	1G	1449	C	C6-N1-C2	-5.09	118.26	120.30
26	14	2286	A	C6-C5-N7	-5.09	128.74	132.30
1	13	792	A	C4-C5-N7	5.09	113.25	110.70
26	1H	487	C	N1-C2-O2	-5.09	115.85	118.90
26	1H	537	C	N3-C4-C5	5.09	123.94	121.90
26	1H	655	A	C5-N7-C8	-5.09	101.36	103.90
1	1G	276	G	N1-C6-O6	-5.09	116.85	119.90
26	14	571	A	N9-C4-C5	-5.09	103.76	105.80
26	14	947	G	C5-C6-N1	-5.09	108.95	111.50
1	13	575	G	N7-C8-N9	-5.09	110.56	113.10
26	1H	194	G	OP2-P-O3'	5.09	116.39	105.20
26	1H	2054	A	OP1-P-OP2	5.09	127.23	119.60
1	1G	557	G	N9-C4-C5	-5.09	103.36	105.40
26	1H	774	A	O5'-P-OP2	-5.09	101.12	105.70
26	1H	1534	G	N3-C4-N9	5.09	129.05	126.00
1	1G	293	G	N1-C6-O6	-5.09	116.85	119.90
26	14	495	G	N3-C2-N2	-5.09	116.34	119.90
26	14	1573	G	N9-C4-C5	-5.08	103.37	105.40
27	1J	75	G	C8-N9-C4	5.08	108.43	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	569	U	C5-C6-N1	-5.08	120.16	122.70
26	1H	1982	C	N3-C4-C5	5.08	123.93	121.90
26	1H	2352	A	C8-N9-C4	5.08	107.83	105.80
26	1H	2451	A	N7-C8-N9	5.08	116.34	113.80
1	1G	221	C	N3-C2-O2	-5.08	118.34	121.90
26	14	686	G	OP1-P-OP2	5.08	127.22	119.60
1	13	953	G	N1-C6-O6	-5.08	116.85	119.90
27	16	106	G	C8-N9-C4	5.08	108.43	106.40
26	14	450	G	C6-C5-N7	-5.08	127.35	130.40
26	14	2234	G	N3-C2-N2	5.08	123.46	119.90
31	41	94	LEU	CA-CB-CG	5.08	126.98	115.30
26	1H	75	G	N3-C4-N9	5.08	129.05	126.00
26	1H	609	A	C5-C6-N6	-5.08	119.64	123.70
26	1H	1888	G	N3-C4-C5	-5.08	126.06	128.60
26	1H	2713	A	C5-N7-C8	-5.08	101.36	103.90
26	14	792	G	O4'-C1'-N9	-5.08	104.14	108.20
26	1H	2445	G	C8-N9-C4	-5.08	104.37	106.40
22	1K	69	C	P-O3'-C3'	5.08	125.79	119.70
26	1H	865	C	C2-N3-C4	5.08	122.44	119.90
26	1H	1799	G	N3-C4-N9	5.08	129.05	126.00
26	1H	1808	U	O5'-P-OP1	-5.08	101.13	105.70
1	1G	293	G	C5-C6-O6	5.08	131.65	128.60
26	14	2498	C	N3-C4-C5	5.08	123.93	121.90
26	14	2546	U	C2-N1-C1'	-5.08	111.61	117.70
27	1J	52	A	P-O3'-C3'	5.08	125.79	119.70
26	1H	799	G	N7-C8-N9	-5.07	110.56	113.10
26	1H	1022	G	N3-C2-N2	-5.07	116.35	119.90
26	1H	1814	G	N3-C4-N9	5.07	129.04	126.00
26	14	1832	C	C5-C6-N1	-5.07	118.46	121.00
26	14	2584	U	N1-C2-O2	5.07	126.35	122.80
26	14	2641	G	C6-C5-N7	-5.07	127.36	130.40
26	1H	1709	U	C5-C6-N1	-5.07	120.16	122.70
1	13	632	A	C8-N9-C4	5.07	107.83	105.80
26	1H	513	A	N3-C4-C5	-5.07	123.25	126.80
26	1H	936	C	C6-N1-C2	5.07	122.33	120.30
26	1H	1130	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	2587	A	O5'-P-OP2	-5.07	101.14	105.70
26	1H	2724	C	C5-C6-N1	-5.07	118.47	121.00
1	1G	895	G	C5-C6-O6	-5.07	125.56	128.60
26	14	1338	G	OP1-P-O3'	5.07	116.35	105.20
26	14	2762	G	N9-C4-C5	-5.07	103.37	105.40
1	13	922	G	C4-N9-C1'	5.07	133.09	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	484	G	C4-N9-C1'	-5.07	119.91	126.50
26	14	773	U	N3-C2-O2	-5.07	118.65	122.20
26	1H	258	G	N1-C6-O6	-5.07	116.86	119.90
26	1H	1332	G	C8-N9-C1'	5.07	133.59	127.00
26	1H	2192	G	C4-N9-C1'	5.07	133.09	126.50
26	14	681	G	N1-C2-N3	5.07	126.94	123.90
26	1H	141	A	C2-N3-C4	-5.06	108.07	110.60
26	1H	855	G	C2-N3-C4	5.06	114.43	111.90
26	1H	1665	A	C4-C5-N7	5.06	113.23	110.70
26	1H	2486	G	N7-C8-N9	-5.06	110.57	113.10
26	1H	2711	A	C8-N9-C4	5.06	107.83	105.80
26	14	1359	A	N1-C2-N3	-5.06	126.77	129.30
26	1H	1440	G	C8-N9-C1'	-5.06	120.42	127.00
26	1H	1835	G	C5-C6-O6	-5.06	125.56	128.60
26	14	1566	A	C2-N3-C4	-5.06	108.07	110.60
1	13	131	C	C6-N1-C1'	-5.06	114.73	120.80
26	1H	1842	G	C8-N9-C4	5.06	108.42	106.40
26	1H	1931	U	C5-C4-O4	5.06	128.94	125.90
1	13	562	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1297	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1975	G	N3-C4-N9	5.06	129.04	126.00
1	1G	65	U	C2-N1-C1'	-5.06	111.63	117.70
1	1G	128	G	C5-C6-N1	-5.06	108.97	111.50
26	14	63	U	N1-C2-N3	-5.06	111.86	114.90
26	14	1610	A	C5-C6-N6	-5.06	119.65	123.70
1	13	119	A	C8-N9-C4	5.06	107.82	105.80
1	13	422	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	2067	G	O5'-P-OP2	5.06	116.77	110.70
26	1H	2448	A	C5-C6-N6	-5.06	119.65	123.70
27	16	98	G	C6-C5-N7	-5.06	127.37	130.40
26	14	1607	C	N1-C2-N3	-5.06	115.66	119.20
26	14	1619	G	O5'-P-OP2	-5.06	101.15	105.70
26	1H	729	G	N3-C2-N2	-5.06	116.36	119.90
26	1H	2430	A	N7-C8-N9	5.06	116.33	113.80
26	14	242	G	C8-N9-C4	5.06	108.42	106.40
26	1H	55	G	C5-C6-O6	-5.05	125.57	128.60
26	1H	1398	C	C6-N1-C2	5.05	122.32	120.30
26	1H	1453	A	N1-C6-N6	5.05	121.63	118.60
26	1H	2276	G	C4-C5-N7	-5.05	108.78	110.80
1	1G	216	G	N3-C4-N9	-5.05	122.97	126.00
1	1G	312	C	N3-C2-O2	-5.05	118.36	121.90
26	14	1244	G	C5-C6-O6	-5.05	125.57	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1605	C	C5-C6-N1	-5.05	118.47	121.00
26	14	1820	U	C6-N1-C2	5.05	124.03	121.00
26	14	2035	G	C8-N9-C4	5.05	108.42	106.40
26	1H	1930	G	C4-C5-N7	-5.05	108.78	110.80
26	1H	2035	G	C8-N9-C1'	5.05	133.57	127.00
1	1G	349	A	N1-C6-N6	-5.05	115.57	118.60
26	1H	697	C	C5-C4-N4	-5.05	116.66	120.20
1	13	1336	C	P-O3'-C3'	5.05	125.76	119.70
1	13	1427	U	O5'-P-OP2	-5.05	101.16	105.70
26	1H	2024	G	O5'-P-OP1	-5.05	101.16	105.70
1	1G	146	G	N7-C8-N9	-5.05	110.58	113.10
24	3L	76	A	C5-C6-N6	-5.05	119.66	123.70
26	14	1809	A	C2-N3-C4	-5.05	108.08	110.60
26	14	2584	U	N3-C2-O2	-5.05	118.67	122.20
26	1H	1559	G	C2-N3-C4	-5.05	109.38	111.90
26	14	1528	A	C8-N9-C4	-5.05	103.78	105.80
1	1G	311	C	N3-C4-N4	5.05	121.53	118.00
1	1G	970	C	N1-C2-O2	5.05	121.93	118.90
1	1G	1235	U	C5-C6-N1	5.05	125.22	122.70
26	14	2500	U	C2-N3-C4	-5.05	123.97	127.00
27	1J	89(A)	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	145	G	C2-N3-C4	-5.04	109.38	111.90
26	1H	787	U	O5'-P-OP2	-5.04	101.16	105.70
27	1J	100	G	C8-N9-C4	5.04	108.42	106.40
26	1H	479	A	P-O3'-C3'	5.04	125.75	119.70
26	1H	922	U	C5-C4-O4	5.04	128.93	125.90
26	1H	2112	G	C4-N9-C1'	5.04	133.06	126.50
26	14	912	C	C6-N1-C2	-5.04	118.28	120.30
26	14	1807	G	OP1-P-OP2	5.04	127.16	119.60
1	13	1064	G	C5-C6-O6	5.04	131.62	128.60
26	1H	442	G	C8-N9-C4	5.04	108.42	106.40
26	1H	2052	G	C8-N9-C4	5.04	108.42	106.40
26	1H	2520	C	N1-C2-O2	-5.04	115.88	118.90
26	14	205	G	N3-C4-N9	5.04	129.03	126.00
26	14	809	G	N3-C4-N9	5.04	129.03	126.00
26	14	2598	A	OP1-P-OP2	-5.04	112.04	119.60
26	1H	504	U	C6-N1-C1'	-5.04	114.14	121.20
1	13	1381	U	N3-C2-O2	-5.04	118.67	122.20
25	4K	11	U	C6-N1-C2	-5.04	117.98	121.00
26	1H	930	U	C5-C4-O4	5.04	128.92	125.90
1	1G	1281	U	N3-C2-O2	-5.04	118.67	122.20
26	1H	783	A	N3-C4-C5	5.04	130.33	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2599	G	C6-C5-N7	5.04	133.42	130.40
26	14	1210	A	C5-N7-C8	-5.04	101.38	103.90
1	13	768	A	C5-C6-N1	5.04	120.22	117.70
26	1H	163	U	N1-C2-O2	5.04	126.32	122.80
26	1H	1304	C	N3-C2-O2	-5.04	118.38	121.90
26	1H	1592	C	C6-N1-C2	5.04	122.31	120.30
26	1H	2246	G	C8-N9-C4	5.04	108.41	106.40
26	1H	2392	A	C8-N9-C4	-5.04	103.79	105.80
1	13	343	U	C5-C6-N1	5.03	125.22	122.70
1	13	1519	A	C4-C5-C6	5.03	119.52	117.00
26	1H	2274	A	C4-C5-N7	5.03	113.22	110.70
1	1G	1529	G	N1-C6-O6	-5.03	116.88	119.90
3	22	188	LEU	CA-CB-CG	5.03	126.88	115.30
26	14	138	G	C8-N9-C4	-5.03	104.39	106.40
26	14	2436	G	N9-C4-C5	-5.03	103.39	105.40
1	13	185	A	C8-N9-C4	-5.03	103.79	105.80
26	1H	1259	G	OP2-P-O3'	5.03	116.27	105.20
26	1H	2374	C	C2-N1-C1'	-5.03	113.26	118.80
1	1G	220	G	N3-C4-C5	-5.03	126.08	128.60
1	13	802	A	C6-C5-N7	-5.03	128.78	132.30
1	13	1214	C	C2-N1-C1'	-5.03	113.27	118.80
26	1H	2503	A	C4-C5-N7	5.03	113.22	110.70
26	1H	2545	G	C5-C6-O6	-5.03	125.58	128.60
26	14	752	A	P-O3'-C3'	5.03	125.74	119.70
26	14	1286	A	C4-C5-C6	5.03	119.52	117.00
26	1H	1802	A	C6-N1-C2	-5.03	115.58	118.60
26	1H	624	C	N3-C2-O2	5.03	125.42	121.90
26	1H	1210	A	N1-C6-N6	5.03	121.62	118.60
26	1H	1323	U	C6-N1-C2	-5.03	117.98	121.00
26	1H	2394	C	C2-N3-C4	-5.03	117.39	119.90
26	1H	2439	A	C4-C5-N7	5.03	113.21	110.70
26	1H	2488	A	OP2-P-O3'	5.03	116.26	105.20
26	1H	1363	C	C6-N1-C2	5.03	122.31	120.30
26	1H	1653	G	C5-C6-O6	-5.03	125.58	128.60
1	1G	393	A	N1-C6-N6	5.03	121.62	118.60
26	14	2574	G	C5-C6-N1	5.03	114.01	111.50
26	14	2711	A	C2-N3-C4	-5.03	108.09	110.60
26	1H	1572	A	N9-C4-C5	-5.02	103.79	105.80
26	1H	2451	A	C2-N3-C4	-5.02	108.09	110.60
1	1G	73	G	N1-C2-N2	5.02	120.72	116.20
26	14	530	G	N3-C4-N9	5.02	129.01	126.00
26	14	752	A	N1-C2-N3	5.02	131.81	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	835	A	N3-C4-C5	-5.02	123.28	126.80
26	1H	2585	U	N3-C4-C5	5.02	117.61	114.60
1	1G	504	C	N1-C2-O2	-5.02	115.89	118.90
1	1G	797	C	C2-N1-C1'	-5.02	113.28	118.80
26	14	2099	U	C5-C6-N1	5.02	125.21	122.70
26	14	2573	C	C6-N1-C1'	-5.02	114.77	120.80
26	1H	1223	C	N3-C4-C5	5.02	123.91	121.90
26	1H	1635	G	C8-N9-C4	5.02	108.41	106.40
26	1H	1660	C	N3-C2-O2	-5.02	118.39	121.90
26	1H	2557	G	C4-C5-N7	5.02	112.81	110.80
1	1G	113	G	N3-C4-C5	-5.02	126.09	128.60
1	1G	723	U	O4'-C1'-N1	5.02	112.22	108.20
26	14	954	G	OP1-P-O3'	5.02	116.24	105.20
26	14	1790	C	C2-N1-C1'	-5.02	113.28	118.80
26	14	2062	A	N1-C2-N3	-5.02	126.79	129.30
1	13	1519	A	C8-N9-C4	-5.02	103.79	105.80
26	1H	424	G	C5-N7-C8	-5.02	101.79	104.30
26	1H	1332	G	C5-C6-N1	-5.02	108.99	111.50
26	1H	1332	G	N9-C4-C5	5.02	107.41	105.40
26	1H	1677	A	C2-N3-C4	-5.02	108.09	110.60
26	14	271(A)	C	C6-N1-C2	-5.02	118.29	120.30
26	14	527	C	N3-C2-O2	-5.02	118.39	121.90
26	14	583	G	C2-N3-C4	-5.02	109.39	111.90
26	14	1605	C	C4-C5-C6	5.02	119.91	117.40
26	14	774	A	O5'-P-OP2	-5.02	101.19	105.70
1	13	1450	U	N1-C2-O2	5.01	126.31	122.80
22	1K	3	U	N1-C2-O2	5.01	126.31	122.80
23	2K	48	U	OP2-P-O3'	5.01	116.23	105.20
26	1H	122	G	N3-C4-C5	5.01	131.11	128.60
26	1H	840	C	C6-N1-C2	5.01	122.31	120.30
26	1H	2041	U	C6-N1-C2	5.01	124.01	121.00
26	1H	2350	C	N3-C4-C5	-5.01	119.89	121.90
1	1G	352	C	C4-C5-C6	5.01	119.91	117.40
26	14	1547	C	C6-N1-C2	-5.01	118.29	120.30
26	1H	2505	G	C5-N7-C8	5.01	106.81	104.30
26	14	1347	G	OP1-P-O3'	5.01	116.23	105.20
26	14	1782	C	C5-C4-N4	-5.01	116.69	120.20
26	1H	208	C	C5-C6-N1	-5.01	118.49	121.00
26	1H	1996	C	OP1-P-O3'	5.01	116.23	105.20
27	16	25	A	N1-C6-N6	5.01	121.61	118.60
2	12	219	VAL	C-N-CA	5.01	134.23	121.70
26	14	775	G	C5-C6-O6	5.01	131.61	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2038	G	N9-C4-C5	-5.01	103.40	105.40
26	14	2443	C	N3-C4-C5	-5.01	119.89	121.90
1	13	680	C	N1-C2-O2	5.01	121.91	118.90
26	1H	120	U	C4-C5-C6	5.01	122.71	119.70
26	1H	1385	G	C4-N9-C1'	-5.01	119.99	126.50
26	14	188	G	C8-N9-C4	5.01	108.40	106.40
26	1H	877	U	C6-N1-C2	-5.01	118.00	121.00
33	61	12	LEU	CA-CB-CG	5.01	126.82	115.30
1	1G	287	U	C6-N1-C2	5.01	124.00	121.00
26	14	2261	C	OP2-P-O3'	5.01	116.22	105.20
26	14	2287	A	C5-C6-N1	-5.01	115.20	117.70
1	13	791	G	OP2-P-O3'	5.01	116.21	105.20
1	13	824	C	C5-C6-N1	5.01	123.50	121.00
26	1H	774	A	C6-C5-N7	-5.01	128.79	132.30
26	1H	2567	G	C5-C6-N1	-5.01	109.00	111.50
26	1H	2688	U	C5-C4-O4	5.01	128.90	125.90
26	14	1958	C	N3-C4-C5	5.01	123.90	121.90
1	1G	346	G	N9-C4-C5	-5.00	103.40	105.40
1	1G	633	G	C6-C5-N7	-5.00	127.40	130.40
26	14	733	G	N1-C2-N2	-5.00	111.69	116.20
26	14	1924	C	N3-C2-O2	5.00	125.40	121.90
27	1J	89(A)	A	N9-C4-C5	5.00	107.80	105.80
1	13	1406	U	N3-C2-O2	-5.00	118.70	122.20
26	1H	1420	U	O5'-P-OP2	-5.00	101.20	105.70
26	1H	2367	G	C2-N3-C4	-5.00	109.40	111.90
27	16	81	G	C5-C6-O6	-5.00	125.60	128.60
26	14	1567	A	C5-C6-N1	5.00	120.20	117.70
26	1H	210	C	OP2-P-O3'	5.00	116.20	105.20
26	1H	1786	A	C6-N1-C2	5.00	121.60	118.60
1	1G	66	G	C8-N9-C4	-5.00	104.40	106.40
26	14	446	G	C4-C5-C6	5.00	121.80	118.80
26	14	1573	G	N3-C4-N9	5.00	129.00	126.00
26	14	2878	U	O5'-P-OP2	-5.00	101.20	105.70

There are no chirality outliers.

All (180) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	122	ASP	Peptide
28	11	197	GLY	Peptide
28	11	237	GLU	Peptide
28	11	238	GLY	Peptide

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Mol	Chain	Res	Type	Group
2	12	15	VAL	Peptide
2	12	19	HIS	Peptide
2	12	199	TYR	Peptide
2	12	22	LYS	Peptide
2	12	222	ILE	Peptide
34	15	126	PRO	Peptide
28	19	27	THR	Peptide
28	19	28	GLU	Peptide
10	1A	87	THR	Peptide
2	1E	210	SER	Peptide
10	1I	99	LYS	Peptide
29	21	130	GLY	Peptide
29	21	153	GLY	Peptide
29	21	187	ALA	Peptide
29	21	203	LYS	Peptide
29	21	66	HIS	Peptide
29	21	68	ALA	Peptide
29	21	74	PRO	Peptide
29	29	117	MET	Peptide
29	29	201	THR	Peptide
29	29	49	LEU	Peptide
29	29	53	PRO	Peptide
29	29	60	ASN	Peptide
29	29	61	ARG	Peptide
29	29	67	PHE	Peptide
29	29	69	LYS	Peptide
29	29	77	ILE	Peptide
29	29	79	ARG	Peptide
11	2A	49	GLY	Peptide
3	2E	14	ILE	Peptide
11	2I	53	SER	Peptide
11	2I	54	ARG	Peptide
30	31	132	VAL	Peptide
4	32	84	LYS	Peptide
36	35	110	TYR	Peptide
36	35	35	HIS	Peptide
36	35	6	LEU	Peptide
30	39	12	LEU	Peptide
30	39	14	PRO	Peptide
30	39	20	LEU	Peptide
30	39	89	VAL	Peptide
12	3A	104	VAL	Peptide

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Mol	Chain	Res	Type	Group
12	3A	116	SER	Peptide
12	3A	14	GLY	Peptide
12	3A	47	LYS	Peptide
4	3E	155	LEU	Peptide
4	3E	29	PRO	Peptide
12	3I	104	VAL	Peptide
12	3I	47	LYS	Peptide
31	41	95	ARG	Peptide
37	45	26	TYR	Peptide
37	45	58	PHE	Peptide
37	45	78	PRO	Peptide
37	45	84	GLY	Peptide
37	45	89	ASN	Peptide
31	49	116	ASP	Peptide
13	4A	105	THR	Peptide
13	4A	66	LEU	Peptide
13	4A	82	MET	Peptide
13	4A	83	ASP	Peptide
13	4A	90	LEU	Peptide
13	4A	94	ARG	Peptide
5	4E	114	GLY	Peptide
13	4I	100	GLY	Peptide
13	4I	11	ARG	Peptide
13	4I	94	ARG	Peptide
32	51	137	ASP	Peptide
32	51	152	ARG	Peptide
32	51	154	PRO	Peptide
32	51	156	ALA	Peptide
32	51	170	ARG	Peptide
34	58	56	ASN	Peptide
34	58	95	PRO	Peptide
32	59	150	ALA	Peptide
14	5A	28	GLY	Peptide
33	61	11	ASN	Peptide
33	61	112	LYS	Peptide
33	61	133	HIS	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
39	65	53	SER	Peptide
35	68	96	THR	Peptide
33	69	101	LEU	Peptide
33	69	112	LYS	Peptide

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Mol	Chain	Res	Type	Group
33	69	142	VAL	Peptide
33	69	143	SER	Peptide
33	69	77	LEU	Peptide
40	75	10	VAL	Peptide
40	75	12	SER	Peptide
36	78	11	GLY	Peptide
36	78	115	LEU	Peptide
36	78	14	LYS	Peptide
36	78	15	ARG	Peptide
36	78	24	GLY	Peptide
36	78	35	HIS	Peptide
36	78	36	LYS	Peptide
36	78	37	GLY	Peptide
36	78	70	GLN	Peptide
9	82	117	HIS	Peptide
41	85	98	LEU	Peptide
41	85	99	ALA	Peptide
37	88	139	GLU	Peptide
37	88	58	PHE	Peptide
37	88	83	MET	Peptide
9	8E	110	GLU	Peptide
9	8E	4	TYR	Peptide
9	8E	88	TYR	Peptide
42	95	45	THR	Peptide
42	95	61	VAL	Peptide
42	95	97	LYS	Peptide
42	95	98	GLU	Peptide
38	98	2	ARG	Peptide
38	98	8	ARG	Peptide
18	9A	82	THR	Peptide
39	A8	106	ARG	Peptide
19	AA	11	VAL	Peptide
19	AA	13	ASP	Peptide
19	AA	3	ARG	Peptide
19	AA	66	MET	Peptide
19	AI	41	VAL	Peptide
44	B5	31	HIS	Peptide
40	B8	12	SER	Peptide
40	B8	4	GLY	Peptide
20	BA	101	GLY	Peptide
20	BI	95	ALA	Peptide
45	C5	18	GLY	Peptide

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Mol	Chain	Res	Type	Group
45	C5	39	VAL	Peptide
41	C8	75	ASN	Peptide
41	C8	90	VAL	Peptide
41	C8	92	ARG	Peptide
41	C8	95	LEU	Peptide
46	D5	104	PHE	Peptide
46	D5	158	PRO	Peptide
46	D5	51	ALA	Peptide
46	D5	52	SER	Peptide
46	D5	60	GLU	Peptide
42	D8	36	PRO	Peptide
42	D8	43	GLU	Peptide
43	E8	64	MET	Peptide
48	F5	53	VAL	Peptide
48	F5	81	LYS	Peptide
48	F5	91	LYS	Peptide
49	G5	15	LYS	Peptide
49	G5	4	SER	Peptide
49	G5	43	GLN	Peptide
49	G5	45	SER	Peptide
45	G8	100	ALA	Peptide
45	G8	3	VAL	Peptide
45	G8	4	LYS	Peptide
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide
45	G8	84	ARG	Peptide
45	G8	97	ARG	Peptide
46	H8	109	ALA	Peptide
46	H8	110	GLY	Peptide
46	H8	117	LEU	Peptide
46	H8	158	PRO	Peptide
46	H8	52	SER	Peptide
46	H8	61	LEU	Peptide
46	H8	63	ASP	Peptide
47	I8	66	VAL	Peptide
48	J8	84	GLY	Peptide
48	J8	86	SER	Peptide
49	K8	17	SER	Peptide
49	K8	4	SER	Peptide
49	K8	46	GLN	Peptide
49	K8	47	ASN	Peptide
54	M5	40	GLU	Peptide

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Mol	Chain	Res	Type	Group
54	M5	49	VAL	Peptide
51	M8	37	SER	Peptide
51	M8	39	CYS	Peptide
51	M8	40	HIS	Peptide
51	M8	44	THR	Peptide
52	N8	37	LYS	Peptide
54	Q8	49	VAL	Peptide
54	Q8	51	ALA	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32246	0	16277	909	0
1	1G	32028	0	16164	936	0
2	12	1696	0	1730	80	0
2	1E	1874	0	1926	92	0
3	22	1546	0	1608	104	0
3	2E	1605	0	1668	59	0
4	32	1702	0	1765	95	0
4	3E	1698	0	1761	78	0
5	42	1141	0	1198	66	0
5	4E	1142	0	1204	43	0
6	52	842	0	857	23	0
6	5E	837	0	852	33	0
7	62	1110	0	1163	67	0
7	6E	1242	0	1286	65	0
8	72	1107	0	1165	69	0
8	7E	1115	0	1177	53	0
9	82	953	0	983	59	0
9	8E	1000	0	1031	73	0
10	1A	801	0	849	52	0
10	1I	749	0	767	54	0
11	2A	835	0	847	33	0
11	2I	823	0	833	42	0
12	3A	956	0	1046	48	0
12	3I	956	0	1046	47	0
13	4A	879	0	935	81	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	4I	942	0	997	60	0
14	5A	486	0	525	25	0
14	5I	491	0	530	28	0
15	6A	729	0	768	35	0
15	6I	729	0	768	41	0
16	7A	705	0	725	34	0
16	7I	700	0	720	43	0
17	8A	823	0	891	37	0
17	8I	834	0	904	53	0
18	9A	554	0	609	22	0
18	9I	549	0	607	28	0
19	AA	510	0	507	36	0
19	AI	661	0	683	42	0
20	BA	762	0	861	34	0
20	BI	746	0	843	56	0
21	1B	188	0	195	9	0
21	1F	199	0	208	10	0
22	1K	1593	0	813	52	0
22	1L	1593	0	813	28	0
23	2K	1644	0	838	34	0
23	2L	1644	0	838	32	0
24	3K	1537	0	779	55	0
24	3L	1537	0	779	32	0
25	4K	391	0	196	12	0
25	4L	303	0	153	10	0
26	14	60561	0	30528	1446	0
26	1H	60546	0	30528	1548	0
27	16	2617	0	1328	57	0
27	1J	2617	0	1328	89	0
28	11	2120	0	2197	108	0
28	19	2125	0	2199	115	0
29	21	1556	0	1612	90	0
29	29	1563	0	1629	94	0
30	31	1585	0	1632	88	0
30	39	1602	0	1649	119	0
31	41	1457	0	1514	76	0
31	49	1459	0	1507	91	0
32	51	1328	0	1396	69	0
32	59	1295	0	1366	85	0
33	61	1131	0	1218	49	0
33	69	1131	0	1218	56	0
34	15	1096	0	1168	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	58	995	0	1077	61	0
35	25	932	0	996	45	0
35	68	932	0	996	21	0
36	35	1122	0	1206	84	0
36	78	1127	0	1208	87	0
37	45	1099	0	1154	77	0
37	88	1117	0	1168	79	0
38	55	967	0	1033	56	0
38	98	967	0	1033	42	0
39	65	876	0	938	74	0
39	A8	881	0	943	53	0
40	75	1164	0	1221	69	0
40	B8	1128	0	1183	78	0
41	85	959	0	1019	61	0
41	C8	950	0	1011	58	0
42	95	770	0	838	43	0
42	D8	774	0	849	32	0
43	A5	886	0	948	33	0
43	E8	876	0	941	35	0
44	B5	735	0	785	33	0
44	F8	750	0	814	30	0
45	C5	396	0	444	15	0
45	G8	734	0	820	48	0
46	D5	1411	0	1436	92	0
46	H8	1365	0	1391	77	0
47	E5	603	0	620	45	0
47	I8	611	0	631	43	0
48	F5	737	0	813	53	0
48	J8	747	0	817	45	0
49	G5	576	0	625	28	0
49	K8	575	0	634	37	0
50	H5	459	0	512	15	0
50	L8	459	0	512	21	0
51	M8	475	0	465	27	0
52	J5	434	0	454	22	0
52	N8	369	0	388	36	0
53	L5	406	0	438	28	0
53	P8	401	0	436	10	0
54	M5	516	0	582	26	0
54	Q8	516	0	582	38	0
55	11	1	0	0	0	0
55	13	140	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	14	300	0	0	0	0
55	16	2	0	0	0	0
55	1F	2	0	0	0	0
55	1G	126	0	0	0	0
55	1H	473	0	0	0	0
55	1J	2	0	0	0	0
55	2I	3	0	0	0	0
55	29	1	0	0	0	0
55	2A	1	0	0	0	0
55	2K	1	0	0	0	0
55	2L	1	0	0	0	0
55	32	1	0	0	0	0
55	35	1	0	0	0	0
55	39	1	0	0	0	0
55	41	1	0	0	0	0
55	42	2	0	0	0	0
55	45	2	0	0	0	0
55	4A	1	0	0	0	0
55	5I	2	0	0	0	0
55	78	2	0	0	0	0
55	7A	1	0	0	0	0
55	85	1	0	0	0	0
55	88	3	0	0	0	0
55	8I	1	0	0	0	0
55	BA	1	0	0	0	0
55	BI	1	0	0	0	0
55	C8	2	0	0	0	0
55	D8	1	0	0	0	0
55	E5	1	0	0	0	0
55	F5	1	0	0	0	0
55	I8	1	0	0	0	0
55	J8	1	0	0	0	0
55	P8	1	0	0	0	0
56	32	8	0	0	2	0
56	3E	8	0	0	1	0
57	5A	1	0	0	0	0
57	5I	1	0	0	0	0
58	11	8	0	0	1	0
58	13	274	0	0	53	0
58	14	586	0	0	117	0
58	16	8	0	0	0	0
58	19	7	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	1F	1	0	0	0	0
58	1G	240	0	0	24	0
58	1H	1010	0	0	224	0
58	1I	2	0	0	0	0
58	1K	1	0	0	0	0
58	2I	4	0	0	0	0
58	29	2	0	0	0	0
58	2L	6	0	0	0	0
58	3I	5	0	0	0	0
58	32	1	0	0	0	0
58	35	5	0	0	0	0
58	39	6	0	0	0	0
58	3I	1	0	0	0	0
58	42	1	0	0	0	0
58	45	5	0	0	0	0
58	4E	6	0	0	0	0
58	4I	2	0	0	0	0
58	4L	1	0	0	0	0
58	58	1	0	0	0	0
58	5I	1	0	0	0	0
58	78	8	0	0	0	0
58	7A	4	0	0	0	0
58	7I	3	0	0	0	0
58	8E	1	0	0	0	0
58	98	1	0	0	0	0
58	B5	2	0	0	0	0
58	BA	2	0	0	0	0
58	D8	1	0	0	0	0
58	E8	1	0	0	0	0
58	G8	1	0	0	0	0
58	H5	2	0	0	1	0
58	I8	3	0	0	1	0
58	J8	2	0	0	0	0
58	L5	1	0	0	0	0
58	L8	3	0	0	1	0
58	Q8	2	0	0	1	0
All	All	292640	0	194666	9118	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 20.

All (9118) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2714:G:OP2	58:1H:3519:HOH:O	1.69	1.07
26:1H:452:G:OP2	58:1H:3521:HOH:O	1.74	1.05
26:1H:1665:A:OP2	58:1H:3520:HOH:O	1.72	1.05
26:14:2499:C:OP2	58:14:3407:HOH:O	1.75	1.04
26:1H:990:A:OP2	58:1H:3522:HOH:O	1.76	1.04
26:1H:943:U:OP2	58:1H:3524:HOH:O	1.76	1.04
26:14:2113:U:H3'	26:14:2114:A:H4'	1.37	1.03
26:1H:586:A:OP2	58:1H:3525:HOH:O	1.77	1.03
26:1H:2615:U:OP1	58:1H:3523:HOH:O	1.76	1.03
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.41	1.02
26:1H:2499:C:OP2	58:1H:3526:HOH:O	1.78	1.01
26:1H:810:U:OP1	58:1H:3527:HOH:O	1.79	1.01
1:1G:79:G:H1	1:1G:90:C:H42	1.07	1.01
29:29:50:GLY:HA2	29:29:78:LEU:HB3	1.43	1.01
26:1H:1055:G:H1	26:1H:1104:C:H42	1.08	0.99
49:G5:4:SER:HA	49:G5:6:VAL:H	1.25	0.99
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.24	0.98
26:1H:2448:A:OP2	58:1H:3528:HOH:O	1.83	0.96
28:11:182:LEU:H	28:11:272:ALA:HB3	1.31	0.96
1:1G:1055:A:N7	1:1G:1200:C:N4	2.14	0.96
26:14:2448:A:OP2	58:14:3408:HOH:O	1.83	0.96
26:1H:929:G:O6	58:1H:3529:HOH:O	1.84	0.95
1:13:1197:G:OP1	58:13:1803:HOH:O	1.83	0.95
1:13:970:C:OP2	58:13:1804:HOH:O	1.85	0.95
24:3K:76:A:H8	26:1H:2394:C:H42	1.04	0.94
26:14:910:A:H62	37:45:12:GLN:HA	1.30	0.94
26:1H:2308:G:H1	26:1H:2311:A:H2	1.07	0.94
40:B8:50:ILE:HD11	40:B8:102:ILE:HG13	1.49	0.94
29:29:54:GLN:NE2	29:29:72:VAL:O	2.00	0.94
34:15:56:ASN:H	34:15:125:GLY:HA3	1.31	0.94
26:1H:948:G:O6	58:1H:3530:HOH:O	1.86	0.94
40:75:54:ARG:HA	40:75:59:THR:HB	1.50	0.94
26:1H:155:C:H42	26:1H:171:G:H1	1.06	0.93
1:13:601:C:H2'	1:13:602:A:H8	1.33	0.93
26:1H:910:A:H62	37:88:12:GLN:HA	1.30	0.93
26:1H:607:U:H3	26:1H:621:A:H2	1.08	0.93
1:1G:991:U:H4'	1:1G:992:U:H5''	1.50	0.93
26:1H:800:A:OP1	58:1H:3531:HOH:O	1.86	0.92
28:19:49:ILE:HD11	28:19:52:ARG:HA	1.50	0.92
26:14:801:G:OP2	58:14:3409:HOH:O	1.86	0.92
26:1H:1021:A:H62	26:1H:1141:U:H3	1.18	0.92
1:13:953:G:OP2	58:13:1805:HOH:O	1.86	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:748:G:OP2	58:1H:3532:HOH:O	1.86	0.91
26:1H:400:G:N7	58:1H:3576:HOH:O	2.04	0.91
24:3L:2:C:N4	24:3L:71:G:O6	2.03	0.91
26:14:1496:A:H8	26:14:1577:C:HO2'	1.05	0.91
30:39:11:VAL:HG23	30:39:13:SER:HB2	1.52	0.91
26:1H:1234:U:O4	58:1H:3533:HOH:O	1.88	0.91
26:1H:2711:A:OP2	58:1H:3519:HOH:O	1.89	0.91
26:1H:422:A:OP2	58:1H:3537:HOH:O	1.89	0.91
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.34	0.91
26:14:1325:G:OP1	58:14:3411:HOH:O	1.89	0.91
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.52	0.91
1:1G:352:C:OP2	58:1G:1807:HOH:O	1.87	0.91
1:13:963:G:N3	10:1I:55:LYS:NZ	2.18	0.90
26:1H:1187:G:O6	58:1H:3538:HOH:O	1.90	0.90
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.03	0.90
3:22:120:VAL:HG21	3:22:137:ALA:HB2	1.54	0.90
30:39:18:ARG:HH22	30:39:20:LEU:HD12	1.35	0.90
26:14:31:C:OP1	58:14:3410:HOH:O	1.88	0.90
37:45:27:VAL:HB	37:45:28:ALA:HA	1.54	0.90
26:1H:399:G:OP2	58:1H:3534:HOH:O	1.89	0.90
26:1H:2243:U:OP1	58:1H:3536:HOH:O	1.89	0.90
26:14:2329:G:H21	47:E5:41:ARG:HG3	1.36	0.90
1:13:153:C:H42	1:13:168:G:H1	1.19	0.90
28:11:67:PHE:HE1	28:11:106:ILE:HD11	1.37	0.90
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.53	0.89
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.53	0.89
26:1H:592:G:H21	54:Q8:4:MET:HE1	1.37	0.89
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.37	0.89
26:1H:862:G:OP2	58:1H:3535:HOH:O	1.89	0.89
26:1H:1186:G:OP2	58:1H:3543:HOH:O	1.91	0.89
26:14:1992:G:N7	58:14:3435:HOH:O	2.05	0.89
49:K8:47:ASN:O	49:K8:49:LYS:N	2.06	0.89
26:14:1300:U:OP2	58:14:3413:HOH:O	1.90	0.89
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.52	0.89
46:H8:52:SER:O	46:H8:54:HIS:N	2.06	0.89
26:14:862:G:OP2	58:14:3412:HOH:O	1.89	0.89
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.55	0.89
2:12:219:VAL:HA	2:12:220:ASP:HB3	1.53	0.89
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.38	0.88
1:1G:330:C:O2	58:1G:1808:HOH:O	1.89	0.88
26:1H:620:G:H4'	26:1H:621:A:H5''	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:47:ALA:HB2	34:58:112:LEU:HD11	1.55	0.88
1:13:1198:G:OP2	58:13:1803:HOH:O	1.92	0.88
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.37	0.88
26:1H:240:G:O6	58:1H:3539:HOH:O	1.90	0.88
3:22:70:VAL:HG12	3:22:72:LYS:H	1.37	0.88
26:1H:1231:G:N7	58:1H:3584:HOH:O	2.05	0.88
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.53	0.88
26:1H:2519:U:OP2	58:1H:3540:HOH:O	1.90	0.88
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.07	0.88
26:14:2002:G:N7	58:14:3437:HOH:O	2.06	0.88
26:1H:568:U:O4	58:1H:3549:HOH:O	1.92	0.87
31:41:96:ARG:H	31:41:99:MET:HE2	1.39	0.87
1:1G:1128:C:O2	1:1G:1147:C:N4	2.07	0.87
5:42:144:THR:H	5:42:147:ASP:HB2	1.38	0.87
26:14:654(B):C:HO2'	26:14:654(S):G:H1	1.21	0.87
1:13:1372:U:H5''	9:8E:71:SER:HB3	1.57	0.87
39:65:12:PHE:O	39:65:16:ASN:ND2	2.08	0.87
1:13:766:A:OP2	58:13:1806:HOH:O	1.92	0.87
1:13:1054:C:OP2	58:13:1807:HOH:O	1.93	0.87
26:14:654(B):C:O2'	26:14:654(S):G:N1	2.08	0.87
37:45:27:VAL:HG13	37:45:136:ALA:HB1	1.53	0.87
26:1H:370:G:OP2	58:1H:3541:HOH:O	1.91	0.87
26:1H:1349:A:OP1	58:1H:3545:HOH:O	1.91	0.87
26:1H:1780:A:OP1	58:1H:3544:HOH:O	1.91	0.87
1:13:963:G:H1	1:13:972:C:H42	1.20	0.86
26:1H:734:A:OP2	58:1H:3548:HOH:O	1.92	0.86
54:M5:37:SER:OG	54:M5:39:LYS:O	1.92	0.86
26:1H:1764:G:OP2	58:1H:3550:HOH:O	1.93	0.86
26:1H:2016:U:OP1	58:1H:3547:HOH:O	1.92	0.86
26:1H:2495:G:O6	58:1H:3553:HOH:O	1.93	0.86
1:1G:1263:C:N4	1:1G:1272:G:O6	2.07	0.86
26:1H:2498:C:OP2	58:1H:3526:HOH:O	1.94	0.86
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.09	0.86
26:1H:1055:G:N2	26:1H:1104:C:N3	2.24	0.86
26:14:2268:A:OP1	58:14:3414:HOH:O	1.92	0.86
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.54	0.86
33:69:76:THR:OG1	33:69:77:LEU:N	2.09	0.86
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.55	0.86
26:1H:730:C:OP2	58:1H:3542:HOH:O	1.91	0.85
26:1H:733:G:OP2	58:1H:3551:HOH:O	1.93	0.85
26:1H:192:C:OP1	58:1H:3552:HOH:O	1.93	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2243:U:OP1	58:1H:3552:HOH:O	1.94	0.85
26:1H:2497:A:O2'	58:1H:3546:HOH:O	1.92	0.85
24:3L:8:U:O2	24:3L:48:C:N4	2.08	0.85
28:19:31:LYS:HZ2	28:19:33:LEU:HB2	1.41	0.85
29:29:60:ASN:HB2	29:29:62:PRO:HD2	1.57	0.85
26:14:2712(A):A:OP1	58:14:3415:HOH:O	1.93	0.85
26:14:1455:G:OP2	58:14:3417:HOH:O	1.95	0.85
26:1H:1357:U:OP2	58:1H:3556:HOH:O	1.95	0.85
26:14:67:U:H3	26:14:74:A:H2	1.22	0.85
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.59	0.85
26:1H:1010:A:OP2	58:1H:3554:HOH:O	1.94	0.85
26:14:1359:A:H62	26:14:1372:U:H3	1.24	0.85
26:14:1619:G:N7	58:14:3445:HOH:O	2.08	0.85
26:14:2210:G:H3'	26:14:2211:G:N7	1.91	0.85
48:F5:91:LYS:O	48:F5:93:GLU:N	2.10	0.85
52:N8:36:CYS:SG	52:N8:37:LYS:N	2.49	0.85
6:5E:97:PHE:HB2	18:9I:32:ARG:HH11	1.41	0.84
26:1H:2711:A:OP1	58:1H:3555:HOH:O	1.94	0.84
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.59	0.84
29:29:3:GLY:HA3	29:29:81:ILE:HG21	1.56	0.84
26:14:2210:G:H3'	26:14:2211:G:C8	2.11	0.84
45:G8:83:THR:HG22	45:G8:84:ARG:HG2	1.58	0.84
26:14:2227:A:OP2	58:14:3418:HOH:O	1.96	0.84
46:D5:52:SER:O	46:D5:54:HIS:N	2.10	0.84
26:14:1633:G:OP2	58:14:3416:HOH:O	1.94	0.84
26:14:2547:U:O2	35:25:23:ARG:NH2	2.11	0.84
34:15:59:LYS:HE3	34:15:60:ILE:H	1.41	0.84
26:14:1641:A:OP2	58:14:3419:HOH:O	1.96	0.84
49:K8:15:LYS:H	49:K8:67:LYS:HE3	1.43	0.84
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.59	0.84
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.10	0.84
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.11	0.84
26:1H:1678:G:H21	26:1H:1989:G:H22	1.23	0.84
50:L8:5:LYS:HB2	50:L8:36:VAL:HG13	1.59	0.84
1:1G:1001:G:H22	1:1G:1040:U:H1'	1.40	0.84
36:35:58:THR:HG21	54:M5:54:GLU:HB3	1.60	0.84
46:H8:110:GLY:O	46:H8:112:ARG:N	2.11	0.83
26:14:2781:A:H5''	26:14:2782:G:H5'	1.58	0.83
37:45:135:ASP:N	37:45:136:ALA:HA	1.93	0.83
1:1G:1189:C:O2	58:1G:1810:HOH:O	1.96	0.83
26:14:1413:G:O6	58:14:3420:HOH:O	1.96	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.58	0.83
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.60	0.83
41:C8:92:ARG:HH21	42:D8:10:LYS:HB3	1.41	0.83
26:1H:818:G:OP2	58:1H:3558:HOH:O	1.95	0.83
1:1G:838:G:H1	1:1G:842:C:HO2'	1.17	0.83
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.10	0.83
26:14:275:G:N2	26:14:276:A:N7	2.26	0.83
26:14:1019:U:H3	26:14:1142(A):A:H62	1.24	0.83
28:19:242:ARG:O	58:19:301:HOH:O	1.96	0.83
26:1H:248:G:OP1	58:1H:3557:HOH:O	1.95	0.83
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.60	0.82
26:14:2611:U:H6	26:14:2611:U:H5'	1.42	0.82
31:49:61:ALA:HB2	31:49:68:PRO:HD3	1.61	0.82
30:39:167:ALA:HB1	30:39:173:VAL:HG11	1.59	0.82
32:59:6:ARG:HB3	32:59:66:GLY:HA2	1.59	0.82
24:3K:14:A:H61	24:3K:21:A:H2	1.26	0.82
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.12	0.82
1:1G:584:G:H5'	17:8A:91:ARG:HH22	1.43	0.82
1:1G:903:G:OP1	58:1G:1809:HOH:O	1.95	0.82
1:13:443:C:H42	1:13:491:G:H1	1.27	0.82
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.44	0.82
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.14	0.82
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.13	0.82
26:1H:1653:G:H3'	38:98:2:ARG:HG3	1.62	0.82
2:12:162:ILE:HD11	2:12:184:VAL:HG12	1.59	0.82
26:1H:1265:A:OP2	58:1H:3559:HOH:O	1.96	0.82
26:14:2068:U:H3	26:14:2430:A:H2	1.24	0.82
24:3K:34:G:HO2'	24:3K:35:G:H8	1.29	0.81
33:61:110:ASP:N	33:61:110:ASP:OD1	2.13	0.81
1:1G:766:A:OP2	58:1G:1811:HOH:O	1.98	0.81
1:1G:1088:G:N2	1:1G:1097:C:O2	2.12	0.81
35:25:14:THR:HG21	35:25:86:ILE:HG13	1.59	0.81
46:D5:30:ASN:HB3	46:D5:90:VAL:HG23	1.61	0.81
26:1H:270(N):G:N3	33:61:50:ARG:NH2	2.27	0.81
26:1H:2688:U:OP2	58:1H:3560:HOH:O	1.98	0.81
1:13:1077:G:N2	1:13:1080:A:OP2	2.13	0.81
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.13	0.81
26:1H:2588:G:OP1	58:1H:3561:HOH:O	1.99	0.81
26:14:2357:U:OP1	47:E5:20:ARG:NH1	2.13	0.81
1:13:456:C:H42	1:13:476:G:H1	1.26	0.81
22:1K:18:G:N2	22:1K:58:A:OP2	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:74:C:H42	1:13:96:G:H1	1.25	0.81
7:6E:20:ASP:HB3	7:6E:23:VAL:HB	1.62	0.81
26:1H:1533:C:O2	26:1H:1539:G:N2	2.14	0.81
26:14:1776:G:OP2	58:14:3421:HOH:O	1.97	0.81
50:H5:39:ASP:OD1	50:H5:44:ARG:NH1	2.13	0.81
41:85:110:VAL:O	41:85:114:LYS:NZ	2.14	0.81
23:2L:57:C:O2	31:49:78:SER:OG	1.98	0.81
30:39:32:LEU:HD11	30:39:105:VAL:HG13	1.62	0.81
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.61	0.81
46:D5:54:HIS:HB3	46:D5:101:PRO:HD3	1.63	0.81
26:1H:1009:A:OP2	34:58:37:LYS:NZ	2.13	0.80
29:29:105:THR:HG21	29:29:164:ARG:HE	1.46	0.80
52:J5:16:ARG:NH1	52:J5:17:ASP:OD1	2.14	0.80
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.63	0.80
1:13:688:G:H2'	1:13:689:C:H6	1.44	0.80
26:1H:2867:G:OP2	40:B8:119:LYS:NZ	2.12	0.80
39:A8:88:ASP:O	39:A8:90:GLY:N	2.15	0.80
1:1G:975:A:H4'	1:1G:976:G:H5''	1.63	0.80
1:13:145:G:H1	1:13:177:C:H42	1.27	0.80
26:14:1022:G:O2'	26:14:1023:U:OP2	2.00	0.80
1:1G:1011:G:H22	1:1G:1019:C:H1'	1.47	0.80
26:14:1971:A:OP1	58:14:3422:HOH:O	1.98	0.80
1:13:345:C:N4	35:68:116:SER:O	2.14	0.80
36:78:114:ILE:HD13	36:78:125:VAL:HG11	1.61	0.80
26:1H:847:U:OP2	58:1H:3529:HOH:O	1.99	0.80
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.15	0.80
30:31:66:PRO:O	30:31:67:GLN:HB3	1.81	0.80
40:75:64:ARG:HB2	40:75:73:GLU:HG2	1.64	0.80
1:13:727:G:N2	1:13:730:G:OP2	2.15	0.80
1:1G:827:U:H3	1:1G:872:A:H62	1.29	0.80
13:4A:53:VAL:O	13:4A:57:ARG:N	2.11	0.80
27:1J:88:C:H5''	27:1J:89:G:C5	2.16	0.80
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.12	0.79
28:19:69:ARG:NH2	28:19:128:GLY:O	2.15	0.79
8:72:49:GLU:OE2	8:72:62:TYR:OH	2.00	0.79
24:3K:31:C:H42	24:3K:39:G:H1	1.28	0.79
24:3K:43:G:H2'	24:3K:44:A:H8	1.47	0.79
3:22:181:ASN:HB2	3:22:206:GLU:H	1.45	0.79
26:14:1568:G:OP2	28:19:63:ARG:NH2	2.16	0.79
26:14:2712:U:O2'	26:14:2712(A):A:OP2	2.01	0.79
24:3K:39:G:H2'	24:3K:40:G:H8	1.48	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:617:G:OP1	30:39:40:GLN:NE2	2.15	0.79
1:13:863:U:OP1	58:13:1810:HOH:O	2.01	0.79
49:K8:4:SER:H	49:K8:7:ARG:H	1.29	0.79
1:13:486:U:H2'	1:13:487:A:H8	1.47	0.79
1:13:645:C:OP2	58:13:1811:HOH:O	2.01	0.79
24:3K:16:U:H1'	24:3K:61:C:H5'	1.63	0.79
26:1H:188:G:H1	26:1H:208:C:H42	1.31	0.79
26:14:2709:G:O6	58:14:3424:HOH:O	2.01	0.79
1:13:749:C:H2'	1:13:750:G:H8	1.48	0.79
1:1G:766:A:OP2	58:1G:1812:HOH:O	2.00	0.79
26:14:528:A:O2'	26:14:529:A:H5'	1.82	0.79
26:1H:370:G:OP2	58:1H:3564:HOH:O	2.00	0.79
26:1H:731:C:OP2	58:1H:3562:HOH:O	1.99	0.79
26:14:529:A:H4'	26:14:530:G:H5'	1.65	0.79
52:J5:41:PRO:O	52:J5:44:THR:OG1	2.01	0.79
1:13:394:G:O6	58:13:1808:HOH:O	1.99	0.78
26:1H:548:A:H2'	26:1H:549:G:H5'	1.65	0.78
26:1H:574:C:OP2	58:1H:3563:HOH:O	2.00	0.78
1:13:578:C:OP1	58:13:1809:HOH:O	2.00	0.78
26:1H:2099:U:N3	26:1H:2190:G:O6	2.16	0.78
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.19	0.78
4:3E:160:GLN:HA	4:3E:163:GLU:HB3	1.64	0.78
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.48	0.78
28:11:137:PRO:O	28:11:140:THR:OG1	2.01	0.78
1:13:538:G:O6	58:13:1814:HOH:O	2.01	0.78
1:13:864:A:OP1	58:13:1813:HOH:O	2.01	0.78
1:13:964:A:OP1	58:13:1812:HOH:O	2.01	0.78
18:9A:21:LYS:HD3	18:9A:24:ALA:HB2	1.64	0.78
26:14:1327:C:OP2	58:14:3423:HOH:O	2.00	0.78
26:1H:2068:U:H3	26:1H:2430:A:H2	1.32	0.78
26:1H:2308:G:N1	26:1H:2311:A:H2	1.82	0.78
26:14:125:G:H5''	53:L5:19:ARG:HD3	1.66	0.78
28:19:24:ILE:HG23	28:19:83:GLU:HA	1.66	0.78
32:59:110:SER:O	32:59:111:HIS:ND1	2.17	0.78
26:1H:759:G:OP1	58:1H:3565:HOH:O	2.01	0.78
14:5A:27:CYS:SG	14:5A:29:ARG:NH2	2.55	0.78
30:39:123:LEU:O	30:39:125:LEU:N	2.17	0.78
41:85:92:ARG:CZ	42:95:11:GLN:H	1.96	0.78
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.17	0.78
26:1H:676:A:H8	26:1H:2069:G:H21	1.29	0.78
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:58:VAL:C	46:H8:60:GLU:H	1.87	0.78
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.66	0.78
26:14:6:A:H3'	26:14:7:G:H5'	1.65	0.78
26:14:2431:U:O4	58:14:3427:HOH:O	2.02	0.78
1:13:445:G:H1	1:13:489:C:H42	1.31	0.78
26:1H:1240:U:OP1	58:1H:3571:HOH:O	2.02	0.78
26:1H:2419:U:O4	58:1H:3569:HOH:O	2.02	0.78
31:41:161:THR:HG22	31:41:163:ALA:H	1.49	0.78
1:1G:612:C:O2	1:1G:629:G:N2	2.17	0.78
26:14:2033:A:OP1	58:14:3426:HOH:O	2.02	0.78
31:49:161:THR:HG22	31:49:163:ALA:H	1.48	0.78
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.66	0.77
1:1G:1348:U:H3	1:1G:1374:A:H2	1.31	0.77
26:14:1632:A:N7	58:14:3466:HOH:O	2.17	0.77
1:13:1503:A:O2'	25:4K:12:A:N6	2.17	0.77
33:61:8:PRO:HD3	33:61:15:VAL:HG23	1.65	0.77
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.64	0.77
26:14:2196:C:OP2	58:14:3428:HOH:O	2.02	0.77
26:14:2745:C:O2	32:59:139:GLN:NE2	2.17	0.77
1:13:838:G:H1	1:13:848:C:H42	1.29	0.77
1:1G:1160:G:H1	1:1G:1176:A:H61	1.30	0.77
26:14:452:G:OP2	58:14:3429:HOH:O	2.02	0.77
26:14:2162:G:O2'	26:14:2173:A:OP1	2.02	0.77
2:1E:63:MET:HB2	2:1E:225:ALA:HB1	1.66	0.77
22:1K:15:G:H1	22:1K:48:C:N4	1.82	0.77
26:1H:1312:U:OP2	44:F8:63:LYS:NZ	2.16	0.77
26:1H:1778:U:H2'	26:1H:1784:A:N6	1.99	0.77
7:62:148:ASN:ND2	7:62:148:ASN:O	2.17	0.77
27:1J:21:G:H1	27:1J:62:C:H42	1.30	0.77
26:1H:2588:G:OP1	58:1H:3570:HOH:O	2.02	0.77
26:14:1332:G:C8	26:14:1332:G:H5'	2.20	0.77
1:13:1048:G:H5''	14:5I:3:ARG:HG2	1.65	0.77
4:3E:98:GLU:OE2	4:3E:107:ARG:NH1	2.17	0.77
26:14:2143:C:H42	26:14:2148:G:H1	1.31	0.77
2:1E:73:THR:HG22	2:1E:74:LYS:HG2	1.67	0.77
1:1G:989:C:O2	1:1G:1216:G:N2	2.18	0.77
9:82:5:TYR:N	9:82:87:GLN:OE1	2.17	0.77
26:14:1729:A:H2'	26:14:1731:G:N2	2.00	0.77
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.17	0.77
1:13:1271:G:H2'	1:13:1272:G:H5''	1.67	0.77
26:1H:270(I):G:H22	26:1H:270(R):G:H1'	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1899:G:H22	26:1H:1902:C:H41	1.28	0.77
39:A8:35:ILE:HD11	39:A8:101:LEU:HD22	1.67	0.77
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.67	0.77
26:14:1168:G:O6	26:14:1181:C:N4	2.18	0.77
24:3L:76:A:H8	26:14:2394:C:H42	1.29	0.76
28:19:182:LEU:H	28:19:272:ALA:HB3	1.50	0.76
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.67	0.76
24:3K:35:G:O6	25:4K:14:A:N6	2.17	0.76
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.50	0.76
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.18	0.76
52:N8:40:LYS:HG2	52:N8:46:CYS:HA	1.67	0.76
41:85:83:LEU:HB3	41:85:88:ILE:HB	1.67	0.76
26:1H:1651:G:O6	58:1H:3567:HOH:O	2.02	0.76
7:62:144:MET:SD	7:62:145:ALA:N	2.59	0.76
26:1H:1689:A:H62	26:1H:1698:A:H2	1.32	0.76
45:G8:53:PRO:HA	45:G8:56:PRO:HB3	1.65	0.76
26:14:607:U:H3	26:14:621:A:H2	1.31	0.76
26:14:686:G:H5''	53:L5:11:LYS:HE2	1.66	0.76
1:13:158:G:N2	1:13:163:C:O2	2.18	0.76
26:1H:946:G:OP1	58:1H:3566:HOH:O	2.02	0.76
1:1G:1129:C:H5''	1:1G:1139:G:N7	2.00	0.76
26:14:815:C:OP1	42:95:85:LYS:NZ	2.17	0.76
26:14:1516:U:H2'	26:14:1517:G:H8	1.51	0.76
26:14:2711:A:OP2	58:14:3425:HOH:O	2.01	0.76
27:1J:42:C:O2'	31:49:67:LYS:O	2.03	0.76
1:13:1131:G:N2	1:13:1139:G:O6	2.18	0.76
9:82:53:VAL:HG13	9:82:95:LYS:HE3	1.67	0.76
38:55:67:LEU:HD23	38:55:76:VAL:HG21	1.67	0.76
46:D5:97:GLU:HB3	46:D5:125:LEU:HD11	1.66	0.76
54:M5:40:GLU:H	54:M5:43:GLN:HG3	1.51	0.76
26:1H:722:A:H2'	26:1H:723:G:C8	2.21	0.76
1:1G:1116:C:H42	1:1G:1184:G:H1	1.33	0.76
26:14:1106:G:H3'	26:14:1107:G:H8	1.50	0.76
26:14:1141:U:OP2	34:15:63:THR:OG1	2.04	0.76
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.67	0.76
19:AA:3:ARG:HB2	19:AA:4:SER:HA	1.67	0.76
26:14:1942:C:OP2	26:14:1943:U:O2'	2.02	0.76
27:1J:18:G:H1	27:1J:65:C:H42	1.33	0.76
23:2K:5:G:N2	23:2K:69:C:O2	2.19	0.76
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.21	0.76
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:48:LEU:HD12	13:4A:52:GLU:HB2	1.67	0.76
26:1H:357:A:H2'	26:1H:358:U:H6	1.51	0.76
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.68	0.76
24:3K:38:A:H3'	24:3K:39:G:H8	1.51	0.75
26:1H:31:C:OP1	58:1H:3572:HOH:O	2.03	0.75
26:1H:1521:G:N7	58:1H:3665:HOH:O	2.18	0.75
1:1G:158:G:H1	1:1G:163:C:H42	1.35	0.75
26:14:1047:G:H21	26:14:1111:A:H61	1.33	0.75
37:45:135:ASP:H	37:45:136:ALA:HA	1.49	0.75
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.50	0.75
26:1H:2712(A):A:OP1	58:1H:3583:HOH:O	2.04	0.75
1:1G:834:C:O2	1:1G:852:G:N2	2.16	0.75
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.68	0.75
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.68	0.75
42:D8:65:GLY:HA3	42:D8:91:TYR:CZ	2.21	0.75
26:14:86:C:O2	26:14:96:G:N2	2.18	0.75
26:14:1456:G:OP2	58:14:3430:HOH:O	2.03	0.75
1:13:1446:A:O2'	40:B8:125:ARG:NH1	2.19	0.75
26:1H:46:C:O2	26:1H:179:G:N2	2.20	0.75
46:H8:30:ASN:HD22	46:H8:90:VAL:HB	1.49	0.75
7:62:68:ASN:ND2	7:62:127:ALA:O	2.15	0.75
26:14:2115:G:O2'	26:14:2171:A:N6	2.19	0.75
37:45:68:ILE:HD13	37:45:103:MET:HB3	1.68	0.75
1:13:503:C:O2	1:13:542:G:N2	2.18	0.75
26:1H:860:U:H5	26:1H:917:A:C2	2.05	0.75
28:11:228:PRO:O	58:11:401:HOH:O	2.03	0.75
5:42:73:ASN:O	5:42:73:ASN:ND2	2.18	0.75
26:14:83:G:N2	26:14:102:G:O2'	2.19	0.75
47:E5:18:ALA:HB3	47:E5:20:ARG:HH21	1.51	0.75
49:G5:4:SER:CA	49:G5:6:VAL:H	2.00	0.75
1:13:972:C:OP1	58:13:1815:HOH:O	2.04	0.75
17:8I:13:ASP:OD1	17:8I:13:ASP:N	2.20	0.75
26:1H:578:A:OP2	58:1H:3574:HOH:O	2.03	0.75
26:1H:1265:A:OP1	58:1H:3523:HOH:O	2.04	0.75
26:1H:1635:G:OP1	58:1H:3582:HOH:O	2.04	0.75
26:1H:2763:G:O6	58:1H:3568:HOH:O	2.02	0.75
26:1H:2773:C:OP1	29:21:164:ARG:NH1	2.18	0.75
9:82:112:LYS:HE2	9:82:118:LYS:H	1.51	0.75
22:1L:36:U:H2'	22:1L:37:AET:H8	1.69	0.75
33:61:75:LEU:HD21	33:61:105:HIS:HB3	1.69	0.75
26:14:1970:A:OP1	58:14:3433:HOH:O	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1256:A:N6	1:13:1278:U:OP2	2.20	0.75
3:2E:172:ARG:HH21	3:2E:203:PHE:HZ	1.34	0.75
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.51	0.75
26:1H:2705:A:OP2	58:1H:3580:HOH:O	2.04	0.75
29:21:116:VAL:H	29:21:157:ALA:HB2	1.52	0.75
1:1G:191(E):G:H2'	1:1G:191(F):U:C6	2.21	0.75
1:1G:1023:G:H5''	1:1G:1024:G:H21	1.51	0.75
39:65:106:ARG:NH2	39:65:107:GLU:OE1	2.19	0.75
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.69	0.75
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.20	0.75
26:1H:1784:A:OP1	58:1H:3579:HOH:O	2.04	0.75
31:41:111:LEU:HB3	31:41:117:PHE:HE2	1.52	0.75
45:G8:30:VAL:HG12	45:G8:32:PRO:HD3	1.69	0.75
26:14:1629:U:O4	58:14:3431:HOH:O	2.03	0.75
26:1H:582:G:N7	58:1H:3674:HOH:O	2.19	0.74
26:1H:1676:A:N7	58:1H:3664:HOH:O	2.18	0.74
26:1H:2136:C:N4	26:1H:2155:G:O6	2.19	0.74
26:1H:2846:G:N7	58:1H:3673:HOH:O	2.19	0.74
52:N8:16:ARG:NH1	52:N8:17:ASP:OD1	2.19	0.74
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.20	0.74
21:1B:2:GLY:O	21:1B:4:GLY:N	2.20	0.74
26:14:1817:G:OP1	28:19:88:ARG:NH2	2.18	0.74
30:39:20:LEU:HD22	30:39:203:GLN:HE22	1.50	0.74
1:13:1247:U:H3	1:13:1290:G:H1	1.35	0.74
26:1H:2850:A:N7	26:1H:2868:A:O2'	2.20	0.74
32:51:157:TYR:O	32:51:158:HIS:ND1	2.19	0.74
1:1G:353:A:H5'	1:1G:353:A:H8	1.52	0.74
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.01	0.74
22:1L:26:G:O6	22:1L:44:A:N6	2.17	0.74
1:1G:371:G:H1	1:1G:390:C:H42	1.35	0.74
10:1A:29:ARG:HD3	10:1A:84:GLN:HE22	1.52	0.74
26:14:818:G:OP2	58:14:3434:HOH:O	2.05	0.74
26:14:1970:A:OP1	58:14:3432:HOH:O	2.04	0.74
29:29:1:MET:HA	29:29:84:PHE:HB2	1.67	0.74
30:39:53:THR:HG22	30:39:56:GLU:HG2	1.69	0.74
38:55:82:GLU:H	38:55:85:PRO:HG2	1.52	0.74
2:1E:18:GLY:H	2:1E:42:ILE:HB	1.52	0.74
4:3E:155:LEU:O	4:3E:157:LEU:N	2.21	0.74
26:1H:792:G:H5''	26:1H:793:A:H5'	1.70	0.74
26:1H:1377:G:OP2	58:1H:3588:HOH:O	2.05	0.74
26:14:289:A:H3'	26:14:290:G:H8	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1757:U:H3	26:14:1762:A:H2	1.36	0.74
28:19:79:VAL:HG21	28:19:111:LEU:HD11	1.69	0.74
40:75:2:ASN:HB3	40:75:4:GLY:O	1.87	0.74
1:13:1122:U:O4	1:13:1123:A:N6	2.20	0.74
5:4E:15:ARG:HE	5:4E:26:PHE:HE2	1.33	0.74
26:1H:1899:G:H22	26:1H:1902:C:N4	1.83	0.74
28:11:69:ARG:NH2	28:11:128:GLY:O	2.18	0.74
41:C8:65:ILE:HG13	41:C8:96:ALA:HB2	1.68	0.74
15:6A:87:ILE:HG22	15:6A:88:ARG:HG3	1.69	0.74
19:AA:3:ARG:O	19:AA:6:LYS:NZ	2.21	0.74
29:29:34:VAL:HG21	29:29:78:LEU:HD22	1.69	0.74
1:13:1159:U:O4'	1:13:1182:G:N2	2.21	0.74
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.50	0.74
22:1K:15:G:H1	22:1K:48:C:H41	1.34	0.74
31:41:16:ARG:HH22	31:41:31:VAL:HG21	1.51	0.74
37:88:2:LEU:H	37:88:2:LEU:HD12	1.52	0.74
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.52	0.74
39:65:61:ASN:HB3	39:65:64:GLU:HB2	1.70	0.74
15:6I:82:ILE:O	15:6I:86:GLY:N	2.19	0.74
26:1H:2061:G:OP2	58:1H:3578:HOH:O	2.04	0.74
1:1G:1137:C:O2	1:1G:1138:G:N2	2.19	0.74
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.69	0.74
26:1H:259:G:O2'	26:1H:621:A:O2'	2.06	0.74
26:1H:413:C:OP2	58:1H:3585:HOH:O	2.05	0.74
48:J8:53:VAL:HG22	48:J8:74:VAL:HG23	1.69	0.74
1:1G:222:U:H2'	1:1G:223:U:C6	2.23	0.74
1:1G:1179:A:OP2	9:82:93:ARG:NH1	2.19	0.74
26:14:2055:C:N3	58:14:3477:HOH:O	2.19	0.74
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.70	0.74
26:1H:563:G:OP2	58:1H:3591:HOH:O	2.06	0.74
26:1H:1265:A:OP1	58:1H:3592:HOH:O	2.06	0.74
26:1H:2062:A:OP1	58:1H:3577:HOH:O	2.04	0.74
26:14:1762:A:N6	58:14:3478:HOH:O	2.19	0.74
31:49:61:ALA:O	31:49:65:GLY:N	2.21	0.74
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.20	0.74
26:1H:1236:G:O6	58:1H:3575:HOH:O	2.03	0.74
26:1H:2576:G:OP1	58:1H:3581:HOH:O	2.04	0.74
13:4A:46:LYS:NZ	13:4A:47:ASP:OD1	2.21	0.74
32:59:137:ASP:HB3	32:59:140:LYS:HB3	1.70	0.74
1:13:964:A:N3	1:13:969:A:O2'	2.21	0.73
1:13:1126:U:O2'	1:13:1281:U:O4'	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:Q8:37:SER:O	54:Q8:40:GLU:N	2.21	0.73
47:E5:27:GLU:HB2	47:E5:69:PHE:HD2	1.52	0.73
26:1H:991:C:OP2	58:1H:3543:HOH:O	2.07	0.73
26:1H:1006:C:OP2	58:1H:3589:HOH:O	2.05	0.73
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.24	0.73
45:G8:28:LYS:NZ	45:G8:64:GLU:OE2	2.20	0.73
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.22	0.73
1:1G:740:U:HO2'	15:6A:52:SER:HG	1.36	0.73
26:14:698:C:O2'	26:14:734:A:N6	2.21	0.73
26:14:1627:G:OP1	58:14:3440:HOH:O	2.07	0.73
32:59:6:ARG:NH2	32:59:62:LYS:O	2.21	0.73
4:3E:50:ARG:HD2	4:3E:51:PRO:HD2	1.71	0.73
26:1H:270(L):U:C2	33:61:50:ARG:HG2	2.23	0.73
26:1H:968:G:O6	58:1H:3586:HOH:O	2.05	0.73
46:H8:116:VAL:HG22	46:H8:146:ILE:HG12	1.70	0.73
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.22	0.73
1:1G:1315:U:HO2'	1:1G:1360:A:HO2'	1.28	0.73
5:42:35:GLY:HA3	5:42:41:VAL:HG23	1.70	0.73
26:1H:918:A:N3	27:16:80:U:O2'	2.20	0.73
26:1H:2048:G:N7	58:1H:3685:HOH:O	2.20	0.73
1:1G:411:A:H62	1:1G:413:G:H21	1.35	0.73
1:1G:1127:G:O2'	1:1G:1148:U:O2	2.05	0.73
26:14:1019:U:H2'	26:14:1020:A:H8	1.54	0.73
1:13:613:C:H42	1:13:627:G:H1	1.37	0.73
26:1H:1342:A:OP2	58:1H:3590:HOH:O	2.06	0.73
29:21:63:LEU:O	29:21:66:HIS:N	2.21	0.73
36:78:49:ARG:HD2	54:Q8:61:LEU:HD23	1.69	0.73
1:1G:54:C:N4	1:1G:353:A:OP2	2.20	0.73
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.70	0.73
26:14:2681:C:H5	26:14:2725:A:H62	1.36	0.73
50:H5:13:ILE:O	58:H5:101:HOH:O	2.05	0.73
26:1H:1344:G:N7	58:1H:3683:HOH:O	2.20	0.73
26:14:2887:U:H2'	26:14:2888:C:H6	1.54	0.73
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.21	0.73
26:1H:1728:G:H8	26:1H:1732:A:H62	1.34	0.73
40:B8:58:ASN:O	40:B8:58:ASN:ND2	2.21	0.73
26:1H:796:C:H2'	26:1H:797:C:C6	2.24	0.73
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.69	0.73
4:32:57:ARG:NH2	4:32:205:GLU:OE1	2.21	0.73
8:72:28:ALA:HB3	8:72:57:PRO:HB2	1.71	0.73
12:3A:60:LEU:HB3	12:3A:62:SER:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:323:G:HO2'	26:14:1205:U:H3	1.35	0.73
26:14:774:A:O2'	26:14:775:G:O5'	2.07	0.73
26:14:2156:G:N7	26:14:2157:G:N2	2.37	0.73
41:85:27:LEU:HD12	41:85:31:SER:HB3	1.70	0.73
24:3K:49:G:N2	24:3K:65:C:HO2'	1.86	0.72
41:85:85:LYS:HB3	41:85:116:ALA:HB1	1.71	0.72
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	1.89	0.72
28:11:171:ASP:OD1	28:11:171:ASP:N	2.21	0.72
32:51:157:TYR:H	32:51:171:LEU:HA	1.53	0.72
22:1L:56:C:H3'	22:1L:57:G:H5''	1.71	0.72
26:14:1011:G:O2'	26:14:1012:U:OP1	2.06	0.72
26:14:2306:C:N4	31:49:42:GLY:O	2.21	0.72
1:13:1506:U:O2'	58:13:1816:HOH:O	2.06	0.72
1:1G:584:G:OP1	17:8A:91:ARG:NH1	2.22	0.72
10:1A:47:PHE:HB2	10:1A:63:PHE:HB2	1.71	0.72
26:14:141:A:H8	26:14:1595:G:H21	1.34	0.72
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.17	0.72
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.52	0.72
26:1H:1639:U:OP1	58:1H:3594:HOH:O	2.07	0.72
26:1H:2844:G:O6	58:1H:3573:HOH:O	2.03	0.72
1:1G:985:C:H42	1:1G:1220:G:H1	1.37	0.72
5:42:31:LEU:HD22	5:42:45:PHE:HB2	1.71	0.72
48:F5:76:ARG:O	48:F5:78:LYS:NZ	2.21	0.72
1:13:881:G:P	12:3I:12:ARG:HH22	2.11	0.72
7:6E:78:ARG:NH1	7:6E:154:TYR:O	2.23	0.72
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.72	0.72
52:N8:41:PRO:O	52:N8:44:THR:OG1	2.06	0.72
5:42:16:THR:OG1	5:42:17:ALA:N	2.21	0.72
9:82:40:LEU:HB3	9:82:43:ALA:HB2	1.70	0.72
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.71	0.72
26:1H:409:C:OP1	58:1H:3587:HOH:O	2.05	0.72
26:1H:617:G:OP1	30:31:40:GLN:NE2	2.22	0.72
1:1G:617:G:N7	58:1G:1822:HOH:O	2.21	0.72
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.71	0.72
26:14:1345:C:OP2	58:14:3436:HOH:O	2.05	0.72
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.70	0.72
26:1H:1204:A:H62	26:1H:1241:A:H2	1.38	0.72
29:21:111:ARG:HG3	29:21:160:TYR:CD2	2.24	0.72
37:88:66:ILE:HA	37:88:104:PHE:HA	1.70	0.72
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.21	0.72
2:12:130:ARG:O	2:12:135:GLN:NE2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:100:LEU:HD21	38:55:113:LEU:HD13	1.72	0.72
51:M8:14:ILE:HG22	51:M8:24:THR:HG22	1.71	0.72
26:14:2823:A:OP1	29:29:113:PHE:HB2	1.90	0.72
30:39:10:PRO:HA	30:39:127:GLU:HG2	1.72	0.72
49:K8:3:LEU:H	49:K8:4:SER:C	1.93	0.72
26:14:1386:C:H2'	26:14:1387:C:H6	1.54	0.72
20:BI:33:ILE:O	20:BI:37:SER:OG	2.06	0.72
26:1H:1266:G:O5'	43:E8:15:ARG:NH2	2.22	0.72
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.36	0.72
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.72	0.72
13:4A:12:ASN:H	13:4A:45:VAL:HB	1.53	0.72
26:1H:2739:U:OP2	58:1H:3598:HOH:O	2.08	0.71
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.04	0.71
19:AA:9:VAL:CB	19:AA:10:PHE:HA	2.20	0.71
26:14:84:A:N6	26:14:102:G:O2'	2.22	0.71
26:14:240:G:O6	58:14:3441:HOH:O	2.07	0.71
26:14:1899:G:H21	26:14:1902:C:N4	1.87	0.71
31:49:136:ARG:HD3	31:49:137:GLU:H	1.55	0.71
34:15:128:HIS:ND1	34:15:129:PRO:O	2.22	0.71
46:D5:157:LEU:HA	46:D5:161:VAL:HG11	1.71	0.71
54:M5:40:GLU:HA	54:M5:43:GLN:HB2	1.71	0.71
26:1H:1613:G:N7	58:1H:3691:HOH:O	2.21	0.71
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.55	0.71
5:42:143:ARG:NH2	8:72:77:GLU:OE1	2.23	0.71
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.23	0.71
1:13:936:C:O2	1:13:1382:C:N4	2.23	0.71
26:1H:587:C:N3	36:78:33:ARG:NH1	2.39	0.71
40:B8:62:THR:HB	40:B8:75:ILE:HG12	1.72	0.71
1:13:243:A:H4'	1:13:244:U:H3'	1.72	0.71
13:4I:17:VAL:O	13:4I:20:THR:OG1	2.08	0.71
26:1H:326:G:N7	58:1H:3696:HOH:O	2.22	0.71
26:1H:445:C:OP1	58:1H:3597:HOH:O	2.08	0.71
26:1H:852:G:H1	26:1H:925:C:H42	1.38	0.71
26:1H:1176:G:N7	26:1H:1177:A:N6	2.37	0.71
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.72	0.71
26:14:848:G:H2'	26:14:849:A:C8	2.25	0.71
29:29:61:ARG:HA	29:29:63:LEU:HD22	1.72	0.71
1:13:179:A:H2'	1:13:180:U:H6	1.56	0.71
1:13:768:A:OP2	58:13:1818:HOH:O	2.08	0.71
11:2I:54:ARG:O	11:2I:56:GLY:N	2.24	0.71
26:1H:155:C:N4	26:1H:171:G:H1	1.86	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1399:C:N4	58:1H:3697:HOH:O	2.22	0.71
39:A8:27:SER:HA	39:A8:88:ASP:HB3	1.71	0.71
26:14:1614:A:OP1	26:14:1617:C:N4	2.24	0.71
26:14:2295:C:H5	39:65:13:ARG:HH22	1.39	0.71
26:1H:818:G:OP2	58:1H:3538:HOH:O	2.08	0.71
28:11:85:ASP:OD2	28:11:88:ARG:NH1	2.24	0.71
2:12:193:ASP:OD1	2:12:193:ASP:N	2.23	0.71
26:14:49:A:H4'	26:14:50:U:H5''	1.73	0.71
26:14:729:G:OP2	28:19:13:ARG:NH1	2.24	0.71
26:14:2404:C:O3'	36:35:77:ARG:NH2	2.23	0.71
1:13:1329:A:H5'	13:4I:29:ARG:HD2	1.73	0.71
4:3E:122:ARG:NH1	4:3E:134:ASP:O	2.23	0.71
26:1H:274:G:N2	26:1H:276:A:H61	1.88	0.71
26:1H:1007:C:OP2	58:1H:3605:HOH:O	2.09	0.71
28:11:17:THR:HG22	28:11:204:ILE:HA	1.72	0.71
26:14:958:U:OP2	37:45:14:ARG:NH1	2.20	0.71
1:13:662:G:H1	1:13:743:U:H3	1.38	0.71
8:7E:45:ILE:HG22	8:7E:63:LEU:HA	1.71	0.71
26:1H:646:A:H2'	26:1H:647:G:O4'	1.91	0.71
44:F8:24:GLY:O	44:F8:82:GLN:HA	1.90	0.71
26:14:2272:U:O4	58:14:3438:HOH:O	2.06	0.71
26:14:2711:A:OP1	58:14:3447:HOH:O	2.09	0.71
29:29:37:ARG:NH1	29:29:80:GLU:OE2	2.24	0.71
26:14:2287:A:N6	26:14:2344:U:H3	1.89	0.71
1:13:588:G:OP1	58:13:1820:HOH:O	2.09	0.71
1:13:1284:C:O2	58:13:1819:HOH:O	2.08	0.71
26:1H:463:G:N7	58:1H:3702:HOH:O	2.23	0.71
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.56	0.71
12:3A:60:LEU:HB2	12:3A:64:TYR:H	1.56	0.71
26:14:1394:U:OP1	58:14:3443:HOH:O	2.08	0.71
31:49:73:ALA:HB3	31:49:84:LYS:HA	1.73	0.71
26:1H:376:C:OP1	58:1H:3602:HOH:O	2.09	0.70
1:1G:79:G:H1	1:1G:90:C:N4	1.87	0.70
1:1G:688:G:H2'	1:1G:689:C:H6	1.55	0.70
1:1G:727:G:N2	1:1G:730:G:OP2	2.21	0.70
34:15:6:PRO:HG3	34:15:41:ASP:HB3	1.73	0.70
2:1E:11:LEU:HD21	2:1E:209:ARG:HH21	1.55	0.70
5:4E:98:THR:HB	5:4E:117:ASP:HB3	1.70	0.70
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.72	0.70
26:1H:567:A:OP1	58:1H:3599:HOH:O	2.09	0.70
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1210:A:H5''	26:1H:1212:G:H5'	1.73	0.70
26:1H:1800:C:OP2	28:11:183:ARG:NH2	2.22	0.70
28:11:124:PRO:O	28:11:129:ASN:ND2	2.23	0.70
41:C8:92:ARG:O	41:C8:94:ASN:N	2.25	0.70
26:14:833:U:O2	36:35:55:ARG:NH1	2.24	0.70
26:14:2062:A:O2'	26:14:2063:C:OP1	2.09	0.70
26:14:2810:A:N6	26:14:2891:G:O2'	2.24	0.70
1:13:579:G:N2	1:13:762:C:O2	2.16	0.70
51:M8:12:ALA:O	51:M8:24:THR:OG1	2.08	0.70
1:1G:1123:A:H4'	10:1A:36:GLY:HA3	1.72	0.70
3:22:172:ARG:HG2	3:22:174:PRO:HD3	1.71	0.70
24:3L:15:G:N2	24:3L:21:A:N3	2.39	0.70
26:14:1111:A:O3'	26:14:1112:G:H4'	1.90	0.70
26:14:1633:G:O6	58:14:3439:HOH:O	2.06	0.70
26:14:1664:A:OP2	58:14:3442:HOH:O	2.07	0.70
46:H8:128:VAL:HB	46:H8:161:VAL:HG12	1.72	0.70
1:1G:191(F):U:H2'	1:1G:191:G:H8	1.56	0.70
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.24	0.70
24:3L:15:G:H2'	24:3L:59:A:N6	2.07	0.70
26:14:399:G:OP2	58:14:3444:HOH:O	2.08	0.70
26:14:602:G:HO2'	26:14:604:G:HO2'	1.35	0.70
26:14:1049:C:N4	26:14:2751:G:N7	2.39	0.70
32:59:46:GLU:OE2	32:59:51:ARG:NH1	2.25	0.70
1:13:811:C:N3	58:13:1844:HOH:O	2.23	0.70
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.24	0.70
16:7I:50:LYS:HE3	16:7I:51:VAL:H	1.56	0.70
26:1H:972:G:O2'	58:1H:3604:HOH:O	2.09	0.70
26:1H:974(A):C:OP1	58:1H:3603:HOH:O	2.09	0.70
26:1H:1385:G:N7	58:1H:3707:HOH:O	2.24	0.70
26:1H:1676:A:OP2	58:1H:3593:HOH:O	2.07	0.70
52:N8:36:CYS:HB2	52:N8:49:CYS:SG	2.32	0.70
26:14:2873:A:H8	38:55:6:SER:H	1.37	0.70
29:29:36:ARG:NH2	29:29:86:PRO:O	2.25	0.70
30:39:153:SER:HB2	30:39:190:GLU:H	1.56	0.70
46:D5:10:ARG:HD2	46:D5:36:LYS:HE2	1.74	0.70
7:6E:16:LEU:HD11	9:8E:45:ALA:HB2	1.74	0.70
13:4I:117:VAL:HG13	13:4I:118:ALA:H	1.55	0.70
24:3K:43:G:H2'	24:3K:44:A:C8	2.27	0.70
40:B8:20:PRO:HD2	40:B8:86:ILE:HG23	1.73	0.70
1:1G:1205:U:O3'	3:22:190:ARG:NH2	2.25	0.70
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:945:A:N3	58:14:3497:HOH:O	2.24	0.70
26:14:1106:G:H3'	26:14:1107:G:C8	2.27	0.70
48:F5:92:LYS:O	48:F5:95:LEU:N	2.25	0.70
26:1H:24:G:O6	58:1H:3608:HOH:O	2.09	0.70
26:1H:1287:A:N7	38:98:107:ASP:HB2	2.06	0.70
34:58:120:LEU:HD21	34:58:122:VAL:HG23	1.73	0.70
44:F8:27:THR:HB	44:F8:80:ILE:HB	1.73	0.70
23:2L:41:C:H2'	23:2L:42:C:H6	1.56	0.70
26:14:761:A:N6	58:14:3401:HOH:O	2.22	0.70
41:85:97:ASP:OD2	41:85:101:ARG:NH2	2.25	0.70
1:13:128:G:O2'	17:8I:3:LYS:NZ	2.15	0.70
1:13:501:C:H2'	1:13:502:G:C8	2.26	0.70
26:1H:1632:A:OP2	58:1H:3601:HOH:O	2.09	0.70
1:1G:929:G:H1	1:1G:1388:C:H42	1.38	0.70
1:1G:967:C:O2'	9:82:125:TYR:OH	2.09	0.70
3:22:7:PRO:HB2	3:22:11:ARG:HH12	1.55	0.70
26:14:676:A:H8	26:14:2069:G:H21	1.40	0.70
29:29:49:LEU:HD22	29:29:91:VAL:HG21	1.74	0.70
1:13:266:G:H5''	1:13:267:C:H5	1.55	0.70
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.56	0.70
26:1H:661:C:O2'	36:78:13:ASN:O	2.09	0.70
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.57	0.70
1:1G:19:C:OP1	5:42:125:SER:OG	2.09	0.70
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.56	0.70
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.56	0.70
1:1G:1110:A:OP2	58:1G:1813:HOH:O	2.09	0.70
3:22:111:LEU:HD23	3:22:146:ALA:HB2	1.73	0.70
26:14:1756:G:OP2	58:14:3446:HOH:O	2.09	0.70
1:13:1144:G:H21	1:13:1146:A:H62	1.37	0.70
26:1H:2401:U:H2'	26:1H:2402:C:O4'	1.92	0.70
1:1G:933:G:O6	7:62:3:ARG:NH2	2.25	0.70
13:4A:64:TRP:HB2	13:4A:66:LEU:HD23	1.74	0.70
26:14:1727:U:H3	26:14:1733:G:H1	1.36	0.70
35:25:111:PHE:HB3	35:25:114:ILE:HG13	1.73	0.70
1:13:35:G:O2'	12:3I:118:SER:O	2.10	0.69
1:13:259:G:OP2	20:BI:83:ARG:NH1	2.24	0.69
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.20	0.69
12:3I:32:PHE:HB3	12:3I:84:LEU:HD11	1.72	0.69
26:1H:450:G:O6	58:1H:3606:HOH:O	2.09	0.69
26:1H:963:U:OP1	58:1H:3615:HOH:O	2.10	0.69
26:1H:1379:A:H4'	26:1H:1380:G:OP2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.25	0.69
40:B8:77:PRO:HG2	40:B8:80:SER:HB2	1.72	0.69
40:B8:107:ASP:O	40:B8:111:ARG:NH1	2.25	0.69
1:1G:629:G:H2'	1:1G:630:G:O4'	1.91	0.69
22:1L:51:C:N4	22:1L:63:G:O6	2.16	0.69
26:14:2146:C:H4'	26:14:2147:G:C8	2.27	0.69
26:14:2788:C:OP1	29:29:61:ARG:NH1	2.25	0.69
1:13:524:G:H2'	1:13:525:C:C6	2.26	0.69
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.25	0.69
6:5E:15:ASP:OD1	6:5E:18:GLN:N	2.25	0.69
33:61:2:LYS:HB2	33:61:39:ALA:HB3	1.75	0.69
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.73	0.69
26:14:1014:U:H3	26:14:1148:A:H61	1.38	0.69
26:14:1499:C:H2'	26:14:1500:G:H8	1.57	0.69
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.24	0.69
19:AI:64:GLU:OE2	51:M8:60:GLN:NE2	2.26	0.69
26:1H:820:A:N6	58:1H:3701:HOH:O	2.23	0.69
26:1H:1664:A:OP2	58:1H:3611:HOH:O	2.10	0.69
34:58:30:ILE:HG23	34:58:52:VAL:HG11	1.74	0.69
54:M5:14:VAL:HG11	54:M5:22:VAL:HG13	1.74	0.69
1:13:1:U:H4'	1:13:2:U:O5'	1.92	0.69
1:13:536:C:OP2	58:13:1817:HOH:O	2.08	0.69
26:1H:1410:G:O6	26:1H:1592:C:N4	2.15	0.69
26:1H:1710:C:H42	26:1H:1748:G:H1	1.41	0.69
26:1H:1858:G:O6	58:1H:3600:HOH:O	2.09	0.69
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.27	0.69
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.22	0.69
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.26	0.69
26:14:1757:U:N3	26:14:1762:A:H2	1.89	0.69
27:1J:89:G:N2	27:1J:89(A):A:N1	2.40	0.69
29:29:116:VAL:HG23	29:29:120:TRP:HB2	1.74	0.69
33:69:77:LEU:HB3	33:69:78:THR:OG1	1.92	0.69
1:13:153:C:N4	1:13:168:G:H1	1.90	0.69
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.26	0.69
26:1H:71:A:C8	26:1H:71:A:H5'	2.27	0.69
26:1H:862:G:OP2	58:1H:3609:HOH:O	2.10	0.69
26:1H:1253:A:C8	58:1H:3527:HOH:O	2.45	0.69
32:51:4:ILE:HG22	32:51:69:ARG:HG2	1.73	0.69
34:15:4:TYR:O	41:85:64:ARG:NH1	2.25	0.69
54:M5:28:GLY:O	54:M5:36:LYS:NZ	2.24	0.69
1:13:1348:U:H2'	1:13:1349:A:H8	1.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.74	0.69
26:1H:571:A:OP2	58:1H:3612:HOH:O	2.10	0.69
26:14:2238:G:N7	58:14:3494:HOH:O	2.24	0.69
28:19:31:LYS:NZ	28:19:33:LEU:HB2	2.07	0.69
36:35:29:LYS:HG2	36:35:30:THR:N	2.05	0.69
38:55:24:GLN:OE1	38:55:36:THR:HG21	1.92	0.69
24:3K:49:G:N2	24:3K:65:C:O2'	2.24	0.69
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.93	0.69
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.58	0.69
32:59:125:VAL:HG22	32:59:126:PRO:HA	1.74	0.69
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.73	0.69
24:3K:50:G:O2'	24:3K:64:C:N4	2.25	0.69
26:1H:2061:G:H5''	26:1H:2503:A:C2	2.28	0.69
32:51:9:ILE:HD11	32:51:69:ARG:HD2	1.75	0.69
35:68:120:GLU:OE1	40:B8:67:SER:OG	2.10	0.69
40:B8:55:ASN:H	40:B8:59:THR:HB	1.57	0.69
1:1G:136:C:H42	1:1G:227:G:H1	1.41	0.69
4:32:31:CYS:HB2	4:32:33:MET:H	1.56	0.69
13:4A:71:ARG:HD3	13:4A:71:ARG:H	1.58	0.69
26:14:1653:G:H3'	38:55:2:ARG:HG2	1.73	0.69
31:49:7:LEU:HD12	31:49:104:GLU:HA	1.73	0.69
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.26	0.69
26:1H:1189:A:OP2	58:1H:3616:HOH:O	2.11	0.69
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.57	0.69
26:1H:2433:A:OP2	58:1H:3607:HOH:O	2.09	0.69
46:H8:169:GLU:OE1	46:H8:170:THR:N	2.19	0.69
51:M8:36:CYS:SG	51:M8:37:SER:N	2.65	0.69
1:1G:1396:A:H4'	1:1G:1397:C:H5''	1.74	0.69
26:14:855:G:H5'	26:14:856:C:OP2	1.93	0.69
34:15:18:ALA:HA	34:15:21:LYS:HD2	1.75	0.69
37:45:21:THR:HG22	37:45:23:GLY:HA3	1.74	0.69
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	1.75	0.69
1:13:737:A:H2'	1:13:738:C:H6	1.57	0.69
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.57	0.69
26:1H:2706:G:O6	58:1H:3610:HOH:O	2.10	0.69
32:51:40:GLU:OE1	32:51:60:ARG:NH2	2.25	0.69
1:1G:194:C:H2'	1:1G:195:A:H5''	1.74	0.69
1:1G:989:C:N3	1:1G:1216:G:N1	2.40	0.69
1:1G:1425:U:H3	1:1G:1475:G:H1	1.40	0.69
8:72:41:ARG:NH2	8:72:123:GLU:OE2	2.23	0.69
26:14:140:A:H8	26:14:1408:C:HO2'	1.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:534:U:H5'	41:85:42:ALA:HB1	1.73	0.69
44:B5:43:VAL:HG23	44:B5:51:VAL:HG21	1.74	0.69
1:13:503:C:OP2	12:3I:116:SER:OG	2.11	0.68
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.58	0.68
50:L8:5:LYS:HE3	50:L8:57:GLU:OE2	1.93	0.68
26:14:1346:G:OP2	58:14:3449:HOH:O	2.10	0.68
46:D5:149:SER:HA	46:D5:170:THR:HB	1.75	0.68
1:13:286:G:O6	58:13:1821:HOH:O	2.09	0.68
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.27	0.68
26:1H:2128:C:N4	26:1H:2160:G:O6	2.17	0.68
28:11:10:THR:OG1	28:11:13:ARG:HB2	1.93	0.68
45:G8:85:VAL:HG23	45:G8:96:ILE:HB	1.75	0.68
51:M8:14:ILE:HG23	51:M8:21:VAL:HB	1.75	0.68
12:3A:62:SER:HB2	12:3A:64:TYR:HD2	1.58	0.68
22:1L:49:G:H1	22:1L:59:C:H5''	1.58	0.68
26:14:2074:U:OP1	58:14:3448:HOH:O	2.10	0.68
26:14:2153:G:N2	26:14:2154:G:O6	2.26	0.68
31:49:53:LEU:HD13	31:49:90:LEU:HD21	1.73	0.68
33:69:117:GLU:HB2	33:69:118:LYS:HE2	1.76	0.68
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.26	0.68
26:1H:964:C:OP1	58:1H:3613:HOH:O	2.10	0.68
26:1H:1250:G:OP1	58:1H:3614:HOH:O	2.10	0.68
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.28	0.68
26:1H:2210:G:H2'	26:1H:2211:G:C5	2.28	0.68
3:22:16:ARG:HH22	3:22:182:ILE:H	1.39	0.68
5:42:122:GLU:O	5:42:126:ARG:NH1	2.27	0.68
11:2A:109:VAL:HG12	18:9A:86:VAL:HG13	1.74	0.68
26:14:2883:A:H5'	26:14:2884:U:H5'	1.75	0.68
30:39:117:ARG:NH1	30:39:120:GLU:OE1	2.26	0.68
32:59:149:ARG:HA	32:59:162:ILE:HD12	1.75	0.68
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.74	0.68
4:3E:88:VAL:HG12	4:3E:89:THR:HG22	1.74	0.68
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.27	0.68
26:1H:500:G:N7	58:1H:3718:HOH:O	2.25	0.68
26:1H:690:G:O6	58:1H:3617:HOH:O	2.11	0.68
4:32:157:LEU:O	4:32:161:ASN:ND2	2.27	0.68
31:49:116:ASP:OD2	31:49:118:ARG:NH2	2.26	0.68
26:1H:330:A:HO2'	26:1H:331:A:H8	1.38	0.68
26:1H:1858:G:O6	58:1H:3595:HOH:O	2.08	0.68
26:1H:2712(A):A:OP1	58:1H:3555:HOH:O	2.11	0.68
34:15:56:ASN:N	34:15:125:GLY:HA3	2.06	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:24:LEU:HD12	39:65:41:ASP:HB2	1.74	0.68
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.26	0.68
26:1H:193:U:OP1	58:1H:3618:HOH:O	2.11	0.68
26:1H:1776:G:OP2	58:1H:3622:HOH:O	2.12	0.68
26:14:389:G:N1	36:35:71:VAL:HG12	2.09	0.68
26:14:399:G:OP2	58:14:3450:HOH:O	2.11	0.68
43:A5:24:ILE:HA	43:A5:27:LYS:HG2	1.74	0.68
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.27	0.68
26:1H:723:G:H2'	26:1H:724:U:O4'	1.94	0.68
1:1G:353:A:N7	58:1G:1832:HOH:O	2.26	0.68
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.75	0.68
1:13:446:G:H1	1:13:488:C:H42	1.42	0.68
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.11	0.68
26:14:1499:C:H2'	26:14:1500:G:C8	2.28	0.68
26:14:1858:G:O2'	26:14:1883:G:N2	2.26	0.68
31:49:40:ASN:HB2	31:49:91:ARG:HG2	1.76	0.68
10:1I:9:ARG:NH2	10:1I:95:GLU:OE2	2.26	0.68
49:K8:63:VAL:HA	49:K8:66:GLU:HG2	1.76	0.68
26:14:2365:G:N7	54:M5:39:LYS:NZ	2.42	0.68
28:19:63:ARG:HD3	28:19:63:ARG:H	1.59	0.68
39:65:28:VAL:HG11	39:65:98:VAL:HG13	1.74	0.68
40:75:88:ILE:HD11	40:75:91:ARG:HG2	1.74	0.68
1:13:411:A:OP1	4:3E:30:LYS:NZ	2.27	0.68
11:2I:95:ILE:HG13	11:2I:96:ARG:H	1.59	0.68
23:2K:48:U:O2'	23:2K:49:C:OP2	2.12	0.68
27:16:11:C:O2	27:16:15:A:N6	2.27	0.68
1:1G:474:G:H2'	1:1G:475:G:H8	1.59	0.68
1:1G:659:U:OP2	15:6A:8:LYS:NZ	2.27	0.68
4:32:35:ARG:HH11	4:32:35:ARG:HB2	1.59	0.68
13:4A:68:GLY:HA3	31:49:116:ASP:OD2	1.94	0.68
26:14:389:G:H1	36:35:71:VAL:HG12	1.59	0.68
29:29:10:GLY:HA2	29:29:192:ASN:ND2	2.07	0.68
34:15:104:LYS:HA	34:15:107:LEU:HD12	1.76	0.68
36:35:78:PRO:HA	36:35:110:TYR:HD2	1.58	0.68
52:J5:46:CYS:SG	52:J5:48:GLU:HG2	2.34	0.68
54:M5:22:VAL:HB	54:M5:55:ALA:HB1	1.75	0.68
2:1E:118:LEU:HB3	2:1E:142:LEU:HD12	1.75	0.67
5:4E:115:VAL:HG11	5:4E:118:ILE:HB	1.75	0.67
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	1.77	0.67
26:1H:1053:C:H42	26:1H:1106:G:H1	1.42	0.67
26:1H:2256:G:N7	58:1H:3726:HOH:O	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.27	0.67
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.74	0.67
12:3I:39:VAL:HG12	12:3I:41:ARG:HG2	1.76	0.67
43:A5:13:SER:HA	43:A5:99:ARG:HB2	1.74	0.67
24:3K:39:G:H2'	24:3K:40:G:C8	2.29	0.67
26:1H:85:G:OP2	45:G8:9:LYS:HB2	1.94	0.67
26:1H:1210:A:OP1	58:1H:3620:HOH:O	2.12	0.67
26:1H:1702:G:O6	58:1H:3596:HOH:O	2.08	0.67
1:1G:458:C:H2'	1:1G:464:G:H8	1.59	0.67
27:1J:48:A:H4'	39:65:95:HIS:HD2	1.60	0.67
29:29:54:GLN:HA	29:29:74:PRO:HA	1.74	0.67
1:13:766:A:OP2	58:13:1823:HOH:O	2.12	0.67
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.08	0.67
26:1H:1952:A:C2	35:68:22:ILE:HG23	2.29	0.67
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.29	0.67
34:58:67:LEU:HA	34:58:87:LEU:HD12	1.76	0.67
44:F8:61:GLY:N	44:F8:75:ASP:OD1	2.27	0.67
48:J8:81:LYS:NZ	48:J8:83:GLU:O	2.26	0.67
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.94	0.67
1:1G:1208:C:H2'	1:1G:1209:C:H6	1.60	0.67
1:1G:1095:U:P	1:1G:1108:G:H1	2.17	0.67
1:1G:1160:G:N2	1:1G:1176:A:N1	2.43	0.67
26:14:275:G:O2'	26:14:276:A:O4'	2.12	0.67
1:13:113:G:H2'	1:13:114:U:C6	2.30	0.67
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.28	0.67
26:1H:392:C:OP1	58:1H:3621:HOH:O	2.12	0.67
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.35	0.67
37:88:138:ASP:OD1	37:88:138:ASP:N	2.27	0.67
26:14:1530:G:O6	26:14:1542:G:N2	2.28	0.67
30:39:53:THR:HG23	30:39:55:GLY:H	1.59	0.67
39:65:14:VAL:HG11	39:65:89:ARG:HH11	1.59	0.67
40:B8:19:LEU:HD22	40:B8:86:ILE:HG22	1.76	0.67
1:1G:664:G:H22	1:1G:741:G:H1	1.42	0.67
33:69:78:THR:HG21	33:69:104:GLN:HG3	1.76	0.67
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.77	0.67
1:13:661:G:H1	1:13:744:C:H42	1.40	0.67
1:13:1239:A:O2'	7:6E:114:ARG:O	2.13	0.67
22:1K:1:G:N7	22:1K:73:A:N6	2.42	0.67
26:1H:95:G:H4'	49:K8:46:GLN:HG3	1.75	0.67
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.60	0.67
26:1H:871:U:OP2	37:88:5:ARG:NH2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1454:G:H5''	20:BA:35:THR:HG21	1.77	0.67
3:22:73:PRO:HA	3:22:76:VAL:HG13	1.75	0.67
26:14:1680:U:N3	26:14:1764:G:OP2	2.27	0.67
26:14:1797:C:HO2'	28:19:259:THR:HG1	1.42	0.67
31:49:115:ARG:HB2	31:49:136:ARG:HH21	1.59	0.67
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.77	0.67
26:1H:387:U:OP1	58:1H:3619:HOH:O	2.11	0.67
26:1H:731:C:OP2	58:1H:3542:HOH:O	2.13	0.67
26:1H:2210:G:H5''	26:1H:2211:G:N7	2.09	0.67
44:B5:51:VAL:HG13	44:B5:81:VAL:HG23	1.77	0.67
1:13:153:C:N3	1:13:168:G:N2	2.42	0.67
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.59	0.67
26:1H:1547:C:H2'	26:1H:1548:C:C6	2.29	0.67
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.59	0.67
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.20	0.67
26:14:938:G:OP2	54:M5:52:LYS:NZ	2.26	0.67
41:85:53:ARG:HA	41:85:56:ASP:HB2	1.77	0.67
1:13:1241:G:OP1	7:6E:35:LYS:NZ	2.22	0.66
26:1H:49:A:N7	26:1H:120:U:H5	1.92	0.66
26:1H:187:G:OP2	58:1H:3623:HOH:O	2.13	0.66
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.30	0.66
26:1H:1534:G:H21	26:1H:1538:G:N2	1.91	0.66
26:1H:2713:A:OP2	58:1H:3625:HOH:O	2.13	0.66
26:14:182:A:N6	26:14:214:G:O6	2.28	0.66
26:14:1824:G:OP1	28:19:52:ARG:NH1	2.27	0.66
1:13:674:G:H2'	1:13:675:A:H8	1.58	0.66
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.77	0.66
26:1H:270(L):U:N1	33:6I:50:ARG:HG2	2.10	0.66
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.60	0.66
26:1H:2404:C:O3'	36:78:77:ARG:NH2	2.27	0.66
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.60	0.66
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.59	0.66
1:1G:195:A:OP2	58:1G:1816:HOH:O	2.13	0.66
23:2L:24:C:H2'	23:2L:25:U:C6	2.30	0.66
26:14:862:G:OP2	58:14:3451:HOH:O	2.11	0.66
26:14:2839:G:H5'	38:55:46:GLY:HA2	1.75	0.66
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.77	0.66
9:8E:5:TYR:HH	9:8E:7:THR:HG1	1.41	0.66
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.60	0.66
26:1H:1681:G:N2	58:1H:3736:HOH:O	2.28	0.66
30:31:155:LEU:HD13	30:31:185:ASP:HB3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:17:THR:O	8:72:78:GLN:NE2	2.27	0.66
26:14:2324:C:H5''	26:14:2325:G:H5'	1.78	0.66
26:14:2400:G:H2'	26:14:2401:U:C6	2.30	0.66
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.76	0.66
26:1H:2732:G:OP1	29:21:203:LYS:NZ	2.28	0.66
32:51:24:VAL:HG13	32:51:35:VAL:HB	1.76	0.66
41:C8:92:ARG:HD2	42:D8:11:GLN:HB2	1.76	0.66
1:1G:666:G:OP2	1:1G:725:G:N2	2.24	0.66
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.28	0.66
16:7A:57:ARG:HE	16:7A:79:VAL:HG12	1.59	0.66
26:14:2267:A:OP2	58:14:3453:HOH:O	2.12	0.66
41:85:66:ASN:CG	41:85:76:TYR:HB2	2.16	0.66
46:D5:23:LYS:HD3	46:D5:40:ASP:HA	1.78	0.66
1:13:307:C:OP2	58:13:1826:HOH:O	2.13	0.66
26:1H:517:C:OP1	52:N8:16:ARG:NH2	2.27	0.66
26:1H:722:A:H2'	26:1H:723:G:H8	1.60	0.66
35:68:88:ASN:O	35:68:91:LEU:N	2.27	0.66
4:32:96:LEU:HB3	4:32:139:ARG:HH12	1.61	0.66
26:14:1028:A:H2'	26:14:1029:A:C8	2.31	0.66
26:14:2415:G:H4'	36:35:67:MET:N	2.10	0.66
36:35:79:ARG:HG2	36:35:110:TYR:HB2	1.78	0.66
1:13:737:A:H2'	1:13:738:C:C6	2.31	0.66
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.30	0.66
26:1H:453:C:OP1	58:1H:3606:HOH:O	2.14	0.66
26:1H:1032:A:H2	26:1H:1122:G:H22	1.42	0.66
31:41:97:ASP:HA	31:41:100:TRP:HD1	1.60	0.66
1:1G:382:A:H2'	1:1G:383:A:C8	2.30	0.66
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.31	0.66
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.77	0.66
1:13:973:G:H3'	1:13:974:A:H5''	1.78	0.66
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.56	0.66
41:C8:106:PHE:HA	41:C8:109:LEU:HD12	1.77	0.66
51:M8:13:ARG:HH12	51:M8:22:ILE:HG23	1.61	0.66
3:22:36:ASP:O	3:22:40:ARG:NH1	2.28	0.66
14:5A:23:ARG:NH1	14:5A:28:GLY:O	2.28	0.66
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.78	0.66
32:59:9:ILE:HG21	32:59:51:ARG:HE	1.61	0.66
1:13:504:C:OP1	58:13:1824:HOH:O	2.13	0.66
26:1H:31:C:OP1	58:1H:3628:HOH:O	2.14	0.66
26:1H:70:G:H21	26:1H:71:A:N6	1.92	0.66
32:51:64:LEU:O	32:51:68:THR:OG1	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:83:TYR:CZ	32:51:138:LYS:HD2	2.30	0.66
7:62:147:ALA:O	7:62:149:ARG:NH1	2.28	0.66
26:14:67:U:N3	26:14:74:A:H2	1.94	0.66
26:14:1678:G:N2	26:14:1989:G:H22	1.93	0.66
31:49:166:ASP:N	31:49:166:ASP:OD1	2.27	0.66
5:4E:15:ARG:HD2	25:4K:26:A:OP1	1.96	0.66
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.77	0.66
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.25	0.66
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.31	0.66
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.76	0.66
13:4A:84:ILE:HG23	19:AA:63:THR:HG21	1.78	0.66
26:14:1525:G:H2'	26:14:1526:G:H8	1.61	0.66
34:15:47:ALA:HB2	34:15:112:LEU:HD11	1.76	0.66
39:65:36:TYR:HA	39:65:52:SER:HB3	1.77	0.66
46:D5:74:VAL:HG13	46:D5:86:VAL:HG22	1.77	0.66
17:8I:82:MET:HA	17:8I:85:VAL:HG12	1.77	0.66
26:1H:2140:C:H42	26:1H:2151:G:H1	1.43	0.66
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.28	0.66
26:14:2801:A:H2'	26:14:2802:G:C8	2.31	0.66
30:39:129:PHE:HB3	30:39:142:TRP:CE2	2.31	0.66
43:A5:26:GLY:H	43:A5:71:VAL:HB	1.61	0.66
26:1H:634:C:H2'	26:1H:635:C:C6	2.31	0.65
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.61	0.65
26:1H:2762:G:OP2	58:1H:3626:HOH:O	2.14	0.65
29:21:105:THR:HG1	29:21:199:ARG:HH21	1.44	0.65
41:C8:34:LYS:NZ	41:C8:37:GLU:OE1	2.25	0.65
50:L8:39:ASP:OD2	50:L8:44:ARG:NH2	2.28	0.65
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.31	0.65
1:13:67:C:H2'	1:13:68:G:H8	1.61	0.65
1:13:405:U:OP2	4:3E:3:ARG:NH1	2.29	0.65
1:13:590:C:H5''	8:7E:30:ARG:HG3	1.79	0.65
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.43	0.65
28:11:177:LEU:HD11	28:11:183:ARG:HG2	1.78	0.65
39:A8:34:HIS:CE1	39:A8:54:LEU:HD23	2.31	0.65
1:1G:8:A:C6	4:32:209:ARG:HB2	2.31	0.65
26:14:72:U:OP1	58:14:3460:HOH:O	2.15	0.65
26:14:1022:G:H22	26:14:1142(A):A:H2	1.44	0.65
26:14:1635:G:OP1	58:14:3459:HOH:O	2.15	0.65
26:14:1990:C:OP2	58:14:3456:HOH:O	2.14	0.65
30:39:25:PRO:HB2	30:39:27:GLU:HB2	1.78	0.65
1:13:1052:U:OP2	58:13:1825:HOH:O	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1104:G:OP1	2:1E:144:ARG:NH1	2.29	0.65
1:13:1345:U:OP1	58:13:1827:HOH:O	2.14	0.65
26:1H:1728:G:H2'	26:1H:1731:G:O6	1.97	0.65
34:58:19:GLU:HG3	34:58:59:LYS:HB3	1.77	0.65
8:72:120:THR:HG23	8:72:122:ARG:H	1.61	0.65
26:14:774:A:H2	26:14:787:U:HO2'	1.44	0.65
26:14:870:A:H5''	37:45:6:ARG:HB3	1.78	0.65
26:14:910:A:C5	37:45:13:GLN:HG3	2.32	0.65
26:14:2148:G:H2'	26:14:2149:G:H8	1.60	0.65
30:39:101:LEU:O	30:39:106:ARG:NH1	2.30	0.65
43:A5:6:ILE:HG12	43:A5:104:THR:HG23	1.77	0.65
1:13:266:G:H5''	1:13:267:C:C5	2.32	0.65
1:13:1356:G:OP2	58:13:1828:HOH:O	2.14	0.65
7:6E:42:ILE:HG12	7:6E:116:ALA:HB3	1.78	0.65
24:3K:34:G:O2'	24:3K:35:G:H8	1.80	0.65
26:1H:1178:C:H4'	26:1H:1179:C:OP1	1.96	0.65
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.32	0.65
1:1G:243:A:H4'	1:1G:244:U:H5''	1.78	0.65
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.31	0.65
1:1G:1502:A:H2	1:1G:1505:G:H1	1.43	0.65
26:14:779:U:OP1	28:19:49:ILE:HG22	1.96	0.65
26:14:857:C:H4'	47:E5:23:VAL:HG21	1.77	0.65
1:13:590:C:H2'	1:13:591:U:H6	1.62	0.65
1:13:1131:G:OP1	9:8E:3:GLN:NE2	2.30	0.65
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.10	0.65
26:1H:1303:G:OP1	58:1H:3630:HOH:O	2.14	0.65
28:11:89:SER:HB2	28:11:159:ALA:H	1.61	0.65
36:78:63:PRO:HB2	54:Q8:30:ARG:HH21	1.62	0.65
38:98:100:LEU:HD11	38:98:113:LEU:HD13	1.79	0.65
1:1G:808:C:OP1	15:6A:48:LYS:NZ	2.20	0.65
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.31	0.65
26:14:2497:A:O2'	58:14:3455:HOH:O	2.14	0.65
30:39:110:LEU:HD21	30:39:181:LEU:HD12	1.77	0.65
1:13:192:U:H2'	1:13:193:C:C6	2.32	0.65
1:13:592:G:H2'	1:13:593:G:H8	1.62	0.65
2:1E:114:ARG:HA	2:1E:117:GLU:HB3	1.77	0.65
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.36	0.65
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.79	0.65
30:31:28:ILE:HD13	30:31:116:ASP:HB2	1.78	0.65
46:H8:19:ARG:HH11	46:H8:84:GLU:HB2	1.62	0.65
3:22:47:LEU:HD12	3:22:52:LEU:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:42:GLY:HA3	5:42:66:MET:HA	1.79	0.65
26:14:33:U:O4	26:14:446:G:O2'	2.11	0.65
26:14:2680:C:H5'	29:29:189:PRO:HA	1.78	0.65
27:1J:13:A:N1	27:1J:69:G:O2'	2.27	0.65
9:8E:71:SER:HA	9:8E:74:ILE:HD12	1.79	0.65
26:1H:1189:A:OP2	58:1H:3632:HOH:O	2.14	0.65
37:88:66:ILE:HD12	37:88:67:ARG:H	1.62	0.65
45:G8:10:GLY:O	45:G8:26:LYS:NZ	2.20	0.65
1:1G:692:U:OP2	11:2A:26:ASN:ND2	2.29	0.65
15:6A:32:LEU:HD13	15:6A:62:GLN:HB3	1.79	0.65
26:14:588:U:H2'	26:14:589:C:C6	2.32	0.65
26:14:831:G:OP1	58:14:3454:HOH:O	2.13	0.65
28:19:63:ARG:HD3	28:19:63:ARG:N	2.11	0.65
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.96	0.65
48:J8:18:ILE:HG13	48:J8:37:ILE:HG12	1.78	0.65
1:1G:557:G:OP1	58:1G:1818:HOH:O	2.14	0.65
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.79	0.65
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.78	0.65
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.61	0.65
26:14:102:G:OP1	49:G5:7:ARG:NH2	2.30	0.65
26:14:307:G:O5'	26:14:307:G:H8	1.80	0.65
26:14:708:C:H42	26:14:723:G:H1	1.44	0.65
26:14:760:G:OP1	58:14:3462:HOH:O	2.15	0.65
26:14:2269:A:OP1	58:14:3458:HOH:O	2.14	0.65
28:19:12:SER:HB2	28:19:208:LYS:HB3	1.78	0.65
34:15:13:TRP:O	34:15:135:PRO:HD2	1.97	0.65
39:65:24:LEU:HD22	39:65:24:LEU:H	1.60	0.65
41:85:98:LEU:HB2	41:85:102:GLU:HB2	1.77	0.65
43:A5:28:SER:OG	43:A5:31:GLU:OE1	2.14	0.65
26:1H:801:G:OP2	58:1H:3633:HOH:O	2.15	0.65
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.32	0.65
27:16:1:U:H2'	27:16:2:C:C6	2.32	0.65
29:21:2:LYS:NZ	29:21:100:GLU:OE2	2.29	0.65
42:D8:14:VAL:HB	42:D8:96:ILE:HG13	1.79	0.65
1:1G:8:A:N6	4:32:209:ARG:HB2	2.12	0.65
1:1G:186(B):C:OP1	20:BA:86:ARG:NH2	2.30	0.65
1:1G:547:A:OP1	58:1G:1817:HOH:O	2.13	0.65
1:1G:1006:C:N4	1:1G:1038:C:O2'	2.29	0.65
26:14:2012:G:OP1	43:A5:11:ARG:NH2	2.29	0.65
42:95:62:LEU:HD11	42:95:95:LEU:HB2	1.78	0.65
1:13:576:G:OP1	58:13:1829:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1347:G:H5''	9:8E:107:ARG:HB3	1.79	0.65
4:3E:161:ASN:O	4:3E:165:MET:HB2	1.96	0.65
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.30	0.65
26:1H:410:G:OP2	58:1H:3634:HOH:O	2.15	0.65
26:1H:1664:A:O5'	58:1H:3520:HOH:O	2.15	0.65
36:78:50:ARG:HD3	54:Q8:7:HIS:CD2	2.31	0.65
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.79	0.65
38:98:96:ARG:HD2	38:98:98:LEU:HD11	1.79	0.65
2:1E:212:GLN:NE2	2:1E:233:SER:O	2.28	0.64
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.80	0.64
29:21:39:PRO:HD3	29:21:45:THR:HG23	1.80	0.64
49:K8:4:SER:O	49:K8:4:SER:OG	2.07	0.64
30:39:127:GLU:HG3	30:39:128:ALA:HB2	1.79	0.64
31:49:66:GLN:HE21	31:49:98:ARG:HD2	1.62	0.64
46:D5:10:ARG:HH21	46:D5:26:GLY:H	1.44	0.64
1:13:579:G:N1	1:13:762:C:N3	2.42	0.64
1:13:652:U:O4	1:13:752:G:O2'	2.12	0.64
26:1H:1041:C:H42	26:1H:1114:G:H1	1.43	0.64
1:1G:584:G:H5'	17:8A:91:ARG:NH2	2.12	0.64
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.80	0.64
26:14:1209:G:OP2	58:14:3457:HOH:O	2.14	0.64
32:59:137:ASP:OD1	32:59:138:LYS:N	2.30	0.64
36:35:5:ASP:HA	36:35:7:ARG:HH21	1.62	0.64
40:75:91:ARG:NH1	40:75:124:ASP:OD2	2.25	0.64
46:D5:19:ARG:HH11	46:D5:84:GLU:HB2	1.62	0.64
46:D5:157:LEU:HB3	46:D5:161:VAL:HG21	1.77	0.64
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	1.79	0.64
32:59:10:PRO:HD2	32:59:50:VAL:O	1.97	0.64
32:59:152:ARG:HG2	32:59:153:LYS:HG3	1.80	0.64
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.63	0.64
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.31	0.64
1:13:1124:G:N7	1:13:1145:C:O2'	2.25	0.64
10:1I:63:PHE:HE1	14:5I:58:LYS:HG2	1.62	0.64
26:1H:67:U:H3	26:1H:74:A:H2	1.43	0.64
26:1H:699:A:H2'	26:1H:700:G:O4'	1.98	0.64
26:1H:1187:G:N7	58:1H:3712:HOH:O	2.30	0.64
26:1H:1520:U:OP2	58:1H:3629:HOH:O	2.14	0.64
26:1H:1678:G:N2	26:1H:1989:G:H22	1.95	0.64
31:41:16:ARG:NH2	31:41:31:VAL:HG21	2.12	0.64
31:41:97:ASP:O	31:41:101:ILE:HG23	1.97	0.64
39:A8:74:ALA:HB1	39:A8:108:GLY:HA3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:363:G:H2'	26:14:363(A):A:H8	1.62	0.64
26:14:1021:A:H62	26:14:1141:U:H3	1.43	0.64
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.80	0.64
31:49:111:LEU:HB3	31:49:117:PHE:CZ	2.32	0.64
38:55:33:ARG:HD3	38:55:115:GLU:HB3	1.80	0.64
44:B5:63:LYS:HA	44:B5:72:LYS:HA	1.80	0.64
1:13:601:C:H2'	1:13:602:A:C8	2.24	0.64
1:13:624:C:H4'	16:7I:11:SER:N	2.13	0.64
6:5E:97:PHE:HB2	18:9I:32:ARG:NH1	2.12	0.64
26:1H:2309:A:N6	26:1H:2310:A:H62	1.95	0.64
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.27	0.64
27:16:42:C:O2'	31:41:67:LYS:NZ	2.31	0.64
29:21:38:THR:HB	29:21:40:GLU:HG2	1.78	0.64
48:J8:86:SER:HB3	48:J8:89:GLU:H	1.62	0.64
1:1G:124:G:H1	1:1G:237:C:H42	1.45	0.64
26:14:547:A:H2'	26:14:548:A:C8	2.32	0.64
26:14:977:G:H2'	26:14:978:G:H8	1.62	0.64
26:14:2306:C:H3'	26:14:2307:G:H5''	1.78	0.64
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	1.94	0.64
26:1H:270(Q):C:H3'	26:1H:270(R):G:H8	1.62	0.64
26:1H:602:G:H21	26:1H:655:A:H8	1.45	0.64
1:1G:682:G:H1	1:1G:708:C:H42	1.46	0.64
1:1G:976:G:O6	58:1G:1814:HOH:O	2.11	0.64
26:14:2615:U:C2	52:J5:7:PRO:HA	2.32	0.64
28:19:148:GLU:HB2	28:19:151:LYS:HD3	1.78	0.64
2:1E:223:ILE:O	2:1E:227:GLY:N	2.30	0.64
9:8E:26:VAL:HB	9:8E:33:PHE:HB2	1.80	0.64
11:2I:54:ARG:NH2	24:3K:39:G:O3'	2.29	0.64
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.63	0.64
26:1H:1707:G:O2'	26:1H:1758:G:N2	2.31	0.64
26:1H:1903:G:OP2	28:11:241:PRO:HB2	1.98	0.64
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.32	0.64
35:68:112:MET:HA	35:68:115:VAL:HG13	1.80	0.64
1:1G:957:U:H1'	1:1G:960:U:C5	2.33	0.64
26:14:259:G:O2'	26:14:621:A:O2'	2.15	0.64
26:14:2106:G:N2	26:14:2107:C:O2	2.31	0.64
26:14:2118:U:O2	26:14:2147:G:N2	2.31	0.64
26:14:2415:G:H4'	36:35:67:MET:H	1.61	0.64
29:29:10:GLY:HA2	29:29:192:ASN:HD21	1.63	0.64
1:13:127:G:O2'	17:8I:2:PRO:O	2.16	0.64
6:5E:45:LEU:HD12	6:5E:59:TYR:HD1	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.32	0.64
48:J8:93:GLU:O	48:J8:95:LEU:N	2.30	0.64
50:L8:8:LEU:HB2	50:L8:28:LEU:HD22	1.78	0.64
52:N8:40:LYS:NZ	52:N8:46:CYS:HB2	2.13	0.64
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.80	0.64
4:32:153:ARG:NH1	4:32:180:GLY:O	2.27	0.64
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.31	0.64
30:39:24:LEU:HD11	30:39:119:ARG:HB3	1.80	0.64
40:75:10:VAL:O	40:75:12:SER:N	2.26	0.64
45:C5:39:VAL:O	45:C5:40:GLU:HB2	1.98	0.64
1:13:812:C:O2	58:13:1822:HOH:O	2.12	0.64
1:13:1347:G:H22	1:13:1374:A:P	2.20	0.64
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.32	0.64
30:31:63:LYS:HE3	30:31:67:GLN:HB2	1.79	0.64
32:51:5:GLY:HA2	32:51:69:ARG:HB2	1.80	0.64
1:1G:920:U:H2'	1:1G:921:U:C6	2.33	0.64
1:1G:1002:G:H1	1:1G:1038:C:N4	1.95	0.64
3:22:16:ARG:NH2	3:22:182:ILE:H	1.96	0.64
5:42:69:VAL:O	5:42:71:LEU:N	2.31	0.64
26:14:2697:G:O6	58:14:3452:HOH:O	2.12	0.64
49:G5:44:LEU:O	49:G5:49:LYS:NZ	2.31	0.64
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.33	0.64
26:1H:951:C:OP1	58:1H:3637:HOH:O	2.15	0.64
26:14:1728:G:H8	26:14:1732:A:H62	1.46	0.64
26:14:2378:A:H4'	39:65:23:ARG:NH1	2.12	0.64
30:39:40:GLN:HE22	30:39:182:ASN:HB2	1.63	0.64
39:65:3:ARG:HD2	39:65:4:LEU:N	2.12	0.64
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.31	0.63
1:13:1223:C:OP1	19:AI:78:ARG:NH1	2.31	0.63
1:13:1285:A:OP1	58:13:1831:HOH:O	2.14	0.63
4:3E:25:ARG:NH1	4:3E:30:LYS:O	2.31	0.63
26:1H:780:G:H21	26:1H:783:A:H62	1.44	0.63
26:1H:2270:G:OP2	58:1H:3636:HOH:O	2.15	0.63
58:1H:3590:HOH:O	44:F8:56:THR:O	2.15	0.63
48:J8:44:PRO:HB2	48:J8:46:LEU:HD13	1.80	0.63
1:1G:167:G:H2'	1:1G:168:G:H8	1.62	0.63
1:1G:523:A:N6	12:3A:92:ASP:OD1	2.27	0.63
26:14:606:U:H4'	26:14:658:C:H4'	1.78	0.63
26:14:819:A:OP2	26:14:1187:G:N2	2.27	0.63
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.80	0.63
41:85:106:PHE:O	41:85:109:LEU:N	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:649:G:H2'	1:13:650:G:H8	1.62	0.63
24:3K:58:A:H1'	24:3K:60:U:H5'	1.80	0.63
26:1H:582:G:H1	26:1H:1258:C:H42	1.46	0.63
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.31	0.63
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.79	0.63
1:1G:262:A:H2'	1:1G:263:A:C8	2.34	0.63
1:1G:1075:C:OP1	2:12:179:LYS:NZ	2.30	0.63
19:AA:12:ASP:OD1	19:AA:37:ARG:NH1	2.31	0.63
27:1J:16:G:H2'	27:1J:17:C:C6	2.33	0.63
37:45:27:VAL:HG22	37:45:137:TYR:O	1.99	0.63
46:D5:19:ARG:NH1	46:D5:84:GLU:O	2.31	0.63
1:13:13:U:O2'	58:13:1830:HOH:O	2.14	0.63
1:13:625:G:H4'	16:7I:16:HIS:CG	2.33	0.63
1:13:1167:A:H2'	1:13:1169:A:C8	2.33	0.63
1:13:1263:C:N4	1:13:1272:G:O6	2.16	0.63
32:51:56:SER:OG	32:51:57:ASP:N	2.29	0.63
40:B8:12:SER:OG	40:B8:15:VAL:N	2.21	0.63
1:1G:222:U:H2'	1:1G:223:U:H6	1.63	0.63
26:14:705:A:H1'	28:19:9:TYR:CE2	2.33	0.63
26:14:2037:G:H2'	26:14:2038:G:C8	2.33	0.63
26:14:2239:G:OP2	28:19:244:ARG:NH2	2.31	0.63
26:14:2328:A:H2'	26:14:2329:G:C8	2.33	0.63
26:14:2439:A:C8	26:14:2439:A:H5''	2.32	0.63
35:25:122:LEU:HD13	40:75:72:VAL:HG11	1.80	0.63
48:F5:53:VAL:HG12	48:F5:54:ALA:H	1.63	0.63
1:13:1435:G:H2'	1:13:1436:U:C6	2.34	0.63
3:2E:19:GLU:HA	3:2E:54:ARG:HH12	1.64	0.63
4:3E:154:ASN:OD1	4:3E:154:ASN:N	2.30	0.63
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.28	0.63
22:1K:52:A:H61	22:1K:62:U:H3	1.45	0.63
26:1H:822:U:OP2	58:1H:3635:HOH:O	2.15	0.63
26:1H:2685:G:H5'	35:68:68:GLU:OE2	1.98	0.63
34:58:70:LYS:HG2	34:58:87:LEU:HB2	1.79	0.63
1:1G:142:G:H2'	1:1G:143:A:C8	2.34	0.63
1:1G:258:G:N7	58:1G:1841:HOH:O	2.30	0.63
1:1G:1264:C:O2	1:1G:1272:G:N1	2.30	0.63
26:14:184:C:H2'	26:14:185:U:C6	2.34	0.63
26:14:654(C):G:N1	26:14:654(R):C:O2'	2.31	0.63
26:14:1292:U:H2'	26:14:1293:C:C6	2.33	0.63
26:14:1628:G:N7	58:14:3517:HOH:O	2.30	0.63
33:69:88:ILE:HG22	33:69:90:GLY:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:67:C:H2'	1:13:68:G:C8	2.34	0.63
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.81	0.63
26:1H:71:A:H4'	26:1H:72:U:H5''	1.80	0.63
26:1H:1530:G:O6	26:1H:1542:G:N2	2.32	0.63
1:1G:571:U:O4	1:1G:864:A:N6	2.31	0.63
26:14:1113:U:OP1	26:14:2751:G:N2	2.30	0.63
26:14:1169:G:H1	26:14:1180:C:H42	1.47	0.63
26:14:1451:C:H42	26:14:1459:G:H1	1.45	0.63
27:1J:6:C:N3	27:1J:115:G:N2	2.46	0.63
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.28	0.63
48:F5:92:LYS:O	48:F5:94:LEU:N	2.32	0.63
1:13:276:G:O2'	17:8I:68:ARG:NH1	2.32	0.63
2:1E:70:PHE:HE2	2:1E:90:MET:HB3	1.63	0.63
12:3I:62:SER:HB2	12:3I:64:TYR:HD1	1.64	0.63
18:9I:85:LEU:HG	18:9I:86:VAL:N	2.12	0.63
20:BI:58:LYS:HE3	20:BI:62:LEU:HD21	1.80	0.63
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.64	0.63
1:1G:67:C:H2'	1:1G:68:G:C8	2.32	0.63
8:72:120:THR:HG22	8:72:123:GLU:H	1.63	0.63
26:14:1299:G:N7	58:14:3514:HOH:O	2.30	0.63
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.19	0.63
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.64	0.63
32:51:88:LEU:HD22	32:51:130:ARG:HG2	1.79	0.63
39:A8:88:ASP:C	39:A8:90:GLY:H	1.99	0.63
39:65:69:VAL:HG13	39:65:101:LEU:HD13	1.81	0.63
40:75:26:ASP:O	40:75:49:VAL:HG22	1.98	0.63
41:85:49:HIS:HD2	41:85:52:ARG:HD2	1.62	0.63
42:95:52:VAL:HG21	42:95:55:ALA:HB3	1.79	0.63
1:13:1007:C:H42	1:13:1022:G:H1	1.45	0.63
31:41:37:VAL:HG22	31:41:159:VAL:HA	1.80	0.63
50:L8:5:LYS:HB3	50:L8:57:GLU:OE1	1.98	0.63
1:1G:17:U:H2'	1:1G:18:C:C6	2.34	0.63
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.16	0.63
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.33	0.63
3:22:76:VAL:HG23	3:22:87:LEU:HD13	1.81	0.63
26:14:2130:U:O2'	26:14:2158:A:N6	2.31	0.63
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.31	0.63
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.80	0.63
20:BI:83:ARG:HA	20:BI:86:ARG:HB2	1.80	0.63
26:1H:989:G:OP1	26:1H:1157:G:O2'	2.16	0.63
26:1H:2843:G:N7	58:1H:3747:HOH:O	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:8:U:O3'	39:A8:25:ARG:NH2	2.31	0.63
47:I8:70:GLN:HB2	47:I8:80:HIS:HE2	1.63	0.63
1:1G:59:A:N1	58:1G:1843:HOH:O	2.31	0.63
1:1G:677:U:H3	1:1G:713:G:H22	1.45	0.63
3:22:58:GLU:HB2	3:22:65:ALA:HB3	1.81	0.63
26:14:49:A:H5''	26:14:51:G:O4'	1.98	0.63
36:35:101:VAL:HA	36:35:105:LEU:O	1.99	0.63
1:13:8:A:N7	4:3E:208:SER:HB3	2.14	0.62
1:13:148:G:H2'	1:13:149:A:C8	2.34	0.62
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.81	0.62
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.30	0.62
26:1H:2287:A:H2	26:1H:2346:A:H2	1.47	0.62
1:1G:337:C:H2'	1:1G:338:A:C8	2.34	0.62
1:1G:539:A:H2'	1:1G:540:G:C8	2.34	0.62
23:2L:48:U:H4'	23:2L:49:C:H5'	1.81	0.62
26:14:1329:U:H5''	26:14:1330:C:H5	1.63	0.62
28:19:264:LYS:HD3	28:19:266:SER:HB3	1.81	0.62
41:85:83:LEU:HD22	41:85:88:ILE:HD12	1.79	0.62
50:H5:39:ASP:O	50:H5:44:ARG:NH1	2.30	0.62
1:13:223:U:H2'	1:13:224:C:H6	1.63	0.62
1:13:1028(B):C:H41	1:13:1032(A):G:H21	1.47	0.62
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.33	0.62
26:1H:2470:G:H5'	37:88:56:ARG:NH2	2.13	0.62
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.34	0.62
26:14:2019:A:OP2	52:J5:9:LYS:NZ	2.29	0.62
26:14:2849:U:H1'	26:14:2866:U:O2	1.99	0.62
33:69:79:ILE:HG13	33:69:140:LEU:HD21	1.81	0.62
45:C5:68:HIS:H	45:C5:71:LYS:NZ	1.97	0.62
1:13:645:C:H2'	1:13:646:U:O4'	1.99	0.62
9:8E:40:LEU:HB3	9:8E:43:ALA:HB2	1.81	0.62
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.64	0.62
26:1H:62:C:H42	26:1H:92:G:H1	1.48	0.62
1:1G:148:G:H1	1:1G:174:C:H42	1.46	0.62
2:12:162:ILE:HG23	2:12:182:ILE:HG21	1.81	0.62
26:14:1012:U:H3	34:15:25:ARG:NH1	1.97	0.62
32:59:59:ARG:HG2	32:59:62:LYS:HE3	1.80	0.62
48:F5:89:GLU:O	48:F5:93:GLU:HB2	1.99	0.62
1:13:191(C):G:H2'	1:13:191(D):U:O4'	1.98	0.62
12:3I:71:PRO:O	12:3I:102:ARG:NH1	2.31	0.62
18:9I:74:ARG:HH21	18:9I:81:PHE:HA	1.64	0.62
26:1H:620:G:H4'	26:1H:621:A:C5'	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.80	0.62
45:G8:76:CYS:SG	45:G8:97:ARG:HB2	2.40	0.62
51:M8:39:CYS:HB3	51:M8:41:PRO:HD2	1.81	0.62
12:3A:70:ILE:HG12	12:3A:100:ILE:HD12	1.79	0.62
26:14:1384:A:N3	26:14:1405:U:H1'	2.14	0.62
26:14:1669:A:O4'	35:25:5:GLN:NE2	2.32	0.62
35:25:63:VAL:HG11	35:25:85:VAL:HG23	1.80	0.62
41:85:60:LEU:HA	41:85:63:VAL:HG12	1.81	0.62
1:13:674:G:N2	1:13:717:C:O2	2.31	0.62
1:13:1126:U:C5	1:13:1127:G:C8	2.87	0.62
1:13:1144:G:N2	1:13:1146:A:H62	1.98	0.62
3:2E:50:ALA:HB2	3:2E:75:VAL:HB	1.82	0.62
24:3K:28:A:H61	24:3K:42:U:H3	1.44	0.62
31:41:122:PRO:HB3	31:41:180:PHE:HD1	1.64	0.62
46:H8:134:PRO:HD3	46:H8:161:VAL:HG11	1.80	0.62
46:H8:151:HIS:HA	46:H8:170:THR:HA	1.81	0.62
1:1G:501:C:H2'	1:1G:502:G:H8	1.64	0.62
26:14:1516:U:H2'	26:14:1517:G:C8	2.34	0.62
30:39:178:PRO:HB2	30:39:201:VAL:HG11	1.81	0.62
31:49:49:ASP:HB3	31:49:52:ILE:HG22	1.82	0.62
33:69:81:VAL:H	33:69:143:SER:HB3	1.65	0.62
26:1H:1154:G:OP2	41:C8:58:ARG:NH2	2.32	0.62
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.00	0.62
26:1H:2428:G:H21	36:78:61:ARG:HH12	1.44	0.62
31:41:109:VAL:HG22	51:M8:33:VAL:HG11	1.81	0.62
44:F8:11:PRO:HG2	44:F8:13:LEU:HD21	1.81	0.62
1:1G:565:U:H3'	1:1G:566:G:H2'	1.81	0.62
26:14:639:U:H3	26:14:649:G:H1	1.45	0.62
26:14:2853:C:H2'	26:14:2854:G:H8	1.65	0.62
32:59:10:PRO:HG2	32:59:50:VAL:HG13	1.80	0.62
41:85:65:ILE:HD11	41:85:96:ALA:HB3	1.81	0.62
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.10	0.62
26:1H:270(M):U:OP2	33:61:57:ARG:NH2	2.25	0.62
26:1H:1805:U:O2	28:11:50:THR:HB	2.00	0.62
26:1H:2248:C:OP2	58:1H:3643:HOH:O	2.16	0.62
29:21:57:LYS:HG3	29:21:59:VAL:HG12	1.82	0.62
35:68:13:ASN:ND2	35:68:97:ARG:HB2	2.15	0.62
1:1G:1189:C:P	10:1A:51:ARG:HH22	2.23	0.62
2:12:21:ARG:HH22	2:12:23:ARG:HH11	1.46	0.62
53:L5:12:ARG:HH21	53:L5:44:PRO:HB3	1.63	0.62
1:13:1149:C:H2'	1:13:1150:U:H6	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1366:C:H2'	1:13:1367:C:H6	1.65	0.62
26:1H:1138:G:H21	34:58:106:MET:HE3	1.64	0.62
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.65	0.62
34:58:97:ARG:HA	34:58:100:GLU:HB2	1.81	0.62
3:22:182:ILE:HG12	3:22:203:PHE:HA	1.80	0.62
26:14:1110:G:H2'	26:14:1111:A:C8	2.35	0.62
41:85:69:CYS:HB3	41:85:106:PHE:CE2	2.35	0.62
45:C5:6:HIS:ND1	45:C5:7:VAL:HG13	2.15	0.62
1:13:353:A:H8	1:13:353:A:H5'	1.64	0.62
8:7E:91:ARG:NE	17:8I:32:TYR:O	2.25	0.62
19:AI:15:LEU:HD12	19:AI:18:LYS:HD2	1.82	0.62
20:BI:59:ALA:HA	20:BI:62:LEU:HD12	1.82	0.62
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.33	0.62
36:78:64:LYS:HD2	54:Q8:12:LYS:HG2	1.82	0.62
4:32:34:GLU:HB2	4:32:35:ARG:NH2	2.14	0.62
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.81	0.62
24:3L:67:A:H2'	24:3L:68:U:C6	2.34	0.62
26:14:732:C:OP2	58:14:3464:HOH:O	2.16	0.62
26:14:1567:A:H3'	28:19:86:PRO:HG3	1.80	0.62
27:1J:16:G:H2'	27:1J:17:C:H6	1.63	0.62
3:2E:11:ARG:O	3:2E:13:GLY:N	2.31	0.62
9:8E:93:ARG:O	9:8E:96:LEU:N	2.33	0.62
17:8I:100:LYS:HG2	17:8I:101:ARG:HE	1.65	0.62
24:3K:37:A:H2'	24:3K:38:A:O4'	1.99	0.62
30:31:164:ARG:HG2	30:31:175:THR:HB	1.81	0.62
34:58:60:ILE:H	34:58:60:ILE:HD13	1.65	0.62
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.80	0.62
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.35	0.62
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.82	0.62
5:42:18:ARG:HH21	5:42:25:ARG:HB3	1.65	0.62
26:14:486:C:O2'	43:A5:60:ASN:ND2	2.33	0.62
26:14:1183:G:O3'	50:H5:29:ARG:NH2	2.33	0.62
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.35	0.62
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.33	0.61
26:1H:308:G:C4	26:1H:501:A:C8	2.88	0.61
29:21:29:GLY:HA2	29:21:180:ASN:HB3	1.81	0.61
36:78:101:VAL:HA	36:78:105:LEU:O	2.00	0.61
46:H8:130:PRO:HA	46:H8:133:ILE:HD11	1.80	0.61
2:12:104:ASN:O	2:12:108:ILE:N	2.32	0.61
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.81	0.61
13:4A:49:THR:HB	13:4A:51:ALA:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:957:A:H5'	37:45:76:LYS:HD3	1.82	0.61
29:29:76:ARG:NH1	29:29:76:ARG:HA	2.15	0.61
41:85:95:LEU:HD22	42:95:13:ARG:HB2	1.81	0.61
1:13:260:G:H2'	1:13:261:U:C6	2.35	0.61
1:13:342:C:H2'	1:13:343:U:H5'	1.80	0.61
1:13:1097:C:O2'	1:13:1169:A:N3	2.27	0.61
1:13:1133:G:H2'	1:13:1134:G:H8	1.64	0.61
15:6I:17:ARG:HD3	15:6I:77:ARG:NH2	2.16	0.61
17:8I:100:LYS:HD2	17:8I:101:ARG:HH11	1.65	0.61
20:BI:100:ILE:HG12	20:BI:101:GLY:H	1.65	0.61
24:3K:2:C:O2'	24:3K:3:U:OP1	2.17	0.61
29:21:9:VAL:HG13	40:B8:3:ARG:HB2	1.83	0.61
36:78:49:ARG:HD3	54:Q8:60:LEU:HB3	1.82	0.61
44:F8:39:ILE:O	44:F8:43:VAL:HG23	2.00	0.61
1:1G:89:U:O2'	1:1G:90:C:O5'	2.14	0.61
3:22:8:ILE:HG13	3:22:184:TYR:HB3	1.81	0.61
26:14:205:G:O2'	26:14:206:U:OP2	2.18	0.61
26:14:900:A:H3'	26:14:901:A:H8	1.64	0.61
26:14:1030:G:OP2	37:45:128:LYS:HE2	2.01	0.61
38:55:29:LEU:HB3	38:55:75:LEU:HD21	1.82	0.61
47:E5:18:ALA:HB3	47:E5:20:ARG:NH2	2.15	0.61
1:13:939:G:H2'	1:13:940:C:C6	2.36	0.61
17:8I:90:ILE:HA	17:8I:93:GLN:HB2	1.82	0.61
26:1H:270(I):G:N2	26:1H:270(R):G:H1'	2.14	0.61
26:1H:956:G:OP2	37:88:14:ARG:NH2	2.33	0.61
26:1H:1107:G:H2'	26:1H:1108:U:H6	1.65	0.61
1:1G:749:C:H2'	1:1G:750:G:H8	1.65	0.61
1:1G:1071:C:H42	1:1G:1104:G:H1	1.48	0.61
7:62:63:LYS:HA	7:62:66:VAL:HG12	1.82	0.61
24:3L:53:G:H2'	24:3L:54:U:H5'	1.82	0.61
26:14:1534:G:H3'	26:14:1535:U:H5''	1.82	0.61
26:14:1568:G:P	28:19:63:ARG:HH22	2.22	0.61
40:75:3:ARG:HA	40:75:6:LEU:HB3	1.81	0.61
1:13:953:G:OP1	58:13:1835:HOH:O	2.16	0.61
26:1H:581:C:H2'	26:1H:582:G:C8	2.35	0.61
28:11:26:LYS:HD3	28:11:28:GLU:O	2.00	0.61
40:B8:4:GLY:HA2	40:B8:7:ILE:HD13	1.80	0.61
48:J8:93:GLU:C	48:J8:95:LEU:H	2.02	0.61
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.13	0.61
2:12:16:HIS:HB3	2:12:209:ARG:CZ	2.30	0.61
26:14:288:C:H2'	26:14:289:A:C8	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1331:A:HO2'	26:14:1332:G:H8	1.48	0.61
26:14:2455:G:O6	58:14:3461:HOH:O	2.15	0.61
26:14:2710:C:N4	58:14:3531:HOH:O	2.34	0.61
27:1J:7:G:N3	39:65:38:GLN:NE2	2.36	0.61
29:29:54:GLN:HG3	29:29:73:GLU:O	2.00	0.61
31:49:72:ARG:HB3	31:49:85:GLY:HA2	1.81	0.61
33:69:14:ASP:N	33:69:17:GLN:OE1	2.28	0.61
37:45:57:HIS:CG	37:45:117:ALA:HB2	2.36	0.61
1:13:158:G:H2'	1:13:159:G:H8	1.66	0.61
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.35	0.61
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.35	0.61
26:1H:2679:A:H4'	29:21:165:VAL:HG11	1.83	0.61
29:21:174:ASP:OD1	29:21:175:VAL:N	2.33	0.61
37:88:4:PRO:HD3	37:88:70:PRO:O	2.00	0.61
1:1G:179:A:H2'	1:1G:180:U:C6	2.35	0.61
14:5A:21:TYR:CE1	14:5A:23:ARG:HB2	2.36	0.61
26:14:259:G:H21	26:14:621:A:H8	1.48	0.61
26:14:273(F):C:H3'	26:14:274:G:H5''	1.81	0.61
26:14:2210:G:H5'	26:14:2211:G:N7	2.15	0.61
26:14:2485:G:H5''	37:45:46:GLN:HE21	1.64	0.61
31:49:47:LYS:HE3	31:49:81:LYS:HD2	1.83	0.61
36:35:52:GLU:O	36:35:54:GLY:N	2.33	0.61
49:G5:50:ILE:HD12	49:G5:51:ARG:H	1.64	0.61
1:13:673:G:H2'	1:13:674:G:C8	2.36	0.61
26:1H:249:C:OP1	58:1H:3640:HOH:O	2.16	0.61
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.35	0.61
26:1H:2209:C:O2	26:1H:2216:G:C2	2.54	0.61
26:1H:2210:G:H2'	26:1H:2211:G:C6	2.35	0.61
29:21:12:THR:OG1	29:21:13:ARG:N	2.33	0.61
29:21:47:VAL:HG11	29:21:86:PRO:HD2	1.82	0.61
49:K8:64:LEU:HD22	49:K8:68:ARG:HD2	1.83	0.61
1:1G:180:U:O4	58:1G:1815:HOH:O	2.12	0.61
26:14:2287:A:H61	26:14:2344:U:H3	1.47	0.61
34:15:73:THR:HG22	34:15:84:LYS:HB3	1.82	0.61
1:13:177:C:OP2	20:BI:65:LYS:NZ	2.27	0.61
1:13:600:C:H4'	8:7E:128:GLY:O	2.00	0.61
26:1H:2275:C:O2'	37:88:85:LYS:HA	2.00	0.61
39:A8:83:LYS:O	39:A8:110:LEU:HA	2.00	0.61
40:B8:26:ASP:HB2	40:B8:90:GLN:O	2.01	0.61
51:M8:15:ILE:HB	51:M8:32:TYR:CD1	2.35	0.61
1:1G:853:G:H2'	1:1G:854:G:H8	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.36	0.61
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.80	0.61
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.83	0.61
26:14:769:G:H2'	26:14:770:G:H8	1.65	0.61
26:14:1171:G:O2'	26:14:1173:G:O4'	2.17	0.61
31:49:53:LEU:O	31:49:57:ALA:N	2.33	0.61
37:45:32:TYR:HA	37:45:133:ARG:HA	1.82	0.61
46:D5:70:LEU:HD11	46:D5:98:MET:HE3	1.81	0.61
1:13:553:A:H5''	12:3I:24:VAL:HG21	1.81	0.61
1:13:1071:C:H2'	1:13:1072:G:H8	1.66	0.61
1:13:1223:C:P	19:AI:78:ARG:HH12	2.22	0.61
3:2E:78:GLY:HA3	3:2E:83:ARG:HB3	1.81	0.61
5:4E:11:ILE:HD12	5:4E:105:VAL:HG13	1.82	0.61
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.83	0.61
19:AI:22:LEU:O	19:AI:28:LYS:NZ	2.29	0.61
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.65	0.61
26:1H:1040:C:H42	26:1H:1115:G:H1	1.47	0.61
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.74	0.61
51:M8:15:ILE:HB	51:M8:32:TYR:HD1	1.65	0.61
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.34	0.61
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.48	0.61
26:14:796:C:H2'	26:14:797:C:C6	2.36	0.61
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.34	0.61
26:14:2537:U:H2'	26:14:2538:C:C6	2.35	0.61
26:14:2867:G:OP2	40:75:119:LYS:NZ	2.29	0.61
32:59:98:LEU:HD22	32:59:126:PRO:HB3	1.82	0.61
50:H5:10:LYS:HB3	50:H5:53:LEU:HA	1.83	0.61
1:13:145:G:N2	1:13:177:C:N3	2.37	0.61
1:13:309:G:O6	58:13:1832:HOH:O	2.15	0.61
1:13:352:C:O2'	1:13:354:G:OP1	2.19	0.61
1:13:659:U:H2'	1:13:660:G:H8	1.66	0.61
1:13:877:C:H5''	8:7E:88:LYS:HD3	1.82	0.61
6:5E:99:ALA:HB1	18:9I:23:LYS:HD2	1.83	0.61
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.82	0.61
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.47	0.61
26:1H:1334:G:N7	58:1H:3751:HOH:O	2.31	0.61
44:F8:30:VAL:HG21	44:F8:39:ILE:HD11	1.83	0.61
15:6A:82:ILE:HG22	15:6A:87:ILE:HB	1.82	0.61
26:14:467:G:OP1	53:L5:33:ARG:NH1	2.33	0.61
26:14:1620:G:O4'	53:L5:1:MET:N	2.34	0.61
26:14:2331:G:H4'	47:E5:43:THR:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:120:GLY:HA3	32:59:135:GLY:HA2	1.82	0.61
35:25:98:VAL:HG12	35:25:117:LEU:HB3	1.83	0.61
39:65:11:LYS:HG3	39:65:91:PRO:HD3	1.82	0.61
46:D5:11:GLU:O	46:D5:36:LYS:NZ	2.22	0.61
1:13:356:A:H2	1:13:368:U:O2	1.84	0.61
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.36	0.61
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.65	0.61
26:1H:654(C):G:H1	26:1H:654(Q):C:N4	1.99	0.61
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.36	0.61
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.35	0.61
26:1H:2656:U:H3	26:1H:2665:A:H2	1.48	0.61
37:88:28:ALA:N	37:88:105:GLU:OE2	2.30	0.61
1:1G:227:G:H2'	1:1G:228:A:C8	2.36	0.61
2:12:73:THR:HG21	2:12:97:TRP:H	1.65	0.61
31:49:86:MET:HG2	31:49:87:PRO:HD2	1.83	0.61
26:1H:1055:G:H1	26:1H:1104:C:N4	1.90	0.60
26:1H:1184:G:H5'	50:L8:29:ARG:HH11	1.66	0.60
43:E8:19:LEU:HB3	52:N8:25:LEU:HD11	1.83	0.60
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.18	0.60
13:4A:91:ARG:NH1	13:4A:97:PRO:O	2.33	0.60
22:1L:63:G:H2'	22:1L:64:C:O4'	2.01	0.60
26:14:793:A:O2'	26:14:794:G:OP2	2.18	0.60
1:13:560:U:O2'	1:13:561:U:OP2	2.18	0.60
24:3K:4:G:H1	24:3K:65:C:H42	1.47	0.60
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.64	0.60
26:1H:484:C:OP1	45:G8:51:VAL:HG22	2.01	0.60
26:1H:674:G:O2'	30:31:74:ARG:HG3	2.01	0.60
26:1H:1278:A:OP1	38:98:36:THR:HG22	2.00	0.60
26:1H:2287:A:H2	26:1H:2346:A:C2	2.19	0.60
36:78:84:ASN:HD22	36:78:86:LYS:HE2	1.66	0.60
1:1G:595:G:H1	1:1G:641:U:HO2'	1.47	0.60
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.35	0.60
26:14:2387:U:O2'	47:E5:41:ARG:NH1	2.34	0.60
40:75:78:LEU:HD23	40:75:79:HIS:CE1	2.37	0.60
1:13:674:G:H2'	1:13:675:A:C8	2.36	0.60
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.34	0.60
26:1H:1797:C:O2'	28:11:259:THR:OG1	2.12	0.60
27:16:30:C:H2'	27:16:31:C:H5'	1.83	0.60
30:31:178:PRO:HB3	30:31:198:ALA:HB2	1.82	0.60
35:68:36:GLY:HA2	35:68:106:LEU:HD23	1.83	0.60
46:H8:58:VAL:O	46:H8:60:GLU:N	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:540:G:H2'	1:1G:541:G:O4'	2.00	0.60
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.00	0.60
5:42:9:LYS:HB2	5:42:112:LEU:HD11	1.82	0.60
23:2L:61:U:OP2	23:2L:62:C:N4	2.28	0.60
26:14:581:C:H2'	26:14:582:G:C8	2.37	0.60
26:14:768:G:O2'	26:14:1379:A:N6	2.34	0.60
26:14:971:C:O2'	26:14:983:A:N3	2.35	0.60
26:14:1636:C:OP2	58:14:3459:HOH:O	2.15	0.60
27:1J:104:A:H2'	27:1J:105:G:O4'	2.00	0.60
30:39:28:ILE:HA	30:39:112:MET:HG2	1.83	0.60
36:35:111:ARG:HB3	36:35:128:HIS:CG	2.37	0.60
36:35:144:GLU:OE1	36:35:144:GLU:N	2.34	0.60
37:45:101:ARG:HG3	37:45:102:VAL:H	1.67	0.60
46:D5:52:SER:O	46:D5:52:SER:OG	2.14	0.60
10:1I:46:ARG:NH2	10:1I:64:GLU:OE1	2.34	0.60
29:21:59:VAL:HG13	29:21:60:ASN:H	1.66	0.60
29:21:116:VAL:O	29:21:117:MET:HB3	2.00	0.60
32:51:86:GLU:HB2	32:51:165:ALA:HB3	1.83	0.60
1:1G:1423:G:OP1	35:25:49:ARG:NH2	2.35	0.60
12:3A:83:VAL:HG21	12:3A:100:ILE:HD13	1.83	0.60
26:14:852:G:H2'	26:14:853:G:C8	2.36	0.60
26:14:1007:C:OP1	34:15:37:LYS:NZ	2.30	0.60
26:14:1007:C:OP1	34:15:35:ARG:NH1	2.34	0.60
26:14:1178:C:H2'	26:14:1179:C:C6	2.36	0.60
26:14:1796:U:H2'	26:14:1797:C:C6	2.36	0.60
26:14:1864:U:OP1	26:14:2410:G:O2'	2.13	0.60
34:15:59:LYS:HE3	34:15:60:ILE:N	2.15	0.60
1:13:688:G:H2'	1:13:689:C:C6	2.32	0.60
1:13:1062:U:H2'	1:13:1063:C:C6	2.37	0.60
3:2E:114:PRO:O	3:2E:118:GLN:NE2	2.31	0.60
28:11:145:VAL:HG12	28:11:146:GLU:O	2.01	0.60
3:22:37:GLN:O	3:22:41:GLY:N	2.27	0.60
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.01	0.60
26:14:1138:G:H21	34:15:106:MET:HE3	1.65	0.60
26:14:1639:U:OP1	58:14:3463:HOH:O	2.16	0.60
30:39:155:LEU:HD11	30:39:176:LEU:HD22	1.82	0.60
52:J5:36:CYS:HB3	52:J5:49:CYS:SG	2.40	0.60
1:13:345:C:H4'	1:13:346:G:N7	2.17	0.60
1:13:347:G:H2'	1:13:348:G:O4'	2.02	0.60
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.84	0.60
10:1I:64:GLU:HG2	14:5I:59:ALA:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:67:GLN:HG3	30:31:67:GLN:O	1.99	0.60
37:88:110:THR:HG23	37:88:113:GLN:OE1	2.02	0.60
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.67	0.60
46:H8:111:VAL:HG11	46:H8:146:ILE:HG13	1.81	0.60
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.18	0.60
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.83	0.60
26:14:923:C:H2'	26:14:924:C:C6	2.37	0.60
37:45:10:ARG:NH1	37:45:10:ARG:HA	2.17	0.60
40:75:24:PRO:HA	40:75:49:VAL:HG23	1.82	0.60
1:13:150:C:H2'	1:13:151:A:H8	1.65	0.60
1:13:303:A:H2'	1:13:304:U:O4'	2.02	0.60
1:13:501:C:H2'	1:13:502:G:H8	1.66	0.60
1:13:975:A:H4'	1:13:976:G:H5''	1.81	0.60
1:13:1342:C:H2'	1:13:1343:G:H8	1.65	0.60
2:1E:231:GLU:OE1	2:1E:231:GLU:N	2.33	0.60
26:1H:64:A:H1'	44:F8:66:LEU:HD23	1.84	0.60
26:1H:270(K):C:H1'	26:1H:270(N):G:H22	1.67	0.60
1:1G:359:U:H2'	1:1G:360:A:H8	1.67	0.60
1:1G:631:G:H1'	1:1G:632:A:H5'	1.82	0.60
5:42:51:VAL:HB	5:42:52:PRO:HD3	1.82	0.60
24:3L:76:A:O2'	26:14:2394:C:N3	2.32	0.60
26:14:2012:G:H4'	43:A5:96:ILE:HD12	1.82	0.60
26:14:2734:A:H2'	26:14:2735:G:O4'	2.01	0.60
40:75:87:ASP:N	40:75:87:ASP:OD1	2.34	0.60
48:F5:87:PRO:O	48:F5:90:ILE:N	2.32	0.60
1:13:890:G:O2'	1:13:906:G:O6	2.15	0.60
1:13:1194:U:H2'	1:13:1195:C:C6	2.37	0.60
25:4K:24:A:H4'	25:4K:25:A:OP1	2.01	0.60
26:1H:973:A:OP1	58:1H:3644:HOH:O	2.16	0.60
26:1H:1899:G:N2	26:1H:1902:C:H41	1.99	0.60
37:88:66:ILE:HD12	37:88:67:ARG:N	2.17	0.60
1:1G:300:A:O2'	1:1G:564:C:N3	2.28	0.60
1:1G:1492:A:OP1	12:3A:47:LYS:HG2	2.02	0.60
22:1L:50:G:N2	22:1L:63:G:O6	2.35	0.60
26:14:446:G:H8	58:14:3465:HOH:O	1.85	0.60
26:14:944:G:H5''	26:14:945:A:O5'	2.00	0.60
26:14:1011:G:OP2	41:85:70:ARG:NH2	2.35	0.60
26:14:2591:C:OP2	28:19:239:ARG:HB3	2.02	0.60
38:55:100:LEU:HG	38:55:112:ALA:HA	1.83	0.60
46:D5:130:PRO:HA	46:D5:133:ILE:HD11	1.84	0.60
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1342:C:H2'	1:13:1343:G:C8	2.37	0.60
3:2E:29:TYR:OH	14:5I:54:PRO:O	2.16	0.60
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.83	0.60
26:1H:2807:G:H3'	26:1H:2808:U:H5''	1.83	0.60
39:A8:26:LEU:HD11	39:A8:73:LEU:HD13	1.84	0.60
41:C8:92:ARG:NH2	42:D8:10:LYS:HB3	2.15	0.60
26:14:1416:G:H1	26:14:1582:C:H42	1.47	0.60
26:14:1651:G:H1	26:14:2006:C:H42	1.49	0.60
28:19:31:LYS:HE3	28:19:102:LYS:HD3	1.84	0.60
32:59:144:VAL:HA	32:59:147:ASN:HB3	1.83	0.60
42:95:98:GLU:HG2	42:95:100:ARG:HG2	1.84	0.60
1:13:182:U:H5	1:13:183:G:C4	2.20	0.60
1:13:768:A:OP2	58:13:1833:HOH:O	2.16	0.60
3:2E:172:ARG:HG2	3:2E:174:PRO:HG3	1.84	0.60
23:2K:10:G:N2	23:2K:27:G:H1'	2.17	0.60
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.83	0.60
39:A8:38:GLN:HG3	39:A8:47:THR:HG21	1.84	0.60
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.01	0.60
51:M8:16:CYS:HA	51:M8:33:VAL:O	2.02	0.60
1:1G:216:G:H2'	1:1G:217:C:C6	2.37	0.60
1:1G:272:C:H2'	1:1G:273:A:H8	1.66	0.60
10:1A:61:GLU:HG3	14:5A:58:LYS:HE2	1.83	0.60
17:8A:83:ASP:O	17:8A:87:LYS:HG2	2.01	0.60
19:AA:21:GLU:HA	19:AA:24:ALA:HB3	1.83	0.60
26:14:10:G:N7	26:14:2629:A:N6	2.49	0.60
26:14:1593:G:H2'	26:14:1594:G:C8	2.36	0.60
26:14:2467:C:H4'	37:45:123:HIS:CE1	2.37	0.60
30:39:169:ASN:O	30:39:169:ASN:ND2	2.35	0.60
1:13:235:C:H2'	1:13:236:G:C8	2.37	0.59
1:13:271:C:H2'	1:13:272:C:H6	1.67	0.59
1:13:1298:C:OP2	7:6E:114:ARG:NH2	2.32	0.59
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.83	0.59
19:AI:40:ILE:HG12	19:AI:41:VAL:HG13	1.84	0.59
26:1H:768:G:O2'	26:1H:1379:A:N6	2.34	0.59
30:31:155:LEU:HB2	30:31:189:THR:HG21	1.84	0.59
45:G8:94:LYS:NZ	45:G8:95:LYS:H	2.00	0.59
46:H8:108:PRO:CB	46:H8:112:ARG:HA	2.25	0.59
4:32:149:ALA:O	4:32:152:SER:OG	2.18	0.59
5:42:50:GLU:HB3	5:42:53:LEU:HB2	1.84	0.59
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.84	0.59
16:7A:43:LYS:HG2	16:7A:48:TRP:CD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2020:A:O2'	26:14:2021:C:H5'	2.02	0.59
26:14:2720:U:H3	26:14:2873:A:H2	1.50	0.59
26:14:2749:A:N1	26:14:2750:A:N6	2.50	0.59
26:14:2807:G:H1	26:14:2892:A:H62	1.50	0.59
27:1J:15:A:H5'	27:1J:16:G:C8	2.37	0.59
37:45:10:ARG:HA	37:45:10:ARG:HH11	1.66	0.59
43:A5:17:VAL:HG21	43:A5:103:ILE:HD13	1.83	0.59
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.03	0.59
26:1H:1231:G:O6	58:1H:3631:HOH:O	2.14	0.59
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.35	0.59
26:1H:2136:C:N3	26:1H:2155:G:N1	2.49	0.59
30:31:7:TYR:O	30:31:21:ALA:HA	2.02	0.59
1:1G:142:G:H2'	1:1G:143:A:H8	1.65	0.59
18:9A:25:THR:O	18:9A:25:THR:OG1	2.20	0.59
26:14:2062:A:N6	26:14:2503:A:N7	2.50	0.59
26:14:2791:C:N4	26:14:2797:U:O2'	2.35	0.59
33:69:63:ALA:HA	33:69:66:GLU:HG2	1.85	0.59
45:C5:20:TYR:CE2	45:C5:42:VAL:HB	2.37	0.59
45:C5:68:HIS:H	45:C5:71:LYS:HZ3	1.48	0.59
1:13:271:C:H2'	1:13:272:C:C6	2.36	0.59
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.02	0.59
1:13:677:U:H3	1:13:713:G:H22	1.49	0.59
1:13:838:G:H1	1:13:848:C:N4	2.00	0.59
2:1E:15:VAL:HG11	2:1E:210:SER:HA	1.84	0.59
7:6E:115:ARG:HB3	7:6E:118:VAL:HG12	1.84	0.59
8:7E:54:ASP:O	8:7E:56:LYS:NZ	2.27	0.59
26:1H:592:G:H1	26:1H:665:C:H42	1.50	0.59
26:1H:607:U:OP1	30:31:103:LYS:N	2.29	0.59
26:1H:1199:U:OP1	58:1H:3642:HOH:O	2.16	0.59
26:1H:2287:A:C2	26:1H:2346:A:H2	2.19	0.59
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.83	0.59
50:L8:3:ARG:HB2	50:L8:59:VAL:HG22	1.84	0.59
1:1G:1:U:H4'	1:1G:2:U:O5'	2.01	0.59
1:1G:604:G:H2'	1:1G:605:U:O4'	2.02	0.59
1:1G:826:C:H5'	8:72:12:ARG:HH11	1.66	0.59
26:14:71:A:H8	26:14:71:A:H5'	1.67	0.59
26:14:897:C:N3	26:14:898:C:N4	2.49	0.59
26:14:2607:G:H2'	26:14:2608:G:O4'	2.02	0.59
26:14:2887:U:H2'	26:14:2888:C:C6	2.36	0.59
29:29:27:LEU:HA	29:29:180:ASN:O	2.02	0.59
34:15:39:ARG:NH1	34:15:41:ASP:OD2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:103:VAL:HG11	34:15:120:LEU:HD13	1.84	0.59
1:13:1316:G:N2	1:13:1318:A:H3'	2.17	0.59
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.85	0.59
15:6I:39:LEU:O	15:6I:42:HIS:N	2.36	0.59
20:BI:48:LYS:HB3	20:BI:51:GLU:HB2	1.84	0.59
21:1F:2:GLY:O	21:1F:4:GLY:N	2.35	0.59
26:1H:270(X):G:O6	58:1H:3646:HOH:O	2.16	0.59
29:21:167:VAL:HG11	29:21:187:ALA:HB1	1.83	0.59
31:41:163:ALA:HB1	31:41:168:GLU:HB2	1.83	0.59
32:51:126:PRO:HG2	32:51:130:ARG:NH2	2.17	0.59
1:1G:411:A:H62	1:1G:413:G:N2	2.00	0.59
1:1G:448:A:OP2	1:1G:485:G:N2	2.26	0.59
1:1G:981:U:O4	1:1G:1223:C:N4	2.35	0.59
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.20	0.59
6:52:83:ASP:OD1	6:52:83:ASP:N	2.35	0.59
11:2A:54:ARG:NH2	24:3L:39:G:O3'	2.35	0.59
26:14:11:G:H5'	26:14:2799:A:H62	1.65	0.59
26:14:2129:C:N4	26:14:2159:G:O6	2.35	0.59
32:59:155:SER:O	32:59:155:SER:OG	2.14	0.59
36:35:82:GLY:HA2	36:35:113:LYS:O	2.01	0.59
41:85:86:ALA:HB2	41:85:116:ALA:HB2	1.83	0.59
26:1H:1166:C:H42	26:1H:1183:G:H1	1.50	0.59
26:1H:2056:G:OP2	58:1H:3647:HOH:O	2.16	0.59
31:41:16:ARG:O	31:41:20:ILE:HG13	2.01	0.59
35:68:10:VAL:HG11	35:68:16:ALA:HB3	1.85	0.59
42:D8:76:LYS:HB2	42:D8:81:TYR:HB3	1.83	0.59
1:1G:165:C:H2'	1:1G:166:G:H8	1.67	0.59
19:AA:42:PRO:HA	19:AA:45:VAL:HG13	1.84	0.59
24:3L:15:G:H2'	24:3L:59:A:H62	1.67	0.59
26:14:479:A:N3	26:14:481:G:H5''	2.16	0.59
26:14:2105:C:H2'	26:14:2106:G:O4'	2.03	0.59
26:14:2542:A:H4'	26:14:2542:A:OP1	2.02	0.59
28:19:10:THR:OG1	28:19:13:ARG:HB2	2.02	0.59
32:59:18:GLU:HB2	32:59:25:LYS:HD3	1.84	0.59
1:13:474:G:H2'	1:13:475:G:C8	2.38	0.59
1:13:1126:U:O2'	1:13:1281:U:O2	2.10	0.59
1:13:1143:G:H2'	1:13:1144:G:H8	1.67	0.59
1:13:1369:C:H2'	1:13:1370:G:C8	2.37	0.59
1:13:1396:A:H4'	1:13:1397:C:H5''	1.85	0.59
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.03	0.59
26:1H:307:G:H21	26:1H:330:A:N6	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1627:G:OP1	58:1H:3645:HOH:O	2.16	0.59
26:1H:1779:U:OP2	26:1H:1784:A:N6	2.36	0.59
28:11:38:LYS:O	28:11:38:LYS:NZ	2.25	0.59
28:11:112:GLN:O	28:11:115:GLN:HG2	2.03	0.59
28:11:182:LEU:H	28:11:272:ALA:CB	2.11	0.59
33:61:78:THR:O	33:61:104:GLN:NE2	2.35	0.59
33:61:98:ALA:HB2	33:61:111:PRO:HB3	1.83	0.59
43:E8:12:ILE:HG13	43:E8:42:ARG:HH11	1.67	0.59
53:P8:26:GLY:O	53:P8:30:VAL:HG23	2.03	0.59
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.38	0.59
24:3L:8:U:H5'	24:3L:49:G:OP2	2.02	0.59
29:29:7:VAL:HG12	29:29:8:LYS:H	1.67	0.59
29:29:34:VAL:HG12	29:29:64:LYS:HE3	1.83	0.59
39:65:110:LEU:HD13	39:65:112:PHE:CE1	2.38	0.59
26:1H:1167:U:H2'	26:1H:1168:G:C8	2.37	0.59
26:1H:1332:G:N2	26:1H:1610:A:C8	2.70	0.59
26:1H:2712(A):A:OP2	58:1H:3625:HOH:O	2.17	0.59
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.38	0.59
38:98:67:LEU:HD22	38:98:76:VAL:HG21	1.85	0.59
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.83	0.59
40:B8:11:GLU:OE1	40:B8:57:PHE:HD2	1.86	0.59
54:Q8:54:GLU:O	54:Q8:58:ILE:HG13	2.02	0.59
1:1G:382:A:H2'	1:1G:383:A:H8	1.66	0.59
1:1G:396:G:O2'	1:1G:398:C:OP1	2.15	0.59
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.59
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.38	0.59
2:12:72:GLY:HA2	2:12:165:VAL:HG21	1.84	0.59
24:3L:35:G:H1	25:4L:14:A:N6	2.00	0.59
26:14:1815:A:OP2	28:19:54:ARG:NH2	2.26	0.59
26:14:2056:G:C2	26:14:2057:A:C8	2.90	0.59
27:1J:52:A:O2'	27:1J:53:A:N7	2.34	0.59
30:39:21:ALA:C	30:39:23:ASP:H	2.06	0.59
1:13:598:U:H4'	8:7E:94:TYR:CG	2.37	0.59
1:13:1316:G:H5''	14:5I:17:LYS:HE3	1.83	0.59
12:3I:110:VAL:HG23	12:3I:120:TYR:HB3	1.83	0.59
26:1H:17:G:H2'	26:1H:18:C:C6	2.38	0.59
26:1H:336:C:OP1	45:G8:83:THR:HG23	2.02	0.59
26:1H:1187:G:H5''	42:D8:81:TYR:CE1	2.37	0.59
28:11:155:LEU:HD23	28:11:177:LEU:HD22	1.83	0.59
29:21:94:GLU:OE2	29:21:177:PRO:HB3	2.03	0.59
32:51:2:SER:C	32:51:4:ILE:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:191:G:H1'	20:BA:104:LEU:O	2.02	0.59
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.38	0.59
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.18	0.59
2:12:81:VAL:O	2:12:85:ALA:N	2.36	0.59
3:22:23:TYR:CE1	10:1A:95:GLU:HB2	2.38	0.59
8:72:20:TYR:HD1	8:72:65:TYR:HE2	1.49	0.59
26:14:1313:U:OP1	58:14:3468:HOH:O	2.17	0.59
26:14:2131:G:N2	26:14:2157:G:O2'	2.36	0.59
26:14:2655:G:N2	26:14:2665:A:OP2	2.36	0.59
27:1J:103:U:O2'	46:D5:72:ARG:HG2	2.03	0.59
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.85	0.59
22:1K:1:G:H3'	22:1K:2:C:C6	2.37	0.59
26:1H:931:G:O2'	50:L8:24:LYS:NZ	2.26	0.59
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.86	0.59
27:16:52:A:OP2	39:A8:59:LYS:NZ	2.32	0.59
36:78:49:ARG:HD2	54:Q8:61:LEU:CD2	2.31	0.59
45:G8:5:MET:HE1	45:G8:32:PRO:HG3	1.84	0.59
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.38	0.59
4:32:156:GLU:OE1	4:32:156:GLU:N	2.32	0.59
5:42:88:LYS:HB3	5:42:123:LEU:HB2	1.85	0.59
13:4A:92:HIS:HE2	13:4A:98:VAL:HG11	1.68	0.59
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.67	0.59
26:14:1810:A:H2'	26:14:1811:G:O4'	2.02	0.59
26:14:2467:C:H4'	37:45:123:HIS:ND1	2.18	0.59
26:14:2652:C:H42	26:14:2668:G:H1	1.51	0.59
41:85:49:HIS:O	41:85:53:ARG:N	2.35	0.59
47:E5:9:SER:OG	47:E5:10:THR:N	2.34	0.59
1:13:95:G:H3'	1:13:96:G:H8	1.68	0.59
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.35	0.59
9:8E:5:TYR:HB2	9:8E:18:PHE:CD1	2.38	0.59
21:1F:5:ASP:O	21:1F:8:THR:HG22	2.03	0.59
36:78:101:VAL:HG21	36:78:108:LYS:HG2	1.83	0.59
1:1G:1011:G:N2	1:1G:1019:C:H1'	2.17	0.59
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.68	0.59
3:22:40:ARG:O	3:22:44:GLU:N	2.26	0.59
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.10	0.59
8:72:29:SER:H	8:72:32:LYS:HB2	1.67	0.59
12:3A:59:ARG:HG3	12:3A:65:GLU:HB2	1.84	0.59
26:14:972:G:OP2	26:14:973:A:O2'	2.18	0.59
26:14:2009:G:O6	58:14:3467:HOH:O	2.17	0.59
37:45:136:ALA:N	37:45:137:TYR:HA	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:78:LEU:HD11	39:65:107:GLU:HB3	1.85	0.59
40:75:10:VAL:C	40:75:12:SER:H	2.06	0.59
46:D5:158:PRO:HB2	46:D5:159:PRO:HD2	1.85	0.59
47:E5:72:ARG:HE	47:E5:75:LEU:HD12	1.68	0.59
1:13:1248:A:H2	9:8E:70:LYS:HD2	1.68	0.58
13:4I:81:LEU:O	13:4I:84:ILE:HG22	2.03	0.58
26:1H:444:C:H4'	30:31:49:ALA:HB2	1.83	0.58
26:1H:2215:G:H2'	26:1H:2216:G:H8	1.68	0.58
26:1H:2296:U:OP2	39:A8:9:ARG:NH1	2.28	0.58
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.36	0.58
1:1G:256:U:H2'	1:1G:257:G:C8	2.38	0.58
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.68	0.58
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.42	0.58
26:14:1337:G:H2'	26:14:1338:G:H8	1.68	0.58
26:14:1579:A:H2'	26:14:1580:A:C8	2.38	0.58
27:1J:6:C:H2'	27:1J:7:G:H5''	1.84	0.58
36:35:50:ARG:HH11	36:35:50:ARG:HG3	1.68	0.58
48:F5:84:GLY:HA3	48:F5:86:SER:H	1.67	0.58
1:13:486:U:H2'	1:13:487:A:C8	2.34	0.58
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.85	0.58
26:1H:2313:C:H4'	31:41:91:ARG:HG3	1.83	0.58
7:62:92:SER:HB2	7:62:94:ARG:CZ	2.33	0.58
9:82:121:ARG:NH1	9:82:122:ALA:O	2.35	0.58
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	1.84	0.58
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.36	0.58
26:14:1226:G:H4'	42:95:84:LYS:HG3	1.85	0.58
26:14:2129:C:H5''	26:14:2130:U:H5	1.68	0.58
26:14:2149:G:N1	26:14:2150:U:O2	2.36	0.58
29:29:31:CYS:SG	29:29:51:PHE:HB2	2.43	0.58
31:49:97:ASP:HA	31:49:100:TRP:HD1	1.68	0.58
34:15:96:GLU:H	34:15:96:GLU:CD	2.07	0.58
34:15:135:PRO:O	34:15:137:LYS:NZ	2.36	0.58
1:13:279:A:H4'	1:13:280:C:H5''	1.84	0.58
1:13:540:G:H2'	1:13:541:G:O4'	2.03	0.58
1:13:1032(A):G:N2	1:13:1032(B):G:O6	2.36	0.58
26:1H:906:G:OP1	37:88:26:TYR:OH	2.15	0.58
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.39	0.58
26:1H:1359:A:H61	26:1H:1372:U:H3	1.51	0.58
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.37	0.58
29:21:65:GLY:HA2	29:21:67:PHE:O	2.03	0.58
39:A8:14:VAL:O	39:A8:18:ILE:HD13	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:E8:6:ILE:HG12	43:E8:104:THR:HG23	1.85	0.58
1:1G:1178:G:H5''	9:82:93:ARG:NH2	2.18	0.58
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.45	0.58
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.35	0.58
26:14:792:G:N3	26:14:2072:G:O2'	2.30	0.58
26:14:1048:A:N6	26:14:1111:A:O2'	2.35	0.58
26:14:1788:C:C2	26:14:1789:A:C8	2.90	0.58
26:14:2883:A:C5'	26:14:2884:U:H5'	2.32	0.58
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.86	0.58
1:13:129(A):G:H4'	1:13:130:A:H5''	1.85	0.58
1:13:138:G:H1	1:13:225:C:H42	1.52	0.58
1:13:158:G:N1	1:13:163:C:N3	2.50	0.58
1:13:186(E):C:H42	1:13:191(B):G:H1	1.51	0.58
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.36	0.58
26:1H:306:U:C5	26:1H:307:G:C5	2.91	0.58
36:78:37:GLY:HA2	36:78:41:ARG:HD3	1.85	0.58
48:J8:47:GLN:N	48:J8:62:VAL:O	2.35	0.58
1:1G:1188:A:OP1	9:82:114:TYR:OH	2.11	0.58
26:14:13:A:N1	26:14:525:U:H2'	2.18	0.58
26:14:1041:C:H42	26:14:1114:G:H1	1.50	0.58
26:14:2689:U:P	26:14:2719:G:H22	2.26	0.58
28:19:182:LEU:N	28:19:272:ALA:HB3	2.18	0.58
46:D5:155:LEU:HB2	46:D5:157:LEU:HD13	1.86	0.58
1:13:456:C:N4	1:13:476:G:H1	2.00	0.58
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.86	0.58
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.03	0.58
13:4I:78:ILE:O	13:4I:82:MET:N	2.34	0.58
26:1H:530:G:O2'	58:1H:3641:HOH:O	2.16	0.58
26:1H:603:A:O4'	26:1H:655:A:N6	2.35	0.58
26:1H:606:U:H4'	26:1H:658:C:H4'	1.84	0.58
26:1H:2656:U:N3	26:1H:2665:A:H2	2.01	0.58
27:16:3:C:H42	27:16:117:G:H1	1.51	0.58
29:21:183:LEU:HD21	40:B8:10:VAL:HG21	1.86	0.58
3:22:18:TRP:HB2	3:22:21:ARG:HG2	1.84	0.58
5:42:42:GLY:HA3	5:42:65:ASN:O	2.04	0.58
18:9A:56:THR:HB	18:9A:58:LEU:HD12	1.85	0.58
26:14:446:G:OP2	58:14:3465:HOH:O	2.16	0.58
26:14:823:G:H2'	26:14:824:A:C8	2.38	0.58
26:14:1771:C:HO2'	26:14:1786:A:H8	1.48	0.58
26:14:2471:C:N4	26:14:2476:A:O2'	2.34	0.58
26:14:2820:A:C5	38:55:4:LEU:HD11	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:24:VAL:HG12	35:25:33:ALA:HB2	1.85	0.58
1:13:372:C:H42	1:13:389:A:H62	1.52	0.58
1:13:700:G:H4'	1:13:704:A:H1'	1.86	0.58
8:7E:112:LEU:HB3	8:7E:133:LEU:HA	1.84	0.58
11:2I:96:ARG:HD2	11:2I:99:GLN:HE21	1.68	0.58
26:1H:34:C:O2'	26:1H:35:G:OP2	2.19	0.58
26:1H:125:G:H5'	26:1H:125:G:C8	2.38	0.58
26:1H:242:G:H5''	54:Q8:64:TYR:CE2	2.38	0.58
26:1H:592:G:N3	54:Q8:4:MET:HE3	2.19	0.58
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.68	0.58
30:31:111:ALA:HB2	30:31:206:ILE:HG21	1.86	0.58
40:B8:37:GLY:O	40:B8:38:ASN:ND2	2.36	0.58
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.36	0.58
1:1G:1228:C:H2'	1:1G:1229:A:H8	1.69	0.58
12:3A:25:PRO:O	12:3A:27:LEU:N	2.36	0.58
22:1L:50:G:N2	22:1L:51:C:N3	2.51	0.58
26:14:574:C:H1'	26:14:2055:C:C6	2.39	0.58
26:14:1040:C:H2'	26:14:1041:C:C6	2.39	0.58
26:14:1778:U:H2'	26:14:1784:A:N6	2.18	0.58
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.39	0.58
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.85	0.58
2:1E:11:LEU:HG	2:1E:15:VAL:HG23	1.86	0.58
2:1E:98:LEU:HD23	2:1E:108:ILE:HD11	1.85	0.58
17:8I:11:VAL:HG12	17:8I:85:VAL:HG23	1.86	0.58
26:1H:232:G:O5'	26:1H:232:G:H8	1.87	0.58
26:1H:1899:G:N2	26:1H:1902:C:C5	2.72	0.58
26:1H:2101:G:H1	26:1H:2188:C:H42	1.51	0.58
29:21:9:VAL:HB	29:21:25:VAL:HG13	1.83	0.58
29:21:105:THR:HG21	29:21:164:ARG:CZ	2.33	0.58
51:M8:37:SER:HG	51:M8:42:PHE:HD2	1.51	0.58
1:1G:42:G:H1	1:1G:400:C:H42	1.52	0.58
5:42:36:ASP:OD1	5:42:38:GLN:N	2.25	0.58
26:14:34:C:O2'	26:14:35:G:O5'	2.22	0.58
26:14:993:G:OP2	41:85:51:LYS:NZ	2.29	0.58
26:14:2335:A:C8	26:14:2337:G:C5	2.92	0.58
27:1J:116:G:H5''	39:65:55:ALA:HB2	1.85	0.58
29:29:24:THR:HG21	29:29:188:VAL:HG13	1.86	0.58
1:13:345:C:H4'	1:13:346:G:C8	2.39	0.58
1:13:757:U:H2'	1:13:758:G:O4'	2.04	0.58
1:13:864:A:H2'	1:13:865:A:C8	2.39	0.58
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2052:G:H4'	29:21:143:ASN:O	2.03	0.58
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.38	0.58
32:51:58:GLU:O	32:51:60:ARG:N	2.37	0.58
40:B8:21:GLU:HG3	40:B8:91:ARG:HH22	1.68	0.58
46:H8:165:VAL:HG12	46:H8:167:PRO:HD3	1.86	0.58
1:1G:1171:G:H2'	1:1G:1172:C:H6	1.68	0.58
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.37	0.58
10:1A:51:ARG:NH2	10:1A:61:GLU:HB2	2.19	0.58
30:39:89:VAL:HG12	30:39:90:PHE:H	1.69	0.58
31:49:145:THR:O	31:49:146:TYR:HB3	2.02	0.58
32:59:12:PRO:HB3	32:59:15:VAL:HG22	1.86	0.58
40:75:123:GLN:HA	40:75:126:ALA:HB3	1.85	0.58
1:13:837:G:OP2	1:13:842:C:N4	2.36	0.58
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.04	0.58
26:1H:2287:A:O2'	26:1H:2288:A:H5''	2.03	0.58
1:1G:41:G:H2'	1:1G:42:G:C8	2.39	0.58
1:1G:1421:G:H1	1:1G:1479:C:H42	1.51	0.58
7:62:93:PRO:HA	7:62:96:GLN:HB2	1.85	0.58
13:4A:84:ILE:H	13:4A:84:ILE:HD12	1.69	0.58
22:1L:4:G:O6	22:1L:69:C:N4	2.37	0.58
26:14:545:G:H21	26:14:547:A:H8	1.52	0.58
26:14:780:G:H21	26:14:783:A:H62	1.51	0.58
30:39:155:LEU:HD23	30:39:186:ILE:HD13	1.85	0.58
46:D5:91:LEU:HD12	46:D5:91:LEU:H	1.67	0.58
1:13:280:C:C2	17:8I:38:ARG:HG3	2.39	0.58
3:2E:124:ILE:HG21	3:2E:196:LEU:HD12	1.85	0.58
26:1H:275:G:N7	26:1H:363:G:C2	2.72	0.58
26:1H:852:G:H8	26:1H:852:G:O5'	1.87	0.58
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.16	0.58
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.19	0.58
45:G8:85:VAL:HG22	45:G8:98:VAL:HB	1.86	0.58
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.37	0.58
20:BA:22:ARG:O	20:BA:26:ASN:ND2	2.37	0.58
26:14:528:A:C2	26:14:2042:A:H2'	2.39	0.58
26:14:592:G:H21	54:M5:4:MET:HE3	1.68	0.58
26:14:1012:U:H3	34:15:25:ARG:HH11	1.52	0.58
26:14:1434:A:H61	26:14:1558:A:N6	2.01	0.58
26:14:1537:C:H2'	26:14:1538:G:C8	2.39	0.58
26:14:1946:U:H2'	26:14:1947:C:C6	2.37	0.58
28:19:9:TYR:HD1	28:19:10:THR:HG23	1.69	0.58
30:39:75:HIS:HD2	30:39:82:ILE:HD13	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:160:ASN:OD1	30:39:163:VAL:N	2.37	0.58
35:25:47:ILE:HB	35:25:48:PRO:HD2	1.86	0.58
1:13:31:G:O2'	1:13:48:C:N4	2.37	0.57
1:13:45:U:H2'	1:13:46:G:C8	2.38	0.57
1:13:979:C:N4	58:13:1862:HOH:O	2.36	0.57
1:13:1292:U:H2'	1:13:1293:G:C8	2.39	0.57
50:L8:37:LEU:HD22	50:L8:43:ILE:HD12	1.85	0.57
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.09	0.57
1:1G:1090:U:H4'	1:1G:1170:A:H2	1.69	0.57
1:1G:1255:G:H5'	1:1G:1256:A:OP2	2.04	0.57
5:42:30:ALA:O	5:42:45:PHE:HA	2.04	0.57
7:62:59:LEU:HD21	7:62:63:LYS:HZ2	1.68	0.57
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.04	0.57
26:14:86:C:HO2'	26:14:104:U:HO2'	1.52	0.57
26:14:2329:G:N2	47:E5:41:ARG:HG3	2.11	0.57
29:29:37:ARG:HD2	29:29:44:TYR:OH	2.04	0.57
47:E5:10:THR:OG1	47:E5:11:ARG:N	2.37	0.57
1:13:1424:C:H42	1:13:1476:G:H1	1.52	0.57
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.85	0.57
26:1H:654(C):G:H1	26:1H:654(Q):C:H42	1.50	0.57
26:1H:931:G:C4	26:1H:933:A:C8	2.92	0.57
26:1H:1243:G:O2'	36:78:7:ARG:NH2	2.37	0.57
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.04	0.57
26:1H:2261:C:C5	47:I8:16:SER:HB3	2.39	0.57
30:31:116:ASP:O	30:31:120:GLU:HG3	2.04	0.57
45:G8:38:ILE:HD11	45:G8:64:GLU:HG3	1.86	0.57
45:G8:45:VAL:HG22	45:G8:46:LYS:H	1.68	0.57
51:M8:57:GLU:O	51:M8:61:ARG:NH1	2.32	0.57
1:1G:149:A:H2'	1:1G:150:C:C6	2.39	0.57
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.85	0.57
7:62:111:ARG:NH2	7:62:113:GLU:OE2	2.33	0.57
8:72:36:LEU:HB2	8:72:48:TYR:CD1	2.39	0.57
26:14:29:U:H2'	26:14:30:G:C8	2.39	0.57
26:14:1012:U:H5	34:15:28:THR:HG21	1.69	0.57
30:39:129:PHE:HA	30:39:142:TRP:NE1	2.19	0.57
36:35:47:ASP:HB3	36:35:50:ARG:H	1.69	0.57
1:13:142:G:H2'	1:13:143:A:C8	2.40	0.57
1:13:222:U:H2'	1:13:223:U:C6	2.39	0.57
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.37	0.57
1:13:1291:G:O3'	9:8E:39:GLY:HA3	2.05	0.57
9:8E:22:GLY:N	9:8E:58:HIS:O	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2002:G:N7	58:1H:3705:HOH:O	2.32	0.57
30:31:184:TYR:O	30:31:188:ARG:HG3	2.04	0.57
39:A8:42:ASP:C	39:A8:44:LYS:H	2.07	0.57
1:1G:448:A:P	1:1G:485:G:H22	2.25	0.57
8:72:110:ALA:H	8:72:121:ASP:HB3	1.69	0.57
26:14:127:A:H5''	26:14:128:C:C6	2.39	0.57
26:14:994:C:H3'	41:85:54:LYS:HE3	1.86	0.57
26:14:2147:G:H2'	26:14:2148:G:H4'	1.87	0.57
28:19:3:VAL:HG12	28:19:17:THR:HB	1.86	0.57
30:39:20:LEU:HD13	30:39:203:GLN:OE1	2.04	0.57
31:49:118:ARG:HB3	31:49:181:ARG:HD3	1.86	0.57
1:13:108:G:N2	1:13:109:A:N1	2.52	0.57
1:13:611:A:H61	1:13:629:G:H1	1.52	0.57
11:2I:53:SER:HA	11:2I:54:ARG:O	2.05	0.57
26:1H:125:G:H5'	26:1H:125:G:H8	1.69	0.57
26:1H:330:A:O2'	26:1H:331:A:H8	1.87	0.57
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.40	0.57
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.40	0.57
41:C8:52:ARG:HA	41:C8:55:ARG:HG3	1.87	0.57
1:1G:161:A:H2'	1:1G:162:A:C8	2.40	0.57
1:1G:611:A:H2	1:1G:630:G:H22	1.49	0.57
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.86	0.57
3:22:125:GLU:O	3:22:127:ARG:NH1	2.36	0.57
38:55:79:LEU:HA	38:55:83:ILE:HB	1.86	0.57
52:J5:16:ARG:HH11	52:J5:16:ARG:HG2	1.68	0.57
1:13:350:G:H2'	1:13:351:G:C8	2.40	0.57
10:1I:38:ILE:HG13	10:1I:71:LEU:HB3	1.86	0.57
15:6I:67:LEU:HD23	15:6I:78:TYR:CE1	2.39	0.57
26:1H:709:U:H2'	26:1H:710:G:C8	2.40	0.57
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.39	0.57
26:1H:1891:G:O6	58:1H:3627:HOH:O	2.14	0.57
26:1H:2139:C:N4	26:1H:2152:G:H1	2.03	0.57
34:58:7:LYS:H	34:58:7:LYS:NZ	2.02	0.57
39:A8:89:ARG:HG2	39:A8:89:ARG:O	2.04	0.57
2:12:130:ARG:HB2	2:12:135:GLN:HE21	1.70	0.57
3:22:41:GLY:O	3:22:45:LYS:HG3	2.04	0.57
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.38	0.57
26:14:185:U:H4'	26:14:218:A:H4'	1.86	0.57
26:14:303:U:H2'	26:14:304:G:C8	2.39	0.57
26:14:661:C:O3'	58:14:3471:HOH:O	2.17	0.57
26:14:1043:C:H2'	26:14:1044:G:H5'	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1152:C:H4'	41:85:77:SER:HA	1.86	0.57
26:14:1310:G:OP2	53:L5:9:ARG:NE	2.30	0.57
26:14:1599:C:C6	26:14:1600:C:H5	2.23	0.57
30:39:32:LEU:HB3	30:39:112:MET:HE1	1.86	0.57
34:15:125:GLY:HA2	34:15:126:PRO:O	2.03	0.57
1:13:235:C:H2'	1:13:236:G:H8	1.70	0.57
1:13:354:G:OP1	58:13:1836:HOH:O	2.17	0.57
1:13:397:A:O2'	1:13:399:G:OP2	2.20	0.57
1:13:946:A:H2'	1:13:947:G:C8	2.39	0.57
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.22	0.57
1:13:1422:G:H5'	35:68:48:PRO:HB3	1.86	0.57
9:8E:33:PHE:CE2	9:8E:47:LEU:HD11	2.39	0.57
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.04	0.57
26:1H:71:A:H5'	26:1H:71:A:H8	1.70	0.57
26:1H:299:A:H5'	26:1H:300:A:OP2	2.04	0.57
26:1H:994:C:H3'	41:C8:54:LYS:HE3	1.85	0.57
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.38	0.57
28:11:96:HIS:CE1	28:11:102:LYS:HE2	2.39	0.57
31:41:143:GLU:OE2	31:41:143:GLU:N	2.36	0.57
1:1G:149:A:H2'	1:1G:150:C:H6	1.69	0.57
1:1G:165:C:H2'	1:1G:166:G:C8	2.40	0.57
1:1G:1308:U:H5''	13:4A:98:VAL:HG22	1.86	0.57
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.85	0.57
7:62:64:GLN:O	7:62:128:ALA:HA	2.04	0.57
8:72:34:GLU:OE1	8:72:37:ARG:NH1	2.38	0.57
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.37	0.57
15:6A:2:PRO:C	15:6A:38:ARG:HH22	2.06	0.57
26:14:946:G:H2'	26:14:947:G:H8	1.70	0.57
29:29:76:ARG:HA	29:29:76:ARG:CZ	2.35	0.57
31:49:103:LEU:HD23	31:49:106:LEU:HD23	1.86	0.57
39:65:15:ARG:O	39:65:19:LYS:HG3	2.05	0.57
43:A5:73:ALA:HB3	43:A5:106:ILE:HD11	1.85	0.57
47:E5:50:ASN:O	47:E5:62:LEU:HB2	2.04	0.57
1:13:165:C:H2'	1:13:166:G:H8	1.69	0.57
1:13:316:G:OP2	1:13:351:G:O2'	2.20	0.57
1:13:964:A:N6	58:13:1863:HOH:O	2.37	0.57
1:13:1165:C:H2'	1:13:1166:G:O4'	2.04	0.57
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.35	0.57
20:BI:22:ARG:O	20:BI:26:ASN:ND2	2.37	0.57
26:1H:270:A:OP1	58:1H:3650:HOH:O	2.17	0.57
26:1H:574:C:OP2	58:1H:3651:HOH:O	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:614:U:OP2	26:1H:614:U:H6	1.86	0.57
26:1H:2016:U:O2	52:N8:7:PRO:HG2	2.04	0.57
26:1H:2068:U:N3	26:1H:2430:A:H2	2.01	0.57
26:1H:2287:A:C2	26:1H:2346:A:C2	2.93	0.57
28:11:263:ARG:NH1	28:11:263:ARG:HB2	2.20	0.57
37:88:109:VAL:HG13	37:88:113:GLN:HB3	1.87	0.57
41:C8:28:ARG:HD3	41:C8:38:THR:OG1	2.04	0.57
46:H8:110:GLY:C	46:H8:112:ARG:H	2.08	0.57
52:N8:33:CYS:SG	52:N8:40:LYS:HD3	2.44	0.57
3:22:73:PRO:HB3	3:22:103:VAL:HG11	1.87	0.57
9:82:9:ARG:HG2	9:82:14:VAL:HG13	1.87	0.57
24:3L:76:A:H8	26:14:2394:C:N4	2.02	0.57
26:14:363:G:H2'	26:14:363(A):A:C8	2.40	0.57
26:14:833:U:H1'	36:35:55:ARG:HH12	1.70	0.57
26:14:1999:C:H4'	26:14:2723:C:O2	2.05	0.57
26:14:2475:C:H3'	26:14:2476:A:H5''	1.86	0.57
26:14:2550:G:H1	26:14:2558:C:H42	1.51	0.57
26:14:2562:U:H4'	35:25:25:LEU:HD21	1.87	0.57
29:29:134:ILE:HD12	29:29:134:ILE:O	2.04	0.57
40:75:5:ALA:HB1	40:75:8:LYS:HB2	1.86	0.57
47:E5:26:TYR:HB2	47:E5:29:GLN:OE1	2.04	0.57
1:13:923:A:O2'	1:13:1399:C:OP2	2.20	0.57
1:13:963:G:H21	10:1I:55:LYS:CE	2.18	0.57
1:13:1034:G:N2	1:13:1035:A:N7	2.52	0.57
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.19	0.57
26:1H:270:A:OP2	26:1H:270(Y):G:N2	2.28	0.57
26:1H:732:C:H3'	58:1H:3551:HOH:O	2.05	0.57
26:1H:1626:G:OP2	58:1H:3656:HOH:O	2.18	0.57
26:1H:1689:A:N6	26:1H:1698:A:H2	2.03	0.57
38:98:41:ALA:O	38:98:44:LEU:N	2.37	0.57
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.87	0.57
3:22:44:GLU:HG3	3:22:52:LEU:HD11	1.86	0.57
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.85	0.57
4:32:32:ALA:H	4:32:35:ARG:HH11	1.52	0.57
9:82:27:THR:OG1	9:82:31:GLN:O	2.12	0.57
26:14:758:C:H2'	26:14:759:G:H8	1.70	0.57
26:14:1425:G:H2'	26:14:1426:G:O4'	2.05	0.57
27:1J:9:G:P	39:65:25:ARG:HH22	2.27	0.57
27:1J:104:A:OP1	46:D5:72:ARG:NH2	2.38	0.57
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.25	0.57
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.22	0.57
26:1H:75:G:N2	26:1H:112:U:O2	2.38	0.57
26:1H:858:U:O2	26:1H:2268:A:H2'	2.05	0.57
26:1H:1289:C:H2'	26:1H:1290:C:H6	1.70	0.57
26:1H:2194:G:OP1	28:11:268:ARG:NH2	2.38	0.57
26:1H:2312:U:H5'	31:41:88:ILE:HD11	1.86	0.57
26:1H:2516:G:C6	26:1H:2517:C:N4	2.72	0.57
37:88:54:MET:O	37:88:57:HIS:N	2.36	0.57
48:J8:81:LYS:O	48:J8:83:GLU:HG2	2.05	0.57
50:L8:13:ILE:O	58:L8:101:HOH:O	2.17	0.57
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.40	0.57
9:82:117:HIS:HB2	9:82:121:ARG:O	2.05	0.57
26:14:468:G:N7	53:L5:39:ARG:NH2	2.53	0.57
26:14:649:G:H2'	26:14:650:C:C6	2.40	0.57
26:14:1525:G:H2'	26:14:1526:G:C8	2.40	0.57
37:45:27:VAL:HG13	37:45:136:ALA:CB	2.30	0.57
48:F5:40:ARG:NH2	48:F5:42:GLN:HG2	2.20	0.57
1:13:359:U:H2'	1:13:360:A:C8	2.39	0.57
1:13:664:G:H22	1:13:741:G:H1	1.53	0.57
8:7E:98:LYS:H	8:7E:98:LYS:HD2	1.70	0.57
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.39	0.57
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.48	0.57
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.39	0.57
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.85	0.57
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.35	0.57
54:Q8:30:ARG:NH1	58:Q8:101:HOH:O	2.37	0.57
54:Q8:33:ASN:HA	54:Q8:36:LYS:HD2	1.86	0.57
1:1G:375:U:H2'	1:1G:376:G:H8	1.70	0.57
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.20	0.57
1:1G:1043:C:H2'	1:1G:1044:A:C8	2.39	0.57
13:4A:31:LYS:HA	13:4A:34:LEU:HB2	1.86	0.57
23:2L:2:G:H5'	47:E5:8:GLY:HA2	1.86	0.57
26:14:798:G:OP1	58:14:3469:HOH:O	2.17	0.57
26:14:1210:A:H5'	26:14:1210:A:H8	1.68	0.57
28:19:228:PRO:HD3	28:19:235:GLY:N	2.19	0.57
32:59:136:ILE:HB	32:59:140:LYS:HZ1	1.70	0.57
37:45:27:VAL:HB	37:45:28:ALA:CA	2.29	0.57
37:45:139:GLU:N	37:45:139:GLU:OE2	2.37	0.57
1:13:975:A:H5''	1:13:975:A:H8	1.69	0.56
1:13:1145:C:H4'	1:13:1146:A:H5'	1.85	0.56
26:1H:1247:A:OP1	30:31:95:ARG:NH2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.68	0.56
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.40	0.56
26:1H:2531:A:H5'	32:51:157:TYR:CZ	2.40	0.56
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.88	0.56
32:51:155:SER:OG	32:51:158:HIS:O	2.23	0.56
36:78:115:LEU:HA	36:78:134:ALA:HB2	1.86	0.56
49:K8:18:PRO:HA	49:K8:21:LEU:HD12	1.86	0.56
1:1G:67:C:H2'	1:1G:68:G:H8	1.70	0.56
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.37	0.56
1:1G:373:A:N3	1:1G:374:A:C8	2.73	0.56
2:12:15:VAL:HB	2:12:16:HIS:CE1	2.39	0.56
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.25	0.56
26:14:2557:G:H2'	26:14:2558:C:C6	2.40	0.56
26:14:2889:C:H2'	26:14:2891:G:O4'	2.04	0.56
30:39:108:LYS:O	30:39:112:MET:HB2	2.05	0.56
30:39:179:GLU:N	30:39:179:GLU:OE1	2.38	0.56
1:13:652:U:O2'	1:13:653:A:O5'	2.20	0.56
1:13:659:U:H2'	1:13:660:G:C8	2.40	0.56
1:13:693:G:H2'	1:13:694:A:C8	2.40	0.56
1:13:749:C:H2'	1:13:750:G:C8	2.37	0.56
1:13:1263:C:N3	1:13:1272:G:N1	2.43	0.56
2:1E:100:GLY:O	2:1E:104:ASN:N	2.28	0.56
26:1H:259:G:H21	26:1H:621:A:H8	1.51	0.56
26:1H:643:A:N1	26:1H:2369:A:O2'	2.34	0.56
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.23	0.56
26:1H:2448:A:H5'	58:1H:3528:HOH:O	2.05	0.56
28:11:77:ALA:HB2	28:11:97:TYR:CG	2.40	0.56
30:31:29:ASN:N	30:31:112:MET:HE1	2.19	0.56
30:31:36:VAL:HG11	30:31:183:VAL:HG11	1.86	0.56
49:K8:42:GLY:O	49:K8:44:LEU:N	2.38	0.56
4:32:34:GLU:HB2	4:32:35:ARG:HH22	1.69	0.56
26:14:459:U:H4'	53:L5:40:TRP:CZ3	2.40	0.56
26:14:491:G:O6	43:A5:49:LYS:HE2	2.05	0.56
26:14:1048:A:H62	26:14:1111:A:H1'	1.70	0.56
26:14:1796:U:H2'	26:14:1797:C:H6	1.68	0.56
26:14:2106:G:H1	26:14:2183:C:H42	1.52	0.56
26:14:2432:A:H2'	26:14:2433:A:C8	2.40	0.56
27:1J:117:G:O5'	27:1J:117:G:H8	1.87	0.56
28:19:71:ASP:OD2	28:19:103:ARG:NH1	2.38	0.56
31:49:95:ARG:O	31:49:99:MET:HG2	2.05	0.56
33:69:9:LEU:HD11	33:69:35:LEU:HB3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:34:THR:OG1	35:25:35:VAL:N	2.37	0.56
40:75:7:ILE:O	40:75:11:GLU:HB2	2.04	0.56
41:85:92:ARG:C	41:85:94:ASN:H	2.08	0.56
46:D5:4:ARG:HB3	46:D5:58:VAL:HB	1.88	0.56
46:D5:157:LEU:CB	46:D5:161:VAL:HG21	2.35	0.56
48:F5:51:VAL:HG23	48:F5:58:ILE:HB	1.86	0.56
1:13:186(C):G:H2'	1:13:186(D):C:C6	2.40	0.56
1:13:384:G:H2'	1:13:385:C:C6	2.40	0.56
1:13:843:U:H3'	1:13:848:C:C6	2.40	0.56
8:7E:86:ILE:HG21	8:7E:133:LEU:HD13	1.86	0.56
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.40	0.56
22:1K:66:U:H3'	22:1K:67:A:C5'	2.35	0.56
26:1H:1535:U:H5''	26:1H:1537:C:N4	2.20	0.56
26:1H:2252:G:H2'	26:1H:2253:G:C8	2.40	0.56
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.39	0.56
32:51:5:GLY:H	32:51:69:ARG:HG2	1.70	0.56
36:78:59:LEU:O	54:Q8:13:ARG:HD2	2.05	0.56
38:98:38:VAL:HG22	38:98:112:ALA:HB2	1.87	0.56
39:A8:26:LEU:HD12	39:A8:39:ILE:HD11	1.87	0.56
46:H8:60:GLU:HA	46:H8:66:SER:HA	1.86	0.56
47:I8:38:VAL:HG12	47:I8:40:GLN:HG2	1.87	0.56
48:J8:71:TYR:HA	48:J8:74:VAL:HG12	1.87	0.56
1:1G:385:C:H2'	1:1G:386:C:C6	2.41	0.56
6:52:9:VAL:HB	6:52:87:ARG:HB2	1.88	0.56
10:1A:47:PHE:O	10:1A:63:PHE:N	2.37	0.56
20:BA:14:LYS:HE2	20:BA:18:GLN:HE21	1.71	0.56
26:14:184:C:H2'	26:14:185:U:H6	1.70	0.56
26:14:748:G:O6	43:A5:90:ARG:NH1	2.38	0.56
26:14:2068:U:N3	26:14:2430:A:H2	1.97	0.56
26:14:2591:C:OP1	28:19:239:ARG:HG2	2.05	0.56
29:29:12:THR:O	29:29:23:VAL:HG22	2.05	0.56
30:39:152:GLU:HA	30:39:190:GLU:OE2	2.05	0.56
34:15:17:ASP:OD2	34:15:56:ASN:ND2	2.38	0.56
34:15:137:LYS:HB3	34:15:137:LYS:HZ2	1.71	0.56
44:B5:11:PRO:HG2	44:B5:13:LEU:HD21	1.87	0.56
1:13:269:C:H2'	1:13:270:A:C8	2.39	0.56
1:13:345:C:H4'	1:13:346:G:C5	2.40	0.56
22:1K:28:A:N6	22:1K:41:G:O6	2.39	0.56
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.41	0.56
26:1H:2335:A:C8	26:1H:2337:G:C5	2.93	0.56
26:1H:2469:A:H2	26:1H:2481:G:H21	1.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:104:VAL:HG13	29:21:198:VAL:HG22	1.86	0.56
31:41:16:ARG:HH12	31:41:31:VAL:HG21	1.70	0.56
35:68:93:PRO:HG3	35:68:114:ILE:HG13	1.87	0.56
36:78:116:GLY:H	36:78:134:ALA:HB2	1.70	0.56
50:L8:3:ARG:HB3	50:L8:59:VAL:HG13	1.88	0.56
1:1G:865:A:N3	1:1G:918:A:O2'	2.34	0.56
1:1G:1122:U:N3	1:1G:1123:A:N7	2.54	0.56
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.67	0.56
4:32:26:CYS:HB3	56:32:302:SF4:S1	2.45	0.56
19:AA:42:PRO:HD3	19:AA:67:VAL:HG13	1.87	0.56
26:14:331:A:N6	26:14:1210:A:OP2	2.32	0.56
26:14:511:U:H5	26:14:512:G:C5	2.24	0.56
26:14:1204:A:O2'	26:14:1205:U:OP2	2.21	0.56
26:14:1416:G:O2'	26:14:1417:C:O5'	2.17	0.56
26:14:2575:C:H5'	29:29:144:ARG:HG2	1.87	0.56
33:69:75:LEU:HA	33:69:139:GLN:HG3	1.87	0.56
49:G5:29:LYS:HE2	49:G5:57:ILE:HG21	1.87	0.56
1:13:123:C:OP1	1:13:311:C:O2'	2.17	0.56
1:13:1151:A:O2'	1:13:1152:A:O5'	2.21	0.56
2:1E:21:ARG:O	2:1E:23:ARG:N	2.36	0.56
4:3E:84:LYS:HB3	4:3E:86:LYS:HG3	1.86	0.56
7:6E:139:GLU:HA	7:6E:142:GLU:HG3	1.88	0.56
23:2K:24:C:H2'	23:2K:25:U:C6	2.41	0.56
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.41	0.56
28:11:168:ARG:HG2	28:11:173:VAL:HG12	1.88	0.56
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.87	0.56
19:AA:66:MET:HG3	19:AA:69:HIS:CE1	2.40	0.56
26:14:2648:C:H2'	26:14:2649:U:C6	2.40	0.56
30:39:32:LEU:O	30:39:36:VAL:HG23	2.04	0.56
40:75:33:LYS:HE3	40:75:40:THR:HG21	1.87	0.56
48:F5:83:GLU:O	48:F5:87:PRO:HD3	2.05	0.56
1:13:110:C:H2'	1:13:111:G:O4'	2.05	0.56
1:13:607:A:C2	16:7I:31:LYS:HG3	2.40	0.56
1:13:1347:G:HO2'	1:13:1373:G:H1	1.50	0.56
3:2E:32:LEU:HD13	3:2E:59:ARG:HH11	1.69	0.56
6:5E:95:GLU:N	6:5E:95:GLU:OE1	2.36	0.56
8:7E:116:LYS:HG2	8:7E:129:VAL:HG11	1.87	0.56
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.88	0.56
26:1H:1028:A:N6	26:1H:1125:G:H2'	2.21	0.56
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.22	0.56
26:1H:2392:A:H2	26:1H:2424:C:H42	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.06	0.56
27:16:111:U:H2'	27:16:112:G:C8	2.40	0.56
30:31:101:LEU:O	30:31:106:ARG:NH1	2.39	0.56
38:98:24:GLN:OE1	38:98:36:THR:HG21	2.06	0.56
40:B8:12:SER:HA	40:B8:14:TYR:H	1.70	0.56
40:B8:24:PRO:HA	40:B8:49:VAL:HG22	1.88	0.56
10:1A:91:PRO:HB3	10:1A:96:ILE:HD11	1.86	0.56
26:14:1918:A:N3	26:14:1919:A:N6	2.53	0.56
26:14:2273:A:H2'	26:14:2274:A:C8	2.41	0.56
26:14:2468:G:H3'	26:14:2476:A:N1	2.20	0.56
1:13:278:G:OP2	17:8I:92:ARG:NH1	2.39	0.56
1:13:1036:G:H5'	1:13:1037:C:OP2	2.06	0.56
4:3E:165:MET:SD	4:3E:168:ARG:HD3	2.45	0.56
11:2I:79:SER:HB2	11:2I:106:LYS:HE2	1.87	0.56
26:1H:910:A:N6	37:88:12:GLN:HA	2.10	0.56
26:1H:2576:G:OP1	58:1H:3649:HOH:O	2.17	0.56
26:1H:2786:U:O2'	29:21:62:PRO:O	2.19	0.56
28:11:33:LEU:O	28:11:64:ILE:HG23	2.06	0.56
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.41	0.56
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.41	0.56
26:14:247:G:H4'	26:14:386:G:C5	2.40	0.56
26:14:323:G:O2'	26:14:1205:U:N3	2.32	0.56
26:14:1990:C:H2'	26:14:1991:U:C6	2.41	0.56
26:14:2342:C:O2	26:14:2374:C:H4'	2.06	0.56
32:59:14:GLY:O	32:59:29:PRO:HD3	2.06	0.56
33:69:14:ASP:O	33:69:17:GLN:HB2	2.06	0.56
36:35:55:ARG:HG2	36:35:56:SER:H	1.70	0.56
39:65:18:ILE:O	39:65:20:ARG:N	2.39	0.56
1:13:10:A:H2'	1:13:11:G:H8	1.71	0.56
1:13:619:U:H3	4:3E:135:LEU:HD11	1.70	0.56
26:1H:836:G:H5''	26:1H:837:C:OP2	2.05	0.56
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.41	0.56
26:1H:2101:G:H1	26:1H:2188:C:N4	2.04	0.56
26:1H:2818:G:OP2	38:98:42:LYS:NZ	2.39	0.56
32:51:169:VAL:HG13	32:51:170:ARG:HG3	1.88	0.56
38:98:104:ARG:NH1	38:98:107:ASP:OD2	2.34	0.56
43:E8:14:PRO:HG2	43:E8:78:GLU:HB2	1.87	0.56
1:1G:337:C:H2'	1:1G:338:A:H8	1.70	0.56
1:1G:1247:U:H2'	1:1G:1248:A:O4'	2.06	0.56
1:1G:1442:G:H1	1:1G:1461:G:H21	1.52	0.56
26:14:1486:A:H2'	26:14:1487:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:940:C:H2'	1:13:941:G:C8	2.40	0.56
1:13:1167:A:H8	1:13:1167:A:OP1	1.89	0.56
2:1E:121:LEU:O	2:1E:139:LYS:NZ	2.20	0.56
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.41	0.56
7:6E:54:THR:HG22	7:6E:125:MET:SD	2.46	0.56
10:1I:54:PHE:CG	10:1I:55:LYS:HG3	2.41	0.56
26:1H:64:A:O3'	44:F8:71:GLY:HA3	2.05	0.56
26:1H:248:G:H5'	26:1H:250:G:N7	2.20	0.56
26:1H:1206:G:C6	26:1H:1207:C:C4	2.94	0.56
32:51:116:GLU:HG3	32:51:117:PRO:HD2	1.87	0.56
1:1G:458:C:H2'	1:1G:464:G:C8	2.39	0.56
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.41	0.56
1:1G:1320:C:H42	19:AA:36:ARG:HE	1.54	0.56
13:4A:91:ARG:HB2	13:4A:98:VAL:HG12	1.88	0.56
26:14:320:A:OP1	30:39:135:LYS:NZ	2.39	0.56
26:14:646:A:H2'	26:14:647:G:O4'	2.05	0.56
26:14:1348:G:H5''	26:14:1349:A:OP2	2.06	0.56
26:14:1814:G:H5''	28:19:54:ARG:NH1	2.20	0.56
26:14:1899:G:H21	26:14:1902:C:H42	1.54	0.56
28:19:273:ARG:O	28:19:275:LYS:N	2.39	0.56
30:39:27:GLU:O	30:39:29:ASN:N	2.38	0.56
30:39:67:GLN:HG3	30:39:67:GLN:O	2.04	0.56
48:F5:5:CYS:HG	48:F5:8:SER:HG	1.48	0.56
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.88	0.56
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.88	0.56
22:1K:65:C:H5	22:1K:67:A:H62	1.54	0.56
26:1H:728:G:H4'	28:11:13:ARG:HD3	1.88	0.56
26:1H:784:A:C5	28:11:229:VAL:HG21	2.41	0.56
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.41	0.56
26:1H:1613:G:C2	26:1H:1619:G:C5	2.94	0.56
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.41	0.56
43:E8:78:GLU:OE1	43:E8:99:ARG:HG2	2.06	0.56
45:G8:68:HIS:HB3	45:G8:71:LYS:HG2	1.88	0.56
46:H8:108:PRO:HG2	46:H8:113:ALA:H	1.71	0.56
1:1G:280:C:H3'	1:1G:281:G:H5'	1.87	0.56
1:1G:673:G:H2'	1:1G:674:G:C8	2.41	0.56
1:1G:1353:G:N2	1:1G:1370:G:N3	2.54	0.56
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.06	0.56
26:14:1482:U:H3	26:14:1512:G:H1	1.54	0.56
26:14:2414:G:OP1	48:F5:25:LYS:NZ	2.39	0.56
31:49:111:LEU:HD23	31:49:120:LEU:HD21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:74:TYR:N	37:45:92:GLY:O	2.39	0.56
38:55:97:VAL:HG12	38:55:114:VAL:HG22	1.88	0.56
39:65:61:ASN:O	39:65:65:VAL:HB	2.06	0.56
2:1E:126:GLU:HA	2:1E:129:GLU:OE2	2.07	0.55
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.69	0.55
26:1H:389:G:N1	36:78:71:VAL:HG12	2.21	0.55
26:1H:495:G:H1'	43:E8:57:ASN:OD1	2.06	0.55
26:1H:857:C:H4'	47:I8:23:VAL:HG21	1.87	0.55
26:1H:1053:C:N4	26:1H:1106:G:H1	2.03	0.55
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.40	0.55
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.39	0.55
1:1G:503:C:OP2	12:3A:116:SER:OG	2.23	0.55
1:1G:678:U:H2'	1:1G:679:C:C6	2.40	0.55
1:1G:731:G:OP1	1:1G:766:A:H1'	2.05	0.55
1:1G:1015:A:N3	1:1G:1218:C:O2'	2.35	0.55
5:42:98:THR:HB	5:42:117:ASP:HB3	1.87	0.55
10:1A:10:GLY:HA3	10:1A:16:LEU:HD21	1.88	0.55
12:3A:10:LEU:HB3	17:8A:32:TYR:CE2	2.41	0.55
15:6A:9:GLN:HA	15:6A:12:ILE:HD12	1.88	0.55
26:14:161:U:H5''	26:14:171:G:H21	1.70	0.55
26:14:783:A:H8	26:14:784:A:H4'	1.71	0.55
26:14:1687:G:N1	26:14:1700:A:OP1	2.36	0.55
26:14:2057:A:H2'	26:14:2058:A:C8	2.41	0.55
26:14:2099:U:H3	26:14:2190:G:H1	1.53	0.55
29:29:51:PHE:CG	29:29:52:LEU:N	2.75	0.55
30:39:6:VAL:HG23	30:39:124:LEU:HA	1.89	0.55
45:C5:17:SER:CB	45:C5:71:LYS:HD2	2.36	0.55
1:13:502:G:H1	1:13:543:C:H42	1.53	0.55
1:13:591:U:H2'	1:13:592:G:C8	2.42	0.55
1:13:1228:C:H2'	1:13:1229:A:H8	1.70	0.55
7:6E:20:ASP:OD2	7:6E:23:VAL:N	2.39	0.55
13:4I:69:GLU:HG3	31:4I:118:ARG:HH22	1.70	0.55
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	1.87	0.55
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.70	0.55
33:61:4:ILE:HG21	33:61:47:LEU:HD13	1.88	0.55
44:F8:9:LEU:O	49:K8:36:ARG:NE	2.39	0.55
47:I8:24:LYS:O	47:I8:25:ARG:NH1	2.38	0.55
1:1G:138:G:N7	58:1G:1845:HOH:O	2.33	0.55
1:1G:994:A:C5	1:1G:1216:G:H4'	2.41	0.55
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.42	0.55
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.89	0.55
3:22:33:LEU:O	3:22:36:ASP:HB2	2.06	0.55
4:32:13:ARG:C	4:32:15:GLU:H	2.10	0.55
26:14:1328:G:H2'	26:14:1330:C:C5	2.41	0.55
26:14:2175:C:N4	26:14:2176:A:N7	2.54	0.55
26:14:2467:C:H4'	37:45:123:HIS:CG	2.41	0.55
27:1J:50:G:OP1	39:65:63:THR:OG1	2.16	0.55
28:19:148:GLU:OE1	28:19:151:LYS:NZ	2.35	0.55
29:29:9:VAL:HA	40:75:3:ARG:HD2	1.88	0.55
32:59:59:ARG:HA	32:59:62:LYS:HG2	1.87	0.55
39:65:27:SER:HA	39:65:88:ASP:HB2	1.88	0.55
39:65:106:ARG:HA	39:65:110:LEU:HD11	1.88	0.55
44:B5:29:TRP:CE3	44:B5:78:LYS:HB3	2.41	0.55
48:F5:62:VAL:HG21	48:F5:70:VAL:HG21	1.87	0.55
1:13:1190:G:H5''	3:2E:176:HIS:CE1	2.40	0.55
26:1H:245:G:O6	54:Q8:8:LYS:NZ	2.38	0.55
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.41	0.55
26:1H:660:G:H21	36:78:12:ALA:HA	1.70	0.55
40:B8:54:ARG:HA	40:B8:59:THR:OG1	2.07	0.55
50:L8:6:VAL:HG13	50:L8:56:VAL:HG13	1.88	0.55
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.87	0.55
8:72:12:ARG:HE	8:72:26:VAL:HG12	1.71	0.55
11:2A:100:ALA:O	11:2A:102:GLY:N	2.39	0.55
26:14:686:G:H1	53:L5:16:HIS:CD2	2.25	0.55
26:14:880:G:H1'	26:14:898:C:H42	1.71	0.55
29:29:52:LEU:O	29:29:74:PRO:HB2	2.06	0.55
37:45:32:TYR:CD2	37:45:133:ARG:HG3	2.41	0.55
37:45:98:LYS:HB3	37:45:99:PRO:HD2	1.88	0.55
39:65:11:LYS:HE2	39:65:15:ARG:HH22	1.71	0.55
1:13:177:C:H2'	1:13:178:C:C6	2.41	0.55
1:13:179:A:H2'	1:13:180:U:C6	2.38	0.55
1:13:1118:C:H1'	1:13:1179:A:C4	2.41	0.55
26:1H:228:A:C8	26:1H:230:U:H1'	2.42	0.55
26:1H:389:G:H1	36:78:71:VAL:HG12	1.71	0.55
26:1H:831:G:N2	36:78:53:GLY:O	2.39	0.55
26:1H:1049:C:H1'	26:1H:1113:U:H4'	1.89	0.55
26:1H:1168:G:C2	26:1H:1182:A:C2	2.94	0.55
27:16:48:A:P	39:A8:30:ARG:HH22	2.29	0.55
30:31:63:LYS:NZ	30:31:75:HIS:O	2.28	0.55
43:E8:24:ILE:HG12	43:E8:36:LEU:HD21	1.87	0.55
1:1G:184:G:H2'	1:1G:185:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:548:G:OP1	58:1G:1821:HOH:O	2.18	0.55
1:1G:1493:A:H2'	26:14:1913:A:N1	2.20	0.55
46:D5:57:ILE:HG22	46:D5:59:LEU:HB2	1.89	0.55
1:13:192:U:H2'	1:13:193:C:H6	1.72	0.55
1:13:1133:G:H2'	1:13:1134:G:C8	2.41	0.55
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.70	0.55
14:5I:15:LYS:HG2	14:5I:16:PHE:CE2	2.41	0.55
26:1H:185:U:H4'	26:1H:218:A:H4'	1.89	0.55
26:1H:270(W):G:O6	58:1H:3652:HOH:O	2.17	0.55
26:1H:1187:G:OP2	58:1H:3660:HOH:O	2.18	0.55
26:1H:2431:U:OP2	58:1H:3661:HOH:O	2.18	0.55
48:J8:77:ALA:N	48:J8:78:LYS:HB2	2.21	0.55
1:1G:404:U:OP1	4:32:118:ARG:NH1	2.40	0.55
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.24	0.55
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.42	0.55
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.87	0.55
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.87	0.55
26:14:1019:U:H2'	26:14:1020:A:C8	2.38	0.55
26:14:1820:U:H4'	26:14:1821:A:OP2	2.06	0.55
26:14:2065:C:H2'	26:14:2066:C:C6	2.41	0.55
33:69:81:VAL:H	33:69:143:SER:CB	2.19	0.55
1:13:37:U:O2'	1:13:500:G:H4'	2.07	0.55
2:1E:87:ARG:NH2	2:1E:232:PRO:HB3	2.22	0.55
4:3E:148:VAL:HG12	4:3E:153:ARG:HG2	1.89	0.55
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.39	0.55
13:4I:26:GLY:C	13:4I:28:ALA:H	2.09	0.55
17:8I:45:HIS:NE2	17:8I:47:PRO:HG3	2.21	0.55
22:1K:29:C:H2'	22:1K:30:C:O4'	2.07	0.55
26:1H:450:G:P	58:1H:3680:HOH:O	2.65	0.55
26:1H:1332:G:N2	26:1H:1610:A:H8	2.04	0.55
26:1H:1652:A:OP1	38:98:8:ARG:NH1	2.37	0.55
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.71	0.55
38:98:52:ILE:O	38:98:55:ALA:N	2.39	0.55
44:F8:11:PRO:HB3	44:F8:92:LEU:HD21	1.89	0.55
46:H8:158:PRO:O	46:H8:161:VAL:HG22	2.07	0.55
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.71	0.55
8:72:116:LYS:HD2	8:72:129:VAL:HG11	1.88	0.55
9:82:81:ILE:HG22	9:82:85:LEU:HD23	1.87	0.55
20:BA:41:ILE:HD13	20:BA:87:LYS:HD2	1.89	0.55
24:3L:47:U:O3'	24:3L:48:C:H4'	2.06	0.55
26:14:2150:U:H2'	26:14:2151:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:34:HIS:CE1	39:65:54:LEU:HD12	2.42	0.55
41:85:66:ASN:OD1	41:85:76:TYR:N	2.38	0.55
44:B5:29:TRP:CZ3	44:B5:78:LYS:HB3	2.42	0.55
1:13:1147:C:O2'	9:8E:16:ARG:HD3	2.07	0.55
10:1I:28:ARG:HG3	10:1I:34:VAL:HG22	1.88	0.55
11:2I:17:GLY:N	11:2I:77:MET:SD	2.77	0.55
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.88	0.55
29:21:46:ALA:HB2	29:21:82:ARG:HA	1.88	0.55
31:41:37:VAL:O	31:41:94:LEU:HD23	2.06	0.55
34:58:110:GLY:O	34:58:114:ARG:HG3	2.05	0.55
37:88:17:LEU:HD21	37:88:41:TRP:NE1	2.22	0.55
42:D8:27:ALA:HB3	42:D8:61:VAL:HG21	1.87	0.55
1:1G:838:G:N2	1:1G:848:C:N3	2.55	0.55
1:1G:855:G:H2'	1:1G:856:C:C6	2.42	0.55
2:12:54:THR:HA	2:12:57:PHE:CD2	2.40	0.55
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.88	0.55
26:14:30:G:H2'	26:14:31:C:C6	2.42	0.55
26:14:1028:A:N6	26:14:1125:G:H2'	2.22	0.55
26:14:1300:U:H5'	58:14:3413:HOH:O	2.05	0.55
26:14:2016:U:O2	52:J5:7:PRO:HG2	2.06	0.55
28:19:85:ASP:HB2	28:19:92:ILE:HD13	1.88	0.55
48:F5:80:LEU:HD12	48:F5:82:LEU:HB2	1.89	0.55
1:13:69:G:H1	1:13:99:C:H42	1.54	0.55
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.28	0.55
3:2E:131:ARG:HD3	3:2E:131:ARG:H	1.71	0.55
26:1H:370:G:H8	58:1H:3541:HOH:O	1.90	0.55
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.42	0.55
26:1H:2502:G:OP2	58:1H:3654:HOH:O	2.17	0.55
31:41:111:LEU:HB3	31:41:117:PHE:CE2	2.40	0.55
40:B8:3:ARG:HA	40:B8:6:LEU:HB2	1.88	0.55
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.37	0.55
1:1G:1147:C:O2'	9:82:5:TYR:OH	2.23	0.55
1:1G:1470:G:O6	58:1G:1820:HOH:O	2.18	0.55
5:42:151:LEU:O	5:42:152:ARG:NH1	2.40	0.55
8:72:63:LEU:HB3	8:72:65:TYR:CE1	2.41	0.55
26:14:2294:C:P	39:65:89:ARG:HH22	2.30	0.55
27:1J:11:C:H3'	27:1J:12:C:H6	1.71	0.55
39:65:88:ASP:C	39:65:90:GLY:H	2.10	0.55
1:13:163:C:O2'	1:13:164:U:O4'	2.25	0.55
1:13:269:C:H2'	1:13:270:A:H8	1.72	0.55
1:13:692:U:O4	11:2I:53:SER:OG	2.13	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:963:G:N2	1:13:972:C:N3	2.38	0.55
4:3E:81:GLU:O	4:3E:84:LYS:HB2	2.07	0.55
27:16:9:G:H8	27:16:9:G:H5''	1.72	0.55
29:21:60:ASN:HB2	29:21:62:PRO:HD2	1.89	0.55
32:51:86:GLU:H	32:51:86:GLU:CD	2.09	0.55
1:1G:45:U:H2'	1:1G:46:G:C8	2.42	0.55
1:1G:164:U:H2'	1:1G:165:C:C6	2.41	0.55
1:1G:192:U:H2'	1:1G:193:C:C6	2.41	0.55
1:1G:298:A:H5''	1:1G:299:G:OP2	2.06	0.55
1:1G:546:G:OP1	4:32:73:ARG:NH1	2.39	0.55
1:1G:709:G:H2'	1:1G:710:G:H8	1.71	0.55
3:22:69:HIS:CE1	3:22:106:VAL:HG22	2.42	0.55
19:AA:19:VAL:HG12	19:AA:20:LEU:HD22	1.88	0.55
23:2L:20:G:N2	31:49:78:SER:OG	2.40	0.55
26:14:583:G:OP2	41:85:10:ARG:HD2	2.07	0.55
26:14:605:C:O2	26:14:657:U:O2'	2.25	0.55
26:14:1520:U:H2'	26:14:1521:G:O4'	2.07	0.55
26:14:2875:C:OP1	40:75:3:ARG:NH2	2.40	0.55
30:39:9:ILE:HA	30:39:11:VAL:O	2.06	0.55
32:59:127:GLU:HG3	32:59:129:THR:H	1.71	0.55
39:65:18:ILE:O	39:65:21:THR:HG22	2.06	0.55
1:13:640:A:O2'	8:7E:115:SER:O	2.24	0.55
1:13:1007:C:N4	1:13:1022:G:H1	2.05	0.55
7:6E:56:GLN:HG3	7:6E:60:LYS:HE2	1.87	0.55
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.87	0.55
23:2K:67:C:H2'	23:2K:68:C:C6	2.42	0.55
26:1H:459:U:H4'	53:P8:40:TRP:CZ3	2.42	0.55
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.71	0.55
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.71	0.55
26:1H:2577:A:H5''	26:1H:2578:G:H5'	1.87	0.55
1:1G:21:G:OP1	58:1G:1819:HOH:O	2.18	0.55
1:1G:1250:A:H4'	9:82:68:GLY:H	1.72	0.55
1:1G:1285:A:H8	1:1G:1285:A:OP1	1.90	0.55
4:32:96:LEU:HB3	4:32:139:ARG:NH1	2.21	0.55
13:4A:51:ALA:O	13:4A:55:ARG:N	2.32	0.55
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.46	0.55
15:6A:10:LYS:HA	15:6A:13:GLN:HB2	1.89	0.55
20:BA:11:SER:HA	20:BA:13:LEU:HD23	1.88	0.55
26:14:67:U:H2'	26:14:68:G:H8	1.72	0.55
26:14:755:C:H2'	26:14:756:C:C6	2.42	0.55
26:14:973:A:H5'	26:14:1188:U:H1'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1204:A:C2	26:14:1206:G:C2	2.95	0.55
30:39:30:PRO:O	30:39:33:LEU:N	2.39	0.55
31:49:16:ARG:NH1	31:49:28:VAL:HG22	2.22	0.55
32:59:33:LEU:HD23	32:59:34:GLU:H	1.72	0.55
1:13:468:A:H5''	16:7I:80:PHE:CB	2.34	0.54
1:13:690:G:H2'	1:13:691:G:O4'	2.07	0.54
1:13:1356:G:H2'	1:13:1357:A:C8	2.42	0.54
2:1E:11:LEU:HB3	2:1E:213:LEU:HD13	1.87	0.54
24:3K:56:C:H1'	26:1H:2169:A:N6	2.21	0.54
26:1H:116:C:H2'	26:1H:117:G:C8	2.42	0.54
26:1H:860:U:H5	26:1H:917:A:H2	1.54	0.54
26:1H:909:A:H2'	26:1H:912:C:H5	1.72	0.54
26:1H:1439:A:C2	26:1H:1553:A:C4	2.95	0.54
33:61:38:LEU:H	33:61:38:LEU:HD12	1.72	0.54
41:C8:90:VAL:O	41:C8:92:ARG:N	2.40	0.54
46:H8:45:ASP:CG	46:H8:49:ARG:HH12	2.10	0.54
46:H8:139:VAL:HG22	46:H8:155:LEU:HD22	1.88	0.54
47:I8:68:GLU:HG3	47:I8:80:HIS:CD2	2.43	0.54
49:K8:53:LEU:O	49:K8:57:ILE:HG13	2.07	0.54
1:1G:135:C:O2	16:7A:1:MET:HB3	2.06	0.54
2:12:168:THR:HA	2:12:171:ALA:HB2	1.88	0.54
6:52:22:GLU:OE1	6:52:84:ASN:ND2	2.40	0.54
8:72:63:LEU:HB3	8:72:65:TYR:HE1	1.70	0.54
8:72:85:ARG:HH12	8:72:134:ILE:HG23	1.72	0.54
23:2L:3:C:H42	23:2L:71:G:H1	1.55	0.54
26:14:852:G:H2'	26:14:853:G:H8	1.70	0.54
26:14:1926:U:H2'	26:14:1928:A:OP2	2.06	0.54
26:14:2378:A:O2'	39:65:21:THR:HG21	2.07	0.54
31:49:73:ALA:HB2	31:49:82:LEU:HD22	1.89	0.54
31:49:115:ARG:HB2	31:49:136:ARG:NH2	2.21	0.54
32:59:150:ALA:O	32:59:154:PRO:HG3	2.07	0.54
34:15:23:LEU:HD13	34:15:60:ILE:HG21	1.89	0.54
36:35:126:VAL:HG12	36:35:147:LEU:HD22	1.89	0.54
47:E5:38:VAL:HG13	47:E5:59:LEU:HB2	1.89	0.54
54:M5:49:VAL:HA	54:M5:50:LEU:HB3	1.89	0.54
1:13:1028(B):C:N3	1:13:1029:G:O2'	2.38	0.54
2:1E:74:LYS:HG3	2:1E:208:ILE:HG21	1.89	0.54
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	1.88	0.54
9:8E:27:THR:N	9:8E:61:ALA:O	2.40	0.54
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.89	0.54
22:1K:76:A:OP2	26:1H:2602:A:N6	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1100:C:H2'	26:1H:1101:U:C6	2.42	0.54
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.42	0.54
26:1H:1670:C:OP1	58:1H:3658:HOH:O	2.18	0.54
26:1H:2061:G:P	58:1H:3578:HOH:O	2.65	0.54
28:11:118:VAL:HG11	28:11:123:ALA:HA	1.89	0.54
37:88:39:PRO:HA	37:88:97:VAL:O	2.07	0.54
47:I8:72:ARG:NH1	47:I8:75:LEU:HD12	2.21	0.54
1:1G:57:G:H2'	1:1G:58:C:C6	2.41	0.54
1:1G:791:G:C6	1:1G:792:A:N7	2.75	0.54
1:1G:963:G:H21	10:1A:55:LYS:HE2	1.72	0.54
1:1G:1492:A:H5''	12:3A:47:LYS:HB3	1.88	0.54
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.56	0.54
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.08	0.54
26:14:474:G:O6	58:14:3472:HOH:O	2.18	0.54
26:14:690:G:O2'	28:19:43:ARG:NH2	2.40	0.54
26:14:1971:A:C4	28:19:241:PRO:HD3	2.42	0.54
50:H5:7:LYS:HE2	50:H5:32:GLN:HG3	1.88	0.54
54:M5:52:LYS:O	54:M5:56:GLU:N	2.35	0.54
1:13:1:U:C6	1:13:630:G:H2'	2.43	0.54
1:13:474:G:H5''	16:7I:81:ARG:CZ	2.36	0.54
1:13:953:G:N7	13:4I:104:ARG:NH2	2.55	0.54
2:1E:21:ARG:HB2	2:1E:39:ILE:HG12	1.89	0.54
24:3K:42:U:H2'	24:3K:43:G:C8	2.42	0.54
26:1H:779:U:OP1	28:11:49:ILE:HG13	2.07	0.54
26:1H:1235:G:O6	58:1H:3639:HOH:O	2.16	0.54
26:1H:2151:G:H2'	26:1H:2152:G:H8	1.72	0.54
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.42	0.54
26:1H:2315:G:H5''	26:1H:2316:C:OP2	2.06	0.54
26:1H:2891:G:O5'	26:1H:2891:G:H8	1.90	0.54
30:31:185:ASP:OD1	30:31:188:ARG:NH1	2.36	0.54
46:H8:9:TYR:HE2	46:H8:35:ARG:HD3	1.72	0.54
52:N8:16:ARG:HG3	52:N8:17:ASP:N	2.21	0.54
1:1G:92:G:H2'	1:1G:93:U:C6	2.42	0.54
1:1G:241:C:H42	1:1G:285:G:H1	1.56	0.54
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.06	0.54
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.43	0.54
7:62:105:VAL:O	7:62:109:ASN:ND2	2.41	0.54
19:AA:41:VAL:HG23	19:AA:43:GLU:H	1.72	0.54
26:14:6:A:H62	34:15:131:GLN:HB3	1.72	0.54
26:14:123:G:O6	58:14:3470:HOH:O	2.17	0.54
26:14:2777:G:OP2	26:14:2781:A:O2'	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:8:LEU:HD13	35:25:82:ASN:HB3	1.90	0.54
1:13:626:U:C2	1:13:627:G:C8	2.96	0.54
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.22	0.54
12:3I:47:LYS:HG3	12:3I:47:LYS:O	2.06	0.54
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.08	0.54
22:1K:37:AET:O2'	26:1H:1913:A:N1	2.40	0.54
26:1H:994:C:O2'	26:1H:996:A:OP1	2.23	0.54
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.07	0.54
26:1H:2387:U:OP1	47:I8:55:ARG:NH1	2.33	0.54
26:1H:2402:C:H1'	26:1H:2403:C:C5	2.42	0.54
26:1H:2428:G:N2	36:78:61:ARG:HH12	2.06	0.54
1:1G:419:C:H42	1:1G:424:G:H1	1.55	0.54
1:1G:1245:A:H8	1:1G:1245:A:O5'	1.90	0.54
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.42	0.54
1:1G:1252:A:H2'	1:1G:1253:G:O4'	2.07	0.54
8:72:97:VAL:HG22	8:72:129:VAL:O	2.07	0.54
29:29:68:ALA:HB1	29:29:70:ALA:O	2.07	0.54
32:59:139:GLN:O	32:59:143:GLN:HB2	2.07	0.54
37:45:57:HIS:ND1	37:45:117:ALA:HB2	2.22	0.54
37:45:132:VAL:HG21	46:D5:81:ARG:HG2	1.88	0.54
45:C5:17:SER:HB3	45:C5:71:LYS:HB3	1.90	0.54
1:13:188:U:H2'	1:13:189:U:H5''	1.89	0.54
1:13:1114:C:H42	1:13:1186:G:H1	1.56	0.54
1:13:1296:C:OP1	13:4I:44:ARG:NH2	2.40	0.54
7:6E:28:ASN:HA	7:6E:31:MET:HE2	1.88	0.54
22:1K:18:G:O2'	22:1K:57:G:H2'	2.06	0.54
26:1H:330:A:O2'	26:1H:331:A:C8	2.61	0.54
26:1H:459:U:H2'	26:1H:460:A:H8	1.72	0.54
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.72	0.54
26:1H:1263:U:O2'	52:N8:11:THR:HG23	2.08	0.54
26:1H:2553:G:H5''	26:1H:2554:U:OP2	2.06	0.54
28:11:80:ALA:HB2	28:11:96:HIS:CD2	2.42	0.54
29:21:101:ARG:CZ	29:21:171:GLU:HB2	2.38	0.54
31:41:174:GLU:O	31:41:177:GLY:N	2.30	0.54
38:98:42:LYS:O	38:98:45:ARG:HD2	2.07	0.54
40:B8:51:ARG:HG3	40:B8:98:LYS:HD3	1.89	0.54
44:F8:36:LYS:HG2	44:F8:54:VAL:HB	1.89	0.54
1:1G:359:U:H2'	1:1G:360:A:C8	2.42	0.54
1:1G:735:C:H2'	1:1G:736:C:H6	1.73	0.54
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.08	0.54
1:1G:1346:A:H5''	9:82:120:ARG:HH12	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:165:VAL:HG23	2:12:166:ASP:H	1.73	0.54
4:32:176:LEU:HG	4:32:178:VAL:HG22	1.88	0.54
8:72:39:LEU:HB3	8:72:45:ILE:HG12	1.88	0.54
22:1L:2:C:O2	22:1L:71:G:N2	2.41	0.54
28:19:133:LEU:HD13	28:19:175:LEU:HD21	1.90	0.54
29:29:47:VAL:HG21	29:29:85:ASN:HA	1.90	0.54
29:29:56:PRO:O	29:29:58:ARG:HG3	2.08	0.54
32:59:8:PRO:HB2	32:59:69:ARG:CZ	2.38	0.54
37:45:4:PRO:HD3	37:45:70:PRO:O	2.08	0.54
2:1E:154:LEU:H	2:1E:154:LEU:HD12	1.73	0.54
10:1I:8:LEU:HB2	10:1I:70:ARG:HB3	1.90	0.54
13:4I:93:ARG:O	13:4I:94:ARG:HD3	2.08	0.54
20:BI:97:ALA:O	20:BI:99:LEU:HD12	2.07	0.54
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.72	0.54
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.07	0.54
26:1H:2109:U:N3	26:1H:2110:G:O6	2.40	0.54
29:21:18:ASP:HB3	40:B8:82:LEU:HD21	1.88	0.54
46:H8:17:ALA:HA	46:H8:20:ARG:HD2	1.90	0.54
1:1G:520:A:OP1	12:3A:52:LEU:HB2	2.08	0.54
1:1G:689:C:OP1	11:2A:44:SER:OG	2.15	0.54
2:12:91:PRO:HA	2:12:154:LEU:HD12	1.88	0.54
18:9A:82:THR:OG1	18:9A:83:GLU:O	2.24	0.54
26:14:1488:G:C2	26:14:1489:U:O2	2.60	0.54
26:14:2876:G:H4'	40:75:2:ASN:ND2	2.23	0.54
27:1J:94:C:H2'	27:1J:95:U:C6	2.43	0.54
29:29:77:ILE:C	29:29:78:LEU:HG	2.28	0.54
1:13:1081:G:H2'	1:13:1082:G:H8	1.73	0.54
3:2E:63:ASN:OD1	3:2E:98:ASN:ND2	2.38	0.54
26:1H:795:C:H2'	26:1H:796:C:C6	2.43	0.54
26:1H:860:U:C5	26:1H:917:A:C2	2.91	0.54
26:1H:992:C:H2'	26:1H:993:G:H8	1.72	0.54
26:1H:2102:U:O2	26:1H:2187:G:N2	2.41	0.54
26:1H:2402:C:O2'	26:1H:2403:C:OP2	2.21	0.54
30:31:182:ASN:O	30:31:186:ILE:HG13	2.08	0.54
1:1G:1206:G:O2'	3:22:193:TYR:HA	2.08	0.54
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.08	0.54
2:12:182:ILE:H	2:12:182:ILE:HD12	1.72	0.54
26:14:27:G:N2	26:14:512:G:H1'	2.23	0.54
26:14:2850:A:C2	26:14:2851:A:C4	2.96	0.54
28:19:206:LEU:HD22	28:19:211:ARG:HG2	1.89	0.54
36:35:126:VAL:HA	36:35:145:PRO:HD2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:174:VAL:HG22	46:D5:177:PRO:HG3	1.90	0.54
13:4I:78:ILE:O	13:4I:81:LEU:N	2.40	0.54
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.72	0.54
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.90	0.54
24:3K:2:C:HO2'	24:3K:3:U:P	2.30	0.54
24:3K:51:C:H2'	24:3K:52:A:C8	2.43	0.54
26:1H:214:G:H4'	26:1H:214:G:OP1	2.06	0.54
26:1H:382:G:H1	26:1H:392:C:H42	1.55	0.54
26:1H:1325:G:OP1	58:1H:3657:HOH:O	2.18	0.54
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.43	0.54
26:1H:2399:G:H1	26:1H:2417:C:H42	1.55	0.54
26:1H:2711:A:OP1	58:1H:3655:HOH:O	2.17	0.54
26:1H:2726:U:O2'	26:1H:2727:G:H8	1.91	0.54
30:31:29:ASN:H	30:31:112:MET:HE1	1.73	0.54
33:61:1:MET:O	33:61:20:ASP:HA	2.07	0.54
35:68:97:ARG:H	35:68:117:LEU:HD22	1.72	0.54
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.08	0.54
3:22:72:LYS:HG3	3:22:75:VAL:HG23	1.89	0.54
5:42:11:ILE:HG22	5:42:12:LEU:HB2	1.89	0.54
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.07	0.54
26:14:71:A:H5'	26:14:71:A:C8	2.42	0.54
26:14:577:G:O2'	26:14:1254:A:OP1	2.24	0.54
26:14:1599:C:H2'	26:14:1600:C:H6	1.73	0.54
26:14:1771:C:O2'	26:14:1786:A:H8	1.91	0.54
33:69:128:LEU:O	33:69:138:ILE:HG22	2.08	0.54
1:13:244:U:H4'	1:13:245:C:O5'	2.07	0.54
1:13:587:G:N2	1:13:755:G:C5	2.76	0.54
1:13:589:C:H42	1:13:650:G:H1	1.56	0.54
1:13:1005:A:H1'	1:13:1036:G:N2	2.23	0.54
26:1H:16:G:H2'	26:1H:17:G:H8	1.72	0.54
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.89	0.54
26:1H:2531:A:O2'	26:1H:2658:C:O2'	2.22	0.54
40:B8:16:ARG:HB3	40:B8:18:ASP:OD1	2.08	0.54
47:I8:51:VAL:N	47:I8:62:LEU:HD12	2.23	0.54
1:1G:754:C:H6	15:6A:69:TYR:CE2	2.26	0.54
1:1G:763:G:N3	1:1G:763:G:H2'	2.23	0.54
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.89	0.54
3:22:47:LEU:HD13	3:22:50:ALA:HB3	1.90	0.54
7:62:71:PRO:HD2	7:62:96:GLN:HA	1.90	0.54
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.88	0.54
23:2L:41:C:H2'	23:2L:42:C:C6	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:71:G:H8	23:2L:71:G:O5'	1.90	0.54
26:14:491:G:H2'	26:14:492:A:C8	2.43	0.54
26:14:724:U:H2'	26:14:725:G:O4'	2.08	0.54
26:14:924:C:H2'	26:14:925:C:C6	2.43	0.54
26:14:1330:C:OP1	58:14:3473:HOH:O	2.18	0.54
26:14:1486:A:H2'	26:14:1487:G:C8	2.42	0.54
26:14:2807:G:H2'	26:14:2808:U:O4'	2.07	0.54
30:39:15:SER:OG	30:39:16:GLY:N	2.41	0.54
37:45:66:ILE:HG22	37:45:104:PHE:HE1	1.72	0.54
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.90	0.54
1:13:345:C:O2'	1:13:346:G:N3	2.39	0.54
1:13:949:A:OP1	13:4I:101:GLN:HB3	2.08	0.54
1:13:1148:U:H2'	1:13:1149:C:O4'	2.08	0.54
3:2E:79:ARG:NH1	11:2A:99:GLN:OE1	2.41	0.54
13:4I:26:GLY:O	13:4I:28:ALA:N	2.39	0.54
26:1H:2154:G:H8	26:1H:2154:G:O5'	1.91	0.54
26:1H:2331:G:H4'	47:18:43:THR:H	1.72	0.54
45:G8:20:TYR:HD2	45:G8:43:ASN:HD22	1.55	0.54
15:6A:15:PHE:HZ	15:6A:84:LYS:HG3	1.73	0.54
22:1L:62:U:H2'	22:1L:63:G:C8	2.43	0.54
24:3L:50:G:H1	24:3L:64:C:H42	1.56	0.54
26:14:57:C:H2'	26:14:58:G:O4'	2.07	0.54
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.41	0.54
26:14:1784:A:H5''	58:14:3557:HOH:O	2.07	0.54
27:1J:80:U:H2'	27:1J:81:G:H21	1.72	0.54
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.90	0.53
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	1.88	0.53
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.08	0.53
26:1H:49:A:C8	26:1H:120:U:H5	2.26	0.53
26:1H:109:G:N7	58:1H:3764:HOH:O	2.33	0.53
26:1H:270(K):C:C1'	26:1H:270(N):G:H22	2.21	0.53
26:1H:1899:G:N2	26:1H:1902:C:H5	2.05	0.53
26:1H:2103:C:H2'	26:1H:2104:G:C8	2.43	0.53
26:1H:2321:G:H5''	26:1H:2322:A:OP2	2.08	0.53
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.43	0.53
1:1G:298:A:O5'	1:1G:298:A:H8	1.91	0.53
1:1G:929:G:H1	1:1G:1388:C:N4	2.05	0.53
5:42:75:THR:HA	5:42:115:VAL:HG13	1.89	0.53
10:1A:58:ASP:N	10:1A:58:ASP:OD1	2.39	0.53
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.90	0.53
26:14:1011:G:C2	26:14:1151:G:C2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1149:G:C2	26:14:1150:C:N3	2.76	0.53
26:14:2816:C:O3'	38:55:99:LYS:NZ	2.41	0.53
27:1J:72:G:O2'	27:1J:104:A:N6	2.41	0.53
37:45:17:LEU:HD21	37:45:41:TRP:NE1	2.22	0.53
43:A5:26:GLY:HA2	43:A5:71:VAL:O	2.08	0.53
1:13:452:A:O2'	16:7I:72:ARG:HG3	2.09	0.53
1:13:605:U:H2'	1:13:606:G:O4'	2.08	0.53
1:13:989:C:H42	1:13:1216:G:H1	1.56	0.53
13:4I:39:ILE:HD11	13:4I:52:GLU:HB2	1.89	0.53
26:1H:780:G:H21	26:1H:783:A:N6	2.05	0.53
26:1H:816:C:OP2	58:1H:3659:HOH:O	2.18	0.53
26:1H:1534:G:H2'	26:1H:1535:U:C6	2.43	0.53
26:1H:2843:G:H1	26:1H:2874:C:H42	1.54	0.53
1:1G:80:G:C6	1:1G:81:G:C6	2.96	0.53
1:1G:80:G:H2'	1:1G:81:G:C8	2.43	0.53
1:1G:141:A:H1'	1:1G:182:U:O2	2.07	0.53
3:22:69:HIS:CE1	3:22:104:GLN:HB3	2.43	0.53
10:1A:3:LYS:HD2	10:1A:77:PRO:HG3	1.91	0.53
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.42	0.53
26:14:1581:G:H2'	26:14:1582:C:O4'	2.07	0.53
26:14:1599:C:C5	26:14:1600:C:H5	2.26	0.53
37:45:17:LEU:HD21	37:45:41:TRP:HE1	1.73	0.53
52:J5:36:CYS:SG	52:J5:37:LYS:N	2.82	0.53
1:13:618:C:H5''	1:13:619:U:H5''	1.90	0.53
1:13:859:A:H2'	1:13:860:A:C8	2.43	0.53
1:13:1124:G:H5''	10:1I:35:SER:OG	2.07	0.53
2:1E:18:GLY:H	2:1E:42:ILE:CB	2.19	0.53
26:1H:319:C:C2	26:1H:333:G:N2	2.77	0.53
26:1H:693:C:H2'	26:1H:694:U:O4'	2.08	0.53
26:1H:848:G:H2'	26:1H:849:A:C8	2.43	0.53
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.43	0.53
26:1H:2205:C:H2'	26:1H:2206:C:H6	1.74	0.53
26:1H:2533:A:OP2	58:1H:3663:HOH:O	2.18	0.53
48:J8:53:VAL:HB	48:J8:58:ILE:HD11	1.89	0.53
1:1G:127:G:H1	1:1G:234:C:H42	1.57	0.53
1:1G:346:G:N2	1:1G:347:G:C8	2.77	0.53
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.72	0.53
3:22:90:GLU:H	3:22:90:GLU:CD	2.10	0.53
18:9A:73:ALA:HB3	18:9A:79:LEU:HD12	1.90	0.53
23:2L:47:G:H4'	23:2L:48:U:OP1	2.09	0.53
26:14:2331:G:H5'	47:E5:44:ARG:HG3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2807:G:H22	26:14:2892:A:N6	2.07	0.53
32:59:88:LEU:HD22	32:59:163:TYR:HB2	1.90	0.53
33:69:91:SER:HB3	33:69:119:PRO:HB3	1.90	0.53
34:15:91:LEU:O	34:15:95:PRO:HB3	2.08	0.53
38:55:57:ARG:HB3	38:55:59:ASP:OD1	2.09	0.53
41:85:90:VAL:HG22	42:95:38:LEU:HD11	1.90	0.53
53:L5:5:TRP:CD1	53:L5:7:PRO:HG3	2.43	0.53
1:13:691:G:H2'	1:13:692:U:C6	2.44	0.53
15:6I:11:VAL:HG21	15:6I:34:LEU:HD13	1.90	0.53
26:1H:188:G:H1	26:1H:208:C:N4	2.02	0.53
26:1H:249:C:OP1	58:1H:3669:HOH:O	2.19	0.53
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.91	0.53
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.89	0.53
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.71	0.53
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.24	0.53
28:11:38:LYS:HG2	28:11:40:THR:HG23	1.90	0.53
33:61:69:LYS:HG3	33:61:136:VAL:HB	1.91	0.53
2:12:173:ALA:HA	2:12:176:GLU:HB2	1.90	0.53
14:5A:21:TYR:HE1	14:5A:23:ARG:HB2	1.70	0.53
20:BA:14:LYS:HE2	20:BA:18:GLN:NE2	2.23	0.53
26:14:910:A:N6	37:45:12:GLN:HA	2.13	0.53
26:14:993:G:OP1	41:85:50:ARG:NH2	2.41	0.53
26:14:1420:U:O2'	26:14:1421:G:OP1	2.26	0.53
26:14:1636:C:O5'	58:14:3474:HOH:O	2.19	0.53
26:14:2356:C:O3'	47:E5:20:ARG:HD2	2.08	0.53
26:14:2579:C:H4'	29:29:134:ILE:HG12	1.91	0.53
39:65:30:ARG:HD2	39:65:97:ARG:HD3	1.89	0.53
1:13:190:G:H3'	1:13:191(A):G:C5'	2.38	0.53
1:13:1510:U:H2'	1:13:1511:G:C8	2.44	0.53
7:6E:68:ASN:ND2	7:6E:128:ALA:O	2.41	0.53
7:6E:73:MET:HA	7:6E:90:GLU:HA	1.91	0.53
26:1H:183:C:H42	26:1H:213:A:H61	1.57	0.53
26:1H:860:U:C5	26:1H:917:A:H2	2.26	0.53
26:1H:974(A):C:H4'	26:1H:974(A):C:OP2	2.09	0.53
26:1H:2120:G:N2	26:1H:2178:C:O2	2.34	0.53
26:1H:2134:A:N7	26:1H:2156:G:O2'	2.41	0.53
26:1H:2287:A:N6	26:1H:2344:U:N3	2.56	0.53
31:41:72:ARG:NH1	31:41:87:PRO:HD3	2.22	0.53
37:88:78:PRO:O	37:88:79:LEU:HB3	2.09	0.53
41:C8:92:ARG:HD3	41:C8:94:ASN:HB3	1.89	0.53
43:E8:20:VAL:HG23	43:E8:47:VAL:HG21	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:152:A:N6	1:1G:170:U:C2	2.77	0.53
1:1G:345:C:O3'	40:75:41:ARG:NH2	2.41	0.53
1:1G:1104:G:H4'	2:12:111:ARG:CZ	2.38	0.53
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.08	0.53
3:22:73:PRO:O	3:22:76:VAL:HG22	2.09	0.53
25:4L:12:A:O2'	25:4L:13:A:P	2.65	0.53
26:14:443:A:H5''	26:14:444:C:OP1	2.08	0.53
26:14:1043:C:H42	26:14:1112:G:H1	1.56	0.53
26:14:1359:A:N6	26:14:1372:U:H3	2.01	0.53
26:14:1504:C:H2'	26:14:1505:C:H6	1.73	0.53
26:14:2199:A:OP1	48:F5:50:ARG:NH2	2.42	0.53
28:19:134:ARG:HG3	28:19:135:PHE:CD1	2.43	0.53
29:29:76:ARG:HD3	29:29:77:ILE:H	1.74	0.53
33:69:133:HIS:CE1	33:69:134:PRO:HD3	2.43	0.53
39:65:106:ARG:NE	39:65:106:ARG:O	2.40	0.53
42:95:28:GLU:O	42:95:61:VAL:HG11	2.08	0.53
45:C5:17:SER:O	45:C5:21:LYS:HB2	2.09	0.53
1:13:143:A:H2	1:13:220:G:H1	1.55	0.53
1:13:234:C:H2'	1:13:235:C:C6	2.43	0.53
1:13:1031:G:H2'	1:13:1032:A:H5'	1.89	0.53
26:1H:184:C:H2'	26:1H:185:U:H6	1.72	0.53
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.08	0.53
26:1H:1902:C:N3	26:1H:1903:G:H1'	2.24	0.53
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.15	0.53
43:E8:37:ARG:HD3	43:E8:38:TYR:CE2	2.43	0.53
1:1G:197:A:C6	1:1G:221:C:H4'	2.44	0.53
1:1G:922:G:H21	1:1G:1398:A:H2	1.57	0.53
1:1G:967:C:H5''	1:1G:968:A:H2'	1.89	0.53
1:1G:1352:C:H42	1:1G:1370:G:H1	1.55	0.53
26:14:854:G:H2'	26:14:855:G:C8	2.43	0.53
26:14:2320:A:C6	26:14:2333:A:C8	2.97	0.53
28:19:28:GLU:N	28:19:28:GLU:OE2	2.42	0.53
29:29:13:ARG:NH2	40:75:77:PRO:HB3	2.24	0.53
37:45:136:ALA:H	37:45:137:TYR:HA	1.73	0.53
46:D5:87:ASP:N	46:D5:87:ASP:OD1	2.41	0.53
1:13:165:C:H2'	1:13:166:G:C8	2.43	0.53
1:13:1410:G:C4	1:13:1491:G:N2	2.77	0.53
10:1I:51:ARG:H	10:1I:60:ARG:HA	1.74	0.53
17:8I:31:LEU:HD22	17:8I:32:TYR:CE1	2.44	0.53
24:3K:8:U:HO2'	24:3K:13:C:H5	1.56	0.53
26:1H:270(Q):C:H3'	26:1H:270(R):G:C8	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:707:G:H1	26:1H:724:U:H3	1.57	0.53
26:1H:1322:A:H2'	26:1H:1323:U:H6	1.73	0.53
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.44	0.53
26:1H:1664:A:P	58:1H:3520:HOH:O	2.66	0.53
26:1H:1990:C:OP2	58:1H:3662:HOH:O	2.18	0.53
30:31:178:PRO:HB3	30:31:198:ALA:CB	2.38	0.53
31:41:95:ARG:HA	31:41:99:MET:HB2	1.90	0.53
32:51:169:VAL:HG22	32:51:170:ARG:H	1.73	0.53
41:C8:69:CYS:HG	41:C8:79:PHE:HD2	1.56	0.53
45:G8:42:VAL:HG23	45:G8:43:ASN:N	2.24	0.53
45:G8:87:LYS:N	45:G8:94:LYS:HG2	2.24	0.53
46:H8:45:ASP:OD1	46:H8:49:ARG:NH2	2.41	0.53
46:H8:53:ILE:HA	46:H8:71:VAL:HG13	1.90	0.53
1:1G:1325:C:OP2	21:1B:15:ARG:NH2	2.42	0.53
12:3A:57:LYS:HA	12:3A:67:THR:HA	1.91	0.53
13:4A:66:LEU:CD1	13:4A:67:GLU:H	2.22	0.53
22:1L:37:AET:HM62	22:1L:38:A:N6	2.23	0.53
26:14:2152:G:N3	26:14:2152:G:H2'	2.24	0.53
32:59:156:ALA:HB3	32:59:160:LYS:O	2.09	0.53
40:75:7:ILE:HG13	40:75:8:LYS:N	2.23	0.53
2:1E:90:MET:HE3	2:1E:226:ARG:HH22	1.73	0.53
3:2E:10:PHE:HB3	3:2E:11:ARG:HH11	1.72	0.53
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.73	0.53
10:1I:54:PHE:CD2	10:1I:55:LYS:HG3	2.44	0.53
13:4I:39:ILE:HD12	13:4I:56:LEU:HD21	1.90	0.53
26:1H:1480:G:O6	26:1H:1510:A:H1'	2.09	0.53
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.23	0.53
32:51:40:GLU:HB3	32:51:55:PRO:HG2	1.91	0.53
32:51:54:ARG:NH2	32:51:62:LYS:HG2	2.24	0.53
33:61:52:ARG:O	33:61:56:LYS:N	2.40	0.53
34:58:96:GLU:HB2	34:58:122:VAL:HG12	1.91	0.53
40:B8:12:SER:HA	40:B8:14:TYR:N	2.24	0.53
46:H8:126:VAL:HG12	46:H8:163:LEU:HA	1.89	0.53
1:1G:446:G:H1	1:1G:488:C:H42	1.56	0.53
1:1G:609:A:N7	58:1G:1846:HOH:O	2.34	0.53
1:1G:1250:A:H4'	9:82:68:GLY:N	2.24	0.53
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.74	0.53
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.20	0.53
4:32:108:LEU:HD11	4:32:175:SER:O	2.09	0.53
17:8A:22:LEU:HD11	17:8A:39:SER:HB2	1.91	0.53
18:9A:22:VAL:HG22	18:9A:56:THR:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1408:C:O2	26:14:1595:G:N2	2.42	0.53
26:14:1667:G:O2'	26:14:1991:U:O4	2.22	0.53
26:14:2129:C:H5''	26:14:2130:U:C5	2.44	0.53
30:39:4:VAL:HG13	30:39:19:GLU:OE1	2.08	0.53
33:69:69:LYS:NZ	33:69:135:GLU:O	2.36	0.53
36:35:37:GLY:O	36:35:40:SER:OG	2.15	0.53
36:35:63:PRO:HD3	54:M5:27:THR:HG22	1.89	0.53
37:45:32:TYR:HD2	37:45:133:ARG:HG3	1.73	0.53
1:13:57:G:C5	1:13:58:C:C4	2.97	0.53
30:31:7:TYR:HD2	30:31:21:ALA:HB1	1.73	0.53
32:51:97:ARG:HH21	32:51:104:GLU:CD	2.12	0.53
32:51:149:ARG:HG3	32:51:162:ILE:O	2.09	0.53
54:Q8:29:LYS:HD2	54:Q8:44:LYS:HB3	1.91	0.53
13:4A:84:ILE:HG12	19:AA:63:THR:HB	1.90	0.53
26:14:789:A:H5''	58:14:3667:HOH:O	2.07	0.53
27:1J:30:C:OP2	39:65:32:LEU:HD11	2.09	0.53
30:39:80:ALA:O	30:39:83:PHE:HB2	2.09	0.53
32:59:85:LYS:HG2	32:59:141:VAL:HG22	1.91	0.53
46:D5:93:ASP:HB2	46:D5:131:ARG:HH21	1.74	0.53
1:13:1:U:C5	1:13:630:G:H2'	2.44	0.53
1:13:725:G:H2'	1:13:726:C:H6	1.74	0.53
4:3E:173:TRP:CG	4:3E:189:PRO:HG3	2.44	0.53
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.44	0.53
19:AI:15:LEU:O	19:AI:18:LYS:HG2	2.08	0.53
26:1H:322:A:OP1	30:31:168:ARG:NH2	2.33	0.53
26:1H:1595:G:O6	58:1H:3624:HOH:O	2.13	0.53
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.90	0.53
30:31:102:PRO:HB2	30:31:105:VAL:HG23	1.91	0.53
32:51:170:ARG:HB2	32:51:170:ARG:CZ	2.38	0.53
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.90	0.53
46:H8:117:LEU:HD12	46:H8:118:GLN:H	1.73	0.53
1:1G:316:G:OP2	1:1G:351:G:O2'	2.26	0.53
1:1G:599:C:H2'	1:1G:600:C:H6	1.74	0.53
1:1G:1152:A:H5'	10:1A:13:HIS:CE1	2.43	0.53
1:1G:1349:A:P	9:82:118:LYS:HZ3	2.32	0.53
20:BA:25:ARG:O	20:BA:29:LYS:HG3	2.08	0.53
26:14:743:G:OP1	29:29:130:GLY:HA2	2.07	0.53
26:14:776:G:H4'	26:14:777:A:O5'	2.09	0.53
26:14:1268:A:H2'	26:14:1269:A:O4'	2.09	0.53
26:14:1503:U:H2'	26:14:1504:C:C6	2.43	0.53
29:29:111:ARG:HD2	29:29:160:TYR:CD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:63:LYS:HE3	30:39:67:GLN:HB3	1.90	0.53
30:39:156:LEU:HA	30:39:193:VAL:HG12	1.89	0.53
2:1E:73:THR:H	2:1E:165:VAL:HG21	1.74	0.52
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.90	0.52
17:8I:56:VAL:O	17:8I:77:VAL:HB	2.09	0.52
26:1H:730:C:H3'	58:1H:3542:HOH:O	2.08	0.52
26:1H:1678:G:H21	26:1H:1989:G:N2	1.99	0.52
26:1H:2017:U:O2	52:N8:10:LYS:HB2	2.10	0.52
26:1H:2058:A:OP1	58:1H:3668:HOH:O	2.19	0.52
28:11:85:ASP:HB2	28:11:92:ILE:HG12	1.91	0.52
29:21:50:GLY:C	29:21:75:VAL:HG11	2.30	0.52
29:21:103:ASP:OD1	29:21:201:THR:HG23	2.09	0.52
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	1.90	0.52
40:B8:108:ARG:O	40:B8:110:ILE:N	2.42	0.52
46:H8:30:ASN:ND2	46:H8:90:VAL:HB	2.22	0.52
4:32:157:LEU:HD12	4:32:161:ASN:HD21	1.74	0.52
7:62:116:ALA:HA	7:62:119:ARG:HE	1.74	0.52
26:14:171:G:H2'	26:14:172:C:C6	2.44	0.52
26:14:357:A:H2'	26:14:358:U:C6	2.44	0.52
26:14:2556:C:H2'	26:14:2557:G:O4'	2.10	0.52
35:25:4:PRO:O	35:25:5:GLN:HB2	2.09	0.52
36:35:107:LYS:O	36:35:109:GLY:N	2.42	0.52
53:L5:19:ARG:HG2	53:L5:19:ARG:HH11	1.72	0.52
1:13:865:A:C2	1:13:918:A:H4'	2.44	0.52
1:13:1305:G:H22	1:13:1331:G:H2'	1.74	0.52
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.91	0.52
3:2E:120:VAL:O	3:2E:124:ILE:HG13	2.10	0.52
4:3E:186:LEU:HB2	4:3E:187:ARG:HG2	1.90	0.52
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.09	0.52
12:3I:54:LYS:HD3	12:3I:54:LYS:N	2.23	0.52
22:1K:23:A:H2'	22:1K:24:G:H8	1.74	0.52
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	1.91	0.52
26:1H:1419:A:C8	26:1H:1421:G:C6	2.98	0.52
26:1H:1444:G:O6	58:1H:3653:HOH:O	2.17	0.52
26:1H:2118:U:H1'	26:1H:2147:G:N1	2.24	0.52
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.90	0.52
1:1G:176:C:H2'	1:1G:177:C:H6	1.73	0.52
1:1G:616:G:H2'	1:1G:617:G:H8	1.74	0.52
1:1G:666:G:H5'	1:1G:726:C:H1'	1.91	0.52
5:42:41:VAL:HB	5:42:113:ALA:HA	1.91	0.52
26:14:1341:U:OP2	26:14:1394:U:O2'	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1585:C:O2	26:14:1585:C:H2'	2.08	0.52
26:14:1871:A:H2'	26:14:1872:A:C8	2.44	0.52
27:1J:28:C:H42	27:1J:56:G:H1	1.56	0.52
30:39:129:PHE:CE1	30:39:163:VAL:HG21	2.44	0.52
31:49:82:LEU:HD21	31:49:88:ILE:HG12	1.91	0.52
37:45:19:GLY:O	37:45:99:PRO:HD2	2.10	0.52
42:95:40:LEU:H	42:95:46:VAL:HG12	1.74	0.52
46:D5:45:ASP:CG	46:D5:49:ARG:HE	2.12	0.52
1:13:723:U:H5''	1:13:724:G:OP2	2.10	0.52
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.09	0.52
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.91	0.52
7:6E:118:VAL:HG22	7:6E:122:HIS:CE1	2.43	0.52
11:2I:95:ILE:HG13	11:2I:96:ARG:N	2.22	0.52
19:AI:32:LYS:HA	19:AI:50:ALA:HB3	1.90	0.52
26:1H:95:G:O2'	49:K8:48:HIS:HB3	2.10	0.52
26:1H:320:A:H2'	30:31:136:THR:HG21	1.91	0.52
26:1H:415:A:H2'	26:1H:416:C:O4'	2.09	0.52
26:1H:581:C:H2'	26:1H:582:G:H8	1.73	0.52
26:1H:1019:U:H3	26:1H:1142(A):A:H62	1.58	0.52
26:1H:2139:C:H42	26:1H:2152:G:H1	1.56	0.52
26:1H:2287:A:N6	26:1H:2344:U:H3	2.07	0.52
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.44	0.52
29:21:147:PRO:HB2	29:21:149:ARG:HG2	1.91	0.52
1:1G:281:G:H8	1:1G:281:G:OP2	1.93	0.52
1:1G:662:G:O2'	1:1G:836:G:OP1	2.26	0.52
1:1G:1184:G:H2'	1:1G:1185:G:C8	2.45	0.52
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.90	0.52
4:32:39:PRO:HB2	4:32:44:GLY:HA2	1.91	0.52
9:82:113:LYS:HD2	9:82:119:ALA:HB1	1.90	0.52
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.92	0.52
22:1L:28:A:H61	22:1L:42:U:H3	1.57	0.52
26:14:996:A:N6	26:14:1160:G:C6	2.78	0.52
26:14:2336:A:H3'	26:14:2337:G:H8	1.74	0.52
26:14:2427:C:H5''	26:14:2428:G:OP1	2.09	0.52
26:14:2519:U:H4'	26:14:2520:C:OP1	2.09	0.52
26:14:2693:A:H2'	26:14:2694:G:H8	1.75	0.52
26:14:2747:G:H21	26:14:2757:A:H62	1.57	0.52
27:1J:24:G:N3	27:1J:27:C:N4	2.56	0.52
34:15:112:LEU:O	34:15:115:ARG:N	2.41	0.52
41:85:75:ASN:OD1	41:85:78:THR:OG1	2.26	0.52
1:13:582:U:H2'	1:13:583:A:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:713:G:H2'	1:13:714:G:C8	2.44	0.52
4:3E:108:LEU:HD23	4:3E:110:PHE:CE1	2.45	0.52
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.10	0.52
14:5I:4:LYS:HZ2	14:5I:7:ILE:HD11	1.73	0.52
18:9I:74:ARG:NE	18:9I:80:PRO:O	2.39	0.52
26:1H:840:C:OP2	26:1H:932:G:N2	2.31	0.52
26:1H:893:C:O2'	26:1H:894:C:O5'	2.26	0.52
42:D8:35:LEU:HB2	42:D8:57:VAL:HG12	1.91	0.52
46:H8:9:TYR:OH	46:H8:61:LEU:HD21	2.09	0.52
1:1G:542:G:P	4:32:10:ARG:HH22	2.32	0.52
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.92	0.52
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.74	0.52
6:52:8:ILE:HD11	6:52:79:LEU:HD13	1.91	0.52
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.45	0.52
26:14:315:G:H2'	26:14:316:C:C6	2.44	0.52
26:14:1171:G:H8	26:14:1173:G:H21	1.56	0.52
26:14:1299:G:O3'	58:14:3475:HOH:O	2.19	0.52
26:14:2630:G:H1'	26:14:2894:G:C8	2.45	0.52
26:14:2792:G:H2'	26:14:2792:G:N3	2.23	0.52
32:59:59:ARG:HG2	32:59:62:LYS:HG2	1.91	0.52
35:25:102:VAL:HB	35:25:106:LEU:HD12	1.92	0.52
41:85:70:ARG:HA	41:85:74:LEU:O	2.09	0.52
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.91	0.52
1:13:465:A:H2'	1:13:467:G:N7	2.25	0.52
1:13:1137:C:H4'	1:13:1137:C:OP1	2.09	0.52
9:8E:10:ARG:HD3	9:8E:11:LYS:HG3	1.91	0.52
26:1H:71:A:H5''	26:1H:73:A:C8	2.45	0.52
26:1H:459:U:H2'	26:1H:460:A:C8	2.44	0.52
26:1H:781:A:C8	28:11:219:PRO:HG2	2.44	0.52
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.92	0.52
26:1H:1341:U:H2'	26:1H:1397:U:O2	2.10	0.52
26:1H:1633:G:O6	58:1H:3671:HOH:O	2.19	0.52
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.09	0.52
39:A8:30:ARG:HG3	39:A8:30:ARG:O	2.10	0.52
48:J8:90:ILE:C	48:J8:92:LYS:H	2.12	0.52
1:1G:374:A:N3	1:1G:374:A:H2'	2.24	0.52
1:1G:539:A:H2'	1:1G:540:G:H8	1.72	0.52
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.25	0.52
5:42:94:ALA:HB1	5:42:98:THR:OG1	2.09	0.52
10:1A:54:PHE:CE2	10:1A:55:LYS:HD3	2.44	0.52
24:3L:3:U:H2'	24:3L:4:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:331:A:H1'	58:14:3742:HOH:O	2.09	0.52
26:14:491:G:H2'	26:14:492:A:H8	1.74	0.52
26:14:1019:U:H3	26:14:1142(A):A:N6	2.02	0.52
27:1J:11:C:H3'	27:1J:12:C:C6	2.45	0.52
28:19:17:THR:O	28:19:211:ARG:NH2	2.42	0.52
32:59:72:ILE:HA	32:59:75:ALA:HB3	1.90	0.52
44:B5:11:PRO:HD3	49:G5:37:PHE:CD2	2.44	0.52
44:B5:63:LYS:H	44:B5:63:LYS:HE3	1.75	0.52
1:13:22:G:H2'	1:13:23:C:C6	2.45	0.52
1:13:109:A:C6	1:13:326:G:C6	2.97	0.52
1:13:611:A:H2	1:13:630:G:H22	1.58	0.52
1:13:1135:U:H2'	1:13:1137:C:O2	2.10	0.52
1:13:1252:A:H2'	1:13:1253:G:C8	2.45	0.52
1:13:1347:G:O2'	1:13:1373:G:N1	2.36	0.52
4:3E:173:TRP:CD1	4:3E:189:PRO:HG3	2.45	0.52
9:8E:99:LEU:HD12	9:8E:101:PHE:CE2	2.44	0.52
15:6I:8:LYS:HE2	15:6I:12:ILE:HD11	1.91	0.52
17:8I:48:GLU:O	17:8I:50:LYS:N	2.42	0.52
26:1H:39:C:O2	30:31:46:ARG:NH2	2.42	0.52
26:1H:345:A:N3	26:1H:347:A:N6	2.57	0.52
26:1H:466:A:N3	26:1H:683:C:H1'	2.24	0.52
26:1H:528:A:N1	26:1H:2042:A:H2'	2.25	0.52
26:1H:1359:A:N6	26:1H:1372:U:H3	2.08	0.52
29:21:55:ASN:OD1	29:21:58:ARG:HD2	2.10	0.52
36:78:29:LYS:HG2	36:78:30:THR:N	2.24	0.52
45:G8:35:TYR:CD2	45:G8:69:ALA:HB3	2.45	0.52
54:Q8:9:GLY:O	54:Q8:13:ARG:HG2	2.08	0.52
1:1G:272:C:H2'	1:1G:273:A:C8	2.45	0.52
1:1G:564:C:OP1	12:3A:15:ARG:NH2	2.42	0.52
1:1G:570:G:H2'	1:1G:571:U:C6	2.45	0.52
2:12:145:LEU:O	2:12:149:LEU:HB2	2.09	0.52
8:72:36:LEU:HA	8:72:39:LEU:HD23	1.91	0.52
12:3A:77:LEU:HD21	12:3A:107:ALA:HA	1.91	0.52
15:6A:49:ASP:CG	15:6A:52:SER:HB2	2.30	0.52
22:1L:18:G:H3'	22:1L:19:G:H5''	1.91	0.52
24:3L:22:G:N7	24:3L:46:G:N2	2.56	0.52
26:14:769:G:H2'	26:14:770:G:C8	2.44	0.52
26:14:2147:G:C5	26:14:2148:G:H1'	2.45	0.52
27:1J:18:G:H2'	27:1J:19:G:C8	2.45	0.52
29:29:76:ARG:HD2	29:29:195:LEU:HD22	1.90	0.52
36:35:85:LEU:HA	36:35:88:LEU:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:2:ARG:HA	38:55:5:LYS:HG3	1.92	0.52
1:13:396:G:O6	58:13:1834:HOH:O	2.16	0.52
1:13:1162:C:H2'	1:13:1163:C:H6	1.73	0.52
2:1E:118:LEU:HD11	2:1E:138:LEU:O	2.10	0.52
2:1E:189:ASP:HB3	2:1E:205:ASP:HB3	1.91	0.52
10:1I:24:VAL:O	10:1I:28:ARG:HB2	2.10	0.52
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.23	0.52
22:1K:18:G:C8	22:1K:57:G:C8	2.97	0.52
26:1H:1108:U:O4	26:1H:1109:C:N4	2.43	0.52
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.52	0.52
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.45	0.52
26:1H:1919:A:H5''	26:1H:1920:C:OP2	2.10	0.52
26:1H:2104:G:C2	26:1H:2186:G:C2	2.98	0.52
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.43	0.52
26:1H:2756:U:H1'	26:1H:2757:A:H5''	1.91	0.52
36:78:37:GLY:O	36:78:39:LYS:N	2.42	0.52
36:78:84:ASN:OD1	36:78:115:LEU:HD12	2.10	0.52
46:H8:102:LEU:HD12	46:H8:104:PHE:HE1	1.75	0.52
1:1G:11:G:C5	1:1G:12:U:C5	2.98	0.52
1:1G:296:U:H2'	1:1G:297:G:C8	2.44	0.52
1:1G:683:G:C6	1:1G:684:A:C6	2.98	0.52
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.45	0.52
1:1G:1312:G:H2'	1:1G:1313:U:H6	1.73	0.52
26:14:289:A:H3'	26:14:290:G:C8	2.41	0.52
26:14:522:G:H2'	26:14:523:C:C6	2.45	0.52
26:14:849:A:H5''	26:14:850:C:OP2	2.09	0.52
26:14:957:A:N6	26:14:2459:A:C8	2.78	0.52
26:14:1406:U:H2'	26:14:1407:C:C6	2.45	0.52
26:14:1515:C:H2'	26:14:1516:U:H6	1.75	0.52
26:14:2128:C:H42	26:14:2160:G:N2	2.08	0.52
26:14:2233:U:H2'	26:14:2234:G:C8	2.45	0.52
26:14:2280:G:O2'	26:14:2388:A:N1	2.31	0.52
30:39:47:GLY:O	30:39:94:PRO:HA	2.09	0.52
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.75	0.52
48:F5:10:LYS:NZ	48:F5:65:SER:OG	2.42	0.52
1:13:468:A:H2'	1:13:474:G:O4'	2.10	0.52
1:13:1376:U:H2'	1:13:1377:A:C8	2.45	0.52
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.43	0.52
26:1H:273(C):C:H42	26:1H:363(C):G:H1	1.57	0.52
26:1H:421:U:O2'	58:1H:3667:HOH:O	2.19	0.52
26:1H:820:A:C6	58:1H:3701:HOH:O	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1633:G:O6	58:1H:3638:HOH:O	2.15	0.52
26:1H:1790:C:H5''	26:1H:1791:A:OP1	2.09	0.52
26:1H:2516:G:O6	26:1H:2517:C:N4	2.43	0.52
27:16:44:G:C2	27:16:48:A:C2	2.97	0.52
37:88:53:ALA:HB1	37:88:120:ILE:HG22	1.90	0.52
38:98:87:TYR:HD1	38:98:90:ARG:HD2	1.73	0.52
1:1G:190:G:H8	1:1G:190:G:OP1	1.92	0.52
1:1G:1465:C:OP2	40:75:108:ARG:NH1	2.40	0.52
7:62:115:ARG:O	7:62:118:VAL:HG22	2.10	0.52
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.39	0.52
22:1L:69:C:H1'	22:1L:70:A:C8	2.45	0.52
26:14:298:G:O5'	26:14:298:G:H8	1.92	0.52
26:14:396:G:O4'	48:F5:13:ILE:HD11	2.08	0.52
26:14:654(A):A:H2'	26:14:654(T):A:N6	2.25	0.52
26:14:2712(A):A:H5''	26:14:2713:A:OP2	2.09	0.52
27:1J:88:C:H5''	27:1J:89:G:C6	2.45	0.52
1:13:51:A:OP2	1:13:52:G:H8	1.93	0.52
1:13:142:G:H2'	1:13:143:A:H8	1.74	0.52
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.24	0.52
1:13:859:A:H2'	1:13:860:A:H8	1.75	0.52
1:13:1037:C:H2'	1:13:1038:C:C5	2.45	0.52
2:1E:28:PHE:HD2	2:1E:190:THR:HG23	1.74	0.52
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.09	0.52
15:6I:8:LYS:HG3	15:6I:9:GLN:N	2.24	0.52
22:1K:6:U:H2'	22:1K:7:A:C8	2.45	0.52
22:1K:59:C:O2'	22:1K:60:U:OP2	2.28	0.52
24:3K:76:A:H8	26:1H:2394:C:N4	1.88	0.52
26:1H:686:G:H8	53:P8:6:GLN:O	1.92	0.52
26:1H:1189:A:P	58:1H:3616:HOH:O	2.68	0.52
26:1H:2470:G:H5'	37:88:56:ARG:HH22	1.74	0.52
26:1H:2688:U:H1'	26:1H:2721:A:H61	1.75	0.52
26:1H:2842:G:H1	26:1H:2875:C:H42	1.56	0.52
29:21:11:MET:HG2	29:21:24:THR:HA	1.92	0.52
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.45	0.52
41:C8:65:ILE:CG1	41:C8:96:ALA:HB2	2.36	0.52
46:H8:79:ARG:HD2	46:H8:80:ARG:NH2	2.25	0.52
46:H8:161:VAL:HG23	46:H8:161:VAL:O	2.09	0.52
52:N8:40:LYS:HZ3	52:N8:48:GLU:H	1.58	0.52
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.45	0.52
7:62:13:GLN:O	7:62:24:THR:HG21	2.09	0.52
12:3A:34:ARG:HG3	12:3A:35:GLY:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.91	0.52
19:AA:77:THR:O	19:AA:77:THR:OG1	2.18	0.52
26:14:71:A:H2	44:B5:31:HIS:NE2	2.08	0.52
26:14:380:U:H2'	26:14:381:G:H8	1.75	0.52
26:14:986:C:O2'	26:14:1001:A:O2'	2.28	0.52
26:14:1383:C:O5'	26:14:1383:C:H6	1.93	0.52
26:14:2138:C:H42	26:14:2153:G:N2	2.08	0.52
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.10	0.52
29:29:33:VAL:HG11	29:29:36:ARG:HE	1.75	0.52
35:25:9:GLU:O	35:25:83:ALA:HA	2.09	0.52
40:75:2:ASN:OD1	40:75:4:GLY:HA3	2.10	0.52
48:F5:64:ALA:HA	48:F5:67:ILE:HG12	1.92	0.52
1:13:598:U:H4'	8:7E:94:TYR:CD1	2.44	0.52
1:13:1162:C:H2'	1:13:1163:C:C6	2.44	0.52
1:13:1533:C:H4'	1:13:1534:A:H8	1.74	0.52
2:1E:16:HIS:HE1	2:1E:210:SER:HB3	1.75	0.52
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.91	0.52
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.25	0.52
23:2K:2:G:H2'	23:2K:3:C:C6	2.45	0.52
26:1H:49:A:N7	26:1H:120:U:C5	2.76	0.52
26:1H:220:G:O2'	26:1H:233:A:N3	2.35	0.52
26:1H:315:G:H2'	26:1H:316:C:C6	2.45	0.52
26:1H:469:G:O6	53:P8:37:LYS:HE2	2.10	0.52
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.45	0.52
26:1H:1812:A:O2'	28:11:45:ASN:N	2.38	0.52
28:11:228:PRO:HD3	28:11:235:GLY:CA	2.40	0.52
36:78:28:GLY:O	36:78:31:ALA:N	2.42	0.52
36:78:80:TYR:CD1	36:78:111:ARG:HB3	2.45	0.52
38:98:101:ALA:HB3	52:N8:47:PRO:HD3	1.92	0.52
48:J8:3:LYS:O	48:J8:12:PRO:HD3	2.09	0.52
1:1G:115:G:H1'	1:1G:116:A:N7	2.25	0.52
7:62:141:VAL:HA	7:62:142:GLU:CB	2.40	0.52
8:72:99:GLU:O	8:72:102:ARG:NH1	2.42	0.52
16:7A:58:TYR:O	16:7A:62:VAL:HG22	2.10	0.52
22:1L:8:U:H3'	22:1L:13:C:N4	2.25	0.52
26:14:118:A:N3	26:14:178:G:H1'	2.25	0.52
26:14:1504:C:H2'	26:14:1505:C:C6	2.45	0.52
30:39:185:ASP:OD1	30:39:188:ARG:NE	2.42	0.52
31:49:102:PHE:O	31:49:106:LEU:HB2	2.10	0.52
38:55:104:ARG:O	38:55:108:GLY:HA2	2.10	0.52
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.10	0.51
33:61:83:ALA:HB2	33:61:144:VAL:HG22	1.92	0.51
40:B8:22:PHE:HA	40:B8:91:ARG:HH12	1.75	0.51
46:H8:9:TYR:HE2	46:H8:35:ARG:HH11	1.57	0.51
1:1G:66:G:H4'	1:1G:173:U:C5	2.45	0.51
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.33	0.51
5:42:144:THR:N	5:42:147:ASP:HB2	2.15	0.51
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.75	0.51
7:62:87:VAL:HG23	7:62:148:ASN:HA	1.92	0.51
26:14:1433:U:O2	26:14:1561:G:C2	2.63	0.51
26:14:1784:A:H4'	26:14:1785:A:O5'	2.10	0.51
26:14:2283:C:C2	26:14:2389:G:C2	2.98	0.51
37:45:43:THR:OG1	37:45:46:GLN:N	2.37	0.51
46:D5:141:VAL:O	46:D5:144:LEU:HD23	2.10	0.51
1:13:396:G:O2'	1:13:398:C:OP1	2.13	0.51
1:13:1333:A:H2'	1:13:1334:G:O4'	2.09	0.51
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.40	0.51
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.92	0.51
26:1H:176:G:O2'	26:1H:177:G:H5'	2.11	0.51
26:1H:282:A:C4	26:1H:359:A:C2	2.98	0.51
26:1H:298:G:OP1	45:G8:85:VAL:HA	2.10	0.51
26:1H:579:G:H2'	26:1H:580:C:C6	2.45	0.51
26:1H:742:G:H2'	26:1H:743:G:C8	2.46	0.51
26:1H:1511:A:H2'	26:1H:1512:G:O4'	2.11	0.51
26:1H:1842:G:H1	26:1H:1898:U:H3	1.58	0.51
29:21:50:GLY:O	29:21:75:VAL:HG21	2.10	0.51
34:58:97:ARG:H	34:58:100:GLU:HG3	1.74	0.51
36:78:81:GLN:OE1	36:78:106:LEU:HA	2.10	0.51
41:C8:92:ARG:NE	42:D8:11:GLN:H	2.07	0.51
1:1G:1374:A:H2'	1:1G:1375:A:H5'	1.92	0.51
4:32:150:GLU:C	4:32:152:SER:H	2.12	0.51
26:14:273(E):U:H2'	26:14:273(F):C:O4'	2.10	0.51
30:39:10:PRO:HD2	30:39:13:SER:HB3	1.91	0.51
32:59:144:VAL:HG12	32:59:148:ILE:HG12	1.92	0.51
43:A5:64:MET:HE2	43:A5:109:GLU:HG2	1.90	0.51
47:E5:29:GLN:O	47:E5:67:VAL:HG23	2.09	0.51
1:13:62:U:O2'	1:13:379:C:O2	2.28	0.51
1:13:313:A:H2'	1:13:314:C:C6	2.45	0.51
1:13:428:G:O4'	1:13:430:A:C8	2.64	0.51
1:13:580:U:P	15:6I:54:ARG:HH21	2.33	0.51
1:13:608:A:OP2	58:13:1839:HOH:O	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1248:A:C2	9:8E:70:LYS:HD2	2.45	0.51
22:1K:27:C:H2'	22:1K:28:A:C8	2.45	0.51
23:2K:62:C:H2'	23:2K:63:C:H6	1.76	0.51
23:2K:64:G:O5'	23:2K:64:G:H8	1.93	0.51
26:1H:569:U:O2'	26:1H:983:A:N1	2.41	0.51
26:1H:996:A:H4'	41:C8:92:ARG:HG2	1.92	0.51
26:1H:1496:A:C8	26:1H:1577:C:O2'	2.61	0.51
26:1H:2751:G:N7	32:51:3:ARG:NH2	2.59	0.51
28:11:147:LEU:HD13	28:11:155:LEU:HD11	1.91	0.51
30:31:185:ASP:HA	30:31:188:ARG:HD3	1.91	0.51
1:1G:99:C:H2'	1:1G:101:A:C8	2.45	0.51
1:1G:209:U:H5'	1:1G:209:U:O2	2.10	0.51
1:1G:292:G:OP2	1:1G:305:G:N2	2.29	0.51
1:1G:352:C:O2'	1:1G:354:G:OP1	2.21	0.51
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.10	0.51
1:1G:1096:C:O2'	1:1G:1170:A:O2'	2.27	0.51
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.25	0.51
4:32:108:LEU:HD13	4:32:174:LEU:HD22	1.93	0.51
8:72:10:LEU:HD22	8:72:83:ILE:HD11	1.92	0.51
15:6A:4:THR:OG1	15:6A:7:GLU:HG3	2.10	0.51
26:14:674:G:H1'	30:39:74:ARG:NE	2.25	0.51
26:14:1430:C:H2'	26:14:1431:U:C6	2.45	0.51
26:14:1515:C:H2'	26:14:1516:U:C6	2.45	0.51
26:14:1669:A:O2'	26:14:2549:G:OP1	2.28	0.51
26:14:1996:C:O3'	58:14:3476:HOH:O	2.19	0.51
26:14:2502:G:H5''	26:14:2503:A:H5''	1.91	0.51
26:14:2836:U:H2'	26:14:2837:G:C8	2.44	0.51
27:1J:44:G:H1'	27:1J:47:C:N4	2.24	0.51
30:39:21:ALA:O	30:39:23:ASP:N	2.43	0.51
34:15:15:LEU:HD23	34:15:134:ARG:HD2	1.90	0.51
41:85:69:CYS:HB3	41:85:106:PHE:CZ	2.46	0.51
1:13:113:G:H2'	1:13:114:U:H6	1.72	0.51
1:13:637:G:H2'	1:13:638:G:H8	1.75	0.51
1:13:859:A:H2'	1:13:860:A:O4'	2.10	0.51
1:13:1129:C:H1'	1:13:1146:A:H61	1.75	0.51
1:13:1407:C:O2	1:13:1494:G:N2	2.38	0.51
4:3E:156:GLU:O	4:3E:160:GLN:HG2	2.10	0.51
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.44	0.51
10:1I:25:GLU:O	10:1I:29:ARG:HG2	2.10	0.51
11:2I:91:ARG:O	11:2I:91:ARG:HD3	2.11	0.51
22:1K:53:G:H2'	22:1K:54:5MU:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:198:C:H42	26:1H:248:G:H1	1.58	0.51
26:1H:832:G:H5'	36:78:45:LEU:HD11	1.91	0.51
47:I8:68:GLU:HG3	47:I8:80:HIS:HD2	1.75	0.51
1:1G:533:A:O2'	1:1G:534:U:H5''	2.09	0.51
1:1G:714:G:H2'	1:1G:715:A:C8	2.45	0.51
1:1G:1007:C:H1'	1:1G:1023:G:C2	2.46	0.51
3:22:16:ARG:HH22	3:22:182:ILE:N	2.06	0.51
9:82:97:LYS:HB3	9:82:98:PRO:HD3	1.92	0.51
26:14:469:G:C6	53:L5:39:ARG:NH1	2.79	0.51
26:14:2097:C:H42	26:14:2192:G:H1	1.58	0.51
26:14:2335:A:N7	26:14:2337:G:C4	2.78	0.51
32:59:57:ASP:O	32:59:62:LYS:HE2	2.10	0.51
32:59:153:LYS:HD2	32:59:160:LYS:HE2	1.92	0.51
34:15:28:THR:HG22	34:15:29:LYS:HD3	1.91	0.51
2:1E:126:GLU:HA	2:1E:129:GLU:CD	2.31	0.51
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.93	0.51
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.16	0.51
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.45	0.51
26:1H:1533:C:H6	26:1H:1534:G:H5''	1.75	0.51
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.10	0.51
26:1H:2472:G:H2'	26:1H:2475:C:H42	1.75	0.51
28:11:69:ARG:HH11	28:11:69:ARG:HG3	1.75	0.51
32:51:107:VAL:HB	32:51:152:ARG:HG2	1.92	0.51
35:68:120:GLU:HG2	35:68:122:LEU:HG	1.92	0.51
41:C8:79:PHE:HE2	41:C8:106:PHE:CZ	2.29	0.51
53:P8:43:THR:HG22	53:P8:44:PRO:O	2.11	0.51
1:1G:4:U:O4	8:72:105:ARG:HA	2.10	0.51
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.45	0.51
1:1G:1063:C:H5	1:1G:1064:G:HO2'	1.59	0.51
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.75	0.51
4:32:32:ALA:N	4:32:35:ARG:HH11	2.08	0.51
24:3L:26:G:H2'	24:3L:27:C:H5'	1.93	0.51
26:14:1307:A:N6	26:14:1606:G:O2'	2.44	0.51
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.43	0.51
26:14:2851:A:O2'	38:55:64:ARG:NH2	2.43	0.51
40:75:106:SER:N	40:75:107:ASP:OD1	2.43	0.51
42:95:37:VAL:HG12	42:95:52:VAL:HG11	1.93	0.51
1:13:1314:C:OP1	19:AI:6:LYS:NZ	2.44	0.51
26:1H:184:C:H2'	26:1H:185:U:C6	2.45	0.51
26:1H:988:A:H8	26:1H:988:A:O5'	1.94	0.51
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.75	0.51
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.40	0.51
35:68:68:GLU:CD	35:68:68:GLU:H	2.14	0.51
38:98:96:ARG:NH2	38:98:117:VAL:HG23	2.26	0.51
41:C8:88:ILE:HD11	41:C8:112:ARG:HB3	1.91	0.51
43:E8:92:ARG:NH1	43:E8:94:ASP:OD1	2.44	0.51
1:1G:464:G:N2	1:1G:467:G:N7	2.58	0.51
1:1G:561:U:O2'	1:1G:562:C:OP2	2.27	0.51
1:1G:1255:G:H22	1:1G:1283:G:H1'	1.76	0.51
1:1G:1322:C:O2'	1:1G:1323:G:O5'	2.27	0.51
1:1G:1347:G:O6	9:82:10:ARG:NH2	2.44	0.51
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.74	0.51
26:14:780:G:OP1	28:19:218:ARG:NH2	2.44	0.51
26:14:2129:C:H5'	26:14:2130:U:OP2	2.10	0.51
26:14:2478:A:H3'	26:14:2479:G:H8	1.76	0.51
26:14:2726:U:H5'	26:14:2726:U:O2	2.10	0.51
29:29:2:LYS:HG2	29:29:95:ILE:CG2	2.41	0.51
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.93	0.51
43:A5:17:VAL:HG13	43:A5:76:VAL:HG21	1.92	0.51
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.93	0.51
46:D5:128:VAL:HG23	46:D5:160:GLY:O	2.10	0.51
1:13:468:A:H3'	1:13:474:G:H8	1.76	0.51
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	1.92	0.51
22:1K:2:C:H42	22:1K:71:G:H1	1.59	0.51
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.46	0.51
26:1H:1547:C:H2'	26:1H:1548:C:H6	1.72	0.51
26:1H:1756:G:O2'	26:1H:1758:G:H5''	2.11	0.51
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.45	0.51
27:16:40:U:H1'	27:16:45:A:H61	1.75	0.51
33:61:27:ARG:NH2	48:J8:68:PRO:HG3	2.25	0.51
36:78:78:PRO:HB3	36:78:111:ARG:NH2	2.25	0.51
46:H8:109:ALA:H	46:H8:112:ARG:HG3	1.76	0.51
47:I8:14:ARG:NH1	58:I8:201:HOH:O	2.42	0.51
1:1G:92:G:H2'	1:1G:93:U:H6	1.76	0.51
1:1G:385:C:H2'	1:1G:386:C:H6	1.76	0.51
1:1G:793:U:O2	1:1G:1516:G:H4'	2.11	0.51
1:1G:991:U:H1'	1:1G:993:G:C8	2.46	0.51
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.40	0.51
2:12:75:LYS:H	2:12:78:GLN:HG3	1.74	0.51
6:52:12:PRO:HG2	6:52:13:ASN:OD1	2.11	0.51
10:1A:12:ASP:OD2	10:1A:15:THR:N	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:90:VAL:HG11	12:3A:93:LEU:HD12	1.92	0.51
23:2L:10:G:N2	23:2L:27:G:H1'	2.25	0.51
26:14:548:A:C5	26:14:549:G:H1'	2.44	0.51
26:14:1017:G:N2	26:14:1018:C:O2	2.43	0.51
26:14:1200:C:P	58:14:3542:HOH:O	2.68	0.51
26:14:1752:C:OP1	40:75:115:ARG:NH2	2.43	0.51
27:1J:5:C:H42	27:1J:115:G:H1	1.57	0.51
27:1J:88:C:H5''	27:1J:89:G:N7	2.26	0.51
30:39:51:THR:HB	30:39:88:VAL:HG11	1.93	0.51
31:49:17:PRO:HA	31:49:20:ILE:HD12	1.92	0.51
36:35:95:VAL:O	36:35:126:VAL:HG23	2.11	0.51
36:35:110:TYR:N	36:35:110:TYR:CD1	2.79	0.51
37:45:57:HIS:NE2	37:45:116:GLU:HG2	2.25	0.51
46:D5:161:VAL:HG23	46:D5:162:GLU:H	1.76	0.51
49:G5:32:LEU:HA	49:G5:53:LEU:HD13	1.92	0.51
4:3E:63:LYS:O	4:3E:67:ILE:HG13	2.10	0.51
13:4I:14:ARG:HG3	13:4I:44:ARG:CZ	2.40	0.51
26:1H:748:G:C8	43:E8:89:ALA:HB1	2.46	0.51
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.46	0.51
26:1H:1816:G:H1	28:11:35:LYS:NZ	2.09	0.51
26:1H:1954:G:O2'	26:1H:1955:U:OP2	2.22	0.51
26:1H:2252:G:H2'	26:1H:2253:G:H8	1.75	0.51
26:1H:2638:G:P	29:21:82:ARG:HH22	2.34	0.51
31:41:152:LEU:H	31:41:152:LEU:HD12	1.76	0.51
34:58:18:ALA:HA	34:58:21:LYS:HD2	1.92	0.51
4:32:64:LEU:HB2	4:32:198:VAL:HG21	1.92	0.51
5:42:18:ARG:HG2	5:42:19:MET:H	1.75	0.51
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.10	0.51
13:4A:102:ARG:HH11	13:4A:105:THR:H	1.59	0.51
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.92	0.51
23:2L:73:A:C6	23:2L:74:A:C6	2.99	0.51
26:14:492:A:H2'	26:14:493:G:O4'	2.11	0.51
26:14:565:C:H4'	26:14:1253:A:C6	2.45	0.51
26:14:1488:G:N2	26:14:1502:C:C2	2.79	0.51
26:14:1956:U:H1'	26:14:2552:U:OP1	2.11	0.51
26:14:2143:C:N3	26:14:2148:G:N2	2.55	0.51
26:14:2211:G:H4'	26:14:2212:A:O5'	2.08	0.51
27:1J:12:C:H6	27:1J:12:C:OP2	1.94	0.51
29:29:201:THR:HG22	29:29:202:LYS:N	2.26	0.51
30:39:158:THR:HB	30:39:195:ASP:HB2	1.91	0.51
33:69:71:ILE:HG22	33:69:72:LEU:HD23	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:94:GLU:HB3	46:D5:96:VAL:HG23	1.93	0.51
1:13:626:U:N3	1:13:627:G:N7	2.58	0.51
1:13:917:G:H2'	1:13:918:A:C8	2.45	0.51
1:13:940:C:H2'	1:13:941:G:H8	1.74	0.51
1:13:1079:G:C6	1:13:1080:A:N6	2.78	0.51
1:13:1473:A:H2'	1:13:1474:G:C8	2.46	0.51
1:13:1507:A:H2'	1:13:1508:G:C8	2.45	0.51
2:1E:128:GLU:OE1	2:1E:135:GLN:NE2	2.44	0.51
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.10	0.51
17:8I:41:LYS:HD2	17:8I:88:TYR:HE2	1.76	0.51
22:1K:42:U:H2'	22:1K:43:G:C8	2.45	0.51
25:4K:13:A:C8	25:4K:14:A:N7	2.79	0.51
26:1H:86:C:H4'	26:1H:104:U:H1'	1.93	0.51
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.40	0.51
26:1H:1234:U:OP2	58:1H:3666:HOH:O	2.19	0.51
26:1H:1359:A:N1	26:1H:1372:U:O4	2.44	0.51
26:1H:1409:C:H42	26:1H:1593:G:H1	1.58	0.51
26:1H:1937:A:N7	26:1H:1939:U:H2'	2.25	0.51
26:1H:1999:C:H5''	26:1H:2723:C:O2'	2.11	0.51
26:1H:2679:A:H5'	29:21:165:VAL:HG21	1.93	0.51
28:11:38:LYS:HB3	28:11:39:LYS:HA	1.93	0.51
28:11:77:ALA:HB2	28:11:97:TYR:CD2	2.46	0.51
40:B8:128:GLU:O	40:B8:132:LYS:HB2	2.10	0.51
43:E8:31:GLU:O	43:E8:35:ILE:HG13	2.11	0.51
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.26	0.51
54:Q8:34:TRP:CE2	54:Q8:35:GLN:OE1	2.64	0.51
1:1G:167:G:H2'	1:1G:168:G:C8	2.44	0.51
1:1G:299:G:H2'	1:1G:300:A:C8	2.46	0.51
1:1G:560:U:O2'	1:1G:561:U:OP2	2.24	0.51
1:1G:1372:U:H2'	1:1G:1373:G:O4'	2.11	0.51
3:22:29:TYR:O	3:22:33:LEU:HB3	2.10	0.51
7:62:72:ARG:CZ	7:62:138:LYS:HE3	2.41	0.51
9:82:50:LEU:HG	9:82:81:ILE:HG21	1.93	0.51
13:4A:15:VAL:O	13:4A:19:LEU:HG	2.11	0.51
20:BA:90:GLN:HA	20:BA:93:GLU:HG3	1.93	0.51
26:14:80:G:O2'	26:14:294:A:N1	2.34	0.51
26:14:581:C:H2'	26:14:582:G:H8	1.75	0.51
26:14:2695:C:H2'	26:14:2696:U:H6	1.76	0.51
27:1J:1:U:O2'	27:1J:2:C:H5'	2.11	0.51
27:1J:70:C:H2'	27:1J:71:C:H6	1.76	0.51
28:19:70:TRP:CD1	28:19:70:TRP:C	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:20:ALA:HB1	32:59:23:ARG:HG3	1.93	0.51
1:13:110:C:O2'	16:7I:25:ARG:O	2.27	0.51
1:13:963:G:H1	1:13:972:C:N4	2.00	0.51
1:13:1128:C:H42	1:13:1144:G:H1	1.57	0.51
1:13:1197:G:OP2	58:13:1807:HOH:O	2.20	0.51
1:13:1240:U:OP2	7:6E:116:ALA:N	2.43	0.51
2:1E:18:GLY:N	2:1E:42:ILE:HB	2.24	0.51
3:2E:35:GLU:HG2	3:2E:39:ILE:HD11	1.92	0.51
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.91	0.51
24:3K:37:A:N1	25:4K:13:A:H2	2.09	0.51
26:1H:479:A:H4'	26:1H:480:A:OP1	2.11	0.51
26:1H:566:U:OP1	36:78:29:LYS:HD2	2.11	0.51
26:1H:600:G:N2	26:1H:605:C:O3'	2.44	0.51
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.11	0.51
26:1H:2052:G:C8	29:21:141:ILE:HD11	2.46	0.51
30:31:184:TYR:HE1	36:78:3:LEU:HD11	1.76	0.51
31:41:124:SER:HB2	31:41:131:TYR:CE2	2.46	0.51
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.25	0.51
44:F8:35:THR:HG23	44:F8:38:GLU:HB3	1.92	0.51
1:1G:580:U:H2'	1:1G:581:G:O4'	2.11	0.51
1:1G:827:U:H3	1:1G:872:A:N6	2.02	0.51
1:1G:901:A:C5	1:1G:902:G:H1'	2.46	0.51
1:1G:1170:A:N6	1:1G:1171:G:N3	2.58	0.51
4:32:31:CYS:C	4:32:33:MET:H	2.13	0.51
13:4A:84:ILE:HD11	19:AA:64:GLU:OE2	2.11	0.51
24:3L:45:G:H5''	24:3L:46:G:OP2	2.11	0.51
26:14:2115:G:N1	26:14:2117:A:N7	2.59	0.51
26:14:2143:C:N4	26:14:2148:G:H1	2.05	0.51
26:14:2259:G:H1'	26:14:2427:C:C2	2.46	0.51
27:1J:15:A:OP2	27:1J:69:G:N2	2.38	0.51
31:49:18:GLU:OE2	31:49:21:ARG:NH2	2.44	0.51
32:59:97:ARG:HG2	32:59:98:LEU:H	1.75	0.51
32:59:105:LEU:HD11	32:59:115:VAL:HG23	1.93	0.51
33:69:81:VAL:HG12	33:69:143:SER:HB3	1.92	0.51
44:B5:59:VAL:N	44:B5:76:ARG:O	2.37	0.51
1:13:134:A:H61	16:7I:25:ARG:HH12	1.58	0.50
1:13:186:C:H2'	1:13:186(A):C:C6	2.47	0.50
1:13:222:U:H2'	1:13:223:U:H6	1.76	0.50
1:13:475:G:H2'	1:13:476:G:O4'	2.11	0.50
1:13:1492:A:OP1	12:3I:47:LYS:N	2.40	0.50
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.46	0.50
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.09	0.50
30:31:160:ASN:OD1	30:31:163:VAL:HG23	2.11	0.50
31:41:16:ARG:NH1	31:41:31:VAL:HG21	2.26	0.50
39:A8:67:ARG:O	39:A8:71:ARG:HG3	2.11	0.50
45:G8:43:ASN:OD1	45:G8:65:ALA:HB3	2.11	0.50
1:1G:12:U:H2'	1:1G:13:U:H5''	1.93	0.50
1:1G:114:U:H2'	1:1G:115:G:C8	2.47	0.50
1:1G:157:G:C2	1:1G:165:C:C2	2.99	0.50
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.43	0.50
1:1G:1226:C:O2'	13:4A:111:LYS:NZ	2.20	0.50
1:1G:1320:C:H42	19:AA:36:ARG:NE	2.08	0.50
3:22:20:SER:OG	3:22:36:ASP:OD2	2.26	0.50
4:32:127:THR:OG1	4:32:131:ARG:N	2.44	0.50
7:62:115:ARG:HB3	7:62:118:VAL:HG13	1.92	0.50
10:1A:37:PRO:HA	10:1A:72:VAL:HG22	1.93	0.50
26:14:392:C:H5''	26:14:409:C:H5''	1.93	0.50
26:14:906:G:OP1	37:45:26:TYR:OH	2.15	0.50
26:14:1116:C:H2'	26:14:1117:G:C8	2.46	0.50
26:14:1215:G:H2'	26:14:1216:G:H8	1.76	0.50
26:14:2184:G:H2'	26:14:2185:C:C6	2.46	0.50
26:14:2616:C:C2'	26:14:2617:C:H5'	2.41	0.50
39:65:89:ARG:O	39:65:92:TYR:N	2.43	0.50
49:G5:43:GLN:HB2	49:G5:46:GLN:OE1	2.11	0.50
1:13:1171:G:H8	1:13:1171:G:O5'	1.94	0.50
1:13:1218:C:H2'	1:13:1219:U:C6	2.47	0.50
6:5E:14:LEU:HD22	6:5E:18:GLN:HB3	1.92	0.50
10:1I:48:THR:O	14:5I:34:TYR:OH	2.30	0.50
12:3I:102:ARG:HB3	12:3I:109:GLY:HA2	1.94	0.50
13:4I:9:ILE:HD13	13:4I:11:ARG:HH22	1.76	0.50
26:1H:721:C:H2'	26:1H:722:A:C8	2.46	0.50
26:1H:828:U:H4'	26:1H:831:G:N1	2.26	0.50
26:1H:960:A:C8	26:1H:962:G:C8	2.99	0.50
26:1H:1336:A:O2'	26:1H:1337:G:H5'	2.11	0.50
26:1H:1971:A:C4	28:11:241:PRO:HD3	2.46	0.50
26:1H:2093:G:H1	26:1H:2196:C:H42	1.60	0.50
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.47	0.50
33:61:78:THR:HA	33:61:141:LYS:HZ2	1.76	0.50
50:L8:26:LEU:HD21	50:L8:46:ASN:HB3	1.93	0.50
1:1G:62:U:O2'	1:1G:379:C:O2	2.23	0.50
1:1G:87:A:C6	1:1G:88:C:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1262:C:H2'	1:1G:1263:C:O4'	2.11	0.50
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.46	0.50
4:32:14:ARG:HB2	4:32:40:PRO:HD2	1.93	0.50
12:3A:6:THR:HG23	12:3A:9:GLN:HG3	1.93	0.50
16:7A:43:LYS:HG2	16:7A:48:TRP:CG	2.46	0.50
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.26	0.50
26:14:13:A:O2'	26:14:15:G:O6	2.28	0.50
26:14:71:A:OP2	26:14:71:A:H3'	2.11	0.50
26:14:2238:G:H2'	26:14:2238:G:N3	2.26	0.50
26:14:2306:C:H2'	26:14:2307:G:H21	1.77	0.50
29:29:68:ALA:HA	29:29:71:GLY:HA3	1.92	0.50
39:65:109:GLY:O	39:65:111:GLU:N	2.40	0.50
41:85:92:ARG:NH1	42:95:11:GLN:H	2.07	0.50
1:13:2:U:O2	1:13:612:C:O2'	2.28	0.50
1:13:109:A:C6	1:13:327:A:C6	2.99	0.50
1:13:631:G:O2'	1:13:632:A:O5'	2.23	0.50
1:13:673:G:H5''	6:5E:87:ARG:NH1	2.27	0.50
1:13:826:C:H2'	1:13:827:U:O2	2.10	0.50
1:13:1199:U:H4'	10:1I:54:PHE:CZ	2.47	0.50
1:13:1480:G:H2'	1:13:1481:U:O4'	2.11	0.50
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.10	0.50
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.76	0.50
10:1I:54:PHE:CE1	10:1I:55:LYS:HE3	2.47	0.50
26:1H:992:C:H2'	26:1H:993:G:C8	2.46	0.50
26:1H:1179:C:H2'	26:1H:1180:C:H6	1.75	0.50
26:1H:1182:A:H2'	26:1H:1183:G:O4'	2.11	0.50
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.47	0.50
26:1H:1995:U:OP2	58:1H:3670:HOH:O	2.19	0.50
30:31:178:PRO:HG2	30:31:179:GLU:HG3	1.94	0.50
32:51:102:ALA:HA	32:51:117:PRO:HD3	1.94	0.50
33:61:53:ALA:O	33:61:57:ARG:NH1	2.45	0.50
36:78:111:ARG:HG2	36:78:128:HIS:CG	2.47	0.50
37:88:26:TYR:O	37:88:26:TYR:CD1	2.65	0.50
48:J8:86:SER:HB3	48:J8:89:GLU:HB2	1.92	0.50
1:1G:295:C:H2'	1:1G:296:U:O4'	2.12	0.50
1:1G:611:A:N1	1:1G:630:G:N1	2.59	0.50
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.30	0.50
1:1G:1312:G:H2'	1:1G:1313:U:C6	2.46	0.50
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.46	0.50
2:12:118:LEU:HD22	2:12:142:LEU:HB2	1.94	0.50
13:4A:35:GLU:C	13:4A:38:GLY:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:102:ARG:NH1	13:4A:105:THR:HG23	2.26	0.50
26:14:634:C:H2'	26:14:635:C:C6	2.46	0.50
26:14:1437:C:H2'	26:14:1438:U:H6	1.76	0.50
26:14:2032:G:OP2	26:14:2454:G:O2'	2.25	0.50
26:14:2448:A:N6	58:14:3555:HOH:O	2.40	0.50
28:19:273:ARG:O	28:19:273:ARG:HG2	2.12	0.50
30:39:132:VAL:HG22	30:39:133:ASN:H	1.77	0.50
37:45:26:TYR:CD1	37:45:27:VAL:HG23	2.47	0.50
38:55:32:GLY:HA2	38:55:116:LEU:HD12	1.93	0.50
40:75:99:LEU:HD22	40:75:101:PHE:HE1	1.76	0.50
45:C5:68:HIS:O	45:C5:71:LYS:HG3	2.10	0.50
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.12	0.50
1:13:5:U:C4	4:3E:85:LYS:HD2	2.46	0.50
1:13:234:C:H2'	1:13:235:C:H6	1.77	0.50
1:13:389:A:H2'	1:13:390:C:O4'	2.11	0.50
4:3E:108:LEU:HB3	4:3E:110:PHE:HD1	1.76	0.50
4:3E:175:SER:HB3	4:3E:186:LEU:HD21	1.92	0.50
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.93	0.50
14:5I:6:LEU:HD12	14:5I:23:ARG:NH2	2.17	0.50
18:9I:56:THR:OG1	18:9I:57:GLY:N	2.45	0.50
26:1H:33:U:H4'	26:1H:34:C:OP1	2.11	0.50
26:1H:654:A:N3	26:1H:654(A):A:H5''	2.26	0.50
26:1H:1252:G:O4'	41:C8:33:ARG:HD2	2.11	0.50
26:1H:1756:G:OP2	58:1H:3679:HOH:O	2.20	0.50
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.76	0.50
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.45	0.50
26:1H:2864:G:OP1	40:B8:119:LYS:HD2	2.11	0.50
30:31:167:ALA:HB1	30:31:173:VAL:HG11	1.93	0.50
40:B8:4:GLY:O	40:B8:8:LYS:HG3	2.11	0.50
1:1G:5:U:C4	4:32:86:LYS:HD2	2.46	0.50
1:1G:490:G:P	4:32:132:ARG:HH22	2.33	0.50
1:1G:855:G:H2'	1:1G:856:C:H6	1.75	0.50
1:1G:1223:C:H5''	1:1G:1224:G:H5''	1.92	0.50
1:1G:1274:G:N2	1:1G:1275:A:H62	2.08	0.50
2:12:223:ILE:HG23	2:12:224:GLN:NE2	2.27	0.50
4:32:52:SER:O	4:32:56:VAL:HG23	2.11	0.50
9:82:79:LEU:HD23	9:82:101:PHE:O	2.12	0.50
10:1A:51:ARG:HH21	10:1A:61:GLU:HB2	1.76	0.50
18:9A:21:LYS:HE3	18:9A:23:LYS:HB3	1.93	0.50
26:14:36:G:H4'	26:14:451:C:C2	2.46	0.50
26:14:380:U:H2'	26:14:381:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:774:A:HO2'	26:14:775:G:P	2.34	0.50
26:14:2086:U:H2'	26:14:2087:G:C8	2.47	0.50
26:14:2484:G:C2	26:14:2485:G:C8	2.99	0.50
32:59:121:ILE:HG23	32:59:133:VAL:HG22	1.92	0.50
43:A5:68:ARG:O	43:A5:109:GLU:HA	2.12	0.50
47:E5:27:GLU:HB2	47:E5:69:PHE:CD2	2.41	0.50
1:13:592:G:C6	1:13:648:A:C6	3.00	0.50
1:13:600:C:H2'	1:13:601:C:C6	2.47	0.50
1:13:895:G:H2'	1:13:896:C:C6	2.46	0.50
1:13:1193:G:P	3:2E:167:TRP:HZ3	2.34	0.50
1:13:1198:G:N7	58:13:1859:HOH:O	2.34	0.50
1:13:1374:A:O3'	7:6E:28:ASN:ND2	2.45	0.50
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.26	0.50
26:1H:455:C:N3	26:1H:473:G:H5'	2.26	0.50
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.10	0.50
26:1H:2114:A:HO2'	26:1H:2168:G:P	2.34	0.50
30:31:158:THR:OG1	30:31:159:GLY:N	2.44	0.50
36:78:144:GLU:OE2	36:78:144:GLU:N	2.45	0.50
46:H8:152:ALA:O	46:H8:155:LEU:HG	2.12	0.50
1:1G:192:U:H2'	1:1G:193:C:H6	1.76	0.50
1:1G:328:C:O2	1:1G:328:C:H2'	2.10	0.50
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.44	0.50
1:1G:1255:G:OP1	10:1A:45:ARG:NH2	2.42	0.50
26:14:620:G:N3	26:14:620:G:H5'	2.27	0.50
26:14:809:G:OP2	58:14:3479:HOH:O	2.19	0.50
26:14:1312:U:H2'	44:B5:63:LYS:HE2	1.92	0.50
26:14:1858:G:N2	26:14:1883:G:H2'	2.27	0.50
26:14:2027:G:H2'	26:14:2028:U:O4'	2.12	0.50
26:14:2540:C:O2'	26:14:2740:A:N3	2.40	0.50
26:14:2689:U:H4'	26:14:2690:C:H5'	1.94	0.50
27:1J:45:A:O4'	31:49:95:ARG:NH2	2.45	0.50
32:59:50:VAL:HG23	32:59:51:ARG:N	2.26	0.50
32:59:98:LEU:HD13	32:59:125:VAL:HG21	1.93	0.50
32:59:154:PRO:HA	32:59:162:ILE:HG13	1.94	0.50
33:69:75:LEU:HG	33:69:76:THR:N	2.27	0.50
36:35:57:THR:HB	36:35:60:MET:HB2	1.94	0.50
37:45:84:GLY:HA2	37:45:85:LYS:HG2	1.94	0.50
48:F5:92:LYS:O	48:F5:93:GLU:C	2.50	0.50
1:13:322:C:H4'	20:BI:23:ARG:HD2	1.93	0.50
1:13:578:C:OP1	58:13:1837:HOH:O	2.19	0.50
1:13:1386:G:O2'	1:13:1387:G:H5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:5:TYR:HE2	9:8E:16:ARG:HG2	1.76	0.50
26:1H:934:G:H2'	26:1H:935:C:H6	1.76	0.50
26:1H:1322:A:H2'	26:1H:1323:U:C6	2.47	0.50
26:1H:1434:A:H61	26:1H:1558:A:N6	2.09	0.50
26:1H:2125:G:H21	26:1H:2173:A:H62	1.57	0.50
34:58:116:LEU:O	34:58:119:ARG:N	2.43	0.50
37:88:32:TYR:CD1	37:88:133:ARG:HA	2.47	0.50
37:88:135:ASP:O	37:88:138:ASP:N	2.25	0.50
42:D8:49:THR:OG1	42:D8:50:PRO:HD2	2.11	0.50
46:H8:58:VAL:HG23	46:H8:60:GLU:H	1.76	0.50
1:1G:147:G:O2'	1:1G:148:G:H5'	2.10	0.50
1:1G:1054:C:H4'	1:1G:1055:A:H5''	1.93	0.50
1:1G:1288:A:O3'	21:1B:10:ARG:NH2	2.45	0.50
4:32:104:VAL:HG11	4:32:146:ILE:HG12	1.93	0.50
5:42:141:GLN:HA	5:42:143:ARG:NH1	2.26	0.50
26:14:932:G:H4'	26:14:933:A:O5'	2.12	0.50
26:14:1667:G:N1	58:14:3520:HOH:O	2.33	0.50
26:14:1750:G:O2'	26:14:2860:A:N1	2.40	0.50
26:14:1754:C:H2'	26:14:1755:A:C8	2.47	0.50
26:14:2611:U:C4	52:J5:3:LYS:HG3	2.46	0.50
27:1J:8:U:O3'	39:65:25:ARG:NH2	2.44	0.50
29:29:60:ASN:HB2	29:29:62:PRO:CD	2.38	0.50
30:39:192:LEU:HD13	30:39:194:MET:HE1	1.94	0.50
35:25:11:ALA:O	35:25:98:VAL:HG23	2.11	0.50
37:45:39:PRO:HB3	37:45:99:PRO:HD3	1.94	0.50
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.12	0.50
1:13:24:U:H2'	1:13:25:C:C6	2.47	0.50
1:13:975:A:H5''	1:13:975:A:C8	2.46	0.50
1:13:1285:A:H4'	1:13:1286:A:C5'	2.41	0.50
1:13:1372:U:OP1	9:8E:72:GLY:N	2.29	0.50
6:5E:6:VAL:HG22	6:5E:90:VAL:HG22	1.93	0.50
9:8E:45:ALA:HA	9:8E:48:GLU:OE1	2.11	0.50
12:3I:25:PRO:O	12:3I:27:LEU:N	2.45	0.50
15:6I:82:ILE:O	15:6I:85:LEU:N	2.43	0.50
22:1K:5:A:H2'	22:1K:5:A:N3	2.27	0.50
26:1H:55:G:C2	26:1H:116:C:N3	2.79	0.50
26:1H:698:C:O2'	26:1H:734:A:N6	2.45	0.50
26:1H:1466:G:H2'	26:1H:1547:C:N4	2.27	0.50
26:1H:1635:G:N3	26:1H:1635:G:H2'	2.27	0.50
26:1H:2053:G:H5'	29:21:144:ARG:O	2.11	0.50
26:1H:2145:C:H5''	26:1H:2146:C:OP2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2776:A:H4'	26:1H:2777:G:H5''	1.93	0.50
29:21:64:LYS:HA	29:21:67:PHE:O	2.12	0.50
32:51:7:LEU:HD12	32:51:8:PRO:HD2	1.94	0.50
32:51:94:TYR:HA	32:51:106:THR:O	2.11	0.50
34:58:90:MET:O	34:58:94:HIS:N	2.39	0.50
36:78:125:VAL:O	36:78:144:GLU:HB2	2.12	0.50
40:B8:87:ASP:O	40:B8:89:VAL:HG12	2.12	0.50
43:E8:68:ARG:O	43:E8:109:GLU:HA	2.11	0.50
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	1.94	0.50
48:J8:50:ARG:HG2	48:J8:59:THR:OG1	2.11	0.50
52:N8:40:LYS:HZ3	52:N8:46:CYS:HB2	1.76	0.50
54:Q8:26:LYS:HG2	54:Q8:48:PHE:CD1	2.47	0.50
1:1G:710:G:OP1	6:52:54:LYS:HE2	2.12	0.50
1:1G:779:C:H2'	1:1G:780:A:O4'	2.11	0.50
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.15	0.50
2:12:186:ALA:O	2:12:201:ILE:HB	2.12	0.50
3:22:43:LEU:HD23	3:22:47:LEU:HB2	1.92	0.50
8:72:23:SER:HB2	8:72:60:ARG:HG2	1.92	0.50
24:3L:59:A:H2'	24:3L:59:A:N3	2.27	0.50
26:14:1436:G:H1'	26:14:1477:A:O2'	2.11	0.50
26:14:1607:C:H4'	26:14:1608:A:O5'	2.11	0.50
26:14:2032:G:N2	26:14:2572:A:OP2	2.45	0.50
26:14:2841:C:H2'	26:14:2842:G:C8	2.47	0.50
27:1J:42:C:O2	31:49:93:THR:N	2.37	0.50
31:49:16:ARG:O	31:49:20:ILE:HG13	2.12	0.50
40:75:55:ASN:H	40:75:59:THR:HG22	1.75	0.50
41:85:66:ASN:CB	41:85:76:TYR:HB2	2.42	0.50
1:13:76:G:N7	1:13:95:G:N1	2.60	0.50
1:13:1208:C:H2'	1:13:1209:C:C6	2.47	0.50
1:13:1251:A:H2'	1:13:1252:A:C8	2.47	0.50
1:13:1257:U:H5'	1:13:1258:G:C8	2.47	0.50
1:13:1347:G:N2	1:13:1374:A:OP2	2.42	0.50
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.94	0.50
3:2E:56:ASP:O	3:2E:57:ILE:HG13	2.11	0.50
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.93	0.50
25:4K:14:A:H4'	25:4K:15:A:H5'	1.93	0.50
26:1H:1106:G:H2'	26:1H:1107:G:C8	2.47	0.50
26:1H:1289:C:H2'	26:1H:1290:C:C6	2.47	0.50
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.47	0.50
26:1H:2324:C:H5''	26:1H:2325:G:H5'	1.93	0.50
31:41:11:TYR:O	31:41:15:VAL:HB	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:134:PRO:HA	33:61:135:GLU:HG3	1.93	0.50
37:88:16:ARG:O	37:88:17:LEU:HD23	2.11	0.50
38:98:2:ARG:O	38:98:5:LYS:HG3	2.12	0.50
38:98:49:ASP:OD1	38:98:95:THR:OG1	2.30	0.50
47:I8:23:VAL:HB	47:I8:26:TYR:HE1	1.76	0.50
49:K8:23:LYS:HE3	49:K8:27:GLU:OE2	2.11	0.50
51:M8:16:CYS:SG	51:M8:36:CYS:HB3	2.52	0.50
1:1G:125:U:H2'	1:1G:126:G:C8	2.46	0.50
1:1G:176:C:H2'	1:1G:177:C:C6	2.46	0.50
1:1G:411:A:C5	1:1G:413:G:H1'	2.47	0.50
1:1G:866:C:O2'	1:1G:919:A:OP1	2.28	0.50
1:1G:1430:C:H2'	1:1G:1431:C:C6	2.47	0.50
6:52:5:GLU:HG3	6:52:93:SER:OG	2.11	0.50
9:82:77:ILE:O	9:82:81:ILE:HG12	2.12	0.50
17:8A:29:HIS:CG	17:8A:30:PRO:HD2	2.46	0.50
19:AA:56:GLN:CD	19:AA:57:HIS:H	2.15	0.50
26:14:817:C:H2'	26:14:818:G:O4'	2.11	0.50
26:14:2062:A:HO2'	26:14:2063:C:P	2.34	0.50
26:14:2429:G:O6	36:35:61:ARG:NH2	2.44	0.50
26:14:2786:U:O2	29:29:62:PRO:HB3	2.12	0.50
28:19:39:LYS:O	28:19:40:THR:HG23	2.12	0.50
29:29:50:GLY:O	29:29:74:PRO:HG3	2.11	0.50
29:29:91:VAL:HB	29:29:95:ILE:HD11	1.94	0.50
32:59:97:ARG:NH2	32:59:99:VAL:HB	2.26	0.50
34:15:20:GLY:O	34:15:61:ARG:HG2	2.11	0.50
35:25:93:PRO:HD2	35:25:113:LYS:HD3	1.93	0.50
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.93	0.50
48:F5:84:GLY:HA3	48:F5:86:SER:N	2.27	0.50
1:13:145:G:H1	1:13:177:C:N4	2.03	0.50
1:13:265:G:N2	1:13:267:C:H5'	2.26	0.50
1:13:272:C:H2'	1:13:273:A:C8	2.47	0.50
1:13:657:G:N2	1:13:749:C:O2	2.35	0.50
1:13:689:C:OP2	11:2I:55:LYS:NZ	2.40	0.50
4:3E:93:PHE:HA	4:3E:96:LEU:HD22	1.93	0.50
4:3E:108:LEU:HB3	4:3E:110:PHE:CD1	2.47	0.50
13:4I:36:LYS:HG2	13:4I:59:TYR:OH	2.11	0.50
24:3K:53:G:H2'	24:3K:54:U:H5'	1.93	0.50
26:1H:84:A:N1	26:1H:98:G:O2'	2.42	0.50
26:1H:582:G:H1	26:1H:1258:C:N4	2.10	0.50
26:1H:667:U:O2	54:Q8:2:PRO:HD2	2.12	0.50
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2125:G:H21	26:1H:2173:A:N6	2.09	0.50
26:1H:2259:G:C2	26:1H:2282:G:C6	3.00	0.50
26:1H:2547:U:H2'	26:1H:2548:G:C8	2.47	0.50
28:11:182:LEU:N	28:11:272:ALA:HB3	2.13	0.50
31:41:82:LEU:HA	31:41:86:MET:HE1	1.94	0.50
38:98:34:ILE:HG22	38:98:114:VAL:HB	1.92	0.50
40:B8:57:PHE:CE1	40:B8:79:HIS:HB2	2.47	0.50
43:E8:52:GLU:HA	43:E8:52:GLU:OE1	2.11	0.50
45:G8:94:LYS:HZ2	45:G8:95:LYS:N	2.06	0.50
46:H8:58:VAL:C	46:H8:60:GLU:N	2.62	0.50
1:1G:57:G:C6	1:1G:58:C:C4	2.99	0.50
1:1G:108:G:H5''	1:1G:108:G:N3	2.27	0.50
1:1G:559:A:H4'	1:1G:560:U:H5''	1.94	0.50
1:1G:781:A:H5'	1:1G:782:A:OP2	2.11	0.50
1:1G:1305:G:H8	1:1G:1305:G:OP2	1.95	0.50
1:1G:1496:C:H2'	1:1G:1497:G:C8	2.47	0.50
4:32:33:MET:C	4:32:35:ARG:HH12	2.15	0.50
19:AA:17:GLU:O	19:AA:21:GLU:HG2	2.12	0.50
26:14:548:A:C6	26:14:549:G:H1'	2.46	0.50
26:14:2320:A:H1'	26:14:2321:G:C6	2.47	0.50
26:14:2340:G:O2'	26:14:2341:G:H5'	2.12	0.50
26:14:2816:C:H2'	26:14:2817:G:H8	1.77	0.50
34:15:50:ASP:O	34:15:52:VAL:HG23	2.11	0.50
38:55:97:VAL:HA	38:55:113:LEU:O	2.12	0.50
39:65:87:PHE:CZ	39:65:102:ALA:HB2	2.47	0.50
41:85:100:VAL:HG12	41:85:101:ARG:HD3	1.94	0.50
52:J5:12:SER:O	52:J5:15:ARG:N	2.45	0.50
8:7E:116:LYS:HG3	8:7E:127:LEU:HD12	1.94	0.49
26:1H:125:G:H4'	26:1H:126:A:OP2	2.12	0.49
26:1H:207:A:H2'	26:1H:208:C:O4'	2.11	0.49
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.46	0.49
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.12	0.49
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.47	0.49
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.12	0.49
32:51:133:VAL:HG21	32:51:145:ALA:HB2	1.94	0.49
32:51:153:LYS:HB2	32:51:155:SER:H	1.77	0.49
26:14:990:A:H5'	26:14:990:A:H8	1.77	0.49
26:14:1342:A:H2	26:14:1602:U:H3	1.59	0.49
26:14:1354:A:C8	26:14:1355:G:C8	2.99	0.49
26:14:1870:C:H2'	26:14:1871:A:C8	2.45	0.49
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:97:ASP:O	31:49:101:ILE:HG23	2.11	0.49
35:25:68:GLU:H	35:25:68:GLU:CD	2.16	0.49
37:45:101:ARG:HG3	37:45:102:VAL:N	2.27	0.49
1:13:262:A:H2'	1:13:263:A:C8	2.47	0.49
1:13:1128:C:N4	1:13:1144:G:H1	2.11	0.49
1:13:1366:C:H2'	1:13:1367:C:C6	2.45	0.49
2:1E:220:ASP:O	2:1E:224:GLN:HB2	2.12	0.49
4:3E:64:LEU:HB2	4:3E:198:VAL:HG21	1.93	0.49
5:4E:67:VAL:HG22	5:4E:69:VAL:HG22	1.94	0.49
26:1H:107:C:H2'	26:1H:108:U:H6	1.77	0.49
26:1H:455:C:N3	26:1H:472:A:H2'	2.27	0.49
26:1H:551:G:H8	26:1H:551:G:O5'	1.95	0.49
26:1H:775:G:C5	26:1H:794:G:C8	3.00	0.49
26:1H:806:C:OP2	36:78:41:ARG:NH2	2.43	0.49
26:1H:990:A:H5'	26:1H:1157:G:OP1	2.11	0.49
26:1H:1614:A:OP2	58:1H:3676:HOH:O	2.20	0.49
26:1H:1743:G:C2	26:1H:1746:G:C8	3.00	0.49
26:1H:2172:U:H4'	26:1H:2173:A:OP1	2.11	0.49
30:31:116:ASP:OD2	36:78:1:MET:HB2	2.12	0.49
32:51:152:ARG:HD2	32:51:153:LYS:HG3	1.94	0.49
38:98:27:SER:HB3	38:98:34:ILE:HD11	1.95	0.49
42:D8:21:ARG:HG2	42:D8:91:TYR:CD1	2.47	0.49
1:1G:376:G:H1	1:1G:387:U:H3	1.60	0.49
1:1G:600:C:H2'	1:1G:601:C:C6	2.47	0.49
1:1G:801:U:H2'	1:1G:802:A:C8	2.47	0.49
2:12:19:HIS:CD2	2:12:204:ASN:HB3	2.47	0.49
2:12:116:GLU:OE2	2:12:156:LYS:NZ	2.45	0.49
4:32:31:CYS:H	4:32:35:ARG:CZ	2.25	0.49
17:8A:56:VAL:O	17:8A:77:VAL:HB	2.13	0.49
19:AA:3:ARG:HH21	19:AA:10:PHE:C	2.15	0.49
23:2L:12:G:H1'	26:14:1923:U:O2'	2.11	0.49
26:14:863:A:H2'	26:14:864:G:C8	2.47	0.49
26:14:1640:C:H2'	26:14:1641:A:C8	2.47	0.49
26:14:2512:C:H5''	26:14:2513:G:OP2	2.12	0.49
26:14:2629:A:H2'	26:14:2629:A:N3	2.27	0.49
28:19:68:LYS:HB3	28:19:70:TRP:CH2	2.47	0.49
30:39:49:ALA:O	30:39:92:PRO:HB2	2.12	0.49
31:49:63:ILE:HD12	31:49:141:PHE:CG	2.46	0.49
32:59:17:VAL:HG12	32:59:45:VAL:HB	1.94	0.49
38:55:77:ARG:O	38:55:80:PHE:N	2.38	0.49
1:13:221:C:H2'	1:13:222:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:224:C:H2'	1:13:225:C:C6	2.48	0.49
1:13:685:G:O2'	1:13:686:U:H5'	2.12	0.49
1:13:1149:C:H2'	1:13:1150:U:C6	2.45	0.49
7:6E:73:MET:HG3	7:6E:90:GLU:HA	1.94	0.49
9:8E:25:LYS:O	9:8E:61:ALA:N	2.46	0.49
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.94	0.49
13:4I:69:GLU:HG3	31:4I:118:ARG:NH2	2.27	0.49
26:1H:183:C:N4	26:1H:213:A:H61	2.10	0.49
26:1H:644:A:H4'	26:1H:645:C:H5	1.76	0.49
26:1H:676:A:H2	26:1H:802:A:H61	1.61	0.49
26:1H:2067:G:O2'	26:1H:2069:G:H5''	2.11	0.49
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.77	0.49
26:1H:2658:C:H5''	32:51:158:HIS:CD2	2.48	0.49
27:16:50:G:OP2	39:A8:62:LYS:HG3	2.12	0.49
27:16:116:G:H5'	39:A8:55:ALA:HB2	1.95	0.49
1:1G:123:C:H2'	1:1G:124:G:C8	2.48	0.49
1:1G:186(D):C:H2'	1:1G:186(E):C:H6	1.76	0.49
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.45	0.49
1:1G:865:A:O5'	1:1G:865:A:H8	1.94	0.49
1:1G:973:G:O4'	10:1A:55:LYS:HG3	2.13	0.49
1:1G:1070:U:H2'	1:1G:1071:C:H6	1.77	0.49
1:1G:1211:U:H1'	1:1G:1213:A:C2	2.47	0.49
1:1G:1243:C:O2	1:1G:1295:G:N2	2.45	0.49
1:1G:1385:G:C2	1:1G:1386:G:C8	3.00	0.49
7:62:26:PHE:O	7:62:30:ILE:HG13	2.12	0.49
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.94	0.49
26:14:2149:G:C2	26:14:2150:U:H1'	2.47	0.49
26:14:2441:C:OP2	26:14:2586:C:O2'	2.29	0.49
26:14:2711:A:H5''	58:14:3447:HOH:O	2.12	0.49
27:1J:7:G:H4'	39:65:29:PHE:CD2	2.47	0.49
37:45:43:THR:OG1	37:45:45:GLN:HG2	2.13	0.49
38:55:8:ARG:HH11	38:55:39:PRO:HB3	1.77	0.49
39:65:7:TYR:CE1	39:65:91:PRO:HG3	2.47	0.49
42:95:51:VAL:HG12	42:95:52:VAL:H	1.76	0.49
42:95:51:VAL:HG12	42:95:52:VAL:N	2.27	0.49
46:D5:45:ASP:OD1	46:D5:49:ARG:NE	2.46	0.49
47:E5:69:PHE:CE1	47:E5:79:VAL:HG22	2.48	0.49
1:13:46:G:H2'	1:13:366:C:C5	2.47	0.49
1:13:449:C:H5	16:7I:42:ARG:HH11	1.59	0.49
1:13:859:A:OP2	1:13:869:G:N2	2.44	0.49
1:13:1127:G:H2'	1:13:1128:C:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:16:ARG:HH22	3:2E:183:ASP:HA	1.77	0.49
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.93	0.49
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.93	0.49
20:BI:57:ARG:HH12	20:BI:100:ILE:HD13	1.76	0.49
24:3K:37:A:C2	25:4K:13:A:H2	2.30	0.49
24:3K:50:G:H1'	24:3K:64:C:H41	1.78	0.49
26:1H:38:A:H2'	26:1H:39:C:C6	2.47	0.49
26:1H:164:U:H4'	26:1H:164:U:OP1	2.11	0.49
26:1H:414:C:H2'	26:1H:415:A:C8	2.47	0.49
26:1H:1287:A:C8	38:98:107:ASP:HB2	2.46	0.49
26:1H:1580:A:H5'	26:1H:1581:G:OP2	2.13	0.49
33:61:6:LEU:HD13	33:61:36:ALA:HA	1.94	0.49
34:58:34:LEU:HD21	34:58:120:LEU:HB2	1.93	0.49
34:58:57:ALA:C	34:58:59:LYS:H	2.16	0.49
37:88:17:LEU:HD21	37:88:41:TRP:HE1	1.76	0.49
1:1G:49:U:C2	1:1G:361:G:N2	2.80	0.49
1:1G:56:U:H2'	1:1G:57:G:C8	2.47	0.49
1:1G:157:G:H2'	1:1G:158:G:C8	2.48	0.49
1:1G:157:G:H2'	1:1G:158:G:H8	1.78	0.49
1:1G:937:A:H1'	1:1G:1379:G:N2	2.28	0.49
1:1G:1328:C:O2'	13:4A:29:ARG:NH2	2.42	0.49
11:2A:125:PHE:C	11:2A:126:ARG:HG3	2.33	0.49
26:14:273(F):C:H3'	26:14:274:G:C5'	2.42	0.49
26:14:1153:C:OP1	41:85:93:LYS:NZ	2.46	0.49
26:14:1797:C:O2'	28:19:259:THR:OG1	2.15	0.49
26:14:1857:G:C6	26:14:1858:G:C6	2.99	0.49
26:14:2863:C:OP1	40:75:93:ARG:NH2	2.45	0.49
26:14:2873:A:H8	38:55:6:SER:N	2.08	0.49
37:45:26:TYR:HD1	37:45:27:VAL:H	1.58	0.49
42:95:62:LEU:H	42:95:62:LEU:HD13	1.76	0.49
44:B5:80:ILE:O	44:B5:80:ILE:HG13	2.12	0.49
1:13:321:A:N7	1:13:328:C:O2'	2.39	0.49
1:13:1306:A:N6	1:13:1331:G:H1'	2.28	0.49
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.45	0.49
4:3E:134:ASP:HB3	4:3E:135:LEU:HD13	1.95	0.49
22:1K:21:A:C6	22:1K:46:G:C6	3.00	0.49
23:2K:17:C:OP2	23:2K:18:U:O2'	2.23	0.49
26:1H:973:A:OP2	58:1H:3549:HOH:O	2.18	0.49
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.46	0.49
26:1H:1839:G:H5''	26:1H:1840:G:OP2	2.13	0.49
26:1H:2388:A:N7	26:1H:2389:G:C6	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:118:VAL:HG11	28:11:124:PRO:HD2	1.94	0.49
32:51:43:VAL:HB	32:51:52:VAL:HG22	1.94	0.49
34:58:95:PRO:C	34:58:96:GLU:O	2.51	0.49
34:58:95:PRO:O	34:58:96:GLU:O	2.30	0.49
36:78:122:PRO:HA	36:78:142:GLY:HA3	1.93	0.49
1:1G:191(E):G:H2'	1:1G:191(F):U:H6	1.75	0.49
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.76	0.49
1:1G:1269:A:C2	1:1G:1313:U:H1'	2.47	0.49
7:62:122:HIS:O	7:62:126:ASP:N	2.41	0.49
26:14:443:A:H1'	26:14:1201:C:O4'	2.12	0.49
26:14:969:U:OP1	50:H5:17:LYS:N	2.45	0.49
26:14:1186:G:H2'	26:14:1187:G:O4'	2.12	0.49
26:14:2414:G:H21	36:35:67:MET:HE3	1.78	0.49
30:39:41:LEU:O	30:39:44:ARG:HG2	2.12	0.49
33:69:79:ILE:O	33:69:143:SER:HA	2.13	0.49
1:13:143:A:OP1	1:13:144:G:H5'	2.11	0.49
1:13:455:C:H42	1:13:477:G:N2	2.09	0.49
1:13:1434:A:H2'	1:13:1435:G:O4'	2.12	0.49
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.11	0.49
8:7E:97:VAL:HG21	8:7E:128:GLY:HA2	1.94	0.49
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.76	0.49
26:1H:250:G:H2'	26:1H:251:A:C8	2.47	0.49
26:1H:307:G:H21	26:1H:330:A:H62	1.59	0.49
26:1H:725:G:C6	26:1H:726:G:N1	2.80	0.49
26:1H:973:A:O4'	26:1H:1188:U:C6	2.65	0.49
26:1H:2506:U:O2	26:1H:2506:U:H2'	2.12	0.49
27:16:27:C:O3'	39:A8:36:TYR:OH	2.30	0.49
30:31:101:LEU:HG	30:31:102:PRO:HD2	1.95	0.49
30:31:184:TYR:CE1	36:78:3:LEU:HD11	2.47	0.49
32:51:104:GLU:HB2	32:51:114:VAL:HG22	1.95	0.49
48:J8:77:ALA:HA	48:J8:79:GLY:N	2.28	0.49
1:1G:224:C:H2'	1:1G:225:C:C6	2.48	0.49
1:1G:532:A:H61	3:22:193:TYR:HB2	1.77	0.49
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.48	0.49
1:1G:1157:A:N7	1:1G:1181:G:H1'	2.26	0.49
1:1G:1240:U:C2	7:62:32:ARG:HG3	2.47	0.49
3:22:87:LEU:HB2	3:22:88:ARG:HH21	1.76	0.49
4:32:12:CYS:SG	4:32:19:LEU:N	2.71	0.49
4:32:24:GLU:OE2	4:32:24:GLU:N	2.43	0.49
13:4A:66:LEU:HD12	13:4A:67:GLU:H	1.77	0.49
14:5A:29:ARG:NE	14:5A:29:ARG:H	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:586:A:N1	26:14:809:G:O2'	2.33	0.49
26:14:999:U:H5''	26:14:1154:G:O6	2.12	0.49
26:14:1439:A:C2	26:14:1553:A:C4	3.01	0.49
26:14:1443:G:N7	58:14:3534:HOH:O	2.34	0.49
26:14:1827:C:C2'	26:14:1828:G:H5'	2.43	0.49
26:14:1967:C:H2'	26:14:1968:G:O4'	2.12	0.49
26:14:2134:A:H2	26:14:2135:A:N7	2.11	0.49
26:14:2232:U:P	48:F5:40:ARG:HH12	2.35	0.49
26:14:2520:C:H41	26:14:2542:A:H62	1.59	0.49
27:1J:31:C:H4'	31:49:29:TRP:CH2	2.47	0.49
33:69:133:HIS:ND1	33:69:134:PRO:HD3	2.28	0.49
36:35:120:ALA:HB1	36:35:138:LEU:HD22	1.95	0.49
44:B5:63:LYS:H	44:B5:63:LYS:CE	2.25	0.49
45:C5:13:VAL:HB	45:C5:72:VAL:HB	1.94	0.49
46:D5:126:VAL:HG12	46:D5:163:LEU:HA	1.95	0.49
48:F5:16:ASN:HA	48:F5:39:LYS:HA	1.95	0.49
54:M5:8:LYS:HB3	54:M5:12:LYS:HE3	1.94	0.49
1:13:186:C:H2'	1:13:186(A):C:H6	1.78	0.49
1:13:468:A:H3'	1:13:474:G:C8	2.48	0.49
1:13:580:U:H2'	1:13:581:G:O4'	2.13	0.49
1:13:772:U:C4	1:13:773:G:N7	2.81	0.49
1:13:815:A:OP2	1:13:816:A:H5''	2.13	0.49
1:13:1239:A:H62	1:13:1299:A:H62	1.59	0.49
2:1E:12:GLU:HA	2:1E:16:HIS:HB2	1.93	0.49
2:1E:19:HIS:NE2	2:1E:206:ASP:HB2	2.28	0.49
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.47	0.49
3:2E:20:SER:HB2	14:5I:54:PRO:HG3	1.94	0.49
3:2E:134:ILE:HD11	3:2E:153:VAL:HG23	1.95	0.49
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.12	0.49
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.95	0.49
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.47	0.49
26:1H:363:G:N2	26:1H:363(A):A:C4	2.81	0.49
26:1H:475:U:C4	26:1H:481:G:O6	2.66	0.49
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.13	0.49
26:1H:1606:G:H5''	26:1H:1607:C:OP1	2.12	0.49
26:1H:2115:G:C8	26:1H:2116:G:H8	2.31	0.49
26:1H:2205:C:H2'	26:1H:2206:C:C6	2.48	0.49
29:21:174:ASP:HB3	29:21:183:LEU:HD13	1.94	0.49
31:41:47:LYS:HE3	31:41:81:LYS:HG3	1.94	0.49
36:78:39:LYS:HD2	36:78:45:LEU:HD21	1.94	0.49
38:98:55:ALA:HB2	38:98:79:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.28	0.49
41:C8:26:GLY:O	41:C8:30:LYS:HE2	2.12	0.49
54:Q8:28:GLY:HA3	54:Q8:44:LYS:HD3	1.95	0.49
54:Q8:29:LYS:HG3	54:Q8:44:LYS:HG2	1.95	0.49
1:1G:1504:G:H4'	1:1G:1505:G:O4'	2.13	0.49
7:62:50:ILE:O	7:62:54:THR:HG23	2.12	0.49
26:14:299:A:N3	26:14:319:C:O2'	2.40	0.49
26:14:684:G:O2'	26:14:788:A:N7	2.42	0.49
26:14:833:U:H1'	36:35:55:ARG:NH1	2.27	0.49
26:14:1274:A:N3	26:14:1297:C:H1'	2.28	0.49
26:14:1291:C:H2'	26:14:1292:U:C6	2.48	0.49
26:14:1961:C:O2'	26:14:1962:C:H5'	2.12	0.49
28:19:228:PRO:O	58:19:302:HOH:O	2.20	0.49
30:39:63:LYS:NZ	30:39:75:HIS:O	2.34	0.49
30:39:125:LEU:HD22	30:39:199:TRP:CD1	2.47	0.49
36:35:79:ARG:HG2	36:35:110:TYR:CB	2.42	0.49
53:L5:5:TRP:NE1	53:L5:7:PRO:HG3	2.27	0.49
53:L5:18:PHE:CE1	53:L5:22:MET:HG3	2.47	0.49
1:13:148:G:H2'	1:13:149:A:H8	1.78	0.49
1:13:288:A:H2'	1:13:289:G:H4'	1.95	0.49
1:13:1081:G:H2'	1:13:1082:G:C8	2.47	0.49
1:13:1125:U:H2'	1:13:1125:U:OP2	2.13	0.49
1:13:1271:G:C2'	1:13:1272:G:H5''	2.41	0.49
15:6I:17:ARG:HH11	15:6I:77:ARG:HH22	1.61	0.49
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.11	0.49
20:BI:50:GLU:HB2	20:BI:99:LEU:HB3	1.95	0.49
26:1H:873:G:C2	26:1H:905:U:O2	2.65	0.49
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.56	0.49
26:1H:1434:A:H61	26:1H:1558:A:H62	1.61	0.49
26:1H:1826:G:H2'	26:1H:1827:C:O4'	2.12	0.49
26:1H:1993:U:H4'	29:21:128:SER:HB3	1.95	0.49
28:11:244:ARG:HB2	28:11:245:PRO:HD2	1.95	0.49
31:41:122:PRO:HB3	31:41:180:PHE:CD1	2.45	0.49
40:B8:7:ILE:O	40:B8:11:GLU:HB2	2.12	0.49
40:B8:29:ARG:HG3	40:B8:46:GLU:HB2	1.95	0.49
43:E8:35:ILE:HG23	52:N8:28:PRO:HD2	1.94	0.49
43:E8:62:HIS:HB2	43:E8:64:MET:HG3	1.94	0.49
1:1G:224:C:H2'	1:1G:225:C:H6	1.76	0.49
1:1G:271:C:H2'	1:1G:272:C:H6	1.78	0.49
1:1G:652:U:H1'	1:1G:653:A:H2	1.77	0.49
1:1G:690:G:H2'	1:1G:691:G:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:922:G:H4'	5:42:20:GLN:HA	1.95	0.49
1:1G:1240:U:N3	7:62:32:ARG:HG3	2.28	0.49
2:12:19:HIS:CE1	2:12:206:ASP:HB2	2.48	0.49
12:3A:55:VAL:HG12	12:3A:69:TYR:HA	1.95	0.49
15:6A:82:ILE:O	15:6A:86:GLY:N	2.43	0.49
26:14:397:G:O2'	26:14:2231:C:H1'	2.13	0.49
26:14:587:C:OP2	36:35:21:ARG:NH2	2.46	0.49
26:14:1033:U:H3'	26:14:1033:U:H6	1.78	0.49
26:14:1434:A:H61	26:14:1558:A:H62	1.60	0.49
26:14:1848:A:H2'	26:14:1849:G:O4'	2.12	0.49
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.41	0.49
29:29:112:GLY:O	29:29:159:HIS:HA	2.12	0.49
31:49:56:ALA:HB2	31:49:153:ARG:NE	2.27	0.49
33:69:102:SER:HA	33:69:107:VAL:O	2.12	0.49
1:13:131:C:O2	1:13:131:C:H2'	2.13	0.49
1:13:585:G:H8	1:13:585:G:O5'	1.96	0.49
2:1E:209:ARG:HD2	2:1E:239:VAL:HG22	1.95	0.49
2:1E:209:ARG:HH11	2:1E:239:VAL:HG13	1.76	0.49
5:4E:33:VAL:HG11	5:4E:108:ALA:O	2.13	0.49
5:4E:82:VAL:HG21	5:4E:138:ALA:HA	1.95	0.49
8:7E:21:LYS:O	8:7E:63:LEU:HD23	2.12	0.49
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.78	0.49
19:AI:41:VAL:HG23	19:AI:42:PRO:HA	1.95	0.49
26:1H:524:U:H2'	26:1H:525:U:C6	2.48	0.49
26:1H:573:G:O2'	26:1H:574:C:H3'	2.13	0.49
26:1H:652:C:N4	26:1H:653:A:N1	2.61	0.49
26:1H:1262:A:H2	52:N8:10:LYS:HD2	1.78	0.49
26:1H:1441:G:N2	26:1H:1442:G:C4	2.81	0.49
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.12	0.49
26:1H:1534:G:H2'	26:1H:1535:U:H6	1.78	0.49
26:1H:1838:C:C2	26:1H:1898:U:C4	3.00	0.49
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.48	0.49
43:E8:70:TYR:HD1	43:E8:70:TYR:H	1.61	0.49
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.42	0.49
1:1G:693:G:H2'	1:1G:694:A:C8	2.48	0.49
2:12:80:ILE:HG21	2:12:211:ILE:HG21	1.94	0.49
3:22:54:ARG:O	3:22:68:VAL:HA	2.13	0.49
3:22:156:ARG:HB2	3:22:193:TYR:HE2	1.78	0.49
4:32:127:THR:HG23	4:32:147:ALA:HB3	1.94	0.49
4:32:152:SER:HA	4:32:155:LEU:HD12	1.94	0.49
7:62:15:ASP:OD1	7:62:16:LEU:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:26:G:H1'	26:14:515:A:H61	1.78	0.49
26:14:1140:C:OP2	34:15:66:LYS:NZ	2.35	0.49
26:14:1638:C:H4'	26:14:2710:C:O2	2.13	0.49
26:14:1680:U:H2'	26:14:1681:G:O4'	2.13	0.49
26:14:2439:A:H5''	26:14:2439:A:H8	1.77	0.49
26:14:2695:C:H2'	26:14:2696:U:C6	2.48	0.49
26:14:2869:G:H2'	26:14:2870:C:O4'	2.13	0.49
27:1J:56:G:H5'	31:49:27:ASN:ND2	2.27	0.49
34:15:128:HIS:H	34:15:128:HIS:CD2	2.30	0.49
36:35:23:PRO:HB3	42:95:80:GLN:HB3	1.94	0.49
36:35:110:TYR:N	36:35:110:TYR:HD1	2.11	0.49
38:55:10:LEU:O	38:55:12:ARG:HG3	2.13	0.49
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.94	0.49
41:85:92:ARG:HG3	41:85:94:ASN:HB3	1.95	0.49
46:D5:59:LEU:O	46:D5:61:LEU:N	2.43	0.49
47:E5:40:GLN:HG3	47:E5:42:GLY:O	2.13	0.49
48:F5:4:VAL:HG11	48:F5:11:ARG:NH1	2.28	0.49
1:13:191:G:O2'	20:BI:102:GLY:O	2.27	0.49
1:13:338:A:H2	1:13:351:G:H22	1.61	0.49
1:13:588:G:OP2	58:13:1838:HOH:O	2.19	0.49
1:13:830:G:H2'	1:13:831:U:O4'	2.13	0.49
3:2E:47:LEU:HB3	3:2E:52:LEU:HD13	1.95	0.49
3:2E:73:PRO:HA	3:2E:76:VAL:HG22	1.95	0.49
7:6E:5:ARG:HG3	7:6E:7:ALA:H	1.77	0.49
9:8E:91:ASP:N	9:8E:91:ASP:OD1	2.45	0.49
19:AI:41:VAL:HA	19:AI:44:MET:HG3	1.95	0.49
22:1K:65:C:H2'	22:1K:66:U:H5''	1.94	0.49
26:1H:295:G:C5	26:1H:344:G:C2	3.00	0.49
26:1H:705:A:C8	26:1H:727:A:C2	3.00	0.49
26:1H:782:A:H5'	26:1H:783:A:C2	2.48	0.49
26:1H:1690:A:C8	26:1H:1691:C:C6	3.00	0.49
26:1H:1843:C:H2'	26:1H:1844:C:C6	2.48	0.49
28:11:63:ARG:HG2	28:11:92:ILE:HD13	1.95	0.49
33:61:112:LYS:HB2	33:61:113:ARG:HG3	1.95	0.49
37:88:2:LEU:HB3	37:88:69:PHE:CE1	2.48	0.49
38:98:32:GLY:HA2	38:98:116:LEU:CD1	2.43	0.49
42:D8:37:VAL:HG23	42:D8:51:VAL:HG21	1.94	0.49
1:1G:376:G:N2	1:1G:387:U:O2	2.34	0.49
1:1G:561:U:HO2'	1:1G:562:C:P	2.36	0.49
1:1G:1306:A:C2	1:1G:1307:U:H1'	2.48	0.49
3:22:40:ARG:HG2	3:22:55:VAL:HG11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:181:ASN:HB2	3:22:206:GLU:N	2.21	0.49
12:3A:117:ARG:NH2	12:3A:124:LYS:HB2	2.28	0.49
13:4A:96:LEU:CD2	13:4A:97:PRO:HD2	2.43	0.49
26:14:161:U:H5''	26:14:171:G:N2	2.27	0.49
26:14:631:A:O2'	36:35:67:MET:HB3	2.12	0.49
26:14:807:U:H2'	26:14:808:G:H8	1.77	0.49
26:14:1155:A:O2'	26:14:1156:A:H2'	2.12	0.49
26:14:1344:G:H4'	26:14:1384:A:N7	2.28	0.49
26:14:1685:C:O2	26:14:1704:G:N2	2.46	0.49
26:14:2053:G:H1	26:14:2616:C:H42	1.60	0.49
26:14:2578:G:N7	29:29:140:SER:HB2	2.28	0.49
27:1J:11:C:O5'	27:1J:12:C:H5	1.96	0.49
31:49:136:ARG:HD3	31:49:137:GLU:N	2.24	0.49
38:55:33:ARG:HD2	38:55:113:LEU:HG	1.94	0.49
1:13:295:C:H2'	1:13:296:U:O4'	2.13	0.48
3:2E:11:ARG:HB3	3:2E:14:ILE:HG23	1.95	0.48
10:1I:63:PHE:CE1	14:5I:58:LYS:HG2	2.47	0.48
11:2I:122:LYS:HE2	11:2I:122:LYS:HB3	1.57	0.48
12:3I:103:GLY:N	12:3I:107:ALA:O	2.46	0.48
19:AI:80:TYR:HD1	19:AI:82:GLY:N	2.11	0.48
26:1H:140:A:C8	26:1H:1408:C:O2'	2.66	0.48
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.13	0.48
26:1H:785:G:H2'	26:1H:786:C:H6	1.78	0.48
26:1H:822:U:O2	26:1H:823:G:C8	2.66	0.48
26:1H:1449:A:H5''	26:1H:1449:A:H8	1.77	0.48
26:1H:1553:A:HO2'	26:1H:1554:A:H8	1.61	0.48
26:1H:1764:G:H2'	26:1H:1765:C:H6	1.77	0.48
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.48	0.48
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.47	0.48
26:1H:2228:G:OP2	28:11:263:ARG:NH2	2.44	0.48
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.13	0.48
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.94	0.48
26:1H:2886:G:N2	26:1H:2887:U:C2	2.81	0.48
34:58:12:ARG:HG2	34:58:13:TRP:N	2.27	0.48
34:58:75:TYR:HA	34:58:81:GLY:O	2.13	0.48
40:B8:56:GLY:O	40:B8:59:THR:HG22	2.13	0.48
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.46	0.48
50:L8:7:LYS:HD2	50:L8:34:GLU:CD	2.33	0.48
1:1G:81:G:HO2'	1:1G:82:U:P	2.35	0.48
1:1G:255:G:H2'	1:1G:256:U:C6	2.48	0.48
1:1G:376:G:H5''	16:7A:5:ARG:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:958:A:H5''	1:1G:959:A:OP2	2.12	0.48
1:1G:1245:A:H2'	1:1G:1246:C:O4'	2.12	0.48
2:12:84:GLU:OE2	2:12:212:GLN:HG3	2.13	0.48
7:62:22:LEU:HD23	7:62:63:LYS:HE2	1.95	0.48
20:BA:41:ILE:HG12	20:BA:87:LYS:HG2	1.96	0.48
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.94	0.48
26:14:374:A:C2	26:14:401:A:C4	3.01	0.48
26:14:455:C:N3	26:14:473:G:H5'	2.28	0.48
26:14:2290:G:C2	26:14:2343:C:O2	2.66	0.48
26:14:2346:A:H5''	26:14:2383:G:H1'	1.95	0.48
26:14:2593:U:H2'	26:14:2594:C:C6	2.48	0.48
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.48	0.48
28:19:264:LYS:HG2	28:19:265:PRO:HD2	1.94	0.48
33:69:93:THR:HG23	33:69:119:PRO:HG3	1.94	0.48
35:25:15:GLY:O	35:25:47:ILE:HG12	2.13	0.48
36:35:28:GLY:O	36:35:31:ALA:N	2.39	0.48
1:13:95:G:H3'	1:13:96:G:C8	2.47	0.48
1:13:909:A:H2'	1:13:910:C:O4'	2.13	0.48
1:13:1011:G:H2'	1:13:1012:U:O4'	2.13	0.48
1:13:1349:A:OP2	9:8E:118:LYS:NZ	2.46	0.48
1:13:1404:C:H6	1:13:1404:C:O5'	1.97	0.48
1:13:1409:C:H2'	1:13:1410:G:H8	1.77	0.48
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.48	0.48
19:AI:27:GLU:N	19:AI:27:GLU:OE1	2.45	0.48
24:3K:49:G:H1'	24:3K:66:U:C2	2.48	0.48
26:1H:139:G:N3	26:1H:141:A:N1	2.61	0.48
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.13	0.48
26:1H:879:G:N3	26:1H:879:G:H2'	2.29	0.48
26:1H:931:G:C5	26:1H:933:A:N7	2.82	0.48
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.13	0.48
26:1H:2830:G:H5''	26:1H:2830:G:H8	1.78	0.48
36:78:94:GLU:HG3	36:78:124:LYS:HD3	1.95	0.48
1:1G:868:C:H2'	1:1G:869:G:O4'	2.13	0.48
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.78	0.48
2:12:22:LYS:HB3	2:12:40:HIS:HE1	1.78	0.48
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.95	0.48
5:42:41:VAL:O	5:42:67:VAL:N	2.47	0.48
7:62:12:LEU:HD21	7:62:25:ALA:HB2	1.95	0.48
10:1A:82:ILE:O	10:1A:86:MET:HB2	2.13	0.48
14:5A:24:CYS:SG	14:5A:25:VAL:N	2.86	0.48
16:7A:29:ASP:OD1	16:7A:29:ASP:N	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:918:A:O2'	27:1J:96:G:N2	2.46	0.48
26:14:987:G:OP2	58:14:3482:HOH:O	2.20	0.48
26:14:1794:U:H2'	26:14:1795:C:C6	2.49	0.48
26:14:2052:G:C8	29:29:141:ILE:HD11	2.48	0.48
26:14:2062:A:O2'	26:14:2063:C:P	2.70	0.48
28:19:30:GLU:HB2	28:19:35:LYS:NZ	2.28	0.48
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.49	0.48
41:85:92:ARG:NH2	42:95:10:LYS:HA	2.28	0.48
45:C5:36:ALA:O	45:C5:37:VAL:HG13	2.14	0.48
1:13:284:G:H2'	1:13:285:G:H8	1.77	0.48
1:13:1424:C:N4	1:13:1476:G:H1	2.10	0.48
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.95	0.48
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.78	0.48
26:1H:97:C:H5''	49:K8:2:LYS:HB2	1.95	0.48
26:1H:185:U:C2	26:1H:186:G:C8	3.01	0.48
26:1H:529:A:H8	26:1H:530:G:C6	2.31	0.48
26:1H:844:C:H2'	26:1H:845:G:O4'	2.12	0.48
27:16:1(M):A:H8	27:16:0:A:C8	2.31	0.48
31:41:53:LEU:HD12	31:41:53:LEU:HA	1.63	0.48
43:E8:23:LEU:HD22	52:N8:25:LEU:HD13	1.96	0.48
46:H8:98:MET:O	46:H8:125:LEU:HA	2.13	0.48
47:I8:72:ARG:HH11	47:I8:75:LEU:HD12	1.78	0.48
49:K8:38:GLN:O	49:K8:44:LEU:HB2	2.13	0.48
1:1G:286:G:H2'	1:1G:287:U:C6	2.49	0.48
1:1G:428:G:C8	1:1G:430:A:C5	3.01	0.48
1:1G:502:G:H2'	1:1G:503:C:O4'	2.13	0.48
1:1G:652:U:O2'	1:1G:653:A:N3	2.43	0.48
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.12	0.48
1:1G:1128:C:H1'	1:1G:1147:C:H42	1.78	0.48
5:42:81:GLU:HA	5:42:89:ILE:O	2.12	0.48
13:4A:82:MET:N	13:4A:82:MET:SD	2.86	0.48
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.47	0.48
26:14:38:A:H2'	26:14:39:C:C6	2.47	0.48
26:14:522:G:H2'	26:14:523:C:H6	1.77	0.48
26:14:900:A:H3'	26:14:901:A:C8	2.46	0.48
26:14:971:C:H2'	26:14:972:G:O4'	2.14	0.48
26:14:1338:G:N3	26:14:1393:A:H2	2.10	0.48
26:14:1366:A:H2'	26:14:1367:A:O4'	2.13	0.48
26:14:2527:C:H2'	26:14:2528:U:O4'	2.12	0.48
31:49:124:SER:HB2	31:49:131:TYR:CE2	2.47	0.48
42:95:79:VAL:O	42:95:81:TYR:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:44:PHE:HE2	46:D5:88:PHE:HZ	1.61	0.48
46:D5:48:PHE:HA	46:D5:51:ALA:HB3	1.96	0.48
47:E5:21:LEU:HD21	47:E5:41:ARG:NH2	2.29	0.48
52:J5:16:ARG:NH1	52:J5:16:ARG:HG2	2.29	0.48
1:13:292:G:C2	1:13:309:G:C2	3.02	0.48
1:13:1017:G:H2'	1:13:1018:C:O4'	2.13	0.48
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.46	0.48
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.78	0.48
7:6E:47:CYS:HA	7:6E:50:ILE:HB	1.95	0.48
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.76	0.48
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.45	0.48
26:1H:1533:C:C6	26:1H:1534:G:H5''	2.48	0.48
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.78	0.48
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.94	0.48
27:16:9:G:C6	27:16:10:C:C4	3.01	0.48
30:31:39:TRP:CZ3	30:31:106:ARG:HD2	2.49	0.48
33:61:10:GLU:O	33:61:11:ASN:HB2	2.13	0.48
34:58:39:ARG:NH1	34:58:48:MET:HE2	2.28	0.48
36:78:71:VAL:CG1	36:78:72:PRO:HD3	2.43	0.48
39:A8:14:VAL:HG11	39:A8:89:ARG:HH21	1.78	0.48
1:1G:161:A:C6	1:1G:162:A:C6	3.02	0.48
1:1G:1019:C:H2'	1:1G:1020:U:C5	2.49	0.48
1:1G:1056:U:O5'	3:22:163:ALA:HB2	2.14	0.48
2:12:61:LEU:HD13	2:12:90:MET:SD	2.53	0.48
2:12:127:ILE:HG12	2:12:130:ARG:NH2	2.29	0.48
3:22:91:LEU:HD21	3:22:101:LEU:HD11	1.95	0.48
5:42:145:LYS:O	5:42:149:GLU:HB2	2.13	0.48
8:72:83:ILE:HB	8:72:137:VAL:HG13	1.96	0.48
9:82:70:LYS:O	9:82:74:ILE:HG13	2.14	0.48
16:7A:21:VAL:HG21	16:7A:59:TRP:CD2	2.49	0.48
26:14:226:G:H21	26:14:228:A:H62	1.62	0.48
26:14:674:G:H1'	30:39:74:ARG:HE	1.79	0.48
26:14:868:U:C2	26:14:869:G:C8	3.01	0.48
26:14:948:G:N2	26:14:970:C:O2	2.46	0.48
26:14:2109:U:H3	26:14:2180:U:H3	1.62	0.48
26:14:2142:C:H2'	26:14:2143:C:C6	2.48	0.48
26:14:2150:U:H2'	26:14:2151:G:H8	1.77	0.48
26:14:2557:G:H2'	26:14:2558:C:H6	1.76	0.48
26:14:2564:A:H5''	26:14:2565:A:OP2	2.13	0.48
26:14:2577:A:O4'	52:J5:3:LYS:HB2	2.13	0.48
31:49:166:ASP:O	31:49:170:ARG:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:62:VAL:HG22	34:15:66:LYS:HE3	1.96	0.48
46:D5:105:VAL:HG13	46:D5:106:GLY:H	1.78	0.48
1:13:666:G:OP2	1:13:725:G:N2	2.34	0.48
7:6E:80:VAL:HG22	7:6E:85:TYR:CE1	2.47	0.48
8:7E:114:THR:HG22	8:7E:131:GLY:HA3	1.94	0.48
10:1I:53:PRO:O	14:5I:41:ARG:NH2	2.46	0.48
11:2I:19:ALA:HB3	11:2I:82:VAL:HG22	1.95	0.48
12:3I:47:LYS:HE3	25:4K:21:C:OP1	2.14	0.48
15:6I:26:GLU:OE2	15:6I:77:ARG:HG2	2.13	0.48
16:7I:57:ARG:HH21	16:7I:79:VAL:HA	1.77	0.48
26:1H:270(K):C:C2'	26:1H:270(N):G:H22	2.27	0.48
26:1H:318:C:H2'	26:1H:319:C:H6	1.79	0.48
26:1H:972:G:H3'	26:1H:973:A:H2'	1.95	0.48
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.36	0.48
26:1H:1471:A:C2	26:1H:1472:A:C4	3.02	0.48
26:1H:1528:A:H2	26:1H:1542:G:C2	2.31	0.48
26:1H:2391:G:O6	26:1H:2425:A:H8	1.95	0.48
30:31:188:ARG:HG3	30:31:188:ARG:H	1.44	0.48
37:88:59:ARG:HD3	37:88:113:GLN:HE22	1.79	0.48
38:98:78:LYS:HE2	38:98:83:ILE:HD11	1.95	0.48
46:H8:2:GLU:OE2	46:H8:4:ARG:NH2	2.34	0.48
48:J8:18:ILE:HG23	48:J8:34:THR:HG23	1.95	0.48
1:1G:160:A:H2'	1:1G:161:A:O4'	2.13	0.48
1:1G:583:A:H2'	1:1G:584:G:O4'	2.14	0.48
1:1G:1320:C:C4	1:1G:1321:C:C4	3.01	0.48
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.95	0.48
5:42:51:VAL:O	5:42:55:VAL:HG23	2.14	0.48
10:1A:84:GLN:O	10:1A:88:LEU:HB2	2.12	0.48
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.28	0.48
23:2L:8:U:H5'	23:2L:9:G:OP2	2.12	0.48
23:2L:71:G:H2'	23:2L:72:C:O4'	2.13	0.48
26:14:68:G:H2'	26:14:69:C:H6	1.78	0.48
26:14:323:G:H2'	30:39:169:ASN:ND2	2.29	0.48
26:14:537:C:H5'	26:14:539:G:OP2	2.14	0.48
26:14:635:C:O2'	26:14:639:U:OP1	2.24	0.48
26:14:2334:G:O6	47:E5:74:ARG:NH1	2.43	0.48
26:14:2495:G:OP1	37:45:82:ARG:HD2	2.13	0.48
26:14:2729:G:H1'	29:29:187:ALA:HB3	1.95	0.48
26:14:2865:U:C4	26:14:2866:U:C4	3.01	0.48
28:19:35:LYS:HA	28:19:64:ILE:HG22	1.96	0.48
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:95:PRO:O	34:15:98:VAL:HG22	2.13	0.48
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.49	0.48
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.95	0.48
46:D5:63:ASP:OD1	46:D5:65:GLN:HG3	2.13	0.48
48:F5:88:LYS:HA	48:F5:90:ILE:HG22	1.95	0.48
1:13:145:G:H2'	1:13:146:G:C8	2.48	0.48
1:13:983:A:H1'	1:13:1049:U:O2	2.13	0.48
1:13:1046:A:H61	1:13:1213:A:H61	1.60	0.48
1:13:1286:A:C8	1:13:1287:A:H4'	2.48	0.48
6:5E:100:ASN:ND2	18:9I:27:GLY:O	2.46	0.48
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.29	0.48
10:1I:44:VAL:HG21	10:1I:66:ARG:HH21	1.78	0.48
15:6I:67:LEU:HD23	15:6I:78:TYR:HE1	1.76	0.48
20:BI:57:ARG:HH22	20:BI:100:ILE:HD13	1.78	0.48
26:1H:57:C:H2'	26:1H:58:G:O4'	2.13	0.48
26:1H:275:G:N2	26:1H:278:A:H61	2.10	0.48
26:1H:455:C:HO2'	26:1H:472:A:H2	1.60	0.48
26:1H:671:C:OP1	36:78:42:SER:O	2.31	0.48
26:1H:1264:G:H5'	52:N8:11:THR:HG21	1.96	0.48
26:1H:1762:A:OP1	26:1H:1762:A:H4'	2.13	0.48
26:1H:2397:G:H5''	48:J8:28:GLY:HA2	1.96	0.48
26:1H:2646:C:O5'	26:1H:2646:C:H6	1.96	0.48
27:16:6:C:C2	27:16:115:G:N2	2.82	0.48
30:31:110:LEU:HG	30:31:202:PHE:HE1	1.79	0.48
31:41:33:ARG:O	31:41:162:THR:HG23	2.13	0.48
41:C8:88:ILE:C	41:C8:90:VAL:H	2.16	0.48
1:1G:200:G:H2'	1:1G:201:C:C6	2.48	0.48
1:1G:737:A:H2'	1:1G:738:C:C6	2.49	0.48
1:1G:983:A:H2	1:1G:984:C:C6	2.32	0.48
1:1G:1093:A:HO2'	1:1G:1094:G:H5'	1.78	0.48
1:1G:1306:A:C6	1:1G:1307:U:C2	3.01	0.48
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.96	0.48
4:32:172:PRO:HB2	4:32:187:ARG:NH1	2.29	0.48
5:42:42:GLY:HA2	5:42:136:MET:HE1	1.94	0.48
8:72:68:ARG:HD3	8:72:69:ARG:O	2.13	0.48
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.94	0.48
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.95	0.48
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.13	0.48
26:14:286:C:H2'	26:14:287:C:C6	2.48	0.48
26:14:929:G:H8	26:14:929:G:O5'	1.96	0.48
26:14:1042:G:H2'	26:14:1043:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1420:U:HO2'	26:14:1421:G:P	2.36	0.48
26:14:1684:C:C2	26:14:1705:G:N2	2.81	0.48
26:14:2037:G:H2'	26:14:2038:G:H8	1.78	0.48
26:14:2647:U:H2'	26:14:2648:C:C6	2.48	0.48
26:14:2674:G:H4'	35:25:30:ALA:HB2	1.95	0.48
26:14:2762:G:H5'	26:14:2763:G:OP2	2.14	0.48
1:13:166:G:H2'	1:13:167:G:H8	1.78	0.48
1:13:300:A:C5	1:13:301:G:H1'	2.48	0.48
1:13:346:G:H21	1:13:347:G:H1'	1.77	0.48
1:13:730:G:C5	1:13:731:G:H1'	2.49	0.48
1:13:973:G:C4	10:11:55:LYS:HE2	2.49	0.48
1:13:1182:G:H4'	1:13:1183:A:H5''	1.95	0.48
10:11:50:ILE:CG1	10:11:60:ARG:HH21	2.26	0.48
24:3K:71:G:C2	24:3K:72:C:H1'	2.49	0.48
26:1H:306:U:H2'	26:1H:307:G:O4'	2.14	0.48
26:1H:751:A:C6	26:1H:789:A:C5	3.01	0.48
26:1H:1170:G:N2	26:1H:1180:C:C2	2.82	0.48
26:1H:1185:C:P	58:1H:3693:HOH:O	2.71	0.48
26:1H:1216:G:O6	58:1H:3677:HOH:O	2.20	0.48
26:1H:1467:C:OP2	26:1H:1547:C:H5	1.97	0.48
26:1H:1710:C:N4	26:1H:1748:G:H1	2.08	0.48
26:1H:2313:C:H5''	31:41:91:ARG:HD3	1.96	0.48
26:1H:2544:G:H8	26:1H:2544:G:O5'	1.96	0.48
29:21:128:SER:OG	29:21:129:HIS:N	2.47	0.48
32:51:155:SER:HB3	32:51:160:LYS:O	2.13	0.48
45:G8:39:VAL:O	45:G8:42:VAL:HG22	2.13	0.48
1:1G:66:G:C2	1:1G:67:C:C6	3.02	0.48
1:1G:1378:C:H5	1:1G:1379:G:C4	2.31	0.48
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.13	0.48
13:4A:40:ASN:ND2	13:4A:43:THR:H	2.12	0.48
13:4A:52:GLU:HA	13:4A:55:ARG:HB2	1.94	0.48
26:14:270(P):C:O5'	26:14:270(P):C:H6	1.97	0.48
26:14:755:C:H2'	26:14:756:C:H6	1.79	0.48
26:14:805:G:O4'	36:35:38:GLN:NE2	2.47	0.48
26:14:987:G:O2'	26:14:1000:A:N3	2.41	0.48
26:14:2580:U:H5''	29:29:130:GLY:O	2.13	0.48
28:19:236:GLY:O	28:19:237:GLU:C	2.51	0.48
35:25:19:ILE:HG22	35:25:43:VAL:HA	1.96	0.48
35:25:103:ALA:HB1	35:25:105:GLU:OE1	2.14	0.48
37:45:36:ALA:HB2	37:45:103:MET:SD	2.53	0.48
39:65:38:GLN:HB2	39:65:40:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:85:95:LEU:HD13	42:95:4:ILE:HG23	1.96	0.48
53:L5:8:ASN:OD1	53:L5:9:ARG:N	2.47	0.48
53:L5:12:ARG:NH2	53:L5:44:PRO:HB3	2.28	0.48
1:13:191(A):G:H5'	1:13:191(A):G:H8	1.78	0.48
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.96	0.48
1:13:413:G:O2'	1:13:428:G:N2	2.46	0.48
1:13:1274:G:H2'	1:13:1275:A:C8	2.49	0.48
1:13:1375:A:P	7:6E:28:ASN:HD22	2.37	0.48
15:6I:26:GLU:H	15:6I:26:GLU:HG2	1.47	0.48
26:1H:638:G:C5	26:1H:651:G:C2	3.01	0.48
26:1H:639:U:H2'	26:1H:640:C:C6	2.49	0.48
26:1H:825:C:H4'	26:1H:2428:G:C5	2.49	0.48
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.13	0.48
26:1H:1368:G:C2	26:1H:1369:G:C8	3.02	0.48
26:1H:2655:G:N2	26:1H:2665:A:OP2	2.45	0.48
39:A8:10:ARG:O	39:A8:14:VAL:HG13	2.14	0.48
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.95	0.48
1:1G:409:G:N2	1:1G:434:U:C2	2.81	0.48
1:1G:778:G:H8	1:1G:778:G:O5'	1.96	0.48
2:12:40:HIS:NE2	2:12:190:THR:HG21	2.29	0.48
3:22:62:ASP:H	3:22:97:LYS:HZ1	1.62	0.48
3:22:106:VAL:HB	3:22:109:PRO:HB3	1.95	0.48
4:32:64:LEU:HD22	4:32:198:VAL:HG21	1.94	0.48
11:2A:14:VAL:HG11	11:2A:35:PRO:HD3	1.96	0.48
26:14:125:G:H4'	26:14:126:A:OP2	2.13	0.48
26:14:916:G:C2'	26:14:917:A:H5''	2.44	0.48
26:14:2295:C:N3	26:14:2296:U:H5	2.12	0.48
26:14:2761:G:H1'	32:59:143:GLN:OE1	2.14	0.48
27:1J:2:C:H2'	27:1J:3:C:C6	2.49	0.48
27:1J:15:A:H1'	27:1J:109:G:C4	2.49	0.48
28:19:182:LEU:O	28:19:271:ILE:HG13	2.13	0.48
31:49:116:ASP:O	31:49:118:ARG:NH1	2.46	0.48
33:69:14:ASP:OD1	33:69:15:VAL:N	2.47	0.48
47:E5:53:MET:HA	47:E5:58:THR:O	2.14	0.48
1:13:455:C:H42	1:13:477:G:H22	1.60	0.48
1:13:575:G:H4'	1:13:576:G:C5'	2.44	0.48
1:13:591:U:H2'	1:13:592:G:H8	1.79	0.48
1:13:960:U:C6	1:13:1225:A:C8	3.02	0.48
1:13:1053:G:H4'	1:13:1054:C:H5'	1.95	0.48
1:13:1174:G:H2'	1:13:1175:G:C8	2.48	0.48
2:1E:187:LEU:HA	2:1E:201:ILE:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:165:MET:O	4:3E:168:ARG:HD2	2.14	0.48
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	1.96	0.48
12:3I:82:VAL:HG23	12:3I:106:ASP:OD2	2.14	0.48
17:8I:9:VAL:HG21	17:8I:84:LEU:HD12	1.95	0.48
17:8I:76:LEU:HD21	17:8I:79:SER:CB	2.44	0.48
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.44	0.48
26:1H:675:A:OP1	30:31:63:LYS:HE2	2.14	0.48
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.25	0.48
29:21:116:VAL:N	29:21:157:ALA:HB2	2.26	0.48
30:31:125:LEU:HA	30:31:194:MET:O	2.14	0.48
30:31:197:ASP:O	30:31:198:ALA:HB3	2.13	0.48
38:98:85:PRO:O	38:98:87:TYR:N	2.47	0.48
43:E8:45:TYR:CZ	43:E8:49:LYS:HD2	2.49	0.48
1:1G:186(C):G:C6	1:1G:191(E):G:C6	3.02	0.48
1:1G:396:G:C2	1:1G:398:C:C4	3.02	0.48
1:1G:539:A:OP1	12:3A:114:LYS:HE2	2.13	0.48
1:1G:757:U:O2'	1:1G:879:C:O2	2.31	0.48
1:1G:788:U:O2	1:1G:795:C:N4	2.44	0.48
1:1G:1206:G:H5'	3:22:190:ARG:HH12	1.79	0.48
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.49	0.48
6:52:91:VAL:HG12	6:52:92:LYS:O	2.14	0.48
7:62:22:LEU:HG	7:62:62:PHE:HE2	1.78	0.48
23:2L:9:G:N3	23:2L:46:G:H2'	2.29	0.48
24:3L:2:C:C4	24:3L:3:U:C4	3.02	0.48
26:14:273:G:H1	26:14:364:C:H42	1.62	0.48
26:14:1491:G:H5'	28:19:99:ASP:OD1	2.14	0.48
27:1J:32:C:C4	27:1J:33:G:N7	2.82	0.48
27:1J:83:G:H4'	50:H5:52:HIS:CG	2.49	0.48
28:19:213:ARG:NH2	28:19:218:ARG:HD2	2.29	0.48
34:15:22:THR:HA	34:15:61:ARG:O	2.14	0.48
40:75:53:ARG:NH1	40:75:60:THR:HG23	2.29	0.48
1:13:8:A:H4'	1:13:9:G:OP1	2.13	0.48
1:13:200:G:H1	1:13:217:C:H42	1.60	0.48
1:13:329:A:C5	1:13:332:G:C6	3.01	0.48
1:13:661:G:H1	1:13:744:C:N4	2.10	0.48
1:13:1287:A:H2'	1:13:1288:A:C8	2.48	0.48
2:1E:18:GLY:H	2:1E:42:ILE:CG1	2.27	0.48
3:2E:18:TRP:HB3	3:2E:20:SER:O	2.13	0.48
8:7E:82:HIS:CD2	8:7E:138:TRP:CE2	3.02	0.48
9:8E:5:TYR:CG	9:8E:6:GLY:N	2.82	0.48
24:3K:59:A:O5'	24:3K:60:U:H5''	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:274:G:H1'	26:1H:276:A:C2	2.49	0.48
26:1H:442:G:H1'	30:31:48:THR:HG21	1.96	0.48
26:1H:516:C:OP1	52:N8:13:LYS:NZ	2.43	0.48
26:1H:635:C:O2'	26:1H:639:U:OP1	2.32	0.48
26:1H:1610:A:OP1	58:1H:3678:HOH:O	2.20	0.48
26:1H:1707:G:H1	26:1H:1751:C:H42	1.62	0.48
26:1H:2182:G:H2'	26:1H:2183:C:O4'	2.13	0.48
30:31:152:GLU:HB3	30:31:190:GLU:HB2	1.95	0.48
42:D8:76:LYS:HG3	42:D8:81:TYR:CD2	2.48	0.48
47:I8:82:ARG:HG3	47:I8:82:ARG:O	2.14	0.48
49:K8:63:VAL:O	49:K8:67:LYS:HB2	2.14	0.48
1:1G:255:G:P	17:8A:69:LYS:HZ3	2.37	0.48
1:1G:964:A:N3	1:1G:969:A:O2'	2.40	0.48
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.49	0.48
5:42:137:GLU:O	5:42:141:GLN:HG3	2.14	0.48
10:1A:13:HIS:HB3	10:1A:68:HIS:CD2	2.49	0.48
11:2A:44:SER:OG	11:2A:45:GLY:N	2.47	0.48
13:4A:29:ARG:HD3	13:4A:64:TRP:CZ3	2.49	0.48
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.43	0.48
24:3L:44:A:H2'	24:3L:45:G:O4'	2.14	0.48
26:14:631:A:H2'	26:14:632:A:O4'	2.14	0.48
26:14:848:G:H2'	26:14:849:A:H8	1.75	0.48
26:14:1141:U:OP1	34:15:25:ARG:NE	2.27	0.48
26:14:1639:U:O2'	26:14:2699:C:H4'	2.14	0.48
26:14:2000:G:N7	58:14:3538:HOH:O	2.35	0.48
26:14:2128:C:H42	26:14:2160:G:H1	1.62	0.48
26:14:2516:G:C6	26:14:2517:C:C4	3.02	0.48
26:14:2820:A:C6	38:55:4:LEU:HD11	2.49	0.48
27:1J:2:C:H2'	27:1J:3:C:H6	1.78	0.48
27:1J:78:A:H2'	27:1J:79:C:O4'	2.13	0.48
27:1J:80:U:H2'	27:1J:81:G:N2	2.28	0.48
30:39:15:SER:OG	30:39:17:ARG:N	2.46	0.48
36:35:52:GLU:OE1	36:35:55:ARG:NH2	2.47	0.48
40:75:91:ARG:HD2	40:75:124:ASP:OD2	2.13	0.48
41:85:21:ALA:HA	41:85:24:TYR:CE2	2.49	0.48
42:95:56:SER:O	42:95:100:ARG:HG3	2.14	0.48
46:D5:169:GLU:HG2	46:D5:171:ILE:HD13	1.96	0.48
1:13:1061:G:OP1	10:1I:59:SER:OG	2.30	0.47
1:13:1371:G:O3'	9:8E:69:GLY:HA3	2.14	0.47
1:13:1510:U:H1'	1:13:1526:G:N2	2.29	0.47
2:1E:22:LYS:HA	2:1E:24:TRP:CD1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:112:VAL:O	2:1E:115:LEU:HB3	2.14	0.47
5:4E:53:LEU:O	5:4E:56:GLN:HB3	2.14	0.47
10:1I:79:ARG:HD3	10:1I:79:ARG:HA	1.69	0.47
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.45	0.47
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.79	0.47
24:3K:35:G:H2'	24:3K:36:U:O4'	2.13	0.47
26:1H:191:A:H2'	26:1H:192:C:C6	2.48	0.47
26:1H:721:C:H2'	26:1H:722:A:H8	1.77	0.47
26:1H:996:A:H4'	41:C8:92:ARG:CG	2.44	0.47
26:1H:996:A:OP2	41:C8:92:ARG:NH2	2.47	0.47
26:1H:1285:G:H2'	26:1H:1329:U:O4	2.14	0.47
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.96	0.47
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.29	0.47
26:1H:2077:A:H2'	26:1H:2078:C:H6	1.78	0.47
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.49	0.47
27:16:71:C:C4	27:16:72:G:N7	2.82	0.47
29:21:16:ARG:NH2	29:21:173:VAL:HG22	2.29	0.47
31:41:138:GLN:NE2	31:41:149:VAL:HG12	2.29	0.47
33:61:127:VAL:HA	33:61:138:ILE:O	2.13	0.47
34:58:96:GLU:HB2	34:58:122:VAL:CG1	2.44	0.47
36:78:41:ARG:HD2	36:78:41:ARG:N	2.29	0.47
48:J8:81:LYS:O	48:J8:83:GLU:N	2.43	0.47
49:K8:42:GLY:C	49:K8:44:LEU:H	2.17	0.47
1:1G:25:C:H2'	1:1G:26:A:C8	2.49	0.47
1:1G:55:A:C5	1:1G:56:U:C5	3.02	0.47
1:1G:135:C:C2	16:7A:1:MET:HB3	2.49	0.47
1:1G:147:G:H2'	1:1G:148:G:C8	2.49	0.47
1:1G:989:C:N4	1:1G:1216:G:O6	2.47	0.47
1:1G:1167:A:H2'	1:1G:1169:A:O4'	2.14	0.47
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.94	0.47
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.94	0.47
11:2A:34:ASP:HB2	11:2A:35:PRO:HD2	1.96	0.47
26:14:139:G:N2	26:14:141:A:N1	2.61	0.47
26:14:270(F):U:H3	26:14:270(T):G:H1	1.62	0.47
26:14:783:A:O2'	26:14:785:G:OP1	2.25	0.47
26:14:1021:A:C2	26:14:1023:U:C2	3.01	0.47
26:14:1239:G:H2'	26:14:1240:U:O4'	2.13	0.47
26:14:1260:G:H2'	26:14:1261:C:C6	2.50	0.47
26:14:1341:U:C5	26:14:1395:A:H2	2.32	0.47
26:14:1899:G:N2	26:14:1902:C:N4	2.59	0.47
26:14:2157:G:OP1	26:14:2157:G:H4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2285:C:N3	26:14:2346:A:N6	2.62	0.47
30:39:3:GLU:OE1	30:39:3:GLU:N	2.47	0.47
31:49:6:ALA:O	31:49:7:LEU:HD23	2.14	0.47
35:25:87:ILE:HD12	35:25:87:ILE:HA	1.77	0.47
40:75:91:ARG:HG3	40:75:121:ILE:HG13	1.94	0.47
42:95:14:VAL:HB	42:95:96:ILE:HG21	1.95	0.47
44:B5:5:TYR:CE2	49:G5:30:ARG:HB2	2.48	0.47
1:13:322:C:OP2	1:13:328:C:N4	2.47	0.47
1:13:498:A:H4'	1:13:500:G:OP1	2.13	0.47
1:13:865:A:H2	1:13:918:A:H4'	1.78	0.47
1:13:1037:C:H2'	1:13:1038:C:C6	2.48	0.47
2:1E:32:ILE:HG21	2:1E:40:HIS:HB3	1.97	0.47
10:1I:75:ILE:O	10:1I:77:PRO:HD3	2.14	0.47
11:2I:19:ALA:HA	11:2I:32:ILE:HG22	1.97	0.47
13:4I:117:VAL:HG13	13:4I:118:ALA:N	2.26	0.47
15:6I:82:ILE:HG23	15:6I:87:ILE:H	1.79	0.47
23:2K:16:C:H5'	23:2K:17:C:C5	2.50	0.47
26:1H:276:A:C8	26:1H:278:A:N1	2.82	0.47
26:1H:1277:G:O2'	38:98:24:GLN:HG2	2.14	0.47
26:1H:1281:G:O2'	26:1H:1282:U:H5'	2.14	0.47
26:1H:1747:G:H2'	26:1H:1748:G:H8	1.78	0.47
26:1H:2250:G:C5	37:88:83:MET:HB3	2.49	0.47
29:21:2:LYS:HA	29:21:84:PHE:CE1	2.49	0.47
29:21:53:PRO:HA	29:21:75:VAL:HA	1.95	0.47
30:31:42:ALA:HA	30:31:45:ARG:HG3	1.94	0.47
31:41:47:LYS:HD2	31:41:82:LEU:H	1.79	0.47
31:41:117:PHE:HD1	31:41:119:GLY:H	1.61	0.47
54:Q8:8:LYS:O	54:Q8:12:LYS:HB2	2.14	0.47
1:1G:1291:G:OP1	7:62:41:ARG:NH2	2.47	0.47
2:12:49:GLU:HG3	2:12:53:ARG:HH22	1.79	0.47
4:32:19:LEU:HB2	4:32:21:LEU:CD2	2.44	0.47
4:32:100:ARG:NH1	4:32:136:PRO:O	2.47	0.47
6:52:99:ALA:HB3	18:9A:29:PHE:HE1	1.80	0.47
19:AA:3:ARG:HB3	19:AA:7:LYS:HZ3	1.78	0.47
26:14:1022:G:C6	26:14:1140:C:C4	3.02	0.47
26:14:2712:U:OP1	26:14:2714:G:H4'	2.14	0.47
26:14:2767:C:H2'	26:14:2768:C:C6	2.49	0.47
27:1J:112:G:H2'	27:1J:113:C:C6	2.49	0.47
36:35:50:ARG:HG3	54:M5:61:LEU:HD11	1.96	0.47
39:65:84:GLN:HG2	39:65:109:GLY:HA3	1.95	0.47
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:17:U:H2'	1:13:18:C:C6	2.49	0.47
1:13:246:A:C4	1:13:282:A:N6	2.82	0.47
1:13:600:C:H42	1:13:638:G:H1	1.61	0.47
1:13:1285:A:H4'	1:13:1286:A:O5'	2.15	0.47
4:3E:128:VAL:HB	4:3E:133:VAL:HG21	1.95	0.47
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.17	0.47
19:AI:63:THR:OG1	19:AI:65:ASN:OD1	2.14	0.47
26:1H:602:G:N2	26:1H:655:A:C8	2.79	0.47
26:1H:795:C:H2'	26:1H:796:C:H6	1.76	0.47
26:1H:1628:G:H8	26:1H:1628:G:O5'	1.97	0.47
26:1H:1664:A:OP1	58:1H:3682:HOH:O	2.20	0.47
26:1H:2184:G:C6	26:1H:2185:C:C4	3.02	0.47
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.29	0.47
26:1H:2311:A:H8	31:41:88:ILE:HG21	1.80	0.47
31:41:5:VAL:HG21	31:41:101:ILE:HG22	1.97	0.47
36:78:120:ALA:HB1	36:78:138:LEU:HD22	1.96	0.47
37:88:26:TYR:CE2	37:88:141:GLN:HG2	2.49	0.47
41:C8:91:ASP:O	41:C8:95:LEU:HB2	2.14	0.47
43:E8:23:LEU:HD11	52:N8:27:PRO:HA	1.95	0.47
45:G8:85:VAL:O	45:G8:86:ARG:HD2	2.14	0.47
51:M8:15:ILE:HG23	51:M8:20:ASN:OD1	2.14	0.47
1:1G:309:G:H1'	1:1G:608:A:C2	2.49	0.47
1:1G:660:G:H1	1:1G:745:C:H42	1.62	0.47
1:1G:765:G:C6	1:1G:812:C:C2	3.01	0.47
1:1G:939:G:O2'	1:1G:1375:A:O2'	2.25	0.47
1:1G:1145:C:H1'	1:1G:1146:A:N7	2.29	0.47
10:1A:40:LEU:HD13	10:1A:71:LEU:HB2	1.96	0.47
25:4L:23:A:H4'	25:4L:24:A:OP1	2.14	0.47
26:14:1542:G:O6	26:14:1543:A:N6	2.48	0.47
26:14:2067:G:O2'	26:14:2069:G:H5''	2.14	0.47
26:14:2275:C:C6	26:14:2275:C:H5'	2.50	0.47
29:29:113:PHE:HA	29:29:159:HIS:HD2	1.79	0.47
30:39:114:VAL:HG21	30:39:202:PHE:CE1	2.49	0.47
32:59:120:GLY:O	32:59:121:ILE:HG12	2.14	0.47
32:59:122:THR:HG22	32:59:123:PHE:H	1.78	0.47
37:45:66:ILE:O	37:45:67:ARG:HB2	2.14	0.47
40:75:4:GLY:N	40:75:5:ALA:C	2.68	0.47
47:E5:35:ASN:OD1	47:E5:35:ASN:N	2.38	0.47
1:13:389:A:H5'	1:13:389:A:C8	2.50	0.47
1:13:1125:U:C4	1:13:1126:U:O4	2.67	0.47
1:13:1512:U:H3	1:13:1523:G:H1	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:86:MET:SD	10:1I:86:MET:N	2.87	0.47
11:2I:85:ARG:HG3	11:2I:111:ASP:HB3	1.95	0.47
13:4I:7:VAL:HB	31:4I:115:ARG:NH2	2.30	0.47
14:5I:37:PHE:CE1	14:5I:53:LEU:HD13	2.49	0.47
26:1H:592:G:H1	26:1H:665:C:N4	2.11	0.47
26:1H:625:G:N7	36:78:107:LYS:NZ	2.62	0.47
26:1H:675:A:C8	26:1H:804:A:C6	3.02	0.47
26:1H:1239:G:OP1	58:1H:3675:HOH:O	2.19	0.47
26:1H:2402:C:OP2	26:1H:2402:C:C6	2.67	0.47
26:1H:2424:C:O2	26:1H:2429:G:O2'	2.27	0.47
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.79	0.47
29:21:57:LYS:HG3	29:21:59:VAL:CG1	2.43	0.47
29:21:134:ILE:O	29:21:137:HIS:HB2	2.13	0.47
33:61:27:ARG:HD3	48:J8:71:TYR:HE2	1.80	0.47
52:N8:40:LYS:HE2	52:N8:47:PRO:N	2.30	0.47
1:1G:1117:G:N2	1:1G:1180:A:H1'	2.29	0.47
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.30	0.47
2:12:219:VAL:CA	2:12:220:ASP:HB3	2.35	0.47
7:62:54:THR:OG1	7:62:56:GLN:N	2.46	0.47
8:72:17:THR:HG23	8:72:78:GLN:NE2	2.30	0.47
9:82:48:GLU:N	9:82:49:PRO:HD2	2.29	0.47
12:3A:89:ARG:HB2	12:3A:97:ARG:HA	1.96	0.47
22:1L:49:G:H1	22:1L:59:C:C5'	2.26	0.47
23:2L:77:A:H2'	23:2L:77:A:N3	2.30	0.47
26:14:24:G:O2'	43:A5:78:GLU:O	2.27	0.47
26:14:39:C:H2'	26:14:40:C:C6	2.49	0.47
26:14:67:U:H2'	26:14:68:G:C8	2.47	0.47
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.49	0.47
26:14:1014:U:H3	26:14:1148:A:N6	2.10	0.47
26:14:1337:G:H2'	26:14:1338:G:C8	2.48	0.47
26:14:1388:G:H2'	26:14:1389:G:H8	1.78	0.47
26:14:1454:U:H5	38:55:73:VAL:HG12	1.79	0.47
26:14:1589:C:H2'	26:14:1590:U:H6	1.79	0.47
26:14:1614:A:N1	43:A5:93:ALA:HB2	2.29	0.47
26:14:2517:C:O2'	26:14:2519:U:H5	1.97	0.47
27:1J:115:G:H8	27:1J:115:G:OP2	1.97	0.47
28:19:96:HIS:CD2	28:19:102:LYS:HG2	2.49	0.47
28:19:264:LYS:CD	28:19:266:SER:HB3	2.44	0.47
31:49:64:THR:HB	31:49:94:LEU:HD21	1.96	0.47
42:95:21:ARG:CZ	42:95:91:TYR:HE2	2.27	0.47
49:G5:61:LEU:HD23	49:G5:61:LEU:HA	1.65	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:401:C:H2'	1:13:402:G:C8	2.49	0.47
1:13:591:U:P	8:7E:30:ARG:HD2	2.54	0.47
1:13:648:A:C6	1:13:649:G:C6	3.03	0.47
1:13:803:G:C6	1:13:804:U:C4	3.03	0.47
4:3E:89:THR:OG1	4:3E:90:GLY:N	2.47	0.47
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.30	0.47
7:6E:64:GLN:HB3	7:6E:128:ALA:HB1	1.96	0.47
13:4I:56:LEU:O	13:4I:60:VAL:HG23	2.15	0.47
15:6I:17:ARG:HH11	15:6I:77:ARG:NH2	2.12	0.47
26:1H:1824:G:N3	28:11:254:THR:OG1	2.47	0.47
26:1H:1892:C:O5'	26:1H:1892:C:H6	1.97	0.47
26:1H:2647:U:H2'	26:1H:2648:C:C6	2.50	0.47
27:16:11:C:H3'	27:16:12:C:H6	1.78	0.47
34:58:16:ILE:HG21	34:58:26:LEU:HD11	1.95	0.47
36:78:1:MET:HE1	36:78:6:LEU:HD13	1.96	0.47
46:H8:13:GLU:HB3	46:H8:18:LEU:HD11	1.96	0.47
47:I8:49:LYS:HB2	47:I8:80:HIS:HB3	1.96	0.47
1:1G:96:G:H2'	1:1G:97:U:O4'	2.15	0.47
1:1G:162:A:O5'	1:1G:162:A:H8	1.98	0.47
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.13	0.47
1:1G:1347:G:N2	1:1G:1374:A:OP2	2.40	0.47
24:3L:37:A:C2	24:3L:38:A:H1'	2.50	0.47
26:14:453:C:H4'	26:14:472:A:N6	2.29	0.47
26:14:1017:G:N2	26:14:1146:C:C2	2.83	0.47
26:14:1022:G:HO2'	26:14:1023:U:P	2.30	0.47
26:14:1342:A:C6	26:14:1397:U:C6	3.03	0.47
26:14:1419:A:N6	26:14:1421:G:N3	2.63	0.47
26:14:1542:G:O5'	26:14:1543:A:H5''	2.14	0.47
26:14:1910:G:H1	26:14:1920:C:H42	1.61	0.47
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.15	0.47
26:14:2698:U:H2'	26:14:2699:C:C6	2.49	0.47
30:39:122:LYS:HD2	30:39:191:ARG:HE	1.78	0.47
32:59:12:PRO:HG2	32:59:48:GLY:C	2.35	0.47
33:69:93:THR:O	33:69:97:ILE:HG13	2.14	0.47
36:35:35:HIS:O	36:35:36:LYS:O	2.32	0.47
46:D5:48:PHE:HE1	46:D5:71:VAL:HG21	1.79	0.47
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.80	0.47
1:13:129:U:H2'	1:13:131:C:H5	1.79	0.47
1:13:714:G:H2'	1:13:715:A:C8	2.49	0.47
1:13:968:A:H4'	1:13:969:A:OP2	2.14	0.47
1:13:1154:G:C4	1:13:1155:G:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1464:G:OP1	40:B8:108:ARG:HD3	2.14	0.47
1:13:1529:G:O2'	1:13:1530:G:OP1	2.24	0.47
3:2E:36:ASP:O	3:2E:40:ARG:HG3	2.15	0.47
7:6E:121:ALA:O	7:6E:125:MET:HG2	2.15	0.47
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.50	0.47
15:6I:8:LYS:HB2	15:6I:8:LYS:HE3	1.72	0.47
24:3K:49:G:H1'	24:3K:66:U:O2	2.14	0.47
26:1H:729:G:O5'	28:11:208:LYS:NZ	2.48	0.47
26:1H:1141:U:C5	34:58:64:GLY:HA3	2.49	0.47
26:1H:1301:A:H2	26:1H:1626:G:N3	2.12	0.47
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.15	0.47
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.39	0.47
26:1H:2751:G:P	26:1H:2751:G:H8	2.37	0.47
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.15	0.47
27:16:7:G:H5''	27:16:7:G:H8	1.78	0.47
30:31:11:VAL:HG13	30:31:125:LEU:HB2	1.96	0.47
31:41:138:GLN:HE21	31:41:149:VAL:HG12	1.78	0.47
32:51:127:GLU:O	32:51:129:THR:N	2.48	0.47
33:61:95:LYS:NZ	33:61:99:GLU:OE1	2.35	0.47
34:58:58:ASP:HB3	34:58:95:PRO:HB2	1.97	0.47
43:E8:84:ARG:O	43:E8:96:ILE:HD13	2.14	0.47
46:H8:53:ILE:HG22	46:H8:71:VAL:HG22	1.95	0.47
1:1G:255:G:H2'	1:1G:256:U:H6	1.80	0.47
1:1G:323:U:O3'	20:BA:22:ARG:HD3	2.14	0.47
1:1G:985:C:H2'	1:1G:986:A:H8	1.79	0.47
1:1G:1007:C:H1'	1:1G:1023:G:N1	2.30	0.47
8:72:69:ARG:HB2	8:72:74:PRO:O	2.14	0.47
9:82:48:GLU:O	9:82:52:ALA:N	2.47	0.47
10:1A:79:ARG:HA	10:1A:82:ILE:HB	1.95	0.47
14:5A:17:LYS:NZ	14:5A:18:VAL:HG13	2.30	0.47
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.15	0.47
26:14:68:G:H2'	26:14:69:C:C6	2.49	0.47
26:14:667:U:H2'	26:14:668:G:O4'	2.14	0.47
26:14:868:U:C4	26:14:869:G:N7	2.82	0.47
26:14:1288:U:C2	26:14:1327:C:O2	2.67	0.47
26:14:1707:G:C5	26:14:1756:G:C6	3.03	0.47
26:14:2542:A:N3	26:14:2542:A:H5''	2.29	0.47
30:39:36:VAL:HG11	30:39:183:VAL:HG21	1.96	0.47
31:49:138:GLN:HE22	31:49:153:ARG:H	1.63	0.47
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.45	0.47
40:75:2:ASN:HB3	40:75:4:GLY:C	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:88:ARG:HD3	43:A5:94:ASP:OD2	2.14	0.47
47:E5:64:ASP:OD1	47:E5:64:ASP:N	2.48	0.47
1:13:7:G:H5'	1:13:298:A:O4'	2.14	0.47
1:13:21:G:H2'	1:13:22:G:C8	2.49	0.47
1:13:389:A:H5'	1:13:389:A:H8	1.79	0.47
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.48	0.47
1:13:457:C:N3	1:13:476:G:N2	2.62	0.47
1:13:736:C:H2'	1:13:737:A:C8	2.49	0.47
1:13:816:A:OP1	1:13:1526:G:O2'	2.26	0.47
1:13:1059:C:O2	10:1I:53:PRO:HG3	2.15	0.47
1:13:1244:C:H2'	1:13:1245:A:C8	2.49	0.47
1:13:1305:G:N2	1:13:1331:G:C4	2.83	0.47
1:13:1453:G:HO2'	1:13:1454:G:P	2.37	0.47
3:2E:70:VAL:N	3:2E:106:VAL:HG23	2.30	0.47
3:2E:87:LEU:O	3:2E:90:GLU:N	2.45	0.47
5:4E:33:VAL:HG12	5:4E:112:LEU:HD12	1.95	0.47
5:4E:87:SER:HB3	5:4E:125:SER:O	2.14	0.47
12:3I:70:ILE:HG12	12:3I:100:ILE:HD12	1.97	0.47
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.44	0.47
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.13	0.47
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.97	0.47
19:AI:80:TYR:HD1	19:AI:82:GLY:H	1.62	0.47
20:BI:89:ARG:HH22	20:BI:105:SER:H	1.63	0.47
26:1H:323:G:O2'	26:1H:1205:U:N3	2.43	0.47
26:1H:340:A:H2'	26:1H:341:G:O4'	2.15	0.47
26:1H:389:G:H22	36:78:72:PRO:HD3	1.77	0.47
26:1H:787:U:H5''	26:1H:788:A:H5'	1.95	0.47
26:1H:844:C:H3'	26:1H:845:G:H8	1.79	0.47
26:1H:937:U:H2'	26:1H:938:G:O4'	2.14	0.47
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.15	0.47
26:1H:1264:G:OP1	52:N8:19:ARG:NH1	2.42	0.47
26:1H:1281:G:H2'	26:1H:1282:U:H6	1.79	0.47
26:1H:1488:G:C5	26:1H:1489:U:C5	3.03	0.47
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.30	0.47
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.50	0.47
26:1H:1795:C:H2'	26:1H:1796:U:O4'	2.15	0.47
26:1H:2114:A:H5''	26:1H:2117:A:H5'	1.97	0.47
26:1H:2160:G:N7	26:1H:2161:C:H1'	2.30	0.47
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.50	0.47
26:1H:2363:C:O2	47:I8:39:ARG:NH2	2.43	0.47
26:1H:2412:A:H2'	26:1H:2413:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.14	0.47
26:1H:2743:C:C2	26:1H:2762:G:N2	2.82	0.47
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.49	0.47
27:16:74:U:H2'	27:16:75:G:O4'	2.14	0.47
27:16:80:U:O2'	27:16:81:G:H5''	2.14	0.47
28:11:27:THR:OG1	28:11:28:GLU:N	2.47	0.47
28:11:61:LEU:HD13	28:11:61:LEU:HA	1.72	0.47
28:11:71:ASP:OD1	28:11:71:ASP:N	2.46	0.47
29:21:2:LYS:HA	29:21:84:PHE:CD1	2.50	0.47
31:41:61:ALA:HB2	31:41:67:LYS:HA	1.96	0.47
32:51:113:VAL:HG11	32:51:151:ILE:HD13	1.96	0.47
35:68:47:ILE:HG13	35:68:48:PRO:HD2	1.97	0.47
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.97	0.47
41:C8:78:THR:O	41:C8:81:HIS:N	2.47	0.47
1:1G:278:G:O4'	1:1G:282:A:H1'	2.15	0.47
1:1G:403:C:O3'	4:32:122:ARG:HD2	2.15	0.47
1:1G:559:A:H4'	1:1G:560:U:C5'	2.44	0.47
1:1G:740:U:H4'	15:6A:42:HIS:CD2	2.49	0.47
1:1G:895:G:H1	1:1G:904:C:H42	1.60	0.47
1:1G:926:G:H5''	1:1G:927:G:O5'	2.14	0.47
1:1G:1120:G:H1	1:1G:1152:A:H61	1.62	0.47
1:1G:1281:U:P	1:1G:1282:C:H41	2.34	0.47
1:1G:1489:G:O2'	1:1G:1490:C:H5'	2.15	0.47
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.97	0.47
4:32:31:CYS:H	4:32:35:ARG:NH1	2.11	0.47
4:32:60:GLU:OE2	4:32:199:ASN:N	2.48	0.47
4:32:148:VAL:HG23	4:32:181:MET:O	2.14	0.47
5:42:141:GLN:O	5:42:143:ARG:HD3	2.14	0.47
6:52:25:ILE:HA	6:52:28:ARG:HB2	1.97	0.47
8:72:25:ASP:OD1	8:72:25:ASP:N	2.46	0.47
9:82:17:VAL:HG22	9:82:63:ILE:HD13	1.96	0.47
13:4A:83:ASP:O	13:4A:84:ILE:C	2.52	0.47
13:4A:99:ARG:HB2	13:4A:101:GLN:NE2	2.30	0.47
18:9A:37:VAL:O	18:9A:41:LYS:N	2.34	0.47
19:AA:41:VAL:HG23	19:AA:43:GLU:N	2.30	0.47
20:BA:89:ARG:HD2	20:BA:104:LEU:HD13	1.96	0.47
23:2L:24:C:H2'	23:2L:25:U:H6	1.75	0.47
26:14:124:G:O6	58:14:3481:HOH:O	2.20	0.47
26:14:299:A:H8	26:14:299:A:OP2	1.98	0.47
26:14:328:U:H4'	45:C5:68:HIS:ND1	2.30	0.47
26:14:337:C:H2'	26:14:338:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:587:C:O2	36:35:33:ARG:NH1	2.48	0.47
26:14:900:A:H2'	26:14:900:A:N3	2.30	0.47
26:14:995:C:O2	34:15:3:THR:OG1	2.27	0.47
26:14:1278:A:OP1	38:55:36:THR:HG22	2.15	0.47
26:14:1819:A:H4'	26:14:1820:U:O5'	2.14	0.47
26:14:1993:U:H4'	29:29:128:SER:HB2	1.96	0.47
26:14:2414:G:H21	36:35:67:MET:CE	2.27	0.47
26:14:2646:C:O5'	26:14:2646:C:H6	1.98	0.47
26:14:2745:C:C4	26:14:2746:U:C4	3.02	0.47
26:14:2873:A:C8	38:55:5:LYS:HA	2.50	0.47
29:29:52:LEU:HD12	29:29:52:LEU:HA	1.59	0.47
30:39:34:TRP:NE1	36:35:8:PRO:HD3	2.29	0.47
30:39:116:ASP:OD2	36:35:1:MET:HG2	2.15	0.47
30:39:155:LEU:O	30:39:157:VAL:HG23	2.15	0.47
33:69:76:THR:O	33:69:77:LEU:HB2	2.14	0.47
33:69:101:LEU:HD23	33:69:101:LEU:H	1.79	0.47
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.48	0.47
37:45:66:ILE:HG22	37:45:104:PHE:CE1	2.49	0.47
41:85:90:VAL:HA	42:95:38:LEU:HD11	1.96	0.47
42:95:29:PRO:HA	42:95:61:VAL:HG11	1.96	0.47
46:D5:19:ARG:NH1	46:D5:84:GLU:HB2	2.29	0.47
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.14	0.47
1:13:247:G:O6	1:13:278:G:C6	2.68	0.47
1:13:389:A:O2'	1:13:390:C:OP1	2.28	0.47
1:13:1305:G:H22	1:13:1331:G:C2'	2.28	0.47
23:2K:20:G:C2	23:2K:58:A:N3	2.82	0.47
26:1H:71:A:H2	44:F8:31:HIS:HE2	1.61	0.47
26:1H:484:C:OP2	45:G8:50:ARG:NH2	2.48	0.47
26:1H:2447:G:O2'	58:1H:3684:HOH:O	2.20	0.47
34:58:17:ASP:O	34:58:56:ASN:HB2	2.14	0.47
41:C8:69:CYS:SG	41:C8:79:PHE:HD2	2.38	0.47
49:K8:46:GLN:O	49:K8:49:LYS:HG3	2.15	0.47
1:1G:32:A:C2	1:1G:33:A:C4	3.02	0.47
1:1G:87:A:H1'	1:1G:88:C:O4'	2.15	0.47
1:1G:194:C:C2'	1:1G:195:A:H5''	2.44	0.47
1:1G:375:U:OP1	16:7A:69:THR:OG1	2.19	0.47
1:1G:419:C:H5'	1:1G:420:U:OP2	2.15	0.47
1:1G:518:C:H5''	1:1G:519:C:C6	2.50	0.47
1:1G:937:A:H8	1:1G:937:A:O5'	1.98	0.47
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.49	0.47
5:42:34:VAL:HG21	5:42:63:ARG:HH11	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.29	0.47
5:42:92:LYS:HG2	5:42:93:PRO:HD2	1.94	0.47
20:BA:10:LEU:O	20:BA:12:ALA:N	2.45	0.47
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.14	0.47
26:14:527:C:H4'	26:14:528:A:O5'	2.15	0.47
26:14:573:G:O2'	26:14:574:C:H3'	2.14	0.47
26:14:1136:G:H2'	26:14:1137:G:H8	1.78	0.47
26:14:1332:G:H5'	26:14:1332:G:H8	1.75	0.47
26:14:1990:C:H2'	26:14:1991:U:H6	1.79	0.47
26:14:2009:G:H1'	38:55:107:ASP:HA	1.96	0.47
26:14:2378:A:H4'	39:65:23:ARG:HH11	1.76	0.47
26:14:2408:U:H2'	26:14:2409:G:C8	2.50	0.47
26:14:2688:U:H1'	26:14:2721:A:N6	2.29	0.47
26:14:2892:A:C5	26:14:2893:G:H1'	2.50	0.47
32:59:6:ARG:NH1	32:59:66:GLY:H	2.13	0.47
37:45:134:ARG:HH12	46:D5:122:ARG:NH1	2.13	0.47
1:13:22:G:C6	1:13:23:C:C4	3.03	0.47
1:13:190:G:H3'	1:13:191(A):G:H5''	1.97	0.47
1:13:772:U:C2	1:13:773:G:C8	3.02	0.47
1:13:1193:G:OP1	3:2E:167:TRP:HZ3	1.98	0.47
9:8E:26:VAL:HG22	9:8E:61:ALA:HB3	1.97	0.47
11:2I:41:THR:HG22	11:2I:42:TRP:N	2.30	0.47
17:8I:25:ARG:O	17:8I:25:ARG:HG2	2.14	0.47
22:1K:39:G:H2'	22:1K:40:G:C8	2.49	0.47
22:1K:66:U:H3'	22:1K:67:A:H5'	1.95	0.47
26:1H:172:C:H2'	26:1H:173:G:C8	2.50	0.47
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.41	0.47
26:1H:775:G:C4	26:1H:794:G:C8	3.02	0.47
26:1H:1006:C:H1'	34:58:106:MET:HE3	1.96	0.47
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.98	0.47
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.14	0.47
26:1H:2102:U:H3	26:1H:2187:G:H1	1.63	0.47
26:1H:2111:C:N4	26:1H:2147:G:O6	2.48	0.47
30:31:178:PRO:HB2	30:31:201:VAL:HG11	1.97	0.47
34:58:35:ARG:HH21	34:58:42:TRP:HZ2	1.61	0.47
34:58:87:LEU:O	34:58:91:LEU:HD12	2.15	0.47
36:78:36:LYS:O	36:78:40:SER:HB3	2.15	0.47
37:88:104:PHE:CE2	37:88:125:LEU:HD11	2.47	0.47
44:F8:94:GLY:O	44:F8:95:LEU:HB2	2.15	0.47
1:1G:10:A:OP2	5:42:126:ARG:HG2	2.15	0.47
1:1G:151:A:H2'	1:1G:152:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:300:A:H1'	1:1G:565:U:O2	2.14	0.47
1:1G:340:U:H2'	1:1G:341:C:C6	2.50	0.47
1:1G:600:C:H2'	1:1G:601:C:H6	1.80	0.47
1:1G:625:G:OP1	16:7A:9:PHE:HB3	2.14	0.47
1:1G:640:A:N3	8:72:115:SER:HB2	2.30	0.47
1:1G:1069:C:O2'	1:1G:1192:C:O2	2.22	0.47
2:12:141:GLU:O	2:12:145:LEU:HB2	2.14	0.47
3:22:8:ILE:HD13	3:22:16:ARG:HG2	1.96	0.47
4:32:24:GLU:HG2	4:32:25:ARG:N	2.29	0.47
16:7A:1:MET:HE3	16:7A:1:MET:HB2	1.55	0.47
22:1L:72:C:C2'	22:1L:73:A:H5'	2.45	0.47
26:14:997:G:O2'	26:14:998:C:H5'	2.15	0.47
26:14:2235:G:H2'	26:14:2236:C:C6	2.50	0.47
26:14:2259:G:C2	26:14:2282:G:N1	2.83	0.47
26:14:2416:C:O5'	26:14:2416:C:H6	1.98	0.47
28:19:242:ARG:HG2	28:19:246:PRO:HG3	1.96	0.47
37:45:27:VAL:CB	37:45:28:ALA:HA	2.30	0.47
39:65:11:LYS:HE3	39:65:91:PRO:HD3	1.95	0.47
39:65:35:ILE:HB	39:65:97:ARG:NH2	2.30	0.47
46:D5:51:ALA:HB1	46:D5:57:ILE:HD11	1.97	0.47
1:13:106:C:O2'	1:13:107:G:H5'	2.15	0.47
1:13:166:G:H2'	1:13:167:G:C8	2.50	0.47
1:13:375:U:H4'	16:7I:6:LEU:HD23	1.96	0.47
1:13:645:C:P	58:13:1811:HOH:O	2.72	0.47
1:13:668:G:C6	1:13:669:U:C5	3.03	0.47
1:13:872:A:C5	1:13:874:G:C8	3.03	0.47
1:13:1274:G:H2'	1:13:1275:A:H8	1.79	0.47
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.15	0.47
7:6E:127:ALA:HA	7:6E:132:GLY:H	1.79	0.47
10:1I:26:ALA:HA	10:1I:29:ARG:CZ	2.45	0.47
12:3I:118:SER:OG	12:3I:119:LYS:N	2.48	0.47
13:4I:88:ARG:O	13:4I:92:HIS:HD2	1.98	0.47
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.38	0.47
23:2K:53:G:C4	23:2K:54:G:C8	3.03	0.47
26:1H:50:U:H3'	26:1H:51:G:H5'	1.97	0.47
26:1H:189:G:H2'	26:1H:205:G:N2	2.29	0.47
26:1H:443:A:N7	30:31:45:ARG:HG2	2.30	0.47
26:1H:546:C:O2	26:1H:546:C:H2'	2.15	0.47
26:1H:550:G:O2'	26:1H:1220:A:N3	2.35	0.47
26:1H:662:G:O4'	36:78:14:LYS:HG2	2.15	0.47
26:1H:676:A:H8	26:1H:2069:G:N2	2.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:846:C:C4	26:1H:930:U:C4	3.03	0.47
26:1H:1006:C:O2	34:58:106:MET:HG2	2.15	0.47
26:1H:1040:C:N4	26:1H:1115:G:H1	2.13	0.47
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.80	0.47
26:1H:1829:A:H2'	26:1H:1830:C:O4'	2.14	0.47
26:1H:2287:A:N3	26:1H:2289:G:C8	2.83	0.47
26:1H:2735:G:H2'	26:1H:2736:G:H8	1.80	0.47
29:21:49:LEU:HA	29:21:49:LEU:HD12	1.67	0.47
29:21:64:LYS:HA	29:21:65:GLY:HA2	1.54	0.47
32:51:154:PRO:HB2	32:51:163:TYR:CZ	2.50	0.47
36:78:113:LYS:HA	36:78:129:ALA:O	2.14	0.47
37:88:81:VAL:HG23	37:88:82:ARG:O	2.15	0.47
38:98:97:VAL:HA	38:98:113:LEU:O	2.15	0.47
39:A8:61:ASN:O	39:A8:64:GLU:N	2.46	0.47
39:A8:102:ALA:O	39:A8:105:ALA:N	2.41	0.47
1:1G:57:G:C6	1:1G:58:C:N4	2.82	0.47
1:1G:230:G:C2	1:1G:231:G:C4	3.03	0.47
1:1G:395:C:N4	58:1G:1866:HOH:O	2.47	0.47
1:1G:977:A:HO2'	1:1G:981:U:H3	1.62	0.47
1:1G:1001:G:N2	1:1G:1040:U:O2	2.48	0.47
5:42:48:ALA:HB2	5:42:57:LYS:HD3	1.96	0.47
17:8A:81:ARG:HA	17:8A:81:ARG:HE	1.80	0.47
26:14:977:G:C4	26:14:978:G:C8	3.02	0.47
26:14:1869:G:N2	26:14:1872:A:C8	2.83	0.47
26:14:2030:A:C2	26:14:2499:C:H5''	2.50	0.47
26:14:2095:C:H2'	26:14:2096:U:O4'	2.15	0.47
26:14:2291:U:H5''	26:14:2380:C:O2'	2.14	0.47
26:14:2345:G:N3	26:14:2381:C:H2'	2.30	0.47
31:49:18:GLU:O	31:49:22:ARG:HG2	2.15	0.47
31:49:51:ARG:O	31:49:55:LYS:HG2	2.14	0.47
44:B5:27:THR:HB	44:B5:80:ILE:HG22	1.97	0.47
47:E5:36:ILE:HD12	47:E5:58:THR:HG23	1.97	0.47
1:13:15:G:H4'	5:4E:24:ARG:NH1	2.30	0.46
1:13:170:U:H2'	1:13:171:A:H8	1.78	0.46
1:13:604:G:H2'	1:13:605:U:O4'	2.15	0.46
2:1E:216:SER:HB3	2:1E:232:PRO:HG3	1.97	0.46
3:2E:22:TRP:CZ2	14:5I:54:PRO:HG2	2.50	0.46
5:4E:72:GLN:HE22	5:4E:144:THR:HG22	1.79	0.46
19:AI:40:ILE:HG22	19:AI:68:GLY:HA2	1.97	0.46
24:3K:38:A:H3'	24:3K:39:G:C8	2.39	0.46
26:1H:247:G:H4'	26:1H:386:G:C5	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:730:C:H5'	58:1H:3542:HOH:O	2.15	0.46
26:1H:764:A:N3	28:11:213:ARG:NH1	2.63	0.46
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.48	0.46
26:1H:2810:A:H2'	26:1H:2811:G:O4'	2.16	0.46
28:11:64:ILE:O	28:11:64:ILE:HG13	2.15	0.46
30:31:64:ILE:HG23	30:31:65:TRP:NE1	2.30	0.46
34:58:26:LEU:O	34:58:30:ILE:HG13	2.14	0.46
37:88:52:VAL:O	37:88:56:ARG:HB2	2.16	0.46
41:C8:61:TRP:CE2	41:C8:94:ASN:HA	2.49	0.46
41:C8:65:ILE:HG13	41:C8:96:ALA:CB	2.39	0.46
1:1G:327:A:O2'	1:1G:329:A:H5''	2.15	0.46
1:1G:1353:G:C2	1:1G:1370:G:C2	3.03	0.46
1:1G:1486:G:H2'	1:1G:1487:G:C8	2.50	0.46
3:22:159:GLY:HA2	3:22:193:TYR:CE2	2.49	0.46
5:42:110:LEU:HD12	5:42:118:ILE:HG21	1.97	0.46
8:72:49:GLU:O	8:72:51:VAL:HG13	2.15	0.46
13:4A:91:ARG:CB	13:4A:98:VAL:HG12	2.44	0.46
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.98	0.46
16:7A:43:LYS:HG2	16:7A:48:TRP:CE2	2.50	0.46
22:1L:8:U:H2'	22:1L:46:G:H21	1.79	0.46
26:14:39:C:H2'	26:14:40:C:H6	1.80	0.46
26:14:182:A:N3	26:14:433:C:O2'	2.43	0.46
26:14:243:U:OP1	54:M5:6:THR:OG1	2.22	0.46
26:14:511:U:C5	26:14:512:G:C5	3.03	0.46
26:14:528:A:C2	26:14:2043:C:H4'	2.50	0.46
26:14:844:C:C5	26:14:845:G:C6	3.03	0.46
26:14:955:C:OP1	37:45:87:LYS:NZ	2.37	0.46
26:14:994:C:OP1	41:85:53:ARG:NH2	2.48	0.46
26:14:1169:G:H1	26:14:1180:C:N4	2.10	0.46
30:39:7:TYR:CE1	30:39:10:PRO:HD3	2.49	0.46
34:15:61:ARG:HA	34:15:61:ARG:HH11	1.80	0.46
37:45:27:VAL:HG12	37:45:134:ARG:HE	1.80	0.46
46:D5:109:ALA:HB1	46:D5:117:LEU:HD11	1.98	0.46
53:L5:8:ASN:OD1	53:L5:8:ASN:C	2.54	0.46
54:M5:52:LYS:N	54:M5:53:PRO:HD2	2.30	0.46
1:13:247:G:OP2	17:8I:100:LYS:HB3	2.15	0.46
1:13:292:G:N7	1:13:293:G:H1'	2.29	0.46
1:13:431:A:H2'	1:13:432:A:O4'	2.16	0.46
1:13:465:A:H8	1:13:465:A:OP1	1.97	0.46
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.57	0.46
12:3I:33:ARG:HG2	12:3I:60:LEU:CD1	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:673:C:H5''	30:31:81:PRO:HD2	1.96	0.46
26:1H:800:A:P	58:1H:3531:HOH:O	2.63	0.46
26:1H:804:A:H5''	26:1H:805:G:OP1	2.15	0.46
26:1H:1466:G:H2'	26:1H:1547:C:C4	2.50	0.46
26:1H:1663:C:H2'	58:1H:3611:HOH:O	2.14	0.46
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.30	0.46
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.16	0.46
26:1H:2687:U:H2'	26:1H:2688:U:O4'	2.16	0.46
27:16:12:C:OP2	27:16:12:C:C6	2.69	0.46
29:21:51:PHE:CE2	29:21:52:LEU:HD23	2.50	0.46
29:21:181:LEU:HD21	40:B8:6:LEU:HD12	1.97	0.46
32:51:152:ARG:HG3	32:51:161:GLY:HA2	1.96	0.46
34:58:42:TRP:HA	34:58:48:MET:HE1	1.97	0.46
36:78:63:PRO:HD3	54:Q8:27:THR:HG22	1.97	0.46
38:98:4:LEU:HA	38:98:4:LEU:HD23	1.53	0.46
43:E8:14:PRO:O	43:E8:18:ARG:HB2	2.15	0.46
46:H8:153:SER:O	46:H8:157:LEU:HD21	2.15	0.46
1:1G:171:A:H2'	1:1G:172:A:C8	2.51	0.46
1:1G:500:G:N2	1:1G:546:G:H1'	2.31	0.46
1:1G:709:G:C5	1:1G:710:G:N7	2.83	0.46
1:1G:979:C:H5	1:1G:980:C:C2	2.32	0.46
1:1G:1399:C:C2	1:1G:1502:A:N6	2.84	0.46
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.16	0.46
13:4A:92:HIS:NE2	13:4A:98:VAL:HG11	2.30	0.46
15:6A:15:PHE:CZ	15:6A:84:LYS:HG3	2.51	0.46
17:8A:29:HIS:HB3	17:8A:33:GLY:H	1.80	0.46
26:14:404:C:O2'	26:14:405:U:OP2	2.30	0.46
26:14:467:G:H2'	26:14:468:G:O4'	2.15	0.46
26:14:1449:A:N6	26:14:1449(A):G:N3	2.63	0.46
26:14:1567:A:H5'	28:19:58:HIS:CD2	2.50	0.46
26:14:1591:G:H2'	26:14:1592:C:O4'	2.15	0.46
26:14:1780:A:H3'	26:14:1781:C:H2'	1.96	0.46
26:14:1824:G:N3	28:19:254:THR:OG1	2.47	0.46
26:14:2019:A:N6	26:14:2020:A:N7	2.64	0.46
26:14:2023:G:OP2	26:14:2617:C:H4'	2.15	0.46
26:14:2738:A:H2	26:14:2766:G:H22	1.61	0.46
33:69:109:ILE:HB	33:69:130:TYR:OH	2.16	0.46
33:69:109:ILE:HB	33:69:130:TYR:CZ	2.50	0.46
42:95:7:THR:HG23	42:95:22:VAL:HG21	1.96	0.46
43:A5:70:TYR:O	43:A5:107:LEU:HD12	2.16	0.46
48:F5:17:SER:N	48:F5:38:SER:O	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:601:C:C2	1:13:602:A:C8	3.04	0.46
1:13:1321:C:C5	1:13:1322:C:C2	3.03	0.46
1:13:1367:C:H5''	9:8E:114:TYR:HB3	1.98	0.46
17:8I:76:LEU:HD11	17:8I:79:SER:H	1.81	0.46
20:BI:63:ILE:HG21	20:BI:81:LYS:HG3	1.95	0.46
20:BI:74:LYS:HB3	20:BI:74:LYS:HE2	1.53	0.46
23:2K:3:C:H42	23:2K:71:G:H1	1.61	0.46
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.45	0.46
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.15	0.46
26:1H:1992:G:O2'	26:1H:1993:U:OP2	2.23	0.46
26:1H:2062:A:H5''	58:1H:4145:HOH:O	2.14	0.46
26:1H:2270:G:C2'	26:1H:2271:G:H5'	2.44	0.46
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.15	0.46
27:16:38:C:H2'	27:16:39:A:O4'	2.15	0.46
31:41:77:ILE:HG22	31:41:82:LEU:HD12	1.97	0.46
42:D8:14:VAL:HG23	42:D8:96:ILE:HG21	1.96	0.46
47:I8:29:GLN:O	47:I8:67:VAL:HG12	2.15	0.46
1:1G:1017:G:H2'	1:1G:1018:C:O4'	2.15	0.46
4:32:35:ARG:HB2	4:32:35:ARG:NH1	2.27	0.46
7:62:126:ASP:HB3	7:62:131:LYS:O	2.14	0.46
9:82:55:ALA:HB1	9:82:58:HIS:HB2	1.96	0.46
15:6A:53:HIS:O	15:6A:56:LEU:HB3	2.15	0.46
26:14:98:G:H5''	49:G5:3:LEU:HD23	1.97	0.46
26:14:273(C):C:H42	26:14:363(C):G:H1	1.63	0.46
26:14:573:G:O2'	26:14:574:C:H5'	2.15	0.46
26:14:828:U:C5	26:14:2247:A:H4'	2.50	0.46
26:14:907:U:O2'	37:45:101:ARG:NH2	2.43	0.46
26:14:2062:A:N6	26:14:2503:A:H62	2.13	0.46
26:14:2549:G:H2'	26:14:2550:G:H8	1.81	0.46
26:14:2750:A:H8	26:14:2752:C:N4	2.13	0.46
34:15:10:GLU:HG3	34:15:11:PRO:HD2	1.97	0.46
34:15:59:LYS:HE2	34:15:61:ARG:HH12	1.79	0.46
53:L5:29:LYS:O	53:L5:33:ARG:HG3	2.16	0.46
1:13:223:U:H2'	1:13:224:C:C6	2.47	0.46
1:13:373:A:H2'	1:13:374:A:H8	1.80	0.46
1:13:575:G:H4'	1:13:576:G:H5''	1.98	0.46
1:13:1278:U:H5'	1:13:1279:A:O4'	2.15	0.46
2:1E:80:ILE:HG23	2:1E:84:GLU:HG3	1.97	0.46
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.15	0.46
13:4I:14:ARG:O	13:4I:18:ALA:HB2	2.14	0.46
14:5I:4:LYS:NZ	14:5I:7:ILE:HD11	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:64:PRO:HA	17:8I:70:ARG:HG3	1.96	0.46
23:2K:52:C:O2	23:2K:64:G:N2	2.38	0.46
26:1H:637:A:H5''	36:78:117:GLU:OE1	2.16	0.46
26:1H:1007:C:H5''	34:58:35:ARG:HH11	1.80	0.46
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.50	0.46
26:1H:2591:C:OP2	28:11:239:ARG:HG2	2.15	0.46
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.15	0.46
29:21:117:MET:O	29:21:118:LYS:HB3	2.15	0.46
34:58:84:LYS:HE2	34:58:84:LYS:HB3	1.49	0.46
36:78:97:PRO:HD3	36:78:126:VAL:O	2.16	0.46
48:J8:92:LYS:HE3	48:J8:92:LYS:HB3	1.65	0.46
1:1G:628:G:H2'	1:1G:629:G:C8	2.50	0.46
1:1G:709:G:C4	1:1G:710:G:C8	3.04	0.46
1:1G:746:A:H2'	1:1G:747:C:C6	2.51	0.46
1:1G:833:U:H2'	1:1G:834:C:H6	1.80	0.46
1:1G:926:G:C6	1:1G:1505:G:C6	3.02	0.46
1:1G:976:G:H8	1:1G:1358:U:O2'	1.97	0.46
1:1G:1125:U:O4	10:1A:5:ARG:NH2	2.48	0.46
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.30	0.46
1:1G:1515:C:H2'	1:1G:1516:G:C8	2.50	0.46
2:12:24:TRP:HE3	2:12:40:HIS:HE1	1.63	0.46
3:22:122:GLU:HA	3:22:125:GLU:OE1	2.16	0.46
24:3L:45:G:H8	24:3L:45:G:O5'	1.99	0.46
26:14:142:G:H2'	26:14:143:C:H6	1.80	0.46
26:14:2158:A:H2'	26:14:2158:A:N3	2.30	0.46
26:14:2572:A:OP1	29:29:144:ARG:HB2	2.14	0.46
32:59:6:ARG:HH22	32:59:62:LYS:HG3	1.79	0.46
32:59:149:ARG:HB2	32:59:149:ARG:HH11	1.80	0.46
33:69:6:LEU:HD12	33:69:6:LEU:HA	1.71	0.46
36:35:107:LYS:C	36:35:109:GLY:H	2.19	0.46
54:M5:10:ALA:O	54:M5:12:LYS:N	2.48	0.46
54:M5:14:VAL:CG1	54:M5:22:VAL:HG13	2.43	0.46
1:13:11:G:C2	1:13:12:U:C6	3.04	0.46
1:13:484:G:H5'	1:13:486:U:O4'	2.16	0.46
1:13:691:G:H2'	1:13:692:U:C5	2.51	0.46
1:13:722:A:C2	1:13:724:G:C5	3.04	0.46
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.16	0.46
4:3E:111:ALA:HB1	4:3E:116:GLN:OE1	2.15	0.46
7:6E:97:GLN:O	7:6E:101:LEU:HG	2.15	0.46
8:7E:87:SER:CB	8:7E:93:VAL:H	2.29	0.46
22:1K:65:C:H41	22:1K:67:A:N6	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:70:A:H2'	24:3K:71:G:C8	2.51	0.46
26:1H:909:A:H2'	26:1H:912:C:C5	2.50	0.46
26:1H:934:G:H2'	26:1H:935:C:C6	2.51	0.46
26:1H:1553:A:C6	26:1H:1555:G:H1'	2.49	0.46
26:1H:1582:C:H2'	26:1H:1583:A:O4'	2.16	0.46
26:1H:1693:U:H3	26:1H:1829:A:H61	1.62	0.46
26:1H:1789:A:OP1	28:11:221:VAL:HA	2.16	0.46
26:1H:1813:G:O3'	28:11:40:THR:HG21	2.15	0.46
26:1H:2422:A:N7	54:Q8:31:HIS:HE1	2.12	0.46
27:16:12:C:N3	47:I8:74:ARG:NH1	2.64	0.46
37:88:43:THR:O	37:88:46:GLN:N	2.47	0.46
39:A8:49:VAL:HG11	39:A8:77:ALA:HB2	1.97	0.46
40:B8:26:ASP:CB	40:B8:91:ARG:HA	2.45	0.46
40:B8:50:ILE:O	40:B8:99:LEU:HD12	2.15	0.46
40:B8:99:LEU:O	40:B8:102:ILE:HD11	2.15	0.46
46:H8:60:GLU:O	46:H8:61:LEU:HB2	2.15	0.46
1:1G:450:G:N7	1:1G:481:G:C6	2.84	0.46
1:1G:485:G:O2'	1:1G:486:U:O5'	2.33	0.46
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.32	0.46
1:1G:1347:G:C8	9:82:107:ARG:HB3	2.51	0.46
1:1G:1442:G:C6	1:1G:1446:A:N6	2.83	0.46
2:12:195:ASP:O	8:72:74:PRO:HG3	2.16	0.46
3:22:35:GLU:O	3:22:39:ILE:HG13	2.16	0.46
3:22:55:VAL:HG13	3:22:68:VAL:HG22	1.98	0.46
10:1A:54:PHE:C	10:1A:55:LYS:HD2	2.36	0.46
10:1A:84:GLN:HA	10:1A:88:LEU:HD13	1.98	0.46
26:14:251:A:C5	26:14:252:G:H1'	2.51	0.46
26:14:725:G:H8	26:14:725:G:O5'	1.99	0.46
26:14:946:G:H2'	26:14:947:G:C8	2.49	0.46
26:14:992:C:H2'	26:14:993:G:H8	1.81	0.46
26:14:1523:U:O5'	26:14:1523:U:H6	1.97	0.46
26:14:2276:G:C2	26:14:2277:G:C8	3.04	0.46
26:14:2473:U:O2	26:14:2473:U:H2'	2.16	0.46
28:19:223:GLY:HA2	28:19:231:HIS:CD2	2.51	0.46
29:29:117:MET:HA	29:29:122:PHE:N	2.31	0.46
33:69:40:THR:O	33:69:44:LEU:N	2.45	0.46
40:75:129:ARG:HA	40:75:132:LYS:HD2	1.97	0.46
41:85:47:TYR:HA	41:85:50:ARG:NH2	2.30	0.46
48:F5:86:SER:N	48:F5:87:PRO:CD	2.79	0.46
1:13:66:G:C6	1:13:67:C:C4	3.04	0.46
1:13:178:C:H2'	1:13:179:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:376:G:O6	58:13:1841:HOH:O	2.21	0.46
1:13:664:G:N2	1:13:741:G:H1	2.13	0.46
1:13:917:G:H2'	1:13:918:A:H8	1.81	0.46
1:13:1174:G:H2'	1:13:1175:G:H8	1.80	0.46
7:6E:69:VAL:O	7:6E:138:LYS:HG3	2.15	0.46
8:7E:91:ARG:HB2	12:3I:7:ILE:HD12	1.97	0.46
11:2I:18:ARG:HB2	11:2I:33:THR:OG1	2.15	0.46
17:8I:13:ASP:OD2	17:8I:53:LEU:N	2.49	0.46
18:9I:38:GLU:HA	18:9I:41:LYS:HZ3	1.81	0.46
22:1K:49:G:H3'	22:1K:50:G:H2'	1.97	0.46
22:1K:71:G:H2'	22:1K:72:C:C2	2.51	0.46
26:1H:459:U:H5''	53:P8:40:TRP:CD2	2.50	0.46
26:1H:1437:C:C2	26:1H:1438:U:C5	3.04	0.46
26:1H:1529:A:C8	26:1H:1530:G:C8	3.03	0.46
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.15	0.46
26:1H:1986:A:OP1	58:1H:3687:HOH:O	2.21	0.46
27:16:3:C:N4	27:16:117:G:H1	2.12	0.46
28:11:17:THR:CG2	28:11:204:ILE:HA	2.43	0.46
1:1G:45:U:H2'	1:1G:46:G:H8	1.80	0.46
1:1G:198:G:H2'	1:1G:199:G:C8	2.50	0.46
1:1G:247:G:OP2	17:8A:100:LYS:N	2.48	0.46
1:1G:1010:G:C2	1:1G:1011:G:C4	3.04	0.46
1:1G:1321:C:O2	19:AA:36:ARG:NH2	2.48	0.46
1:1G:1386:G:C2	1:1G:1387:G:C8	3.04	0.46
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.18	0.46
9:82:14:VAL:O	9:82:65:VAL:HG23	2.16	0.46
9:82:16:ARG:O	9:82:63:ILE:HG23	2.16	0.46
13:4A:23:TYR:CE2	13:4A:71:ARG:HG3	2.50	0.46
16:7A:52:ASP:CG	16:7A:55:ARG:HB2	2.36	0.46
23:2L:24:C:C2	23:2L:25:U:C5	3.03	0.46
26:14:843:G:N2	26:14:936:C:C2	2.83	0.46
26:14:996:A:H1'	41:85:92:ARG:NH2	2.31	0.46
26:14:1636:C:O2'	26:14:1760:A:N3	2.36	0.46
26:14:1657:C:H2'	26:14:1658:C:C6	2.51	0.46
26:14:1827:C:OP2	28:19:222:ARG:HD2	2.15	0.46
26:14:1972:A:H2'	26:14:1973:G:C8	2.51	0.46
26:14:2115:G:H1'	26:14:2171:A:N1	2.31	0.46
26:14:2148:G:H2'	26:14:2149:G:C8	2.47	0.46
26:14:2317:C:H2'	26:14:2318:G:O4'	2.15	0.46
26:14:2776:A:OP1	26:14:2776:A:H3'	2.15	0.46
26:14:2859:G:C8	26:14:2859:G:H3'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:37:VAL:HG13	31:49:158:ALA:O	2.15	0.46
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.51	0.46
53:L5:30:VAL:O	53:L5:34:ARG:HG3	2.15	0.46
1:13:651:C:H2'	1:13:652:U:C6	2.51	0.46
1:13:704:A:H5''	1:13:705:U:OP2	2.15	0.46
1:13:813:U:OP2	1:13:816:A:N6	2.46	0.46
1:13:1126:U:H3'	1:13:1126:U:C6	2.50	0.46
1:13:1244:C:N3	1:13:1294:G:N2	2.63	0.46
1:13:1267:C:C5	1:13:1268:A:C5	3.04	0.46
1:13:1295:G:O3'	13:4I:14:ARG:NH1	2.49	0.46
1:13:1363:A:N6	58:13:1869:HOH:O	2.40	0.46
1:13:1446:A:OP1	1:13:1446:A:H4'	2.15	0.46
2:1E:17:PHE:HD2	2:1E:44:LEU:HD11	1.81	0.46
3:2E:70:VAL:H	3:2E:106:VAL:HG23	1.81	0.46
5:4E:5:ASP:OD1	5:4E:5:ASP:N	2.49	0.46
8:7E:17:THR:HG21	8:7E:80:ILE:HG13	1.97	0.46
11:2I:95:ILE:O	11:2I:98:LEU:N	2.45	0.46
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.51	0.46
26:1H:1726:G:C6	26:1H:1727:U:C4	3.04	0.46
26:1H:2111:C:C4	26:1H:2145:C:C2	3.03	0.46
26:1H:2309:A:C5	26:1H:2310:A:N7	2.83	0.46
28:11:131:LEU:O	28:11:190:TYR:HA	2.15	0.46
30:31:29:ASN:H	30:31:112:MET:CE	2.27	0.46
30:31:117:ARG:HD3	30:31:117:ARG:HA	1.43	0.46
31:41:142:PRO:O	51:M8:31:ILE:HG21	2.15	0.46
31:41:145:THR:O	31:41:146:TYR:HB3	2.16	0.46
37:88:39:PRO:HB3	37:88:99:PRO:HD3	1.97	0.46
40:B8:27:THR:HG23	40:B8:90:GLN:HB3	1.97	0.46
42:D8:37:VAL:HG12	42:D8:55:ALA:O	2.16	0.46
46:H8:131:ARG:H	46:H8:131:ARG:HG2	1.55	0.46
1:1G:338:A:H2'	1:1G:339:C:C6	2.51	0.46
1:1G:500:G:H2'	1:1G:501:C:C6	2.51	0.46
1:1G:969:A:H2'	1:1G:970:C:O4'	2.16	0.46
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.80	0.46
1:1G:1321:C:H5''	1:1G:1322:C:H5''	1.97	0.46
3:22:106:VAL:CG2	3:22:109:PRO:HB3	2.46	0.46
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.35	0.46
12:3A:104:VAL:CG1	12:3A:105:TYR:H	2.29	0.46
13:4A:74:VAL:O	13:4A:78:ILE:HG12	2.15	0.46
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.48	0.46
16:7A:67:THR:H	16:7A:70:ALA:HB3	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:82:G:N1	26:14:103:A:OP2	2.48	0.46
26:14:125:G:H1'	53:L5:13:ALA:HB1	1.97	0.46
26:14:335:C:H2'	26:14:336:C:H6	1.81	0.46
26:14:528:A:H2	26:14:2043:C:C5'	2.29	0.46
26:14:620:G:H4'	26:14:621:A:H5''	1.97	0.46
26:14:1341:U:O4	44:B5:16:LYS:HE2	2.16	0.46
26:14:1915:U:H2'	26:14:1916:A:H5'	1.97	0.46
26:14:2320:A:H4'	26:14:2321:G:N7	2.31	0.46
26:14:2543:G:H2'	26:14:2544:G:C8	2.51	0.46
26:14:2600:A:H2'	26:14:2601:C:C6	2.51	0.46
33:69:31:LEU:HD21	33:69:38:LEU:HG	1.97	0.46
36:35:6:LEU:HA	36:35:6:LEU:HD12	1.60	0.46
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.50	0.46
40:75:64:ARG:NH1	40:75:103:ARG:HA	2.31	0.46
46:D5:158:PRO:O	46:D5:161:VAL:HG22	2.16	0.46
47:E5:74:ARG:O	47:E5:74:ARG:HG2	2.16	0.46
1:13:595:G:H1'	1:13:596:C:H5	1.81	0.46
1:13:799:G:C6	1:13:800:G:C4	3.04	0.46
1:13:1378:C:C5	1:13:1379:G:C8	3.04	0.46
2:1E:11:LEU:HD23	2:1E:213:LEU:HD21	1.97	0.46
2:1E:16:HIS:CE1	2:1E:210:SER:HB3	2.50	0.46
3:2E:107:GLN:H	3:2E:107:GLN:CD	2.19	0.46
6:5E:74:ASP:OD1	6:5E:74:ASP:N	2.48	0.46
16:7I:23:ASP:O	16:7I:26:ARG:HB2	2.16	0.46
18:9I:54:ARG:HG3	18:9I:55:ARG:HD2	1.98	0.46
19:AI:18:LYS:HE2	19:AI:18:LYS:HB3	1.68	0.46
26:1H:1055:G:H1'	26:1H:1085:A:N1	2.30	0.46
26:1H:1171:G:C5	26:1H:1174:A:N6	2.83	0.46
28:11:228:PRO:HD3	28:11:235:GLY:N	2.31	0.46
30:31:155:LEU:HD11	30:31:176:LEU:HD22	1.98	0.46
31:41:109:VAL:HG21	51:M8:14:ILE:CD1	2.46	0.46
33:61:1:MET:HB3	33:61:21:VAL:O	2.15	0.46
36:78:138:LEU:HD12	36:78:144:GLU:OE2	2.16	0.46
37:88:65:PHE:HB2	37:88:105:GLU:O	2.16	0.46
37:88:137:TYR:HD1	46:H8:74:VAL:HG11	1.81	0.46
45:G8:14:LEU:HD12	45:G8:23:ARG:O	2.16	0.46
48:J8:21:ARG:HE	48:J8:21:ARG:HB3	1.39	0.46
1:1G:362:G:H4'	12:3A:33:ARG:NH2	2.31	0.46
1:1G:370:C:H2'	1:1G:371:G:H8	1.81	0.46
1:1G:983:A:H3'	1:1G:983:A:N3	2.31	0.46
1:1G:1082:G:H8	1:1G:1082:G:OP2	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1492:A:O4'	12:3A:47:LYS:HD3	2.16	0.46
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.50	0.46
23:2L:62:C:H2'	23:2L:63:C:H6	1.80	0.46
25:4L:23:A:O2'	25:4L:24:A:H5''	2.15	0.46
26:14:98:G:OP1	49:G5:3:LEU:HB3	2.15	0.46
26:14:303:U:H2'	26:14:304:G:H8	1.81	0.46
26:14:634:C:H2'	26:14:635:C:H6	1.80	0.46
26:14:635:C:H2'	26:14:636:G:O4'	2.16	0.46
26:14:947:G:H2'	26:14:948:G:C8	2.50	0.46
26:14:975:G:H1'	26:14:990:A:C2	2.51	0.46
26:14:1364:G:OP1	48:F5:3:LYS:HD2	2.16	0.46
26:14:1574:C:H2'	26:14:1575:C:C6	2.50	0.46
26:14:2319:G:N1	26:14:2334:G:OP2	2.49	0.46
26:14:2356:C:H4'	47:E5:20:ARG:HG3	1.98	0.46
26:14:2637:U:C4	26:14:2638:G:C6	3.04	0.46
31:49:76:SER:OG	31:49:84:LYS:N	2.49	0.46
36:35:49:ARG:CZ	54:M5:61:LEU:HD12	2.46	0.46
40:75:118:ARG:HA	40:75:118:ARG:HD3	1.64	0.46
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.51	0.46
48:F5:73:LEU:O	48:F5:76:ARG:HG2	2.16	0.46
1:13:265:G:H5'	17:8I:64:PRO:O	2.16	0.46
1:13:1014:A:C2	1:13:1219:U:H1'	2.51	0.46
1:13:1143:G:H2'	1:13:1144:G:C8	2.48	0.46
2:1E:20:GLU:O	2:1E:40:HIS:HD2	1.99	0.46
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.97	0.46
8:7E:14:ARG:O	8:7E:18:ARG:HG3	2.16	0.46
9:8E:92:TYR:O	9:8E:96:LEU:HD13	2.15	0.46
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.49	0.46
26:1H:110:G:O6	58:1H:3686:HOH:O	2.21	0.46
26:1H:2290:G:C6	26:1H:2291:U:N3	2.83	0.46
26:1H:2409:G:H2'	26:1H:2410:G:O4'	2.16	0.46
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.51	0.46
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.51	0.46
29:21:9:VAL:HG12	40:B8:7:ILE:HG22	1.96	0.46
32:51:33:LEU:HD21	32:51:136:ILE:HG22	1.98	0.46
39:A8:3:ARG:HG3	39:A8:4:LEU:HB2	1.98	0.46
40:B8:97:ALA:HB1	40:B8:98:LYS:HZ3	1.81	0.46
42:D8:44:LYS:O	42:D8:44:LYS:HG2	2.15	0.46
45:G8:15:VAL:HG21	45:G8:42:VAL:HG11	1.98	0.46
46:H8:16:SER:HB2	46:H8:20:ARG:NH2	2.31	0.46
51:M8:39:CYS:HB3	51:M8:41:PRO:CD	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:62:U:H1'	1:1G:379:C:H1'	1.96	0.46
1:1G:591:U:H2'	1:1G:592:G:C8	2.51	0.46
1:1G:1286:A:H8	1:1G:1286:A:H3'	1.81	0.46
1:1G:1362:C:H2'	1:1G:1362(A):C:H5''	1.98	0.46
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.97	0.46
13:4A:68:GLY:HA3	31:49:116:ASP:CG	2.36	0.46
26:14:117:G:C6	26:14:119:A:C6	3.04	0.46
26:14:990:A:N6	26:14:1186:G:H1'	2.30	0.46
26:14:1116:C:H2'	26:14:1117:G:H8	1.81	0.46
26:14:1188:U:C2'	26:14:1189:A:H5'	2.46	0.46
26:14:1204:A:N1	26:14:1241:A:C2	2.84	0.46
26:14:2078:C:C4	26:14:2079:U:C4	3.04	0.46
26:14:2392:A:C8	36:35:61:ARG:HD2	2.51	0.46
26:14:2681:C:H5	26:14:2725:A:N6	2.08	0.46
26:14:2794:C:H42	26:14:2803:C:H2'	1.80	0.46
28:19:61:LEU:O	28:19:63:ARG:NH1	2.49	0.46
28:19:77:ALA:HB2	28:19:97:TYR:CG	2.51	0.46
30:39:81:PRO:HB3	30:39:87:GLY:O	2.16	0.46
31:49:47:LYS:HA	31:49:87:PRO:HG2	1.97	0.46
42:95:48:GLY:HA3	42:95:51:VAL:C	2.36	0.46
43:A5:18:ARG:HG2	43:A5:18:ARG:HH11	1.81	0.46
1:13:66:G:O4'	1:13:173:U:C4	2.69	0.46
1:13:141:A:C2	1:13:142:G:C5	3.04	0.46
1:13:246:A:C6	1:13:279:A:C2	3.04	0.46
1:13:1189:C:H5''	1:13:1190:G:OP2	2.16	0.46
1:13:1260:C:H3'	1:13:1260:C:H6	1.81	0.46
1:13:1313:U:OP1	19:AI:5:LEU:HB3	2.16	0.46
1:13:1409:C:H2'	1:13:1410:G:C8	2.51	0.46
9:8E:36:TYR:OH	9:8E:73:GLN:NE2	2.31	0.46
26:1H:365:C:H2'	26:1H:366:C:O4'	2.17	0.46
26:1H:724:U:H2'	26:1H:725:G:O4'	2.16	0.46
26:1H:1528:A:C6	26:1H:1529:A:C6	3.04	0.46
26:1H:2310:A:C2	31:41:80:PHE:HZ	2.34	0.46
33:61:101:LEU:HD12	33:61:105:HIS:HB2	1.96	0.46
40:B8:65:LYS:HE2	40:B8:67:SER:HB2	1.98	0.46
52:N8:4:HIS:HD2	52:N8:6:VAL:HG23	1.80	0.46
1:1G:173:U:H1'	1:1G:197:A:C6	2.51	0.46
1:1G:370:C:H2'	1:1G:371:G:C8	2.51	0.46
1:1G:457:C:H2'	1:1G:458:C:C6	2.51	0.46
1:1G:965:A:C2	1:1G:969:A:C2	3.04	0.46
1:1G:1320:C:N4	19:AA:36:ARG:HB3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1442:G:H1	1:1G:1461:G:N2	2.14	0.46
3:22:130:VAL:O	3:22:134:ILE:HG12	2.16	0.46
4:32:22:LYS:O	4:32:113:SER:HB3	2.16	0.46
4:32:70:ILE:HG13	4:32:75:PHE:HB2	1.98	0.46
26:14:333:G:H5''	26:14:334:C:OP2	2.16	0.46
26:14:503:A:H4'	26:14:504:U:H5''	1.97	0.46
26:14:531:C:OP1	26:14:561:G:N2	2.48	0.46
26:14:1114:G:H2'	26:14:1115:G:C8	2.50	0.46
26:14:1264:G:OP1	52:J5:19:ARG:NH2	2.33	0.46
26:14:1385:G:C4	26:14:1386:C:C5	3.04	0.46
26:14:1386:C:C2	26:14:1387:C:C5	3.03	0.46
26:14:1488:G:N2	26:14:1502:C:N3	2.64	0.46
26:14:2639:A:C2	26:14:2778:A:C8	3.04	0.46
27:1J:21:G:H2'	27:1J:22:U:O4'	2.16	0.46
32:59:9:ILE:CG2	32:59:51:ARG:HE	2.28	0.46
34:15:21:LYS:O	34:15:61:ARG:N	2.48	0.46
34:15:34:LEU:O	34:15:49:GLY:HA3	2.15	0.46
34:15:47:ALA:CB	34:15:112:LEU:HD21	2.45	0.46
40:75:102:ILE:HA	40:75:105:LEU:HD12	1.97	0.46
44:B5:43:VAL:HG12	44:B5:47:PHE:CD2	2.51	0.46
46:D5:44:PHE:HE2	46:D5:88:PHE:CZ	2.33	0.46
49:G5:2:LYS:HA	49:G5:3:LEU:HA	1.67	0.46
1:13:245:C:C2	1:13:284:G:C2	3.03	0.45
1:13:953:G:H2'	1:13:954:G:O4'	2.16	0.45
1:13:1176:A:H2'	1:13:1177:G:O4'	2.16	0.45
1:13:1533:C:H4'	1:13:1534:A:C8	2.50	0.45
2:1E:21:ARG:O	2:1E:21:ARG:NE	2.44	0.45
2:1E:27:LYS:HD3	2:1E:193:ASP:HB2	1.97	0.45
13:4I:65:LYS:HE3	13:4I:69:GLU:HG2	1.97	0.45
23:2K:47:G:O2'	23:2K:48:U:H6	1.99	0.45
26:1H:586:A:H5'	30:31:89:VAL:HG11	1.98	0.45
26:1H:873:G:N2	26:1H:905:U:O2	2.49	0.45
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.16	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.64	0.45
26:1H:2135:A:O2'	26:1H:2159:G:O2'	2.28	0.45
26:1H:2331:G:O3'	47:18:43:THR:HG22	2.17	0.45
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.51	0.45
27:16:110:G:H2'	27:16:111:U:O4'	2.16	0.45
29:21:16:ARG:O	29:21:16:ARG:HG3	2.16	0.45
32:51:157:TYR:O	32:51:158:HIS:CG	2.69	0.45
46:H8:30:ASN:OD1	46:H8:33:LEU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:105:VAL:HG22	46:H8:140:ASP:HA	1.97	0.45
47:I8:18:ALA:O	47:I8:20:ARG:NH1	2.48	0.45
50:L8:5:LYS:HE3	50:L8:57:GLU:CD	2.35	0.45
50:L8:8:LEU:HD13	50:L8:31:LEU:HD23	1.98	0.45
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.49	0.45
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.97	0.45
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.51	0.45
1:1G:1104:G:H2'	1:1G:1105:A:C8	2.51	0.45
1:1G:1378:C:C5	1:1G:1379:G:C4	3.04	0.45
3:22:50:ALA:HB1	3:22:70:VAL:HG11	1.97	0.45
4:32:73:ARG:NH1	4:32:73:ARG:HB2	2.31	0.45
13:4A:69:GLU:HA	13:4A:72:ALA:HB3	1.98	0.45
17:8A:13:ASP:H	17:8A:53:LEU:HD12	1.81	0.45
26:14:406:G:H1	26:14:421:U:H3	1.64	0.45
26:14:579:G:O2'	26:14:2019:A:OP1	2.29	0.45
26:14:1225:C:H1'	42:95:85:LYS:HD3	1.98	0.45
26:14:2673:G:O3'	35:25:26:LYS:NZ	2.49	0.45
26:14:2709:G:H1'	58:14:3646:HOH:O	2.16	0.45
32:59:6:ARG:HB2	32:59:65:HIS:CE1	2.51	0.45
40:75:114:LEU:HD23	40:75:114:LEU:HA	1.77	0.45
50:H5:18:ASP:OD1	50:H5:18:ASP:N	2.45	0.45
1:13:5:U:C5	4:3E:85:LYS:HD2	2.51	0.45
1:13:169:C:H2'	1:13:170:U:H5'	1.99	0.45
1:13:304:U:H2'	1:13:305:G:C8	2.51	0.45
1:13:346:G:N3	1:13:346:G:H2'	2.32	0.45
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.45
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.28	0.45
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.17	0.45
7:6E:69:VAL:HG21	7:6E:104:LEU:HD21	1.98	0.45
8:7E:122:ARG:HD3	8:7E:122:ARG:HA	1.82	0.45
11:2I:34:ASP:N	11:2I:40:ILE:HD11	2.30	0.45
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.57	0.45
20:BI:87:LYS:HD2	20:BI:87:LYS:HA	1.72	0.45
26:1H:161:U:H2'	26:1H:162:U:H3'	1.98	0.45
26:1H:270(S):G:H5''	48:J8:76:ARG:HH21	1.81	0.45
26:1H:273(A):G:C2	26:1H:364:C:N3	2.84	0.45
26:1H:863:A:H2'	26:1H:864:G:H8	1.81	0.45
26:1H:2018:G:H2'	26:1H:2019:A:O4'	2.16	0.45
26:1H:2138:C:N3	26:1H:2154:G:N2	2.65	0.45
26:1H:2766:G:H5''	26:1H:2767:C:OP2	2.16	0.45
26:1H:2877:G:H2'	26:1H:2878:U:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:45:GLU:H	31:41:45:GLU:HG2	1.49	0.45
40:B8:124:ASP:O	40:B8:128:GLU:HB3	2.15	0.45
42:D8:49:THR:O	42:D8:50:PRO:C	2.53	0.45
45:G8:82:PRO:HB3	45:G8:99:CYS:H	1.81	0.45
46:H8:136:PHE:HE1	46:H8:138:GLU:HG2	1.80	0.45
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.31	0.45
48:J8:81:LYS:C	48:J8:83:GLU:H	2.19	0.45
49:K8:44:LEU:N	49:K8:44:LEU:HD23	2.31	0.45
1:1G:191(F):U:O2'	1:1G:191:G:H5'	2.17	0.45
1:1G:619:U:N3	4:32:134:ASP:OD1	2.44	0.45
1:1G:867:G:H2'	1:1G:868:C:H6	1.80	0.45
1:1G:1120:G:N2	1:1G:1153:C:O2	2.46	0.45
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.99	0.45
1:1G:1324:A:C4'	1:1G:1362:C:H4'	2.38	0.45
2:12:58:ILE:HG21	2:12:222:ILE:HG12	1.98	0.45
3:22:172:ARG:HH11	3:22:174:PRO:HG3	1.82	0.45
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.97	0.45
22:1L:75:C:H2'	22:1L:76:A:C4	2.51	0.45
26:14:415:A:H2'	26:14:416:C:O4'	2.15	0.45
26:14:872:A:C6	26:14:906:G:C2	3.04	0.45
26:14:1284:A:H5''	26:14:1285:G:OP2	2.16	0.45
26:14:1589:C:H2'	26:14:1590:U:C6	2.52	0.45
26:14:1830:C:O5'	26:14:1830:C:H6	1.99	0.45
26:14:2408:U:H2'	26:14:2409:G:H8	1.80	0.45
26:14:2516:G:C5	26:14:2517:C:C4	3.04	0.45
26:14:2787:C:O2'	26:14:2810:A:O2'	2.31	0.45
26:14:2831:G:O6	58:14:3483:HOH:O	2.20	0.45
31:49:173:LEU:HD13	31:49:178:PHE:CD2	2.51	0.45
32:59:10:PRO:CG	32:59:50:VAL:HG22	2.46	0.45
35:25:10:VAL:HG12	35:25:19:ILE:HG12	1.98	0.45
53:L5:5:TRP:HA	53:L5:5:TRP:CE3	2.51	0.45
1:13:323:U:O3'	20:BI:22:ARG:HD3	2.17	0.45
1:13:491:G:H2'	1:13:492:G:O4'	2.16	0.45
1:13:660:G:OP1	15:6I:5:LYS:HD3	2.16	0.45
1:13:740:U:O2'	1:13:741:G:H5'	2.16	0.45
1:13:963:G:H21	10:1I:55:LYS:HE2	1.82	0.45
1:13:1198:G:OP1	58:13:1840:HOH:O	2.21	0.45
1:13:1250:A:H4'	9:8E:68:GLY:N	2.30	0.45
1:13:1267:C:H5	1:13:1268:A:C5	2.34	0.45
1:13:1320:C:H1'	19:AI:73:GLU:HG2	1.98	0.45
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:113:GLU:HB3	7:6E:118:VAL:HG13	1.98	0.45
23:2K:64:G:H2'	23:2K:65:G:H8	1.81	0.45
26:1H:39:C:O2'	26:1H:40:C:H5'	2.15	0.45
26:1H:654(C):G:H2'	26:1H:654(D):G:O4'	2.16	0.45
26:1H:709:U:H2'	26:1H:710:G:H8	1.81	0.45
26:1H:785:G:H2'	26:1H:786:C:C6	2.51	0.45
26:1H:812:C:H5''	26:1H:1250:G:O2'	2.16	0.45
26:1H:1138:G:H21	34:58:106:MET:CE	2.29	0.45
26:1H:1204:A:H8	26:1H:1204:A:OP1	2.00	0.45
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.26	0.45
26:1H:1446:C:H2'	26:1H:1447:G:H8	1.82	0.45
27:16:5:C:H42	27:16:115:G:H1	1.64	0.45
39:A8:38:GLN:HG3	39:A8:47:THR:CG2	2.46	0.45
40:B8:12:SER:OG	40:B8:14:TYR:N	2.46	0.45
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.52	0.45
1:1G:87:A:H4'	1:1G:88:C:OP1	2.16	0.45
1:1G:123:C:H2'	1:1G:124:G:H8	1.80	0.45
1:1G:186:C:H5'	1:1G:186(A):C:OP2	2.16	0.45
1:1G:611:A:C2	1:1G:630:G:N1	2.81	0.45
1:1G:642:A:C6	1:1G:643:C:N4	2.84	0.45
1:1G:1128:C:C2	1:1G:1147:C:N4	2.84	0.45
1:1G:1251:A:O2'	1:1G:1369:C:O2'	2.32	0.45
1:1G:1502:A:H4'	1:1G:1503:A:OP2	2.16	0.45
5:42:100:VAL:CG2	5:42:107:ARG:HG3	2.46	0.45
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.99	0.45
7:62:121:ALA:O	7:62:125:MET:HG3	2.16	0.45
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.99	0.45
13:4A:81:LEU:CD2	13:4A:88:ARG:HH21	2.28	0.45
16:7A:45:THR:O	16:7A:48:TRP:HD1	1.99	0.45
26:14:290:G:H2'	26:14:291:C:H6	1.81	0.45
26:14:311:A:C6	26:14:328:U:C4	3.04	0.45
26:14:960:A:C8	26:14:962:G:C8	3.04	0.45
26:14:1048:A:H2'	26:14:1048:A:N3	2.31	0.45
26:14:1639:U:P	58:14:3491:HOH:O	2.74	0.45
26:14:2100:G:C4	26:14:2190:G:C2	3.05	0.45
26:14:2152:G:C5	26:14:2153:G:H1'	2.50	0.45
28:19:224:ALA:HA	28:19:233:HIS:O	2.16	0.45
29:29:37:ARG:HA	29:29:42:ASP:OD2	2.17	0.45
33:69:45:LYS:HA	33:69:48:GLU:HB3	1.98	0.45
39:65:29:PHE:HD1	39:65:30:ARG:N	2.14	0.45
42:95:15:GLU:HG2	42:95:16:PRO:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.97	0.45
49:G5:22:GLU:HA	49:G5:25:VAL:HG22	1.98	0.45
1:13:23:C:N4	1:13:24:U:O4	2.49	0.45
1:13:164:U:H2'	1:13:165:C:C6	2.51	0.45
1:13:1228:C:OP1	13:4I:108:ARG:NH2	2.46	0.45
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.98	0.45
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.49	0.45
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.98	0.45
11:2I:78:GLN:O	11:2I:103:LEU:HD12	2.16	0.45
20:BI:37:SER:O	20:BI:41:ILE:HG12	2.17	0.45
24:3K:47:U:O2'	24:3K:48:C:H4'	2.17	0.45
26:1H:107:C:H2'	26:1H:108:U:C6	2.52	0.45
26:1H:277:C:H3'	26:1H:278:A:O4'	2.16	0.45
26:1H:547:A:O2'	26:1H:548:A:H8	2.00	0.45
26:1H:750:A:C2	26:1H:753:C:C6	3.04	0.45
26:1H:762:U:H4'	26:1H:763:G:O5'	2.17	0.45
26:1H:1655:A:H1'	29:21:113:PHE:CD1	2.51	0.45
26:1H:2256:G:C6	26:1H:2257:U:C4	3.04	0.45
26:1H:2369:A:C2	26:1H:2370:G:C8	3.05	0.45
26:1H:2751:G:H8	26:1H:2751:G:O5'	1.99	0.45
30:31:32:LEU:HD21	30:31:105:VAL:HG13	1.99	0.45
32:51:77:LYS:O	32:51:77:LYS:HG2	2.16	0.45
32:51:115:VAL:HG21	32:51:148:ILE:HD13	1.99	0.45
33:61:50:ARG:HD2	33:61:53:ALA:HB3	1.99	0.45
37:88:5:ARG:CZ	37:88:5:ARG:HB2	2.46	0.45
37:88:109:VAL:HG22	37:88:113:GLN:OE1	2.17	0.45
37:88:138:ASP:HA	37:88:139:GLU:HA	1.67	0.45
38:98:104:ARG:HD2	38:98:107:ASP:OD2	2.16	0.45
39:A8:34:HIS:NE2	39:A8:54:LEU:HD23	2.31	0.45
40:B8:31:SER:HG	40:B8:85:LYS:H	1.61	0.45
44:F8:26:TYR:O	44:F8:81:VAL:HG12	2.17	0.45
48:J8:24:ALA:HB1	48:J8:26:ARG:HG3	1.98	0.45
49:K8:52:ASP:O	49:K8:56:GLN:HB2	2.16	0.45
1:1G:977:A:O2'	1:1G:981:U:N3	2.48	0.45
1:1G:1127:G:H2'	1:1G:1128:C:C6	2.52	0.45
1:1G:1502:A:H2	1:1G:1505:G:N1	2.12	0.45
2:12:169:LYS:O	2:12:169:LYS:HD3	2.16	0.45
3:22:39:ILE:HG21	3:22:57:ILE:HD11	1.98	0.45
5:42:100:VAL:HG22	5:42:107:ARG:HG3	1.98	0.45
5:42:152:ARG:HD3	5:42:152:ARG:HA	1.78	0.45
22:1L:38:A:H2'	22:1L:39:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:75:C:H5''	24:3L:76:A:OP1	2.17	0.45
26:14:795:C:H2'	26:14:796:C:C6	2.51	0.45
26:14:1782:C:O4'	26:14:2609:U:C2	2.70	0.45
26:14:2054:A:H5''	26:14:2055:C:O5'	2.17	0.45
26:14:2209:C:O2	26:14:2216:G:C2	2.70	0.45
26:14:2528:U:H2'	26:14:2530:A:O5'	2.16	0.45
29:29:176:ILE:HD12	29:29:181:LEU:HD23	1.99	0.45
30:39:178:PRO:HG2	30:39:179:GLU:OE1	2.16	0.45
38:55:34:ILE:HD12	38:55:34:ILE:HA	1.71	0.45
38:55:96:ARG:CZ	38:55:117:VAL:HG23	2.46	0.45
1:13:4:U:C4	8:7E:102:ARG:HG3	2.52	0.45
1:13:332:G:H2'	1:13:333:G:H8	1.81	0.45
1:13:665:A:C5	1:13:733:A:C5	3.05	0.45
1:13:983:A:H3'	1:13:983:A:N3	2.32	0.45
1:13:1286:A:H8	1:13:1287:A:H4'	1.82	0.45
4:3E:90:GLY:C	4:3E:93:PHE:H	2.19	0.45
4:3E:106:TYR:CD1	4:3E:107:ARG:HD2	2.51	0.45
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.30	0.45
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.51	0.45
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.17	0.45
20:BI:14:LYS:HA	20:BI:17:ARG:HH21	1.81	0.45
23:2K:47:G:O2'	23:2K:48:U:C6	2.70	0.45
24:3K:28:A:N6	24:3K:42:U:H3	2.12	0.45
26:1H:493:G:H2'	26:1H:494:G:O4'	2.17	0.45
26:1H:1889:A:H2'	26:1H:1890:A:O4'	2.16	0.45
26:1H:1931:U:H5	26:1H:1969:A:N7	2.15	0.45
26:1H:2093:G:C6	26:1H:2225:A:C8	3.04	0.45
26:1H:2138:C:H2'	26:1H:2139:C:C6	2.51	0.45
26:1H:2261:C:C6	47:I8:16:SER:HB3	2.51	0.45
29:21:92:THR:OG1	29:21:94:GLU:HG2	2.17	0.45
29:21:111:ARG:H	29:21:111:ARG:HG2	1.44	0.45
31:41:127:GLY:HA2	31:41:166:ASP:OD2	2.16	0.45
32:51:74:ASN:OD1	32:51:138:LYS:HD3	2.16	0.45
33:61:79:ILE:HB	33:61:141:LYS:O	2.16	0.45
34:58:90:MET:HG3	34:58:94:HIS:O	2.17	0.45
40:B8:41:ARG:NH1	40:B8:42:ILE:O	2.50	0.45
41:C8:59:ARG:O	41:C8:63:VAL:HG23	2.16	0.45
45:G8:17:SER:CB	45:G8:71:LYS:HZ2	2.29	0.45
47:I8:49:LYS:O	47:I8:50:ASN:HB2	2.16	0.45
1:1G:324:G:N2	1:1G:326:G:H3'	2.31	0.45
1:1G:455:C:O5'	1:1G:455:C:H6	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:571:U:O2	1:1G:918:A:H5'	2.16	0.45
1:1G:730:G:C5	1:1G:731:G:H1'	2.52	0.45
1:1G:1018:C:O5'	1:1G:1018:C:H6	1.98	0.45
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.16	0.45
1:1G:1505:G:H2'	25:4L:15:A:OP2	2.16	0.45
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.16	0.45
20:BA:11:SER:HA	20:BA:13:LEU:CD2	2.46	0.45
23:2L:14:A:C6	23:2L:23:G:C6	3.05	0.45
26:14:186:G:H2'	26:14:187:G:H8	1.81	0.45
26:14:198:C:C2'	26:14:199:A:H5'	2.47	0.45
26:14:842:G:N2	26:14:937:U:O2	2.50	0.45
26:14:1030:G:H1	26:14:1124:C:H42	1.64	0.45
26:14:1139:G:O5'	34:15:70:LYS:NZ	2.44	0.45
26:14:1513:C:O5'	26:14:1513:C:H6	2.00	0.45
26:14:1569:A:O2'	28:19:37:LEU:HD23	2.17	0.45
26:14:1728:G:C6	26:14:1730:U:H5'	2.51	0.45
26:14:2036:C:H5'	26:14:2036:C:H6	1.81	0.45
26:14:2622:C:H5'	29:29:159:HIS:ND1	2.31	0.45
27:1J:94:C:H2'	27:1J:95:U:H6	1.80	0.45
32:59:88:LEU:HD13	32:59:163:TYR:O	2.17	0.45
32:59:117:PRO:HB3	32:59:121:ILE:HB	1.99	0.45
40:75:2:ASN:C	40:75:4:GLY:HA3	2.37	0.45
46:D5:157:LEU:HG	46:D5:161:VAL:HG21	1.98	0.45
1:13:468:A:O2'	16:7I:81:ARG:HA	2.16	0.45
1:13:721:G:H5'	1:13:722:A:C8	2.52	0.45
1:13:985:C:C2	1:13:1221:G:N2	2.85	0.45
1:13:1306:A:H61	1:13:1331:G:H1'	1.82	0.45
1:13:1316:G:N7	19:AI:7:LYS:NZ	2.63	0.45
10:1I:80:LYS:HA	10:1I:83:GLU:HB3	1.99	0.45
11:2I:71:LYS:HA	11:2I:74:ALA:HB3	1.97	0.45
15:6I:15:PHE:CE1	15:6I:84:LYS:HD3	2.52	0.45
17:8I:68:ARG:HG3	17:8I:68:ARG:O	2.15	0.45
22:1K:72:C:C5	22:1K:73:A:H2	2.35	0.45
23:2K:16:C:O2'	23:2K:61:U:O3'	2.35	0.45
26:1H:64:A:C1'	44:F8:66:LEU:HD23	2.46	0.45
26:1H:154:G:H2'	26:1H:155:C:C6	2.52	0.45
26:1H:977:G:C2	26:1H:978:G:C8	3.04	0.45
26:1H:1054:A:H2	26:1H:1105:U:H3	1.65	0.45
26:1H:1288:U:C2	26:1H:1327:C:O2	2.70	0.45
26:1H:1327:C:O3'	38:98:105:ARG:NH2	2.49	0.45
26:1H:1589:C:H2'	26:1H:1590:U:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2283:C:C4	26:1H:2389:G:C4	3.05	0.45
28:11:76:PRO:O	28:11:98:VAL:HG22	2.15	0.45
37:88:59:ARG:HD3	37:88:113:GLN:NE2	2.32	0.45
40:B8:24:PRO:HD3	40:B8:52:ILE:HD12	1.99	0.45
50:L8:28:LEU:HA	50:L8:33:GLN:OE1	2.17	0.45
1:1G:657:G:H21	15:6A:22:THR:HB	1.80	0.45
1:1G:1181:G:N7	1:1G:1182:G:N2	2.60	0.45
1:1G:1517:G:C6	1:1G:1518:A:C5	3.04	0.45
2:12:71:VAL:HG21	2:12:165:VAL:N	2.32	0.45
3:22:7:PRO:HA	3:22:10:PHE:HB3	1.99	0.45
3:22:148:GLY:HA3	3:22:172:ARG:O	2.17	0.45
8:72:102:ARG:H	8:72:102:ARG:HG2	1.49	0.45
13:4A:81:LEU:CG	13:4A:89:GLY:HA3	2.47	0.45
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.16	0.45
26:14:234:C:H2'	26:14:235:U:H6	1.82	0.45
26:14:807:U:C2	26:14:808:G:C8	3.04	0.45
26:14:814:C:O2'	26:14:1225:C:N3	2.50	0.45
26:14:1359:A:N7	26:14:1372:U:O4	2.48	0.45
26:14:1374:G:H2'	26:14:1375:C:C6	2.51	0.45
26:14:1464:C:H2'	26:14:1465:G:C8	2.52	0.45
26:14:1526:G:C6	26:14:1527:G:C2	3.05	0.45
26:14:1633:G:O6	58:14:3484:HOH:O	2.20	0.45
26:14:1798:U:H5'	28:19:259:THR:OG1	2.16	0.45
26:14:1992:G:C8	26:14:1992:G:O5'	2.69	0.45
26:14:2020:A:P	41:85:27:LEU:HD23	2.57	0.45
26:14:2534:A:O5'	26:14:2534:A:H8	2.00	0.45
26:14:2710:C:OP1	58:14:3485:HOH:O	2.21	0.45
27:1J:24:G:H5'	27:1J:25:A:C8	2.51	0.45
28:19:35:LYS:HB3	28:19:35:LYS:HE2	1.39	0.45
29:29:64:LYS:N	29:29:73:GLU:OE2	2.49	0.45
35:25:50:GLY:N	35:25:53:LYS:HZ1	2.15	0.45
44:B5:25:LYS:HG2	44:B5:82:GLN:OE1	2.17	0.45
46:D5:70:LEU:O	46:D5:89:PHE:N	2.39	0.45
1:13:224:C:H2'	1:13:225:C:H6	1.81	0.45
1:13:322:C:O2	1:13:332:G:N2	2.49	0.45
1:13:953:G:H5'	1:13:965:A:H61	1.81	0.45
1:13:1071:C:H2'	1:13:1072:G:C8	2.50	0.45
3:2E:88:ARG:HD3	3:2E:101:LEU:HB3	1.99	0.45
3:2E:91:LEU:O	3:2E:95:THR:HG23	2.17	0.45
6:5E:63:TYR:HB3	6:5E:65:VAL:HG12	1.98	0.45
15:6I:15:PHE:HE1	15:6I:84:LYS:HD3	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:76:A:O2'	26:1H:2585:U:O4	2.28	0.45
26:1H:975:G:H1'	26:1H:990:A:C2	2.52	0.45
26:1H:2356:C:O3'	47:I8:20:ARG:HD3	2.17	0.45
26:1H:2557:G:H2'	26:1H:2558:C:H6	1.80	0.45
28:11:11:PRO:O	28:11:12:SER:OG	2.27	0.45
32:51:38:SER:HB2	32:51:64:LEU:HD13	1.98	0.45
33:61:8:PRO:HG3	33:61:15:VAL:H	1.82	0.45
33:61:109:ILE:HB	33:61:130:TYR:CZ	2.51	0.45
40:B8:22:PHE:HA	40:B8:91:ARG:NH1	2.30	0.45
53:P8:30:VAL:O	53:P8:34:ARG:HG3	2.17	0.45
1:1G:409:G:H1	1:1G:433:C:N4	2.13	0.45
1:1G:413:G:H2'	1:1G:428:G:H22	1.81	0.45
1:1G:977:A:H2'	1:1G:978:A:H5'	1.98	0.45
1:1G:983:A:N1	1:1G:1222:G:N2	2.57	0.45
1:1G:1213:A:N6	1:1G:1215:G:N3	2.65	0.45
11:2A:94:ALA:O	11:2A:97:ALA:N	2.50	0.45
13:4A:14:ARG:HG3	13:4A:44:ARG:NE	2.32	0.45
15:6A:74:ASP:HB3	15:6A:77:ARG:HG2	1.97	0.45
18:9A:70:ILE:O	18:9A:74:ARG:HD2	2.17	0.45
19:AA:66:MET:O	19:AA:69:HIS:HB2	2.17	0.45
20:BA:54:LYS:HA	20:BA:57:ARG:CZ	2.47	0.45
26:14:492:A:C2	26:14:493:G:H1'	2.52	0.45
26:14:972:G:OP1	26:14:974:G:H5'	2.17	0.45
26:14:1219:G:H1	26:14:1230:C:N4	2.15	0.45
26:14:1441:G:H2'	26:14:1442:G:C8	2.52	0.45
26:14:1473:G:H2'	26:14:1474:C:O4'	2.17	0.45
26:14:1515:C:C2	26:14:1516:U:C5	3.05	0.45
26:14:2462:U:C2	26:14:2489:G:N2	2.84	0.45
27:1J:43:C:O2	31:49:93:THR:HG21	2.16	0.45
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.99	0.45
29:29:59:VAL:HG21	29:29:63:LEU:HD11	1.99	0.45
30:39:89:VAL:O	30:39:90:PHE:C	2.55	0.45
40:75:4:GLY:O	40:75:6:LEU:HB2	2.17	0.45
41:85:92:ARG:O	41:85:94:ASN:N	2.49	0.45
48:F5:71:TYR:O	48:F5:74:VAL:HG22	2.16	0.45
1:13:5:U:C5	4:3E:85:LYS:HB3	2.52	0.45
1:13:648:A:N6	1:13:649:G:O6	2.49	0.45
1:13:1048:G:OP1	58:13:1842:HOH:O	2.21	0.45
1:13:1152:A:O3'	10:1I:13:HIS:NE2	2.49	0.45
1:13:1333:A:H3'	1:13:1334:G:H8	1.82	0.45
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:195:VAL:O	3:2E:196:LEU:HD23	2.17	0.45
11:2I:55:LYS:HG2	11:2I:55:LYS:O	2.17	0.45
13:4I:23:TYR:CZ	13:4I:71:ARG:HG3	2.52	0.45
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.16	0.45
20:BI:92:LEU:HB3	20:BI:96:GLY:HA2	1.98	0.45
23:2K:45:A:H2'	23:2K:46:G:O4'	2.17	0.45
26:1H:374:A:C2	26:1H:401:A:C4	3.05	0.45
26:1H:537:C:H2'	26:1H:539:G:C8	2.51	0.45
26:1H:713:G:H2'	26:1H:714:U:C6	2.52	0.45
29:21:67:PHE:O	29:21:67:PHE:HD1	2.00	0.45
31:41:129:GLY:O	31:41:161:THR:HB	2.16	0.45
31:41:145:THR:C	31:41:147:ASP:H	2.18	0.45
35:68:64:ARG:O	35:68:82:ASN:HA	2.16	0.45
39:A8:85:VAL:HG22	39:A8:110:LEU:HB3	1.98	0.45
40:B8:16:ARG:NH2	40:B8:19:LEU:HD21	2.31	0.45
46:H8:60:GLU:HG2	46:H8:66:SER:OG	2.17	0.45
46:H8:70:LEU:HD23	46:H8:70:LEU:HA	1.83	0.45
49:K8:3:LEU:O	49:K8:6:VAL:HB	2.17	0.45
1:1G:1206:G:P	3:22:190:ARG:HH22	2.40	0.45
1:1G:1508:G:H2'	1:1G:1509:C:C6	2.51	0.45
3:22:23:TYR:HB3	10:1A:93:GLY:O	2.17	0.45
3:22:43:LEU:HD21	3:22:68:VAL:HG21	1.99	0.45
4:32:24:GLU:HG2	4:32:25:ARG:H	1.82	0.45
4:32:31:CYS:O	4:32:32:ALA:HB3	2.17	0.45
5:42:37:ARG:HG2	5:42:112:LEU:HA	1.98	0.45
8:72:44:PHE:HD1	8:72:80:ILE:HG13	1.81	0.45
9:82:29:ASN:O	9:82:31:GLN:HG2	2.17	0.45
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.99	0.45
26:14:588:U:O4	26:14:670:A:H1'	2.16	0.45
26:14:725:G:C6	26:14:726:G:N1	2.84	0.45
26:14:946:G:O6	26:14:972:G:N2	2.49	0.45
26:14:1012:U:C5	34:15:28:THR:HG21	2.52	0.45
26:14:1144:G:C2	26:14:1145:C:C2	3.04	0.45
26:14:1856:G:H1	26:14:1886:C:H42	1.65	0.45
26:14:2696:U:H2'	26:14:2697:G:C8	2.52	0.45
27:1J:3:C:H2'	27:1J:4:C:C6	2.52	0.45
27:1J:38:C:O4'	39:65:95:HIS:NE2	2.50	0.45
30:39:7:TYR:HD2	30:39:18:ARG:H	1.65	0.45
30:39:37:VAL:O	30:39:41:LEU:HG	2.16	0.45
32:59:11:VAL:O	32:59:13:LYS:HG3	2.17	0.45
32:59:30:LYS:NZ	32:59:80:SER:O	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:41:GLU:O	33:69:45:LYS:HG2	2.17	0.45
35:25:116:SER:OG	35:25:117:LEU:N	2.50	0.45
36:35:132:LYS:HE2	36:35:132:LYS:O	2.17	0.45
50:H5:8:LEU:O	50:H5:32:GLN:N	2.38	0.45
52:J5:52:TYR:CD1	52:J5:53:ALA:N	2.85	0.45
1:13:32:A:C2	1:13:33:A:C4	3.05	0.45
1:13:530:G:O6	25:4K:21:C:H1'	2.17	0.45
1:13:575:G:C4	1:13:881:G:C2	3.05	0.45
1:13:1346:A:N1	1:13:1374:A:H5''	2.32	0.45
8:7E:116:LYS:HB2	8:7E:119:LEU:HD11	1.97	0.45
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.82	0.45
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.52	0.45
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.82	0.45
26:1H:30:G:H2'	26:1H:31:C:C6	2.52	0.45
26:1H:270(T):G:H2'	26:1H:270(U):C:C6	2.51	0.45
26:1H:301:G:C4	26:1H:302:C:C5	3.05	0.45
26:1H:922:U:H2'	26:1H:923:C:C6	2.52	0.45
26:1H:1009:A:P	34:58:37:LYS:NZ	2.90	0.45
26:1H:1440:G:H2'	26:1H:1441:G:H8	1.82	0.45
26:1H:2415:G:H4'	36:78:67:MET:N	2.31	0.45
26:1H:2510:C:C4	26:1H:2511:U:C4	3.05	0.45
26:1H:2726:U:HO2'	26:1H:2727:G:H8	1.63	0.45
27:16:24:G:N7	27:16:56:G:H2'	2.32	0.45
30:31:60:SER:OG	30:31:61:GLY:N	2.50	0.45
43:E8:64:MET:HE2	43:E8:64:MET:HB3	1.37	0.45
44:F8:25:LYS:HA	44:F8:81:VAL:O	2.17	0.45
44:F8:65:ARG:HG3	44:F8:70:LEU:HD13	1.99	0.45
46:H8:7:ALA:O	46:H8:62:PRO:HD3	2.16	0.45
1:1G:375:U:H2'	1:1G:376:G:C8	2.52	0.45
1:1G:419:C:N4	1:1G:424:G:H1	2.14	0.45
1:1G:420:U:H2'	1:1G:422:C:O2	2.17	0.45
1:1G:545:C:H5'	4:32:72:GLU:HB2	1.98	0.45
1:1G:885:G:O2'	1:1G:914:A:N1	2.41	0.45
1:1G:999:U:H2'	1:1G:1000:A:C8	2.52	0.45
10:1A:48:THR:OG1	10:1A:62:HIS:ND1	2.50	0.45
26:14:96:G:H2'	26:14:97:C:H6	1.82	0.45
26:14:871:U:H4'	37:45:69:PHE:CD2	2.52	0.45
26:14:1282:U:H2'	26:14:1283:G:O4'	2.17	0.45
26:14:1423:G:C4	26:14:1424:G:C8	3.05	0.45
26:14:1919:A:H2'	26:14:1919:A:N3	2.32	0.45
30:39:110:LEU:O	30:39:114:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:100:TRP:O	31:49:103:LEU:N	2.49	0.45
32:59:8:PRO:HB2	32:59:69:ARG:NH2	2.32	0.45
32:59:13:LYS:NZ	32:59:13:LYS:HB3	2.32	0.45
32:59:44:VAL:O	32:59:50:VAL:HA	2.17	0.45
35:25:22:ILE:HA	35:25:22:ILE:HD13	1.45	0.45
37:45:26:TYR:HD1	37:45:27:VAL:N	2.15	0.45
38:55:87:TYR:O	38:55:89:ASP:N	2.50	0.45
46:D5:27:VAL:CG1	46:D5:87:ASP:HB3	2.46	0.45
46:D5:70:LEU:HD11	46:D5:98:MET:CE	2.47	0.45
46:D5:94:GLU:HG3	46:D5:95:PRO:HD2	1.99	0.45
48:F5:87:PRO:O	48:F5:90:ILE:HG22	2.17	0.45
1:13:444:C:H42	1:13:490:G:H1	1.64	0.45
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.42	0.45
1:13:624:C:H4'	16:7I:11:SER:H	1.79	0.45
1:13:639:G:C2	1:13:640:A:C8	3.05	0.45
1:13:1032(B):G:H2'	1:13:1033:G:O4'	2.17	0.45
1:13:1293:G:H2'	1:13:1294:G:O4'	2.17	0.45
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.17	0.45
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	1.99	0.45
6:5E:60:PHE:CE2	18:9I:78:LEU:HD21	2.52	0.45
7:6E:95:ARG:O	7:6E:99:LEU:HG	2.17	0.45
7:6E:115:ARG:HG3	7:6E:116:ALA:H	1.82	0.45
12:3I:21:LYS:HE2	12:3I:21:LYS:HB3	1.84	0.45
20:BI:27:LYS:O	20:BI:30:LYS:N	2.50	0.45
26:1H:274:G:H2'	26:1H:275:G:C1'	2.47	0.45
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.47	0.45
26:1H:1267:U:H2'	26:1H:1268:A:H8	1.82	0.45
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.52	0.45
26:1H:2270:G:H2'	26:1H:2271:G:H5'	1.99	0.45
27:16:78:A:H2'	27:16:79:C:O4'	2.17	0.45
27:16:79:C:H2'	27:16:80:U:O4'	2.17	0.45
29:21:38:THR:CB	29:21:40:GLU:HG2	2.44	0.45
30:31:149:ASP:OD1	30:31:149:ASP:N	2.50	0.45
31:41:109:VAL:HG21	51:M8:14:ILE:HD11	1.99	0.45
32:51:68:THR:O	32:51:72:ILE:HG13	2.17	0.45
36:78:13:ASN:O	36:78:15:ARG:N	2.48	0.45
37:88:14:ARG:HG2	37:88:41:TRP:CH2	2.40	0.45
40:B8:32:TYR:CE1	40:B8:76:PHE:HD2	2.34	0.45
46:H8:31:ARG:NH1	46:H8:94:GLU:OE2	2.28	0.45
1:1G:59:A:H3'	1:1G:331:G:H22	1.82	0.45
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.52	0.45
1:1G:1323:G:H2'	1:1G:1324:A:O4'	2.17	0.45
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.81	0.45
3:22:70:VAL:O	3:22:105:GLU:HA	2.16	0.45
4:32:61:LYS:HB2	4:32:203:VAL:HG22	1.99	0.45
19:AA:10:PHE:HB2	19:AA:41:VAL:HG12	1.98	0.45
21:1B:2:GLY:C	21:1B:4:GLY:H	2.21	0.45
23:2L:49:C:C2	23:2L:60:A:H1'	2.52	0.45
24:3L:72:C:H2'	24:3L:73:A:H5''	1.99	0.45
26:14:595:C:H6	26:14:595:C:H5''	1.81	0.45
26:14:754:C:H2'	26:14:755:C:H6	1.82	0.45
26:14:1043:C:C2'	26:14:1044:G:H5'	2.46	0.45
26:14:1210:A:H5'	26:14:1210:A:C8	2.51	0.45
26:14:2415:G:H1'	36:35:67:MET:HE3	1.99	0.45
26:14:2745:C:H2'	26:14:2746:U:O4'	2.17	0.45
29:29:6:GLY:O	29:29:195:LEU:HD12	2.17	0.45
30:39:203:GLN:HA	30:39:206:ILE:HG12	1.99	0.45
32:59:149:ARG:HA	32:59:162:ILE:HG21	1.99	0.45
33:69:107:VAL:HG12	33:69:108:THR:N	2.32	0.45
44:B5:83:VAL:HG22	44:B5:87:GLN:HB2	1.99	0.45
52:J5:4:HIS:O	52:J5:6:VAL:HG23	2.17	0.45
1:13:157:G:H2'	1:13:158:G:C8	2.52	0.44
1:13:542:G:H5'	4:3E:41:GLY:HA3	2.00	0.44
1:13:658:G:C6	1:13:659:U:C4	3.05	0.44
1:13:672:U:H2'	1:13:673:G:H8	1.82	0.44
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.17	0.44
6:5E:62:TRP:CZ3	6:5E:64:GLN:HB2	2.53	0.44
6:5E:78:GLU:O	6:5E:81:ILE:HG22	2.17	0.44
7:6E:69:VAL:HG22	7:6E:135:VAL:HG22	1.98	0.44
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.65	0.44
10:1I:22:LYS:HD2	10:1I:90:LEU:HD22	1.98	0.44
10:1I:48:THR:HG1	10:1I:62:HIS:CE1	2.35	0.44
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.97	0.44
23:2K:20:G:C4	23:2K:58:A:C2	3.05	0.44
26:1H:270(E):G:C2	26:1H:270(V):G:C6	3.05	0.44
26:1H:838:C:C2	26:1H:839:U:C6	3.05	0.44
26:1H:1048:A:H5'	26:1H:1049:C:OP2	2.18	0.44
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.50	0.44
26:1H:1464:C:H2'	26:1H:1465:G:C8	2.53	0.44
26:1H:2461:C:H42	26:1H:2489:G:H1	1.63	0.44
26:1H:2836:U:C4	26:1H:2883:A:N6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:167:VAL:HG11	29:21:187:ALA:CB	2.47	0.44
34:58:7:LYS:H	34:58:7:LYS:CE	2.30	0.44
37:88:32:TYR:O	37:88:105:GLU:HA	2.17	0.44
37:88:50:ALA:HB1	37:88:121:ALA:HB1	1.99	0.44
54:Q8:7:HIS:CG	54:Q8:61:LEU:HD13	2.52	0.44
1:1G:20:U:H2'	1:1G:21:G:O4'	2.17	0.44
1:1G:373:A:C2	1:1G:374:A:C8	3.05	0.44
1:1G:814:A:H2'	1:1G:816:A:H5''	1.99	0.44
1:1G:947:G:H2'	1:1G:948:C:O4'	2.17	0.44
1:1G:1120:G:H1	1:1G:1152:A:N6	2.15	0.44
1:1G:1199:U:H4'	10:1A:54:PHE:CE1	2.52	0.44
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.51	0.44
5:42:89:ILE:HD13	5:42:131:ILE:HD12	1.99	0.44
8:72:126:LYS:HD2	8:72:127:LEU:HD22	2.00	0.44
13:4A:29:ARG:HD3	13:4A:64:TRP:CH2	2.52	0.44
13:4A:102:ARG:O	13:4A:107:ALA:HB2	2.17	0.44
19:AA:37:ARG:H	19:AA:37:ARG:HG3	1.43	0.44
26:14:76:C:O3'	49:G5:59:ARG:HG3	2.16	0.44
26:14:218:A:H2	26:14:235:U:H4'	1.81	0.44
26:14:447:A:C8	26:14:473:G:C6	3.06	0.44
26:14:706:A:H2'	26:14:707:G:O4'	2.17	0.44
26:14:785:G:C5	26:14:786:C:C5	3.05	0.44
26:14:829:A:H4'	58:14:3678:HOH:O	2.17	0.44
26:14:860:U:C2	26:14:2268:A:C8	3.05	0.44
26:14:869:G:C2	26:14:909:A:C2	3.05	0.44
26:14:920:G:C2	26:14:921:G:C4	3.05	0.44
26:14:1006:C:O2'	34:15:106:MET:O	2.31	0.44
26:14:1028:A:H61	26:14:1125:G:H2'	1.80	0.44
26:14:1204:A:H61	26:14:1240:U:H2'	1.82	0.44
26:14:1352:U:O2	26:14:1570:A:H2	2.00	0.44
26:14:1443:G:H1	26:14:1548:C:H42	1.65	0.44
26:14:1701:A:H5''	26:14:1702:G:OP2	2.17	0.44
26:14:2138:C:H42	26:14:2153:G:H22	1.64	0.44
26:14:2853:C:H2'	26:14:2854:G:C8	2.48	0.44
27:1J:17:C:H2'	27:1J:18:G:O4'	2.16	0.44
35:25:77:ILE:HG12	35:25:78:ARG:N	2.32	0.44
36:35:135:LEU:HA	36:35:135:LEU:HD22	1.75	0.44
38:55:25:ALA:O	38:55:29:LEU:HB2	2.17	0.44
38:55:106:GLY:O	38:55:107:ASP:HB3	2.17	0.44
40:75:90:GLN:HG3	40:75:121:ILE:HD11	1.99	0.44
42:95:65:GLY:CA	42:95:91:TYR:HE1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:47:VAL:HA	43:A5:50:VAL:HG12	1.97	0.44
46:D5:33:LEU:HD12	46:D5:33:LEU:HA	1.72	0.44
48:F5:5:CYS:O	48:F5:9:GLY:N	2.46	0.44
1:13:29:G:O2'	1:13:30:U:H5'	2.18	0.44
1:13:342:C:C2	1:13:348:G:C2	3.05	0.44
1:13:436:C:H2'	1:13:437:U:O4'	2.17	0.44
1:13:481:G:H1'	1:13:483:C:N4	2.32	0.44
1:13:768:A:H2'	1:13:769:G:O4'	2.17	0.44
1:13:1358:U:H2'	1:13:1359:C:O4'	2.15	0.44
1:13:1502:A:H2	1:13:1505:G:H1	1.64	0.44
1:13:1529:G:HO2'	1:13:1530:G:P	2.39	0.44
5:4E:15:ARG:NE	5:4E:26:PHE:CE2	2.80	0.44
20:BI:48:LYS:HD3	20:BI:51:GLU:HG3	1.98	0.44
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.17	0.44
22:1K:1:G:C2	22:1K:2:C:H1'	2.53	0.44
24:3K:72:C:H2'	24:3K:73:A:H5''	1.98	0.44
26:1H:275:G:O6	26:1H:363:G:H1'	2.17	0.44
26:1H:467:G:O5'	26:1H:467:G:H8	2.00	0.44
26:1H:606:U:OP2	30:31:104:LYS:HE3	2.17	0.44
26:1H:654(R):C:O2'	26:1H:654(S):G:H5'	2.16	0.44
26:1H:750:A:OP2	58:1H:3688:HOH:O	2.21	0.44
26:1H:957:A:N1	26:1H:2458:G:H4'	2.32	0.44
26:1H:1422:G:O2'	26:1H:1496:A:N6	2.51	0.44
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.17	0.44
26:1H:1693:U:H3	26:1H:1829:A:N6	2.15	0.44
26:1H:1833:U:H2'	26:1H:1834:U:C6	2.47	0.44
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.82	0.44
26:1H:2840:C:H2'	26:1H:2841:C:C6	2.52	0.44
27:16:44:G:N2	27:16:48:A:C4	2.85	0.44
30:31:24:LEU:HA	30:31:25:PRO:HD2	1.82	0.44
33:61:27:ARG:HD3	48:J8:71:TYR:CE2	2.53	0.44
36:78:84:ASN:HA	36:78:115:LEU:O	2.16	0.44
37:88:78:PRO:HB2	37:88:81:VAL:HG11	1.99	0.44
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.82	0.44
1:1G:1241:G:OP1	7:62:35:LYS:NZ	2.51	0.44
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.17	0.44
4:32:13:ARG:HD2	4:32:38:TYR:O	2.17	0.44
6:52:24:GLU:O	6:52:28:ARG:HD2	2.16	0.44
9:82:99:LEU:HD12	9:82:101:PHE:CE1	2.52	0.44
12:3A:42:THR:HG22	12:3A:54:LYS:HG3	2.00	0.44
18:9A:54:ARG:HG2	18:9A:55:ARG:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:73:A:O2'	22:1L:74:C:O5'	2.33	0.44
26:14:631:A:OP2	54:M5:47:LYS:NZ	2.27	0.44
26:14:764:A:H2	28:19:219:PRO:HG3	1.79	0.44
26:14:1277:G:O2'	38:55:24:GLN:HG2	2.18	0.44
26:14:1519:G:C6	26:14:1520:U:C4	3.04	0.44
26:14:1642:G:H2'	26:14:1643:G:O4'	2.18	0.44
26:14:1729:A:H2'	26:14:1731:G:H22	1.81	0.44
26:14:1757:U:C2	26:14:1762:A:H2	2.35	0.44
26:14:1817:G:C6	26:14:1818:U:C4	3.05	0.44
26:14:2555:U:C5	26:14:2556:C:C2	3.05	0.44
28:19:233:HIS:CD2	28:19:233:HIS:N	2.84	0.44
30:39:53:THR:HG22	30:39:56:GLU:CG	2.42	0.44
31:49:16:ARG:HH11	31:49:28:VAL:HG22	1.81	0.44
31:49:29:TRP:HE3	31:49:33:ARG:NH1	2.15	0.44
34:15:65:LYS:O	34:15:67:LEU:N	2.50	0.44
37:45:35:VAL:HA	37:45:101:ARG:O	2.17	0.44
41:85:92:ARG:HB3	42:95:11:GLN:OE1	2.17	0.44
43:A5:27:LYS:HB3	43:A5:31:GLU:CD	2.38	0.44
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	1.99	0.44
1:13:112:G:H4'	1:13:389:A:H4'	1.99	0.44
1:13:372:C:H42	1:13:389:A:N6	2.15	0.44
1:13:579:G:C6	1:13:580:U:C4	3.06	0.44
1:13:947:G:OP1	13:4I:108:ARG:HB3	2.17	0.44
1:13:1000:A:H2'	1:13:1001:G:C8	2.52	0.44
1:13:1030:C:H2'	1:13:1031:G:C8	2.52	0.44
1:13:1117:G:H5''	9:8E:104:ARG:CZ	2.46	0.44
1:13:1348:U:H3	1:13:1374:A:H2	1.65	0.44
1:13:1453:G:H3'	20:BI:39:LYS:HE2	1.99	0.44
2:1E:16:HIS:O	2:1E:44:LEU:HD21	2.18	0.44
5:4E:98:THR:HG22	5:4E:99:GLY:O	2.17	0.44
14:5I:50:LYS:HB2	14:5I:52:GLN:HG3	2.00	0.44
21:1F:2:GLY:C	21:1F:4:GLY:H	2.21	0.44
26:1H:30:G:C5	26:1H:31:C:C4	3.06	0.44
26:1H:433:C:H2'	26:1H:434:U:C6	2.52	0.44
26:1H:579:G:H2'	26:1H:580:C:H6	1.81	0.44
26:1H:873:G:H1	26:1H:904:C:H42	1.65	0.44
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.32	0.44
27:16:1(M):A:C8	27:16:0:A:C8	3.05	0.44
28:11:214:TRP:N	28:11:214:TRP:CD1	2.85	0.44
32:51:129:THR:O	32:51:129:THR:OG1	2.33	0.44
32:51:152:ARG:HA	32:51:152:ARG:HD3	1.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:F8:67:GLY:O	44:F8:68:ARG:HB3	2.17	0.44
46:H8:111:VAL:HG21	46:H8:146:ILE:HG13	1.99	0.44
52:N8:35:GLU:HG2	52:N8:49:CYS:SG	2.58	0.44
1:1G:410:G:N1	1:1G:429:U:O2	2.50	0.44
1:1G:952:U:H4'	1:1G:964:A:N1	2.32	0.44
1:1G:953:G:H5'	1:1G:965:A:H61	1.82	0.44
1:1G:1112:C:O2	3:22:179:ARG:HG3	2.17	0.44
4:32:64:LEU:HD23	4:32:203:VAL:HG21	2.00	0.44
6:52:100:ASN:HB2	18:9A:27:GLY:C	2.38	0.44
15:6A:39:LEU:HD11	15:6A:56:LEU:HB2	1.99	0.44
23:2L:20:G:C4	23:2L:58:A:C2	3.06	0.44
26:14:296:C:H2'	26:14:297:C:H6	1.81	0.44
26:14:601:C:O2'	26:14:605:C:H5''	2.18	0.44
26:14:796:C:H2'	26:14:797:C:H6	1.81	0.44
26:14:966:G:H2'	26:14:967:C:C6	2.53	0.44
26:14:996:A:OP2	41:85:94:ASN:ND2	2.50	0.44
26:14:1347:G:C6	26:14:1348:G:N7	2.85	0.44
26:14:1488:G:C2	26:14:1502:C:N3	2.85	0.44
26:14:2232:U:P	48:F5:40:ARG:HH22	2.40	0.44
26:14:2250:G:C8	26:14:2496:C:H5''	2.51	0.44
26:14:2760:C:O2'	32:59:143:GLN:NE2	2.51	0.44
26:14:2811:G:N2	26:14:2891:G:H1'	2.31	0.44
27:1J:24:G:C8	27:1J:56:G:C5	3.06	0.44
31:49:16:ARG:HG3	31:49:31:VAL:HG11	1.99	0.44
32:59:10:PRO:C	32:59:12:PRO:HD3	2.37	0.44
39:65:42:ASP:C	39:65:44:LYS:H	2.21	0.44
39:65:87:PHE:CE1	39:65:102:ALA:HB2	2.53	0.44
44:B5:57:LEU:HD21	44:B5:78:LYS:HG3	1.99	0.44
46:D5:5:LEU:HD12	46:D5:47:VAL:HG21	1.99	0.44
46:D5:53:ILE:HA	46:D5:71:VAL:HG13	2.00	0.44
50:H5:3:ARG:NH2	50:H5:38:GLU:OE1	2.51	0.44
1:13:738:C:H2'	1:13:739:C:C6	2.52	0.44
1:13:821:G:H5''	58:13:2030:HOH:O	2.17	0.44
1:13:1046:A:N6	1:13:1213:A:H61	2.15	0.44
1:13:1298:C:C4	7:6E:114:ARG:HD3	2.51	0.44
19:AI:41:VAL:HG12	19:AI:44:MET:CB	2.47	0.44
26:1H:182:A:H2'	26:1H:183:C:O4'	2.16	0.44
26:1H:470:A:OP1	30:31:59:TYR:HE1	1.99	0.44
26:1H:607:U:OP1	30:31:102:PRO:HA	2.17	0.44
26:1H:742:G:H2'	26:1H:743:G:H8	1.80	0.44
26:1H:911:A:C5	37:88:9:TYR:CD2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.53	0.44
26:1H:1218:C:OP2	41:C8:15:LYS:NZ	2.50	0.44
26:1H:1233:C:H2'	26:1H:1234:U:O4'	2.17	0.44
26:1H:1500:G:O2'	28:11:100:GLY:O	2.30	0.44
26:1H:1766:U:H2'	26:1H:1767:C:C6	2.52	0.44
26:1H:2206:C:C2	26:1H:2219:G:C2	3.06	0.44
26:1H:2427:C:H5''	26:1H:2428:G:OP1	2.17	0.44
28:11:123:ALA:HA	28:11:124:PRO:HD2	1.69	0.44
33:61:5:LEU:HD21	33:61:12:LEU:HB3	1.98	0.44
34:58:12:ARG:HB3	34:58:50:ASP:OD1	2.18	0.44
40:B8:78:LEU:O	40:B8:78:LEU:HD13	2.17	0.44
1:1G:1206:G:H4'	3:22:192:THR:O	2.17	0.44
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.32	0.44
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.50	0.44
1:1G:1309:G:H4'	13:4A:74:VAL:HG13	2.00	0.44
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.17	0.44
1:1G:1503:A:C8	25:4L:12:A:N6	2.85	0.44
3:22:90:GLU:N	3:22:90:GLU:OE2	2.50	0.44
5:42:101:ILE:HG13	5:42:119:LEU:HA	1.98	0.44
13:4A:77:ASN:O	13:4A:81:LEU:HD23	2.17	0.44
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.58	0.44
16:7A:67:THR:HG22	16:7A:68:ASP:H	1.81	0.44
17:8A:87:LYS:O	17:8A:90:ILE:HG22	2.18	0.44
23:2L:19:G:C4	23:2L:59:A:C2	3.06	0.44
23:2L:32:G:H2'	23:2L:33:C:H6	1.82	0.44
24:3L:76:A:H61	26:14:2422:A:H5''	1.82	0.44
26:14:312:G:H4'	26:14:331:A:C2	2.52	0.44
26:14:821:A:H2'	26:14:946:G:H5''	1.99	0.44
26:14:1639:U:C2'	26:14:1640:C:H5'	2.48	0.44
26:14:1639:U:H2'	26:14:1640:C:H5'	1.99	0.44
26:14:1663:C:H2'	58:14:3442:HOH:O	2.18	0.44
26:14:1682:G:C5	26:14:1757:U:C6	3.05	0.44
26:14:2104:G:H2'	26:14:2105:C:H6	1.83	0.44
26:14:2392:A:C2	26:14:2429:G:C2	3.05	0.44
26:14:2446:G:C2	26:14:2501:C:C5	3.06	0.44
26:14:2454:G:H1'	58:14:3594:HOH:O	2.16	0.44
27:1J:33:G:C2	27:1J:34:U:C2	3.05	0.44
29:29:66:HIS:CG	29:29:67:PHE:N	2.86	0.44
30:39:34:TRP:CE2	36:35:8:PRO:HD3	2.53	0.44
36:35:57:THR:O	36:35:58:THR:C	2.56	0.44
37:45:41:TRP:HB3	37:45:94:VAL:HG21	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:82:GLU:H	38:55:85:PRO:CG	2.28	0.44
47:E5:53:MET:HG2	47:E5:59:LEU:HD23	1.98	0.44
48:F5:76:ARG:HG3	48:F5:94:LEU:HD13	2.00	0.44
48:F5:95:LEU:HD12	48:F5:95:LEU:HA	1.84	0.44
1:13:134:A:H61	16:7I:25:ARG:NH1	2.15	0.44
1:13:736:C:H2'	1:13:737:A:H8	1.82	0.44
2:1E:237:ALA:O	2:1E:239:VAL:N	2.51	0.44
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.35	0.44
15:6I:25:THR:HG22	15:6I:70:LEU:HD22	1.99	0.44
22:1K:10:G:H2'	22:1K:10:G:N3	2.33	0.44
22:1K:49:G:O6	22:1K:59:C:H5''	2.18	0.44
26:1H:56:A:C2	26:1H:57:C:C2	3.06	0.44
26:1H:96:G:H4'	49:K8:48:HIS:CD2	2.52	0.44
26:1H:270(T):G:C6	26:1H:270(U):C:C4	3.06	0.44
26:1H:423:A:OP1	58:1H:3689:HOH:O	2.21	0.44
26:1H:480:A:OP2	45:G8:47:LYS:NZ	2.32	0.44
26:1H:1051:G:OP2	26:1H:1051:G:H8	2.01	0.44
26:1H:1359:A:N1	26:1H:1372:U:C4	2.85	0.44
26:1H:1530:G:C5	26:1H:1531:C:C4	3.06	0.44
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.52	0.44
26:1H:1899:G:H1	26:1H:1902:C:H41	1.66	0.44
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.17	0.44
26:1H:2453:A:H61	26:1H:2500:U:H3	1.65	0.44
26:1H:2824:C:H2'	26:1H:2825:C:O4'	2.17	0.44
28:11:18:VAL:HG12	28:11:19:ALA:N	2.33	0.44
33:61:8:PRO:HB3	33:61:14:ASP:HA	2.00	0.44
38:98:26:LYS:HE2	38:98:70:LEU:O	2.17	0.44
39:A8:28:VAL:HG11	39:A8:98:VAL:HG13	1.98	0.44
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.85	0.44
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.83	0.44
48:J8:52:ARG:HA	48:J8:57:GLU:HA	1.99	0.44
48:J8:93:GLU:C	48:J8:95:LEU:N	2.69	0.44
1:1G:81:G:H8	1:1G:81:G:O5'	2.01	0.44
1:1G:87:A:C5	1:1G:88:C:C5	3.05	0.44
1:1G:737:A:H2'	1:1G:738:C:H6	1.82	0.44
3:22:182:ILE:HD11	3:22:203:PHE:HD1	1.82	0.44
9:82:26:VAL:HG22	9:82:61:ALA:N	2.32	0.44
14:5A:17:LYS:HZ3	14:5A:18:VAL:HG13	1.82	0.44
22:1L:19:G:C1'	22:1L:57:G:H1	2.31	0.44
23:2L:76:C:H3'	23:2L:77:A:H5''	2.00	0.44
26:14:89:G:OP2	26:14:90:U:O2'	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:458:G:O2'	26:14:469:G:O6	2.25	0.44
26:14:676:A:H2	26:14:802:A:H61	1.66	0.44
26:14:685:A:C2	26:14:689:A:C6	3.06	0.44
26:14:868:U:N3	26:14:869:G:N7	2.65	0.44
26:14:869:G:C2	26:14:870:A:C8	3.05	0.44
26:14:1034:G:H8	26:14:1034:G:OP1	2.01	0.44
26:14:1356:G:C6	26:14:1357:U:C4	3.05	0.44
26:14:1386:C:H2'	26:14:1387:C:C6	2.44	0.44
26:14:1731:G:H2'	26:14:1732:A:O4'	2.18	0.44
26:14:2448:A:P	58:14:3408:HOH:O	2.64	0.44
27:1J:71:C:C4	27:1J:72:G:N7	2.85	0.44
28:19:132:PRO:HG3	28:19:190:TYR:CE1	2.53	0.44
28:19:172:TYR:CD1	28:19:186:HIS:HA	2.52	0.44
31:49:18:GLU:CD	31:49:21:ARG:HH21	2.20	0.44
33:69:45:LYS:O	33:69:49:ALA:N	2.40	0.44
37:45:133:ARG:O	37:45:134:ARG:HD2	2.17	0.44
39:65:62:LYS:H	39:65:62:LYS:HG2	1.57	0.44
48:F5:91:LYS:HZ1	48:F5:95:LEU:HD22	1.82	0.44
54:M5:49:VAL:HG23	54:M5:50:LEU:O	2.18	0.44
1:13:27:G:C5	1:13:557:G:C2	3.05	0.44
1:13:145:G:H2'	1:13:146:G:H8	1.81	0.44
1:13:160:A:C2	1:13:161:A:C8	3.05	0.44
1:13:1277:C:O2'	1:13:1279:A:H1'	2.17	0.44
1:13:1502:A:H2	1:13:1505:G:H22	1.64	0.44
3:2E:136:GLN:HE22	3:2E:140:ARG:HH11	1.63	0.44
10:1I:90:LEU:N	10:1I:91:PRO:HD2	2.33	0.44
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.37	0.44
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.32	0.44
18:9I:52:PRO:O	18:9I:56:THR:HG23	2.17	0.44
20:BI:89:ARG:HH22	20:BI:105:SER:N	2.16	0.44
26:1H:270(J):G:H1	26:1H:270(P):C:H42	1.63	0.44
26:1H:720:C:H2'	26:1H:721:C:C6	2.53	0.44
26:1H:852:G:H1	26:1H:925:C:N4	2.10	0.44
26:1H:911:A:H2'	37:88:9:TYR:OH	2.17	0.44
26:1H:918:A:C6	26:1H:919:G:H1'	2.52	0.44
26:1H:1442:G:C2	26:1H:1550:C:O2	2.70	0.44
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.83	0.44
26:1H:2401:U:H3'	26:1H:2402:C:H6	1.82	0.44
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.53	0.44
27:16:24:G:C2	27:16:56:G:C2	3.05	0.44
29:21:11:MET:HA	29:21:23:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:13:ARG:NH2	40:B8:77:PRO:HB3	2.32	0.44
30:31:123:LEU:HD12	30:31:124:LEU:H	1.82	0.44
47:I8:19:LYS:HD3	47:I8:19:LYS:HA	1.53	0.44
49:K8:18:PRO:O	49:K8:21:LEU:HB2	2.18	0.44
51:M8:14:ILE:HG22	51:M8:24:THR:CG2	2.45	0.44
1:1G:131:C:H2'	1:1G:132:C:C6	2.53	0.44
1:1G:416:G:O5'	1:1G:416:G:H8	2.01	0.44
1:1G:1206:G:C6	1:1G:1207:G:C6	3.06	0.44
1:1G:1415:G:C6	1:1G:1486:G:C6	3.06	0.44
6:52:18:GLN:HA	6:52:21:LEU:HB2	1.99	0.44
26:14:608:A:H2'	26:14:609:A:C8	2.52	0.44
26:14:754:C:H2'	26:14:755:C:C6	2.53	0.44
26:14:873:G:H1	26:14:904:C:H42	1.64	0.44
26:14:880:G:H1'	26:14:898:C:N3	2.33	0.44
26:14:1504:C:O2'	26:14:1505:C:H5'	2.17	0.44
26:14:1971:A:C5	28:19:241:PRO:HD3	2.53	0.44
26:14:2115:G:H1'	26:14:2171:A:H61	1.81	0.44
26:14:2862:G:H2'	26:14:2863:C:H6	1.83	0.44
27:1J:80:U:C2	27:1J:81:G:N2	2.85	0.44
28:19:31:LYS:HZ2	28:19:33:LEU:HD13	1.83	0.44
28:19:145:VAL:HG22	28:19:191:ALA:HB1	1.99	0.44
28:19:239:ARG:O	28:19:239:ARG:HG3	2.17	0.44
31:49:75:LYS:HB2	31:49:75:LYS:HE2	1.84	0.44
37:45:28:ALA:HB3	37:45:105:GLU:OE2	2.17	0.44
40:75:2:ASN:CB	40:75:4:GLY:HA3	2.48	0.44
43:A5:4:LYS:CB	43:A5:106:ILE:HG22	2.48	0.44
45:C5:36:ALA:HA	45:C5:67:LEU:O	2.17	0.44
46:D5:132:ASN:OD1	46:D5:132:ASN:N	2.49	0.44
46:D5:140:ASP:OD1	46:D5:140:ASP:N	2.50	0.44
47:E5:72:ARG:HH21	47:E5:75:LEU:CD1	2.30	0.44
1:13:237:C:H5''	17:8I:25:ARG:CZ	2.48	0.44
1:13:374:A:C6	1:13:375:U:C4	3.05	0.44
1:13:976:G:H5'	1:13:1358:U:O2'	2.18	0.44
1:13:1090:U:H2'	1:13:1091:U:C6	2.53	0.44
1:13:1285:A:H4'	1:13:1286:A:H5'	2.00	0.44
5:4E:28:PHE:CD2	5:4E:51:VAL:HG23	2.52	0.44
5:4E:92:LYS:HE2	5:4E:92:LYS:HB3	1.73	0.44
6:5E:39:LYS:HB2	6:5E:62:TRP:HZ3	1.83	0.44
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.47	0.44
10:1I:48:THR:OG1	10:1I:62:HIS:CE1	2.71	0.44
13:4I:96:LEU:HD13	13:4I:97:PRO:HD2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:98:VAL:HG23	13:4I:99:ARG:N	2.32	0.44
17:8I:76:LEU:HD21	17:8I:79:SER:HB2	1.98	0.44
17:8I:90:ILE:O	17:8I:93:GLN:HB2	2.18	0.44
19:AI:18:LYS:HA	19:AI:21:GLU:HB3	1.99	0.44
26:1H:870:A:OP1	37:88:6:ARG:NH2	2.51	0.44
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.49	0.44
26:1H:1024:G:O5'	26:1H:1024:G:H8	2.01	0.44
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.17	0.44
26:1H:1171:G:N2	26:1H:1178:C:O2	2.50	0.44
26:1H:1408:C:C2	26:1H:1595:G:N2	2.86	0.44
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.18	0.44
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.53	0.44
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.32	0.44
29:21:152:LYS:HG2	34:58:78:TYR:CE1	2.52	0.44
31:41:19:LEU:HD11	31:41:172:LEU:HA	1.99	0.44
33:61:27:ARG:HH22	48:J8:68:PRO:HG3	1.83	0.44
36:78:76:LYS:HD3	36:78:76:LYS:HA	1.73	0.44
37:88:37:LEU:HB2	37:88:128:LYS:O	2.18	0.44
37:88:51:ARG:HE	37:88:51:ARG:HB3	1.65	0.44
38:98:14:SER:OG	38:98:15:SER:N	2.51	0.44
40:B8:12:SER:CA	40:B8:14:TYR:H	2.29	0.44
42:D8:35:LEU:HD22	42:D8:35:LEU:HA	1.79	0.44
45:G8:28:LYS:HE3	45:G8:28:LYS:HB2	1.68	0.44
49:K8:18:PRO:O	49:K8:21:LEU:N	2.51	0.44
54:Q8:31:HIS:O	54:Q8:36:LYS:NZ	2.51	0.44
1:1G:341:C:H2'	1:1G:342:C:H6	1.82	0.44
1:1G:518:C:H2'	1:1G:530:G:C8	2.53	0.44
1:1G:585:G:N3	1:1G:879:C:H4'	2.33	0.44
1:1G:697:U:H5''	1:1G:698:G:OP2	2.17	0.44
1:1G:838:G:N1	1:1G:842:C:O2'	2.24	0.44
1:1G:1288:A:H2'	1:1G:1289:A:H8	1.83	0.44
1:1G:1513:A:H2'	1:1G:1514:C:H6	1.79	0.44
2:12:54:THR:HG23	2:12:57:PHE:HD2	1.83	0.44
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.99	0.44
3:22:103:VAL:HG12	3:22:104:GLN:N	2.33	0.44
5:42:7:GLU:OE1	5:42:37:ARG:NE	2.49	0.44
8:72:73:ASP:HB2	8:72:75:ARG:NH2	2.32	0.44
10:1A:12:ASP:CG	10:1A:14:LYS:H	2.21	0.44
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.58	0.44
20:BA:56:MET:HG3	20:BA:84:LEU:HD22	1.99	0.44
26:14:274:G:H2'	26:14:275:G:H1'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1651:G:N2	26:14:2007:C:C2	2.86	0.44
26:14:1849:G:H2'	26:14:1850:G:H8	1.83	0.44
26:14:1879:C:O5'	26:14:1879:C:H6	2.00	0.44
26:14:2465:C:O2	26:14:2486:G:C2	2.71	0.44
26:14:2617:C:C4	26:14:2618:G:C5	3.06	0.44
26:14:2680:C:N4	26:14:2681:C:H42	2.16	0.44
26:14:2774:C:H2'	26:14:2775:A:C8	2.52	0.44
29:29:26:ILE:HG22	29:29:28:ALA:N	2.32	0.44
30:39:7:TYR:HE1	30:39:10:PRO:HD3	1.82	0.44
30:39:82:ILE:H	30:39:82:ILE:HG13	1.55	0.44
34:15:30:ILE:O	34:15:34:LEU:HD22	2.18	0.44
40:75:19:LEU:HD22	40:75:86:ILE:CG2	2.47	0.44
40:75:65:LYS:HD2	40:75:67:SER:HB2	1.99	0.44
44:B5:12:VAL:HG22	44:B5:27:THR:OG1	2.18	0.44
46:D5:14:LYS:H	46:D5:14:LYS:CD	2.31	0.44
1:13:129(A):G:N1	1:13:188:U:O2'	2.51	0.44
1:13:848:C:H2'	1:13:849:C:O4'	2.18	0.44
1:13:994:A:N7	1:13:1216:G:H4'	2.32	0.44
1:13:1234:C:O2'	1:13:1235:U:H5'	2.18	0.44
1:13:1349:A:H2'	1:13:1350:A:C8	2.52	0.44
1:13:1397:C:H4'	1:13:1398:A:OP2	2.18	0.44
2:1E:87:ARG:CZ	2:1E:232:PRO:HB3	2.48	0.44
4:3E:26:CYS:HA	56:3E:301:SF4:S3	2.58	0.44
6:5E:48:LEU:HB2	6:5E:56:PRO:O	2.17	0.44
7:6E:16:LEU:HD23	9:8E:42:ARG:HA	1.98	0.44
7:6E:50:ILE:O	7:6E:54:THR:N	2.38	0.44
7:6E:61:VAL:HG12	7:6E:124:LEU:HD22	1.99	0.44
10:1I:7:LYS:NZ	10:1I:9:ARG:HH11	2.16	0.44
13:4I:7:VAL:HB	31:41:115:ARG:CZ	2.47	0.44
20:BI:76:ALA:O	20:BI:80:ARG:HG2	2.18	0.44
26:1H:17:G:H2'	26:1H:18:C:H6	1.80	0.44
26:1H:322:A:OP2	30:31:169:ASN:HB2	2.18	0.44
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.28	0.44
26:1H:580:C:C2	26:1H:581:C:C5	3.06	0.44
26:1H:653:A:O2'	26:1H:654:A:H5'	2.17	0.44
26:1H:981:A:N1	26:1H:2027:G:O2'	2.44	0.44
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.83	0.44
26:1H:1579:A:H2'	26:1H:1580:A:C8	2.53	0.44
26:1H:1814:G:H4'	28:11:51:VAL:HG21	1.99	0.44
26:1H:1848:A:H2'	26:1H:1849:G:O4'	2.17	0.44
26:1H:2292:C:P	39:A8:17:ARG:NH2	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:60:C:H2'	27:16:61:G:H8	1.83	0.44
32:51:2:SER:O	32:51:4:ILE:N	2.50	0.44
32:51:52:VAL:O	32:51:65:HIS:NE2	2.38	0.44
39:A8:51:ALA:HB1	39:A8:69:VAL:HG23	2.00	0.44
44:F8:92:LEU:HD23	44:F8:92:LEU:HA	1.71	0.44
46:H8:28:MET:O	46:H8:35:ARG:N	2.45	0.44
48:J8:84:GLY:C	48:J8:85:LEU:HD22	2.39	0.44
52:N8:6:VAL:HG13	52:N8:7:PRO:HD2	1.98	0.44
52:N8:40:LYS:CG	52:N8:47:PRO:HD2	2.48	0.44
1:1G:292:G:H8	1:1G:292:G:O5'	2.00	0.44
1:1G:374:A:C6	1:1G:375:U:C4	3.06	0.44
1:1G:837:G:H1	1:1G:849:C:N4	2.16	0.44
1:1G:1016:A:H1'	1:1G:1218:C:H1'	2.00	0.44
1:1G:1267:C:O2	1:1G:1267:C:H2'	2.17	0.44
1:1G:1274:G:H21	1:1G:1275:A:H62	1.65	0.44
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.83	0.44
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.18	0.44
2:12:78:GLN:O	2:12:94:ASN:ND2	2.35	0.44
2:12:116:GLU:HG2	2:12:153:ARG:HH21	1.83	0.44
2:12:217:ARG:O	2:12:219:VAL:HG13	2.18	0.44
10:1A:21:GLN:O	10:1A:24:VAL:HB	2.18	0.44
11:2A:91:ARG:O	11:2A:95:ILE:HG12	2.18	0.44
13:4A:32:GLU:O	13:4A:36:LYS:HB2	2.17	0.44
13:4A:76:ALA:O	13:4A:80:ARG:HB2	2.17	0.44
16:7A:14:ASN:O	16:7A:16:HIS:HD2	2.00	0.44
23:2L:17:C:H3'	23:2L:18:U:H2'	2.00	0.44
26:14:198:C:O2'	26:14:199:A:H5'	2.18	0.44
26:14:214:G:H4'	26:14:214:G:OP1	2.17	0.44
26:14:570:G:C6	26:14:2030:A:C2	3.06	0.44
26:14:1884:A:C2	26:14:1885:A:C8	3.06	0.44
31:49:103:LEU:O	31:49:107:LEU:HG	2.18	0.44
36:35:45:LEU:HD22	36:35:45:LEU:H	1.83	0.44
36:35:63:PRO:HD2	54:M5:25:MET:HB2	2.00	0.44
37:45:66:ILE:HD12	37:45:67:ARG:N	2.32	0.44
40:75:23:ARG:NH2	40:75:120:ARG:HD3	2.33	0.44
44:B5:66:LEU:HD22	44:B5:66:LEU:HA	1.82	0.44
46:D5:10:ARG:HH21	46:D5:26:GLY:N	2.12	0.44
49:G5:37:PHE:C	49:G5:39:ALA:H	2.20	0.44
54:M5:52:LYS:H	54:M5:53:PRO:HD2	1.82	0.44
1:13:372:C:N4	1:13:389:A:H62	2.16	0.44
1:13:373:A:N6	1:13:391:G:H21	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:942:G:H2'	1:13:943:U:C6	2.52	0.44
1:13:1205:U:H2'	1:13:1206:G:C8	2.53	0.44
1:13:1260:C:N4	1:13:1274:G:O6	2.51	0.44
1:13:1269:A:H2	1:13:1312:G:N3	2.16	0.44
5:4E:57:LYS:H	5:4E:57:LYS:HG2	1.57	0.44
15:6I:55:GLY:HA2	15:6I:58:MET:HE3	1.98	0.44
21:1F:9:ARG:HD3	21:1F:13:ILE:HD11	2.00	0.44
26:1H:18:C:H4'	41:C8:23:GLY:O	2.18	0.44
26:1H:1706:U:C2	26:1H:1757:U:H5'	2.53	0.44
26:1H:2091:U:O2'	48:J8:47:GLN:HG3	2.18	0.44
26:1H:2830:G:H5''	26:1H:2830:G:C8	2.53	0.44
29:21:14:ILE:HB	29:21:21:VAL:HG22	1.99	0.44
29:21:78:LEU:HD13	29:21:78:LEU:HA	1.78	0.44
34:58:99:LEU:O	34:58:103:VAL:HG23	2.18	0.44
37:88:77:LYS:HE3	37:88:84:GLY:O	2.17	0.44
1:1G:406:G:H21	4:32:119:GLN:NE2	2.16	0.44
1:1G:1108:G:H5'	3:22:176:HIS:ND1	2.33	0.44
3:22:42:LEU:O	3:22:46:GLU:HG2	2.18	0.44
4:32:19:LEU:HD22	4:32:67:ILE:HG13	1.99	0.44
4:32:26:CYS:HA	56:32:302:SF4:S2	2.58	0.44
7:62:71:PRO:HD3	7:62:103:TRP:HZ3	1.83	0.44
11:2A:86:GLY:O	11:2A:91:ARG:NH1	2.50	0.44
14:5A:7:ILE:HB	14:5A:23:ARG:HD3	2.00	0.44
14:5A:37:PHE:HZ	14:5A:56:VAL:HG21	1.83	0.44
26:14:22:C:H2'	26:14:23:G:O4'	2.17	0.44
26:14:29:U:H2'	26:14:30:G:H8	1.80	0.44
26:14:72:U:P	58:14:3460:HOH:O	2.76	0.44
26:14:278:A:OP2	26:14:278:A:H2'	2.18	0.44
26:14:726:G:O2'	26:14:727:A:OP2	2.30	0.44
26:14:1754:C:P	40:75:96:ARG:HH12	2.41	0.44
26:14:1973:G:H2'	26:14:1974:C:C6	2.53	0.44
26:14:2274:A:O3'	26:14:2275:C:H3'	2.18	0.44
26:14:2687:U:C4	26:14:2688:U:C5	3.05	0.44
26:14:2712:U:O2'	26:14:2713:A:H5'	2.18	0.44
26:14:2855:C:H2'	26:14:2856:C:H6	1.83	0.44
28:19:140:THR:O	28:19:165:ILE:HG13	2.17	0.44
30:39:68:LYS:HG3	30:39:69:HIS:CE1	2.52	0.44
30:39:115:ALA:O	30:39:119:ARG:HG3	2.18	0.44
32:59:150:ALA:O	32:59:152:ARG:N	2.51	0.44
1:13:105:G:H2'	1:13:106:C:C6	2.53	0.43
1:13:156:G:H1	1:13:165:C:H42	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:191:G:H1'	20:BI:105:SER:HB3	2.00	0.43
1:13:590:C:H2'	1:13:591:U:C6	2.49	0.43
1:13:1227:A:C8	1:13:1227:A:H3'	2.53	0.43
9:8E:6:GLY:O	9:8E:17:VAL:HG23	2.18	0.43
15:6I:74:ASP:OD2	15:6I:77:ARG:HB2	2.18	0.43
19:AI:42:PRO:O	19:AI:45:VAL:HG12	2.18	0.43
19:AI:49:ILE:HD13	19:AI:71:LEU:HD11	1.99	0.43
20:BI:68:LYS:HE3	20:BI:68:LYS:HB2	1.75	0.43
26:1H:274:G:N3	26:1H:276:A:N1	2.65	0.43
26:1H:518:G:H2'	26:1H:519:U:C6	2.53	0.43
26:1H:658:C:H2'	26:1H:659:C:C6	2.53	0.43
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.18	0.43
26:1H:1788:C:H2'	26:1H:1789:A:O4'	2.17	0.43
26:1H:2027:G:C5	26:1H:2028:U:C5	3.07	0.43
26:1H:2656:U:C5	26:1H:2664:G:N2	2.86	0.43
28:11:26:LYS:HG2	28:11:27:THR:N	2.33	0.43
30:31:49:ALA:O	30:31:92:PRO:HB2	2.17	0.43
33:61:85:GLU:OE2	33:61:85:GLU:HA	2.18	0.43
34:58:39:ARG:O	34:58:41:ASP:N	2.51	0.43
37:88:133:ARG:O	37:88:134:ARG:HB2	2.18	0.43
38:98:9:LYS:HA	38:98:17:ARG:NE	2.33	0.43
40:B8:12:SER:CB	40:B8:14:TYR:H	2.31	0.43
42:D8:15:GLU:HB3	42:D8:16:PRO:HD2	1.99	0.43
44:F8:5:TYR:CE2	49:K8:30:ARG:HB2	2.53	0.43
47:I8:45:PHE:HE2	47:I8:69:PHE:HE2	1.66	0.43
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.17	0.43
1:1G:78:G:H1	1:1G:91:C:H42	1.64	0.43
1:1G:313:A:H2'	1:1G:314:C:C6	2.52	0.43
1:1G:530:G:H2'	1:1G:530:G:N3	2.33	0.43
1:1G:646:U:H2'	1:1G:647:C:C6	2.53	0.43
1:1G:734:G:H2'	1:1G:734:G:N3	2.33	0.43
1:1G:791:G:H2'	1:1G:792:A:H5'	2.00	0.43
1:1G:1045:C:H2'	1:1G:1046:A:O4'	2.18	0.43
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.50	0.43
1:1G:1187:G:H2'	1:1G:1188:A:O4'	2.18	0.43
1:1G:1240:U:O2'	1:1G:1241:G:OP1	2.36	0.43
2:12:106:LYS:O	2:12:110:GLN:HG3	2.18	0.43
2:12:185:ILE:HG23	2:12:199:TYR:HB2	2.00	0.43
3:22:56:ASP:O	3:22:66:VAL:HA	2.17	0.43
4:32:36:ARG:O	4:32:38:TYR:N	2.50	0.43
5:42:11:ILE:HB	5:42:31:LEU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:101:PRO:CG	8:72:133:LEU:HD11	2.48	0.43
15:6A:32:LEU:CD1	15:6A:62:GLN:HB3	2.47	0.43
16:7A:14:ASN:OD1	16:7A:16:HIS:NE2	2.51	0.43
22:1L:74:C:H1'	26:14:2555:U:H3	1.83	0.43
24:3L:54:U:H1'	24:3L:61:C:C2	2.53	0.43
26:14:116:C:H2'	26:14:117:G:O4'	2.18	0.43
26:14:574:C:H1'	26:14:2055:C:C5	2.53	0.43
26:14:821:A:H5'	26:14:822:U:H6	1.83	0.43
26:14:1939:U:OP1	26:14:2604:U:O2'	2.36	0.43
26:14:2151:G:N2	26:14:2152:G:H1'	2.32	0.43
26:14:2750:A:H8	26:14:2752:C:H41	1.66	0.43
26:14:2795:G:H4'	26:14:2798:C:C5	2.53	0.43
28:19:159:ALA:HB1	28:19:198:ASN:O	2.17	0.43
29:29:9:VAL:HB	29:29:25:VAL:HB	2.00	0.43
29:29:201:THR:HB	29:29:203:LYS:HB3	1.99	0.43
48:F5:91:LYS:HE2	48:F5:91:LYS:HB2	1.48	0.43
1:13:193:C:O2'	1:13:194:C:H5'	2.18	0.43
1:13:626:U:H2'	1:13:627:G:C8	2.54	0.43
1:13:820:U:H4'	1:13:821:G:OP2	2.19	0.43
1:13:1178:G:OP2	9:8E:93:ARG:NH1	2.50	0.43
3:2E:58:GLU:O	3:2E:59:ARG:HG3	2.18	0.43
15:6I:55:GLY:HA2	15:6I:58:MET:CE	2.48	0.43
23:2K:2:G:H2'	23:2K:3:C:H6	1.82	0.43
23:2K:17:C:C4	23:2K:18:U:C4	3.06	0.43
23:2K:17:C:OP1	23:2K:61:U:O2'	2.34	0.43
26:1H:223:A:O4'	26:1H:422:A:H5'	2.18	0.43
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.18	0.43
26:1H:794:G:H2'	26:1H:795:C:C6	2.53	0.43
26:1H:1690:A:H3'	26:1H:1691:C:H6	1.82	0.43
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.18	0.43
26:1H:2244:U:O2'	26:1H:2245:U:H5'	2.18	0.43
37:88:65:PHE:HB2	37:88:105:GLU:HB3	1.99	0.43
40:B8:132:LYS:HB3	40:B8:132:LYS:HE3	1.62	0.43
45:G8:19:LYS:HE3	45:G8:19:LYS:HB3	1.93	0.43
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.30	0.43
47:I8:21:LEU:HD11	47:I8:41:ARG:CZ	2.48	0.43
51:M8:13:ARG:O	51:M8:30:GLU:HA	2.18	0.43
54:Q8:52:LYS:H	54:Q8:53:PRO:HD2	1.83	0.43
1:1G:57:G:C5	1:1G:58:C:C4	3.06	0.43
1:1G:136:C:O2'	16:7A:65:GLN:OE1	2.32	0.43
1:1G:191:G:O2'	20:BA:103:GLY:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:218:C:H2'	1:1G:219:C:C6	2.53	0.43
1:1G:347:G:H2'	1:1G:348:G:O4'	2.19	0.43
1:1G:938:A:N6	1:1G:939:G:C5	2.86	0.43
1:1G:1116:C:N3	1:1G:1184:G:N2	2.46	0.43
3:22:113:ALA:O	3:22:116:VAL:HG12	2.18	0.43
5:42:92:LYS:O	5:42:119:LEU:HD12	2.18	0.43
8:72:125:ARG:HE	8:72:125:ARG:HB2	1.29	0.43
12:3A:83:VAL:HG13	12:3A:84:LEU:N	2.34	0.43
26:14:96:G:H4'	49:G5:48:HIS:CE1	2.54	0.43
26:14:372:G:OP2	48:F5:69:LYS:HE2	2.18	0.43
26:14:453:C:H4'	26:14:472:A:H61	1.83	0.43
26:14:880:G:C1'	26:14:898:C:H42	2.32	0.43
26:14:910:A:N7	37:45:13:GLN:HG3	2.33	0.43
26:14:1011:G:C4	26:14:1151:G:N2	2.86	0.43
26:14:1041:C:H42	26:14:1114:G:H22	1.66	0.43
26:14:1047:G:N2	26:14:1111:A:H61	2.09	0.43
26:14:2107:C:H2'	26:14:2108:C:O4'	2.17	0.43
26:14:2199:A:H3'	26:14:2205:C:H6	1.83	0.43
26:14:2261:C:O2'	26:14:2262:U:H5'	2.18	0.43
26:14:2352:A:C2	47:E5:33:ALA:O	2.71	0.43
28:19:183:ARG:HG2	28:19:183:ARG:HH11	1.83	0.43
29:29:63:LEU:HD13	29:29:63:LEU:HA	1.77	0.43
29:29:101:ARG:NH1	29:29:171:GLU:HB2	2.33	0.43
37:45:21:THR:HG21	37:45:101:ARG:HD2	2.01	0.43
38:55:110:PRO:O	38:55:111:LEU:HD23	2.18	0.43
39:65:27:SER:N	39:65:38:GLN:O	2.50	0.43
46:D5:134:PRO:HB2	46:D5:136:PHE:O	2.17	0.43
48:F5:53:VAL:HG12	48:F5:54:ALA:N	2.32	0.43
53:L5:34:ARG:NE	53:L5:39:ARG:HG3	2.33	0.43
1:13:414:A:H2'	1:13:415:A:O4'	2.18	0.43
1:13:426:G:H2'	1:13:427:U:C6	2.53	0.43
1:13:835:U:OP1	18:9I:64:ARG:NH1	2.48	0.43
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.00	0.43
8:7E:27:PRO:HA	8:7E:58:TYR:CD1	2.53	0.43
11:2I:91:ARG:HD3	11:2I:91:ARG:C	2.37	0.43
18:9I:36:ASN:OD1	18:9I:36:ASN:N	2.41	0.43
19:AI:41:VAL:HG21	19:AI:45:VAL:HB	1.99	0.43
26:1H:862:G:H2'	26:1H:863:A:O4'	2.17	0.43
26:1H:1299:G:OP1	58:1H:3690:HOH:O	2.21	0.43
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.18	0.43
26:1H:1916:A:H2'	26:1H:1917:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.36	0.43
26:1H:2272:U:O4	58:1H:3672:HOH:O	2.19	0.43
34:58:94:HIS:C	34:58:95:PRO:O	2.56	0.43
36:78:15:ARG:HA	36:78:15:ARG:HD2	1.46	0.43
1:1G:77:C:H2'	1:1G:78:G:H8	1.82	0.43
1:1G:193:C:H2'	1:1G:194:C:H6	1.84	0.43
1:1G:791:G:H8	1:1G:791:G:O5'	2.01	0.43
1:1G:986:A:H4'	19:AA:55:LYS:HE2	1.99	0.43
1:1G:1095:U:H2'	1:1G:1096:C:H6	1.79	0.43
1:1G:1264:C:H1'	1:1G:1272:G:H22	1.82	0.43
1:1G:1421:G:H1	1:1G:1479:C:N4	2.15	0.43
1:1G:1515:C:H2'	1:1G:1516:G:H8	1.84	0.43
2:12:178:ARG:NH1	2:12:196:LEU:O	2.42	0.43
3:22:135:LYS:HB3	3:22:135:LYS:HE3	1.76	0.43
4:32:126:ILE:HG22	4:32:127:THR:N	2.34	0.43
4:32:177:ASP:OD2	4:32:180:GLY:HA3	2.18	0.43
8:72:51:VAL:HG11	8:72:60:ARG:HB2	2.00	0.43
9:82:26:VAL:HG13	9:82:61:ALA:O	2.18	0.43
10:1A:99:LYS:HD3	10:1A:100:THR:N	2.33	0.43
13:4A:47:ASP:OD1	13:4A:47:ASP:N	2.51	0.43
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.48	0.43
26:14:271(B):G:N7	26:14:421:U:H2'	2.32	0.43
26:14:357:A:H2'	26:14:358:U:H6	1.83	0.43
26:14:861:A:N3	27:1J:79:C:O2'	2.50	0.43
26:14:906:G:H4'	37:45:67:ARG:HH21	1.83	0.43
26:14:2400:G:C2	26:14:2417:C:C2	3.06	0.43
29:29:21:VAL:O	29:29:23:VAL:HG13	2.18	0.43
31:49:15:VAL:HG13	31:49:175:LEU:HB3	1.99	0.43
31:49:112:PRO:HA	31:49:117:PHE:CD2	2.54	0.43
34:15:41:ASP:O	41:85:64:ARG:NH2	2.51	0.43
35:25:90:GLN:O	35:25:91:LEU:HB2	2.18	0.43
35:25:119:PRO:HB2	40:75:68:TYR:CZ	2.53	0.43
40:75:36:GLU:HG2	40:75:37:GLY:N	2.32	0.43
53:L5:10:ARG:HG2	53:L5:14:LYS:HG3	1.99	0.43
53:L5:19:ARG:HG2	53:L5:19:ARG:NH1	2.33	0.43
1:13:487:A:H2'	1:13:487:A:N3	2.33	0.43
1:13:626:U:H2'	1:13:627:G:H8	1.83	0.43
1:13:695:A:OP1	11:2I:52:GLY:HA3	2.18	0.43
1:13:1015:A:H2'	1:13:1016:A:C8	2.53	0.43
2:1E:81:VAL:HG23	2:1E:82:ARG:N	2.34	0.43
3:2E:131:ARG:HG3	3:2E:166:GLU:OE2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.69	0.43
4:3E:100:ARG:HB3	4:3E:102:ASP:OD1	2.18	0.43
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.60	0.43
7:6E:23:VAL:O	7:6E:27:ILE:HB	2.18	0.43
7:6E:146:GLU:O	7:6E:149:ARG:HB2	2.17	0.43
11:2I:126:ARG:HG2	11:2I:126:ARG:HH11	1.83	0.43
13:4I:66:LEU:HA	13:4I:66:LEU:HD23	1.53	0.43
22:1K:6:U:H3	22:1K:68:U:H3	1.66	0.43
26:1H:270(Y):G:C2	26:1H:270(Z):U:O4	2.71	0.43
26:1H:633:A:H2'	26:1H:634:C:H5'	2.00	0.43
26:1H:1210:A:H5''	26:1H:1212:G:C5'	2.46	0.43
26:1H:1582:C:O2'	26:1H:1586:A:C8	2.67	0.43
26:1H:1844:C:H5''	28:11:258:LYS:HG3	1.99	0.43
26:1H:2038:G:H2'	26:1H:2039:C:C6	2.54	0.43
26:1H:2516:G:C6	26:1H:2517:C:C4	3.06	0.43
31:41:41:GLN:HB3	31:41:43:LEU:HD21	2.00	0.43
34:58:42:TRP:HA	34:58:48:MET:CE	2.49	0.43
37:88:75:THR:HA	37:88:89:ASN:O	2.18	0.43
49:K8:30:ARG:O	49:K8:30:ARG:HG2	2.18	0.43
1:1G:109:A:C6	1:1G:326:G:C6	3.07	0.43
1:1G:517:G:N2	1:1G:531:U:H5''	2.34	0.43
1:1G:631:G:H5''	8:72:98:LYS:NZ	2.33	0.43
1:1G:1379:G:P	7:62:6:ARG:HH21	2.41	0.43
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.18	0.43
4:32:72:GLU:OE1	4:32:207:TYR:OH	2.37	0.43
11:2A:20:TYR:CZ	11:2A:83:ILE:HD12	2.53	0.43
12:3A:11:VAL:HG11	17:8A:36:ILE:HG21	1.98	0.43
13:4A:14:ARG:HA	13:4A:43:THR:O	2.18	0.43
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.18	0.43
21:1B:12:LYS:HB3	21:1B:17:THR:O	2.18	0.43
26:14:105:C:H2'	26:14:106:C:H6	1.82	0.43
26:14:1138:G:O2'	34:15:106:MET:HG3	2.18	0.43
26:14:1219:G:H1	26:14:1230:C:H42	1.66	0.43
26:14:1301:A:N3	26:14:1301:A:H2'	2.34	0.43
26:14:1332:G:N2	26:14:1609:A:H2'	2.33	0.43
26:14:1635:G:N3	26:14:1635:G:H2'	2.32	0.43
26:14:2115:G:N2	26:14:2116:G:N7	2.66	0.43
26:14:2705:A:H2'	26:14:2706:G:O4'	2.17	0.43
26:14:2807:G:C2	26:14:2808:U:C2	3.07	0.43
31:49:82:LEU:HD23	31:49:82:LEU:HA	1.75	0.43
33:69:93:THR:CG2	33:69:119:PRO:HG3	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:6:PRO:CG	34:15:41:ASP:HB3	2.43	0.43
37:45:77:LYS:NZ	37:45:84:GLY:HA3	2.34	0.43
39:65:56:LEU:O	39:65:58:LEU:HG	2.19	0.43
46:D5:61:LEU:HD22	46:D5:61:LEU:HA	1.87	0.43
1:13:154:C:H2'	1:13:155:C:C6	2.54	0.43
1:13:807:A:H2'	1:13:808:C:C6	2.53	0.43
1:13:814:A:N7	1:13:816:A:C4	2.86	0.43
4:3E:74:GLN:O	4:3E:78:LEU:HG	2.19	0.43
5:4E:100:VAL:HG13	5:4E:118:ILE:HG22	2.00	0.43
10:1I:78:ASN:O	10:1I:81:THR:OG1	2.15	0.43
17:8I:60:ILE:O	17:8I:62:SER:OG	2.34	0.43
18:9I:70:ILE:O	18:9I:74:ARG:HG3	2.18	0.43
19:AI:53:ASN:O	19:AI:77:THR:HG22	2.18	0.43
22:1K:37:AET:H2'	22:1K:38:A:O4'	2.19	0.43
22:1K:72:C:H2'	22:1K:73:A:H5'	2.00	0.43
26:1H:29:U:O5'	26:1H:29:U:H6	2.02	0.43
26:1H:142:G:H2'	26:1H:143:C:C6	2.52	0.43
26:1H:270(E):G:H2'	26:1H:270(F):U:O4'	2.19	0.43
26:1H:270(J):G:N2	26:1H:270(P):C:N3	2.65	0.43
26:1H:281:G:O2'	26:1H:282:A:O4'	2.29	0.43
26:1H:482:A:H5''	26:1H:483:A:OP1	2.19	0.43
26:1H:929:G:H8	26:1H:929:G:O5'	2.01	0.43
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.40	0.43
26:1H:1166:C:N4	26:1H:1183:G:H1	2.17	0.43
26:1H:1311:G:N7	53:P8:9:ARG:NH2	2.66	0.43
26:1H:1614:A:P	26:1H:1614:A:H8	2.42	0.43
26:1H:1680:U:C4	26:1H:1681:G:C6	3.07	0.43
26:1H:2020:A:O2'	26:1H:2021:C:H5'	2.18	0.43
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.18	0.43
26:1H:2061:G:C2	26:1H:2063:C:C4	3.06	0.43
26:1H:2118:U:H1'	26:1H:2147:G:H1	1.83	0.43
26:1H:2312:U:OP1	31:41:74:LYS:HG2	2.18	0.43
26:1H:2383:G:H2'	26:1H:2384:G:C8	2.52	0.43
26:1H:2626:C:H2'	26:1H:2627:G:O4'	2.19	0.43
26:1H:2681:C:C4	26:1H:2724:C:C5	3.06	0.43
26:1H:2771:C:H2'	26:1H:2772:C:H6	1.83	0.43
27:16:12:C:H6	27:16:12:C:OP2	2.01	0.43
36:78:83:VAL:O	36:78:114:ILE:HA	2.18	0.43
41:C8:29:SER:OG	41:C8:30:LYS:HD3	2.18	0.43
42:D8:7:THR:HG23	42:D8:12:TYR:HE1	1.82	0.43
46:H8:48:PHE:HA	46:H8:51:ALA:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:108:PRO:O	46:H8:144:LEU:HB2	2.18	0.43
1:1G:111:G:H8	1:1G:111:G:O5'	2.01	0.43
1:1G:603:U:O5'	1:1G:603:U:H6	2.01	0.43
1:1G:1261:A:C6	1:1G:1262:C:C2	3.06	0.43
3:22:106:VAL:HG23	3:22:109:PRO:HB3	2.00	0.43
6:52:52:ILE:HD11	18:9A:77:GLY:HA3	2.00	0.43
9:82:37:PHE:HB3	9:82:43:ALA:CB	2.49	0.43
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.19	0.43
26:14:276:A:H2'	26:14:277:C:C4	2.53	0.43
26:14:1108:U:H5	26:14:1109:C:C2	2.37	0.43
26:14:1448:G:H1'	26:14:1528:A:H62	1.83	0.43
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.19	0.43
26:14:2536:G:C2	26:14:2537:U:C2	3.06	0.43
26:14:2575:C:H2'	26:14:2578:G:O6	2.18	0.43
26:14:2817:G:H21	26:14:2836:U:H1'	1.84	0.43
27:1J:75:G:N1	27:1J:102:G:N2	2.67	0.43
28:19:177:LEU:HB3	28:19:178:PRO:CD	2.48	0.43
30:39:170:LEU:HD13	30:39:172:TRP:CZ2	2.54	0.43
33:69:79:ILE:HD11	33:69:100:ALA:HB2	2.00	0.43
33:69:142:VAL:HG12	33:69:143:SER:H	1.83	0.43
41:85:25:TRP:CD1	41:85:25:TRP:C	2.91	0.43
46:D5:44:PHE:CE2	46:D5:88:PHE:HZ	2.36	0.43
46:D5:110:GLY:H	46:D5:142:SER:HB3	1.83	0.43
47:E5:15:ASP:OD1	47:E5:16:SER:N	2.44	0.43
49:G5:43:GLN:HA	49:G5:45:SER:H	1.84	0.43
1:13:1260:C:H3'	1:13:1260:C:C6	2.54	0.43
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.51	0.43
9:8E:24:GLY:HA2	9:8E:59:PHE:O	2.18	0.43
9:8E:73:GLN:O	9:8E:76:ALA:N	2.50	0.43
12:3I:42:THR:HA	12:3I:53:ARG:O	2.18	0.43
20:BI:94:ALA:O	20:BI:95:ALA:HB3	2.18	0.43
23:2K:38:A:H2'	23:2K:39:A:O4'	2.19	0.43
25:4K:11:U:H4'	25:4K:12:A:OP2	2.17	0.43
26:1H:592:G:O2'	54:Q8:4:MET:HB2	2.19	0.43
26:1H:855:G:C5	26:1H:856:C:C5	3.07	0.43
26:1H:1438:U:O2'	26:1H:1439:A:H5'	2.19	0.43
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.18	0.43
26:1H:2315:G:H2'	26:1H:2315:G:N3	2.32	0.43
26:1H:2745:C:H4'	32:51:142:GLY:O	2.18	0.43
28:11:199:ALA:C	28:11:201:HIS:H	2.22	0.43
29:21:179:GLU:HB3	29:21:181:LEU:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:63:ILE:CG2	31:41:144:ILE:HD11	2.48	0.43
32:51:163:TYR:HD2	32:51:167:GLU:HG2	1.81	0.43
33:61:133:HIS:O	33:61:133:HIS:CG	2.70	0.43
36:78:28:GLY:O	36:78:29:LYS:C	2.56	0.43
36:78:147:LEU:HD23	36:78:147:LEU:HA	1.85	0.43
37:88:118:LEU:HA	37:88:118:LEU:HD23	1.63	0.43
43:E8:20:VAL:O	43:E8:23:LEU:HB3	2.18	0.43
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.52	0.43
48:J8:86:SER:HB2	48:J8:89:GLU:CD	2.39	0.43
1:1G:57:G:H8	1:1G:57:G:O5'	2.02	0.43
1:1G:622:A:C8	1:1G:623:C:C6	3.07	0.43
1:1G:973:G:H1'	10:1A:55:LYS:CE	2.49	0.43
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.54	0.43
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.54	0.43
1:1G:1037:C:H2'	1:1G:1038:C:C5	2.54	0.43
8:72:37:ARG:HH12	8:72:118:VAL:HB	1.82	0.43
13:4A:36:LYS:HB3	13:4A:36:LYS:HE2	1.88	0.43
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.19	0.43
20:BA:62:LEU:HD23	20:BA:62:LEU:HA	1.78	0.43
26:14:469:G:O6	53:L5:39:ARG:NH1	2.51	0.43
26:14:528:A:H2	26:14:2043:C:H5'	1.83	0.43
26:14:1558:A:H4'	26:14:1559:G:H5'	2.01	0.43
26:14:2734:A:C8	26:14:2735:G:C8	3.07	0.43
26:14:2867:G:C8	40:75:23:ARG:NH1	2.86	0.43
32:59:121:ILE:HG23	32:59:133:VAL:HG13	2.00	0.43
39:65:19:LYS:HG3	39:65:19:LYS:H	1.58	0.43
39:65:106:ARG:H	39:65:106:ARG:HG3	1.51	0.43
1:13:947:G:H2'	1:13:948:C:O4'	2.18	0.43
1:13:965:A:C2	1:13:969:A:C2	3.06	0.43
1:13:1125:U:C2	1:13:1126:U:C4	3.06	0.43
1:13:1153:C:H2'	1:13:1154:G:O4'	2.19	0.43
1:13:1318:A:OP1	19:AI:7:LYS:HE2	2.18	0.43
2:1E:93:VAL:HG11	2:1E:97:TRP:HD1	1.84	0.43
3:2E:32:LEU:HD13	3:2E:59:ARG:NH1	2.33	0.43
22:1K:31:C:H42	22:1K:39:G:H1	1.66	0.43
22:1K:52:A:N6	22:1K:62:U:H3	2.16	0.43
23:2K:51:U:H2'	23:2K:52:C:C6	2.53	0.43
26:1H:68:G:H2'	26:1H:69:C:O4'	2.19	0.43
26:1H:76:C:O2'	49:K8:62:THR:HG21	2.19	0.43
26:1H:180:G:N2	26:1H:215:G:O6	2.52	0.43
26:1H:274:G:H2'	26:1H:275:G:H1'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:684:G:H22	26:1H:787:U:H2'	1.82	0.43
26:1H:810:U:O5'	26:1H:810:U:H6	2.02	0.43
26:1H:820:A:N1	58:1H:3701:HOH:O	2.37	0.43
26:1H:828:U:H3'	26:1H:828:U:O2	2.19	0.43
26:1H:1718:G:C2	26:1H:1725:G:C8	3.07	0.43
26:1H:1751:C:H2'	26:1H:1752:C:C6	2.54	0.43
26:1H:1856:G:C2	26:1H:1887:C:C2	3.06	0.43
26:1H:1957:C:H2'	26:1H:1958:C:C6	2.54	0.43
26:1H:2134:A:H2'	26:1H:2135:A:H8	1.84	0.43
26:1H:2712:U:OP1	26:1H:2714:G:H4'	2.19	0.43
26:1H:2849:U:O4	40:B8:23:ARG:NH2	2.51	0.43
28:11:138:VAL:HG21	28:11:167:GLY:HA2	2.00	0.43
28:11:232:PRO:HB3	28:11:244:ARG:NH1	2.33	0.43
30:31:18:ARG:H	30:31:18:ARG:HG3	1.53	0.43
30:31:51:THR:OG1	30:31:92:PRO:O	2.37	0.43
34:58:58:ASP:HA	34:58:91:LEU:HD23	2.00	0.43
37:88:21:THR:OG1	37:88:101:ARG:HB2	2.19	0.43
41:C8:92:ARG:HB2	42:D8:11:GLN:CD	2.39	0.43
42:D8:98:GLU:OE1	42:D8:100:ARG:NH1	2.51	0.43
43:E8:16:LYS:O	43:E8:19:LEU:HB2	2.18	0.43
46:H8:6:LYS:HE3	46:H8:8:TYR:CE2	2.54	0.43
1:1G:1104:G:H4'	2:12:111:ARG:NH2	2.33	0.43
2:12:24:TRP:C	2:12:24:TRP:CD1	2.91	0.43
5:42:75:THR:OG1	5:42:117:ASP:O	2.20	0.43
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.52	0.43
15:6A:57:LEU:O	15:6A:61:GLY:N	2.47	0.43
17:8A:53:LEU:HD21	17:8A:85:VAL:HG11	2.00	0.43
26:14:388:G:H5'	48:F5:25:LYS:HB2	2.01	0.43
26:14:897:C:H2'	26:14:898:C:C6	2.53	0.43
26:14:1024:G:H5''	26:14:1025:G:H5''	2.01	0.43
26:14:1379:A:H4'	26:14:1380:G:OP2	2.19	0.43
26:14:1451:C:N4	26:14:1459:G:H1	2.15	0.43
26:14:1728:G:H8	26:14:1732:A:N6	2.16	0.43
26:14:2458:G:H1'	26:14:2460:U:O4	2.19	0.43
26:14:2495:G:O6	58:14:3486:HOH:O	2.21	0.43
27:1J:75:G:H21	46:D5:85:HIS:CE1	2.37	0.43
30:39:39:TRP:HD1	30:39:99:TYR:CE1	2.37	0.43
32:59:15:VAL:HA	32:59:28:GLY:HA2	2.00	0.43
39:65:54:LEU:C	39:65:56:LEU:H	2.22	0.43
40:75:3:ARG:N	40:75:4:GLY:O	2.51	0.43
42:95:19:LYS:H	42:95:19:LYS:HG2	1.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:30:GLU:HG3	43:A5:31:GLU:N	2.34	0.43
1:13:45:U:H2'	1:13:46:G:H8	1.83	0.43
1:13:359:U:H2'	1:13:360:A:H8	1.83	0.43
1:13:474:G:H5''	16:7I:81:ARG:NE	2.33	0.43
1:13:592:G:N3	1:13:593:G:C8	2.87	0.43
1:13:803:G:H2'	1:13:804:U:O4'	2.19	0.43
1:13:1090:U:H2'	1:13:1091:U:H6	1.84	0.43
1:13:1130:A:H5'	9:8E:18:PHE:CE2	2.54	0.43
1:13:1258:G:H2'	1:13:1259:C:C6	2.53	0.43
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	2.01	0.43
6:5E:96:PRO:HB3	18:9I:30:ASP:OD2	2.18	0.43
11:2I:32:ILE:CD1	11:2I:72:ALA:HB2	2.49	0.43
13:4I:65:LYS:HE2	13:4I:73:GLU:OE1	2.18	0.43
22:1K:37:AET:N1	22:1K:37:AET:N11	2.56	0.43
26:1H:16:G:N3	26:1H:17:G:C8	2.86	0.43
26:1H:247:G:N7	26:1H:249:C:C2	2.86	0.43
26:1H:758:C:O2'	26:1H:1981:A:N3	2.38	0.43
26:1H:995:C:O2	34:58:3:THR:OG1	2.28	0.43
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.33	0.43
26:1H:2745:C:C4	26:1H:2746:U:C4	3.06	0.43
27:16:111:U:H2'	27:16:112:G:H8	1.83	0.43
30:31:40:GLN:O	30:31:43:LYS:HG2	2.19	0.43
30:31:53:THR:HG23	30:31:56:GLU:OE2	2.19	0.43
31:41:35:GLU:HG3	31:41:36:LYS:HB3	2.00	0.43
34:58:89:LYS:O	34:58:93:THR:OG1	2.36	0.43
38:98:20:LEU:HD21	38:98:40:LYS:HD3	2.00	0.43
41:C8:112:ARG:NH2	42:D8:48:GLY:H	2.17	0.43
42:D8:7:THR:HG23	42:D8:12:TYR:CE1	2.54	0.43
45:G8:86:ARG:O	45:G8:96:ILE:HD12	2.19	0.43
51:M8:11:PRO:HA	51:M8:25:TYR:HA	2.00	0.43
1:1G:15:G:H2'	1:1G:16:A:C8	2.54	0.43
1:1G:73:G:H2'	1:1G:74:C:H6	1.84	0.43
1:1G:371:G:H1	1:1G:390:C:N4	2.10	0.43
1:1G:1023:G:H5''	1:1G:1024:G:N2	2.25	0.43
1:1G:1263:C:H2'	1:1G:1264:C:O4'	2.19	0.43
1:1G:1319:A:H61	1:1G:1361:G:H21	1.65	0.43
4:32:88:VAL:O	4:32:92:VAL:HG23	2.19	0.43
4:32:121:VAL:O	4:32:134:ASP:HA	2.18	0.43
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.84	0.43
13:4A:81:LEU:CB	13:4A:89:GLY:HA3	2.48	0.43
23:2L:50:G:H1	23:2L:66:C:H42	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:10:G:N1	24:3L:26:G:N7	2.66	0.43
26:14:71:A:C2	44:B5:31:HIS:NE2	2.87	0.43
26:14:459:U:H4'	53:L5:40:TRP:CH2	2.53	0.43
26:14:702:G:C2	26:14:731:C:C2	3.07	0.43
26:14:1160:G:C6	26:14:1161:C:C4	3.07	0.43
26:14:1799:G:N2	26:14:1818:U:O2'	2.51	0.43
26:14:1997:G:H5''	58:14:3689:HOH:O	2.19	0.43
26:14:2197:U:H1'	26:14:2198:A:C8	2.54	0.43
26:14:2300:G:N2	26:14:2317:C:H1'	2.34	0.43
26:14:2401:U:H2'	26:14:2402:C:C6	2.54	0.43
26:14:2515:C:O2	26:14:2570:G:C2	2.72	0.43
26:14:2563:U:H4'	35:25:28:SER:HA	2.01	0.43
26:14:2567:G:H2'	26:14:2568:C:C6	2.54	0.43
28:19:137:PRO:HG2	28:19:140:THR:OG1	2.19	0.43
29:29:51:PHE:O	29:29:76:ARG:HB3	2.19	0.43
31:49:100:TRP:O	31:49:104:GLU:N	2.33	0.43
32:59:109:PHE:HD1	32:59:109:PHE:HA	1.69	0.43
38:55:2:ARG:O	38:55:3:HIS:HD2	2.02	0.43
39:65:77:ALA:O	39:65:80:LEU:N	2.52	0.43
39:65:86:ALA:O	39:65:87:PHE:HB2	2.19	0.43
52:J5:40:LYS:HE2	52:J5:44:THR:O	2.18	0.43
1:13:637:G:H2'	1:13:638:G:C8	2.54	0.43
1:13:981:U:O5'	1:13:981:U:H6	2.01	0.43
1:13:1207:G:C6	1:13:1208:C:C4	3.07	0.43
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.54	0.43
2:1E:47:THR:O	2:1E:51:LEU:N	2.49	0.43
2:1E:139:LYS:O	2:1E:142:LEU:HB3	2.19	0.43
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.19	0.43
3:2E:150:LYS:HG3	3:2E:151:VAL:N	2.33	0.43
4:3E:110:PHE:CD2	4:3E:148:VAL:HG23	2.53	0.43
9:8E:26:VAL:HA	9:8E:61:ALA:HB3	2.01	0.43
11:2I:97:ALA:O	11:2I:101:SER:HB3	2.18	0.43
12:3I:85:ILE:HD13	12:3I:85:ILE:HA	1.59	0.43
24:3K:8:U:OP1	24:3K:49:G:H5'	2.18	0.43
26:1H:556:G:H2'	26:1H:557:U:C6	2.53	0.43
26:1H:569:U:C4	26:1H:570:G:C6	3.07	0.43
26:1H:779:U:H5''	28:11:49:ILE:HD11	2.00	0.43
26:1H:783:A:H8	26:1H:784:A:H4'	1.84	0.43
26:1H:863:A:H2'	26:1H:864:G:C8	2.53	0.43
26:1H:994:C:O2	42:D8:10:LYS:HE2	2.18	0.43
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1557:C:H5''	26:1H:1558:A:OP2	2.19	0.43
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.18	0.43
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.84	0.43
26:1H:2830:G:H5'	26:1H:2831:G:OP2	2.19	0.43
28:11:68:LYS:HB3	28:11:70:TRP:CZ2	2.52	0.43
31:41:33:ARG:HB2	31:41:162:THR:HG21	1.99	0.43
35:68:113:LYS:O	35:68:113:LYS:HD3	2.19	0.43
36:78:19:VAL:HG22	36:78:27:HIS:HB3	2.01	0.43
36:78:79:ARG:HD2	36:78:110:TYR:CE2	2.54	0.43
43:E8:8:ARG:HB3	43:E8:9:TYR:CD2	2.54	0.43
43:E8:31:GLU:H	43:E8:31:GLU:HG2	1.49	0.43
44:F8:26:TYR:CE2	44:F8:89:ILE:HB	2.53	0.43
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	2.00	0.43
1:1G:17:U:H2'	1:1G:18:C:H6	1.80	0.43
1:1G:858:G:OP2	1:1G:858:G:H8	2.02	0.43
1:1G:980:C:H5'	1:1G:981:U:OP2	2.19	0.43
1:1G:990:C:O5'	1:1G:990:C:H6	2.02	0.43
1:1G:1246:C:O2	1:1G:1291:G:N2	2.21	0.43
1:1G:1470:G:H2'	1:1G:1471:G:O4'	2.19	0.43
7:62:100:ALA:O	7:62:104:LEU:HB2	2.19	0.43
8:72:20:TYR:CZ	8:72:75:ARG:HB3	2.54	0.43
10:1A:13:HIS:C	10:1A:13:HIS:CD2	2.92	0.43
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.19	0.43
20:BA:66:ALA:HB1	20:BA:71:THR:HB	2.01	0.43
26:14:6:A:N7	34:15:131:GLN:HB2	2.33	0.43
26:14:196:A:N3	26:14:196:A:H2'	2.34	0.43
26:14:315:G:H2'	26:14:316:C:H6	1.84	0.43
26:14:350:U:H2'	26:14:351:G:O4'	2.19	0.43
26:14:547:A:C5	26:14:548:A:N6	2.87	0.43
26:14:857:C:N3	26:14:858:U:C4	2.87	0.43
26:14:1286:A:H1'	26:14:1288:U:OP2	2.19	0.43
26:14:1288:U:O4	38:55:106:GLY:HA3	2.19	0.43
26:14:1376:C:N4	26:14:1377:G:C6	2.87	0.43
26:14:1443:G:H8	26:14:1443:G:O5'	2.02	0.43
26:14:1489:U:O3'	26:14:1490:A:H8	2.01	0.43
26:14:1652:A:C2	26:14:2006:C:N3	2.86	0.43
26:14:1788:C:H2'	26:14:1789:A:H8	1.83	0.43
26:14:2400:G:N2	26:14:2417:C:C2	2.86	0.43
31:49:47:LYS:HD2	31:49:86:MET:SD	2.59	0.43
31:49:51:ARG:O	31:49:51:ARG:HG3	2.18	0.43
39:65:21:THR:HG23	39:65:23:ARG:HG2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:53:ARG:HG3	40:75:53:ARG:O	2.19	0.43
1:13:19:C:OP1	5:4E:125:SER:OG	2.16	0.43
1:13:114:U:H1'	1:13:353:A:H1'	2.00	0.43
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.19	0.43
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.54	0.43
1:13:791:G:H2'	1:13:792:A:H5'	2.01	0.43
1:13:960:U:C5	1:13:1225:A:C8	3.06	0.43
1:13:1079:G:H2'	1:13:1080:A:C8	2.54	0.43
1:13:1239:A:H62	1:13:1299:A:N6	2.16	0.43
1:13:1474:G:C2	1:13:1475:G:C8	3.07	0.43
5:4E:28:PHE:O	5:4E:47:LYS:HA	2.19	0.43
8:7E:59:LEU:O	8:7E:61:VAL:HG23	2.18	0.43
9:8E:50:LEU:HA	9:8E:53:VAL:HG22	2.00	0.43
12:3I:77:LEU:HD21	12:3I:107:ALA:HA	2.00	0.43
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.54	0.43
17:8I:6:LEU:HD12	17:8I:23:VAL:HG21	2.00	0.43
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	2.01	0.43
26:1H:580:C:H2'	26:1H:581:C:H6	1.84	0.43
26:1H:1439:A:H2'	26:1H:1440:G:O4'	2.18	0.43
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.82	0.43
26:1H:1688:U:O2	26:1H:1700:A:H5''	2.18	0.43
26:1H:1763:G:OP1	26:1H:1763:G:H4'	2.19	0.43
26:1H:2272:U:H5''	26:1H:2273:A:OP1	2.18	0.43
26:1H:2312:U:O3'	31:41:71:THR:HG21	2.18	0.43
29:21:16:ARG:NH2	29:21:171:GLU:OE2	2.49	0.43
30:31:135:LYS:HB3	30:31:137:LYS:HG3	2.00	0.43
36:78:100:LEU:O	36:78:105:LEU:HD12	2.19	0.43
40:B8:31:SER:OG	40:B8:84:GLN:HB3	2.19	0.43
40:B8:125:ARG:O	40:B8:129:ARG:N	2.37	0.43
41:C8:92:ARG:NH1	41:C8:94:ASN:OD1	2.52	0.43
48:J8:64:ALA:HA	48:J8:67:ILE:HG13	2.01	0.43
49:K8:35:LEU:HA	49:K8:35:LEU:HD13	1.56	0.43
1:1G:321:A:H62	1:1G:328:C:H1'	1.84	0.43
1:1G:766:A:H2'	1:1G:767:A:O4'	2.19	0.43
1:1G:973:G:H1'	10:1A:55:LYS:HE3	2.00	0.43
1:1G:1057:G:H2'	1:1G:1058:G:C8	2.54	0.43
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.54	0.43
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.19	0.43
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.17	0.43
2:12:91:PRO:HB3	2:12:151:GLY:O	2.19	0.43
3:22:51:GLY:O	3:22:70:VAL:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:20:TYR:HA	8:72:65:TYR:OH	2.19	0.43
9:82:17:VAL:HG11	9:82:81:ILE:HD13	2.01	0.43
10:1A:15:THR:O	10:1A:19:SER:OG	2.24	0.43
12:3A:7:ILE:HD11	17:8A:32:TYR:HB3	1.99	0.43
25:4L:12:A:O2'	25:4L:13:A:O5'	2.37	0.43
26:14:55:G:H2'	26:14:56:A:C8	2.54	0.43
26:14:88:G:O2'	26:14:89:G:H5'	2.19	0.43
26:14:138:G:N2	44:B5:44:GLU:OE2	2.43	0.43
26:14:226:G:N2	26:14:228:A:H62	2.17	0.43
26:14:270(O):U:H3'	26:14:270(P):C:H5'	2.01	0.43
26:14:270(X):G:C6	26:14:270(Y):G:N1	2.87	0.43
26:14:536:A:H2'	26:14:537:C:O4'	2.19	0.43
26:14:721:C:H2'	26:14:722:A:C8	2.54	0.43
26:14:821:A:H5'	26:14:822:U:C6	2.54	0.43
26:14:948:G:C2	26:14:970:C:O2	2.72	0.43
26:14:957:A:C6	26:14:2459:A:C8	3.07	0.43
26:14:1239:G:H5''	58:14:3596:HOH:O	2.18	0.43
26:14:1473:G:C2	26:14:1474:C:C2	3.07	0.43
26:14:1599:C:C5	26:14:1600:C:C5	3.07	0.43
26:14:1993:U:H4'	29:29:128:SER:CB	2.49	0.43
26:14:1999:C:H5''	26:14:2723:C:O2'	2.19	0.43
26:14:2163:C:H5	26:14:2164:C:C4	2.37	0.43
26:14:2342:C:O2'	26:14:2374:C:H5''	2.19	0.43
26:14:2711:A:OP1	26:14:2712(A):A:OP1	2.37	0.43
26:14:2776:A:H4'	26:14:2777:G:O5'	2.19	0.43
27:1J:1:U:C2'	27:1J:2:C:H5'	2.48	0.43
27:1J:38:C:N3	27:1J:39:A:C8	2.87	0.43
28:19:31:LYS:NZ	28:19:33:LEU:HD13	2.34	0.43
29:29:27:LEU:HA	29:29:181:LEU:HD12	2.00	0.43
30:39:3:GLU:O	30:39:19:GLU:HB2	2.19	0.43
33:69:129:THR:HG22	33:69:137:PRO:HG3	2.00	0.43
37:45:68:ILE:CD1	37:45:103:MET:HB3	2.45	0.43
42:95:21:ARG:NH1	42:95:91:TYR:HE2	2.16	0.43
42:95:98:GLU:OE2	42:95:100:ARG:NH2	2.52	0.43
49:G5:38:GLN:NE2	49:G5:44:LEU:HB2	2.34	0.43
1:13:284:G:H2'	1:13:285:G:C8	2.55	0.42
1:13:324:G:N2	1:13:327:A:OP2	2.48	0.42
1:13:676:A:H2'	1:13:677:U:C6	2.54	0.42
1:13:954:G:C6	1:13:955:U:C4	3.07	0.42
1:13:963:G:N7	58:13:1864:HOH:O	2.37	0.42
1:13:1022:G:H2'	1:13:1023:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1123:A:H4'	10:1I:36:GLY:HA3	2.00	0.42
1:13:1399:C:C2	1:13:1401:G:C5	3.07	0.42
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.58	0.42
4:3E:201:GLN:HA	4:3E:204:ILE:HD12	2.00	0.42
6:5E:28:ARG:O	6:5E:32:ASN:ND2	2.32	0.42
10:1I:85:LEU:HB2	10:1I:86:MET:SD	2.59	0.42
13:4I:96:LEU:HD22	13:4I:97:PRO:HD3	2.00	0.42
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.84	0.42
17:8I:101:ARG:HB2	17:8I:101:ARG:NH2	2.34	0.42
22:1K:21:A:N6	22:1K:48:C:O4'	2.52	0.42
24:3K:42:U:H2'	24:3K:43:G:H8	1.83	0.42
24:3K:50:G:N3	24:3K:64:C:H5	2.16	0.42
26:1H:242:G:H5''	54:Q8:64:TYR:CZ	2.54	0.42
26:1H:248:G:H2'	58:1H:3669:HOH:O	2.19	0.42
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.50	0.42
26:1H:274:G:C8	26:1H:274:G:H3'	2.54	0.42
26:1H:533:G:H5'	41:C8:24:TYR:CE1	2.54	0.42
26:1H:784:A:H5'	26:1H:785:G:OP1	2.18	0.42
26:1H:841:A:C2	26:1H:938:G:C2	3.07	0.42
26:1H:1021:A:H2'	26:1H:1023:U:H5'	2.00	0.42
26:1H:1465:G:C4	26:1H:1466:G:C8	3.06	0.42
26:1H:1799:G:H8	26:1H:1799:G:H2'	1.73	0.42
28:11:37:LEU:HA	28:11:37:LEU:HD23	1.75	0.42
28:11:69:ARG:HG3	28:11:69:ARG:NH1	2.34	0.42
28:11:146:GLU:HB2	28:11:189:CYS:HB3	2.01	0.42
28:11:270:ILE:C	28:11:271:ILE:HG12	2.39	0.42
29:21:116:VAL:HG11	29:21:138:PRO:HB3	2.01	0.42
31:41:82:LEU:HA	31:41:82:LEU:HD22	1.75	0.42
33:61:77:LEU:HD21	33:61:101:LEU:HD13	2.01	0.42
34:58:120:LEU:CD2	34:58:122:VAL:HG23	2.44	0.42
36:78:41:ARG:HD2	36:78:41:ARG:H	1.84	0.42
36:78:82:GLY:HA2	36:78:113:LYS:O	2.19	0.42
42:D8:19:LYS:HD3	42:D8:62:LEU:HD23	2.01	0.42
54:Q8:7:HIS:HB3	54:Q8:61:LEU:HB3	2.00	0.42
1:1G:42:G:H2'	1:1G:43:C:O4'	2.18	0.42
1:1G:130:A:H5'	17:8A:63:ARG:NH2	2.33	0.42
1:1G:363:A:OP1	12:3A:61:THR:HG21	2.18	0.42
1:1G:636:U:H2'	1:1G:637:G:H8	1.83	0.42
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.36	0.42
1:1G:1399:C:C2	1:1G:1401:G:C5	3.07	0.42
3:22:121:ALA:HB1	3:22:189:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:3:ARG:H	6:52:3:ARG:HG2	1.45	0.42
9:82:119:ALA:O	9:82:120:ARG:HB2	2.19	0.42
11:2A:78:GLN:HA	11:2A:103:LEU:HD11	2.01	0.42
13:4A:84:ILE:CG2	19:AA:63:THR:HG21	2.46	0.42
23:2L:62:C:H2'	23:2L:63:C:C6	2.54	0.42
26:14:6:A:C4	34:15:129:PRO:HG2	2.53	0.42
26:14:463:G:N2	26:14:465:G:H3'	2.34	0.42
26:14:841:A:C2	26:14:938:G:C2	3.07	0.42
26:14:1314:C:C2	26:14:1339:G:N2	2.87	0.42
26:14:1324:G:C4	26:14:1328:G:O6	2.72	0.42
26:14:1467:C:H42	26:14:1525:G:H1	1.67	0.42
26:14:2262:U:H5	47:E5:16:SER:OG	2.02	0.42
26:14:2872:G:C4	26:14:2873:A:C2	3.07	0.42
27:1J:31:C:N4	39:65:32:LEU:HD23	2.34	0.42
27:1J:44:G:H1'	27:1J:47:C:H42	1.84	0.42
27:1J:44:G:C2	27:1J:48:A:C2	3.07	0.42
27:1J:78:A:C2	27:1J:99:A:C4	3.06	0.42
29:29:66:HIS:C	29:29:68:ALA:H	2.23	0.42
30:39:31:HIS:HB2	36:35:9:ASN:OD1	2.19	0.42
31:49:27:ASN:HB3	31:49:30:GLU:HG3	2.01	0.42
37:45:50:ALA:O	37:45:53:ALA:HB3	2.19	0.42
41:85:96:ALA:HA	41:85:98:LEU:HG	2.00	0.42
42:95:37:VAL:O	42:95:39:LEU:N	2.52	0.42
44:B5:50:LYS:O	44:B5:51:VAL:C	2.56	0.42
1:13:272:C:H2'	1:13:273:A:H8	1.84	0.42
1:13:313:A:H2'	1:13:314:C:H6	1.83	0.42
1:13:537:G:H5''	12:3I:113:ARG:NH1	2.34	0.42
1:13:931:C:O2'	1:13:932:C:H5'	2.19	0.42
1:13:1065:U:H5	1:13:1190:G:C4	2.37	0.42
1:13:1220:G:O3'	19:AI:36:ARG:HD3	2.19	0.42
7:6E:143:ARG:NH1	24:3K:42:U:H5'	2.34	0.42
8:7E:110:ALA:HB3	8:7E:121:ASP:HB3	2.01	0.42
12:3I:111:LYS:HD3	12:3I:111:LYS:HA	1.90	0.42
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	2.01	0.42
26:1H:198:C:N4	26:1H:248:G:H1	2.18	0.42
26:1H:221:A:H4'	26:1H:222:A:H5''	2.01	0.42
26:1H:652:C:C4	26:1H:653:A:N1	2.87	0.42
26:1H:818:G:H5'	26:1H:839:U:OP1	2.18	0.42
26:1H:977:G:C6	26:1H:987:G:C6	3.07	0.42
26:1H:1211:U:O2	58:1H:3681:HOH:O	2.20	0.42
26:1H:1435:G:O5'	26:1H:1435:G:H8	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1444:G:C2	26:1H:1548:C:N3	2.87	0.42
26:1H:1491:G:H5'	28:11:99:ASP:OD1	2.19	0.42
26:1H:2298:A:H62	26:1H:2318:G:H8	1.66	0.42
26:1H:2418:A:OP2	54:Q8:29:LYS:NZ	2.42	0.42
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.54	0.42
26:1H:2631:G:H2'	26:1H:2632:A:H8	1.84	0.42
26:1H:2711:A:P	58:1H:3771:HOH:O	2.77	0.42
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.19	0.42
27:16:6:C:H2'	27:16:7:G:H5''	2.01	0.42
27:16:40:U:C1'	27:16:45:A:H61	2.32	0.42
36:78:19:VAL:HG13	36:78:31:ALA:HB1	2.01	0.42
37:88:12:GLN:HG2	37:88:73:PRO:HD2	1.99	0.42
39:A8:49:VAL:HG12	39:A8:73:LEU:HD23	2.00	0.42
40:B8:105:LEU:C	40:B8:107:ASP:H	2.22	0.42
45:G8:97:ARG:NE	45:G8:103:GLY:O	2.52	0.42
1:1G:1151:A:H5''	10:1A:42:THR:OG1	2.19	0.42
1:1G:1279:A:H5''	1:1G:1280:A:P	2.58	0.42
5:42:70:PRO:HD2	5:42:142:LEU:HB2	2.00	0.42
17:8A:55:ASP:OD1	17:8A:55:ASP:N	2.52	0.42
26:14:180:G:H5''	26:14:181:A:OP1	2.20	0.42
26:14:250:G:O5'	36:35:60:MET:HE1	2.19	0.42
26:14:309:G:N3	26:14:329:G:O2'	2.52	0.42
26:14:952:G:C6	26:14:966:G:C6	3.07	0.42
26:14:971:C:N4	26:14:972:G:C2	2.87	0.42
26:14:1432:C:H2'	26:14:1433:U:O4'	2.20	0.42
26:14:1519:G:H2'	26:14:1520:U:O4'	2.19	0.42
26:14:1658:C:H2'	26:14:1659:U:C6	2.54	0.42
26:14:2488:A:H8	26:14:2488:A:O5'	2.01	0.42
26:14:2508:G:H1	26:14:2580:U:H3	1.67	0.42
26:14:2525:G:O3'	26:14:2742:C:O2'	2.37	0.42
26:14:2698:U:C4	58:14:3424:HOH:O	2.67	0.42
26:14:2807:G:H22	26:14:2892:A:H62	1.66	0.42
58:14:3409:HOH:O	30:39:55:GLY:HA2	2.18	0.42
28:19:129:ASN:O	28:19:193:VAL:HG12	2.19	0.42
28:19:244:ARG:HB2	28:19:244:ARG:HH11	1.84	0.42
29:29:131:ALA:O	29:29:132:HIS:C	2.58	0.42
30:39:31:HIS:O	30:39:35:GLU:HG3	2.19	0.42
30:39:128:ALA:O	30:39:129:PHE:C	2.57	0.42
32:59:103:LEU:O	32:59:103:LEU:HG	2.19	0.42
33:69:61:ARG:O	33:69:64:GLU:HB3	2.19	0.42
36:35:71:VAL:CG1	36:35:72:PRO:HD3	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:79:LEU:O	38:55:79:LEU:HD22	2.18	0.42
39:65:7:TYR:O	39:65:11:LYS:HB2	2.19	0.42
45:C5:20:TYR:CZ	45:C5:42:VAL:HB	2.54	0.42
45:C5:42:VAL:O	45:C5:64:GLU:HA	2.18	0.42
46:D5:100:VAL:O	46:D5:124:ILE:HG22	2.18	0.42
47:E5:45:PHE:CE2	47:E5:69:PHE:HE1	2.37	0.42
54:M5:49:VAL:HA	54:M5:50:LEU:CB	2.48	0.42
1:13:171:A:C2	1:13:172:A:C4	3.07	0.42
1:13:254:G:O2'	17:8I:16:GLN:O	2.26	0.42
1:13:352:C:H6	1:13:352:C:H5''	1.85	0.42
1:13:1004:A:N1	1:13:1005:A:N6	2.68	0.42
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.55	0.42
1:13:1298:C:P	7:6E:114:ARG:HH22	2.41	0.42
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.20	0.42
1:13:1373:G:O5'	1:13:1373:G:H8	2.02	0.42
1:13:1442:G:C6	1:13:1446:A:C6	3.07	0.42
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.84	0.42
9:8E:34:ASN:OD1	9:8E:34:ASN:N	2.51	0.42
10:1I:8:LEU:O	10:1I:70:ARG:N	2.53	0.42
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	2.01	0.42
16:7I:51:VAL:HG12	16:7I:52:ASP:N	2.35	0.42
19:AI:19:VAL:HG11	19:AI:44:MET:HB3	2.01	0.42
24:3K:64:C:H5'	24:3K:65:C:OP2	2.20	0.42
26:1H:34:C:HO2'	26:1H:35:G:P	2.39	0.42
26:1H:106:C:H2'	26:1H:107:C:C6	2.54	0.42
26:1H:654:A:N3	26:1H:654:A:H3'	2.35	0.42
26:1H:1118:C:H2'	26:1H:1119:C:C6	2.54	0.42
26:1H:1291:C:OP1	26:1H:1536:A:H4'	2.20	0.42
26:1H:1658:C:H2'	26:1H:1659:U:H6	1.84	0.42
26:1H:2359:C:H2'	26:1H:2360:A:O4'	2.18	0.42
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.20	0.42
26:1H:2432:A:C5	48:J8:33:LYS:HG2	2.54	0.42
26:1H:2515:C:O2	26:1H:2570:G:C2	2.72	0.42
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.54	0.42
28:11:165:ILE:H	28:11:165:ILE:HG12	1.66	0.42
29:21:6:GLY:HA2	29:21:51:PHE:CE2	2.55	0.42
29:21:97:LYS:N	29:21:100:GLU:OE1	2.30	0.42
37:88:35:VAL:CG1	37:88:130:LYS:HB3	2.48	0.42
37:88:50:ALA:O	37:88:53:ALA:HB3	2.18	0.42
38:98:10:LEU:O	38:98:12:ARG:NH1	2.53	0.42
39:A8:56:LEU:HB2	39:A8:58:LEU:HD21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:74:ARG:HD3	40:B8:76:PHE:CE2	2.54	0.42
41:C8:101:ARG:C	41:C8:103:PRO:HD3	2.39	0.42
1:1G:88:C:H2'	1:1G:89:U:C6	2.54	0.42
1:1G:223:U:C4	1:1G:224:C:C5	3.07	0.42
1:1G:408:A:H2'	1:1G:409:G:O4'	2.19	0.42
1:1G:652:U:O2'	1:1G:653:A:O5'	2.37	0.42
1:1G:1166:G:N2	1:1G:1170:A:OP2	2.53	0.42
1:1G:1229:A:H2'	1:1G:1230:C:C6	2.54	0.42
3:22:97:LYS:HB3	3:22:97:LYS:HE3	1.84	0.42
3:22:152:ILE:HG12	3:22:167:TRP:HB2	2.00	0.42
5:42:90:VAL:HG23	5:42:121:LYS:O	2.19	0.42
7:62:56:GLN:NE2	7:62:60:LYS:HE2	2.34	0.42
7:62:88:PRO:HG3	7:62:145:ALA:HA	1.99	0.42
8:72:123:GLU:HA	8:72:126:LYS:HE2	2.01	0.42
13:4A:40:ASN:ND2	13:4A:43:THR:HG23	2.34	0.42
15:6A:61:GLY:O	15:6A:65:ARG:HG2	2.20	0.42
26:14:785:G:C6	26:14:786:C:C4	3.06	0.42
26:14:925:C:H2'	26:14:926:A:H8	1.84	0.42
26:14:1659:U:C4	26:14:1660:C:C5	3.08	0.42
26:14:1839:G:C8	26:14:1927:A:H1'	2.54	0.42
26:14:2359:C:H2'	26:14:2360:A:O4'	2.19	0.42
26:14:2437:U:HO2'	26:14:2599:G:HO2'	1.66	0.42
26:14:2630:G:H5''	26:14:2631:G:OP2	2.19	0.42
26:14:2689:U:OP2	26:14:2719:G:N2	2.52	0.42
26:14:2715:C:H2'	26:14:2716:U:H6	1.84	0.42
27:1J:12:C:C6	27:1J:12:C:OP2	2.72	0.42
29:29:181:LEU:HD12	29:29:181:LEU:HA	1.74	0.42
37:45:66:ILE:CG1	37:45:67:ARG:H	2.32	0.42
41:85:8:VAL:HB	41:85:12:ARG:HE	1.84	0.42
52:J5:36:CYS:HB3	52:J5:49:CYS:HG	1.82	0.42
1:13:22:G:H2'	1:13:23:C:H6	1.82	0.42
1:13:346:G:H21	1:13:347:G:C1'	2.32	0.42
1:13:361:G:H8	1:13:361:G:O5'	2.01	0.42
1:13:504:C:H5''	58:13:1824:HOH:O	2.18	0.42
1:13:791:G:C2'	1:13:792:A:H5'	2.48	0.42
1:13:866:C:O5'	1:13:866:C:H6	2.02	0.42
1:13:977:A:C8	1:13:1223:C:N3	2.87	0.42
1:13:1024:G:N2	1:13:1025:U:O4	2.49	0.42
1:13:1046:A:H61	1:13:1213:A:N6	2.16	0.42
1:13:1236:A:OP1	21:1F:3:LYS:HE3	2.18	0.42
1:13:1348:U:N3	1:13:1374:A:H2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:1:MET:HB3	8:7E:2:LEU:H	1.66	0.42
9:8E:17:VAL:HG13	9:8E:63:ILE:HG12	2.01	0.42
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.40	0.42
26:1H:49:A:H4'	26:1H:50:U:H5''	2.01	0.42
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.19	0.42
26:1H:280:C:C2	26:1H:361:G:N2	2.87	0.42
26:1H:598:G:H2'	26:1H:599:G:O4'	2.20	0.42
26:1H:774:A:H2	26:1H:787:U:HO2'	1.64	0.42
26:1H:1159:U:H2'	26:1H:1160:G:C8	2.55	0.42
26:1H:1257:C:OP1	30:31:75:HIS:HE1	2.02	0.42
26:1H:1727:U:H5''	26:1H:1728:G:OP2	2.18	0.42
26:1H:1776:G:C2	26:1H:1777:U:C6	3.07	0.42
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	2.01	0.42
26:1H:2101:G:N1	26:1H:2189:U:O2	2.52	0.42
27:16:10:C:H2'	27:16:11:C:H6	1.83	0.42
27:16:83:G:H4'	50:L8:52:HIS:CG	2.55	0.42
29:21:116:VAL:HG13	29:21:122:PHE:CD2	2.55	0.42
31:41:41:GLN:HG2	31:41:154:GLY:O	2.19	0.42
32:51:30:LYS:HB2	32:51:79:VAL:HA	2.01	0.42
37:88:39:PRO:HD3	37:88:99:PRO:HG3	2.01	0.42
41:C8:75:ASN:HB2	41:C8:78:THR:OG1	2.19	0.42
1:1G:9:G:C6	1:1G:26:A:N6	2.88	0.42
1:1G:1104:G:H2'	1:1G:1105:A:H8	1.84	0.42
1:1G:1495:U:C4	1:1G:1496:C:C5	3.07	0.42
2:12:136:VAL:O	2:12:139:LYS:HG2	2.19	0.42
7:62:105:VAL:O	7:62:108:ALA:HB3	2.18	0.42
11:2A:122:LYS:HB3	11:2A:122:LYS:HE2	1.70	0.42
26:14:58:G:N2	26:14:70:G:C4	2.87	0.42
26:14:414:C:OP1	26:14:1879:C:O2'	2.36	0.42
26:14:636:G:N7	36:35:113:LYS:NZ	2.40	0.42
26:14:708:C:N4	26:14:723:G:H1	2.13	0.42
26:14:1287:A:N7	38:55:106:GLY:O	2.51	0.42
26:14:1535:U:O4	26:14:1536:A:N6	2.53	0.42
26:14:1576:U:H2'	26:14:1577:C:H6	1.84	0.42
26:14:2126:A:O2'	26:14:2127:G:H5''	2.19	0.42
28:19:210:GLY:O	28:19:213:ARG:N	2.52	0.42
31:49:51:ARG:NH1	31:49:55:LYS:HE2	2.34	0.42
31:49:75:LYS:HA	31:49:84:LYS:HG2	2.00	0.42
32:59:97:ARG:HG2	32:59:98:LEU:N	2.34	0.42
40:75:16:ARG:NH2	40:75:19:LEU:HD21	2.34	0.42
43:A5:28:SER:H	43:A5:28:SER:HG	1.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:8:A:N6	4:3E:205:GLU:O	2.53	0.42
1:13:1009:G:C2	1:13:1010:G:C8	3.06	0.42
1:13:1024:G:H5'	1:13:1025:U:OP2	2.19	0.42
1:13:1347:G:N2	1:13:1374:A:O5'	2.52	0.42
2:1E:42:ILE:HD13	2:1E:203:GLY:HA2	2.00	0.42
12:3I:60:LEU:HD22	12:3I:60:LEU:HA	1.86	0.42
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.19	0.42
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	2.02	0.42
20:BI:42:GLN:HG3	20:BI:43:LEU:HD23	2.02	0.42
26:1H:99:U:C6	26:1H:102:G:C2	3.07	0.42
26:1H:265:A:H1'	26:1H:266:G:O4'	2.19	0.42
26:1H:587:C:C2	36:78:33:ARG:NH1	2.88	0.42
26:1H:654(O):G:H8	26:1H:654(P):G:N3	2.18	0.42
26:1H:661:C:H2'	26:1H:662:G:C8	2.55	0.42
26:1H:822:U:P	58:1H:3635:HOH:O	2.77	0.42
26:1H:861:A:N3	27:16:79:C:O2'	2.50	0.42
26:1H:1155:A:O2'	26:1H:1156:A:H2'	2.19	0.42
26:1H:1174:A:H2'	26:1H:1176:G:H4'	2.02	0.42
26:1H:1288:U:O2'	26:1H:1647:G:N2	2.52	0.42
26:1H:1454:U:OP1	38:98:77:ARG:NH1	2.52	0.42
26:1H:1635:G:C2	26:1H:1636:C:C2	3.08	0.42
26:1H:2343:C:H4'	26:1H:2373:G:O3'	2.19	0.42
26:1H:2630:G:H2'	26:1H:2631:G:C8	2.54	0.42
26:1H:2726:U:O2'	26:1H:2727:G:O5'	2.34	0.42
28:11:67:PHE:CE1	28:11:106:ILE:HD11	2.30	0.42
31:41:16:ARG:NH2	31:41:31:VAL:HG11	2.35	0.42
31:41:27:ASN:HB3	31:41:30:GLU:HG3	2.01	0.42
33:61:114:LEU:HA	33:61:129:THR:O	2.20	0.42
41:C8:85:LYS:HD2	41:C8:85:LYS:HA	1.74	0.42
41:C8:112:ARG:HH21	42:D8:48:GLY:H	1.68	0.42
43:E8:82:LEU:HB2	43:E8:98:LYS:HB2	2.00	0.42
45:G8:102:CYS:SG	45:G8:103:GLY:N	2.92	0.42
49:K8:4:SER:N	49:K8:7:ARG:H	2.05	0.42
54:Q8:26:LYS:HE3	54:Q8:48:PHE:CG	2.55	0.42
1:1G:232:G:H2'	1:1G:233:C:O4'	2.20	0.42
1:1G:355:C:C4	1:1G:356:A:N7	2.88	0.42
1:1G:428:G:H4'	1:1G:429:U:O5'	2.19	0.42
1:1G:976:G:OP1	14:5A:32:SER:N	2.44	0.42
1:1G:1248:A:N1	1:1G:1249:C:N4	2.68	0.42
1:1G:1308:U:OP1	13:4A:101:GLN:NE2	2.53	0.42
2:12:217:ARG:O	2:12:219:VAL:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:45:ASP:O	7:62:49:ILE:HG12	2.19	0.42
7:62:131:LYS:HB3	7:62:131:LYS:HE3	1.69	0.42
10:1A:45:ARG:HB3	10:1A:47:PHE:CE1	2.55	0.42
13:4A:19:LEU:HB3	13:4A:25:ILE:HG21	2.01	0.42
13:4A:88:ARG:NH1	13:4A:88:ARG:HB2	2.35	0.42
20:BA:88:VAL:O	20:BA:92:LEU:HG	2.19	0.42
26:14:8:A:H2'	26:14:9:U:C6	2.55	0.42
26:14:617:G:P	30:39:40:GLN:HE21	2.38	0.42
26:14:797:C:H2'	26:14:798:G:O4'	2.19	0.42
26:14:977:G:H2'	26:14:978:G:C8	2.48	0.42
26:14:1031:G:H1	26:14:1123:C:H42	1.67	0.42
26:14:2246:G:H2'	26:14:2247:A:C8	2.54	0.42
26:14:2286:A:H4'	26:14:2287:A:O4'	2.19	0.42
26:14:2335:A:O2'	26:14:2336:A:H5''	2.18	0.42
26:14:2799:A:H5'	26:14:2801:A:H1'	2.00	0.42
27:1J:99:A:C4	27:1J:100:G:C8	3.08	0.42
28:19:24:ILE:HD13	28:19:84:TYR:HB2	2.00	0.42
28:19:232:PRO:HG2	28:19:248:SER:O	2.18	0.42
30:39:34:TRP:CZ3	36:35:8:PRO:HB3	2.54	0.42
30:39:182:ASN:O	30:39:186:ILE:HG12	2.19	0.42
31:49:38:VAL:HG22	31:49:93:THR:OG1	2.19	0.42
31:49:136:ARG:NH1	31:49:137:GLU:HG3	2.34	0.42
32:59:6:ARG:HD2	32:59:66:GLY:CA	2.50	0.42
32:59:103:LEU:HD13	32:59:123:PHE:CZ	2.55	0.42
34:15:12:ARG:NH1	34:15:50:ASP:OD2	2.52	0.42
34:15:40:PRO:HB3	41:85:68:ALA:HB2	2.01	0.42
35:25:92:GLU:HB3	35:25:113:LYS:NZ	2.34	0.42
39:65:43:GLU:HB2	47:E5:49:LYS:NZ	2.35	0.42
40:75:10:VAL:C	40:75:12:SER:N	2.72	0.42
48:F5:78:LYS:HZ1	48:F5:94:LEU:HD11	1.84	0.42
1:13:587:G:C2	1:13:755:G:C6	3.08	0.42
1:13:592:G:O2'	1:13:593:G:H5'	2.20	0.42
1:13:619:U:O2	4:3E:135:LEU:HD21	2.20	0.42
1:13:1360:A:H2'	1:13:1361:G:C8	2.55	0.42
1:13:1414:U:H2'	1:13:1415:G:H8	1.84	0.42
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.35	0.42
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	2.02	0.42
3:2E:44:GLU:HG2	3:2E:44:GLU:H	1.58	0.42
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.84	0.42
19:AI:41:VAL:HG12	19:AI:44:MET:CG	2.50	0.42
26:1H:370:G:H4'	26:1H:371:A:OP2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:463:G:C6	26:1H:467:G:C6	3.08	0.42
26:1H:697:C:C2	26:1H:698:C:C5	3.07	0.42
26:1H:841:A:H2'	26:1H:842:G:O4'	2.19	0.42
26:1H:844:C:H3'	26:1H:845:G:C8	2.55	0.42
26:1H:1680:U:N3	58:1H:3550:HOH:O	2.35	0.42
26:1H:2313:C:O2'	26:1H:2314:C:H5'	2.20	0.42
26:1H:2334:G:H3'	26:1H:2335:A:H5'	2.01	0.42
27:16:88:C:H2'	27:16:89:G:O4'	2.19	0.42
30:31:11:VAL:HG12	30:31:12:LEU:H	1.83	0.42
36:78:1:MET:CE	36:78:6:LEU:HD13	2.50	0.42
37:88:5:ARG:O	37:88:6:ARG:C	2.57	0.42
40:B8:16:ARG:NH1	40:B8:18:ASP:OD2	2.52	0.42
45:G8:84:ARG:O	45:G8:85:VAL:HG13	2.19	0.42
45:G8:94:LYS:HZ2	45:G8:94:LYS:HA	1.83	0.42
49:K8:15:LYS:HA	49:K8:15:LYS:HD3	1.87	0.42
1:1G:197:A:N6	1:1G:220:G:O2'	2.51	0.42
1:1G:262:A:C6	1:1G:263:A:N6	2.88	0.42
1:1G:1320:C:N3	19:AA:72:GLY:HA3	2.35	0.42
1:1G:1365:G:H2'	1:1G:1366:C:C6	2.55	0.42
7:62:8:GLU:H	7:62:8:GLU:HG3	1.54	0.42
9:82:96:LEU:HD12	9:82:96:LEU:HA	1.89	0.42
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.33	0.42
23:2L:50:G:H2'	23:2L:51:U:O4'	2.20	0.42
26:14:320:A:H4'	26:14:322:A:C8	2.54	0.42
26:14:1312:U:H4'	26:14:1313:U:O5'	2.20	0.42
26:14:1500:G:O2'	28:19:100:GLY:O	2.37	0.42
26:14:2308:G:H3'	26:14:2310:A:OP2	2.19	0.42
26:14:2391:G:O6	26:14:2425:A:H8	2.02	0.42
26:14:2483:C:N3	37:45:124:LYS:NZ	2.68	0.42
26:14:2611:U:H5'	26:14:2611:U:C6	2.35	0.42
29:29:4:ILE:HD13	29:29:28:ALA:HB1	2.01	0.42
31:49:56:ALA:HA	31:49:59:GLU:HB3	2.01	0.42
31:49:111:LEU:HD23	31:49:117:PHE:HZ	1.85	0.42
35:25:117:LEU:HD13	35:25:117:LEU:HA	1.89	0.42
36:35:85:LEU:O	36:35:88:LEU:N	2.47	0.42
38:55:78:LYS:O	38:55:83:ILE:HG13	2.20	0.42
39:65:59:LYS:CD	39:65:60:GLY:H	2.33	0.42
48:F5:5:CYS:SG	48:F5:8:SER:OG	2.58	0.42
49:G5:33:MET:O	49:G5:37:PHE:HD1	2.03	0.42
50:H5:3:ARG:HG3	50:H5:59:VAL:C	2.40	0.42
1:13:823:G:C6	1:13:878:G:N1	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.20	0.42
1:13:1060:C:H5''	10:1I:51:ARG:HG2	2.02	0.42
1:13:1325:C:OP1	21:1F:15:ARG:NE	2.50	0.42
1:13:1511:G:H2'	1:13:1512:U:O4'	2.20	0.42
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	2.02	0.42
10:1I:80:LYS:O	10:1I:84:GLN:HG2	2.19	0.42
22:1K:48:C:O2'	22:1K:49:G:O5'	2.37	0.42
24:3K:9:A:H3'	24:3K:10:G:C8	2.54	0.42
26:1H:496:G:C6	26:1H:497:A:C4	3.08	0.42
26:1H:565:C:H2'	26:1H:566:U:O4'	2.19	0.42
26:1H:589:C:H2'	26:1H:590:A:C8	2.55	0.42
26:1H:1359:A:H5'	26:1H:1359:A:N3	2.35	0.42
26:1H:1613:G:N2	26:1H:1619:G:C8	2.88	0.42
26:1H:1753:G:N1	26:1H:1756:G:C2	2.88	0.42
26:1H:1968:G:H5''	26:1H:1969:A:P	2.59	0.42
26:1H:1969:A:H1'	26:1H:1973:G:O4'	2.18	0.42
26:1H:2047:U:O2'	26:1H:2823:A:N1	2.45	0.42
26:1H:2399:G:H1	26:1H:2417:C:N4	2.17	0.42
26:1H:2399:G:N2	26:1H:2417:C:N3	2.58	0.42
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.20	0.42
28:11:273:ARG:HD2	28:11:273:ARG:O	2.19	0.42
29:21:81:ILE:O	29:21:81:ILE:HG22	2.19	0.42
31:41:98:ARG:O	31:41:101:ILE:HD13	2.20	0.42
34:58:37:LYS:O	41:C8:67:ALA:HB2	2.20	0.42
36:78:3:LEU:HD23	36:78:3:LEU:HA	1.70	0.42
36:78:64:LYS:HD2	54:Q8:12:LYS:CG	2.47	0.42
36:78:86:LYS:HG3	36:78:87:ASP:N	2.34	0.42
40:B8:48:ILE:CD1	40:B8:110:ILE:HD11	2.50	0.42
44:F8:26:TYR:HB3	44:F8:92:LEU:HD12	2.01	0.42
46:H8:157:LEU:O	46:H8:158:PRO:C	2.57	0.42
1:1G:147:G:H2'	1:1G:148:G:H8	1.84	0.42
1:1G:243:A:C2	1:1G:245:C:N3	2.88	0.42
1:1G:537:G:H5''	12:3A:113:ARG:NH1	2.34	0.42
1:1G:689:C:H2'	1:1G:690:G:H5'	2.02	0.42
1:1G:837:G:H2'	1:1G:838:G:O4'	2.20	0.42
1:1G:843:U:H3'	1:1G:848:C:O4'	2.20	0.42
1:1G:1250:A:H2	1:1G:1353:G:H21	1.67	0.42
1:1G:1272:G:C5	1:1G:1273:G:C8	3.08	0.42
1:1G:1409:C:H5'	26:14:1916:A:N1	2.35	0.42
2:12:157:ARG:HG2	2:12:158:LEU:H	1.84	0.42
2:12:187:LEU:HA	2:12:201:ILE:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:87:LEU:HB2	3:22:88:ARG:NH2	2.34	0.42
4:32:13:ARG:C	4:32:15:GLU:N	2.71	0.42
7:62:67:GLU:OE2	7:62:70:LYS:HE2	2.19	0.42
11:2A:66:LEU:HA	11:2A:66:LEU:HD23	1.87	0.42
16:7A:70:ALA:O	16:7A:74:LEU:HB2	2.20	0.42
17:8A:29:HIS:HB3	17:8A:33:GLY:N	2.34	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	2.59	0.42
26:14:123:G:H2'	26:14:124:G:O4'	2.20	0.42
26:14:200:U:O2	26:14:386:G:N2	2.52	0.42
26:14:241:A:H5'	26:14:243:U:O4'	2.20	0.42
26:14:877:U:H3	26:14:899:A:N6	2.18	0.42
26:14:1322:A:O3'	43:A5:84:ARG:NH1	2.52	0.42
26:14:1360:A:H5''	26:14:1361:G:OP2	2.19	0.42
26:14:1630(A):C:H2'	58:14:3523:HOH:O	2.20	0.42
26:14:1779:U:OP2	26:14:1784:A:N6	2.47	0.42
26:14:2037:G:C6	26:14:2038:G:C6	3.08	0.42
26:14:2113:U:H5''	26:14:2114:A:H1'	2.02	0.42
26:14:2790:A:H8	26:14:2790:A:OP2	2.02	0.42
27:1J:75:G:H1	27:1J:102:G:N2	2.17	0.42
33:69:74:ASN:O	33:69:75:LEU:HB2	2.20	0.42
33:69:109:ILE:HB	33:69:130:TYR:CE2	2.55	0.42
36:35:76:LYS:HB3	36:35:76:LYS:HE3	1.84	0.42
38:55:29:LEU:O	38:55:75:LEU:HD21	2.18	0.42
1:13:875:C:O2'	8:7E:14:ARG:HD2	2.20	0.42
1:13:958:A:C6	1:13:959:A:N1	2.87	0.42
1:13:1131:G:H3'	1:13:1132:C:C6	2.54	0.42
1:13:1330:U:C4	1:13:1331:G:C2	3.07	0.42
2:1E:19:HIS:HB3	2:1E:20:GLU:HG2	2.01	0.42
8:7E:109:ILE:HG13	8:7E:120:THR:HB	2.02	0.42
10:1I:51:ARG:N	10:1I:60:ARG:HA	2.35	0.42
15:6I:24:SER:O	15:6I:28:GLN:NE2	2.46	0.42
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.47	0.42
19:AI:51:VAL:N	19:AI:58:VAL:O	2.50	0.42
20:BI:29:LYS:O	20:BI:33:ILE:HG13	2.20	0.42
24:3K:8:U:N3	24:3K:14:A:N7	2.43	0.42
26:1H:592:G:N2	26:1H:665:C:N3	2.57	0.42
26:1H:1260:G:C6	26:1H:1261:C:C4	3.07	0.42
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.20	0.42
26:1H:1419:A:C8	26:1H:1421:G:C5	3.08	0.42
26:1H:2053:G:P	58:1H:3746:HOH:O	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2107:C:H2'	26:1H:2108:C:O4'	2.19	0.42
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.36	0.42
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.55	0.42
27:16:16:G:H1	27:16:68:C:H42	1.67	0.42
27:16:73:A:C4	27:16:104:A:C2	3.08	0.42
29:21:108:SER:O	29:21:162:ALA:HA	2.20	0.42
32:51:105:LEU:HD23	32:51:113:VAL:HB	2.01	0.42
32:51:121:ILE:HG12	32:51:140:LYS:HD3	2.02	0.42
39:A8:69:VAL:HA	39:A8:72:ALA:HB3	2.00	0.42
40:B8:53:ARG:HG3	40:B8:53:ARG:O	2.20	0.42
45:G8:40:GLU:HA	45:G8:41:GLY:HA2	1.73	0.42
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	2.01	0.42
46:H8:60:GLU:O	46:H8:66:SER:HA	2.19	0.42
52:N8:16:ARG:HG3	52:N8:17:ASP:H	1.85	0.42
1:1G:106:C:C2'	1:1G:107:G:H5'	2.50	0.42
1:1G:474:G:H2'	1:1G:475:G:C8	2.48	0.42
1:1G:814:A:N7	1:1G:816:A:C4	2.87	0.42
1:1G:1068:G:N7	1:1G:1094:G:C8	2.87	0.42
1:1G:1099:G:C6	1:1G:1100:C:O2	2.73	0.42
1:1G:1127:G:H3'	1:1G:1127:G:OP2	2.20	0.42
1:1G:1385:G:C4	1:1G:1386:G:C8	3.08	0.42
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.20	0.42
2:12:19:HIS:HE1	2:12:206:ASP:HB2	1.85	0.42
3:22:103:VAL:HG12	3:22:104:GLN:H	1.84	0.42
3:22:175:LEU:HD23	3:22:175:LEU:O	2.19	0.42
5:42:41:VAL:HG11	5:42:113:ALA:HB2	2.02	0.42
7:62:38:LEU:O	7:62:42:ILE:HG13	2.19	0.42
8:72:30:ARG:O	8:72:34:GLU:HG2	2.19	0.42
15:6A:36:ILE:O	15:6A:40:SER:N	2.46	0.42
16:7A:39:TYR:HB2	16:7A:49:LEU:HD13	2.02	0.42
18:9A:51:LEU:HD22	18:9A:55:ARG:HG3	2.01	0.42
24:3L:30:C:H2'	24:3L:31:C:O4'	2.20	0.42
26:14:472:A:H8	26:14:472:A:O5'	2.03	0.42
26:14:519:U:H2'	26:14:520:G:C8	2.55	0.42
26:14:1345:C:OP2	58:14:3449:HOH:O	2.21	0.42
26:14:1545(A):A:N7	26:14:1546:C:C2	2.88	0.42
26:14:1863:G:H2'	26:14:1864:U:C6	2.55	0.42
26:14:1880:C:H2'	26:14:1881:C:H6	1.83	0.42
26:14:2117:A:H2'	26:14:2118:U:C5	2.54	0.42
26:14:2173:A:O2'	26:14:2174:C:OP1	2.27	0.42
26:14:2228:G:C5	26:14:2229:C:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2426:A:H4'	26:14:2427:C:OP2	2.20	0.42
28:19:61:LEU:HD12	28:19:61:LEU:HA	1.80	0.42
31:49:114:ILE:HG22	31:49:117:PHE:HB2	2.01	0.42
31:49:125:PHE:HB3	31:49:166:ASP:HB2	2.02	0.42
50:H5:37:LEU:HD23	50:H5:37:LEU:HA	1.63	0.42
1:13:824:C:O2'	8:7E:1:MET:HB3	2.20	0.42
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.83	0.42
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.50	0.42
7:6E:56:GLN:NE2	7:6E:56:GLN:HA	2.34	0.42
7:6E:149:ARG:HD3	11:2I:59:TYR:CZ	2.55	0.42
15:6I:12:ILE:HG12	15:6I:31:LEU:HD11	2.01	0.42
16:7I:74:LEU:HB3	16:7I:79:VAL:HG21	2.01	0.42
19:AI:40:ILE:HG23	19:AI:41:VAL:N	2.35	0.42
23:2K:24:C:H2'	23:2K:25:U:H6	1.85	0.42
23:2K:64:G:H2'	23:2K:65:G:C8	2.55	0.42
26:1H:184:C:C2	26:1H:185:U:C5	3.07	0.42
26:1H:303:U:H2'	26:1H:304:G:H8	1.85	0.42
26:1H:444:C:H2'	26:1H:445:C:H6	1.85	0.42
26:1H:607:U:N3	26:1H:621:A:C2	2.74	0.42
26:1H:784:A:O4'	28:11:227:ASN:ND2	2.52	0.42
26:1H:805:G:O5'	36:78:41:ARG:HG2	2.19	0.42
26:1H:1440:G:C4	26:1H:1441:G:C8	3.07	0.42
26:1H:1540:G:C6	26:1H:1541:U:C4	3.08	0.42
26:1H:1582:C:HO2'	26:1H:1586:A:H8	1.60	0.42
26:1H:2058:A:H5''	26:1H:2059:A:OP2	2.20	0.42
26:1H:2401:U:H3'	26:1H:2402:C:C6	2.55	0.42
27:16:38:C:H1'	39:A8:95:HIS:HE1	1.84	0.42
32:51:101:ARG:HH22	32:51:122:THR:HA	1.85	0.42
33:61:4:ILE:HG22	33:61:16:GLY:HA2	2.02	0.42
33:61:109:ILE:HB	33:61:130:TYR:OH	2.19	0.42
41:C8:47:TYR:CD1	41:C8:47:TYR:C	2.93	0.42
45:G8:8:LYS:HG2	45:G8:11:ASP:OD1	2.19	0.42
46:H8:4:ARG:NH1	46:H8:58:VAL:HG21	2.35	0.42
47:I8:48:GLY:HA3	47:I8:80:HIS:ND1	2.35	0.42
48:J8:73:LEU:HD13	48:J8:92:LYS:O	2.19	0.42
1:1G:17:U:H1'	1:1G:1080:A:H1'	2.02	0.42
1:1G:216:G:O2'	1:1G:217:C:O4'	2.36	0.42
1:1G:373:A:N3	1:1G:373:A:H2'	2.35	0.42
1:1G:453:A:C5	1:1G:454:C:C4	3.08	0.42
1:1G:514:C:H2'	1:1G:515:G:H8	1.85	0.42
1:1G:672:U:H2'	1:1G:673:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:689:C:C2'	1:1G:690:G:H5'	2.50	0.42
1:1G:801:U:H2'	1:1G:802:A:H8	1.85	0.42
1:1G:942:G:C2	1:1G:1342:C:C2	3.07	0.42
1:1G:955:U:H2'	1:1G:956:U:O4'	2.20	0.42
1:1G:960:U:O2	1:1G:1225:A:C5	2.73	0.42
1:1G:963:G:N2	10:1A:55:LYS:HE2	2.34	0.42
1:1G:1157:A:H61	1:1G:1177:G:H1	1.68	0.42
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.55	0.42
1:1G:1286:A:H3'	1:1G:1286:A:C8	2.54	0.42
1:1G:1410:G:H2'	1:1G:1411:C:O4'	2.20	0.42
2:12:82:ARG:NE	2:12:92:TYR:OH	2.53	0.42
3:22:4:LYS:HB2	3:22:4:LYS:HE2	1.92	0.42
3:22:6:HIS:CD2	14:5A:49:HIS:HB3	2.54	0.42
3:22:84:ILE:N	3:22:87:LEU:HD21	2.35	0.42
8:72:110:ALA:O	8:72:121:ASP:N	2.52	0.42
8:72:120:THR:CG2	8:72:122:ARG:H	2.30	0.42
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.84	0.42
11:2A:24:SER:OG	11:2A:27:ASN:O	2.25	0.42
13:4A:59:TYR:HD2	13:4A:60:VAL:HG22	1.85	0.42
13:4A:80:ARG:CZ	19:AA:66:MET:HG2	2.49	0.42
16:7A:3:LYS:HG3	16:7A:24:ALA:HB2	2.02	0.42
21:1B:22:ARG:HA	21:1B:23:PRO:HD2	1.82	0.42
22:1L:76:A:H1'	26:14:2583:G:N2	2.35	0.42
26:14:300:A:N6	58:14:3593:HOH:O	2.51	0.42
26:14:313:C:H5'	58:14:3729:HOH:O	2.20	0.42
26:14:513:A:C2	26:14:514:A:C4	3.07	0.42
26:14:953:A:C5	26:14:954:G:N7	2.88	0.42
26:14:1008:C:H4'	41:85:59:ARG:HH22	1.85	0.42
26:14:1475:G:C4	26:14:1519:G:N2	2.88	0.42
26:14:1878:G:C5	26:14:1879:C:C4	3.07	0.42
26:14:2305:A:H8	31:49:156:ASP:OD1	2.03	0.42
26:14:2335:A:C8	26:14:2337:G:N7	2.88	0.42
26:14:2393:A:H4'	36:35:62:LEU:O	2.20	0.42
30:39:156:LEU:HD21	30:39:163:VAL:HG12	2.01	0.42
33:69:79:ILE:HG21	33:69:92:VAL:HG21	2.01	0.42
36:35:101:VAL:HG21	36:35:108:LYS:N	2.35	0.42
41:85:90:VAL:HG22	42:95:38:LEU:CD1	2.50	0.42
43:A5:29:LEU:HG	43:A5:33:ARG:NH1	2.35	0.42
46:D5:19:ARG:HH11	46:D5:84:GLU:CB	2.31	0.42
46:D5:45:ASP:O	46:D5:49:ARG:HG2	2.20	0.42
1:13:143:A:H5''	1:13:144:G:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:192:U:C1'	20:BI:103:GLY:HA2	2.49	0.42
1:13:405:U:O2'	1:13:497:U:H5'	2.19	0.42
1:13:977:A:H8	1:13:1223:C:N3	2.18	0.42
1:13:1084:G:C5	1:13:1085:U:C4	3.07	0.42
2:1E:80:ILE:HG21	2:1E:215:LEU:HD23	2.01	0.42
7:6E:75:VAL:HG21	7:6E:86:GLN:HB3	2.01	0.42
7:6E:111:ARG:CD	7:6E:123:GLU:HB2	2.46	0.42
8:7E:82:HIS:CE1	8:7E:84:ARG:HB3	2.54	0.42
9:8E:18:PHE:N	9:8E:62:TYR:O	2.53	0.42
9:8E:41:VAL:C	9:8E:43:ALA:H	2.22	0.42
11:2I:86:GLY:HA2	11:2I:112:THR:HG23	2.02	0.42
13:4I:11:ARG:HG2	13:4I:12:ASN:H	1.85	0.42
26:1H:62:C:N4	26:1H:92:G:H1	2.14	0.42
26:1H:153:C:H2'	26:1H:154:G:C8	2.54	0.42
26:1H:199:A:C8	26:1H:2433:A:N6	2.88	0.42
26:1H:478:A:C6	26:1H:480:A:C6	3.08	0.42
26:1H:528:A:OP2	34:58:114:ARG:NH1	2.53	0.42
26:1H:592:G:H21	54:Q8:4:MET:CE	2.21	0.42
26:1H:975:G:O2'	26:1H:976:C:H5'	2.20	0.42
26:1H:1410:G:H22	26:1H:1593:G:H1'	1.85	0.42
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.38	0.42
26:1H:2012:G:OP1	43:E8:11:ARG:NH2	2.46	0.42
26:1H:2378:A:H4'	39:A8:23:ARG:CZ	2.50	0.42
26:1H:2490:G:N3	26:1H:2490:G:H2'	2.34	0.42
26:1H:2780:G:OP2	34:58:118:LYS:HD3	2.20	0.42
30:31:192:LEU:HD23	30:31:193:VAL:N	2.35	0.42
34:58:46:VAL:O	34:58:47:ALA:HB3	2.20	0.42
37:88:5:ARG:HB2	37:88:5:ARG:NH1	2.35	0.42
41:C8:79:PHE:CE2	41:C8:106:PHE:CZ	3.08	0.42
41:C8:83:LEU:HG	41:C8:88:ILE:HB	2.02	0.42
48:J8:86:SER:O	48:J8:88:LYS:N	2.53	0.42
53:P8:5:TRP:NE1	53:P8:7:PRO:HG3	2.34	0.42
1:1G:146:G:C2	1:1G:147:G:C8	3.08	0.42
1:1G:173:U:H1'	1:1G:197:A:N1	2.34	0.42
1:1G:279:A:C8	1:1G:281:G:C2	3.08	0.42
1:1G:402:G:O6	58:1G:1823:HOH:O	2.21	0.42
1:1G:519:C:H2'	1:1G:520:A:O4'	2.19	0.42
1:1G:757:U:H2'	1:1G:758:G:O4'	2.20	0.42
1:1G:980:C:H3'	1:1G:981:U:H6	1.85	0.42
1:1G:1103:C:C2	1:1G:1104:G:C8	3.07	0.42
1:1G:1178:G:H5''	9:82:93:ARG:CZ	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1276:G:H2'	1:1G:1277:C:C6	2.55	0.42
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.80	0.42
4:32:32:ALA:N	4:32:35:ARG:NH1	2.68	0.42
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.58	0.42
12:3A:111:LYS:HD3	12:3A:112:ASP:H	1.84	0.42
15:6A:67:LEU:O	15:6A:71:GLN:HB2	2.20	0.42
16:7A:57:ARG:HH21	16:7A:79:VAL:HA	1.84	0.42
22:1L:8:U:H3'	22:1L:13:C:H42	1.85	0.42
22:1L:49:G:H22	22:1L:59:C:P	2.43	0.42
24:3L:50:G:H2'	24:3L:51:C:C6	2.55	0.42
26:14:26:G:C6	26:14:27:G:N1	2.88	0.42
26:14:162:U:H4'	26:14:171:G:O4'	2.20	0.42
26:14:341:G:C6	26:14:342:G:C5	3.08	0.42
26:14:455:C:N3	26:14:472:A:H2'	2.35	0.42
26:14:607:U:OP1	30:39:102:PRO:HA	2.19	0.42
26:14:669:G:C2	26:14:801:G:C6	3.08	0.42
26:14:671:C:OP1	36:35:42:SER:O	2.38	0.42
26:14:850:C:O3'	50:H5:49:LYS:HE2	2.20	0.42
26:14:2494:G:C4	26:14:2495:G:C8	3.08	0.42
26:14:2611:U:H3'	26:14:2611:U:OP2	2.20	0.42
26:14:2640:G:O5'	26:14:2640:G:H8	2.03	0.42
27:1J:6:C:C2	27:1J:115:G:N2	2.87	0.42
28:19:70:TRP:CH2	28:19:150:LYS:HA	2.55	0.42
28:19:158:ALA:O	28:19:159:ALA:C	2.59	0.42
30:39:157:VAL:HB	30:39:194:MET:HG3	2.02	0.42
39:65:88:ASP:C	39:65:90:GLY:N	2.73	0.42
40:75:2:ASN:HB3	40:75:4:GLY:HA3	2.00	0.42
46:D5:40:ASP:OD1	46:D5:43:GLU:N	2.31	0.42
47:E5:72:ARG:HB3	47:E5:75:LEU:HB2	2.02	0.42
49:G5:48:HIS:O	49:G5:52:ASP:HB2	2.20	0.42
1:13:186:C:H5'	20:BI:78:ALA:HB1	2.02	0.41
1:13:262:A:H5''	1:13:263:A:OP2	2.20	0.41
1:13:322:C:O2'	20:BI:23:ARG:HD2	2.20	0.41
1:13:328:C:H4'	1:13:329:A:H5'	2.00	0.41
1:13:724:G:C2	1:13:725:G:C8	3.07	0.41
1:13:983:A:H5'	1:13:984:C:OP2	2.20	0.41
1:13:1016:A:H2'	1:13:1017:G:O4'	2.20	0.41
1:13:1305:G:H22	1:13:1331:G:C1'	2.33	0.41
1:13:1428:A:H2'	1:13:1429:C:C6	2.56	0.41
1:13:1528:U:O2	1:13:1530:G:H8	2.03	0.41
9:8E:29:ASN:OD1	9:8E:64:THR:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:85:ARG:CG	11:2I:111:ASP:HB3	2.50	0.41
15:6I:24:SER:OG	15:6I:25:THR:N	2.53	0.41
17:8I:100:LYS:CG	17:8I:101:ARG:HE	2.32	0.41
22:1K:4:G:C2	22:1K:5:A:C8	3.08	0.41
22:1K:52:A:C2	22:1K:63:G:C2	3.08	0.41
26:1H:226:G:H21	26:1H:228:A:H2	1.68	0.41
26:1H:299:A:C6	26:1H:300:A:C6	3.08	0.41
26:1H:654:A:C4	26:1H:654(A):A:H8	2.38	0.41
26:1H:1422:G:C6	26:1H:1423:G:C5	3.08	0.41
26:1H:1791:A:H3'	26:1H:1792:G:H8	1.85	0.41
26:1H:2119:A:H61	26:1H:2170:A:N6	2.18	0.41
29:21:14:ILE:HD13	29:21:14:ILE:HA	1.68	0.41
30:31:32:LEU:HA	30:31:32:LEU:HD22	1.54	0.41
30:31:108:LYS:HB3	30:31:108:LYS:HE2	1.72	0.41
32:51:90:LYS:HE3	32:51:90:LYS:HB3	1.78	0.41
32:51:169:VAL:HG13	32:51:170:ARG:N	2.35	0.41
33:61:57:ARG:O	33:61:61:ARG:HG2	2.19	0.41
38:98:72:ASP:OD2	38:98:75:LEU:HB2	2.20	0.41
45:G8:55:TYR:N	45:G8:56:PRO:HD3	2.35	0.41
45:G8:85:VAL:N	45:G8:96:ILE:O	2.51	0.41
46:H8:28:MET:N	46:H8:35:ARG:O	2.38	0.41
48:J8:53:VAL:CG2	48:J8:74:VAL:HG23	2.46	0.41
49:K8:33:MET:HG3	49:K8:37:PHE:CE1	2.55	0.41
49:K8:46:GLN:NE2	49:K8:46:GLN:HA	2.33	0.41
1:1G:77:C:H2'	1:1G:78:G:C8	2.55	0.41
1:1G:308:C:H2'	1:1G:309:G:H8	1.85	0.41
1:1G:338:A:H61	1:1G:351:G:H1	1.68	0.41
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.20	0.41
1:1G:607:A:H2'	1:1G:608:A:O4'	2.19	0.41
1:1G:866:C:H4'	1:1G:919:A:H5'	2.02	0.41
1:1G:984:C:H2'	1:1G:985:C:C6	2.54	0.41
1:1G:1329:A:H5''	13:4A:25:ILE:C	2.40	0.41
2:12:71:VAL:HB	2:12:165:VAL:HG22	2.02	0.41
2:12:153:ARG:HG3	2:12:154:LEU:HD23	2.01	0.41
2:12:180:LEU:HB2	2:12:182:ILE:CD1	2.50	0.41
9:82:25:LYS:HD2	9:82:26:VAL:H	1.84	0.41
15:6A:10:LYS:HZ3	15:6A:11:VAL:N	2.17	0.41
19:AA:15:LEU:O	19:AA:18:LYS:HB2	2.19	0.41
19:AA:74:PHE:O	19:AA:76:PRO:HD3	2.20	0.41
26:14:273:G:C2	26:14:273(A):G:C8	3.08	0.41
26:14:685:A:C8	26:14:774:A:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:850:C:O2'	26:14:851:U:H5'	2.20	0.41
26:14:1001:A:C8	26:14:1002:G:C8	3.07	0.41
26:14:2118:U:O2'	26:14:2145:C:O2	2.29	0.41
26:14:2239:G:P	58:14:3586:HOH:O	2.78	0.41
26:14:2327:A:H2'	26:14:2328:A:O4'	2.20	0.41
26:14:2523:G:O5'	26:14:2523:G:H8	2.03	0.41
26:14:2592:G:C6	26:14:2593:U:C2	3.08	0.41
26:14:2693:A:H2'	26:14:2694:G:C8	2.52	0.41
26:14:2831:G:OP1	29:29:58:ARG:NH1	2.50	0.41
27:1J:16:G:O6	27:1J:66:A:H2	2.03	0.41
30:39:27:GLU:C	30:39:29:ASN:H	2.23	0.41
37:45:55:VAL:HG23	37:45:64:ILE:HD12	2.01	0.41
38:55:73:VAL:H	38:55:73:VAL:HG22	1.57	0.41
44:B5:1:MET:HA	44:B5:2:LYS:HA	1.50	0.41
1:13:129(A):G:C2	1:13:188:U:O2'	2.73	0.41
1:13:323:U:H4'	20:BI:22:ARG:HB2	2.02	0.41
1:13:1099:G:C2	1:13:1100:C:C2	3.08	0.41
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.55	0.41
1:13:1226:C:H4'	1:13:1227:A:OP1	2.20	0.41
1:13:1323:G:H2'	1:13:1324:A:C8	2.55	0.41
4:3E:164:ALA:O	4:3E:168:ARG:NE	2.53	0.41
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.53	0.41
7:6E:75:VAL:HG11	7:6E:144:MET:HB3	2.01	0.41
8:7E:39:LEU:O	8:7E:44:PHE:N	2.52	0.41
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	2.02	0.41
11:2I:85:ARG:HG2	11:2I:112:THR:N	2.34	0.41
12:3I:17:LYS:H	12:3I:17:LYS:HD2	1.85	0.41
12:3I:84:LEU:O	12:3I:101:VAL:HG23	2.20	0.41
20:BI:71:THR:O	20:BI:72:LEU:C	2.59	0.41
24:3K:61:C:H2'	24:3K:62:U:C6	2.55	0.41
24:3K:76:A:H5''	48:J8:30:VAL:HG11	2.02	0.41
26:1H:780:G:C2	26:1H:782:A:C2	3.08	0.41
26:1H:855:G:O2'	47:I8:27:GLU:OE2	2.28	0.41
26:1H:906:G:H4'	37:88:67:ARG:NH2	2.35	0.41
26:1H:1019:U:O2'	26:1H:1021:A:H2	2.03	0.41
26:1H:1101:U:O2'	26:1H:1102:C:H5'	2.20	0.41
26:1H:1671:U:O5'	26:1H:1671:U:H6	2.03	0.41
26:1H:2393:A:H62	26:1H:2422:A:H61	1.66	0.41
26:1H:2704:C:H2'	26:1H:2705:A:O4'	2.20	0.41
31:41:16:ARG:CZ	31:41:31:VAL:HG21	2.49	0.41
31:41:35:GLU:O	31:41:160:VAL:HB	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:59:GLU:O	31:41:63:ILE:HG23	2.20	0.41
32:51:3:ARG:H	32:51:6:ARG:HG3	1.85	0.41
34:58:56:ASN:HA	34:58:125:GLY:H	1.85	0.41
37:88:48:GLU:O	37:88:48:GLU:HG3	2.20	0.41
39:A8:7:TYR:HA	39:A8:10:ARG:NH2	2.35	0.41
43:E8:65:LEU:HD13	43:E8:65:LEU:HA	1.74	0.41
49:K8:33:MET:O	49:K8:37:PHE:HD1	2.03	0.41
52:N8:31:VAL:CG2	52:N8:42:PRO:HG3	2.51	0.41
54:Q8:48:PHE:CZ	54:Q8:50:LEU:HD23	2.56	0.41
1:1G:1:U:H4'	1:1G:2:U:C5'	2.50	0.41
1:1G:194:C:H5''	20:BA:65:LYS:HG2	2.02	0.41
1:1G:358:U:H2'	1:1G:359:U:C6	2.55	0.41
1:1G:498:A:H4'	1:1G:500:G:OP1	2.20	0.41
1:1G:898:G:N2	1:1G:901:A:OP2	2.50	0.41
4:32:105:VAL:O	4:32:109:GLY:N	2.51	0.41
6:52:38:GLU:OE2	6:52:64:GLN:HG2	2.20	0.41
6:52:95:GLU:H	6:52:95:GLU:HG2	1.61	0.41
7:62:12:LEU:HD13	7:62:21:VAL:O	2.20	0.41
8:72:51:VAL:HG23	8:72:52:ASP:N	2.35	0.41
9:82:113:LYS:HD2	9:82:119:ALA:CB	2.51	0.41
10:1A:62:HIS:H	10:1A:62:HIS:CD2	2.38	0.41
19:AA:66:MET:HB3	19:AA:69:HIS:CG	2.55	0.41
26:14:199:A:N6	26:14:2434:A:C5	2.87	0.41
26:14:221:A:N6	26:14:265:A:H8	2.18	0.41
26:14:729:G:O4'	28:19:208:LYS:NZ	2.53	0.41
26:14:1182:A:H2''	26:14:1183:G:O4'	2.20	0.41
26:14:1356:G:C6	26:14:1357:U:N3	2.88	0.41
26:14:1514:U:H2''	26:14:1515:C:C6	2.54	0.41
26:14:1814:G:H5''	28:19:54:ARG:HH12	1.81	0.41
26:14:2104:G:C4	26:14:2105:C:C5	3.09	0.41
26:14:2161:C:C4	26:14:2162:G:C8	3.07	0.41
26:14:2162:G:H2''	26:14:2163:C:H5'	2.01	0.41
26:14:2298:A:H1'	26:14:2321:G:N2	2.35	0.41
26:14:2338:G:C2	26:14:2339:G:C8	3.09	0.41
26:14:2537:U:C2	26:14:2538:C:C5	3.09	0.41
26:14:2555:U:H5	26:14:2556:C:C2	2.38	0.41
26:14:2570:G:H2''	26:14:2571:C:O4'	2.20	0.41
27:1J:28:C:N4	27:1J:56:G:H1	2.18	0.41
28:19:223:GLY:CA	28:19:231:HIS:CD2	3.03	0.41
30:39:36:VAL:O	30:39:40:GLN:HG3	2.21	0.41
30:39:39:TRP:HD1	30:39:99:TYR:CD1	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:45:ASN:OD1	34:15:46:VAL:HG23	2.19	0.41
35:25:91:LEU:HD12	35:25:111:PHE:HE2	1.85	0.41
46:D5:28:MET:HB3	46:D5:28:MET:HE2	1.88	0.41
46:D5:139:VAL:HG13	46:D5:141:VAL:HG23	2.02	0.41
48:F5:91:LYS:HZ3	48:F5:91:LYS:HA	1.84	0.41
54:M5:49:VAL:HG23	54:M5:51:ALA:HB2	2.02	0.41
1:13:26:A:N6	1:13:558:G:O2'	2.54	0.41
1:13:49:U:C2	1:13:361:G:N2	2.88	0.41
1:13:158:G:C4	1:13:159:G:C8	3.07	0.41
1:13:760:G:H2'	1:13:761:G:H5'	2.02	0.41
1:13:892:A:O2'	1:13:1415:G:H4'	2.19	0.41
1:13:945:G:C2	1:13:1337:G:C2	3.09	0.41
1:13:1074:G:N3	1:13:1102:A:C2	2.88	0.41
1:13:1250:A:H2'	1:13:1251:A:C8	2.55	0.41
1:13:1507:A:H2'	1:13:1508:G:H8	1.86	0.41
2:1E:17:PHE:CD2	2:1E:44:LEU:HD11	2.56	0.41
5:4E:100:VAL:HG13	5:4E:118:ILE:CG2	2.50	0.41
7:6E:71:PRO:HD2	7:6E:96:GLN:HB3	2.03	0.41
7:6E:95:ARG:HH21	7:6E:99:LEU:HD11	1.85	0.41
9:8E:32:ASP:HB3	9:8E:35:GLU:HB2	2.02	0.41
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.55	0.41
12:3I:52:LEU:O	12:3I:54:LYS:NZ	2.47	0.41
15:6I:17:ARG:HG2	15:6I:21:ASP:OD2	2.20	0.41
16:7I:35:LYS:HE3	16:7I:37:GLY:H	1.86	0.41
18:9I:22:VAL:HG13	18:9I:55:ARG:O	2.20	0.41
24:3K:53:G:H2'	24:3K:53:G:N3	2.35	0.41
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.85	0.41
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.84	0.41
26:1H:1799:G:O6	28:11:178:PRO:HD2	2.21	0.41
26:1H:2294:C:P	39:A8:89:ARG:HH22	2.43	0.41
26:1H:2345:G:H1'	26:1H:2382:G:H5'	2.01	0.41
26:1H:2443:C:OP1	30:31:68:LYS:HD3	2.21	0.41
29:21:143:ASN:HB2	29:21:147:PRO:HD2	2.02	0.41
30:31:67:GLN:O	30:31:68:LYS:HG3	2.20	0.41
36:78:112:LEU:HD22	36:78:113:LYS:N	2.35	0.41
36:78:115:LEU:HA	36:78:134:ALA:CB	2.51	0.41
41:C8:88:ILE:O	41:C8:90:VAL:N	2.53	0.41
45:G8:28:LYS:HE3	45:G8:40:GLU:HB2	2.02	0.41
48:J8:7:ILE:HG12	48:J8:62:VAL:HG13	2.02	0.41
1:1G:300:A:C5	1:1G:301:G:H1'	2.56	0.41
1:1G:627:G:O2'	1:1G:628:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:807:A:H2'	1:1G:808:C:C6	2.55	0.41
1:1G:1130:A:H1'	1:1G:1146:A:C2	2.55	0.41
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.56	0.41
1:1G:1352:C:OP1	21:1B:3:LYS:NZ	2.41	0.41
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.54	0.41
5:42:33:VAL:HG22	5:42:43:LEU:HB2	2.02	0.41
10:1A:48:THR:CA	10:1A:62:HIS:HB3	2.45	0.41
24:3L:37:A:H2'	24:3L:38:A:O4'	2.20	0.41
26:14:20:C:C2	26:14:521:G:N2	2.89	0.41
26:14:128:C:H2'	26:14:129:C:C6	2.56	0.41
26:14:552:G:C5	26:14:553:U:C5	3.08	0.41
26:14:1047:G:H2'	26:14:1047:G:N3	2.36	0.41
26:14:1162:G:H1'	42:95:23:GLU:CD	2.41	0.41
26:14:1260:G:C6	26:14:1261:C:C4	3.07	0.41
26:14:1485:G:H2'	26:14:1486:A:H8	1.86	0.41
26:14:1612:C:O3'	53:L5:5:TRP:HB3	2.21	0.41
26:14:1653:G:C6	38:55:9:LYS:HB2	2.55	0.41
26:14:1794:U:H2'	26:14:1795:C:H6	1.84	0.41
26:14:1794:U:O2'	26:14:1795:C:H5'	2.20	0.41
26:14:1845:G:C2'	26:14:1846:G:H5'	2.51	0.41
26:14:2846:G:H2'	26:14:2847:U:O4'	2.20	0.41
28:19:130:ALA:HA	28:19:192:THR:HA	2.03	0.41
28:19:231:HIS:ND1	28:19:232:PRO:N	2.68	0.41
30:39:28:ILE:C	30:39:112:MET:HE3	2.41	0.41
30:39:192:LEU:HD22	30:39:194:MET:HE2	2.02	0.41
38:55:18:LEU:HD23	38:55:18:LEU:HA	1.74	0.41
42:95:58:VAL:HB	42:95:98:GLU:HB3	2.01	0.41
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.55	0.41
1:13:1095:U:H2'	1:13:1096:C:C6	2.55	0.41
1:13:1216:G:C2	1:13:1217:C:C5	3.08	0.41
1:13:1263:C:H2'	1:13:1264:C:H6	1.84	0.41
1:13:1301:U:H2'	1:13:1303:C:H5	1.85	0.41
1:13:1318:A:H4'	19:AI:10:PHE:CD2	2.55	0.41
6:5E:89:MET:HE2	18:9I:76:LEU:HD13	2.02	0.41
17:8I:8:GLY:C	17:8I:21:VAL:HG12	2.41	0.41
22:1K:37:AET:HM62	22:1K:38:A:C6	2.55	0.41
26:1H:59:U:O2'	26:1H:73:A:H2'	2.21	0.41
26:1H:164:U:H5'	26:1H:165:U:OP2	2.20	0.41
26:1H:274:G:H2'	26:1H:275:G:O4'	2.21	0.41
26:1H:275:G:N7	26:1H:363:G:N1	2.68	0.41
26:1H:833:U:H1'	36:78:55:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:950:G:H2'	26:1H:951:C:C6	2.55	0.41
26:1H:1185:C:OP1	58:1H:3693:HOH:O	2.22	0.41
26:1H:1272:A:H3'	26:1H:1273:U:H5''	2.01	0.41
26:1H:1480:G:C6	26:1H:1482:U:C4	3.08	0.41
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.17	0.41
26:1H:2018:G:C6	26:1H:2019:A:C5	3.08	0.41
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.20	0.41
26:1H:2115:G:H5''	26:1H:2166:G:O2'	2.20	0.41
26:1H:2163:C:C5	26:1H:2164:C:C2	3.07	0.41
26:1H:2409:G:H8	26:1H:2409:G:O5'	2.03	0.41
28:11:79:VAL:HG21	28:11:111:LEU:HD11	2.02	0.41
28:11:148:GLU:HB2	28:11:151:LYS:HD2	2.02	0.41
30:31:106:ARG:H	30:31:106:ARG:HG2	1.54	0.41
32:51:23:ARG:HD3	32:51:25:LYS:NZ	2.34	0.41
34:58:40:PRO:O	41:C8:64:ARG:HG2	2.21	0.41
35:68:104:ARG:NH2	40:B8:43:GLN:OE1	2.45	0.41
40:B8:35:LYS:HE3	40:B8:38:ASN:HA	2.02	0.41
50:L8:28:LEU:HD23	50:L8:33:GLN:HG3	2.03	0.41
1:1G:768:A:H5'	1:1G:1524:C:H1'	2.01	0.41
1:1G:1002:G:H1	1:1G:1038:C:H42	1.66	0.41
1:1G:1164:G:C6	1:1G:1165:C:C4	3.09	0.41
1:1G:1216:G:H2'	1:1G:1217:C:H6	1.84	0.41
1:1G:1338:G:C6	1:1G:1339:A:N1	2.88	0.41
1:1G:1350:A:H2'	1:1G:1351:U:O4'	2.21	0.41
1:1G:1497:G:H2'	1:1G:1498:U:H5'	2.01	0.41
2:12:28:PHE:CE1	2:12:31:TYR:HD2	2.39	0.41
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.01	0.41
8:72:56:LYS:HE3	8:72:56:LYS:HB2	1.65	0.41
9:82:16:ARG:HD2	9:82:18:PHE:CZ	2.55	0.41
10:1A:87:THR:HA	10:1A:89:ASP:H	1.85	0.41
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.90	0.41
26:14:292:C:C2	26:14:349:G:N2	2.89	0.41
26:14:695:G:C2	26:14:768:G:C5	3.09	0.41
26:14:1000:A:C6	26:14:1001:A:N1	2.88	0.41
26:14:1153:C:H2'	26:14:1154:G:O4'	2.21	0.41
26:14:1470:G:C6	26:14:1521:G:N7	2.88	0.41
26:14:2106:G:C2	26:14:2184:G:C6	3.09	0.41
26:14:2128:C:H42	26:14:2160:G:H22	1.68	0.41
26:14:2294:C:H2'	26:14:2295:C:O4'	2.21	0.41
26:14:2592:G:C6	26:14:2593:U:N3	2.88	0.41
26:14:2646:C:H2'	26:14:2647:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2715:C:H2'	26:14:2716:U:C6	2.55	0.41
26:14:2795:G:H2'	26:14:2795:G:N3	2.36	0.41
26:14:2854:G:C2	26:14:2855:C:C2	3.08	0.41
28:19:16:MET:HG3	28:19:206:LEU:O	2.20	0.41
28:19:34:VAL:HB	28:19:64:ILE:HG23	2.02	0.41
28:19:35:LYS:HB2	28:19:62:TYR:O	2.21	0.41
28:19:70:TRP:O	28:19:73:VAL:HG23	2.21	0.41
28:19:148:GLU:CB	28:19:151:LYS:HD3	2.48	0.41
29:29:147:PRO:HB2	29:29:149:ARG:HD3	2.01	0.41
31:49:104:GLU:C	31:49:106:LEU:H	2.24	0.41
31:49:170:ARG:HA	31:49:170:ARG:HD2	1.82	0.41
32:59:15:VAL:HB	32:59:27:LYS:O	2.20	0.41
35:25:1:MET:HE2	35:25:32:TYR:CE2	2.56	0.41
37:45:32:TYR:CD1	37:45:32:TYR:N	2.88	0.41
38:55:59:ASP:OD2	38:55:61:HIS:HB3	2.20	0.41
42:95:24:LYS:HA	42:95:92:THR:OG1	2.21	0.41
48:F5:84:GLY:CA	48:F5:85:LEU:HB3	2.51	0.41
1:13:438:G:OP1	4:3E:125:HIS:HE1	2.03	0.41
1:13:619:U:N3	4:3E:135:LEU:HD11	2.34	0.41
1:13:1072:G:C2	1:13:1073:U:C2	3.09	0.41
1:13:1112:C:O5'	1:13:1112:C:H6	2.03	0.41
7:6E:117:ALA:O	7:6E:121:ALA:N	2.46	0.41
9:8E:21:PRO:HA	9:8E:59:PHE:HD1	1.86	0.41
14:5I:25:VAL:HG22	14:5I:38:GLY:O	2.20	0.41
17:8I:76:LEU:HD12	17:8I:77:VAL:N	2.35	0.41
23:2K:7:G:H3'	23:2K:8:U:H5'	2.03	0.41
26:1H:106:C:H2'	26:1H:107:C:H6	1.85	0.41
26:1H:193:U:OP1	58:1H:3692:HOH:O	2.22	0.41
26:1H:1283:G:N2	26:1H:1286:A:C8	2.88	0.41
26:1H:1374:G:C6	26:1H:1375:C:C4	3.09	0.41
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.21	0.41
26:1H:2517:C:C5	26:1H:2542:A:C5	3.09	0.41
30:31:53:THR:O	30:31:55:GLY:N	2.53	0.41
31:41:74:LYS:HA	31:41:74:LYS:HD2	1.88	0.41
31:41:142:PRO:HB2	51:M8:31:ILE:HD12	2.02	0.41
33:61:10:GLU:O	33:61:10:GLU:HG3	2.21	0.41
37:88:59:ARG:C	37:88:61:GLY:N	2.73	0.41
40:B8:4:GLY:HA2	40:B8:7:ILE:HG23	2.02	0.41
43:E8:51:LEU:HD23	43:E8:51:LEU:HA	1.91	0.41
46:H8:28:MET:HB2	46:H8:37:VAL:HG11	2.02	0.41
46:H8:30:ASN:HA	46:H8:89:PHE:HE1	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:48:PHE:HE1	46:H8:71:VAL:HG11	1.86	0.41
46:H8:76:LEU:HD23	46:H8:76:LEU:H	1.85	0.41
48:J8:93:GLU:OE1	48:J8:93:GLU:N	2.53	0.41
51:M8:22:ILE:C	51:M8:24:THR:HG23	2.41	0.41
1:1G:750:G:N2	15:6A:23:GLY:O	2.37	0.41
1:1G:837:G:H1	1:1G:849:C:H42	1.67	0.41
1:1G:1243:C:OP1	21:1B:10:ARG:HG3	2.21	0.41
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.20	0.41
1:1G:1321:C:C4	1:1G:1322:C:C4	3.08	0.41
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.56	0.41
2:12:21:ARG:HD3	2:12:21:ARG:H	1.86	0.41
2:12:114:ARG:O	2:12:118:LEU:HD12	2.21	0.41
13:4A:88:ARG:HG3	13:4A:88:ARG:H	1.42	0.41
25:4L:13:A:H2'	25:4L:13:A:N3	2.36	0.41
26:14:26:G:C6	26:14:27:G:C6	3.08	0.41
26:14:151:C:C2	26:14:176:G:N2	2.88	0.41
26:14:304:G:H2'	26:14:305:U:C6	2.56	0.41
26:14:513:A:C2	26:14:514:A:C5	3.09	0.41
26:14:630:G:N2	26:14:633:A:OP2	2.46	0.41
26:14:1608:A:H1'	26:14:1610:A:OP2	2.21	0.41
26:14:1754:C:OP2	40:75:113:LYS:NZ	2.54	0.41
26:14:1950:G:H8	26:14:1950:G:O5'	2.04	0.41
26:14:2315:G:H2'	26:14:2316:C:C6	2.56	0.41
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.56	0.41
26:14:2616:C:H2'	26:14:2617:C:H5'	2.01	0.41
27:1J:15:A:H1'	27:1J:109:G:C8	2.56	0.41
27:1J:28:C:N3	27:1J:56:G:N2	2.58	0.41
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.41
29:29:68:ALA:C	29:29:70:ALA:N	2.73	0.41
30:39:60:SER:OG	30:39:61:GLY:N	2.52	0.41
32:59:119:GLU:HB3	32:59:140:LYS:NZ	2.36	0.41
33:69:31:LEU:N	33:69:32:PRO:HD2	2.35	0.41
33:69:79:ILE:HD12	33:69:79:ILE:HG23	1.76	0.41
33:69:92:VAL:O	33:69:120:ILE:HG12	2.20	0.41
38:55:26:LYS:HE2	38:55:70:LEU:O	2.19	0.41
38:55:65:LEU:HD12	38:55:65:LEU:HA	1.79	0.41
42:95:1:MET:HG2	42:95:42:GLY:O	2.20	0.41
46:D5:109:ALA:N	46:D5:142:SER:OG	2.53	0.41
48:F5:88:LYS:HG2	48:F5:88:LYS:O	2.21	0.41
49:G5:54:LYS:HA	49:G5:57:ILE:HD12	2.03	0.41
49:G5:57:ILE:H	49:G5:57:ILE:HG13	1.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:487:A:H5''	1:13:488:C:OP2	2.20	0.41
1:13:668:G:C5	1:13:669:U:C5	3.09	0.41
1:13:739:C:HO2'	15:6I:42:HIS:CE1	2.28	0.41
1:13:774:G:OP1	28:11:202:LYS:NZ	2.43	0.41
1:13:954:G:H2'	1:13:955:U:C6	2.56	0.41
1:13:1033:G:H2'	1:13:1034:G:H5'	2.02	0.41
1:13:1064:G:N2	1:13:1190:G:H1'	2.35	0.41
1:13:1203:C:H2'	1:13:1204:A:O4'	2.20	0.41
2:1E:197:VAL:HB	2:1E:200:ILE:HG13	2.03	0.41
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.56	0.41
12:3I:76:ASN:OD1	12:3I:76:ASN:N	2.39	0.41
15:6I:39:LEU:HD23	15:6I:39:LEU:HA	1.88	0.41
19:AI:50:ALA:HA	19:AI:58:VAL:O	2.21	0.41
20:BI:30:LYS:CE	20:BI:80:ARG:HH12	2.33	0.41
26:1H:274:G:C4	26:1H:274:G:OP1	2.74	0.41
26:1H:1352:U:O2'	26:1H:1570:A:N3	2.44	0.41
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.21	0.41
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.21	0.41
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.55	0.41
26:1H:2396:G:H5''	48:J8:25:LYS:HE2	2.03	0.41
26:1H:2578:G:C5	29:21:140:SER:HB2	2.56	0.41
26:1H:2591:C:O5'	26:1H:2591:C:H6	2.03	0.41
26:1H:2640:G:H5''	34:58:74:ARG:NH1	2.36	0.41
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.47	0.41
26:1H:2848:G:C8	40:B8:97:ALA:HB2	2.55	0.41
27:16:71:C:N3	27:16:72:G:C8	2.88	0.41
28:11:12:SER:O	28:11:16:MET:HB2	2.21	0.41
28:11:213:ARG:HA	28:11:213:ARG:HD2	1.91	0.41
32:51:54:ARG:HH21	32:51:62:LYS:HG2	1.85	0.41
32:51:83:TYR:CE1	32:51:138:LYS:HD2	2.56	0.41
33:61:96:ASP:O	33:61:100:ALA:N	2.47	0.41
34:58:96:GLU:C	34:58:98:VAL:H	2.24	0.41
36:78:121:LYS:HB3	36:78:121:LYS:HE2	1.78	0.41
37:88:5:ARG:O	37:88:6:ARG:O	2.39	0.41
37:88:56:ARG:HA	37:88:56:ARG:HD2	1.76	0.41
38:98:44:LEU:HD23	38:98:44:LEU:HA	1.83	0.41
39:A8:8:GLU:H	39:A8:8:GLU:HG2	1.55	0.41
41:C8:79:PHE:CD1	41:C8:79:PHE:C	2.93	0.41
46:H8:105:VAL:HG13	46:H8:139:VAL:C	2.40	0.41
47:I8:42:GLY:O	47:I8:57:PHE:CD2	2.74	0.41
54:Q8:8:LYS:O	54:Q8:12:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:110:C:O2'	16:7A:25:ARG:O	2.38	0.41
1:1G:236:G:C5	1:1G:237:C:C5	3.08	0.41
1:1G:244:U:C6	1:1G:894:G:N2	2.89	0.41
1:1G:577:G:C4	1:1G:578:C:C5	3.09	0.41
1:1G:695:A:H2'	1:1G:696:A:C8	2.55	0.41
1:1G:933:G:OP2	7:62:3:ARG:HB2	2.21	0.41
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.19	0.41
1:1G:1225:A:OP2	1:1G:1225:A:H8	2.03	0.41
1:1G:1262:C:H42	1:1G:1273:G:H1	1.68	0.41
1:1G:1322:C:HO2'	1:1G:1323:G:P	2.44	0.41
2:12:223:ILE:HA	2:12:224:GLN:HA	1.73	0.41
4:32:19:LEU:HB2	4:32:21:LEU:HD21	2.03	0.41
4:32:126:ILE:HG22	4:32:127:THR:H	1.84	0.41
9:82:84:ALA:O	9:82:87:GLN:HB3	2.20	0.41
11:2A:17:GLY:O	11:2A:80:VAL:HA	2.20	0.41
12:3A:104:VAL:CG1	12:3A:105:TYR:N	2.84	0.41
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.39	0.41
25:4L:14:A:C6	25:4L:15:A:C2	3.09	0.41
26:14:121:G:C2	26:14:131:G:C4	3.09	0.41
26:14:273(C):C:N4	26:14:363(C):G:H1	2.18	0.41
26:14:642:G:H3'	26:14:642:G:C8	2.56	0.41
26:14:747:U:O2	26:14:2014:A:H1'	2.21	0.41
26:14:849:A:N1	50:H5:25:ALA:HB2	2.36	0.41
26:14:1331:A:O2'	26:14:1332:G:C8	2.74	0.41
26:14:1759:A:H4'	26:14:2715:C:O4'	2.20	0.41
29:29:13:ARG:HA	29:29:21:VAL:O	2.21	0.41
30:39:4:VAL:HG12	30:39:17:ARG:HG2	2.02	0.41
30:39:51:THR:HG23	30:39:92:PRO:HG2	2.03	0.41
30:39:63:LYS:CE	30:39:67:GLN:HB3	2.51	0.41
30:39:137:LYS:H	30:39:137:LYS:HG2	1.56	0.41
36:35:7:ARG:HA	36:35:8:PRO:HD2	1.95	0.41
36:35:79:ARG:HG2	36:35:110:TYR:H	1.86	0.41
39:65:62:LYS:HB2	39:65:97:ARG:NE	2.36	0.41
39:65:103:GLU:O	39:65:106:ARG:HD3	2.20	0.41
41:85:17:ILE:HG23	41:85:39:LEU:HD12	2.03	0.41
43:A5:65:LEU:HD12	43:A5:68:ARG:CZ	2.51	0.41
46:D5:48:PHE:CE1	46:D5:71:VAL:HG21	2.56	0.41
46:D5:94:GLU:O	46:D5:129:SER:HA	2.20	0.41
49:G5:62:THR:O	49:G5:65:ASN:HB2	2.19	0.41
49:G5:69:ARG:N	49:G5:69:ARG:HD3	2.36	0.41
1:13:198:G:H2'	1:13:199:G:H8	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:467:G:H3'	1:13:467:G:OP2	2.20	0.41
1:13:621:A:H2'	1:13:622:A:C8	2.56	0.41
1:13:661:G:N2	1:13:745:C:C2	2.88	0.41
1:13:826:C:H6	1:13:826:C:O5'	2.04	0.41
2:1E:114:ARG:O	2:1E:118:LEU:HD23	2.20	0.41
5:4E:14:ARG:HH11	5:4E:14:ARG:HD2	1.76	0.41
8:7E:12:ARG:CZ	8:7E:27:PRO:HD3	2.49	0.41
10:1I:22:LYS:HZ2	10:1I:90:LEU:HD13	1.85	0.41
26:1H:83:G:N2	26:1H:102:G:H1'	2.35	0.41
26:1H:234:C:H2'	26:1H:235:U:O4'	2.21	0.41
26:1H:317:G:C2	26:1H:318:C:C2	3.08	0.41
26:1H:537:C:H2'	26:1H:539:G:H8	1.84	0.41
26:1H:1279:G:N2	26:1H:1292:U:C2	2.88	0.41
26:1H:1509:C:H3'	26:1H:1509:C:H6	1.86	0.41
26:1H:1575:C:H2'	26:1H:1576:U:O4'	2.20	0.41
26:1H:1767:C:H2'	26:1H:1768:U:O4'	2.20	0.41
26:1H:1824:G:O3'	28:11:249:PRO:HD3	2.20	0.41
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.51	0.41
26:1H:2317:C:H2'	26:1H:2318:G:O4'	2.20	0.41
26:1H:2422:A:H4'	26:1H:2422:A:OP1	2.20	0.41
26:1H:2692:C:H2'	26:1H:2693:A:O4'	2.21	0.41
28:11:70:TRP:CH2	28:11:150:LYS:HA	2.56	0.41
28:11:182:LEU:O	28:11:271:ILE:HG13	2.21	0.41
29:21:51:PHE:O	29:21:75:VAL:HG13	2.21	0.41
39:A8:106:ARG:HB3	39:A8:112:PHE:HE1	1.84	0.41
51:M8:41:PRO:HA	51:M8:47:GLN:OE1	2.21	0.41
51:M8:42:PHE:O	51:M8:44:THR:N	2.53	0.41
1:1G:87:A:C5	1:1G:88:C:C4	3.08	0.41
1:1G:330:C:OP2	58:1G:1824:HOH:O	2.22	0.41
1:1G:375:U:C2	1:1G:376:G:C8	3.09	0.41
1:1G:446:G:H2'	1:1G:447:G:O4'	2.21	0.41
1:1G:592:G:N2	1:1G:647:C:N3	2.63	0.41
1:1G:611:A:H2	1:1G:630:G:N2	2.18	0.41
1:1G:797:C:O2'	1:1G:798:G:H5'	2.20	0.41
1:1G:875:C:H1'	8:72:15:ASN:HD21	1.86	0.41
1:1G:974:A:H5'	1:1G:974:A:N3	2.35	0.41
1:1G:1054:C:H4'	1:1G:1055:A:C5'	2.51	0.41
1:1G:1081:G:H2'	1:1G:1082:G:C8	2.56	0.41
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.35	0.41
1:1G:1321:C:C4	1:1G:1322:C:N4	2.89	0.41
1:1G:1378:C:C5	1:1G:1379:G:N9	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:13:GLY:HA2	14:5A:57:ARG:NH1	2.36	0.41
3:22:13:GLY:N	14:5A:57:ARG:HD2	2.35	0.41
3:22:73:PRO:CG	3:22:105:GLU:HB2	2.51	0.41
4:32:23:GLY:HA3	4:32:112:VAL:HG22	2.03	0.41
4:32:30:LYS:HA	4:32:35:ARG:CD	2.50	0.41
8:72:101:PRO:HG2	8:72:133:LEU:HD11	2.02	0.41
9:82:32:ASP:OD1	9:82:33:PHE:N	2.53	0.41
9:82:114:TYR:HE2	10:1A:59:SER:HA	1.85	0.41
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.84	0.41
13:4A:57:ARG:HH11	31:49:113:ARG:NH2	2.19	0.41
13:4A:81:LEU:HG	13:4A:89:GLY:HA3	2.03	0.41
26:14:472:A:H2'	26:14:473:G:H5'	2.03	0.41
26:14:493:G:H2'	26:14:494:G:O4'	2.20	0.41
26:14:733:G:OP2	58:14:3489:HOH:O	2.22	0.41
26:14:836:G:C5	26:14:837:C:C4	3.09	0.41
26:14:1012:U:O4	34:15:25:ARG:HA	2.21	0.41
26:14:1412:A:H2'	26:14:1413:G:C8	2.55	0.41
26:14:1462:C:H4'	26:14:2703:C:O4'	2.20	0.41
26:14:1725:G:C2	26:14:1741:C:C2	3.09	0.41
26:14:1748:G:C2	26:14:1749:A:C4	3.08	0.41
26:14:1790:C:H2'	26:14:1791:A:C5	2.55	0.41
26:14:1851:U:H2'	26:14:1852:C:O4'	2.20	0.41
26:14:2676:C:H2'	26:14:2677:G:C8	2.56	0.41
26:14:2795:G:H4'	26:14:2798:C:H5	1.85	0.41
31:49:106:LEU:HD12	31:49:110:ALA:HB3	2.03	0.41
32:59:43:VAL:HA	32:59:51:ARG:O	2.20	0.41
32:59:154:PRO:O	32:59:162:ILE:N	2.53	0.41
33:69:27:ARG:HB2	48:F5:71:TYR:CZ	2.56	0.41
33:69:38:LEU:HG	33:69:38:LEU:H	1.70	0.41
36:35:86:LYS:HB2	36:35:117:GLU:O	2.21	0.41
36:35:147:LEU:HD13	36:35:147:LEU:HA	1.89	0.41
37:45:26:TYR:CD1	37:45:27:VAL:N	2.89	0.41
38:55:81:ASP:OD1	38:55:81:ASP:N	2.53	0.41
38:55:102:GLU:H	38:55:102:GLU:HG2	1.60	0.41
40:75:16:ARG:NH1	40:75:80:SER:O	2.54	0.41
44:B5:44:GLU:HG2	44:B5:49:VAL:O	2.20	0.41
46:D5:93:ASP:N	46:D5:130:PRO:HG2	2.36	0.41
46:D5:132:ASN:ND2	46:D5:159:PRO:HG2	2.36	0.41
49:G5:15:LYS:H	49:G5:67:LYS:NZ	2.18	0.41
1:13:692:U:O4	11:2I:53:SER:CB	2.68	0.41
1:13:1227:A:H3'	1:13:1227:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1352:C:N4	58:13:1891:HOH:O	2.54	0.41
1:13:1390:U:H2'	1:13:1391:U:C6	2.55	0.41
2:1E:155:LEU:HD23	2:1E:155:LEU:HA	1.89	0.41
2:1E:156:LYS:HD2	2:1E:156:LYS:HA	1.87	0.41
4:3E:108:LEU:HD21	4:3E:183:GLY:HA3	2.01	0.41
7:6E:59:LEU:O	7:6E:59:LEU:HD23	2.21	0.41
7:6E:71:PRO:HD2	7:6E:96:GLN:HA	2.03	0.41
7:6E:92:SER:O	7:6E:95:ARG:N	2.52	0.41
13:4I:8:GLU:O	13:4I:10:PRO:HD3	2.21	0.41
24:3K:56:C:H2'	24:3K:57:G:O4'	2.20	0.41
26:1H:149:A:C6	26:1H:150:C:C4	3.09	0.41
26:1H:162:U:HO2'	26:1H:163:U:P	2.44	0.41
26:1H:216:A:C4	26:1H:217:G:C8	3.09	0.41
26:1H:242:G:O2'	26:1H:254:G:O6	2.33	0.41
26:1H:655:A:H2'	26:1H:656:G:O4'	2.19	0.41
26:1H:1178:C:H3'	26:1H:1178:C:OP2	2.21	0.41
26:1H:1847:A:H8	26:1H:1847:A:OP1	2.03	0.41
26:1H:1869:G:H5''	26:1H:1869:G:H8	1.86	0.41
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.55	0.41
26:1H:2056:G:C2	26:1H:2057:A:C8	3.09	0.41
26:1H:2093:G:H1	26:1H:2196:C:N4	2.18	0.41
26:1H:2309:A:C6	26:1H:2310:A:N7	2.89	0.41
26:1H:2355:C:O2	47:I8:39:ARG:NH2	2.51	0.41
26:1H:2471:C:O2	26:1H:2479:G:N2	2.43	0.41
26:1H:2632:A:C2	26:1H:2633:G:C5	3.08	0.41
27:16:43:C:C4	27:16:45:A:C6	3.09	0.41
34:58:12:ARG:HG2	34:58:13:TRP:H	1.86	0.41
36:78:71:VAL:HG13	36:78:72:PRO:HD3	2.02	0.41
37:88:104:PHE:O	37:88:105:GLU:C	2.59	0.41
38:98:85:PRO:C	38:98:87:TYR:H	2.22	0.41
39:A8:77:ALA:O	39:A8:80:LEU:HD12	2.20	0.41
40:B8:84:GLN:HG2	40:B8:85:LYS:HD3	2.02	0.41
43:E8:58:ALA:HB1	43:E8:64:MET:CE	2.51	0.41
1:1G:187:C:H2'	1:1G:188:U:O4'	2.21	0.41
1:1G:1224:G:C2	1:1G:1322:C:H4'	2.56	0.41
1:1G:1263:C:C2	1:1G:1273:G:N2	2.89	0.41
1:1G:1304:G:N1	1:1G:1332:A:OP2	2.37	0.41
4:32:3:ARG:NH1	4:32:5:ILE:HG23	2.36	0.41
4:32:120:LEU:HA	4:32:120:LEU:HD23	1.76	0.41
4:32:174:LEU:HD23	4:32:174:LEU:HA	1.89	0.41
5:42:13:ILE:O	5:42:13:ILE:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:79:LEU:HD23	6:52:79:LEU:HA	1.87	0.41
7:62:72:ARG:NE	7:62:138:LYS:HE3	2.36	0.41
7:62:93:PRO:O	7:62:97:GLN:N	2.53	0.41
8:72:39:LEU:HD12	8:72:44:PHE:HB2	2.02	0.41
12:3A:89:ARG:O	12:3A:89:ARG:HG3	2.21	0.41
12:3A:93:LEU:O	12:3A:96:VAL:HG13	2.20	0.41
26:14:139:G:N2	26:14:1596:A:H4'	2.36	0.41
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.55	0.41
26:14:459:U:OP2	53:L5:39:ARG:NH1	2.54	0.41
26:14:813:U:C2	26:14:1195:G:N2	2.89	0.41
26:14:2115:G:C6	26:14:2117:A:C8	3.09	0.41
26:14:2379:G:O2'	39:65:17:ARG:NH1	2.48	0.41
26:14:2853:C:O2'	26:14:2854:G:H5'	2.20	0.41
32:59:103:LEU:HD11	32:59:115:VAL:O	2.21	0.41
33:69:50:ARG:HA	33:69:53:ALA:HB3	2.02	0.41
34:15:47:ALA:HB2	34:15:112:LEU:HD21	2.01	0.41
42:95:43:GLU:HG2	42:95:43:GLU:O	2.20	0.41
43:A5:19:LEU:HB3	52:J5:25:LEU:HD11	2.03	0.41
49:G5:49:LYS:O	49:G5:53:LEU:HB2	2.20	0.41
1:13:38:G:C2	1:13:397:A:C2	3.09	0.41
1:13:108:G:C6	20:BI:15:ARG:HD2	2.56	0.41
1:13:623:C:O5'	1:13:623:C:H6	2.04	0.41
1:13:779:C:H2'	1:13:780:A:O4'	2.21	0.41
1:13:1008:C:N4	1:13:1021:G:O6	2.44	0.41
1:13:1080:A:H5''	1:13:1081:G:OP2	2.21	0.41
1:13:1095:U:H5'	1:13:1109:C:O2	2.21	0.41
1:13:1190:G:H5''	3:2E:176:HIS:NE2	2.36	0.41
1:13:1234:C:H1'	1:13:1364:U:O2	2.20	0.41
1:13:1240:U:P	7:6E:116:ALA:HB2	2.60	0.41
1:13:1301:U:H2'	1:13:1303:C:C5	2.56	0.41
1:13:1316:G:H4'	14:5I:18:VAL:CG1	2.50	0.41
1:13:1408:A:C5	1:13:1409:C:C5	3.09	0.41
1:13:1416:G:C6	1:13:1417:G:C5	3.08	0.41
2:1E:5:ILE:HG22	2:1E:224:GLN:HE22	1.85	0.41
2:1E:166:ASP:C	2:1E:168:THR:H	2.23	0.41
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.89	0.41
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.89	0.41
9:8E:42:ARG:NH1	9:8E:71:SER:OG	2.48	0.41
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	2.02	0.41
15:6I:27:VAL:HG12	15:6I:31:LEU:HD22	2.02	0.41
17:8I:76:LEU:HD11	17:8I:79:SER:CA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:9:VAL:HG21	51:M8:63:TYR:CD2	2.56	0.41
19:AI:25:LYS:HA	19:AI:25:LYS:HD3	1.75	0.41
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.20	0.41
22:1K:74:C:H1'	26:1H:2555:U:O2	2.21	0.41
24:3K:33:U:H2'	24:3K:34:G:C8	2.56	0.41
24:3K:75:C:H5''	24:3K:76:A:OP1	2.21	0.41
26:1H:15:G:O2'	52:N8:18:ALA:HA	2.21	0.41
26:1H:270(B):A:H2	26:1H:273:G:N3	2.18	0.41
26:1H:562:U:C4	26:1H:2036:C:O4'	2.74	0.41
26:1H:654(B):C:H2'	26:1H:654(C):G:O4'	2.21	0.41
26:1H:656:G:O5'	26:1H:656:G:H8	2.03	0.41
26:1H:686:G:N2	26:1H:788:A:H61	2.19	0.41
26:1H:785:G:C5	26:1H:786:C:C5	3.09	0.41
26:1H:818:G:H4'	26:1H:838:C:O3'	2.20	0.41
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.21	0.41
26:1H:1108:U:C2'	26:1H:1109:C:H5'	2.51	0.41
26:1H:1262:A:C2	52:N8:10:LYS:HD2	2.55	0.41
26:1H:1283:G:N2	26:1H:1285:G:H3'	2.36	0.41
26:1H:1332:G:H21	26:1H:1610:A:H8	1.68	0.41
26:1H:1534:G:OP1	26:1H:1534:G:O4'	2.39	0.41
26:1H:1593:G:C2	26:1H:1594:G:C5	3.08	0.41
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.35	0.41
26:1H:1820:U:N3	28:11:202:LYS:HD2	2.35	0.41
26:1H:1833:U:C2	26:1H:1834:U:C5	3.08	0.41
26:1H:1927:A:C6	26:1H:1928:A:C6	3.09	0.41
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.21	0.41
26:1H:2293:C:H5''	39:A8:89:ARG:HH12	1.85	0.41
26:1H:2450:A:C2	26:1H:2451:A:C4	3.08	0.41
26:1H:2475:C:H6	26:1H:2475:C:H5''	1.86	0.41
26:1H:2536:G:C6	26:1H:2537:U:C4	3.09	0.41
26:1H:2638:G:P	29:21:82:ARG:NH2	2.94	0.41
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.55	0.41
26:1H:2707:G:H5''	38:98:68:ARG:HH21	1.86	0.41
26:1H:2717:G:C6	26:1H:2718:G:C5	3.08	0.41
26:1H:2807:G:H5'	26:1H:2808:U:OP2	2.20	0.41
27:16:4:C:H2'	27:16:5:C:O4'	2.21	0.41
29:21:67:PHE:HA	29:21:68:ALA:HA	1.76	0.41
31:41:7:LEU:N	31:41:104:GLU:OE1	2.52	0.41
31:41:11:TYR:O	31:41:16:ARG:HG3	2.20	0.41
33:61:139:GLN:C	33:61:140:LEU:HG	2.39	0.41
36:78:24:GLY:O	36:78:25:SER:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:52:GLU:HG2	36:78:55:ARG:HH11	1.86	0.41
41:C8:79:PHE:HE1	41:C8:83:LEU:HD21	1.86	0.41
42:D8:21:ARG:HD2	42:D8:93:GLU:OE2	2.21	0.41
46:H8:77:ASP:OD1	46:H8:80:ARG:HD2	2.20	0.41
46:H8:111:VAL:HG11	46:H8:146:ILE:H	1.84	0.41
47:I8:25:ARG:HD3	47:I8:25:ARG:HA	1.84	0.41
47:I8:50:ASN:HB3	47:I8:63:VAL:HG22	2.03	0.41
1:1G:21:G:H2'	1:1G:22:G:C8	2.56	0.41
1:1G:102:G:O2'	1:1G:151:A:N3	2.51	0.41
1:1G:186(C):G:H2'	1:1G:186(D):C:C6	2.55	0.41
1:1G:254:G:N2	17:8A:16:GLN:OE1	2.49	0.41
1:1G:262:A:C6	1:1G:263:A:C6	3.09	0.41
1:1G:358:U:H2'	1:1G:359:U:H6	1.86	0.41
1:1G:474:G:C4	1:1G:475:G:C8	3.09	0.41
1:1G:562:C:H4'	1:1G:563:A:O5'	2.21	0.41
1:1G:577:G:H2'	1:1G:578:C:H6	1.85	0.41
1:1G:765:G:H1	1:1G:812:C:HO2'	1.69	0.41
1:1G:815:A:O4'	1:1G:817:C:N4	2.54	0.41
1:1G:827:U:C4	1:1G:870:U:N3	2.89	0.41
1:1G:953:G:C6	1:1G:954:G:C4	3.09	0.41
1:1G:1124:G:H2'	1:1G:1145:C:C5	2.56	0.41
1:1G:1126:U:H5''	1:1G:1281:U:O2	2.21	0.41
1:1G:1157:A:N7	1:1G:1181:G:N3	2.69	0.41
1:1G:1329:A:H5''	13:4A:25:ILE:O	2.21	0.41
1:1G:1487:G:O5'	1:1G:1487:G:H8	2.04	0.41
1:1G:1519:A:H5''	1:1G:1520:G:C8	2.56	0.41
3:22:70:VAL:HG12	3:22:71:ALA:N	2.36	0.41
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.92	0.41
4:32:79:PHE:HE1	4:32:204:ILE:HG12	1.86	0.41
4:32:102:ASP:OD1	4:32:102:ASP:N	2.54	0.41
8:72:63:LEU:HD13	8:72:63:LEU:HA	1.88	0.41
8:72:97:VAL:HA	8:72:100:ILE:HG13	2.03	0.41
8:72:106:GLY:O	8:72:122:ARG:NH2	2.54	0.41
8:72:109:ILE:HG22	8:72:137:VAL:HB	2.03	0.41
9:82:99:LEU:HD12	9:82:101:PHE:HE1	1.85	0.41
12:3A:90:VAL:CG2	12:3A:99:HIS:HE2	2.33	0.41
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.56	0.41
23:2L:48:U:H1'	23:2L:49:C:OP2	2.20	0.41
26:14:218:A:C2	26:14:235:U:H4'	2.55	0.41
26:14:228:A:H2'	26:14:230:U:O4'	2.20	0.41
26:14:270(E):G:C6	26:14:270(F):U:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(N):G:H2'	26:14:270(O):U:H5'	2.02	0.41
26:14:654(C):G:H1	26:14:654(R):C:HO2'	1.66	0.41
26:14:676:A:H1'	26:14:2443:C:H1'	2.03	0.41
26:14:821:A:O2'	26:14:946:G:OP2	2.35	0.41
26:14:833:U:O2'	36:35:52:GLU:HG2	2.21	0.41
26:14:1132:A:H2'	26:14:1133:U:C6	2.56	0.41
26:14:1379:A:H1'	26:14:1380:G:OP1	2.20	0.41
26:14:1408:C:C2	26:14:1595:G:N2	2.89	0.41
26:14:1464:C:HO2'	26:14:1528:A:H8	1.68	0.41
26:14:1780:A:H4'	26:14:1780:A:OP1	2.21	0.41
26:14:1952:A:C5	35:25:22:ILE:HD11	2.56	0.41
26:14:2063:C:C4	26:14:2064:C:C5	3.09	0.41
26:14:2064:C:H2'	26:14:2065:C:H6	1.84	0.41
26:14:2191:G:H5'	26:14:2192:G:OP2	2.21	0.41
26:14:2293:C:H5'	39:65:89:ARG:NH2	2.36	0.41
26:14:2349:G:OP1	58:14:3488:HOH:O	2.22	0.41
26:14:2366:A:H2'	26:14:2367:G:O4'	2.21	0.41
26:14:2651:C:H42	26:14:2669:G:H1	1.69	0.41
26:14:2664:G:H8	26:14:2664:G:O5'	2.04	0.41
28:19:78:LYS:HB2	28:19:115:GLN:O	2.21	0.41
29:29:85:ASN:ND2	29:29:85:ASN:O	2.53	0.41
30:39:155:LEU:HB2	30:39:189:THR:HG21	2.02	0.41
31:49:28:VAL:O	31:49:31:VAL:HB	2.21	0.41
32:59:17:VAL:HG11	32:59:50:VAL:HG12	2.01	0.41
32:59:90:LYS:NZ	32:59:160:LYS:HA	2.36	0.41
35:25:25:LEU:HD23	35:25:25:LEU:HA	1.86	0.41
39:65:18:ILE:C	39:65:20:ARG:H	2.23	0.41
42:95:91:TYR:CD1	42:95:91:TYR:C	2.94	0.41
46:D5:126:VAL:HA	46:D5:164:ALA:H	1.86	0.41
46:D5:161:VAL:HG22	46:D5:161:VAL:H	1.52	0.41
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	2.02	0.41
48:F5:76:ARG:HB2	48:F5:78:LYS:HZ1	1.85	0.41
1:13:49:U:O2'	1:13:50:A:H3'	2.22	0.41
1:13:107:G:O6	20:BI:15:ARG:HG3	2.21	0.41
1:13:187:C:H1'	1:13:191(A):G:N2	2.35	0.41
1:13:492:G:C6	1:13:493:G:C4	3.09	0.41
1:13:545:C:H2'	1:13:546:G:O4'	2.21	0.41
1:13:577:G:H1'	1:13:816:A:C4	2.56	0.41
1:13:968:A:H5''	58:13:1861:HOH:O	2.21	0.41
1:13:1038:C:H2'	1:13:1039:C:O4'	2.21	0.41
1:13:1121:U:C4	1:13:1122:U:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1228:C:H2'	1:13:1229:A:C8	2.54	0.41
1:13:1533:C:H2'	1:13:1533:C:O2	2.21	0.41
3:2E:84:ILE:HG13	3:2E:101:LEU:HD22	2.03	0.41
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.84	0.41
4:3E:150:GLU:HG3	4:3E:153:ARG:HE	1.86	0.41
8:7E:118:VAL:O	8:7E:119:LEU:HD23	2.21	0.41
11:2I:97:ALA:O	11:2I:98:LEU:HD23	2.21	0.41
13:4I:12:ASN:O	13:4I:13:LYS:C	2.60	0.41
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.21	0.41
20:BI:23:ARG:O	20:BI:27:LYS:HB3	2.21	0.41
21:1F:9:ARG:HE	21:1F:9:ARG:HB2	1.58	0.41
22:1K:11:C:H2'	22:1K:12:U:C6	2.56	0.41
22:1K:72:C:H3'	22:1K:72:C:H6	1.85	0.41
23:2K:40:C:H6	23:2K:40:C:O5'	2.04	0.41
24:3K:55:U:OP1	24:3K:55:U:H4'	2.21	0.41
26:1H:94:G:H2'	26:1H:95:G:O4'	2.20	0.41
26:1H:712:G:C6	26:1H:713:G:C5	3.09	0.41
26:1H:972:G:OP2	26:1H:973:A:O2'	2.33	0.41
26:1H:1543:A:H8	26:1H:1545:A:OP2	2.04	0.41
26:1H:1582:C:O2'	26:1H:1586:A:H8	2.04	0.41
26:1H:1583:A:H5'	26:1H:1585:C:OP1	2.20	0.41
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.21	0.41
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.30	0.41
26:1H:1820:U:O2	28:11:202:LYS:HB3	2.21	0.41
26:1H:2035:G:H5'	26:1H:2036:C:H5	1.85	0.41
26:1H:2251:G:OP2	37:88:82:ARG:NH1	2.53	0.41
26:1H:2254:C:H3'	58:1H:3708:HOH:O	2.20	0.41
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.21	0.41
26:1H:2308:G:H3'	26:1H:2310:A:OP2	2.21	0.41
26:1H:2320:A:C8	26:1H:2333:A:N6	2.89	0.41
27:16:29:A:H2'	27:16:30:C:C6	2.56	0.41
28:11:231:HIS:ND1	28:11:232:PRO:HD2	2.36	0.41
29:21:182:LEU:HD11	29:21:184:VAL:HG13	2.03	0.41
40:B8:57:PHE:HE1	40:B8:79:HIS:HB2	1.86	0.41
46:H8:110:GLY:C	46:H8:112:ARG:N	2.65	0.41
47:I8:45:PHE:CE2	47:I8:69:PHE:HE2	2.39	0.41
48:J8:90:ILE:HD13	48:J8:90:ILE:HG21	1.86	0.41
50:L8:8:LEU:HD13	50:L8:31:LEU:HA	2.03	0.41
1:1G:4:U:C5	8:72:105:ARG:HD3	2.55	0.41
1:1G:19:C:H2'	1:1G:20:U:C6	2.56	0.41
1:1G:413:G:H2'	1:1G:428:G:N2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:511:C:H4'	4:32:43:HIS:CD2	2.56	0.41
1:1G:593:G:H2'	1:1G:594:G:O4'	2.22	0.41
1:1G:784:C:H42	1:1G:798:G:H1	1.68	0.41
1:1G:1264:C:H2'	1:1G:1265:G:C8	2.56	0.41
1:1G:1275:A:C6	1:1G:1276:G:C5	3.09	0.41
5:42:76:ILE:O	5:42:93:PRO:HB3	2.20	0.41
7:62:62:PHE:HD2	7:62:63:LYS:HD2	1.86	0.41
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	2.02	0.41
26:14:110:G:C2	26:14:111:A:C8	3.09	0.41
26:14:245:G:N3	26:14:246:C:C6	2.89	0.41
26:14:447:A:H4'	26:14:449:A:C8	2.56	0.41
26:14:601:C:O2	26:14:605:C:H4'	2.21	0.41
26:14:827:U:O2	26:14:2246:G:H4'	2.20	0.41
26:14:855:G:C2	26:14:856:C:C2	3.09	0.41
26:14:909:A:N6	26:14:912:C:O2	2.54	0.41
26:14:918:A:O5'	26:14:918:A:H8	2.04	0.41
26:14:962:G:C2	26:14:963:U:C2	3.09	0.41
26:14:1156:A:H8	26:14:1156:A:O5'	2.03	0.41
26:14:1209:G:H21	26:14:1210:A:H62	1.69	0.41
26:14:1280:G:C6	26:14:1281:G:C5	3.09	0.41
26:14:1409:C:H2'	26:14:1410:G:O4'	2.20	0.41
26:14:1463:C:H2'	26:14:1464:C:H6	1.86	0.41
26:14:1489:U:O3'	26:14:1490:A:C8	2.74	0.41
26:14:1558:A:O2'	26:14:1559:G:OP2	2.39	0.41
26:14:2579:C:H2'	26:14:2580:U:O4'	2.20	0.41
26:14:2789:C:H2'	26:14:2790:A:C8	2.55	0.41
27:1J:63:G:C2	27:1J:64:C:C2	3.09	0.41
29:29:12:THR:HG21	40:75:11:GLU:OE1	2.21	0.41
30:39:21:ALA:C	30:39:23:ASP:N	2.74	0.41
31:49:97:ASP:CA	31:49:100:TRP:HD1	2.34	0.41
34:15:64:GLY:O	34:15:66:LYS:N	2.54	0.41
34:15:96:GLU:OE1	34:15:96:GLU:N	2.37	0.41
44:B5:56:THR:HG22	44:B5:79:ALA:HB2	2.02	0.41
46:D5:14:LYS:H	46:D5:14:LYS:CE	2.34	0.41
46:D5:39:VAL:HG21	46:D5:44:PHE:HB2	2.02	0.41
46:D5:54:HIS:N	46:D5:54:HIS:ND1	2.69	0.41
1:13:7:G:O2'	5:4E:120:THR:O	2.39	0.40
1:13:15:G:H4'	5:4E:24:ARG:HH12	1.86	0.40
1:13:892:A:C2	1:13:893:C:C2	3.08	0.40
1:13:901:A:C5	1:13:902:G:H1'	2.56	0.40
1:13:939:G:C6	1:13:940:C:N4	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1151:A:HO2'	1:13:1152:A:P	2.44	0.40
1:13:1320:C:C1'	19:AI:73:GLU:HG2	2.51	0.40
1:13:1508:G:H2'	1:13:1509:C:H6	1.86	0.40
2:1E:97:TRP:CE2	2:1E:173:ALA:HB2	2.56	0.40
7:6E:151:TYR:HA	7:6E:153:HIS:CE1	2.56	0.40
13:4I:110:ARG:HG3	13:4I:110:ARG:O	2.20	0.40
17:8I:3:LYS:O	17:8I:5:VAL:HG23	2.21	0.40
17:8I:48:GLU:H	17:8I:48:GLU:HG3	1.47	0.40
18:9I:40:LEU:O	18:9I:42:ARG:N	2.53	0.40
22:1K:5:A:N6	22:1K:68:U:C2	2.89	0.40
22:1K:50:G:N2	22:1K:65:C:H42	2.19	0.40
26:1H:17:G:H4'	41:C8:25:TRP:NE1	2.36	0.40
26:1H:311:A:C6	26:1H:328:U:C4	3.08	0.40
26:1H:448:U:H1'	30:31:84:VAL:HG11	2.03	0.40
26:1H:524:U:H4'	26:1H:554:U:H4'	2.03	0.40
26:1H:576:U:C2'	26:1H:577:G:H5'	2.51	0.40
26:1H:611:C:H2'	26:1H:612:G:O4'	2.21	0.40
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.55	0.40
26:1H:1050:A:O2'	26:1H:2752:C:H1'	2.21	0.40
26:1H:1166:C:O2	26:1H:1184:G:N2	2.53	0.40
26:1H:1539:G:C2	26:1H:1540:G:C5	3.09	0.40
26:1H:1753:G:C2	26:1H:1756:G:N2	2.89	0.40
26:1H:1776:G:C5	26:1H:1777:U:C5	3.09	0.40
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.21	0.40
26:1H:2110:G:O2'	26:1H:2120:G:OP2	2.27	0.40
26:1H:2165:G:N7	26:1H:2166:G:N2	2.69	0.40
26:1H:2294:C:C4	26:1H:2295:C:C5	3.08	0.40
26:1H:2352:A:C4	26:1H:2366:A:C2	3.10	0.40
26:1H:2547:U:H2'	26:1H:2548:G:H8	1.85	0.40
28:11:260:ARG:HG2	28:11:261:LYS:O	2.21	0.40
29:21:26:ILE:HD12	29:21:196:VAL:HG21	2.03	0.40
30:31:151:SER:C	30:31:152:GLU:HG3	2.41	0.40
30:31:155:LEU:HA	30:31:174:VAL:HG13	2.03	0.40
30:31:181:LEU:O	30:31:205:ARG:NH2	2.53	0.40
31:41:82:LEU:HA	31:41:86:MET:CE	2.51	0.40
32:51:14:GLY:O	32:51:29:PRO:HD3	2.20	0.40
32:51:69:ARG:HG3	32:51:70:THR:N	2.35	0.40
40:B8:70:VAL:HG12	40:B8:71:GLY:O	2.21	0.40
41:C8:18:LEU:HD23	41:C8:18:LEU:HA	1.87	0.40
43:E8:58:ALA:HB1	43:E8:64:MET:HE2	2.02	0.40
47:I8:36:ILE:HG12	47:I8:37:LEU:N	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:73:G:H2'	1:1G:74:C:C6	2.56	0.40
1:1G:431:A:H2'	1:1G:432:A:O4'	2.21	0.40
1:1G:575:G:O2'	1:1G:821:G:H5'	2.21	0.40
1:1G:580:U:H2'	1:1G:581:G:C8	2.56	0.40
1:1G:658:G:O6	1:1G:746:A:N6	2.54	0.40
1:1G:1076:C:C2	1:1G:1082:G:N2	2.89	0.40
7:62:90:GLU:H	7:62:90:GLU:HG2	1.74	0.40
8:72:23:SER:HA	8:72:61:VAL:O	2.21	0.40
11:2A:23:ALA:O	11:2A:86:GLY:HA3	2.20	0.40
12:3A:123:LYS:H	12:3A:123:LYS:HG2	1.61	0.40
17:8A:18:THR:HG1	17:8A:69:LYS:HZ2	1.58	0.40
20:BA:25:ARG:HG2	20:BA:29:LYS:HE2	2.03	0.40
26:14:150:C:H2'	26:14:151:C:C6	2.56	0.40
26:14:296:C:H2'	26:14:297:C:C6	2.56	0.40
26:14:323:G:H2'	30:39:169:ASN:HD21	1.86	0.40
26:14:384:U:H2'	26:14:385:C:H6	1.86	0.40
26:14:774:A:H2	26:14:787:U:O2'	2.03	0.40
26:14:815:C:O2	26:14:1193:G:C2	2.74	0.40
26:14:977:G:C6	26:14:987:G:C6	3.09	0.40
26:14:1049:C:C4	26:14:2751:G:N7	2.89	0.40
26:14:1488:G:N1	26:14:1489:U:O2	2.54	0.40
26:14:1815:A:C5	26:14:1817:G:C6	3.09	0.40
26:14:1971:A:C8	28:19:241:PRO:HB3	2.56	0.40
26:14:1991:U:H2'	26:14:1992:G:H5''	2.03	0.40
33:69:33:ARG:HB2	33:69:35:LEU:HG	2.03	0.40
39:65:23:ARG:NH2	39:65:84:GLN:OE1	2.53	0.40
44:B5:3:THR:O	44:B5:5:TYR:N	2.54	0.40
44:B5:35:THR:HG23	44:B5:38:GLU:H	1.85	0.40
48:F5:51:VAL:N	48:F5:58:ILE:O	2.52	0.40
1:13:36:C:O2'	1:13:501:C:OP1	2.32	0.40
1:13:68:G:N2	1:13:69:G:H1'	2.36	0.40
1:13:75:C:O2'	1:13:76:G:O5'	2.35	0.40
1:13:312:C:C2	1:13:313:A:C8	3.09	0.40
1:13:320:C:H42	1:13:333:G:H1	1.70	0.40
1:13:458:C:H2'	1:13:464:G:C8	2.57	0.40
1:13:994:A:N3	1:13:994:A:H2'	2.37	0.40
1:13:1286:A:C2	21:1F:18:TYR:OH	2.72	0.40
3:2E:12:LEU:HD23	3:2E:12:LEU:HA	1.85	0.40
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.03	0.40
5:4E:12:LEU:HD23	5:4E:31:LEU:HD12	2.03	0.40
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:20:LYS:HG2	12:3I:21:LYS:N	2.35	0.40
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.86	0.40
13:4I:3:ARG:NE	13:4I:9:ILE:HD11	2.36	0.40
13:4I:34:LEU:HD23	13:4I:34:LEU:HA	1.85	0.40
14:5I:6:LEU:HD13	14:5I:6:LEU:HA	1.87	0.40
22:1K:50:G:H22	22:1K:65:C:N4	2.19	0.40
23:2K:72:C:H2'	23:2K:73:A:O4'	2.21	0.40
26:1H:36:G:N3	26:1H:450:G:O2'	2.52	0.40
26:1H:196:A:N3	26:1H:196:A:H2'	2.35	0.40
26:1H:573:G:H5'	58:1H:3563:HOH:O	2.21	0.40
26:1H:958:U:O2	27:16:89(A):A:H4'	2.21	0.40
26:1H:1213:A:N3	26:1H:1238:G:O2'	2.51	0.40
26:1H:1318:C:H5	58:1H:4332:HOH:O	2.03	0.40
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.21	0.40
26:1H:1826:G:O2'	28:11:242:ARG:NH2	2.54	0.40
26:1H:1858:G:H1'	26:1H:1883:G:N2	2.36	0.40
26:1H:1935:G:H1'	26:1H:1964:G:C2	2.56	0.40
26:1H:2216:G:C2	26:1H:2217:G:C4	3.10	0.40
26:1H:2415:G:C6	26:1H:2416:C:C4	3.09	0.40
29:21:52:LEU:HD22	29:21:52:LEU:HA	1.86	0.40
31:41:117:PHE:CD1	31:41:117:PHE:C	2.95	0.40
35:68:113:LYS:O	35:68:117:LEU:HD12	2.21	0.40
36:78:37:GLY:HA2	36:78:41:ARG:CD	2.51	0.40
37:88:32:TYR:CE1	37:88:133:ARG:HG3	2.56	0.40
37:88:54:MET:SD	37:88:118:LEU:HD23	2.62	0.40
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.33	0.40
44:F8:5:TYR:O	49:K8:36:ARG:NH2	2.54	0.40
46:H8:28:MET:HE2	46:H8:33:LEU:HD21	2.04	0.40
46:H8:67:LEU:HA	46:H8:68:PRO:HD3	1.91	0.40
47:I8:53:MET:HE2	47:I8:53:MET:HB3	1.89	0.40
50:L8:6:VAL:HG12	50:L8:56:VAL:HG22	2.03	0.40
1:1G:51:A:C6	1:1G:353:A:C2	3.09	0.40
1:1G:625:G:H4'	16:7A:16:HIS:CG	2.57	0.40
1:1G:818:G:O2'	1:1G:819:A:H5'	2.22	0.40
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.21	0.40
1:1G:923:A:OP1	5:42:21:ALA:HB2	2.21	0.40
1:1G:1161:C:H2'	1:1G:1162:C:C6	2.56	0.40
1:1G:1184:G:H2'	1:1G:1185:G:H8	1.86	0.40
1:1G:1277:C:O2'	1:1G:1279:A:C8	2.72	0.40
1:1G:1305:G:HO2'	1:1G:1306:A:P	2.44	0.40
1:1G:1423:G:H2'	1:1G:1424:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.21	0.40
5:42:71:LEU:HB3	5:42:74:GLY:HA2	2.03	0.40
7:62:116:ALA:O	7:62:120:ILE:HG12	2.21	0.40
12:3A:103:GLY:N	12:3A:107:ALA:O	2.54	0.40
17:8A:67:LYS:C	17:8A:69:LYS:H	2.24	0.40
22:1L:29:C:H2'	22:1L:30:C:O4'	2.21	0.40
26:14:141(A):C:H6	26:14:141(A):C:O5'	2.04	0.40
26:14:287:C:H2'	26:14:288:C:C6	2.56	0.40
26:14:315:G:C6	26:14:316:C:C4	3.08	0.40
26:14:768:G:H2'	26:14:769:G:H8	1.85	0.40
26:14:864:G:O2'	26:14:865:C:H5'	2.22	0.40
26:14:916:G:H2'	26:14:917:A:H5''	2.03	0.40
26:14:1139:G:O2'	26:14:1143:A:N1	2.45	0.40
26:14:1262:A:H2	52:J5:10:LYS:HD2	1.87	0.40
26:14:1605:C:C5	26:14:1606:G:C5	3.09	0.40
26:14:1688:U:O2	26:14:1700:A:H5'	2.21	0.40
26:14:2206:C:C2	26:14:2219:G:C2	3.09	0.40
26:14:2468:G:C6	26:14:2481:G:C2	3.09	0.40
26:14:2474:C:O2	26:14:2474:C:H2'	2.21	0.40
26:14:2674:G:O3'	35:25:30:ALA:HA	2.21	0.40
26:14:2785:C:O2'	29:29:64:LYS:NZ	2.50	0.40
26:14:2867:G:N7	40:75:23:ARG:HD2	2.36	0.40
26:14:2889:C:H3'	26:14:2891:G:C8	2.56	0.40
28:19:31:LYS:HZ2	28:19:33:LEU:CB	2.24	0.40
28:19:85:ASP:HB2	28:19:92:ILE:CD1	2.51	0.40
29:29:177:PRO:HG2	29:29:178:GLU:OE2	2.20	0.40
31:49:64:THR:HB	31:49:94:LEU:HD11	2.02	0.40
32:59:122:THR:HG22	32:59:123:PHE:N	2.36	0.40
35:25:35:VAL:HG13	35:25:65:THR:HG23	2.04	0.40
35:25:92:GLU:HB3	35:25:113:LYS:HZ2	1.86	0.40
36:35:50:ARG:HG3	36:35:50:ARG:NH1	2.33	0.40
36:35:75:ILE:HD13	36:35:75:ILE:N	2.37	0.40
38:55:2:ARG:NH2	38:55:5:LYS:H	2.19	0.40
38:55:101:ALA:HB2	52:J5:44:THR:HB	2.04	0.40
48:F5:91:LYS:NZ	48:F5:95:LEU:HD22	2.36	0.40
1:13:11:G:C6	1:13:12:U:C5	3.10	0.40
1:13:131:C:H2'	1:13:132:C:C6	2.56	0.40
1:13:160:A:H2'	1:13:160:A:N3	2.36	0.40
1:13:267:C:OP1	17:8I:67:LYS:HD2	2.22	0.40
1:13:370:C:C2	1:13:392:G:C2	3.10	0.40
1:13:491:G:H8	1:13:491:G:O5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:585:G:N3	1:13:879:C:H4'	2.36	0.40
1:13:631:G:HO2'	1:13:632:A:P	2.42	0.40
1:13:701:C:O2	1:13:703:G:N1	2.55	0.40
4:3E:76:ARG:HD2	4:3E:207:TYR:HE2	1.86	0.40
6:5E:98:LEU:HA	18:9I:29:PHE:O	2.21	0.40
9:8E:10:ARG:HE	9:8E:105:ASP:CB	2.35	0.40
16:7I:4:ILE:HG12	16:7I:64:ALA:HB1	2.02	0.40
17:8I:83:ASP:O	17:8I:86:GLU:HB2	2.21	0.40
23:2K:65:G:C2	23:2K:66:C:C2	3.09	0.40
26:1H:389:G:O5'	26:1H:389:G:H8	2.05	0.40
26:1H:441:U:H2'	26:1H:442:G:C8	2.56	0.40
26:1H:536:A:H2'	26:1H:537:C:C6	2.56	0.40
26:1H:570:G:H2'	26:1H:2030:A:C5	2.57	0.40
26:1H:654(P):G:N7	26:1H:654(Q):C:N4	2.69	0.40
26:1H:682:G:N2	26:1H:796:C:C2	2.89	0.40
26:1H:938:G:OP1	54:Q8:52:LYS:NZ	2.46	0.40
26:1H:1021:A:H3'	26:1H:1022:G:H5''	2.02	0.40
26:1H:1341:U:OP1	26:1H:1397:U:N3	2.48	0.40
26:1H:1729:A:H1'	26:1H:1730:U:C5	2.57	0.40
26:1H:2106:G:H2'	26:1H:2107:C:H5'	2.03	0.40
26:1H:2636:U:H1'	26:1H:2783:G:N2	2.36	0.40
27:16:18:G:H1	27:16:65:C:H42	1.69	0.40
28:11:16:MET:CE	28:11:208:LYS:HD3	2.51	0.40
28:11:70:TRP:CD1	28:11:70:TRP:C	2.93	0.40
35:68:66:LYS:HB3	35:68:66:LYS:HE2	1.55	0.40
37:88:21:THR:HA	37:88:98:LYS:HB2	2.03	0.40
39:A8:69:VAL:HG13	39:A8:101:LEU:HD13	2.03	0.40
43:E8:51:LEU:HD23	43:E8:105:VAL:HG11	2.04	0.40
44:F8:57:LEU:HD21	44:F8:78:LYS:CG	2.51	0.40
47:I8:49:LYS:H	47:I8:80:HIS:HB3	1.87	0.40
1:1G:89:U:HO2'	1:1G:90:C:P	2.40	0.40
1:1G:90:C:H3'	1:1G:91:C:H5''	2.04	0.40
1:1G:197:A:H1'	1:1G:198:G:O4'	2.22	0.40
1:1G:376:G:H5''	16:7A:5:ARG:HD2	2.03	0.40
1:1G:384:G:H2'	1:1G:385:C:C6	2.56	0.40
1:1G:740:U:O2'	15:6A:52:SER:OG	2.15	0.40
1:1G:949:A:H2'	1:1G:950:U:O4'	2.21	0.40
1:1G:1010:G:C2	1:1G:1020:U:C2	3.09	0.40
1:1G:1217:C:H5''	14:5A:9:LYS:HE2	2.02	0.40
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.21	0.40
1:1G:1517:G:C6	1:1G:1518:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:40:ARG:HA	3:22:43:LEU:HB3	2.03	0.40
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.86	0.40
6:52:46:ARG:HE	6:52:46:ARG:HB3	1.70	0.40
7:62:124:LEU:HA	7:62:124:LEU:HD23	1.74	0.40
13:4A:34:LEU:HD21	13:4A:41:PRO:HA	2.02	0.40
18:9A:22:VAL:HA	18:9A:25:THR:CG2	2.51	0.40
26:14:589:C:H2'	26:14:590:A:C8	2.55	0.40
26:14:609:A:H62	26:14:619:G:H21	1.69	0.40
26:14:843:G:H1	26:14:935:C:H42	1.69	0.40
26:14:864:G:C6	26:14:865:C:N4	2.89	0.40
26:14:1353:A:C8	26:14:1377:G:N2	2.89	0.40
26:14:1387:C:H5'	26:14:1469:A:H4'	2.03	0.40
26:14:1858:G:H1'	26:14:1884:A:N6	2.36	0.40
26:14:2001:A:H2'	26:14:2002:G:C8	2.56	0.40
26:14:2239:G:H5'	28:19:251:GLY:HA3	2.04	0.40
26:14:2717:G:C6	26:14:2718:G:C5	3.10	0.40
27:1J:33:G:C6	27:1J:34:U:C4	3.10	0.40
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.47	0.40
28:19:177:LEU:HB3	28:19:178:PRO:HD2	2.02	0.40
29:29:54:GLN:HA	29:29:74:PRO:CA	2.44	0.40
30:39:137:LYS:HE2	30:39:137:LYS:HB3	1.72	0.40
31:49:33:ARG:CZ	31:49:162:THR:HG21	2.50	0.40
33:69:76:THR:OG1	33:69:140:LEU:HD12	2.21	0.40
36:35:10:PRO:C	36:35:12:ALA:H	2.25	0.40
36:35:65:ARG:HA	36:35:65:ARG:HD2	1.79	0.40
40:75:45:PHE:CE2	40:75:74:ARG:HB2	2.57	0.40
43:A5:20:VAL:HG23	43:A5:47:VAL:HG21	2.02	0.40
46:D5:70:LEU:HD23	46:D5:70:LEU:HA	1.86	0.40
48:F5:46:LEU:HD12	48:F5:46:LEU:HA	1.70	0.40
1:13:57:G:H2'	1:13:58:C:C6	2.56	0.40
1:13:141:A:O2'	1:13:182:U:O2	2.13	0.40
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.55	0.40
1:13:636:U:H2'	1:13:637:G:C8	2.56	0.40
1:13:1115:C:H2'	1:13:1116:C:C6	2.56	0.40
1:13:1212:U:H5''	1:13:1213:A:O5'	2.22	0.40
2:1E:71:VAL:O	2:1E:165:VAL:HG22	2.21	0.40
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	2.02	0.40
4:3E:12:CYS:SG	4:3E:19:LEU:HB2	2.62	0.40
6:5E:39:LYS:N	6:5E:39:LYS:HD2	2.37	0.40
7:6E:26:PHE:CG	7:6E:62:PHE:HE2	2.38	0.40
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:74:ARG:NH2	18:9I:81:PHE:HA	2.33	0.40
23:2K:59:A:H4'	23:2K:60:A:OP1	2.21	0.40
23:2K:69:C:H2'	23:2K:70:C:H6	1.86	0.40
26:1H:31:C:O2'	26:1H:32:C:H5'	2.22	0.40
26:1H:271(B):G:H1	26:1H:404:C:H42	1.69	0.40
26:1H:467:G:OP1	53:P8:33:ARG:HD2	2.21	0.40
26:1H:516:C:P	52:N8:13:LYS:HZ1	2.43	0.40
26:1H:532:A:H4'	26:1H:533:G:C8	2.56	0.40
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.54	0.40
26:1H:1000:A:C6	26:1H:1001:A:C6	3.09	0.40
26:1H:1106:G:H2'	26:1H:1107:G:H8	1.86	0.40
26:1H:1410:G:N2	26:1H:1593:G:H1'	2.36	0.40
26:1H:1705:G:C6	26:1H:1706:U:C4	3.10	0.40
26:1H:1824:G:OP1	28:11:52:ARG:HD3	2.21	0.40
26:1H:2078:C:H2'	26:1H:2079:U:C6	2.57	0.40
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.22	0.40
29:21:59:VAL:HG22	29:21:60:ASN:N	2.37	0.40
37:88:70:PRO:HA	37:88:94:VAL:O	2.22	0.40
39:A8:3:ARG:HG3	39:A8:4:LEU:N	2.36	0.40
44:F8:35:THR:OG1	44:F8:36:LYS:N	2.52	0.40
49:K8:64:LEU:CD2	49:K8:68:ARG:HD2	2.51	0.40
1:1G:217:C:O2'	1:1G:218:C:H5'	2.22	0.40
1:1G:321:A:C2	1:1G:333:G:C2	3.09	0.40
1:1G:631:G:H5''	8:72:98:LYS:HZ3	1.86	0.40
1:1G:664:G:P	18:9A:64:ARG:HH21	2.45	0.40
1:1G:922:G:N3	1:1G:1398:A:H2	2.20	0.40
1:1G:943:U:H1'	9:82:124:GLN:OE1	2.21	0.40
1:1G:1049:U:H1'	1:1G:1201:A:C8	2.57	0.40
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.45	0.40
1:1G:1321:C:OP1	1:1G:1322:C:H3'	2.22	0.40
3:22:42:LEU:HA	3:22:45:LYS:HE2	2.02	0.40
3:22:147:LYS:HA	3:22:147:LYS:HD3	1.75	0.40
20:BA:71:THR:O	20:BA:72:LEU:HD12	2.22	0.40
26:14:30:G:C2	26:14:511:U:O2	2.73	0.40
26:14:52:A:C5	26:14:118:A:C2	3.09	0.40
26:14:814:C:C2	26:14:1194:A:C2	3.10	0.40
26:14:977:G:N3	26:14:978:G:C8	2.89	0.40
26:14:1138:G:H21	34:15:106:MET:CE	2.33	0.40
26:14:1204:A:HO2'	26:14:1205:U:P	2.44	0.40
26:14:1505:C:H2'	26:14:1506:C:H6	1.86	0.40
26:14:1817:G:C5	26:14:1818:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1853:A:H2'	26:14:1854:A:C8	2.56	0.40
26:14:2116:G:OP2	26:14:2167:U:N3	2.54	0.40
26:14:2262:U:H2'	26:14:2263:C:H6	1.86	0.40
26:14:2269:A:P	58:14:3458:HOH:O	2.76	0.40
28:19:228:PRO:HD3	28:19:235:GLY:CA	2.51	0.40
29:29:14:ILE:O	29:29:21:VAL:N	2.49	0.40
30:39:95:ARG:HG3	30:39:97:TYR:CE1	2.56	0.40
32:59:6:ARG:NH2	32:59:62:LYS:HG3	2.36	0.40
32:59:16:SER:N	32:59:27:LYS:O	2.35	0.40
34:15:126:PRO:HB2	34:15:127:ASP:H	1.51	0.40
36:35:114:ILE:O	36:35:115:LEU:HD23	2.21	0.40
40:75:7:ILE:HG13	40:75:8:LYS:H	1.85	0.40
41:85:21:ALA:HB2	41:85:35:ALA:HB1	2.04	0.40
41:85:68:ALA:HB1	41:85:99:ALA:HB1	2.03	0.40
46:D5:19:ARG:HE	46:D5:19:ARG:HB2	1.27	0.40
48:F5:67:ILE:HD13	48:F5:67:ILE:HA	1.75	0.40
1:13:113:G:O4'	1:13:354:G:H4'	2.21	0.40
1:13:322:C:H41	1:13:328:C:H6	1.67	0.40
1:13:625:G:H2'	1:13:626:U:C6	2.56	0.40
1:13:872:A:C4	1:13:874:G:N7	2.90	0.40
1:13:977:A:H2'	1:13:978:A:H5''	2.02	0.40
1:13:1206:G:C6	1:13:1207:G:C5	3.10	0.40
1:13:1468:A:H8	1:13:1468:A:O5'	2.04	0.40
1:13:1499:A:C2	1:13:1500:A:C8	3.10	0.40
6:5E:17:SER:O	6:5E:21:LEU:N	2.42	0.40
6:5E:44:GLY:O	6:5E:60:PHE:N	2.46	0.40
7:6E:137:LYS:O	7:6E:137:LYS:HD3	2.22	0.40
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.55	0.40
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	2.03	0.40
22:1K:35:G:H1	25:4K:20:U:H3	1.70	0.40
23:2K:73:A:C6	23:2K:74:A:C6	3.10	0.40
26:1H:176:G:C2'	26:1H:177:G:H5'	2.51	0.40
26:1H:333:G:O5'	26:1H:333:G:C8	2.75	0.40
26:1H:901:A:H5'	26:1H:902:C:OP2	2.21	0.40
26:1H:910:A:N1	26:1H:2277:G:H1'	2.37	0.40
26:1H:918:A:C5	26:1H:919:G:H1'	2.57	0.40
26:1H:1434:A:H2'	26:1H:1435:G:C8	2.57	0.40
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.21	0.40
26:1H:1650:G:C2	26:1H:2008:C:C2	3.10	0.40
26:1H:1689:A:C6	26:1H:1700:A:C2	3.09	0.40
26:1H:1855:G:H2'	26:1H:1856:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1900:A:O2'	26:1H:1901:A:OP1	2.32	0.40
26:1H:2055:C:H4'	26:1H:2056:G:H5''	2.03	0.40
26:1H:2145:C:H3'	26:1H:2146:C:H5'	2.03	0.40
26:1H:2184:G:C2	26:1H:2185:C:C2	3.10	0.40
26:1H:2469:A:C8	26:1H:2482:G:C4	3.09	0.40
26:1H:2519:U:C6	26:1H:2542:A:N6	2.90	0.40
26:1H:2592:G:C6	26:1H:2593:U:N3	2.90	0.40
27:16:60:C:H2'	27:16:61:G:C8	2.57	0.40
28:11:72:LYS:HG3	28:11:103:ARG:NH2	2.36	0.40
28:11:133:LEU:HA	28:11:133:LEU:HD23	1.82	0.40
29:21:116:VAL:HG13	29:21:122:PHE:CG	2.57	0.40
31:41:37:VAL:HG13	31:41:158:ALA:O	2.22	0.40
47:I8:44:ARG:HH11	47:I8:44:ARG:HD2	1.72	0.40
1:1G:246:A:C4	1:1G:279:A:N6	2.89	0.40
1:1G:262:A:H5'	20:BA:73:HIS:CB	2.52	0.40
1:1G:279:A:H5'	1:1G:279:A:N3	2.36	0.40
1:1G:438:G:C4'	4:32:123:HIS:HD2	2.28	0.40
1:1G:682:G:N3	1:1G:709:G:C2	2.90	0.40
1:1G:750:G:H1'	15:6A:22:THR:HB	2.04	0.40
1:1G:1012:U:H2'	1:1G:1013:G:C8	2.56	0.40
2:12:130:ARG:HB2	2:12:130:ARG:HE	1.54	0.40
2:12:132:LYS:HD2	2:12:132:LYS:HA	1.93	0.40
3:22:57:ILE:HD13	3:22:65:ALA:O	2.22	0.40
3:22:94:LEU:H	3:22:94:LEU:HG	1.80	0.40
6:52:54:LYS:HA	6:52:54:LYS:HD3	1.42	0.40
7:62:64:GLN:O	7:62:64:GLN:HG3	2.21	0.40
8:72:97:VAL:O	8:72:100:ILE:HG13	2.22	0.40
9:82:9:ARG:HG2	9:82:14:VAL:HG22	2.02	0.40
9:82:20:ARG:O	9:82:20:ARG:HG3	2.20	0.40
11:2A:18:ARG:HH21	11:2A:37:GLY:N	2.20	0.40
15:6A:85:LEU:HD23	15:6A:85:LEU:HA	1.94	0.40
17:8A:10:VAL:HG12	17:8A:55:ASP:O	2.21	0.40
26:14:673:C:H5''	30:39:81:PRO:HD2	2.03	0.40
26:14:1387:C:O2	26:14:1388:G:C8	2.74	0.40
26:14:1654:A:OP1	38:55:1:MET:HA	2.21	0.40
26:14:2158:A:H1'	26:14:2159:G:C8	2.57	0.40
26:14:2313:C:H5''	31:49:91:ARG:HG3	2.03	0.40
26:14:2459:A:C5	26:14:2460:U:C5	3.10	0.40
26:14:2667:C:H6	26:14:2667:C:OP2	2.05	0.40
26:14:2714:G:P	58:14:3425:HOH:O	2.79	0.40
28:19:133:LEU:HA	28:19:133:LEU:HD23	1.72	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:59:ARG:HA	32:59:62:LYS:HB3	2.04	0.40
32:59:153:LYS:N	32:59:154:PRO:HD3	2.36	0.40
33:69:2:LYS:HD3	33:69:20:ASP:HB2	2.04	0.40
33:69:88:ILE:HG22	33:69:90:GLY:N	2.34	0.40
33:69:144:VAL:O	33:69:145:VAL:HG12	2.21	0.40
34:15:33:LEU:HD13	34:15:33:LEU:HA	1.88	0.40
34:15:72:TYR:HB2	34:15:85:ILE:HD12	2.03	0.40
34:15:116:LEU:O	34:15:119:ARG:N	2.37	0.40
35:25:2:ILE:HD12	35:25:6:THR:HG21	2.03	0.40
37:45:111:GLU:O	37:45:115:MET:HG2	2.22	0.40
39:65:25:ARG:O	39:65:39:ILE:HA	2.22	0.40
42:95:98:GLU:O	42:95:98:GLU:HG3	2.20	0.40
46:D5:151:HIS:ND1	46:D5:170:THR:HG22	2.36	0.40
47:E5:53:MET:HE3	47:E5:53:MET:HB3	1.88	0.40
48:F5:82:LEU:HB3	48:F5:83:GLU:H	1.56	0.40

There are no symmetry-related clashes.

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	203/256 (79%)	156 (77%)	46 (23%)	1 (0%)	29	63
2	1E	227/256 (89%)	184 (81%)	42 (18%)	1 (0%)	34	68
3	22	193/239 (81%)	165 (86%)	27 (14%)	1 (0%)	29	63
3	2E	203/239 (85%)	165 (81%)	36 (18%)	2 (1%)	15	49
4	32	206/209 (99%)	166 (81%)	39 (19%)	1 (0%)	29	63
4	3E	205/209 (98%)	178 (87%)	26 (13%)	1 (0%)	29	63
5	42	148/162 (91%)	137 (93%)	11 (7%)	0	100	100
5	4E	147/162 (91%)	137 (93%)	10 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	52	99/101 (98%)	90 (91%)	9 (9%)	0	100	100
6	5E	98/101 (97%)	90 (92%)	8 (8%)	0	100	100
7	62	134/156 (86%)	123 (92%)	11 (8%)	0	100	100
7	6E	152/156 (97%)	135 (89%)	17 (11%)	0	100	100
8	72	135/138 (98%)	122 (90%)	12 (9%)	1 (1%)	22	56
8	7E	136/138 (99%)	120 (88%)	14 (10%)	2 (2%)	10	39
9	82	119/128 (93%)	103 (87%)	14 (12%)	2 (2%)	9	36
9	8E	124/128 (97%)	103 (83%)	21 (17%)	0	100	100
10	1A	97/105 (92%)	81 (84%)	16 (16%)	0	100	100
10	1I	92/105 (88%)	80 (87%)	10 (11%)	2 (2%)	6	32
11	2A	111/129 (86%)	96 (86%)	13 (12%)	2 (2%)	8	35
11	2I	109/129 (84%)	91 (84%)	17 (16%)	1 (1%)	17	51
12	3A	120/132 (91%)	94 (78%)	24 (20%)	2 (2%)	9	36
12	3I	120/132 (91%)	96 (80%)	23 (19%)	1 (1%)	19	53
13	4A	107/126 (85%)	79 (74%)	27 (25%)	1 (1%)	17	51
13	4I	117/126 (93%)	90 (77%)	25 (21%)	2 (2%)	9	36
14	5A	57/61 (93%)	44 (77%)	12 (21%)	1 (2%)	8	35
14	5I	58/61 (95%)	50 (86%)	6 (10%)	2 (3%)	3	23
15	6A	85/89 (96%)	79 (93%)	6 (7%)	0	100	100
15	6I	85/89 (96%)	74 (87%)	11 (13%)	0	100	100
16	7A	82/88 (93%)	73 (89%)	9 (11%)	0	100	100
16	7I	81/88 (92%)	72 (89%)	9 (11%)	0	100	100
17	8A	97/105 (92%)	88 (91%)	9 (9%)	0	100	100
17	8I	98/105 (93%)	81 (83%)	17 (17%)	0	100	100
18	9A	67/88 (76%)	60 (90%)	7 (10%)	0	100	100
18	9I	66/88 (75%)	59 (89%)	7 (11%)	0	100	100
19	AA	59/93 (63%)	46 (78%)	13 (22%)	0	100	100
19	AI	80/93 (86%)	67 (84%)	12 (15%)	1 (1%)	12	42
20	BA	97/106 (92%)	82 (84%)	15 (16%)	0	100	100
20	BI	95/106 (90%)	72 (76%)	21 (22%)	2 (2%)	7	32
21	1B	20/27 (74%)	19 (95%)	0	1 (5%)	2	15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	1F	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	16
28	11	271/276 (98%)	231 (85%)	35 (13%)	5 (2%)	8	35
28	19	272/276 (99%)	233 (86%)	39 (14%)	0	100	100
29	21	203/206 (98%)	157 (77%)	42 (21%)	4 (2%)	7	33
29	29	202/206 (98%)	145 (72%)	52 (26%)	5 (2%)	5	29
30	31	200/210 (95%)	172 (86%)	25 (12%)	3 (2%)	10	39
30	39	202/210 (96%)	155 (77%)	42 (21%)	5 (2%)	5	29
31	41	177/182 (97%)	152 (86%)	24 (14%)	1 (1%)	25	59
31	49	178/182 (98%)	151 (85%)	24 (14%)	3 (2%)	9	36
32	51	172/180 (96%)	132 (77%)	30 (17%)	10 (6%)	1	12
32	59	167/180 (93%)	129 (77%)	38 (23%)	0	100	100
33	61	143/148 (97%)	110 (77%)	30 (21%)	3 (2%)	7	32
33	69	143/148 (97%)	109 (76%)	30 (21%)	4 (3%)	5	26
34	15	135/140 (96%)	115 (85%)	19 (14%)	1 (1%)	22	56
34	58	123/140 (88%)	101 (82%)	20 (16%)	2 (2%)	9	38
35	25	120/122 (98%)	110 (92%)	10 (8%)	0	100	100
35	68	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
36	35	145/150 (97%)	117 (81%)	25 (17%)	3 (2%)	7	32
36	78	146/150 (97%)	104 (71%)	35 (24%)	7 (5%)	2	16
37	45	136/141 (96%)	104 (76%)	29 (21%)	3 (2%)	6	32
37	88	139/141 (99%)	114 (82%)	22 (16%)	3 (2%)	6	32
38	55	116/118 (98%)	100 (86%)	15 (13%)	1 (1%)	17	51
38	98	116/118 (98%)	102 (88%)	14 (12%)	0	100	100
39	65	108/112 (96%)	83 (77%)	24 (22%)	1 (1%)	17	51
39	A8	109/112 (97%)	84 (77%)	24 (22%)	1 (1%)	17	51
40	75	138/146 (94%)	118 (86%)	18 (13%)	2 (1%)	11	40
40	B8	134/146 (92%)	104 (78%)	30 (22%)	0	100	100
41	85	114/118 (97%)	92 (81%)	22 (19%)	0	100	100
41	C8	113/118 (96%)	100 (88%)	11 (10%)	2 (2%)	8	35
42	95	98/101 (97%)	78 (80%)	16 (16%)	4 (4%)	3	19
42	D8	98/101 (97%)	83 (85%)	15 (15%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	A5	109/113 (96%)	96 (88%)	13 (12%)	0	100	100
43	E8	108/113 (96%)	97 (90%)	11 (10%)	0	100	100
44	B5	92/96 (96%)	79 (86%)	13 (14%)	0	100	100
44	F8	93/96 (97%)	83 (89%)	10 (11%)	0	100	100
45	C5	48/110 (44%)	36 (75%)	12 (25%)	0	100	100
45	G8	93/110 (84%)	67 (72%)	19 (20%)	7 (8%)	1	7
46	D5	175/206 (85%)	122 (70%)	48 (27%)	5 (3%)	4	26
46	H8	168/206 (82%)	123 (73%)	38 (23%)	7 (4%)	3	19
47	E5	74/85 (87%)	58 (78%)	15 (20%)	1 (1%)	11	40
47	I8	75/85 (88%)	63 (84%)	12 (16%)	0	100	100
48	F5	92/98 (94%)	77 (84%)	12 (13%)	3 (3%)	4	24
48	J8	94/98 (96%)	76 (81%)	13 (14%)	5 (5%)	2	14
49	G5	67/72 (93%)	59 (88%)	7 (10%)	1 (2%)	10	39
49	K8	66/72 (92%)	56 (85%)	7 (11%)	3 (4%)	2	17
50	H5	56/60 (93%)	51 (91%)	5 (9%)	0	100	100
50	L8	56/60 (93%)	51 (91%)	5 (9%)	0	100	100
51	M8	56/71 (79%)	36 (64%)	18 (32%)	2 (4%)	3	22
52	J5	54/60 (90%)	46 (85%)	8 (15%)	0	100	100
52	N8	46/60 (77%)	41 (89%)	5 (11%)	0	100	100
53	L5	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
53	P8	45/49 (92%)	39 (87%)	6 (13%)	0	100	100
54	M5	62/65 (95%)	55 (89%)	7 (11%)	0	100	100
54	Q8	62/65 (95%)	45 (73%)	14 (23%)	3 (5%)	2	16
All	All	10925/11875 (92%)	9065 (83%)	1719 (16%)	141 (1%)	12	42

All (141) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
32	51	157	TYR
33	61	134	PRO
34	58	96	GLU
36	78	36	LYS
36	78	37	GLY
45	G8	54	LYS

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Mol	Chain	Res	Type
45	G8	99	CYS
46	H8	53	ILE
46	H8	61	LEU
46	H8	111	VAL
48	J8	54	ALA
48	J8	87	PRO
49	K8	48	HIS
51	M8	40	HIS
9	82	118	LYS
30	39	124	LEU
33	69	77	LEU
36	35	36	LYS
40	75	11	GLU
46	D5	53	ILE
46	D5	60	GLU
48	F5	92	LYS
3	2E	12	LEU
4	3E	156	GLU
11	2I	54	ARG
14	5I	14	PRO
14	5I	17	LYS
19	AI	41	VAL
28	11	238	GLY
28	11	273	ARG
29	21	60	ASN
29	21	72	VAL
36	78	15	ARG
37	88	6	ARG
41	C8	89	GLU
41	C8	93	LYS
45	G8	81	LYS
51	M8	25	TYR
11	2A	101	SER
14	5A	17	LYS
21	1B	3	LYS
33	69	75	LEU
33	69	113	ARG
33	69	144	VAL
37	45	84	GLY
38	55	107	ASP
40	75	10	VAL
42	95	38	LEU

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Mol	Chain	Res	Type
42	95	99	ILE
8	7E	86	ILE
8	7E	87	SER
12	3I	48	PRO
13	4I	13	LYS
20	BI	72	LEU
20	BI	102	GLY
30	31	130	ALA
31	41	117	PHE
32	51	170	ARG
32	51	171	LEU
33	61	12	LEU
37	88	134	ARG
45	G8	5	MET
45	G8	53	PRO
46	H8	6	LYS
48	J8	86	SER
49	K8	43	GLN
54	Q8	35	GLN
2	12	223	ILE
13	4A	84	ILE
29	29	54	GLN
30	39	15	SER
30	39	22	ALA
30	39	28	ILE
30	39	90	PHE
36	35	58	THR
47	E5	33	ALA
3	2E	15	THR
13	4I	27	LYS
21	1F	3	LYS
29	21	130	GLY
32	51	137	ASP
32	51	138	LYS
33	61	133	HIS
46	H8	59	LEU
46	H8	60	GLU
48	J8	88	LYS
49	K8	47	ASN
4	32	149	ALA
9	82	120	ARG
29	29	144	ARG

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Mol	Chain	Res	Type
31	49	5	VAL
31	49	117	PHE
34	15	127	ASP
36	35	53	GLY
39	65	110	LEU
46	D5	112	ARG
48	F5	91	LYS
48	F5	93	GLU
10	1I	99	LYS
28	11	122	ASP
32	51	128	PRO
34	58	22	THR
36	78	7	ARG
36	78	16	ARG
36	78	38	GLN
37	88	5	ARG
39	A8	13	ARG
45	G8	82	PRO
46	H8	64	GLY
48	J8	78	LYS
54	Q8	47	LYS
12	3A	26	ALA
31	49	81	LYS
42	95	62	LEU
2	1E	237	ALA
29	21	82	ARG
30	31	59	TYR
12	3A	48	PRO
37	45	27	VAL
49	G5	47	ASN
32	51	82	GLY
54	Q8	38	GLY
29	29	55	ASN
42	95	50	PRO
46	D5	108	PRO
28	11	114	GLY
28	11	123	ALA
32	51	127	GLU
3	22	14	ILE
11	2A	49	GLY
37	45	90	VAL
46	D5	115	GLY

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Mol	Chain	Res	Type
32	51	168	PRO
36	78	95	VAL
10	1I	98	ILE
8	72	100	ILE
29	29	53	PRO
29	29	61	ARG
30	31	178	PRO
45	G8	77	PRO
32	51	154	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	179/220 (81%)	139 (78%)	40 (22%)	1	3
2	1E	200/220 (91%)	151 (76%)	49 (24%)	0	2
3	22	154/188 (82%)	115 (75%)	39 (25%)	0	2
3	2E	159/188 (85%)	132 (83%)	27 (17%)	2	9
4	32	180/181 (99%)	147 (82%)	33 (18%)	1	6
4	3E	180/181 (99%)	135 (75%)	45 (25%)	0	2
5	42	114/123 (93%)	78 (68%)	36 (32%)	0	1
5	4E	115/123 (94%)	87 (76%)	28 (24%)	0	2
6	52	90/90 (100%)	72 (80%)	18 (20%)	1	4
6	5E	90/90 (100%)	76 (84%)	14 (16%)	2	11
7	62	114/127 (90%)	95 (83%)	19 (17%)	2	9
7	6E	125/127 (98%)	100 (80%)	25 (20%)	1	4
8	72	118/119 (99%)	93 (79%)	25 (21%)	1	3
8	7E	119/119 (100%)	93 (78%)	26 (22%)	1	3
9	82	92/99 (93%)	67 (73%)	25 (27%)	0	1
9	8E	97/99 (98%)	74 (76%)	23 (24%)	1	2
10	1A	89/92 (97%)	66 (74%)	23 (26%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	1I	81/92 (88%)	64 (79%)	17 (21%)	1	4
11	2A	85/99 (86%)	76 (89%)	9 (11%)	6	26
11	2I	84/99 (85%)	71 (84%)	13 (16%)	2	12
12	3A	103/109 (94%)	72 (70%)	31 (30%)	0	1
12	3I	103/109 (94%)	76 (74%)	27 (26%)	0	2
13	4A	90/101 (89%)	64 (71%)	26 (29%)	0	1
13	4I	94/101 (93%)	70 (74%)	24 (26%)	0	2
14	5A	49/50 (98%)	38 (78%)	11 (22%)	1	3
14	5I	49/50 (98%)	41 (84%)	8 (16%)	2	10
15	6A	79/80 (99%)	72 (91%)	7 (9%)	9	34
15	6I	79/80 (99%)	65 (82%)	14 (18%)	2	7
16	7A	72/74 (97%)	61 (85%)	11 (15%)	2	12
16	7I	72/74 (97%)	54 (75%)	18 (25%)	0	2
17	8A	94/97 (97%)	82 (87%)	12 (13%)	4	18
17	8I	95/97 (98%)	73 (77%)	22 (23%)	1	2
18	9A	58/77 (75%)	49 (84%)	9 (16%)	2	12
18	9I	58/77 (75%)	51 (88%)	7 (12%)	5	20
19	AA	56/80 (70%)	42 (75%)	14 (25%)	0	2
19	AI	72/80 (90%)	51 (71%)	21 (29%)	0	1
20	BA	76/82 (93%)	69 (91%)	7 (9%)	9	32
20	BI	75/82 (92%)	60 (80%)	15 (20%)	1	4
21	1B	17/22 (77%)	14 (82%)	3 (18%)	2	7
21	1F	18/22 (82%)	15 (83%)	3 (17%)	2	9
28	11	214/218 (98%)	161 (75%)	53 (25%)	0	2
28	19	214/218 (98%)	164 (77%)	50 (23%)	1	2
29	21	162/166 (98%)	127 (78%)	35 (22%)	1	3
29	29	165/166 (99%)	134 (81%)	31 (19%)	1	6
30	31	161/166 (97%)	125 (78%)	36 (22%)	1	3
30	39	163/166 (98%)	120 (74%)	43 (26%)	0	1
31	41	153/156 (98%)	117 (76%)	36 (24%)	1	2
31	49	152/156 (97%)	114 (75%)	38 (25%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	51	143/148 (97%)	108 (76%)	35 (24%)	0	2
32	59	140/148 (95%)	98 (70%)	42 (30%)	0	1
33	61	122/124 (98%)	84 (69%)	38 (31%)	0	1
33	69	122/124 (98%)	96 (79%)	26 (21%)	1	3
34	15	116/119 (98%)	89 (77%)	27 (23%)	1	2
34	58	105/119 (88%)	80 (76%)	25 (24%)	0	2
35	25	100/100 (100%)	80 (80%)	20 (20%)	1	4
35	68	100/100 (100%)	82 (82%)	18 (18%)	1	7
36	35	114/116 (98%)	80 (70%)	34 (30%)	0	1
36	78	114/116 (98%)	85 (75%)	29 (25%)	0	2
37	45	109/111 (98%)	85 (78%)	24 (22%)	1	3
37	88	110/111 (99%)	91 (83%)	19 (17%)	2	8
38	55	101/101 (100%)	74 (73%)	27 (27%)	0	1
38	98	101/101 (100%)	79 (78%)	22 (22%)	1	3
39	65	87/88 (99%)	60 (69%)	27 (31%)	0	1
39	A8	87/88 (99%)	64 (74%)	23 (26%)	0	1
40	75	122/127 (96%)	89 (73%)	33 (27%)	0	1
40	B8	118/127 (93%)	88 (75%)	30 (25%)	0	2
41	85	93/94 (99%)	77 (83%)	16 (17%)	2	8
41	C8	92/94 (98%)	77 (84%)	15 (16%)	2	10
42	95	81/82 (99%)	64 (79%)	17 (21%)	1	4
42	D8	82/82 (100%)	54 (66%)	28 (34%)	0	1
43	A5	91/92 (99%)	72 (79%)	19 (21%)	1	4
43	E8	90/92 (98%)	74 (82%)	16 (18%)	2	7
44	B5	74/78 (95%)	57 (77%)	17 (23%)	1	2
44	F8	77/78 (99%)	61 (79%)	16 (21%)	1	4
45	C5	43/91 (47%)	32 (74%)	11 (26%)	0	2
45	G8	79/91 (87%)	60 (76%)	19 (24%)	0	2
46	D5	156/179 (87%)	115 (74%)	41 (26%)	0	2
46	H8	151/179 (84%)	117 (78%)	34 (22%)	1	3
47	E5	61/67 (91%)	45 (74%)	16 (26%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
47	I8	62/67 (92%)	54 (87%)	8 (13%)	4	17
48	F5	79/83 (95%)	59 (75%)	20 (25%)	0	2
48	J8	79/83 (95%)	60 (76%)	19 (24%)	0	2
49	G5	63/67 (94%)	44 (70%)	19 (30%)	0	1
49	K8	64/67 (96%)	44 (69%)	20 (31%)	0	1
50	H5	50/52 (96%)	38 (76%)	12 (24%)	0	2
50	L8	50/52 (96%)	35 (70%)	15 (30%)	0	1
51	M8	52/63 (82%)	40 (77%)	12 (23%)	1	2
52	J5	48/52 (92%)	37 (77%)	11 (23%)	1	2
52	N8	43/52 (83%)	37 (86%)	6 (14%)	3	15
53	L5	38/42 (90%)	34 (90%)	4 (10%)	7	26
53	P8	38/42 (90%)	33 (87%)	5 (13%)	4	17
54	M5	54/55 (98%)	45 (83%)	9 (17%)	2	9
54	Q8	54/55 (98%)	45 (83%)	9 (17%)	2	9
All	All	9213/9831 (94%)	7134 (77%)	2079 (23%)	1	3

All (2079) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	5	ILE
2	1E	8	LYS
2	1E	12	GLU
2	1E	21	ARG
2	1E	24	TRP
2	1E	28	PHE
2	1E	32	ILE
2	1E	33	TYR
2	1E	35	GLU
2	1E	48	MET
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	74	LYS
2	1E	79	ASP
2	1E	83	MET
2	1E	86	GLU
2	1E	95	GLN

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Mol	Chain	Res	Type
2	1E	96	ARG
2	1E	107	THR
2	1E	108	ILE
2	1E	109	SER
2	1E	118	LEU
2	1E	122	PHE
2	1E	124	SER
2	1E	126	GLU
2	1E	127	ILE
2	1E	129	GLU
2	1E	130	ARG
2	1E	142	LEU
2	1E	144	ARG
2	1E	155	LEU
2	1E	160	ASP
2	1E	169	LYS
2	1E	172	ILE
2	1E	178	ARG
2	1E	185	ILE
2	1E	190	THR
2	1E	195	ASP
2	1E	197	VAL
2	1E	205	ASP
2	1E	211	ILE
2	1E	214	ILE
2	1E	215	LEU
2	1E	217	ARG
2	1E	222	ILE
2	1E	224	GLN
2	1E	230	VAL
2	1E	233	SER
3	2E	5	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	21	ARG
3	2E	31	HIS
3	2E	32	LEU
3	2E	36	ASP
3	2E	38	ARG
3	2E	44	GLU
3	2E	46	GLU
3	2E	47	LEU

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Mol	Chain	Res	Type
3	2E	64	VAL
3	2E	79	ARG
3	2E	95	THR
3	2E	98	ASN
3	2E	107	GLN
3	2E	111	LEU
3	2E	119	ARG
3	2E	128	PHE
3	2E	132	ARG
3	2E	136	GLN
3	2E	150	LYS
3	2E	154	SER
3	2E	167	TRP
3	2E	184	TYR
3	2E	190	ARG
3	2E	206	GLU
4	3E	3	ARG
4	3E	10	ARG
4	3E	12	CYS
4	3E	15	GLU
4	3E	17	VAL
4	3E	30	LYS
4	3E	31	CYS
4	3E	35	ARG
4	3E	42	GLN
4	3E	46	LYS
4	3E	47	ARG
4	3E	58	LEU
4	3E	59	ARG
4	3E	61	LYS
4	3E	66	ARG
4	3E	73	ARG
4	3E	84	LYS
4	3E	85	LYS
4	3E	86	LYS
4	3E	89	THR
4	3E	92	VAL
4	3E	96	LEU
4	3E	99	SER
4	3E	106	TYR
4	3E	107	ARG
4	3E	108	LEU

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Mol	Chain	Res	Type
4	3E	114	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	134	ASP
4	3E	135	LEU
4	3E	141	ARG
4	3E	154	ASN
4	3E	155	LEU
4	3E	158	ILE
4	3E	170	VAL
4	3E	175	SER
4	3E	184	LYS
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	194	LEU
4	3E	200	GLU
4	3E	208	SER
4	3E	209	ARG
5	4E	5	ASP
5	4E	10	MET
5	4E	12	LEU
5	4E	18	ARG
5	4E	19	MET
5	4E	20	GLN
5	4E	31	LEU
5	4E	41	VAL
5	4E	43	LEU
5	4E	47	LYS
5	4E	57	LYS
5	4E	63	ARG
5	4E	64	ARG
5	4E	71	LEU
5	4E	72	GLN
5	4E	79	GLU
5	4E	87	SER
5	4E	91	LEU
5	4E	112	LEU
5	4E	117	ASP
5	4E	131	ILE
5	4E	133	TYR
5	4E	139	LEU

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Mol	Chain	Res	Type
5	4E	144	THR
5	4E	147	ASP
5	4E	148	VAL
5	4E	152	ARG
5	4E	153	LYS
6	5E	30	LEU
6	5E	31	GLU
6	5E	43	LEU
6	5E	55	ASP
6	5E	70	ASP
6	5E	73	ASN
6	5E	74	ASP
6	5E	75	LEU
6	5E	80	ARG
6	5E	86	ARG
6	5E	89	MET
6	5E	92	LYS
6	5E	94	GLN
6	5E	100	ASN
7	6E	3	ARG
7	6E	4	ARG
7	6E	8	GLU
7	6E	16	LEU
7	6E	24	THR
7	6E	27	ILE
7	6E	37	ASN
7	6E	38	LEU
7	6E	45	ASP
7	6E	56	GLN
7	6E	57	GLU
7	6E	73	MET
7	6E	75	VAL
7	6E	84	ASN
7	6E	90	GLU
7	6E	96	GLN
7	6E	98	SER
7	6E	111	ARG
7	6E	115	ARG
7	6E	120	ILE
7	6E	124	LEU
7	6E	126	ASP
7	6E	136	LYS

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Mol	Chain	Res	Type
7	6E	139	GLU
7	6E	155	ARG
8	7E	1	MET
8	7E	3	THR
8	7E	19	VAL
8	7E	21	LYS
8	7E	25	ASP
8	7E	26	VAL
8	7E	36	LEU
8	7E	45	ILE
8	7E	49	GLU
8	7E	50	ARG
8	7E	51	VAL
8	7E	56	LYS
8	7E	68	ARG
8	7E	77	GLU
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	84	ARG
8	7E	85	ARG
8	7E	88	LYS
8	7E	94	TYR
8	7E	102	ARG
8	7E	109	ILE
8	7E	112	LEU
8	7E	122	ARG
8	7E	129	VAL
9	8E	3	GLN
9	8E	5	TYR
9	8E	9	ARG
9	8E	10	ARG
9	8E	20	ARG
9	8E	23	ASN
9	8E	35	GLU
9	8E	38	GLN
9	8E	40	LEU
9	8E	41	VAL
9	8E	42	ARG
9	8E	47	LEU
9	8E	54	ASP
9	8E	78	LYS

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Mol	Chain	Res	Type
9	8E	79	LEU
9	8E	81	ILE
9	8E	83	ARG
9	8E	86	VAL
9	8E	92	TYR
9	8E	97	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	125	TYR
10	1I	24	VAL
10	1I	25	GLU
10	1I	28	ARG
10	1I	38	ILE
10	1I	43	ARG
10	1I	49	VAL
10	1I	55	LYS
10	1I	60	ARG
10	1I	66	ARG
10	1I	68	HIS
10	1I	70	ARG
10	1I	75	ILE
10	1I	76	ASN
10	1I	86	MET
10	1I	88	LEU
10	1I	95	GLU
10	1I	96	ILE
11	2I	32	ILE
11	2I	71	LYS
11	2I	75	TYR
11	2I	81	ASP
11	2I	83	ILE
11	2I	84	VAL
11	2I	91	ARG
11	2I	104	GLN
11	2I	106	LYS
11	2I	109	VAL
11	2I	110	ASP
11	2I	116	HIS
11	2I	120	ARG
12	3I	7	ILE
12	3I	10	LEU
12	3I	11	VAL

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Mol	Chain	Res	Type
12	3I	17	LYS
12	3I	18	VAL
12	3I	19	ARG
12	3I	22	SER
12	3I	23	LYS
12	3I	33	ARG
12	3I	38	THR
12	3I	41	ARG
12	3I	44	THR
12	3I	47	LYS
12	3I	54	LYS
12	3I	60	LEU
12	3I	62	SER
12	3I	64	TYR
12	3I	67	THR
12	3I	79	GLU
12	3I	81	SER
12	3I	101	VAL
12	3I	104	VAL
12	3I	111	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	124	LYS
12	3I	126	LYS
13	4I	3	ARG
13	4I	9	ILE
13	4I	14	ARG
13	4I	16	ASP
13	4I	17	VAL
13	4I	19	LEU
13	4I	20	THR
13	4I	31	LYS
13	4I	44	ARG
13	4I	45	VAL
13	4I	50	GLU
13	4I	55	ARG
13	4I	64	TRP
13	4I	70	LEU
13	4I	81	LEU
13	4I	93	ARG
13	4I	94	ARG
13	4I	96	LEU

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Mol	Chain	Res	Type
13	4I	101	GLN
13	4I	102	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	115	LYS
14	5I	4	LYS
14	5I	6	LEU
14	5I	13	THR
14	5I	22	THR
14	5I	23	ARG
14	5I	32	SER
14	5I	33	VAL
14	5I	57	ARG
15	6I	6	GLU
15	6I	7	GLU
15	6I	17	ARG
15	6I	26	GLU
15	6I	34	LEU
15	6I	39	LEU
15	6I	47	LYS
15	6I	48	LYS
15	6I	67	LEU
15	6I	71	GLN
15	6I	76	GLU
15	6I	77	ARG
15	6I	79	ARG
15	6I	88	ARG
16	7I	1	MET
16	7I	4	ILE
16	7I	8	ARG
16	7I	11	SER
16	7I	19	ILE
16	7I	20	VAL
16	7I	21	VAL
16	7I	27	LYS
16	7I	28	ARG
16	7I	33	ILE
16	7I	36	ILE
16	7I	45	THR
16	7I	50	LYS
16	7I	54	GLU

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Mol	Chain	Res	Type
16	7I	67	THR
16	7I	72	ARG
16	7I	82	GLN
16	7I	83	GLU
17	8I	6	LEU
17	8I	7	THR
17	8I	13	ASP
17	8I	14	LYS
17	8I	21	VAL
17	8I	24	GLU
17	8I	25	ARG
17	8I	38	ARG
17	8I	48	GLU
17	8I	52	LYS
17	8I	57	VAL
17	8I	59	ILE
17	8I	60	ILE
17	8I	74	LEU
17	8I	86	GLU
17	8I	87	LYS
17	8I	89	LEU
17	8I	92	ARG
17	8I	93	GLN
17	8I	97	SER
17	8I	100	LYS
17	8I	101	ARG
18	9I	22	VAL
18	9I	26	LEU
18	9I	31	LEU
18	9I	32	ARG
18	9I	36	ASN
18	9I	81	PHE
18	9I	86	VAL
19	AI	3	ARG
19	AI	5	LEU
19	AI	12	ASP
19	AI	21	GLU
19	AI	23	ASN
19	AI	25	LYS
19	AI	29	ARG
19	AI	30	LEU
19	AI	37	ARG

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Mol	Chain	Res	Type
19	AI	40	ILE
19	AI	44	MET
19	AI	58	VAL
19	AI	62	ILE
19	AI	64	GLU
19	AI	65	ASN
19	AI	67	VAL
19	AI	71	LEU
19	AI	77	THR
19	AI	78	ARG
19	AI	79	THR
19	AI	83	HIS
20	BI	13	LEU
20	BI	15	ARG
20	BI	17	ARG
20	BI	24	LEU
20	BI	26	ASN
20	BI	36	LEU
20	BI	42	GLN
20	BI	56	MET
20	BI	62	LEU
20	BI	71	THR
20	BI	72	LEU
20	BI	74	LYS
20	BI	75	ASN
20	BI	87	LYS
20	BI	99	LEU
21	1F	9	ARG
21	1F	10	ARG
21	1F	15	ARG
28	11	13	ARG
28	11	16	MET
28	11	17	THR
28	11	28	GLU
28	11	30	GLU
28	11	32	SER
28	11	33	LEU
28	11	38	LYS
28	11	43	ARG
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE

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Mol	Chain	Res	Type
28	11	68	LYS
28	11	69	ARG
28	11	72	LYS
28	11	78	LYS
28	11	83	GLU
28	11	89	SER
28	11	94	LEU
28	11	101	GLU
28	11	103	ARG
28	11	105	ILE
28	11	106	ILE
28	11	116	GLN
28	11	122	ASP
28	11	126	GLN
28	11	138	VAL
28	11	140	THR
28	11	141	VAL
28	11	150	LYS
28	11	154	LYS
28	11	165	ILE
28	11	169	GLU
28	11	171	ASP
28	11	175	LEU
28	11	182	LEU
28	11	183	ARG
28	11	192	THR
28	11	193	VAL
28	11	200	ASP
28	11	212	SER
28	11	217	ARG
28	11	218	ARG
28	11	221	VAL
28	11	226	MET
28	11	229	VAL
28	11	242	ARG
28	11	253	GLN
28	11	257	LEU
28	11	259	THR
28	11	260	ARG
28	11	271	ILE
28	11	273	ARG
29	21	12	THR

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Mol	Chain	Res	Type
29	21	14	ILE
29	21	16	ARG
29	21	21	VAL
29	21	26	ILE
29	21	33	VAL
29	21	34	VAL
29	21	40	GLU
29	21	45	THR
29	21	47	VAL
29	21	52	LEU
29	21	54	GLN
29	21	63	LEU
29	21	67	PHE
29	21	75	VAL
29	21	76	ARG
29	21	77	ILE
29	21	82	ARG
29	21	101	ARG
29	21	105	THR
29	21	111	ARG
29	21	118	LYS
29	21	119	ARG
29	21	128	SER
29	21	138	PRO
29	21	140	SER
29	21	159	HIS
29	21	164	ARG
29	21	166	THR
29	21	173	VAL
29	21	175	VAL
29	21	182	LEU
29	21	188	VAL
29	21	196	VAL
29	21	197	ILE
30	31	13	SER
30	31	17	ARG
30	31	28	ILE
30	31	32	LEU
30	31	33	LEU
30	31	43	LYS
30	31	50	SER
30	31	51	THR

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Mol	Chain	Res	Type
30	31	53	THR
30	31	57	VAL
30	31	64	ILE
30	31	74	ARG
30	31	78	ILE
30	31	88	VAL
30	31	106	ARG
30	31	107	LYS
30	31	116	ASP
30	31	117	ARG
30	31	132	VAL
30	31	135	LYS
30	31	136	THR
30	31	137	LYS
30	31	145	GLU
30	31	152	GLU
30	31	153	SER
30	31	158	THR
30	31	162	LEU
30	31	170	LEU
30	31	179	GLU
30	31	181	LEU
30	31	183	VAL
30	31	188	ARG
30	31	194	MET
30	31	197	ASP
30	31	201	VAL
30	31	205	ARG
31	41	19	LEU
31	41	22	ARG
31	41	26	GLN
31	41	28	VAL
31	41	34	LEU
31	41	39	ILE
31	41	43	LEU
31	41	45	GLU
31	41	53	LEU
31	41	58	GLN
31	41	63	ILE
31	41	67	LYS
31	41	70	VAL
31	41	74	LYS

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Mol	Chain	Res	Type
31	41	76	SER
31	41	80	PHE
31	41	81	LYS
31	41	82	LEU
31	41	83	ARG
31	41	90	LEU
31	41	91	ARG
31	41	94	LEU
31	41	101	ILE
31	41	117	PHE
31	41	118	ARG
31	41	121	ASN
31	41	138	GLN
31	41	139	LEU
31	41	145	THR
31	41	149	VAL
31	41	152	LEU
31	41	156	ASP
31	41	162	THR
31	41	165	THR
31	41	168	GLU
31	41	173	LEU
32	51	2	SER
32	51	3	ARG
32	51	6	ARG
32	51	16	SER
32	51	23	ARG
32	51	24	VAL
32	51	34	GLU
32	51	37	VAL
32	51	40	GLU
32	51	41	MET
32	51	43	VAL
32	51	45	VAL
32	51	50	VAL
32	51	54	ARG
32	51	57	ASP
32	51	58	GLU
32	51	68	THR
32	51	71	LEU
32	51	74	ASN
32	51	80	SER

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Mol	Chain	Res	Type
32	51	84	SER
32	51	86	GLU
32	51	87	LEU
32	51	88	LEU
32	51	98	LEU
32	51	105	LEU
32	51	116	GLU
32	51	129	THR
32	51	131	VAL
32	51	139	GLN
32	51	140	LYS
32	51	152	ARG
32	51	155	SER
32	51	160	LYS
32	51	167	GLU
33	61	2	LYS
33	61	4	ILE
33	61	9	LEU
33	61	10	GLU
33	61	12	LEU
33	61	18	VAL
33	61	20	ASP
33	61	25	TYR
33	61	37	VAL
33	61	38	LEU
33	61	40	THR
33	61	41	GLU
33	61	42	SER
33	61	44	LEU
33	61	48	GLU
33	61	50	ARG
33	61	64	GLU
33	61	68	LEU
33	61	72	LEU
33	61	78	THR
33	61	81	VAL
33	61	85	GLU
33	61	92	VAL
33	61	93	THR
33	61	95	LYS
33	61	101	LEU
33	61	110	ASP

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Mol	Chain	Res	Type
33	61	112	LYS
33	61	117	GLU
33	61	122	GLU
33	61	129	THR
33	61	130	TYR
33	61	131	LYS
33	61	133	HIS
33	61	135	GLU
33	61	138	ILE
33	61	139	GLN
33	61	140	LEU
34	58	2	LYS
34	58	5	VAL
34	58	7	LYS
34	58	15	LEU
34	58	29	LYS
34	58	32	THR
34	58	34	LEU
34	58	48	MET
34	58	55	VAL
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	68	GLU
34	58	73	THR
34	58	84	LYS
34	58	85	ILE
34	58	87	LEU
34	58	89	LYS
34	58	90	MET
34	58	96	GLU
34	58	97	ARG
34	58	99	LEU
34	58	121	LYS
35	68	3	GLN
35	68	17	ARG
35	68	23	ARG
35	68	24	VAL
35	68	47	ILE
35	68	53	LYS

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Mol	Chain	Res	Type
35	68	58	VAL
35	68	62	VAL
35	68	64	ARG
35	68	66	LYS
35	68	70	LYS
35	68	82	ASN
35	68	94	ARG
35	68	98	VAL
35	68	109	LYS
35	68	112	MET
35	68	113	LYS
35	68	115	VAL
36	78	6	LEU
36	78	10	PRO
36	78	15	ARG
36	78	18	ARG
36	78	21	ARG
36	78	27	HIS
36	78	30	THR
36	78	40	SER
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	56	SER
36	78	57	THR
36	78	61	ARG
36	78	75	ILE
36	78	90	ARG
36	78	96	THR
36	78	98	GLU
36	78	105	LEU
36	78	106	LEU
36	78	111	ARG
36	78	112	LEU
36	78	117	GLU
36	78	119	GLU
36	78	126	VAL
36	78	135	LEU
36	78	138	LEU
36	78	144	GLU
36	78	146	VAL
37	88	2	LEU

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Mol	Chain	Res	Type
37	88	3	MET
37	88	5	ARG
37	88	25	ASP
37	88	26	TYR
37	88	27	VAL
37	88	56	ARG
37	88	58	PHE
37	88	59	ARG
37	88	72	LYS
37	88	81	VAL
37	88	83	MET
37	88	105	GLU
37	88	109	VAL
37	88	110	THR
37	88	112	GLU
37	88	120	ILE
37	88	138	ASP
37	88	141	GLN
38	98	2	ARG
38	98	6	SER
38	98	9	LYS
38	98	10	LEU
38	98	17	ARG
38	98	27	SER
38	98	28	LEU
38	98	29	LEU
38	98	30	THR
38	98	33	ARG
38	98	34	ILE
38	98	35	THR
38	98	44	LEU
38	98	45	ARG
38	98	59	ASP
38	98	63	ARG
38	98	65	LEU
38	98	67	LEU
38	98	79	LEU
38	98	95	THR
38	98	105	ARG
38	98	118	GLU
39	A8	4	LEU
39	A8	11	LYS

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Mol	Chain	Res	Type
39	A8	17	ARG
39	A8	21	THR
39	A8	24	LEU
39	A8	30	ARG
39	A8	35	ILE
39	A8	36	TYR
39	A8	41	ASP
39	A8	43	GLU
39	A8	46	VAL
39	A8	52	SER
39	A8	54	LEU
39	A8	58	LEU
39	A8	61	ASN
39	A8	62	LYS
39	A8	64	GLU
39	A8	80	LEU
39	A8	83	LYS
39	A8	89	ARG
39	A8	97	ARG
39	A8	98	VAL
39	A8	110	LEU
40	B8	1	MET
40	B8	6	LEU
40	B8	7	ILE
40	B8	10	VAL
40	B8	13	ARG
40	B8	17	THR
40	B8	27	THR
40	B8	38	ASN
40	B8	41	ARG
40	B8	49	VAL
40	B8	58	ASN
40	B8	62	THR
40	B8	74	ARG
40	B8	76	PHE
40	B8	85	LYS
40	B8	88	ILE
40	B8	89	VAL
40	B8	98	LYS
40	B8	99	LEU
40	B8	102	ILE
40	B8	105	LEU

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Mol	Chain	Res	Type
40	B8	106	SER
40	B8	108	ARG
40	B8	110	ILE
40	B8	112	ARG
40	B8	115	ARG
40	B8	118	ARG
40	B8	128	GLU
40	B8	129	ARG
40	B8	132	LYS
41	C8	5	LYS
41	C8	15	LYS
41	C8	27	LEU
41	C8	30	LYS
41	C8	51	LYS
41	C8	52	ARG
41	C8	55	ARG
41	C8	57	PHE
41	C8	70	ARG
41	C8	74	LEU
41	C8	79	PHE
41	C8	94	ASN
41	C8	100	VAL
41	C8	108	GLU
41	C8	112	ARG
42	D8	6	LYS
42	D8	7	THR
42	D8	14	VAL
42	D8	18	LEU
42	D8	19	LYS
42	D8	20	LEU
42	D8	21	ARG
42	D8	25	LEU
42	D8	26	ASP
42	D8	35	LEU
42	D8	36	PRO
42	D8	37	VAL
42	D8	38	LEU
42	D8	39	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	45	THR
42	D8	46	VAL

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Mol	Chain	Res	Type
42	D8	49	THR
42	D8	51	VAL
42	D8	52	VAL
42	D8	56	SER
42	D8	58	VAL
42	D8	73	SER
42	D8	78	LYS
42	D8	79	VAL
42	D8	88	ARG
42	D8	89	GLN
43	E8	11	ARG
43	E8	13	SER
43	E8	28	SER
43	E8	51	LEU
43	E8	52	GLU
43	E8	60	ASN
43	E8	64	MET
43	E8	65	LEU
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	82	LEU
43	E8	92	ARG
43	E8	96	ILE
43	E8	99	ARG
43	E8	107	LEU
44	F8	1	MET
44	F8	2	LYS
44	F8	23	GLU
44	F8	27	THR
44	F8	30	VAL
44	F8	35	THR
44	F8	49	VAL
44	F8	52	VAL
44	F8	53	LYS
44	F8	57	LEU
44	F8	65	ARG
44	F8	66	LEU
44	F8	72	LYS
44	F8	76	ARG
44	F8	80	ILE
44	F8	83	VAL

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Mol	Chain	Res	Type
45	G8	3	VAL
45	G8	4	LYS
45	G8	5	MET
45	G8	11	ASP
45	G8	21	LYS
45	G8	27	VAL
45	G8	31	LEU
45	G8	33	LYS
45	G8	50	ARG
45	G8	55	TYR
45	G8	57	GLN
45	G8	64	GLU
45	G8	82	PRO
45	G8	85	VAL
45	G8	86	ARG
45	G8	97	ARG
45	G8	99	CYS
45	G8	101	LYS
45	G8	102	CYS
46	H8	1	MET
46	H8	2	GLU
46	H8	5	LEU
46	H8	11	GLU
46	H8	19	ARG
46	H8	35	ARG
46	H8	37	VAL
46	H8	41	LEU
46	H8	55	HIS
46	H8	58	VAL
46	H8	59	LEU
46	H8	71	VAL
46	H8	75	ASN
46	H8	76	LEU
46	H8	77	ASP
46	H8	80	ARG
46	H8	82	ARG
46	H8	87	ASP
46	H8	91	LEU
46	H8	94	GLU
46	H8	102	LEU
46	H8	105	VAL
46	H8	117	LEU

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Mol	Chain	Res	Type
46	H8	121	HIS
46	H8	126	VAL
46	H8	128	VAL
46	H8	131	ARG
46	H8	132	ASN
46	H8	154	ASP
46	H8	157	LEU
46	H8	162	GLU
46	H8	163	LEU
46	H8	166	SER
46	H8	169	GLU
47	I8	36	ILE
47	I8	41	ARG
47	I8	53	MET
47	I8	67	VAL
47	I8	70	GLN
47	I8	74	ARG
47	I8	80	HIS
47	I8	82	ARG
48	J8	3	LYS
48	J8	4	VAL
48	J8	14	VAL
48	J8	18	ILE
48	J8	21	ARG
48	J8	25	LYS
48	J8	26	ARG
48	J8	30	VAL
48	J8	40	ARG
48	J8	41	ARG
48	J8	46	LEU
48	J8	56	GLN
48	J8	61	ARG
48	J8	62	VAL
48	J8	82	LEU
48	J8	83	GLU
48	J8	85	LEU
48	J8	94	LEU
48	J8	95	LEU
49	K8	3	LEU
49	K8	4	SER
49	K8	8	LYS
49	K8	14	ARG

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Mol	Chain	Res	Type
49	K8	15	LYS
49	K8	19	VAL
49	K8	23	LYS
49	K8	35	LEU
49	K8	40	SER
49	K8	41	ILE
49	K8	43	GLN
49	K8	47	ASN
49	K8	48	HIS
49	K8	50	ILE
49	K8	51	ARG
49	K8	53	LEU
49	K8	55	ARG
49	K8	56	GLN
49	K8	62	THR
49	K8	67	LYS
50	L8	3	ARG
50	L8	4	LEU
50	L8	6	VAL
50	L8	8	LEU
50	L8	11	SER
50	L8	17	LYS
50	L8	31	LEU
50	L8	33	GLN
50	L8	36	VAL
50	L8	37	LEU
50	L8	40	THR
50	L8	53	LEU
50	L8	57	GLU
50	L8	58	VAL
50	L8	59	VAL
51	M8	5	ILE
51	M8	15	ILE
51	M8	23	GLU
51	M8	34	GLU
51	M8	36	CYS
51	M8	40	HIS
51	M8	44	THR
51	M8	47	GLN
51	M8	60	GLN
51	M8	61	ARG
51	M8	63	TYR

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Mol	Chain	Res	Type
51	M8	65	ASP
52	N8	3	LYS
52	N8	11	THR
52	N8	16	ARG
52	N8	29	THR
52	N8	40	LYS
52	N8	46	CYS
53	P8	1	MET
53	P8	4	THR
53	P8	23	ARG
53	P8	24	THR
53	P8	29	LYS
54	Q8	14	VAL
54	Q8	21	LYS
54	Q8	31	HIS
54	Q8	35	GLN
54	Q8	47	LYS
54	Q8	50	LEU
54	Q8	57	ARG
54	Q8	60	LEU
54	Q8	62	LEU
2	12	16	HIS
2	12	21	ARG
2	12	23	ARG
2	12	24	TRP
2	12	30	ARG
2	12	32	ILE
2	12	35	GLU
2	12	36	ARG
2	12	39	ILE
2	12	40	HIS
2	12	44	LEU
2	12	48	MET
2	12	49	GLU
2	12	59	GLU
2	12	84	GLU
2	12	94	ASN
2	12	95	GLN
2	12	107	THR
2	12	108	ILE
2	12	111	ARG
2	12	118	LEU

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Mol	Chain	Res	Type
2	12	122	PHE
2	12	124	SER
2	12	126	GLU
2	12	129	GLU
2	12	130	ARG
2	12	154	LEU
2	12	164	VAL
2	12	165	VAL
2	12	168	THR
2	12	172	ILE
2	12	187	LEU
2	12	191	ASP
2	12	193	ASP
2	12	204	ASN
2	12	205	ASP
2	12	209	ARG
2	12	220	ASP
2	12	221	LEU
2	12	224	GLN
3	22	4	LYS
3	22	8	ILE
3	22	21	ARG
3	22	26	LYS
3	22	27	LYS
3	22	29	TYR
3	22	33	LEU
3	22	34	LEU
3	22	36	ASP
3	22	46	GLU
3	22	47	LEU
3	22	48	TYR
3	22	59	ARG
3	22	69	HIS
3	22	75	VAL
3	22	85	ARG
3	22	88	ARG
3	22	90	GLU
3	22	93	LYS
3	22	94	LEU
3	22	95	THR
3	22	101	LEU
3	22	104	GLN

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Mol	Chain	Res	Type
3	22	115	LEU
3	22	118	GLN
3	22	124	ILE
3	22	147	LYS
3	22	154	SER
3	22	165	THR
3	22	167	TRP
3	22	178	LEU
3	22	181	ASN
3	22	188	LEU
3	22	190	ARG
3	22	195	VAL
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	5	ILE
4	32	8	VAL
4	32	10	ARG
4	32	21	LEU
4	32	24	GLU
4	32	30	LYS
4	32	35	ARG
4	32	36	ARG
4	32	45	GLN
4	32	53	ASP
4	32	58	LEU
4	32	59	ARG
4	32	67	ILE
4	32	73	ARG
4	32	76	ARG
4	32	83	SER
4	32	84	LYS
4	32	94	LEU
4	32	96	LEU
4	32	119	GLN
4	32	122	ARG
4	32	135	LEU
4	32	150	GLU
4	32	165	MET
4	32	186	LEU

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Mol	Chain	Res	Type
4	32	187	ARG
4	32	191	ARG
4	32	194	LEU
4	32	196	LEU
4	32	200	GLU
4	32	201	GLN
4	32	204	ILE
5	42	8	GLU
5	42	9	LYS
5	42	10	MET
5	42	12	LEU
5	42	13	ILE
5	42	14	ARG
5	42	16	THR
5	42	24	ARG
5	42	25	ARG
5	42	26	PHE
5	42	31	LEU
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	45	PHE
5	42	47	LYS
5	42	63	ARG
5	42	66	MET
5	42	73	ASN
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	81	GLU
5	42	83	GLU
5	42	87	SER
5	42	90	VAL
5	42	101	ILE
5	42	110	LEU
5	42	111	GLU
5	42	118	ILE
5	42	119	LEU
5	42	127	ASN
5	42	131	ILE
5	42	150	ARG
5	42	151	LEU

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Mol	Chain	Res	Type
5	42	152	ARG
6	52	3	ARG
6	52	13	ASN
6	52	14	LEU
6	52	21	LEU
6	52	25	ILE
6	52	27	GLN
6	52	28	ARG
6	52	40	VAL
6	52	46	ARG
6	52	54	LYS
6	52	64	GLN
6	52	69	GLU
6	52	71	ARG
6	52	72	VAL
6	52	75	LEU
6	52	77	ARG
6	52	83	ASP
6	52	95	GLU
7	62	8	GLU
7	62	9	VAL
7	62	27	ILE
7	62	37	ASN
7	62	38	LEU
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	73	MET
7	62	94	ARG
7	62	104	LEU
7	62	114	ARG
7	62	115	ARG
7	62	137	LYS
7	62	143	ARG
7	62	144	MET
7	62	146	GLU
7	62	148	ASN
7	62	149	ARG
8	72	8	ASP
8	72	12	ARG
8	72	17	THR
8	72	25	ASP

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Mol	Chain	Res	Type
8	72	36	LEU
8	72	37	ARG
8	72	46	LYS
8	72	68	ARG
8	72	73	ASP
8	72	77	GLU
8	72	79	VAL
8	72	81	HIS
8	72	82	HIS
8	72	84	ARG
8	72	99	GLU
8	72	102	ARG
8	72	104	ARG
8	72	109	ILE
8	72	119	LEU
8	72	120	THR
8	72	121	ASP
8	72	125	ARG
8	72	126	LYS
8	72	127	LEU
8	72	133	LEU
9	82	7	THR
9	82	10	ARG
9	82	19	LEU
9	82	27	THR
9	82	29	ASN
9	82	31	GLN
9	82	33	PHE
9	82	40	LEU
9	82	42	ARG
9	82	53	VAL
9	82	56	LEU
9	82	62	TYR
9	82	64	THR
9	82	78	LYS
9	82	79	LEU
9	82	91	ASP
9	82	95	LYS
9	82	96	LEU
9	82	99	LEU
9	82	102	LEU
9	82	111	ARG

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Mol	Chain	Res	Type
9	82	113	LYS
9	82	117	HIS
9	82	124	GLN
9	82	125	TYR
10	1A	4	ILE
10	1A	5	ARG
10	1A	7	LYS
10	1A	8	LEU
10	1A	12	ASP
10	1A	13	HIS
10	1A	17	ASP
10	1A	35	SER
10	1A	38	ILE
10	1A	43	ARG
10	1A	46	ARG
10	1A	48	THR
10	1A	55	LYS
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	70	ARG
10	1A	79	ARG
10	1A	80	LYS
10	1A	92	THR
10	1A	98	ILE
10	1A	100	THR
10	1A	101	VAL
11	2A	43	SER
11	2A	44	SER
11	2A	78	GLN
11	2A	79	SER
11	2A	99	GLN
11	2A	105	VAL
11	2A	107	SER
11	2A	114	VAL
11	2A	119	CYS
12	3A	6	THR
12	3A	7	ILE
12	3A	10	LEU
12	3A	17	LYS
12	3A	20	LYS
12	3A	22	SER

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Mol	Chain	Res	Type
12	3A	24	VAL
12	3A	33	ARG
12	3A	34	ARG
12	3A	37	CYS
12	3A	43	VAL
12	3A	44	THR
12	3A	47	LYS
12	3A	52	LEU
12	3A	54	LYS
12	3A	62	SER
12	3A	64	TYR
12	3A	67	THR
12	3A	78	GLN
12	3A	79	GLU
12	3A	81	SER
12	3A	83	VAL
12	3A	96	VAL
12	3A	97	ARG
12	3A	98	TYR
12	3A	102	ARG
12	3A	111	LYS
12	3A	116	SER
12	3A	118	SER
12	3A	122	THR
12	3A	126	LYS
13	4A	12	ASN
13	4A	16	ASP
13	4A	17	VAL
13	4A	20	THR
13	4A	35	GLU
13	4A	36	LYS
13	4A	39	ILE
13	4A	40	ASN
13	4A	46	LYS
13	4A	47	ASP
13	4A	49	THR
13	4A	50	GLU
13	4A	58	GLU
13	4A	64	TRP
13	4A	71	ARG
13	4A	81	LEU
13	4A	82	MET

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Mol	Chain	Res	Type
13	4A	83	ASP
13	4A	86	CYS
13	4A	88	ARG
13	4A	101	GLN
13	4A	102	ARG
13	4A	103	THR
13	4A	106	ASN
13	4A	110	ARG
13	4A	117	VAL
14	5A	6	LEU
14	5A	7	ILE
14	5A	16	PHE
14	5A	18	VAL
14	5A	22	THR
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	41	ARG
14	5A	43	CYS
14	5A	46	GLU
15	6A	10	LYS
15	6A	22	THR
15	6A	52	SER
15	6A	62	GLN
15	6A	64	ARG
15	6A	70	LEU
15	6A	77	ARG
16	7A	2	VAL
16	7A	6	LEU
16	7A	8	ARG
16	7A	21	VAL
16	7A	49	LEU
16	7A	53	VAL
16	7A	55	ARG
16	7A	65	GLN
16	7A	67	THR
16	7A	76	GLN
16	7A	79	VAL
17	8A	24	GLU
17	8A	49	GLU
17	8A	53	LEU
17	8A	55	ASP

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Mol	Chain	Res	Type
17	8A	57	VAL
17	8A	60	ILE
17	8A	68	ARG
17	8A	73	VAL
17	8A	74	LEU
17	8A	75	ARG
17	8A	85	VAL
17	8A	87	LYS
18	9A	25	THR
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	37	VAL
18	9A	38	GLU
18	9A	53	ARG
18	9A	82	THR
18	9A	84	LYS
19	AA	5	LEU
19	AA	14	HIS
19	AA	15	LEU
19	AA	17	GLU
19	AA	19	VAL
19	AA	20	LEU
19	AA	21	GLU
19	AA	22	LEU
19	AA	23	ASN
19	AA	33	THR
19	AA	37	ARG
19	AA	60	VAL
19	AA	69	HIS
19	AA	77	THR
20	BA	15	ARG
20	BA	19	SER
20	BA	20	LEU
20	BA	64	ASP
20	BA	84	LEU
20	BA	87	LYS
20	BA	90	GLN
21	1B	10	ARG
21	1B	15	ARG
21	1B	22	ARG
28	19	23	GLU

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Mol	Chain	Res	Type
28	19	27	THR
28	19	28	GLU
28	19	33	LEU
28	19	35	LYS
28	19	37	LEU
28	19	39	LYS
28	19	40	THR
28	19	43	ARG
28	19	46	GLN
28	19	49	ILE
28	19	54	ARG
28	19	58	HIS
28	19	61	LEU
28	19	64	ILE
28	19	78	LYS
28	19	82	ILE
28	19	88	ARG
28	19	89	SER
28	19	94	LEU
28	19	95	LEU
28	19	99	ASP
28	19	111	LEU
28	19	131	LEU
28	19	138	VAL
28	19	147	LEU
28	19	162	SER
28	19	168	ARG
28	19	169	GLU
28	19	175	LEU
28	19	182	LEU
28	19	192	THR
28	19	193	VAL
28	19	200	ASP
28	19	203	ASN
28	19	208	LYS
28	19	211	ARG
28	19	217	ARG
28	19	222	ARG
28	19	233	HIS
28	19	242	ARG
28	19	244	ARG
28	19	254	THR

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Mol	Chain	Res	Type
28	19	257	LEU
28	19	259	THR
28	19	266	SER
28	19	268	ARG
28	19	270	ILE
28	19	271	ILE
28	19	273	ARG
29	29	1	MET
29	29	24	THR
29	29	27	LEU
29	29	36	ARG
29	29	38	THR
29	29	49	LEU
29	29	58	ARG
29	29	63	LEU
29	29	66	HIS
29	29	72	VAL
29	29	73	GLU
29	29	76	ARG
29	29	77	ILE
29	29	78	LEU
29	29	79	ARG
29	29	82	ARG
29	29	107	THR
29	29	119	ARG
29	29	134	ILE
29	29	140	SER
29	29	141	ILE
29	29	144	ARG
29	29	149	ARG
29	29	154	LYS
29	29	165	VAL
29	29	167	VAL
29	29	170	LEU
29	29	175	VAL
29	29	181	LEU
29	29	182	LEU
29	29	202	LYS
30	39	3	GLU
30	39	7	TYR
30	39	8	GLN
30	39	12	LEU

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Mol	Chain	Res	Type
30	39	15	SER
30	39	20	LEU
30	39	27	GLU
30	39	33	LEU
30	39	38	ARG
30	39	57	VAL
30	39	60	SER
30	39	63	LYS
30	39	67	GLN
30	39	70	THR
30	39	75	HIS
30	39	78	ILE
30	39	82	ILE
30	39	88	VAL
30	39	99	TYR
30	39	106	ARG
30	39	110	LEU
30	39	123	LEU
30	39	124	LEU
30	39	129	PHE
30	39	137	LYS
30	39	140	LEU
30	39	144	LYS
30	39	145	GLU
30	39	153	SER
30	39	155	LEU
30	39	158	THR
30	39	161	GLU
30	39	165	ARG
30	39	169	ASN
30	39	175	THR
30	39	181	LEU
30	39	187	VAL
30	39	192	LEU
30	39	193	VAL
30	39	194	MET
30	39	196	LEU
30	39	201	VAL
30	39	205	ARG
31	49	19	LEU
31	49	26	GLN
31	49	28	VAL

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Mol	Chain	Res	Type
31	49	33	ARG
31	49	35	GLU
31	49	40	ASN
31	49	48	GLU
31	49	51	ARG
31	49	52	ILE
31	49	53	LEU
31	49	59	GLU
31	49	60	LEU
31	49	62	LEU
31	49	63	ILE
31	49	75	LYS
31	49	77	ILE
31	49	80	PHE
31	49	82	LEU
31	49	86	MET
31	49	96	ARG
31	49	101	ILE
31	49	109	VAL
31	49	113	ARG
31	49	116	ASP
31	49	124	SER
31	49	133	LEU
31	49	136	ARG
31	49	138	GLN
31	49	144	ILE
31	49	146	TYR
31	49	147	ASP
31	49	153	ARG
31	49	156	ASP
31	49	159	VAL
31	49	164	GLU
31	49	165	THR
31	49	166	ASP
31	49	181	ARG
32	59	6	ARG
32	59	7	LEU
32	59	19	VAL
32	59	24	VAL
32	59	32	GLU
32	59	33	LEU
32	59	44	VAL

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Mol	Chain	Res	Type
32	59	45	VAL
32	59	46	GLU
32	59	49	VAL
32	59	50	VAL
32	59	52	VAL
32	59	57	ASP
32	59	62	LYS
32	59	69	ARG
32	59	81	GLU
32	59	83	TYR
32	59	85	LYS
32	59	90	LYS
32	59	94	TYR
32	59	98	LEU
32	59	103	LEU
32	59	104	GLU
32	59	106	THR
32	59	109	PHE
32	59	111	HIS
32	59	116	GLU
32	59	125	VAL
32	59	127	GLU
32	59	129	THR
32	59	130	ARG
32	59	131	VAL
32	59	132	ARG
32	59	138	LYS
32	59	139	GLN
32	59	143	GLN
32	59	149	ARG
32	59	157	TYR
32	59	158	HIS
32	59	160	LYS
32	59	162	ILE
32	59	171	LEU
33	69	1	MET
33	69	4	ILE
33	69	6	LEU
33	69	9	LEU
33	69	27	ARG
33	69	40	THR
33	69	56	LYS

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Mol	Chain	Res	Type
33	69	61	ARG
33	69	64	GLU
33	69	76	THR
33	69	77	LEU
33	69	81	VAL
33	69	85	GLU
33	69	93	THR
33	69	101	LEU
33	69	102	SER
33	69	105	HIS
33	69	109	ILE
33	69	112	LYS
33	69	114	LEU
33	69	117	GLU
33	69	127	VAL
33	69	128	LEU
33	69	140	LEU
33	69	141	LYS
33	69	145	VAL
34	15	9	VAL
34	15	10	GLU
34	15	12	ARG
34	15	15	LEU
34	15	26	LEU
34	15	28	THR
34	15	32	THR
34	15	33	LEU
34	15	34	LEU
34	15	45	ASN
34	15	48	MET
34	15	59	LYS
34	15	60	ILE
34	15	61	ARG
34	15	63	THR
34	15	68	GLU
34	15	87	LEU
34	15	91	LEU
34	15	93	THR
34	15	94	HIS
34	15	99	LEU
34	15	120	LEU
34	15	127	ASP

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Mol	Chain	Res	Type
34	15	130	HIS
34	15	133	GLN
34	15	137	LYS
34	15	138	LEU
35	25	5	GLN
35	25	8	LEU
35	25	10	VAL
35	25	22	ILE
35	25	23	ARG
35	25	24	VAL
35	25	32	TYR
35	25	34	THR
35	25	38	VAL
35	25	49	ARG
35	25	52	VAL
35	25	58	VAL
35	25	63	VAL
35	25	68	GLU
35	25	70	LYS
35	25	92	GLU
35	25	97	ARG
35	25	113	LYS
35	25	114	ILE
35	25	117	LEU
36	35	4	SER
36	35	6	LEU
36	35	7	ARG
36	35	15	ARG
36	35	19	VAL
36	35	21	ARG
36	35	25	SER
36	35	29	LYS
36	35	30	THR
36	35	41	ARG
36	35	45	LEU
36	35	56	SER
36	35	57	THR
36	35	62	LEU
36	35	74	GLU
36	35	75	ILE
36	35	85	LEU
36	35	91	PHE

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Mol	Chain	Res	Type
36	35	95	VAL
36	35	96	THR
36	35	98	GLU
36	35	102	ARG
36	35	110	TYR
36	35	111	ARG
36	35	112	LEU
36	35	114	ILE
36	35	125	VAL
36	35	126	VAL
36	35	132	LYS
36	35	135	LEU
36	35	138	LEU
36	35	139	LYS
36	35	146	VAL
36	35	147	LEU
37	45	2	LEU
37	45	6	ARG
37	45	7	MET
37	45	10	ARG
37	45	16	ARG
37	45	18	LYS
37	45	21	THR
37	45	26	TYR
37	45	32	TYR
37	45	38	GLU
37	45	45	GLN
37	45	64	ILE
37	45	82	ARG
37	45	90	VAL
37	45	91	GLU
37	45	103	MET
37	45	109	VAL
37	45	110	THR
37	45	116	GLU
37	45	132	VAL
37	45	133	ARG
37	45	135	ASP
37	45	137	TYR
37	45	138	ASP
38	55	2	ARG
38	55	6	SER

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Mol	Chain	Res	Type
38	55	15	SER
38	55	18	LEU
38	55	27	SER
38	55	28	LEU
38	55	29	LEU
38	55	33	ARG
38	55	35	THR
38	55	42	LYS
38	55	44	LEU
38	55	48	VAL
38	55	57	ARG
38	55	65	LEU
38	55	67	LEU
38	55	71	GLN
38	55	73	VAL
38	55	76	VAL
38	55	79	LEU
38	55	81	ASP
38	55	88	ARG
38	55	96	ARG
38	55	98	LEU
38	55	102	GLU
38	55	104	ARG
38	55	105	ARG
38	55	113	LEU
39	65	3	ARG
39	65	12	PHE
39	65	13	ARG
39	65	17	ARG
39	65	19	LYS
39	65	20	ARG
39	65	24	LEU
39	65	25	ARG
39	65	29	PHE
39	65	36	TYR
39	65	40	ILE
39	65	41	ASP
39	65	42	ASP
39	65	44	LYS
39	65	52	SER
39	65	62	LYS
39	65	65	VAL

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Mol	Chain	Res	Type
39	65	71	ARG
39	65	73	LEU
39	65	75	GLU
39	65	83	LYS
39	65	88	ASP
39	65	89	ARG
39	65	106	ARG
39	65	107	GLU
39	65	111	GLU
39	65	112	PHE
40	75	1	MET
40	75	11	GLU
40	75	12	SER
40	75	13	ARG
40	75	17	THR
40	75	21	GLU
40	75	27	THR
40	75	28	VAL
40	75	29	ARG
40	75	30	VAL
40	75	34	VAL
40	75	36	GLU
40	75	42	ILE
40	75	54	ARG
40	75	57	PHE
40	75	59	THR
40	75	61	PHE
40	75	62	THR
40	75	64	ARG
40	75	65	LYS
40	75	74	ARG
40	75	86	ILE
40	75	87	ASP
40	75	88	ILE
40	75	89	VAL
40	75	90	GLN
40	75	91	ARG
40	75	93	ARG
40	75	96	ARG
40	75	105	LEU
40	75	112	ARG
40	75	115	ARG

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Mol	Chain	Res	Type
40	75	118	ARG
41	85	8	VAL
41	85	12	ARG
41	85	20	LEU
41	85	52	ARG
41	85	55	ARG
41	85	56	ASP
41	85	60	LEU
41	85	64	ARG
41	85	71	GLN
41	85	74	LEU
41	85	78	THR
41	85	92	ARG
41	85	97	ASP
41	85	101	ARG
41	85	108	GLU
41	85	112	ARG
42	95	1	MET
42	95	5	VAL
42	95	7	THR
42	95	21	ARG
42	95	38	LEU
42	95	47	VAL
42	95	49	THR
42	95	62	LEU
42	95	71	LEU
42	95	85	LYS
42	95	88	ARG
42	95	89	GLN
42	95	91	TYR
42	95	95	LEU
42	95	96	ILE
42	95	98	GLU
42	95	100	ARG
43	A5	1	MET
43	A5	11	ARG
43	A5	18	ARG
43	A5	19	LEU
43	A5	28	SER
43	A5	33	ARG
43	A5	39	THR
43	A5	51	LEU

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Mol	Chain	Res	Type
43	A5	59	VAL
43	A5	65	LEU
43	A5	67	ASP
43	A5	70	TYR
43	A5	76	VAL
43	A5	78	GLU
43	A5	85	VAL
43	A5	96	ILE
43	A5	100	THR
43	A5	107	LEU
43	A5	111	HIS
44	B5	3	THR
44	B5	12	VAL
44	B5	23	GLU
44	B5	27	THR
44	B5	30	VAL
44	B5	43	VAL
44	B5	48	LYS
44	B5	49	VAL
44	B5	54	VAL
44	B5	62	LYS
44	B5	63	LYS
44	B5	66	LEU
44	B5	75	ASP
44	B5	81	VAL
44	B5	83	VAL
44	B5	88	LYS
44	B5	90	GLU
45	C5	4	LYS
45	C5	8	LYS
45	C5	11	ASP
45	C5	23	ARG
45	C5	27	VAL
45	C5	29	GLU
45	C5	30	VAL
45	C5	37	VAL
45	C5	38	ILE
45	C5	42	VAL
45	C5	70	SER
46	D5	3	TYR
46	D5	4	ARG
46	D5	5	LEU

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Mol	Chain	Res	Type
46	D5	6	LYS
46	D5	14	LYS
46	D5	18	LEU
46	D5	19	ARG
46	D5	24	LEU
46	D5	40	ASP
46	D5	42	VAL
46	D5	52	SER
46	D5	54	HIS
46	D5	61	LEU
46	D5	63	ASP
46	D5	70	LEU
46	D5	71	VAL
46	D5	73	GLN
46	D5	76	LEU
46	D5	78	LYS
46	D5	82	ARG
46	D5	87	ASP
46	D5	89	PHE
46	D5	90	VAL
46	D5	91	LEU
46	D5	98	MET
46	D5	103	ARG
46	D5	117	LEU
46	D5	121	HIS
46	D5	128	VAL
46	D5	132	ASN
46	D5	137	ILE
46	D5	140	ASP
46	D5	157	LEU
46	D5	161	VAL
46	D5	163	LEU
46	D5	166	SER
46	D5	168	GLU
46	D5	170	THR
46	D5	174	VAL
46	D5	178	GLU
46	D5	179	ASP
47	E5	10	THR
47	E5	12	ASN
47	E5	16	SER
47	E5	20	ARG

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Mol	Chain	Res	Type
47	E5	31	VAL
47	E5	35	ASN
47	E5	36	ILE
47	E5	38	VAL
47	E5	41	ARG
47	E5	43	THR
47	E5	46	LYS
47	E5	53	MET
47	E5	62	LEU
47	E5	63	VAL
47	E5	64	ASP
47	E5	82	ARG
48	F5	13	ILE
48	F5	14	VAL
48	F5	21	ARG
48	F5	25	LYS
48	F5	35	THR
48	F5	38	SER
48	F5	40	ARG
48	F5	46	LEU
48	F5	49	VAL
48	F5	51	VAL
48	F5	74	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	80	LEU
48	F5	85	LEU
48	F5	86	SER
48	F5	89	GLU
48	F5	90	ILE
48	F5	91	LYS
48	F5	92	LYS
49	G5	5	GLU
49	G5	8	LYS
49	G5	10	LEU
49	G5	15	LYS
49	G5	21	LEU
49	G5	24	LEU
49	G5	41	ILE
49	G5	44	LEU
49	G5	45	SER
49	G5	46	GLN

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Mol	Chain	Res	Type
49	G5	47	ASN
49	G5	48	HIS
49	G5	50	ILE
49	G5	52	ASP
49	G5	53	LEU
49	G5	60	LEU
49	G5	64	LEU
49	G5	66	GLU
49	G5	69	ARG
50	H5	3	ARG
50	H5	5	LYS
50	H5	6	VAL
50	H5	8	LEU
50	H5	9	VAL
50	H5	18	ASP
50	H5	33	GLN
50	H5	38	GLU
50	H5	40	THR
50	H5	47	VAL
50	H5	54	VAL
50	H5	59	VAL
52	J5	3	LYS
52	J5	9	LYS
52	J5	23	HIS
52	J5	26	THR
52	J5	29	THR
52	J5	35	GLU
52	J5	36	CYS
52	J5	44	THR
52	J5	48	GLU
52	J5	51	TYR
52	J5	55	ARG
53	L5	1	MET
53	L5	4	THR
53	L5	8	ASN
53	L5	41	ARG
54	M5	6	THR
54	M5	11	LYS
54	M5	15	LYS
54	M5	31	HIS
54	M5	37	SER
54	M5	49	VAL

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Mol	Chain	Res	Type
54	M5	57	ARG
54	M5	58	ILE
54	M5	59	LYS

Sometimes 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	40	HIS
7	6E	37	ASN
9	8E	3	GLN
11	2I	99	GLN
13	4I	92	HIS
36	78	84	ASN
39	A8	95	HIS
46	H8	73	GLN
49	K8	48	HIS
2	12	40	HIS
3	22	6	HIS
3	22	69	HIS
4	32	119	GLN
4	32	161	ASN
10	1A	84	GLN
13	4A	40	ASN
13	4A	101	GLN
20	BA	18	GLN
29	29	35	GLN
29	29	54	GLN
29	29	192	ASN
30	39	75	HIS
30	39	203	GLN
32	59	139	GLN
32	59	143	GLN
34	15	45	ASN
40	75	79	HIS
43	A5	60	ASN
49	G5	48	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1498/1522 (98%)	346 (23%)	28 (1%)
1	1G	1489/1522 (97%)	369 (24%)	32 (2%)
22	1K	71/76 (93%)	37 (52%)	2 (2%)
22	1L	71/76 (93%)	41 (57%)	3 (4%)
23	2K	76/77 (98%)	20 (26%)	1 (1%)
23	2L	76/77 (98%)	19 (25%)	3 (3%)
24	3K	69/76 (90%)	38 (55%)	2 (2%)
24	3L	69/76 (90%)	36 (52%)	2 (2%)
25	4K	17/27 (62%)	10 (58%)	3 (17%)
25	4L	14/27 (51%)	6 (42%)	3 (21%)
26	14	2804/2917 (96%)	688 (24%)	36 (1%)
26	1H	2800/2917 (95%)	623 (22%)	41 (1%)
27	16	121/122 (99%)	27 (22%)	1 (0%)
27	1J	121/122 (99%)	34 (28%)	1 (0%)
All	All	9296/9634 (96%)	2294 (24%)	158 (1%)

All (2294) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	4	U
1	13	5	U
1	13	6	G
1	13	9	G
1	13	26	A
1	13	32	A
1	13	39	G
1	13	47	C
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	64	G
1	13	65	U
1	13	66	G
1	13	69	G
1	13	74	C
1	13	75	C
1	13	76	G
1	13	77	C
1	13	78	G

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Mol	Chain	Res	Type
1	13	92	G
1	13	93	U
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	108	G
1	13	116	A
1	13	121	C
1	13	122	G
1	13	129(A)	G
1	13	130	A
1	13	131	C
1	13	144	G
1	13	151	A
1	13	158	G
1	13	160	A
1	13	163	C
1	13	169	C
1	13	173	U
1	13	174	C
1	13	180	U
1	13	182	U
1	13	185	A
1	13	186(D)	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	191(E)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	224	C
1	13	226	G

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Mol	Chain	Res	Type
1	13	231	G
1	13	245	C
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	280	C
1	13	289	G
1	13	302	G
1	13	318	G
1	13	326	G
1	13	328	C
1	13	332	G
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	348	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	367	U
1	13	372	C
1	13	373	A
1	13	382	A
1	13	390	C
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	422	C
1	13	423	G
1	13	424	G
1	13	428	G
1	13	429	U
1	13	430	A
1	13	439	A

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Mol	Chain	Res	Type
1	13	465	A
1	13	466	C
1	13	467	G
1	13	482	A
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	498	A
1	13	505	G
1	13	508	C
1	13	511	C
1	13	518	C
1	13	519	C
1	13	527	G
1	13	531	U
1	13	533	A
1	13	547	A
1	13	559	A
1	13	561	U
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	590	C
1	13	595	G
1	13	596	C
1	13	601	C
1	13	607	A
1	13	616	G
1	13	620	C
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	637	G
1	13	639	G
1	13	665	A
1	13	687	A
1	13	688	G
1	13	702	A

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Mol	Chain	Res	Type
1	13	704	A
1	13	722	A
1	13	723	U
1	13	724	G
1	13	733	A
1	13	734	G
1	13	748	C
1	13	749	C
1	13	753	A
1	13	755	G
1	13	759	A
1	13	760	G
1	13	769	G
1	13	774	G
1	13	777	A
1	13	781	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	818	G
1	13	821	G
1	13	828	A
1	13	836	G
1	13	842	C
1	13	843	U
1	13	848	C
1	13	849	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	880	C
1	13	885	G
1	13	888	G
1	13	889	A
1	13	902	G
1	13	905	U

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Mol	Chain	Res	Type
1	13	914	A
1	13	916	G
1	13	922	G
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	936	C
1	13	958	A
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	981	U
1	13	982	U
1	13	991	U
1	13	992	U
1	13	993	G
1	13	997	U
1	13	1004	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
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1036	G
1	13	1039	C
1	13	1040	U

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Mol	Chain	Res	Type
1	13	1041	A
1	13	1042	G
1	13	1054	C
1	13	1055	A
1	13	1064	G
1	13	1065	U
1	13	1081	G
1	13	1082	G
1	13	1085	U
1	13	1094	G
1	13	1095	U
1	13	1098	C
1	13	1101	A
1	13	1125	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1132	C
1	13	1135	U
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1152	A
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1181	G
1	13	1182	G
1	13	1184	G
1	13	1189	C
1	13	1190	G
1	13	1192	C
1	13	1193	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1213	A

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Mol	Chain	Res	Type
1	13	1214	C
1	13	1218	C
1	13	1224	G
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1262	C
1	13	1270	C
1	13	1272	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1286	A
1	13	1287	A
1	13	1292	U
1	13	1299	A
1	13	1300	G
1	13	1302	U
1	13	1303	C
1	13	1305	G
1	13	1312	G
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	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1363	A

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Mol	Chain	Res	Type
1	13	1364	U
1	13	1368	G
1	13	1370	G
1	13	1379	G
1	13	1381	U
1	13	1397	C
1	13	1398	A
1	13	1406	U
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1450	U
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1506	U
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
22	1K	3	U
22	1K	4	G
22	1K	6	U
22	1K	8	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	14	A
22	1K	15	G
22	1K	18	G
22	1K	19	G
22	1K	25	C
22	1K	26	G
22	1K	28	A

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Mol	Chain	Res	Type
22	1K	30	C
22	1K	34	G
22	1K	47	U
22	1K	48	C
22	1K	49	G
22	1K	50	G
22	1K	51	C
22	1K	52	A
22	1K	53	G
22	1K	54	5MU
22	1K	56	C
22	1K	57	G
22	1K	59	C
22	1K	61	C
22	1K	63	G
22	1K	66	U
22	1K	67	A
22	1K	68	U
22	1K	69	C
22	1K	70	A
22	1K	71	G
22	1K	72	C
22	1K	73	A
23	2K	2	G
23	2K	6	G
23	2K	8	U
23	2K	9	G
23	2K	13	C
23	2K	16	C
23	2K	17	C
23	2K	20	G
23	2K	21	U
23	2K	32	G
23	2K	33	C
23	2K	46	G
23	2K	47	G
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	68	C
23	2K	74	A
23	2K	75	C

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Mol	Chain	Res	Type
23	2K	77	A
24	3K	2	C
24	3K	3	U
24	3K	4	G
24	3K	7	A
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	15	G
24	3K	23	A
24	3K	26	G
24	3K	30	C
24	3K	33	U
24	3K	35	G
24	3K	36	U
24	3K	37	A
24	3K	38	A
24	3K	40	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	51	C
24	3K	52	A
24	3K	53	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	60	U
24	3K	61	C
24	3K	62	U
24	3K	63	G
24	3K	65	C
24	3K	66	U
24	3K	69	C
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	10	G
25	4K	11	U
25	4K	12	A

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Mol	Chain	Res	Type
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	23	A
25	4K	24	A
25	4K	25	A
25	4K	26	A
26	1H	15	G
26	1H	26	G
26	1H	34	C
26	1H	46	C
26	1H	50	U
26	1H	51	G
26	1H	54	G
26	1H	55	G
26	1H	61	G
26	1H	63	U
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	93	C
26	1H	101	G
26	1H	102	G
26	1H	114	U
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	129	C
26	1H	155	C
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	165	U
26	1H	173	G
26	1H	181	A
26	1H	188	G
26	1H	196	A

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Mol	Chain	Res	Type
26	1H	199	A
26	1H	204	A
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	232	G
26	1H	241	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	264	C
26	1H	266	G
26	1H	269	U
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	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	324	A
26	1H	326	G
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	332	A
26	1H	334	C

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Mol	Chain	Res	Type
26	1H	342	G
26	1H	346	A
26	1H	352	G
26	1H	363(E)	U
26	1H	372	G
26	1H	373	U
26	1H	386	G
26	1H	388	G
26	1H	389	G
26	1H	405	U
26	1H	406	G
26	1H	410	G
26	1H	411	G
26	1H	418	G
26	1H	428	A
26	1H	444	C
26	1H	448	U
26	1H	454	A
26	1H	455	C
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	480	A
26	1H	481	G
26	1H	482	A
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	573	G
26	1H	575	A
26	1H	577	G

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Mol	Chain	Res	Type
26	1H	586	A
26	1H	588	U
26	1H	593	G
26	1H	595	C
26	1H	603	A
26	1H	607	U
26	1H	613	U
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	631	A
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	654(V)	A
26	1H	664	C
26	1H	668	G
26	1H	677	A
26	1H	682	G
26	1H	686	G
26	1H	699	A
26	1H	717	G
26	1H	730	C
26	1H	731	C
26	1H	738	G
26	1H	746	A
26	1H	747	U
26	1H	751	A
26	1H	758	C
26	1H	761	A
26	1H	762	U
26	1H	764	A

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Mol	Chain	Res	Type
26	1H	765	G
26	1H	776	G
26	1H	777	A
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	789	A
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	793	A
26	1H	805	G
26	1H	806	C
26	1H	807	U
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	831	G
26	1H	832	G
26	1H	836	G
26	1H	845	G
26	1H	847	U
26	1H	855	G
26	1H	859	G
26	1H	860	U
26	1H	870	A
26	1H	878	A
26	1H	879	G
26	1H	880	G
26	1H	894	C
26	1H	895	U
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	910	A
26	1H	917	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

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Mol	Chain	Res	Type
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	989	G
26	1H	990	A
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	1021	A
26	1H	1022	G
26	1H	1023	U
26	1H	1024	G
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1040	C
26	1H	1041	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1050	A
26	1H	1051	G
26	1H	1085	A
26	1H	1086	A
26	1H	1091	G
26	1H	1105	U
26	1H	1106	G
26	1H	1109	C
26	1H	1112	G
26	1H	1121	C
26	1H	1126	A
26	1H	1128	A
26	1H	1129	A

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Mol	Chain	Res	Type
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1151	G
26	1H	1156	A
26	1H	1170	G
26	1H	1173	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1244	G
26	1H	1249	U
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	1282	U
26	1H	1286	A
26	1H	1287	A
26	1H	1300	U
26	1H	1301	A
26	1H	1303	G
26	1H	1329	U
26	1H	1341	U
26	1H	1344	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A

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Mol	Chain	Res	Type
26	1H	1370	C
26	1H	1378	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1391	U
26	1H	1395	A
26	1H	1416	G
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1451	C
26	1H	1453	A
26	1H	1455	G
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1483	G
26	1H	1487	G
26	1H	1493	C
26	1H	1494	A
26	1H	1496	A
26	1H	1497	U
26	1H	1506	C
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1522	G
26	1H	1523	U
26	1H	1526	G
26	1H	1534	G
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1544	C

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Mol	Chain	Res	Type
26	1H	1545	A
26	1H	1547	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
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	1613	G
26	1H	1616	A
26	1H	1617	C
26	1H	1639	U
26	1H	1640	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1674	G
26	1H	1682	G
26	1H	1699	G
26	1H	1727	U
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1750	G
26	1H	1756	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1769	G
26	1H	1773	A
26	1H	1779	U
26	1H	1782	C

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Mol	Chain	Res	Type
26	1H	1786	A
26	1H	1787	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1808	U
26	1H	1811	G
26	1H	1812	A
26	1H	1816	G
26	1H	1826	G
26	1H	1829	A
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1897	G
26	1H	1900	A
26	1H	1901	A
26	1H	1903	G
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1917	U
26	1H	1919	A
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1937	A
26	1H	1938	A
26	1H	1939	U
26	1H	1941	C
26	1H	1955	U
26	1H	1960	A
26	1H	1963	U
26	1H	1967	C

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Mol	Chain	Res	Type
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1987	G
26	1H	1991	U
26	1H	1992	G
26	1H	1993	U
26	1H	2023	G
26	1H	2027	G
26	1H	2031	A
26	1H	2033	A
26	1H	2035	G
26	1H	2043	C
26	1H	2049	G
26	1H	2051	A
26	1H	2053	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	2070	G
26	1H	2096	U
26	1H	2099	U
26	1H	2100	G
26	1H	2101	G
26	1H	2108	C
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2118	U
26	1H	2119	A
26	1H	2120	G

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Mol	Chain	Res	Type
26	1H	2122	U
26	1H	2123	G
26	1H	2124	G
26	1H	2125	G
26	1H	2127	G
26	1H	2128	C
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2141	G
26	1H	2144	U
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2156	G
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
26	1H	2166	G
26	1H	2167	U
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	2179	C
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2240	C
26	1H	2267	A

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Mol	Chain	Res	Type
26	1H	2269	A
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2278	A
26	1H	2283	C
26	1H	2287	A
26	1H	2288	A
26	1H	2298	A
26	1H	2307	G
26	1H	2308	G
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2335	A
26	1H	2336	A
26	1H	2342	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2355	C
26	1H	2383	G
26	1H	2385	C
26	1H	2395	C
26	1H	2401	U
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2413	G
26	1H	2414	G
26	1H	2422	A
26	1H	2423	U
26	1H	2424	C
26	1H	2425	A
26	1H	2426	A
26	1H	2428	G

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Mol	Chain	Res	Type
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2439	A
26	1H	2441	C
26	1H	2445	G
26	1H	2448	A
26	1H	2468	G
26	1H	2470	G
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2477	C
26	1H	2482	G
26	1H	2487	G
26	1H	2497	A
26	1H	2502	G
26	1H	2505	G
26	1H	2513	G
26	1H	2518	A
26	1H	2529	G
26	1H	2531	A
26	1H	2553	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2569	G
26	1H	2573	C
26	1H	2577	A
26	1H	2581	G
26	1H	2582	G
26	1H	2585	U
26	1H	2595	G
26	1H	2596	U
26	1H	2602	A
26	1H	2608	G
26	1H	2609	U
26	1H	2610	C
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2630	G

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Mol	Chain	Res	Type
26	1H	2632	A
26	1H	2636	U
26	1H	2654	A
26	1H	2665	A
26	1H	2673	G
26	1H	2686	G
26	1H	2689	U
26	1H	2697	G
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2719	G
26	1H	2726	U
26	1H	2733	A
26	1H	2736	G
26	1H	2742	C
26	1H	2744	G
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	2781	A
26	1H	2782	G
26	1H	2808	U
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2849	U
26	1H	2850	A
26	1H	2865	U
26	1H	2866	U
26	1H	2872	G
26	1H	2885	C
26	1H	2886	G

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Mol	Chain	Res	Type
27	16	0	A
27	16	7	G
27	16	9	G
27	16	13	A
27	16	15	A
27	16	17	C
27	16	21	G
27	16	23	G
27	16	25	A
27	16	30	C
27	16	35	U
27	16	39	A
27	16	42	C
27	16	44	G
27	16	45	A
27	16	47	C
27	16	51	G
27	16	56	G
27	16	58	A
27	16	65	C
27	16	73	A
27	16	81	G
27	16	82	G
27	16	85	G
27	16	105	G
27	16	109	G
27	16	117	G
1	1G	2	U
1	1G	3	G
1	1G	4	U
1	1G	5	U
1	1G	6	G
1	1G	9	G
1	1G	13	U
1	1G	22	G
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	51	A

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Mol	Chain	Res	Type
1	1G	53	A
1	1G	73	G
1	1G	76	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	95	G
1	1G	96	G
1	1G	108	G
1	1G	115	G
1	1G	116	A
1	1G	120	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	147	G
1	1G	162	A
1	1G	163	C
1	1G	169	C
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	184	G
1	1G	186	C
1	1G	186(F)	C
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	197	A
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	220	G
1	1G	231	G
1	1G	247	G
1	1G	250	A
1	1G	251	G

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Mol	Chain	Res	Type
1	1G	253	U
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	279	A
1	1G	280	C
1	1G	281	G
1	1G	289	G
1	1G	290	C
1	1G	298	A
1	1G	306	G
1	1G	314	C
1	1G	319	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	330	C
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	381	C
1	1G	396	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	419	C
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U

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Mol	Chain	Res	Type
1	1G	439	A
1	1G	440	A
1	1G	442	C
1	1G	452	A
1	1G	466	C
1	1G	467	G
1	1G	478	A
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	509	A
1	1G	510	A
1	1G	511	C
1	1G	517	G
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	541	G
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	580	U
1	1G	601	C
1	1G	607	A
1	1G	614	A
1	1G	618	C
1	1G	619	U
1	1G	620	C
1	1G	630	G
1	1G	631	G

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Mol	Chain	Res	Type
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	652	U
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	715	A
1	1G	720	C
1	1G	723	U
1	1G	724	G
1	1G	725	G
1	1G	728	A
1	1G	731	G
1	1G	746	A
1	1G	749	C
1	1G	752	G
1	1G	753	A
1	1G	755	G
1	1G	763	G
1	1G	767	A
1	1G	769	G
1	1G	776	G
1	1G	777	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	836	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	855	G
1	1G	859	A
1	1G	860	A
1	1G	873	A
1	1G	874	G

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Mol	Chain	Res	Type
1	1G	889	A
1	1G	901	A
1	1G	914	A
1	1G	916	G
1	1G	919	A
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	938	A
1	1G	943	U
1	1G	945	G
1	1G	953	G
1	1G	954	G
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	967	C
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	979	C
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	983	A
1	1G	989	C
1	1G	990	C
1	1G	991	U
1	1G	993	G
1	1G	995	C
1	1G	1000	A
1	1G	1001	G
1	1G	1002	G
1	1G	1004	A
1	1G	1005	A

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Mol	Chain	Res	Type
1	1G	1006	C
1	1G	1007	C
1	1G	1008	C
1	1G	1009	G
1	1G	1010	G
1	1G	1014	A
1	1G	1017	G
1	1G	1021	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1037	C
1	1G	1040	U
1	1G	1045	C
1	1G	1046	A
1	1G	1051	C
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1082	G
1	1G	1091	U
1	1G	1094	G
1	1G	1095	U
1	1G	1098	C
1	1G	1099	G
1	1G	1101	A
1	1G	1107	C
1	1G	1111	A
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1135	U
1	1G	1136	U
1	1G	1137	C
1	1G	1139	G
1	1G	1140	C

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Mol	Chain	Res	Type
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1178	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1208	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1217	C
1	1G	1225	A
1	1G	1227	A
1	1G	1233	G
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1255	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1265	G
1	1G	1268	A
1	1G	1270	C
1	1G	1274	G
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A

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Mol	Chain	Res	Type
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1307	U
1	1G	1312	G
1	1G	1317	C
1	1G	1319	A
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1359	C
1	1G	1360	A
1	1G	1361	G
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1379	G
1	1G	1398	A
1	1G	1402	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1447	G
1	1G	1449	C
1	1G	1450	U
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1482	G

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Mol	Chain	Res	Type
1	1G	1487	G
1	1G	1490	C
1	1G	1492	A
1	1G	1493	A
1	1G	1494	G
1	1G	1497	G
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1525	G
1	1G	1528	U
1	1G	1529	G
1	1G	1530	G
22	1L	2	C
22	1L	3	U
22	1L	6	U
22	1L	8	U
22	1L	9	A
22	1L	10	G
22	1L	12	U
22	1L	15	G
22	1L	18	G
22	1L	19	G
22	1L	22	G
22	1L	23	A
22	1L	25	C
22	1L	26	G
22	1L	27	C
22	1L	29	C
22	1L	30	C
22	1L	31	C
22	1L	41	G
22	1L	47	U
22	1L	48	C
22	1L	49	G
22	1L	52	A
22	1L	53	G

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Mol	Chain	Res	Type
22	1L	55	PSU
22	1L	56	C
22	1L	57	G
22	1L	58	A
22	1L	59	C
22	1L	61	C
22	1L	63	G
22	1L	66	U
22	1L	67	A
22	1L	68	U
22	1L	69	C
22	1L	70	A
22	1L	71	G
22	1L	72	C
22	1L	73	A
22	1L	74	C
22	1L	76	A
23	2L	2	G
23	2L	4	G
23	2L	6	G
23	2L	8	U
23	2L	9	G
23	2L	16	C
23	2L	17	C
23	2L	18	U
23	2L	19	G
23	2L	21	U
23	2L	45	A
23	2L	47	G
23	2L	48	U
23	2L	49	C
23	2L	54	G
23	2L	57	C
23	2L	66	C
23	2L	68	C
23	2L	77	A
24	3L	2	C
24	3L	3	U
24	3L	6	U
24	3L	7	A
24	3L	8	U
24	3L	9	A

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Mol	Chain	Res	Type
24	3L	10	G
24	3L	11	C
24	3L	13	C
24	3L	16	U
24	3L	23	A
24	3L	24	G
24	3L	26	G
24	3L	27	C
24	3L	31	C
24	3L	33	U
24	3L	34	G
24	3L	35	G
24	3L	37	A
24	3L	38	A
24	3L	39	G
24	3L	42	U
24	3L	44	A
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	52	A
24	3L	55	U
24	3L	56	C
24	3L	58	A
24	3L	59	A
24	3L	60	U
24	3L	61	C
24	3L	64	C
24	3L	73	A
24	3L	75	C
25	4L	13	A
25	4L	15	A
25	4L	22	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
26	14	8	A
26	14	9	U
26	14	11	G
26	14	14	A
26	14	15	G

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Mol	Chain	Res	Type
26	14	34	C
26	14	35	G
26	14	36	G
26	14	37	C
26	14	46	C
26	14	49	A
26	14	50	U
26	14	51	G
26	14	58	G
26	14	63	U
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	78	A
26	14	95	G
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	137(A)	G
26	14	138	G
26	14	140	A
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	178	G
26	14	181	A
26	14	182	A
26	14	196	A
26	14	199	A
26	14	200	U
26	14	205	G
26	14	214	G

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Mol	Chain	Res	Type
26	14	215	G
26	14	216	A
26	14	222	A
26	14	223	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	238	C
26	14	241	A
26	14	248	G
26	14	249	C
26	14	268	C
26	14	269	U
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C
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	294	A
26	14	299	A
26	14	311	A
26	14	324	A
26	14	329	G
26	14	330	A
26	14	331	A
26	14	333	G
26	14	346	A

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Mol	Chain	Res	Type
26	14	352	G
26	14	354	G
26	14	360	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	371	A
26	14	372	G
26	14	386	G
26	14	396	G
26	14	399	G
26	14	405	U
26	14	406	G
26	14	407	G
26	14	411	G
26	14	412	A
26	14	426	C
26	14	428	A
26	14	443	A
26	14	444	C
26	14	447	A
26	14	448	U
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	470	A
26	14	471	A
26	14	481	G
26	14	483	A
26	14	492	A
26	14	501	A
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	527	C
26	14	528	A
26	14	530	G
26	14	531	C
26	14	532	A

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Mol	Chain	Res	Type
26	14	533	G
26	14	537	C
26	14	542	C
26	14	546	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	574	C
26	14	575	A
26	14	584	C
26	14	586	A
26	14	603	A
26	14	607	U
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618	G
26	14	619	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	631	A
26	14	637	A
26	14	645	C
26	14	646	A
26	14	651	G
26	14	654	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	654(U)	A
26	14	668	G
26	14	677	A
26	14	686	G
26	14	701	G
26	14	708	C
26	14	717	G
26	14	722	A
26	14	730	C

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Mol	Chain	Res	Type
26	14	738	G
26	14	749	C
26	14	752	A
26	14	753	C
26	14	759	G
26	14	762	U
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	790	C
26	14	792	G
26	14	800	A
26	14	805	G
26	14	809	G
26	14	812	C
26	14	819	A
26	14	822	U
26	14	827	U
26	14	828	U
26	14	832	G
26	14	846	C
26	14	855	G
26	14	859	G
26	14	868	U
26	14	877	U
26	14	878	A
26	14	880	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	903	C
26	14	907	U
26	14	910	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	919	G
26	14	926	A
26	14	932	G

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Mol	Chain	Res	Type
26	14	933	A
26	14	934	G
26	14	935	C
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	967	C
26	14	968	G
26	14	974	G
26	14	974(A)	C
26	14	980	A
26	14	983	A
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1004	C
26	14	1005	C
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1017	G
26	14	1022	G
26	14	1023	U
26	14	1024	G
26	14	1025	G
26	14	1026	U
26	14	1035	U
26	14	1037	G
26	14	1038	C
26	14	1041	C
26	14	1042	G
26	14	1044	G
26	14	1049	C
26	14	1050	A
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1109	C

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Mol	Chain	Res	Type
26	14	1110	G
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1120	G
26	14	1126	A
26	14	1128	A
26	14	1129	A
26	14	1130	U
26	14	1132	A
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142(A)	A
26	14	1143	A
26	14	1149	G
26	14	1151	G
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1183	G
26	14	1189	A
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1214	A
26	14	1220	A
26	14	1230	C
26	14	1236	G
26	14	1248	G
26	14	1253	A
26	14	1256	G
26	14	1264	G
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1278	A
26	14	1284	A

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Mol	Chain	Res	Type
26	14	1300	U
26	14	1301	A
26	14	1302	A
26	14	1303	G
26	14	1304	C
26	14	1307	A
26	14	1319	G
26	14	1321	A
26	14	1325	G
26	14	1326	U
26	14	1329	U
26	14	1338	G
26	14	1345	C
26	14	1348	G
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1378	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1451	C
26	14	1455	G
26	14	1456	G
26	14	1458	C
26	14	1459	G
26	14	1467	C
26	14	1469	A
26	14	1471	A

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Mol	Chain	Res	Type
26	14	1475	G
26	14	1483	G
26	14	1490	A
26	14	1491	G
26	14	1493	C
26	14	1494	A
26	14	1507	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1514	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	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1578	U
26	14	1583	A
26	14	1585	C
26	14	1586	A
26	14	1587	A
26	14	1588	C
26	14	1589	C
26	14	1595	G
26	14	1598	C
26	14	1603	A
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1616	A
26	14	1625	C
26	14	1640	C
26	14	1644	C
26	14	1647	G

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Mol	Chain	Res	Type
26	14	1648	C
26	14	1669	A
26	14	1674	G
26	14	1676	A
26	14	1682	G
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1703	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	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1769	G
26	14	1773	A
26	14	1774	C
26	14	1780	A
26	14	1781	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1811	G
26	14	1816	G
26	14	1820	U
26	14	1826	G
26	14	1828	G
26	14	1829	A
26	14	1830	C
26	14	1847	A
26	14	1858	G
26	14	1859	A
26	14	1870	C
26	14	1878	G
26	14	1885	A
26	14	1886	C

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Mol	Chain	Res	Type
26	14	1888	G
26	14	1889	A
26	14	1900	A
26	14	1905	C
26	14	1906	G
26	14	1913	A
26	14	1914	C
26	14	1920	C
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1934	C
26	14	1936	A
26	14	1938	A
26	14	1941	C
26	14	1955	U
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1985	G
26	14	1991	U
26	14	1993	U
26	14	1994	C
26	14	2020	A
26	14	2023	G
26	14	2027	G
26	14	2031	A
26	14	2033	A
26	14	2036	C
26	14	2043	C
26	14	2052	G
26	14	2054	A
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

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Mol	Chain	Res	Type
26	14	2074	U
26	14	2087	G
26	14	2095	C
26	14	2099	U
26	14	2108	C
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2119	A
26	14	2120	G
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	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2140	C
26	14	2141	G
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2151	G
26	14	2153	G
26	14	2154	G
26	14	2155	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2166	G
26	14	2168	G
26	14	2171	A

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Mol	Chain	Res	Type
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2234	G
26	14	2238	G
26	14	2240	C
26	14	2246	G
26	14	2251	G
26	14	2269	A
26	14	2271	G
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2293	C
26	14	2305	A
26	14	2307	G
26	14	2308	G
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

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Mol	Chain	Res	Type
26	14	2325	G
26	14	2327	A
26	14	2333	A
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2342	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2353	G
26	14	2354	G
26	14	2355	C
26	14	2383	G
26	14	2385	C
26	14	2392	A
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2414	G
26	14	2422	A
26	14	2424	C
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
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	2470	G
26	14	2472	G
26	14	2477	C
26	14	2478	A
26	14	2484	G
26	14	2487	G
26	14	2502	G

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Mol	Chain	Res	Type
26	14	2504	U
26	14	2505	G
26	14	2513	G
26	14	2514	U
26	14	2518	A
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2573	C
26	14	2578	G
26	14	2602	A
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2615	U
26	14	2617	C
26	14	2621	A
26	14	2629	A
26	14	2630	G
26	14	2632	A
26	14	2636	U
26	14	2641	G
26	14	2649	U
26	14	2654	A
26	14	2659	G
26	14	2660	A
26	14	2665	A
26	14	2667	C
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2691	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

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Mol	Chain	Res	Type
26	14	2726	U
26	14	2733	A
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2758	A
26	14	2761	G
26	14	2762	G
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2780	G
26	14	2781	A
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2804	C
26	14	2805	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
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	2872	G
26	14	2873	A

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Mol	Chain	Res	Type
26	14	2874	C
26	14	2878	U
26	14	2880	C
26	14	2883	A
26	14	2885	C
26	14	2886	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
27	1J	0	A
27	1J	2	C
27	1J	7	G
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	25	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	33	G
27	1J	40	U
27	1J	42	C
27	1J	43	C
27	1J	44	G
27	1J	45	A
27	1J	51	G
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	67	G
27	1J	72	G
27	1J	73	A
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	108	C
27	1J	109	G

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Mol	Chain	Res	Type
27	1J	115	G
27	1J	116	G

All (158) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	181	G
1	13	244	U
1	13	266	G
1	13	389	A
1	13	429	U
1	13	484	G
1	13	560	U
1	13	687	A
1	13	748	C
1	13	793	U
1	13	871	U
1	13	913	A
1	13	1025	U
1	13	1128	C
1	13	1129	C
1	13	1157	A
1	13	1256	A
1	13	1285	A
1	13	1336	C
1	13	1363	A
1	13	1397	C
1	13	1453	G
1	13	1498	U
1	13	1533	C
22	1K	2	C
22	1K	69	C
23	2K	48	U
24	3K	2	C
24	3K	46	G
25	4K	11	U
25	4K	12	A
25	4K	24	A

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Mol	Chain	Res	Type
26	1H	33	U
26	1H	99	U
26	1H	125	G
26	1H	162	U
26	1H	195	A
26	1H	196	A
26	1H	222	A
26	1H	404	C
26	1H	479	A
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	627	A
26	1H	685	A
26	1H	746	A
26	1H	764	A
26	1H	1022	G
26	1H	1026	U
26	1H	1085	A
26	1H	1178	C
26	1H	1210	A
26	1H	1379	A
26	1H	1396	U
26	1H	1420	U
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1799	G
26	1H	1858	G
26	1H	1900	A
26	1H	1939	U
26	1H	1970	A
26	1H	1992	G
26	1H	2035	G
26	1H	2062	A
26	1H	2172	U
26	1H	2225	A
26	1H	2473	U
26	1H	2481	G
26	1H	2756	U
27	16	44	G

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Mol	Chain	Res	Type
1	1G	1	U
1	1G	5	U
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	351	G
1	1G	367	U
1	1G	412	A
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	884	U
1	1G	913	A
1	1G	974	A
1	1G	1053	G
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1359	C
1	1G	1442	G
1	1G	1453	G
1	1G	1492	A
1	1G	1498	U
1	1G	1506	U
22	1L	60	U
22	1L	69	C
22	1L	73	A
23	2L	8	U
23	2L	47	G
23	2L	48	U
24	3L	5	A
24	3L	8	U
25	4L	12	A
25	4L	22	A

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Mol	Chain	Res	Type
25	4L	23	A
26	14	49	A
26	14	71	A
26	14	128	C
26	14	196	A
26	14	249	C
26	14	278	A
26	14	562	U
26	14	669	G
26	14	752	A
26	14	774	A
26	14	793	A
26	14	960	A
26	14	974	G
26	14	1011	G
26	14	1022	G
26	14	1379	A
26	14	1420	U
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1819	A
26	14	1939	U
26	14	1963	U
26	14	1992	G
26	14	2062	A
26	14	2211	G
26	14	2275	C
26	14	2406	U
26	14	2439	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2791	C
26	14	2833	G
26	14	2859	G
27	1J	88	C

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

12 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	PSU	2K	56	23	18,21,22	1.19	2 (11%)	22,30,33	2.23	5 (22%)
23	5MU	2K	55	23	19,22,23	3.90	5 (26%)	28,32,35	3.24	8 (28%)
22	H2U	1K	17	22	18,21,22	2.18	4 (22%)	21,30,33	2.01	4 (19%)
22	AET	1K	37	22	28,35,36	3.10	4 (14%)	31,51,54	2.17	8 (25%)
23	5MU	2L	55	23	19,22,23	3.83	5 (26%)	28,32,35	3.23	10 (35%)
22	PSU	1K	55	22	18,21,22	1.24	1 (5%)	22,30,33	1.87	4 (18%)
23	PSU	2L	56	23	18,21,22	1.25	2 (11%)	22,30,33	1.78	3 (13%)
22	H2U	1L	17	22	18,21,22	2.26	4 (22%)	21,30,33	1.88	4 (19%)
22	PSU	1L	55	22	18,21,22	1.18	1 (5%)	22,30,33	1.67	4 (18%)
22	5MU	1K	54	22	19,22,23	3.95	5 (26%)	28,32,35	3.34	9 (32%)
22	5MU	1L	54	22	19,22,23	4.02	5 (26%)	28,32,35	3.19	8 (28%)
22	AET	1L	37	22	28,35,36	2.77	5 (17%)	31,51,54	1.89	6 (19%)

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	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
22	H2U	1K	17	22	-	4/7/38/39	0/2/2/2
22	AET	1K	37	22	-	7/23/45/46	0/3/3/3
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	2/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
22	H2U	1L	17	22	-	5/7/38/39	0/2/2/2
22	PSU	1L	55	22	-	4/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	4/7/25/26	0/2/2/2
22	5MU	1L	54	22	-	0/7/25/26	0/2/2/2
22	AET	1L	37	22	-	8/23/45/46	0/3/3/3

All (43) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1L	54	5MU	C2-N1	13.01	1.59	1.38
22	1K	54	5MU	C2-N1	12.84	1.59	1.38
22	1K	37	AET	C10-N6	12.68	1.55	1.37
23	2K	55	5MU	C2-N1	12.61	1.58	1.38
23	2L	55	5MU	C2-N1	11.94	1.57	1.38
22	1L	37	AET	C10-N6	11.01	1.52	1.37
22	1K	37	AET	C10-N11	7.64	1.52	1.35
22	1L	37	AET	C10-N11	7.04	1.51	1.35
22	1L	17	H2U	C2-N1	6.95	1.45	1.35
22	1K	17	H2U	C2-N1	6.70	1.45	1.35
23	2L	55	5MU	C4-N3	-6.30	1.27	1.38
22	1K	54	5MU	C4-N3	-6.15	1.27	1.38
22	1L	54	5MU	C2-N3	6.04	1.48	1.38
22	1L	54	5MU	C4-N3	-6.02	1.27	1.38
22	1L	54	5MU	C6-N1	5.90	1.48	1.38
23	2K	55	5MU	C4-N3	-5.88	1.27	1.38
23	2L	55	5MU	C6-N1	5.70	1.47	1.38
22	1K	54	5MU	C2-N3	5.66	1.48	1.38
23	2K	55	5MU	C2-N3	5.64	1.48	1.38
22	1K	54	5MU	C6-N1	5.62	1.47	1.38
23	2L	55	5MU	C2-N3	5.59	1.47	1.38
23	2K	55	5MU	C4-C5	5.50	1.53	1.44
23	2K	55	5MU	C6-N1	5.37	1.47	1.38
23	2L	55	5MU	C4-C5	5.14	1.53	1.44
22	1L	54	5MU	C4-C5	5.06	1.53	1.44
22	1K	54	5MU	C4-C5	4.80	1.52	1.44
22	1K	37	AET	C6-N6	4.63	1.49	1.39
22	1L	37	AET	C6-N6	4.51	1.49	1.39
22	1L	17	H2U	C2-N3	4.35	1.45	1.38
22	1K	17	H2U	C2-N3	4.24	1.45	1.38
22	1K	55	PSU	C6-C5	4.23	1.40	1.35
22	1L	55	PSU	C6-C5	4.03	1.40	1.35
23	2K	56	PSU	C6-C5	3.91	1.39	1.35
23	2L	56	PSU	C6-C5	3.62	1.39	1.35
22	1K	17	H2U	C4-N3	3.57	1.43	1.37
22	1L	17	H2U	C4-N3	3.38	1.43	1.37
22	1K	37	AET	C5-C4	-2.47	1.34	1.40
23	2L	56	PSU	C2-N1	2.36	1.39	1.36
22	1L	17	H2U	C6-N1	-2.28	1.42	1.47
22	1L	37	AET	C5-C4	-2.20	1.35	1.40
22	1K	17	H2U	C6-N1	-2.12	1.43	1.47
22	1L	37	AET	C2-N3	2.09	1.35	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	56	PSU	C4-C5	-2.08	1.38	1.44

All (73) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	54	5MU	C5-C4-N3	11.07	124.76	115.31
23	2L	55	5MU	C5-C4-N3	10.88	124.60	115.31
22	1L	54	5MU	C5-C4-N3	9.85	123.72	115.31
23	2K	55	5MU	C5-C4-N3	9.39	123.33	115.31
23	2K	55	5MU	C6-C5-C4	6.91	123.81	118.03
23	2K	55	5MU	C5-C6-N1	-6.90	116.24	123.34
22	1K	37	AET	N3-C2-N1	-6.85	117.98	128.68
22	1K	54	5MU	C4-N3-C2	-6.55	118.87	127.35
23	2L	55	5MU	C4-N3-C2	-6.51	118.92	127.35
23	2L	55	5MU	C5-C6-N1	-6.34	116.82	123.34
22	1K	17	H2U	C4-N3-C2	-6.34	120.53	125.79
22	1L	54	5MU	C4-N3-C2	-6.20	119.32	127.35
23	2K	55	5MU	C4-N3-C2	-6.18	119.34	127.35
22	1L	54	5MU	C6-C5-C4	6.11	123.14	118.03
22	1L	37	AET	N3-C2-N1	-5.81	119.61	128.68
22	1K	54	5MU	C5-C6-N1	-5.77	117.41	123.34
22	1L	54	5MU	C5-C6-N1	-5.59	117.59	123.34
22	1K	54	5MU	O4-C4-C5	-5.56	118.46	124.90
23	2K	56	PSU	N1-C2-N3	5.50	121.36	115.13
22	1K	54	5MU	C6-C5-C4	5.39	122.54	118.03
23	2K	55	5MU	C5M-C5-C6	-5.32	115.75	122.85
23	2L	55	5MU	C6-C5-C4	5.27	122.44	118.03
22	1L	17	H2U	C4-N3-C2	-5.22	121.46	125.79
22	1K	37	AET	C12-N11-C10	5.01	132.36	122.39
22	1K	55	PSU	N1-C2-N3	4.88	120.66	115.13
22	1L	54	5MU	O4-C4-C5	-4.81	119.33	124.90
22	1K	37	AET	N11-C10-N6	4.74	120.94	114.04
22	1K	55	PSU	C4-N3-C2	-4.68	119.60	126.34
23	2L	56	PSU	C4-N3-C2	-4.52	119.83	126.34
23	2K	56	PSU	C4-N3-C2	-4.44	119.95	126.34
23	2L	55	5MU	O4-C4-C5	-4.41	119.79	124.90
22	1L	37	AET	C12-N11-C10	4.22	130.79	122.39
22	1L	55	PSU	C4-N3-C2	-4.22	120.26	126.34
23	2K	55	5MU	O4-C4-C5	-4.19	120.04	124.90
22	1K	17	H2U	C5-C4-N3	4.15	121.31	116.65
22	1L	54	5MU	C5M-C5-C6	-4.14	117.32	122.85
22	1L	55	PSU	N1-C2-N3	4.14	119.82	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	54	5MU	C5M-C5-C6	-4.05	117.44	122.85
22	1L	54	5MU	C6-N1-C2	-3.96	117.29	121.30
23	2K	56	PSU	C6-N1-C2	-3.92	118.68	122.68
23	2K	56	PSU	O2-C2-N1	-3.91	118.48	122.79
23	2L	55	5MU	C5M-C5-C6	-3.83	117.73	122.85
23	2L	56	PSU	N1-C2-N3	3.80	119.43	115.13
23	2K	56	PSU	C6-C5-C4	3.69	120.78	118.20
22	1L	17	H2U	N3-C2-N1	3.59	120.45	116.65
22	1L	37	AET	N11-C10-N6	3.45	119.05	114.04
22	1L	37	AET	O10-C10-N6	-3.42	118.39	122.20
22	1L	17	H2U	C5-C6-N1	3.36	122.67	111.61
22	1K	37	AET	C4-C5-N7	-3.25	106.02	109.40
23	2L	56	PSU	C6-C5-C4	3.18	120.42	118.20
22	1K	54	5MU	C6-N1-C2	-3.15	118.11	121.30
22	1L	17	H2U	C5-C4-N3	3.08	120.11	116.65
22	1K	54	5MU	C1'-N1-C2	3.07	123.13	117.57
22	1K	17	H2U	N3-C2-N1	3.06	119.89	116.65
22	1L	54	5MU	N3-C2-N1	3.05	118.94	114.89
22	1K	17	H2U	C5-C6-N1	2.93	121.25	111.61
22	1K	37	AET	O10-C10-N6	-2.85	119.02	122.20
23	2L	55	5MU	N3-C2-N1	2.76	118.56	114.89
22	1K	37	AET	C13-C12-N11	2.72	116.21	110.28
22	1L	37	AET	N1-C6-N6	2.62	119.21	116.36
22	1K	55	PSU	C6-N1-C2	-2.60	120.02	122.68
23	2L	55	5MU	C6-N1-C2	-2.60	118.67	121.30
22	1K	54	5MU	N3-C2-N1	2.58	118.32	114.89
23	2K	55	5MU	N3-C2-N1	2.56	118.29	114.89
22	1K	55	PSU	O2-C2-N1	-2.47	120.07	122.79
22	1L	55	PSU	C6-N1-C2	-2.43	120.20	122.68
22	1L	37	AET	C14-C12-N11	2.38	117.82	111.72
23	2L	55	5MU	O4-C4-N3	-2.35	115.61	120.12
22	1L	55	PSU	O2-C2-N1	-2.32	120.23	122.79
23	2L	55	5MU	O2-C2-N1	-2.31	119.71	122.79
23	2K	55	5MU	C6-N1-C2	-2.28	118.98	121.30
22	1K	37	AET	ODB-C13-C12	2.20	121.97	114.21
22	1K	37	AET	ODB-C13-ODA	-2.10	119.33	124.09

There are no chirality outliers.

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	17	H2U	O4'-C1'-N1-C6

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Mol	Chain	Res	Type	Atoms
22	1K	17	H2U	C2'-C1'-N1-C2
22	1K	17	H2U	C2'-C1'-N1-C6
22	1L	17	H2U	O4'-C1'-N1-C2
22	1L	17	H2U	O4'-C1'-N1-C6
22	1K	37	AET	C5-C6-N6-C10
22	1K	37	AET	N1-C6-N6-C10
22	1K	37	AET	C13-C12-C14-O14
22	1K	37	AET	C13-C12-C14-C15
22	1L	37	AET	C14-C12-N11-C10
22	1K	54	5MU	C3'-C4'-C5'-O5'
22	1L	55	PSU	C2'-C1'-C5-C4
22	1K	54	5MU	O4'-C4'-C5'-O5'
22	1L	37	AET	N11-C12-C14-O14
22	1K	55	PSU	C3'-C4'-C5'-O5'
22	1L	55	PSU	C3'-C4'-C5'-O5'
22	1K	37	AET	N1-C6-N6-CM6
22	1L	55	PSU	O4'-C4'-C5'-O5'
22	1K	17	H2U	O4'-C1'-N1-C2
22	1L	37	AET	C13-C12-C14-C15
22	1K	55	PSU	O4'-C4'-C5'-O5'
22	1L	37	AET	N1-C6-N6-CM6
22	1L	37	AET	C5-C6-N6-C10
22	1L	17	H2U	O4'-C4'-C5'-O5'
22	1L	37	AET	C13-C12-C14-O14
22	1K	37	AET	N11-C12-C14-C15
22	1L	17	H2U	C2'-C1'-N1-C6
22	1L	37	AET	N1-C6-N6-C10
22	1L	55	PSU	O4'-C1'-C5-C6
22	1K	54	5MU	C2'-C1'-N1-C2
22	1L	37	AET	N11-C12-C14-C15
22	1K	54	5MU	C2'-C1'-N1-C6
22	1L	17	H2U	C2'-C1'-N1-C2
22	1K	37	AET	C14-C12-N11-C10

There are no ring outliers.

3 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	37	AET	4	0
22	1K	54	5MU	1	0
22	1L	37	AET	2	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1086 ligands modelled in this entry, 1084 are monoatomic - leaving 2 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	$\# Z > 2$
56	SF4	3E	301	-	0,12,12	-	-	-		
56	SF4	32	302	4	0,12,12	-	-	-		

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
56	SF4	3E	301	-	-	-	0/6/5/5
56	SF4	32	302	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	3E	301	SF4	1	0
56	32	302	SF4	2	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
24	3L	1
24	3K	1
26	1H	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	3L	48:C	O3'	49:G	P	5.47
1	3K	48:C	O3'	49:G	P	4.84
1	1H	1053:C	O3'	1054:A	P	3.77

6 Fit of model and data i

6.1 Protein, DNA and RNA chains i

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	1500/1522 (98%)	0.00	37 (2%) 57 59	76, 125, 184, 245	0
1	1G	1490/1522 (97%)	-0.24	16 (1%) 80 84	83, 128, 188, 248	0
2	12	207/256 (80%)	0.14	11 (5%) 26 28	161, 184, 195, 199	0
2	1E	231/256 (90%)	-0.18	2 (0%) 84 87	141, 166, 184, 190	0
3	22	197/239 (82%)	1.16	52 (26%) 0 0	154, 171, 186, 191	0
3	2E	205/239 (85%)	0.79	36 (17%) 1 1	111, 131, 153, 161	0
4	32	208/209 (99%)	0.40	12 (5%) 23 25	120, 138, 152, 159	0
4	3E	207/209 (99%)	1.13	44 (21%) 0 1	110, 133, 148, 155	0
5	42	150/162 (92%)	0.42	19 (12%) 3 4	125, 140, 157, 169	0
5	4E	149/162 (91%)	0.78	22 (14%) 2 2	103, 125, 139, 144	0
6	52	101/101 (100%)	-0.06	0 100 100	115, 130, 143, 149	0
6	5E	100/101 (99%)	0.05	1 (1%) 82 86	111, 130, 143, 148	0
7	62	138/156 (88%)	1.35	35 (25%) 0 0	141, 152, 160, 165	0
7	6E	154/156 (98%)	1.13	29 (18%) 1 1	121, 144, 164, 171	0
8	72	137/138 (99%)	0.59	17 (12%) 4 4	124, 148, 161, 164	0
8	7E	138/138 (100%)	0.77	19 (13%) 2 3	114, 133, 143, 154	0
9	82	121/128 (94%)	1.01	24 (19%) 1 1	136, 172, 180, 189	0
9	8E	126/128 (98%)	0.59	20 (15%) 1 2	113, 159, 175, 182	0
10	1A	99/105 (94%)	0.88	21 (21%) 0 1	151, 177, 186, 190	0
10	1I	94/105 (89%)	0.97	28 (29%) 0 0	108, 151, 170, 173	0
11	2A	113/129 (87%)	2.03	50 (44%) 0 0	107, 132, 147, 153	0
11	2I	111/129 (86%)	2.17	55 (49%) 0 0	100, 132, 150, 165	0
12	3A	122/132 (92%)	1.70	50 (40%) 0 0	112, 126, 140, 147	0
12	3I	122/132 (92%)	1.86	53 (43%) 0 0	89, 102, 123, 138	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	4A	109/126 (86%)	1.07	33 (30%) 0 0	147, 174, 184, 192	0
13	4I	119/126 (94%)	0.56	21 (17%) 1 1	108, 141, 151, 161	0
14	5A	59/61 (96%)	4.09	38 (64%) 0 0	155, 172, 184, 193	0
14	5I	60/61 (98%)	1.83	27 (45%) 0 0	113, 123, 140, 142	0
15	6A	87/89 (97%)	0.23	5 (5%) 23 26	113, 133, 149, 153	0
15	6I	87/89 (97%)	0.43	7 (8%) 12 14	110, 126, 142, 148	0
16	7A	84/88 (95%)	-0.12	0 100 100	110, 128, 147, 175	0
16	7I	83/88 (94%)	1.60	31 (37%) 0 0	127, 142, 164, 175	0
17	8A	99/105 (94%)	1.47	32 (32%) 0 0	116, 127, 141, 145	0
17	8I	100/105 (95%)	1.19	27 (27%) 0 0	111, 128, 138, 139	0
18	9A	69/88 (78%)	0.03	2 (2%) 51 54	118, 135, 151, 160	0
18	9I	68/88 (77%)	0.16	0 100 100	114, 132, 145, 153	0
19	AA	65/93 (69%)	1.08	14 (21%) 0 1	170, 188, 195, 196	0
19	AI	82/93 (88%)	0.53	10 (12%) 4 4	116, 140, 164, 171	0
20	BA	99/106 (93%)	0.87	15 (15%) 2 2	116, 133, 153, 156	0
20	BI	97/106 (91%)	0.59	7 (7%) 15 18	124, 143, 162, 165	0
21	1B	22/27 (81%)	1.34	7 (31%) 0 0	138, 161, 164, 166	0
21	1F	23/27 (85%)	0.93	7 (30%) 0 0	117, 127, 134, 141	0
22	1K	70/76 (92%)	0.28	6 (8%) 10 12	118, 199, 215, 218	0
22	1L	70/76 (92%)	0.65	10 (14%) 2 3	137, 224, 235, 238	0
23	2K	75/77 (97%)	0.79	9 (12%) 4 5	84, 118, 147, 158	0
23	2L	75/77 (97%)	0.38	4 (5%) 26 28	94, 135, 158, 169	0
24	3K	72/76 (94%)	0.65	9 (12%) 3 4	88, 208, 234, 241	0
24	3L	72/76 (94%)	-0.01	5 (6%) 16 19	100, 201, 226, 230	0
25	4K	18/27 (66%)	3.49	15 (83%) 0 0	96, 147, 195, 200	0
25	4L	14/27 (51%)	2.16	6 (42%) 0 0	118, 164, 175, 177	0
26	14	2811/2917 (96%)	0.11	85 (3%) 50 53	64, 104, 193, 248	0
26	1H	2811/2917 (96%)	-0.00	12 (0%) 92 94	56, 89, 174, 260	0
27	16	122/122 (100%)	-0.36	0 100 100	87, 112, 131, 182	0
27	1J	122/122 (100%)	-0.43	1 (0%) 86 89	117, 142, 157, 190	0
28	11	273/276 (98%)	1.06	52 (19%) 1 1	57, 82, 102, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	19	274/276 (99%)	1.58	97 (35%) 0 0	59, 90, 108, 119	0
29	21	205/206 (99%)	1.23	52 (25%) 0 0	66, 100, 134, 144	0
29	29	204/206 (99%)	1.23	54 (26%) 0 0	76, 114, 145, 159	0
30	31	202/210 (96%)	0.84	29 (14%) 2 3	60, 93, 126, 139	0
30	39	204/210 (97%)	0.46	24 (11%) 4 5	74, 123, 157, 170	0
31	41	179/182 (98%)	0.52	15 (8%) 11 13	105, 125, 147, 157	0
31	49	180/182 (98%)	1.87	70 (38%) 0 0	139, 158, 176, 187	0
32	51	174/180 (96%)	0.02	0 100 100	99, 119, 132, 147	0
32	59	169/180 (93%)	2.42	79 (46%) 0 0	174, 207, 224, 229	0
33	61	145/148 (97%)	-0.27	0 100 100	97, 148, 162, 167	0
33	69	145/148 (97%)	0.01	5 (3%) 45 47	100, 142, 160, 165	0
34	15	137/140 (97%)	2.89	91 (66%) 0 0	94, 127, 154, 162	0
34	58	125/140 (89%)	1.12	27 (21%) 0 1	84, 101, 118, 135	0
35	25	122/122 (100%)	1.71	51 (41%) 0 0	82, 104, 119, 128	0
35	68	122/122 (100%)	1.19	28 (22%) 0 0	73, 94, 112, 126	0
36	35	147/150 (98%)	1.68	58 (39%) 0 0	74, 122, 150, 161	0
36	78	148/150 (98%)	0.54	17 (11%) 4 5	63, 98, 121, 128	0
37	45	138/141 (97%)	3.03	84 (60%) 0 0	91, 125, 148, 160	0
37	88	141/141 (100%)	1.28	37 (26%) 0 0	74, 98, 119, 144	0
38	55	118/118 (100%)	1.15	31 (26%) 0 0	79, 101, 115, 124	0
38	98	118/118 (100%)	1.50	36 (30%) 0 0	78, 97, 116, 131	0
39	65	110/112 (98%)	0.14	3 (2%) 54 57	116, 134, 146, 155	0
39	A8	111/112 (99%)	0.78	11 (9%) 7 8	93, 108, 124, 136	0
40	75	140/146 (95%)	0.67	13 (9%) 8 10	97, 114, 166, 177	0
40	B8	136/146 (93%)	0.70	16 (11%) 4 5	89, 108, 150, 175	0
41	85	116/118 (98%)	1.27	28 (24%) 0 0	82, 117, 146, 155	0
41	C8	115/118 (97%)	0.53	6 (5%) 27 29	68, 94, 121, 131	0
42	95	100/101 (99%)	1.53	32 (32%) 0 0	82, 141, 153, 159	0
42	D8	100/101 (99%)	0.92	15 (15%) 2 2	66, 112, 131, 136	0
43	A5	111/113 (98%)	1.38	31 (27%) 0 0	77, 95, 124, 143	0
43	E8	110/113 (97%)	1.04	19 (17%) 1 1	68, 87, 111, 124	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	B5	94/96 (97%)	0.76	9 (9%) 8 10	91, 104, 118, 125	0
44	F8	95/96 (98%)	0.63	8 (8%) 11 13	71, 85, 112, 122	0
45	C5	52/110 (47%)	1.51	15 (28%) 0 0	109, 122, 135, 145	0
45	G8	97/110 (88%)	-0.02	0 100 100	91, 107, 131, 142	0
46	D5	177/206 (85%)	1.82	70 (39%) 0 0	132, 166, 217, 221	0
46	H8	170/206 (82%)	0.99	33 (19%) 1 1	105, 137, 187, 195	0
47	E5	76/85 (89%)	2.58	37 (48%) 0 0	95, 109, 124, 131	0
47	I8	77/85 (90%)	1.67	25 (32%) 0 0	76, 88, 110, 120	0
48	F5	94/98 (95%)	2.16	49 (52%) 0 0	78, 104, 133, 138	0
48	J8	96/98 (97%)	1.86	43 (44%) 0 0	72, 94, 142, 152	0
49	G5	69/72 (95%)	0.22	3 (4%) 35 38	107, 128, 145, 156	0
49	K8	68/72 (94%)	0.39	0 100 100	78, 99, 116, 136	0
50	H5	58/60 (96%)	2.74	37 (63%) 0 0	100, 121, 137, 150	0
50	L8	58/60 (96%)	0.67	6 (10%) 6 7	72, 93, 122, 124	0
51	M8	60/71 (84%)	0.19	5 (8%) 11 13	126, 154, 167, 170	0
52	J5	56/60 (93%)	1.52	20 (35%) 0 0	74, 103, 138, 151	0
52	N8	48/60 (80%)	0.91	7 (14%) 2 2	64, 98, 126, 133	0
53	L5	48/49 (97%)	1.70	14 (29%) 0 0	70, 78, 110, 114	0
53	P8	47/49 (95%)	0.69	5 (10%) 6 7	61, 68, 90, 98	0
54	M5	64/65 (98%)	3.63	51 (79%) 0 0	83, 97, 115, 126	0
54	Q8	64/65 (98%)	2.00	35 (54%) 0 0	68, 83, 101, 110	0
All	All	20451/21509 (95%)	0.58	2681 (13%) 3 4	56, 119, 186, 260	0

All (2681) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
14	5A	38	GLY	16.2
32	59	93	GLY	14.9
22	1L	76	A	14.8
47	E5	9	SER	13.8
14	5A	39	LEU	13.7
14	5A	37	PHE	13.1
32	59	151	ILE	13.0
47	E5	8	GLY	12.2
14	5A	34	TYR	11.5

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Mol	Chain	Res	Type	RSRZ
14	5A	36	PHE	10.5
32	59	114	VAL	10.1
13	4I	120	LYS	10.1
9	8E	126	SER	10.1
32	59	169	VAL	9.6
32	59	111	HIS	9.6
52	J5	2	ALA	9.5
12	3A	64	TYR	9.5
14	5A	26	ARG	9.4
46	D5	149	SER	9.4
32	59	94	TYR	9.2
47	E5	12	ASN	9.1
25	4K	13	A	9.0
32	59	17	VAL	9.0
47	I8	8	GLY	8.9
7	6E	84	ASN	8.9
3	22	155	GLY	8.7
29	29	151	TYR	8.7
32	59	170	ARG	8.7
13	4A	102	ARG	8.6
31	49	137	GLU	8.5
48	F5	36	GLY	8.5
25	4K	25	A	8.4
37	45	6	ARG	8.4
14	5A	24	CYS	8.4
4	3E	110	PHE	8.3
37	45	87	LYS	8.3
32	59	112	PRO	8.2
14	5A	35	ARG	8.1
22	1L	75	C	8.0
14	5A	41	ARG	7.9
32	59	91	GLY	7.9
7	6E	80	VAL	7.8
35	25	1	MET	7.8
32	59	88	LEU	7.7
34	15	51	PHE	7.6
54	M5	2	PRO	7.6
12	3A	19	ARG	7.6
14	5A	23	ARG	7.6
37	45	65	PHE	7.6
14	5A	30	ALA	7.5
14	5A	25	VAL	7.5

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Mol	Chain	Res	Type	RSRZ
32	59	164	TYR	7.4
53	L5	1	MET	7.4
10	1A	64	GLU	7.4
32	59	83	TYR	7.3
34	15	84	LYS	7.3
22	1K	76	A	7.3
32	59	87	LEU	7.2
34	15	73	THR	7.2
37	45	33	GLY	7.2
36	35	51	PHE	7.2
17	8I	101	ARG	7.1
9	8E	127	LYS	7.1
22	1L	2	C	7.1
37	45	85	LYS	7.0
34	15	72	TYR	7.0
37	45	68	ILE	7.0
45	C5	29	GLU	7.0
47	E5	21	LEU	7.0
10	1A	54	PHE	7.0
7	6E	81	GLY	7.0
48	J8	21	ARG	6.9
54	M5	64	TYR	6.9
45	C5	64	GLU	6.9
37	45	66	ILE	6.9
31	49	139	LEU	6.9
34	15	85	ILE	6.8
46	D5	152	ALA	6.8
37	45	41	TRP	6.7
37	45	91	GLU	6.7
50	H5	28	LEU	6.7
52	J5	3	LYS	6.7
37	45	11	LYS	6.7
12	3A	99	HIS	6.7
14	5A	52	GLN	6.7
4	3E	24	GLU	6.6
13	4A	111	LYS	6.6
37	45	105	GLU	6.6
5	4E	24	ARG	6.6
7	6E	78	ARG	6.6
48	F5	21	ARG	6.6
31	49	138	GLN	6.6
42	D8	37	VAL	6.6

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Mol	Chain	Res	Type	RSRZ
10	1A	55	LYS	6.5
9	8E	128	ARG	6.5
37	45	12	GLN	6.5
54	M5	5	LYS	6.5
37	45	99	PRO	6.5
10	1A	61	GLU	6.4
34	15	74	ARG	6.4
5	4E	23	GLY	6.4
10	1I	47	PHE	6.4
31	49	136	ARG	6.4
12	3A	28	LYS	6.4
37	45	75	THR	6.4
36	35	65	ARG	6.4
37	45	7	MET	6.3
11	2I	25	TYR	6.3
11	2I	42	TRP	6.3
14	5A	50	LYS	6.3
54	M5	22	VAL	6.3
34	15	8	GLN	6.3
7	6E	79	ARG	6.3
54	M5	6	THR	6.3
7	62	2	ALA	6.3
37	45	92	GLY	6.3
52	J5	10	LYS	6.3
17	8I	98	LEU	6.2
9	82	116	LYS	6.2
54	M5	4	MET	6.2
35	25	42	SER	6.2
36	35	46	LYS	6.2
50	H5	10	LYS	6.2
29	29	141	ILE	6.2
36	35	45	LEU	6.2
7	62	5	ARG	6.2
43	E8	92	ARG	6.2
50	H5	27	GLY	6.2
29	29	150	VAL	6.1
36	35	68	GLN	6.1
54	M5	40	GLU	6.1
4	3E	111	ALA	6.1
31	49	155	MET	6.1
37	45	104	PHE	6.1
37	45	39	PRO	6.1

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Mol	Chain	Res	Type	RSRZ
43	A5	94	ASP	6.1
7	6E	85	TYR	6.0
48	F5	22	GLY	6.0
42	95	1	MET	6.0
12	3I	32	PHE	6.0
12	3I	19	ARG	6.0
46	D5	146	ILE	6.0
37	45	97	VAL	6.0
32	59	165	ALA	6.0
54	M5	16	ILE	6.0
19	AA	67	VAL	6.0
28	19	5	LYS	5.9
37	45	76	LYS	5.9
10	1A	49	VAL	5.9
32	59	108	GLY	5.9
11	2I	92	GLU	5.9
54	M5	7	HIS	5.9
46	D5	153	SER	5.9
11	2I	50	TYR	5.9
14	5I	30	ALA	5.9
48	F5	33	LYS	5.9
54	M5	8	LYS	5.8
12	3I	20	LYS	5.8
14	5A	51	GLY	5.8
34	15	37	LYS	5.8
37	45	98	LYS	5.8
12	3I	33	ARG	5.8
7	6E	82	GLY	5.8
36	35	74	GLU	5.8
32	59	122	THR	5.7
20	BI	18	GLN	5.7
3	2E	196	LEU	5.7
34	15	47	ALA	5.7
9	8E	117	HIS	5.7
48	F5	28	GLY	5.7
14	5A	33	VAL	5.7
31	49	34	LEU	5.7
29	29	130	GLY	5.7
22	1L	1	G	5.7
32	59	167	GLU	5.6
12	3I	91	LYS	5.6
47	E5	11	ARG	5.6

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Mol	Chain	Res	Type	RSRZ
7	6E	53	LYS	5.6
32	59	29	PRO	5.6
37	45	77	LYS	5.6
37	45	93	TYR	5.6
12	3I	61	THR	5.6
34	58	73	THR	5.6
36	35	71	VAL	5.6
37	45	88	GLY	5.6
50	H5	15	TYR	5.6
7	62	146	GLU	5.6
48	F5	20	ARG	5.6
1	1G	1202	G	5.6
43	A5	92	ARG	5.6
32	59	34	GLU	5.6
46	D5	150	LEU	5.6
29	29	149	ARG	5.6
7	6E	83	ALA	5.6
14	5A	42	ILE	5.6
31	49	160	VAL	5.6
37	45	96	VAL	5.6
25	4L	25	A	5.6
29	29	143	ASN	5.5
37	45	22	LYS	5.5
54	M5	15	LYS	5.5
34	15	44	PRO	5.5
11	2A	31	THR	5.5
36	35	64	LYS	5.5
13	4A	84	ILE	5.5
24	3K	35	G	5.5
5	4E	19	MET	5.5
54	M5	12	LYS	5.5
11	2A	75	TYR	5.5
3	22	177	THR	5.5
31	49	177	GLY	5.5
48	J8	42	GLN	5.5
12	3A	26	ALA	5.5
31	49	133	LEU	5.4
31	49	35	GLU	5.4
11	2A	25	TYR	5.4
3	2E	166	GLU	5.4
12	3I	64	TYR	5.4
48	F5	23	LYS	5.4

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Mol	Chain	Res	Type	RSRZ
10	1A	47	PHE	5.4
36	35	110	TYR	5.4
50	H5	26	LEU	5.4
50	H5	30	ARG	5.3
34	15	83	LYS	5.3
11	2I	43	SER	5.3
32	59	33	LEU	5.3
11	2I	73	MET	5.3
29	29	145	LYS	5.3
47	E5	10	THR	5.3
32	59	76	VAL	5.3
47	E5	14	ARG	5.3
13	4A	98	VAL	5.3
14	5A	22	THR	5.3
13	4I	102	ARG	5.3
34	15	9	VAL	5.3
48	F5	34	THR	5.2
14	5A	47	LEU	5.2
29	29	126	PRO	5.2
34	15	13	TRP	5.2
48	F5	27	GLU	5.2
13	4A	117	VAL	5.2
11	2A	42	TRP	5.2
7	62	74	GLU	5.2
32	59	55	PRO	5.2
43	E8	94	ASP	5.2
46	D5	172	ALA	5.2
11	2A	43	SER	5.2
34	15	86	PRO	5.2
37	45	10	ARG	5.2
37	45	86	GLY	5.1
13	4A	110	ARG	5.1
54	M5	50	LEU	5.1
10	1I	60	ARG	5.1
47	I8	84	LEU	5.1
21	1B	13	ILE	5.1
37	45	69	PHE	5.1
3	2E	193	TYR	5.1
29	21	141	ILE	5.1
3	2E	164	ARG	5.1
54	M5	23	VAL	5.1
28	11	2	ALA	5.1

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Mol	Chain	Res	Type	RSRZ
29	21	151	TYR	5.1
48	F5	37	ILE	5.1
9	8E	125	TYR	5.0
12	3A	20	LYS	5.0
37	45	71	ASP	5.0
32	59	160	LYS	5.0
37	45	32	TYR	5.0
14	5A	28	GLY	5.0
17	8A	22	LEU	5.0
54	M5	24	ALA	5.0
19	AA	9	VAL	5.0
19	AA	10	PHE	5.0
46	D5	162	GLU	5.0
13	4I	119	GLY	5.0
47	E5	22	GLY	5.0
54	Q8	28	GLY	5.0
25	4K	23	A	5.0
11	2A	29	ILE	5.0
38	98	34	ILE	5.0
3	2E	165	THR	4.9
48	F5	32	LYS	4.9
32	59	84	SER	4.9
31	49	157	ILE	4.9
24	3K	34	G	4.9
34	15	50	ASP	4.9
30	39	82	ILE	4.9
32	59	90	LYS	4.9
11	2A	93	GLN	4.9
14	5A	31	ARG	4.9
21	1B	14	TRP	4.9
23	2K	1	C	4.9
43	A5	46	PHE	4.9
36	35	70	GLN	4.9
10	1A	59	SER	4.9
54	M5	13	ARG	4.9
12	3A	27	LEU	4.9
9	82	109	VAL	4.8
9	8E	121	ARG	4.8
32	59	16	SER	4.8
37	45	74	TYR	4.8
43	A5	86	LEU	4.8
7	62	73	MET	4.8

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Mol	Chain	Res	Type	RSRZ
10	1I	48	THR	4.8
34	15	48	MET	4.8
32	59	168	PRO	4.8
3	22	198	VAL	4.8
37	45	8	LYS	4.8
52	J5	11	THR	4.8
37	45	17	LEU	4.8
8	72	112	LEU	4.8
48	J8	32	LYS	4.8
34	15	69	GLN	4.8
7	62	139	GLU	4.8
13	4A	76	ALA	4.8
29	29	124	GLY	4.8
16	7I	32	TYR	4.8
46	D5	173	ALA	4.8
22	1L	71	G	4.8
48	F5	18	ILE	4.8
4	3E	3	ARG	4.8
31	49	178	PHE	4.7
10	1A	58	ASP	4.7
10	1A	56	HIS	4.7
28	19	177	LEU	4.7
3	22	7	PRO	4.7
14	5I	29	ARG	4.7
11	2I	49	GLY	4.7
47	E5	13	GLY	4.7
26	14	229	A	4.7
48	F5	30	VAL	4.7
11	2I	48	ILE	4.7
24	3K	33	U	4.7
54	M5	59	LYS	4.7
4	3E	108	LEU	4.7
31	49	161	THR	4.7
47	E5	45	PHE	4.7
46	D5	99	TYR	4.7
42	95	74	LYS	4.7
11	2I	124	LYS	4.7
12	3I	30	ALA	4.7
13	4A	103	THR	4.7
32	59	124	GLU	4.7
32	59	171	LEU	4.7
11	2A	126	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
50	H5	39	ASP	4.7
37	45	89	ASN	4.7
34	15	108	PRO	4.7
46	H8	86	VAL	4.7
26	14	2506	U	4.7
54	M5	56	GLU	4.7
11	2I	91	ARG	4.6
1	13	1394	A	4.6
34	15	82	LEU	4.6
43	A5	82	LEU	4.6
47	E5	41	ARG	4.6
54	M5	54	GLU	4.6
14	5A	53	LEU	4.6
24	3L	33	U	4.6
12	3A	21	LYS	4.6
46	D5	7	ALA	4.6
3	2E	155	GLY	4.6
34	58	74	ARG	4.6
25	4L	23	A	4.6
46	D5	171	ILE	4.6
50	H5	53	LEU	4.6
34	15	46	VAL	4.6
3	2E	200	ALA	4.6
35	25	2	ILE	4.6
47	I8	9	SER	4.6
31	49	82	LEU	4.6
37	45	64	ILE	4.6
36	35	35	HIS	4.6
54	M5	25	MET	4.6
14	5A	21	TYR	4.6
17	8A	7	THR	4.6
50	H5	19	GLN	4.6
20	BA	9	ASN	4.6
34	15	87	LEU	4.6
9	82	115	GLY	4.6
10	1A	62	HIS	4.5
31	49	97	ASP	4.5
17	8I	37	LYS	4.5
17	8A	71	PHE	4.5
14	5I	25	VAL	4.5
17	8I	99	SER	4.5
53	L5	2	LYS	4.5

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Mol	Chain	Res	Type	RSRZ
35	68	1	MET	4.5
34	15	75	TYR	4.5
36	35	62	LEU	4.5
36	35	53	GLY	4.5
12	3I	62	SER	4.5
54	M5	61	LEU	4.5
35	25	19	ILE	4.5
36	35	38	GLN	4.5
36	35	44	GLY	4.5
3	22	60	ALA	4.5
29	29	114	ALA	4.5
22	1K	75	C	4.5
7	6E	151	TYR	4.5
8	7E	63	LEU	4.5
28	19	6	PHE	4.5
37	45	100	GLY	4.5
32	59	85	LYS	4.5
34	15	109	LYS	4.5
4	3E	126	ILE	4.5
9	8E	116	LYS	4.5
12	3I	28	LYS	4.5
12	3I	89	ARG	4.5
16	7I	66	PRO	4.5
54	M5	62	LEU	4.5
37	45	94	VAL	4.5
38	55	10	LEU	4.5
11	2A	18	ARG	4.5
25	4K	15	A	4.5
29	29	125	GLY	4.5
32	59	113	VAL	4.5
14	5A	59	ALA	4.5
34	15	138	LEU	4.5
16	7I	31	LYS	4.5
54	M5	21	LYS	4.5
11	2A	96	ARG	4.4
34	15	43	THR	4.4
3	22	196	LEU	4.4
14	5A	46	GLU	4.4
37	45	81	VAL	4.4
50	H5	9	VAL	4.4
50	H5	7	LYS	4.4
29	21	138	PRO	4.4

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Mol	Chain	Res	Type	RSRZ
46	D5	151	HIS	4.4
12	3I	23	LYS	4.4
48	F5	25	LYS	4.4
3	22	157	ILE	4.4
4	3E	138	TYR	4.4
25	4L	24	A	4.4
37	45	72	LYS	4.4
42	95	99	ILE	4.4
50	H5	12	PRO	4.4
3	22	53	ALA	4.4
46	D5	51	ALA	4.4
3	2E	190	ARG	4.4
11	2I	30	VAL	4.4
29	29	116	VAL	4.4
37	45	103	MET	4.4
10	1I	64	GLU	4.4
37	45	19	GLY	4.4
54	M5	30	ARG	4.4
13	4I	96	LEU	4.4
29	29	135	HIS	4.4
31	49	23	PHE	4.4
3	2E	201	TYR	4.4
10	1A	50	ILE	4.4
34	15	126	PRO	4.4
52	J5	8	LYS	4.4
14	5I	34	TYR	4.4
16	7I	39	TYR	4.4
43	E8	96	ILE	4.4
29	29	133	LYS	4.4
38	55	5	LYS	4.4
24	3L	34	G	4.4
13	4A	101	GLN	4.4
29	21	55	ASN	4.4
16	7I	29	ASP	4.4
32	59	152	ARG	4.3
46	D5	163	LEU	4.3
47	E5	75	LEU	4.3
8	72	131	GLY	4.3
37	45	90	VAL	4.3
42	95	81	TYR	4.3
54	M5	29	LYS	4.3
29	29	134	ILE	4.3

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Mol	Chain	Res	Type	RSRZ
46	H8	29	TYR	4.3
53	L5	48	LYS	4.3
34	15	119	ARG	4.3
9	8E	123	PRO	4.3
26	14	944	G	4.3
28	19	182	LEU	4.3
11	2I	122	LYS	4.3
17	8I	91	ARG	4.3
35	25	20	MET	4.3
40	B8	106	SER	4.3
12	3I	96	VAL	4.3
31	41	88	ILE	4.3
46	D5	5	LEU	4.3
46	D5	125	LEU	4.3
47	E5	19	LYS	4.3
48	F5	29	GLY	4.3
11	2A	21	ILE	4.3
29	29	142	GLY	4.3
12	3A	98	TYR	4.3
46	H8	38	TYR	4.3
52	N8	5	PRO	4.3
22	1K	3	U	4.3
3	22	101	LEU	4.3
35	25	122	LEU	4.3
31	49	83	ARG	4.3
54	M5	58	ILE	4.3
12	3A	23	LYS	4.3
36	35	107	LYS	4.3
16	7I	28	ARG	4.3
19	AA	68	GLY	4.3
31	49	176	LEU	4.3
50	H5	29	ARG	4.3
12	3A	32	PHE	4.3
37	88	87	LYS	4.3
52	J5	5	PRO	4.3
8	7E	137	VAL	4.2
19	AA	53	ASN	4.2
28	19	55	GLY	4.2
32	59	92	ILE	4.2
7	62	103	TRP	4.2
29	29	115	GLY	4.2
43	A5	93	ALA	4.2

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Mol	Chain	Res	Type	RSRZ
12	3A	89	ARG	4.2
32	59	117	PRO	4.2
13	4A	94	ARG	4.2
32	59	19	VAL	4.2
26	14	832	G	4.2
43	A5	98	LYS	4.2
8	72	133	LEU	4.2
12	3I	94	PRO	4.2
3	2E	199	LYS	4.2
41	85	89	GLU	4.2
46	D5	144	LEU	4.2
11	2I	83	ILE	4.2
46	D5	50	GLN	4.2
9	82	56	LEU	4.2
48	J8	36	GLY	4.2
29	29	123	ALA	4.2
5	4E	18	ARG	4.2
37	88	99	PRO	4.2
37	45	70	PRO	4.2
31	49	74	LYS	4.2
43	A5	83	LYS	4.2
54	Q8	5	LYS	4.2
11	2I	62	GLN	4.2
36	35	50	ARG	4.1
28	19	247	ALA	4.1
37	45	102	VAL	4.1
28	19	40	THR	4.1
37	45	38	GLU	4.1
54	M5	65	GLU	4.1
12	3I	27	LEU	4.1
32	59	20	ALA	4.1
32	59	26	VAL	4.1
48	J8	28	GLY	4.1
38	55	4	LEU	4.1
31	49	33	ARG	4.1
31	49	32	PRO	4.1
14	5A	6	LEU	4.1
26	14	2581	G	4.1
34	15	90	MET	4.1
19	AA	11	VAL	4.1
28	11	262	ARG	4.1
8	7E	80	ILE	4.1

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Mol	Chain	Res	Type	RSRZ
11	2I	29	ILE	4.1
32	59	148	ILE	4.1
12	3I	46	LYS	4.1
50	H5	52	HIS	4.1
7	62	104	LEU	4.1
42	D8	38	LEU	4.1
43	A5	84	ARG	4.1
3	22	189	ALA	4.1
26	14	245	G	4.1
34	15	54	VAL	4.1
8	72	2	LEU	4.1
37	45	37	LEU	4.1
4	3E	96	LEU	4.1
17	8A	86	GLU	4.1
12	3A	69	TYR	4.1
9	8E	118	LYS	4.1
16	7I	36	ILE	4.1
44	B5	79	ALA	4.1
29	29	148	GLY	4.1
11	2I	125	PHE	4.1
3	2E	168	ALA	4.1
11	2I	100	ALA	4.1
31	49	179	PRO	4.1
46	H8	74	VAL	4.1
29	21	49	LEU	4.1
29	21	154	LYS	4.0
46	H8	98	MET	4.0
52	J5	7	PRO	4.0
34	15	45	ASN	4.0
13	4A	80	ARG	4.0
12	3A	68	ALA	4.0
31	49	150	ASP	4.0
46	D5	126	VAL	4.0
35	25	18	LYS	4.0
48	J8	35	THR	4.0
11	2A	83	ILE	4.0
3	22	199	LYS	4.0
41	85	40	PHE	4.0
29	29	122	PHE	4.0
42	95	75	PHE	4.0
11	2A	32	ILE	4.0
54	Q8	50	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
42	95	80	GLN	4.0
47	I8	69	PHE	4.0
28	19	2	ALA	4.0
48	F5	26	ARG	4.0
10	1A	48	THR	4.0
37	45	73	PRO	4.0
31	49	140	ILE	4.0
11	2A	62	GLN	4.0
12	3A	47	LYS	4.0
11	2A	89	ALA	4.0
34	15	57	ALA	4.0
10	1A	63	PHE	4.0
46	D5	9	TYR	4.0
37	45	80	GLU	4.0
34	15	52	VAL	4.0
20	BA	14	LYS	4.0
1	1G	915	A	4.0
29	21	134	ILE	4.0
31	49	80	PHE	4.0
43	A5	40	ASN	4.0
36	35	60	MET	4.0
11	2I	126	ARG	4.0
46	D5	69	THR	4.0
46	D5	121	HIS	4.0
54	Q8	44	LYS	3.9
4	3E	105	VAL	3.9
19	AI	75	ALA	3.9
40	75	50	ILE	3.9
28	19	27	THR	3.9
34	15	101	HIS	3.9
52	J5	4	HIS	3.9
12	3I	29	GLY	3.9
24	3K	36	U	3.9
16	7I	7	ALA	3.9
38	98	102	GLU	3.9
34	15	98	VAL	3.9
36	35	47	ASP	3.9
7	6E	86	GLN	3.9
44	F8	92	LEU	3.9
30	31	56	GLU	3.9
12	3I	98	TYR	3.9
34	15	12	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
47	E5	39	ARG	3.9
48	F5	4	VAL	3.9
4	3E	145	GLU	3.9
22	1L	72	C	3.9
28	19	183	ARG	3.9
41	85	25	TRP	3.9
41	85	63	VAL	3.9
32	59	61	HIS	3.9
41	85	72	HIS	3.9
32	59	123	PHE	3.9
48	F5	3	LYS	3.9
48	F5	10	LYS	3.9
34	15	30	ILE	3.9
46	D5	168	GLU	3.9
12	3A	85	ILE	3.9
25	4K	14	A	3.9
25	4K	26	A	3.9
3	2E	167	TRP	3.9
12	3I	31	PRO	3.9
16	7I	22	THR	3.9
16	7I	8	ARG	3.9
29	29	67	PHE	3.9
30	39	72	ARG	3.9
47	E5	69	PHE	3.9
9	82	110	GLU	3.9
40	75	35	LYS	3.9
3	22	191	THR	3.9
16	7I	30	GLY	3.9
34	15	53	VAL	3.8
48	J8	33	LYS	3.8
43	A5	97	LYS	3.8
46	D5	27	VAL	3.8
11	2A	20	TYR	3.8
12	3I	7	ILE	3.8
31	49	135	LEU	3.8
29	29	129	HIS	3.8
34	15	124	ALA	3.8
46	H8	88	PHE	3.8
34	15	79	PRO	3.8
35	25	43	VAL	3.8
32	59	166	GLY	3.8
10	1I	58	ASP	3.8

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Mol	Chain	Res	Type	RSRZ
16	7I	19	ILE	3.8
36	35	108	LYS	3.8
37	88	97	VAL	3.8
31	49	41	GLN	3.8
29	29	140	SER	3.8
34	58	72	TYR	3.8
42	95	12	TYR	3.8
9	82	121	ARG	3.8
37	45	67	ARG	3.8
38	98	45	ARG	3.8
28	19	156	ALA	3.8
48	F5	17	SER	3.8
43	A5	85	VAL	3.8
46	H8	8	TYR	3.8
5	42	123	LEU	3.8
10	1A	46	ARG	3.8
30	31	64	ILE	3.8
44	B5	68	ARG	3.8
46	D5	55	HIS	3.8
29	21	131	ALA	3.8
37	88	41	TRP	3.8
47	E5	24	LYS	3.8
26	14	2015	A	3.8
48	J8	20	ARG	3.8
37	45	79	LEU	3.8
30	39	75	HIS	3.8
46	H8	79	ARG	3.7
31	49	125	PHE	3.7
48	J8	17	SER	3.7
13	4A	73	GLU	3.7
37	88	91	GLU	3.7
30	31	77	ASP	3.7
21	1F	14	TRP	3.7
14	5I	22	THR	3.7
29	29	132	HIS	3.7
29	29	128	SER	3.7
31	41	82	LEU	3.7
34	58	109	LYS	3.7
13	4A	99	ARG	3.7
54	M5	31	HIS	3.7
34	15	11	PRO	3.7
3	22	10	PHE	3.7

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Mol	Chain	Res	Type	RSRZ
10	1I	63	PHE	3.7
32	59	15	VAL	3.7
46	D5	54	HIS	3.7
11	2I	28	THR	3.7
28	19	90	ALA	3.7
31	49	36	LYS	3.7
37	45	18	LYS	3.7
12	3A	55	VAL	3.7
54	Q8	22	VAL	3.7
4	3E	147	ALA	3.7
29	29	137	HIS	3.7
38	55	70	LEU	3.7
30	31	65	TRP	3.7
3	22	164	ARG	3.7
31	49	94	LEU	3.7
34	58	107	LEU	3.7
48	J8	15	ALA	3.7
31	49	39	ILE	3.7
28	19	4	LYS	3.7
29	21	147	PRO	3.7
46	H8	25	PRO	3.7
37	45	14	ARG	3.7
45	C5	65	ALA	3.7
50	H5	13	ILE	3.7
4	3E	140	VAL	3.7
31	49	159	VAL	3.7
48	J8	23	LYS	3.7
5	4E	14	ARG	3.7
10	1A	60	ARG	3.7
19	AA	40	ILE	3.7
11	2I	55	LYS	3.7
35	25	32	TYR	3.7
10	1I	61	GLU	3.7
1	13	1398	A	3.7
37	45	63	LYS	3.7
7	62	40	ALA	3.7
35	25	24	VAL	3.7
17	8I	96	GLU	3.7
11	2A	45	GLY	3.6
26	14	2505	G	3.6
19	AI	71	LEU	3.6
29	29	147	PRO	3.6

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Mol	Chain	Res	Type	RSRZ
37	88	17	LEU	3.6
48	J8	97	LEU	3.6
25	4K	22	A	3.6
25	4K	24	A	3.6
31	49	131	TYR	3.6
36	35	36	LYS	3.6
37	45	3	MET	3.6
11	2A	35	PRO	3.6
28	19	50	THR	3.6
13	4I	117	VAL	3.6
48	F5	7	ILE	3.6
17	8I	95	TYR	3.6
48	F5	62	VAL	3.6
35	68	45	GLU	3.6
30	39	68	LYS	3.6
22	1L	73	A	3.6
46	H8	70	LEU	3.6
52	J5	19	ARG	3.6
7	62	61	VAL	3.6
28	19	18	VAL	3.6
13	4I	97	PRO	3.6
32	59	72	ILE	3.6
28	11	111	LEU	3.6
12	3A	91	LYS	3.6
13	4A	96	LEU	3.6
41	85	55	ARG	3.6
54	M5	46	ARG	3.6
50	H5	32	GLN	3.6
31	49	81	LYS	3.6
37	45	40	ALA	3.6
5	4E	123	LEU	3.6
12	3I	63	GLY	3.6
37	88	25	ASP	3.6
37	45	106	VAL	3.6
43	E8	85	VAL	3.6
51	M8	22	ILE	3.6
37	45	34	LEU	3.6
3	22	37	GLN	3.6
7	62	62	PHE	3.6
1	13	815	A	3.6
34	15	115	ARG	3.6
47	I8	25	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
13	4A	112	GLY	3.6
34	15	81	GLY	3.6
34	15	117	PHE	3.6
9	8E	81	ILE	3.6
16	7I	1	MET	3.6
29	21	140	SER	3.6
32	59	24	VAL	3.6
35	68	52	VAL	3.6
2	12	133	LYS	3.6
23	2L	1	C	3.6
28	19	51	VAL	3.6
34	15	14	VAL	3.6
47	E5	53	MET	3.6
11	2I	60	ALA	3.6
36	35	106	LEU	3.6
39	A8	112	PHE	3.6
46	H8	39	VAL	3.6
36	78	53	GLY	3.6
29	29	113	PHE	3.5
40	B8	45	PHE	3.5
34	15	70	LYS	3.5
48	F5	39	LYS	3.5
3	22	39	ILE	3.5
11	2I	99	GLN	3.5
45	C5	5	MET	3.5
29	29	131	ALA	3.5
46	D5	155	LEU	3.5
29	21	152	LYS	3.5
54	M5	44	LYS	3.5
12	3I	68	ALA	3.5
14	5I	2	ALA	3.5
48	J8	27	GLU	3.5
52	J5	6	VAL	3.5
54	M5	14	VAL	3.5
9	8E	115	GLY	3.5
42	D8	40	LEU	3.5
28	19	9	TYR	3.5
54	M5	3	LYS	3.5
13	4I	88	ARG	3.5
32	59	102	ALA	3.5
11	2A	28	THR	3.5
36	35	75	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
37	45	132	VAL	3.5
46	D5	56	VAL	3.5
37	88	104	PHE	3.5
4	32	128	VAL	3.5
11	2A	84	VAL	3.5
28	19	147	LEU	3.5
11	2I	121	PRO	3.5
35	25	41	ALA	3.5
16	7I	17	TYR	3.5
38	98	115	GLU	3.5
3	22	6	HIS	3.5
8	7E	64	LYS	3.5
12	3A	100	ILE	3.5
35	25	22	ILE	3.5
34	15	34	LEU	3.5
36	35	59	LEU	3.5
46	D5	170	THR	3.5
48	F5	95	LEU	3.5
31	49	141	PHE	3.5
36	78	70	GLN	3.5
50	H5	11	SER	3.5
3	22	186	PHE	3.5
16	7I	9	PHE	3.5
14	5I	33	VAL	3.5
28	19	3	VAL	3.5
4	3E	176	LEU	3.5
12	3I	93	LEU	3.5
17	8A	43	LEU	3.5
34	15	38	HIS	3.5
7	62	7	ALA	3.5
30	31	66	PRO	3.5
38	98	8	ARG	3.5
46	D5	8	TYR	3.5
35	25	98	VAL	3.5
42	95	14	VAL	3.5
11	2I	19	ALA	3.5
28	19	38	LYS	3.5
47	I8	24	LYS	3.5
36	35	52	GLU	3.5
42	95	28	GLU	3.5
32	59	141	VAL	3.5
30	31	78	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
29	21	3	GLY	3.5
47	E5	46	LYS	3.5
35	68	81	ASP	3.5
29	29	138	PRO	3.5
32	59	32	GLU	3.5
36	35	76	LYS	3.5
46	D5	156	LYS	3.5
28	11	166	GLN	3.4
48	J8	16	ASN	3.4
3	22	184	TYR	3.4
9	82	114	TYR	3.4
5	42	14	ARG	3.4
13	4I	111	LYS	3.4
48	J8	13	ILE	3.4
13	4A	107	ALA	3.4
35	68	120	GLU	3.4
43	E8	93	ALA	3.4
3	22	153	VAL	3.4
28	19	200	ASP	3.4
11	2I	66	LEU	3.4
23	2K	40	C	3.4
28	19	257	LEU	3.4
29	21	133	LYS	3.4
34	15	99	LEU	3.4
54	M5	60	LEU	3.4
1	13	769	G	3.4
23	2K	39	A	3.4
29	29	159	HIS	3.4
36	78	64	LYS	3.4
16	7I	6	LEU	3.4
29	21	126	PRO	3.4
14	5A	32	SER	3.4
4	3E	139	ARG	3.4
20	BI	17	ARG	3.4
25	4L	22	A	3.4
41	85	30	LYS	3.4
47	E5	55	ARG	3.4
4	3E	21	LEU	3.4
12	3A	84	LEU	3.4
50	H5	31	LEU	3.4
30	39	10	PRO	3.4
34	15	39	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
12	3A	93	LEU	3.4
35	68	5	GLN	3.4
12	3I	85	ILE	3.4
34	15	127	ASP	3.4
37	45	78	PRO	3.4
54	M5	11	LYS	3.4
14	5I	32	SER	3.4
26	14	1026	U	3.4
46	D5	164	ALA	3.4
34	15	71	ILE	3.4
29	21	6	GLY	3.4
46	D5	79	ARG	3.4
32	59	18	GLU	3.4
46	D5	117	LEU	3.4
50	H5	8	LEU	3.4
36	35	111	ARG	3.4
37	45	5	ARG	3.4
46	H8	85	HIS	3.4
13	4A	97	PRO	3.4
46	D5	97	GLU	3.4
3	22	188	LEU	3.4
7	62	4	ARG	3.4
54	M5	9	GLY	3.4
54	M5	34	TRP	3.4
50	H5	49	LYS	3.4
46	D5	52	SER	3.4
34	15	100	GLU	3.4
23	2L	21	U	3.4
44	B5	28	PHE	3.4
42	95	15	GLU	3.4
9	8E	120	ARG	3.4
17	8I	100	LYS	3.4
43	E8	97	LYS	3.4
50	H5	55	ARG	3.4
5	4E	28	PHE	3.4
48	F5	60	PHE	3.4
12	3I	16	GLU	3.4
26	14	1264	G	3.4
32	59	159	GLU	3.4
46	D5	119	GLU	3.4
17	8A	25	ARG	3.4
42	D8	45	THR	3.4

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Mol	Chain	Res	Type	RSRZ
34	15	120	LEU	3.3
12	3A	31	PRO	3.3
12	3I	21	LYS	3.3
28	19	181	GLU	3.3
3	22	154	SER	3.3
9	82	102	LEU	3.3
34	15	122	VAL	3.3
17	8I	32	TYR	3.3
4	3E	131	ARG	3.3
14	5A	29	ARG	3.3
31	49	109	VAL	3.3
37	88	2	LEU	3.3
14	5A	10	ALA	3.3
28	19	271	ILE	3.3
46	D5	145	GLU	3.3
37	45	13	GLN	3.3
29	21	195	LEU	3.3
36	78	71	VAL	3.3
14	5A	49	HIS	3.3
5	4E	25	ARG	3.3
8	72	111	ILE	3.3
36	35	15	ARG	3.3
37	88	38	GLU	3.3
7	62	101	LEU	3.3
1	13	1497	G	3.3
53	L5	14	LYS	3.3
12	3I	99	HIS	3.3
30	31	51	THR	3.3
7	62	130	GLY	3.3
47	E5	37	LEU	3.3
13	4I	98	VAL	3.3
46	H8	28	MET	3.3
48	J8	61	ARG	3.3
54	Q8	53	PRO	3.3
12	3I	97	ARG	3.3
14	5I	31	ARG	3.3
28	11	91	ARG	3.3
48	F5	14	VAL	3.3
3	22	152	ILE	3.3
29	21	137	HIS	3.3
32	59	31	GLY	3.3
29	29	152	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
2	1E	96	ARG	3.3
37	88	68	ILE	3.3
11	2I	123	LYS	3.3
11	2A	22	HIS	3.3
35	25	31	LYS	3.3
9	82	123	PRO	3.3
11	2A	92	GLU	3.3
46	D5	81	ARG	3.3
38	98	6	SER	3.3
14	5A	58	LYS	3.3
11	2A	17	GLY	3.3
35	68	122	LEU	3.3
47	E5	38	VAL	3.3
4	3E	181	MET	3.3
7	6E	131	LYS	3.3
12	3I	22	SER	3.3
26	14	831	G	3.3
38	55	9	LYS	3.3
11	2I	45	GLY	3.3
11	2A	40	ILE	3.3
13	4A	95	GLY	3.3
46	D5	53	ILE	3.3
11	2I	82	VAL	3.3
28	11	184	LYS	3.3
53	L5	18	PHE	3.3
14	5A	48	ALA	3.2
35	25	37	ASP	3.2
47	E5	20	ARG	3.2
48	F5	40	ARG	3.2
13	4A	113	PRO	3.2
36	78	38	GLN	3.2
32	59	110	SER	3.2
41	85	62	ILE	3.2
28	11	175	LEU	3.2
38	98	21	TYR	3.2
12	3I	11	VAL	3.2
29	29	136	ARG	3.2
3	2E	78	GLY	3.2
17	8A	59	ILE	3.2
29	21	143	ASN	3.2
5	42	88	LYS	3.2
11	2I	64	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
34	15	31	ALA	3.2
44	B5	92	LEU	3.2
36	35	61	ARG	3.2
28	19	219	PRO	3.2
3	22	40	ARG	3.2
11	2I	120	ARG	3.2
37	88	14	ARG	3.2
4	3E	170	VAL	3.2
28	19	91	ARG	3.2
36	35	55	ARG	3.2
43	A5	90	ARG	3.2
50	L8	8	LEU	3.2
17	8A	57	VAL	3.2
38	98	47	PHE	3.2
46	D5	148	ASP	3.2
35	25	36	GLY	3.2
41	85	59	ARG	3.2
38	98	109	ALA	3.2
17	8I	88	TYR	3.2
20	BA	83	ARG	3.2
38	55	8	ARG	3.2
42	D8	54	GLY	3.2
34	15	89	LYS	3.2
1	1G	811	C	3.2
10	1A	10	GLY	3.2
42	95	18	LEU	3.2
42	95	65	GLY	3.2
38	98	69	ASP	3.2
17	8A	27	PHE	3.2
22	1L	3	U	3.2
26	14	2611	U	3.2
42	95	64	HIS	3.2
34	58	75	TYR	3.2
34	58	108	PRO	3.2
28	11	176	ARG	3.2
34	58	16	ILE	3.2
4	3E	185	PHE	3.2
13	4A	115	LYS	3.2
30	39	63	LYS	3.2
9	82	120	ARG	3.2
28	19	196	VAL	3.2
37	88	136	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
38	55	21	TYR	3.2
39	A8	91	PRO	3.2
7	62	6	ARG	3.2
47	E5	15	ASP	3.2
13	4A	90	LEU	3.2
34	15	15	LEU	3.2
38	98	44	LEU	3.2
11	2A	47	VAL	3.2
19	AA	35	SER	3.2
29	21	139	GLY	3.1
31	49	90	LEU	3.1
48	J8	22	GLY	3.1
41	85	90	VAL	3.1
8	7E	46	LYS	3.1
12	3A	46	LYS	3.1
48	F5	71	TYR	3.1
12	3I	60	LEU	3.1
8	7E	83	ILE	3.1
14	5I	26	ARG	3.1
28	19	13	ARG	3.1
5	4E	45	PHE	3.1
25	4L	21	C	3.1
26	14	2580	U	3.1
2	12	164	VAL	3.1
5	4E	21	ALA	3.1
9	8E	124	GLN	3.1
12	3I	67	THR	3.1
21	1B	6	ARG	3.1
42	95	16	PRO	3.1
12	3A	97	ARG	3.1
15	6A	88	ARG	3.1
50	H5	23	LEU	3.1
46	D5	154	ASP	3.1
7	62	43	PHE	3.1
30	39	89	VAL	3.1
32	59	41	MET	3.1
32	59	153	LYS	3.1
37	88	27	VAL	3.1
54	Q8	25	MET	3.1
11	2I	72	ALA	3.1
8	72	134	ILE	3.1
28	11	92	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
7	62	88	PRO	3.1
12	3A	25	PRO	3.1
12	3A	90	VAL	3.1
54	Q8	34	TRP	3.1
42	95	77	ALA	3.1
5	42	133	TYR	3.1
28	19	253	GLN	3.1
19	AI	74	PHE	3.1
52	J5	9	LYS	3.1
54	M5	47	LYS	3.1
22	1K	74	C	3.1
28	19	20	ASP	3.1
46	H8	72	ARG	3.1
54	Q8	56	GLU	3.1
54	Q8	3	LYS	3.1
30	39	83	PHE	3.1
37	88	88	GLY	3.1
3	2E	153	VAL	3.1
7	6E	87	VAL	3.1
9	82	117	HIS	3.1
34	15	35	ARG	3.1
41	C8	90	VAL	3.1
48	F5	38	SER	3.1
25	4K	16	A	3.1
26	14	244	A	3.1
36	35	58	THR	3.1
33	69	83	ALA	3.1
37	88	11	LYS	3.1
39	A8	48	LEU	3.1
3	22	8	ILE	3.1
19	AA	62	ILE	3.1
41	85	65	ILE	3.1
43	A5	6	ILE	3.1
32	59	79	VAL	3.1
54	Q8	54	GLU	3.1
35	25	25	LEU	3.1
10	1A	51	ARG	3.1
12	3A	29	GLY	3.1
13	4A	100	GLY	3.1
20	BA	15	ARG	3.1
24	3K	65	C	3.1
26	14	2055	C	3.1

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Mol	Chain	Res	Type	RSRZ
28	19	270	ILE	3.1
46	H8	27	VAL	3.1
48	F5	49	VAL	3.1
7	6E	153	HIS	3.1
10	1I	62	HIS	3.1
26	14	1131	G	3.1
32	59	134	SER	3.1
30	39	74	ARG	3.1
46	D5	120	ILE	3.1
28	11	181	GLU	3.1
29	21	116	VAL	3.1
13	4A	104	ARG	3.1
16	7I	46	PRO	3.1
17	8I	97	SER	3.1
19	AA	12	ASP	3.1
36	35	49	ARG	3.1
26	14	250	G	3.1
28	19	39	LYS	3.1
31	49	167	GLU	3.1
34	15	62	VAL	3.1
37	45	128	LYS	3.1
46	D5	28	MET	3.1
14	5A	57	ARG	3.1
28	19	54	ARG	3.1
7	62	26	PHE	3.0
47	E5	71	ASP	3.0
48	F5	31	GLY	3.0
25	4K	17	U	3.0
48	F5	42	GLN	3.0
34	15	10	GLU	3.0
35	25	120	GLU	3.0
38	55	6	SER	3.0
51	M8	66	SER	3.0
19	AA	5	LEU	3.0
31	49	43	LEU	3.0
12	3I	26	ALA	3.0
5	4E	22	GLY	3.0
12	3A	49	ASN	3.0
28	19	211	ARG	3.0
29	29	117	MET	3.0
43	A5	36	LEU	3.0
21	1F	16	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
12	3A	53	ARG	3.0
21	1F	15	ARG	3.0
29	21	32	PRO	3.0
7	6E	38	LEU	3.0
29	29	154	LYS	3.0
30	39	192	LEU	3.0
41	85	56	ASP	3.0
50	H5	18	ASP	3.0
54	M5	52	LYS	3.0
10	1I	46	ARG	3.0
29	29	139	GLY	3.0
10	1I	49	VAL	3.0
14	5A	56	VAL	3.0
17	8A	73	VAL	3.0
41	C8	2	PRO	3.0
14	5A	4	LYS	3.0
1	13	1501	C	3.0
5	4E	15	ARG	3.0
13	4I	103	THR	3.0
42	D8	55	ALA	3.0
11	2A	48	ILE	3.0
23	2K	21	U	3.0
26	14	247	G	3.0
35	68	22	ILE	3.0
21	1F	3	LYS	3.0
50	H5	6	VAL	3.0
52	N8	4	HIS	3.0
12	3I	17	LYS	3.0
34	15	104	LYS	3.0
37	88	77	LYS	3.0
2	12	102	LEU	3.0
28	19	201	HIS	3.0
47	I8	40	GLN	3.0
52	J5	25	LEU	3.0
10	1I	54	PHE	3.0
37	45	23	GLY	3.0
50	H5	14	GLY	3.0
7	62	76	ARG	3.0
26	14	200	U	3.0
28	19	7	LYS	3.0
10	1I	94	VAL	3.0
32	59	37	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
37	45	82	ARG	3.0
5	42	20	GLN	3.0
30	31	75	HIS	3.0
36	35	63	PRO	3.0
54	Q8	21	LYS	3.0
3	22	197	GLY	3.0
37	45	36	ALA	3.0
13	4A	108	ARG	3.0
54	M5	57	ARG	3.0
4	3E	184	LYS	3.0
4	32	169	LYS	3.0
26	14	2578	G	3.0
40	75	36	GLU	3.0
8	7E	109	ILE	3.0
31	49	37	VAL	3.0
31	49	113	ARG	3.0
52	J5	14	ALA	3.0
40	B8	105	LEU	3.0
29	21	54	GLN	3.0
46	D5	134	PRO	3.0
3	2E	189	ALA	2.9
26	1H	1248	G	2.9
3	2E	195	VAL	2.9
12	3I	90	VAL	2.9
28	19	153	ALA	2.9
37	45	44	ALA	2.9
48	J8	41	ARG	2.9
28	11	206	LEU	2.9
12	3A	48	PRO	2.9
29	21	136	ARG	2.9
11	2A	71	LYS	2.9
35	25	58	VAL	2.9
30	31	50	SER	2.9
23	2K	33	C	2.9
29	29	158	GLY	2.9
34	15	106	MET	2.9
48	J8	25	LYS	2.9
11	2I	47	VAL	2.9
46	D5	96	VAL	2.9
36	35	77	ARG	2.9
42	95	34	GLU	2.9
28	19	12	SER	2.9

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Mol	Chain	Res	Type	RSRZ
36	35	42	SER	2.9
12	3A	52	LEU	2.9
28	11	147	LEU	2.9
11	2A	59	TYR	2.9
24	3K	27	C	2.9
48	J8	34	THR	2.9
48	F5	15	ALA	2.9
1	1G	913	A	2.9
34	15	137	LYS	2.9
40	B8	109	GLU	2.9
4	32	64	LEU	2.9
11	2A	30	VAL	2.9
11	2A	108	ILE	2.9
39	A8	49	VAL	2.9
40	B8	67	SER	2.9
42	95	5	VAL	2.9
37	88	10	ARG	2.9
37	45	9	TYR	2.9
26	14	252	G	2.9
26	14	2508	G	2.9
50	H5	20	LYS	2.9
52	J5	13	LYS	2.9
1	13	1396	A	2.9
15	6I	87	ILE	2.9
17	8A	6	LEU	2.9
38	98	116	LEU	2.9
46	D5	137	ILE	2.9
54	Q8	32	LEU	2.9
3	2E	21	ARG	2.9
20	BI	16	HIS	2.9
31	49	73	ALA	2.9
32	59	21	PRO	2.9
35	25	33	ALA	2.9
46	H8	10	ARG	2.9
48	J8	24	ALA	2.9
48	F5	69	LYS	2.9
22	1L	4	G	2.9
12	3A	86	ARG	2.9
30	31	72	ARG	2.9
42	D8	39	LEU	2.9
38	55	40	LYS	2.9
43	A5	81	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
48	F5	24	ALA	2.9
10	I1	65	LEU	2.9
31	49	19	LEU	2.9
32	59	44	VAL	2.9
46	D5	82	ARG	2.9
48	J8	4	VAL	2.9
52	J5	15	ARG	2.9
54	M5	35	GLN	2.9
34	15	136	GLU	2.9
36	35	97	PRO	2.9
3	22	15	THR	2.9
5	42	29	GLY	2.9
36	35	79	ARG	2.9
50	H5	35	ARG	2.9
3	22	12	LEU	2.9
19	AI	60	VAL	2.9
34	15	55	VAL	2.9
45	C5	28	LYS	2.9
54	M5	26	LYS	2.9
11	2A	72	ALA	2.9
31	41	137	GLU	2.9
36	35	48	PRO	2.9
31	49	162	THR	2.9
34	58	54	VAL	2.9
42	95	96	ILE	2.9
45	C5	39	VAL	2.9
48	J8	18	ILE	2.9
53	P8	1	MET	2.9
54	M5	51	ALA	2.9
41	85	91	ASP	2.9
38	55	68	ARG	2.9
40	75	64	ARG	2.9
36	35	34	GLY	2.9
13	4A	106	ASN	2.9
28	19	155	LEU	2.9
35	68	82	ASN	2.9
35	25	40	VAL	2.9
32	59	106	THR	2.9
38	55	101	ALA	2.9
12	3I	47	LYS	2.9
4	3E	11	LEU	2.9
45	C5	66	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
46	H8	83	PRO	2.9
4	32	146	ILE	2.8
13	4I	105	THR	2.8
28	19	19	ALA	2.8
37	88	44	ALA	2.8
41	85	69	CYS	2.8
46	H8	99	TYR	2.8
12	3I	84	LEU	2.8
34	58	34	LEU	2.8
36	35	69	GLY	2.8
38	98	100	LEU	2.8
48	J8	73	LEU	2.8
32	59	89	ILE	2.8
43	A5	50	VAL	2.8
3	22	190	ARG	2.8
52	J5	12	SER	2.8
9	82	55	ALA	2.8
16	7I	27	LYS	2.8
28	11	93	ALA	2.8
29	29	155	LYS	2.8
28	19	17	THR	2.8
39	A8	111	GLU	2.8
54	Q8	64	TYR	2.8
35	25	8	LEU	2.8
4	3E	122	ARG	2.8
4	3E	136	PRO	2.8
11	2A	14	VAL	2.8
14	5I	7	ILE	2.8
31	49	142	PRO	2.8
26	14	196	A	2.8
33	69	1	MET	2.8
42	D8	1	MET	2.8
1	13	1511	G	2.8
1	1G	973	G	2.8
9	8E	119	ALA	2.8
33	69	36	ALA	2.8
35	25	3	GLN	2.8
46	H8	97	GLU	2.8
11	2A	41	THR	2.8
36	78	62	LEU	2.8
12	3A	15	ARG	2.8
9	82	59	PHE	2.8

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Mol	Chain	Res	Type	RSRZ
10	1A	53	PRO	2.8
10	1A	57	LYS	2.8
53	L5	23	ARG	2.8
14	5I	37	PHE	2.8
36	35	67	MET	2.8
1	1G	975	A	2.8
3	2E	188	LEU	2.8
9	82	111	ARG	2.8
31	49	62	LEU	2.8
11	2I	51	LYS	2.8
23	2K	48	U	2.8
28	11	154	LYS	2.8
38	98	33	ARG	2.8
11	2A	36	ASP	2.8
51	M8	40	HIS	2.8
42	95	27	ALA	2.8
4	3E	97	LEU	2.8
20	BI	10	LEU	2.8
28	11	112	GLN	2.8
26	14	2577	A	2.8
29	29	69	LYS	2.8
31	41	72	ARG	2.8
36	78	51	PHE	2.8
42	95	4	ILE	2.8
48	J8	67	ILE	2.8
11	2A	34	ASP	2.8
26	14	2034	U	2.8
11	2I	65	ALA	2.8
35	25	11	ALA	2.8
28	11	5	LYS	2.8
34	58	82	LEU	2.8
40	75	100	TYR	2.8
42	95	73	SER	2.8
32	59	147	ASN	2.8
26	14	909	A	2.8
28	19	176	ARG	2.8
37	45	130	LYS	2.8
47	E5	77	ARG	2.8
10	1A	65	LEU	2.8
11	2A	98	LEU	2.8
20	BA	53	LEU	2.8
28	19	164	GLN	2.8

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Mol	Chain	Res	Type	RSRZ
28	19	250	TRP	2.8
3	22	64	VAL	2.8
4	32	133	VAL	2.8
54	Q8	23	VAL	2.8
7	62	148	ASN	2.8
7	62	8	GLU	2.8
29	29	146	THR	2.8
34	15	42	TRP	2.8
35	25	21	CYS	2.8
17	8A	24	GLU	2.8
13	4A	105	THR	2.8
31	41	64	THR	2.8
1	13	1196	U	2.8
17	8A	85	VAL	2.8
26	14	6	A	2.8
26	14	384	U	2.8
31	49	102	PHE	2.8
42	D8	46	VAL	2.8
47	E5	40	GLN	2.8
11	2A	91	ARG	2.8
14	5I	41	ARG	2.8
17	8A	4	LYS	2.8
34	15	114	ARG	2.8
37	88	42	ILE	2.8
38	98	104	ARG	2.8
48	J8	37	ILE	2.8
28	19	226	MET	2.8
9	8E	122	ALA	2.8
42	95	94	LEU	2.8
47	I8	21	LEU	2.8
47	I8	37	LEU	2.8
9	82	20	ARG	2.8
54	M5	48	PHE	2.8
38	98	29	LEU	2.8
12	3A	88	GLY	2.8
32	59	28	GLY	2.8
28	19	178	PRO	2.8
5	4E	13	ILE	2.7
20	BA	63	ILE	2.7
22	1L	74	C	2.8
30	31	92	PRO	2.8
35	68	18	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
35	68	49	ARG	2.8
53	L5	7	PRO	2.8
50	H5	34	GLU	2.7
54	M5	32	LEU	2.7
1	1G	1492	A	2.7
13	4I	118	ALA	2.7
23	2L	77	A	2.7
17	8A	9	VAL	2.7
28	11	3	VAL	2.7
29	21	122	PHE	2.7
35	25	99	PHE	2.7
36	35	33	ARG	2.7
37	45	133	ARG	2.7
46	D5	147	GLY	2.7
36	35	57	THR	2.7
43	A5	95	ILE	2.7
26	14	574	C	2.7
11	2I	96	ARG	2.7
25	4K	20	U	2.7
26	1H	958	U	2.7
28	11	38	LYS	2.7
54	Q8	29	LYS	2.7
12	3I	55	VAL	2.7
26	14	2582	G	2.7
30	39	90	PHE	2.7
47	E5	42	GLY	2.7
28	11	196	VAL	2.7
29	21	150	VAL	2.7
42	95	72	VAL	2.7
16	7I	4	ILE	2.7
17	8I	26	GLN	2.7
29	21	171	GLU	2.7
28	19	214	TRP	2.7
28	19	175	LEU	2.7
28	19	184	LYS	2.7
29	21	5	LEU	2.7
2	12	163	PHE	2.7
29	29	70	ALA	2.7
30	39	73	ALA	2.7
37	45	20	ALA	2.7
47	I8	79	VAL	2.7
37	45	127	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
30	31	8	GLN	2.7
16	7I	18	ARG	2.7
28	11	13	ARG	2.7
36	35	17	LYS	2.7
43	E8	84	ARG	2.7
21	1B	2	GLY	2.7
4	3E	133	VAL	2.7
12	3I	24	VAL	2.7
29	21	198	VAL	2.7
30	31	6	VAL	2.7
38	98	38	VAL	2.7
38	98	101	ALA	2.7
40	75	45	PHE	2.7
4	32	67	ILE	2.7
28	11	183	ARG	2.7
4	3E	120	LEU	2.7
16	7I	69	THR	2.7
17	8A	20	THR	2.7
38	98	10	LEU	2.7
43	E8	86	LEU	2.7
17	8A	32	TYR	2.7
26	14	2054	A	2.7
54	Q8	14	VAL	2.7
2	12	80	ILE	2.7
28	11	270	ILE	2.7
26	14	246	C	2.7
26	14	958	U	2.7
7	6E	73	MET	2.7
34	15	49	GLY	2.7
7	62	75	VAL	2.7
9	8E	41	VAL	2.7
32	59	107	VAL	2.7
37	88	80	GLU	2.7
42	95	78	LYS	2.7
38	55	111	LEU	2.7
46	H8	15	PRO	2.7
46	H8	91	LEU	2.7
29	21	135	HIS	2.7
37	88	1	MET	2.7
11	2I	117	ASN	2.7
3	22	201	TYR	2.7
28	11	10	THR	2.7

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Mol	Chain	Res	Type	RSRZ
36	35	30	THR	2.7
43	A5	8	ARG	2.7
54	Q8	6	THR	2.7
8	72	86	ILE	2.7
47	I8	36	ILE	2.7
39	A8	110	LEU	2.7
46	D5	61	LEU	2.7
8	72	135	CYS	2.7
28	19	52	ARG	2.7
28	19	208	LYS	2.7
34	15	36	GLY	2.7
48	J8	60	PHE	2.7
4	3E	104	VAL	2.7
8	7E	93	VAL	2.7
26	14	2610	C	2.7
29	29	127	ASP	2.7
31	49	25	TYR	2.7
34	15	58	ASP	2.7
43	E8	95	ILE	2.7
53	L5	15	THR	2.7
5	42	12	LEU	2.7
31	49	134	GLY	2.7
46	D5	49	ARG	2.7
47	I8	39	ARG	2.7
40	75	106	SER	2.7
46	H8	121	HIS	2.7
1	13	1510	U	2.7
3	2E	149	ALA	2.7
26	14	2799	A	2.7
4	3E	158	ILE	2.7
40	B8	104	ASN	2.7
1	13	1508	G	2.7
27	1J	88	C	2.7
28	11	211	ARG	2.7
37	45	16	ARG	2.7
54	Q8	30	ARG	2.7
7	62	91	VAL	2.7
3	22	100	ALA	2.7
4	3E	68	TYR	2.7
7	62	42	ILE	2.7
11	2I	69	ALA	2.7
28	19	89	SER	2.7

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Mol	Chain	Res	Type	RSRZ
29	21	157	ALA	2.7
36	35	56	SER	2.7
42	D8	99	ILE	2.7
53	P8	13	ALA	2.7
28	19	26	LYS	2.7
38	98	95	THR	2.7
11	2I	84	VAL	2.7
7	62	107	ALA	2.7
30	31	198	ALA	2.7
31	41	52	ILE	2.7
4	3E	135	LEU	2.6
30	39	62	ARG	2.6
35	68	17	ARG	2.6
5	42	28	PHE	2.6
28	19	10	THR	2.6
35	68	65	THR	2.6
26	14	251	A	2.6
38	98	114	VAL	2.6
24	3L	74	C	2.6
34	58	11	PRO	2.6
3	22	30	ARG	2.6
7	6E	32	ARG	2.6
34	58	78	TYR	2.6
45	C5	38	ILE	2.6
8	72	59	LEU	2.6
2	12	24	TRP	2.6
49	G5	45	SER	2.6
28	19	203	ASN	2.6
52	N8	11	THR	2.6
54	M5	28	GLY	2.6
28	19	260	ARG	2.6
30	31	81	PRO	2.6
26	14	2579	C	2.6
30	39	69	HIS	2.6
2	1E	152	PHE	2.6
48	F5	2	SER	2.6
12	3A	94	PRO	2.6
14	5A	44	LEU	2.6
35	68	84	ALA	2.6
35	25	69	ILE	2.6
43	E8	38	TYR	2.6
54	M5	55	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
29	21	132	HIS	2.6
1	1G	912	C	2.6
10	1I	19	SER	2.6
16	7I	35	LYS	2.6
36	35	29	LYS	2.6
43	E8	98	LYS	2.6
36	35	144	GLU	2.6
46	D5	11	GLU	2.6
4	3E	146	ILE	2.6
38	98	113	LEU	2.6
26	14	956	G	2.6
26	14	2277	G	2.6
48	J8	69	LYS	2.6
12	3A	18	VAL	2.6
32	59	86	GLU	2.6
47	E5	54	GLY	2.6
1	13	1367	C	2.6
1	1G	1226	C	2.6
4	3E	101	LEU	2.6
41	85	17	ILE	2.6
43	A5	103	ILE	2.6
11	2A	125	PHE	2.6
17	8I	28	PRO	2.6
26	14	2615	U	2.6
7	62	135	VAL	2.6
1	1G	781	A	2.6
4	32	19	LEU	2.6
12	3A	60	LEU	2.6
17	8A	100	LYS	2.6
30	31	82	ILE	2.6
30	31	93	LYS	2.6
31	41	34	LEU	2.6
38	55	20	LEU	2.6
54	Q8	61	LEU	2.6
30	39	80	ALA	2.6
29	29	144	ARG	2.6
31	49	165	THR	2.6
37	45	101	ARG	2.6
48	F5	11	ARG	2.6
54	Q8	13	ARG	2.6
19	AA	76	PRO	2.6
12	3A	66	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
26	1H	2611	U	2.6
54	M5	49	VAL	2.6
11	2I	70	LYS	2.6
31	49	172	LEU	2.6
46	H8	18	LEU	2.6
3	2E	186	PHE	2.6
5	42	15	ARG	2.6
14	5I	21	TYR	2.6
17	8A	51	TYR	2.6
26	14	2553	G	2.6
26	14	2583	G	2.6
28	19	273	ARG	2.6
43	A5	9	TYR	2.6
47	I8	35	ASN	2.6
47	I8	57	PHE	2.6
28	19	36	PRO	2.6
28	19	235	GLY	2.6
47	I8	23	VAL	2.6
50	H5	50	VAL	2.6
14	5I	17	LYS	2.6
44	F8	88	LYS	2.6
28	19	165	ILE	2.6
36	78	65	ARG	2.6
44	B5	89	ILE	2.6
29	29	157	ALA	2.6
48	J8	5	CYS	2.6
25	4K	18	G	2.6
28	11	145	VAL	2.6
30	31	79	GLY	2.6
32	59	39	PRO	2.6
35	25	101	PRO	2.6
42	D8	6	LYS	2.6
3	22	32	LEU	2.6
7	6E	99	LEU	2.6
8	72	38	ILE	2.6
13	4I	104	ARG	2.6
28	11	165	ILE	2.6
50	L8	28	LEU	2.6
54	Q8	57	ARG	2.6
9	82	124	GLN	2.6
19	AI	61	TYR	2.6
31	41	23	PHE	2.6

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Mol	Chain	Res	Type	RSRZ
28	19	56	GLY	2.6
34	15	113	GLY	2.6
36	78	52	GLU	2.6
45	C5	30	VAL	2.6
52	N8	3	LYS	2.6
54	Q8	26	LYS	2.6
12	3I	86	ARG	2.6
48	F5	12	PRO	2.6
28	19	61	LEU	2.6
34	15	33	LEU	2.6
53	L5	16	HIS	2.6
53	L5	22	MET	2.6
14	5I	59	ALA	2.6
12	3A	17	LYS	2.6
13	4A	83	ASP	2.6
17	8I	19	VAL	2.6
37	45	30	GLY	2.6
28	11	14	ARG	2.6
28	19	157	ARG	2.6
36	35	41	ARG	2.6
46	D5	179	ASP	2.6
10	1I	91	PRO	2.6
9	8E	114	TYR	2.5
31	49	10	LYS	2.5
36	35	39	LYS	2.5
48	J8	43	TYR	2.5
1	13	1403	C	2.5
26	14	828	U	2.5
28	19	47	GLY	2.5
29	21	124	GLY	2.5
34	15	77	GLY	2.5
32	59	71	LEU	2.5
53	L5	8	ASN	2.5
14	5I	58	LYS	2.5
28	19	259	THR	2.5
10	1I	45	ARG	2.5
28	11	274	ARG	2.5
16	7I	20	VAL	2.5
16	7I	21	VAL	2.5
35	25	35	VAL	2.5
28	19	179	SER	2.5
38	55	100	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
16	7I	33	ILE	2.5
11	2I	22	HIS	2.5
47	E5	44	ARG	2.5
12	3I	101	VAL	2.5
3	2E	91	LEU	2.5
38	55	75	LEU	2.5
45	C5	4	LYS	2.5
5	42	126	ARG	2.5
1	13	912	C	2.5
3	22	163	ALA	2.5
11	2A	50	TYR	2.5
52	J5	23	HIS	2.5
17	8A	8	GLY	2.5
26	14	805	G	2.5
53	P8	46	VAL	2.5
3	22	178	LEU	2.5
40	B8	99	LEU	2.5
3	2E	128	PHE	2.5
31	49	180	PHE	2.5
11	2I	59	TYR	2.5
3	2E	150	LYS	2.5
11	2A	86	GLY	2.5
28	11	9	TYR	2.5
13	4I	116	THR	2.5
26	14	970	C	2.5
26	14	2278	A	2.5
29	29	153	GLY	2.5
36	35	66	GLY	2.5
43	E8	17	VAL	2.5
44	F8	87	GLN	2.5
44	B5	33	LYS	2.5
47	E5	31	VAL	2.5
33	69	35	LEU	2.5
41	85	28	ARG	2.5
26	14	248	G	2.5
10	1I	59	SER	2.5
5	4E	20	GLN	2.5
8	7E	65	TYR	2.5
29	21	196	VAL	2.5
44	B5	26	TYR	2.5
34	15	91	LEU	2.5
46	H8	5	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
4	3E	141	ARG	2.5
13	4I	110	ARG	2.5
13	4A	114	ARG	2.5
15	6A	87	ILE	2.5
8	7E	61	VAL	2.5
29	21	7	VAL	2.5
31	49	78	SER	2.5
31	49	87	PRO	2.5
37	88	90	VAL	2.5
37	88	137	TYR	2.5
36	35	147	LEU	2.5
38	98	17	ARG	2.5
46	D5	76	LEU	2.5
49	G5	43	GLN	2.5
54	Q8	46	ARG	2.5
29	21	15	PHE	2.5
31	49	88	ILE	2.5
50	L8	13	ILE	2.5
46	D5	127	LYS	2.5
8	72	110	ALA	2.5
11	2A	90	GLY	2.5
12	3A	77	LEU	2.5
28	19	108	PRO	2.5
29	21	149	ARG	2.5
30	31	54	ARG	2.5
32	59	115	VAL	2.5
34	15	78	TYR	2.5
47	E5	76	GLY	2.5
2	12	40	HIS	2.5
13	4A	92	HIS	2.5
1	13	1393	U	2.5
42	D8	44	LYS	2.5
52	N8	8	LYS	2.5
21	1F	2	GLY	2.5
34	58	52	VAL	2.5
38	55	12	ARG	2.5
25	4K	21	C	2.5
30	39	77	ASP	2.5
35	68	53	LYS	2.5
36	78	46	LYS	2.5
1	13	1498	U	2.5
11	2I	77	MET	2.5

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Mol	Chain	Res	Type	RSRZ
14	5A	8	GLU	2.5
38	98	36	THR	2.5
3	2E	101	LEU	2.5
17	8I	22	LEU	2.5
24	3L	35	G	2.5
29	29	5	LEU	2.5
47	I8	22	GLY	2.5
48	J8	29	GLY	2.5
2	12	79	ASP	2.5
29	21	155	LYS	2.5
17	8I	36	ILE	2.5
17	8A	36	ILE	2.5
23	2K	38	A	2.5
9	82	66	ARG	2.5
14	5I	35	ARG	2.5
11	2I	26	ASN	2.5
10	1I	8	LEU	2.5
41	85	60	LEU	2.5
47	E5	23	VAL	2.5
28	11	272	ALA	2.5
38	98	40	LYS	2.5
43	A5	89	ALA	2.5
4	32	110	PHE	2.5
28	19	67	PHE	2.5
3	22	161	GLU	2.5
5	42	24	ARG	2.5
31	49	181	ARG	2.5
26	14	2612	C	2.4
46	D5	98	MET	2.4
4	3E	8	VAL	2.4
12	3I	18	VAL	2.4
29	29	104	VAL	2.4
34	15	107	LEU	2.4
9	82	64	THR	2.4
11	2A	57	THR	2.4
10	1I	50	ILE	2.4
30	31	9	ILE	2.4
31	41	101	ILE	2.4
34	58	79	PRO	2.4
35	68	19	ILE	2.4
40	B8	50	ILE	2.4
43	E8	90	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
52	J5	16	ARG	2.4
29	29	78	LEU	2.4
30	39	65	TRP	2.4
52	N8	6	VAL	2.4
41	C8	4	ALA	2.4
1	13	965	A	2.4
8	7E	24	THR	2.4
13	4I	108	ARG	2.4
28	19	60	ARG	2.4
36	78	61	ARG	2.4
12	3I	100	ILE	2.4
34	15	59	LYS	2.4
43	A5	41	LYS	2.4
11	2I	44	SER	2.4
30	39	57	VAL	2.4
42	95	35	LEU	2.4
43	E8	23	LEU	2.4
7	6E	134	ALA	2.4
17	8I	92	ARG	2.4
28	11	90	ALA	2.4
30	31	49	ALA	2.4
11	2I	21	ILE	2.4
42	95	32	THR	2.4
11	2A	58	PRO	2.4
3	22	158	GLY	2.4
12	3I	87	GLY	2.4
34	58	15	LEU	2.4
34	15	116	LEU	2.4
11	2A	44	SER	2.4
30	31	83	PHE	2.4
31	41	76	SER	2.4
3	22	187	ALA	2.4
30	31	52	LYS	2.4
46	D5	13	GLU	2.4
19	AI	76	PRO	2.4
15	6I	56	LEU	2.4
23	2K	41	C	2.4
50	H5	2	PRO	2.4
8	7E	91	ARG	2.4
8	7E	131	GLY	2.4
12	3I	14	GLY	2.4
29	21	27	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
38	98	67	LEU	2.4
26	14	1799	G	2.4
26	14	2035	G	2.4
12	3A	30	ALA	2.4
16	7I	48	TRP	2.4
46	D5	6	LYS	2.4
3	22	28	GLN	2.4
3	22	165	THR	2.4
11	2A	109	VAL	2.4
29	29	76	ARG	2.4
48	J8	40	ARG	2.4
36	35	73	GLY	2.4
1	13	1397	C	2.4
5	42	45	PHE	2.4
26	14	385	C	2.4
26	14	2068	U	2.4
38	98	13	HIS	2.4
43	A5	16	LYS	2.4
46	D5	48	PHE	2.4
1	1G	914	A	2.4
5	4E	133	TYR	2.4
26	14	2393	A	2.4
26	14	2576	G	2.4
37	45	131	ILE	2.4
5	42	25	ARG	2.4
28	19	166	GLN	2.4
8	72	9	MET	2.4
17	8A	23	VAL	2.4
29	29	182	LEU	2.4
34	58	33	LEU	2.4
42	95	62	LEU	2.4
16	7I	50	LYS	2.4
29	21	106	GLY	2.4
50	H5	16	PRO	2.4
13	4A	87	TYR	2.4
30	39	59	TYR	2.4
1	13	1514	C	2.4
1	1G	1225	A	2.4
1	1G	887	G	2.4
9	82	90	PRO	2.4
13	4A	116	THR	2.4
7	6E	154	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
12	3A	33	ARG	2.4
20	BA	25	ARG	2.4
40	B8	68	TYR	2.4
45	C5	35	TYR	2.4
46	D5	3	TYR	2.4
17	8A	37	LYS	2.4
28	19	59	LYS	2.4
32	59	30	LYS	2.4
17	8A	82	MET	2.4
35	25	121	VAL	2.4
52	N8	7	PRO	2.4
5	4E	17	ALA	2.4
15	6A	53	HIS	2.4
48	F5	63	ALA	2.4
34	15	7	LYS	2.4
43	E8	24	ILE	2.4
4	3E	174	LEU	2.4
38	98	111	LEU	2.4
3	2E	185	GLY	2.4
12	3A	83	VAL	2.4
29	21	88	GLY	2.4
32	59	43	VAL	2.4
1	13	562	C	2.4
4	3E	114	ARG	2.4
26	14	673	C	2.4
3	2E	133	ALA	2.4
5	42	130	ASN	2.4
9	82	21	PRO	2.4
34	58	119	ARG	2.4
31	41	25	TYR	2.4
38	55	23	ASN	2.4
42	95	98	GLU	2.4
5	4E	129	ILE	2.4
12	3A	54	LYS	2.4
35	68	39	ILE	2.4
46	D5	46	LYS	2.4
46	H8	87	ASP	2.4
4	32	23	GLY	2.4
40	75	34	VAL	2.4
34	58	51	PHE	2.4
37	88	45	GLN	2.4
48	J8	31	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
5	4E	128	PRO	2.4
5	42	131	ILE	2.4
7	62	120	ILE	2.4
26	1H	2612	C	2.4
16	7I	67	THR	2.4
28	19	174	ILE	2.4
41	85	41	ALA	2.4
30	39	51	THR	2.4
48	F5	13	ILE	2.4
10	1A	85	LEU	2.4
20	BA	104	LEU	2.4
3	2E	151	VAL	2.3
5	42	82	VAL	2.3
6	5E	46	ARG	2.3
26	14	2058	A	2.3
10	1I	11	PHE	2.3
28	11	110	GLY	2.3
38	98	48	VAL	2.3
40	B8	112	ARG	2.3
43	A5	88	ARG	2.3
54	M5	20	GLY	2.3
35	25	5	GLN	2.3
10	1I	22	LYS	2.3
15	6I	48	LYS	2.3
1	1G	886	G	2.3
31	41	73	ALA	2.3
36	35	80	TYR	2.3
3	22	33	LEU	2.3
17	8I	94	ASN	2.3
38	55	29	LEU	2.3
50	L8	23	LEU	2.3
21	1F	6	ARG	2.3
28	19	48	ARG	2.3
47	I8	38	VAL	2.3
48	J8	62	VAL	2.3
31	49	104	GLU	2.3
28	19	195	ALA	2.3
35	25	86	ILE	2.3
28	19	262	ARG	2.3
47	E5	59	LEU	2.3
50	L8	50	VAL	2.3
11	2I	31	THR	2.3

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Mol	Chain	Res	Type	RSRZ
17	8I	41	LYS	2.3
28	11	39	LYS	2.3
31	49	29	TRP	2.3
32	59	27	LYS	2.3
34	58	83	LYS	2.3
44	B5	88	LYS	2.3
50	H5	17	LYS	2.3
2	12	134	GLU	2.3
37	88	7	MET	2.3
1	1G	974	A	2.3
24	3K	37	A	2.3
28	11	106	ILE	2.3
28	19	204	ILE	2.3
29	21	14	ILE	2.3
34	58	99	LEU	2.3
34	15	23	LEU	2.3
35	25	84	ALA	2.3
43	A5	23	LEU	2.3
46	D5	57	ILE	2.3
47	I8	59	LEU	2.3
31	49	28	VAL	2.3
35	25	38	VAL	2.3
14	5I	13	THR	2.3
29	21	11	MET	2.3
7	6E	33	ASP	2.3
7	62	97	GLN	2.3
1	13	1202	G	2.3
8	72	119	LEU	2.3
17	8A	88	TYR	2.3
26	1H	2578	G	2.3
26	14	386	G	2.3
26	14	1325	G	2.3
37	88	82	ARG	2.3
4	3E	182	LYS	2.3
28	19	272	ALA	2.3
38	98	54	LEU	2.3
51	M8	25	TYR	2.3
11	2I	58	PRO	2.3
35	68	28	SER	2.3
45	C5	26	LYS	2.3
35	25	111	PHE	2.3
54	Q8	2	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
8	7E	37	ARG	2.3
17	8I	38	ARG	2.3
19	AI	13	ASP	2.3
3	22	23	TYR	2.3
20	BI	72	LEU	2.3
28	19	111	LEU	2.3
54	Q8	52	LYS	2.3
10	1I	72	VAL	2.3
12	3A	101	VAL	2.3
34	15	40	PRO	2.3
38	55	38	VAL	2.3
43	A5	17	VAL	2.3
12	3A	50	SER	2.3
24	3K	24	G	2.3
12	3A	16	GLU	2.3
29	29	156	MET	2.3
31	49	118	ARG	2.3
38	98	103	ARG	2.3
26	1H	2062	A	2.3
26	14	2057	A	2.3
37	45	129	THR	2.3
41	85	74	LEU	2.3
50	L8	49	LYS	2.3
3	22	17	ASP	2.3
32	59	75	ALA	2.3
41	85	57	PHE	2.3
46	H8	96	VAL	2.3
50	H5	56	VAL	2.3
3	2E	80	GLY	2.3
14	5I	38	GLY	2.3
28	19	8	PRO	2.3
28	19	167	GLY	2.3
36	35	18	ARG	2.3
17	8I	17	LYS	2.3
54	Q8	8	LYS	2.3
54	Q8	11	LYS	2.3
4	3E	162	LEU	2.3
11	2A	87	THR	2.3
31	49	63	ILE	2.3
35	68	2	ILE	2.3
7	6E	62	PHE	2.3
31	49	5	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
33	69	21	VAL	2.3
35	25	85	VAL	2.3
3	2E	156	ARG	2.3
8	72	91	ARG	2.3
17	8I	25	ARG	2.3
47	I8	82	ARG	2.3
20	BA	21	LYS	2.3
52	J5	56	LYS	2.3
13	4A	9	ILE	2.3
28	19	233	HIS	2.3
32	59	7	LEU	2.3
31	49	11	TYR	2.3
54	Q8	58	ILE	2.3
3	2E	130	VAL	2.3
5	4E	82	VAL	2.3
28	11	113	VAL	2.3
35	25	65	THR	2.3
9	8E	113	LYS	2.3
17	8A	58	GLU	2.3
26	1H	1536	A	2.3
28	19	16	MET	2.3
30	39	81	PRO	2.3
36	35	72	PRO	2.3
41	85	117	GLN	2.3
4	3E	118	ARG	2.3
29	29	51	PHE	2.3
31	49	115	ARG	2.3
35	25	94	ARG	2.3
41	85	36	ARG	2.3
43	A5	99	ARG	2.3
21	1F	17	THR	2.3
37	45	24	GLY	2.3
12	3A	5	PRO	2.3
26	14	2052	G	2.3
3	22	57	ILE	2.3
28	11	162	SER	2.3
37	88	74	TYR	2.3
37	88	33	GLY	2.3
1	13	1535	C	2.3
9	82	29	ASN	2.3
3	22	43	LEU	2.3
46	D5	83	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
28	11	82	ILE	2.3
13	4I	87	TYR	2.3
26	14	1566	A	2.3
26	14	2014	A	2.3
38	55	71	GLN	2.3
50	H5	47	VAL	2.3
46	D5	169	GLU	2.2
8	72	10	LEU	2.2
14	5I	12	ARG	2.2
28	11	155	LEU	2.2
28	11	258	LYS	2.2
28	19	92	ILE	2.2
28	19	106	ILE	2.2
34	15	16	ILE	2.2
35	25	39	ILE	2.2
38	98	9	LYS	2.2
37	45	27	VAL	2.2
28	19	225	ALA	2.2
41	85	47	TYR	2.2
49	G5	9	GLN	2.2
34	15	128	HIS	2.2
13	4I	91	ARG	2.2
26	14	2062	A	2.2
5	42	121	LYS	2.2
10	1I	55	LYS	2.2
26	14	748	G	2.2
28	19	258	LYS	2.2
19	AI	62	ILE	2.2
35	25	114	ILE	2.2
7	6E	18	TYR	2.2
35	25	108	GLU	2.2
37	88	105	GLU	2.2
44	F8	26	TYR	2.2
14	5A	45	ARG	2.2
9	82	50	LEU	2.2
34	15	112	LEU	2.2
38	55	18	LEU	2.2
43	E8	69	LEU	2.2
26	14	575	A	2.2
26	14	2614	A	2.2
29	21	117	MET	2.2
39	A8	87	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
7	6E	147	ALA	2.2
17	8A	93	GLN	2.2
28	11	35	LYS	2.2
11	2A	63	LEU	2.2
20	BA	84	LEU	2.2
20	BI	41	ILE	2.2
34	58	117	PHE	2.2
42	D8	4	ILE	2.2
5	4E	50	GLU	2.2
26	1H	2014	A	2.2
37	88	48	GLU	2.2
38	98	7	GLY	2.2
7	6E	103	TRP	2.2
18	9A	85	LEU	2.2
39	A8	78	LEU	2.2
26	14	2396	G	2.2
11	2I	95	ILE	2.2
23	2L	16	C	2.2
26	14	806	C	2.2
37	88	102	VAL	2.2
4	3E	124	GLY	2.2
19	AA	55	LYS	2.2
7	62	108	ALA	2.2
38	98	32	GLY	2.2
28	19	140	THR	2.2
30	31	53	THR	2.2
31	41	79	ASN	2.2
54	Q8	27	THR	2.2
26	14	829	A	2.2
28	11	177	LEU	2.2
3	2E	39	ILE	2.2
12	3I	41	ARG	2.2
28	11	174	ILE	2.2
29	21	113	PHE	2.2
29	21	188	VAL	2.2
40	75	48	ILE	2.2
48	J8	3	LYS	2.2
53	P8	47	ARG	2.2
1	13	1395	C	2.2
22	1K	71	G	2.2
26	14	2050	C	2.2
39	65	108	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
48	J8	6	GLU	2.2
36	78	68	GLN	2.2
47	I8	56	ASP	2.2
46	H8	41	LEU	2.2
48	J8	85	LEU	2.2
19	AA	44	MET	2.2
29	21	199	ARG	2.2
35	68	31	LYS	2.2
40	75	29	ARG	2.2
53	L5	10	ARG	2.2
3	2E	157	ILE	2.2
26	1H	2013	A	2.2
44	F8	89	ILE	2.2
4	3E	150	GLU	2.2
14	5I	8	GLU	2.2
28	11	81	ALA	2.2
32	59	156	ALA	2.2
7	6E	88	PRO	2.2
38	55	69	ASP	2.2
47	I8	70	GLN	2.2
26	14	2032	G	2.2
28	19	154	LYS	2.2
31	41	102	PHE	2.2
40	75	101	PHE	2.2
3	22	35	GLU	2.2
8	72	95	VAL	2.2
37	45	47	ILE	2.2
39	A8	82	ILE	2.2
46	H8	37	VAL	2.2
25	4L	14	A	2.2
8	7E	59	LEU	2.2
12	3I	15	ARG	2.2
17	8I	43	LEU	2.2
28	11	48	ARG	2.2
34	58	23	LEU	2.2
34	58	26	LEU	2.2
42	95	20	LEU	2.2
37	45	4	PRO	2.2
48	F5	61	ARG	2.2
31	41	80	PHE	2.2
1	13	796	C	2.2
2	12	165	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
5	42	89	ILE	2.2
8	7E	9	MET	2.2
26	14	1672	C	2.2
31	49	27	ASN	2.2
38	55	102	GLU	2.2
22	1K	34	G	2.2
37	45	15	GLY	2.2
7	62	22	LEU	2.2
8	72	92	ARG	2.2
17	8I	34	LYS	2.2
24	3L	6	U	2.2
29	21	8	LYS	2.2
31	49	107	LEU	2.2
41	85	29	SER	2.2
45	C5	31	LEU	2.2
31	49	112	PRO	2.2
43	E8	46	PHE	2.2
3	2E	66	VAL	2.2
28	11	229	VAL	2.2
35	25	34	THR	2.2
40	B8	70	VAL	2.2
40	B8	75	ILE	2.2
4	32	182	LYS	2.2
14	5I	23	ARG	2.2
15	6I	88	ARG	2.2
40	75	99	LEU	2.2
45	C5	34	LYS	2.2
3	2E	163	ALA	2.2
50	H5	25	ALA	2.2
23	2K	37	U	2.2
7	62	33	ASP	2.2
13	4A	25	ILE	2.2
34	15	17	ASP	2.2
41	C8	89	GLU	2.2
43	A5	10	VAL	2.2
47	I8	64	ASP	2.2
48	J8	49	VAL	2.2
15	6I	47	LYS	2.2
16	7I	14	ASN	2.2
20	BA	38	LYS	2.2
29	21	125	GLY	2.2
35	25	26	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
38	98	12	ARG	2.2
39	65	83	LYS	2.2
53	L5	21	ARG	2.2
38	55	113	LEU	2.1
48	F5	43	TYR	2.1
14	5I	36	PHE	2.1
48	J8	38	SER	2.1
28	11	8	PRO	2.1
28	19	246	PRO	2.1
4	3E	144	ASP	2.1
15	6I	64	ARG	2.1
35	68	85	VAL	2.1
35	25	9	GLU	2.1
40	75	103	ARG	2.1
48	F5	70	VAL	2.1
34	15	80	GLY	2.1
35	25	44	LYS	2.1
51	M8	3	GLU	2.1
54	Q8	24	ALA	2.1
1	13	1509	C	2.1
3	22	19	GLU	2.1
4	3E	128	VAL	2.1
14	5I	18	VAL	2.1
20	BA	22	ARG	2.1
37	88	126	PRO	2.1
48	J8	30	VAL	2.1
48	F5	6	GLU	2.1
29	21	153	GLY	2.1
44	F8	1	MET	2.1
14	5I	39	LEU	2.1
20	BA	16	HIS	2.1
54	Q8	7	HIS	2.1
47	E5	60	PHE	2.1
3	2E	162	GLN	2.1
7	6E	72	ARG	2.1
26	14	2051	A	2.1
31	49	22	ARG	2.1
36	78	17	LYS	2.1
53	P8	3	ARG	2.1
3	22	202	ILE	2.1
9	82	65	VAL	2.1
10	1I	96	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
24	3K	32	U	2.1
35	68	25	LEU	2.1
39	A8	73	LEU	2.1
3	2E	184	TYR	2.1
7	6E	149	ARG	2.1
15	6I	63	ARG	2.1
17	8I	29	HIS	2.1
19	AI	79	THR	2.1
47	E5	57	PHE	2.1
54	M5	36	LYS	2.1
3	22	166	GLU	2.1
1	13	1531	A	2.1
12	3I	95	GLY	2.1
34	58	81	GLY	2.1
36	78	59	LEU	2.1
37	88	39	PRO	2.1
1	13	1402	C	2.1
26	14	2263	C	2.1
30	39	54	ARG	2.1
43	A5	44	ALA	2.1
50	H5	5	LYS	2.1
30	39	172	TRP	2.1
48	J8	66	HIS	2.1
5	4E	89	ILE	2.1
8	7E	134	ILE	2.1
12	3A	24	VAL	2.1
29	21	173	VAL	2.1
39	65	82	ILE	2.1
41	C8	80	ILE	2.1
11	2I	63	LEU	2.1
28	19	256	GLY	2.1
31	49	120	LEU	2.1
37	88	83	MET	2.1
28	19	249	PRO	2.1
35	25	48	PRO	2.1
35	25	64	ARG	2.1
48	F5	65	SER	2.1
1	13	1513	A	2.1
38	98	112	ALA	2.1
26	14	827	U	2.1
4	32	161	ASN	2.1
11	2I	108	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
17	8A	21	VAL	2.1
35	25	77	ILE	2.1
42	D8	14	VAL	2.1
47	I8	31	VAL	2.1
4	32	49	ARG	2.1
11	2I	103	LEU	2.1
30	39	148	LEU	2.1
36	35	54	GLY	2.1
11	2A	16	SER	2.1
28	19	212	SER	2.1
29	21	128	SER	2.1
1	13	790	A	2.1
28	19	49	ILE	2.1
9	8E	112	LYS	2.1
17	8A	84	LEU	2.1
38	55	1	MET	2.1
38	55	103	ARG	2.1
46	H8	14	LYS	2.1
50	H5	33	GLN	2.1
11	2I	89	ALA	2.1
42	95	93	GLU	2.1
11	2A	67	ASP	2.1
12	3I	66	VAL	2.1
32	59	45	VAL	2.1
3	22	21	ARG	2.1
16	7I	37	GLY	2.1
37	88	37	LEU	2.1
11	2I	87	THR	2.1
30	31	48	THR	2.1
17	8I	12	SER	2.1
17	8A	10	VAL	2.1
28	11	18	VAL	2.1
34	58	104	LYS	2.1
35	68	58	VAL	2.1
39	A8	11	LYS	2.1
46	D5	72	ARG	2.1
48	F5	91	LYS	2.1
3	22	176	HIS	2.1
10	1I	90	LEU	2.1
35	68	56	ASP	2.1
26	1H	2613	U	2.1
54	Q8	48	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
43	A5	39	THR	2.1
1	13	1227	A	2.1
13	4I	114	ARG	2.1
15	6A	47	LYS	2.1
21	1B	22	ARG	2.1
21	1B	23	PRO	2.1
34	58	84	LYS	2.1
35	25	7	TYR	2.1
34	15	134	ARG	2.1
35	25	17	ARG	2.1
46	D5	78	LYS	2.1
28	19	185	VAL	2.1
48	J8	63	ALA	2.1
11	2A	49	GLY	2.1
26	1H	956	G	2.1
28	19	37	LEU	2.1
34	15	125	GLY	2.1
42	95	38	LEU	2.1
34	15	131	GLN	2.1
46	D5	88	PHE	2.1
9	8E	111	ARG	2.1
15	6A	37	ASN	2.1
40	B8	65	LYS	2.1
43	E8	83	LYS	2.1
11	2I	115	PRO	2.1
16	7I	41	PRO	2.1
46	D5	25	PRO	2.1
47	I8	26	TYR	2.1
30	31	173	VAL	2.1
19	AI	49	ILE	2.1
20	BI	33	ILE	2.1
20	BA	36	LEU	2.1
12	3A	62	SER	2.1
29	29	3	GLY	2.1
38	55	98	LEU	2.1
26	14	908	C	2.1
38	55	47	PHE	2.0
41	85	106	PHE	2.0
48	F5	66	HIS	2.1
1	13	791	G	2.0
12	3I	65	GLU	2.0
26	14	686	G	2.0

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Mol	Chain	Res	Type	RSRZ
32	59	35	VAL	2.0
32	59	157	TYR	2.0
29	21	90	THR	2.0
44	B5	8	ILE	2.0
46	D5	167	PRO	2.0
54	M5	33	ASN	2.0
32	59	136	ILE	2.0
21	1B	16	GLY	2.0
30	31	87	GLY	2.0
1	13	975	A	2.0
1	13	1499	A	2.0
1	13	1500	A	2.0
1	13	1519	A	2.0
5	4E	125	SER	2.0
34	15	66	LYS	2.0
44	F8	50	LYS	2.0
30	31	74	ARG	2.0
47	E5	72	ARG	2.0
40	B8	30	VAL	2.0
7	6E	71	PRO	2.0
12	3I	10	LEU	2.0
28	19	87	ASN	2.0
37	45	2	LEU	2.0
38	55	11	ASN	2.0
40	B8	52	ILE	2.0
43	E8	29	LEU	2.0
54	Q8	41	ILE	2.0
7	62	29	LYS	2.0
14	5I	49	HIS	2.0
28	19	23	GLU	2.0
1	13	768	A	2.0
2	12	62	ALA	2.0
9	82	122	ALA	2.0
12	3I	51	ALA	2.0
12	3I	83	VAL	2.0
25	4K	12	A	2.0
35	68	66	LYS	2.0
37	88	47	ILE	2.0
37	45	95	ALA	2.0
41	85	45	TYR	2.0
44	F8	49	VAL	2.0
47	E5	26	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
13	4I	115	LYS	2.0
26	14	2507	C	2.0
11	2I	54	ARG	2.0
28	11	157	ARG	2.0
36	78	49	ARG	2.0
36	78	50	ARG	2.0
36	78	55	ARG	2.0
41	85	44	ASN	2.0
46	H8	82	ARG	2.0
48	F5	16	ASN	2.0
1	1G	13	U	2.0
5	42	81	GLU	2.0
7	62	64	GLN	2.0
26	14	388	G	2.0
26	14	2569	G	2.0
32	59	116	GLU	2.0
35	68	9	GLU	2.0
28	11	250	TRP	2.0
7	62	136	LYS	2.0
8	7E	94	TYR	2.0
35	68	46	ALA	2.0
35	68	67	LYS	2.0
42	95	61	VAL	2.0
1	13	915	A	2.0
4	3E	115	ARG	2.0
10	1I	71	LEU	2.0
17	8A	60	ILE	2.0
36	35	31	ALA	2.0
41	C8	86	ALA	2.0
38	55	22	ARG	2.0
38	55	104	ARG	2.0
47	I8	32	ARG	2.0
48	F5	94	LEU	2.0
25	4K	19	A	2.0
26	14	764	A	2.0
28	11	6	PHE	2.0
28	11	67	PHE	2.0
34	15	32	THR	2.0
26	14	747	U	2.0
26	14	2554	U	2.0
46	H8	73	GLN	2.0
8	7E	48	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
20	BA	88	VAL	2.0
46	H8	165	VAL	2.0
54	Q8	31	HIS	2.0
17	8I	31	LEU	2.0
41	85	99	ALA	2.0
53	L5	31	LEU	2.0
10	1I	93	GLY	2.0
26	1H	1816	G	2.0
30	31	94	PRO	2.0
46	D5	68	PRO	2.0
54	M5	63	PRO	2.0
10	1I	57	LYS	2.0
13	4I	106	ASN	2.0
40	B8	11	GLU	2.0
18	9A	84	LYS	2.0
26	14	249	C	2.0
26	14	766	C	2.0
48	J8	92	LYS	2.0
17	8A	42	TYR	2.0
28	11	79	VAL	2.0
29	29	195	LEU	2.0
35	25	102	VAL	2.0
42	D8	94	LEU	2.0
45	C5	7	VAL	2.0
46	H8	20	ARG	2.0
52	J5	45	VAL	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	H2U	1L	17	20/21	0.26	0.77	213,231,237,237	0
22	H2U	1K	17	20/21	0.45	0.40	199,211,220,220	0
22	PSU	1L	55	20/21	0.79	0.11	169,202,215,222	0
22	5MU	1L	54	21/22	0.85	0.11	171,182,192,193	0
22	AET	1L	37	33/34	0.88	0.42	156,171,176,178	0
22	PSU	1K	55	20/21	0.89	0.12	146,178,188,189	0
22	AET	1K	37	33/34	0.90	0.45	112,124,147,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
23	PSU	2L	56	20/21	0.90	0.19	126,136,143,146	0
22	5MU	1K	54	21/22	0.90	0.15	139,156,165,170	0
23	PSU	2K	56	20/21	0.91	0.11	113,119,131,132	0
23	5MU	2L	55	21/22	0.94	0.24	129,139,144,146	0
23	5MU	2K	55	21/22	0.95	0.12	118,124,135,139	0

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1H	3180	1/1	0.04	0.26	112,112,112,112	0
55	MG	14	3139	1/1	0.24	0.32	103,103,103,103	0
55	MG	1H	3049	1/1	0.26	0.36	74,74,74,74	0
55	MG	14	3094	1/1	0.27	0.43	108,108,108,108	0
55	MG	1G	1650	1/1	0.37	0.83	107,107,107,107	0
55	MG	1H	3241	1/1	0.39	0.58	110,110,110,110	0
55	MG	13	1675	1/1	0.40	0.33	104,104,104,104	0
55	MG	1H	3045	1/1	0.41	0.42	80,80,80,80	0
55	MG	1H	3223	1/1	0.41	0.70	99,99,99,99	0
55	MG	1G	1656	1/1	0.45	0.36	115,115,115,115	0
55	MG	1H	3212	1/1	0.48	0.50	91,91,91,91	0
55	MG	14	3177	1/1	0.49	0.57	79,79,79,79	0
55	MG	E5	101	1/1	0.49	0.32	90,90,90,90	0
55	MG	1H	3009	1/1	0.50	0.14	95,95,95,95	0
55	MG	1H	3178	1/1	0.50	0.27	94,94,94,94	0
55	MG	13	1603	1/1	0.50	0.12	85,85,85,85	0
55	MG	1G	1701	1/1	0.51	0.24	137,137,137,137	0
55	MG	14	3116	1/1	0.52	0.17	89,89,89,89	0
55	MG	1G	1663	1/1	0.52	0.47	121,121,121,121	0
55	MG	13	1647	1/1	0.52	0.21	116,116,116,116	0
55	MG	13	1711	1/1	0.52	0.22	154,154,154,154	0
55	MG	14	3144	1/1	0.53	0.38	114,114,114,114	0
55	MG	1G	1668	1/1	0.54	0.38	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	14	3176	1/1	0.54	0.27	109,109,109,109	0
55	MG	1H	3107	1/1	0.54	0.41	92,92,92,92	0
55	MG	14	3004	1/1	0.54	0.22	66,66,66,66	0
55	MG	14	3184	1/1	0.55	0.30	96,96,96,96	0
55	MG	1H	3229	1/1	0.55	0.70	70,70,70,70	0
55	MG	13	1670	1/1	0.56	0.20	137,137,137,137	0
55	MG	13	1668	1/1	0.56	0.15	121,121,121,121	0
55	MG	1H	3017	1/1	0.56	0.33	75,75,75,75	0
55	MG	1H	3165	1/1	0.56	0.38	90,90,90,90	0
55	MG	1H	3137	1/1	0.57	0.32	75,75,75,75	0
55	MG	14	3069	1/1	0.57	0.35	107,107,107,107	0
55	MG	1G	1693	1/1	0.58	0.09	148,148,148,148	0
55	MG	42	202	1/1	0.58	0.23	135,135,135,135	0
55	MG	1G	1714	1/1	0.59	0.20	133,133,133,133	0
55	MG	14	3185	1/1	0.59	1.15	88,88,88,88	0
55	MG	14	3186	1/1	0.59	0.37	85,85,85,85	0
55	MG	1G	1651	1/1	0.59	0.24	91,91,91,91	0
55	MG	1H	3166	1/1	0.60	0.28	74,74,74,74	0
55	MG	1G	1722	1/1	0.60	0.12	161,161,161,161	0
55	MG	1H	3114	1/1	0.60	0.29	92,92,92,92	0
55	MG	1G	1671	1/1	0.62	0.24	100,100,100,100	0
55	MG	1H	3111	1/1	0.62	0.29	86,86,86,86	0
55	MG	13	1638	1/1	0.62	0.58	80,80,80,80	0
55	MG	1H	3175	1/1	0.63	0.37	114,114,114,114	0
55	MG	1H	3185	1/1	0.63	0.64	72,72,72,72	0
55	MG	1H	3113	1/1	0.63	0.39	83,83,83,83	0
55	MG	14	3190	1/1	0.63	0.30	100,100,100,100	0
55	MG	14	3122	1/1	0.63	0.40	103,103,103,103	0
55	MG	13	1641	1/1	0.64	0.21	94,94,94,94	0
55	MG	14	3112	1/1	0.64	1.17	96,96,96,96	0
55	MG	14	3164	1/1	0.64	0.39	95,95,95,95	0
55	MG	1G	1618	1/1	0.64	0.45	98,98,98,98	0
55	MG	35	201	1/1	0.64	0.95	81,81,81,81	0
55	MG	1H	3034	1/1	0.64	0.27	77,77,77,77	0
55	MG	13	1671	1/1	0.65	0.22	117,117,117,117	0
55	MG	1H	3133	1/1	0.65	0.27	85,85,85,85	0
55	MG	13	1629	1/1	0.65	0.24	109,109,109,109	0
55	MG	1H	3096	1/1	0.65	0.19	79,79,79,79	0
55	MG	1G	1662	1/1	0.65	0.49	116,116,116,116	0
55	MG	1H	3181	1/1	0.65	0.52	89,89,89,89	0
55	MG	1G	1683	1/1	0.66	0.26	122,122,122,122	0
55	MG	1H	3121	1/1	0.66	0.23	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1G	1667	1/1	0.66	0.23	101,101,101,101	0
55	MG	14	3296	1/1	0.66	0.10	119,119,119,119	0
55	MG	14	3125	1/1	0.66	0.24	97,97,97,97	0
55	MG	14	3099	1/1	0.66	0.30	90,90,90,90	0
55	MG	1H	3179	1/1	0.67	0.32	86,86,86,86	0
55	MG	14	3141	1/1	0.67	0.21	104,104,104,104	0
55	MG	1H	3085	1/1	0.67	0.27	74,74,74,74	0
55	MG	14	3012	1/1	0.67	0.28	95,95,95,95	0
55	MG	14	3170	1/1	0.67	0.26	69,69,69,69	0
55	MG	1H	3214	1/1	0.67	0.17	84,84,84,84	0
55	MG	45	201	1/1	0.67	0.16	121,121,121,121	0
55	MG	1H	3127	1/1	0.67	0.25	87,87,87,87	0
55	MG	1G	1657	1/1	0.68	0.23	98,98,98,98	0
55	MG	13	1663	1/1	0.68	0.21	123,123,123,123	0
55	MG	14	3194	1/1	0.68	0.17	132,132,132,132	0
55	MG	1G	1640	1/1	0.68	0.20	103,103,103,103	0
55	MG	1H	3226	1/1	0.68	1.28	90,90,90,90	0
55	MG	1H	3315	1/1	0.68	0.08	112,112,112,112	0
55	MG	1H	3452	1/1	0.68	0.12	108,108,108,108	0
55	MG	1G	1646	1/1	0.69	0.31	101,101,101,101	0
55	MG	13	1679	1/1	0.69	0.36	111,111,111,111	0
55	MG	14	3016	1/1	0.69	0.27	110,110,110,110	0
55	MG	14	3027	1/1	0.69	0.28	72,72,72,72	0
55	MG	1G	1620	1/1	0.69	0.17	81,81,81,81	0
55	MG	14	3082	1/1	0.69	0.34	78,78,78,78	0
55	MG	1H	3119	1/1	0.69	0.36	105,105,105,105	0
55	MG	13	1705	1/1	0.70	0.53	130,130,130,130	0
55	MG	1H	3149	1/1	0.70	0.44	76,76,76,76	0
55	MG	14	3009	1/1	0.70	0.66	90,90,90,90	0
55	MG	1H	3244	1/1	0.71	0.31	87,87,87,87	0
55	MG	1H	3088	1/1	0.71	0.34	81,81,81,81	0
55	MG	13	1681	1/1	0.71	0.27	113,113,113,113	0
55	MG	14	3169	1/1	0.71	0.21	97,97,97,97	0
55	MG	1H	3274	1/1	0.72	0.51	78,78,78,78	0
55	MG	1G	1647	1/1	0.72	0.21	120,120,120,120	0
55	MG	1G	1682	1/1	0.72	0.16	101,101,101,101	0
55	MG	14	3029	1/1	0.72	0.13	99,99,99,99	0
55	MG	1H	3148	1/1	0.72	0.31	100,100,100,100	0
55	MG	1H	3340	1/1	0.72	0.18	139,139,139,139	0
55	MG	1H	3024	1/1	0.72	0.20	71,71,71,71	0
55	MG	14	3182	1/1	0.72	0.36	88,88,88,88	0
55	MG	1H	3457	1/1	0.72	0.17	133,133,133,133	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	14	3107	1/1	0.72	0.23	88,88,88,88	0
55	MG	14	3110	1/1	0.72	0.37	103,103,103,103	0
55	MG	1G	1659	1/1	0.72	0.14	99,99,99,99	0
55	MG	1H	3164	1/1	0.72	0.24	98,98,98,98	0
55	MG	14	3121	1/1	0.72	0.38	94,94,94,94	0
55	MG	14	3001	1/1	0.72	0.17	94,94,94,94	0
55	MG	1H	3252	1/1	0.72	0.24	69,69,69,69	0
55	MG	1H	3254	1/1	0.72	0.35	97,97,97,97	0
55	MG	5I	101	1/1	0.73	0.75	105,105,105,105	0
55	MG	1G	1644	1/1	0.73	0.27	97,97,97,97	0
55	MG	1G	1660	1/1	0.73	0.17	118,118,118,118	0
55	MG	14	3188	1/1	0.73	0.32	89,89,89,89	0
55	MG	13	1627	1/1	0.73	0.19	94,94,94,94	0
55	MG	13	1708	1/1	0.73	0.32	145,145,145,145	0
55	MG	1H	3145	1/1	0.73	0.34	84,84,84,84	0
55	MG	14	3060	1/1	0.73	0.33	84,84,84,84	0
55	MG	13	1636	1/1	0.73	0.17	91,91,91,91	0
55	MG	1H	3312	1/1	0.73	0.23	105,105,105,105	0
55	MG	1G	1706	1/1	0.74	0.11	138,138,138,138	0
55	MG	1G	1661	1/1	0.74	0.23	77,77,77,77	0
55	MG	13	1639	1/1	0.74	0.18	110,110,110,110	0
55	MG	1G	1621	1/1	0.74	0.50	115,115,115,115	0
55	MG	8I	201	1/1	0.74	1.37	107,107,107,107	0
55	MG	1H	3310	1/1	0.74	0.10	109,109,109,109	0
55	MG	1H	3253	1/1	0.75	0.33	98,98,98,98	0
55	MG	13	1686	1/1	0.75	0.59	73,73,73,73	0
55	MG	1H	3269	1/1	0.75	0.34	55,55,55,55	0
55	MG	14	3041	1/1	0.75	0.56	61,61,61,61	0
55	MG	1H	3337	1/1	0.75	0.08	127,127,127,127	0
55	MG	1H	3138	1/1	0.75	0.35	98,98,98,98	0
55	MG	1G	1627	1/1	0.75	0.27	122,122,122,122	0
55	MG	14	3083	1/1	0.75	0.27	105,105,105,105	0
55	MG	1G	1629	1/1	0.75	0.11	131,131,131,131	0
55	MG	1H	3141	1/1	0.76	0.34	89,89,89,89	0
55	MG	1H	3142	1/1	0.76	0.43	76,76,76,76	0
55	MG	14	3113	1/1	0.76	0.21	120,120,120,120	0
55	MG	1H	3301	1/1	0.76	0.11	100,100,100,100	0
55	MG	1H	3465	1/1	0.76	0.07	98,98,98,98	0
55	MG	1G	1604	1/1	0.76	0.12	102,102,102,102	0
55	MG	14	3062	1/1	0.76	0.26	87,87,87,87	0
55	MG	1H	3091	1/1	0.76	0.24	70,70,70,70	0
55	MG	13	1630	1/1	0.76	0.23	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1G	1669	1/1	0.76	0.33	131,131,131,131	0
55	MG	1G	1670	1/1	0.76	0.59	101,101,101,101	0
55	MG	13	1724	1/1	0.76	0.09	128,128,128,128	0
55	MG	13	1673	1/1	0.76	0.25	113,113,113,113	0
55	MG	1H	3163	1/1	0.77	0.22	82,82,82,82	0
55	MG	21	301	1/1	0.77	0.14	82,82,82,82	0
55	MG	14	3178	1/1	0.77	0.30	98,98,98,98	0
55	MG	1H	3205	1/1	0.77	0.33	80,80,80,80	0
55	MG	14	3298	1/1	0.77	0.12	103,103,103,103	0
55	MG	1H	3279	1/1	0.77	0.31	81,81,81,81	0
55	MG	1H	3300	1/1	0.77	0.32	104,104,104,104	0
55	MG	45	202	1/1	0.77	0.33	116,116,116,116	0
55	MG	14	3079	1/1	0.77	0.22	100,100,100,100	0
55	MG	14	3026	1/1	0.78	0.15	76,76,76,76	0
55	MG	1G	1630	1/1	0.78	0.21	135,135,135,135	0
55	MG	13	1674	1/1	0.78	0.49	109,109,109,109	0
55	MG	14	3108	1/1	0.78	0.20	87,87,87,87	0
55	MG	1H	3419	1/1	0.78	0.09	115,115,115,115	0
55	MG	13	1648	1/1	0.78	0.19	110,110,110,110	0
55	MG	1H	3278	1/1	0.78	0.24	75,75,75,75	0
55	MG	1G	1623	1/1	0.78	0.07	161,161,161,161	0
55	MG	14	3010	1/1	0.78	0.22	78,78,78,78	0
55	MG	1H	3033	1/1	0.78	0.28	60,60,60,60	0
55	MG	1H	3050	1/1	0.78	0.36	79,79,79,79	0
55	MG	14	3133	1/1	0.79	0.43	99,99,99,99	0
55	MG	14	3135	1/1	0.79	1.38	91,91,91,91	0
55	MG	1H	3199	1/1	0.79	0.35	69,69,69,69	0
55	MG	1H	3275	1/1	0.79	0.47	62,62,62,62	0
55	MG	1G	1606	1/1	0.79	0.18	109,109,109,109	0
55	MG	13	1701	1/1	0.79	0.26	137,137,137,137	0
55	MG	14	3290	1/1	0.79	0.12	115,115,115,115	0
55	MG	1G	1715	1/1	0.79	0.25	126,126,126,126	0
55	MG	13	1664	1/1	0.79	0.37	87,87,87,87	0
55	MG	1H	3246	1/1	0.79	0.37	117,117,117,117	0
55	MG	14	3092	1/1	0.79	0.69	81,81,81,81	0
55	MG	1G	1685	1/1	0.79	0.33	94,94,94,94	0
55	MG	14	3098	1/1	0.79	0.35	78,78,78,78	0
55	MG	1H	3143	1/1	0.80	0.25	89,89,89,89	0
55	MG	1H	3176	1/1	0.80	0.18	107,107,107,107	0
55	MG	13	1738	1/1	0.80	0.25	134,134,134,134	0
55	MG	1G	1637	1/1	0.80	0.09	125,125,125,125	0
55	MG	13	1652	1/1	0.80	0.27	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1H	3208	1/1	0.80	0.22	113,113,113,113	0
55	MG	1G	1645	1/1	0.80	0.27	118,118,118,118	0
55	MG	14	3081	1/1	0.80	0.40	88,88,88,88	0
55	MG	1H	3273	1/1	0.80	0.27	63,63,63,63	0
55	MG	1G	1697	1/1	0.80	0.10	172,172,172,172	0
55	MG	13	1733	1/1	0.80	0.14	92,92,92,92	0
55	MG	1G	1649	1/1	0.80	0.21	151,151,151,151	0
55	MG	1G	1652	1/1	0.81	0.14	105,105,105,105	0
55	MG	13	1624	1/1	0.81	0.17	98,98,98,98	0
55	MG	1H	3067	1/1	0.81	0.34	65,65,65,65	0
55	MG	14	3163	1/1	0.81	0.32	102,102,102,102	0
55	MG	1H	3281	1/1	0.81	0.36	96,96,96,96	0
55	MG	1H	3174	1/1	0.81	0.64	129,129,129,129	0
55	MG	13	1631	1/1	0.81	0.36	132,132,132,132	0
55	MG	88	203	1/1	0.81	0.93	77,77,77,77	0
55	MG	1G	1632	1/1	0.82	0.20	127,127,127,127	0
55	MG	13	1676	1/1	0.82	0.20	104,104,104,104	0
55	MG	13	1602	1/1	0.82	0.18	115,115,115,115	0
55	MG	1G	1641	1/1	0.82	0.13	107,107,107,107	0
55	MG	1G	1614	1/1	0.82	0.27	123,123,123,123	0
55	MG	1H	3202	1/1	0.82	0.50	87,87,87,87	0
55	MG	14	3137	1/1	0.82	0.34	151,151,151,151	0
55	MG	14	3138	1/1	0.82	0.39	134,134,134,134	0
55	MG	1H	3139	1/1	0.82	0.26	60,60,60,60	0
55	MG	13	1606	1/1	0.82	0.31	83,83,83,83	0
55	MG	13	1706	1/1	0.82	0.30	132,132,132,132	0
55	MG	1H	3183	1/1	0.82	0.55	82,82,82,82	0
55	MG	14	3109	1/1	0.82	0.28	102,102,102,102	0
55	MG	1H	3331	1/1	0.82	0.18	109,109,109,109	0
55	MG	1G	1603	1/1	0.82	0.16	95,95,95,95	0
55	MG	14	3078	1/1	0.82	0.11	100,100,100,100	0
55	MG	1H	3126	1/1	0.83	0.36	78,78,78,78	0
55	MG	1H	3021	1/1	0.83	0.11	78,78,78,78	0
55	MG	1H	3249	1/1	0.83	0.23	70,70,70,70	0
55	MG	1H	3325	1/1	0.83	0.18	122,122,122,122	0
55	MG	1H	3144	1/1	0.83	0.21	106,106,106,106	0
55	MG	1G	1723	1/1	0.83	0.08	113,113,113,113	0
55	MG	1H	3207	1/1	0.83	0.30	77,77,77,77	0
55	MG	1H	3128	1/1	0.83	0.26	92,92,92,92	0
55	MG	1H	3255	1/1	0.83	0.30	78,78,78,78	0
55	MG	1H	3423	1/1	0.83	0.09	102,102,102,102	0
55	MG	1H	3037	1/1	0.83	0.11	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	13	1637	1/1	0.83	0.18	101,101,101,101	0
55	MG	1H	3216	1/1	0.83	0.36	89,89,89,89	0
55	MG	14	3019	1/1	0.83	0.11	85,85,85,85	0
55	MG	14	3189	1/1	0.83	0.27	99,99,99,99	0
55	MG	1H	3221	1/1	0.83	0.20	100,100,100,100	0
55	MG	1G	1681	1/1	0.83	0.26	92,92,92,92	0
55	MG	1H	3154	1/1	0.83	0.20	61,61,61,61	0
55	MG	1H	3090	1/1	0.83	0.21	88,88,88,88	0
55	MG	1H	3029	1/1	0.83	0.21	68,68,68,68	0
55	MG	1G	1692	1/1	0.83	0.09	118,118,118,118	0
55	MG	1H	3237	1/1	0.83	0.19	79,79,79,79	0
55	MG	14	3076	1/1	0.83	0.44	90,90,90,90	0
55	MG	13	1739	1/1	0.83	0.12	128,128,128,128	0
55	MG	1H	3313	1/1	0.84	0.26	112,112,112,112	0
55	MG	1H	3104	1/1	0.84	0.51	74,74,74,74	0
55	MG	1H	3320	1/1	0.84	0.25	127,127,127,127	0
55	MG	13	1736	1/1	0.84	0.15	137,137,137,137	0
55	MG	1G	1648	1/1	0.84	0.24	115,115,115,115	0
55	MG	1G	1611	1/1	0.84	0.38	112,112,112,112	0
55	MG	1H	3238	1/1	0.84	0.15	94,94,94,94	0
55	MG	1H	3335	1/1	0.84	0.28	134,134,134,134	0
55	MG	14	3111	1/1	0.84	0.46	110,110,110,110	0
55	MG	13	1695	1/1	0.84	0.14	139,139,139,139	0
55	MG	1H	3182	1/1	0.84	0.53	114,114,114,114	0
55	MG	1H	3001	1/1	0.84	0.21	53,53,53,53	0
55	MG	1H	3421	1/1	0.84	0.14	113,113,113,113	0
55	MG	14	3063	1/1	0.84	0.29	82,82,82,82	0
55	MG	1H	3422	1/1	0.84	0.06	121,121,121,121	0
55	MG	1H	3184	1/1	0.84	0.17	87,87,87,87	0
55	MG	14	3291	1/1	0.84	0.24	114,114,114,114	0
55	MG	1H	3093	1/1	0.84	0.37	70,70,70,70	0
55	MG	1H	3196	1/1	0.84	0.56	107,107,107,107	0
55	MG	1G	1725	1/1	0.84	0.09	130,130,130,130	0
55	MG	13	1640	1/1	0.84	0.22	99,99,99,99	0
55	MG	1H	3200	1/1	0.84	0.38	88,88,88,88	0
55	MG	14	3088	1/1	0.84	0.17	109,109,109,109	0
55	MG	1H	3040	1/1	0.85	0.23	58,58,58,58	0
55	MG	1H	3071	1/1	0.85	0.55	72,72,72,72	0
55	MG	14	3114	1/1	0.85	0.24	101,101,101,101	0
55	MG	1H	3330	1/1	0.85	0.11	78,78,78,78	0
55	MG	14	3011	1/1	0.85	0.29	66,66,66,66	0
55	MG	1G	1699	1/1	0.85	0.31	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	14	3013	1/1	0.85	0.18	96,96,96,96	0
55	MG	13	1702	1/1	0.85	0.17	110,110,110,110	0
55	MG	1H	3445	1/1	0.85	0.19	91,91,91,91	0
55	MG	1G	1713	1/1	0.85	0.10	144,144,144,144	0
55	MG	14	3191	1/1	0.85	0.19	102,102,102,102	0
55	MG	1H	3449	1/1	0.85	0.17	99,99,99,99	0
55	MG	14	3284	1/1	0.85	0.10	98,98,98,98	0
55	MG	1H	3027	1/1	0.85	0.12	75,75,75,75	0
55	MG	14	3106	1/1	0.85	1.18	90,90,90,90	0
55	MG	14	3143	1/1	0.85	0.19	97,97,97,97	0
55	MG	1H	3256	1/1	0.85	0.26	53,53,53,53	0
55	MG	1H	3463	1/1	0.85	0.06	110,110,110,110	0
55	MG	13	1656	1/1	0.85	0.13	124,124,124,124	0
55	MG	1G	1684	1/1	0.85	0.37	89,89,89,89	0
55	MG	1G	1622	1/1	0.85	0.18	104,104,104,104	0
55	MG	1H	3311	1/1	0.86	0.32	97,97,97,97	0
55	MG	13	1607	1/1	0.86	0.22	110,110,110,110	0
55	MG	14	3145	1/1	0.86	0.19	86,86,86,86	0
55	MG	4A	201	1/1	0.86	0.15	136,136,136,136	0
55	MG	1H	3451	1/1	0.86	0.23	81,81,81,81	0
55	MG	14	3165	1/1	0.86	0.55	83,83,83,83	0
55	MG	1H	3264	1/1	0.86	0.19	72,72,72,72	0
55	MG	1H	3456	1/1	0.86	0.10	111,111,111,111	0
55	MG	14	3105	1/1	0.86	0.25	81,81,81,81	0
55	MG	1H	3268	1/1	0.86	0.43	74,74,74,74	0
55	MG	1G	1642	1/1	0.86	0.43	154,154,154,154	0
55	MG	1H	3153	1/1	0.86	0.44	91,91,91,91	0
55	MG	13	1653	1/1	0.86	0.46	120,120,120,120	0
55	MG	1H	3328	1/1	0.86	0.21	114,114,114,114	0
55	MG	1H	3161	1/1	0.86	0.33	86,86,86,86	0
55	MG	1G	1690	1/1	0.86	0.05	144,144,144,144	0
55	MG	13	1634	1/1	0.86	0.26	120,120,120,120	0
55	MG	1H	3055	1/1	0.86	0.39	91,91,91,91	0
55	MG	13	1723	1/1	0.86	0.13	103,103,103,103	0
55	MG	1H	3018	1/1	0.86	0.20	68,68,68,68	0
55	MG	14	3257	1/1	0.86	0.14	99,99,99,99	0
55	MG	1H	3394	1/1	0.86	0.15	75,75,75,75	0
55	MG	1H	3405	1/1	0.86	0.12	108,108,108,108	0
55	MG	1G	1708	1/1	0.86	0.21	100,100,100,100	0
55	MG	1H	3418	1/1	0.86	0.09	99,99,99,99	0
55	MG	14	3136	1/1	0.86	0.40	120,120,120,120	0
55	MG	1H	3168	1/1	0.86	0.23	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	13	1688	1/1	0.86	0.16	122,122,122,122	0
55	MG	1H	3302	1/1	0.86	0.11	120,120,120,120	0
55	MG	1H	3022	1/1	0.86	0.29	77,77,77,77	0
55	MG	14	3142	1/1	0.87	0.38	105,105,105,105	0
55	MG	13	1617	1/1	0.87	0.22	92,92,92,92	0
55	MG	13	1651	1/1	0.87	0.30	110,110,110,110	0
55	MG	14	3085	1/1	0.87	1.14	94,94,94,94	0
55	MG	14	3146	1/1	0.87	0.25	92,92,92,92	0
55	MG	1H	3134	1/1	0.87	0.38	61,61,61,61	0
55	MG	1H	3346	1/1	0.87	0.12	63,63,63,63	0
55	MG	1H	3373	1/1	0.87	0.12	106,106,106,106	0
55	MG	BI	201	1/1	0.87	0.24	110,110,110,110	0
55	MG	1H	3191	1/1	0.87	0.12	93,93,93,93	0
55	MG	1H	3416	1/1	0.87	0.07	119,119,119,119	0
55	MG	1H	3284	1/1	0.87	0.19	60,60,60,60	0
55	MG	1H	3293	1/1	0.87	0.10	124,124,124,124	0
55	MG	1H	3195	1/1	0.87	0.13	114,114,114,114	0
55	MG	1H	3106	1/1	0.87	0.15	100,100,100,100	0
55	MG	1G	1674	1/1	0.87	0.11	89,89,89,89	0
55	MG	1H	3065	1/1	0.87	0.38	87,87,87,87	0
55	MG	13	1690	1/1	0.87	0.32	123,123,123,123	0
55	MG	1H	3172	1/1	0.87	0.12	101,101,101,101	0
55	MG	13	1709	1/1	0.87	0.35	147,147,147,147	0
55	MG	1H	3074	1/1	0.87	0.27	65,65,65,65	0
55	MG	14	3119	1/1	0.87	0.23	101,101,101,101	0
55	MG	14	3214	1/1	0.87	0.27	96,96,96,96	0
55	MG	14	3254	1/1	0.87	0.10	108,108,108,108	0
55	MG	13	1704	1/1	0.87	0.26	147,147,147,147	0
55	MG	1H	3210	1/1	0.87	0.61	90,90,90,90	0
55	MG	1H	3462	1/1	0.87	0.08	106,106,106,106	0
55	MG	1H	3322	1/1	0.87	0.53	124,124,124,124	0
55	MG	14	3292	1/1	0.87	0.27	103,103,103,103	0
55	MG	13	1722	1/1	0.87	0.13	106,106,106,106	0
55	MG	1H	3123	1/1	0.87	0.22	79,79,79,79	0
55	MG	1J	201	1/1	0.87	0.16	106,106,106,106	0
55	MG	1H	3019	1/1	0.87	0.31	57,57,57,57	0
55	MG	1G	1601	1/1	0.87	0.12	101,101,101,101	0
55	MG	1G	1711	1/1	0.87	0.07	139,139,139,139	0
55	MG	13	1740	1/1	0.87	0.21	123,123,123,123	0
55	MG	F5	101	1/1	0.87	0.27	82,82,82,82	0
55	MG	1G	1724	1/1	0.88	0.13	120,120,120,120	0
55	MG	1H	3122	1/1	0.88	0.24	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1H	3198	1/1	0.88	0.25	68,68,68,68	0
55	MG	13	1735	1/1	0.88	0.10	100,100,100,100	0
55	MG	13	1678	1/1	0.88	0.74	116,116,116,116	0
55	MG	14	3080	1/1	0.88	0.23	90,90,90,90	0
55	MG	1H	3231	1/1	0.88	0.18	65,65,65,65	0
55	MG	14	3006	1/1	0.88	0.16	91,91,91,91	0
55	MG	1H	3115	1/1	0.88	0.32	76,76,76,76	0
55	MG	1H	3204	1/1	0.88	0.28	80,80,80,80	0
55	MG	14	3207	1/1	0.88	0.26	117,117,117,117	0
55	MG	1H	3240	1/1	0.88	0.54	114,114,114,114	0
55	MG	14	3250	1/1	0.88	0.22	99,99,99,99	0
55	MG	14	3090	1/1	0.88	0.31	69,69,69,69	0
55	MG	1G	1666	1/1	0.88	0.48	136,136,136,136	0
55	MG	1H	3118	1/1	0.88	0.15	89,89,89,89	0
55	MG	14	3286	1/1	0.88	0.08	97,97,97,97	0
55	MG	14	3289	1/1	0.88	0.13	84,84,84,84	0
55	MG	1H	3129	1/1	0.88	0.34	92,92,92,92	0
55	MG	14	3018	1/1	0.88	0.72	84,84,84,84	0
55	MG	1H	3189	1/1	0.88	0.26	71,71,71,71	0
55	MG	14	3021	1/1	0.88	0.49	90,90,90,90	0
55	MG	13	1685	1/1	0.88	0.22	107,107,107,107	0
55	MG	1H	3332	1/1	0.88	0.25	125,125,125,125	0
55	MG	14	3028	1/1	0.88	0.27	114,114,114,114	0
55	MG	1H	3192	1/1	0.88	0.15	114,114,114,114	0
55	MG	1G	1720	1/1	0.88	0.09	152,152,152,152	0
55	MG	1H	3193	1/1	0.88	0.27	73,73,73,73	0
55	MG	13	1616	1/1	0.88	0.21	93,93,93,93	0
55	MG	1H	3041	1/1	0.89	0.14	65,65,65,65	0
55	MG	1H	3117	1/1	0.89	0.15	88,88,88,88	0
55	MG	14	3162	1/1	0.89	0.30	57,57,57,57	0
55	MG	1H	3324	1/1	0.89	0.39	115,115,115,115	0
55	MG	1H	3044	1/1	0.89	0.60	72,72,72,72	0
55	MG	1H	3224	1/1	0.89	0.13	102,102,102,102	0
55	MG	1H	3461	1/1	0.89	0.17	119,119,119,119	0
55	MG	13	1661	1/1	0.89	0.39	117,117,117,117	0
55	MG	14	3172	1/1	0.89	0.29	100,100,100,100	0
55	MG	13	1698	1/1	0.89	0.27	138,138,138,138	0
55	MG	1H	3197	1/1	0.89	0.27	77,77,77,77	0
55	MG	16	202	1/1	0.89	0.14	118,118,118,118	0
55	MG	1H	3334	1/1	0.89	0.17	94,94,94,94	0
55	MG	78	202	1/1	0.89	0.35	55,55,55,55	0
55	MG	1H	3006	1/1	0.89	0.36	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1H	3280	1/1	0.89	0.28	73,73,73,73	0
55	MG	14	3003	1/1	0.89	0.11	85,85,85,85	0
55	MG	13	1619	1/1	0.89	0.19	86,86,86,86	0
55	MG	1H	3147	1/1	0.89	0.30	54,54,54,54	0
55	MG	1H	3353	1/1	0.89	0.09	59,59,59,59	0
55	MG	1G	1665	1/1	0.89	0.28	130,130,130,130	0
55	MG	14	3204	1/1	0.89	0.13	106,106,106,106	0
55	MG	1G	1607	1/1	0.89	0.30	94,94,94,94	0
55	MG	1H	3285	1/1	0.89	0.26	89,89,89,89	0
55	MG	14	3217	1/1	0.89	0.09	97,97,97,97	0
55	MG	1G	1612	1/1	0.89	0.24	85,85,85,85	0
55	MG	1H	3383	1/1	0.89	0.11	60,60,60,60	0
55	MG	13	1628	1/1	0.89	0.35	120,120,120,120	0
55	MG	1H	3397	1/1	0.89	0.07	81,81,81,81	0
55	MG	14	3285	1/1	0.89	0.16	99,99,99,99	0
55	MG	13	1666	1/1	0.89	0.10	115,115,115,115	0
55	MG	13	1633	1/1	0.89	0.24	85,85,85,85	0
55	MG	1H	3110	1/1	0.89	0.28	93,93,93,93	0
55	MG	1H	3155	1/1	0.89	0.32	78,78,78,78	0
55	MG	13	1614	1/1	0.89	0.13	100,100,100,100	0
55	MG	1H	3211	1/1	0.89	0.34	93,93,93,93	0
55	MG	1H	3081	1/1	0.89	0.27	72,72,72,72	0
55	MG	1G	1635	1/1	0.89	0.14	139,139,139,139	0
55	MG	14	3140	1/1	0.89	0.17	86,86,86,86	0
55	MG	1H	3436	1/1	0.89	0.31	96,96,96,96	0
55	MG	1G	1639	1/1	0.89	0.12	106,106,106,106	0
55	MG	1H	3083	1/1	0.89	0.40	85,85,85,85	0
55	MG	1H	3447	1/1	0.89	0.08	102,102,102,102	0
55	MG	1H	3243	1/1	0.90	0.20	85,85,85,85	0
55	MG	13	1713	1/1	0.90	0.12	81,81,81,81	0
55	MG	13	1622	1/1	0.90	0.17	88,88,88,88	0
55	MG	13	1605	1/1	0.90	0.26	122,122,122,122	0
55	MG	14	3020	1/1	0.90	0.39	81,81,81,81	0
55	MG	1H	3384	1/1	0.90	0.10	76,76,76,76	0
55	MG	1H	3151	1/1	0.90	0.28	100,100,100,100	0
55	MG	1H	3396	1/1	0.90	0.14	64,64,64,64	0
55	MG	1F	101	1/1	0.90	0.12	107,107,107,107	0
55	MG	1H	3131	1/1	0.90	0.24	73,73,73,73	0
55	MG	1H	3410	1/1	0.90	0.13	95,95,95,95	0
55	MG	14	3059	1/1	0.90	0.25	105,105,105,105	0
55	MG	14	3202	1/1	0.90	0.22	106,106,106,106	0
55	MG	1H	3412	1/1	0.90	0.19	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	14	3132	1/1	0.90	0.96	100,100,100,100	0
55	MG	1H	3031	1/1	0.90	0.25	83,83,83,83	0
55	MG	1H	3156	1/1	0.90	0.31	75,75,75,75	0
55	MG	14	3220	1/1	0.90	0.09	84,84,84,84	0
55	MG	14	3243	1/1	0.90	0.11	116,116,116,116	0
55	MG	14	3246	1/1	0.90	0.12	105,105,105,105	0
55	MG	1H	3260	1/1	0.90	0.23	53,53,53,53	0
55	MG	1H	3160	1/1	0.90	0.21	81,81,81,81	0
55	MG	13	1608	1/1	0.90	0.12	131,131,131,131	0
55	MG	1H	3136	1/1	0.90	0.43	87,87,87,87	0
55	MG	1H	3003	1/1	0.90	0.14	49,49,49,49	0
55	MG	13	1621	1/1	0.90	0.14	117,117,117,117	0
55	MG	42	201	1/1	0.90	0.28	115,115,115,115	0
55	MG	1H	3038	1/1	0.90	0.18	83,83,83,83	0
55	MG	14	3084	1/1	0.90	0.26	91,91,91,91	0
55	MG	13	1680	1/1	0.90	0.21	108,108,108,108	0
55	MG	13	1707	1/1	0.90	0.18	133,133,133,133	0
55	MG	13	1696	1/1	0.90	0.14	117,117,117,117	0
55	MG	1H	3455	1/1	0.90	0.13	85,85,85,85	0
55	MG	13	1697	1/1	0.90	0.06	146,146,146,146	0
55	MG	1G	1679	1/1	0.90	0.23	79,79,79,79	0
55	MG	1H	3336	1/1	0.90	0.08	127,127,127,127	0
55	MG	1H	3283	1/1	0.90	0.41	83,83,83,83	0
55	MG	13	1655	1/1	0.90	0.15	95,95,95,95	0
55	MG	13	1642	1/1	0.91	0.06	149,149,149,149	0
55	MG	1H	3140	1/1	0.91	0.25	80,80,80,80	0
55	MG	1G	1609	1/1	0.91	0.49	105,105,105,105	0
55	MG	1H	3203	1/1	0.91	0.27	81,81,81,81	0
55	MG	1H	3169	1/1	0.91	0.47	75,75,75,75	0
55	MG	1H	3437	1/1	0.91	0.21	95,95,95,95	0
55	MG	1H	3308	1/1	0.91	0.22	107,107,107,107	0
55	MG	2A	201	1/1	0.91	0.09	101,101,101,101	0
55	MG	1H	3309	1/1	0.91	0.10	108,108,108,108	0
55	MG	1H	3187	1/1	0.91	0.26	99,99,99,99	0
55	MG	1H	3348	1/1	0.91	0.12	54,54,54,54	0
55	MG	13	1714	1/1	0.91	0.07	121,121,121,121	0
55	MG	1G	1626	1/1	0.91	0.13	100,100,100,100	0
55	MG	14	3007	1/1	0.91	0.15	97,97,97,97	0
55	MG	1H	3454	1/1	0.91	0.21	109,109,109,109	0
55	MG	1H	3190	1/1	0.91	0.11	106,106,106,106	0
55	MG	1H	3130	1/1	0.91	0.36	66,66,66,66	0
55	MG	1G	1675	1/1	0.91	0.20	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	13	1718	1/1	0.91	0.07	113,113,113,113	0
55	MG	1H	3317	1/1	0.91	0.05	106,106,106,106	0
55	MG	13	1643	1/1	0.91	0.23	124,124,124,124	0
55	MG	1G	1638	1/1	0.91	0.11	151,151,151,151	0
55	MG	13	1677	1/1	0.91	0.23	100,100,100,100	0
55	MG	1H	3162	1/1	0.91	0.18	87,87,87,87	0
55	MG	1G	1686	1/1	0.91	0.31	112,112,112,112	0
55	MG	14	3248	1/1	0.91	0.09	86,86,86,86	0
55	MG	1H	3466	1/1	0.91	0.19	111,111,111,111	0
55	MG	1H	3473	1/1	0.91	0.09	74,74,74,74	0
55	MG	13	1604	1/1	0.91	0.26	87,87,87,87	0
55	MG	14	3279	1/1	0.91	0.07	107,107,107,107	0
55	MG	1G	1696	1/1	0.91	0.08	137,137,137,137	0
55	MG	13	1712	1/1	0.91	0.11	96,96,96,96	0
55	MG	41	201	1/1	0.91	0.17	88,88,88,88	0
55	MG	14	3061	1/1	0.91	0.30	92,92,92,92	0
55	MG	1H	3329	1/1	0.91	0.09	119,119,119,119	0
55	MG	88	202	1/1	0.91	0.98	62,62,62,62	0
55	MG	1H	3417	1/1	0.91	0.13	108,108,108,108	0
55	MG	1H	3030	1/1	0.91	0.47	77,77,77,77	0
55	MG	14	3077	1/1	0.91	0.25	89,89,89,89	0
55	MG	1G	1712	1/1	0.91	0.14	131,131,131,131	0
55	MG	1H	3291	1/1	0.91	0.09	98,98,98,98	0
55	MG	14	3152	1/1	0.91	0.24	90,90,90,90	0
55	MG	14	3161	1/1	0.91	0.18	73,73,73,73	0
55	MG	1H	3420	1/1	0.91	0.10	96,96,96,96	0
55	MG	1G	1655	1/1	0.91	0.13	84,84,84,84	0
55	MG	13	1720	1/1	0.92	0.13	117,117,117,117	0
55	MG	1G	1634	1/1	0.92	0.06	109,109,109,109	0
55	MG	13	1657	1/1	0.92	0.14	123,123,123,123	0
55	MG	13	1687	1/1	0.92	0.27	88,88,88,88	0
55	MG	1H	3271	1/1	0.92	0.23	82,82,82,82	0
55	MG	14	3104	1/1	0.92	0.12	91,91,91,91	0
55	MG	1H	3272	1/1	0.92	0.37	83,83,83,83	0
55	MG	1H	3135	1/1	0.92	0.26	75,75,75,75	0
55	MG	14	3183	1/1	0.92	0.31	99,99,99,99	0
55	MG	1H	3403	1/1	0.92	0.10	87,87,87,87	0
55	MG	1H	3404	1/1	0.92	0.11	76,76,76,76	0
55	MG	1G	1687	1/1	0.92	0.12	108,108,108,108	0
55	MG	13	1710	1/1	0.92	0.34	143,143,143,143	0
55	MG	1H	3319	1/1	0.92	0.07	123,123,123,123	0
55	MG	13	1726	1/1	0.92	0.21	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1G	1694	1/1	0.92	0.08	151,151,151,151	0
55	MG	14	3193	1/1	0.92	0.08	87,87,87,87	0
55	MG	1H	3158	1/1	0.92	0.18	92,92,92,92	0
55	MG	14	3195	1/1	0.92	0.14	67,67,67,67	0
55	MG	14	3198	1/1	0.92	0.34	109,109,109,109	0
55	MG	14	3115	1/1	0.92	0.23	103,103,103,103	0
55	MG	13	1601	1/1	0.92	0.15	77,77,77,77	0
55	MG	14	3206	1/1	0.92	0.32	131,131,131,131	0
55	MG	14	3117	1/1	0.92	0.17	91,91,91,91	0
55	MG	1H	3028	1/1	0.92	0.15	80,80,80,80	0
55	MG	14	3216	1/1	0.92	0.10	68,68,68,68	0
55	MG	14	3120	1/1	0.92	0.22	106,106,106,106	0
55	MG	13	1618	1/1	0.92	0.17	115,115,115,115	0
55	MG	14	3237	1/1	0.92	0.22	96,96,96,96	0
55	MG	14	3241	1/1	0.92	0.08	86,86,86,86	0
55	MG	14	3036	1/1	0.92	0.18	80,80,80,80	0
55	MG	14	3244	1/1	0.92	0.08	105,105,105,105	0
55	MG	13	1644	1/1	0.92	0.14	109,109,109,109	0
55	MG	14	3044	1/1	0.92	0.17	85,85,85,85	0
55	MG	1H	3248	1/1	0.92	0.33	86,86,86,86	0
55	MG	14	3253	1/1	0.92	0.16	83,83,83,83	0
55	MG	1H	3103	1/1	0.92	0.18	77,77,77,77	0
55	MG	1H	3064	1/1	0.92	0.30	85,85,85,85	0
55	MG	14	3265	1/1	0.92	0.09	65,65,65,65	0
55	MG	14	3270	1/1	0.92	0.17	85,85,85,85	0
55	MG	14	3272	1/1	0.92	0.08	93,93,93,93	0
55	MG	1H	3431	1/1	0.92	0.10	62,62,62,62	0
55	MG	1H	3292	1/1	0.92	0.07	103,103,103,103	0
55	MG	1H	3105	1/1	0.92	0.16	93,93,93,93	0
55	MG	14	3072	1/1	0.92	0.18	91,91,91,91	0
55	MG	1G	1716	1/1	0.92	0.08	123,123,123,123	0
55	MG	1G	1615	1/1	0.92	0.21	141,141,141,141	0
55	MG	1H	3296	1/1	0.92	0.17	122,122,122,122	0
55	MG	1H	3167	1/1	0.92	0.40	93,93,93,93	0
55	MG	1H	3448	1/1	0.92	0.10	72,72,72,72	0
55	MG	1H	3007	1/1	0.92	0.23	62,62,62,62	0
55	MG	14	3300	1/1	0.92	0.14	140,140,140,140	0
55	MG	14	3151	1/1	0.92	0.22	96,96,96,96	0
55	MG	1J	202	1/1	0.92	0.13	129,129,129,129	0
55	MG	1H	3341	1/1	0.92	0.09	129,129,129,129	0
55	MG	1H	3344	1/1	0.92	0.07	72,72,72,72	0
55	MG	13	1610	1/1	0.92	0.08	130,130,130,130	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1H	3305	1/1	0.92	0.21	110,110,110,110	0
55	MG	13	1620	1/1	0.92	0.14	70,70,70,70	0
55	MG	14	3014	1/1	0.93	0.18	78,78,78,78	0
55	MG	1H	3206	1/1	0.93	0.23	108,108,108,108	0
55	MG	13	1734	1/1	0.93	0.33	133,133,133,133	0
55	MG	13	1700	1/1	0.93	0.07	151,151,151,151	0
55	MG	1G	1698	1/1	0.93	0.23	176,176,176,176	0
55	MG	1H	3321	1/1	0.93	0.24	123,123,123,123	0
55	MG	1G	1700	1/1	0.93	0.20	142,142,142,142	0
55	MG	1H	3450	1/1	0.93	0.10	132,132,132,132	0
55	MG	1H	3188	1/1	0.93	0.17	91,91,91,91	0
55	MG	1H	3014	1/1	0.93	0.25	64,64,64,64	0
55	MG	14	3030	1/1	0.93	0.25	110,110,110,110	0
55	MG	14	3118	1/1	0.93	0.15	99,99,99,99	0
55	MG	1H	3401	1/1	0.93	0.15	72,72,72,72	0
55	MG	1H	3087	1/1	0.93	0.30	74,74,74,74	0
55	MG	1H	3170	1/1	0.93	0.51	80,80,80,80	0
55	MG	14	3047	1/1	0.93	0.37	83,83,83,83	0
55	MG	14	3123	1/1	0.93	0.23	99,99,99,99	0
55	MG	14	3048	1/1	0.93	0.26	94,94,94,94	0
55	MG	14	3130	1/1	0.93	0.08	106,106,106,106	0
55	MG	13	1669	1/1	0.93	0.09	100,100,100,100	0
55	MG	14	3236	1/1	0.93	0.11	98,98,98,98	0
55	MG	1H	3458	1/1	0.93	0.06	126,126,126,126	0
55	MG	1H	3173	1/1	0.93	0.14	94,94,94,94	0
55	MG	1G	1717	1/1	0.93	0.07	137,137,137,137	0
55	MG	1G	1718	1/1	0.93	0.14	112,112,112,112	0
55	MG	14	3245	1/1	0.93	0.07	117,117,117,117	0
55	MG	14	3064	1/1	0.93	0.32	80,80,80,80	0
55	MG	1H	3258	1/1	0.93	0.22	73,73,73,73	0
55	MG	14	3071	1/1	0.93	0.13	84,84,84,84	0
55	MG	1H	3051	1/1	0.93	0.19	95,95,95,95	0
55	MG	1H	3052	1/1	0.93	0.16	64,64,64,64	0
55	MG	1H	3267	1/1	0.93	0.31	67,67,67,67	0
55	MG	14	3258	1/1	0.93	0.06	97,97,97,97	0
55	MG	1G	1673	1/1	0.93	0.42	93,93,93,93	0
55	MG	14	3268	1/1	0.93	0.06	82,82,82,82	0
55	MG	32	301	1/1	0.93	0.12	138,138,138,138	0
55	MG	13	1737	1/1	0.93	0.20	111,111,111,111	0
55	MG	14	3149	1/1	0.93	0.12	61,61,61,61	0
55	MG	1F	102	1/1	0.93	0.92	125,125,125,125	0
55	MG	1G	1676	1/1	0.93	0.10	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1H	3099	1/1	0.93	0.34	79,79,79,79	0
55	MG	14	3287	1/1	0.93	0.10	110,110,110,110	0
55	MG	2L	101	1/1	0.93	0.15	147,147,147,147	0
55	MG	13	1635	1/1	0.93	0.40	82,82,82,82	0
55	MG	13	1719	1/1	0.93	0.08	107,107,107,107	0
55	MG	88	201	1/1	0.93	0.10	94,94,94,94	0
55	MG	14	3293	1/1	0.93	0.11	130,130,130,130	0
55	MG	14	3294	1/1	0.93	0.09	117,117,117,117	0
55	MG	14	3168	1/1	0.93	0.22	72,72,72,72	0
55	MG	1H	3426	1/1	0.93	0.27	97,97,97,97	0
55	MG	1H	3427	1/1	0.93	0.15	68,68,68,68	0
55	MG	1H	3069	1/1	0.93	0.23	77,77,77,77	0
55	MG	1H	3004	1/1	0.93	0.21	64,64,64,64	0
55	MG	13	1654	1/1	0.93	0.26	81,81,81,81	0
55	MG	1H	3438	1/1	0.93	0.13	93,93,93,93	0
55	MG	14	3179	1/1	0.93	0.21	70,70,70,70	0
55	MG	14	3181	1/1	0.93	0.65	71,71,71,71	0
55	MG	1H	3440	1/1	0.93	0.14	54,54,54,54	0
55	MG	D8	201	1/1	0.94	0.40	84,84,84,84	0
55	MG	14	3091	1/1	0.94	0.19	105,105,105,105	0
55	MG	1H	3232	1/1	0.94	0.28	76,76,76,76	0
55	MG	14	3093	1/1	0.94	0.12	94,94,94,94	0
55	MG	1H	3318	1/1	0.94	0.12	93,93,93,93	0
55	MG	1H	3057	1/1	0.94	0.25	57,57,57,57	0
55	MG	13	1665	1/1	0.94	0.20	115,115,115,115	0
55	MG	14	3103	1/1	0.94	0.26	113,113,113,113	0
55	MG	1H	3277	1/1	0.94	0.38	103,103,103,103	0
55	MG	1H	3100	1/1	0.94	0.28	65,65,65,65	0
55	MG	1H	3201	1/1	0.94	0.16	68,68,68,68	0
55	MG	1H	3242	1/1	0.94	0.27	94,94,94,94	0
55	MG	1H	3102	1/1	0.94	0.30	105,105,105,105	0
55	MG	14	3192	1/1	0.94	0.06	104,104,104,104	0
55	MG	1H	3282	1/1	0.94	0.41	101,101,101,101	0
55	MG	1H	3005	1/1	0.94	0.18	51,51,51,51	0
55	MG	1H	3066	1/1	0.94	0.33	78,78,78,78	0
55	MG	14	3197	1/1	0.94	0.29	114,114,114,114	0
55	MG	1H	3247	1/1	0.94	0.17	101,101,101,101	0
55	MG	1H	3286	1/1	0.94	0.26	67,67,67,67	0
55	MG	1H	3132	1/1	0.94	0.25	79,79,79,79	0
55	MG	14	3205	1/1	0.94	0.22	118,118,118,118	0
55	MG	13	1662	1/1	0.94	0.08	99,99,99,99	0
55	MG	1H	3026	1/1	0.94	0.72	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1H	3295	1/1	0.94	0.29	83,83,83,83	0
55	MG	14	3215	1/1	0.94	0.10	111,111,111,111	0
55	MG	1H	3042	1/1	0.94	0.25	96,96,96,96	0
55	MG	14	3022	1/1	0.94	0.47	91,91,91,91	0
55	MG	14	3024	1/1	0.94	0.12	51,51,51,51	0
55	MG	14	3224	1/1	0.94	0.09	84,84,84,84	0
55	MG	14	3227	1/1	0.94	0.11	79,79,79,79	0
55	MG	14	3233	1/1	0.94	0.10	89,89,89,89	0
55	MG	1G	1689	1/1	0.94	0.19	125,125,125,125	0
55	MG	1H	3297	1/1	0.94	0.19	86,86,86,86	0
55	MG	1G	1633	1/1	0.94	0.41	96,96,96,96	0
55	MG	1H	3345	1/1	0.94	0.10	63,63,63,63	0
55	MG	14	3129	1/1	0.94	0.16	90,90,90,90	0
55	MG	1H	3043	1/1	0.94	0.14	72,72,72,72	0
55	MG	14	3032	1/1	0.94	0.16	62,62,62,62	0
55	MG	14	3247	1/1	0.94	0.15	125,125,125,125	0
55	MG	1G	1636	1/1	0.94	0.17	123,123,123,123	0
55	MG	14	3134	1/1	0.94	0.59	105,105,105,105	0
55	MG	14	3251	1/1	0.94	0.11	65,65,65,65	0
55	MG	1H	3347	1/1	0.94	0.18	65,65,65,65	0
55	MG	13	1691	1/1	0.94	0.16	113,113,113,113	0
55	MG	1H	3350	1/1	0.94	0.14	71,71,71,71	0
55	MG	1H	3352	1/1	0.94	0.09	55,55,55,55	0
55	MG	13	1692	1/1	0.94	0.17	107,107,107,107	0
55	MG	1H	3360	1/1	0.94	0.20	62,62,62,62	0
55	MG	1G	1707	1/1	0.94	0.20	122,122,122,122	0
55	MG	1H	3303	1/1	0.94	0.11	98,98,98,98	0
55	MG	14	3278	1/1	0.94	0.11	109,109,109,109	0
55	MG	1H	3375	1/1	0.94	0.09	65,65,65,65	0
55	MG	1H	3382	1/1	0.94	0.12	93,93,93,93	0
55	MG	1H	3304	1/1	0.94	0.16	96,96,96,96	0
55	MG	13	1672	1/1	0.94	0.15	123,123,123,123	0
55	MG	1H	3385	1/1	0.94	0.09	63,63,63,63	0
55	MG	14	3288	1/1	0.94	0.40	86,86,86,86	0
55	MG	1H	3467	1/1	0.94	0.05	106,106,106,106	0
55	MG	13	1609	1/1	0.94	0.12	99,99,99,99	0
55	MG	14	3160	1/1	0.94	0.40	86,86,86,86	0
55	MG	16	201	1/1	0.94	0.22	92,92,92,92	0
55	MG	1G	1719	1/1	0.94	0.10	123,123,123,123	0
55	MG	13	1649	1/1	0.94	0.54	127,127,127,127	0
55	MG	13	1725	1/1	0.94	0.15	119,119,119,119	0
55	MG	1H	3400	1/1	0.94	0.30	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1H	3053	1/1	0.94	0.17	77,77,77,77	0
55	MG	1H	3020	1/1	0.94	0.12	77,77,77,77	0
55	MG	1H	3094	1/1	0.94	0.15	95,95,95,95	0
55	MG	39	301	1/1	0.94	0.18	109,109,109,109	0
55	MG	14	3171	1/1	0.94	0.20	98,98,98,98	0
55	MG	14	3087	1/1	0.94	0.79	66,66,66,66	0
55	MG	14	3173	1/1	0.94	0.34	66,66,66,66	0
55	MG	14	3175	1/1	0.94	0.14	85,85,85,85	0
55	MG	1H	3095	1/1	0.94	0.35	63,63,63,63	0
55	MG	1H	3078	1/1	0.95	0.24	63,63,63,63	0
55	MG	13	1645	1/1	0.95	0.13	97,97,97,97	0
55	MG	13	1683	1/1	0.95	0.21	103,103,103,103	0
55	MG	14	3008	1/1	0.95	0.11	81,81,81,81	0
55	MG	1H	3046	1/1	0.95	0.19	69,69,69,69	0
55	MG	1H	3288	1/1	0.95	0.04	99,99,99,99	0
55	MG	1G	1677	1/1	0.95	0.23	110,110,110,110	0
55	MG	1G	1678	1/1	0.95	0.34	99,99,99,99	0
55	MG	1H	3086	1/1	0.95	0.26	79,79,79,79	0
55	MG	14	3196	1/1	0.95	0.10	85,85,85,85	0
55	MG	1H	3245	1/1	0.95	0.51	76,76,76,76	0
55	MG	14	3015	1/1	0.95	0.15	70,70,70,70	0
55	MG	1H	3047	1/1	0.95	0.22	66,66,66,66	0
55	MG	14	3017	1/1	0.95	0.15	83,83,83,83	0
55	MG	1H	3120	1/1	0.95	0.27	81,81,81,81	0
55	MG	1G	1625	1/1	0.95	0.30	118,118,118,118	0
55	MG	13	1684	1/1	0.95	0.12	89,89,89,89	0
55	MG	1H	3442	1/1	0.95	0.14	111,111,111,111	0
55	MG	13	1667	1/1	0.95	0.13	101,101,101,101	0
55	MG	1H	3298	1/1	0.95	0.30	89,89,89,89	0
55	MG	1H	3299	1/1	0.95	0.10	84,84,84,84	0
55	MG	1H	3251	1/1	0.95	0.38	87,87,87,87	0
55	MG	13	1615	1/1	0.95	0.13	71,71,71,71	0
55	MG	14	3226	1/1	0.95	0.12	59,59,59,59	0
55	MG	14	3127	1/1	0.95	0.27	64,64,64,64	0
55	MG	14	3230	1/1	0.95	0.09	76,76,76,76	0
55	MG	14	3231	1/1	0.95	0.31	65,65,65,65	0
55	MG	1H	3008	1/1	0.95	0.21	82,82,82,82	0
55	MG	1G	1695	1/1	0.95	0.07	130,130,130,130	0
55	MG	1H	3355	1/1	0.95	0.09	83,83,83,83	0
55	MG	14	3238	1/1	0.95	0.07	83,83,83,83	0
55	MG	14	3240	1/1	0.95	0.09	135,135,135,135	0
55	MG	14	3033	1/1	0.95	0.11	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	14	3034	1/1	0.95	0.19	77,77,77,77	0
55	MG	13	1659	1/1	0.95	0.18	105,105,105,105	0
55	MG	14	3038	1/1	0.95	0.18	91,91,91,91	0
55	MG	1H	3371	1/1	0.95	0.18	85,85,85,85	0
55	MG	1H	3054	1/1	0.95	0.08	77,77,77,77	0
55	MG	1H	3010	1/1	0.95	0.39	70,70,70,70	0
55	MG	1H	3381	1/1	0.95	0.18	68,68,68,68	0
55	MG	14	3050	1/1	0.95	0.23	54,54,54,54	0
55	MG	14	3053	1/1	0.95	0.22	91,91,91,91	0
55	MG	14	3056	1/1	0.95	0.22	60,60,60,60	0
55	MG	1H	3213	1/1	0.95	0.17	100,100,100,100	0
55	MG	1H	3011	1/1	0.95	0.17	48,48,48,48	0
55	MG	14	3259	1/1	0.95	0.10	75,75,75,75	0
55	MG	14	3261	1/1	0.95	0.20	92,92,92,92	0
55	MG	14	3262	1/1	0.95	0.07	60,60,60,60	0
55	MG	14	3263	1/1	0.95	0.17	76,76,76,76	0
55	MG	1H	3159	1/1	0.95	0.27	79,79,79,79	0
55	MG	1G	1710	1/1	0.95	0.07	125,125,125,125	0
55	MG	1H	3217	1/1	0.95	0.24	43,43,43,43	0
55	MG	1H	3393	1/1	0.95	0.09	79,79,79,79	0
55	MG	14	3274	1/1	0.95	0.09	110,110,110,110	0
55	MG	14	3153	1/1	0.95	0.20	59,59,59,59	0
55	MG	1H	3058	1/1	0.95	0.23	58,58,58,58	0
55	MG	14	3280	1/1	0.95	0.12	101,101,101,101	0
55	MG	14	3281	1/1	0.95	0.16	92,92,92,92	0
55	MG	1H	3469	1/1	0.95	0.20	110,110,110,110	0
55	MG	1H	3063	1/1	0.95	0.24	63,63,63,63	0
55	MG	1H	3012	1/1	0.95	0.13	47,47,47,47	0
55	MG	1H	3316	1/1	0.95	0.05	115,115,115,115	0
55	MG	1H	3225	1/1	0.95	0.21	109,109,109,109	0
55	MG	13	1728	1/1	0.95	0.09	114,114,114,114	0
55	MG	1H	3228	1/1	0.95	0.43	86,86,86,86	0
55	MG	1G	1658	1/1	0.95	0.19	114,114,114,114	0
55	MG	13	1732	1/1	0.95	0.22	108,108,108,108	0
55	MG	1H	3409	1/1	0.95	0.13	63,63,63,63	0
55	MG	1H	3276	1/1	0.95	0.21	74,74,74,74	0
55	MG	1G	1726	1/1	0.95	0.09	136,136,136,136	0
55	MG	1H	3411	1/1	0.95	0.12	81,81,81,81	0
55	MG	P8	101	1/1	0.95	0.27	61,61,61,61	0
55	MG	13	1717	1/1	0.95	0.13	109,109,109,109	0
55	MG	13	1613	1/1	0.95	0.22	129,129,129,129	0
55	MG	14	3180	1/1	0.95	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
55	MG	1H	3235	1/1	0.95	0.25	57,57,57,57	0
55	MG	7A	101	1/1	0.95	0.12	116,116,116,116	0
55	MG	1H	3236	1/1	0.95	0.15	72,72,72,72	0
55	MG	13	1699	1/1	0.95	0.12	116,116,116,116	0
55	MG	1H	3002	1/1	0.95	0.20	55,55,55,55	0
55	MG	1H	3157	1/1	0.96	0.38	73,73,73,73	0
55	MG	14	3005	1/1	0.96	0.28	85,85,85,85	0
55	MG	14	3100	1/1	0.96	0.10	91,91,91,91	0
55	MG	14	3101	1/1	0.96	0.17	88,88,88,88	0
55	MG	13	1626	1/1	0.96	0.16	123,123,123,123	0
55	MG	1H	3349	1/1	0.96	0.10	67,67,67,67	0
55	MG	1H	3079	1/1	0.96	0.34	71,71,71,71	0
55	MG	1H	3425	1/1	0.96	0.16	102,102,102,102	0
55	MG	1H	3351	1/1	0.96	0.14	70,70,70,70	0
55	MG	1G	1613	1/1	0.96	0.19	94,94,94,94	0
55	MG	14	3199	1/1	0.96	0.09	97,97,97,97	0
55	MG	1H	3056	1/1	0.96	0.22	46,46,46,46	0
55	MG	14	3203	1/1	0.96	0.08	95,95,95,95	0
55	MG	1H	3016	1/1	0.96	0.09	62,62,62,62	0
55	MG	1G	1617	1/1	0.96	0.18	91,91,91,91	0
55	MG	1H	3432	1/1	0.96	0.07	71,71,71,71	0
55	MG	1G	1619	1/1	0.96	0.17	98,98,98,98	0
55	MG	14	3208	1/1	0.96	0.15	70,70,70,70	0
55	MG	14	3209	1/1	0.96	0.13	65,65,65,65	0
55	MG	14	3211	1/1	0.96	0.08	84,84,84,84	0
55	MG	14	3212	1/1	0.96	0.09	67,67,67,67	0
55	MG	1H	3433	1/1	0.96	0.09	87,87,87,87	0
55	MG	1H	3434	1/1	0.96	0.09	59,59,59,59	0
55	MG	1H	3109	1/1	0.96	0.11	109,109,109,109	0
55	MG	1H	3357	1/1	0.96	0.08	89,89,89,89	0
55	MG	1G	1688	1/1	0.96	0.11	94,94,94,94	0
55	MG	14	3222	1/1	0.96	0.09	67,67,67,67	0
55	MG	13	1660	1/1	0.96	0.12	120,120,120,120	0
55	MG	1H	3364	1/1	0.96	0.10	74,74,74,74	0
55	MG	14	3025	1/1	0.96	0.13	90,90,90,90	0
55	MG	14	3229	1/1	0.96	0.12	74,74,74,74	0
55	MG	1H	3365	1/1	0.96	0.11	82,82,82,82	0
55	MG	1G	1628	1/1	0.96	0.21	118,118,118,118	0
55	MG	1H	3443	1/1	0.96	0.09	73,73,73,73	0
55	MG	1H	3060	1/1	0.96	0.32	68,68,68,68	0
55	MG	1H	3061	1/1	0.96	0.18	66,66,66,66	0
55	MG	1H	3374	1/1	0.96	0.11	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	14	3239	1/1	0.96	0.13	106,106,106,106	0
55	MG	1H	3062	1/1	0.96	0.21	85,85,85,85	0
55	MG	1H	3377	1/1	0.96	0.11	58,58,58,58	0
55	MG	1H	3380	1/1	0.96	0.07	83,83,83,83	0
55	MG	1H	3089	1/1	0.96	0.28	82,82,82,82	0
55	MG	14	3040	1/1	0.96	0.23	62,62,62,62	0
55	MG	1G	1704	1/1	0.96	0.16	130,130,130,130	0
55	MG	14	3043	1/1	0.96	0.28	54,54,54,54	0
55	MG	1G	1705	1/1	0.96	0.10	102,102,102,102	0
55	MG	1H	3290	1/1	0.96	0.17	79,79,79,79	0
55	MG	1H	3323	1/1	0.96	0.20	100,100,100,100	0
55	MG	1H	3116	1/1	0.96	0.12	91,91,91,91	0
55	MG	1G	1709	1/1	0.96	0.06	127,127,127,127	0
55	MG	5I	102	1/1	0.96	0.43	119,119,119,119	0
55	MG	1H	3386	1/1	0.96	0.10	56,56,56,56	0
55	MG	1H	3390	1/1	0.96	0.09	74,74,74,74	0
55	MG	14	3260	1/1	0.96	0.20	110,110,110,110	0
55	MG	14	3147	1/1	0.96	0.17	63,63,63,63	0
55	MG	1H	3326	1/1	0.96	0.09	109,109,109,109	0
55	MG	1H	3327	1/1	0.96	0.08	121,121,121,121	0
55	MG	1H	3259	1/1	0.96	0.30	53,53,53,53	0
55	MG	13	1646	1/1	0.96	0.17	122,122,122,122	0
55	MG	14	3156	1/1	0.96	0.28	80,80,80,80	0
55	MG	14	3158	1/1	0.96	0.22	51,51,51,51	0
55	MG	14	3065	1/1	0.96	0.19	68,68,68,68	0
55	MG	14	3276	1/1	0.96	0.10	109,109,109,109	0
55	MG	14	3067	1/1	0.96	0.17	97,97,97,97	0
55	MG	1H	3398	1/1	0.96	0.07	84,84,84,84	0
55	MG	1H	3468	1/1	0.96	0.51	88,88,88,88	0
55	MG	1H	3262	1/1	0.96	0.27	74,74,74,74	0
55	MG	14	3283	1/1	0.96	0.05	106,106,106,106	0
55	MG	14	3073	1/1	0.96	0.18	69,69,69,69	0
55	MG	14	3167	1/1	0.96	0.17	100,100,100,100	0
55	MG	1H	3092	1/1	0.96	0.18	92,92,92,92	0
55	MG	1G	1721	1/1	0.96	0.09	123,123,123,123	0
55	MG	13	1716	1/1	0.96	0.05	103,103,103,103	0
55	MG	1H	3333	1/1	0.96	0.08	80,80,80,80	0
55	MG	13	1703	1/1	0.96	0.17	110,110,110,110	0
55	MG	21	303	1/1	0.96	0.13	63,63,63,63	0
55	MG	14	3174	1/1	0.96	0.39	60,60,60,60	0
55	MG	13	1632	1/1	0.96	0.47	109,109,109,109	0
55	MG	1H	3270	1/1	0.96	0.35	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	2K	101	1/1	0.96	0.31	71,71,71,71	0
55	MG	14	3297	1/1	0.96	0.11	115,115,115,115	0
55	MG	1H	3070	1/1	0.96	0.20	55,55,55,55	0
55	MG	14	3299	1/1	0.96	0.21	89,89,89,89	0
55	MG	14	3086	1/1	0.96	0.51	97,97,97,97	0
55	MG	1H	3413	1/1	0.96	0.17	93,93,93,93	0
55	MG	13	1693	1/1	0.96	0.28	100,100,100,100	0
55	MG	29	301	1/1	0.96	0.14	64,64,64,64	0
55	MG	1H	3101	1/1	0.96	0.20	89,89,89,89	0
55	MG	BA	201	1/1	0.96	0.11	127,127,127,127	0
55	MG	1H	3073	1/1	0.96	0.22	74,74,74,74	0
55	MG	1G	1602	1/1	0.96	0.09	109,109,109,109	0
55	MG	85	201	1/1	0.96	0.40	72,72,72,72	0
55	MG	13	1730	1/1	0.96	0.18	125,125,125,125	0
55	MG	14	3095	1/1	0.96	0.31	88,88,88,88	0
55	MG	1H	3369	1/1	0.97	0.15	63,63,63,63	0
55	MG	1H	3370	1/1	0.97	0.13	59,59,59,59	0
55	MG	14	3218	1/1	0.97	0.12	69,69,69,69	0
55	MG	1H	3424	1/1	0.97	0.07	68,68,68,68	0
55	MG	14	3221	1/1	0.97	0.11	67,67,67,67	0
55	MG	1H	3230	1/1	0.97	0.24	73,73,73,73	0
55	MG	14	3223	1/1	0.97	0.09	81,81,81,81	0
55	MG	13	1611	1/1	0.97	0.14	81,81,81,81	0
55	MG	J8	101	1/1	0.97	0.43	74,74,74,74	0
55	MG	1H	3152	1/1	0.97	0.29	49,49,49,49	0
55	MG	14	3068	1/1	0.97	0.10	71,71,71,71	0
55	MG	1H	3430	1/1	0.97	0.12	54,54,54,54	0
55	MG	1G	1664	1/1	0.97	0.10	105,105,105,105	0
55	MG	1H	3306	1/1	0.97	0.06	93,93,93,93	0
55	MG	14	3235	1/1	0.97	0.21	73,73,73,73	0
55	MG	1H	3307	1/1	0.97	0.07	100,100,100,100	0
55	MG	1H	3048	1/1	0.97	0.34	93,93,93,93	0
55	MG	1G	1605	1/1	0.97	0.17	98,98,98,98	0
55	MG	1H	3209	1/1	0.97	0.37	84,84,84,84	0
55	MG	14	3155	1/1	0.97	0.38	92,92,92,92	0
55	MG	1H	3435	1/1	0.97	0.06	80,80,80,80	0
55	MG	1H	3039	1/1	0.97	0.20	73,73,73,73	0
55	MG	1G	1672	1/1	0.97	0.18	102,102,102,102	0
55	MG	1H	3023	1/1	0.97	0.21	85,85,85,85	0
55	MG	1H	3338	1/1	0.97	0.30	105,105,105,105	0
55	MG	1H	3439	1/1	0.97	0.09	69,69,69,69	0
55	MG	13	1689	1/1	0.97	0.43	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	14	3249	1/1	0.97	0.07	110,110,110,110	0
55	MG	1H	3441	1/1	0.97	0.09	64,64,64,64	0
55	MG	14	3166	1/1	0.97	0.24	82,82,82,82	0
55	MG	1H	3266	1/1	0.97	0.19	64,64,64,64	0
55	MG	1H	3388	1/1	0.97	0.15	56,56,56,56	0
55	MG	14	3255	1/1	0.97	0.15	80,80,80,80	0
55	MG	14	3089	1/1	0.97	0.16	79,79,79,79	0
55	MG	1H	3444	1/1	0.97	0.10	50,50,50,50	0
55	MG	1H	3389	1/1	0.97	0.09	68,68,68,68	0
55	MG	1H	3314	1/1	0.97	0.07	113,113,113,113	0
55	MG	1H	3289	1/1	0.97	0.20	102,102,102,102	0
55	MG	1H	3075	1/1	0.97	0.23	72,72,72,72	0
55	MG	1H	3395	1/1	0.97	0.07	67,67,67,67	0
55	MG	1H	3077	1/1	0.97	0.18	60,60,60,60	0
55	MG	14	3267	1/1	0.97	0.11	88,88,88,88	0
55	MG	1H	3108	1/1	0.97	0.42	58,58,58,58	0
55	MG	14	3269	1/1	0.97	0.18	104,104,104,104	0
55	MG	1H	3453	1/1	0.97	0.13	99,99,99,99	0
55	MG	1H	3032	1/1	0.97	0.24	66,66,66,66	0
55	MG	14	3273	1/1	0.97	0.09	89,89,89,89	0
55	MG	1G	1691	1/1	0.97	0.19	115,115,115,115	0
55	MG	14	3275	1/1	0.97	0.16	94,94,94,94	0
55	MG	1H	3294	1/1	0.97	0.59	83,83,83,83	0
55	MG	1G	1631	1/1	0.97	0.09	95,95,95,95	0
55	MG	1H	3013	1/1	0.97	0.22	63,63,63,63	0
55	MG	14	3023	1/1	0.97	0.05	99,99,99,99	0
55	MG	1H	3080	1/1	0.97	0.24	64,64,64,64	0
55	MG	14	3282	1/1	0.97	0.09	117,117,117,117	0
55	MG	13	1612	1/1	0.97	0.24	85,85,85,85	0
55	MG	14	3187	1/1	0.97	0.14	74,74,74,74	0
55	MG	1H	3459	1/1	0.97	0.21	112,112,112,112	0
55	MG	1H	3146	1/1	0.97	0.10	80,80,80,80	0
55	MG	1H	3356	1/1	0.97	0.11	59,59,59,59	0
55	MG	1H	3097	1/1	0.97	0.29	66,66,66,66	0
55	MG	1H	3464	1/1	0.97	0.12	67,67,67,67	0
55	MG	1G	1702	1/1	0.97	0.13	83,83,83,83	0
55	MG	1H	3359	1/1	0.97	0.12	51,51,51,51	0
55	MG	1H	3227	1/1	0.97	0.14	61,61,61,61	0
55	MG	1H	3361	1/1	0.97	0.07	53,53,53,53	0
55	MG	14	3037	1/1	0.97	0.10	54,54,54,54	0
55	MG	1H	3414	1/1	0.97	0.08	82,82,82,82	0
55	MG	1H	3415	1/1	0.97	0.06	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	1H	3471	1/1	0.97	0.11	79,79,79,79	0
55	MG	1H	3362	1/1	0.97	0.11	69,69,69,69	0
55	MG	1H	3363	1/1	0.97	0.11	61,61,61,61	0
55	MG	1H	3035	1/1	0.97	0.17	71,71,71,71	0
55	MG	11	301	1/1	0.97	0.23	52,52,52,52	0
55	MG	13	1623	1/1	0.97	0.35	112,112,112,112	0
55	MG	14	3131	1/1	0.97	0.59	88,88,88,88	0
55	MG	14	3051	1/1	0.97	0.21	67,67,67,67	0
55	MG	1H	3366	1/1	0.97	0.14	75,75,75,75	0
55	MG	14	3054	1/1	0.97	0.07	113,113,113,113	0
55	MG	14	3213	1/1	0.97	0.12	77,77,77,77	0
55	MG	1G	1653	1/1	0.97	0.17	103,103,103,103	0
55	MG	1H	3367	1/1	0.97	0.11	92,92,92,92	0
57	ZN	5A	101	1/1	0.97	0.07	159,159,159,159	0
55	MG	14	3219	1/1	0.98	0.10	63,63,63,63	0
55	MG	14	3055	1/1	0.98	0.12	80,80,80,80	0
55	MG	1H	3125	1/1	0.98	0.09	125,125,125,125	0
55	MG	14	3058	1/1	0.98	0.15	95,95,95,95	0
55	MG	1H	3250	1/1	0.98	0.32	53,53,53,53	0
55	MG	1H	3391	1/1	0.98	0.08	81,81,81,81	0
55	MG	14	3225	1/1	0.98	0.09	63,63,63,63	0
55	MG	1H	3222	1/1	0.98	0.11	101,101,101,101	0
55	MG	1H	3177	1/1	0.98	0.13	82,82,82,82	0
55	MG	14	3228	1/1	0.98	0.14	72,72,72,72	0
55	MG	13	1625	1/1	0.98	0.26	101,101,101,101	0
55	MG	1H	3098	1/1	0.98	0.17	54,54,54,54	0
55	MG	1G	1608	1/1	0.98	0.07	114,114,114,114	0
55	MG	14	3066	1/1	0.98	0.31	82,82,82,82	0
55	MG	14	3234	1/1	0.98	0.21	82,82,82,82	0
55	MG	1H	3112	1/1	0.98	0.21	68,68,68,68	0
55	MG	1G	1610	1/1	0.98	0.13	100,100,100,100	0
55	MG	1H	3025	1/1	0.98	0.16	55,55,55,55	0
55	MG	14	3070	1/1	0.98	0.21	72,72,72,72	0
55	MG	1H	3446	1/1	0.98	0.10	88,88,88,88	0
55	MG	1H	3399	1/1	0.98	0.13	86,86,86,86	0
55	MG	14	3154	1/1	0.98	0.35	65,65,65,65	0
55	MG	14	3242	1/1	0.98	0.05	89,89,89,89	0
55	MG	13	1729	1/1	0.98	0.09	86,86,86,86	0
55	MG	14	3075	1/1	0.98	0.17	99,99,99,99	0
55	MG	14	3157	1/1	0.98	0.19	61,61,61,61	0
55	MG	13	1715	1/1	0.98	0.10	99,99,99,99	0
55	MG	14	3159	1/1	0.98	0.13	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	1G	1616	1/1	0.98	0.16	93,93,93,93	0
55	MG	14	3002	1/1	0.98	0.15	53,53,53,53	0
55	MG	1H	3402	1/1	0.98	0.13	66,66,66,66	0
55	MG	1H	3358	1/1	0.98	0.10	60,60,60,60	0
55	MG	14	3252	1/1	0.98	0.16	66,66,66,66	0
55	MG	1H	3076	1/1	0.98	0.23	70,70,70,70	0
55	MG	1H	3261	1/1	0.98	0.17	70,70,70,70	0
55	MG	1G	1680	1/1	0.98	0.26	138,138,138,138	0
55	MG	1H	3406	1/1	0.98	0.08	70,70,70,70	0
55	MG	1H	3407	1/1	0.98	0.06	76,76,76,76	0
55	MG	1H	3408	1/1	0.98	0.13	58,58,58,58	0
55	MG	1H	3036	1/1	0.98	0.13	74,74,74,74	0
55	MG	1H	3263	1/1	0.98	0.23	53,53,53,53	0
55	MG	1H	3186	1/1	0.98	0.30	80,80,80,80	0
55	MG	1H	3460	1/1	0.98	0.07	64,64,64,64	0
55	MG	14	3264	1/1	0.98	0.17	88,88,88,88	0
55	MG	1H	3265	1/1	0.98	0.36	63,63,63,63	0
55	MG	14	3266	1/1	0.98	0.07	83,83,83,83	0
55	MG	1H	3233	1/1	0.98	0.29	102,102,102,102	0
55	MG	1H	3234	1/1	0.98	0.29	92,92,92,92	0
55	MG	1H	3150	1/1	0.98	0.24	79,79,79,79	0
55	MG	1H	3368	1/1	0.98	0.10	83,83,83,83	0
55	MG	14	3271	1/1	0.98	0.07	56,56,56,56	0
55	MG	14	3096	1/1	0.98	0.29	55,55,55,55	0
55	MG	13	1731	1/1	0.98	0.25	79,79,79,79	0
55	MG	13	1694	1/1	0.98	0.43	117,117,117,117	0
55	MG	13	1682	1/1	0.98	0.18	118,118,118,118	0
55	MG	1H	3171	1/1	0.98	0.14	91,91,91,91	0
55	MG	14	3277	1/1	0.98	0.09	74,74,74,74	0
55	MG	1H	3470	1/1	0.98	0.13	69,69,69,69	0
55	MG	13	1727	1/1	0.98	0.26	100,100,100,100	0
55	MG	1H	3472	1/1	0.98	0.19	64,64,64,64	0
55	MG	1H	3059	1/1	0.98	0.15	78,78,78,78	0
55	MG	1H	3215	1/1	0.98	0.25	78,78,78,78	0
55	MG	1G	1643	1/1	0.98	0.31	105,105,105,105	0
55	MG	1G	1703	1/1	0.98	0.10	94,94,94,94	0
55	MG	14	3031	1/1	0.98	0.31	77,77,77,77	0
55	MG	1H	3378	1/1	0.98	0.12	75,75,75,75	0
55	MG	1H	3379	1/1	0.98	0.10	76,76,76,76	0
55	MG	1H	3339	1/1	0.98	0.11	78,78,78,78	0
55	MG	1H	3084	1/1	0.98	0.19	71,71,71,71	0
55	MG	1H	3429	1/1	0.98	0.07	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	78	201	1/1	0.98	0.37	90,90,90,90	0
55	MG	14	3039	1/1	0.98	0.18	75,75,75,75	0
55	MG	1H	3124	1/1	0.98	0.39	69,69,69,69	0
55	MG	14	3201	1/1	0.98	0.08	101,101,101,101	0
55	MG	14	3295	1/1	0.98	0.11	104,104,104,104	0
55	MG	1H	3342	1/1	0.98	0.12	60,60,60,60	0
55	MG	14	3042	1/1	0.98	0.17	80,80,80,80	0
55	MG	1H	3343	1/1	0.98	0.14	56,56,56,56	0
55	MG	1H	3218	1/1	0.98	0.16	95,95,95,95	0
55	MG	14	3046	1/1	0.98	0.12	76,76,76,76	0
55	MG	14	3124	1/1	0.98	0.13	95,95,95,95	0
55	MG	1G	1654	1/1	0.98	0.12	107,107,107,107	0
55	MG	14	3126	1/1	0.98	0.24	48,48,48,48	0
55	MG	C8	201	1/1	0.98	0.37	76,76,76,76	0
55	MG	14	3128	1/1	0.98	0.19	54,54,54,54	0
55	MG	14	3049	1/1	0.98	0.20	80,80,80,80	0
55	MG	1H	3219	1/1	0.98	0.15	91,91,91,91	0
55	MG	I8	101	1/1	0.98	0.19	87,87,87,87	0
55	MG	14	3052	1/1	0.98	0.15	64,64,64,64	0
55	MG	1H	3387	1/1	0.98	0.11	67,67,67,67	0
55	MG	1H	3220	1/1	0.98	0.18	85,85,85,85	0
55	MG	13	1650	1/1	0.99	0.19	106,106,106,106	0
55	MG	14	3074	1/1	0.99	0.16	92,92,92,92	0
55	MG	14	3097	1/1	0.99	0.25	55,55,55,55	0
55	MG	1H	3354	1/1	0.99	0.08	61,61,61,61	0
55	MG	14	3256	1/1	0.99	0.13	87,87,87,87	0
55	MG	1G	1624	1/1	0.99	0.14	94,94,94,94	0
55	MG	14	3200	1/1	0.99	0.07	70,70,70,70	0
55	MG	14	3148	1/1	0.99	0.22	57,57,57,57	0
55	MG	14	3035	1/1	0.99	0.17	68,68,68,68	0
55	MG	14	3150	1/1	0.99	0.15	89,89,89,89	0
55	MG	14	3232	1/1	0.99	0.11	59,59,59,59	0
55	MG	1H	3392	1/1	0.99	0.10	47,47,47,47	0
55	MG	14	3102	1/1	0.99	0.14	83,83,83,83	0
55	MG	14	3057	1/1	0.99	0.24	90,90,90,90	0
55	MG	1H	3072	1/1	0.99	0.26	53,53,53,53	0
55	MG	1H	3239	1/1	0.99	0.24	103,103,103,103	0
55	MG	1H	3015	1/1	0.99	0.16	93,93,93,93	0
55	MG	14	3210	1/1	0.99	0.14	60,60,60,60	0
55	MG	1H	3287	1/1	0.99	0.18	58,58,58,58	0
55	MG	1H	3068	1/1	0.99	0.14	53,53,53,53	0
55	MG	C8	202	1/1	0.99	0.39	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
55	MG	13	1658	1/1	0.99	0.11	114,114,114,114	0
55	MG	1H	3372	1/1	0.99	0.19	94,94,94,94	0
55	MG	14	3045	1/1	0.99	0.14	89,89,89,89	0
55	MG	1H	3428	1/1	0.99	0.14	66,66,66,66	0
55	MG	1H	3194	1/1	0.99	0.20	113,113,113,113	0
55	MG	1H	3082	1/1	0.99	0.22	77,77,77,77	0
55	MG	13	1721	1/1	0.99	0.08	87,87,87,87	0
55	MG	1H	3376	1/1	0.99	0.09	58,58,58,58	0
56	SF4	3E	301	8/8	0.99	0.20	96,110,122,122	0
56	SF4	32	302	8/8	0.99	0.20	112,135,144,151	0
57	ZN	5I	103	1/1	0.99	0.12	109,109,109,109	0
55	MG	21	302	1/1	0.99	0.17	50,50,50,50	0
55	MG	1H	3257	1/1	1.00	0.22	53,53,53,53	0

6.5 Other polymers [i](#)

There are no such residues in this entry.