Full wwPDB X-ray Structure Validation Report ⓘ

Mar 27, 2026 – 12:48 PM UTC

PDB ID	:	7RQ9 / pdb_00007rq9
Title	:	Crystal structure of the A2058-dimethylated Thermus thermophilus 70S ribosome in complex with iboxamycin, mRNA, deacylated A- and E-site tRNAs, and aminoacylated P-site tRNA at 2.60A resolution
Authors	:	Mitcheltree, M.J.; Pisipati, A.; Syroegin, E.A.; Silvestre, K.J.; Klepacki, D.; Mason, J.D.; Terwilliger, D.W.; Testolin, G.; Pote, A.R.; Wu, K.J.Y.; Ladley, R.P.; Chatman, K.; Mankin, A.S.; Polikanov, Y.S.; Myers, A.G.
Deposited on	:	2021-08-06
Resolution	:	2.60 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:

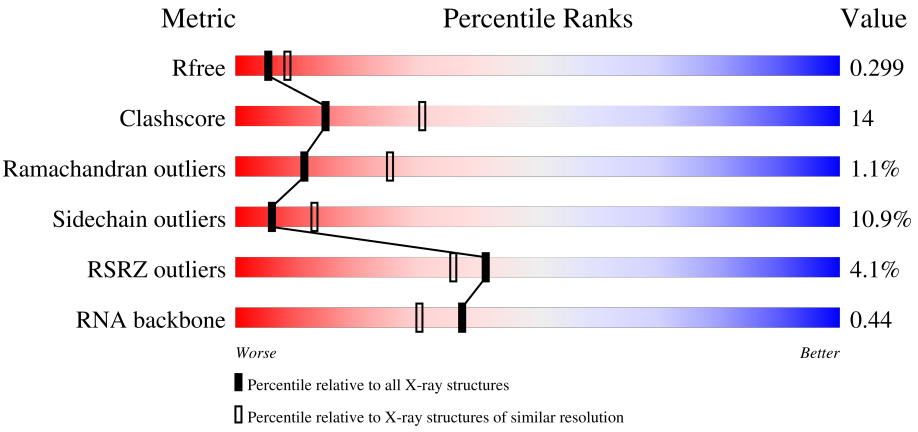
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)

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 2.60 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}	180053	4008 (2.60-2.60)
Clashscore	190562	4347 (2.60-2.60)
Ramachandran outliers	187476	4277 (2.60-2.60)
Sidechain outliers	187428	4277 (2.60-2.60)
RSRZ outliers	180081	4008 (2.60-2.60)
RNA backbone	3983	1014 (2.84-2.36)

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 <=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	1A	2915	3% 48% 41% 9%
1	2A	2915	2% 42% 43% 11%

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Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

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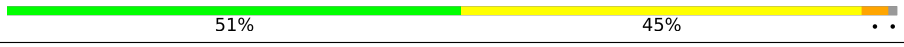
Mol	Chain	Length	Quality of chain
2	1B	121	
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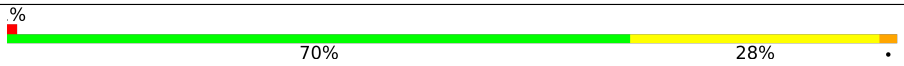
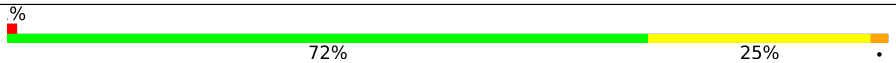
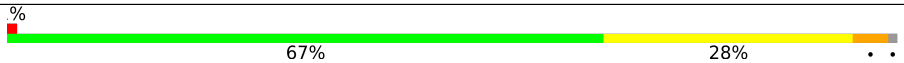
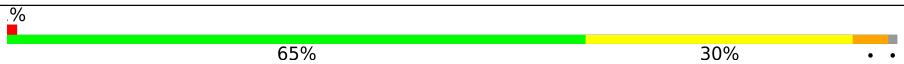
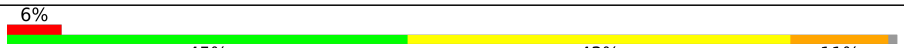
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	

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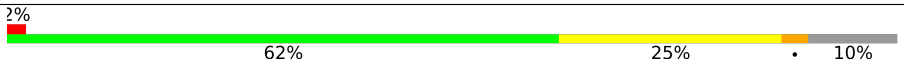
Mol	Chain	Length	Quality of chain
14	2S	112	
15	1T	146	
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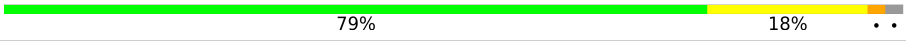
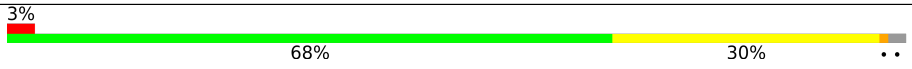
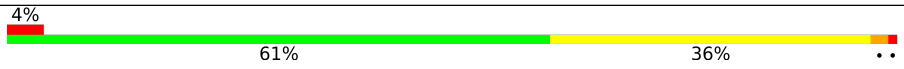
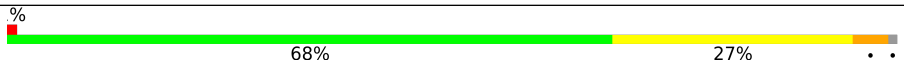
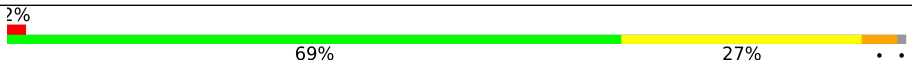
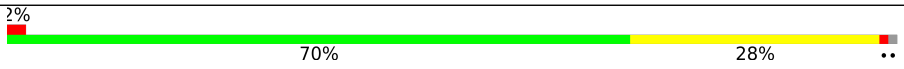
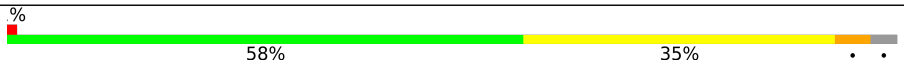
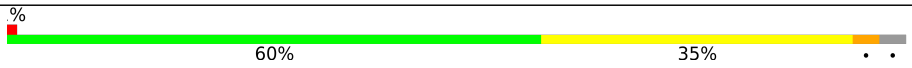
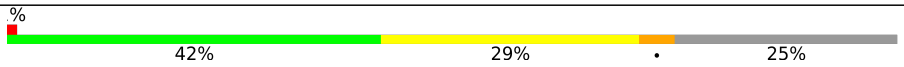
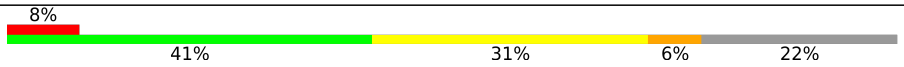
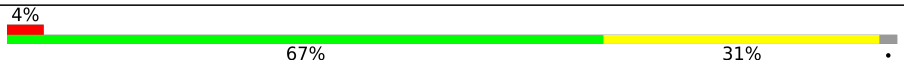
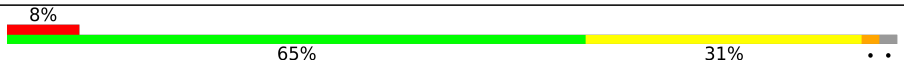
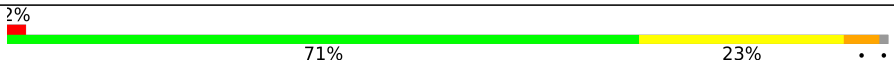
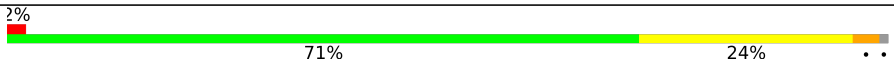
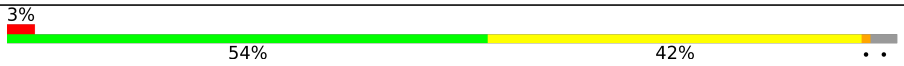
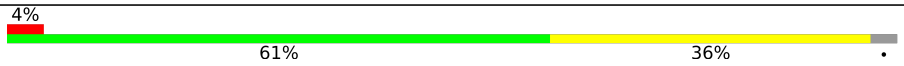
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
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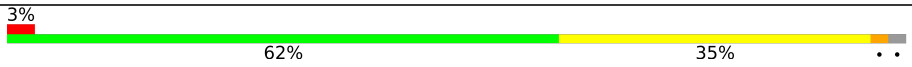
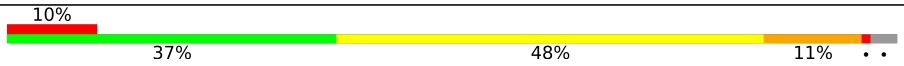
25	23	60	
26	14	71	
26	24	71	

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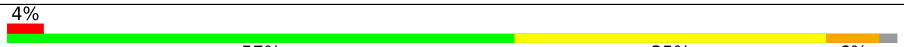
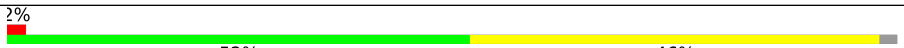
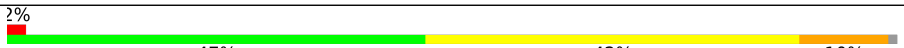
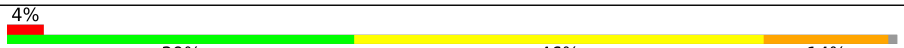
Mol	Chain	Length	Quality of chain
27	15	60	
27	25	60	
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
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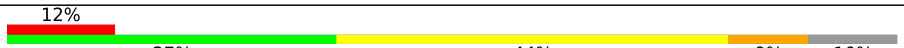
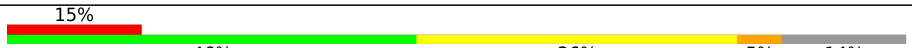
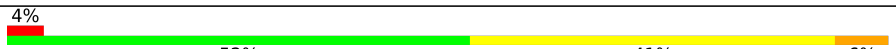
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
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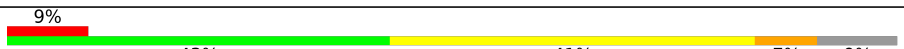
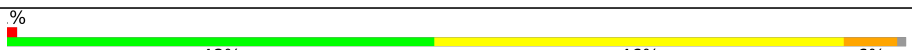
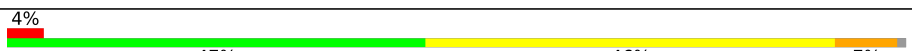
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	

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Mol	Chain	Length	Quality of chain
39	2h	138	12% 56% 37% 6%
40	1i	128	11% 57% 38% 5%
40	2i	128	28% 49% 43% 7%
41	1j	105	6% 45% 43% 5% 8%
41	2j	105	30% 49% 35% 8% 9%
42	1k	129	2% 58% 27% 12%
42	2k	129	5% 47% 36% 5% 12%
43	1l	132	2% 63% 27% 8%
43	2l	132	5% 61% 28% 8%
44	1m	126	7% 56% 35% 7%
44	2m	126	15% 39% 50% 8%
45	1n	61	8% 46% 46% 7%
45	2n	61	44% 54% 41%
46	1o	89	3% 52% 40% 6%
46	2o	89	3% 65% 29%
47	1p	88	13% 53% 35% 5% 7%
47	2p	88	7% 49% 40% 5% 7%
48	1q	105	7% 50% 40% 6%
48	2q	105	6% 56% 35% 6%
49	1r	88	2% 44% 27% 6% 23%
49	2r	88	2% 36% 36% 5% 23%
50	1s	93	3% 55% 33% 11%
50	2s	93	20% 43% 41% 11%
51	1t	106	8% 56% 28% 7% 9%
51	2t	106	10% 59% 27% 9%

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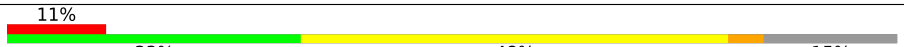
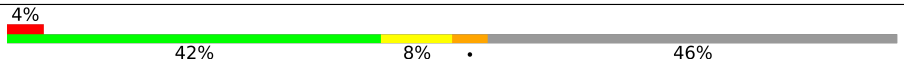
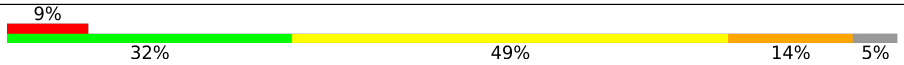
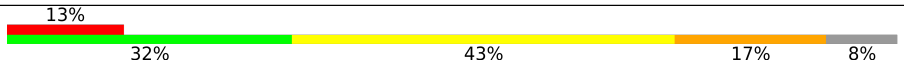
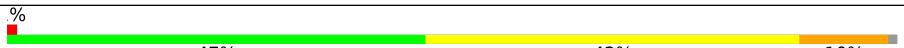
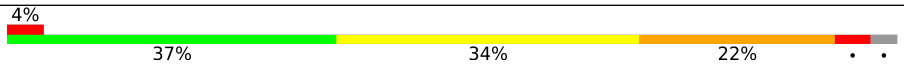
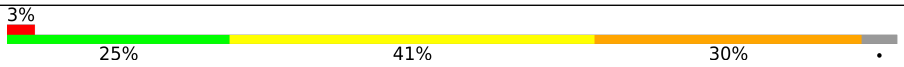
Mol	Chain	Length	Quality of chain
52	1u	27	
52	2u	27	
53	1v	24	
53	2v	24	
54	1w	76	
54	2w	76	
55	1x	77	
55	2x	77	
56	1y	76	
56	2y	76	

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
61	SF4	1d	501	-	-	X	-
61	SF4	2d	302	-	-	X	-

2 Entry composition (i)

There are 62 unique types of molecules in this entry. The entry contains 299665 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 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2871	Total	C	N	O	P	0	0	0
			61854	27533	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60324	26850	11284	19390	2800			

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2577	1146	476	835	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2575	1146	476	833	120			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1423	913	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1428	913	258	253	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	146	Total	C	N	O	S	0	0	0
			1097	701	191	204	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1064	681	186	196	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			873	550	174	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	154	Total	C	N	O	S	0	0	0
			1240	795	222	220	3			
21	2Z	160	Total	C	N	O	S	0	0	0
			1271	814	228	227	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
23	21	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			552	349	99	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1503	Total	C	N	O	P	0	0	0
			32327	14396	5990	10438	1503			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1548	973	301	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1655	1038	326	284	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			810	514	144	149	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			983	623	193	167			
40	2i	127	Total	C	N	O	0	0	0
			978	619	190	169			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			709	440	138	131			
41	2j	96	Total	C	N	O	0	0	0
			714	445	138	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			829	516	155	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	123	Total	C	N	O	S	0	0	0
			958	592	198	166	2			
44	2m	122	Total	C	N	O	S	0	0	0
			950	586	197	165	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
49	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
50	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
51	2t	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
52	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 53 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			
53	2v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			

- Molecule 54 is a RNA chain called A-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1w	72	Total	C	N	O	P	S	0	0	0
			1550	694	277	505	72	2			
54	2w	70	Total	C	N	O	P	S	0	0	0
			1502	671	270	489	70	2			

- Molecule 55 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	76	Total	C	N	O	P	S	0	0	0
			1635	731	296	530	76	2			
55	2x	76	Total	C	N	O	P	S	0	0	0
			1635	731	296	530	76	2			

- Molecule 56 is a RNA chain called E-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
56	1y	74	Total	C	N	O	P	S	0	0	0
			1585	707	285	518	74	1			
56	2y	73	Total	C	N	O	P	S	0	0	0
			1565	698	283	510	73	1			

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	1087	Total	Mg	0	0
			1087	1087		
57	1B	34	Total	Mg	0	0
			34	34		
57	1D	12	Total	Mg	0	0
			12	12		
57	1E	14	Total	Mg	0	0
			14	14		
57	1F	15	Total	Mg	0	0
			15	15		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1G	5	Total Mg 5 5	0	0
57	1I	1	Total Mg 1 1	0	0
57	1N	6	Total Mg 6 6	0	0
57	1O	4	Total Mg 4 4	0	0
57	1P	5	Total Mg 5 5	0	0
57	1Q	6	Total Mg 6 6	0	0
57	1R	6	Total Mg 6 6	0	0
57	1S	3	Total Mg 3 3	0	0
57	1T	5	Total Mg 5 5	0	0
57	1U	9	Total Mg 9 9	0	0
57	1V	6	Total Mg 6 6	0	0
57	1W	10	Total Mg 10 10	0	0
57	1X	7	Total Mg 7 7	0	0
57	1Y	3	Total Mg 3 3	0	0
57	1Z	5	Total Mg 5 5	0	0
57	10	9	Total Mg 9 9	0	0
57	11	6	Total Mg 6 6	0	0
57	12	2	Total Mg 2 2	0	0
57	13	8	Total Mg 8 8	0	0
57	14	1	Total Mg 1 1	0	0
57	15	9	Total Mg 9 9	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	16	1	Total Mg 1 1	0	0
57	17	8	Total Mg 8 8	0	0
57	18	5	Total Mg 5 5	0	0
57	19	1	Total Mg 1 1	0	0
57	1a	211	Total Mg 211 211	0	0
57	1b	1	Total Mg 1 1	0	0
57	1e	1	Total Mg 1 1	0	0
57	1f	2	Total Mg 2 2	0	0
57	1h	1	Total Mg 1 1	0	0
57	1k	1	Total Mg 1 1	0	0
57	1l	2	Total Mg 2 2	0	0
57	1m	1	Total Mg 1 1	0	0
57	1n	2	Total Mg 2 2	0	0
57	1p	1	Total Mg 1 1	0	0
57	1t	1	Total Mg 1 1	0	0
57	1v	2	Total Mg 2 2	0	0
57	1w	9	Total Mg 9 9	0	0
57	1x	15	Total Mg 15 15	0	0
57	1y	1	Total Mg 1 1	0	0
57	2A	855	Total Mg 855 855	0	0
57	2B	19	Total Mg 19 19	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2D	5	Total Mg 5 5	0	0
57	2E	8	Total Mg 8 8	0	0
57	2F	8	Total Mg 8 8	0	0
57	2G	1	Total Mg 1 1	0	0
57	2N	1	Total Mg 1 1	0	0
57	2O	1	Total Mg 1 1	0	0
57	2P	3	Total Mg 3 3	0	0
57	2Q	2	Total Mg 2 2	0	0
57	2R	2	Total Mg 2 2	0	0
57	2T	5	Total Mg 5 5	0	0
57	2U	2	Total Mg 2 2	0	0
57	2V	2	Total Mg 2 2	0	0
57	2X	3	Total Mg 3 3	0	0
57	2Z	1	Total Mg 1 1	0	0
57	20	2	Total Mg 2 2	0	0
57	21	2	Total Mg 2 2	0	0
57	23	2	Total Mg 2 2	0	0
57	25	4	Total Mg 4 4	0	0
57	26	1	Total Mg 1 1	0	0
57	27	2	Total Mg 2 2	0	0
57	28	3	Total Mg 3 3	0	0

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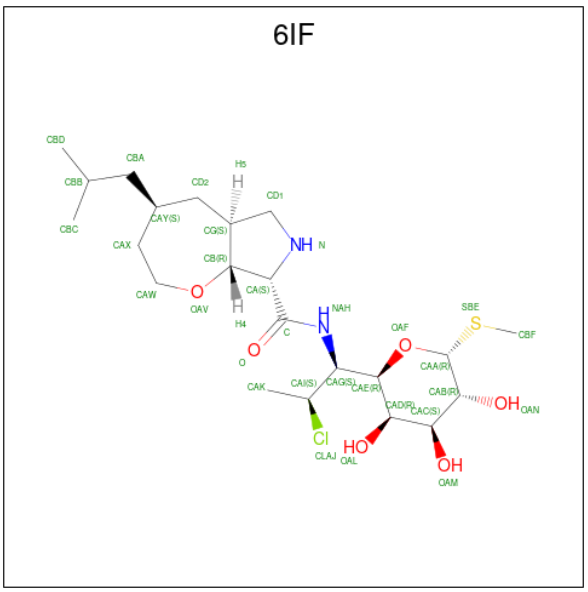
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2a	230	Total Mg 230 230	0	0
57	2d	1	Total Mg 1 1	0	0
57	2e	1	Total Mg 1 1	0	0
57	2f	2	Total Mg 2 2	0	0
57	2g	1	Total Mg 1 1	0	0
57	2j	1	Total Mg 1 1	0	0
57	2k	1	Total Mg 1 1	0	0
57	2l	4	Total Mg 4 4	0	0
57	2m	1	Total Mg 1 1	0	0
57	2q	2	Total Mg 2 2	0	0
57	2r	1	Total Mg 1 1	0	0
57	2t	1	Total Mg 1 1	0	0
57	2v	2	Total Mg 2 2	0	0
57	2w	9	Total Mg 9 9	0	0
57	2x	6	Total Mg 6 6	0	0
57	2y	6	Total Mg 6 6	0	0

- Molecule 58 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1A	1	Total K 1 1	0	0
58	2A	1	Total K 1 1	0	0

- Molecule 59 is methyl 7-chloro-6,7,8-trideoxy-6-{[(4S,5aS,8S,8aR)-4-(2-methylpropyl)octahydro-2H-oxepino[2,3-c]pyrrole-8-carbonyl]amino}-1-thio-L-threo-alpha-D-galacto-octopyran

oside (CCD ID: 6IF) (formula: $C_{22}H_{39}ClN_2O_6S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1A	1	Total C Cl N O S 32 22 1 2 6 1	0	0
59	2A	1	Total C Cl N O S 32 22 1 2 6 1	0	0

- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1Y	1	Total Zn 1 1	0	0
60	14	1	Total Zn 1 1	0	0
60	15	1	Total Zn 1 1	0	0
60	16	1	Total Zn 1 1	0	0
60	19	1	Total Zn 1 1	0	0
60	1n	1	Total Zn 1 1	0	0
60	2Y	1	Total Zn 1 1	0	0
60	24	1	Total Zn 1 1	0	0
60	25	1	Total Zn 1 1	0	0

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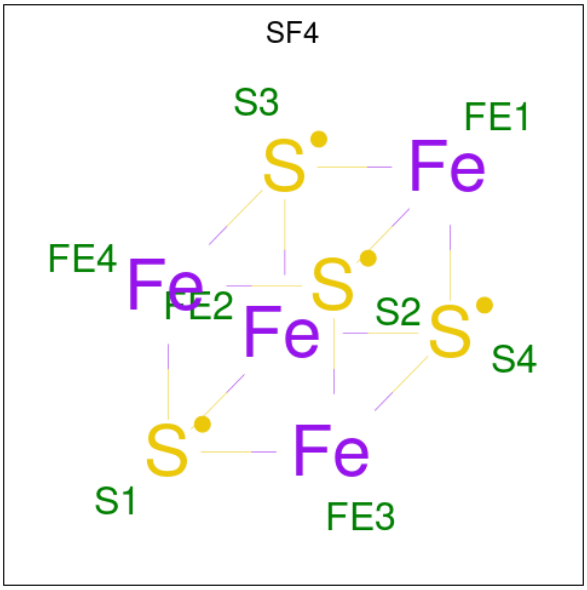
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	26	1	Total Zn 1 1	0	0
60	29	1	Total Zn 1 1	0	0
60	2n	1	Total Zn 1 1	0	0

- Molecule 61 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1d	1	Total Fe S 8 4 4	0	0
61	2d	1	Total Fe S 8 4 4	0	0

- Molecule 62 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	1A	1910	Total O 1910 1910	0	0
62	1B	61	Total O 61 61	0	0
62	1D	28	Total O 28 28	0	0
62	1E	29	Total O 29 29	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	1F	18	Total O 18 18	0	0
62	1G	2	Total O 2 2	0	0
62	1H	1	Total O 1 1	0	0
62	1I	1	Total O 1 1	0	0
62	1N	6	Total O 6 6	0	0
62	1O	4	Total O 4 4	0	0
62	1P	24	Total O 24 24	0	0
62	1Q	8	Total O 8 8	0	0
62	1R	11	Total O 11 11	0	0
62	1S	6	Total O 6 6	0	0
62	1T	7	Total O 7 7	0	0
62	1U	13	Total O 13 13	0	0
62	1V	8	Total O 8 8	0	0
62	1W	7	Total O 7 7	0	0
62	1X	6	Total O 6 6	0	0
62	1Y	3	Total O 3 3	0	0
62	1Z	1	Total O 1 1	0	0
62	10	11	Total O 11 11	0	0
62	11	13	Total O 13 13	0	0
62	12	4	Total O 4 4	0	0
62	13	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	14	1	Total O 1 1	0	0
62	15	5	Total O 5 5	0	0
62	16	3	Total O 3 3	0	0
62	17	10	Total O 10 10	0	0
62	18	9	Total O 9 9	0	0
62	19	1	Total O 1 1	0	0
62	1a	313	Total O 313 313	0	0
62	1b	1	Total O 1 1	0	0
62	1e	1	Total O 1 1	0	0
62	1j	1	Total O 1 1	0	0
62	1l	5	Total O 5 5	0	0
62	1m	2	Total O 2 2	0	0
62	1n	1	Total O 1 1	0	0
62	1q	2	Total O 2 2	0	0
62	1u	1	Total O 1 1	0	0
62	1v	4	Total O 4 4	0	0
62	1w	9	Total O 9 9	0	0
62	1x	12	Total O 12 12	0	0
62	1y	1	Total O 1 1	0	0
62	2A	1010	Total O 1010 1010	0	0
62	2B	21	Total O 21 21	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	2D	15	Total O 15 15	0	0
62	2E	12	Total O 12 12	0	0
62	2F	13	Total O 13 13	0	0
62	2I	2	Total O 2 2	0	0
62	2O	2	Total O 2 2	0	0
62	2P	10	Total O 10 10	0	0
62	2Q	1	Total O 1 1	0	0
62	2R	3	Total O 3 3	0	0
62	2T	5	Total O 5 5	0	0
62	2U	3	Total O 3 3	0	0
62	2W	1	Total O 1 1	0	0
62	2X	3	Total O 3 3	0	0
62	2Y	1	Total O 1 1	0	0
62	20	4	Total O 4 4	0	0
62	21	8	Total O 8 8	0	0
62	23	1	Total O 1 1	0	0
62	25	1	Total O 1 1	0	0
62	27	4	Total O 4 4	0	0
62	28	2	Total O 2 2	0	0
62	29	1	Total O 1 1	0	0
62	2a	181	Total O 181 181	0	0

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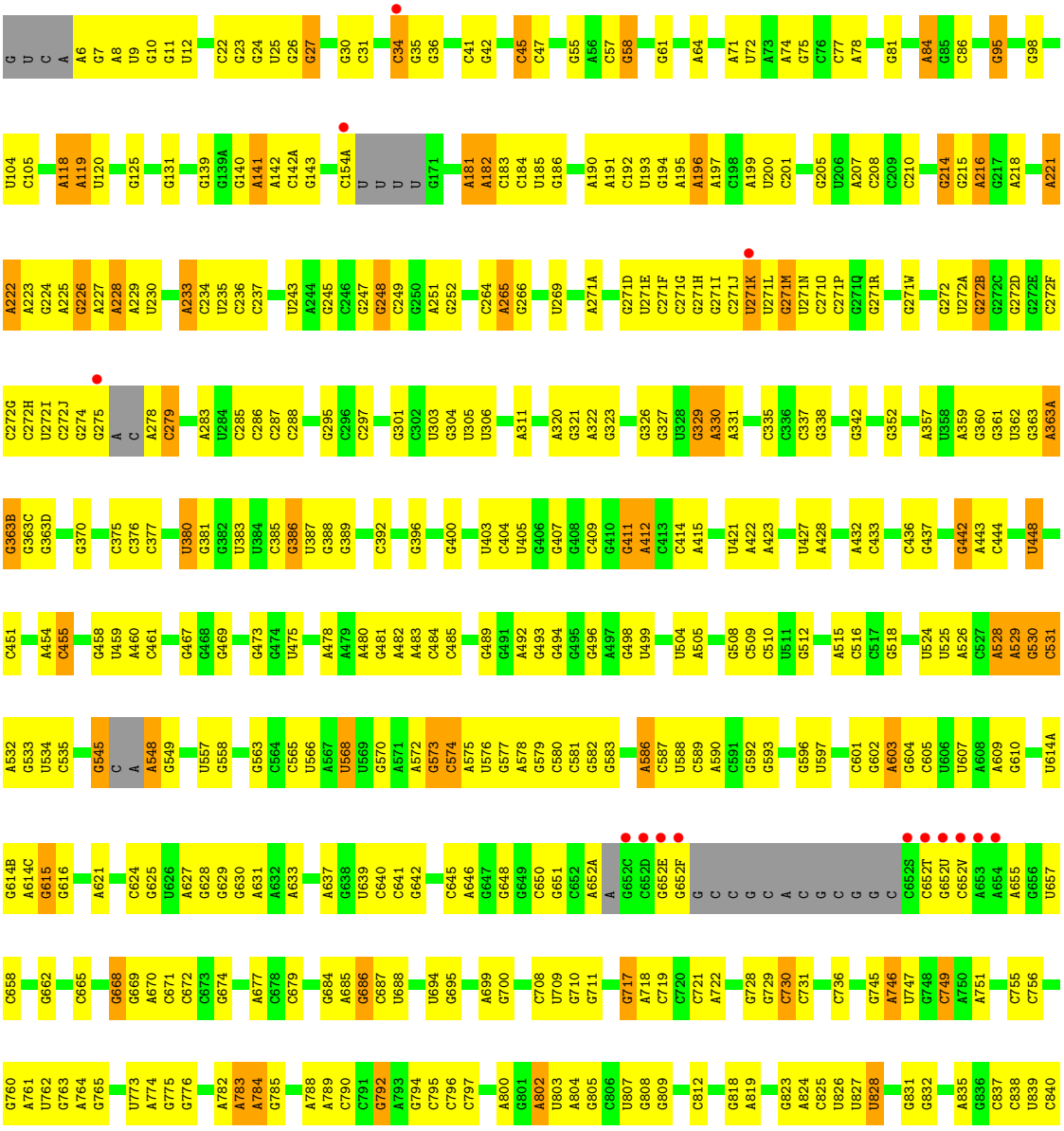
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	2d	1	Total O 1 1	0	0
62	2j	3	Total O 3 3	0	0
62	2l	5	Total O 5 5	0	0
62	2p	3	Total O 3 3	0	0
62	2q	1	Total O 1 1	0	0
62	2r	1	Total O 1 1	0	0
62	2t	2	Total O 2 2	0	0
62	2v	4	Total O 4 4	0	0
62	2w	1	Total O 1 1	0	0
62	2x	3	Total O 3 3	0	0
62	2y	4	Total O 4 4	0	0

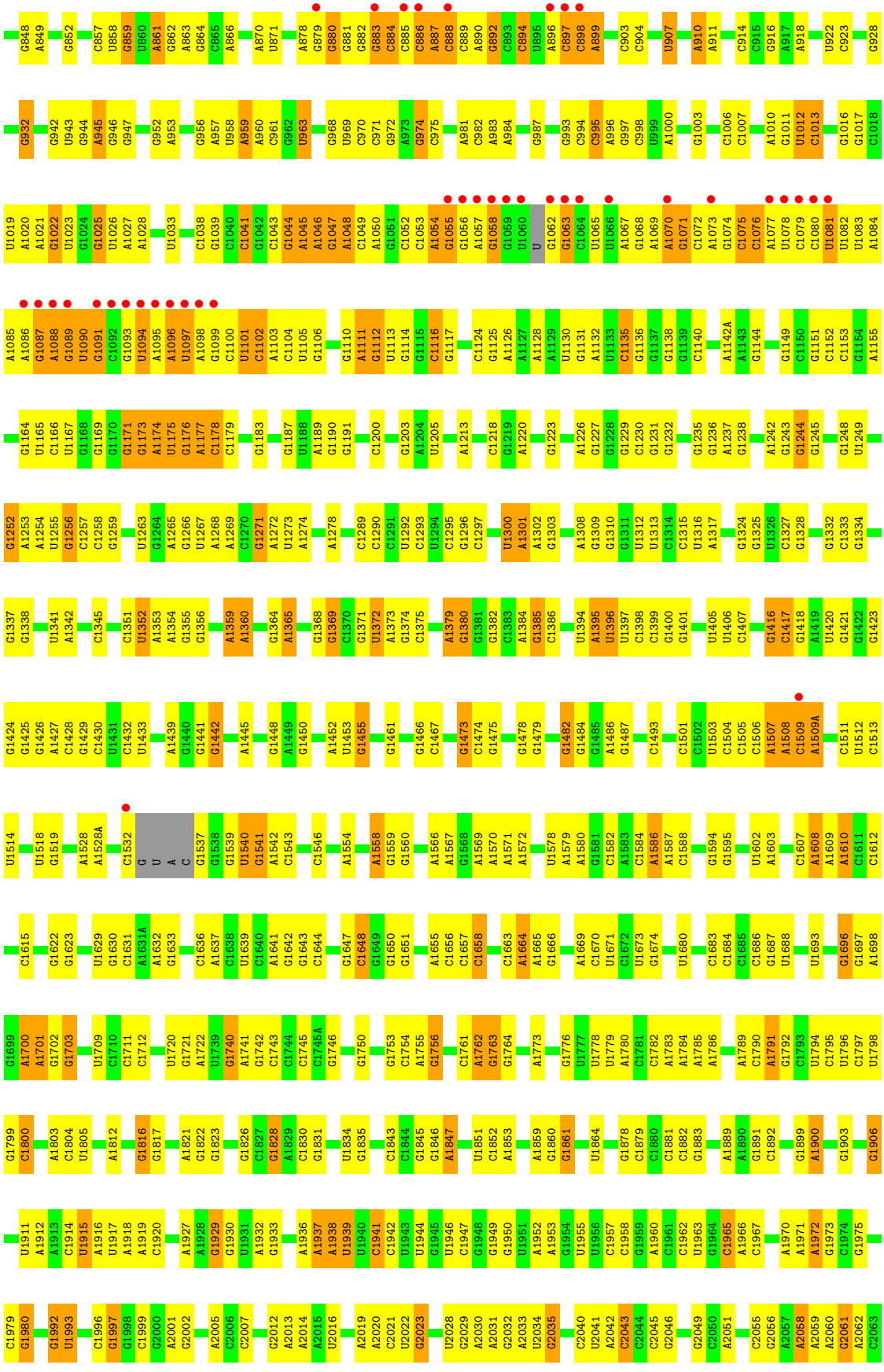
3 Residue-property plots (i)

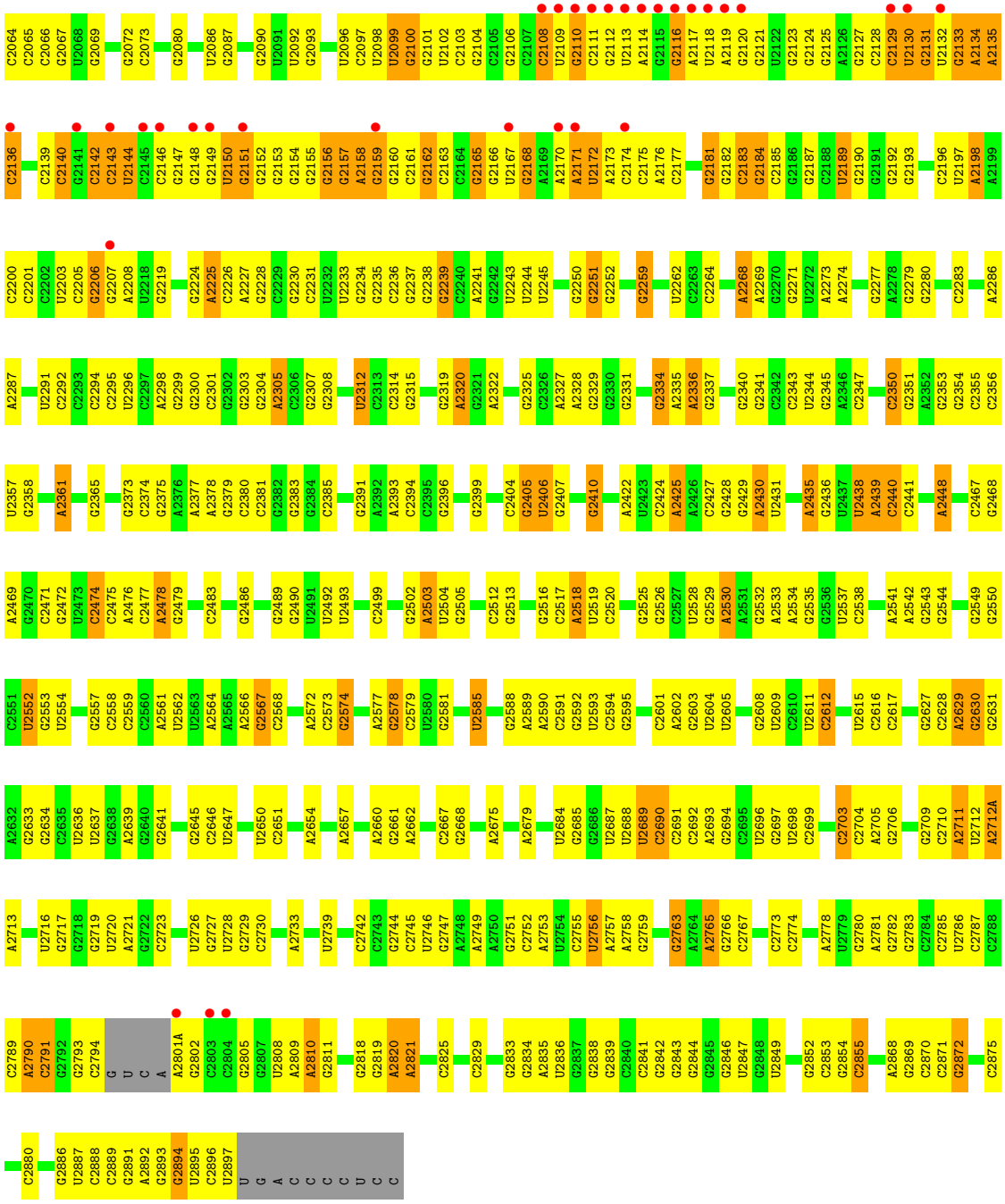
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: 23S Ribosomal RNA

Chain 1A:

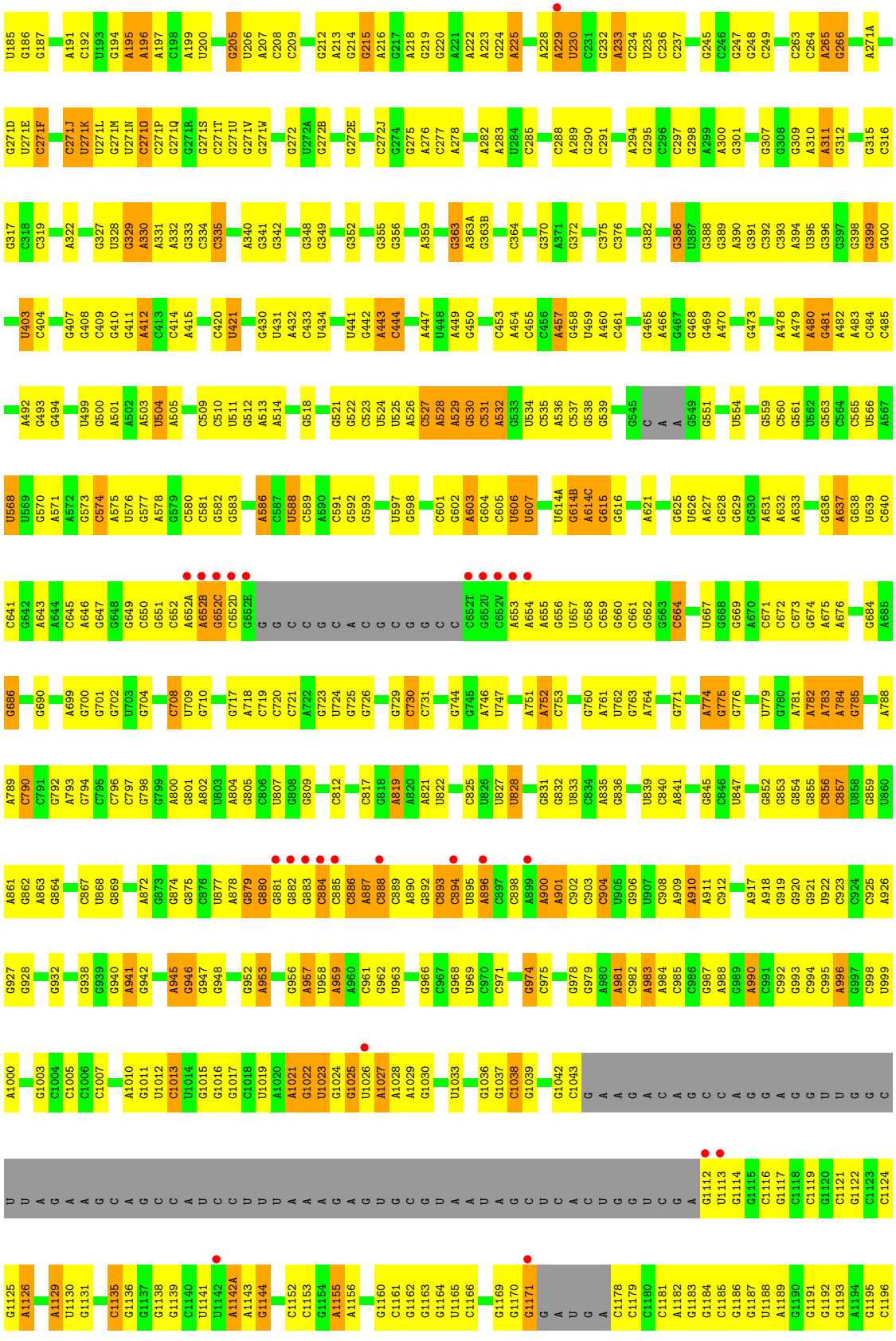


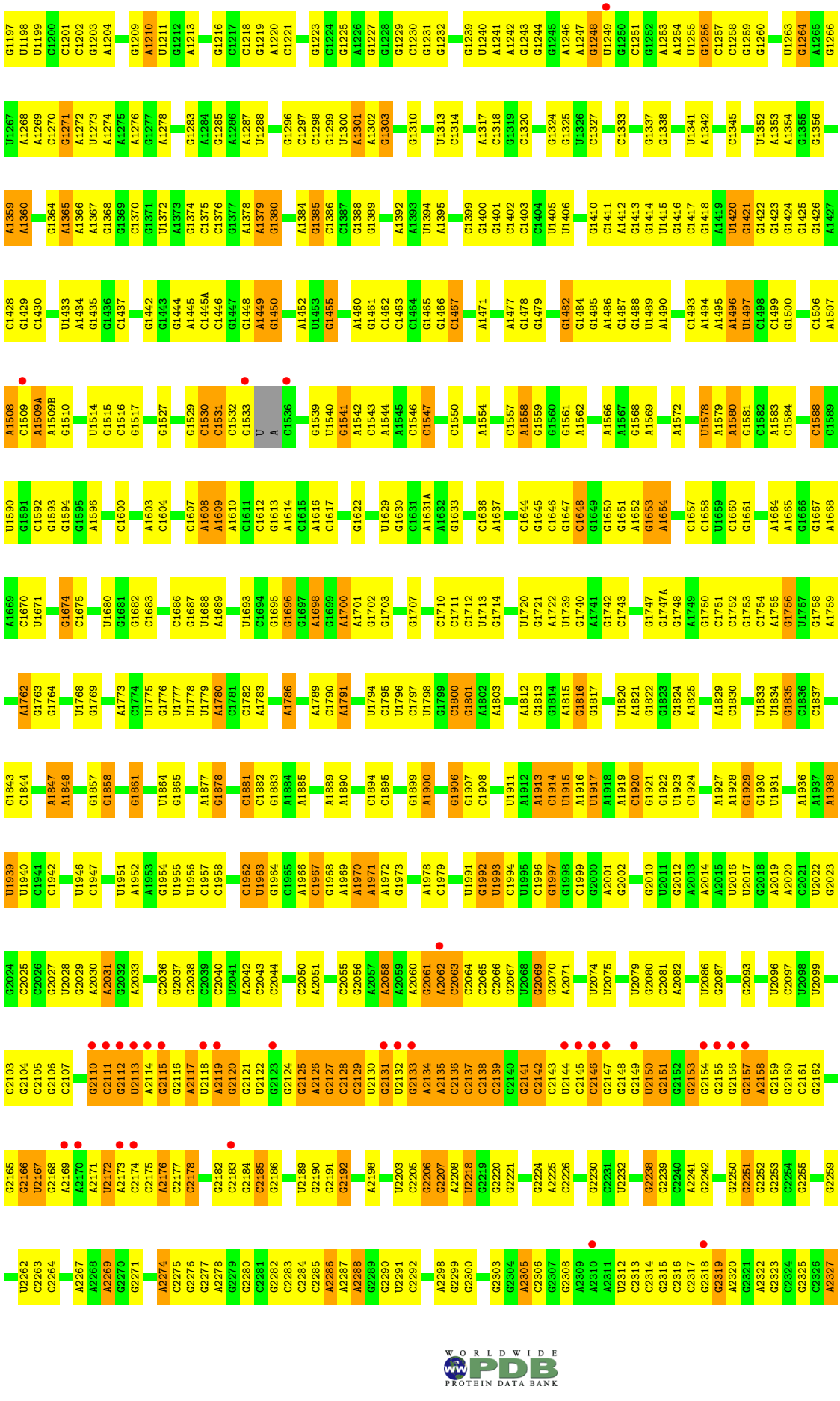

G848 A849 G852 C857 U858 G859 U860 A861 G862 A863 G864 C865 A866 A870 U871 A878 G879 G880 G881 G882 G883 C884 C885 C886 A887 C888 C889 A890 G892 C893 C894 U895 A896 C897 C898 A899 C903 C904 U907 A910 A911 C914 C915 G916 A917 A918 U922 C923 G928
G932 G942 U943 G944 A945 G946 G947 G952 A953 G956 A957 U958 A959 A960 C961 G962 U963 G968 U969 C970 C971 G972 A973 G974 C975 A981 C982 A983 A984 G987 G993 C994 C995 A996 G997 C998 U999 A1000 G1003 C1006 C1007 A1010 G1011 U1012 C1013 G1016 G1017 C1018
U1019 A1020 A1021 G1022 U1023 G1024 G1025 U1026 A1027 A1028 U1033 C1038 G1039 C1040 C1041 G1042 C1043 G1044 A1045 A1046 G1047 A1048 C1049 A1050 G1051 C1052 C1053 A1054 G1055 G1056 A1057 G1058 G1059 U1060 U G1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069 A1070 G1071 C1072 A1073 G1074 C1075 C1076 A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1084
A1085 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 G1099 C1100 U1101 C1102 A1103 C1104 U1105 G1106 G1110 A1111 G1112 U1113 G1114 G1115 C1116 G1117 C1124 G1125 A1126 A1127 A1128 A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1137 G1138 G1139 C1140 A1142A A1143 G1144 G1149 C1150 G1151 C1152 C1153 G1154 A1155
G1164 U1165 C1166 U1167 G1168 G1169 G1170 G1171 G1173 A1174 U1175 G1176 A1177 C1178 C1179 G1183 G1187 U1188 A1189 G1190 G1191 C1200 G1203 A1204 U1205 A1213 C1218 G1219 A1220 G1223 A1226 G1227 G1228 G1229 C1230 G1231 G1232 G1235 G1236 A1237 G1238 A1242 G1243 G1244 G1245 G1248 U1249
G1252 A1253 A1254 U1255 G1256 C1257 C1258 G1259 U1263 G1264 A1265 G1266 U1267 A1268 A1269 C1270 G1271 A1272 U1273 A1274 A1278 C1289 C1290 C1291 U1292 C1293 U1294 C1295 G1296 C1297 U1300 A1301 A1302 G1303 A1308 G1309 G1310 G1311 U1312 U1313 C1314 C1315 U1316 A1317 G1324 G1325 U1326 C1327 G1328 G1332 C1333 G1334
G1337 G1338 U1341 A1342 C1345 C1351 U1352 A1353 A1354 G1355 G1356 A1359 A1360 G1364 A1365 G1368 G1369 C1370 G1371 U1372 A1373 G1374 C1375 A1379 G1380 G1381 G1382 C1383 A1384 G1385 C1386 U1394 A1395 U1396 U1397 C1398 C1399 G1400 G1401 U1405 U1406 C1407 G1416 C1417 G1418 A1419 U1420 G1421 G1422 G1423
G1424 G1425 G1426 A1427 C1428 G1429 C1430 U1431 C1432 U1433 A1439 G1440 G1441 G1442 A1445 G1448 A1449 G1450 A1452 U1453 G1455 G1461 G1466 C1467 G1473 C1474 G1475 G1478 G1479 G1482 G1484 G1485 A1486 G1487 C1493 C1501 C1502 U1503 C1504 C1505 C1506 A1507 A1508 C1509 A1509A C1511 U1512 C1513
U1514 U1518 G1519 A1528 A1528A C1532 G U A C G1537 G1538 G1539 U1540 G1541 A1542 C1543 C1546 A1554 A1558 G1559 G1560 A1566 A1567 G1568 A1569 A1570 A1571 A1572 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 G1594 G1595 U1602 A1603 C1607 A1608 A1609 A1610 C1611 C1612
C1615 G1622 G1623 U1629 G1630 C1631 A1631A A1632 G1633 C1636 A1637 C1638 U1639 C1640 A1641 G1642 G1643 C1644 G1647 C1648 G1649 G1650 G1651 A1655 C1656 C1657 C1658 C1663 A1664 A1665 G1666 A1669 C1670 U1671 C1672 U1673 G1674 U1680 C1683 C1684 C1685 C1686 G1687 U1688 U1693 G1696 G1697 A1698
G1699 A1700 A1701 G1702 G1703 U1709 C1710 C1711 C1712 U1720 G1721 A1722 U1739 G1740 A1741 G1742 C1743 C1744 C1745 C1745A G1746 G1750 G1753 C1754 A1755 G1756 C1761 A1762 G1763 G1764 A1773 G1776 U1777 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786 A1789 C1790 A1791 G1792 C1793 U1794 C1795 U1796 C1797 U1798
G1799 C1800 A1803 C1804 U1805 A1812 G1816 G1817 A1821 G1822 G1823 G1826 C1827 G1828 A1829 C1830 G1831 U1834 G1835 C1843 C1844 G1845 G1846 A1847 U1851 C1852 A1853 A1859 G1860 G1861 U1864 G1878 C1879 C1880 C1881 C1882 G1883 A1889 A1890 G1891 C1892 G1899 A1900 G1903 G1906
U1911 A1912 A1913 C1914 U1915 A1916 U1917 A1918 A1919 C1920 A1927 A1928 G1929 G1930 U1931 A1932 G1933 A1936 A1937 A1938 U1939 U1940 C1941 C1942 U1943 U1944 G1945 U1946 C1947 G1948 G1949 G1950 U1951 A1952 A1953 G1954 U1955 U1956 C1957 C1958 G1959 A1960 C1961 C1962 U1963 G1964 C1965 A1966 C1967 A1970 A1971 A1972 G1973 C1974 G1975
C1979 G1980 G1992 U1993 C1996 G1997 G1998 C1999 G2000 A2001 G2002 A2005 C2006 C2007 G2012 A2013 A2014 A2015 U2016 A2019 A2020 C2021 U2022 G2023 U2028 G2029 A2030 A2031 G2032 A2033 U2034 G2035 C2040 U2041 A2042 C2043 C2044 C2045 G2046 G2049 C2050 A2051 C2055 G2056 A2057 A2058 A2059 A2060 G2061 A2062 C2063

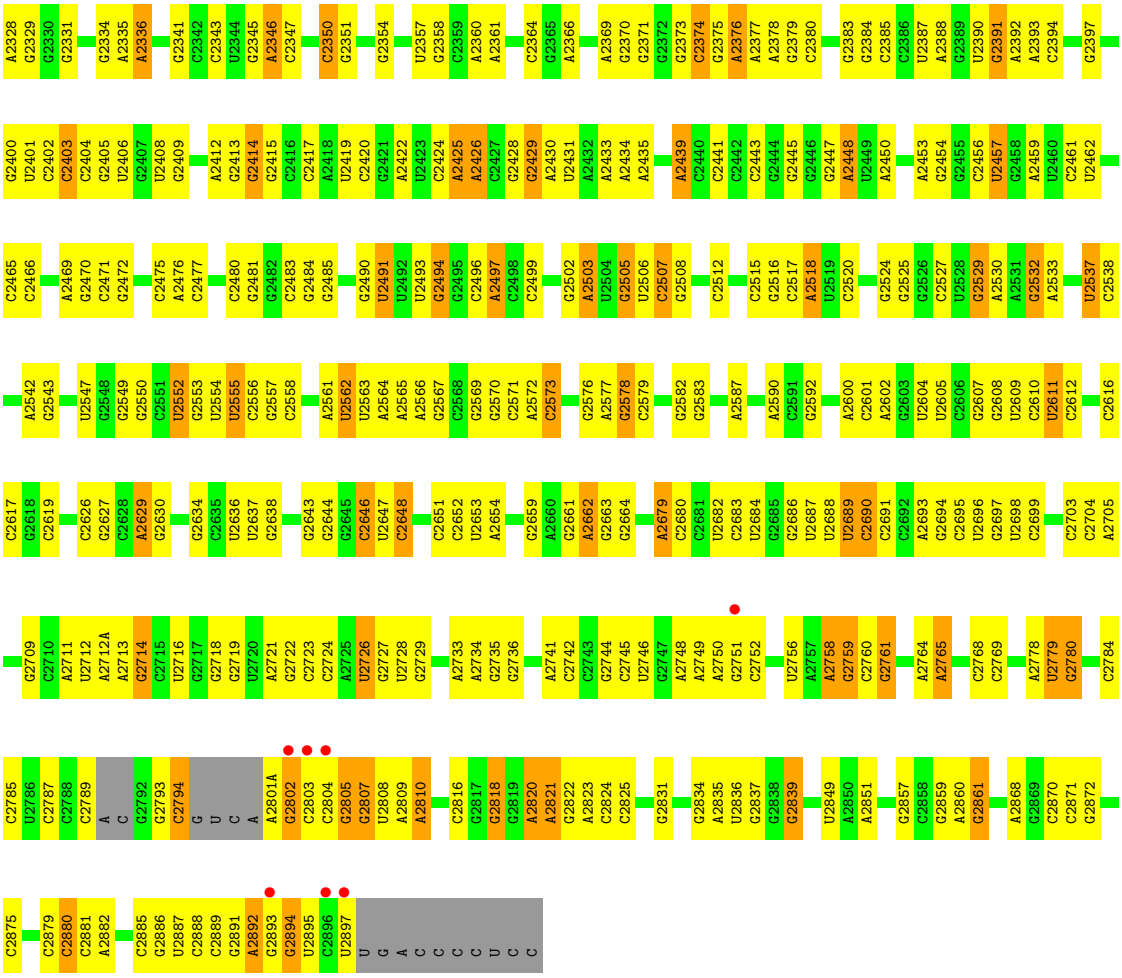


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

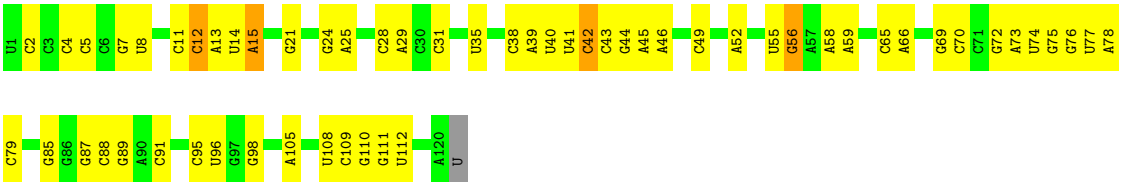






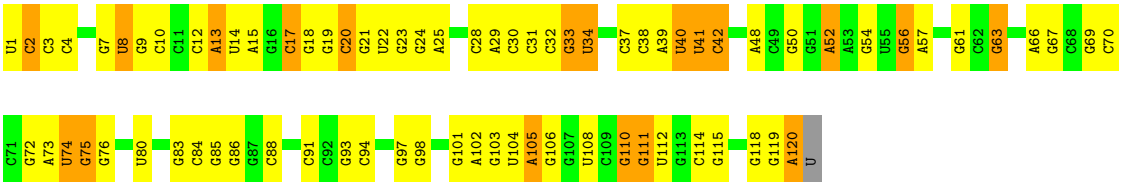
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



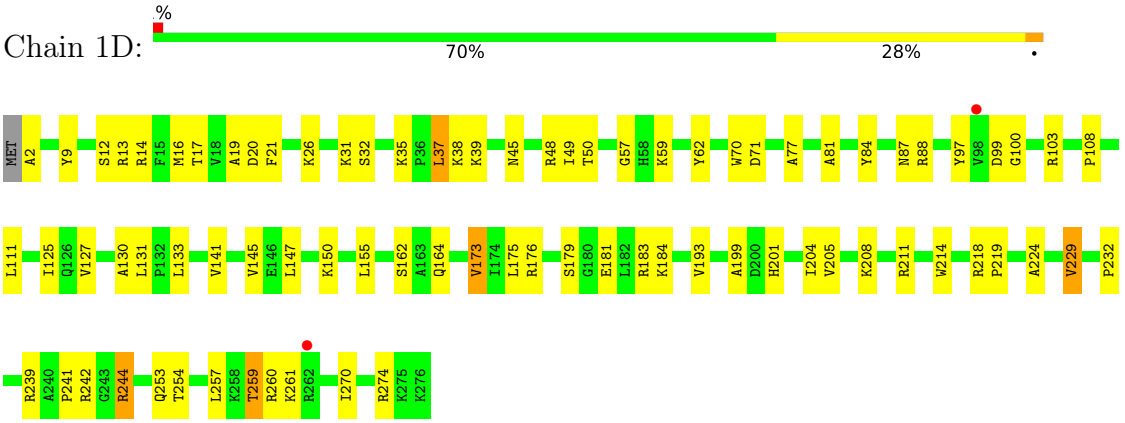
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



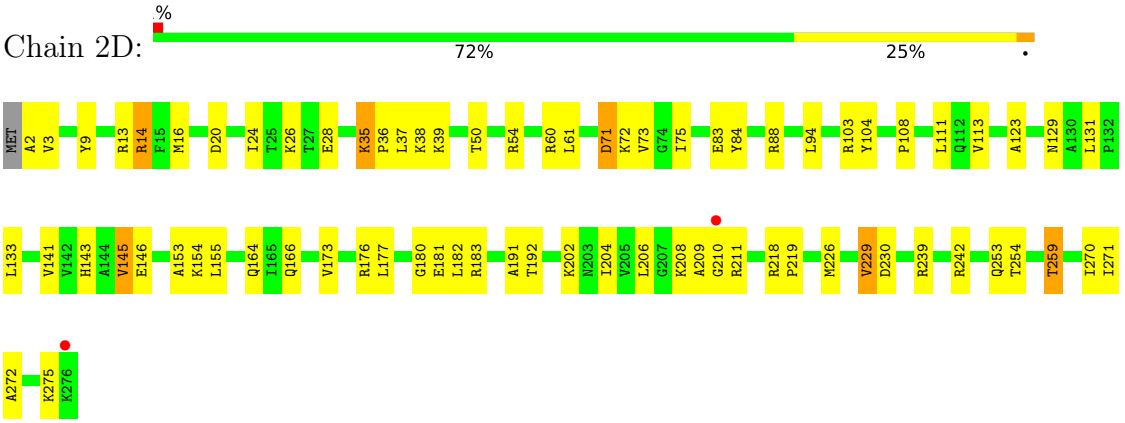
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



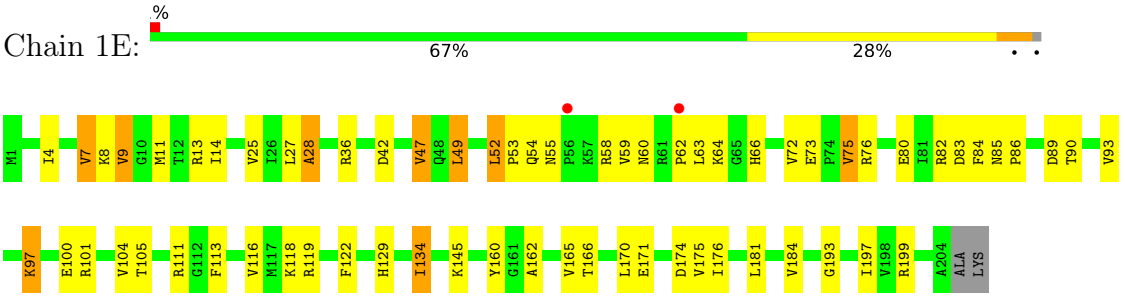
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



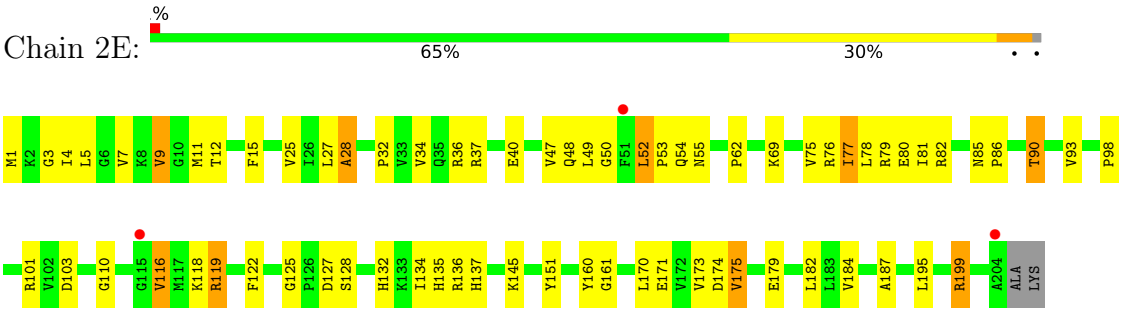
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



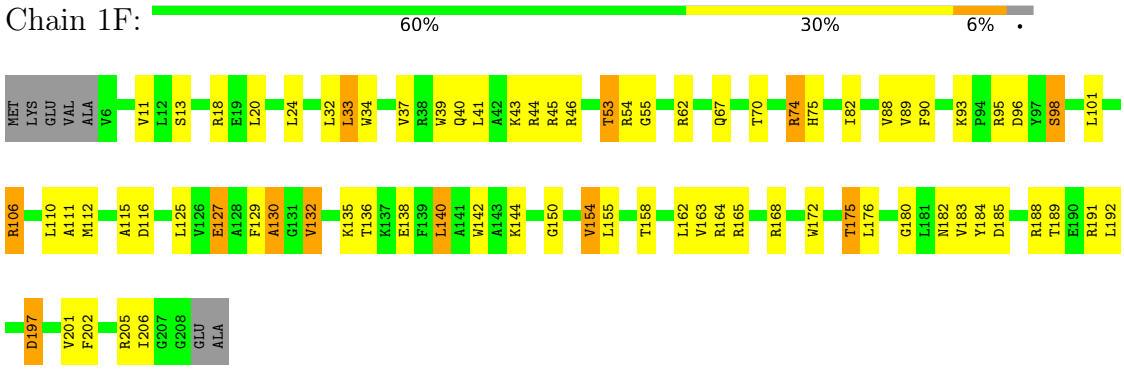
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



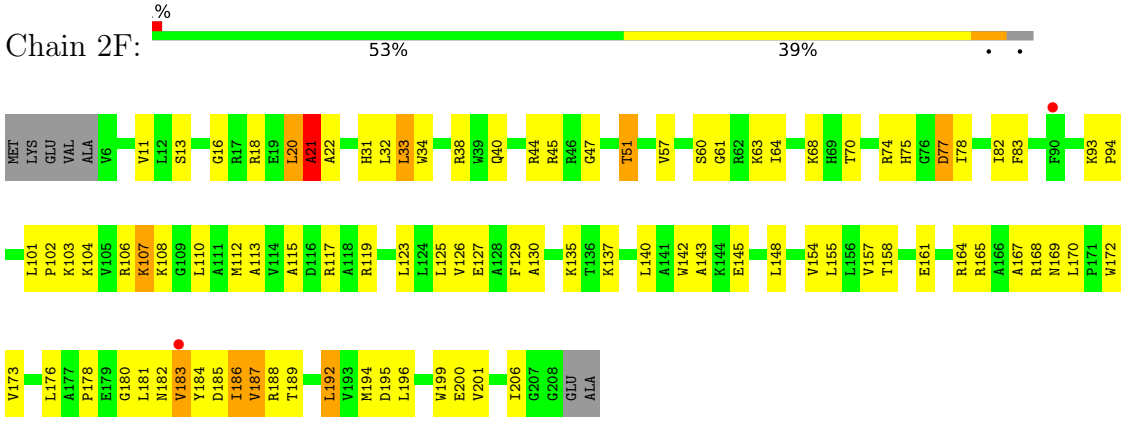
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



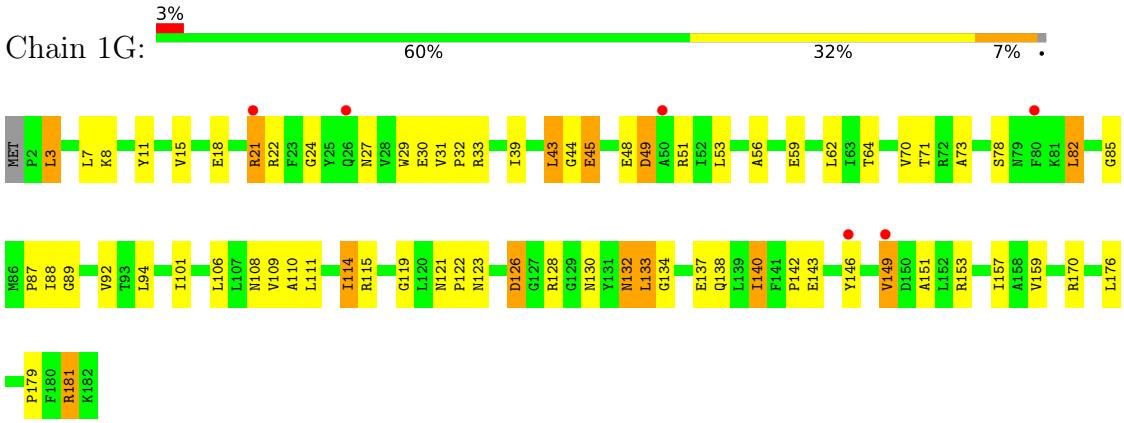
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



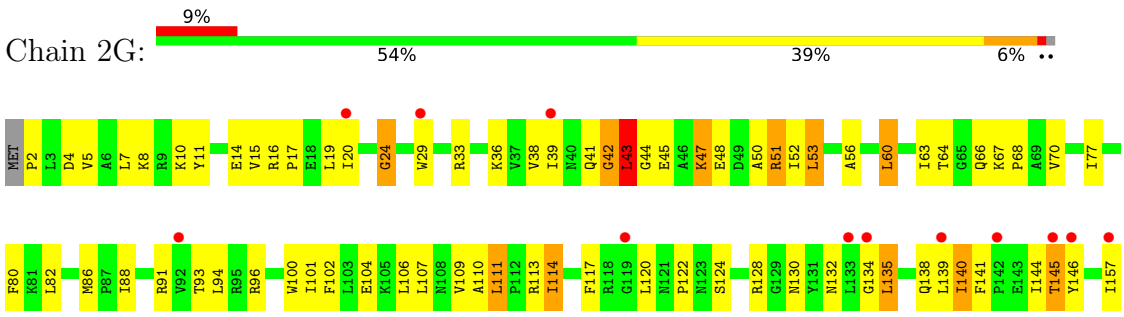
• Molecule 6: 50S ribosomal protein L5

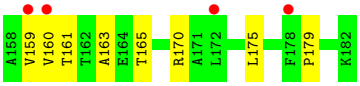
Chain 1G:



• Molecule 6: 50S ribosomal protein L5

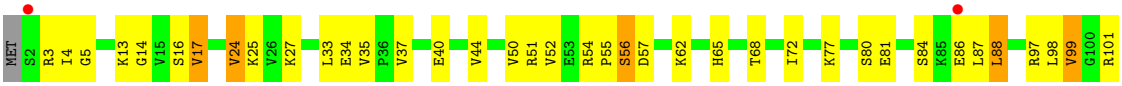
Chain 2G:





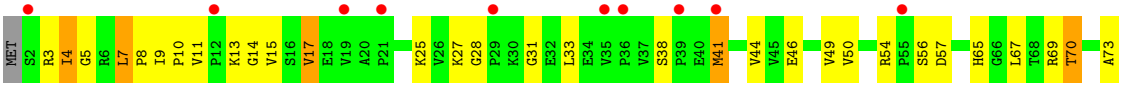
• Molecule 7: 50S ribosomal protein L6

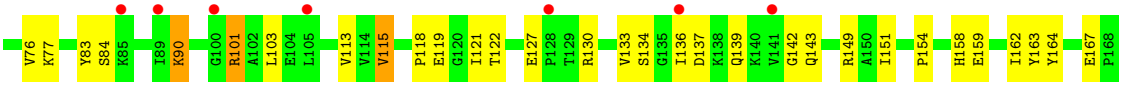
Chain 1H:

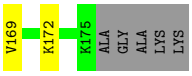


• Molecule 7: 50S ribosomal protein L6

Chain 2H:

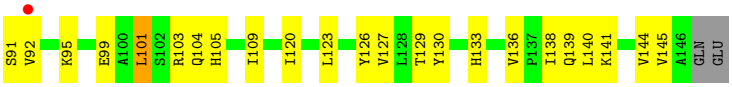






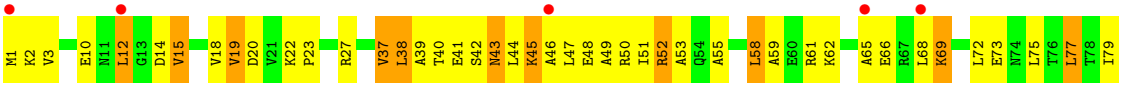
• Molecule 8: 50S ribosomal protein L9

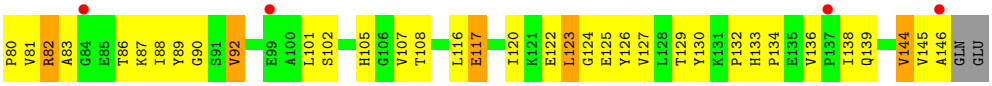
Chain 1I:



• Molecule 8: 50S ribosomal protein L9

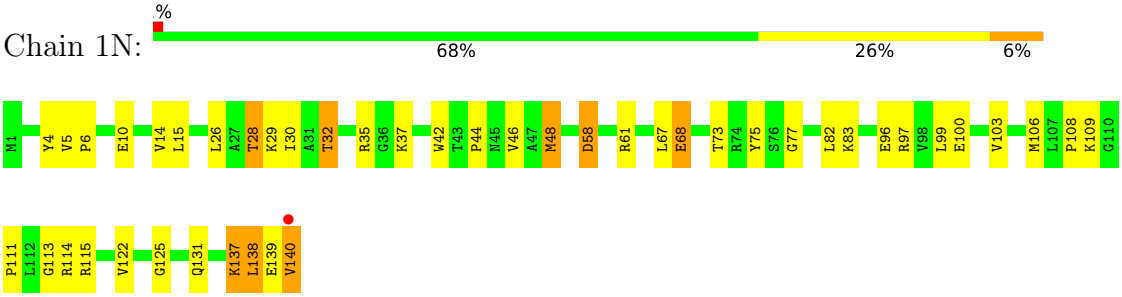
Chain 2I:





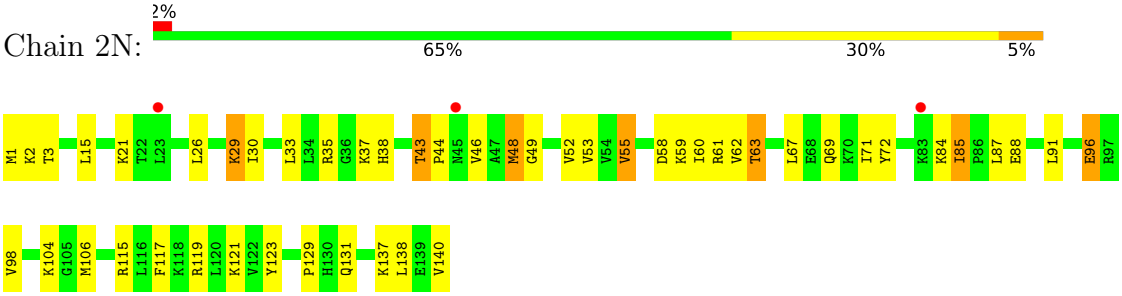
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



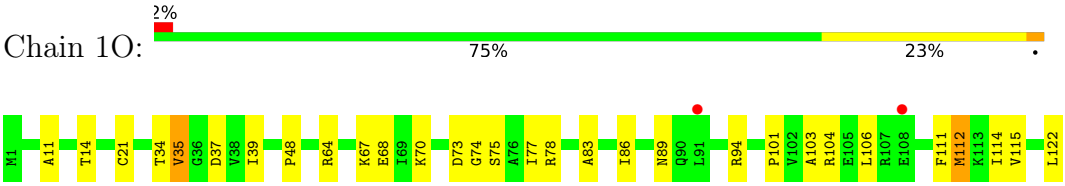
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



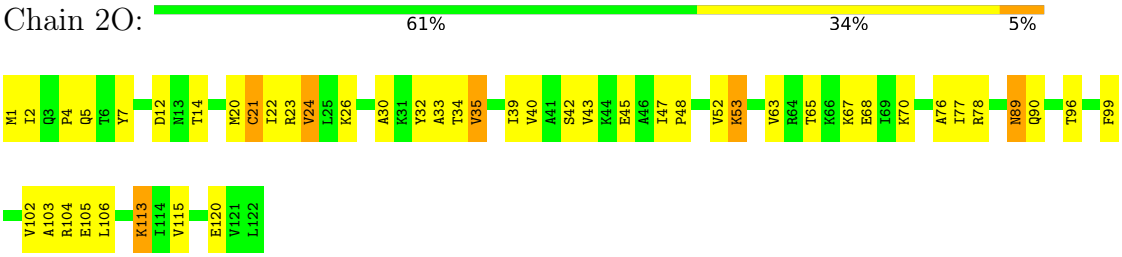
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



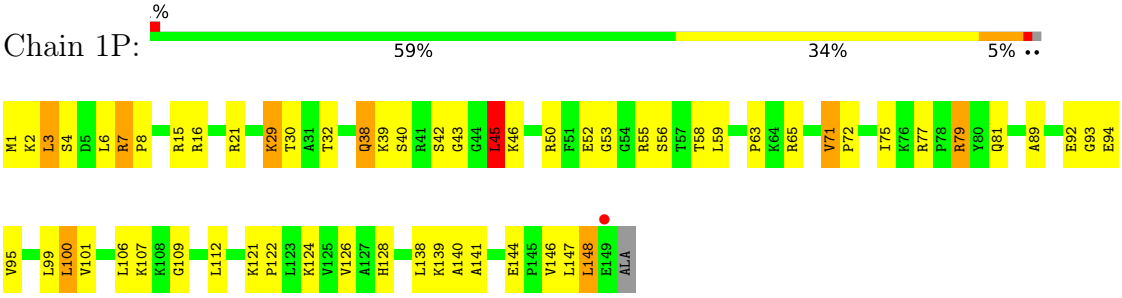
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



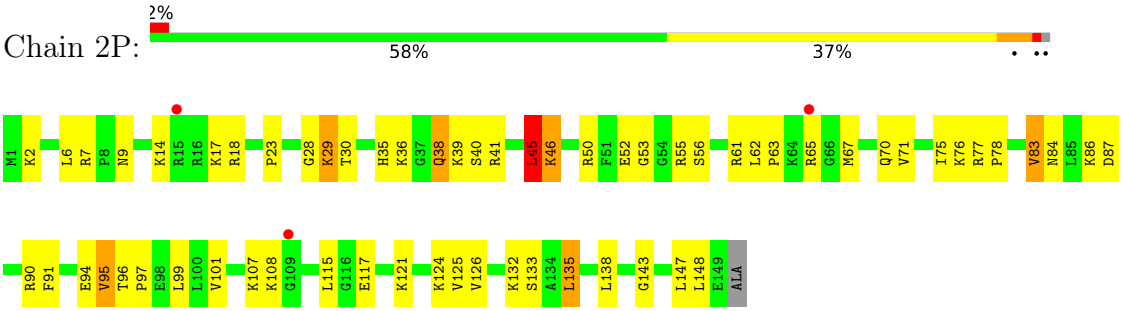
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



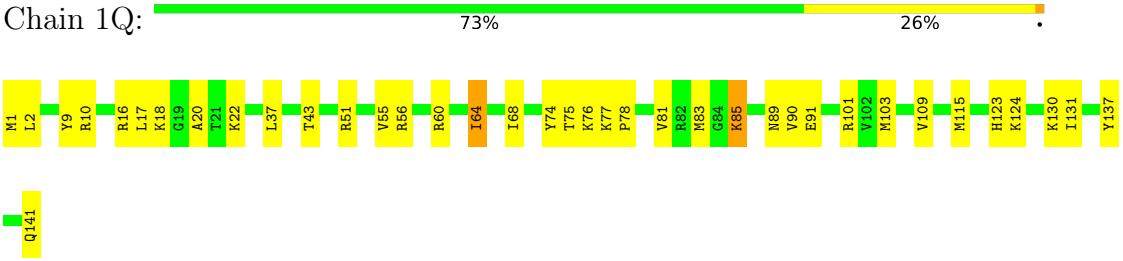
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



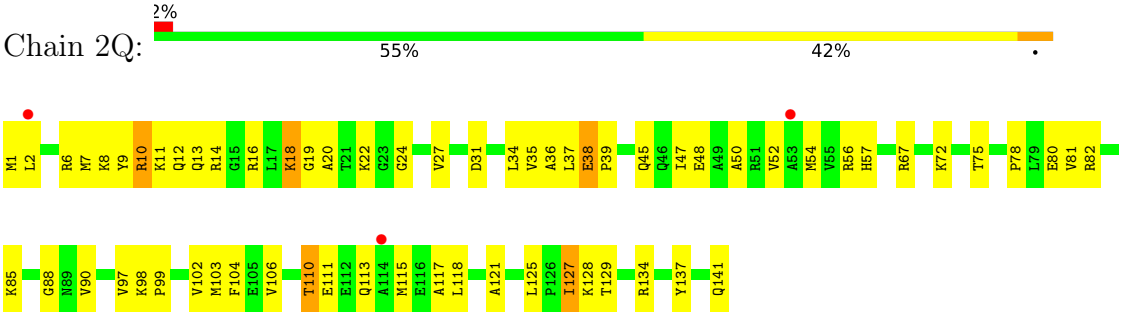
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



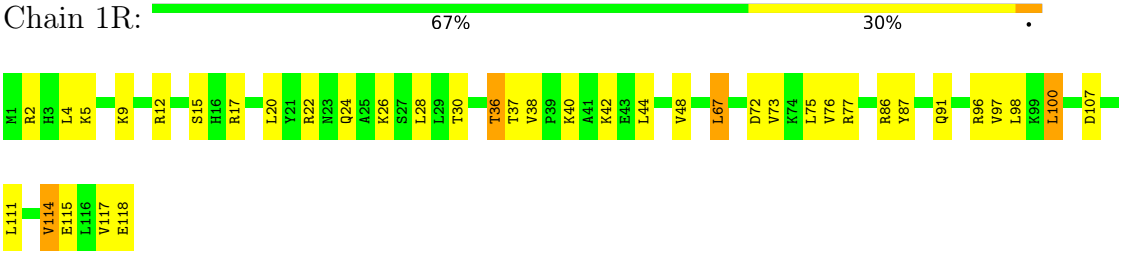
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



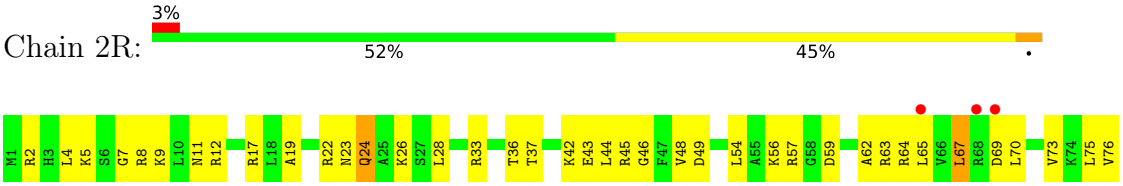
• Molecule 13: 50S ribosomal protein L17

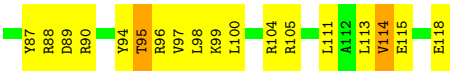
Chain 1R:



• Molecule 13: 50S ribosomal protein L17

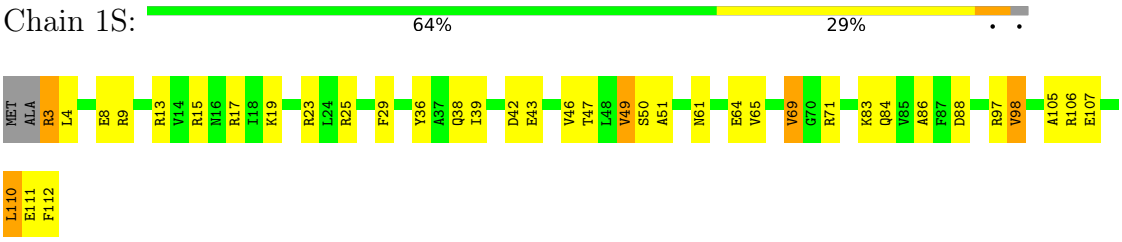
Chain 2R:





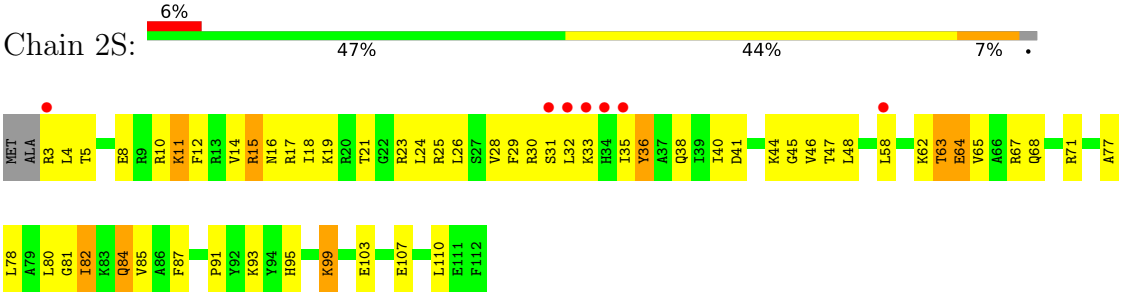
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



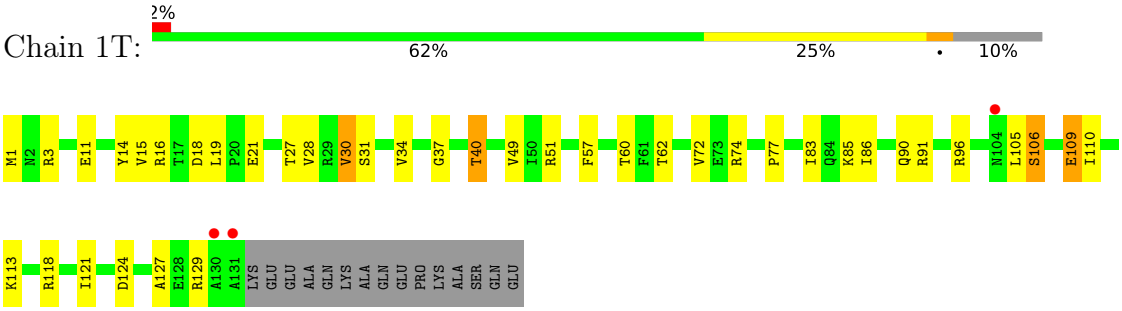
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



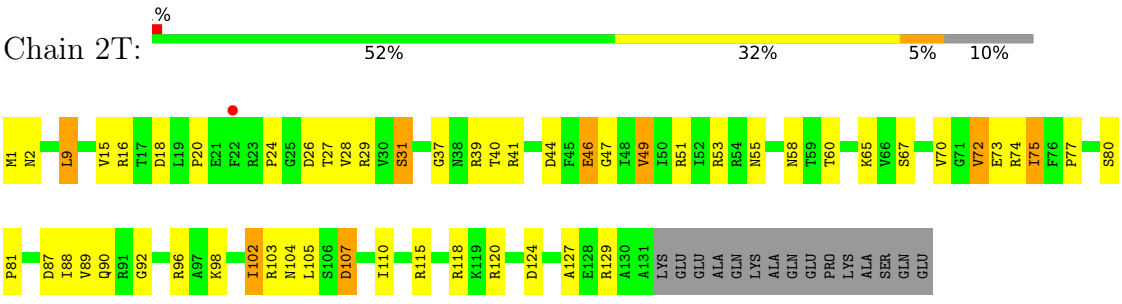
• Molecule 15: 50S ribosomal protein L19

Chain 1T:



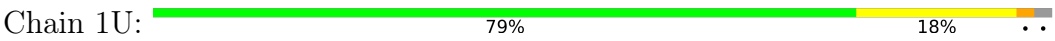
• Molecule 15: 50S ribosomal protein L19

Chain 2T:



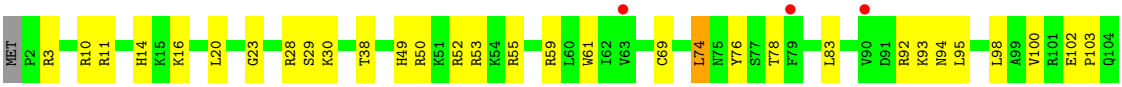
• Molecule 16: 50S ribosomal protein L20

Chain 1U:



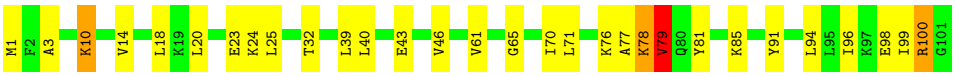
• Molecule 16: 50S ribosomal protein L20

Chain 2U:



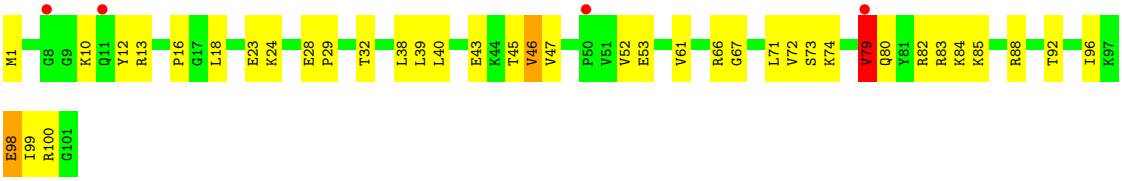
• Molecule 17: 50S ribosomal protein L21

Chain 1V:



• Molecule 17: 50S ribosomal protein L21

Chain 2V:

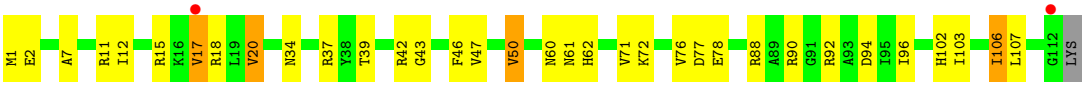


• Molecule 18: 50S ribosomal protein L22

Chain 1W:

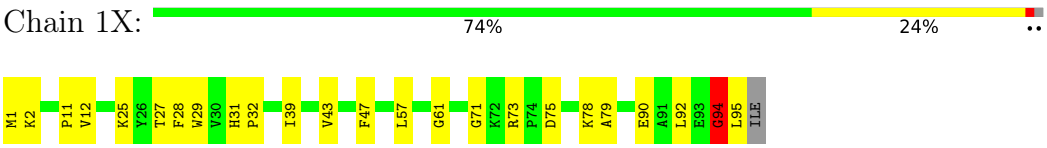
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



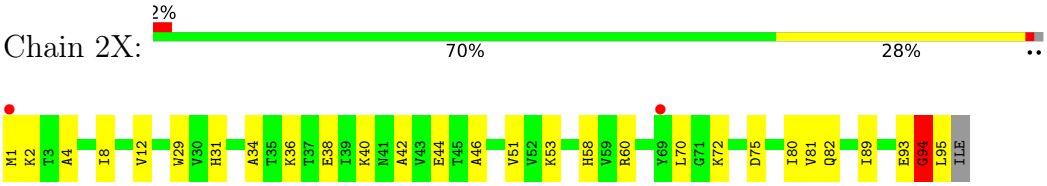
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



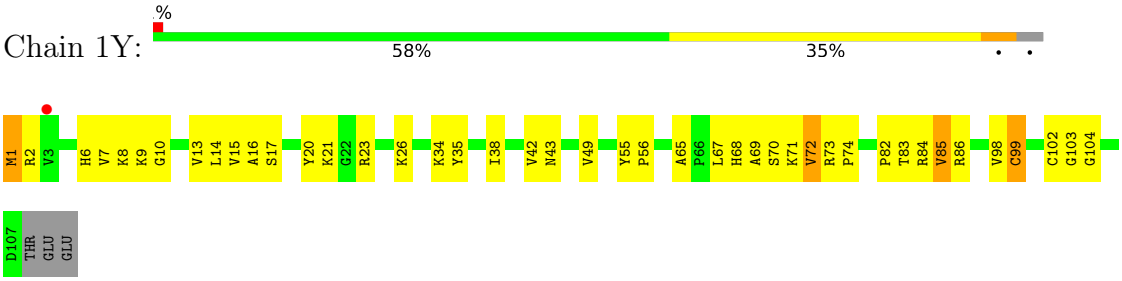
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



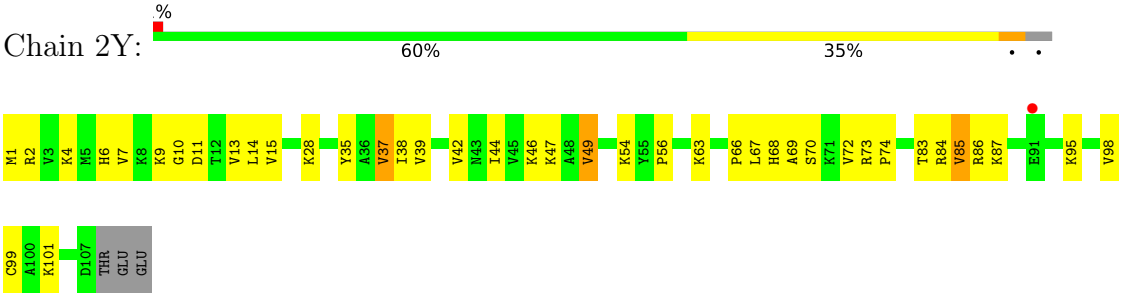
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



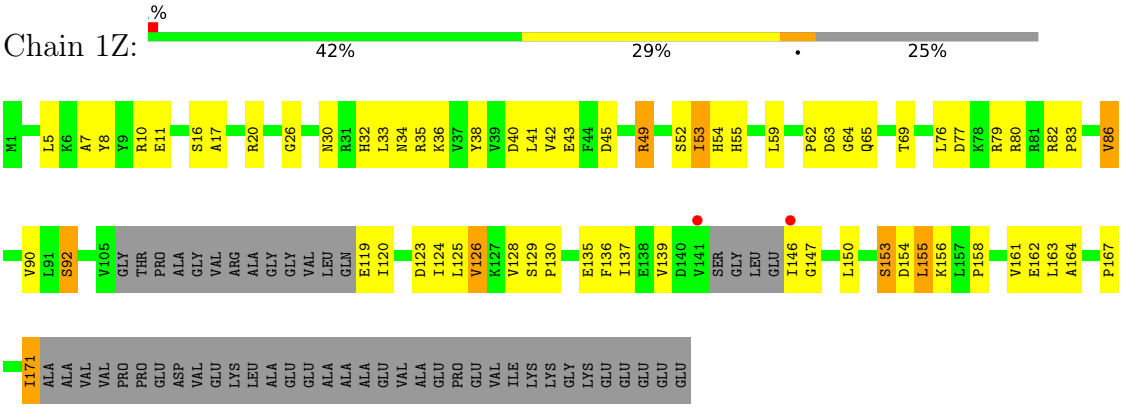
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



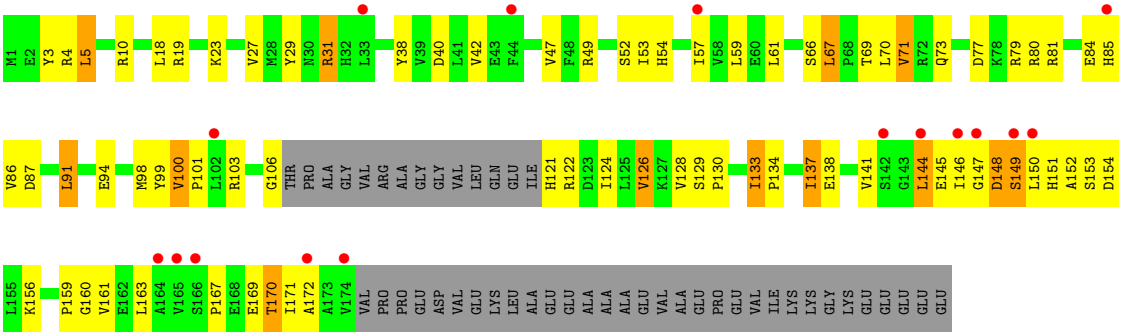
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:

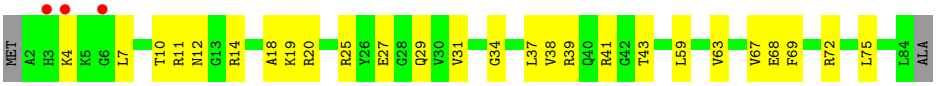


• Molecule 21: 50S ribosomal protein L25

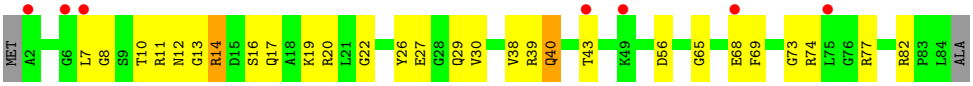
Chain 2Z:



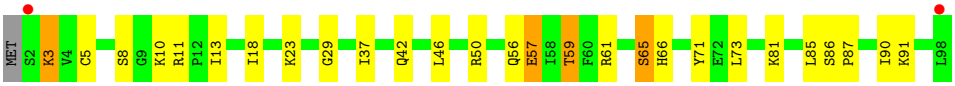
• Molecule 22: 50S ribosomal protein L27



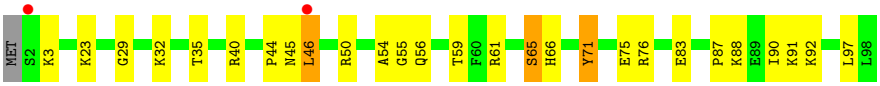
• Molecule 22: 50S ribosomal protein L27



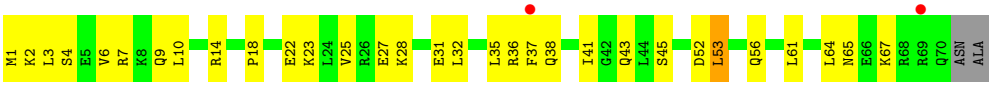
• Molecule 23: 50S ribosomal protein L28



• Molecule 23: 50S ribosomal protein L28

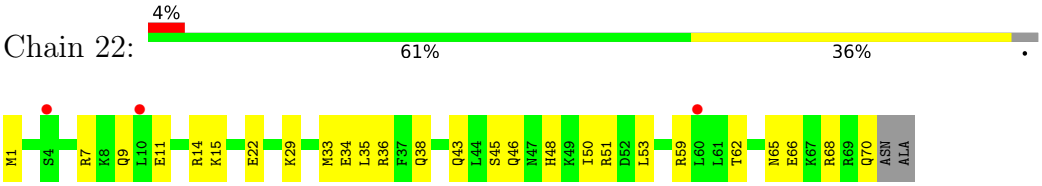


• Molecule 24: 50S ribosomal protein L29



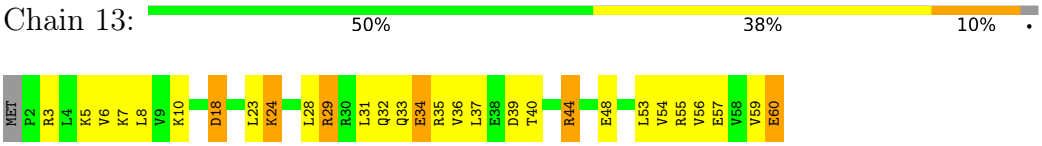
• Molecule 24: 50S ribosomal protein L29

Chain 22:



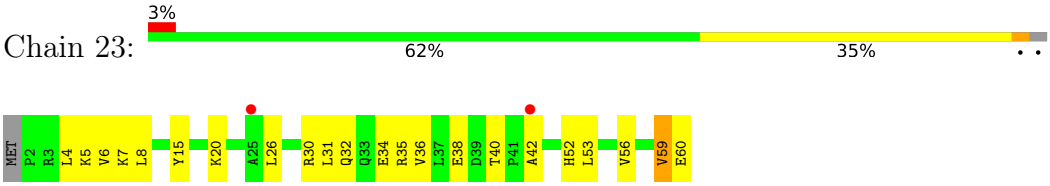
• Molecule 25: 50S ribosomal protein L30

Chain 13:



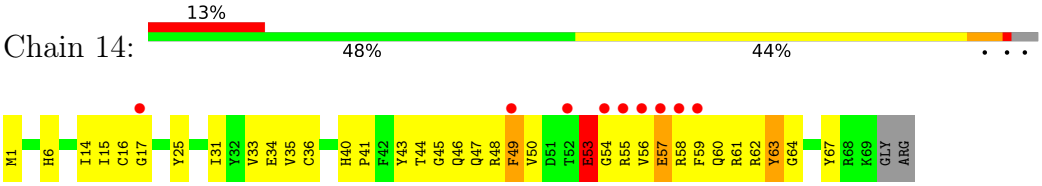
• Molecule 25: 50S ribosomal protein L30

Chain 23:



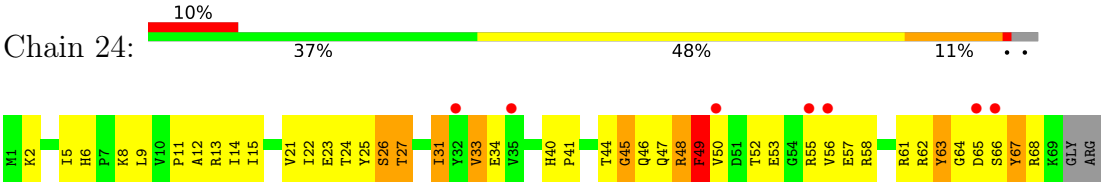
• Molecule 26: 50S ribosomal protein L31

Chain 14:



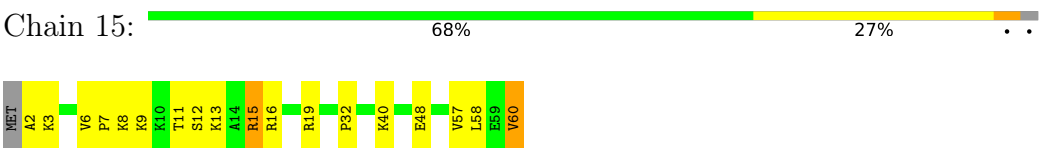
• Molecule 26: 50S ribosomal protein L31

Chain 24:



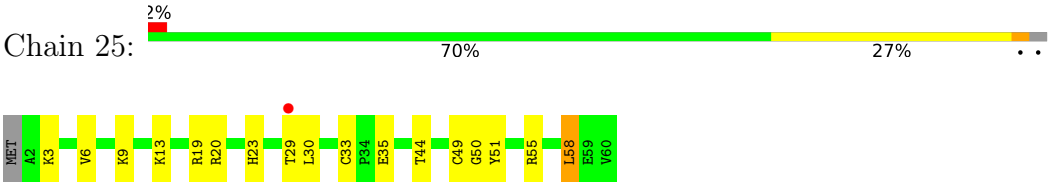
• Molecule 27: 50S ribosomal protein L32

Chain 15:



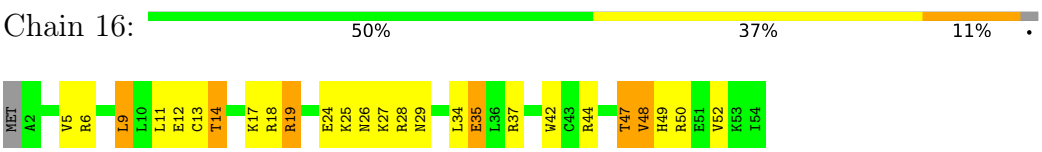
• Molecule 27: 50S ribosomal protein L32

Chain 25:



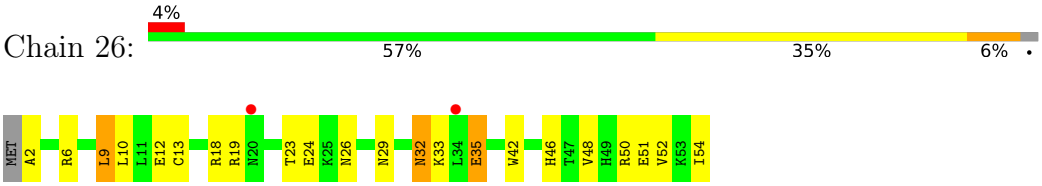
• Molecule 28: 50S ribosomal protein L33

Chain 16:



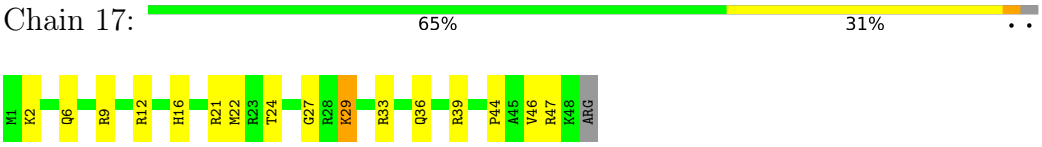
• Molecule 28: 50S ribosomal protein L33

Chain 26:



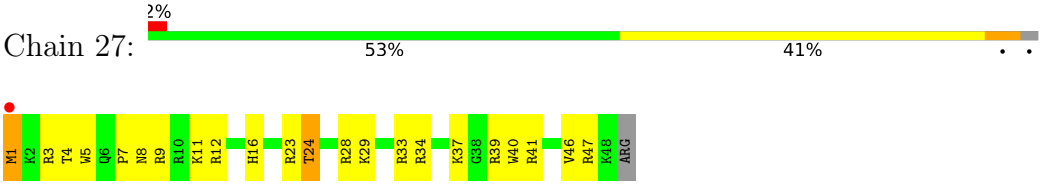
• Molecule 29: 50S ribosomal protein L34

Chain 17:



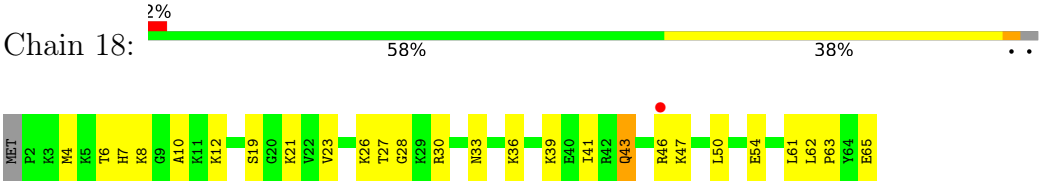
• Molecule 29: 50S ribosomal protein L34

Chain 27:



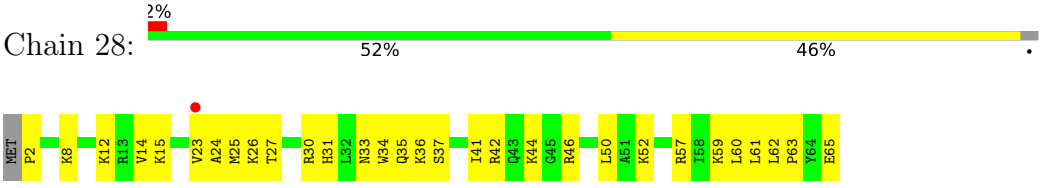
• Molecule 30: 50S ribosomal protein L35

Chain 18:



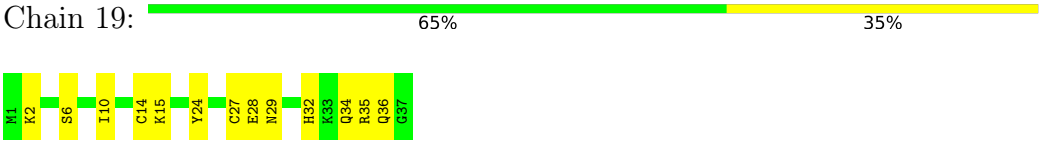
• Molecule 30: 50S ribosomal protein L35

Chain 28:



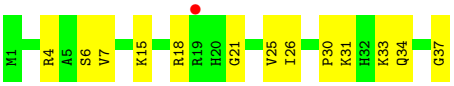
• Molecule 31: 50S ribosomal protein L36

Chain 19:



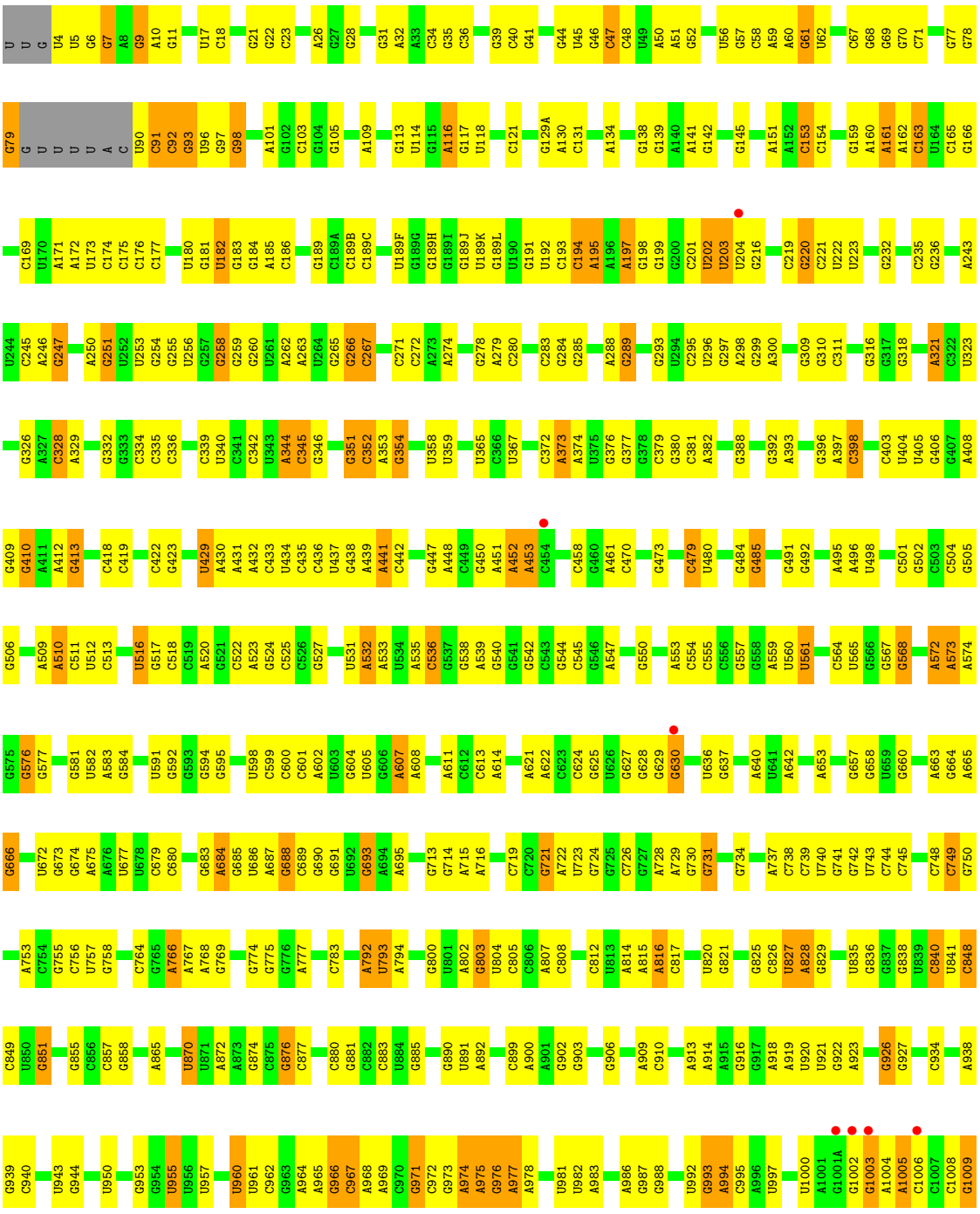
• Molecule 31: 50S ribosomal protein L36

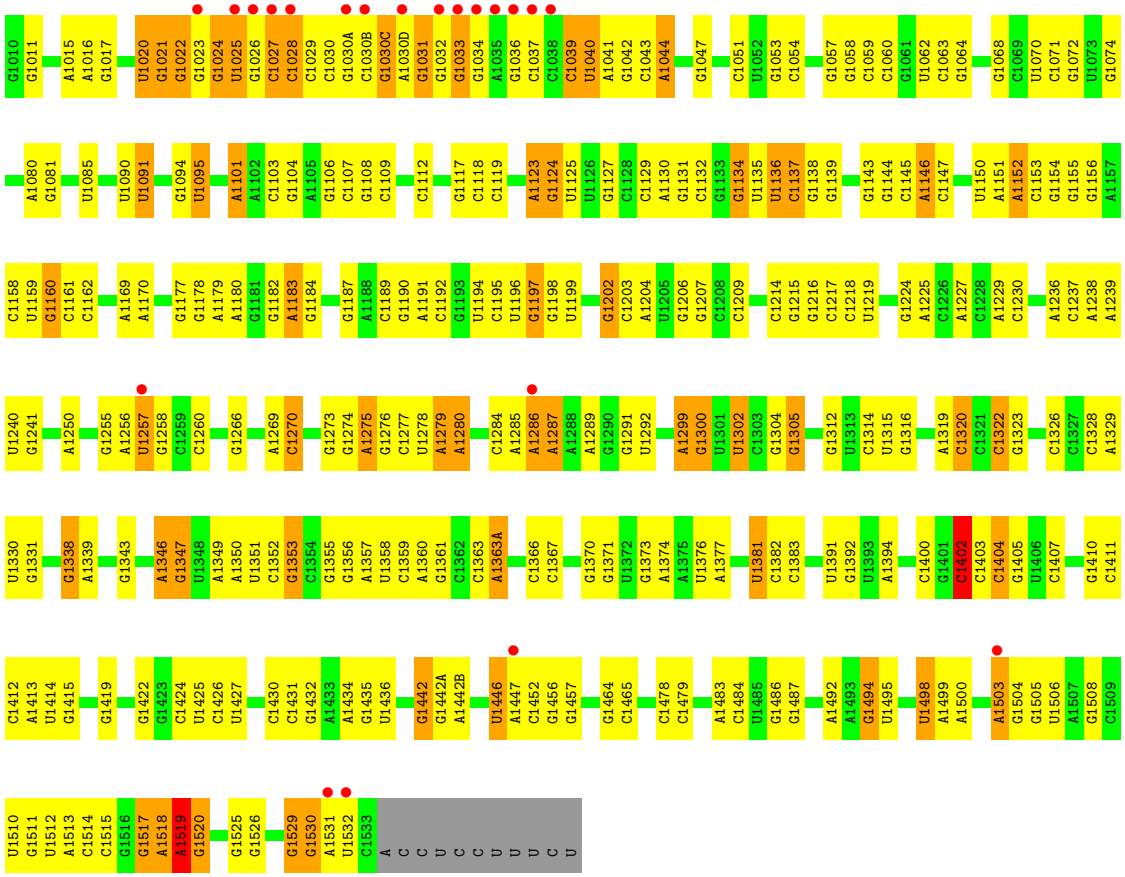
Chain 29:



• Molecule 32: 16S Ribosomal RNA

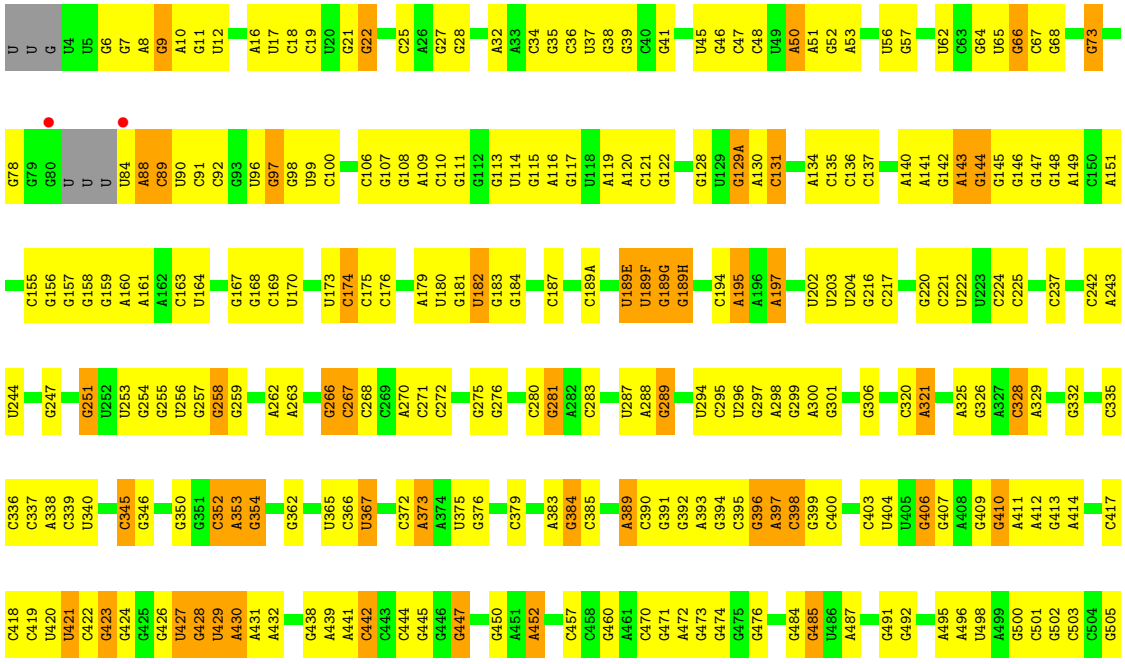
Chain 1a:

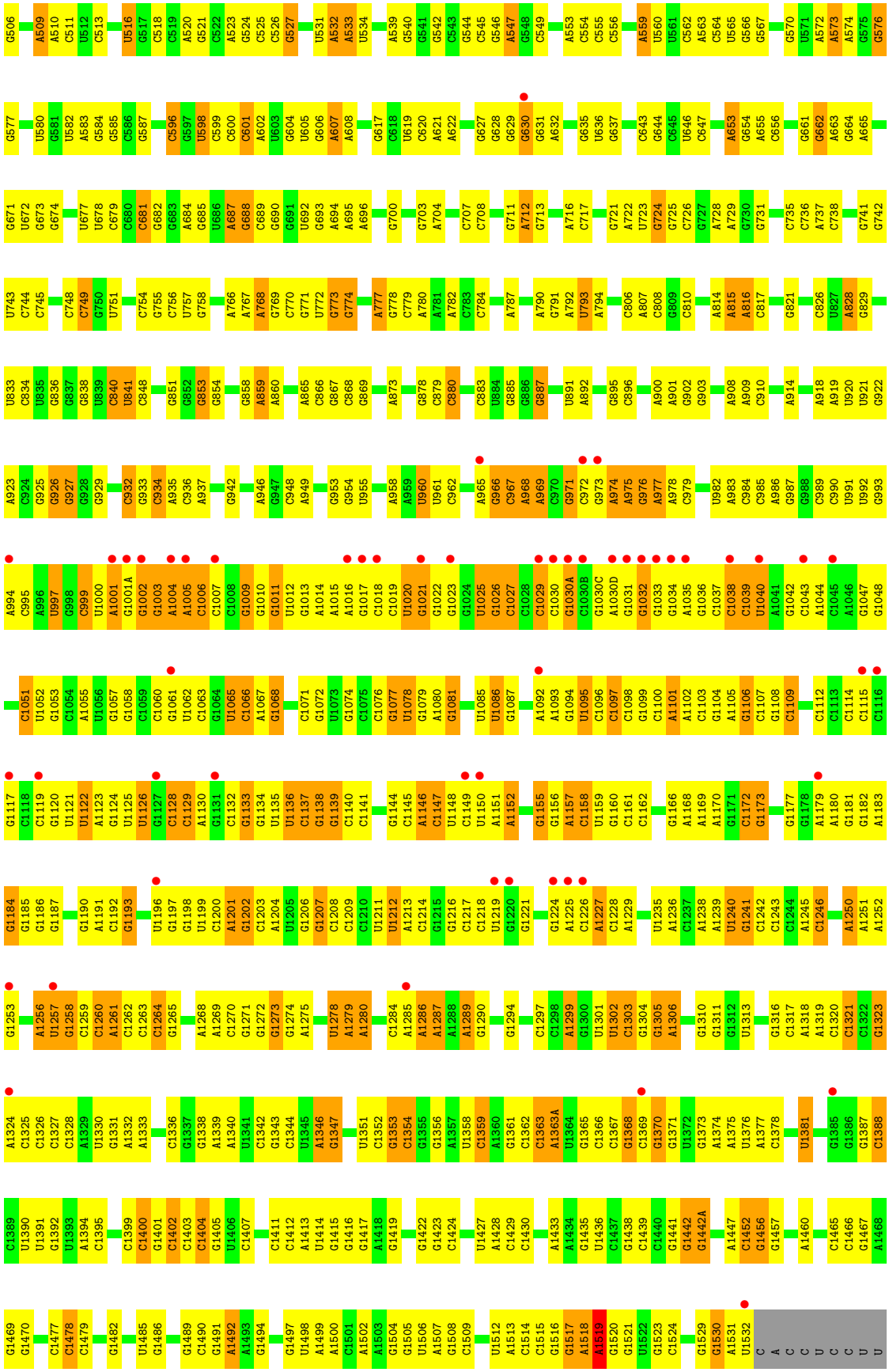




• Molecule 32: 16S Ribosomal RNA

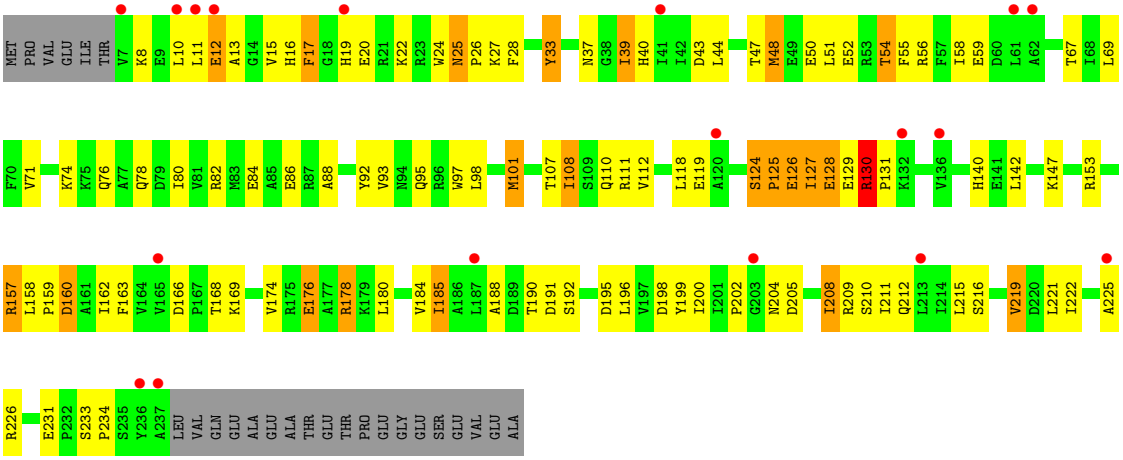
Chain 2a:




G506 A509 A510 C511 U512 C513 U516 G517 C518 C519 A520 G521 C522 A523 G524 C525 C526 G527 U531 A532 A533 U534 A539 G540 G541 G542 C543 G544 C545 G546 A547 G548 C549 A553 C554 C555 C556 A559 U560 U561 C562 A563 C564 U565 G566 G567 G570 U571 A572 A573 A574 G575 G576
G577 U580 G581 U582 A583 G584 G585 C586 G587 C596 G597 U598 C599 C600 C601 A602 U603 G604 U605 G606 A607 A608 G617 C618 U619 C620 A621 A622 G627 G628 G629 G630 G631 A632 G635 U636 G637 C643 G644 C645 U646 C647 A653 G654 A655 C656 G661 G662 A663 G664 A665
G671 U672 G673 G674 U677 U678 C679 C680 C681 G682 G683 A684 G685 U686 A687 G688 C689 G690 G691 U692 G693 A694 A695 A696 G700 G703 A704 C707 C708 G711 A712 G713 A716 C717 G721 A722 U723 G724 G725 C726 G727 A728 A729 G730 G731 C735 C736 A737 C738 G741 G742
U743 C744 C745 C748 C749 G750 U751 C754 G755 C756 U757 G758 A766 A767 A768 G769 C770 G771 U772 G773 G774 A777 G778 C779 A780 A781 A782 C783 C784 A787 A790 G791 A792 U793 A794 C806 A807 C808 G809 C810 A814 A815 A816 C817 G821 C826 U827 A828 G829
U833 C834 U835 G836 G837 G838 U839 C840 U841 C848 G851 G852 G853 G854 G858 A859 A860 A865 C866 G867 C868 G869 A873 G878 C879 C880 C883 U884 G885 G886 G887 U891 A892 G895 C896 A900 A901 G902 G903 A908 A909 C910 A914 A918 A919 U920 U921 G922
A923 C924 G925 G926 G927 G928 G929 C932 G933 C934 A935 C936 A937 G942 A946 G947 C948 A949 G953 G954 U955 A958 A959 U960 U961 C962 A965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 U982 A983 C984 C985 A986 G987 G988 C989 C990 U991 U992 G993
A994 C995 A996 U997 G998 C999 U1000 A1001 G1001A G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1011 U1012 G1013 A1014 A1015 A1016 G1017 C1018 C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030 G1030A C1030B G1030C A1030D G1031 G1032 G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 A1046 G1047 G1048
C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1071 G1072 U1073 G1074 C1075 C1076 G1077 U1078 G1079 A1080 G1081 U1085 U1086 G1087 A1092 A1093 G1094 U1095 C1096 C1097 C1098 G1099 C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 C1109 C1112 C1113 C1114 C1115 C1116
G1117 C1118 C1119 G1120 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 G1155 G1156 A1157 C1158 U1159 G1160 C1161 C1162 G1166 A1168 A1169 A1170 G1171 G1172 G1173 G1177 G1178 A1179 A1180 G1181 A1182 A1183
G1184 G1185 G1186 G1187 G1190 A1191 C1192 G1193 U1196 G1197 G1198 U1199 C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1220 G1221 G1224 A1225 C1226 A1227 C1228 A1229 U1235 A1236 C1237 A1238 A1239 U1240 G1241 C1242 C1243 C1244 A1245 C1246 A1250 A1251 A1252
G1253 A1256 U1257 G1258 C1259 C1260 A1261 C1262 C1263 C1264 G1265 A1268 A1269 C1270 G1271 G1272 G1273 A1274 A1275 U1278 A1279 A1280 C1284 A1285 A1286 A1287 A1288 A1289 G1290 G1294 C1297 C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 A1306 G1310 G1311 G1312 U1313 G1316 C1317 A1318 A1319 C1320 C1321 C1322 G1323
A1324 C1325 C1326 C1327 C1328 A1329 U1330 G1331 A1332 A1333 C1336 G1337 G1338 A1339 A1340 U1341 C1342 G1343 C1344 U1345 A1346 G1347 U1351 C1352 G1353 C1354 G1355 G1356 A1357 U1358 C1359 A1360 G1361 C1362 C1363 A1363A U1364 G1365 C1366 C1367 G1368 C1369 G1370 G1371 U1372 G1373 A1374 A1375 U1376 A1377 C1378 U1381 G1385 G1386 G1387 C1388
C1389 U1390 U1391 G1392 U1393 A1394 C1395 C1399 C1400 G1401 C1402 C1403 C1404 G1405 U1406 C1407 C1411 C1412 A1413 U1414 G1415 G1416 G1417 A1418 G1419 G1422 G1423 C1424 U1427 A1428 C1429 C1430 A1433 A1434 G1435 U1436 C1437 G1438 C1439 C1440 G1441 G1442 G1442A A1447 C1452 G1456 G1457 A1460 C1465 C1466 G1467 A1468
G1469 G1470 C1477 C1478 C1479 G1482 U1485 G1486 G1489 C1490 G1491 A1492 A1493 G1494 G1497 U1498 A1499 A1500 C1501 A1502 A1503 G1504 G1505 U1506 A1507 G1508 C1509 U1512 A1513 C1514 C1515 G1516 G1517 A1518 A1519 G1520 G1521 U1522 G1523 C1524 G1529 G1530 A1531 U1532 C A C C U C C U

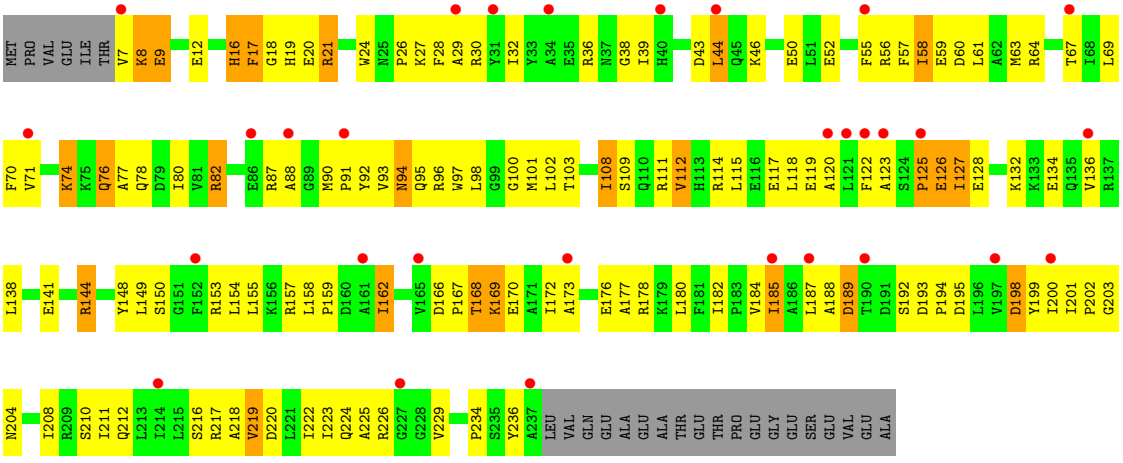
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



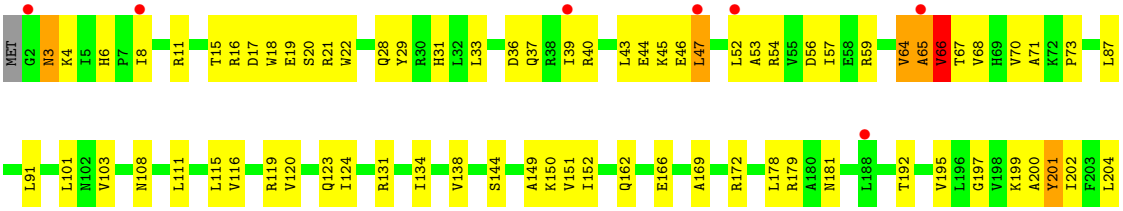
• Molecule 33: 30S ribosomal protein S2

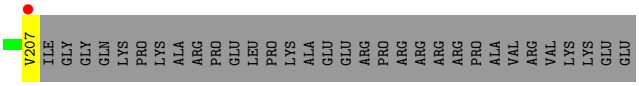
Chain 2b:



• Molecule 34: 30S ribosomal protein S3

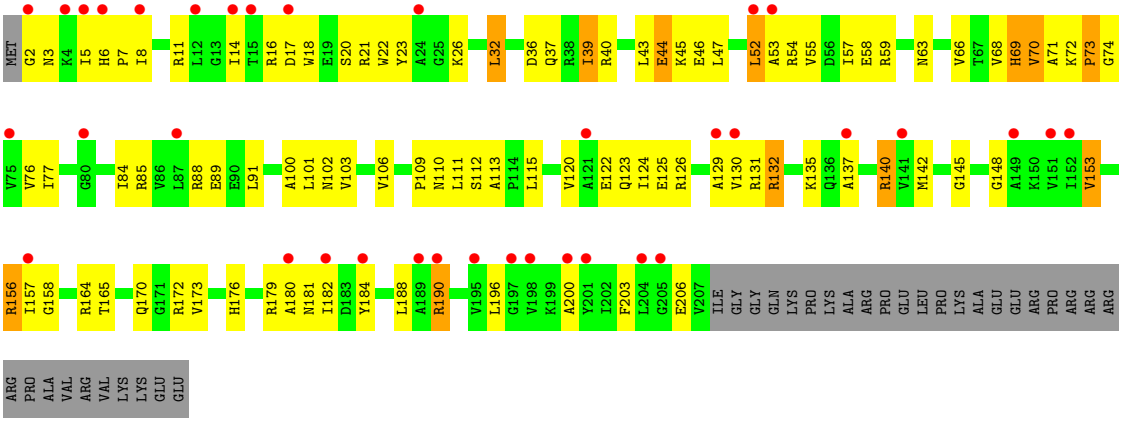
Chain 1c:





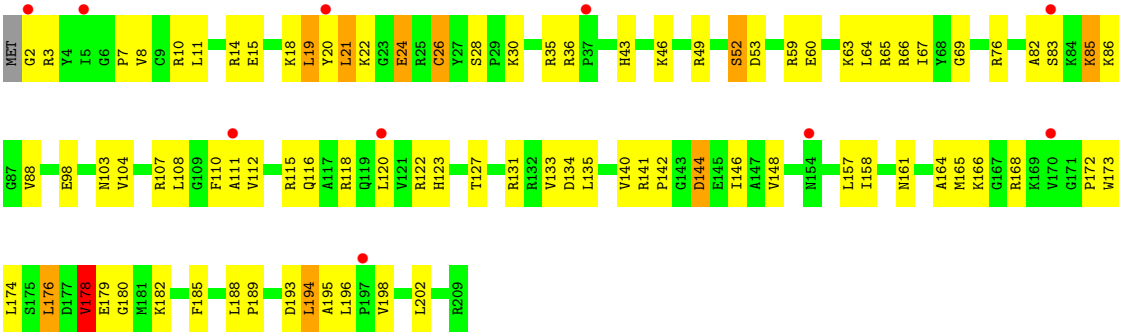
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



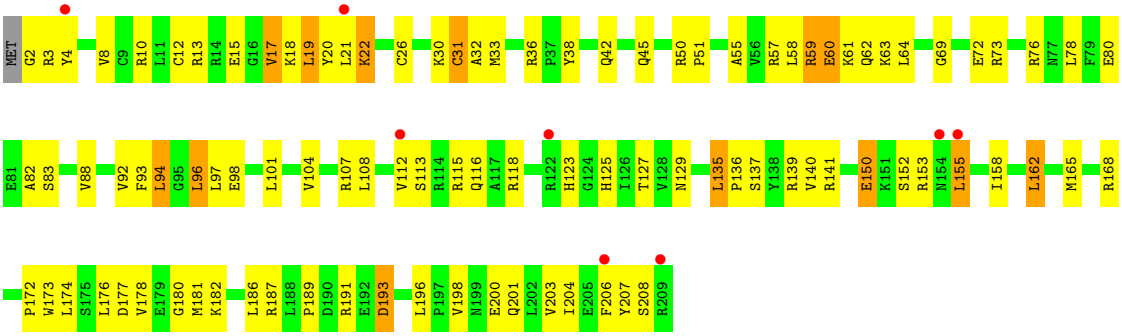
• Molecule 35: 30S ribosomal protein S4

Chain 1d:



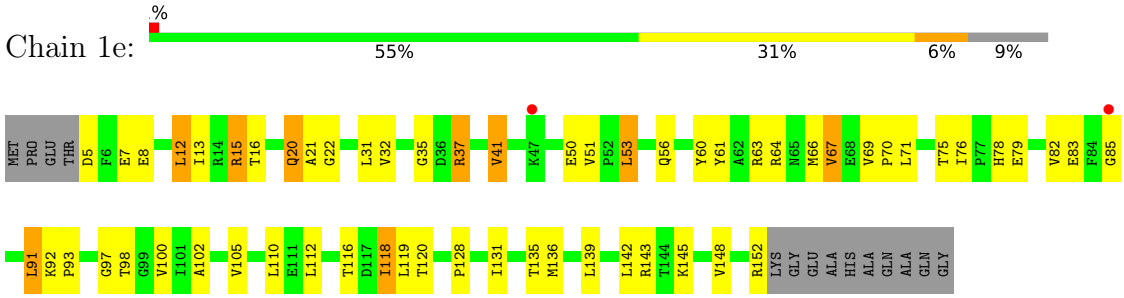
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



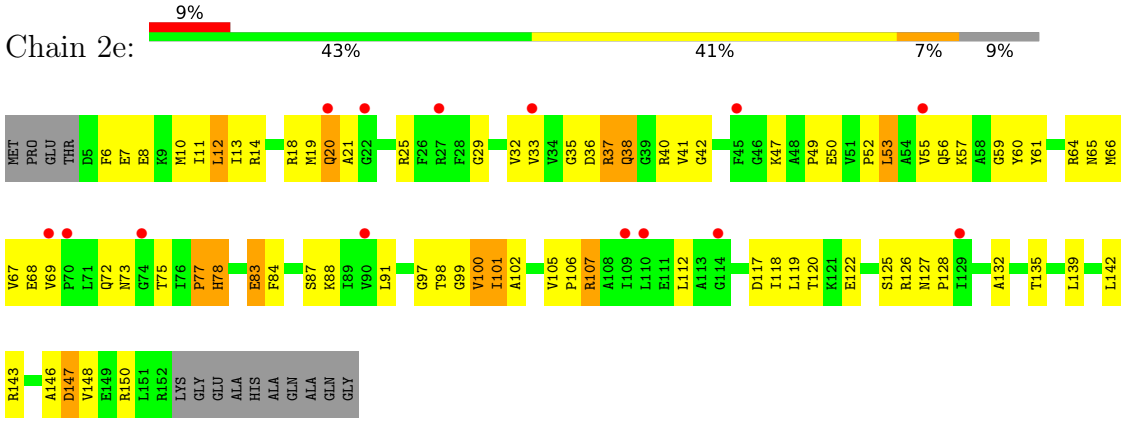
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



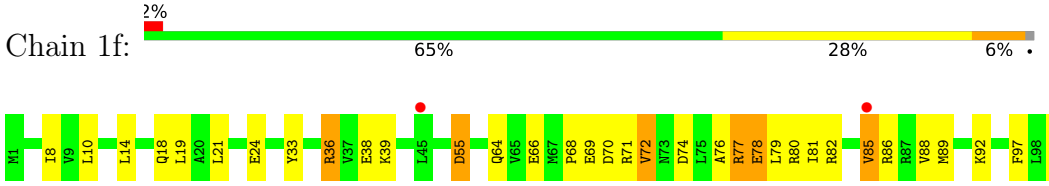
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



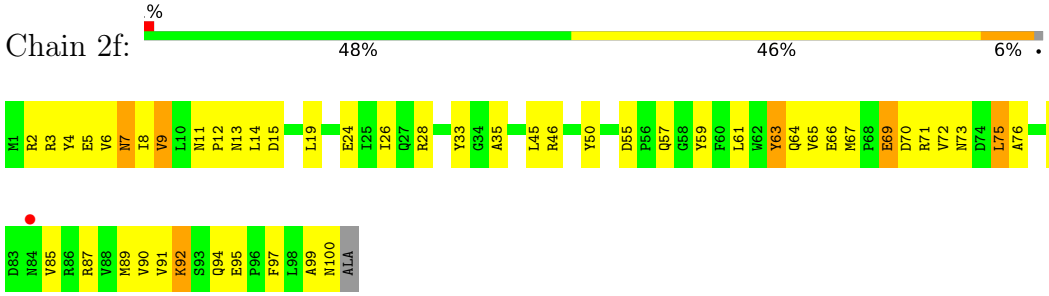
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



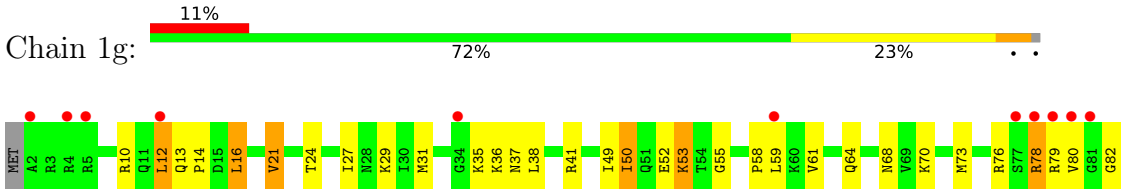
• Molecule 37: 30S ribosomal protein S6

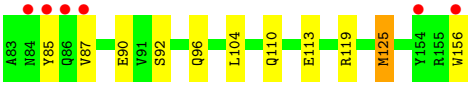
Chain 2f:



• Molecule 38: 30S ribosomal protein S7

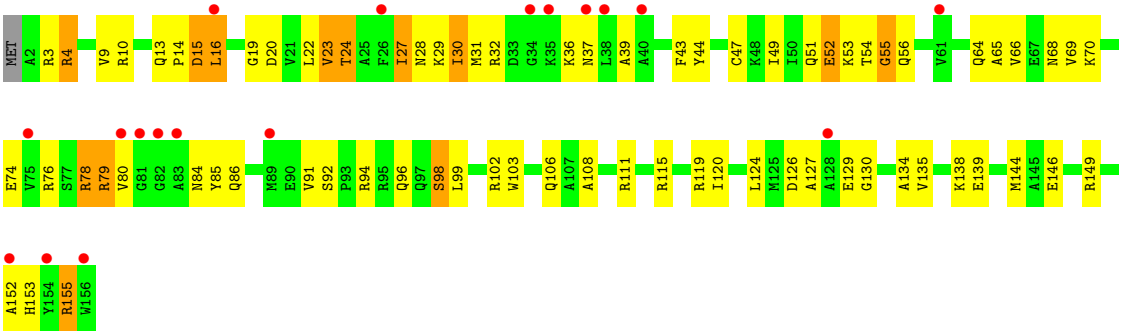
Chain 1g:





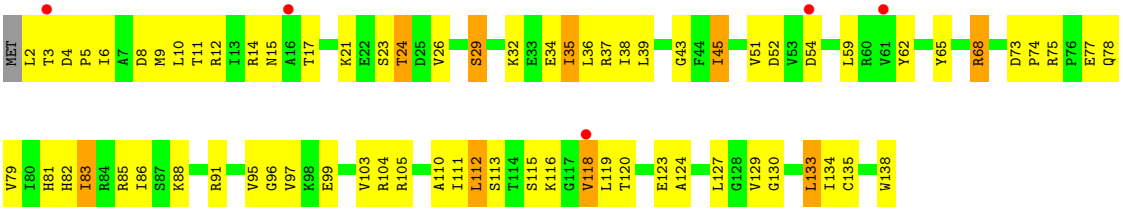
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



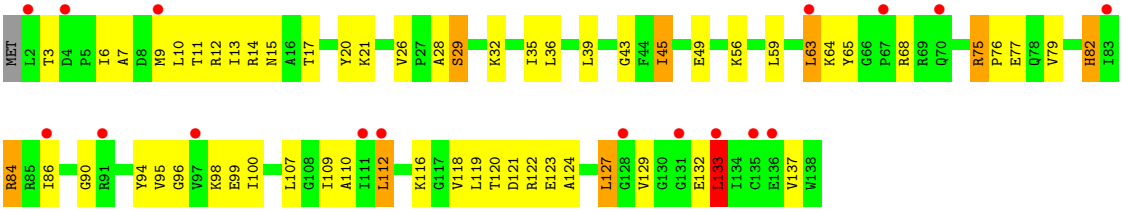
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



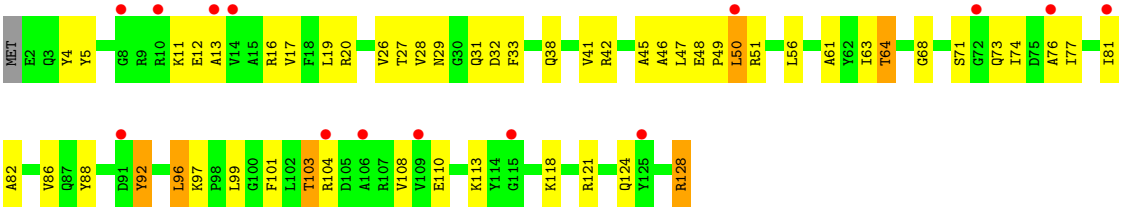
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



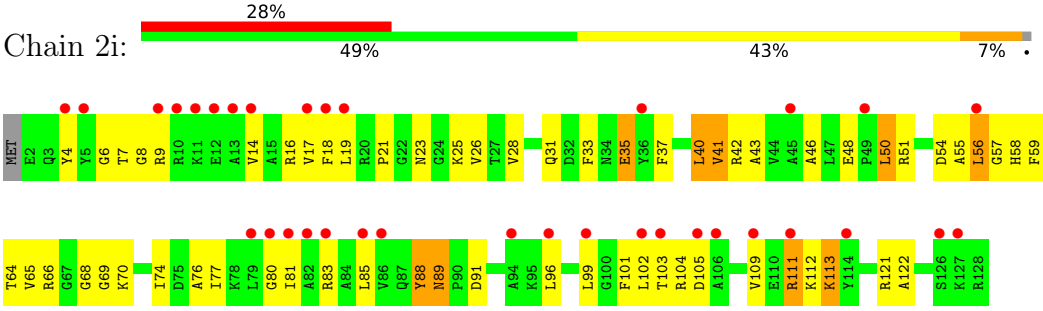
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



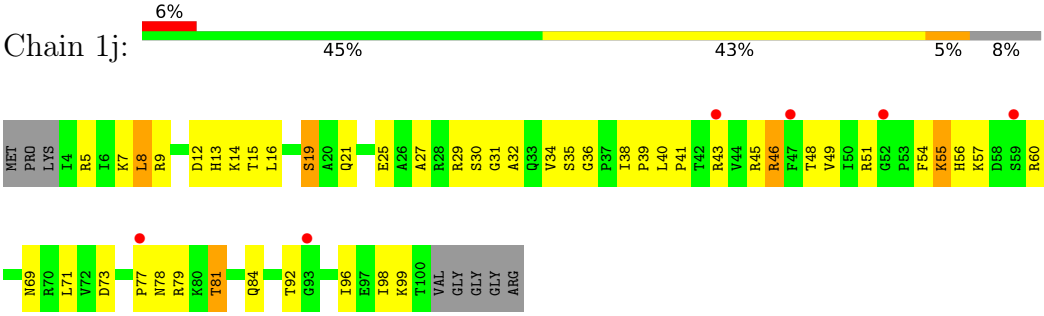
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



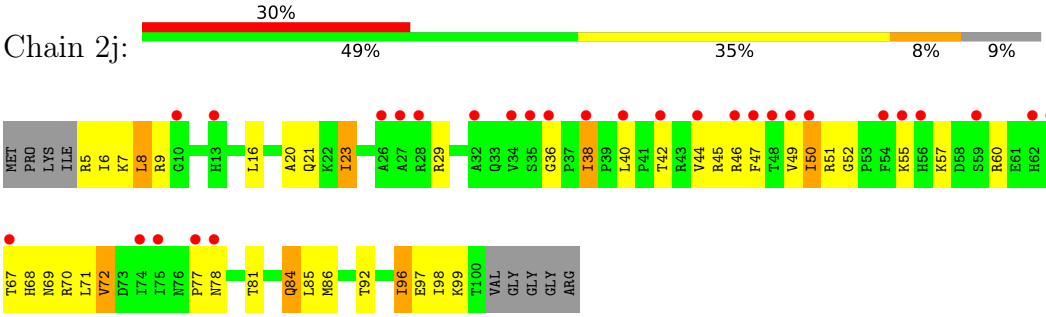
• Molecule 41: 30S ribosomal protein S10

Chain 1j:



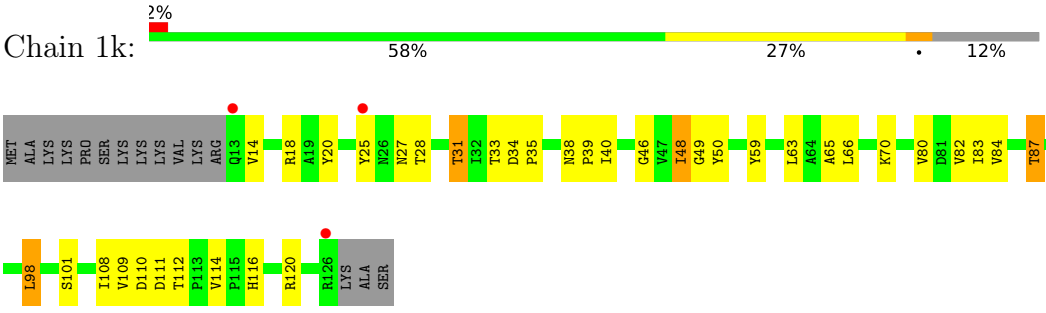
• Molecule 41: 30S ribosomal protein S10

Chain 2j:



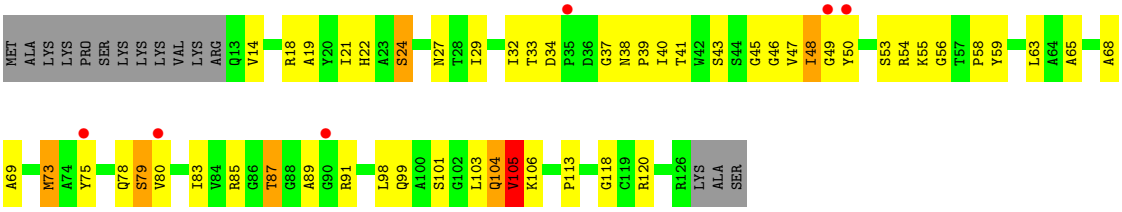
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



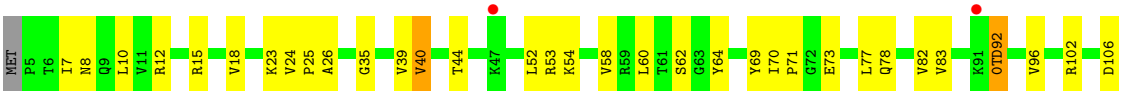
• Molecule 42: 30S ribosomal protein S11

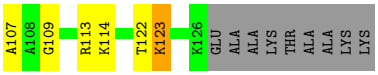
Chain 2k:



• Molecule 43: 30S ribosomal protein S12

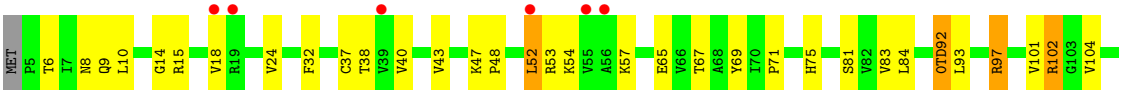
Chain 1l:

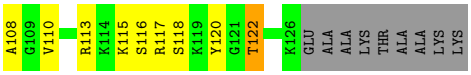




• Molecule 43: 30S ribosomal protein S12

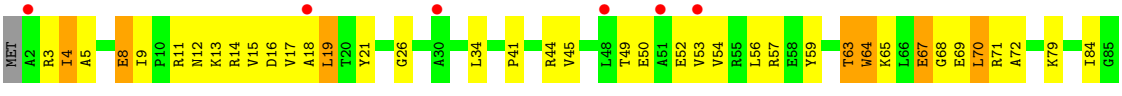
Chain 2l:

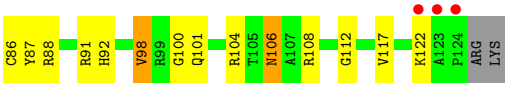




• Molecule 44: 30S ribosomal protein S13

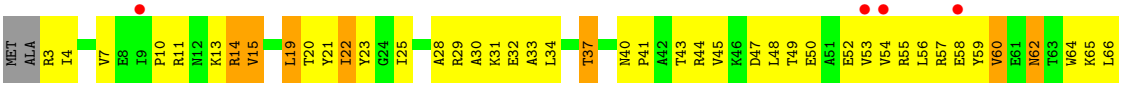
Chain 1m:

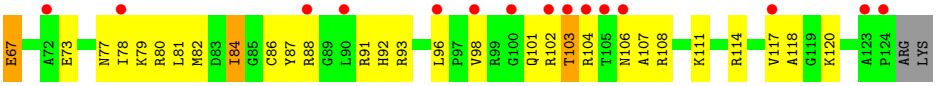




• Molecule 44: 30S ribosomal protein S13

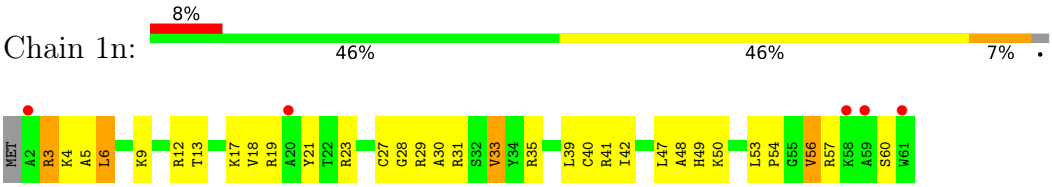
Chain 2m:





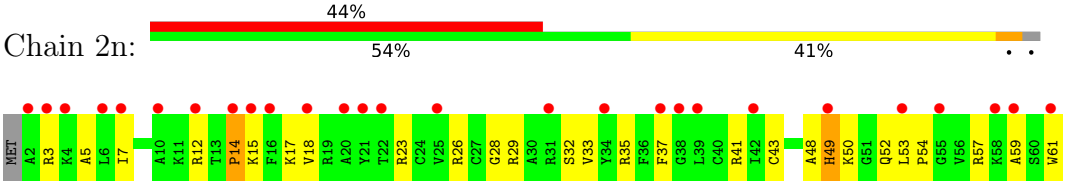
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:



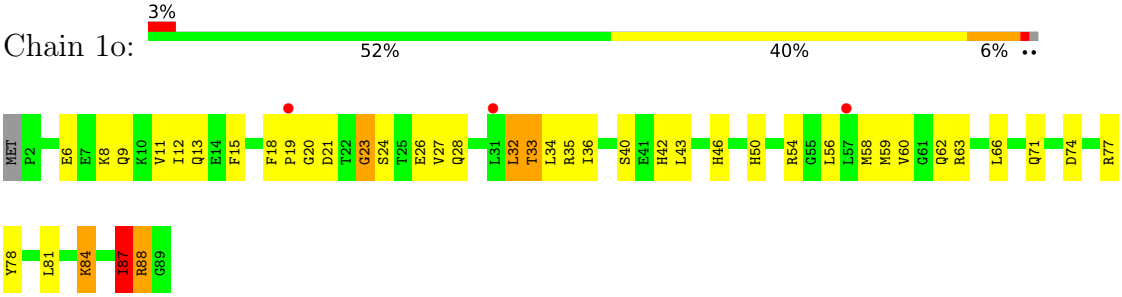
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:



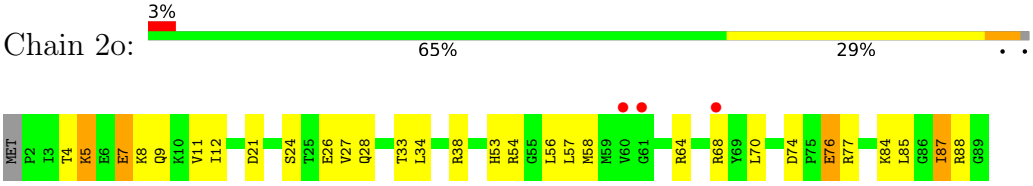
• Molecule 46: 30S ribosomal protein S15

Chain 1o:



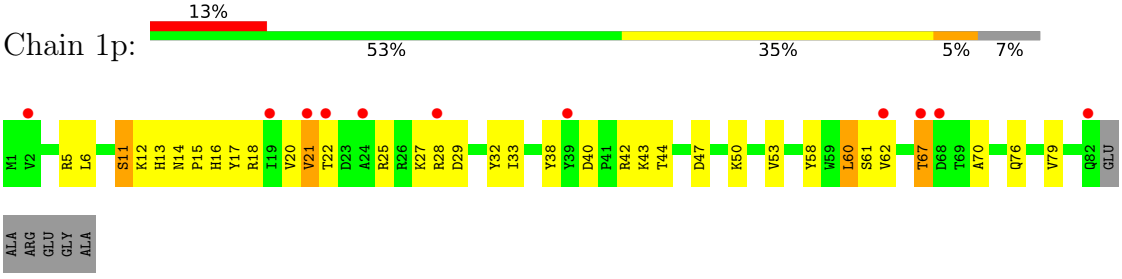
• Molecule 46: 30S ribosomal protein S15

Chain 2o:



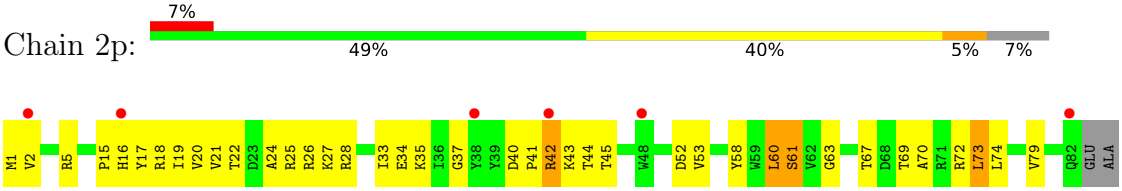
• Molecule 47: 30S ribosomal protein S16

Chain 1p:



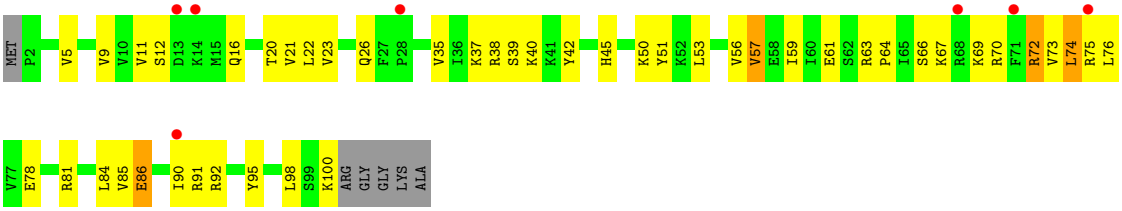
• Molecule 47: 30S ribosomal protein S16

Chain 2p:



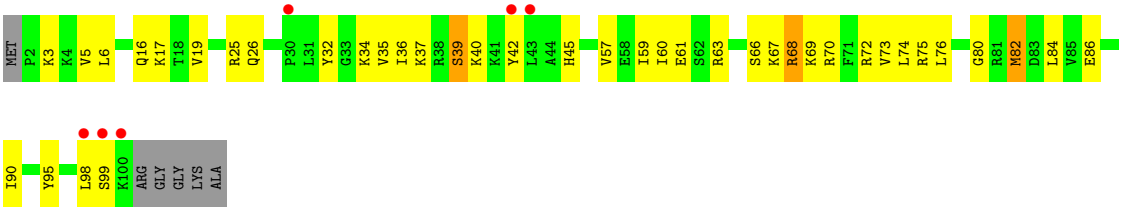
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



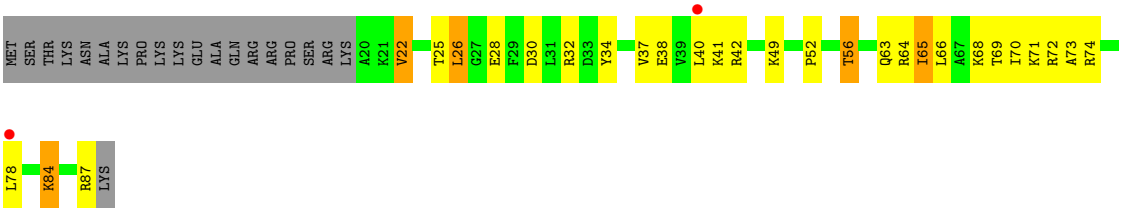
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



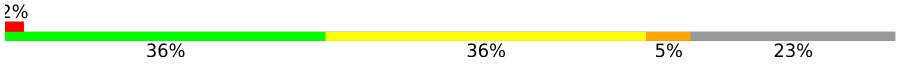
• Molecule 49: 30S ribosomal protein S18

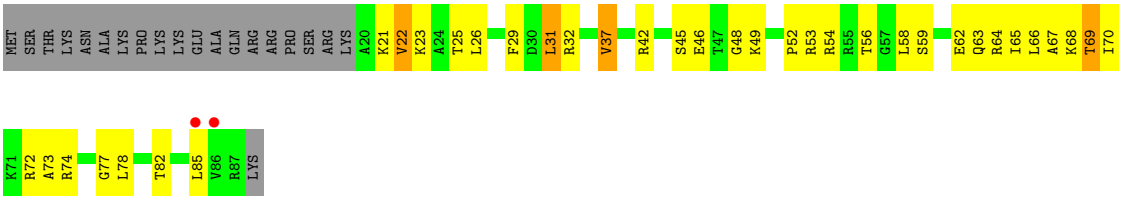
Chain 1r:



• Molecule 49: 30S ribosomal protein S18

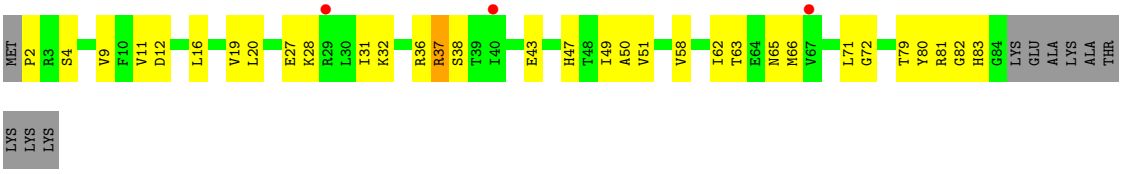
Chain 2r:



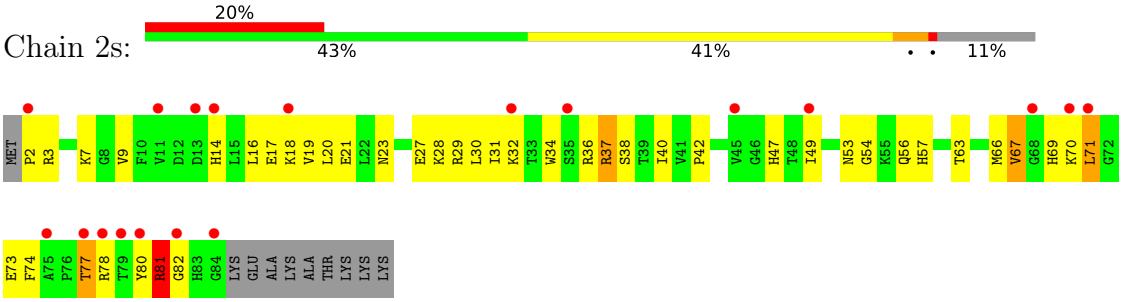


• Molecule 50: 30S ribosomal protein S19

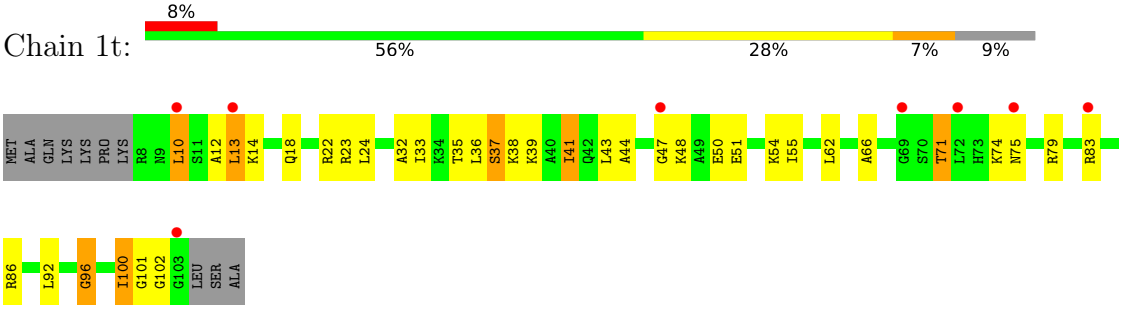
Chain 1s:



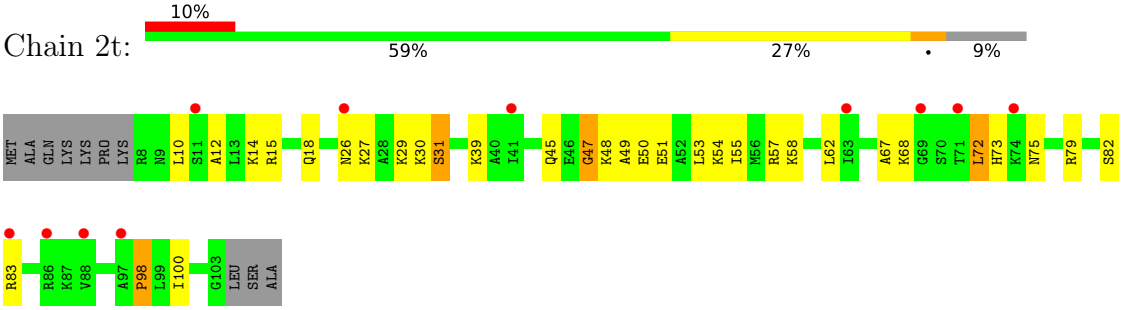
• Molecule 50: 30S ribosomal protein S19



• Molecule 51: 30S ribosomal protein S20

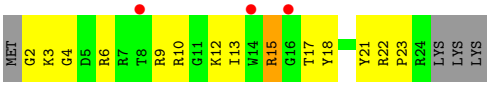


• Molecule 51: 30S ribosomal protein S20

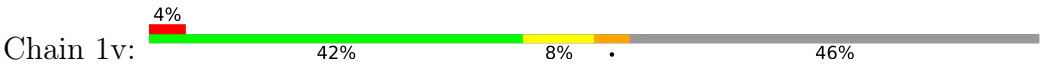


• Molecule 52: 30S ribosomal protein Thx

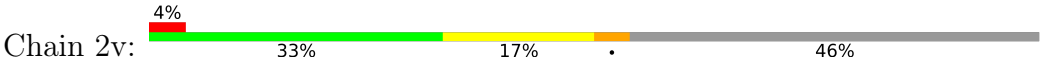
• Molecule 52: 30S ribosomal protein Thx

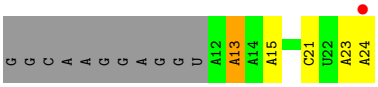


• Molecule 53: mRNA



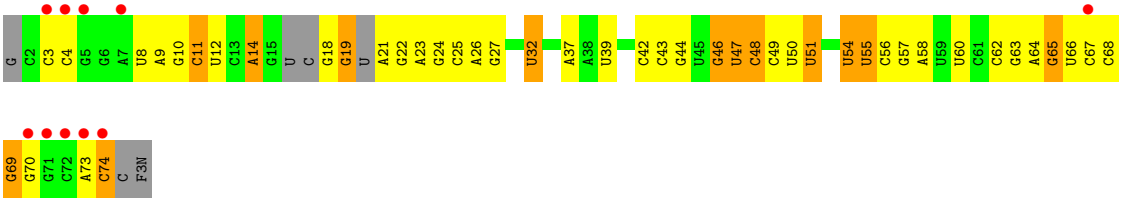
• Molecule 53: mRNA



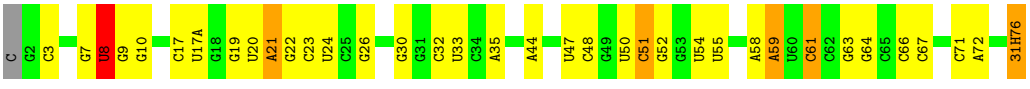


• Molecule 54: A-site tRNA

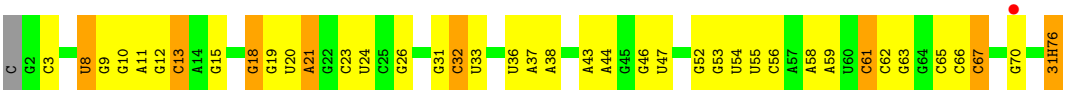
• Molecule 54: A-site tRNA



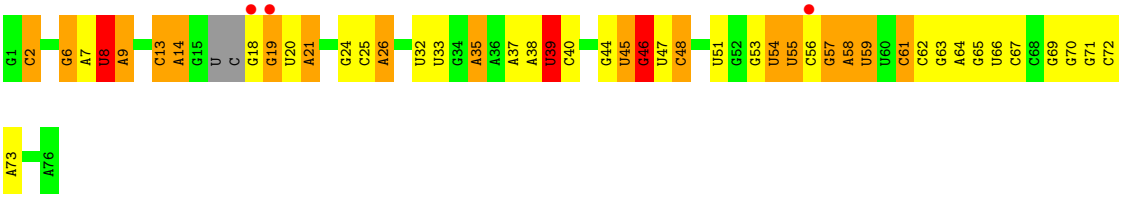
• Molecule 55: P-site tRNA



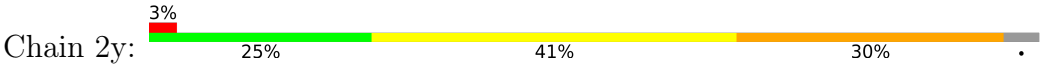
• Molecule 55: P-site tRNA

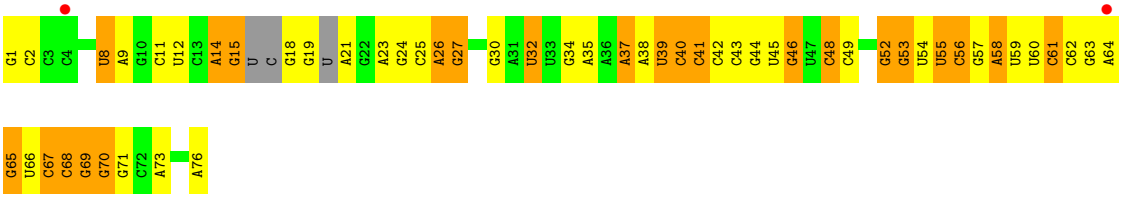


• Molecule 56: E-site tRNA



• Molecule 56: E-site tRNA





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.80Å 444.65Å 619.33Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	106.53 – 2.60 106.53 – 2.60	Depositor EDS
% Data completeness (in resolution range)	98.0 (106.53-2.60) 98.0 (106.53-2.60)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.22 (at 2.62Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.241 , 0.298 0.243 , 0.299	Depositor DCC
R_{free} test set	85661 reflections (4.92%)	wwPDB-VP
Wilson B-factor (Å^2)	54.5	Xtriage
Anisotropy	0.084	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 52.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.32$, $< L^2 > = 0.15$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	299665	wwPDB-VP
Average B, all atoms (Å^2)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.68% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MIA, 31H, 4OC, 5MC, PSU, UR3, M2G, K, OMG, MA6, 4SU, SF4, 0TD, 5MU, MG, OMU, 2MG, 7MG, 2MA, 6IF

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	1A	0.31	1/68984 (0.0%)	0.49	1/107673 (0.0%)
1	2A	0.23	0/67268	0.42	0/104995
2	1B	0.26	0/2882	0.45	0/4494
2	2B	0.21	0/2879	0.39	0/4487
3	1D	0.31	0/2186	0.55	0/2944
3	2D	0.24	0/2186	0.48	0/2944
4	1E	0.29	0/1592	0.51	0/2149
4	2E	0.23	0/1592	0.45	0/2149
5	1F	0.27	0/1619	0.52	0/2193
5	2F	0.24	0/1615	0.48	2/2188 (0.1%)
6	1G	0.23	0/1448	0.48	1/1957 (0.1%)
6	2G	0.21	0/1453	0.46	0/1963
7	1H	0.24	0/1356	0.44	0/1834
7	2H	0.20	0/1356	0.40	0/1834
8	1I	0.20	0/1112	0.43	0/1514
8	2I	0.21	0/1079	0.45	0/1475
9	1N	0.27	0/1144	0.49	0/1543
9	2N	0.20	0/1144	0.42	0/1543
10	1O	0.28	0/943	0.47	0/1269
10	2O	0.22	0/943	0.44	0/1269
11	1P	0.28	0/1152	0.59	0/1533
11	2P	0.23	0/1152	0.48	0/1533
12	1Q	0.29	0/1143	0.50	0/1527
12	2Q	0.21	0/1143	0.44	0/1527
13	1R	0.31	0/982	0.50	0/1312
13	2R	0.22	0/982	0.48	0/1312
14	1S	0.24	0/883	0.46	0/1176
14	2S	0.22	0/880	0.47	0/1172
15	1T	0.27	0/1105	0.51	0/1477
15	2T	0.21	0/1097	0.45	1/1468 (0.1%)
16	1U	0.31	0/977	0.48	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.23	0/977	0.44	0/1301
17	1V	0.28	0/782	0.54	0/1049
17	2V	0.20	0/782	0.43	0/1049
18	1W	0.33	0/897	0.50	0/1205
18	2W	0.23	0/897	0.41	0/1205
19	1X	0.28	0/764	0.55	2/1025 (0.2%)
19	2X	0.22	0/764	0.51	2/1025 (0.2%)
20	1Y	0.25	0/819	0.47	0/1095
20	2Y	0.21	0/819	0.42	0/1095
21	1Z	0.25	0/1267	0.53	0/1717
21	2Z	0.22	0/1299	0.47	0/1763
22	10	0.30	0/662	0.55	0/881
22	20	0.23	0/662	0.45	0/881
23	11	0.29	0/762	0.46	0/1014
23	21	0.23	0/762	0.44	0/1014
24	12	0.29	0/590	0.49	0/781
24	22	0.20	0/590	0.40	0/781
25	13	0.29	0/474	0.48	0/635
25	23	0.21	0/469	0.45	0/630
26	14	0.26	0/565	0.57	0/761
26	24	0.25	0/545	0.52	0/737
27	15	0.29	0/469	0.53	0/635
27	25	0.24	0/469	0.47	0/635
28	16	0.32	0/460	0.56	0/613
28	26	0.25	0/456	0.47	0/608
29	17	0.31	0/426	0.53	0/561
29	27	0.27	0/426	0.50	0/561
30	18	0.28	0/525	0.52	0/691
30	28	0.21	0/525	0.39	0/691
31	19	0.27	0/310	0.49	0/407
31	29	0.20	0/310	0.40	0/407
32	1a	0.22	0/35795	0.41	0/55864
32	2a	0.21	0/35886	0.40	0/56005
33	1b	0.21	0/1881	0.49	0/2542
33	2b	0.23	0/1860	0.52	1/2518 (0.0%)
34	1c	0.20	0/1572	0.45	0/2126
34	2c	0.22	0/1566	0.46	0/2119
35	1d	0.20	0/1685	0.44	0/2262
35	2d	0.21	0/1704	0.45	0/2284
36	1e	0.22	0/1145	0.47	0/1543
36	2e	0.20	0/1149	0.47	0/1548
37	1f	0.21	0/823	0.42	0/1115
37	2f	0.21	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.19	0/1250	0.41	0/1679
38	2g	0.20	0/1254	0.43	0/1683
39	1h	0.22	0/1108	0.45	0/1494
39	2h	0.18	0/1108	0.41	0/1494
40	1i	0.20	0/1002	0.50	0/1346
40	2i	0.20	0/997	0.47	0/1343
41	1j	0.27	0/722	0.50	0/982
41	2j	0.23	0/727	0.49	0/988
42	1k	0.21	0/844	0.44	0/1145
42	2k	0.19	0/848	0.42	0/1149
43	1l	0.23	0/937	0.46	0/1260
43	2l	0.20	0/937	0.44	0/1260
44	1m	0.22	0/969	0.50	0/1302
44	2m	0.24	0/961	0.54	1/1291 (0.1%)
45	1n	0.23	0/501	0.45	0/664
45	2n	0.22	0/501	0.44	0/664
46	1o	0.21	0/739	0.39	0/985
46	2o	0.18	0/739	0.40	0/985
47	1p	0.24	0/697	0.51	0/939
47	2p	0.20	0/693	0.46	0/935
48	1q	0.20	0/836	0.42	0/1117
48	2q	0.20	0/836	0.46	0/1117
49	1r	0.20	0/560	0.45	0/746
49	2r	0.19	0/560	0.41	0/746
50	1s	0.23	0/667	0.53	0/900
50	2s	0.24	0/661	0.57	0/893
51	1t	0.21	0/730	0.46	0/965
51	2t	0.22	0/729	0.45	0/965
52	1u	0.19	0/203	0.42	0/266
52	2u	0.22	0/203	0.48	0/266
53	1v	0.23	0/310	0.38	0/480
53	2v	0.19	0/310	0.39	0/480
54	1w	0.28	1/1559 (0.1%)	0.45	0/2424
54	2w	0.27	0/1509	0.45	0/2345
55	1x	0.31	0/1700	0.44	0/2650
55	2x	0.26	0/1700	0.41	0/2650
56	1y	0.25	1/1606 (0.1%)	0.45	0/2497
56	2y	0.25	1/1583 (0.1%)	0.43	0/2459
All	All	0.25	4/316492 (0.0%)	0.45	11/473811 (0.0%)

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
33	1b	0	2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	O3'-P	5.17	1.61	1.56
56	1y	8	4SU	O3'-P	5.15	1.61	1.56
56	2y	8	4SU	O3'-P	5.04	1.61	1.56
54	1w	8	4SU	O3'-P	5.04	1.61	1.56

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	2m	84	ILE	N-CA-C	-6.67	104.65	112.98
1	1A	1992	G	C2'-C3'-O3'	6.44	119.16	109.50
33	2b	12	GLU	N-CA-C	-6.17	107.58	114.62
6	1G	48	GLU	N-CA-C	-5.78	108.03	114.62
5	2F	21	ALA	CA-C-N	5.58	131.75	121.70
5	2F	21	ALA	C-N-CA	5.58	131.75	121.70
19	2X	94	GLY	CA-C-N	5.40	131.43	121.70
19	2X	94	GLY	C-N-CA	5.40	131.43	121.70
15	2T	102	ILE	N-CA-C	-5.36	106.29	112.98
19	1X	94	GLY	CA-C-N	5.11	130.89	121.70
19	1X	94	GLY	C-N-CA	5.11	130.89	121.70

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	1b	125	PRO	Peptide
33	1b	130	ARG	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	1A	61854	0	31192	1063	0
1	2A	60324	0	30421	1224	0
2	1B	2577	0	1305	43	0
2	2B	2575	0	1303	66	0
3	1D	2136	0	2218	56	0
3	2D	2136	0	2218	55	0
4	1E	1559	0	1618	50	0
4	2E	1559	0	1618	53	0
5	1F	1584	0	1624	57	0
5	2F	1580	0	1619	65	0
6	1G	1423	0	1436	53	0
6	2G	1428	0	1438	60	0
7	1H	1330	0	1407	38	0
7	2H	1330	0	1407	40	0
8	1I	1097	0	1140	38	0
8	2I	1064	0	1082	59	0
9	1N	1117	0	1184	27	0
9	2N	1117	0	1184	33	0
10	1O	933	0	996	24	0
10	2O	933	0	996	36	0
11	1P	1135	0	1212	56	0
11	2P	1135	0	1212	47	0
12	1Q	1122	0	1179	33	0
12	2Q	1122	0	1179	47	0
13	1R	968	0	1033	26	0
13	2R	968	0	1033	45	0
14	1S	873	0	927	27	0
14	2S	870	0	923	50	0
15	1T	1091	0	1151	25	0
15	2T	1083	0	1136	39	0
16	1U	959	0	1018	17	0
16	2U	959	0	1019	29	0
17	1V	771	0	829	17	0
17	2V	771	0	830	25	0
18	1W	886	0	940	24	0
18	2W	886	0	940	22	0
19	1X	750	0	814	17	0
19	2X	750	0	814	23	0
20	1Y	806	0	881	28	0
20	2Y	806	0	881	24	0
21	1Z	1240	0	1240	43	0
21	2Z	1271	0	1273	53	0
22	10	653	0	674	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	20	653	0	674	20	0
23	11	755	0	826	19	0
23	21	755	0	826	24	0
24	12	588	0	643	20	0
24	22	588	0	643	18	0
25	13	469	0	518	16	0
25	23	464	0	514	11	0
26	14	552	0	533	32	0
26	24	532	0	503	33	0
27	15	455	0	465	13	0
27	25	455	0	465	10	0
28	16	453	0	473	18	0
28	26	449	0	469	18	0
29	17	418	0	467	15	0
29	27	418	0	467	21	0
30	18	517	0	582	20	0
30	28	517	0	582	27	0
31	19	307	0	335	9	0
31	29	307	0	335	12	0
32	1a	32246	0	16294	602	0
32	2a	32327	0	16338	736	0
33	1b	1846	0	1867	79	0
33	2b	1825	0	1828	98	0
34	1c	1548	0	1535	52	0
34	2c	1542	0	1517	81	0
35	1d	1655	0	1672	58	0
35	2d	1674	0	1714	84	0
36	1e	1129	0	1185	44	0
36	2e	1133	0	1191	67	0
37	1f	810	0	804	23	0
37	2f	816	0	808	42	0
38	1g	1231	0	1238	31	0
38	2g	1235	0	1249	61	0
39	1h	1088	0	1126	61	0
39	2h	1088	0	1126	48	0
40	1i	983	0	986	44	0
40	2i	978	0	966	49	0
41	1j	709	0	650	41	0
41	2j	714	0	672	36	0
42	1k	829	0	825	25	0
42	2k	833	0	836	33	0
43	1l	932	0	981	24	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	2l	932	0	980	28	0
44	1m	958	0	1002	43	0
44	2m	950	0	988	55	0
45	1n	492	0	529	31	0
45	2n	492	0	529	28	0
46	1o	728	0	760	24	0
46	2o	728	0	760	22	0
47	1p	681	0	697	25	0
47	2p	677	0	686	27	0
48	1q	823	0	891	33	0
48	2q	823	0	891	27	0
49	1r	555	0	618	21	0
49	2r	555	0	618	32	0
50	1s	652	0	662	27	0
50	2s	646	0	644	32	0
51	1t	728	0	798	27	0
51	2t	727	0	796	23	0
52	1u	199	0	208	9	0
52	2u	199	0	208	16	0
53	1v	277	0	140	3	0
53	2v	277	0	140	6	0
54	1w	1550	0	796	24	0
54	2w	1502	0	766	26	0
55	1x	1635	0	839	16	0
55	2x	1635	0	839	26	0
56	1y	1585	0	804	28	0
56	2y	1565	0	795	34	0
57	10	9	0	0	0	0
57	11	6	0	0	0	0
57	12	2	0	0	0	0
57	13	8	0	0	0	0
57	14	1	0	0	0	0
57	15	9	0	0	0	0
57	16	1	0	0	0	0
57	17	8	0	0	0	0
57	18	5	0	0	0	0
57	19	1	0	0	0	0
57	1A	1087	0	0	0	0
57	1B	34	0	0	0	0
57	1D	12	0	0	0	0
57	1E	14	0	0	0	0
57	1F	15	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	1G	5	0	0	0	0
57	1I	1	0	0	0	0
57	1N	6	0	0	0	0
57	1O	4	0	0	0	0
57	1P	5	0	0	0	0
57	1Q	6	0	0	0	0
57	1R	6	0	0	0	0
57	1S	3	0	0	0	0
57	1T	5	0	0	0	0
57	1U	9	0	0	0	0
57	1V	6	0	0	0	0
57	1W	10	0	0	0	0
57	1X	7	0	0	0	0
57	1Y	3	0	0	0	0
57	1Z	5	0	0	0	0
57	1a	211	0	0	0	0
57	1b	1	0	0	0	0
57	1e	1	0	0	0	0
57	1f	2	0	0	0	0
57	1h	1	0	0	0	0
57	1k	1	0	0	0	0
57	1l	2	0	0	0	0
57	1m	1	0	0	0	0
57	1n	2	0	0	0	0
57	1p	1	0	0	0	0
57	1t	1	0	0	0	0
57	1v	2	0	0	0	0
57	1w	9	0	0	0	0
57	1x	15	0	0	0	0
57	1y	1	0	0	0	0
57	20	2	0	0	0	0
57	21	2	0	0	0	0
57	23	2	0	0	0	0
57	25	4	0	0	0	0
57	26	1	0	0	0	0
57	27	2	0	0	0	0
57	28	3	0	0	0	0
57	2A	855	0	0	0	0
57	2B	19	0	0	0	0
57	2D	5	0	0	0	0
57	2E	8	0	0	0	0
57	2F	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2G	1	0	0	0	0
57	2N	1	0	0	0	0
57	2O	1	0	0	0	0
57	2P	3	0	0	0	0
57	2Q	2	0	0	0	0
57	2R	2	0	0	0	0
57	2T	5	0	0	0	0
57	2U	2	0	0	0	0
57	2V	2	0	0	0	0
57	2X	3	0	0	0	0
57	2Z	1	0	0	0	0
57	2a	230	0	0	0	0
57	2d	1	0	0	0	0
57	2e	1	0	0	0	0
57	2f	2	0	0	0	0
57	2g	1	0	0	0	0
57	2j	1	0	0	0	0
57	2k	1	0	0	0	0
57	2l	4	0	0	0	0
57	2m	1	0	0	0	0
57	2q	2	0	0	0	0
57	2r	1	0	0	0	0
57	2t	1	0	0	0	0
57	2v	2	0	0	0	0
57	2w	9	0	0	0	0
57	2x	6	0	0	0	0
57	2y	6	0	0	0	0
58	1A	1	0	0	0	0
58	2A	1	0	0	0	0
59	1A	32	0	0	3	0
59	2A	32	0	0	3	0
60	14	1	0	0	0	0
60	15	1	0	0	0	0
60	16	1	0	0	0	0
60	19	1	0	0	0	0
60	1Y	1	0	0	0	0
60	1n	1	0	0	0	0
60	24	1	0	0	0	0
60	25	1	0	0	0	0
60	26	1	0	0	0	0
60	29	1	0	0	0	0
60	2Y	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2n	1	0	0	0	0
61	1d	8	0	0	3	0
61	2d	8	0	0	6	0
62	10	11	0	0	0	0
62	11	13	0	0	0	0
62	12	4	0	0	0	0
62	13	3	0	0	0	0
62	14	1	0	0	0	0
62	15	5	0	0	0	0
62	16	3	0	0	1	0
62	17	10	0	0	1	0
62	18	9	0	0	0	0
62	19	1	0	0	0	0
62	1A	1910	0	0	158	0
62	1B	61	0	0	4	0
62	1D	28	0	0	1	0
62	1E	29	0	0	4	0
62	1F	18	0	0	2	0
62	1G	2	0	0	1	0
62	1H	1	0	0	0	0
62	1I	1	0	0	0	0
62	1N	6	0	0	2	0
62	1O	4	0	0	0	0
62	1P	24	0	0	3	0
62	1Q	8	0	0	1	0
62	1R	11	0	0	2	0
62	1S	6	0	0	0	0
62	1T	7	0	0	0	0
62	1U	13	0	0	1	0
62	1V	8	0	0	0	0
62	1W	7	0	0	1	0
62	1X	6	0	0	0	0
62	1Y	3	0	0	1	0
62	1Z	1	0	0	0	0
62	1a	313	0	0	36	0
62	1b	1	0	0	0	0
62	1e	1	0	0	1	0
62	1j	1	0	0	0	0
62	1l	5	0	0	0	0
62	1m	2	0	0	0	0
62	1n	1	0	0	0	0
62	1q	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	1u	1	0	0	0	0
62	1v	4	0	0	0	0
62	1w	9	0	0	0	0
62	1x	12	0	0	1	0
62	1y	1	0	0	0	0
62	20	4	0	0	0	0
62	21	8	0	0	1	0
62	23	1	0	0	0	0
62	25	1	0	0	0	0
62	27	4	0	0	0	0
62	28	2	0	0	0	0
62	29	1	0	0	0	0
62	2A	1010	0	0	120	0
62	2B	21	0	0	1	0
62	2D	15	0	0	2	0
62	2E	12	0	0	3	0
62	2F	13	0	0	1	0
62	2I	2	0	0	0	0
62	2O	2	0	0	0	0
62	2P	10	0	0	1	0
62	2Q	1	0	0	0	0
62	2R	3	0	0	0	0
62	2T	5	0	0	1	0
62	2U	3	0	0	0	0
62	2W	1	0	0	0	0
62	2X	3	0	0	1	0
62	2Y	1	0	0	0	0
62	2a	181	0	0	21	0
62	2d	1	0	0	0	0
62	2j	3	0	0	0	0
62	2l	5	0	0	1	0
62	2p	3	0	0	0	0
62	2q	1	0	0	0	0
62	2r	1	0	0	1	0
62	2t	2	0	0	0	0
62	2v	4	0	0	0	0
62	2w	1	0	0	0	0
62	2x	3	0	0	1	0
62	2y	4	0	0	0	0
All	All	299665	0	196656	6412	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 14.

All (6412) 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)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.29	1.30
1:1A:2106:G:H1	1:1A:2183:C:N4	1.54	1.06
35:1d:26:CYS:HB3	61:1d:501:SF4:S1	1.94	1.06
1:1A:1082:U:O4	1:1A:1086:A:N1	1.93	1.01
1:1A:1054:A:N6	1:1A:1105:U:H3	1.58	1.01
32:1a:1004:A:N6	32:1a:1037:C:N3	2.10	0.98
1:1A:1054:A:H61	1:1A:1105:U:H3	1.00	0.98
1:1A:1055:G:H1	1:1A:1104:C:H42	1.13	0.96
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.48	0.95
1:1A:2100:G:H1	1:1A:2189:U:H3	1.06	0.95
32:2a:1055:A:N7	32:2a:1200:C:N4	2.15	0.95
1:2A:2099:U:H3	1:2A:2190:G:H1	1.01	0.94
1:1A:2427:C:OP1	62:1A:4110:HOH:O	1.84	0.93
32:2a:1029:C:N4	32:2a:1032:G:H1	1.66	0.93
1:1A:2128:C:N4	1:1A:2160:G:H1	1.66	0.93
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.52	0.92
1:2A:2343:C:HO2'	1:2A:2373:G:HO2'	1.15	0.91
1:1A:2096:U:H3	1:1A:2193:G:H1	1.09	0.91
32:1a:1027:C:C2	32:1a:1034:G:N2	2.40	0.90
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.09	0.90
1:1A:763:G:OP1	62:1A:4111:HOH:O	1.89	0.90
1:1A:2128:C:N3	1:1A:2160:G:N2	2.20	0.90
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.54	0.88
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.07	0.88
11:1P:42:SER:O	62:1P:302:HOH:O	1.92	0.87
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.57	0.87
21:1Z:153:SER:HB3	21:1Z:167:PRO:HB3	1.56	0.87
1:1A:2136:C:N3	1:1A:2155:G:C2	2.43	0.86
32:2a:1029:C:N3	32:2a:1032:G:N2	2.22	0.86
1:1A:1039:G:H1	1:1A:1116:C:H42	1.23	0.86
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.57	0.86
32:2a:1029:C:N4	32:2a:1032:G:N1	2.23	0.86
1:1A:2499:C:OP1	62:1A:4112:HOH:O	1.90	0.86
1:1A:792:G:O6	62:1A:4113:HOH:O	1.93	0.86
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.41	0.86
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.57	0.86
1:2A:2306:C:N4	6:2G:42:GLY:O	2.08	0.85
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.57	0.85
1:1A:2128:C:N4	1:1A:2160:G:N1	2.24	0.85
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.21	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:85:LYS:HG2	22:20:7:LEU:HB3	1.58	0.85
32:1a:1025:U:O2	32:1a:1036:G:O6	1.95	0.85
54:1w:26:A:H61	54:1w:44:G:H1	1.21	0.85
1:1A:602:G:O2'	1:1A:655:A:N6	2.10	0.85
1:1A:1783:A:OP1	62:1A:4114:HOH:O	1.95	0.85
32:1a:677:U:H3	32:1a:713:G:H22	1.25	0.84
32:2a:1051:C:N4	32:2a:1207:2MG:HN1	1.75	0.84
1:2A:2143:C:H42	1:2A:2148:G:H1	1.21	0.84
1:1A:1779:U:OP2	62:1A:4115:HOH:O	1.96	0.84
1:2A:2807:G:N2	1:2A:2893:G:O6	2.10	0.84
32:2a:157:G:N2	32:2a:164:U:O2	2.10	0.84
1:2A:2127:G:N1	1:2A:2161:C:N4	2.26	0.83
6:1G:18:GLU:HG3	6:1G:22:ARG:HD2	1.60	0.83
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.11	0.83
22:10:10:THR:HG22	22:10:12:ASN:H	1.44	0.83
33:1b:47:THR:O	33:1b:51:LEU:N	2.11	0.83
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.60	0.83
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.61	0.83
32:2a:661:G:H1	32:2a:744:C:H42	1.24	0.83
1:2A:2127:G:N2	1:2A:2161:C:N3	2.27	0.83
8:2I:59:ALA:HA	8:2I:62:LYS:HB2	1.60	0.83
14:2S:71:ARG:NH1	14:2S:107:GLU:OE1	2.11	0.83
1:2A:1568:G:N7	62:2D:401:HOH:O	2.12	0.82
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.59	0.82
1:2A:500:G:H22	1:2A:503:A:H5'	1.44	0.82
1:1A:279:C:H42	1:1A:361:G:H1	1.26	0.82
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.12	0.82
1:1A:826:U:OP1	62:1A:4110:HOH:O	1.98	0.82
1:1A:1332:G:OP1	62:1A:4118:HOH:O	1.98	0.81
47:1p:15:PRO:HD2	47:1p:42:ARG:HD2	1.62	0.81
1:2A:747:U:OP2	62:2A:3903:HOH:O	1.98	0.81
32:2a:157:G:H1	32:2a:164:U:H3	1.25	0.81
32:1a:636:U:H2'	32:1a:637:G:H8	1.42	0.81
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.62	0.81
56:1y:19:G:N2	56:1y:56:C:N3	2.29	0.81
1:1A:802:A:OP1	62:1A:4119:HOH:O	1.99	0.81
1:2A:2319:G:H22	14:2S:3:ARG:HH11	1.29	0.81
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.13	0.81
1:2A:2138:C:N4	1:2A:2153:G:H1	1.79	0.81
34:2c:120:VAL:HG11	34:2c:137:ALA:HB2	1.61	0.81
1:1A:1993:U:OP2	62:1A:4116:HOH:O	1.97	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2574:G:OP1	62:1A:4117:HOH:O	1.98	0.81
44:1m:65:LYS:HB2	44:1m:69:GLU:HG2	1.63	0.81
1:1A:1784:A:OP2	62:1A:4114:HOH:O	1.99	0.80
1:1A:2585:U:OP1	62:1A:4120:HOH:O	2.00	0.80
32:1a:116:A:OP1	62:1a:1905:HOH:O	1.98	0.80
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.45	0.80
55:1x:76:31H:OP2	62:1x:201:HOH:O	1.99	0.80
1:1A:880:G:H2'	1:1A:881:G:H8	1.46	0.80
1:2A:200:U:O2	1:2A:386:G:N2	2.14	0.80
8:1I:92:VAL:HB	8:1I:120:ILE:HB	1.61	0.80
1:2A:2017:U:OP2	62:2A:3904:HOH:O	1.98	0.80
1:1A:1055:G:H1	1:1A:1104:C:N4	1.77	0.80
1:1A:998:C:OP1	62:1A:4122:HOH:O	2.00	0.80
21:1Z:156:LYS:HE3	21:1Z:158:PRO:HD3	1.63	0.80
32:2a:407:G:H5"	35:2d:115:ARG:HB3	1.62	0.80
1:1A:1918:A:N6	62:1A:4169:HOH:O	2.15	0.80
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.63	0.80
1:1A:248:G:OP1	62:1A:4121:HOH:O	2.00	0.80
32:1a:664:G:H22	32:1a:741:G:H1	1.26	0.80
1:2A:1604:C:OP1	62:2A:3905:HOH:O	1.99	0.80
32:1a:1224:G:OP1	62:1a:1906:HOH:O	1.99	0.79
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.15	0.79
1:1A:2608:G:N7	62:1A:4176:HOH:O	2.15	0.79
1:1A:2821:A:OP2	62:1R:301:HOH:O	1.99	0.79
1:1A:624:C:OP1	62:1A:4124:HOH:O	2.01	0.79
1:1A:1693:U:O2'	3:1D:14:ARG:NH2	2.15	0.79
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.14	0.79
1:2A:2138:C:H42	1:2A:2153:G:H1	1.26	0.79
1:1A:2243:U:OP1	62:1A:4126:HOH:O	2.01	0.79
32:1a:955:U:O4	62:1a:1907:HOH:O	2.00	0.79
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	1.63	0.79
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.64	0.79
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.15	0.79
1:1A:2142:C:N3	1:1A:2149:G:O6	2.15	0.79
1:2A:2808:U:O2	1:2A:2892:A:N6	2.16	0.79
17:2V:10:LYS:NZ	17:2V:23:GLU:OE2	2.16	0.79
1:1A:1071:G:O6	1:1A:1100:C:N4	2.16	0.78
32:1a:193:C:H2'	32:1a:194:C:H6	1.47	0.78
1:2A:1762:A:N1	62:2A:3957:HOH:O	2.16	0.78
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.16	0.78
1:2A:570:G:O6	62:2A:3906:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:59:GLU:HG2	33:1b:225:ALA:HB2	1.66	0.78
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.31	0.78
1:1A:650:C:OP1	30:18:21:LYS:NZ	2.16	0.78
35:1d:166:LYS:NZ	35:1d:179:GLU:OE2	2.15	0.78
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.66	0.78
1:1A:1633:G:O6	62:1A:4123:HOH:O	2.00	0.78
51:1t:43:LEU:HD13	51:1t:51:GLU:HG2	1.65	0.78
45:2n:23:ARG:NH1	45:2n:28:GLY:O	2.16	0.78
1:1A:641:C:O2'	1:1A:2350:C:OP1	2.02	0.78
1:1A:2106:G:N2	1:1A:2183:C:N3	2.29	0.78
40:1i:48:GLU:HA	40:1i:51:ARG:HD3	1.63	0.78
3:2D:28:GLU:OE2	62:2D:401:HOH:O	2.01	0.78
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.65	0.78
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.19	0.78
1:1A:1778:U:OP1	62:1A:4127:HOH:O	2.02	0.77
32:1a:1240:U:OP1	38:1g:119:ARG:NH2	2.16	0.77
33:2b:178:ARG:HH22	39:2h:68:ARG:HH12	1.32	0.77
32:1a:1241:G:OP1	38:1g:35:LYS:NZ	2.17	0.77
1:2A:1242:A:N1	11:2P:2:LYS:NZ	2.32	0.77
1:2A:948:G:OP1	62:2A:3907:HOH:O	2.02	0.77
7:2H:90:LYS:HD2	7:2H:159:GLU:HG2	1.65	0.77
32:2a:953:G:H5'	32:2a:965:A:H61	1.49	0.77
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	1.65	0.77
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.01	0.77
26:24:53:GLU:HG2	26:24:55:ARG:H	1.48	0.77
1:1A:2106:G:H1	1:1A:2183:C:H42	0.78	0.77
11:1P:39:LYS:HB2	11:1P:45:LEU:HD13	1.63	0.77
1:2A:882:G:H1	1:2A:894:C:H42	1.32	0.77
1:2A:2121:G:H1	1:2A:2177:C:H42	1.32	0.77
1:1A:1057:A:H61	1:1A:1081:U:H3	1.31	0.77
1:1A:1315:C:OP2	62:1A:4118:HOH:O	2.02	0.77
7:2H:17:VAL:HG11	7:2H:50:VAL:HG21	1.67	0.77
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.67	0.77
1:2A:2518:A:OP2	62:2A:3909:HOH:O	2.03	0.77
38:2g:20:ASP:HB3	38:2g:23:VAL:HB	1.67	0.77
1:1A:884:C:H42	1:1A:892:G:H1	1.33	0.76
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.66	0.76
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.17	0.76
30:28:33:ASN:OD1	30:28:36:LYS:NZ	2.15	0.76
25:13:39:ASP:OD1	25:13:44:ARG:NH1	2.18	0.76
32:2a:73:G:H1	32:2a:96:U:H3	1.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1673:U:OP1	62:1A:4125:HOH:O	2.01	0.76
6:1G:111:LEU:HA	6:1G:114:ILE:HG13	1.67	0.76
32:1a:1260:C:O2	32:1a:1275:A:N6	2.19	0.76
1:2A:2576:G:O2'	1:2A:2579:C:OP2	2.02	0.76
1:1A:2136:C:N3	1:1A:2155:G:N2	2.33	0.76
1:2A:1670:C:OP1	62:2A:3908:HOH:O	2.02	0.76
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.67	0.76
33:2b:189:ASP:N	33:2b:189:ASP:OD1	2.18	0.76
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.68	0.76
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.19	0.76
1:2A:1455:G:OP2	62:2A:3910:HOH:O	2.03	0.76
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.65	0.76
32:1a:1108:G:O6	62:1a:1908:HOH:O	2.02	0.76
1:1A:1602:U:O4	62:1A:4130:HOH:O	2.03	0.76
1:1A:2628:C:O2	62:1A:4129:HOH:O	2.03	0.76
1:1A:2136:C:N4	1:1A:2155:G:N1	2.34	0.76
1:2A:2711:A:OP1	62:2A:3911:HOH:O	2.04	0.76
3:2D:183:ARG:HG3	3:2D:270:ILE:HD13	1.67	0.76
1:1A:1975:G:OP2	62:1A:4128:HOH:O	2.02	0.76
32:1a:165:C:H2'	32:1a:166:G:H8	1.51	0.76
1:1A:2156:G:H2'	1:1A:2157:G:C2	2.21	0.75
32:2a:266:G:H5"	32:2a:268:C:H41	1.50	0.75
34:2c:125:GLU:HB2	34:2c:190:ARG:HH21	1.51	0.75
32:2a:442:C:H42	32:2a:492:G:H1	1.35	0.75
44:1m:3:ARG:HG2	44:1m:8:GLU:HA	1.68	0.75
36:2e:100:VAL:HG12	36:2e:118:ILE:HG22	1.68	0.75
1:1A:392:C:OP1	62:1A:4131:HOH:O	2.03	0.75
21:1Z:11:GLU:O	21:1Z:36:LYS:NZ	2.18	0.75
2:1B:21:G:N7	62:1B:302:HOH:O	2.17	0.75
7:1H:24:VAL:HG23	7:1H:35:VAL:HB	1.68	0.75
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.04	0.75
33:1b:88:ALA:O	33:1b:226:ARG:NH1	2.20	0.75
1:2A:911:A:N6	12:2Q:11:LYS:O	2.19	0.75
32:2a:299:G:O6	62:2a:1903:HOH:O	2.04	0.75
1:1A:578:A:OP2	62:1A:4132:HOH:O	2.03	0.75
1:1A:1670:C:OP2	62:1A:4134:HOH:O	2.04	0.75
1:1A:956:G:H5"	12:1Q:77:LYS:HD2	1.68	0.75
33:2b:17:PHE:HA	33:2b:44:LEU:HD11	1.67	0.75
1:1A:1200:C:O2	1:1A:1245:G:N2	2.14	0.74
1:2A:2736:G:N2	1:2A:2768:C:O2	2.16	0.74
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1101:A:N6	33:1b:176:GLU:OE2	2.20	0.74
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.52	0.74
32:2a:1081:G:H5'	36:2e:18:ARG:HB3	1.68	0.74
1:1A:808:G:OP1	62:1A:4133:HOH:O	2.04	0.74
1:1A:1267:U:OP1	62:1A:4135:HOH:O	2.05	0.74
1:1A:1650:G:OP2	62:1A:4139:HOH:O	2.05	0.74
1:2A:845:G:OP2	1:2A:845:G:N2	2.20	0.74
1:2A:1444:G:N7	62:2A:3985:HOH:O	2.20	0.74
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.20	0.74
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.53	0.74
1:1A:2844:G:O6	62:1A:4136:HOH:O	2.05	0.74
1:2A:586:A:N1	1:2A:809:G:O2'	2.20	0.74
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.20	0.74
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.22	0.74
32:2a:814:A:H2'	32:2a:816:A:H5"	1.70	0.74
41:2j:69:ASN:O	41:2j:70:ARG:NH1	2.19	0.74
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.70	0.74
7:1H:119:GLU:O	7:1H:140:LYS:NZ	2.21	0.74
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.21	0.74
43:1l:52:LEU:O	43:1l:54:LYS:NZ	2.20	0.74
16:2U:113:ALA:O	16:2U:117:GLN:NE2	2.21	0.74
1:1A:1484:G:H1	1:1A:1505:C:H42	1.35	0.74
1:1A:687:C:H5"	29:17:2:LYS:HE2	1.69	0.74
1:1A:1007:C:OP2	62:1A:4138:HOH:O	2.05	0.74
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.69	0.74
1:2A:2114:A:H62	1:2A:2115:G:H21	1.36	0.74
33:2b:16:HIS:HB3	33:2b:210:SER:HB2	1.69	0.74
1:1A:2108:C:H42	1:1A:2181:G:H1	1.33	0.73
1:2A:2499:C:OP2	62:2A:3914:HOH:O	2.05	0.73
32:2a:427:U:OP1	35:2d:13:ARG:NH1	2.21	0.73
1:2A:449:A:OP2	62:2A:3913:HOH:O	2.05	0.73
2:2B:20:C:N4	2:2B:63:G:O6	2.18	0.73
32:2a:117:G:OP2	62:2a:1904:HOH:O	2.06	0.73
1:1A:642:G:OP1	62:1A:4137:HOH:O	2.05	0.73
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.22	0.73
1:1A:2774:C:OP2	62:1A:4140:HOH:O	2.06	0.73
32:1a:1009:G:O6	32:1a:1020:U:O2	2.06	0.73
33:1b:16:HIS:HB2	33:1b:204:ASN:HB2	1.70	0.73
40:1i:128:ARG:NH2	55:1x:33:U:OP2	2.21	0.73
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.20	0.73
1:2A:1609:A:OP2	62:2A:3912:HOH:O	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:20:LEU:HD23	5:2F:21:ALA:H	1.53	0.73
32:1a:448:A:OP2	32:1a:485:G:N1	2.14	0.73
32:1a:1027:C:N4	32:1a:1034:G:H1	1.86	0.73
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.22	0.73
2:1B:14:U:OP2	2:1B:70:C:O2'	2.05	0.73
1:1A:2001:A:OP1	13:1R:9:LYS:NZ	2.19	0.73
3:1D:133:LEU:HB3	3:1D:173:VAL:HG21	1.70	0.73
10:1O:64:ARG:NH1	10:1O:101:PRO:O	2.18	0.73
46:1o:11:VAL:HG21	46:1o:34:LEU:HD22	1.70	0.73
34:2c:53:ALA:HB3	34:2c:69:HIS:HB2	1.70	0.73
34:2c:71:ALA:HB1	34:2c:109:PRO:HB3	1.68	0.73
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.22	0.73
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.52	0.73
1:1A:467:G:OP1	29:17:33:ARG:NH1	2.20	0.73
1:2A:789:A:N1	62:2A:3991:HOH:O	2.22	0.73
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.68	0.73
32:2a:1104:G:H4'	33:2b:111:ARG:HE	1.53	0.73
1:1A:2727:G:O2'	10:1O:70:LYS:NZ	2.21	0.73
1:2A:500:G:N1	1:2A:503:A:OP2	2.22	0.73
1:2A:1434:A:H61	1:2A:1558:A:H62	1.36	0.73
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.17	0.73
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.20	0.73
1:1A:668:G:N7	62:1A:4227:HOH:O	2.22	0.73
24:12:14:ARG:O	24:12:67:LYS:NZ	2.16	0.73
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.13	0.73
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.54	0.73
33:1b:47:THR:HG22	33:1b:202:PRO:HG2	1.71	0.73
1:2A:80:G:H1	1:2A:106:C:H42	1.37	0.73
1:2A:1324:G:O6	62:2A:3915:HOH:O	2.06	0.73
8:2I:75:LEU:HD13	8:2I:105:HIS:HD2	1.53	0.73
40:2i:55:ALA:HA	40:2i:58:HIS:HD2	1.54	0.73
1:1A:1189:A:OP2	62:1A:4145:HOH:O	2.07	0.72
1:2A:1254:A:OP2	62:2A:3916:HOH:O	2.07	0.72
1:2A:1645:G:H5"	1:2A:1646:C:H5'	1.71	0.72
32:2a:1289:A:OP1	52:2u:10:ARG:NH2	2.21	0.72
33:2b:185:ILE:HB	33:2b:199:TYR:HB2	1.69	0.72
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.22	0.72
1:1A:2448:A:OP1	62:1A:4112:HOH:O	2.06	0.72
1:1A:2759:G:N7	62:1A:4220:HOH:O	2.22	0.72
32:1a:289:G:OP2	62:1a:1905:HOH:O	2.06	0.72
32:1a:567:G:N3	62:1a:1931:HOH:O	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1324:G:N7	62:2A:3989:HOH:O	2.21	0.72
1:1A:1453:U:OP1	13:1R:77:ARG:NH1	2.22	0.72
32:1a:975:A:H4'	32:1a:976:G:H5"	1.71	0.72
1:1A:2719:G:OP2	62:1A:4142:HOH:O	2.07	0.72
32:1a:613:C:H2'	32:1a:614:A:H8	1.55	0.72
1:2A:2682:U:OP2	62:2A:3920:HOH:O	2.08	0.72
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.21	0.72
32:2a:297:G:N2	32:2a:300:A:OP2	2.22	0.72
34:2c:91:LEU:HD11	34:2c:101:LEU:HD12	1.72	0.72
1:1A:1632:A:OP2	62:1A:4146:HOH:O	2.07	0.72
1:1A:2552:OMU:OP2	62:1A:4125:HOH:O	2.06	0.72
12:2Q:38:GLU:HG3	12:2Q:128:LYS:H	1.54	0.72
30:28:62:LEU:HB3	30:28:65:GLU:HG3	1.71	0.72
1:1A:1249:U:OP1	62:1A:4141:HOH:O	2.06	0.72
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.71	0.72
8:2I:45:LYS:O	8:2I:49:ALA:N	2.22	0.72
1:1A:1082:U:N3	1:1A:1086:A:N6	2.08	0.72
1:2A:1452:A:OP2	62:2A:3921:HOH:O	2.08	0.72
1:2A:1671:U:OP2	62:2A:3908:HOH:O	2.08	0.72
2:2B:41:U:H5	6:2G:70:VAL:H	1.37	0.72
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.23	0.72
32:2a:1240:U:N3	38:2g:30:ILE:O	2.20	0.72
1:1A:1055:G:N2	1:1A:1104:C:N3	2.36	0.72
1:1A:2241:A:N7	62:1A:4228:HOH:O	2.22	0.72
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.72	0.72
1:1A:2344:U:OP1	28:16:37:ARG:NH1	2.22	0.71
32:1a:159:G:O2'	32:1a:161:A:N7	2.19	0.71
1:2A:2341:G:O6	62:2A:3922:HOH:O	2.08	0.71
17:2V:98:GLU:OE2	17:2V:100:ARG:NH1	2.23	0.71
37:1f:8:ILE:HG12	37:1f:88:VAL:HG22	1.73	0.71
1:2A:783:A:OP2	62:2A:3919:HOH:O	2.08	0.71
1:2A:963:U:OP2	62:2A:3907:HOH:O	2.09	0.71
32:2a:1025:U:H3	32:2a:1036:G:H1	1.37	0.71
9:1N:28:THR:HG22	9:1N:29:LYS:HG3	1.70	0.71
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.55	0.71
32:2a:35:G:O2'	43:2l:118:SER:O	2.08	0.71
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.72	0.71
1:1A:1671:U:O4	62:1A:4134:HOH:O	2.07	0.71
5:1F:116:ASP:OD2	11:1P:1:MET:N	2.20	0.71
11:1P:58:THR:HG21	30:18:54:GLU:HG3	1.72	0.71
1:2A:2025:C:OP2	62:2A:3918:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.22	0.71
5:2F:117:ARG:NH2	5:2F:189:THR:O	2.24	0.71
32:2a:673:G:H2'	32:2a:674:G:C8	2.25	0.71
32:2a:1193:G:O2'	36:2e:25:ARG:NH2	2.24	0.71
1:1A:1027:A:N3	62:1A:4239:HOH:O	2.23	0.71
1:2A:307:G:H21	1:2A:330:A:H62	1.39	0.71
1:2A:1780:A:N7	62:2A:3994:HOH:O	2.22	0.71
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.22	0.71
32:1a:171:A:H2'	32:1a:172:A:C8	2.24	0.71
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.23	0.71
32:2a:532:A:N1	34:2c:156:ARG:NH1	2.34	0.71
32:2a:1114:C:H42	32:2a:1186:G:H1	1.37	0.71
54:1w:26:A:N6	54:1w:44:G:H1	1.89	0.71
1:2A:2042:A:OP1	62:2A:3917:HOH:O	2.07	0.71
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	1.73	0.71
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.72	0.71
1:1A:548:A:H61	17:1V:18:LEU:HA	1.55	0.71
4:2E:127:ASP:OD2	62:2E:401:HOH:O	2.08	0.71
1:1A:196:A:O5'	11:1P:46:LYS:NZ	2.24	0.71
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.26	0.71
36:1e:142:LEU:O	36:1e:143:ARG:NH1	2.24	0.71
41:1j:30:SER:HB3	41:1j:81:THR:HG23	1.73	0.71
1:2A:1356:G:OP1	62:2A:3924:HOH:O	2.09	0.71
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.72	0.71
32:2a:826:C:O2	39:2h:15:ASN:ND2	2.24	0.71
1:1A:1058:G:H1	1:1A:1080:C:H42	1.37	0.70
1:1A:2843:G:N7	62:1A:4241:HOH:O	2.23	0.70
40:1i:82:ALA:HB1	40:1i:96:LEU:HD11	1.71	0.70
1:2A:2305:A:H5"	6:2G:134:GLY:HA3	1.72	0.70
4:2E:119:ARG:HD2	4:2E:160:TYR:HB2	1.71	0.70
32:2a:955:U:OP1	44:2m:120:LYS:NZ	2.21	0.70
56:2y:18:G:N2	56:2y:55:PSU:N3	2.36	0.70
26:14:55:ARG:N	26:14:56:VAL:HA	2.06	0.70
49:1r:22:VAL:HG23	49:1r:56:THR:HA	1.71	0.70
1:2A:271(P):C:OP1	8:2I:45:LYS:NZ	2.24	0.70
1:2A:1356:G:OP2	62:2A:3925:HOH:O	2.09	0.70
26:24:61:ARG:HH22	50:2s:9:VAL:HG11	1.56	0.70
32:2a:403:C:N4	62:2a:1917:HOH:O	2.23	0.70
1:1A:2712:U:O2'	1:1A:2712(A):A:OP2	2.09	0.70
1:2A:906:G:O2'	12:2Q:67:ARG:NH2	2.22	0.70
23:11:59:THR:O	23:11:91:LYS:NZ	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:714:G:H2'	32:1a:715:A:C8	2.26	0.70
1:2A:1783:A:HO2'	1:2A:2607:G:HO2'	1.40	0.70
1:2A:2242:G:OP1	62:2A:3923:HOH:O	2.09	0.70
1:1A:1831:G:O6	62:1A:4144:HOH:O	2.07	0.70
1:2A:988:A:N7	62:2A:3999:HOH:O	2.23	0.70
1:2A:2758:A:OP2	62:2A:3926:HOH:O	2.09	0.70
16:1U:75:ASN:OD1	16:1U:78:THR:OG1	2.10	0.70
23:11:3:LYS:HB2	23:11:61:ARG:HH22	1.56	0.70
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.56	0.70
34:2c:57:ILE:HG12	34:2c:66:VAL:HG22	1.74	0.70
1:1A:2550:G:OP1	62:1A:4134:HOH:O	2.09	0.70
1:2A:998:C:N4	62:2A:4011:HOH:O	2.24	0.70
1:2A:2136:C:N3	1:2A:2155:G:N2	2.38	0.70
2:2B:72:G:O2'	2:2B:105:A:N6	2.24	0.70
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.74	0.70
32:1a:310:G:OP2	47:1p:27:LYS:NZ	2.25	0.70
32:1a:504:C:OP1	62:1a:1909:HOH:O	2.09	0.70
32:1a:1064:G:O2'	32:1a:1190:G:N2	2.25	0.70
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.74	0.70
1:2A:34:C:N4	1:2A:454:A:O2'	2.24	0.70
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.20	0.70
1:1A:887:A:H2	1:1A:889:C:H3'	1.57	0.70
1:1A:2099:U:H3	1:1A:2190:G:H1	0.74	0.70
32:1a:79:G:C6	32:1a:90:U:O2	2.44	0.70
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.73	0.70
43:1l:40:VAL:HG21	43:1l:78:GLN:HA	1.74	0.70
1:2A:249:C:O2	30:28:12:LYS:NZ	2.22	0.70
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.72	0.70
32:2a:662:G:O2'	32:2a:836:G:OP1	2.09	0.70
54:2w:18:G:O2'	54:2w:57:G:N2	2.25	0.70
1:1A:1399:C:OP1	19:1X:25:LYS:NZ	2.25	0.69
1:1A:1664:A:OP1	62:1A:4147:HOH:O	2.09	0.69
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.25	0.69
1:1A:2503:2MA:H8	59:1A:4089:6IF:O	1.93	0.69
32:1a:1194:U:H4'	36:1e:22:GLY:HA2	1.73	0.69
33:1b:58:ILE:HB	33:1b:221:LEU:HD23	1.72	0.69
32:2a:9:G:OP1	36:2e:122:GLU:N	2.24	0.69
56:2y:53:G:O6	56:2y:61:C:N4	2.17	0.69
1:1A:2139:C:H42	1:1A:2152:G:H1	1.38	0.69
1:1A:2629:A:H62	1:1A:2801(A):A:H1'	1.56	0.69
1:1A:2721:A:N3	62:1A:4247:HOH:O	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:38:ILE:HG13	41:1j:71:LEU:HB3	1.74	0.69
47:1p:67:THR:H	47:1p:70:ALA:HB3	1.56	0.69
1:2A:400:G:N7	62:2A:4015:HOH:O	2.25	0.69
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.25	0.69
1:1A:1669:A:OP2	62:1A:4134:HOH:O	2.09	0.69
32:1a:903:G:OP1	62:1a:1910:HOH:O	2.09	0.69
21:2Z:53:ILE:HA	21:2Z:71:VAL:HG23	1.73	0.69
32:2a:1102:A:O3'	33:2b:96:ARG:NH2	2.26	0.69
44:2m:3:ARG:HH22	44:2m:11:ARG:HG3	1.56	0.69
25:13:8:LEU:HB2	25:13:28:LEU:HD13	1.75	0.69
32:1a:1302:U:OP2	44:1m:21:TYR:OH	2.09	0.69
1:2A:684:G:N7	62:2A:4013:HOH:O	2.25	0.69
1:2A:962:G:OP1	62:2A:3907:HOH:O	2.10	0.69
1:2A:2592:G:OP1	62:2A:3927:HOH:O	2.10	0.69
6:2G:7:LEU:HB2	6:2G:104:GLU:HG3	1.73	0.69
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.40	0.69
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.07	0.69
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.74	0.69
1:1A:804:A:OP1	62:1A:4148:HOH:O	2.09	0.69
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.25	0.69
33:1b:82:ARG:NH1	33:1b:86:GLU:OE2	2.26	0.69
6:2G:122:PRO:HB3	6:2G:170:ARG:HH21	1.56	0.69
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.73	0.69
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.09	0.69
32:1a:1505:G:OP2	62:1a:1911:HOH:O	2.09	0.69
33:1b:16:HIS:HD2	33:1b:204:ASN:H	1.39	0.69
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.27	0.69
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.24	0.69
21:1Z:77:ASP:OD2	21:1Z:80:ARG:NH1	2.25	0.69
32:1a:1351:U:H2'	32:1a:1352:C:H6	1.58	0.69
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.26	0.69
33:1b:118:LEU:HB3	33:1b:142:LEU:HD12	1.72	0.69
39:1h:8:ASP:O	39:1h:12:ARG:N	2.26	0.69
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.26	0.69
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.24	0.69
55:2x:3:C:H42	55:2x:70:G:H1	1.39	0.69
1:2A:643:A:N1	1:2A:2369:A:O2'	2.26	0.69
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.26	0.69
1:2A:2022:U:O2'	1:2A:2617:C:H5'	1.91	0.69
3:2D:71:ASP:OD2	3:2D:103:ARG:NH1	2.25	0.69
32:2a:501:C:H2'	32:2a:502:G:H8	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:903:G:OP1	62:2a:1905:HOH:O	2.10	0.69
26:14:56:VAL:HB	26:14:60:GLN:HG3	1.74	0.68
1:2A:864:G:N7	12:2Q:22:LYS:NZ	2.39	0.68
1:2A:1693:U:O2'	3:2D:14:ARG:NH2	2.26	0.68
1:2A:2448:A:OP1	62:2A:3906:HOH:O	2.11	0.68
33:2b:212:GLN:O	33:2b:216:SER:OG	2.10	0.68
1:1A:944:G:N7	62:1A:4251:HOH:O	2.25	0.68
1:1A:2244:U:O4	1:1A:2435:A:N6	2.20	0.68
22:10:11:ARG:O	22:10:14:ARG:NH2	2.26	0.68
32:1a:536:C:OP2	62:1a:1912:HOH:O	2.10	0.68
1:2A:2290:G:O6	62:2A:3922:HOH:O	2.10	0.68
32:2a:1026:G:O6	32:2a:1036:G:N2	2.26	0.68
1:1A:1426:G:O2'	1:1A:1572:A:N6	2.25	0.68
1:1A:2428:G:OP1	62:1A:4110:HOH:O	2.11	0.68
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.75	0.68
1:2A:2345:G:H4'	1:2A:2346:A:H5"	1.76	0.68
41:2j:44:VAL:HG22	41:2j:66:ARG:HB3	1.74	0.68
1:1A:2049:G:N7	62:1A:4262:HOH:O	2.26	0.68
1:2A:36:G:OP1	62:2A:3932:HOH:O	2.11	0.68
1:2A:781:A:OP1	62:2A:3930:HOH:O	2.11	0.68
1:2A:1971:A:N6	62:2A:4017:HOH:O	2.25	0.68
1:1A:576:U:OP1	62:1A:4151:HOH:O	2.11	0.68
32:1a:642:A:N3	39:1h:113:SER:OG	2.26	0.68
34:2c:47:LEU:HD23	34:2c:68:VAL:HG11	1.75	0.68
1:1A:832:G:OP1	62:1A:4156:HOH:O	2.12	0.68
1:1A:2142:C:O2	1:1A:2149:G:N1	2.20	0.68
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.42	0.68
5:1F:165:ARG:HA	5:1F:168:ARG:HD2	1.75	0.68
32:1a:56:U:H2'	32:1a:57:G:C8	2.28	0.68
32:1a:79:G:O6	32:1a:90:U:O2	2.12	0.68
1:2A:2010:G:H5"	18:2W:42:ARG:HB2	1.74	0.68
32:2a:1202:G:O4'	45:2n:29:ARG:NH1	2.27	0.68
32:2a:1376:U:OP1	38:2g:94:ARG:NH2	2.26	0.68
4:1E:52:LEU:O	4:1E:76:ARG:N	2.27	0.68
8:1I:79:ILE:HB	8:1I:144:VAL:HG12	1.75	0.68
39:1h:96:GLY:N	39:1h:99:GLU:OE1	2.26	0.68
1:2A:568:U:O4	62:2A:3928:HOH:O	2.10	0.68
1:2A:582:G:OP2	62:2A:3934:HOH:O	2.12	0.68
32:2a:1086:U:H3	32:2a:1099:G:H22	1.41	0.68
32:2a:1272:G:N2	32:2a:1273:G:N7	2.41	0.68
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:16:ARG:HH21	40:2i:18:PHE:HZ	1.41	0.68
41:2j:8:LEU:HD12	41:2j:16:LEU:HD22	1.74	0.68
47:2p:53:VAL:HG22	47:2p:79:VAL:HG22	1.76	0.68
1:1A:956:G:H2'	1:1A:957:A:H2'	1.76	0.68
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.10	0.68
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.74	0.68
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.26	0.68
12:2Q:78:PRO:HG2	12:2Q:81:VAL:HG11	1.75	0.68
15:2T:39:ARG:NH2	32:2a:345:C:OP1	2.26	0.68
29:27:9:ARG:HD3	29:27:47:ARG:HB2	1.75	0.68
32:1a:1500:A:OP2	62:1a:1915:HOH:O	2.12	0.68
32:1a:1530:G:OP1	62:1a:1914:HOH:O	2.12	0.68
1:2A:154(A):C:H42	1:2A:172:C:H42	1.42	0.68
6:2G:113:ARG:NH2	6:2G:139:LEU:O	2.26	0.68
32:2a:428:G:OP2	35:2d:10:ARG:NH1	2.25	0.68
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.23	0.68
32:2a:1289:A:H3'	32:2a:1290:G:H8	1.59	0.68
44:2m:15:VAL:HB	44:2m:34:LEU:HD21	1.75	0.68
44:2m:86:CYS:HB2	50:2s:73:GLU:HG2	1.74	0.68
1:1A:1091:G:O6	1:1A:1100:C:N3	2.26	0.68
1:1A:1353:A:N7	62:1A:4265:HOH:O	2.27	0.68
1:1A:1648:C:OP1	62:1A:4154:HOH:O	2.12	0.68
1:2A:311:A:OP2	62:2A:3929:HOH:O	2.11	0.68
1:2A:2133:G:O2'	1:2A:2157:G:N2	2.26	0.68
1:1A:760:G:OP1	62:1A:4150:HOH:O	2.11	0.67
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.26	0.67
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.09	0.67
2:2B:15:A:OP2	2:2B:69:G:N2	2.27	0.67
32:2a:1239:A:H62	32:2a:1299:A:N6	1.92	0.67
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.21	0.67
1:2A:1747(A):G:H2'	1:2A:1748:G:H8	1.58	0.67
5:1F:155:LEU:HB2	5:1F:189:THR:HG21	1.75	0.67
1:2A:1156:A:OP2	62:2A:3938:HOH:O	2.13	0.67
1:2A:1193:G:OP1	11:2P:14:LYS:NZ	2.24	0.67
1:2A:1711:C:H2'	1:2A:1712:C:H6	1.58	0.67
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.75	0.67
1:1A:2125:G:N1	1:1A:2172:U:OP1	2.25	0.67
7:1H:137:ASP:HB3	7:1H:140:LYS:HB2	1.76	0.67
32:1a:715:A:H2'	32:1a:716:A:C8	2.29	0.67
34:1c:57:ILE:HG12	34:1c:66:VAL:HG12	1.76	0.67
1:2A:621:A:OP2	11:2P:108:LYS:NZ	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:764:A:H5"	3:2D:210:GLY:HA2	1.75	0.67
35:2d:31:CYS:HB2	61:2d:302:SF4:S3	2.34	0.67
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.60	0.67
1:1A:1506:C:H2'	1:1A:1507:A:H8	1.59	0.67
32:1a:573:A:N3	32:1a:883:C:O2'	2.26	0.67
2:2B:10:C:O2	2:2B:111:G:N2	2.19	0.67
32:2a:393:A:OP1	62:2a:1906:HOH:O	2.12	0.67
40:2i:64:THR:OG1	40:2i:66:ARG:NH1	2.26	0.67
1:1A:383:U:O4	62:1A:4155:HOH:O	2.12	0.67
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.43	0.67
1:2A:1183:G:H5"	25:23:30:ARG:NH2	2.08	0.67
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.27	0.67
8:2I:129:THR:HG22	8:2I:139:GLN:HE21	1.58	0.67
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.25	0.67
39:2h:82:HIS:CE1	39:2h:84:ARG:HB2	2.29	0.67
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.75	0.67
1:2A:822:U:OP2	62:2A:3937:HOH:O	2.13	0.67
1:2A:2145:C:O2'	1:2A:2147:G:N7	2.26	0.67
1:2A:2394:C:N3	56:2y:76:A:O2'	2.26	0.67
32:2a:745:C:OP1	32:2a:851:G:O2'	2.13	0.67
49:2r:53:ARG:HG2	49:2r:63:GLN:HE21	1.60	0.67
32:1a:450:G:OP1	47:1p:43:LYS:NZ	2.28	0.67
39:1h:11:THR:O	39:1h:15:ASN:ND2	2.28	0.67
56:1y:18:G:O2'	56:1y:57:G:O6	2.12	0.67
1:2A:641:C:H42	1:2A:647:G:H1	1.43	0.67
1:2A:686:G:OP2	62:2A:3933:HOH:O	2.12	0.67
32:2a:7:G:O2'	36:2e:120:THR:O	2.13	0.67
32:2a:909:A:N3	32:2a:1413:A:O2'	2.26	0.67
32:2a:1320:C:N3	50:2s:36:ARG:NH2	2.43	0.67
32:2a:1374:A:OP1	38:2g:36:LYS:NZ	2.28	0.67
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.76	0.67
32:1a:584:G:H5'	48:1q:91:ARG:HH22	1.60	0.67
1:2A:852:G:H2'	1:2A:853:G:H8	1.60	0.67
9:2N:49:GLY:O	9:2N:119:ARG:NH1	2.28	0.67
13:1R:2:ARG:NH1	13:1R:5:LYS:O	2.28	0.67
56:1y:19:G:N1	56:1y:56:C:N4	2.42	0.67
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.76	0.67
32:2a:56:U:H2'	32:2a:57:G:C8	2.30	0.66
32:1a:1230:C:OP2	62:1a:1918:HOH:O	2.13	0.66
32:1a:1457:G:OP1	51:1t:39:LYS:NZ	2.27	0.66
1:2A:1038:C:H42	1:2A:1117:G:H1	1.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:125:GLY:O	62:2E:402:HOH:O	2.12	0.66
1:1A:81:G:O6	62:1A:4159:HOH:O	2.13	0.66
56:1y:54:5MU:O2	56:1y:58:A:N7	2.28	0.66
1:2A:2553:G:H22	54:2w:74:C:H41	1.42	0.66
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.28	0.66
2:2B:76:G:N7	62:2B:301:HOH:O	2.29	0.66
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.59	0.66
34:2c:157:ILE:HD12	34:2c:164:ARG:HB3	1.76	0.66
1:1A:1041:C:H42	1:1A:1114:G:H1	1.43	0.66
4:1E:122:PHE:O	62:1E:402:HOH:O	2.12	0.66
32:1a:193:C:H2'	32:1a:194:C:C6	2.29	0.66
32:1a:1008:C:N3	32:1a:1021:G:O6	2.28	0.66
33:1b:25:ASN:HD21	33:1b:27:LYS:HB2	1.61	0.66
1:2A:2879:C:OP2	62:2A:3945:HOH:O	2.14	0.66
35:2d:82:ALA:HB1	35:2d:92:VAL:HG23	1.76	0.66
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.59	0.66
32:1a:6:G:H2'	36:1e:119:LEU:HD11	1.78	0.66
52:1u:3:LYS:HD2	52:1u:14:TRP:CD1	2.30	0.66
1:2A:1129:A:N6	1:2A:2491:U:OP1	2.28	0.66
32:1a:737:A:O5'	37:1f:92:LYS:NZ	2.29	0.66
41:1j:8:LEU:HB2	41:1j:16:LEU:HD11	1.76	0.66
13:2R:49:ASP:OD1	13:2R:95:THR:OG1	2.14	0.66
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.61	0.66
56:2y:26:A:N1	56:2y:44:G:O6	2.28	0.66
35:1d:7:PRO:HB2	35:1d:10:ARG:HD2	1.76	0.66
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.28	0.66
1:2A:1776:G:OP2	62:2A:3946:HOH:O	2.14	0.66
13:2R:67:LEU:HD12	13:2R:76:VAL:HG21	1.78	0.66
15:2T:20:PRO:HG2	15:2T:88:ILE:HD11	1.78	0.66
32:2a:997:U:H3	32:2a:1044:A:H61	1.43	0.66
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.29	0.66
1:1A:2102:U:H3	1:1A:2187:G:H1	1.43	0.66
24:12:28:LYS:HD2	24:12:53:LEU:HD21	1.77	0.66
32:1a:1047:G:H5"	45:1n:4:LYS:HD3	1.78	0.66
50:1s:20:LEU:HD21	50:1s:43:GLU:HG2	1.77	0.66
1:2A:821:A:N1	62:2A:4035:HOH:O	2.28	0.66
10:2O:77:ILE:HD13	15:2T:74:ARG:HD2	1.76	0.66
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.28	0.66
1:1A:677:A:OP1	62:1A:4158:HOH:O	2.12	0.66
1:2A:673:C:O2'	62:2A:3942:HOH:O	2.14	0.66
1:2A:1023:U:OP2	62:2A:3935:HOH:O	2.12	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1271:G:OP2	62:2A:3940:HOH:O	2.13	0.66
1:2A:1970:A:OP1	62:2A:3943:HOH:O	2.14	0.66
1:1A:184:C:H2'	1:1A:185:U:C6	2.31	0.66
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.44	0.66
32:1a:176:C:H2'	32:1a:177:C:H6	1.61	0.66
1:2A:531:C:OP1	1:2A:561:G:N1	2.26	0.66
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.78	0.66
1:2A:2759:G:OP2	62:2A:3926:HOH:O	2.13	0.66
44:2m:84:ILE:HG22	50:2s:74:PHE:HE1	1.61	0.66
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.13	0.65
50:1s:27:GLU:HG3	50:1s:28:LYS:HE3	1.78	0.65
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.28	0.65
1:1A:1776:G:O6	62:1A:4153:HOH:O	2.11	0.65
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.28	0.65
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.12	0.65
1:2A:131:G:OP1	62:2A:3936:HOH:O	2.13	0.65
1:2A:1648:C:OP1	62:2A:3940:HOH:O	2.13	0.65
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	1.78	0.65
32:2a:1274:G:N2	32:2a:1275:A:N7	2.44	0.65
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.13	0.65
9:1N:77:GLY:O	62:1N:302:HOH:O	2.14	0.65
1:2A:800:A:H8	1:2A:800:A:OP1	1.79	0.65
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.78	0.65
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.78	0.65
34:2c:6:HIS:ND1	45:2n:49:HIS:HB3	2.11	0.65
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.61	0.65
12:1Q:20:ALA:HB2	21:1Z:79:ARG:HG3	1.79	0.65
8:2I:82:ARG:H	8:2I:82:ARG:HD3	1.59	0.65
17:2V:1:MET:HE2	17:2V:43:GLU:HB2	1.79	0.65
19:2X:1:MET:HE1	24:22:22:GLU:HG2	1.79	0.65
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.30	0.65
32:2a:656:C:O2'	46:2o:28:GLN:OE1	2.14	0.65
33:2b:87:ARG:NH1	33:2b:220:ASP:OD1	2.28	0.65
46:2o:7:GLU:OE1	46:2o:38:ARG:NH2	2.30	0.65
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.12	0.65
1:1A:2099:U:O2	1:1A:2190:G:N2	2.27	0.65
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.77	0.65
1:2A:1633:G:OP2	62:2A:3948:HOH:O	2.15	0.65
1:2A:2705:A:OP2	62:2A:3944:HOH:O	2.14	0.65
32:2a:263:A:OP1	51:2t:79:ARG:NH1	2.28	0.65
32:2a:1119:C:OP2	40:2i:9:ARG:NH2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1324:G:N7	62:1A:4282:HOH:O	2.29	0.65
1:1A:2123:G:H1	1:1A:2175:C:H42	1.42	0.65
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.29	0.65
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.45	0.65
1:2A:2064:C:OP2	62:2A:3941:HOH:O	2.13	0.65
32:2a:64:G:H4'	32:2a:65:U:H3'	1.78	0.65
32:2a:460:G:O6	62:2a:1907:HOH:O	2.12	0.65
1:1A:1309:G:O6	62:1A:4152:HOH:O	2.11	0.65
1:1A:2436:G:O2'	62:1A:4164:HOH:O	2.14	0.65
6:1G:123:ASN:O	62:1G:301:HOH:O	2.14	0.65
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.79	0.65
1:2A:2114:A:H2	1:2A:2171:A:H61	1.43	0.65
3:2D:133:LEU:HB3	3:2D:173:VAL:HG21	1.79	0.65
5:2F:117:ARG:NH2	5:2F:186:ILE:O	2.29	0.65
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.78	0.65
33:2b:21:ARG:HA	33:2b:39:ILE:HA	1.79	0.65
1:1A:1332:G:OP2	62:1A:4168:HOH:O	2.15	0.65
32:2a:1218:C:H2'	32:2a:1219:U:H6	1.61	0.65
1:1A:880:G:H2'	1:1A:881:G:C8	2.30	0.65
1:1A:2136:C:N4	1:1A:2155:G:C6	2.64	0.65
24:12:9:GLN:HE22	24:12:56:GLN:HB3	1.62	0.65
1:2A:2062:A:O2'	1:2A:2063:C:OP1	2.14	0.65
1:2A:2497:A:O2'	62:2A:3947:HOH:O	2.15	0.65
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.79	0.65
21:2Z:4:ARG:NH2	21:2Z:66:SER:OG	2.27	0.65
32:2a:501:C:H2'	32:2a:502:G:C8	2.31	0.65
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.79	0.65
1:2A:1973:G:OP2	62:2A:3949:HOH:O	2.15	0.65
1:2A:2728:U:H5'	10:2O:70:LYS:HZ3	1.62	0.65
2:2B:14:U:OP2	2:2B:70:C:O2'	2.14	0.65
21:2Z:77:ASP:OD2	21:2Z:80:ARG:NH1	2.26	0.65
1:1A:987:G:N7	62:1A:4290:HOH:O	2.30	0.64
32:1a:194:C:H2'	32:1a:195:A:H5"	1.78	0.64
36:1e:105:VAL:HG21	36:1e:128:PRO:HB3	1.79	0.64
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.79	0.64
47:1p:53:VAL:HG13	47:1p:79:VAL:HG13	1.78	0.64
1:2A:29:U:H2'	1:2A:30:G:C8	2.31	0.64
32:2a:473:G:H2'	32:2a:474:G:H8	1.63	0.64
32:2a:936:C:H2'	32:2a:937:A:O4'	1.97	0.64
36:2e:69:VAL:HG23	36:2e:142:LEU:HD12	1.79	0.64
1:1A:98:G:H5"	24:12:3:LEU:HG	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.79	0.64
1:2A:2143:C:N4	1:2A:2148:G:H1	1.91	0.64
2:2B:24:G:O2'	2:2B:56:G:N7	2.26	0.64
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.79	0.64
32:2a:473:G:H2'	32:2a:474:G:C8	2.32	0.64
32:2a:532:A:N6	32:2a:1206:G:O2'	2.30	0.64
1:1A:2114:A:N1	1:1A:2170:A:N6	2.45	0.64
1:1A:2853:C:H2'	1:1A:2854:G:H8	1.61	0.64
1:2A:992:C:OP1	17:2V:74:LYS:NZ	2.27	0.64
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.13	0.64
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.32	0.64
2:2B:104:U:HO2'	21:2Z:29:TYR:HH	1.37	0.64
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.79	0.64
11:2P:138:LEU:HG	11:2P:143:GLY:HA3	1.80	0.64
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.12	0.64
1:1A:2227:A:OP2	62:1A:4165:HOH:O	2.14	0.64
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.78	0.64
32:1a:750:G:O2'	46:1o:21:ASP:OD1	2.15	0.64
35:1d:144:ASP:N	35:1d:144:ASP:OD1	2.30	0.64
6:2G:111:LEU:HA	6:2G:114:ILE:HD12	1.78	0.64
44:2m:40:ASN:HD22	44:2m:43:THR:HG23	1.62	0.64
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.28	0.64
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.31	0.64
1:1A:1996:C:H4'	1:1A:1997:G:OP1	1.98	0.64
1:1A:2518:A:OP2	62:1A:4161:HOH:O	2.14	0.64
32:1a:21:G:OP1	62:1a:1919:HOH:O	2.14	0.64
1:2A:370:G:OP1	1:2A:403:U:N3	2.23	0.64
11:2P:62:LEU:HD11	30:28:50:LEU:HD11	1.79	0.64
12:2Q:34:LEU:HD11	12:2Q:129:THR:HB	1.78	0.64
32:2a:1126:U:H3	41:2j:40:LEU:HD11	1.63	0.64
39:2h:32:LYS:HA	39:2h:35:ILE:HD12	1.80	0.64
1:1A:1382:G:N7	62:1A:4291:HOH:O	2.30	0.64
1:1A:1537:G:OP1	62:1A:4172:HOH:O	2.15	0.64
1:1A:2080:G:O6	62:1A:4160:HOH:O	2.13	0.64
14:1S:61:ASN:HB3	14:1S:64:GLU:HB2	1.80	0.64
32:1a:940:C:OP1	38:1g:29:LYS:NZ	2.31	0.64
32:1a:1237:C:O2'	32:1a:1300:G:N2	2.29	0.64
56:1y:8:4SU:H4'	56:1y:48:C:H4'	1.79	0.64
1:2A:1920:4OC:HM22	1:2A:1921:G:H5'	1.79	0.64
35:2d:18:LYS:NZ	35:2d:20:TYR:OH	2.27	0.64
38:2g:54:THR:O	38:2g:56:GLN:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:89:ASN:HD22	40:2i:91:ASP:H	1.44	0.64
1:1A:1633:G:OP2	62:1A:4174:HOH:O	2.15	0.64
1:1A:2589:A:OP2	62:1A:4163:HOH:O	2.14	0.64
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.78	0.64
1:2A:880:G:N2	1:2A:898:C:O2	2.28	0.64
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.80	0.64
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.31	0.64
48:2q:66:SER:HB3	48:2q:69:LYS:HB2	1.79	0.64
1:1A:1054:A:N6	1:1A:1105:U:N3	2.38	0.64
1:1A:1342:A:OP2	62:1A:4130:HOH:O	2.15	0.64
1:2A:2571:C:H5"	1:2A:2572:A:H5"	1.79	0.64
26:24:26:SER:OG	26:24:27:THR:N	2.27	0.64
1:1A:761:A:OP2	62:1A:4173:HOH:O	2.15	0.64
1:1A:2136:C:C2	1:1A:2155:G:N2	2.66	0.64
8:1I:4:ILE:HD13	8:1I:47:LEU:HG	1.80	0.64
1:2A:568:U:H5'	1:2A:945:A:N1	2.12	0.64
1:2A:987:G:O2'	1:2A:1000:A:N3	2.30	0.64
1:2A:2127:G:C6	1:2A:2161:C:N4	2.66	0.64
6:2G:44:GLY:N	6:2G:88:ILE:O	2.30	0.64
32:2a:1068:G:N2	32:2a:1191:A:N3	2.42	0.64
36:2e:100:VAL:C	36:2e:107:ARG:HH22	2.06	0.64
56:2y:14:A:O2'	56:2y:15:G:OP1	2.15	0.64
1:1A:1439:A:OP1	62:1A:4175:HOH:O	2.15	0.64
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.30	0.64
36:1e:20:GLN:NE2	36:1e:21:ALA:O	2.31	0.64
54:1w:13:C:H2'	54:1w:14:A:H5"	1.79	0.64
1:2A:450:G:OP1	62:2A:3951:HOH:O	2.15	0.64
1:2A:1919:A:O2'	32:2a:1517:G:N3	2.30	0.64
8:2I:77:LEU:HG	8:2I:101:LEU:HB3	1.80	0.64
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.80	0.64
32:2a:977:A:N6	32:2a:1224:G:OP1	2.30	0.64
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.33	0.64
1:1A:1227:G:OP1	62:1A:4171:HOH:O	2.15	0.63
1:1A:2439:A:N6	55:1x:76:31H:OP1	2.30	0.63
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.80	0.63
32:1a:263:A:OP1	51:1t:79:ARG:NH1	2.31	0.63
32:1a:584:G:O6	62:1a:1917:HOH:O	2.13	0.63
1:2A:2414:G:N2	11:2P:67:MET:SD	2.66	0.63
12:2Q:10:ARG:HH12	12:2Q:90:VAL:H	1.47	0.63
1:2A:1239:G:H2'	1:2A:1240:U:O4'	1.98	0.63
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:18:LYS:HG2	61:1d:501:SF4:S1	2.37	0.63
32:2a:562:C:H1'	43:2l:15:ARG:HB3	1.81	0.63
32:2a:1065:U:H3	32:2a:1109:C:C5'	2.10	0.63
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.16	0.63
7:1H:25:LYS:HD3	7:1H:27:LYS:HE3	1.79	0.63
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.80	0.63
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.81	0.63
35:1d:82:ALA:HA	35:1d:85:LYS:HB2	1.80	0.63
41:1j:5:ARG:NH2	41:1j:73:ASP:OD2	2.31	0.63
9:2N:59:LYS:O	9:2N:61:ARG:NH2	2.30	0.63
48:2q:26:GLN:HG2	48:2q:37:LYS:HG2	1.81	0.63
1:1A:958:U:OP1	12:1Q:74:TYR:OH	2.14	0.63
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.33	0.63
20:1Y:17:SER:OG	20:1Y:71:LYS:NZ	2.31	0.63
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.47	0.63
1:2A:1423:G:H2'	1:2A:1424:G:C8	2.34	0.63
1:2A:1882:C:H2'	1:2A:1883:G:O4'	1.98	0.63
1:2A:2816:C:O3'	13:2R:99:LYS:NZ	2.30	0.63
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.63	0.63
32:2a:692:U:O2'	32:2a:694:A:N7	2.25	0.63
35:2d:187:ARG:NH1	35:2d:193:ASP:OD2	2.24	0.63
39:2h:116:LYS:HD2	39:2h:129:VAL:HG11	1.81	0.63
41:2j:42:THR:HG22	41:2j:68:HIS:HA	1.81	0.63
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.80	0.63
32:1a:1025:U:C2	32:1a:1036:G:O6	2.52	0.63
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.31	0.63
32:1a:1508:G:OP1	62:1a:1920:HOH:O	2.15	0.63
38:1g:49:ILE:HA	38:1g:52:GLU:HB2	1.80	0.63
56:1y:13:C:H2'	56:1y:14:A:H5"	1.81	0.63
1:2A:796:C:H2'	1:2A:797:C:C6	2.33	0.63
1:2A:2801(A):A:O2'	1:2A:2895:U:O4'	2.16	0.63
32:2a:601:C:H42	32:2a:637:G:H1	1.47	0.63
36:2e:60:TYR:CE1	36:2e:64:ARG:HD3	2.33	0.63
39:2h:86:ILE:HD12	39:2h:133:LEU:HD22	1.81	0.63
9:1N:35:ARG:HD3	9:1N:37:LYS:HD2	1.80	0.63
21:1Z:52:SER:O	21:1Z:54:HIS:ND1	2.32	0.63
32:1a:1033:G:H3'	32:1a:1034:G:H8	1.64	0.63
32:1a:1358:U:OP2	32:1a:1359:C:N4	2.28	0.63
1:2A:2135:A:N1	1:2A:2156:G:O2'	2.31	0.63
35:2d:31:CYS:CB	61:2d:302:SF4:S3	2.86	0.63
1:1A:414:C:H2'	1:1A:415:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:579:G:H2'	1:1A:580:C:C6	2.34	0.63
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.32	0.63
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.17	0.63
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.33	0.63
32:2a:544:G:OP1	35:2d:59:ARG:NH2	2.32	0.63
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.80	0.63
1:2A:1592:C:H2'	1:2A:1593:G:H8	1.62	0.63
32:2a:22:G:H4'	32:2a:885:G:C8	2.34	0.63
32:2a:539:A:H2'	32:2a:540:G:C8	2.34	0.63
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.34	0.63
39:1h:29:SER:HB3	39:1h:32:LYS:HD3	1.81	0.62
1:2A:994:C:O2'	1:2A:996:A:OP1	2.15	0.62
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.27	0.62
14:2S:16:ASN:HA	14:2S:19:LYS:HG3	1.79	0.62
17:2V:66:ARG:O	17:2V:88:ARG:NH2	2.31	0.62
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.31	0.62
32:2a:421:U:O2'	32:2a:423:G:N7	2.31	0.62
46:2o:11:VAL:HG21	46:2o:34:LEU:HD22	1.81	0.62
1:1A:2705:A:N3	62:1A:4297:HOH:O	2.30	0.62
3:1D:211:ARG:HG2	3:1D:214:TRP:CZ3	2.33	0.62
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.81	0.62
1:2A:919:G:N2	1:2A:2269:A:OP2	2.31	0.62
1:1A:1365:A:O2'	23:11:11:ARG:NH1	2.32	0.62
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.16	0.62
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.32	0.62
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.81	0.62
1:2A:1016:G:O6	62:2A:3950:HOH:O	2.15	0.62
34:2c:120:VAL:HA	34:2c:123:GLN:HB2	1.81	0.62
50:2s:23:ASN:OD1	50:2s:47:HIS:NE2	2.32	0.62
1:1A:403:U:H4'	1:1A:404:C:H5'	1.82	0.62
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.32	0.62
1:1A:1514:U:O2'	1:1A:1558:A:OP2	2.11	0.62
8:1I:77:LEU:HD12	8:1I:101:LEU:HD22	1.81	0.62
26:14:14:ILE:HD13	26:14:31:ILE:HB	1.80	0.62
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.34	0.62
48:1q:86:GLU:O	48:1q:90:ILE:HG12	1.99	0.62
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.32	0.62
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.14	0.62
32:2a:1060:C:H5"	41:2j:51:ARG:HB3	1.82	0.62
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.32	0.62
12:1Q:37:LEU:HD21	12:1Q:130:LYS:HD3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:52:ASP:O	24:12:56:GLN:HG3	2.00	0.62
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.32	0.62
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.32	0.62
1:1A:2336:A:H61	22:10:43:THR:CG2	2.13	0.62
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.79	0.62
50:1s:31:ILE:O	50:1s:50:ALA:N	2.32	0.62
1:2A:1342:A:OP1	19:2X:36:LYS:NZ	2.22	0.62
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.35	0.62
5:2F:137:LYS:HA	5:2F:140:LEU:HD12	1.81	0.62
32:2a:1128:C:O2'	32:2a:1129:C:O4'	2.17	0.62
1:1A:2871:C:N3	62:1A:4311:HOH:O	2.31	0.62
32:1a:280:C:O4'	48:1q:38:ARG:NH2	2.32	0.62
32:1a:636:U:H2'	32:1a:637:G:C8	2.29	0.62
32:2a:6:G:H4'	32:2a:298:A:H4'	1.80	0.62
32:2a:114:U:H2'	32:2a:115:G:C8	2.34	0.62
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.63	0.62
1:1A:747:U:O2	1:1A:2014:A:H1'	2.00	0.62
1:1A:2782:G:N7	62:1A:4313:HOH:O	2.31	0.62
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	1.81	0.62
55:1x:8:4SU:O2	55:1x:21:A:H2	1.82	0.62
1:2A:652(B):A:N6	1:2A:655:A:O2'	2.31	0.62
1:2A:2401:U:OP1	28:26:18:ARG:NH2	2.31	0.62
4:2E:52:LEU:O	4:2E:76:ARG:N	2.26	0.62
33:2b:168:THR:OG1	33:2b:192:SER:OG	2.14	0.62
35:2d:152:SER:O	35:2d:158:ILE:HD11	2.00	0.62
43:2l:117:ARG:HB3	43:2l:122:THR:HB	1.82	0.62
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.33	0.62
1:1A:2336:A:H61	22:10:43:THR:HG21	1.64	0.62
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.35	0.62
1:2A:2400:G:H4'	28:26:18:ARG:HG2	1.82	0.62
9:2N:91:LEU:HG	9:2N:98:VAL:HG21	1.82	0.62
15:2T:55:ASN:HD22	15:2T:58:ASN:HB2	1.64	0.62
32:2a:1005:A:H5"	32:2a:1006:C:C5	2.35	0.62
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.82	0.62
1:1A:1484:G:H1	1:1A:1505:C:N4	1.98	0.62
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.00	0.62
1:1A:2134:A:N3	1:1A:2159:G:O2'	2.31	0.62
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.35	0.62
1:1A:2687:U:H2'	1:1A:2688:U:O4'	1.98	0.62
9:1N:15:LEU:HB3	9:1N:137:LYS:HA	1.81	0.62
15:1T:16:ARG:NH2	15:1T:18:ASP:OD2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:16:6:ARG:NH2	28:16:26:ASN:HB2	2.15	0.62
1:2A:391:G:O2'	1:2A:410:G:OP1	2.16	0.62
32:2a:173:U:H5"	32:2a:197:A:O4'	2.00	0.62
32:2a:573:A:N3	32:2a:883:C:O2'	2.31	0.62
48:2q:60:ILE:HB	48:2q:74:LEU:HD12	1.80	0.62
1:1A:2646:C:OP1	62:1A:4177:HOH:O	2.16	0.61
32:1a:613:C:H2'	32:1a:614:A:C8	2.35	0.61
33:1b:22:LYS:HG2	33:1b:40:HIS:HE1	1.65	0.61
1:2A:90:U:H1'	1:2A:92:A:C8	2.34	0.61
1:2A:1970:A:OP2	62:2A:3952:HOH:O	2.15	0.61
2:2B:13:A:N1	2:2B:69:G:O2'	2.29	0.61
22:20:10:THR:HG22	22:20:12:ASN:H	1.65	0.61
34:2c:40:ARG:HA	34:2c:43:LEU:HB2	1.81	0.61
38:2g:126:ASP:O	38:2g:130:GLY:N	2.32	0.61
1:1A:582:G:H2'	1:1A:583:G:C8	2.36	0.61
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.15	0.61
34:1c:52:LEU:HA	34:1c:70:VAL:HG12	1.82	0.61
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.64	0.61
32:2a:598:U:O4	62:2a:1908:HOH:O	2.14	0.61
20:1Y:83:THR:HG21	20:1Y:99:CYS:HB2	1.82	0.61
33:1b:67:THR:N	33:1b:160:ASP:OD1	2.33	0.61
1:2A:1962:5MC:O2'	1:2A:1964:G:OP2	2.18	0.61
44:2m:108:ARG:HH11	44:2m:114:ARG:HG2	1.66	0.61
48:2q:95:TYR:HA	48:2q:98:LEU:HD13	1.81	0.61
1:1A:2544:G:N7	62:1A:4300:HOH:O	2.30	0.61
37:1f:74:ASP:OD1	37:1f:77:ARG:NH2	2.33	0.61
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	1.82	0.61
1:2A:709:U:H2'	1:2A:710:G:C8	2.35	0.61
8:2I:82:ARG:HH21	8:2I:90:GLY:N	1.99	0.61
39:2h:112:LEU:HD11	39:2h:124:ALA:HB2	1.80	0.61
54:2w:43:C:H2'	54:2w:44:G:C8	2.34	0.61
1:1A:2595:G:N7	62:1A:4315:HOH:O	2.31	0.61
21:1Z:8:TYR:HB2	21:1Z:38:TYR:CE2	2.35	0.61
32:1a:1060:C:H5"	41:1j:51:ARG:HG2	1.83	0.61
15:2T:16:ARG:NH2	15:2T:18:ASP:OD2	2.34	0.61
33:2b:114:ARG:HA	33:2b:117:GLU:HB3	1.81	0.61
1:1A:26:G:H1'	1:1A:515:A:H61	1.66	0.61
1:1A:2365:G:OP1	62:1A:4182:HOH:O	2.16	0.61
17:1V:1:MET:HB3	17:1V:99:ILE:HD12	1.82	0.61
18:1W:11:ARG:HA	18:1W:100:THR:HG22	1.82	0.61
32:1a:1531:A:H8	32:1a:1531:A:O5'	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1x:33:U:O2'	55:1x:35:A:N7	2.29	0.61
1:2A:9:U:OP1	9:2N:115:ARG:NH2	2.27	0.61
1:2A:833:U:O2'	30:28:57:ARG:NH1	2.34	0.61
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.36	0.61
1:1A:662:G:H5"	11:1P:16:ARG:HG2	1.82	0.61
2:1B:88:C:H2'	2:1B:89:G:O4'	2.01	0.61
32:1a:1273:G:H3'	32:1a:1274:G:C8	2.35	0.61
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.82	0.61
34:1c:162:GLN:NE2	53:1v:24:A:O2'	2.33	0.61
1:2A:995:C:O2	9:2N:3:THR:OG1	2.15	0.61
1:2A:2756:U:H3	1:2A:2758:A:H62	1.48	0.61
7:2H:70:THR:HA	7:2H:73:ALA:HB3	1.83	0.61
32:2a:84:U:H4'	32:2a:89:C:C4	2.35	0.61
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.48	0.61
1:1A:1056:G:N2	1:1A:1102:C:OP2	2.22	0.61
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.82	0.61
1:1A:2689:U:OP2	1:1A:2719:G:N2	2.27	0.61
32:1a:510:A:OP2	35:1d:49:ARG:NH1	2.34	0.61
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.17	0.61
34:1c:40:ARG:HG3	34:1c:57:ILE:HD11	1.83	0.61
35:1d:194:LEU:O	35:1d:196:LEU:N	2.32	0.61
39:1h:86:ILE:HD12	39:1h:133:LEU:HD22	1.82	0.61
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.83	0.61
26:24:46:GLN:HE21	26:24:48:ARG:HD3	1.65	0.61
32:2a:157:G:H2'	32:2a:158:G:H8	1.66	0.61
33:2b:170:GLU:HB3	33:2b:173:ALA:HB3	1.83	0.61
20:1Y:86:ARG:HB2	20:1Y:98:VAL:HG23	1.81	0.61
32:1a:316:G:OP2	32:1a:351:G:O2'	2.17	0.61
32:1a:1199:U:OP1	62:1a:1921:HOH:O	2.16	0.61
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.36	0.61
1:2A:2184:G:H2'	1:2A:2185:C:C6	2.36	0.61
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.82	0.61
32:2a:431:A:H2'	32:2a:432:A:C8	2.36	0.61
32:2a:1359:C:O2'	32:2a:1362:C:N4	2.33	0.61
11:1P:106:LEU:HD22	11:1P:112:LEU:HD13	1.83	0.61
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	1.83	0.61
19:1X:1:MET:HE1	24:12:22:GLU:HA	1.82	0.61
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.31	0.61
44:1m:12:ASN:O	44:1m:44:ARG:NH1	2.32	0.61
37:2f:7:ASN:HB2	37:2f:89:MET:HB3	1.82	0.61
50:2s:42:PRO:HG3	50:2s:67:VAL:HG11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:183:ARG:HG3	3:1D:270:ILE:HD13	1.81	0.60
32:1a:396:G:O2'	32:1a:398:C:OP1	2.13	0.60
32:1a:404:U:OP1	35:1d:118:ARG:NH1	2.34	0.60
39:1h:73:ASP:OD1	39:1h:75:ARG:NE	2.33	0.60
1:2A:18:C:O2'	1:2A:554:U:OP1	2.18	0.60
14:2S:48:LEU:HD23	14:2S:82:ILE:HD11	1.83	0.60
32:2a:491:G:N7	62:2a:1927:HOH:O	2.31	0.60
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.36	0.60
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.19	0.60
1:1A:1062:G:P	1:1A:1070:A:H1'	2.41	0.60
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.66	0.60
1:1A:1762:A:OP2	62:1A:4178:HOH:O	2.16	0.60
4:1E:97:LYS:N	4:1E:100:GLU:OE2	2.34	0.60
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.34	0.60
48:1q:75:ARG:NH1	48:1q:76:LEU:O	2.34	0.60
1:2A:184:C:H2'	1:2A:185:U:C6	2.36	0.60
1:2A:212:G:H2'	1:2A:213:A:O4'	2.01	0.60
1:2A:503:A:H4'	1:2A:504:U:H5'	1.83	0.60
1:2A:2274:A:O2'	1:2A:2276:G:OP1	2.16	0.60
35:2d:177:ASP:O	35:2d:181:MET:N	2.34	0.60
44:2m:78:ILE:HG23	44:2m:81:LEU:HD12	1.84	0.60
46:2o:74:ASP:HB3	46:2o:77:ARG:HB2	1.83	0.60
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.36	0.60
1:1A:2641:G:H5'	9:1N:83:LYS:HE2	1.84	0.60
3:1D:145:VAL:HG11	3:1D:175:LEU:HD21	1.82	0.60
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.33	0.60
28:16:28:ARG:NH1	28:16:29:ASN:OD1	2.35	0.60
40:1i:13:ALA:HB2	40:1i:68:GLY:HA3	1.83	0.60
6:2G:5:VAL:HG23	6:2G:8:LYS:H	1.66	0.60
1:1A:789:A:OP1	62:1A:4179:HOH:O	2.16	0.60
1:1A:1828:G:H8	1:1A:1828:G:OP2	1.84	0.60
12:1Q:137:TYR:O	12:1Q:141:GLN:NE2	2.23	0.60
26:14:16:CYS:SG	26:14:17:GLY:N	2.73	0.60
32:1a:23:C:OP2	32:1a:561:U:N3	2.35	0.60
1:2A:2405:G:H5'	11:2P:75:ILE:HD13	1.82	0.60
32:2a:1263:C:N3	32:2a:1272:G:O6	2.35	0.60
33:2b:101:MET:HG2	33:2b:108:ILE:HD13	1.82	0.60
1:1A:576:U:H2'	1:1A:577:G:C8	2.36	0.60
1:1A:2206:G:H8	1:1A:2207:G:N7	2.00	0.60
11:1P:100:LEU:HD23	11:1P:112:LEU:HD21	1.83	0.60
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1y:55:PSU:C4	56:1y:57:G:H5'	2.35	0.60
1:2A:132:G:O6	62:2A:3939:HOH:O	2.13	0.60
1:2A:2298:A:H62	1:2A:2318:G:H8	1.49	0.60
32:2a:471:G:H2'	32:2a:472:A:C8	2.37	0.60
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.82	0.60
1:1A:639:U:H2'	1:1A:640:C:C6	2.36	0.60
1:1A:2304:G:O2'	6:1G:133:LEU:O	2.15	0.60
2:1B:96:U:O4	62:1B:301:HOH:O	2.12	0.60
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	1.83	0.60
25:13:3:ARG:NH2	25:13:60:GLU:OE1	2.35	0.60
1:2A:453:C:O2	1:2A:457:A:O2'	2.20	0.60
1:2A:1516:C:H2'	1:2A:1517:G:H8	1.65	0.60
1:2A:2439:A:N6	55:2x:76:31H:OP1	2.34	0.60
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	1.84	0.60
7:2H:38:SER:HB3	7:2H:41:MET:HG3	1.83	0.60
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.33	0.60
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.83	0.60
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.36	0.60
1:1A:1506:C:H2'	1:1A:1507:A:C8	2.36	0.60
1:1A:1753:G:N2	1:1A:1756:G:OP2	2.33	0.60
32:1a:1353:G:N7	62:1a:1953:HOH:O	2.31	0.60
1:2A:1325:G:OP1	62:2A:3955:HOH:O	2.16	0.60
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.37	0.60
1:2A:2689:U:H4'	1:2A:2690:C:H5'	1.82	0.60
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	1.83	0.60
34:2c:111:LEU:HD11	34:2c:145:GLY:HA3	1.82	0.60
38:2g:153:HIS:CE1	42:2k:58:PRO:HD2	2.37	0.60
1:1A:370:G:OP1	1:1A:403:U:N3	2.22	0.60
1:1A:1334:G:O6	62:1A:4162:HOH:O	2.14	0.60
1:1A:2393:A:H5"	11:1P:63:PRO:HB3	1.84	0.60
1:1A:2601:C:H2'	1:1A:2603:G:C8	2.36	0.60
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.14	0.60
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.02	0.60
18:1W:31:GLU:OE1	62:1W:301:HOH:O	2.16	0.60
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.83	0.60
36:1e:41:VAL:HG23	36:1e:67:VAL:HG12	1.84	0.60
54:1w:28:G:H2'	54:1w:29:G:H8	1.65	0.60
1:2A:117:G:OP2	1:2A:119:A:O2'	2.18	0.60
1:2A:382:G:OP2	62:2A:3954:HOH:O	2.16	0.60
1:2A:2136:C:N4	1:2A:2155:G:N1	2.49	0.60
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:977:A:O2'	32:2a:979:C:OP2	2.19	0.60
1:1A:1266:G:O6	18:1W:13:SER:OG	2.16	0.60
1:1A:2504:U:OP2	62:1A:4181:HOH:O	2.16	0.60
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.83	0.60
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.82	0.60
1:2A:247:G:H4'	1:2A:386:G:C5	2.37	0.60
1:2A:582:G:H2'	1:2A:583:G:C8	2.37	0.60
1:2A:2391:G:O6	1:2A:2425:A:H8	1.85	0.60
32:2a:45:U:H2'	32:2a:46:G:C8	2.36	0.60
32:2a:335:C:O2'	32:2a:1433:A:N3	2.32	0.60
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.17	0.60
32:2a:1347:G:H22	32:2a:1374:A:P	2.25	0.60
5:1F:111:ALA:HB2	5:1F:206:ILE:HG21	1.84	0.60
32:1a:6:G:H22	36:1e:98:THR:HG22	1.65	0.60
32:1a:405:U:OP2	35:1d:3:ARG:NH1	2.25	0.60
32:1a:1059:C:H42	32:1a:1198:G:H1	1.50	0.60
2:2B:22:U:H2'	2:2B:23:G:C8	2.37	0.60
3:2D:72:LYS:HE3	3:2D:75:ILE:HD12	1.84	0.60
32:2a:410:G:H5'	35:2d:30:LYS:NZ	2.17	0.60
36:2e:77:PRO:HD2	36:2e:142:LEU:HD13	1.83	0.60
42:2k:54:ARG:NH1	56:2y:39:PSU:O2'	2.35	0.60
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.67	0.60
21:1Z:135:GLU:HG2	21:1Z:136:PHE:HD2	1.66	0.59
32:1a:78:G:O6	32:1a:92:C:N4	2.34	0.59
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.84	0.59
1:2A:606:U:OP2	5:2F:104:LYS:NZ	2.35	0.59
32:2a:1004:A:H61	32:2a:1037:C:H1'	1.67	0.59
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.83	0.59
56:2y:8:4SU:H6	56:2y:8:4SU:O5'	2.02	0.59
1:1A:272(F):C:H42	1:1A:363(D):G:H1	1.49	0.59
1:1A:2251:OMG:OP1	62:1A:4180:HOH:O	2.16	0.59
1:1A:2698:U:O4	62:1A:4170:HOH:O	2.15	0.59
5:1F:176:LEU:HD22	5:1F:180:GLY:HA3	1.84	0.59
32:1a:1071:C:H2'	32:1a:1072:G:H8	1.67	0.59
33:1b:174:VAL:HG13	33:1b:184:VAL:HG11	1.82	0.59
36:1e:78:HIS:HD2	39:1h:104:ARG:HD2	1.67	0.59
1:2A:412:A:N6	1:2A:2412:A:O4'	2.35	0.59
32:2a:1149:C:H2'	32:2a:1150:U:H6	1.66	0.59
32:2a:1226:C:H2'	44:2m:103:THR:HB	1.84	0.59
32:2a:1263:C:C4	32:2a:1272:G:O6	2.56	0.59
48:2q:66:SER:OG	48:2q:67:LYS:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:67:C:H2'	32:1a:68:G:C8	2.37	0.59
32:1a:1095:U:P	32:1a:1108:G:H1	2.24	0.59
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.31	0.59
8:2I:40:THR:OG1	8:2I:41:GLU:N	2.23	0.59
32:2a:509:A:H5"	35:2d:55:ALA:HB2	1.82	0.59
32:2a:598:U:H2'	32:2a:599:C:H6	1.66	0.59
32:2a:973:G:H3'	32:2a:974:A:H5"	1.84	0.59
32:2a:1289:A:P	52:2u:9:ARG:HH12	2.24	0.59
39:2h:116:LYS:HD3	39:2h:127:LEU:HD13	1.84	0.59
1:1A:1255:U:O5'	1:1A:1256:G:H5"	2.02	0.59
10:1O:14:THR:HG21	10:1O:86:ILE:HB	1.85	0.59
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.35	0.59
25:13:18:ASP:OD1	25:13:18:ASP:N	2.31	0.59
32:1a:1239:A:H62	32:1a:1299:A:N6	2.01	0.59
40:1i:28:VAL:HG22	40:1i:63:ILE:HB	1.84	0.59
44:1m:88:ARG:O	44:1m:92:HIS:ND1	2.28	0.59
1:2A:817:C:OP1	62:2A:3959:HOH:O	2.17	0.59
1:2A:852:G:H2'	1:2A:853:G:C8	2.37	0.59
1:2A:900:A:O2'	1:2A:901:A:OP1	2.20	0.59
1:2A:1112:G:H2'	1:2A:1113:U:O4'	2.03	0.59
2:2B:114:C:H4'	14:2S:46:VAL:HG22	1.84	0.59
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.83	0.59
48:2q:75:ARG:NH1	48:2q:76:LEU:O	2.36	0.59
1:1A:1696:G:N7	62:1A:4301:HOH:O	2.30	0.59
32:1a:1112:C:H1'	34:1c:179:ARG:HH11	1.67	0.59
34:1c:115:LEU:O	34:1c:119:ARG:N	2.34	0.59
1:2A:2263:C:OP2	62:2A:3961:HOH:O	2.17	0.59
6:2G:41:GLN:O	6:2G:43:LEU:N	2.35	0.59
12:2Q:137:TYR:O	12:2Q:141:GLN:NE2	2.33	0.59
13:2R:98:LEU:HB2	13:2R:113:LEU:HD11	1.83	0.59
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.29	0.59
32:2a:946:A:O2'	32:2a:1333:A:N3	2.29	0.59
34:2c:54:ARG:HB2	34:2c:69:HIS:CD2	2.38	0.59
35:2d:88:VAL:HA	36:2e:97:GLY:HA3	1.84	0.59
41:2j:8:LEU:HB3	41:2j:96:ILE:HG23	1.85	0.59
44:2m:15:VAL:HG22	44:2m:48:LEU:HD11	1.85	0.59
56:2y:14:A:H61	56:2y:21:A:H2	1.48	0.59
56:2y:65:G:H2'	56:2y:66:U:C6	2.37	0.59
21:1Z:45:ASP:OD1	21:1Z:49:ARG:NE	2.27	0.59
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.18	0.59
51:1t:36:LEU:HD12	51:1t:62:LEU:HD12	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2721:A:OP1	62:2A:3920:HOH:O	2.17	0.59
15:2T:127:ALA:C	15:2T:129:ARG:H	2.11	0.59
32:2a:403:C:H5"	35:2d:136:PRO:HD2	1.83	0.59
41:2j:16:LEU:O	41:2j:20:ALA:N	2.23	0.59
1:1A:363(C):G:H2'	1:1A:363(D):G:C8	2.37	0.59
1:1A:880:G:H1	1:1A:898:C:H42	1.49	0.59
1:1A:2099:U:O4	1:1A:2190:G:O6	2.21	0.59
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.68	0.59
2:1B:11:C:H2'	2:1B:15:A:H61	1.67	0.59
1:2A:309:G:N3	1:2A:329:G:O2'	2.34	0.59
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.13	0.59
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	1.84	0.59
32:2a:176:C:OP1	51:2t:29:LYS:NZ	2.28	0.59
39:2h:84:ARG:HH12	39:2h:86:ILE:HG12	1.68	0.59
32:1a:1191:A:OP1	34:1c:4:LYS:NZ	2.30	0.59
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.84	0.59
1:2A:1696:G:N7	62:2A:4064:HOH:O	2.32	0.59
5:2F:123:LEU:HD11	5:2F:194:MET:HE2	1.84	0.59
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.32	0.59
26:24:64:GLY:C	26:24:66:SER:H	2.10	0.59
32:2a:406:G:O2'	35:2d:3:ARG:NH2	2.32	0.59
41:2j:8:LEU:HG	41:2j:70:ARG:HB2	1.82	0.59
46:2o:5:LYS:H	46:2o:5:LYS:HD2	1.67	0.59
51:2t:27:LYS:HA	51:2t:30:LYS:HE3	1.85	0.59
55:2x:61:C:H2'	55:2x:62:C:H6	1.67	0.59
1:1A:442:G:H4'	5:1F:46:ARG:HG3	1.83	0.59
1:1A:2239:G:OP2	62:1A:4184:HOH:O	2.17	0.59
35:1d:26:CYS:CB	61:1d:501:SF4:S1	2.67	0.59
43:1l:7:ILE:HD13	43:1l:10:LEU:HD12	1.83	0.59
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.85	0.59
50:1s:12:ASP:OD1	50:1s:37:ARG:NH2	2.36	0.59
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.34	0.59
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.38	0.59
1:2A:2135:A:C8	1:2A:2136:C:H5	2.20	0.59
21:2Z:31:ARG:HH11	21:2Z:94:GLU:HG2	1.65	0.59
21:2Z:91:LEU:HD22	21:2Z:91:LEU:H	1.67	0.59
29:27:33:ARG:O	29:27:37:LYS:N	2.31	0.59
32:2a:948:C:H2'	32:2a:949:A:H8	1.66	0.59
32:2a:1228:C:H2'	32:2a:1229:A:C8	2.38	0.59
33:2b:98:LEU:HD13	33:2b:101:MET:HE3	1.83	0.59
46:2o:33:THR:HG21	46:2o:85:LEU:HD22	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.84	0.59
32:1a:255:G:OP1	48:1q:69:LYS:NZ	2.33	0.59
32:1a:683:G:O6	62:1a:1916:HOH:O	2.12	0.59
32:1a:993:G:O2'	32:1a:994:A:N7	2.35	0.59
40:1i:110:GLU:OE2	40:1i:113:LYS:NZ	2.30	0.59
49:1r:38:GLU:HA	49:1r:41:LYS:HE2	1.85	0.59
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.21	0.59
1:2A:2110:G:H3'	1:2A:2111:C:H5'	1.85	0.59
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.36	0.59
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.84	0.59
1:1A:882:G:H4'	54:1w:19:G:O6	2.03	0.58
1:1A:1183:G:O3'	25:13:29:ARG:NH1	2.33	0.58
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.38	0.58
32:1a:679:C:H2'	32:1a:680:C:C6	2.37	0.58
32:1a:1002:G:H3'	32:1a:1003:G:H4'	1.83	0.58
33:1b:204:ASN:OD1	33:1b:205:ASP:N	2.36	0.58
34:1c:44:GLU:HG3	34:1c:52:LEU:HD23	1.85	0.58
42:1k:66:LEU:O	42:1k:70:LYS:HB2	2.03	0.58
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.38	0.58
1:2A:1296:G:OP1	1:2A:2709:G:O2'	2.16	0.58
14:2S:11:LYS:O	14:2S:15:ARG:HB2	2.03	0.58
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.34	0.58
32:2a:895:G:N7	62:2a:1926:HOH:O	2.31	0.58
32:2a:1183:A:H3'	32:2a:1184:G:H5"	1.84	0.58
33:2b:74:LYS:HG2	33:2b:169:LYS:HE3	1.84	0.58
34:2c:47:LEU:HG	34:2c:70:VAL:HG11	1.85	0.58
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.30	0.58
37:2f:82:ARG:HB2	37:2f:85:VAL:HG23	1.85	0.58
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	1.83	0.58
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.21	0.58
1:1A:1418:G:OP2	62:1A:4185:HOH:O	2.17	0.58
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.14	0.58
19:1X:28:PHE:CZ	19:1X:92:LEU:HD11	2.38	0.58
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.29	0.58
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.32	0.58
4:2E:1:MET:HE3	4:2E:199:ARG:HD2	1.86	0.58
4:2E:49:LEU:N	4:2E:79:ARG:O	2.34	0.58
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.66	0.58
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.85	0.58
50:2s:17:GLU:O	50:2s:21:GLU:N	2.36	0.58
1:2A:956:G:H2'	1:2A:957:A:H2'	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2131:G:C8	1:2A:2133:G:C2	2.91	0.58
21:2Z:121:HIS:N	21:2Z:172:ALA:HB2	2.18	0.58
32:2a:431:A:H2'	32:2a:432:A:H8	1.68	0.58
47:2p:40:ASP:OD2	47:2p:43:LYS:N	2.36	0.58
1:1A:586:A:N1	1:1A:809:G:O2'	2.32	0.58
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.38	0.58
13:1R:98:LEU:HD12	27:15:57:VAL:HG11	1.85	0.58
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.85	0.58
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.84	0.58
26:24:2:LYS:HB2	26:24:5:ILE:HG12	1.85	0.58
32:2a:251:G:N1	32:2a:266:G:O6	2.36	0.58
32:2a:524:G:H2'	32:2a:525:C:C6	2.39	0.58
35:2d:63:LYS:HD2	35:2d:198:VAL:HG22	1.86	0.58
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.36	0.58
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.37	0.58
1:2A:61:G:OP1	24:22:51:ARG:NH2	2.36	0.58
1:2A:877:U:H1'	1:2A:901:A:H61	1.69	0.58
1:2A:908:C:OP1	12:2Q:22:LYS:HB3	2.03	0.58
1:2A:958:U:OP2	12:2Q:14:ARG:NE	2.34	0.58
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.39	0.58
32:2a:601:C:H2'	32:2a:602:A:C8	2.39	0.58
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.36	0.58
32:2a:1321:C:H4'	44:2m:87:TYR:CE2	2.38	0.58
1:1A:271(I):G:N7	1:1A:271(J):C:N4	2.50	0.58
1:1A:1507:A:O2'	1:1A:1509(A):A:N6	2.37	0.58
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.39	0.58
1:2A:310:A:H1'	1:2A:311:A:H2'	1.85	0.58
1:2A:1603:A:OP1	62:2A:3960:HOH:O	2.17	0.58
1:2A:2818:G:OP2	13:2R:42:LYS:NZ	2.36	0.58
12:2Q:20:ALA:HB2	21:2Z:79:ARG:HG3	1.83	0.58
14:2S:32:LEU:O	14:2S:62:LYS:NZ	2.35	0.58
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.83	0.58
32:2a:1183:A:O2'	32:2a:1185:G:OP2	2.22	0.58
33:2b:223:ILE:HA	33:2b:226:ARG:HD3	1.83	0.58
49:2r:22:VAL:HG23	49:2r:56:THR:HA	1.85	0.58
1:1A:898:C:N4	1:1A:899:A:N7	2.51	0.58
1:1A:1783:A:N7	62:1A:4319:HOH:O	2.32	0.58
1:1A:2134:A:H2'	1:1A:2135:A:N7	2.19	0.58
1:1A:2250:G:OP1	12:1Q:85:LYS:NZ	2.37	0.58
18:1W:11:ARG:NH1	18:1W:99:ARG:O	2.34	0.58
32:1a:1456:G:C4	51:1t:55:ILE:HD11	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	1.83	0.58
1:2A:89:G:H3'	1:2A:90:U:H5"	1.86	0.58
1:2A:388:G:O2'	1:2A:389:G:N7	2.33	0.58
1:2A:1231:G:H2'	1:2A:1232:G:C8	2.39	0.58
1:2A:1713:U:H2'	1:2A:1714:G:H8	1.69	0.58
1:2A:2804:C:H2'	1:2A:2805:G:H8	1.69	0.58
7:2H:11:VAL:HG21	7:2H:17:VAL:HG21	1.85	0.58
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.84	0.58
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.50	0.58
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	1.84	0.58
33:2b:158:LEU:HD21	33:2b:180:LEU:HD13	1.84	0.58
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.85	0.58
38:2g:78:ARG:HH21	38:2g:79:ARG:HE	1.51	0.58
40:2i:81:ILE:O	40:2i:85:LEU:HG	2.03	0.58
1:1A:947:G:OP2	62:1A:4186:HOH:O	2.17	0.58
6:1G:119:GLY:O	6:1G:181:ARG:NH1	2.37	0.58
26:14:50:VAL:HG11	44:1m:64:TRP:HA	1.85	0.58
32:1a:1192:C:OP2	34:1c:4:LYS:NZ	2.27	0.58
39:1h:34:GLU:HB3	39:1h:118:VAL:HG21	1.85	0.58
1:2A:883:G:N2	1:2A:894:C:O2	2.36	0.58
1:2A:1274:A:N1	1:2A:1644:C:O2'	2.36	0.58
32:2a:582:U:OP1	46:2o:68:ARG:NH2	2.30	0.58
42:2k:79:SER:HA	42:2k:104:GLN:HB3	1.84	0.58
1:1A:1218:C:H42	1:1A:1231:G:H1	1.50	0.58
1:1A:2040:C:H2'	1:1A:2041:U:O4'	2.04	0.58
21:1Z:80:ARG:HB3	21:1Z:82:ARG:HD3	1.86	0.58
32:1a:1464:G:H2'	32:1a:1465:C:C6	2.39	0.58
32:1a:1503:A:N3	53:1v:13:A:N6	2.51	0.58
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.86	0.58
33:2b:8:LYS:HA	33:2b:217:ARG:HE	1.69	0.58
35:2d:76:ARG:NE	35:2d:80:GLU:OE2	2.36	0.58
47:2p:1:MET:O	47:2p:24:ALA:N	2.30	0.58
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.85	0.58
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.37	0.58
1:1A:745:G:O6	62:1A:4167:HOH:O	2.15	0.58
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.21	0.58
1:1A:2322:A:N6	62:1A:4361:HOH:O	2.36	0.58
5:1F:18:ARG:NH2	5:1F:127:GLU:OE2	2.36	0.58
5:1F:197:ASP:N	5:1F:197:ASP:OD1	2.37	0.58
39:1h:9:MET:HG3	39:1h:26:VAL:HG11	1.86	0.58
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.39	0.58
1:2A:340:A:H2'	1:2A:341:G:O4'	2.02	0.58
1:2A:2590:A:O3'	3:2D:239:ARG:NH2	2.37	0.58
12:2Q:2:LEU:HD12	12:2Q:47:ILE:HG21	1.85	0.58
24:22:38:GLN:HG3	24:22:43:GLN:HB2	1.86	0.58
32:2a:969:A:OP1	41:2j:55:LYS:NZ	2.35	0.58
1:1A:1058:G:H1	1:1A:1080:C:N4	2.02	0.57
1:1A:1960:A:O2'	32:1a:1484:C:O2'	2.21	0.57
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.69	0.57
47:1p:11:SER:H	47:1p:14:ASN:HB3	1.69	0.57
56:1y:51:U:H3	56:1y:63:G:H1	1.50	0.57
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.39	0.57
32:2a:256:U:H3	32:2a:270:A:H61	1.52	0.57
32:2a:707:C:H2'	32:2a:708:C:C6	2.38	0.57
32:2a:1161:C:H2'	32:2a:1162:C:C6	2.39	0.57
36:2e:41:VAL:HG12	36:2e:67:VAL:HG11	1.84	0.57
1:1A:686:G:N2	1:1A:788:A:H61	2.02	0.57
1:1A:1333:C:OP2	62:1A:4187:HOH:O	2.17	0.57
1:1A:2005:A:H5"	62:1A:4342:HOH:O	2.03	0.57
32:1a:576:G:O6	32:1a:880:C:O2'	2.17	0.57
46:1o:8:LYS:HG2	46:1o:12:ILE:HD11	1.86	0.57
1:2A:966:G:H4'	1:2A:2271:G:H22	1.69	0.57
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.39	0.57
24:22:35:LEU:HD12	24:22:53:LEU:HD12	1.86	0.57
36:2e:53:LEU:O	36:2e:57:LYS:N	2.29	0.57
38:2g:15:ASP:OD1	38:2g:19:GLY:N	2.36	0.57
53:2v:23:A:H4'	53:2v:24:A:H5'	1.85	0.57
2:1B:72:G:O2'	2:1B:105:A:N6	2.35	0.57
32:1a:737:A:H5"	37:1f:92:LYS:HG3	1.87	0.57
32:1a:800:G:N7	62:1a:1956:HOH:O	2.33	0.57
33:1b:52:GLU:HG2	33:1b:56:ARG:HH21	1.69	0.57
1:2A:2058:MA6:O5'	1:2A:2058:MA6:H8	2.04	0.57
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.04	0.57
12:2Q:10:ARG:NH1	12:2Q:90:VAL:H	2.02	0.57
32:2a:297:G:O2'	32:2a:299:G:N7	2.32	0.57
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.85	0.57
1:1A:2279:G:N7	22:10:14:ARG:NH1	2.53	0.57
3:1D:62:TYR:HA	3:1D:87:ASN:OD1	2.05	0.57
11:1P:71:VAL:HG22	11:1P:72:PRO:HA	1.86	0.57
32:1a:7:G:O2'	36:1e:120:THR:O	2.23	0.57
32:1a:1498:UR3:O2'	53:1v:17:U:OP1	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.12	0.57
1:2A:947:G:H2'	1:2A:948:G:C8	2.39	0.57
1:2A:1030:G:H1	1:2A:1124:C:H42	1.52	0.57
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.03	0.57
1:2A:2592:G:OP2	62:2A:3963:HOH:O	2.17	0.57
21:2Z:103:ARG:N	21:2Z:137:ILE:O	2.36	0.57
32:2a:921:U:O2'	36:2e:19:MET:O	2.21	0.57
33:2b:63:MET:HG2	33:2b:225:ALA:HB1	1.86	0.57
1:1A:326:G:OP2	62:1A:4183:HOH:O	2.17	0.57
1:1A:400:G:N7	62:1A:4326:HOH:O	2.33	0.57
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.39	0.57
6:1G:43:LEU:C	6:1G:45:GLU:H	2.12	0.57
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.36	0.57
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.86	0.57
32:1a:103:C:O2'	32:1a:172:A:N1	2.36	0.57
36:1e:83:GLU:OE1	62:1e:301:HOH:O	2.17	0.57
38:1g:50:ILE:HD11	38:1g:125:MET:HG3	1.87	0.57
1:2A:699:A:H2'	1:2A:700:G:O4'	2.04	0.57
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.85	0.57
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.37	0.57
14:2S:93:LYS:HD2	14:2S:95:HIS:HB2	1.85	0.57
21:2Z:134:PRO:HG3	21:2Z:161:VAL:HG21	1.87	0.57
32:2a:929:G:H1	32:2a:1388:C:H42	1.52	0.57
32:2a:966:M2G:HM23	32:2a:967:5MC:H1'	1.87	0.57
32:2a:1256:A:H61	32:2a:1278:U:H2'	1.68	0.57
38:2g:99:LEU:HD23	38:2g:102:ARG:HH12	1.70	0.57
42:2k:65:ALA:O	42:2k:69:ALA:N	2.30	0.57
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.03	0.57
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.39	0.57
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.68	0.57
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.70	0.57
28:16:13:CYS:SG	28:16:47:THR:HG21	2.43	0.57
44:1m:68:GLY:O	44:1m:72:ALA:N	2.37	0.57
2:2B:42:C:OP2	26:24:2:LYS:NZ	2.30	0.57
4:2E:34:VAL:HB	4:2E:48:GLN:HE21	1.70	0.57
14:2S:77:ALA:O	14:2S:81:GLY:N	2.37	0.57
36:2e:7:GLU:OE1	36:2e:37:ARG:NE	2.31	0.57
1:1A:657:U:H2'	1:1A:658:C:C6	2.40	0.57
1:1A:898:C:H2'	1:1A:899:A:H5'	1.87	0.57
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.04	0.57
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.50	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:1W:36:LEU:HD11	18:1W:47:VAL:HG12	1.86	0.57
32:1a:145:G:H1	32:1a:177:C:H42	1.52	0.57
32:1a:434:U:H2'	32:1a:435:C:C6	2.40	0.57
32:1a:458:C:H42	32:1a:473:G:H1	1.50	0.57
32:1a:657:G:H2'	32:1a:658:G:H8	1.69	0.57
32:1a:1391:U:O2'	32:1a:1532:U:OP1	2.21	0.57
54:1w:51:U:H2'	54:1w:52:G:H8	1.69	0.57
1:2A:192:C:O2'	1:2A:802:A:N3	2.37	0.57
1:2A:1466:G:H2'	1:2A:1547:C:H41	1.68	0.57
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.86	0.57
33:2b:208:ILE:HA	33:2b:211:ILE:HD12	1.86	0.57
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.86	0.57
1:1A:1087:G:H2'	1:1A:1089:G:C8	2.40	0.57
1:1A:2791:C:N4	1:1A:2805:G:O6	2.37	0.57
25:13:7:LYS:HB2	25:13:34:GLU:HG3	1.86	0.57
35:1d:178:VAL:C	35:1d:180:GLY:H	2.13	0.57
54:1w:60:U:H5"	54:1w:61:C:H5	1.70	0.57
1:2A:460:A:H62	1:2A:469:G:H21	1.52	0.57
1:2A:2121:G:H1	1:2A:2177:C:N4	2.00	0.57
9:2N:1:MET:HE1	16:2U:94:ASN:ND2	2.19	0.57
32:2a:396:G:O2'	32:2a:398:C:OP1	2.21	0.57
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.05	0.57
1:1A:800:A:H8	1:1A:800:A:OP1	1.88	0.57
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.39	0.57
32:1a:977:A:O2'	32:1a:981:U:N3	2.37	0.57
35:1d:110:PHE:HE2	35:1d:146:ILE:HG22	1.69	0.57
43:1l:70:ILE:HD13	43:1l:77:LEU:HD12	1.86	0.57
1:2A:565:C:OP1	17:2V:82:ARG:NH2	2.36	0.57
32:2a:596:C:OP2	62:2a:1908:HOH:O	2.17	0.57
32:2a:1004:A:C8	32:2a:1005:A:H4'	2.40	0.57
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.38	0.57
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.40	0.57
32:1a:7:G:H2'	36:1e:119:LEU:HD22	1.87	0.57
32:1a:255:G:H2'	32:1a:256:U:C6	2.40	0.57
32:1a:520:A:N1	32:1a:536:C:H1'	2.20	0.57
32:1a:972:C:O2'	41:1j:55:LYS:O	2.22	0.57
32:1a:1004:A:H5"	32:1a:1024:G:H22	1.70	0.57
38:1g:12:LEU:HD12	38:1g:12:LEU:H	1.70	0.57
44:1m:88:ARG:HG2	44:1m:98:VAL:HG12	1.85	0.57
48:1q:57:VAL:HG12	48:1q:76:LEU:HA	1.87	0.57
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2125:G:N1	1:2A:2172:U:OP1	2.33	0.57
8:2I:82:ARG:CZ	8:2I:89:TYR:HB2	2.35	0.57
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.87	0.57
1:1A:181:A:H5"	29:17:36:GLN:NE2	2.19	0.56
27:15:8:LYS:O	27:15:9:LYS:HD2	2.05	0.56
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.35	0.56
33:1b:80:ILE:HD13	33:1b:211:ILE:HG22	1.87	0.56
36:1e:7:GLU:OE2	36:1e:37:ARG:NH2	2.38	0.56
36:1e:78:HIS:CE1	36:1e:143:ARG:H	2.23	0.56
40:1i:16:ARG:HH11	40:1i:64:THR:HG21	1.70	0.56
46:1o:23:GLY:O	46:1o:28:GLN:NE2	2.38	0.56
1:2A:271(L):U:H5"	8:2I:50:ARG:HH11	1.70	0.56
1:2A:1263:U:C4	1:2A:1264:G:C6	2.93	0.56
1:2A:2453:A:N7	62:2A:4072:HOH:O	2.33	0.56
32:2a:376:G:H5"	47:2p:5:ARG:HB2	1.87	0.56
34:2c:182:ILE:HG22	34:2c:203:PHE:HA	1.86	0.56
37:2f:12:PRO:HG3	37:2f:57:GLN:C	2.30	0.56
1:1A:414:C:H2'	1:1A:415:A:H8	1.70	0.56
1:1A:568:U:O2'	62:1A:4188:HOH:O	2.18	0.56
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.05	0.56
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.40	0.56
3:1D:38:LYS:NZ	3:1D:39:LYS:O	2.22	0.56
32:1a:574:A:OP2	62:1a:1922:HOH:O	2.17	0.56
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.40	0.56
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.40	0.56
42:1k:98:LEU:O	42:1k:101:SER:OG	2.19	0.56
48:1q:12:SER:HB3	48:1q:20:THR:HB	1.86	0.56
48:1q:74:LEU:HD23	48:1q:75:ARG:HG2	1.88	0.56
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.32	0.56
1:2A:2794:C:N4	1:2A:2802:G:O6	2.38	0.56
32:2a:181:G:H4'	32:2a:182:U:H5'	1.86	0.56
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.68	0.56
32:2a:1148:U:H5'	40:2i:16:ARG:HD2	1.87	0.56
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.40	0.56
37:2f:97:PHE:HD2	49:2r:31:LEU:HD11	1.69	0.56
1:1A:27:G:C2	1:1A:512:G:N3	2.73	0.56
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.40	0.56
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.69	0.56
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.40	0.56
7:1H:88:LEU:HD23	7:1H:130:ARG:HG2	1.87	0.56
26:14:57:GLU:HG2	26:14:58:ARG:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:1u:3:LYS:HD2	52:1u:14:TRP:HD1	1.70	0.56
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.36	0.56
1:2A:1246:A:O2'	5:2F:45:ARG:NH1	2.38	0.56
1:2A:1337:G:H2'	1:2A:1338:G:H8	1.71	0.56
1:2A:1380:G:OP2	62:2A:3964:HOH:O	2.17	0.56
1:2A:1747(A):G:H2'	1:2A:1748:G:C8	2.39	0.56
1:2A:1957:C:H2'	1:2A:1958:C:C6	2.40	0.56
1:2A:2390:U:P	30:28:35:GLN:HE22	2.27	0.56
5:2F:113:ALA:HB1	5:2F:186:ILE:HG21	1.87	0.56
32:2a:147:G:H2'	32:2a:148:G:H8	1.71	0.56
32:2a:653:A:O4'	39:2h:56:LYS:NZ	2.35	0.56
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.40	0.56
32:2a:1149:C:H2'	32:2a:1150:U:C6	2.40	0.56
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.86	0.56
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.05	0.56
41:2j:50:ILE:O	45:2n:41:ARG:NH1	2.38	0.56
1:1A:182:A:N3	1:1A:433:C:O2'	2.36	0.56
1:1A:2067:G:N7	62:1A:4324:HOH:O	2.32	0.56
1:1A:2090:G:O6	62:1A:4149:HOH:O	2.10	0.56
1:1A:2226:C:OP2	62:1A:4190:HOH:O	2.18	0.56
1:1A:2300:G:H2'	1:1A:2301:C:H6	1.71	0.56
41:1j:7:LYS:HZ2	41:1j:9:ARG:HH22	1.54	0.56
45:1n:27:CYS:SG	45:1n:29:ARG:HB2	2.46	0.56
1:2A:2176:A:H2'	1:2A:2177:C:C6	2.40	0.56
3:2D:180:GLY:HA3	3:2D:275:LYS:HE3	1.86	0.56
12:2Q:57:HIS:CD2	12:2Q:117:ALA:HB2	2.40	0.56
25:23:15:TYR:O	25:23:20:LYS:NZ	2.39	0.56
32:2a:728:A:OP1	46:2o:54:ARG:NH1	2.39	0.56
32:2a:1002:G:N1	32:2a:1003:G:H8	2.03	0.56
32:2a:1297:C:OP2	44:2m:44:ARG:NH2	2.38	0.56
33:2b:118:LEU:HD11	33:2b:138:LEU:HB3	1.86	0.56
33:2b:200:ILE:HG22	33:2b:202:PRO:HD3	1.88	0.56
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.88	0.56
1:1A:1091:G:N1	1:1A:1100:C:O2	2.37	0.56
23:11:8:SER:HB2	23:11:66:HIS:CD2	2.41	0.56
32:1a:17:U:H2'	32:1a:18:C:C6	2.40	0.56
38:1g:53:LYS:HD3	38:1g:125:MET:HE1	1.87	0.56
1:2A:307:G:H21	1:2A:330:A:N6	2.02	0.56
1:2A:1938:A:OP2	62:2A:3962:HOH:O	2.17	0.56
1:2A:2728:U:H5'	10:2O:70:LYS:NZ	2.21	0.56
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:41:ASP:O	14:2S:45:GLY:N	2.37	0.56
16:2U:103:PRO:O	16:2U:107:ALA:N	2.37	0.56
33:2b:36:ARG:C	33:2b:38:GLY:H	2.14	0.56
44:2m:102:ARG:HE	44:2m:104:ARG:HB3	1.71	0.56
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.40	0.56
6:1G:121:ASN:HD22	6:1G:181:ARG:HH21	1.54	0.56
18:1W:88:ARG:HB2	18:1W:92:ARG:HG2	1.87	0.56
32:1a:171:A:H2'	32:1a:172:A:H8	1.71	0.56
32:1a:1179:A:H4'	40:1i:103:THR:HA	1.87	0.56
1:2A:724:U:H2'	1:2A:725:G:O4'	2.05	0.56
1:2A:2137:C:N4	1:2A:2154:G:H1	2.04	0.56
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.46	0.56
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.20	0.56
35:2d:152:SER:O	35:2d:155:LEU:HB2	2.05	0.56
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.88	0.56
1:1A:1043:C:O2	1:1A:1112:G:N2	2.35	0.56
1:1A:2058:MA6:H8	1:1A:2058:MA6:O5'	2.06	0.56
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.70	0.56
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.37	0.56
4:1E:176:ILE:HD12	4:1E:181:LEU:HD12	1.88	0.56
24:12:32:LEU:O	24:12:36:ARG:HG3	2.05	0.56
32:1a:1347:G:H22	32:1a:1374:A:P	2.29	0.56
1:2A:667:U:O2	30:28:2:PRO:HD2	2.05	0.56
1:2A:1268:A:OP2	62:2A:3967:HOH:O	2.18	0.56
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.05	0.56
1:2A:2127:G:C2	1:2A:2161:C:N3	2.74	0.56
1:2A:2232:U:P	23:21:40:ARG:HH12	2.29	0.56
1:2A:2870:C:H5"	13:2R:65:LEU:HD11	1.88	0.56
2:2B:34:U:OP1	6:2G:2:PRO:HG3	2.06	0.56
11:2P:39:LYS:HB2	11:2P:45:LEU:HD13	1.86	0.56
18:2W:61:ASN:O	18:2W:62:HIS:ND1	2.39	0.56
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.41	0.56
22:20:22:GLY:N	22:20:39:ARG:O	2.39	0.56
32:2a:21:G:H2'	32:2a:22:G:H8	1.71	0.56
32:2a:1026:G:H5'	32:2a:1027:C:O5'	2.06	0.56
6:1G:11:TYR:OH	6:1G:32:PRO:O	2.19	0.56
26:14:34:GLU:HG2	26:14:35:VAL:HG23	1.88	0.56
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.06	0.56
32:1a:1197:G:OP2	62:1a:1926:HOH:O	2.18	0.56
32:1a:1302:U:C5	44:1m:17:VAL:HG21	2.41	0.56
33:1b:16:HIS:HB3	33:1b:210:SER:OG	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.24	0.56
1:2A:2185:C:H2'	1:2A:2186:G:O4'	2.05	0.56
6:2G:53:LEU:HD12	6:2G:56:ALA:HB2	1.86	0.56
32:2a:107:G:O6	51:2t:15:ARG:HD2	2.06	0.56
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.40	0.56
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.06	0.56
32:2a:1290:G:O2'	38:2g:37:ASN:ND2	2.39	0.56
1:1A:2896:C:H2'	1:1A:2897:U:H6	1.70	0.56
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.13	0.56
36:1e:60:TYR:OH	36:1e:64:ARG:NH2	2.39	0.56
1:2A:1751:C:O2'	1:2A:2861:G:O2'	2.20	0.56
1:2A:2590:A:H5"	3:2D:239:ARG:HG3	1.87	0.56
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.20	0.56
32:2a:19:C:OP2	36:2e:127:ASN:ND2	2.36	0.56
32:2a:748:C:H4'	32:2a:749:C:O5'	2.05	0.56
34:2c:131:ARG:HE	34:2c:135:LYS:HZ2	1.54	0.56
37:2f:24:GLU:O	37:2f:28:ARG:N	2.29	0.56
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.40	0.56
1:1A:1351:C:OP2	62:1A:4191:HOH:O	2.18	0.56
5:1F:13:SER:HA	5:1F:127:GLU:HG3	1.88	0.56
32:1a:326:G:O6	62:1a:1923:HOH:O	2.17	0.56
32:1a:909:A:H2'	32:1a:910:C:O4'	2.06	0.56
34:1c:181:ASN:ND2	34:1c:204:LEU:HD12	2.21	0.56
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.21	0.56
2:2B:76:G:OP1	21:2Z:10:ARG:NH1	2.38	0.56
32:2a:67:C:H2'	32:2a:68:G:C8	2.41	0.56
32:2a:1272:G:N2	32:2a:1273:G:C5	2.74	0.56
36:2e:36:ASP:O	36:2e:38:GLN:N	2.39	0.56
55:2x:3:C:N4	55:2x:70:G:H1	2.04	0.56
1:1A:1058:G:N2	1:1A:1080:C:N3	2.50	0.55
2:1B:11:C:H3'	2:1B:12:C:C6	2.41	0.55
32:1a:271:C:H2'	32:1a:272:C:H6	1.70	0.55
33:1b:208:ILE:HD13	33:1b:208:ILE:H	1.71	0.55
1:2A:751:A:OP1	62:2A:3969:HOH:O	2.18	0.55
1:2A:840:C:H2'	1:2A:841:A:C8	2.41	0.55
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.34	0.55
1:2A:2136:C:O2'	1:2A:2137:C:O5'	2.24	0.55
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.71	0.55
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.41	0.55
5:2F:13:SER:OG	5:2F:16:GLY:O	2.24	0.55
11:2P:126:VAL:HG12	11:2P:148:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:106:GLY:HA3	21:2Z:141:VAL:HB	1.88	0.55
32:2a:53:A:OP2	62:2a:1911:HOH:O	2.18	0.55
32:2a:711:G:H2'	32:2a:712:A:C8	2.41	0.55
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.41	0.55
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.87	0.55
1:1A:2161:C:O2'	1:1A:2162:G:H5"	2.06	0.55
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.30	0.55
15:1T:118:ARG:HA	15:1T:121:ILE:HD12	1.88	0.55
15:1T:127:ALA:C	15:1T:129:ARG:H	2.14	0.55
32:1a:973:G:H3'	32:1a:974:A:H5"	1.89	0.55
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.41	0.55
42:1k:48:ILE:O	42:1k:50:TYR:N	2.38	0.55
1:2A:24:G:O2'	18:2W:78:GLU:O	2.23	0.55
1:2A:1445(A):C:H42	1:2A:1466:G:H1	1.52	0.55
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.13	0.55
1:2A:2824:C:H2'	1:2A:2825:C:O4'	2.05	0.55
9:2N:67:LEU:HA	9:2N:87:LEU:HD23	1.87	0.55
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.88	0.55
32:2a:450:G:H4'	47:2p:41:PRO:HB2	1.87	0.55
32:2a:1071:C:H5"	36:2e:49:PRO:HG3	1.88	0.55
48:2q:6:LEU:O	48:2q:59:ILE:N	2.31	0.55
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.21	0.55
1:1A:1941:C:N4	1:1A:1965:C:H5'	2.21	0.55
32:1a:1381:U:H1'	38:1g:79:ARG:HG2	1.88	0.55
34:1c:66:VAL:HG23	34:1c:101:LEU:HA	1.88	0.55
45:1n:39:LEU:HD11	45:1n:47:LEU:HD12	1.89	0.55
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.38	0.55
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.39	0.55
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.14	0.55
32:2a:21:G:H2'	32:2a:22:G:C8	2.41	0.55
32:2a:1147:C:O2	40:2i:16:ARG:NH1	2.40	0.55
32:2a:1256:A:OP1	34:2c:26:LYS:NZ	2.38	0.55
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.88	0.55
1:1A:383:U:H2'	1:1A:385:C:H5	1.72	0.55
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.41	0.55
1:1A:2303:G:O2'	6:1G:132:ASN:ND2	2.39	0.55
3:1D:37:LEU:HG	3:1D:62:TYR:HB2	1.87	0.55
4:1E:7:VAL:HG12	4:1E:27:LEU:HB3	1.88	0.55
8:1I:95:LYS:HE3	8:1I:99:GLU:HG3	1.89	0.55
32:1a:321:A:N7	32:1a:328:C:O2'	2.38	0.55
32:1a:339:C:H2'	32:1a:340:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:743:U:H2'	32:1a:744:C:C6	2.42	0.55
37:1f:39:LYS:HB2	37:1f:64:GLN:HB3	1.89	0.55
1:2A:1219:G:H1	1:2A:1230:C:H42	1.55	0.55
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.06	0.55
1:2A:2051:A:OP1	4:2E:137:HIS:ND1	2.30	0.55
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.06	0.55
32:2a:1263:C:H1'	32:2a:1273:G:N2	2.21	0.55
33:2b:19:HIS:HB2	33:2b:204:ASN:HB2	1.89	0.55
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.88	0.55
56:2y:26:A:N1	56:2y:44:G:C6	2.74	0.55
21:1Z:26:GLY:HA3	21:1Z:86:VAL:HG23	1.88	0.55
32:1a:413:G:N7	35:1d:35:ARG:NH2	2.54	0.55
38:1g:80:VAL:O	38:1g:85:TYR:OH	2.24	0.55
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.88	0.55
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.39	0.55
6:2G:82:LEU:HA	6:2G:86:MET:SD	2.47	0.55
6:2G:111:LEU:HD23	6:2G:117:PHE:CZ	2.42	0.55
32:2a:254:G:O2'	48:2q:16:GLN:O	2.24	0.55
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.41	0.55
47:2p:15:PRO:O	47:2p:16:HIS:ND1	2.39	0.55
54:2w:23:A:H2'	54:2w:24:G:C8	2.42	0.55
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.18	0.55
1:1A:859:G:O2'	1:1A:916:G:O6	2.20	0.55
1:1A:1058:G:N2	1:1A:1081:U:O2	2.40	0.55
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.40	0.55
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.72	0.55
33:1b:67:THR:HG22	33:1b:159:PRO:HB3	1.89	0.55
43:1l:69:TYR:HB2	43:1l:96:VAL:HG11	1.89	0.55
5:2F:20:LEU:HD13	5:2F:125:LEU:HD13	1.89	0.55
21:2Z:145:GLU:H	21:2Z:148:ASP:HB2	1.70	0.55
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.75	0.55
1:1A:1057:A:N6	1:1A:1081:U:H3	2.03	0.55
1:1A:2612:C:OP2	27:15:2:ALA:N	2.40	0.55
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.07	0.55
32:1a:899:C:H2'	32:1a:900:A:C8	2.42	0.55
32:1a:1027:C:C4	32:1a:1034:G:N1	2.72	0.55
32:1a:1147:C:O2	40:1i:16:ARG:NH2	2.36	0.55
32:1a:1432:G:N7	62:1a:1958:HOH:O	2.33	0.55
36:1e:61:TYR:HA	36:1e:64:ARG:HD2	1.89	0.55
1:2A:524:U:H2'	1:2A:525:U:C6	2.41	0.55
1:2A:2524:G:O6	62:2A:3953:HOH:O	2.16	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:29:LYS:HG3	11:2P:30:THR:H	1.71	0.55
14:2S:18:ILE:O	14:2S:21:THR:OG1	2.24	0.55
17:2V:72:VAL:HB	17:2V:85:LYS:HB3	1.89	0.55
26:24:58:ARG:HH21	50:2s:69:HIS:CE1	2.23	0.55
32:2a:328:C:H4'	32:2a:329:A:H5'	1.89	0.55
32:2a:452:A:H4'	47:2p:72:ARG:HH21	1.72	0.55
32:2a:674:G:N2	32:2a:717:C:O2	2.34	0.55
34:2c:100:ALA:O	34:2c:102:ASN:ND2	2.39	0.55
35:2d:201:GLN:NE2	36:2e:99:GLY:HA2	2.21	0.55
1:1A:534:U:H2'	1:1A:535:C:C6	2.42	0.55
1:1A:972:G:OP1	1:1A:974:G:H5'	2.07	0.55
1:1A:1528:A:H2'	1:1A:1528(A):A:C8	2.42	0.55
32:1a:538:G:H5"	43:1l:114:LYS:HB2	1.88	0.55
32:1a:1025:U:O2	32:1a:1036:G:C6	2.60	0.55
33:1b:168:THR:OG1	33:1b:191:ASP:O	2.25	0.55
35:1d:11:LEU:HG	35:1d:66:ARG:HD3	1.89	0.55
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.89	0.55
40:1i:77:ILE:O	40:1i:81:ILE:HG22	2.07	0.55
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.22	0.55
55:1x:10:G:N2	55:1x:26:G:H1'	2.22	0.55
1:2A:95:G:H4'	24:22:46:GLN:HA	1.89	0.55
1:2A:480:A:O2'	20:2Y:46:LYS:O	2.25	0.55
1:2A:628:G:H2'	1:2A:629:G:C8	2.41	0.55
1:2A:1496:A:OP2	1:2A:1496:A:H8	1.89	0.55
1:2A:1546:C:H5'	1:2A:1547:C:H5'	1.89	0.55
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.38	0.55
8:2I:48:GLU:HA	8:2I:51:ILE:HG22	1.89	0.55
8:2I:79:ILE:HG22	8:2I:81:VAL:HG13	1.89	0.55
16:2U:61:TRP:CZ2	16:2U:93:LYS:HG3	2.42	0.55
32:2a:722:A:C8	32:2a:724:G:H1'	2.42	0.55
34:2c:110:ASN:OD1	34:2c:140:ARG:NH2	2.37	0.55
40:2i:96:LEU:HA	40:2i:99:LEU:HB2	1.89	0.55
44:2m:25:ILE:HD11	44:2m:60:VAL:HG11	1.88	0.55
44:2m:45:VAL:HA	44:2m:48:LEU:HD12	1.89	0.55
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.07	0.55
1:1A:1296:G:OP1	1:1A:2709:G:O2'	2.23	0.55
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.07	0.55
1:1A:2773:C:H2'	1:1A:2774:C:C6	2.41	0.55
32:1a:438:G:H4'	35:1d:123:HIS:CE1	2.42	0.55
32:1a:802:A:H3'	32:1a:803:G:C8	2.42	0.55
32:1a:1314:C:N4	50:1s:2:PRO:O	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:178:ARG:HG2	33:1b:184:VAL:HG21	1.87	0.55
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.40	0.55
1:2A:902:C:H2'	1:2A:903:C:C6	2.41	0.55
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.89	0.55
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.89	0.55
5:2F:61:GLY:O	62:2F:401:HOH:O	2.18	0.55
25:23:59:VAL:HG12	25:23:60:GLU:H	1.71	0.55
32:2a:417:C:H2'	32:2a:418:C:H6	1.72	0.55
35:2d:88:VAL:HG22	36:2e:97:GLY:HA3	1.88	0.55
40:2i:9:ARG:HG2	40:2i:14:VAL:HG22	1.88	0.55
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.40	0.55
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.42	0.55
32:1a:255:G:H2'	32:1a:256:U:H6	1.72	0.55
32:1a:1202:G:H1'	45:1n:29:ARG:HD2	1.89	0.55
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.74	0.55
33:1b:178:ARG:HH22	39:1h:74:PRO:HB3	1.72	0.55
50:1s:12:ASP:OD2	50:1s:37:ARG:NE	2.36	0.55
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.70	0.55
1:2A:479:A:H4'	1:2A:480:A:OP1	2.07	0.55
1:2A:661:C:H2'	1:2A:662:G:C8	2.42	0.55
1:2A:854:G:H2'	1:2A:855:G:C8	2.42	0.55
1:2A:1038:C:N3	1:2A:1117:G:N2	2.42	0.55
1:2A:1259:G:H2'	1:2A:1260:G:H8	1.71	0.55
1:2A:2131:G:H22	1:2A:2158:A:N6	2.05	0.55
11:2P:35:HIS:O	62:2P:301:HOH:O	2.18	0.55
12:2Q:31:ASP:N	12:2Q:106:VAL:O	2.39	0.55
19:2X:60:ARG:NH2	29:27:47:ARG:HH12	2.04	0.55
32:2a:631:G:H2'	32:2a:632:A:H8	1.72	0.55
33:2b:16:HIS:CB	33:2b:210:SER:HB2	2.35	0.55
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.87	0.55
38:2g:29:LYS:O	38:2g:32:ARG:NH2	2.40	0.55
1:1A:628:G:H2'	1:1A:629:G:C8	2.42	0.54
1:1A:1062:G:H22	1:1A:1077:A:H61	1.55	0.54
1:1A:1607:C:O2	62:1A:4194:HOH:O	2.18	0.54
32:1a:964:A:OP1	62:1a:1921:HOH:O	2.17	0.54
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.37	0.54
32:1a:1003:G:C4	32:1a:1004:A:H2	2.25	0.54
32:1a:1136:U:H5"	32:1a:1137:C:N3	2.22	0.54
33:1b:44:LEU:HA	33:1b:47:THR:HG23	1.90	0.54
42:1k:91:ARG:NH1	42:1k:110:ASP:OD1	2.40	0.54
1:2A:2138:C:N3	1:2A:2153:G:N2	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2274:A:C5	1:2A:2276:G:C8	2.95	0.54
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.89	0.54
7:2H:7:LEU:HB3	7:2H:69:ARG:HE	1.71	0.54
15:2T:102:ILE:HA	15:2T:105:LEU:HD12	1.89	0.54
26:24:45:GLY:C	26:24:47:GLN:H	2.16	0.54
32:2a:735:C:OP1	49:2r:68:LYS:NZ	2.41	0.54
35:2d:17:VAL:HG21	35:2d:63:LYS:HD3	1.89	0.54
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	1.88	0.54
44:2m:50:GLU:HA	44:2m:53:VAL:HG22	1.88	0.54
23:11:50:ARG:HG2	23:11:59:THR:HG23	1.90	0.54
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.37	0.54
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.87	0.54
56:1y:72:C:H2'	56:1y:73:A:O4'	2.07	0.54
1:2A:407:G:H2'	1:2A:408:G:C8	2.42	0.54
1:2A:903:C:H2'	1:2A:904:C:C6	2.43	0.54
1:2A:2131:G:H1	1:2A:2158:A:H62	1.54	0.54
1:2A:2549:G:H2'	1:2A:2550:G:H8	1.72	0.54
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	1.89	0.54
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.22	0.54
32:2a:1321:C:H4'	44:2m:87:TYR:HE2	1.72	0.54
34:2c:16:ARG:NH1	34:2c:181:ASN:OD1	2.40	0.54
34:2c:91:LEU:HD11	34:2c:101:LEU:HB2	1.90	0.54
1:1A:194:G:O2'	62:1A:4166:HOH:O	2.14	0.54
13:1R:36:THR:HG22	13:1R:37:THR:H	1.70	0.54
32:1a:34:C:H2'	32:1a:35:G:C8	2.42	0.54
32:1a:835:U:OP1	49:1r:64:ARG:NH1	2.29	0.54
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.36	0.54
32:1a:1187:G:N3	45:1n:60:SER:OG	2.40	0.54
1:2A:686:G:N2	1:2A:788:A:H61	2.05	0.54
1:2A:2552:OMU:H6	1:2A:2552:OMU:O5'	2.07	0.54
9:2N:46:VAL:HG23	9:2N:48:MET:HG2	1.89	0.54
15:2T:92:GLY:O	15:2T:120:ARG:NH2	2.39	0.54
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.42	0.54
32:2a:56:U:H2'	32:2a:57:G:H8	1.69	0.54
32:2a:373:A:H61	32:2a:391:G:H1'	1.73	0.54
32:2a:975:A:H4'	32:2a:976:G:H5"	1.90	0.54
33:2b:198:ASP:N	33:2b:198:ASP:OD1	2.40	0.54
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.38	0.54
1:1A:271(K):U:H1'	8:1I:50:ARG:NH1	2.22	0.54
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.22	0.54
1:1A:1680:U:O2'	1:1A:1763:G:N7	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.43	0.54
1:1A:1826:G:OP1	3:1D:224:ALA:N	2.39	0.54
17:1V:10:LYS:NZ	17:1V:23:GLU:OE2	2.40	0.54
32:1a:516:PSU:O2	62:1a:1924:HOH:O	2.17	0.54
32:1a:688:G:H2'	32:1a:689:C:H6	1.72	0.54
38:1g:79:ARG:O	38:1g:82:GLY:N	2.40	0.54
1:2A:892:G:H3'	1:2A:893:C:C5'	2.37	0.54
1:2A:1413:G:N2	1:2A:1590:U:O2	2.41	0.54
1:2A:2515:C:H2'	1:2A:2516:G:H8	1.73	0.54
8:2I:82:ARG:HG2	8:2I:89:TYR:HD2	1.71	0.54
11:2P:94:GLU:HG3	11:2P:124:LYS:HD2	1.88	0.54
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.43	0.54
1:1A:1094:U:N3	1:1A:1097:U:OP2	2.40	0.54
1:1A:2391:G:O2'	1:1A:2424:C:N4	2.36	0.54
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.08	0.54
32:1a:79:G:O6	32:1a:90:U:C2	2.60	0.54
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.23	0.54
39:1h:77:GLU:HG2	39:1h:78:GLN:H	1.71	0.54
49:1r:65:ILE:O	49:1r:69:THR:HG23	2.08	0.54
50:1s:38:SER:HB2	50:1s:71:LEU:HD12	1.88	0.54
1:2A:879:G:C2	1:2A:880:G:H1'	2.43	0.54
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.41	0.54
32:2a:960:U:H5	50:2s:78:ARG:HD3	1.70	0.54
32:2a:984:C:H2'	32:2a:985:C:H6	1.71	0.54
1:1A:27:G:N2	1:1A:512:G:H1'	2.21	0.54
1:1A:272:G:N7	1:1A:421:U:H2'	2.23	0.54
1:1A:918:A:H5"	2:1B:98:G:O2'	2.07	0.54
1:1A:2140:C:N3	1:1A:2151:G:O6	2.41	0.54
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.72	0.54
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.88	0.54
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.42	0.54
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.89	0.54
19:1X:11:PRO:HD3	24:12:37:PHE:CD1	2.43	0.54
32:1a:309:G:H2'	32:1a:310:G:H8	1.73	0.54
45:1n:9:LYS:HG2	45:1n:12:ARG:HH21	1.72	0.54
51:1t:47:GLY:N	51:1t:48:LYS:HB2	2.22	0.54
1:2A:375:C:H2'	1:2A:376:C:C6	2.42	0.54
1:2A:2161:C:H2'	1:2A:2162:G:O4'	2.07	0.54
4:2E:52:LEU:HB3	4:2E:76:ARG:HD3	1.89	0.54
6:2G:77:ILE:HG22	6:2G:80:PHE:H	1.72	0.54
32:2a:53:A:OP2	62:2a:1909:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:559:A:H4'	32:2a:560:U:H3'	1.90	0.54
32:2a:677:U:H3	32:2a:713:G:H22	1.55	0.54
32:2a:934:C:O2'	32:2a:1344:C:OP2	2.14	0.54
36:2e:40:ARG:NH1	36:2e:67:VAL:O	2.39	0.54
39:2h:96:GLY:H	39:2h:99:GLU:CD	2.15	0.54
44:2m:91:ARG:HH11	44:2m:96:LEU:HB3	1.72	0.54
1:1A:86:C:H4'	1:1A:104:U:H1'	1.89	0.54
1:1A:295:G:H4'	20:1Y:1:MET:HE3	1.89	0.54
1:1A:922:U:H2'	1:1A:923:C:C6	2.43	0.54
1:1A:1056:G:H1'	1:1A:1103:A:H61	1.73	0.54
1:1A:1799:G:N7	3:1D:179:SER:OG	2.35	0.54
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.43	0.54
11:1P:15:ARG:HD3	62:1P:323:HOH:O	2.08	0.54
44:1m:14:ARG:NH2	44:1m:16:ASP:OD2	2.36	0.54
49:1r:40:LEU:HD22	49:1r:70:ILE:HG12	1.88	0.54
1:2A:659:C:H2'	1:2A:660:G:H8	1.71	0.54
22:20:11:ARG:O	22:20:14:ARG:NH2	2.38	0.54
32:2a:1112:C:O2	34:2c:179:ARG:N	2.40	0.54
32:2a:1485:U:H2'	32:2a:1486:G:C8	2.43	0.54
34:2c:72:LYS:O	34:2c:74:GLY:N	2.39	0.54
36:2e:7:GLU:O	36:2e:35:GLY:N	2.39	0.54
41:2j:52:GLY:O	45:2n:41:ARG:NH2	2.30	0.54
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.08	0.54
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.32	0.54
1:1A:11:G:H2'	1:1A:12:U:H5'	1.89	0.54
1:1A:884:C:N4	1:1A:892:G:H1	2.04	0.54
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.08	0.54
1:1A:2351:G:OP1	30:18:46:ARG:NH1	2.40	0.54
2:1B:13:A:N1	2:1B:69:G:O2'	2.37	0.54
15:1T:27:THR:HB	15:1T:90:GLN:HB3	1.90	0.54
32:1a:1499:A:H3'	62:1a:1915:HOH:O	2.06	0.54
45:1n:23:ARG:CZ	45:1n:30:ALA:HB2	2.38	0.54
50:1s:27:GLU:HB2	50:1s:28:LYS:HA	1.90	0.54
1:2A:186:G:H2'	1:2A:187:G:H8	1.73	0.54
1:2A:307:G:N1	1:2A:310:A:OP2	2.40	0.54
1:2A:831:G:N2	11:2P:53:GLY:O	2.41	0.54
1:2A:2104:G:H1	1:2A:2185:C:H42	1.54	0.54
1:2A:2378:A:H4'	14:2S:23:ARG:CZ	2.38	0.54
32:2a:1224:G:H1	32:2a:1363:C:N4	2.05	0.54
33:2b:16:HIS:O	33:2b:18:GLY:N	2.41	0.54
44:2m:88:ARG:O	44:2m:92:HIS:ND1	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.20	0.54
2:1B:28:C:H2'	2:1B:29:A:O4'	2.08	0.54
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.05	0.54
32:1a:236:G:H5"	48:1q:42:TYR:OH	2.08	0.54
32:1a:265:G:H2'	32:1a:267:C:H5	1.72	0.54
32:1a:568:G:O2'	32:1a:574:A:N1	2.40	0.54
32:1a:679:C:H2'	32:1a:680:C:H6	1.72	0.54
32:1a:1329:A:H5"	44:1m:26:GLY:H	1.73	0.54
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.40	0.54
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.90	0.54
1:2A:182:A:N3	1:2A:433:C:O2'	2.36	0.54
1:2A:1647:G:OP1	62:2A:3940:HOH:O	2.19	0.54
32:2a:187:C:OP1	51:2t:82:SER:OG	2.21	0.54
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.39	0.54
32:2a:1225:A:OP1	44:2m:103:THR:OG1	2.25	0.54
32:2a:1286:A:H2	52:2u:18:TYR:OH	1.91	0.54
36:2e:12:LEU:HD22	36:2e:128:PRO:HB2	1.89	0.54
38:2g:78:ARG:HD3	38:2g:79:ARG:H	1.73	0.54
52:2u:18:TYR:HD1	52:2u:22:ARG:O	1.91	0.54
1:1A:185:U:H4'	1:1A:218:A:H4'	1.89	0.54
1:1A:218:A:C2	1:1A:235:U:H4'	2.43	0.54
12:1Q:10:ARG:NH1	12:1Q:90:VAL:H	2.06	0.54
21:1Z:126:VAL:HG12	21:1Z:128:VAL:HB	1.89	0.54
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.43	0.54
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.43	0.54
35:1d:165:MET:HB3	35:1d:176:LEU:HD21	1.90	0.54
1:2A:191:A:H2'	1:2A:192:C:C6	2.43	0.54
1:2A:288:C:H2'	1:2A:289:A:C8	2.42	0.54
1:2A:1327:C:O2'	13:2R:105:ARG:NH1	2.37	0.54
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.08	0.54
1:2A:1779:U:H2'	62:2A:4157:HOH:O	2.08	0.54
1:2A:2081:C:H2'	1:2A:2082:A:H8	1.72	0.54
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.89	0.54
10:2O:21:CYS:HB2	10:2O:39:ILE:HD12	1.88	0.54
12:2Q:38:GLU:HB2	12:2Q:127:ILE:HG22	1.90	0.54
32:2a:576:G:O6	32:2a:880:C:O2'	2.19	0.54
35:2d:200:GLU:N	35:2d:200:GLU:OE1	2.41	0.54
1:1A:8:A:H2'	1:1A:9:U:C6	2.43	0.53
1:1A:831:G:N2	11:1P:53:GLY:O	2.41	0.53
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.22	0.53
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:149:ARG:HH12	7:1H:167:GLU:CD	2.16	0.53
7:1H:157:TYR:CE1	7:1H:172:LYS:HG3	2.43	0.53
20:1Y:43:ASN:O	20:1Y:65:ALA:N	2.41	0.53
21:1Z:158:PRO:O	21:1Z:161:VAL:HG22	2.08	0.53
32:1a:1225:A:N6	62:1a:1907:HOH:O	2.36	0.53
35:1d:104:VAL:HG12	35:1d:108:LEU:HD13	1.90	0.53
40:1i:96:LEU:HD22	40:1i:101:PHE:HD2	1.72	0.53
1:2A:2284:C:O2	1:2A:2384:G:N2	2.37	0.53
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.41	0.53
16:2U:28:ARG:NH1	16:2U:38:THR:OG1	2.40	0.53
23:21:59:THR:O	23:21:91:LYS:NZ	2.36	0.53
25:23:5:LYS:NZ	25:23:34:GLU:OE2	2.41	0.53
32:2a:867:G:O2'	32:2a:873:A:N6	2.39	0.53
36:2e:78:HIS:H	36:2e:78:HIS:CD2	2.24	0.53
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.72	0.53
38:2g:52:GLU:HG2	38:2g:53:LYS:N	2.23	0.53
54:2w:10:G:H2'	54:2w:11:C:C6	2.43	0.53
1:1A:614(C):A:C4	5:1F:180:GLY:HA2	2.43	0.53
32:1a:1118:C:P	40:1i:104:ARG:HH11	2.32	0.53
42:1k:82:VAL:HB	42:1k:108:ILE:HG13	1.89	0.53
48:1q:95:TYR:HA	48:1q:98:LEU:HD13	1.89	0.53
1:2A:493:G:H2'	1:2A:494:G:O4'	2.07	0.53
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.44	0.53
15:2T:26:ASP:HA	15:2T:92:GLY:H	1.74	0.53
41:2j:6:ILE:HG12	41:2j:98:ILE:HG22	1.90	0.53
41:2j:46:ARG:HG2	41:2j:64:GLU:HB3	1.88	0.53
44:2m:10:PRO:HB2	44:2m:13:LYS:HD2	1.90	0.53
1:1A:997:G:OP1	16:1U:92:ARG:NH1	2.41	0.53
1:1A:2108:C:N4	1:1A:2181:G:H1	2.04	0.53
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.43	0.53
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.05	0.53
32:1a:429:U:OP2	35:1d:36:ARG:NH2	2.37	0.53
32:1a:1103:C:H5"	33:1b:98:LEU:HD22	1.89	0.53
34:1c:22:TRP:CZ2	45:1n:54:PRO:HG2	2.44	0.53
44:1m:3:ARG:HD2	44:1m:9:ILE:HG12	1.90	0.53
50:1s:51:VAL:O	50:1s:58:VAL:N	2.41	0.53
1:2A:392:C:H5"	1:2A:409:C:H5"	1.90	0.53
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.34	0.53
2:2B:104:U:O2'	21:2Z:29:TYR:OH	2.10	0.53
32:2a:516:PSU:O2	62:2a:1912:HOH:O	2.18	0.53
32:2a:833:U:H2'	32:2a:834:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.38	0.53
32:2a:1257:U:O4	45:2n:17:LYS:NZ	2.29	0.53
34:2c:18:TRP:HH2	45:2n:57:ARG:HG3	1.72	0.53
8:1I:129:THR:HA	8:1I:138:ILE:O	2.08	0.53
27:15:11:THR:HG23	27:15:15:ARG:HB3	1.91	0.53
32:1a:1158:C:O2'	32:1a:1160:G:OP1	2.16	0.53
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.90	0.53
39:1h:34:GLU:OE1	39:1h:37:ARG:NH2	2.40	0.53
48:1q:56:VAL:N	48:1q:78:GLU:O	2.37	0.53
1:2A:27:G:N2	1:2A:512:G:H1'	2.24	0.53
1:2A:1516:C:H2'	1:2A:1517:G:C8	2.43	0.53
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.72	0.53
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.43	0.53
13:2R:70:LEU:HD13	13:2R:75:LEU:HD23	1.91	0.53
23:21:32:LYS:O	62:21:201:HOH:O	2.19	0.53
32:2a:600:C:H2'	32:2a:601:C:C6	2.43	0.53
33:2b:7:VAL:O	33:2b:217:ARG:NE	2.41	0.53
41:2j:7:LYS:HD3	41:2j:71:LEU:HD13	1.90	0.53
47:2p:69:THR:HA	47:2p:72:ARG:HB3	1.91	0.53
1:1A:625:G:O6	11:1P:107:LYS:HE2	2.08	0.53
1:1A:1062:G:H2'	1:1A:1063:G:C8	2.43	0.53
1:1A:1508:A:O2'	1:1A:1509:C:OP1	2.20	0.53
1:1A:2059:A:OP2	62:1A:4197:HOH:O	2.19	0.53
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.43	0.53
23:11:18:ILE:HG12	23:11:37:ILE:HG12	1.90	0.53
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.08	0.53
35:1d:142:PRO:HA	35:1d:185:PHE:HD2	1.74	0.53
1:2A:981:A:H5"	1:2A:982:C:OP2	2.07	0.53
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.73	0.53
1:2A:2336:A:H61	22:20:43:THR:HG22	1.71	0.53
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.43	0.53
2:2B:29:A:OP2	14:2S:32:LEU:HG	2.09	0.53
3:2D:83:GLU:OE1	3:2D:104:TYR:OH	2.22	0.53
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.08	0.53
12:2Q:12:GLN:NE2	12:2Q:72:LYS:HG3	2.24	0.53
50:2s:80:TYR:CZ	50:2s:82:GLY:HA2	2.44	0.53
1:1A:1265:A:H3'	27:15:19:ARG:HH21	1.72	0.53
1:1A:2158:A:N3	1:1A:2159:G:H1'	2.24	0.53
3:1D:164:GLN:OE1	3:1D:176:ARG:NH1	2.42	0.53
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.91	0.53
32:1a:284:G:H2'	32:1a:285:G:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:450:G:OP2	32:1a:451:A:O2'	2.24	0.53
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.26	0.53
35:1d:164:ALA:HB1	35:1d:168:ARG:HE	1.73	0.53
43:1l:102:ARG:HB3	43:1l:109:GLY:HA2	1.89	0.53
50:1s:28:LYS:HD2	50:1s:47:HIS:HA	1.91	0.53
1:2A:1780:A:N6	62:2A:4139:HOH:O	2.41	0.53
32:2a:38:G:O6	62:2a:1910:HOH:O	2.18	0.53
32:2a:1187:G:OP1	40:2i:113:LYS:NZ	2.41	0.53
36:2e:52:PRO:HB2	36:2e:56:GLN:HE21	1.72	0.53
37:2f:46:ARG:HH22	49:2r:37:VAL:HG11	1.73	0.53
44:2m:52:GLU:HG2	44:2m:55:ARG:HH21	1.73	0.53
1:1A:2639:A:O3'	9:1N:97:ARG:NH2	2.34	0.53
2:1B:74:U:H2'	2:1B:75:G:O4'	2.08	0.53
32:1a:45:U:H2'	32:1a:46:G:C8	2.44	0.53
32:1a:189(B):C:H2'	32:1a:189(C):C:C6	2.44	0.53
32:1a:542:G:O3'	35:1d:14:ARG:NH2	2.40	0.53
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.44	0.53
33:1b:107:THR:O	33:1b:110:GLN:HB3	2.09	0.53
41:1j:46:ARG:HB2	41:1j:46:ARG:HH11	1.74	0.53
56:1y:38:A:H2'	56:1y:39:PSU:O4'	2.08	0.53
1:2A:752:A:H3'	29:27:1:MET:HE1	1.91	0.53
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.09	0.53
11:2P:28:GLY:O	11:2P:30:THR:N	2.42	0.53
21:2Z:152:ALA:HB2	21:2Z:169:GLU:HB3	1.91	0.53
32:2a:580:U:H5"	46:2o:58:MET:HG2	1.90	0.53
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.08	0.53
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.43	0.53
1:1A:224:G:H2'	1:1A:225:A:O4'	2.09	0.53
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.26	0.53
1:1A:2184:G:H2'	1:1A:2185:C:O4'	2.08	0.53
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.24	0.53
1:1A:2886:G:H2'	1:1A:2887:U:H6	1.74	0.53
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.43	0.53
21:1Z:40:ASP:OD2	21:1Z:42:VAL:HG12	2.09	0.53
26:14:33:VAL:HG12	26:14:35:VAL:H	1.74	0.53
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.36	0.53
1:2A:1181:C:H2'	1:2A:1182:A:C8	2.44	0.53
1:2A:2851:A:O3'	13:2R:64:ARG:NH2	2.41	0.53
32:2a:790:A:N1	32:2a:1497:G:H5"	2.24	0.53
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.24	0.53
33:2b:16:HIS:CE1	33:2b:203:GLY:HA2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2r:45:SER:OG	49:2r:46:GLU:N	2.39	0.53
1:1A:264:C:O2'	1:1A:265:A:H2'	2.09	0.53
1:1A:1960:A:HO2'	32:1a:1484:C:HO2'	1.51	0.53
1:1A:2469:A:O3'	12:1Q:56:ARG:NH1	2.42	0.53
6:1G:18:GLU:OE2	6:1G:22:ARG:NH1	2.34	0.53
11:1P:79:ARG:NH1	11:1P:109:GLY:O	2.41	0.53
11:1P:95:VAL:HA	11:1P:99:LEU:HD23	1.90	0.53
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	1.91	0.53
32:1a:165:C:H2'	32:1a:166:G:C8	2.38	0.53
32:1a:236:G:OP1	48:1q:40:LYS:NZ	2.41	0.53
32:1a:418:C:H2'	32:1a:419:C:C6	2.44	0.53
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.42	0.53
42:1k:87:THR:O	42:1k:87:THR:OG1	2.22	0.53
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.90	0.53
1:2A:1993:U:OP2	62:2A:3971:HOH:O	2.18	0.53
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.91	0.53
10:2O:7:TYR:HE2	10:2O:20:MET:HE3	1.72	0.53
32:2a:142:G:H2'	32:2a:143:A:C8	2.44	0.53
32:2a:366:C:H1'	32:2a:394:G:H22	1.73	0.53
32:2a:865:A:H5'	32:2a:1078:U:C5	2.43	0.53
32:2a:1002:G:N3	32:2a:1003:G:H1'	2.23	0.53
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.44	0.53
36:2e:32:VAL:HG11	36:2e:59:GLY:HA2	1.90	0.53
40:2i:31:GLN:HB3	40:2i:35:GLU:HG2	1.91	0.53
40:2i:63:ILE:HD13	40:2i:77:ILE:HG23	1.91	0.53
51:2t:79:ARG:HD2	51:2t:83:ARG:HH21	1.74	0.53
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.09	0.53
6:1G:49:ASP:N	6:1G:49:ASP:OD1	2.41	0.53
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.44	0.53
32:1a:848:C:H2'	32:1a:849:C:C6	2.43	0.53
1:2A:568:U:O4	62:2A:3965:HOH:O	2.17	0.53
1:2A:1561:G:H2'	1:2A:1562:A:C8	2.43	0.53
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.42	0.53
12:2Q:45:GLN:N	12:2Q:45:GLN:OE1	2.41	0.53
32:2a:147:G:H1	32:2a:175:C:H42	1.56	0.53
32:2a:1136:U:OP2	32:2a:1137:C:N4	2.42	0.53
32:2a:1172:C:H3'	32:2a:1173:G:H8	1.74	0.53
54:2w:25:C:H2'	54:2w:26:A:C8	2.44	0.53
1:1A:657:U:H2'	1:1A:658:C:H6	1.74	0.52
1:1A:825:C:O2	11:1P:55:ARG:NH1	2.40	0.52
1:1A:1647:G:OP1	62:1A:4154:HOH:O	2.19	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.44	0.52
4:1E:105:THR:HG1	4:1E:166:THR:HG1	1.42	0.52
11:1P:138:LEU:C	11:1P:140:ALA:H	2.16	0.52
32:1a:219:C:H2'	32:1a:220:G:O4'	2.08	0.52
39:1h:35:ILE:HD11	39:1h:134:ILE:HG21	1.89	0.52
44:1m:50:GLU:O	44:1m:53:VAL:HG22	2.09	0.52
1:2A:315:G:H2'	1:2A:316:C:C6	2.44	0.52
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.90	0.52
8:2I:69:LYS:HD2	8:2I:138:ILE:HG12	1.90	0.52
9:2N:35:ARG:HD3	9:2N:37:LYS:HD2	1.90	0.52
26:24:57:GLU:CB	26:24:58:ARG:HD3	2.39	0.52
32:2a:410:G:H5'	35:2d:30:LYS:HZ3	1.74	0.52
32:2a:910:C:OP1	43:2l:97:ARG:NH2	2.41	0.52
34:2c:88:ARG:HA	34:2c:91:LEU:HG	1.91	0.52
36:2e:102:ALA:N	36:2e:107:ARG:HH21	2.07	0.52
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.91	0.52
48:2q:86:GLU:O	48:2q:90:ILE:HG12	2.09	0.52
1:1A:1853:A:N3	1:1A:2233:U:O2'	2.35	0.52
18:1W:1:MET:HE2	18:1W:62:HIS:HB3	1.91	0.52
1:2A:615:G:OP1	5:2F:40:GLN:HG2	2.08	0.52
1:2A:1487:G:H2'	1:2A:1488:G:O4'	2.08	0.52
6:2G:63:ILE:HD13	6:2G:141:PHE:CD2	2.45	0.52
19:2X:44:GLU:OE2	62:2X:201:HOH:O	2.19	0.52
32:2a:410:G:H21	32:2a:432:A:H62	1.56	0.52
32:2a:523:A:H61	43:2l:92:0TD:CG	2.22	0.52
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.41	0.52
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.45	0.52
48:2q:68:ARG:H	48:2q:70:ARG:NH1	2.07	0.52
1:1A:363(B):G:H3'	1:1A:363(C):G:H8	1.74	0.52
1:1A:861:A:N3	2:1B:79:C:O2'	2.37	0.52
1:1A:2271:G:OP1	22:10:18:ALA:HB1	2.09	0.52
5:1F:110:LEU:HG	5:1F:202:PHE:HE1	1.74	0.52
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.09	0.52
32:1a:11:G:O2'	32:1a:506:G:N2	2.34	0.52
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.39	0.52
32:1a:1320:C:O2	50:1s:36:ARG:NH2	2.37	0.52
32:1a:1414:U:H3	32:1a:1486:G:H1	1.57	0.52
54:1w:51:U:H2'	54:1w:52:G:C8	2.44	0.52
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.44	0.52
32:2a:224:C:H2'	32:2a:225:C:C6	2.44	0.52
32:2a:997:U:H3	32:2a:1044:A:N6	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1318:A:H1'	50:2s:37:ARG:HE	1.74	0.52
33:2b:178:ARG:NH2	39:2h:68:ARG:HH12	2.03	0.52
35:2d:101:LEU:HA	35:2d:104:VAL:HG22	1.91	0.52
50:2s:28:LYS:HB3	50:2s:29:ARG:HA	1.91	0.52
1:1A:226:G:N2	1:1A:228:A:H62	2.08	0.52
1:1A:588:U:H2'	1:1A:589:C:C6	2.45	0.52
1:1A:674:G:H1'	5:1F:74:ARG:HD3	1.91	0.52
1:1A:2139:C:N4	1:1A:2152:G:H1	2.05	0.52
24:12:4:SER:HA	24:12:7:ARG:NH1	2.24	0.52
26:14:40:HIS:CD2	26:14:41:PRO:HD2	2.44	0.52
40:1i:11:LYS:C	40:1i:13:ALA:H	2.17	0.52
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.92	0.52
1:2A:2319:G:N2	14:2S:3:ARG:HA	2.25	0.52
2:2B:118:G:H2'	2:2B:119:G:O4'	2.09	0.52
13:2R:22:ARG:NE	13:2R:69:ASP:OD1	2.32	0.52
13:2R:36:THR:HG22	13:2R:37:THR:H	1.75	0.52
32:2a:737:A:H2'	32:2a:738:C:C6	2.44	0.52
32:2a:1317:C:O2	50:2s:37:ARG:NH2	2.41	0.52
39:2h:9:MET:HA	39:2h:12:ARG:HB2	1.91	0.52
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.52
1:1A:1006:C:C2	1:1A:1138:G:N2	2.77	0.52
1:1A:1947:C:HO2'	32:1a:1483:A:HO2'	1.57	0.52
62:1A:5189:HOH:O	29:17:12:ARG:HB2	2.09	0.52
26:14:61:ARG:HH22	50:1s:9:VAL:HG21	1.74	0.52
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.44	0.52
35:1d:20:TYR:CD1	35:1d:26:CYS:HB2	2.44	0.52
45:1n:41:ARG:HG3	45:1n:42:ILE:HD12	1.92	0.52
1:2A:300:A:N1	1:2A:333:G:O2'	2.29	0.52
1:2A:1283:G:O2'	1:2A:1285:G:N7	2.35	0.52
1:2A:1658:C:OP1	4:2E:135:HIS:NE2	2.42	0.52
1:2A:1899:G:O2'	1:2A:1900:A:OP2	2.27	0.52
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.41	0.52
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.74	0.52
14:2S:95:HIS:HA	14:2S:99:LYS:HZ3	1.73	0.52
34:2c:129:ALA:HB3	34:2c:132:ARG:HB3	1.91	0.52
35:2d:78:LEU:HB3	35:2d:93:PHE:HE1	1.74	0.52
44:2m:28:ALA:C	44:2m:30:ALA:H	2.17	0.52
1:1A:2820:A:C5	13:1R:4:LEU:HD11	2.45	0.52
21:1Z:128:VAL:HG23	21:1Z:161:VAL:HG12	1.90	0.52
23:11:56:GLN:HE21	23:11:87:PRO:HD3	1.75	0.52
24:12:22:GLU:HG2	24:12:64:LEU:HD21	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:44:G:C2	32:1a:45:U:H1'	2.44	0.52
32:1a:441:A:C2	32:1a:442:C:H1'	2.43	0.52
32:1a:715:A:H2'	32:1a:716:A:H8	1.75	0.52
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.45	0.52
34:1c:17:ASP:CG	34:1c:21:ARG:HH21	2.17	0.52
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.08	0.52
1:2A:29:U:H2'	1:2A:30:G:H8	1.73	0.52
1:2A:122:G:OP1	1:2A:149:A:O2'	2.24	0.52
1:2A:335:C:O2	20:2Y:70:SER:OG	2.28	0.52
1:2A:466:A:OP1	29:27:34:ARG:NH1	2.42	0.52
1:2A:603:A:N1	1:2A:625:G:O2'	2.42	0.52
1:2A:884:C:H3'	1:2A:885:C:H6	1.74	0.52
1:2A:2466:C:H5"	31:29:6:SER:HB3	1.91	0.52
1:2A:2750:A:O2'	1:2A:2752:C:N4	2.35	0.52
6:2G:107:LEU:HD23	6:2G:111:LEU:HD13	1.91	0.52
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.08	0.52
23:21:83:GLU:OE1	23:21:83:GLU:N	2.43	0.52
34:2c:6:HIS:HE1	45:2n:50:LYS:HG3	1.75	0.52
42:2k:43:SER:HB2	42:2k:68:ALA:HB2	1.91	0.52
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.40	0.52
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.44	0.52
4:1E:47:VAL:HG22	4:1E:84:PHE:HB3	1.92	0.52
7:1H:101:ARG:HH12	7:1H:122:THR:HG22	1.75	0.52
32:1a:1027:C:N3	32:1a:1034:G:N2	2.49	0.52
32:1a:1106:G:H2'	32:1a:1107:C:C6	2.45	0.52
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.73	0.52
33:1b:93:VAL:HG11	33:1b:97:TRP:HD1	1.74	0.52
34:1c:6:HIS:HB3	45:1n:49:HIS:CD2	2.45	0.52
39:1h:11:THR:HG22	39:1h:14:ARG:HH12	1.74	0.52
1:2A:840:C:H2'	1:2A:841:A:H8	1.75	0.52
1:2A:925:C:H2'	1:2A:926:A:H8	1.75	0.52
1:2A:2131:G:N7	1:2A:2133:G:N2	2.58	0.52
1:2A:2637:U:H5"	4:2E:82:ARG:HH12	1.74	0.52
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.92	0.52
5:2F:51:THR:O	5:2F:93:LYS:NZ	2.33	0.52
5:2F:140:LEU:HD21	5:2F:170:LEU:HD21	1.90	0.52
32:2a:1000:U:H2'	32:2a:1001:A:H8	1.75	0.52
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.39	0.52
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.10	0.52
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.09	0.52
56:2y:58:A:O2'	56:2y:60:U:OP2	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:359:A:H2'	1:1A:360:G:O4'	2.10	0.52
1:1A:1062:G:H22	1:1A:1077:A:N6	2.08	0.52
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.10	0.52
1:1A:2136:C:C4	1:1A:2155:G:C2	2.98	0.52
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	1.92	0.52
5:1F:164:ARG:HD2	5:1F:175:THR:HG23	1.91	0.52
28:16:35:GLU:HA	28:16:49:HIS:O	2.10	0.52
32:1a:284:G:H2'	32:1a:285:G:H8	1.75	0.52
32:1a:1182:G:H4'	32:1a:1183:A:H5"	1.91	0.52
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.92	0.52
37:1f:36:ARG:N	37:1f:66:GLU:O	2.43	0.52
1:2A:1155:A:OP1	16:2U:55:ARG:HD2	2.10	0.52
1:2A:2378:A:H4'	14:2S:23:ARG:NH1	2.25	0.52
1:2A:2456:C:N4	62:2A:4147:HOH:O	2.42	0.52
5:2F:40:GLN:HE22	5:2F:184:TYR:H	1.56	0.52
9:2N:21:LYS:NZ	9:2N:140:VAL:OXT	2.32	0.52
15:2T:77:PRO:HB2	15:2T:80:SER:HB2	1.91	0.52
17:2V:67:GLY:O	17:2V:88:ARG:NE	2.36	0.52
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.09	0.52
26:24:2:LYS:HD2	26:24:5:ILE:HD13	1.91	0.52
32:2a:197:A:O2'	32:2a:220:G:N2	2.39	0.52
32:2a:397:A:H3'	32:2a:397:A:N3	2.25	0.52
32:2a:663:A:H61	32:2a:742:G:H1	1.57	0.52
32:2a:684:A:C6	32:2a:685:G:C6	2.97	0.52
35:2d:191:ARG:NH1	35:2d:191:ARG:O	2.41	0.52
5:1F:89:VAL:HG12	5:1F:90:PHE:CD2	2.45	0.52
20:1Y:6:HIS:HB2	20:1Y:85:VAL:HG21	1.92	0.52
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.83	0.52
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.23	0.52
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.25	0.52
38:1g:50:ILE:HD12	38:1g:61:VAL:HG11	1.90	0.52
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.25	0.52
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.75	0.52
4:2E:54:GLN:NE2	4:2E:76:ARG:HG2	2.25	0.52
5:2F:11:VAL:HG21	5:2F:20:LEU:HD12	1.92	0.52
21:2Z:171:ILE:HG13	21:2Z:172:ALA:H	1.75	0.52
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.09	0.52
33:2b:180:LEU:HB2	33:2b:182:ILE:HG13	1.92	0.52
41:2j:44:VAL:HA	41:2j:66:ARG:HA	1.91	0.52
1:1A:1965:C:OP1	1:1A:1966:A:O2'	2.27	0.52
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:130:ALA:H	5:1F:142:TRP:CD1	2.28	0.52
12:1Q:16:ARG:HG2	12:1Q:18:LYS:HG3	1.92	0.52
18:1W:18:ARG:HG2	18:1W:76:VAL:HB	1.91	0.52
32:1a:69:G:H2'	32:1a:70:G:C8	2.45	0.52
32:1a:1446:U:OP1	32:1a:1447:A:N6	2.43	0.52
36:1e:53:LEU:O	36:1e:56:GLN:HG2	2.09	0.52
37:1f:82:ARG:HB2	37:1f:85:VAL:HG12	1.92	0.52
38:1g:14:PRO:HG3	38:1g:21:VAL:HG13	1.92	0.52
1:2A:468:G:H5"	5:2F:60:SER:HB3	1.92	0.52
1:2A:2062:A:HO2'	1:2A:2063:C:P	2.32	0.52
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.29	0.52
1:2A:2393:A:H2'	1:2A:2394:C:O4'	2.10	0.52
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.41	0.52
23:21:56:GLN:HE21	23:21:87:PRO:HG3	1.75	0.52
33:2b:78:GLN:O	33:2b:94:ASN:ND2	2.34	0.52
1:1A:271(A):A:N7	1:1A:271(W):G:N2	2.57	0.51
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.41	0.51
8:1I:109:ILE:HG23	8:1I:130:TYR:CZ	2.45	0.51
32:1a:7:G:H5'	32:1a:298:A:O4'	2.10	0.51
32:1a:438:G:N1	32:1a:495:A:OP2	2.33	0.51
32:1a:971:G:N1	32:1a:1363(A):A:OP2	2.40	0.51
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.43	0.51
1:2A:531:C:H4'	1:2A:532:A:H5"	1.92	0.51
1:2A:593:G:H1	1:2A:664:C:H42	1.57	0.51
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.25	0.51
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.43	0.51
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.25	0.51
18:2W:34:ASN:OD1	18:2W:37:ARG:NH1	2.30	0.51
25:23:26:LEU:O	25:23:35:ARG:NH1	2.40	0.51
32:2a:828:A:H2'	32:2a:829:G:O4'	2.09	0.51
32:2a:859:A:H2'	32:2a:860:A:O4'	2.10	0.51
32:2a:920:U:H2'	32:2a:921:U:C6	2.44	0.51
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.75	0.51
1:1A:2098:U:H2'	1:1A:2099:U:O4'	2.09	0.51
1:1A:2243:U:H2'	1:1A:2244:U:H6	1.75	0.51
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.44	0.51
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.91	0.51
11:1P:126:VAL:HG12	11:1P:148:LEU:HD13	1.91	0.51
26:14:40:HIS:HB3	26:14:43:TYR:HB2	1.91	0.51
32:1a:693:G:OP2	62:1a:1928:HOH:O	2.19	0.51
39:1h:11:THR:HG22	39:1h:14:ARG:HH22	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:10:LEU:HD12	51:1t:12:ALA:HB2	1.92	0.51
51:1t:92:LEU:O	51:1t:96:GLY:HA2	2.10	0.51
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.10	0.51
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.45	0.51
1:2A:1794:U:H1'	1:2A:1900:A:C2	2.45	0.51
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.46	0.51
28:26:10:LEU:HB2	28:26:52:VAL:HG13	1.92	0.51
32:2a:664:G:OP1	49:2r:64:ARG:NE	2.31	0.51
32:2a:984:C:H2'	32:2a:985:C:C6	2.44	0.51
32:2a:1051:C:N3	32:2a:1207:2MG:N2	2.49	0.51
33:2b:29:ALA:HA	33:2b:32:ILE:HD12	1.91	0.51
35:2d:150:GLU:HA	35:2d:153:ARG:HD2	1.91	0.51
36:2e:148:VAL:HG21	39:2h:107:LEU:HD22	1.92	0.51
1:1A:272(A):U:HO2'	1:1A:272(B):G:P	2.30	0.51
1:1A:864:G:N7	12:1Q:22:LYS:NZ	2.52	0.51
1:1A:1152:C:H4'	16:1U:77:SER:HA	1.92	0.51
1:1A:2061:G:O6	59:1A:4089:6IF:N	2.42	0.51
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.93	0.51
32:1a:373:A:H2'	32:1a:374:A:H8	1.74	0.51
32:1a:838:G:C2	32:1a:840:C:H5"	2.45	0.51
38:1g:79:ARG:HD2	38:1g:80:VAL:N	2.25	0.51
41:1j:27:ALA:HA	41:1j:81:THR:HG21	1.93	0.51
46:1o:32:LEU:HD21	46:1o:62:GLN:HB3	1.92	0.51
1:2A:232:G:N2	1:2A:420:C:OP1	2.31	0.51
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.45	0.51
3:2D:36:PRO:HA	3:2D:61:LEU:HD23	1.93	0.51
7:2H:11:VAL:HG13	7:2H:15:VAL:HG23	1.92	0.51
32:2a:157:G:H2'	32:2a:158:G:C8	2.45	0.51
32:2a:288:A:H2'	32:2a:289:G:H4'	1.92	0.51
32:2a:604:G:H2'	32:2a:605:U:O4'	2.10	0.51
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.46	0.51
36:2e:102:ALA:H	36:2e:107:ARG:HH21	1.58	0.51
37:2f:100:ASN:HD21	49:2r:23:LYS:HG2	1.75	0.51
38:2g:152:ALA:O	38:2g:155:ARG:HD3	2.11	0.51
40:2i:55:ALA:HA	40:2i:58:HIS:CD2	2.41	0.51
1:1A:1019:U:H2'	1:1A:1020:A:C8	2.46	0.51
1:1A:1426:G:N7	3:1D:31:LYS:NZ	2.52	0.51
1:1A:2117:A:O2'	1:1A:2118:U:H5"	2.10	0.51
21:1Z:5:LEU:O	21:1Z:59:LEU:HA	2.10	0.51
32:1a:130:A:OP2	48:1q:63:ARG:HD3	2.10	0.51
32:1a:192:U:H2'	32:1a:193:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:250:A:H4'	32:1a:251:G:O5'	2.10	0.51
32:1a:266:G:O3'	48:1q:67:LYS:HB2	2.11	0.51
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.92	0.51
32:1a:962:C:O2'	62:1a:1927:HOH:O	2.18	0.51
32:1a:1305:G:H5"	52:1u:4:GLY:HA3	1.92	0.51
32:1a:1464:G:H2'	32:1a:1465:C:H6	1.73	0.51
42:1k:65:ALA:HB1	42:1k:98:LEU:HD23	1.92	0.51
44:1m:108:ARG:O	44:1m:112:GLY:N	2.43	0.51
54:1w:28:G:H2'	54:1w:29:G:C8	2.45	0.51
1:2A:458:G:O2'	1:2A:469:G:O6	2.28	0.51
1:2A:538:G:H2'	1:2A:539:G:H8	1.76	0.51
1:2A:922:U:H2'	1:2A:923:C:C6	2.45	0.51
1:2A:2722:G:H5'	13:2R:4:LEU:HD12	1.92	0.51
1:2A:2885:C:OP2	62:2A:3974:HOH:O	2.19	0.51
11:2P:56:SER:OG	11:2P:61:ARG:HD2	2.11	0.51
15:2T:39:ARG:NH1	15:2T:41:ARG:HD3	2.25	0.51
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.43	0.51
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.91	0.51
32:2a:664:G:H22	32:2a:741:G:H1	1.58	0.51
32:2a:1469:G:H2'	32:2a:1470:G:H8	1.76	0.51
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.45	0.51
34:2c:47:LEU:HB3	34:2c:52:LEU:HD22	1.91	0.51
39:2h:120:THR:H	39:2h:123:GLU:HB2	1.75	0.51
1:1A:327:G:N2	20:1Y:70:SER:OG	2.44	0.51
1:1A:749:C:H4'	1:1A:1271:G:N3	2.25	0.51
1:1A:1337:G:H2'	1:1A:1338:G:O4'	2.11	0.51
1:1A:1629:U:O2'	1:1A:2698:U:OP1	2.26	0.51
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.11	0.51
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.46	0.51
4:1E:8:LYS:O	4:1E:193:GLY:N	2.37	0.51
5:1F:34:TRP:HB2	11:1P:6:LEU:HD22	1.93	0.51
19:1X:43:VAL:HG13	19:1X:47:PHE:HD2	1.75	0.51
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.11	0.51
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.92	0.51
40:1i:73:GLN:HA	40:1i:76:ALA:HB3	1.92	0.51
49:1r:71:LYS:HA	49:1r:74:ARG:HD2	1.93	0.51
1:2A:603:A:O4'	1:2A:655:A:N6	2.44	0.51
1:2A:723:G:H2'	1:2A:724:U:O4'	2.11	0.51
1:2A:1614:A:P	1:2A:1614:A:H8	2.34	0.51
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.46	0.51
1:2A:2299:G:H2'	1:2A:2300:G:C8	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:118:LEU:O	33:2b:122:PHE:HB3	2.09	0.51
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.10	0.51
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.92	0.51
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.44	0.51
1:1A:686:G:H21	1:1A:788:A:H61	1.57	0.51
1:1A:910:A:N3	1:1A:2264:C:O2'	2.38	0.51
1:1A:1636:C:H2'	1:1A:1637:A:H8	1.76	0.51
1:1A:1639:U:O2'	1:1A:2699:C:H4'	2.10	0.51
1:1A:2065:C:H4'	1:1A:2251:OMG:HM22	1.92	0.51
1:1A:2108:C:H2'	1:1A:2109:U:O4'	2.11	0.51
1:1A:2119:A:O2'	1:1A:2120:G:H5'	2.10	0.51
1:1A:2128:C:N4	1:1A:2161:C:N3	2.59	0.51
1:1A:2581:G:O6	62:1A:4193:HOH:O	2.18	0.51
4:1E:93:VAL:HG22	4:1E:175:VAL:HG13	1.92	0.51
12:1Q:16:ARG:HG3	12:1Q:17:LEU:H	1.75	0.51
32:1a:966:M2G:C8	32:1a:967:5MC:HM52	2.46	0.51
32:1a:1002:G:C5	32:1a:1003:G:H1'	2.46	0.51
32:1a:1047:G:O2'	32:1a:1215:G:O2'	2.24	0.51
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.11	0.51
48:1q:50:LYS:HE2	48:1q:51:TYR:CZ	2.45	0.51
50:1s:36:ARG:NH2	50:1s:72:GLY:O	2.44	0.51
51:1t:83:ARG:HA	51:1t:86:ARG:NH1	2.25	0.51
1:2A:854:G:H2'	1:2A:855:G:H8	1.74	0.51
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.26	0.51
1:2A:2191:G:H2'	1:2A:2192:G:O4'	2.11	0.51
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.76	0.51
1:2A:2689:U:P	1:2A:2719:G:H22	2.34	0.51
1:2A:2735:G:H2'	1:2A:2736:G:H8	1.75	0.51
7:2H:149:ARG:HA	7:2H:162:ILE:HG21	1.92	0.51
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.92	0.51
12:2Q:137:TYR:HE2	21:2Z:49:ARG:HH11	1.58	0.51
32:2a:926:G:H22	53:2v:15:A:H3'	1.74	0.51
32:2a:986:A:H1'	50:2s:54:GLY:O	2.11	0.51
32:2a:1242:C:H2'	32:2a:1243:C:H6	1.75	0.51
32:2a:1256:A:H5'	32:2a:1258:G:O4'	2.11	0.51
32:2a:1316:G:N1	32:2a:1319:A:OP2	2.43	0.51
33:2b:16:HIS:C	33:2b:18:GLY:H	2.19	0.51
33:2b:76:GLN:HB2	33:2b:208:ILE:HD11	1.92	0.51
33:2b:212:GLN:NE2	33:2b:234:PRO:O	2.44	0.51
35:2d:12:CYS:CB	61:2d:302:SF4:S2	2.98	0.51
36:2e:52:PRO:HB2	36:2e:56:GLN:NE2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:84:PHE:N	36:2e:87:SER:O	2.43	0.51
1:1A:34:C:H5"	1:1A:35:G:OP2	2.11	0.51
1:1A:375:C:H2'	1:1A:376:C:C6	2.45	0.51
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.25	0.51
1:1A:1174:A:O5'	1:1A:1177:A:N6	2.44	0.51
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.43	0.51
32:1a:109:A:H2'	32:1a:326:G:N2	2.25	0.51
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.44	0.51
32:1a:582:U:H2'	32:1a:583:A:H8	1.75	0.51
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.93	0.51
32:1a:1136:U:H5"	32:1a:1137:C:C2	2.45	0.51
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.11	0.51
35:1d:134:ASP:OD1	35:1d:134:ASP:N	2.44	0.51
1:2A:535:C:H2'	1:2A:536:A:C8	2.46	0.51
1:2A:1978:A:H2'	1:2A:1979:C:O4'	2.11	0.51
1:2A:2143:C:N3	1:2A:2148:G:N2	2.53	0.51
6:2G:5:VAL:HG22	6:2G:8:LYS:HB3	1.93	0.51
33:2b:55:PHE:HA	33:2b:58:ILE:HD12	1.91	0.51
34:2c:156:ARG:H	34:2c:196:LEU:HD22	1.76	0.51
38:2g:14:PRO:HB3	38:2g:19:GLY:O	2.10	0.51
1:1A:721:C:H2'	1:1A:722:A:C8	2.45	0.51
1:1A:1779:U:H2'	62:1A:4319:HOH:O	2.11	0.51
7:1H:98:LEU:HG	7:1H:125:VAL:HG23	1.93	0.51
32:1a:582:U:H2'	32:1a:583:A:C8	2.46	0.51
32:1a:737:A:H2'	32:1a:738:C:C6	2.46	0.51
32:1a:966:M2G:HM13	32:1a:967:5MC:H1'	1.92	0.51
1:2A:30:G:H2'	1:2A:31:C:C6	2.46	0.51
1:2A:940:G:N3	1:2A:1191:G:H4'	2.26	0.51
1:2A:1266:G:OP2	27:25:20:ARG:NE	2.33	0.51
1:2A:2137:C:H42	1:2A:2154:G:H1	1.59	0.51
1:2A:2425:A:H4'	1:2A:2426:A:H5"	1.92	0.51
1:2A:2659:G:OP1	7:2H:158:HIS:NE2	2.43	0.51
15:2T:105:LEU:HB2	15:2T:110:ILE:HG13	1.93	0.51
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.46	0.51
23:21:54:ALA:HB3	23:21:90:ILE:HD13	1.93	0.51
32:2a:148:G:H2'	32:2a:149:A:C8	2.45	0.51
32:2a:539:A:OP2	43:2l:115:LYS:HE3	2.11	0.51
32:2a:1381:U:O2'	38:2g:79:ARG:HD2	2.11	0.51
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.46	0.51
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.45	0.51
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:942:G:O2'	1:1A:1189:A:N3	2.38	0.51
1:1A:2291:U:OP1	1:1A:2380:C:O2'	2.29	0.51
3:1D:71:ASP:HB2	3:1D:103:ARG:HH12	1.76	0.51
5:1F:67:GLN:NE2	62:1F:404:HOH:O	2.35	0.51
32:1a:881:G:P	43:1l:12:ARG:HH22	2.34	0.51
37:1f:89:MET:HE1	49:1r:72:ARG:HB3	1.93	0.51
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.11	0.51
1:2A:1027:A:C6	1:2A:1126:A:C4	2.99	0.51
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.45	0.51
1:2A:1509(B):A:H2'	1:2A:1510:G:H8	1.76	0.51
1:2A:1683:C:O2'	62:2A:3975:HOH:O	2.19	0.51
1:2A:1923:U:O2'	55:2x:12:G:H1'	2.11	0.51
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.45	0.51
2:2B:50:G:OP1	14:2S:63:THR:N	2.44	0.51
12:2Q:16:ARG:HG3	12:2Q:18:LYS:HG3	1.93	0.51
14:2S:41:ASP:OD1	14:2S:44:LYS:N	2.43	0.51
32:2a:991:U:O2'	32:2a:1212:U:N3	2.40	0.51
32:2a:1114:C:N4	32:2a:1186:G:H1	2.05	0.51
32:2a:1207:2MG:H2'	32:2a:1208:C:H6	1.75	0.51
1:1A:271(H):G:H4'	23:11:81:LYS:HG2	1.93	0.51
1:1A:1069:A:H4'	1:1A:1070:A:H5"	1.93	0.51
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.26	0.51
4:1E:53:PRO:HA	4:1E:75:VAL:HA	1.92	0.51
10:1O:122:LEU:HD13	15:1T:72:VAL:HG11	1.93	0.51
24:12:38:GLN:NE2	24:12:43:GLN:O	2.44	0.51
33:1b:198:ASP:OD1	39:1h:68:ARG:NH1	2.44	0.51
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.44	0.51
1:2A:108:U:H2'	1:2A:109:G:C8	2.47	0.51
1:2A:576:U:H2'	1:2A:577:G:C8	2.45	0.51
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.11	0.51
1:2A:1152:C:H2'	1:2A:1153:C:H6	1.76	0.51
1:2A:1297:C:O2'	1:2A:1302:A:N1	2.43	0.51
32:2a:767:A:O2'	32:2a:1524:C:O2	2.29	0.51
32:2a:1027:C:O2'	32:2a:1034:G:N2	2.40	0.51
37:2f:8:ILE:HD13	37:2f:26:ILE:HD13	1.93	0.51
37:2f:97:PHE:CD2	49:2r:31:LEU:HD11	2.46	0.51
39:2h:84:ARG:HB3	39:2h:84:ARG:HH11	1.76	0.51
45:2n:59:ALA:HB1	45:2n:61:TRP:HZ3	1.76	0.51
49:2r:32:ARG:NE	62:2r:201:HOH:O	2.44	0.51
56:2y:18:G:H22	56:2y:55:PSU:HN3	1.53	0.51
1:1A:442:G:C4'	5:1F:46:ARG:HG3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:794:G:H2'	1:1A:795:C:H6	1.76	0.50
1:1A:956:G:N2	1:1A:960:A:OP2	2.36	0.50
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.93	0.50
11:1P:38:GLN:O	11:1P:40:SER:N	2.42	0.50
15:1T:30:VAL:HG13	15:1T:86:ILE:HG12	1.93	0.50
26:14:55:ARG:H	26:14:56:VAL:HA	1.76	0.50
28:16:26:ASN:HD21	28:16:28:ARG:NH2	2.09	0.50
32:1a:153:C:H2'	32:1a:154:C:C6	2.46	0.50
32:1a:728:A:H2'	32:1a:729:A:C8	2.47	0.50
32:1a:1008:C:O2	32:1a:1021:G:N1	2.40	0.50
32:1a:1129:C:O2	32:1a:1130:A:N6	2.39	0.50
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.47	0.50
34:1c:108:ASN:HB3	34:1c:111:LEU:HD12	1.92	0.50
51:1t:32:ALA:HA	51:1t:35:THR:HB	1.94	0.50
1:2A:271(J):C:O2'	1:2A:271(K):U:OP2	2.27	0.50
1:2A:1019:U:H1'	1:2A:1144:G:N2	2.26	0.50
1:2A:2515:C:H2'	1:2A:2516:G:C8	2.46	0.50
6:2G:135:LEU:HD11	6:2G:157:ILE:HD11	1.91	0.50
14:2S:3:ARG:NH1	14:2S:4:LEU:H	2.09	0.50
16:2U:69:CYS:HB3	16:2U:74:LEU:HD13	1.92	0.50
20:2Y:6:HIS:ND1	20:2Y:7:VAL:HG23	2.27	0.50
32:2a:532:A:H2'	32:2a:532:A:N3	2.25	0.50
32:2a:971:G:OP1	32:2a:971:G:H3'	2.11	0.50
32:2a:1271:G:C2	32:2a:1272:G:N7	2.79	0.50
37:2f:89:MET:HG3	37:2f:91:VAL:HG23	1.93	0.50
54:2w:25:C:H2'	54:2w:26:A:H8	1.76	0.50
1:1A:590:A:P	5:1F:95:ARG:HH21	2.33	0.50
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.26	0.50
1:1A:1374:G:H2'	1:1A:1375:C:H6	1.77	0.50
1:1A:2728:U:H2'	1:1A:2729:G:C8	2.47	0.50
3:1D:16:MET:HG3	3:1D:211:ARG:HH11	1.76	0.50
6:1G:64:THR:HB	6:1G:94:LEU:HD11	1.94	0.50
7:1H:56:SER:OG	7:1H:57:ASP:N	2.44	0.50
8:1I:81:VAL:HG22	8:1I:145:VAL:O	2.11	0.50
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.92	0.50
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	1.94	0.50
32:1a:972:C:OP2	41:1j:57:LYS:NZ	2.40	0.50
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.45	0.50
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.34	0.50
39:1h:39:LEU:HD21	39:1h:111:ILE:HD11	1.94	0.50
1:2A:686:G:H21	1:2A:788:A:H61	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.46	0.50
1:2A:2143:C:O2	1:2A:2149:G:N2	2.44	0.50
1:2A:2577:A:OP1	62:2A:3976:HOH:O	2.20	0.50
6:2G:63:ILE:HD11	6:2G:144:ILE:HD11	1.92	0.50
32:2a:417:C:H2'	32:2a:418:C:C6	2.46	0.50
32:2a:438:G:H4'	35:2d:123:HIS:CE1	2.46	0.50
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.38	0.50
56:2y:18:G:N2	56:2y:55:PSU:C4	2.77	0.50
1:1A:601:C:O2'	1:1A:605:C:OP1	2.25	0.50
1:1A:603:A:N1	1:1A:625:G:O2'	2.43	0.50
1:1A:837:C:N4	62:1A:4424:HOH:O	2.43	0.50
1:1A:2136:C:C4	1:1A:2155:G:N1	2.80	0.50
1:1A:2467:C:H4'	12:1Q:123:HIS:CD2	2.46	0.50
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.12	0.50
6:1G:78:SER:OG	55:1x:19:G:N2	2.44	0.50
18:1W:82:LEU:HD13	18:1W:84:ARG:NH2	2.26	0.50
22:10:29:GLN:O	22:10:67:VAL:HG23	2.12	0.50
32:1a:34:C:H2'	32:1a:35:G:H8	1.76	0.50
32:1a:381:C:H2'	32:1a:382:A:O4'	2.11	0.50
32:1a:1042:G:H2'	32:1a:1043:C:O4'	2.12	0.50
32:1a:1123:A:O3'	41:1j:36:GLY:HA3	2.11	0.50
1:2A:661:C:H2'	1:2A:662:G:H8	1.76	0.50
1:2A:884:C:H3'	1:2A:885:C:C6	2.47	0.50
1:2A:1665:A:OP2	62:2A:3978:HOH:O	2.20	0.50
1:2A:2150:U:H2'	1:2A:2151:G:H8	1.76	0.50
1:2A:2336:A:H61	22:20:43:THR:CG2	2.24	0.50
1:2A:2493:U:O2'	12:2Q:80:GLU:OE2	2.13	0.50
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.46	0.50
2:2B:83:G:N2	2:2B:94:C:O2	2.39	0.50
5:2F:77:ASP:OD1	5:2F:77:ASP:N	2.41	0.50
8:2I:66:GLU:HA	8:2I:69:LYS:HB3	1.94	0.50
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.12	0.50
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.28	0.50
16:2U:76:TYR:OH	16:2U:92:ARG:NE	2.39	0.50
32:2a:444:C:H2'	32:2a:445:G:H8	1.75	0.50
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.46	0.50
34:2c:130:VAL:HB	34:2c:157:ILE:HG23	1.93	0.50
34:2c:156:ARG:N	34:2c:196:LEU:HD22	2.27	0.50
40:2i:63:ILE:HG21	40:2i:77:ILE:HG12	1.93	0.50
1:1A:443:A:N7	5:1F:45:ARG:HG2	2.26	0.50
1:1A:524:U:H2'	1:1A:525:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.47	0.50
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.45	0.50
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.26	0.50
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.45	0.50
8:1I:37:VAL:HG12	8:1I:38:LEU:HD23	1.93	0.50
30:18:26:LYS:HG2	30:18:46:ARG:O	2.10	0.50
32:1a:7:G:H8	36:1e:119:LEU:HD13	1.76	0.50
32:1a:501:C:H2'	32:1a:502:G:H8	1.77	0.50
32:1a:737:A:H2'	32:1a:738:C:H6	1.75	0.50
41:1j:46:ARG:HB2	41:1j:46:ARG:NH1	2.27	0.50
43:1l:82:VAL:O	43:1l:106:ASP:HB2	2.12	0.50
46:1o:36:ILE:O	46:1o:40:SER:N	2.26	0.50
1:2A:730:C:H3'	62:2A:4056:HOH:O	2.12	0.50
1:2A:894:C:O2'	1:2A:895:U:H5"	2.11	0.50
1:2A:1527:G:O2'	1:2A:1544:A:N6	2.34	0.50
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.11	0.50
1:2A:2081:C:H2'	1:2A:2082:A:C8	2.46	0.50
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.24	0.50
1:2A:2343:C:O3'	1:2A:2373:G:H4'	2.12	0.50
1:2A:2378:A:O5'	1:2A:2378:A:H8	1.94	0.50
3:2D:26:LYS:NZ	3:2D:94:LEU:HD22	2.27	0.50
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.92	0.50
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.77	0.50
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.94	0.50
26:24:53:GLU:OE1	26:24:53:GLU:N	2.44	0.50
33:2b:50:GLU:HB3	33:2b:200:ILE:O	2.11	0.50
34:2c:72:LYS:C	34:2c:74:GLY:H	2.19	0.50
42:2k:24:SER:OG	42:2k:27:ASN:N	2.45	0.50
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.76	0.50
55:2x:20:U:H4'	55:2x:21:A:OP1	2.11	0.50
1:1A:247:G:H4'	1:1A:386:G:C5	2.46	0.50
1:1A:271(F):C:H2'	1:1A:271(G):C:C6	2.47	0.50
1:1A:1448:G:H4'	1:1A:1542:A:OP1	2.12	0.50
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.47	0.50
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.93	0.50
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.11	0.50
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.46	0.50
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.94	0.50
18:1W:71:VAL:HA	18:1W:107:LEU:HD23	1.93	0.50
32:1a:202:U:H3'	32:1a:203:U:C6	2.47	0.50
32:1a:232:G:H1'	32:1a:262:A:N1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:504:C:OP1	62:1a:1929:HOH:O	2.20	0.50
34:1c:20:SER:OG	34:1c:40:ARG:NH2	2.43	0.50
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.94	0.50
1:2A:1287:A:N1	1:2A:1648:C:O2'	2.40	0.50
5:2F:64:ILE:HD11	5:2F:75:HIS:HB2	1.92	0.50
8:2I:2:LYS:HA	8:2I:20:ASP:HA	1.93	0.50
32:2a:500:G:N2	32:2a:546:G:H1'	2.27	0.50
32:2a:654:G:H2'	32:2a:655:A:O4'	2.11	0.50
33:2b:16:HIS:CB	33:2b:204:ASN:HB3	2.36	0.50
33:2b:76:GLN:NE2	33:2b:76:GLN:H	2.09	0.50
40:2i:33:PHE:HE2	40:2i:43:ALA:HB1	1.77	0.50
49:2r:73:ALA:HB1	49:2r:78:LEU:HB2	1.93	0.50
55:2x:15:G:N2	55:2x:21:A:N3	2.59	0.50
1:1A:329:G:OP2	20:1Y:71:LYS:HD2	2.11	0.50
1:1A:516:C:OP1	27:15:13:LYS:NZ	2.44	0.50
1:1A:526:A:OP1	62:1A:4199:HOH:O	2.19	0.50
1:1A:671:C:H2'	1:1A:672:C:C6	2.47	0.50
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.47	0.50
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.34	0.50
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.12	0.50
1:1A:2291:U:O2'	1:1A:2374:C:O2	2.30	0.50
6:1G:43:LEU:O	6:1G:45:GLU:N	2.35	0.50
32:1a:222:U:H2'	32:1a:223:U:C6	2.47	0.50
32:1a:663:A:H2'	32:1a:664:G:O4'	2.12	0.50
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.12	0.50
33:1b:16:HIS:CD2	33:1b:204:ASN:H	2.25	0.50
50:1s:49:ILE:HG13	50:1s:62:ILE:HD11	1.94	0.50
1:2A:577:G:O6	62:2A:3972:HOH:O	2.19	0.50
1:2A:658:C:H2'	1:2A:659:C:C6	2.46	0.50
1:2A:1003:G:N2	1:2A:1153:C:C2	2.79	0.50
1:2A:1951:U:OP2	62:2A:3980:HOH:O	2.20	0.50
5:2F:110:LEU:HD21	5:2F:181:LEU:HD23	1.93	0.50
6:2G:145:THR:HG22	6:2G:146:TYR:H	1.77	0.50
8:2I:3:VAL:HA	8:2I:39:ALA:H	1.77	0.50
12:2Q:50:ALA:HB1	12:2Q:121:ALA:HB1	1.93	0.50
18:2W:71:VAL:HA	18:2W:107:LEU:HD23	1.93	0.50
32:2a:1000:U:H2'	32:2a:1001:A:C8	2.47	0.50
1:1A:1075:C:H2'	1:1A:1076:C:H5'	1.92	0.50
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.42	0.50
1:1A:2134:A:N6	1:1A:2157:G:O4'	2.45	0.50
6:1G:7:LEU:HD22	6:1G:176:LEU:HD22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:60:GLU:OE2	35:1d:63:LYS:NZ	2.34	0.50
40:1i:96:LEU:HD13	40:1i:101:PHE:HB2	1.93	0.50
54:1w:18:G:O2'	54:1w:57:G:N2	2.30	0.50
1:2A:236:C:H2'	1:2A:237:C:C6	2.47	0.50
1:2A:271(P):C:O2'	8:2I:42:SER:OG	2.27	0.50
1:2A:1152:C:H2'	1:2A:1153:C:C6	2.47	0.50
1:2A:1202:C:H42	1:2A:1243:G:H1	1.58	0.50
1:2A:1310:G:OP2	29:27:9:ARG:NE	2.34	0.50
4:2E:7:VAL:HG12	4:2E:27:LEU:HB3	1.93	0.50
8:2I:117:GLU:OE1	8:2I:117:GLU:N	2.45	0.50
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.12	0.50
29:27:29:LYS:O	29:27:33:ARG:HG3	2.11	0.50
32:2a:45:U:H2'	32:2a:46:G:H8	1.77	0.50
32:2a:1060:C:H41	34:2c:2:GLY:HA3	1.77	0.50
32:2a:1271:G:C2	32:2a:1272:G:C8	2.99	0.50
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.76	0.50
42:2k:103:LEU:O	42:2k:105:VAL:N	2.44	0.50
1:1A:448:U:OP2	62:1A:4200:HOH:O	2.19	0.50
1:1A:882:G:N2	1:1A:894:C:N3	2.60	0.50
11:1P:3:LEU:H	11:1P:3:LEU:HD12	1.76	0.50
16:1U:108:GLU:O	16:1U:112:ARG:HG2	2.12	0.50
28:16:12:GLU:OE1	28:16:52:VAL:HG11	2.12	0.50
32:1a:436:C:H2'	32:1a:437:U:O4'	2.11	0.50
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.27	0.50
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.12	0.50
55:1x:66:C:H2'	55:1x:67:C:O4'	2.12	0.50
1:2A:652(A):A:H3'	1:2A:652(B):A:H5"	1.93	0.50
1:2A:910:A:N1	1:2A:2277:G:H1'	2.27	0.50
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.38	0.50
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.47	0.50
2:2B:17:C:H2'	2:2B:18:G:O4'	2.12	0.50
2:2B:29:A:H2'	2:2B:30:C:C6	2.47	0.50
7:2H:137:ASP:OD1	7:2H:139:GLN:N	2.45	0.50
9:2N:43:THR:HG22	9:2N:44:PRO:HD2	1.92	0.50
32:2a:36:C:H2'	32:2a:37:U:O4'	2.11	0.50
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.77	0.50
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.12	0.50
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.27	0.50
34:2c:59:ARG:HD3	34:2c:63:ASN:O	2.12	0.50
38:2g:44:TYR:O	38:2g:47:CYS:HB2	2.11	0.50
49:2r:53:ARG:NE	49:2r:58:LEU:O	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:58:LYS:HE3	51:2t:62:LEU:HG	1.94	0.50
55:2x:10:G:N2	55:2x:26:G:H1'	2.26	0.50
55:2x:58:A:H4'	55:2x:59:A:OP1	2.11	0.50
1:1A:943:U:OP2	62:1A:4201:HOH:O	2.20	0.50
2:1B:11:C:H3'	2:1B:12:C:H6	1.76	0.50
5:1F:33:LEU:HD13	5:1F:112:MET:HE2	1.93	0.50
6:1G:109:VAL:HG21	6:1G:142:PRO:HG3	1.93	0.50
15:1T:51:ARG:HB3	15:1T:62:THR:HB	1.94	0.50
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.47	0.50
32:1a:564:C:O2'	39:1h:91:ARG:NH1	2.42	0.50
34:1c:131:ARG:HH21	36:1e:50:GLU:HG3	1.77	0.50
36:1e:76:ILE:O	36:1e:93:PRO:HB3	2.12	0.50
37:1f:33:TYR:OH	37:1f:78:GLU:HG3	2.12	0.50
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.24	0.50
49:1r:22:VAL:HA	49:1r:25:THR:OG1	2.12	0.50
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.24	0.50
1:2A:492:A:H2'	1:2A:493:G:O4'	2.11	0.50
1:2A:593:G:H4'	30:28:63:PRO:HB3	1.93	0.50
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.47	0.50
1:2A:1996:C:H5	10:2O:32:TYR:HH	1.60	0.50
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.27	0.50
1:2A:2058:MA6:H101	59:2A:3857:6IF:CAB	2.42	0.50
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.42	0.50
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.47	0.50
26:24:13:ARG:HG2	26:24:23:GLU:HG2	1.94	0.50
32:2a:1242:C:H2'	32:2a:1243:C:C6	2.47	0.50
32:2a:1310:G:H2'	32:2a:1311:G:C8	2.47	0.50
33:2b:24:TRP:HZ3	33:2b:29:ALA:HB2	1.76	0.50
34:2c:18:TRP:HB2	34:2c:21:ARG:HG2	1.93	0.50
38:2g:78:ARG:O	38:2g:84:ASN:HA	2.11	0.50
1:1A:236:C:H2'	1:1A:237:C:C6	2.46	0.49
1:1A:321:G:N3	5:1F:165:ARG:HD2	2.27	0.49
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.45	0.49
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.27	0.49
11:1P:81:GLN:NE2	11:1P:106:LEU:HA	2.25	0.49
15:1T:110:ILE:O	15:1T:113:LYS:N	2.45	0.49
32:1a:160:A:H2'	32:1a:161:A:O4'	2.11	0.49
32:1a:624:C:H2'	32:1a:625:G:C8	2.47	0.49
32:1a:1257:U:O4	45:1n:17:LYS:NZ	2.37	0.49
33:1b:52:GLU:OE2	33:1b:56:ARG:NH2	2.45	0.49
1:2A:271(K):U:H4'	1:2A:271(L):U:OP1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1218:C:H42	1:2A:1231:G:H1	1.59	0.49
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.47	0.49
3:2D:24:ILE:HG23	3:2D:83:GLU:HA	1.94	0.49
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.93	0.49
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.93	0.49
10:2O:63:VAL:HG12	10:2O:106:LEU:HD11	1.94	0.49
14:2S:10:ARG:HE	14:2S:91:PRO:C	2.19	0.49
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.44	0.49
32:2a:565:U:OP2	32:2a:566:G:O2'	2.19	0.49
32:2a:1375:A:O2'	38:2g:29:LYS:NZ	2.45	0.49
37:2f:45:LEU:HD12	37:2f:59:TYR:HD1	1.77	0.49
1:1A:207:A:H2'	1:1A:208:C:O4'	2.12	0.49
1:1A:849:A:H2	25:13:24:LYS:HG2	1.76	0.49
1:1A:1580:A:OP2	1:1A:1580:A:H8	1.95	0.49
13:1R:96:ARG:HD2	13:1R:115:GLU:OE2	2.12	0.49
32:1a:182:U:C4	32:1a:183:G:H1'	2.47	0.49
32:1a:1304:G:C6	32:1a:1305:G:N1	2.80	0.49
35:1d:19:LEU:O	35:1d:21:LEU:HG	2.11	0.49
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.46	0.49
1:2A:1426:G:H8	1:2A:1426:G:O5'	1.96	0.49
1:2A:1777:U:H2'	1:2A:1778:U:H6	1.76	0.49
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.25	0.49
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.22	0.49
1:2A:2638:G:OP1	4:2E:82:ARG:NH2	2.44	0.49
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.13	0.49
10:2O:2:ILE:O	10:2O:33:ALA:N	2.44	0.49
19:2X:44:GLU:HG2	19:2X:51:VAL:HG23	1.94	0.49
32:2a:34:C:H2'	32:2a:35:G:H8	1.76	0.49
32:2a:142:G:H2'	32:2a:143:A:H8	1.76	0.49
32:2a:1004:A:N6	32:2a:1037:C:O2	2.41	0.49
32:2a:1086:U:H2'	32:2a:1087:G:C8	2.47	0.49
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.47	0.49
32:2a:1363(A):A:H1'	32:2a:1365:G:N7	2.27	0.49
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.12	0.49
54:2w:47:U:H5'	54:2w:48:C:H5"	1.93	0.49
1:1A:412:A:H8	1:1A:412:A:O5'	1.95	0.49
1:1A:1053:C:H42	1:1A:1106:G:H1	1.60	0.49
1:1A:1176:G:H21	1:1A:1178:C:P	2.35	0.49
1:1A:1845:G:H2'	1:1A:1846:G:O4'	2.12	0.49
13:1R:86:ARG:NH1	62:1R:302:HOH:O	2.33	0.49
32:1a:92:C:H2'	32:1a:93:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:88:VAL:HG13	36:1e:97:GLY:HA2	1.94	0.49
40:1i:4:TYR:O	40:1i:19:LEU:N	2.38	0.49
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.47	0.49
1:2A:1689:A:H62	1:2A:1698:A:H2	1.61	0.49
1:2A:2127:G:H1	1:2A:2161:C:N4	2.07	0.49
1:2A:2779:U:H4'	1:2A:2780:G:H5"	1.93	0.49
32:2a:1279:A:H4'	32:2a:1280:A:OP1	2.12	0.49
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.27	0.49
48:2q:45:HIS:H	48:2q:72:ARG:HA	1.77	0.49
1:1A:285:C:H2'	1:1A:286:C:C6	2.47	0.49
1:1A:609:A:H2'	1:1A:610:G:O4'	2.11	0.49
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.47	0.49
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.12	0.49
1:1A:2206:G:H3'	1:1A:2207:G:H8	1.76	0.49
27:15:48:GLU:C	27:15:60:VAL:HG11	2.37	0.49
28:16:6:ARG:HD3	28:16:24:GLU:OE2	2.12	0.49
32:1a:379:C:H2'	32:1a:380:G:O4'	2.13	0.49
32:1a:729:A:H2'	32:1a:730:G:H8	1.76	0.49
32:1a:1229:A:O2'	55:1x:30:G:OP1	2.30	0.49
41:1j:15:THR:O	41:1j:19:SER:OG	2.21	0.49
44:1m:101:GLN:N	44:1m:101:GLN:OE1	2.45	0.49
1:2A:247:G:O6	30:28:12:LYS:NZ	2.45	0.49
1:2A:288:C:H2'	1:2A:289:A:H8	1.77	0.49
1:2A:570:G:H2'	1:2A:2030:A:C5	2.47	0.49
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.27	0.49
1:2A:1165:U:H3	1:2A:1184:G:H1	1.59	0.49
5:2F:78:ILE:HA	5:2F:83:PHE:CD2	2.48	0.49
10:2O:77:ILE:HD11	15:2T:72:VAL:HG12	1.94	0.49
13:2R:88:ARG:HG2	13:2R:89:ASP:OD1	2.11	0.49
14:2S:29:PHE:CZ	14:2S:31:SER:HB3	2.47	0.49
28:26:35:GLU:HG2	28:26:50:ARG:HD3	1.94	0.49
29:27:24:THR:O	29:27:28:ARG:HG3	2.13	0.49
32:2a:1138:G:C5	32:2a:1140:C:H1'	2.48	0.49
33:2b:26:PRO:C	33:2b:28:PHE:H	2.19	0.49
33:2b:97:TRP:NE1	33:2b:176:GLU:OE2	2.45	0.49
41:2j:45:ARG:HG2	41:2j:47:PHE:CZ	2.47	0.49
47:2p:26:ARG:HG3	47:2p:27:LYS:O	2.13	0.49
1:1A:84:A:H5"	20:1Y:8:LYS:HG2	1.94	0.49
1:1A:1049:C:O2	1:1A:1113:U:H4'	2.11	0.49
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.78	0.49
2:1B:24:G:N7	2:1B:56:G:H2'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:94:GLU:HA	11:1P:124:LYS:O	2.11	0.49
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.94	0.49
22:10:31:VAL:HG11	22:10:37:LEU:HD21	1.95	0.49
23:11:65:SER:HB2	23:11:66:HIS:ND1	2.27	0.49
25:13:10:LYS:HB3	25:13:53:LEU:HA	1.94	0.49
30:18:39:LYS:O	30:18:43:GLN:HB2	2.11	0.49
32:1a:271:C:H2'	32:1a:272:C:C6	2.46	0.49
32:1a:517:G:H22	32:1a:533:A:P	2.35	0.49
32:1a:978:A:O2'	32:1a:1322:C:N3	2.38	0.49
32:1a:1004:A:H5"	32:1a:1025:U:H5	1.77	0.49
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.47	0.49
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.45	0.49
35:1d:111:ALA:HA	35:1d:161:ASN:ND2	2.26	0.49
41:1j:12:ASP:HB3	41:1j:15:THR:OG1	2.13	0.49
1:2A:744:G:OP1	4:2E:132:HIS:ND1	2.43	0.49
1:2A:1482:G:H2'	1:2A:1484:G:H8	1.78	0.49
1:2A:2583:G:OP2	62:2A:3982:HOH:O	2.20	0.49
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.28	0.49
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.95	0.49
26:24:67:TYR:HD2	50:2s:9:VAL:HB	1.77	0.49
32:2a:120:A:C6	32:2a:122:G:C2	3.00	0.49
32:2a:447:G:O6	32:2a:485:G:O2'	2.16	0.49
32:2a:772:U:H2'	32:2a:773:G:O4'	2.13	0.49
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.94	0.49
39:2h:11:THR:HG22	39:2h:14:ARG:NH2	2.25	0.49
41:2j:38:ILE:HD12	41:2j:71:LEU:HD23	1.94	0.49
51:2t:51:GLU:O	51:2t:55:ILE:HG12	2.13	0.49
1:1A:27:G:H22	1:1A:512:G:H1'	1.77	0.49
1:1A:249:C:O2	30:18:12:LYS:NZ	2.30	0.49
1:1A:409:C:OP1	62:1A:4131:HOH:O	2.20	0.49
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.24	0.49
1:1A:1268:A:C2	1:1A:2013:A:C4	3.00	0.49
1:1A:1669:A:H5"	1:1A:2550:G:OP1	2.12	0.49
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.28	0.49
59:1A:4089:6IF:NAH	59:1A:4089:6IF:OAV	2.45	0.49
2:1B:43:C:OP1	26:14:6:HIS:NE2	2.35	0.49
9:1N:73:THR:HB	9:1N:82:LEU:HD11	1.95	0.49
32:1a:1030(B):C:H2'	32:1a:1030(C):G:H5'	1.94	0.49
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.48	0.49
34:1c:47:LEU:HD13	34:1c:68:VAL:HG11	1.94	0.49
35:1d:64:LEU:HB2	35:1d:198:VAL:HG21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:10:G:N2	1:2A:2629:A:N7	2.60	0.49
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.48	0.49
1:2A:578:A:OP2	62:2A:3981:HOH:O	2.20	0.49
1:2A:884:C:N4	1:2A:893:C:N3	2.59	0.49
1:2A:2454:G:O6	62:2A:3968:HOH:O	2.18	0.49
2:2B:42:C:O2	6:2G:93:THR:N	2.41	0.49
2:2B:48:A:H5'	14:2S:93:LYS:HE2	1.95	0.49
2:2B:103:G:N2	21:2Z:73:GLN:OE1	2.32	0.49
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.95	0.49
10:2O:26:LYS:O	10:2O:30:ALA:HB2	2.13	0.49
21:2Z:3:TYR:HD1	21:2Z:47:VAL:HG13	1.77	0.49
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.95	0.49
32:2a:547:A:OP1	62:2a:1913:HOH:O	2.19	0.49
32:2a:976:G:OP2	32:2a:1358:U:O2'	2.31	0.49
32:2a:1161:C:H2'	32:2a:1162:C:H6	1.78	0.49
32:2a:1256:A:P	34:2c:26:LYS:HZ1	2.35	0.49
32:2a:1326:C:H2'	32:2a:1327:C:H6	1.78	0.49
33:2b:43:ASP:OD2	33:2b:46:LYS:N	2.41	0.49
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.94	0.49
37:2f:67:MET:HE3	37:2f:72:VAL:HG22	1.94	0.49
37:2f:75:LEU:O	37:2f:79:LEU:N	2.43	0.49
44:2m:80:ARG:O	44:2m:84:ILE:N	2.40	0.49
55:2x:66:C:H2'	55:2x:67:C:O4'	2.13	0.49
1:1A:530:G:N1	1:1A:2023:G:OP1	2.32	0.49
1:1A:1231:G:H2'	1:1A:1232:G:C8	2.48	0.49
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.47	0.49
20:1Y:1:MET:HG3	20:1Y:2:ARG:H	1.76	0.49
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.12	0.49
32:1a:162:A:N7	32:1a:163:C:H1'	2.28	0.49
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.47	0.49
54:1w:18:G:N2	54:1w:58:A:O5'	2.46	0.49
1:2A:372:G:N2	1:2A:400:G:H2'	2.28	0.49
1:2A:2431:U:OP2	62:2A:3979:HOH:O	2.20	0.49
1:2A:2691:C:HO2'	1:2A:2871:C:HO2'	1.61	0.49
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.13	0.49
1:2A:2749:A:OP2	1:2A:2750:A:O2'	2.28	0.49
1:2A:2820:A:OP2	1:2A:2821:A:N6	2.46	0.49
4:2E:77:ILE:HG21	4:2E:195:LEU:HD22	1.93	0.49
13:2R:24:GLN:HB3	13:2R:44:LEU:HD22	1.93	0.49
26:24:14:ILE:HG23	26:24:31:ILE:HB	1.94	0.49
30:28:26:LYS:HB2	30:28:44:LYS:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:36:LYS:HB2	30:28:41:ILE:HD11	1.95	0.49
32:2a:1062:U:O4	34:2c:3:ASN:HB3	2.13	0.49
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.47	0.49
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.13	0.49
32:2a:1368:G:OP2	40:2i:112:LYS:NZ	2.31	0.49
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.12	0.49
43:2l:54:LYS:HG2	43:2l:75:HIS:CD2	2.48	0.49
43:2l:113:ARG:HH21	43:2l:116:SER:HB2	1.78	0.49
1:1A:24:G:O2'	18:1W:78:GLU:O	2.28	0.49
1:1A:1075:C:O2	1:1A:1076:C:H2'	2.12	0.49
1:1A:1944:U:O4	1:1A:2557:G:N2	2.41	0.49
1:1A:2785:C:H1'	4:1E:66:HIS:CE1	2.48	0.49
2:1B:39:A:H2'	2:1B:40:U:C6	2.47	0.49
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.42	0.49
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.95	0.49
23:11:10:LYS:NZ	23:11:65:SER:OG	2.45	0.49
32:1a:1152:A:H2'	32:1a:1153:C:H6	1.78	0.49
41:1j:81:THR:HA	41:1j:84:GLN:HB3	1.95	0.49
46:1o:26:GLU:HG3	46:1o:81:LEU:HD22	1.94	0.49
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.48	0.49
1:2A:185:U:H4'	1:2A:218:A:O2'	2.13	0.49
1:2A:271(K):U:O2	8:2I:50:ARG:HD3	2.12	0.49
1:2A:990:A:N6	1:2A:1186:G:H1'	2.28	0.49
1:2A:1970:A:OP2	62:2A:3966:HOH:O	2.17	0.49
1:2A:2058:MA6:H101	59:2A:3857:6IF:OAN	2.13	0.49
1:2A:2319:G:N2	14:2S:3:ARG:HD2	2.28	0.49
1:2A:2431:U:OP1	62:2A:3973:HOH:O	2.19	0.49
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.78	0.49
32:2a:88:A:H4'	32:2a:89:C:H5"	1.94	0.49
32:2a:174:C:H2'	32:2a:175:C:H6	1.76	0.49
32:2a:1319:A:H61	32:2a:1361:G:H21	1.60	0.49
1:1A:1242:A:N1	11:1P:4:SER:OG	2.44	0.49
3:1D:13:ARG:HD3	3:1D:16:MET:HE3	1.95	0.49
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	1.93	0.49
11:1P:59:LEU:HD11	30:18:10:ALA:HA	1.94	0.49
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.27	0.49
32:1a:404:U:H2'	32:1a:405:U:C6	2.48	0.49
33:1b:16:HIS:CG	33:1b:17:PHE:H	2.31	0.49
39:1h:26:VAL:O	39:1h:59:LEU:N	2.46	0.49
49:1r:32:ARG:HE	49:1r:65:ILE:HG21	1.78	0.49
51:1t:38:LYS:HA	51:1t:41:ILE:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:38:A:H2'	1:2A:39:C:C6	2.48	0.49
1:2A:581:C:H2'	1:2A:582:G:C8	2.48	0.49
1:2A:601:C:O2	1:2A:605:C:H4'	2.12	0.49
1:2A:918:A:N3	2:2B:80:U:O2'	2.40	0.49
1:2A:1276:A:HO2'	13:2R:12:ARG:HH21	1.57	0.49
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.48	0.49
1:2A:2131:G:OP2	1:2A:2131:G:N2	2.30	0.49
1:2A:2507:C:H5"	1:2A:2573:C:N4	2.27	0.49
2:2B:48:A:OP1	14:2S:30:ARG:NH2	2.45	0.49
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.94	0.49
7:2H:7:LEU:HD23	7:2H:69:ARG:NH2	2.27	0.49
13:2R:54:LEU:HB3	13:2R:62:ALA:HB1	1.93	0.49
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.28	0.49
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.28	0.49
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.48	0.49
44:2m:117:VAL:HG22	44:2m:118:ALA:H	1.78	0.49
1:1A:1256:G:H1'	5:1F:82:ILE:HD11	1.94	0.49
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.34	0.49
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.12	0.49
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.48	0.49
1:1A:2379:G:O2'	14:1S:17:ARG:NH1	2.42	0.49
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.45	0.49
3:1D:239:ARG:NE	62:1D:408:HOH:O	2.43	0.49
11:1P:29:LYS:HG3	11:1P:30:THR:HG23	1.94	0.49
32:1a:184:G:H2'	32:1a:185:A:H8	1.78	0.49
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.25	0.49
32:1a:814:A:H2'	32:1a:816:A:H5"	1.95	0.49
38:1g:78:ARG:HE	38:1g:156:TRP:HE3	1.61	0.49
1:2A:443:A:H5"	1:2A:444:C:OP1	2.13	0.49
1:2A:1204:A:H2	1:2A:1241:A:H62	1.59	0.49
1:2A:1759:A:H1'	1:2A:2711:A:C2	2.47	0.49
1:2A:2050:C:N4	1:2A:2051:A:N1	2.61	0.49
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.95	0.49
10:2O:89:ASN:HD22	10:2O:90:GLN:HE22	1.61	0.49
32:2a:1242:C:O2'	32:2a:1303:C:OP1	2.30	0.49
49:2r:67:ALA:HA	49:2r:70:ILE:HD12	1.95	0.49
1:1A:7:G:H2'	1:1A:8:A:O4'	2.12	0.48
1:1A:142(A):C:H2'	1:1A:143:G:O4'	2.13	0.48
2:1B:49:C:OP1	14:1S:97:ARG:N	2.37	0.48
2:1B:78:A:H2'	2:1B:79:C:O4'	2.13	0.48
2:1B:91:C:OP2	12:1Q:16:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:14:TYR:HB2	15:1T:57:PHE:CE1	2.48	0.48
25:13:7:LYS:HE3	25:13:32:GLN:NE2	2.28	0.48
32:1a:974:A:H8	32:1a:974:A:OP1	1.96	0.48
1:2A:885:C:H2'	1:2A:886:C:O4'	2.13	0.48
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.13	0.48
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.48	0.48
1:2A:2111:C:N4	1:2A:2144:U:O2'	2.45	0.48
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.77	0.48
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.43	0.48
20:2Y:2:ARG:NH1	20:2Y:4:LYS:HA	2.28	0.48
32:2a:147:G:H2'	32:2a:148:G:C8	2.48	0.48
32:2a:148:G:H2'	32:2a:149:A:H8	1.78	0.48
32:2a:179:A:H2'	32:2a:180:U:C6	2.48	0.48
32:2a:735:C:H2'	32:2a:736:C:H6	1.78	0.48
32:2a:1065:U:H3	32:2a:1109:C:H5'	1.75	0.48
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.28	0.48
34:2c:70:VAL:HG23	34:2c:73:PRO:HG3	1.95	0.48
35:2d:193:ASP:N	35:2d:193:ASP:OD1	2.45	0.48
1:1A:251:A:C5	1:1A:252:G:H1'	2.49	0.48
1:1A:1371:G:H2'	1:1A:1372:U:C5	2.48	0.48
1:1A:1374:G:H2'	1:1A:1375:C:C6	2.48	0.48
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.28	0.48
21:1Z:17:ALA:HA	21:1Z:20:ARG:NH1	2.28	0.48
32:1a:666:G:H5'	32:1a:726:C:H1'	1.95	0.48
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.13	0.48
33:1b:95:GLN:HG3	33:1b:147:LYS:O	2.12	0.48
33:1b:128:GLU:O	33:1b:130:ARG:N	2.41	0.48
41:1j:31:GLY:HA3	41:1j:32:ALA:HA	1.58	0.48
42:1k:20:TYR:HB2	42:1k:31:THR:HG23	1.94	0.48
44:1m:11:ARG:C	44:1m:13:LYS:H	2.21	0.48
56:1y:57:G:H2'	56:1y:58:A:H5'	1.95	0.48
1:2A:223:A:O2'	1:2A:420:C:O2	2.28	0.48
1:2A:518:G:H4'	18:2W:18:ARG:HE	1.78	0.48
1:2A:911:A:N6	12:2Q:9:TYR:HB3	2.28	0.48
1:2A:1142(A):A:O2'	1:2A:1143:A:H3'	2.13	0.48
1:2A:1231:G:H2'	1:2A:1232:G:H8	1.77	0.48
1:2A:1820:U:N3	3:2D:202:LYS:HD2	2.29	0.48
1:2A:1923:U:OP1	55:2x:24:U:O2'	2.27	0.48
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.47	0.48
1:2A:2218:U:N3	23:21:55:GLY:O	2.46	0.48
1:2A:2651:C:H2'	1:2A:2652:C:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.13	0.48
4:2E:170:LEU:HB3	4:2E:184:VAL:HG22	1.94	0.48
32:2a:1346:A:N1	32:2a:1374:A:H5"	2.27	0.48
43:2l:37:CYS:N	43:2l:81:SER:O	2.42	0.48
51:2t:53:LEU:HD11	51:2t:98:PRO:HB2	1.95	0.48
56:2y:14:A:H3'	56:2y:15:G:C8	2.48	0.48
1:1A:1019:U:H2'	1:1A:1020:A:H8	1.77	0.48
1:1A:1364:G:P	23:11:3:LYS:HG3	2.53	0.48
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.49	0.48
9:1N:109:LYS:HD3	62:1N:305:HOH:O	2.13	0.48
18:1W:24:ILE:O	18:1W:27:LYS:HB2	2.13	0.48
32:1a:47:C:C6	32:1a:365:U:H2'	2.49	0.48
32:1a:377:G:OP1	47:1p:5:ARG:HD2	2.13	0.48
35:1d:164:ALA:O	35:1d:168:ARG:HG3	2.13	0.48
51:1t:50:GLU:HG3	51:1t:100:ILE:HG12	1.95	0.48
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.48	0.48
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.23	0.48
1:2A:1337:G:H2'	1:2A:1338:G:C8	2.47	0.48
1:2A:1907:G:C2	1:2A:1908:C:C2	3.02	0.48
1:2A:2127:G:N1	1:2A:2161:C:C4	2.81	0.48
1:2A:2431:U:O2'	1:2A:2433:A:N7	2.33	0.48
32:2a:183:G:H2'	32:2a:184:G:C8	2.49	0.48
32:2a:923:A:O2'	32:2a:1399:C:OP2	2.20	0.48
32:2a:1183:A:OP2	62:2a:1914:HOH:O	2.20	0.48
32:2a:1313:U:O4	32:2a:1324:A:N1	2.45	0.48
47:2p:15:PRO:C	47:2p:16:HIS:HD1	2.20	0.48
55:2x:31:G:H3'	55:2x:32:5MC:HM53	1.94	0.48
1:1A:214:G:N2	1:1A:216:A:N3	2.60	0.48
1:1A:1912:A:HO2'	32:1a:1494:G:HO2'	1.61	0.48
1:1A:2123:G:H1	1:1A:2175:C:N4	2.09	0.48
1:1A:2251:OMG:H8	1:1A:2251:OMG:OP2	1.96	0.48
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.49	0.48
4:1E:47:VAL:HG11	4:1E:86:PRO:HD2	1.94	0.48
26:14:46:GLN:O	26:14:48:ARG:N	2.46	0.48
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.49	0.48
33:1b:20:GLU:HB2	33:1b:190:THR:OG1	2.14	0.48
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.28	0.48
55:1x:23:C:H2'	55:1x:24:U:C6	2.48	0.48
1:2A:514:A:N3	1:2A:581:C:O2'	2.43	0.48
1:2A:981:A:N1	1:2A:2027:G:O2'	2.42	0.48
1:2A:1353:A:H2'	1:2A:1354:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2364:C:H4'	22:20:56:ASP:OD1	2.13	0.48
1:2A:2579:C:OP1	62:2A:3977:HOH:O	2.20	0.48
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.94	0.48
32:2a:427:U:OP2	35:2d:36:ARG:NH1	2.46	0.48
32:2a:553:A:H5"	43:2l:24:VAL:HG21	1.94	0.48
32:2a:974:A:P	45:2n:29:ARG:HH21	2.36	0.48
39:2h:39:LEU:O	39:2h:43:GLY:N	2.46	0.48
41:2j:6:ILE:HB	41:2j:72:VAL:O	2.13	0.48
44:2m:79:LYS:HA	44:2m:82:MET:HE2	1.96	0.48
1:1A:305:U:H2'	1:1A:306:U:C6	2.49	0.48
1:1A:1047:G:HO2'	1:1A:1048:A:H8	1.61	0.48
1:1A:2097:C:H2'	1:1A:2098:U:C6	2.48	0.48
1:1A:2689:U:P	1:1A:2719:G:H22	2.35	0.48
3:1D:70:TRP:CE2	3:1D:150:LYS:HD2	2.48	0.48
5:1F:62:ARG:HB3	5:1F:62:ARG:HH11	1.78	0.48
13:1R:20:LEU:HD21	13:1R:40:LYS:HD3	1.95	0.48
26:14:44:THR:HB	26:14:47:GLN:HB2	1.95	0.48
26:14:63:TYR:N	26:14:63:TYR:CD1	2.81	0.48
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.11	0.48
32:1a:688:G:H5'	42:1k:46:GLY:C	2.39	0.48
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.49	0.48
32:1a:1319:A:O2'	32:1a:1323:G:N7	2.44	0.48
39:1h:116:LYS:HD3	39:1h:127:LEU:HD13	1.94	0.48
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.48	0.48
1:2A:839:U:H1'	1:2A:1191:G:H1'	1.95	0.48
1:2A:1418:G:OP1	1:2A:1588:C:O2'	2.29	0.48
1:2A:1914:C:C4	1:2A:1915:5MU:C4	3.01	0.48
1:2A:1967:C:H2'	1:2A:1968:G:O4'	2.13	0.48
1:2A:2697:G:H2'	1:2A:2698:U:O4'	2.14	0.48
7:2H:8:PRO:O	7:2H:10:PRO:HD3	2.13	0.48
28:26:18:ARG:HD3	28:26:42:TRP:CE2	2.48	0.48
32:2a:130:A:H5'	48:2q:63:ARG:NH1	2.29	0.48
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.39	0.48
32:2a:601:C:H2'	32:2a:602:A:H8	1.79	0.48
32:2a:768:A:H4'	32:2a:1523:G:N2	2.29	0.48
32:2a:1080:A:H5'	36:2e:14:ARG:HH21	1.78	0.48
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.47	0.48
46:2o:74:ASP:OD1	46:2o:76:GLU:HB3	2.13	0.48
1:1A:1012:U:C5	9:1N:28:THR:HG21	2.48	0.48
1:1A:1079:C:N4	1:1A:1088:A:O4'	2.46	0.48
1:1A:2391:G:O6	1:1A:2425:A:H8	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2477:C:N4	31:19:10:ILE:HG23	2.28	0.48
1:1A:2590:A:H2'	1:1A:2591:C:C6	2.47	0.48
7:1H:124:GLU:O	7:1H:126:PRO:HD3	2.14	0.48
31:19:14:CYS:HA	31:19:27:CYS:HB2	1.95	0.48
32:1a:22:G:H4'	32:1a:885:G:C8	2.48	0.48
32:1a:71:C:H42	32:1a:98:G:H1	1.60	0.48
32:1a:153:C:N4	32:1a:169:C:H42	2.12	0.48
32:1a:594:G:O6	32:1a:595:G:N2	2.47	0.48
32:1a:993:G:H2'	32:1a:995:C:H41	1.79	0.48
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.61	0.48
38:1g:16:LEU:HD11	40:1i:45:ALA:HB2	1.95	0.48
39:1h:39:LEU:HB2	39:1h:45:ILE:HD11	1.96	0.48
39:1h:112:LEU:HA	39:1h:134:ILE:HG12	1.94	0.48
48:1q:11:VAL:HG12	48:1q:85:VAL:HG22	1.94	0.48
1:2A:76:C:O2'	24:22:59:ARG:HA	2.13	0.48
1:2A:124:G:OP1	1:2A:1376:C:O2'	2.27	0.48
1:2A:398:G:H2'	1:2A:399:G:C8	2.49	0.48
1:2A:568:U:H5'	1:2A:945:A:C6	2.48	0.48
1:2A:628:G:H2'	1:2A:629:G:H8	1.77	0.48
1:2A:746:A:HO2'	1:2A:2611:U:HO2'	1.62	0.48
1:2A:1754:C:N3	1:2A:2716:U:O2'	2.45	0.48
1:2A:2131:G:H22	1:2A:2158:A:H62	1.61	0.48
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.49	0.48
8:2I:81:VAL:O	8:2I:146:ALA:HA	2.14	0.48
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.61	0.48
30:28:62:LEU:HB3	30:28:65:GLU:CG	2.42	0.48
32:2a:620:C:C2	35:2d:135:LEU:HG	2.49	0.48
32:2a:977:A:H2	32:2a:1224:G:C6	2.31	0.48
32:2a:989:C:H2'	32:2a:990:C:C6	2.49	0.48
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.29	0.48
35:2d:94:LEU:HA	35:2d:97:LEU:HB2	1.96	0.48
35:2d:172:PRO:O	35:2d:187:ARG:NH2	2.47	0.48
36:2e:143:ARG:HB3	36:2e:147:ASP:HB2	1.94	0.48
37:2f:2:ARG:CZ	37:2f:69:GLU:HG2	2.43	0.48
38:2g:68:ASN:O	38:2g:135:VAL:HG23	2.14	0.48
46:2o:70:LEU:HD11	46:2o:77:ARG:HB3	1.94	0.48
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.14	0.48
5:1F:39:TRP:O	5:1F:43:LYS:HG2	2.13	0.48
14:1S:71:ARG:HD3	14:1S:107:GLU:OE1	2.13	0.48
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.47	0.48
32:1a:4:U:O4	39:1h:105:ARG:HD3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:119:GLU:HG3	33:1b:153:ARG:HH12	1.77	0.48
46:1o:42:HIS:CE1	46:1o:46:HIS:CD2	3.01	0.48
47:1p:38:TYR:CE2	47:1p:50:LYS:HB2	2.48	0.48
56:1y:55:PSU:N3	56:1y:57:G:H5'	2.28	0.48
1:2A:118:A:OP2	1:2A:119:A:H2'	2.13	0.48
1:2A:946:G:H2'	1:2A:947:G:C8	2.48	0.48
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.13	0.48
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.79	0.48
1:2A:1629:U:H2'	1:2A:1630:G:C8	2.49	0.48
1:2A:1789:A:H2'	1:2A:1790:C:O4'	2.13	0.48
1:2A:1830:C:OP2	62:2A:3970:HOH:O	2.18	0.48
1:2A:2166:G:H3'	1:2A:2167:U:H5'	1.95	0.48
1:2A:2507:C:O2'	54:2w:74:C:N4	2.44	0.48
1:2A:2744:G:N2	7:2H:143:GLN:OE1	2.43	0.48
6:2G:36:LYS:HG3	6:2G:160:VAL:HB	1.95	0.48
6:2G:114:ILE:HG13	6:2G:140:ILE:HG13	1.95	0.48
32:2a:7:G:H5'	32:2a:298:A:O4'	2.14	0.48
32:2a:664:G:N2	32:2a:741:G:H1	2.11	0.48
32:2a:1020:U:H2'	32:2a:1021:G:C8	2.49	0.48
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.96	0.48
32:2a:1318:A:H1'	50:2s:37:ARG:HH21	1.79	0.48
33:2b:114:ARG:O	33:2b:118:LEU:N	2.47	0.48
35:2d:201:GLN:HE22	36:2e:99:GLY:HA2	1.77	0.48
52:2u:12:LYS:HE2	52:2u:21:TYR:HB2	1.95	0.48
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.49	0.48
1:1A:1665:A:H4'	10:1O:67:LYS:HB2	1.95	0.48
1:1A:1846:G:H5"	1:1A:1847:A:OP2	2.14	0.48
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.48	0.48
1:1A:2696:U:H2'	1:1A:2697:G:C8	2.49	0.48
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.47	0.48
32:1a:524:G:H2'	32:1a:525:C:C6	2.48	0.48
33:1b:44:LEU:HD23	33:1b:47:THR:HG21	1.95	0.48
39:1h:39:LEU:C	39:1h:45:ILE:HG13	2.39	0.48
1:2A:271(O):C:H2'	1:2A:271(P):C:C6	2.48	0.48
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.14	0.48
1:2A:676:A:H2	1:2A:2069:G:N3	2.11	0.48
1:2A:760:G:H2'	1:2A:761:A:O4'	2.13	0.48
1:2A:1038:C:N4	1:2A:1117:G:H1	2.09	0.48
1:2A:2158:A:H2	1:2A:2159:G:C2	2.32	0.48
1:2A:2303:G:O2'	6:2G:132:ASN:ND2	2.42	0.48
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.94	0.48
28:26:32:ASN:N	28:26:32:ASN:OD1	2.39	0.48
32:2a:743:U:H2'	32:2a:744:C:C6	2.49	0.48
35:2d:108:LEU:HD21	35:2d:174:LEU:HB3	1.95	0.48
36:2e:60:TYR:OH	36:2e:64:ARG:NH1	2.46	0.48
1:1A:1429:G:H2'	1:1A:1430:C:H6	1.78	0.48
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.14	0.48
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.14	0.48
1:1A:2319:G:OP1	1:1A:2319:G:H3'	2.14	0.48
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.14	0.48
15:1T:91:ARG:NE	15:1T:124:ASP:OD2	2.46	0.48
32:1a:34:C:O5'	32:1a:34:C:H6	1.96	0.48
32:1a:600:C:H2'	32:1a:601:C:C6	2.49	0.48
32:1a:975:A:N1	41:1j:48:THR:HB	2.29	0.48
32:1a:1452:C:O2'	32:1a:1456:G:H5"	2.14	0.48
32:1a:1530:G:OP1	32:1a:1530:G:H4'	2.12	0.48
34:1c:52:LEU:HD12	34:1c:53:ALA:H	1.78	0.48
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.96	0.48
44:1m:70:LEU:HD23	44:1m:70:LEU:HA	1.73	0.48
1:2A:925:C:H2'	1:2A:926:A:C8	2.48	0.48
1:2A:2376:A:H3'	1:2A:2377:A:H8	1.77	0.48
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.78	0.48
8:2I:41:GLU:HA	8:2I:44:LEU:HB3	1.95	0.48
11:2P:50:ARG:HG2	30:28:61:LEU:HD11	1.96	0.48
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.14	0.48
28:26:2:ALA:HB1	28:26:6:ARG:O	2.13	0.48
32:2a:17:U:H2'	32:2a:18:C:C6	2.49	0.48
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.48	0.48
33:2b:112:VAL:HG23	33:2b:149:LEU:HD13	1.95	0.48
38:2g:69:VAL:HG12	38:2g:103:TRP:HE3	1.79	0.48
44:2m:31:LYS:HA	44:2m:34:LEU:HD12	1.95	0.48
44:2m:108:ARG:HH12	44:2m:114:ARG:HA	1.79	0.48
1:1A:2111:C:N4	1:1A:2144:U:O2'	2.46	0.48
1:1A:2123:G:H2'	1:1A:2124:G:C8	2.48	0.48
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.49	0.48
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.13	0.48
9:1N:138:LEU:HD23	9:1N:139:GLU:H	1.79	0.48
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	1.96	0.48
32:1a:433:C:H2'	32:1a:434:U:C6	2.48	0.48
32:1a:1131:G:P	40:1i:20:ARG:HH22	2.35	0.48
32:1a:1426:C:H2'	32:1a:1427:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:76:GLN:O	33:1b:208:ILE:HG22	2.14	0.48
41:1j:65:LEU:HD13	45:1n:56:VAL:HG13	1.96	0.48
1:2A:652(C):G:N2	1:2A:653:A:H1'	2.29	0.48
1:2A:978:G:H2'	1:2A:979:G:O4'	2.14	0.48
1:2A:1612:C:O2'	29:27:5:TRP:O	2.30	0.48
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.14	0.48
1:2A:2563:U:O2	1:2A:2565:A:H8	1.96	0.48
1:2A:2875:C:O2'	15:2T:2:ASN:OD1	2.28	0.48
8:2I:65:ALA:HB1	8:2I:132:PRO:HG2	1.96	0.48
8:2I:88:ILE:HG22	8:2I:90:GLY:H	1.78	0.48
14:2S:26:LEU:HD22	14:2S:87:PHE:HD1	1.79	0.48
18:2W:72:LYS:HB3	18:2W:106:ILE:HG22	1.95	0.48
20:2Y:37:VAL:HG22	20:2Y:69:ALA:HA	1.96	0.48
32:2a:711:G:H2'	32:2a:712:A:H8	1.77	0.48
34:2c:71:ALA:HB2	34:2c:115:LEU:HD21	1.96	0.48
38:2g:16:LEU:HD22	40:2i:41:VAL:O	2.13	0.48
42:2k:48:ILE:O	42:2k:50:TYR:N	2.42	0.48
54:2w:42:C:H2'	54:2w:43:C:H6	1.79	0.48
1:1A:252:G:P	11:1P:50:ARG:HH12	2.37	0.47
1:1A:303:U:O4	62:1A:4192:HOH:O	2.18	0.47
1:1A:1295:C:H2'	1:1A:1296:G:H8	1.78	0.47
1:1A:1701:A:OP2	62:1A:4207:HOH:O	2.20	0.47
1:1A:2808:U:H5"	1:1A:2891:G:O6	2.14	0.47
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.96	0.47
14:1S:83:LYS:HE3	14:1S:83:LYS:HB2	1.72	0.47
21:1Z:10:ARG:HD3	21:1Z:38:TYR:HB3	1.95	0.47
32:1a:334:C:HO2'	32:1a:1434:A:HO2'	1.61	0.47
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.96	0.47
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.95	0.47
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.96	0.47
1:2A:532:A:OP1	1:2A:561:G:N2	2.36	0.47
1:2A:534:U:O2'	16:2U:49:HIS:ND1	2.40	0.47
1:2A:890:A:H2'	1:2A:892:G:H8	1.79	0.47
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.49	0.47
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.49	0.47
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.14	0.47
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.49	0.47
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.13	0.47
32:2a:976:G:N7	32:2a:1362:C:N4	2.61	0.47
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.49	0.47
55:2x:12:G:H2'	55:2x:13:C:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:528:A:O2'	1:1A:529:A:H5'	2.14	0.47
1:1A:1903:G:OP1	3:1D:241:PRO:HB2	2.15	0.47
1:1A:2755:C:OP2	62:1A:4202:HOH:O	2.20	0.47
1:1A:2763:G:OP2	62:1A:4208:HOH:O	2.20	0.47
4:1E:104:VAL:HA	4:1E:197:ILE:O	2.13	0.47
12:1Q:1:MET:HB2	12:1Q:1:MET:HE3	1.75	0.47
29:17:24:THR:HG22	62:17:201:HOH:O	2.14	0.47
32:1a:774:G:H2'	32:1a:775:G:O4'	2.14	0.47
39:1h:17:THR:O	39:1h:78:GLN:NE2	2.39	0.47
56:1y:19:G:C6	56:1y:56:C:N4	2.82	0.47
1:2A:597:U:H2'	1:2A:598:G:H8	1.79	0.47
1:2A:632:A:H2'	1:2A:633:A:C8	2.49	0.47
1:2A:1508:A:H5'	1:2A:1509(A):A:C8	2.49	0.47
1:2A:1713:U:H2'	1:2A:1714:G:C8	2.48	0.47
1:2A:1768:U:H2'	1:2A:1769:G:H8	1.79	0.47
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.36	0.47
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.96	0.47
5:2F:158:THR:O	5:2F:164:ARG:HD3	2.14	0.47
16:2U:83:LEU:HD12	16:2U:113:ALA:HB2	1.96	0.47
32:2a:352:C:O2'	32:2a:354:G:OP1	2.21	0.47
32:2a:392:G:H2'	32:2a:393:A:C8	2.49	0.47
32:2a:542:G:P	35:2d:10:ARG:HH22	2.37	0.47
32:2a:975:A:H5"	32:2a:1363(A):A:N6	2.29	0.47
32:2a:1274:G:N2	32:2a:1275:A:H62	2.12	0.47
33:2b:69:LEU:HD12	33:2b:92:TYR:HA	1.96	0.47
33:2b:187:LEU:HG	33:2b:201:ILE:O	2.15	0.47
50:2s:18:LYS:HB3	50:2s:31:ILE:HD13	1.95	0.47
55:2x:65:C:H2'	55:2x:66:C:C6	2.48	0.47
55:2x:65:C:H2'	55:2x:66:C:H6	1.79	0.47
56:2y:52:G:H1	56:2y:62:C:H42	1.61	0.47
1:1A:185:U:H2'	1:1A:186:G:H8	1.78	0.47
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.14	0.47
1:1A:482:A:H1'	1:1A:498:G:N2	2.29	0.47
1:1A:818:G:O6	62:1A:4205:HOH:O	2.20	0.47
1:1A:963:U:OP1	62:1A:4206:HOH:O	2.20	0.47
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.14	0.47
1:1A:1979:C:C2'	1:1A:1980:G:H5'	2.44	0.47
4:1E:55:ASN:HB3	4:1E:58:ARG:HB2	1.96	0.47
5:1F:136:THR:HG22	5:1F:140:LEU:HD22	1.96	0.47
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.48	0.47
9:1N:99:LEU:O	9:1N:103:VAL:HG23	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:258:G:H2'	32:1a:259:G:H8	1.79	0.47
32:1a:262:A:H2'	32:1a:263:A:C8	2.49	0.47
33:1b:37:ASN:C	33:1b:39:ILE:H	2.22	0.47
33:1b:93:VAL:HG11	33:1b:97:TRP:CD1	2.49	0.47
39:1h:34:GLU:O	39:1h:38:ILE:HG12	2.13	0.47
50:1s:28:LYS:HD3	50:1s:47:HIS:CD2	2.49	0.47
1:2A:28:A:H1'	1:2A:513:A:C2	2.50	0.47
1:2A:71:A:H5"	1:2A:73:A:C8	2.50	0.47
1:2A:393:C:H2'	1:2A:394:A:H8	1.79	0.47
1:2A:479:A:N3	1:2A:481:G:H5"	2.29	0.47
1:2A:530:G:C5	1:2A:2022:U:H5"	2.49	0.47
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.49	0.47
19:2X:2:LYS:NZ	19:2X:38:GLU:OE2	2.34	0.47
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.80	0.47
38:2g:78:ARG:HE	38:2g:79:ARG:NE	2.11	0.47
45:2n:12:ARG:NH1	45:2n:14:PRO:HA	2.30	0.47
46:2o:4:THR:N	46:2o:7:GLU:OE2	2.45	0.47
51:2t:27:LYS:O	51:2t:31:SER:HB2	2.13	0.47
56:2y:70:G:H2'	56:2y:71:G:H8	1.78	0.47
1:1A:182:A:H2'	1:1A:183:C:O4'	2.14	0.47
1:1A:2224:G:O6	62:1A:4204:HOH:O	2.20	0.47
1:1A:2262:U:OP2	22:10:19:LYS:NZ	2.45	0.47
6:1G:70:VAL:HG11	6:1G:87:PRO:HB3	1.97	0.47
32:1a:60:A:H4'	32:1a:61:G:H5'	1.96	0.47
32:1a:1329:A:N7	52:1u:7:ARG:NH2	2.62	0.47
32:1a:1360:A:OP2	45:1n:35:ARG:NH2	2.47	0.47
32:1a:1512:U:H2'	32:1a:1513:A:H8	1.80	0.47
36:1e:5:ASP:OD1	36:1e:5:ASP:N	2.47	0.47
39:1h:45:ILE:HG22	39:1h:62:TYR:O	2.14	0.47
1:2A:355:G:C2	1:2A:356:G:C4	3.02	0.47
1:2A:510:C:H2'	1:2A:511:U:O4'	2.14	0.47
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.96	0.47
1:2A:1434:A:H2'	1:2A:1435:G:C8	2.49	0.47
1:2A:1668:A:C8	1:2A:1674:G:C6	3.03	0.47
1:2A:2801(A):A:HO2'	1:2A:2895:U:C1'	2.27	0.47
5:2F:32:LEU:HB3	5:2F:112:MET:HE1	1.96	0.47
23:21:65:SER:HB2	23:21:66:HIS:ND1	2.29	0.47
25:23:7:LYS:HE3	25:23:32:GLN:NE2	2.29	0.47
32:2a:34:C:H2'	32:2a:35:G:C8	2.49	0.47
32:2a:135:C:O2	47:2p:1:MET:HB3	2.13	0.47
32:2a:725:G:H2'	32:2a:726:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1326:C:H5”	52:2u:18:TYR:O	2.14	0.47
32:2a:1441:G:H1’	32:2a:1460:A:H61	1.79	0.47
33:2b:118:LEU:HD21	33:2b:138:LEU:O	2.13	0.47
1:1A:185:U:H2’	1:1A:186:G:C8	2.49	0.47
1:1A:422:A:H2’	1:1A:423:A:C8	2.50	0.47
1:1A:589:C:H2’	1:1A:590:A:C8	2.49	0.47
12:1Q:2:LEU:HB2	62:1Q:305:HOH:O	2.15	0.47
20:1Y:34:LYS:NZ	62:1Y:301:HOH:O	2.17	0.47
26:14:53:GLU:HB2	26:14:55:ARG:C	2.39	0.47
32:1a:78:G:N2	32:1a:91:C:N3	2.62	0.47
32:1a:953:G:H5’	32:1a:965:A:H61	1.79	0.47
32:1a:1161:C:H2’	32:1a:1162:C:C6	2.49	0.47
32:1a:1347:G:N2	32:1a:1373:G:H2’	2.29	0.47
32:1a:1424:C:H2’	32:1a:1425:U:O4’	2.13	0.47
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.96	0.47
1:2A:57:C:H2’	1:2A:58:G:O4’	2.15	0.47
1:2A:140:G:N2	1:2A:1596:A:H4’	2.29	0.47
1:2A:971:C:O2’	1:2A:983:A:N3	2.43	0.47
1:2A:1791:A:H8	1:2A:1791:A:OP2	1.98	0.47
1:2A:2298:A:N6	1:2A:2318:G:H8	2.12	0.47
1:2A:2350:C:H5”	30:28:42:ARG:HD3	1.96	0.47
1:2A:2870:C:H2’	1:2A:2871:C:O4’	2.14	0.47
7:2H:28:GLY:N	7:2H:31:GLY:O	2.41	0.47
15:2T:27:THR:N	15:2T:90:GLN:O	2.42	0.47
19:2X:1:MET:H3	24:22:29:LYS:HE3	1.79	0.47
21:2Z:54:HIS:ND1	21:2Z:101:PRO:HG3	2.29	0.47
31:29:7:VAL:HG12	31:29:34:GLN:HB3	1.96	0.47
32:2a:1411:C:H2’	32:2a:1412:C:C6	2.50	0.47
36:2e:67:VAL:HG22	36:2e:68:GLU:H	1.78	0.47
38:2g:13:GLN:O	38:2g:24:THR:HG21	2.14	0.47
38:2g:78:ARG:NH2	38:2g:79:ARG:HE	2.11	0.47
49:2r:53:ARG:HG2	49:2r:63:GLN:NE2	2.29	0.47
54:2w:51:U:H3	54:2w:63:G:H1	1.63	0.47
1:1A:197:A:N6	1:1A:2430:A:O2’	2.48	0.47
1:1A:1579:A:H2’	1:1A:1580:A:C8	2.50	0.47
1:1A:2274:A:N7	62:1A:4353:HOH:O	2.36	0.47
4:1E:42:ASP:O	62:1E:404:HOH:O	2.20	0.47
11:1P:39:LYS:HG3	11:1P:45:LEU:HD22	1.96	0.47
21:1Z:63:ASP:C	21:1Z:65:GLN:H	2.22	0.47
32:1a:591:U:H2’	32:1a:592:G:O4’	2.14	0.47
32:1a:600:C:OP1	39:1h:97:VAL:HG12	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.30	0.47
32:1a:988:G:H1	32:1a:1217:C:H42	1.61	0.47
36:1e:145:LYS:HA	36:1e:148:VAL:HG22	1.97	0.47
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	1.97	0.47
54:1w:35:A:H2'	54:1w:36:A:O4'	2.14	0.47
55:1x:19:G:H4'	55:1x:20:U:OP2	2.15	0.47
1:2A:8:A:H2'	1:2A:9:U:H6	1.80	0.47
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.50	0.47
5:2F:126:VAL:HG11	5:2F:142:TRP:CH2	2.50	0.47
14:2S:36:TYR:CD2	14:2S:36:TYR:N	2.83	0.47
32:2a:97:G:H2'	32:2a:98:G:H8	1.80	0.47
32:2a:390:C:H2'	32:2a:391:G:C8	2.49	0.47
32:2a:728:A:H2'	32:2a:729:A:C8	2.48	0.47
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.43	0.47
33:2b:120:ALA:O	33:2b:125:PRO:HD2	2.14	0.47
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.12	0.47
36:2e:20:GLN:OE1	36:2e:25:ARG:NH1	2.47	0.47
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.49	0.47
1:1A:6:A:H8	1:1A:6:A:O5'	1.97	0.47
1:1A:11:G:C2'	1:1A:12:U:H5'	2.45	0.47
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.50	0.47
1:1A:2142:C:N3	1:1A:2149:G:C6	2.83	0.47
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.50	0.47
1:1A:2526:G:H5'	1:1A:2742:C:O2'	2.14	0.47
2:1B:41:U:H5	6:1G:70:VAL:N	2.12	0.47
2:1B:58:A:H2'	2:1B:59:A:O4'	2.14	0.47
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	1.97	0.47
5:1F:101:LEU:O	5:1F:106:ARG:HD3	2.15	0.47
6:1G:101:ILE:HD13	26:14:25:TYR:HB2	1.97	0.47
8:1I:86:THR:O	8:1I:123:LEU:HB2	2.15	0.47
11:1P:29:LYS:HG3	11:1P:30:THR:N	2.30	0.47
17:1V:25:LEU:HD12	17:1V:94:LEU:HD21	1.97	0.47
20:1Y:6:HIS:HE1	20:1Y:72:VAL:O	1.95	0.47
32:1a:31:G:N2	32:1a:47:C:O5'	2.48	0.47
32:1a:431:A:H2'	32:1a:432:A:O4'	2.14	0.47
32:1a:564:C:OP1	43:1l:15:ARG:NE	2.45	0.47
32:1a:820:U:H4'	32:1a:821:G:OP2	2.13	0.47
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.80	0.47
32:1a:1039:C:H2'	32:1a:1040:U:C5	2.50	0.47
32:1a:1292:U:P	38:1g:41:ARG:HH22	2.38	0.47
32:1a:1343:G:O2'	40:1i:121:ARG:HD2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.62	0.47
1:2A:300:A:N3	1:2A:319:C:H1'	2.29	0.47
1:2A:441:U:H2'	1:2A:442:G:C8	2.50	0.47
1:2A:537:C:OP1	1:2A:995:C:N4	2.47	0.47
1:2A:637:A:C6	1:2A:652:C:H4'	2.49	0.47
1:2A:675:A:OP1	5:2F:63:LYS:NZ	2.47	0.47
1:2A:828:U:H4'	1:2A:831:G:N1	2.29	0.47
1:2A:902:C:H2'	1:2A:903:C:H6	1.79	0.47
1:2A:959:A:N3	1:2A:2457:U:O2'	2.47	0.47
1:2A:992:C:H2'	1:2A:993:G:H8	1.80	0.47
1:2A:1019:U:HO2'	1:2A:1021:A:H2	1.63	0.47
1:2A:1196:C:H2'	1:2A:1197:G:H8	1.79	0.47
1:2A:1394:U:C4	1:2A:1395:A:C5	3.02	0.47
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.49	0.47
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.31	0.47
1:2A:1906:G:OP2	1:2A:1929:G:O2'	2.32	0.47
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.48	0.47
1:2A:2516:G:C6	1:2A:2517:C:N4	2.83	0.47
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.48	0.47
1:2A:2638:G:P	4:2E:82:ARG:HH22	2.37	0.47
1:2A:2837:G:H21	13:2R:45:ARG:NH1	2.12	0.47
3:2D:20:ASP:OD1	3:2D:20:ASP:N	2.48	0.47
7:2H:9:ILE:HB	7:2H:50:VAL:HB	1.95	0.47
16:2U:50:ARG:HH22	17:2V:72:VAL:HG22	1.80	0.47
21:2Z:153:SER:HB2	21:2Z:167:PRO:HB3	1.97	0.47
32:2a:128:G:H4'	48:2q:3:LYS:HG2	1.96	0.47
32:2a:430:A:OP2	35:2d:8:VAL:HG12	2.14	0.47
32:2a:685:G:N1	32:2a:704:A:OP2	2.43	0.47
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.37	0.47
34:2c:18:TRP:CH2	45:2n:57:ARG:HG3	2.50	0.47
35:2d:31:CYS:SG	35:2d:33:MET:N	2.88	0.47
37:2f:33:TYR:HD1	37:2f:71:ARG:HB3	1.80	0.47
44:2m:3:ARG:N	44:2m:7:VAL:O	2.47	0.47
44:2m:14:ARG:N	44:2m:44:ARG:HD3	2.30	0.47
1:1A:1028:A:N3	1:1A:2486:G:O2'	2.41	0.47
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.28	0.47
5:1F:24:LEU:HB3	5:1F:115:ALA:HB2	1.96	0.47
6:1G:29:TRP:O	6:1G:33:ARG:NH1	2.48	0.47
21:1Z:63:ASP:OD1	21:1Z:65:GLN:HB2	2.14	0.47
32:1a:432:A:H3'	32:1a:433:C:C6	2.49	0.47
32:1a:479:C:H2'	32:1a:480:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:624:C:H2'	32:1a:625:G:H8	1.79	0.47
32:1a:748:C:O5'	32:1a:748:C:H6	1.98	0.47
32:1a:1043:C:H3'	32:1a:1044:A:H5"	1.97	0.47
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.96	0.47
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.97	0.47
33:1b:212:GLN:O	33:1b:216:SER:N	2.46	0.47
34:1c:11:ARG:HB3	34:1c:15:THR:HB	1.97	0.47
34:1c:199:LYS:HB3	34:1c:201:TYR:HE2	1.79	0.47
1:2A:245:G:N7	30:28:8:LYS:NZ	2.62	0.47
1:2A:825:C:O2	11:2P:55:ARG:NH1	2.46	0.47
1:2A:2184:G:H2'	1:2A:2185:C:H6	1.78	0.47
2:2B:23:G:C2	2:2B:61:G:C2	3.02	0.47
6:2G:7:LEU:HD13	6:2G:104:GLU:HA	1.97	0.47
8:2I:73:GLU:HG3	8:2I:138:ILE:HG23	1.97	0.47
10:2O:102:VAL:HB	10:2O:106:LEU:HD12	1.97	0.47
16:2U:50:ARG:HH12	17:2V:72:VAL:HA	1.79	0.47
17:2V:18:LEU:O	17:2V:96:ILE:HG12	2.15	0.47
32:2a:472:A:H2'	32:2a:473:G:H5'	1.97	0.47
32:2a:725:G:H2'	32:2a:726:C:H6	1.79	0.47
32:2a:1216:G:H5"	45:2n:5:ALA:HB2	1.96	0.47
33:2b:60:ASP:O	33:2b:64:ARG:HG2	2.14	0.47
34:2c:22:TRP:CH2	34:2c:32:LEU:HB3	2.49	0.47
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.29	0.47
54:2w:23:A:H2'	54:2w:24:G:H8	1.78	0.47
1:1A:45:C:H2'	1:1A:47:C:C6	2.50	0.47
1:1A:210:C:OP2	29:17:29:LYS:HE3	2.15	0.47
1:1A:530:G:H4'	1:1A:531:C:OP1	2.15	0.47
1:1A:717:G:H2'	1:1A:718:A:O4'	2.15	0.47
1:1A:823:G:C6	1:1A:835:A:N1	2.83	0.47
1:1A:1190:G:H5"	11:1P:32:THR:O	2.14	0.47
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.15	0.47
1:1A:1479:G:H5"	1:1A:1560:G:H4'	1.97	0.47
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.96	0.47
3:1D:48:ARG:O	3:1D:50:THR:HG23	2.15	0.47
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.80	0.47
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.14	0.47
8:1I:50:ARG:HB3	8:1I:50:ARG:CZ	2.43	0.47
10:1O:68:GLU:CB	10:1O:78:ARG:HB2	2.45	0.47
21:1Z:54:HIS:HB2	21:1Z:55:HIS:CD2	2.50	0.47
32:1a:10:A:H2'	32:1a:11:G:C8	2.49	0.47
32:1a:56:U:H2'	32:1a:57:G:H8	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:539:A:H2'	32:1a:540:G:C8	2.50	0.47
32:1a:1349:A:H2'	32:1a:1350:A:O4'	2.14	0.47
33:1b:71:VAL:HG22	33:1b:93:VAL:HG12	1.96	0.47
1:2A:142(A):C:H2'	1:2A:143:G:O4'	2.15	0.47
1:2A:275:G:H2'	1:2A:276:A:O4'	2.15	0.47
1:2A:863:A:O2'	2:2B:101:G:N3	2.48	0.47
1:2A:920:G:H2'	1:2A:921:G:C8	2.50	0.47
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.14	0.47
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.73	0.47
1:2A:2361:A:OP2	30:28:26:LYS:NZ	2.48	0.47
4:2E:15:PHE:CZ	15:2T:80:SER:HA	2.50	0.47
6:2G:120:LEU:N	6:2G:179:PRO:O	2.38	0.47
14:2S:36:TYR:N	14:2S:36:TYR:HD2	2.13	0.47
32:2a:130:A:H1'	32:2a:263:A:O2'	2.15	0.47
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.80	0.47
32:2a:1268:A:H2'	32:2a:1269:A:C8	2.49	0.47
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.96	0.47
51:2t:50:GLU:HG3	51:2t:100:ILE:HD13	1.97	0.47
1:1A:236:C:H2'	1:1A:237:C:H6	1.79	0.47
1:1A:414:C:H5"	1:1A:1879:C:O2'	2.15	0.47
1:1A:862:G:H2'	1:1A:863:A:O4'	2.15	0.47
1:1A:947:G:O2'	1:1A:984:A:N1	2.45	0.47
1:1A:1582:C:O2'	1:1A:1586:A:N3	2.44	0.47
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.50	0.47
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.15	0.47
1:1A:2528:U:O2'	1:1A:2530:A:OP1	2.30	0.47
26:14:44:THR:O	26:14:46:GLN:N	2.48	0.47
32:1a:1071:C:H2'	32:1a:1072:G:C8	2.48	0.47
44:1m:53:VAL:O	44:1m:57:ARG:N	2.21	0.47
44:1m:92:HIS:CE1	44:1m:98:VAL:HG11	2.50	0.47
45:1n:33:VAL:HA	45:1n:40:CYS:HA	1.96	0.47
48:1q:66:SER:OG	48:1q:69:LYS:HB2	2.15	0.47
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.22	0.47
1:2A:775:G:C4	1:2A:794:G:C8	3.02	0.47
1:2A:817:C:O2'	1:2A:839:U:H5"	2.15	0.47
1:2A:1682:G:H1'	1:2A:1762:A:C6	2.50	0.47
1:2A:2138:C:H2'	1:2A:2139:C:O4'	2.15	0.47
2:2B:54:G:H21	6:2G:29:TRP:HE1	1.62	0.47
3:2D:38:LYS:HE2	3:2D:39:LYS:O	2.15	0.47
4:2E:119:ARG:CD	4:2E:160:TYR:HB2	2.44	0.47
7:2H:54:ARG:HD2	7:2H:56:SER:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:82:ARG:HD3	8:2I:82:ARG:N	2.30	0.47
18:2W:43:GLY:O	18:2W:47:VAL:HG23	2.15	0.47
22:20:38:VAL:HG12	22:20:40:GLN:HG2	1.97	0.47
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.13	0.47
32:2a:815:A:N7	32:2a:1509:C:O2'	2.46	0.47
32:2a:1011:G:H1	32:2a:1018:C:H42	1.62	0.47
32:2a:1014:A:H8	32:2a:1014:A:P	2.38	0.47
32:2a:1521:G:N3	62:2a:1932:HOH:O	2.36	0.47
34:2c:122:GLU:HA	34:2c:125:GLU:OE2	2.15	0.47
39:2h:17:THR:HA	39:2h:65:TYR:HE1	1.80	0.47
42:2k:56:GLY:O	42:2k:89:ALA:HB3	2.15	0.47
56:2y:68:C:H2'	56:2y:69:G:O4'	2.15	0.47
1:1A:1021:A:H3'	1:1A:1021:A:N3	2.30	0.46
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.47	0.46
1:1A:1151:G:H2'	1:1A:1152:C:O4'	2.15	0.46
1:1A:2729:G:H2'	1:1A:2730:C:O4'	2.14	0.46
1:1A:2871:C:H5"	1:1A:2872:G:OP1	2.15	0.46
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.50	0.46
7:1H:86:GLU:HG3	7:1H:132:ARG:CZ	2.45	0.46
19:1X:29:TRP:CZ3	19:1X:78:LYS:HB3	2.50	0.46
21:1Z:155:LEU:HA	21:1Z:155:LEU:HD13	1.72	0.46
32:1a:539:A:H2'	32:1a:540:G:H8	1.79	0.46
33:1b:55:PHE:CD1	33:1b:221:LEU:HD22	2.50	0.46
34:1c:65:ALA:O	34:1c:66:VAL:HG13	2.15	0.46
38:1g:38:LEU:HA	38:1g:41:ARG:HD2	1.97	0.46
1:2A:194:G:N7	62:2A:4095:HOH:O	2.36	0.46
1:2A:588:U:H2'	1:2A:589:C:C6	2.50	0.46
1:2A:652(C):G:H22	1:2A:653:A:H1'	1.80	0.46
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.49	0.46
1:2A:1813:G:H1'	3:2D:50:THR:OG1	2.15	0.46
1:2A:1815:A:H8	1:2A:1815:A:OP1	1.98	0.46
1:2A:2127:G:N2	1:2A:2161:C:C2	2.83	0.46
1:2A:2357:U:OP1	22:20:20:ARG:NH2	2.46	0.46
1:2A:2549:G:H2'	1:2A:2550:G:C8	2.50	0.46
4:2E:175:VAL:HG13	4:2E:182:LEU:HD12	1.97	0.46
7:2H:101:ARG:HH12	7:2H:122:THR:HG22	1.79	0.46
32:2a:420:U:H2'	32:2a:422:C:C5	2.50	0.46
32:2a:601:C:N4	32:2a:637:G:H1	2.12	0.46
45:2n:7:ILE:HG12	45:2n:23:ARG:HD3	1.97	0.46
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.95	0.46
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2012:G:O3'	18:1W:96:ILE:HG12	2.14	0.46
1:1A:2706:G:N7	62:1A:4352:HOH:O	2.36	0.46
21:1Z:123:ASP:OD1	21:1Z:123:ASP:N	2.48	0.46
32:1a:254:G:O2'	48:1q:16:GLN:O	2.28	0.46
32:1a:339:C:H2'	32:1a:340:U:H6	1.81	0.46
32:1a:376:G:H5"	47:1p:5:ARG:HB3	1.97	0.46
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.96	0.46
52:1u:12:LYS:HE2	52:1u:21:TYR:HB2	1.97	0.46
1:2A:1914:C:H2'	1:2A:1915:5MU:O4'	2.16	0.46
1:2A:1963:U:H4'	1:2A:1964:G:OP1	2.15	0.46
1:2A:1993:U:H2'	1:2A:1994:C:O4'	2.16	0.46
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.97	0.46
1:2A:2881:C:P	13:2R:90:ARG:HH12	2.38	0.46
2:2B:75:G:N2	21:2Z:87:ASP:OD1	2.48	0.46
7:2H:3:ARG:HH21	7:2H:54:ARG:HH12	1.63	0.46
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.47	0.46
21:2Z:138:GLU:H	21:2Z:156:LYS:HD3	1.79	0.46
24:22:14:ARG:NH2	24:22:66:GLU:OE2	2.48	0.46
32:2a:224:C:H2'	32:2a:225:C:H6	1.78	0.46
32:2a:385:C:O5'	32:2a:385:C:H6	1.98	0.46
32:2a:399:G:H2'	32:2a:400:C:C6	2.50	0.46
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.97	0.46
32:2a:1029:C:C4	32:2a:1032:G:N1	2.67	0.46
32:2a:1414:U:H2'	32:2a:1415:G:H8	1.80	0.46
41:2j:8:LEU:HA	41:2j:96:ILE:HA	1.97	0.46
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.98	0.46
52:2u:2:GLY:O	52:2u:4:GLY:N	2.48	0.46
52:2u:6:ARG:HE	52:2u:15:ARG:CZ	2.27	0.46
55:2x:37:A:H2'	55:2x:38:A:O4'	2.14	0.46
1:1A:95:G:H4'	24:12:45:SER:O	2.15	0.46
1:1A:2335:A:O2'	1:1A:2337:G:N7	2.45	0.46
1:1A:2819:G:H5"	62:1A:4921:HOH:O	2.14	0.46
62:1A:4171:HOH:O	16:1U:16:LYS:HD3	2.15	0.46
4:1E:72:VAL:HG12	4:1E:73:GLU:O	2.16	0.46
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.81	0.46
32:1a:599:C:H4'	39:1h:130:GLY:HA3	1.97	0.46
32:1a:1366:C:O2'	41:1j:60:ARG:NH1	2.40	0.46
33:1b:74:LYS:O	33:1b:78:GLN:NE2	2.49	0.46
36:1e:139:LEU:HA	36:1e:142:LEU:HG	1.98	0.46
41:1j:5:ARG:O	41:1j:99:LYS:N	2.41	0.46
50:1s:11:VAL:HG11	50:1s:16:LEU:HB2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(A):A:N7	1:2A:271(W):G:N2	2.62	0.46
1:2A:530:G:C6	1:2A:2022:U:H5"	2.50	0.46
1:2A:655:A:H8	1:2A:656:G:O4'	1.98	0.46
1:2A:1313:U:OP1	62:2A:3983:HOH:O	2.20	0.46
1:2A:1420:U:O2'	1:2A:1421:G:H5'	2.16	0.46
2:2B:38:C:O4'	14:2S:95:HIS:NE2	2.48	0.46
2:2B:114:C:H2'	2:2B:115:G:C8	2.51	0.46
12:2Q:24:GLY:HA2	12:2Q:67:ARG:NH2	2.31	0.46
32:2a:362:G:N2	32:2a:365:U:OP2	2.48	0.46
32:2a:806:C:H2'	32:2a:807:A:H8	1.80	0.46
32:2a:887:G:H21	32:2a:1489:G:H4'	1.81	0.46
32:2a:948:C:H2'	32:2a:949:A:C8	2.48	0.46
32:2a:1157:A:H5'	32:2a:1158:C:C6	2.51	0.46
32:2a:1265:G:C2	32:2a:1271:G:C2	3.03	0.46
32:2a:1367:C:P	40:2i:112:LYS:HZ1	2.38	0.46
32:2a:1441:G:H4'	32:2a:1442:G:C2	2.51	0.46
34:2c:85:ARG:O	34:2c:89:GLU:N	2.48	0.46
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.96	0.46
39:2h:17:THR:HG22	39:2h:63:LEU:HD13	1.97	0.46
40:2i:16:ARG:NH2	40:2i:18:PHE:HZ	2.12	0.46
1:1A:271(D):G:H2'	1:1A:271(E):U:O4'	2.15	0.46
1:1A:818:G:H5'	1:1A:839:U:OP1	2.15	0.46
1:1A:1055:G:H2'	1:1A:1056:G:O4'	2.16	0.46
1:1A:1952:A:C6	1:1A:1953:A:N1	2.83	0.46
1:1A:2072:G:H2'	1:1A:2073:C:O4'	2.15	0.46
1:1A:2343:C:O2'	1:1A:2373:G:O2'	2.33	0.46
14:1S:51:ALA:HB1	14:1S:69:VAL:HG23	1.98	0.46
21:1Z:135:GLU:HG2	21:1Z:136:PHE:CD2	2.49	0.46
32:1a:40:C:H2'	32:1a:41:G:H8	1.80	0.46
32:1a:640:A:O2'	39:1h:115:SER:O	2.27	0.46
32:1a:804:U:H5"	32:1a:805:C:OP2	2.15	0.46
32:1a:1027:C:H5"	32:1a:1028:C:OP2	2.16	0.46
38:1g:16:LEU:HD22	38:1g:16:LEU:H	1.80	0.46
39:1h:86:ILE:HG13	39:1h:135:CYS:HA	1.97	0.46
1:2A:639:U:H2'	1:2A:640:C:C6	2.51	0.46
1:2A:646:A:H2'	1:2A:647:G:O4'	2.16	0.46
1:2A:861:A:H2'	1:2A:862:G:O4'	2.15	0.46
1:2A:942:G:O2'	1:2A:1189:A:H2'	2.16	0.46
1:2A:1499:C:H2'	1:2A:1500:G:H8	1.80	0.46
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.80	0.46
4:2E:53:PRO:HA	4:2E:75:VAL:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.13	0.46
32:2a:339:C:H2'	32:2a:340:U:H6	1.80	0.46
32:2a:868:C:H2'	32:2a:869:G:O4'	2.16	0.46
32:2a:1053:G:N7	32:2a:1199:U:H3'	2.30	0.46
32:2a:1369:C:OP1	40:2i:111:ARG:HB2	2.15	0.46
33:2b:56:ARG:NH1	33:2b:56:ARG:HB2	2.31	0.46
33:2b:119:GLU:OE2	33:2b:153:ARG:NH1	2.45	0.46
34:2c:112:SER:HB3	34:2c:115:LEU:HB2	1.98	0.46
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.50	0.46
38:2g:99:LEU:HD23	38:2g:102:ARG:NH1	2.30	0.46
39:2h:64:LYS:HD2	39:2h:79:VAL:HG21	1.97	0.46
1:1A:475:U:H4'	1:1A:510:C:H5'	1.98	0.46
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.50	0.46
1:1A:2092:U:H4'	1:1A:2093:G:O5'	2.16	0.46
4:1E:162:ALA:O	62:1E:405:HOH:O	2.21	0.46
6:1G:43:LEU:C	6:1G:45:GLU:N	2.73	0.46
8:1I:75:LEU:HD13	8:1I:105:HIS:CD2	2.51	0.46
17:1V:71:LEU:HD23	17:1V:71:LEU:HA	1.81	0.46
32:1a:181:G:H4'	32:1a:182:U:H5'	1.97	0.46
32:1a:335:C:H2'	32:1a:336:C:C6	2.50	0.46
32:1a:1478:C:H2'	32:1a:1479:C:H6	1.81	0.46
39:1h:14:ARG:NH2	39:1h:83:ILE:O	2.25	0.46
41:1j:21:GLN:O	41:1j:25:GLU:N	2.47	0.46
46:1o:62:GLN:O	46:1o:66:LEU:HG	2.16	0.46
1:2A:398:G:O6	62:2A:3986:HOH:O	2.21	0.46
1:2A:2080:G:H5'	23:21:35:THR:O	2.14	0.46
1:2A:2637:U:H5"	4:2E:82:ARG:NH1	2.30	0.46
62:2A:4094:HOH:O	5:2F:68:LYS:HE2	2.16	0.46
2:2B:1:U:O2'	2:2B:2:C:O5'	2.22	0.46
2:2B:114:C:H2'	2:2B:115:G:H8	1.81	0.46
20:2Y:28:LYS:N	20:2Y:38:ILE:O	2.45	0.46
26:24:44:THR:O	26:24:46:GLN:N	2.46	0.46
32:2a:17:U:H1'	32:2a:1080:A:H1'	1.97	0.46
32:2a:1076:C:H2'	32:2a:1077:G:O4'	2.16	0.46
34:2c:20:SER:OG	34:2c:36:ASP:OD2	2.23	0.46
34:2c:71:ALA:CB	34:2c:109:PRO:HB3	2.40	0.46
36:2e:67:VAL:HG13	36:2e:69:VAL:H	1.80	0.46
36:2e:75:THR:OG1	36:2e:117:ASP:O	2.30	0.46
38:2g:22:LEU:HD21	38:2g:66:VAL:HG11	1.98	0.46
53:2v:23:A:H4'	53:2v:24:A:C5'	2.45	0.46
1:1A:628:G:H2'	1:1A:629:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1834:U:O4	1:1A:1900:A:N6	2.49	0.46
1:1A:1906:G:H5"	1:1A:1929:G:O2'	2.16	0.46
1:1A:2541:A:OP2	62:1A:4211:HOH:O	2.21	0.46
1:1A:2636:U:H1'	1:1A:2783:G:N2	2.30	0.46
1:1A:2679:A:H4'	4:1E:165:VAL:HG11	1.98	0.46
1:1A:2841:C:H2'	1:1A:2842:G:C8	2.50	0.46
4:1E:119:ARG:HD2	4:1E:160:TYR:HB2	1.98	0.46
5:1F:96:ASP:OD1	5:1F:98:SER:HB3	2.16	0.46
8:1I:69:LYS:HA	8:1I:138:ILE:HD12	1.98	0.46
8:1I:130:TYR:O	8:1I:138:ILE:N	2.46	0.46
11:1P:6:LEU:HD23	11:1P:6:LEU:HA	1.65	0.46
14:1S:65:VAL:O	14:1S:69:VAL:HG12	2.15	0.46
21:1Z:41:LEU:HD11	21:1Z:83:PRO:HG2	1.98	0.46
30:18:28:GLY:O	30:18:36:LYS:NZ	2.47	0.46
32:1a:185:A:H2'	32:1a:186:C:C6	2.51	0.46
32:1a:501:C:H2'	32:1a:502:G:C8	2.51	0.46
32:1a:554:C:H2'	32:1a:555:C:H6	1.81	0.46
32:1a:629:G:H2'	32:1a:630:G:O4'	2.16	0.46
32:1a:938:A:C6	32:1a:939:G:C5	3.03	0.46
32:1a:1217:C:H2'	32:1a:1218:C:O4'	2.16	0.46
32:1a:1314:C:C5	50:1s:4:SER:HB2	2.50	0.46
32:1a:1373:G:H5"	38:1g:36:LYS:HE2	1.97	0.46
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.97	0.46
36:1e:41:VAL:O	36:1e:66:MET:HA	2.15	0.46
38:1g:76:ARG:O	38:1g:87:VAL:N	2.41	0.46
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.98	0.46
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.57	0.46
1:2A:2527:C:H5"	31:29:30:PRO:HB3	1.97	0.46
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.50	0.46
3:2D:9:TYR:CE1	3:2D:13:ARG:HG3	2.50	0.46
12:2Q:1:MET:HE3	12:2Q:1:MET:HB2	1.79	0.46
12:2Q:12:GLN:HE21	12:2Q:72:LYS:HG3	1.80	0.46
17:2V:71:LEU:HD23	17:2V:71:LEU:HA	1.83	0.46
19:2X:94:GLY:H	19:2X:95:LEU:HB2	1.80	0.46
25:23:40:THR:HG22	25:23:42:ALA:H	1.81	0.46
27:25:50:GLY:HA2	27:25:58:LEU:HD23	1.97	0.46
32:2a:6:G:N2	36:2e:98:THR:HG23	2.29	0.46
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.15	0.46
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.34	0.46
34:2c:142:MET:HG3	34:2c:170:GLN:HB3	1.97	0.46
37:2f:3:ARG:HG2	37:2f:64:GLN:HE21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:43:SER:HA	42:2k:47:VAL:HG21	1.97	0.46
42:2k:73:MET:SD	42:2k:103:LEU:HD21	2.55	0.46
1:1A:969:U:H2'	1:1A:970:C:C6	2.51	0.46
1:1A:1203:G:O2'	1:1A:1242:A:N6	2.44	0.46
1:1A:1257:C:H5'	5:1F:75:HIS:NE2	2.30	0.46
1:1A:2043:C:O3'	62:1A:4210:HOH:O	2.21	0.46
1:1A:2629:A:H1'	1:1A:2630:G:O5'	2.15	0.46
13:1R:20:LEU:O	13:1R:24:GLN:HG3	2.15	0.46
32:1a:673:G:H2'	32:1a:674:G:C8	2.49	0.46
32:1a:953:G:N7	44:1m:104:ARG:NH2	2.64	0.46
32:1a:1027:C:N4	32:1a:1034:G:N1	2.59	0.46
44:1m:84:ILE:HG22	50:1s:65:ASN:ND2	2.31	0.46
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.97	0.46
47:1p:58:TYR:O	47:1p:61:SER:HB3	2.16	0.46
51:1t:33:ILE:HG12	51:1t:62:LEU:HB3	1.97	0.46
1:2A:1710:C:H5'	1:2A:2859:G:H1'	1.98	0.46
2:2B:28:C:H5"	14:2S:29:PHE:HZ	1.81	0.46
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.51	0.46
21:2Z:61:LEU:HD13	21:2Z:67:LEU:HD23	1.98	0.46
21:2Z:67:LEU:HA	21:2Z:67:LEU:HD13	1.84	0.46
26:24:12:ALA:HB3	26:24:26:SER:HB3	1.98	0.46
30:28:15:LYS:O	30:28:23:VAL:HG12	2.15	0.46
32:2a:90:U:H2'	32:2a:91:C:H6	1.81	0.46
32:2a:136:C:O2'	47:2p:63:GLY:O	2.26	0.46
32:2a:255:G:O3'	48:2q:17:LYS:HE3	2.15	0.46
32:2a:751:U:H4'	46:2o:24:SER:HA	1.97	0.46
32:2a:1003:G:H22	32:2a:1027:C:H41	1.61	0.46
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.80	0.46
32:2a:1359:C:H3'	45:2n:35:ARG:NH2	2.30	0.46
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.79	0.46
41:2j:9:ARG:HH22	41:2j:69:ASN:HD21	1.62	0.46
41:2j:23:ILE:HD12	41:2j:23:ILE:HA	1.59	0.46
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.48	0.46
1:1A:818:G:H4'	1:1A:838:C:O3'	2.15	0.46
1:1A:1805:U:O2	3:1D:50:THR:HB	2.15	0.46
3:1D:9:TYR:CE1	3:1D:13:ARG:HG3	2.51	0.46
7:1H:87:LEU:HD23	7:1H:164:TYR:HA	1.98	0.46
9:1N:32:THR:HG22	9:1N:37:LYS:HB2	1.98	0.46
11:1P:128:HIS:HA	11:1P:148:LEU:HD23	1.97	0.46
12:1Q:60:ARG:HH21	54:1w:53:G:P	2.38	0.46
13:1R:72:ASP:OD2	13:1R:75:LEU:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:68:HIS:ND1	20:1Y:70:SER:HB3	2.30	0.46
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.74	0.46
32:1a:741:G:H5"	46:1o:59:MET:HE1	1.98	0.46
32:1a:828:A:H2'	32:1a:829:G:O4'	2.15	0.46
32:1a:1151:A:O2'	32:1a:1152:A:O5'	2.29	0.46
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.97	0.46
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.16	0.46
1:2A:328:U:H4'	20:2Y:68:HIS:CG	2.50	0.46
1:2A:403:U:H4'	1:2A:404:C:H5'	1.97	0.46
1:2A:990:A:H1'	1:2A:1156:A:C2	2.50	0.46
1:2A:1790:C:H4'	3:2D:209:ALA:HB2	1.97	0.46
1:2A:1843:C:H2'	1:2A:1844:C:H6	1.80	0.46
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.51	0.46
1:2A:2496:C:OP2	12:2Q:82:ARG:HD3	2.16	0.46
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.51	0.46
6:2G:53:LEU:HB3	6:2G:56:ALA:HB3	1.98	0.46
8:2I:62:LYS:HG2	8:2I:133:HIS:CE1	2.49	0.46
22:20:26:TYR:H	22:20:29:GLN:CD	2.24	0.46
32:2a:140:A:H2'	32:2a:141:A:O4'	2.16	0.46
32:2a:299:G:C6	32:2a:300:A:C6	3.04	0.46
32:2a:598:U:H2'	32:2a:599:C:C6	2.47	0.46
32:2a:629:G:H2'	32:2a:630:G:O4'	2.16	0.46
32:2a:671:G:H2'	32:2a:672:U:O4'	2.16	0.46
32:2a:1002:G:C6	32:2a:1003:G:H8	2.34	0.46
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.16	0.46
39:2h:98:LYS:HE2	39:2h:98:LYS:HB2	1.83	0.46
42:2k:34:ASP:OD1	42:2k:37:GLY:N	2.48	0.46
46:2o:7:GLU:H	46:2o:7:GLU:HG3	1.33	0.46
1:1A:388:G:O2'	1:1A:389:G:N7	2.42	0.46
1:1A:570:G:H2'	1:1A:2030:A:N7	2.30	0.46
1:1A:652(U):G:C2	1:1A:652(V):C:C2	3.04	0.46
1:1A:1881:C:H2'	1:1A:1882:C:H6	1.80	0.46
22:10:38:VAL:HB	22:10:59:LEU:HB2	1.97	0.46
31:19:27:CYS:SG	31:19:28:GLU:N	2.88	0.46
32:1a:9:G:C6	32:1a:26:A:N6	2.84	0.46
33:1b:166:ASP:OD2	33:1b:169:LYS:HB2	2.16	0.46
55:1x:58:A:H4'	55:1x:59:A:OP1	2.16	0.46
1:2A:207:A:H2'	1:2A:208:C:O4'	2.16	0.46
1:2A:521:G:H2'	1:2A:522:G:H8	1.80	0.46
1:2A:708:C:H42	1:2A:723:G:H1	1.64	0.46
1:2A:1657:C:OP1	4:2E:136:ARG:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1834:U:H4'	1:2A:1969:A:C6	2.50	0.46
4:2E:170:LEU:HB3	4:2E:184:VAL:CG2	2.46	0.46
16:2U:29:SER:OG	16:2U:30:LYS:NZ	2.43	0.46
23:21:44:PRO:O	23:21:46:LEU:N	2.46	0.46
26:24:15:ILE:O	26:24:33:VAL:HB	2.15	0.46
32:2a:113:G:N3	32:2a:353:A:O2'	2.47	0.46
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.16	0.46
34:2c:37:GLN:HE22	45:2n:52:GLN:HB3	1.81	0.46
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.81	0.46
47:2p:70:ALA:O	47:2p:74:LEU:HG	2.16	0.46
56:2y:23:A:C6	56:2y:24:G:C5	3.04	0.46
1:1A:25:U:H2'	1:1A:26:G:O4'	2.16	0.46
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.51	0.46
1:1A:271(P):C:H4'	8:1I:42:SER:O	2.16	0.46
1:1A:361:G:N1	1:1A:362:U:O4	2.49	0.46
1:1A:857:C:N4	1:1A:858:U:O4	2.49	0.46
1:1A:1155:A:OP1	16:1U:55:ARG:HD2	2.15	0.46
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.32	0.46
1:1A:2710:C:H2'	1:1A:2711:A:C8	2.51	0.46
5:1F:182:ASN:HD21	5:1F:185:ASP:CG	2.23	0.46
7:1H:113:VAL:HG11	7:1H:151:ILE:HG21	1.97	0.46
26:14:56:VAL:O	26:14:60:GLN:HG2	2.16	0.46
29:17:21:ARG:O	29:17:27:GLY:HA3	2.16	0.46
32:1a:1004:A:H8	32:1a:1005:A:H4'	1.80	0.46
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.31	0.46
36:1e:91:LEU:HB3	36:1e:118:ILE:HD11	1.97	0.46
38:1g:13:GLN:O	38:1g:24:THR:HG21	2.15	0.46
39:1h:3:THR:O	39:1h:5:PRO:HD3	2.16	0.46
47:1p:11:SER:N	47:1p:14:ASN:HB3	2.31	0.46
54:1w:23:A:H3'	54:1w:24:G:H8	1.81	0.46
56:1y:9:A:H4'	56:1y:46:7MG:OP2	2.16	0.46
1:2A:7:G:H2'	1:2A:8:A:C8	2.51	0.46
1:2A:70:G:H5"	1:2A:112:U:O2	2.15	0.46
1:2A:184:C:H2'	1:2A:185:U:H6	1.81	0.46
1:2A:229:A:H5'	1:2A:230:U:OP1	2.16	0.46
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.81	0.46
9:2N:138:LEU:HB3	9:2N:140:VAL:HG13	1.97	0.46
23:21:76:ARG:HB2	23:21:97:LEU:HD13	1.98	0.46
32:2a:1183:A:O2'	32:2a:1184:G:OP1	2.34	0.46
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.51	0.46
35:2d:60:GLU:HA	35:2d:63:LYS:HE3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:72:GLN:O	36:2e:75:THR:HG22	2.16	0.46
38:2g:76:ARG:HD3	38:2g:76:ARG:HA	1.73	0.46
39:2h:36:LEU:HA	39:2h:39:LEU:HD12	1.98	0.46
1:1A:709:U:H2'	1:1A:710:G:C8	2.51	0.45
1:1A:1062:G:H1'	1:1A:1088:A:C8	2.51	0.45
1:1A:2375:G:N2	1:1A:2378:A:OP2	2.40	0.45
1:1A:2684:U:H1'	10:1O:70:LYS:HD2	1.97	0.45
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.16	0.45
12:1Q:55:VAL:HG22	12:1Q:64:ILE:HD13	1.98	0.45
32:1a:783:C:OP1	32:1a:1515:C:O2'	2.33	0.45
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.43	0.45
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.32	0.45
32:1a:1478:C:H2'	32:1a:1479:C:C6	2.51	0.45
36:1e:79:GLU:HG3	36:1e:93:PRO:HD2	1.98	0.45
46:1o:33:THR:HG23	46:1o:63:ARG:NH1	2.31	0.45
48:1q:21:VAL:O	48:1q:42:TYR:N	2.44	0.45
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.16	0.45
1:2A:747:U:O2	1:2A:2014:A:H1'	2.15	0.45
1:2A:1843:C:H5'	3:2D:253:GLN:OE1	2.17	0.45
1:2A:2120:G:H1	1:2A:2178:C:H42	1.63	0.45
1:2A:2508:G:O3'	1:2A:2555:U:H5'	2.15	0.45
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.51	0.45
3:2D:164:GLN:OE1	3:2D:176:ARG:NH1	2.49	0.45
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.23	0.45
21:2Z:98:MET:O	21:2Z:126:VAL:N	2.49	0.45
33:2b:108:ILE:HG13	33:2b:109:SER:N	2.31	0.45
36:2e:91:LEU:HD23	36:2e:120:THR:HG22	1.98	0.45
45:2n:3:ARG:HH22	45:2n:23:ARG:NH1	2.14	0.45
1:1A:57:C:H2'	1:1A:58:G:O4'	2.16	0.45
1:1A:616:G:H5'	5:1F:205:ARG:HD3	1.98	0.45
1:1A:1021:A:H2'	1:1A:1023:U:O4'	2.17	0.45
1:1A:1821:A:H2'	1:1A:1822:G:C8	2.51	0.45
1:1A:1860:G:H2'	1:1A:1861:G:O4'	2.16	0.45
1:1A:2021:C:OP2	27:15:15:ARG:NH2	2.45	0.45
1:1A:2829:C:H5"	4:1E:76:ARG:HH21	1.80	0.45
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.16	0.45
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.51	0.45
32:1a:202:U:H5"	32:1a:203:U:H5	1.81	0.45
32:1a:293:G:OP2	32:1a:293:G:H8	1.99	0.45
32:1a:1426:C:H2'	32:1a:1427:U:H6	1.81	0.45
40:1i:32:ASP:OD2	40:1i:33:PHE:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:10:G:H2'	1:2A:11:G:C8	2.51	0.45
1:2A:92:A:H2'	1:2A:93:G:H8	1.80	0.45
1:2A:1857:G:O2'	1:2A:1885:A:N6	2.42	0.45
1:2A:1861:G:H1	1:2A:1881:C:H42	1.64	0.45
1:2A:2130:U:H2'	1:2A:2131:G:N2	2.31	0.45
1:2A:2136:C:C4	1:2A:2155:G:N1	2.81	0.45
2:2B:39:A:H2'	2:2B:40:U:C6	2.50	0.45
8:2I:133:HIS:CD2	8:2I:134:PRO:HD2	2.51	0.45
10:2O:48:PRO:CB	32:2a:1422:G:H5"	2.40	0.45
28:26:33:LYS:HA	28:26:51:GLU:OE2	2.16	0.45
32:2a:169:C:H2'	32:2a:170:U:O4'	2.16	0.45
32:2a:1097:C:H2'	32:2a:1098:C:H6	1.82	0.45
32:2a:1256:A:H61	32:2a:1278:U:C2'	2.27	0.45
32:2a:1264:C:C4	32:2a:1272:G:O6	2.70	0.45
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.51	0.45
32:2a:1417:G:C6	32:2a:1482:G:C6	3.05	0.45
32:2a:1423:G:H2'	32:2a:1424:C:H6	1.82	0.45
38:2g:27:ILE:H	38:2g:27:ILE:HG13	1.42	0.45
1:1A:2108:C:N3	1:1A:2181:G:N2	2.59	0.45
1:1A:2235:G:H2'	1:1A:2236:C:C6	2.50	0.45
1:1A:2577:A:OP2	27:15:3:LYS:NZ	2.44	0.45
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.80	0.45
32:1a:1152:A:H2'	32:1a:1153:C:C6	2.51	0.45
34:1c:8:ILE:HD12	34:1c:16:ARG:CZ	2.47	0.45
36:1e:79:GLU:HG2	36:1e:92:LYS:HD3	1.98	0.45
38:1g:58:PRO:HA	38:1g:61:VAL:HG12	1.98	0.45
40:1i:29:ASN:C	40:1i:31:GLN:H	2.23	0.45
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.99	0.45
42:1k:59:TYR:CZ	42:1k:63:LEU:HD11	2.52	0.45
1:2A:521:G:H2'	1:2A:522:G:C8	2.51	0.45
1:2A:1759:A:O2'	1:2A:2714:G:O2'	2.29	0.45
1:2A:1821:A:H2'	1:2A:1822:G:C8	2.52	0.45
1:2A:2050:C:N4	1:2A:2051:A:C6	2.84	0.45
1:2A:2128:C:H1'	1:2A:2173:A:O2'	2.17	0.45
1:2A:2144:U:H2'	1:2A:2146:C:C5	2.51	0.45
1:2A:2280:G:O2'	1:2A:2388:A:N1	2.36	0.45
4:2E:15:PHE:CD1	15:2T:81:PRO:HD2	2.51	0.45
5:2F:164:ARG:O	5:2F:168:ARG:HB2	2.17	0.45
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.48	0.45
24:22:11:GLU:O	24:22:15:LYS:HG3	2.15	0.45
25:23:4:LEU:O	25:23:36:VAL:HA	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:8:LEU:HD12	25:23:53:LEU:O	2.16	0.45
26:24:48:ARG:NH2	26:24:52:THR:O	2.49	0.45
30:28:14:VAL:HG12	30:28:24:ALA:HB2	1.97	0.45
32:2a:1058:G:H1	32:2a:1199:U:H3	1.65	0.45
32:2a:1499:A:H1'	32:2a:1520:G:O5'	2.16	0.45
36:2e:53:LEU:HA	36:2e:56:GLN:HB2	1.97	0.45
39:2h:94:TYR:CE1	39:2h:132:GLU:HB2	2.51	0.45
42:2k:85:ARG:HD3	42:2k:113:PRO:HD3	1.98	0.45
49:2r:69:THR:HA	49:2r:72:ARG:HB2	1.97	0.45
1:1A:729:G:O5'	3:1D:208:LYS:NZ	2.48	0.45
1:1A:1297:C:O2'	1:1A:1302:A:N1	2.47	0.45
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.17	0.45
6:1G:179:PRO:HG3	26:14:43:TYR:CZ	2.52	0.45
29:17:47:ARG:HD3	29:17:47:ARG:HA	1.79	0.45
32:1a:117:G:H2'	32:1a:118:U:O4'	2.16	0.45
32:1a:690:G:H2'	32:1a:691:G:O4'	2.16	0.45
32:1a:943:U:H1'	40:1i:124:GLN:HE22	1.81	0.45
32:1a:1349:A:OP2	40:1i:118:LYS:NZ	2.41	0.45
46:1o:71:GLN:HG3	46:1o:78:TYR:CG	2.51	0.45
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.51	0.45
1:2A:2149:G:H2'	1:2A:2150:U:O4'	2.17	0.45
1:2A:2374:C:H2'	1:2A:2375:G:O4'	2.17	0.45
11:2P:29:LYS:HG3	11:2P:30:THR:HG23	1.98	0.45
12:2Q:110:THR:HB	12:2Q:113:GLN:H	1.81	0.45
26:24:24:THR:OG1	26:24:25:TYR:N	2.47	0.45
31:29:15:LYS:N	31:29:26:ILE:O	2.43	0.45
32:2a:62:U:O3'	32:2a:384:G:N2	2.49	0.45
32:2a:921:U:O2	36:2e:19:MET:HB2	2.17	0.45
32:2a:1103:C:P	33:2b:96:ARG:HH22	2.39	0.45
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.50	0.45
32:2a:1478:C:H2'	32:2a:1479:C:H6	1.81	0.45
38:2g:92:SER:O	38:2g:96:GLN:HG3	2.17	0.45
41:2j:5:ARG:N	41:2j:99:LYS:O	2.49	0.45
1:1A:596:G:H2'	1:1A:597:U:O4'	2.17	0.45
1:1A:1125:G:C6	1:1A:1126:A:N6	2.85	0.45
1:1A:1312:U:C2	1:1A:1603:A:C2	3.05	0.45
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.15	0.45
1:1A:2259:G:C8	1:1A:2427:C:C4	3.04	0.45
1:1A:2645:G:N2	1:1A:2767:C:OP2	2.49	0.45
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.16	0.45
5:1F:129:PHE:HB3	5:1F:132:VAL:CG1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:191:G:N2	51:1t:102:GLY:O	2.44	0.45
32:1a:430:A:OP2	35:1d:8:VAL:HG12	2.16	0.45
32:1a:836:G:C4	32:1a:851:G:C2	3.05	0.45
32:1a:953:G:H5'	32:1a:965:A:N6	2.32	0.45
43:1l:23:LYS:C	43:1l:25:PRO:HD3	2.41	0.45
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.15	0.45
56:1y:19:G:C2	56:1y:56:C:N3	2.85	0.45
1:2A:14:A:H5"	1:2A:15:G:OP2	2.16	0.45
1:2A:297:C:H2'	1:2A:298:G:O4'	2.17	0.45
1:2A:566:U:OP1	17:2V:80:GLN:NE2	2.47	0.45
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.16	0.45
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.47	0.45
1:2A:2431:U:H2'	1:2A:2433:A:OP2	2.15	0.45
1:2A:2578:G:OP1	62:2A:3987:HOH:O	2.21	0.45
19:2X:72:LYS:NZ	19:2X:75:ASP:OD1	2.34	0.45
23:21:88:LYS:O	23:21:92:LYS:HG2	2.17	0.45
32:2a:237:C:H5"	48:2q:25:ARG:CZ	2.47	0.45
32:2a:971:G:H1'	32:2a:1365:G:O2'	2.16	0.45
32:2a:1261:A:H5'	32:2a:1284:C:OP1	2.16	0.45
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.15	0.45
41:2j:6:ILE:HB	41:2j:72:VAL:HG13	1.99	0.45
48:2q:67:LYS:O	48:2q:68:ARG:HB2	2.16	0.45
56:2y:40:C:H2'	56:2y:41:C:C6	2.52	0.45
1:1A:581:C:H5"	62:1U:305:HOH:O	2.17	0.45
1:1A:1065:U:H1'	1:1A:1074:G:C2	2.51	0.45
1:1A:1979:C:H2'	1:1A:1980:G:H5'	1.98	0.45
1:1A:2058:MA6:OP1	62:1A:4197:HOH:O	2.21	0.45
1:1A:2697:G:H5"	62:1A:5338:HOH:O	2.17	0.45
1:1A:2790:A:H5'	1:1A:2893:G:H21	1.82	0.45
6:1G:121:ASN:HD22	6:1G:181:ARG:NH2	2.13	0.45
7:1H:99:VAL:HG23	7:1H:102:ALA:HB3	1.97	0.45
8:1I:25:TYR:O	8:1I:29:TYR:HB3	2.17	0.45
28:16:14:THR:HG21	28:16:48:VAL:HG22	1.99	0.45
32:1a:523:A:N1	43:1l:92:0TD:H6	2.32	0.45
32:1a:756:C:H2'	32:1a:757:U:O4'	2.15	0.45
32:1a:1351:U:H2'	32:1a:1352:C:C6	2.45	0.45
34:1c:119:ARG:O	34:1c:123:GLN:HG3	2.17	0.45
37:1f:8:ILE:HD11	37:1f:79:LEU:HD13	1.98	0.45
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.97	0.45
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.17	0.45
1:2A:835:A:N6	1:2A:836:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.52	0.45
1:2A:2106:G:H2'	1:2A:2107:C:O4'	2.17	0.45
1:2A:2191:G:C5	1:2A:2192:G:C8	3.04	0.45
1:2A:2651:C:H2'	1:2A:2652:C:H6	1.81	0.45
14:2S:25:ARG:HB3	14:2S:40:ILE:HB	1.98	0.45
32:2a:108:G:C6	51:2t:15:ARG:HD3	2.51	0.45
32:2a:325:A:H2'	32:2a:326:G:O4'	2.15	0.45
32:2a:404:U:O4	35:2d:2:GLY:N	2.50	0.45
32:2a:554:C:H2'	32:2a:555:C:H6	1.81	0.45
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	1.98	0.45
38:2g:153:HIS:ND1	42:2k:58:PRO:HD2	2.31	0.45
39:2h:11:THR:HG22	39:2h:14:ARG:HH22	1.82	0.45
41:2j:36:GLY:O	41:2j:38:ILE:HG12	2.17	0.45
44:2m:14:ARG:H	44:2m:14:ARG:HG3	1.59	0.45
1:1A:794:G:H2'	1:1A:795:C:C6	2.51	0.45
1:1A:1341:U:OP2	1:1A:1394:U:O2'	2.18	0.45
1:1A:1364:G:OP2	23:11:3:LYS:HG3	2.16	0.45
1:1A:1372:U:H2'	1:1A:1373:A:O4'	2.16	0.45
1:1A:1558:A:C2	1:1A:1560:G:C8	3.05	0.45
1:1A:2093:G:C6	1:1A:2225:A:C8	3.05	0.45
1:1A:2692:C:OP1	1:1A:2871:C:H5'	2.16	0.45
4:1E:49:LEU:HD12	4:1E:49:LEU:HA	1.79	0.45
4:1E:54:GLN:OE1	4:1E:58:ARG:HD2	2.17	0.45
5:1F:62:ARG:HB3	5:1F:62:ARG:NH1	2.32	0.45
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.36	0.45
6:1G:56:ALA:HB2	6:1G:153:ARG:CZ	2.47	0.45
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	1.99	0.45
9:1N:26:LEU:O	9:1N:30:ILE:HG13	2.16	0.45
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.98	0.45
14:1S:105:ALA:O	14:1S:110:LEU:HB2	2.17	0.45
15:1T:19:LEU:HD22	15:1T:86:ILE:HG13	1.98	0.45
26:14:41:PRO:HA	26:14:47:GLN:HB3	1.98	0.45
26:14:53:GLU:H	26:14:53:GLU:HG3	1.45	0.45
28:16:35:GLU:CD	28:16:50:ARG:HH12	2.24	0.45
32:1a:1353:G:C2	32:1a:1370:G:C2	3.04	0.45
35:1d:165:MET:SD	35:1d:168:ARG:HD2	2.57	0.45
39:1h:2:LEU:HG	39:1h:3:THR:N	2.31	0.45
39:1h:103:VAL:HG21	39:1h:110:ALA:HB2	1.99	0.45
44:1m:84:ILE:HD11	44:1m:86:CYS:HB2	1.99	0.45
1:2A:7:G:O2'	1:2A:8:A:O4'	2.31	0.45
1:2A:521:G:H8	1:2A:521:G:O5'	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:927:G:H2'	1:2A:928:G:O4'	2.15	0.45
1:2A:2392:A:OP2	30:28:31:HIS:NE2	2.26	0.45
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.17	0.45
3:2D:226:MET:HB3	3:2D:230:ASP:HB2	1.97	0.45
8:2I:83:ALA:HB2	8:2I:123:LEU:HD13	1.99	0.45
32:2a:539:A:H2'	32:2a:540:G:H8	1.81	0.45
32:2a:840:C:H4'	32:2a:841:U:OP1	2.16	0.45
32:2a:1305:G:OP1	52:2u:2:GLY:HA3	2.17	0.45
35:2d:125:HIS:HD2	35:2d:152:SER:OG	2.00	0.45
36:2e:147:ASP:OD1	36:2e:147:ASP:N	2.49	0.45
38:2g:78:ARG:HE	38:2g:79:ARG:HE	1.64	0.45
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.52	0.45
1:1A:484:C:H2'	1:1A:485:C:C6	2.52	0.45
1:1A:686:G:H8	29:17:6:GLN:O	2.00	0.45
1:1A:897:C:H2'	1:1A:898:C:C6	2.52	0.45
1:1A:1178:C:O5'	1:1A:1178:C:H6	2.00	0.45
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.28	0.45
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.52	0.45
2:1B:45:A:H2'	2:1B:46:A:O4'	2.17	0.45
5:1F:41:LEU:HA	5:1F:44:ARG:HG2	1.99	0.45
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	1.98	0.45
14:1S:15:ARG:HG3	14:1S:19:LYS:HE3	1.99	0.45
18:1W:88:ARG:HD2	18:1W:88:ARG:HA	1.62	0.45
19:1X:39:ILE:HD13	19:1X:79:ALA:HB2	1.98	0.45
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HG3	1.98	0.45
23:11:13:ILE:HD11	23:11:42:GLN:OE1	2.17	0.45
28:16:12:GLU:HA	28:16:19:ARG:HA	1.99	0.45
32:1a:109:A:C8	32:1a:326:G:H2'	2.52	0.45
32:1a:977:A:H1'	32:1a:982:U:O4	2.17	0.45
35:1d:182:LYS:HB2	35:1d:182:LYS:HE3	1.74	0.45
36:1e:7:GLU:N	36:1e:35:GLY:O	2.27	0.45
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.81	0.45
56:1y:48:C:C2	56:1y:59:U:H1'	2.52	0.45
1:2A:25:U:C4	1:2A:26:G:C6	3.04	0.45
1:2A:500:G:N2	1:2A:503:A:H5'	2.23	0.45
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.31	0.45
1:2A:1506:C:H2'	1:2A:1507:A:H5'	1.98	0.45
1:2A:1924:C:H4'	55:2x:13:C:O2'	2.17	0.45
1:2A:2263:C:H2'	1:2A:2264:C:O4'	2.16	0.45
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.17	0.45
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2886:G:H2'	1:2A:2887:U:C6	2.52	0.45
6:2G:38:VAL:HG22	6:2G:93:THR:HA	1.99	0.45
8:2I:50:ARG:C	8:2I:53:ALA:H	2.25	0.45
14:2S:5:THR:O	14:2S:8:GLU:N	2.48	0.45
18:2W:20:VAL:HG13	18:2W:39:THR:HG21	1.99	0.45
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.17	0.45
31:29:15:LYS:HB3	31:29:26:ILE:HG13	1.98	0.45
32:2a:155:C:H2'	32:2a:156:G:O4'	2.17	0.45
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.17	0.45
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.52	0.45
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.81	0.45
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.52	0.45
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.17	0.45
39:2h:13:ILE:O	39:2h:17:THR:HG23	2.17	0.45
43:2l:69:TYR:HE2	43:2l:71:PRO:HA	1.81	0.45
43:2l:102:ARG:HB3	43:2l:108:ALA:O	2.17	0.45
54:2w:68:C:H2'	54:2w:69:G:C8	2.52	0.45
1:1A:837:C:OP1	62:1A:4212:HOH:O	2.21	0.45
1:1A:1295:C:OP1	62:1A:4217:HOH:O	2.21	0.45
1:1A:1501:C:O4'	3:1D:100:GLY:HA2	2.17	0.45
1:1A:1655:A:H3'	1:1A:1656:C:C6	2.52	0.45
1:1A:2016:U:O2'	27:15:7:PRO:O	2.26	0.45
1:1A:2198:A:OP1	8:1I:33:ARG:NH2	2.50	0.45
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.51	0.45
1:1A:2405:G:H5"	11:1P:75:ILE:HG21	1.99	0.45
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.98	0.45
5:1F:129:PHE:HB3	5:1F:132:VAL:HG13	1.99	0.45
6:1G:11:TYR:HB2	6:1G:176:LEU:HD21	1.98	0.45
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.98	0.45
11:1P:100:LEU:HD13	11:1P:100:LEU:HA	1.80	0.45
13:1R:9:LYS:O	13:1R:17:ARG:HD3	2.17	0.45
17:1V:65:GLY:HA3	17:1V:91:TYR:CZ	2.52	0.45
19:1X:11:PRO:HD3	24:12:37:PHE:CE1	2.51	0.45
19:1X:94:GLY:H	19:1X:95:LEU:C	2.25	0.45
20:1Y:16:ALA:HB2	20:1Y:73:ARG:HD3	1.99	0.45
26:14:56:VAL:HB	26:14:60:GLN:CG	2.46	0.45
32:1a:295:C:H2'	32:1a:296:U:O4'	2.17	0.45
39:1h:127:LEU:O	39:1h:129:VAL:HG13	2.17	0.45
41:1j:54:PHE:O	41:1j:56:HIS:N	2.50	0.45
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.79	0.45
49:1r:52:PRO:O	49:1r:56:THR:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1y:24:G:H2'	56:1y:25:C:O4'	2.17	0.45
1:2A:8:A:H2'	1:2A:9:U:C6	2.51	0.45
1:2A:71:A:H5"	1:2A:73:A:N9	2.32	0.45
1:2A:205:G:N2	1:2A:206:U:O4	2.36	0.45
1:2A:236:C:H2'	1:2A:237:C:H6	1.82	0.45
1:2A:311:A:C6	1:2A:328:U:C4	3.05	0.45
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.52	0.45
1:2A:1489:U:H2'	62:2A:4104:HOH:O	2.17	0.45
1:2A:2141:G:C2	1:2A:2142:C:H1'	2.52	0.45
1:2A:2252:G:H2'	1:2A:2253:G:O4'	2.16	0.45
1:2A:2652:C:H2'	1:2A:2653:U:O4'	2.17	0.45
2:2B:66:A:N6	2:2B:108:U:H3'	2.32	0.45
6:2G:101:ILE:HD13	26:24:9:LEU:HD13	1.99	0.45
11:2P:95:VAL:HG22	11:2P:125:VAL:HG12	1.98	0.45
19:2X:60:ARG:CZ	29:27:47:ARG:HH12	2.30	0.45
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	1.99	0.45
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.57	0.45
28:26:9:LEU:HA	28:26:54:ILE:HB	1.98	0.45
32:2a:375:U:C2	32:2a:376:G:C8	3.05	0.45
32:2a:585:G:O2'	32:2a:879:C:OP1	2.33	0.45
35:2d:191:ARG:HD2	35:2d:191:ARG:HA	1.60	0.45
36:2e:29:GLY:HA2	36:2e:47:LYS:HA	1.99	0.45
1:1A:190:A:N3	1:1A:679:C:O2'	2.44	0.45
1:1A:226:G:H21	1:1A:228:A:H62	1.64	0.45
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.16	0.45
1:1A:1702:G:H2'	1:1A:1703:G:O4'	2.17	0.45
1:1A:1830:C:H2'	1:1A:1831:G:H8	1.82	0.45
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.50	0.45
2:1B:55:U:H2'	2:1B:56:G:O4'	2.16	0.45
5:1F:34:TRP:CE2	11:1P:8:PRO:HD3	2.52	0.45
8:1I:120:ILE:HG23	8:1I:126:TYR:HE2	1.82	0.45
9:1N:29:LYS:HE2	9:1N:140:VAL:HB	1.99	0.45
10:1O:34:THR:HG22	10:1O:37:ASP:OD2	2.17	0.45
24:12:18:PRO:O	24:12:22:GLU:HG3	2.16	0.45
26:14:15:ILE:O	26:14:33:VAL:N	2.50	0.45
32:1a:392:G:H2'	32:1a:393:A:H8	1.82	0.45
32:1a:657:G:H2'	32:1a:658:G:C8	2.50	0.45
32:1a:1095:U:H5"	32:1a:1109:C:O2	2.17	0.45
32:1a:1338:G:C6	32:1a:1339:A:C6	3.05	0.45
34:1c:33:LEU:O	34:1c:37:GLN:HG2	2.16	0.45
40:1i:19:LEU:HD21	40:1i:81:ILE:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:63:THR:OG1	50:1s:66:MET:HE3	2.16	0.45
56:1y:33:U:H2'	56:1y:35:A:OP2	2.17	0.45
1:2A:271(U):G:H2'	1:2A:271(V):G:C8	2.52	0.45
1:2A:372:G:H22	1:2A:400:G:H2'	1.82	0.45
1:2A:656:G:H2'	1:2A:657:U:O4'	2.17	0.45
1:2A:1037:G:H2'	1:2A:1038:C:O4'	2.16	0.45
1:2A:1119:C:N4	62:2A:4184:HOH:O	2.49	0.45
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.16	0.45
1:2A:1400:G:H2'	1:2A:1401:G:C8	2.51	0.45
1:2A:1653:G:O6	13:2R:11:ASN:ND2	2.50	0.45
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.32	0.45
6:2G:138:GLN:OE1	6:2G:138:GLN:N	2.49	0.45
9:2N:53:VAL:HA	9:2N:121:LYS:HB2	1.99	0.45
12:2Q:54:MET:HE1	12:2Q:104:PHE:CD1	2.52	0.45
22:20:17:GLN:O	22:20:19:LYS:NZ	2.48	0.45
26:24:8:LYS:HB2	26:24:8:LYS:HE3	1.74	0.45
32:2a:109:A:C6	32:2a:326:G:C6	3.05	0.45
32:2a:646:U:H2'	32:2a:647:C:C6	2.51	0.45
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.52	0.45
32:2a:1441:G:H1'	32:2a:1460:A:N6	2.32	0.45
32:2a:1478:C:H2'	32:2a:1479:C:C6	2.52	0.45
35:2d:22:LYS:HG3	61:2d:302:SF4:S4	2.57	0.45
37:2f:4:TYR:O	37:2f:65:VAL:N	2.42	0.45
39:2h:7:ALA:HA	39:2h:10:LEU:HD12	1.98	0.45
39:2h:84:ARG:NH1	39:2h:86:ILE:HG12	2.31	0.45
43:2l:48:PRO:CB	53:2v:21:C:H4'	2.47	0.45
44:2m:107:ALA:O	44:2m:111:LYS:N	2.32	0.45
47:2p:15:PRO:HD2	47:2p:42:ARG:HD3	1.99	0.45
1:1A:1213:A:N3	1:1A:1238:G:O2'	2.45	0.44
1:1A:1243:G:H2'	1:1A:1244:G:O4'	2.17	0.44
1:1A:2109:U:OP1	1:1A:2149:G:O2'	2.31	0.44
1:1A:2340:G:H2'	1:1A:2341:G:C8	2.52	0.44
1:1A:2353:G:H1'	22:10:34:GLY:HA3	1.99	0.44
1:1A:2745:C:H2'	1:1A:2746:U:O4'	2.18	0.44
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.52	0.44
2:1B:15:A:OP1	2:1B:108:U:O2'	2.32	0.44
3:1D:17:THR:OG1	3:1D:205:VAL:N	2.43	0.44
8:1I:48:GLU:HB3	8:1I:52:ARG:NH1	2.32	0.44
11:1P:2:LYS:HG2	11:1P:3:LEU:N	2.32	0.44
12:1Q:76:LYS:HB3	12:1Q:91:GLU:HG3	1.99	0.44
27:15:11:THR:HG22	27:15:12:SER:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:253:U:H2'	32:1a:254:G:H8	1.82	0.44
32:1a:358:U:H2'	32:1a:359:U:H6	1.81	0.44
32:1a:737:A:OP1	37:1f:92:LYS:N	2.29	0.44
32:1a:957:U:H3	32:1a:960:U:H5"	1.82	0.44
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.52	0.44
33:1b:19:HIS:CG	33:1b:20:GLU:N	2.85	0.44
33:1b:178:ARG:HE	33:1b:178:ARG:HB3	1.56	0.44
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.69	0.44
1:2A:154(A):C:N4	1:2A:172:C:H42	2.10	0.44
1:2A:447:A:O2'	1:2A:473:G:N7	2.50	0.44
1:2A:1229:G:H2'	1:2A:1230:C:C6	2.52	0.44
6:2G:39:ILE:HD11	6:2G:102:PHE:CZ	2.52	0.44
6:2G:106:LEU:HG	6:2G:111:LEU:HD12	1.99	0.44
9:2N:71:ILE:HG21	9:2N:84:LYS:HB3	1.98	0.44
10:2O:22:ILE:HG12	10:2O:40:VAL:O	2.18	0.44
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.51	0.44
32:2a:423:G:H3'	32:2a:423:G:N3	2.32	0.44
32:2a:770:C:H5"	62:2a:1916:HOH:O	2.16	0.44
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.82	0.44
33:2b:126:GLU:H	33:2b:126:GLU:CD	2.23	0.44
38:2g:24:THR:HA	38:2g:27:ILE:HD12	1.98	0.44
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.17	0.44
44:2m:82:MET:O	44:2m:93:ARG:NH2	2.38	0.44
47:2p:33:ILE:O	47:2p:34:GLU:HB2	2.18	0.44
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.16	0.44
1:1A:995:C:OP2	16:1U:54:LYS:NZ	2.50	0.44
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.18	0.44
3:1D:199:ALA:C	3:1D:201:HIS:H	2.25	0.44
22:10:25:ARG:HB2	22:10:37:LEU:HD23	1.98	0.44
32:1a:403:C:H4'	35:1d:122:ARG:HE	1.82	0.44
32:1a:572:A:OP1	62:1a:1930:HOH:O	2.20	0.44
32:1a:1103:C:H2'	32:1a:1104:G:O4'	2.17	0.44
32:1a:1430:C:H2'	32:1a:1431:C:C6	2.52	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.66	0.44
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.99	0.44
38:1g:50:ILE:HG22	38:1g:58:PRO:HG3	2.00	0.44
39:1h:36:LEU:HD23	39:1h:39:LEU:HD12	1.99	0.44
39:1h:120:THR:OG1	39:1h:123:GLU:HB2	2.17	0.44
40:1i:49:PRO:HG2	40:1i:81:ILE:HG23	1.98	0.44
1:2A:790:C:OP2	62:2A:3988:HOH:O	2.21	0.44
1:2A:828:U:H4'	1:2A:831:G:C2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:882:G:O2'	1:2A:883:G:O4'	2.34	0.44
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.17	0.44
1:2A:2096:U:H2'	1:2A:2097:C:C6	2.52	0.44
1:2A:2184:G:O2'	1:2A:2185:C:H5'	2.18	0.44
2:2B:7:G:H2'	2:2B:8:U:O4'	2.17	0.44
6:2G:20:ILE:O	6:2G:24:GLY:HA2	2.18	0.44
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.51	0.44
32:2a:471:G:H2'	32:2a:472:A:H8	1.81	0.44
32:2a:771:G:O6	62:2a:1915:HOH:O	2.20	0.44
32:2a:976:G:P	45:2n:32:SER:H	2.39	0.44
33:2b:134:GLU:O	33:2b:138:LEU:N	2.46	0.44
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.17	0.44
41:2j:85:LEU:HD12	41:2j:86:MET:N	2.32	0.44
43:2l:57:LYS:HG3	43:2l:67:THR:HG22	1.98	0.44
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	2.00	0.44
44:2m:58:GLU:C	44:2m:62:ASN:HD21	2.25	0.44
54:2w:18:G:N2	54:2w:57:G:H2'	2.32	0.44
56:2y:8:4SU:H1'	56:2y:48:C:H1'	1.98	0.44
56:2y:37:MIA:H2'	56:2y:38:A:O4'	2.17	0.44
1:1A:30:G:H2'	1:1A:31:C:C6	2.52	0.44
1:1A:191:A:H2'	1:1A:192:C:C6	2.53	0.44
1:1A:234:C:H2'	1:1A:235:U:H6	1.82	0.44
1:1A:861:A:H5"	1:1A:862:G:OP2	2.18	0.44
1:1A:899:A:H2'	1:1A:899:A:N3	2.33	0.44
1:1A:1174:A:H1'	1:1A:1175:U:O5'	2.17	0.44
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.52	0.44
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.53	0.44
1:1A:2110:G:OP2	1:1A:2118:U:N3	2.51	0.44
1:1A:2156:G:OP2	1:1A:2156:G:H8	2.00	0.44
1:1A:2294:C:H2'	1:1A:2295:C:H6	1.82	0.44
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.52	0.44
4:1E:13:ARG:NH2	15:1T:77:PRO:HG3	2.32	0.44
7:1H:52:VAL:HG12	7:1H:65:HIS:HD2	1.82	0.44
9:1N:58:ASP:OD1	9:1N:125:GLY:N	2.44	0.44
14:1S:3:ARG:HD2	14:1S:4:LEU:O	2.17	0.44
21:1Z:76:LEU:HD23	21:1Z:83:PRO:HA	2.00	0.44
32:1a:532:A:N6	32:1a:1206:G:O2'	2.51	0.44
32:1a:768:A:OP1	32:1a:804:U:H4'	2.18	0.44
32:1a:944:G:O2'	32:1a:1339:A:N6	2.46	0.44
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.18	0.44
39:1h:127:LEU:HD23	39:1h:127:LEU:HA	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.99	0.44
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.42	0.44
56:1y:56:C:H3'	56:1y:57:G:H5"	1.98	0.44
1:2A:2206:G:H3'	1:2A:2207:G:N7	2.31	0.44
1:2A:2493:U:H2'	1:2A:2494:G:O4'	2.18	0.44
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.52	0.44
5:2F:115:ALA:O	5:2F:119:ARG:HB2	2.17	0.44
9:2N:123:TYR:CE2	9:2N:129:PRO:HD2	2.52	0.44
32:2a:167:G:H2'	32:2a:168:G:H8	1.81	0.44
32:2a:237:C:H5"	48:2q:25:ARG:NE	2.33	0.44
32:2a:1077:G:N1	32:2a:1080:A:OP2	2.46	0.44
32:2a:1085:U:H3'	32:2a:1086:U:C6	2.53	0.44
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.31	0.44
40:2i:111:ARG:HD3	45:2n:61:TRP:NE1	2.31	0.44
55:2x:11:A:N6	55:2x:12:G:O6	2.51	0.44
1:1A:245:G:O6	30:18:8:LYS:NZ	2.36	0.44
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.52	0.44
1:1A:1406:U:H2'	1:1A:1407:C:H6	1.81	0.44
1:1A:2168:G:N1	1:1A:2171:A:N7	2.65	0.44
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.42	0.44
1:1A:2633:G:C6	1:1A:2634:G:C5	3.06	0.44
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.53	0.44
1:1A:2789:C:O2	1:1A:2894:G:N2	2.51	0.44
1:1A:2811:G:H22	1:1A:2891:G:H1'	1.81	0.44
7:1H:44:VAL:HG22	7:1H:51:ARG:HB2	1.99	0.44
13:1R:100:LEU:HD13	13:1R:100:LEU:HA	1.78	0.44
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.52	0.44
23:11:5:CYS:SG	23:11:8:SER:HB3	2.57	0.44
32:1a:352:C:H4'	32:1a:354:G:OP1	2.17	0.44
32:1a:857:C:H2'	32:1a:858:G:O4'	2.18	0.44
32:1a:1118:C:H2'	32:1a:1119:C:H6	1.83	0.44
36:1e:131:ILE:HD13	36:1e:131:ILE:HA	1.89	0.44
36:1e:152:ARG:HB3	39:1h:43:GLY:HA3	1.99	0.44
38:1g:78:ARG:HG2	38:1g:79:ARG:HG3	1.99	0.44
54:1w:26:A:N1	54:1w:44:G:N2	2.61	0.44
1:2A:92:A:H2'	1:2A:93:G:C8	2.52	0.44
1:2A:219:G:N3	1:2A:234:C:O2'	2.49	0.44
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.63	0.44
1:2A:869:G:O3'	12:2Q:6:ARG:NH2	2.50	0.44
1:2A:883:G:H8	1:2A:883:G:O5'	2.00	0.44
1:2A:1227:G:OP2	16:2U:16:LYS:NZ	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.52	0.44
1:2A:2412:A:H2'	1:2A:2413:G:O4'	2.18	0.44
1:2A:2569:G:C2	1:2A:2570:G:C8	3.06	0.44
2:2B:75:G:O2'	21:2Z:10:ARG:NH2	2.49	0.44
7:2H:77:LYS:HD2	7:2H:83:TYR:CZ	2.53	0.44
9:2N:21:LYS:HD3	9:2N:26:LEU:HD13	2.00	0.44
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.18	0.44
10:2O:76:ALA:HB3	15:2T:75:ILE:HG13	1.99	0.44
10:2O:77:ILE:HD12	15:2T:73:GLU:O	2.18	0.44
32:2a:266:G:H4'	32:2a:267:C:C5	2.52	0.44
32:2a:619:U:C4	35:2d:135:LEU:HD11	2.52	0.44
32:2a:1401:G:H2'	32:2a:1402:4OC:O4'	2.17	0.44
34:2c:8:ILE:HG12	34:2c:184:TYR:HB3	2.00	0.44
34:2c:124:ILE:HB	34:2c:130:VAL:HG22	1.98	0.44
39:2h:11:THR:HA	39:2h:14:ARG:HB3	1.99	0.44
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.28	0.44
55:2x:15:G:H2'	55:2x:59:A:N1	2.32	0.44
1:1A:22:C:H2'	1:1A:23:G:O4'	2.18	0.44
1:1A:77:C:H5"	24:12:10:LEU:HD11	1.98	0.44
1:1A:320:A:H4'	1:1A:322:A:N7	2.32	0.44
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.48	0.44
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.48	0.44
1:1A:1424:G:H2'	1:1A:1425:G:O4'	2.17	0.44
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.52	0.44
1:1A:2236:C:H2'	1:1A:2237:G:O4'	2.18	0.44
5:1F:111:ALA:HA	5:1F:202:PHE:HZ	1.82	0.44
12:1Q:10:ARG:HH12	12:1Q:89:ASN:HA	1.82	0.44
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.36	0.44
26:14:63:TYR:N	26:14:64:GLY:HA2	2.32	0.44
32:1a:926:G:C6	32:1a:1505:G:C6	3.05	0.44
34:1c:36:ASP:OD1	34:1c:57:ILE:HG21	2.18	0.44
39:1h:95:VAL:HB	39:1h:99:GLU:HB2	1.99	0.44
39:1h:112:LEU:HD11	39:1h:124:ALA:HB2	1.99	0.44
43:1l:77:LEU:HD21	43:1l:107:ALA:HB2	2.00	0.44
49:1r:68:LYS:HE2	49:1r:68:LYS:HB2	1.71	0.44
1:2A:784:A:H5'	1:2A:785:G:OP1	2.18	0.44
1:2A:1163:G:OP1	17:2V:24:LYS:NZ	2.43	0.44
1:2A:1216:G:OP1	16:2U:11:ARG:NH2	2.40	0.44
1:2A:1651:G:OP1	13:2R:37:THR:OG1	2.33	0.44
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.99	0.44
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1999:C:H5”	1:2A:2723:C:O2’	2.16	0.44
1:2A:2176:A:H2’	1:2A:2177:C:H6	1.79	0.44
1:2A:2376:A:H3’	1:2A:2377:A:C8	2.51	0.44
1:2A:2662:A:H8	1:2A:2662:A:O5’	2.01	0.44
1:2A:2881:C:O2’	13:2R:96:ARG:HA	2.17	0.44
8:2I:101:LEU:HD12	8:2I:102:SER:N	2.33	0.44
10:2O:103:ALA:HB1	10:2O:105:GLU:OE1	2.17	0.44
20:2Y:39:VAL:HB	20:2Y:42:VAL:HB	2.00	0.44
21:2Z:144:LEU:HG	21:2Z:145:GLU:H	1.82	0.44
31:29:15:LYS:HD3	31:29:26:ILE:HD11	1.99	0.44
32:2a:28:G:O2’	32:2a:296:U:OP1	2.32	0.44
32:2a:90:U:H2’	32:2a:91:C:C6	2.53	0.44
32:2a:221:C:H2’	32:2a:222:U:H6	1.82	0.44
32:2a:607:A:H2’	32:2a:608:A:O4’	2.18	0.44
32:2a:932:C:H5’	38:2g:4:ARG:NH1	2.33	0.44
33:2b:82:ARG:HA	33:2b:92:TYR:CZ	2.52	0.44
33:2b:122:PHE:O	33:2b:127:ILE:HB	2.18	0.44
35:2d:33:MET:HB2	61:2d:302:SF4:S2	2.57	0.44
50:2s:53:ASN:HB2	50:2s:77:THR:HA	1.99	0.44
1:1A:568:U:H5’	1:1A:945:A:N6	2.31	0.44
1:1A:630:G:N2	1:1A:633:A:OP2	2.41	0.44
1:1A:1258:C:H2’	1:1A:1259:G:O4’	2.18	0.44
1:1A:1622:G:C2	1:1A:1623:G:C8	3.05	0.44
1:1A:2102:U:H2’	1:1A:2103:C:C6	2.52	0.44
1:1A:2227:A:C6	1:1A:2228:G:C5	3.06	0.44
1:1A:2552:OMU:O5’	1:1A:2552:OMU:H6	2.18	0.44
2:1B:66:A:H61	2:1B:109:C:H5’	1.83	0.44
6:1G:51:ARG:C	6:1G:53:LEU:H	2.26	0.44
10:1O:35:VAL:HG12	10:1O:106:LEU:HD11	2.00	0.44
11:1P:50:ARG:O	11:1P:52:GLU:HG3	2.17	0.44
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.52	0.44
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.53	0.44
21:1Z:125:LEU:HD23	21:1Z:164:ALA:O	2.17	0.44
32:1a:113:G:H2’	32:1a:114:U:C6	2.52	0.44
32:1a:812:C:N3	62:1a:1963:HOH:O	2.35	0.44
32:1a:876:G:H4’	39:1h:11:THR:HG21	1.98	0.44
32:1a:955:U:O2’	50:1s:83:HIS:HD2	2.00	0.44
32:1a:987:G:N2	32:1a:1219:U:O2	2.50	0.44
46:1o:15:PHE:CZ	46:1o:84:LYS:HD3	2.53	0.44
54:1w:56:C:H2’	54:1w:57:G:O4’	2.18	0.44
1:2A:460:A:C2	1:2A:470:A:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:984:A:H5"	1:2A:985:C:H5	1.82	0.44
1:2A:1198:U:C2	1:2A:1199:U:C5	3.06	0.44
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.16	0.44
1:2A:2684:U:OP1	15:2T:53:ARG:HD3	2.18	0.44
1:2A:2785:C:O3'	4:2E:69:LYS:HE2	2.18	0.44
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.48	0.44
12:2Q:36:ALA:C	12:2Q:37:LEU:HD23	2.43	0.44
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	1.98	0.44
23:21:71:TYR:N	23:21:71:TYR:CD2	2.85	0.44
32:2a:410:G:N1	32:2a:429:U:O2	2.50	0.44
32:2a:563:A:H2'	32:2a:567:G:C8	2.52	0.44
32:2a:1004:A:N3	32:2a:1038:C:C2	2.86	0.44
32:2a:1009:G:N2	32:2a:1010:G:H1'	2.32	0.44
33:2b:127:ILE:HG23	33:2b:128:GLU:HG2	1.98	0.44
34:2c:153:VAL:O	34:2c:165:THR:HA	2.18	0.44
35:2d:4:TYR:O	35:2d:115:ARG:NH1	2.51	0.44
36:2e:146:ALA:O	36:2e:150:ARG:HG2	2.16	0.44
40:2i:16:ARG:H	40:2i:64:THR:HG22	1.83	0.44
42:2k:98:LEU:HD23	42:2k:98:LEU:HA	1.81	0.44
50:2s:32:LYS:HD2	50:2s:34:TRP:HZ3	1.81	0.44
1:1A:878:A:N6	1:1A:899:A:O2'	2.47	0.44
1:1A:987:G:O2'	1:1A:1000:A:N3	2.46	0.44
1:1A:1041:C:N4	1:1A:1114:G:H1	2.12	0.44
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.18	0.44
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.53	0.44
1:1A:2340:G:H2'	1:1A:2341:G:H8	1.82	0.44
3:1D:26:LYS:HB2	3:1D:81:ALA:HB1	2.00	0.44
14:1S:38:GLN:HB2	14:1S:47:THR:CG2	2.48	0.44
15:1T:40:THR:O	15:1T:40:THR:OG1	2.35	0.44
32:1a:262:A:H4'	51:1t:75:ASN:HB2	2.00	0.44
32:1a:447:G:O6	32:1a:485:G:O2'	2.32	0.44
32:1a:748:C:H4'	32:1a:749:C:O5'	2.18	0.44
32:1a:1360:A:H2'	32:1a:1361:G:C8	2.53	0.44
40:1i:11:LYS:O	40:1i:13:ALA:N	2.50	0.44
40:1i:92:TYR:HD1	40:1i:92:TYR:HA	1.72	0.44
42:1k:84:VAL:HG21	42:1k:95:ILE:HD11	1.99	0.44
1:2A:789:A:N7	62:2A:4101:HOH:O	2.36	0.44
1:2A:1251:C:H3'	16:2U:10:ARG:HD3	1.98	0.44
1:2A:1671:U:N3	1:2A:1674:G:OP2	2.21	0.44
1:2A:2259:G:C2	1:2A:2282:G:C6	3.06	0.44
1:2A:2512:C:H4'	4:2E:122:PHE:CE2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	2.00	0.44
4:2E:4:ILE:HD13	4:2E:28:ALA:HB1	2.00	0.44
6:2G:33:ARG:O	6:2G:161:THR:HG23	2.17	0.44
13:2R:104:ARG:HG3	13:2R:111:LEU:HD21	2.00	0.44
19:2X:40:LYS:O	19:2X:44:GLU:HG3	2.18	0.44
21:2Z:144:LEU:HD11	21:2Z:149:SER:HA	1.99	0.44
32:2a:145:G:H2'	32:2a:146:G:O4'	2.18	0.44
32:2a:688:G:H5'	42:2k:46:GLY:C	2.43	0.44
32:2a:921:U:C4	32:2a:922:G:N7	2.85	0.44
32:2a:1060:C:N4	34:2c:2:GLY:HA3	2.32	0.44
38:2g:15:ASP:HB3	38:2g:24:THR:HG23	2.00	0.44
42:2k:87:THR:HA	42:2k:91:ARG:NH1	2.33	0.44
50:2s:80:TYR:C	50:2s:82:GLY:H	2.25	0.44
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.52	0.44
1:1A:1075:C:C2'	1:1A:1076:C:H5'	2.48	0.44
1:1A:1423:G:H2'	1:1A:1424:G:H8	1.83	0.44
1:1A:1742:G:H2'	1:1A:1743:C:O4'	2.18	0.44
1:1A:1957:C:H2'	1:1A:1958:C:C6	2.52	0.44
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.33	0.44
1:1A:2572:A:O5'	1:1A:2574:G:H4'	2.18	0.44
3:1D:130:ALA:C	3:1D:131:LEU:HD12	2.43	0.44
6:1G:64:THR:HB	6:1G:94:LEU:HD21	2.00	0.44
28:16:25:LYS:HE3	28:16:27:LYS:HA	1.99	0.44
32:1a:484:G:H4'	32:1a:485:G:H4'	2.00	0.44
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.18	0.44
32:1a:1179:A:O3'	40:1i:103:THR:HB	2.18	0.44
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.18	0.44
39:1h:12:ARG:HD3	39:1h:26:VAL:HG22	1.99	0.44
1:2A:146:G:O6	62:2A:3939:HOH:O	2.19	0.44
1:2A:566:U:O2'	1:2A:809:G:OP2	2.31	0.44
1:2A:571:A:N6	1:2A:2499:C:O3'	2.50	0.44
1:2A:578:A:O2'	1:2A:580:C:OP2	2.35	0.44
1:2A:626:U:O4	11:2P:107:LYS:HE3	2.18	0.44
1:2A:690:G:H5'	62:2A:3930:HOH:O	2.17	0.44
1:2A:1155:A:P	16:2U:55:ARG:HD2	2.58	0.44
1:2A:1541:G:H2'	1:2A:1542:A:C8	2.52	0.44
1:2A:1843:C:H2'	1:2A:1844:C:C6	2.52	0.44
3:2D:146:GLU:HA	3:2D:153:ALA:HA	1.99	0.44
8:2I:2:LYS:HE2	8:2I:18:VAL:HG12	1.99	0.44
8:2I:43:ASN:HA	8:2I:46:ALA:HB3	1.99	0.44
8:2I:77:LEU:HD13	8:2I:79:ILE:HD11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:111:GLU:O	12:2Q:115:MET:HG3	2.18	0.44
18:2W:18:ARG:HG3	18:2W:76:VAL:HB	2.00	0.44
19:2X:31:HIS:HB3	19:2X:34:ALA:HB2	1.99	0.44
32:2a:50:A:H1'	32:2a:52:G:C8	2.53	0.44
32:2a:335:C:H2'	32:2a:336:C:C6	2.53	0.44
32:2a:337:C:H2'	32:2a:338:A:C8	2.53	0.44
32:2a:972:C:H4'	41:2j:57:LYS:HB2	2.00	0.44
32:2a:986:A:H2'	32:2a:987:G:O4'	2.18	0.44
32:2a:999:C:C4	32:2a:1000:U:C4	3.06	0.44
32:2a:1053:G:N7	32:2a:1200:C:H5"	2.32	0.44
32:2a:1263:C:H3'	32:2a:1263:C:H6	1.83	0.44
32:2a:1351:U:H3	32:2a:1371:G:H1	1.66	0.44
35:2d:15:GLU:HB3	35:2d:17:VAL:HG23	1.99	0.44
35:2d:108:LEU:HD22	35:2d:176:LEU:HD13	1.99	0.44
36:2e:7:GLU:CD	36:2e:37:ARG:HH21	2.25	0.44
43:2l:57:LYS:HE2	43:2l:65:GLU:HG2	1.99	0.44
47:2p:58:TYR:HA	47:2p:61:SER:HB3	1.98	0.44
48:2q:68:ARG:H	48:2q:70:ARG:HH12	1.64	0.44
49:2r:65:ILE:H	49:2r:65:ILE:HG13	1.64	0.44
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.18	0.44
1:1A:141:A:C6	1:1A:142:A:N1	2.86	0.44
1:1A:193:U:O3'	1:1A:803:U:H4'	2.17	0.44
1:1A:840:C:OP2	1:1A:932:G:N2	2.40	0.44
1:1A:968:G:H2'	1:1A:969:U:C6	2.52	0.44
1:1A:1665:A:OP2	62:1A:4218:HOH:O	2.21	0.44
1:1A:1859:A:H8	1:1A:1859:A:O5'	2.00	0.44
1:1A:2019:A:H1'	16:1U:34:LYS:HZ1	1.82	0.44
1:1A:2034:U:C2'	1:1A:2035:G:H5'	2.47	0.44
8:1I:41:GLU:HA	8:1I:44:LEU:HB2	2.00	0.44
12:1Q:68:ILE:HG23	12:1Q:103:MET:HA	2.00	0.44
32:1a:57:G:H8	32:1a:57:G:O5'	2.01	0.44
32:1a:403:C:H4'	35:1d:122:ARG:HH21	1.83	0.44
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.99	0.44
44:1m:3:ARG:HG3	44:1m:4:ILE:HG22	2.00	0.44
54:1w:24:G:C6	54:1w:25:C:C4	3.06	0.44
1:2A:30:G:H2'	1:2A:31:C:H6	1.82	0.44
1:2A:58:G:C2	1:2A:70:G:C2	3.06	0.44
1:2A:272(E):G:C2	1:2A:364:C:C2	3.06	0.44
1:2A:332:A:O2'	1:2A:334:C:OP2	2.29	0.44
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.52	0.44
1:2A:918:A:H5"	2:2B:98:G:O2'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:947:G:H2'	1:2A:948:G:H8	1.83	0.44
1:2A:1203:G:H2'	1:2A:1204:A:C2	2.53	0.44
1:2A:1607:C:H5"	1:2A:1608:A:H5'	2.00	0.44
1:2A:2144:U:O2'	1:2A:2147:G:O6	2.22	0.44
13:2R:7:GLY:HA2	13:2R:43:GLU:OE2	2.18	0.44
13:2R:87:TYR:HD1	13:2R:90:ARG:HD2	1.83	0.44
18:2W:77:ASP:HB2	18:2W:102:HIS:HB2	1.99	0.44
23:21:3:LYS:HB2	23:21:61:ARG:NH2	2.20	0.44
32:2a:144:G:C6	32:2a:179:A:C2	3.05	0.44
32:2a:779:C:H2'	32:2a:780:A:O4'	2.17	0.44
32:2a:806:C:H2'	32:2a:807:A:C8	2.52	0.44
32:2a:1039:C:N4	32:2a:1040:U:C2	2.86	0.44
32:2a:1051:C:H2'	32:2a:1052:U:C6	2.53	0.44
32:2a:1324:A:H4'	32:2a:1362:C:H4'	2.00	0.44
32:2a:1394:A:N1	32:2a:1500:A:O2'	2.36	0.44
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.18	0.44
37:2f:82:ARG:HE	37:2f:82:ARG:HB3	1.46	0.44
47:2p:21:VAL:HG23	47:2p:33:ILE:HB	2.00	0.44
56:2y:66:U:H2'	56:2y:67:C:O4'	2.18	0.44
1:1A:587:C:OP1	11:1P:21:ARG:NH2	2.42	0.43
1:1A:852:G:H8	1:1A:852:G:O5'	2.01	0.43
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.53	0.43
1:1A:1324:G:O6	62:1A:4196:HOH:O	2.19	0.43
1:1A:1812:A:O2'	3:1D:45:ASN:N	2.51	0.43
1:1A:1972:A:H2'	1:1A:1973:G:H8	1.82	0.43
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.53	0.43
1:1A:2200:C:H2'	1:1A:2201:C:H6	1.82	0.43
1:1A:2245:U:O2'	1:1A:2436:G:OP2	2.27	0.43
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	2.00	0.43
6:1G:138:GLN:HB3	6:1G:153:ARG:O	2.18	0.43
10:1O:112:MET:HA	10:1O:115:VAL:HG22	1.99	0.43
14:1S:106:ARG:HG3	14:1S:112:PHE:CE2	2.53	0.43
32:1a:297:G:H4'	32:1a:557:G:H4'	2.00	0.43
32:1a:1117:G:O3'	40:1i:104:ARG:HD3	2.18	0.43
56:1y:61:C:H2'	56:1y:62:C:C6	2.53	0.43
1:2A:675:A:N3	1:2A:2443:C:O2'	2.51	0.43
1:2A:699:A:H4'	1:2A:1554:A:N6	2.33	0.43
1:2A:921:G:C6	1:2A:922:U:C4	3.06	0.43
1:2A:945:A:OP2	62:2A:3984:HOH:O	2.20	0.43
1:2A:1433:U:H1'	1:2A:1561:G:N2	2.33	0.43
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.83	0.43
2:2B:37:C:O2	14:2S:95:HIS:NE2	2.51	0.43
2:2B:75:G:H5'	2:2B:76:G:OP2	2.18	0.43
3:2D:155:LEU:HD13	3:2D:177:LEU:HD22	2.00	0.43
4:2E:50:GLY:HA3	4:2E:75:VAL:HG21	1.99	0.43
15:2T:46:GLU:HG3	15:2T:47:GLY:H	1.83	0.43
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.17	0.43
20:2Y:6:HIS:HB2	20:2Y:85:VAL:HG21	2.01	0.43
20:2Y:73:ARG:HH21	20:2Y:83:THR:C	2.26	0.43
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.18	0.43
32:2a:419:C:OP1	32:2a:513:C:O2'	2.34	0.43
32:2a:635:G:H2'	32:2a:636:U:O4'	2.18	0.43
34:2c:140:ARG:H	34:2c:140:ARG:HG3	1.47	0.43
35:2d:112:VAL:HG23	35:2d:116:GLN:HE22	1.83	0.43
38:2g:86:GLN:HE22	56:2y:32:PSU:H4'	1.83	0.43
40:2i:85:LEU:O	40:2i:88:TYR:HB3	2.18	0.43
45:2n:37:PHE:CE1	45:2n:53:LEU:HD13	2.53	0.43
56:2y:70:G:H2'	56:2y:71:G:C8	2.52	0.43
1:1A:287:C:H2'	1:1A:288:C:C6	2.54	0.43
1:1A:323:G:H1'	1:1A:1205:U:O2	2.18	0.43
1:1A:838:C:O2'	1:1A:839:U:H5'	2.17	0.43
1:1A:918:A:H5"	2:1B:98:G:HO2'	1.83	0.43
1:1A:1062:G:H5"	1:1A:1070:A:O2'	2.18	0.43
1:1A:1082:U:C4	1:1A:1086:A:N1	2.80	0.43
1:1A:1101:U:C4	1:1A:1102:C:C4	3.05	0.43
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.19	0.43
1:1A:1914:C:H2'	1:1A:1915:5MU:O4'	2.18	0.43
1:1A:2594:C:H2'	1:1A:2595:G:O4'	2.17	0.43
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.18	0.43
3:1D:77:ALA:HA	3:1D:97:TYR:HA	1.99	0.43
3:1D:125:ILE:HD13	37:1f:81:ILE:HG21	1.99	0.43
4:1E:129:HIS:HD2	62:1E:414:HOH:O	2.00	0.43
8:1I:81:VAL:N	8:1I:145:VAL:O	2.48	0.43
22:10:72:ARG:CZ	22:10:75:LEU:HD12	2.47	0.43
23:11:86:SER:O	23:11:90:ILE:HG13	2.18	0.43
39:1h:4:ASP:OD2	39:1h:85:ARG:NE	2.50	0.43
49:1r:63:GLN:OE1	49:1r:66:LEU:HD23	2.18	0.43
55:1x:50:U:H2'	55:1x:51:C:C6	2.53	0.43
1:2A:208:C:H2'	1:2A:209:C:C6	2.53	0.43
1:2A:538:G:H2'	1:2A:539:G:C8	2.52	0.43
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:636:G:O2'	1:2A:638:G:O2'	2.32	0.43
1:2A:1022:G:OP2	9:2N:69:GLN:NE2	2.49	0.43
1:2A:2117:A:O2'	1:2A:2118:U:H5"	2.17	0.43
1:2A:2251:OMG:H1'	1:2A:2251:OMG:HM23	1.79	0.43
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.53	0.43
1:2A:2466:C:OP1	31:29:4:ARG:HB2	2.16	0.43
1:2A:2619:C:H4'	4:2E:151:TYR:O	2.17	0.43
2:2B:9:G:OP1	14:2S:25:ARG:NH2	2.51	0.43
2:2B:86:G:H1	2:2B:91:C:H42	1.65	0.43
5:2F:172:TRP:CD1	5:2F:172:TRP:H	2.36	0.43
6:2G:50:ALA:O	6:2G:52:ILE:N	2.51	0.43
7:2H:3:ARG:HA	7:2H:3:ARG:HD2	1.77	0.43
8:2I:1:MET:HE3	8:2I:1:MET:HB2	1.83	0.43
9:2N:1:MET:HE1	16:2U:94:ASN:HD21	1.83	0.43
12:2Q:7:MET:HE3	12:2Q:9:TYR:O	2.18	0.43
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.17	0.43
16:2U:98:LEU:HD13	16:2U:109:LEU:HD11	2.01	0.43
19:2X:94:GLY:N	19:2X:95:LEU:HB2	2.33	0.43
32:2a:37:U:O2'	32:2a:500:G:H4'	2.19	0.43
32:2a:1030(A):G:N3	32:2a:1030(C):G:C8	2.86	0.43
34:2c:131:ARG:HE	34:2c:135:LYS:NZ	2.17	0.43
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.53	0.43
37:2f:7:ASN:HD22	37:2f:7:ASN:N	2.16	0.43
39:2h:95:VAL:HG11	39:2h:133:LEU:HD12	2.00	0.43
54:2w:64:A:C2'	54:2w:65:G:H5'	2.48	0.43
1:1A:227:A:C2	1:1A:2407:G:H1'	2.54	0.43
1:1A:886:C:OP1	1:1A:886:C:H4'	2.18	0.43
1:1A:907:U:O2'	12:1Q:101:ARG:NH2	2.48	0.43
1:1A:1843:C:H5'	3:1D:253:GLN:OE1	2.17	0.43
1:1A:2561:A:H2'	1:1A:2562:U:O4'	2.18	0.43
1:1A:2615:U:H2'	1:1A:2616:C:H6	1.83	0.43
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.64	0.43
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	2.00	0.43
13:1R:22:ARG:O	13:1R:26:LYS:HG3	2.18	0.43
16:1U:83:LEU:HD12	16:1U:113:ALA:HB2	1.99	0.43
18:1W:16:LYS:HA	18:1W:19:LEU:HD12	2.00	0.43
21:1Z:62:PRO:C	21:1Z:64:GLY:H	2.27	0.43
32:1a:68:G:H1	32:1a:101:A:H61	1.66	0.43
32:1a:96:U:H2'	32:1a:97:G:C8	2.52	0.43
32:1a:1009:G:O6	32:1a:1020:U:C2	2.71	0.43
33:1b:157:ARG:HG2	33:1b:158:LEU:N	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:188:ALA:HB1	33:1b:192:SER:HB2	2.00	0.43
54:1w:5:G:H2'	54:1w:6:G:C8	2.53	0.43
54:1w:9:A:H8	54:1w:11:C:H41	1.65	0.43
1:2A:197:A:O2'	62:2A:3956:HOH:O	2.16	0.43
1:2A:363:G:H2'	1:2A:363(A):A:H8	1.83	0.43
1:2A:480:A:O5'	20:2Y:47:LYS:HD3	2.18	0.43
1:2A:653:A:H2'	1:2A:654:A:C8	2.54	0.43
1:2A:1166:C:H1'	1:2A:1184:G:N2	2.33	0.43
1:2A:1269:A:H2'	1:2A:1270:C:C6	2.53	0.43
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.18	0.43
1:2A:1742:G:H2'	1:2A:1743:C:O4'	2.17	0.43
1:2A:1921:G:H2'	1:2A:1922:G:H8	1.83	0.43
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.53	0.43
1:2A:2542:A:H4'	1:2A:2543:G:H8	1.83	0.43
2:2B:7:G:N2	14:2S:38:GLN:HE22	2.02	0.43
2:2B:48:A:P	14:2S:30:ARG:HH22	2.41	0.43
6:2G:10:LYS:HG3	6:2G:14:GLU:HB2	1.99	0.43
7:2H:127:GLU:OE1	7:2H:130:ARG:NE	2.47	0.43
9:2N:21:LYS:O	9:2N:60:ILE:HG13	2.18	0.43
10:2O:104:ARG:NH1	10:2O:104:ARG:HB2	2.33	0.43
19:2X:89:ILE:O	19:2X:93:GLU:HG2	2.19	0.43
26:24:46:GLN:NE2	26:24:48:ARG:HH11	2.16	0.43
27:25:33:CYS:C	27:25:35:GLU:H	2.27	0.43
32:2a:9:G:H2'	32:2a:10:A:H8	1.84	0.43
32:2a:119:A:H4'	32:2a:120:A:C8	2.54	0.43
32:2a:253:U:H2'	32:2a:254:G:H8	1.83	0.43
32:2a:994:A:N1	32:2a:1047:G:H4'	2.32	0.43
37:2f:94:GLN:HE22	49:2r:72:ARG:HH12	1.67	0.43
50:2s:18:LYS:HD3	50:2s:31:ILE:HG21	1.99	0.43
56:2y:63:G:H2'	56:2y:64:A:O4'	2.18	0.43
1:1A:360:G:H2'	1:1A:361:G:C8	2.54	0.43
1:1A:1368:G:C2	1:1A:1369:G:C8	3.05	0.43
1:1A:1397:U:OP1	1:1A:1399:C:N4	2.51	0.43
1:1A:1512:U:O2'	1:1A:1513:C:H5'	2.18	0.43
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.18	0.43
1:1A:2230:G:C6	1:1A:2231:C:C4	3.06	0.43
1:1A:2716:U:H2'	1:1A:2717:G:C8	2.54	0.43
62:1A:4268:HOH:O	22:10:41:ARG:HA	2.18	0.43
2:1B:11:C:H2'	2:1B:15:A:N6	2.31	0.43
6:1G:71:THR:N	6:1G:89:GLY:O	2.51	0.43
11:1P:81:GLN:HE22	11:1P:106:LEU:HA	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:78:G:N1	32:1a:91:C:N4	2.66	0.43
32:1a:607:A:H2'	32:1a:608:A:H8	1.82	0.43
32:1a:766:A:C8	32:1a:814:A:N6	2.86	0.43
37:1f:69:GLU:O	37:1f:72:VAL:HG13	2.19	0.43
37:1f:79:LEU:O	37:1f:85:VAL:HG11	2.17	0.43
42:1k:66:LEU:HD23	42:1k:101:SER:HB3	2.01	0.43
44:1m:49:THR:HG23	44:1m:52:GLU:H	1.82	0.43
45:1n:6:LEU:HD23	45:1n:23:ARG:NH2	2.33	0.43
49:1r:73:ALA:HB1	49:1r:78:LEU:HB2	1.99	0.43
1:2A:191:A:H2'	1:2A:192:C:H6	1.81	0.43
1:2A:478:A:N1	1:2A:500:G:H4'	2.33	0.43
1:2A:1288:U:H1'	1:2A:1647:G:H21	1.84	0.43
1:2A:1485:G:H2'	1:2A:1486:A:C8	2.54	0.43
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.18	0.43
1:2A:1894:C:H2'	1:2A:1895:C:H6	1.82	0.43
1:2A:1954:G:H1'	1:2A:1956:U:O4	2.19	0.43
1:2A:1991:U:H2'	1:2A:1992:G:H5"	2.00	0.43
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.18	0.43
1:2A:2748:A:H2'	1:2A:2749:A:C8	2.53	0.43
11:2P:39:LYS:HG3	11:2P:45:LEU:HD22	2.01	0.43
28:26:18:ARG:HD3	28:26:42:TRP:CD2	2.53	0.43
28:26:23:THR:OG1	28:26:24:GLU:N	2.47	0.43
32:2a:559:A:OP2	36:2e:126:ARG:NH2	2.52	0.43
33:2b:24:TRP:CE2	33:2b:26:PRO:HG3	2.53	0.43
37:2f:6:VAL:HG22	37:2f:90:VAL:HG13	2.01	0.43
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.29	0.43
1:1A:1049:C:C4	1:1A:1050:A:N7	2.86	0.43
1:1A:1891:G:C6	1:1A:1892:C:C4	3.06	0.43
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.19	0.43
1:1A:2073:C:H5"	3:1D:229:VAL:HG13	2.01	0.43
2:1B:43:C:H5"	26:14:1:MET:HE3	2.01	0.43
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.34	0.43
9:1N:111:PRO:O	9:1N:115:ARG:HG3	2.18	0.43
10:1O:86:ILE:HG22	10:1O:94:ARG:HD3	2.01	0.43
17:1V:3:ALA:O	17:1V:14:VAL:HG22	2.18	0.43
19:1X:1:MET:O	19:1X:2:LYS:HB3	2.19	0.43
28:16:5:VAL:HG21	28:16:28:ARG:HE	1.84	0.43
32:1a:258:G:H2'	32:1a:259:G:C8	2.54	0.43
32:1a:739:C:C4	32:1a:740:U:C4	3.06	0.43
32:1a:1057:G:O3'	34:1c:197:GLY:HA3	2.18	0.43
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1x:22:G:H2'	55:1x:23:C:H6	1.83	0.43
1:2A:31:C:H5"	1:2A:1239:G:OP1	2.18	0.43
1:2A:93:G:H2'	1:2A:94:C:H6	1.83	0.43
1:2A:394:A:C6	1:2A:395:U:C4	3.06	0.43
1:2A:465:G:P	29:27:12:ARG:HH22	2.41	0.43
1:2A:479:A:H1'	1:2A:481:G:H5"	2.00	0.43
1:2A:591:C:H2'	1:2A:592:G:O4'	2.19	0.43
1:2A:614(C):A:N3	1:2A:615:G:H1'	2.32	0.43
1:2A:1213:A:O2'	1:2A:1239:G:O4'	2.35	0.43
1:2A:1425:G:H2'	1:2A:1426:G:C8	2.54	0.43
1:2A:2129:C:H2'	1:2A:2130:U:C2	2.54	0.43
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.83	0.43
1:2A:2679:A:C2	1:2A:2729:G:C2	3.07	0.43
2:2B:32:C:C2	2:2B:33:G:C8	3.06	0.43
13:2R:57:ARG:HH21	13:2R:59:ASP:CG	2.27	0.43
14:2S:4:LEU:HD23	14:2S:4:LEU:HA	1.83	0.43
17:2V:28:GLU:HG3	17:2V:29:PRO:HD2	1.99	0.43
22:20:43:THR:HG23	22:20:43:THR:O	2.19	0.43
32:2a:299:G:H8	32:2a:299:G:O5'	2.01	0.43
32:2a:976:G:N7	32:2a:1359:C:H1'	2.34	0.43
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.19	0.43
33:2b:74:LYS:HD2	33:2b:166:ASP:HB3	2.01	0.43
34:2c:66:VAL:O	34:2c:102:ASN:N	2.51	0.43
35:2d:180:GLY:O	35:2d:182:LYS:HG3	2.18	0.43
54:2w:9:A:O2'	54:2w:10:G:N7	2.48	0.43
56:2y:18:G:O6	56:2y:56:C:N4	2.52	0.43
1:1A:118:A:OP1	29:17:22:MET:HE2	2.17	0.43
1:1A:1542:A:OP1	1:1A:1542:A:H8	2.01	0.43
1:1A:2406:U:H6	1:1A:2406:U:H2'	1.65	0.43
1:1A:2469:A:O2'	12:1Q:56:ARG:HD3	2.18	0.43
12:1Q:51:ARG:NH2	54:1w:53:G:O2'	2.51	0.43
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.53	0.43
32:1a:674:G:H2'	32:1a:675:A:H8	1.84	0.43
32:1a:730:G:C5	32:1a:731:G:H1'	2.54	0.43
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.33	0.43
33:1b:80:ILE:O	33:1b:84:GLU:HG2	2.18	0.43
35:1d:131:ARG:O	35:1d:133:VAL:HG23	2.19	0.43
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.18	0.43
40:1i:51:ARG:HG2	40:1i:56:LEU:HD21	2.00	0.43
42:1k:18:ARG:HB2	42:1k:33:THR:OG1	2.18	0.43
1:2A:100:G:O2'	24:22:7:ARG:NH2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:224:G:H2'	1:2A:225:A:O4'	2.18	0.43
1:2A:559:G:H2'	1:2A:560:C:O4'	2.19	0.43
1:2A:636:G:OP1	11:2P:132:LYS:HG3	2.19	0.43
1:2A:968:G:H2'	1:2A:969:U:C6	2.53	0.43
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.53	0.43
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.33	0.43
1:2A:2255:G:N2	22:20:8:GLY:O	2.46	0.43
1:2A:2533:A:O2'	1:2A:2664:G:H5"	2.19	0.43
3:2D:2:ALA:O	3:2D:20:ASP:HB3	2.17	0.43
3:2D:123:ALA:HB3	3:2D:131:LEU:HG	2.00	0.43
5:2F:126:VAL:O	5:2F:196:LEU:HG	2.19	0.43
6:2G:5:VAL:HG21	6:2G:100:TRP:HB3	2.00	0.43
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.99	0.43
10:2O:120:GLU:HG3	32:2a:346:G:OP2	2.19	0.43
11:2P:86:LYS:HG3	11:2P:87:ASP:N	2.33	0.43
11:2P:95:VAL:HA	11:2P:99:LEU:HD23	2.00	0.43
32:2a:275:G:C2	32:2a:276:G:C8	3.07	0.43
32:2a:735:C:H2'	32:2a:736:C:C6	2.53	0.43
32:2a:927:G:H1	32:2a:1390:U:H3	1.65	0.43
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.54	0.43
32:2a:1221:G:H4'	50:2s:53:ASN:O	2.18	0.43
34:2c:47:LEU:HA	34:2c:47:LEU:HD12	1.66	0.43
38:2g:70:LYS:C	38:2g:138:LYS:HD2	2.43	0.43
40:2i:17:VAL:HG11	40:2i:81:ILE:HG12	2.00	0.43
41:2j:81:THR:HA	41:2j:84:GLN:HG3	1.99	0.43
49:2r:53:ARG:NH2	49:2r:59:SER:HA	2.34	0.43
1:1A:480:A:N3	1:1A:499:U:O2'	2.46	0.43
1:1A:1355:G:H2'	1:1A:1356:G:O4'	2.19	0.43
1:1A:2252:G:O6	22:10:4:LYS:HD3	2.19	0.43
1:1A:2592:G:C6	1:1A:2593:U:C4	3.06	0.43
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.49	0.43
5:1F:188:ARG:HA	11:1P:3:LEU:HD11	2.01	0.43
11:1P:29:LYS:CG	11:1P:30:THR:N	2.82	0.43
16:1U:16:LYS:HE2	16:1U:16:LYS:HB3	1.84	0.43
24:12:2:LYS:O	24:12:6:VAL:HG23	2.18	0.43
32:1a:118:U:H3'	32:1a:288:A:H61	1.83	0.43
32:1a:684:A:N6	62:1a:1959:HOH:O	2.34	0.43
32:1a:721:G:H4'	32:1a:722:A:O4'	2.19	0.43
35:1d:65:ARG:O	35:1d:69:GLY:N	2.51	0.43
35:1d:103:ASN:O	35:1d:107:ARG:HG2	2.18	0.43
36:1e:69:VAL:O	36:1e:71:LEU:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:102:ALA:HB2	36:1e:120:THR:HG21	2.00	0.43
38:1g:73:MET:HE3	38:1g:73:MET:HB3	1.87	0.43
1:2A:407:G:H2'	1:2A:408:G:H8	1.84	0.43
1:2A:1466:G:O3'	1:2A:1546:C:O2'	2.36	0.43
1:2A:1539:G:H2'	1:2A:1540:U:O4'	2.18	0.43
1:2A:1568:G:H5'	3:2D:60:ARG:HA	2.00	0.43
2:2B:21:G:H2'	2:2B:22:U:O4'	2.19	0.43
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	2.01	0.43
9:2N:58:ASP:N	9:2N:58:ASP:OD1	2.52	0.43
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.51	0.43
13:2R:90:ARG:O	13:2R:94:TYR:HE1	2.02	0.43
21:2Z:31:ARG:NH1	21:2Z:94:GLU:HG2	2.34	0.43
22:20:27:GLU:HB2	22:20:69:PHE:CD1	2.50	0.43
32:2a:131:C:OP2	32:2a:189(G):G:O2'	2.36	0.43
32:2a:766:A:H3'	32:2a:767:A:H8	1.83	0.43
32:2a:922:G:C2	32:2a:923:A:C4	3.06	0.43
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.18	0.43
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	2.00	0.43
32:2a:1370:G:C8	40:2i:109:VAL:HG11	2.54	0.43
32:2a:1490:C:H2'	32:2a:1491:G:O4'	2.17	0.43
32:2a:1518:MA6:H93	32:2a:1519:MA6:C9	2.49	0.43
33:2b:187:LEU:HA	33:2b:201:ILE:HB	2.00	0.43
34:2c:20:SER:HB3	34:2c:22:TRP:HE1	1.83	0.43
35:2d:135:LEU:C	35:2d:137:SER:H	2.26	0.43
39:2h:28:ALA:HA	39:2h:59:LEU:HG	2.00	0.43
43:2l:10:LEU:HB3	48:2q:32:TYR:CE2	2.53	0.43
44:2m:29:ARG:HB3	44:2m:64:TRP:CH2	2.53	0.43
54:2w:4:C:H42	54:2w:69:G:H1	1.67	0.43
1:1A:387:U:O4	62:1A:4215:HOH:O	2.21	0.43
1:1A:436:C:H2'	1:1A:437:G:H8	1.83	0.43
1:1A:1016:G:H2'	1:1A:1017:G:O4'	2.18	0.43
1:1A:1308:A:H2'	1:1A:1309:G:O4'	2.18	0.43
1:1A:1452:A:OP2	62:1A:4209:HOH:O	2.21	0.43
1:1A:2041:U:O4	1:1A:2042:A:N6	2.52	0.43
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.54	0.43
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.19	0.43
11:1P:92:GLU:O	11:1P:94:GLU:N	2.50	0.43
18:1W:62:HIS:O	18:1W:64:MET:HG3	2.18	0.43
21:1Z:120:ILE:N	21:1Z:171:ILE:O	2.34	0.43
21:1Z:155:LEU:HD12	21:1Z:156:LYS:H	1.83	0.43
32:1a:767:A:H2'	32:1a:768:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1053:G:H4'	32:1a:1054:C:H3'	2.00	0.43
32:1a:1118:C:H2'	32:1a:1119:C:C6	2.52	0.43
45:1n:23:ARG:NH1	45:1n:28:GLY:O	2.41	0.43
1:2A:285:C:H42	1:2A:356:G:H1	1.65	0.43
1:2A:390:A:N6	62:2A:4186:HOH:O	2.50	0.43
1:2A:602:G:O2'	1:2A:655:A:N6	2.51	0.43
1:2A:896:A:H1'	54:2w:56:C:H5'	2.00	0.43
1:2A:982:C:N4	62:2A:4199:HOH:O	2.51	0.43
1:2A:1171:G:H22	1:2A:1178:C:H42	1.66	0.43
1:2A:1257:C:H2'	1:2A:1258:C:C6	2.54	0.43
1:2A:1317:A:H2'	1:2A:1318:C:C6	2.54	0.43
1:2A:2016:U:H5'	1:2A:2058:MA6:H5'	2.00	0.43
1:2A:2394:C:OP2	30:28:30:ARG:NE	2.52	0.43
1:2A:2470:G:C2	1:2A:2471:C:C6	3.07	0.43
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.18	0.43
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.19	0.43
1:2A:2801(A):A:H1'	1:2A:2895:U:H1'	2.01	0.43
2:2B:119:G:H5'	2:2B:120:A:OP2	2.18	0.43
11:2P:46:LYS:HB3	11:2P:46:LYS:HE2	1.72	0.43
15:2T:65:LYS:HE3	15:2T:67:SER:HB2	2.00	0.43
16:2U:10:ARG:HG2	16:2U:14:HIS:CE1	2.54	0.43
20:2Y:38:ILE:HD11	20:2Y:66:PRO:HG3	2.01	0.43
32:2a:391:G:C6	32:2a:392:G:C5	3.06	0.43
32:2a:587:G:N2	32:2a:754:C:OP2	2.45	0.43
32:2a:643:C:H2'	32:2a:644:G:H8	1.84	0.43
32:2a:1048:G:OP1	45:2n:3:ARG:HB3	2.19	0.43
32:2a:1067:A:H8	32:2a:1067:A:O5'	2.01	0.43
32:2a:1289:A:OP2	52:2u:9:ARG:NH1	2.35	0.43
33:2b:150:SER:O	33:2b:153:ARG:HG2	2.19	0.43
34:2c:71:ALA:HA	34:2c:106:VAL:HB	2.01	0.43
35:2d:165:MET:HE2	35:2d:168:ARG:NH2	2.33	0.43
37:2f:13:ASN:ND2	37:2f:55:ASP:OD2	2.52	0.43
38:2g:103:TRP:CZ3	38:2g:138:LYS:HA	2.54	0.43
44:2m:20:THR:HA	44:2m:25:ILE:HG22	2.01	0.43
48:2q:80:GLY:O	48:2q:82:MET:N	2.50	0.43
1:1A:234:C:H2'	1:1A:235:U:C6	2.53	0.43
1:1A:1090:U:C2	1:1A:1102:C:H1'	2.54	0.43
1:1A:2361:A:OP2	30:18:26:LYS:NZ	2.34	0.43
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.48	0.43
6:1G:115:ARG:NH1	6:1G:137:GLU:OE2	2.43	0.43
8:1I:1:MET:N	8:1I:20:ASP:OD1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:5:LEU:HD12	8:1I:17:GLN:O	2.18	0.43
9:1N:46:VAL:HG23	9:1N:48:MET:HG2	2.01	0.43
32:1a:138:G:H2'	32:1a:139:G:C8	2.54	0.43
32:1a:657:G:H4'	46:1o:28:GLN:HG2	2.00	0.43
32:1a:1322:C:H5"	44:1m:100:GLY:HA2	1.99	0.43
32:1a:1326:C:OP1	52:1u:12:LYS:NZ	2.49	0.43
33:1b:48:MET:HA	33:1b:51:LEU:HB2	2.00	0.43
37:1f:38:GLU:HB2	37:1f:64:GLN:HG3	2.00	0.43
39:1h:23:SER:OG	39:1h:24:THR:N	2.50	0.43
40:1i:118:LYS:HB3	40:1i:118:LYS:HE2	1.80	0.43
42:1k:110:ASP:HB2	49:1r:87:ARG:HH21	1.84	0.43
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.19	0.43
56:1y:9:A:O3'	56:1y:45:U:O2'	2.34	0.43
1:2A:614(B):G:H2'	5:2F:44:ARG:HH11	1.83	0.43
1:2A:867:C:H42	1:2A:909:A:H61	1.66	0.43
1:2A:921:G:H2'	1:2A:922:U:C6	2.54	0.43
1:2A:940:G:H2'	1:2A:941:A:O4'	2.18	0.43
1:2A:1141:U:H2'	9:2N:63:THR:HG21	2.00	0.43
1:2A:1359:A:C2	1:2A:1360:A:C8	3.07	0.43
1:2A:1426:G:H1'	1:2A:1572:A:N6	2.34	0.43
1:2A:1445(A):C:N4	1:2A:1466:G:H1	2.17	0.43
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.53	0.43
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.54	0.43
12:2Q:125:LEU:C	12:2Q:127:ILE:H	2.27	0.43
13:2R:63:ARG:HG2	13:2R:67:LEU:HD13	2.00	0.43
14:2S:25:ARG:O	14:2S:40:ILE:N	2.43	0.43
25:23:6:VAL:HA	25:23:56:VAL:HG22	2.01	0.43
32:2a:160:A:H2'	32:2a:161:A:C8	2.53	0.43
32:2a:243:A:H4'	32:2a:244:U:H5"	2.00	0.43
32:2a:918:A:H2'	32:2a:919:A:C8	2.54	0.43
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.19	0.43
32:2a:977:A:H2'	32:2a:978:A:H5"	2.01	0.43
33:2b:57:PHE:HB2	33:2b:199:TYR:CE1	2.53	0.43
33:2b:70:PHE:HE2	33:2b:90:MET:HB2	1.84	0.43
38:2g:149:ARG:NE	42:2k:59:TYR:OH	2.52	0.43
39:2h:122:ARG:C	39:2h:124:ALA:H	2.27	0.43
46:2o:8:LYS:HG2	46:2o:12:ILE:HD11	2.00	0.43
46:2o:53:HIS:CE1	46:2o:57:LEU:HD21	2.54	0.43
48:2q:40:LYS:HD3	48:2q:42:TYR:OH	2.19	0.43
52:2u:13:ILE:HG12	52:2u:22:ARG:CZ	2.49	0.43
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1044:G:H5'	1:1A:1045:A:OP2	2.19	0.43
1:1A:1223:G:N2	1:1A:1226:A:OP2	2.37	0.43
1:1A:1351:C:O2'	1:1A:1571:A:N3	2.47	0.43
1:1A:1784:A:H4'	1:1A:1785:A:C5'	2.49	0.43
1:1A:2319:G:C2	14:1S:3:ARG:HA	2.54	0.43
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.52	0.43
15:1T:31:SER:OG	15:1T:85:LYS:HE3	2.19	0.43
15:1T:105:LEU:HB3	15:1T:109:GLU:HB3	2.01	0.43
32:1a:253:U:H2'	32:1a:254:G:C8	2.54	0.43
32:1a:892:A:O2'	32:1a:1415:G:H4'	2.19	0.43
33:1b:126:GLU:C	33:1b:127:ILE:HG12	2.44	0.43
35:1d:3:ARG:HD2	35:1d:118:ARG:HD3	2.01	0.43
38:1g:64:GLN:HE21	38:1g:68:ASN:HD21	1.66	0.43
1:2A:93:G:H2'	1:2A:94:C:C6	2.53	0.43
1:2A:186:G:H2'	1:2A:187:G:C8	2.53	0.43
1:2A:432:A:H2'	1:2A:433:C:O4'	2.18	0.43
1:2A:468:G:N7	29:27:39:ARG:NH2	2.60	0.43
1:2A:518:G:H4'	18:2W:18:ARG:NE	2.34	0.43
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.34	0.43
1:2A:1255:U:O5'	1:2A:1256:G:H5"	2.19	0.43
1:2A:1414:G:C6	1:2A:1415:U:C4	3.06	0.43
1:2A:1752:C:H2'	1:2A:1753:G:C8	2.53	0.43
1:2A:2110:G:H3'	1:2A:2111:C:C5'	2.49	0.43
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.83	0.43
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.54	0.43
6:2G:66:GLN:HA	26:24:6:HIS:ND1	2.34	0.43
8:2I:133:HIS:HD2	8:2I:134:PRO:HD2	1.84	0.43
9:2N:48:MET:H	9:2N:48:MET:HG3	1.77	0.43
9:2N:72:TYR:O	9:2N:85:ILE:HD12	2.19	0.43
10:2O:47:ILE:HD12	10:2O:48:PRO:O	2.18	0.43
16:2U:93:LYS:HE2	16:2U:93:LYS:HB3	1.78	0.43
21:2Z:77:ASP:HB2	21:2Z:84:GLU:HG3	2.00	0.43
23:21:71:TYR:H	23:21:71:TYR:HD2	1.67	0.43
32:2a:8:A:N7	35:2d:208:SER:OG	2.46	0.43
32:2a:19:C:P	36:2e:127:ASN:HD22	2.40	0.43
32:2a:409:G:C6	32:2a:410:G:C4	3.07	0.43
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.52	0.43
32:2a:737:A:H4'	37:2f:72:VAL:HG11	2.01	0.43
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.54	0.43
32:2a:977:A:H2'	32:2a:977:A:N3	2.33	0.43
32:2a:1289:A:P	52:2u:10:ARG:HH22	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:93:VAL:HG11	33:2b:97:TRP:HE3	1.84	0.43
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.84	0.43
47:2p:19:ILE:N	47:2p:37:GLY:O	2.51	0.43
1:1A:581:C:H2'	1:1A:582:G:H8	1.83	0.42
1:1A:828:U:H4'	1:1A:831:G:N1	2.34	0.42
1:1A:1786:A:H1'	1:1A:1938:A:H62	1.84	0.42
1:1A:1803:A:H2'	1:1A:1804:C:O4'	2.19	0.42
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.54	0.42
2:1B:95:C:H2'	2:1B:96:U:C6	2.54	0.42
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.81	0.42
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.61	0.42
7:1H:86:GLU:OE1	7:1H:130:ARG:NH1	2.52	0.42
11:1P:45:LEU:HD12	11:1P:45:LEU:HA	1.71	0.42
13:1R:44:LEU:HD12	13:1R:44:LEU:HA	1.87	0.42
21:1Z:136:PHE:O	21:1Z:137:ILE:HG13	2.19	0.42
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.67	0.42
32:1a:280:C:N3	48:1q:39:SER:N	2.66	0.42
32:1a:300:A:H1'	32:1a:565:U:O2	2.19	0.42
32:1a:1060:C:C5'	41:1j:51:ARG:HG2	2.48	0.42
32:1a:1169:A:H2'	32:1a:1170:A:C8	2.54	0.42
32:1a:1269:A:H2	32:1a:1312:G:N3	2.16	0.42
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.18	0.42
32:1a:1525:G:H2'	32:1a:1526:G:H8	1.84	0.42
34:1c:134:ILE:HG23	34:1c:151:VAL:HG12	2.00	0.42
41:1j:13:HIS:CG	41:1j:14:LYS:N	2.87	0.42
44:1m:91:ARG:HB2	44:1m:98:VAL:HG13	2.01	0.42
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.54	0.42
1:2A:484:C:H2'	1:2A:485:C:C6	2.54	0.42
1:2A:900:A:HO2'	1:2A:901:A:P	2.40	0.42
1:2A:942:G:O2'	1:2A:1189:A:N3	2.48	0.42
1:2A:1298:C:N4	1:2A:1299:G:C6	2.87	0.42
1:2A:1913:A:H4'	1:2A:1914:C:C5'	2.49	0.42
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.34	0.42
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.54	0.42
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.52	0.42
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.54	0.42
20:2Y:35:TYR:CE2	20:2Y:69:ALA:HB3	2.53	0.42
32:2a:1183:A:H3'	32:2a:1184:G:C5'	2.47	0.42
32:2a:1279:A:H3'	32:2a:1279:A:N3	2.34	0.42
32:2a:1338:G:C6	32:2a:1339:A:C6	3.07	0.42
32:2a:1356:G:N2	32:2a:1367:C:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1477:C:C2'	32:2a:1478:C:H5'	2.49	0.42
33:2b:82:ARG:HA	33:2b:92:TYR:CE1	2.55	0.42
33:2b:162:ILE:HD11	33:2b:177:ALA:HB1	2.00	0.42
36:2e:60:TYR:O	36:2e:64:ARG:HG3	2.18	0.42
37:2f:91:VAL:HG12	37:2f:92:LYS:O	2.19	0.42
39:2h:39:LEU:HB2	39:2h:45:ILE:HD11	2.01	0.42
43:2l:101:VAL:HA	62:2l:302:HOH:O	2.19	0.42
44:2m:65:LYS:HE3	44:2m:65:LYS:HB2	1.76	0.42
44:2m:101:GLN:OE1	44:2m:101:GLN:N	2.52	0.42
49:2r:21:LYS:O	49:2r:25:THR:HG23	2.19	0.42
51:2t:49:ALA:HB1	51:2t:98:PRO:HA	2.01	0.42
1:1A:221:A:N1	1:1A:265:A:O2'	2.47	0.42
1:1A:360:G:H2'	1:1A:361:G:H8	1.84	0.42
1:1A:601:C:O2'	1:1A:605:C:H5"	2.19	0.42
1:1A:773:U:H2'	1:1A:774:A:H5'	2.01	0.42
1:1A:2128:C:N4	1:1A:2160:G:C6	2.86	0.42
1:1A:2558:C:H2'	1:1A:2559:C:O4'	2.19	0.42
4:1E:14:ILE:HB	15:1T:14:TYR:CZ	2.53	0.42
6:1G:21:ARG:HA	6:1G:21:ARG:HD2	1.62	0.42
7:1H:80:SER:OG	7:1H:81:GLU:N	2.52	0.42
12:1Q:85:LYS:N	12:1Q:85:LYS:HD2	2.34	0.42
32:1a:288:A:H3'	62:1a:2048:HOH:O	2.19	0.42
32:1a:604:G:C6	32:1a:605:U:C4	3.06	0.42
32:1a:627:G:O2'	32:1a:628:G:H5'	2.18	0.42
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.54	0.42
36:1e:100:VAL:HG22	36:1e:118:ILE:HG22	2.02	0.42
38:1g:79:ARG:NH2	38:1g:80:VAL:HG22	2.34	0.42
41:1j:61:GLU:OE1	45:1n:49:HIS:HE1	2.02	0.42
45:1n:29:ARG:HD3	45:1n:40:CYS:SG	2.60	0.42
46:1o:36:ILE:HG23	46:1o:56:LEU:HD11	2.01	0.42
47:1p:60:LEU:HD13	47:1p:60:LEU:HA	1.88	0.42
1:2A:24:G:O2'	18:2W:77:ASP:HB3	2.19	0.42
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.54	0.42
1:2A:290:G:H2'	1:2A:291:C:C6	2.55	0.42
1:2A:528:A:O2'	1:2A:529:A:H5'	2.19	0.42
1:2A:578:A:H5'	1:2A:1254:A:OP1	2.19	0.42
1:2A:912:C:OP1	12:2Q:8:LYS:NZ	2.49	0.42
1:2A:1497:U:N3	1:2A:1578:U:O5'	2.52	0.42
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.18	0.42
1:2A:2112:G:C2	1:2A:2113:U:H1'	2.53	0.42
1:2A:2262:U:OP2	22:20:16:SER:OG	2.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2403:C:C2	1:2A:2415:G:C2	3.08	0.42
1:2A:2505:G:OP1	59:2A:3857:6IF:OAM	2.37	0.42
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.50	0.42
1:2A:2888:C:H2'	1:2A:2889:C:C6	2.55	0.42
2:2B:12:C:O2	22:20:74:ARG:NH2	2.49	0.42
11:2P:23:PRO:HB3	17:2V:80:GLN:HB3	2.00	0.42
12:2Q:19:GLY:O	12:2Q:98:LYS:NZ	2.52	0.42
19:2X:1:MET:N	24:22:29:LYS:HE3	2.34	0.42
32:2a:605:U:H2'	32:2a:606:G:C8	2.54	0.42
32:2a:696:A:H8	32:2a:696:A:O5'	2.01	0.42
32:2a:923:A:OP1	36:2e:21:ALA:HB2	2.19	0.42
32:2a:1099:G:H2'	32:2a:1100:C:O4'	2.19	0.42
32:2a:1120:G:C6	32:2a:1121:U:C4	3.06	0.42
34:2c:22:TRP:CE2	45:2n:54:PRO:HG2	2.54	0.42
35:2d:96:LEU:HD12	35:2d:139:ARG:HE	1.84	0.42
38:2g:49:ILE:HA	38:2g:52:GLU:OE2	2.18	0.42
39:2h:20:TYR:HA	39:2h:65:TYR:CE1	2.54	0.42
47:2p:73:LEU:HD12	47:2p:73:LEU:HA	1.83	0.42
49:2r:58:LEU:HD12	49:2r:66:LEU:HD22	2.01	0.42
56:2y:42:C:H2'	56:2y:43:C:C6	2.54	0.42
1:1A:335:C:H4'	20:1Y:73:ARG:HD2	2.01	0.42
1:1A:485:C:C2	1:1A:496:G:N2	2.87	0.42
1:1A:593:G:C2	1:1A:665:C:C2	3.06	0.42
1:1A:848:G:O6	1:1A:928:G:H2'	2.19	0.42
1:1A:1072:C:O5'	1:1A:1072:C:H6	2.02	0.42
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.33	0.42
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.20	0.42
1:1A:2650:U:H2'	1:1A:2651:C:C6	2.54	0.42
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.19	0.42
11:1P:122:PRO:HB3	11:1P:141:ALA:O	2.20	0.42
25:13:55:ARG:HH22	25:13:57:GLU:HB2	1.84	0.42
26:14:34:GLU:HB2	44:1m:57:ARG:CZ	2.49	0.42
30:18:23:VAL:HG13	30:18:47:LYS:HB3	2.01	0.42
30:18:61:LEU:C	30:18:63:PRO:HD3	2.43	0.42
31:19:32:HIS:O	31:19:34:GLN:HG3	2.19	0.42
32:1a:601:C:H2'	32:1a:602:A:C8	2.54	0.42
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.49	0.42
32:1a:1314:C:H5	50:1s:4:SER:HB2	1.84	0.42
32:1a:1367:C:H4'	41:1j:48:THR:HG21	2.00	0.42
33:1b:28:PHE:CD2	33:1b:190:THR:HA	2.55	0.42
1:2A:118:A:N3	1:2A:178:G:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1243:G:O3'	11:2P:7:ARG:NH2	2.52	0.42
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.84	0.42
1:2A:2220:G:H2'	1:2A:2221:G:H8	1.83	0.42
1:2A:2564:A:C6	1:2A:2565:A:N1	2.87	0.42
12:2Q:48:GLU:O	12:2Q:52:VAL:HG23	2.19	0.42
32:2a:438:G:N1	32:2a:495:A:OP2	2.30	0.42
32:2a:1201:A:H1'	32:2a:1202:G:OP2	2.19	0.42
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.54	0.42
32:2a:1287:A:H61	32:2a:1371:G:C1'	2.31	0.42
32:2a:1304:G:C6	32:2a:1305:G:N1	2.87	0.42
33:2b:27:LYS:O	33:2b:194:PRO:HG2	2.19	0.42
35:2d:19:LEU:O	35:2d:21:LEU:HG	2.19	0.42
36:2e:135:THR:O	36:2e:139:LEU:HG	2.19	0.42
38:2g:144:MET:SD	56:2y:30:G:N2	2.92	0.42
41:2j:47:PHE:CZ	45:2n:37:PHE:HE2	2.36	0.42
41:2j:64:GLU:HG2	45:2n:59:ALA:HB2	2.01	0.42
50:2s:80:TYR:O	50:2s:81:ARG:HG2	2.20	0.42
52:2u:2:GLY:C	52:2u:4:GLY:H	2.28	0.42
1:1A:272(A):U:O2'	1:1A:272(B):G:O5'	2.15	0.42
1:1A:1085:A:C6	1:1A:1086:A:C8	3.07	0.42
1:1A:2756:U:O2	62:1A:4220:HOH:O	2.21	0.42
1:1A:2765:A:OP2	62:1A:4221:HOH:O	2.22	0.42
2:1B:76:G:O6	62:1B:304:HOH:O	2.21	0.42
3:1D:179:SER:O	3:1D:274:ARG:HB2	2.19	0.42
5:1F:154:VAL:HG22	5:1F:191:ARG:HB2	2.01	0.42
6:1G:106:LEU:O	6:1G:110:ALA:HB3	2.20	0.42
8:1I:84:GLY:O	8:1I:86:THR:N	2.46	0.42
11:1P:43:GLY:HA3	62:1P:302:HOH:O	2.19	0.42
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	2.02	0.42
24:12:23:LYS:O	24:12:27:GLU:HG3	2.19	0.42
25:13:7:LYS:HA	25:13:33:GLN:O	2.19	0.42
32:1a:452:A:O2'	32:1a:453:A:OP2	2.34	0.42
32:1a:1177:G:H2'	32:1a:1178:G:O4'	2.19	0.42
32:1a:1284:C:H3'	32:1a:1285:A:C8	2.54	0.42
34:1c:39:ILE:O	34:1c:43:LEU:HG	2.20	0.42
47:1p:14:ASN:N	47:1p:15:PRO:HD3	2.34	0.42
54:1w:18:G:N2	54:1w:57:G:H2'	2.34	0.42
1:2A:18:C:O3'	16:2U:23:GLY:HA2	2.19	0.42
1:2A:136:G:H2'	1:2A:137:C:H6	1.84	0.42
1:2A:856:C:HO2'	1:2A:857:C:P	2.41	0.42
1:2A:881:G:C2	1:2A:882:G:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2103:C:H2'	1:2A:2104:G:C8	2.54	0.42
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.20	0.42
1:2A:2134:A:H62	1:2A:2157:G:H4'	1.84	0.42
1:2A:2371:G:O2'	28:26:46:HIS:ND1	2.44	0.42
1:2A:2768:C:H2'	1:2A:2769:C:O4'	2.19	0.42
10:2O:63:VAL:HB	10:2O:102:VAL:HG12	2.01	0.42
11:2P:50:ARG:O	11:2P:52:GLU:HG3	2.19	0.42
32:2a:242:C:H2'	32:2a:243:A:H5'	2.00	0.42
32:2a:627:G:H2'	32:2a:628:G:C8	2.55	0.42
32:2a:925:G:H1'	32:2a:1502:A:C4	2.55	0.42
32:2a:976:G:C8	32:2a:1362:C:N4	2.88	0.42
32:2a:1014:A:H1'	50:2s:34:TRP:HB2	2.01	0.42
32:2a:1134:G:C6	32:2a:1135:U:C2	3.07	0.42
32:2a:1403:C:H1'	32:2a:1500:A:N1	2.34	0.42
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.28	0.42
39:2h:7:ALA:O	39:2h:11:THR:HG23	2.19	0.42
39:2h:20:TYR:CE1	39:2h:76:PRO:HG2	2.54	0.42
1:1A:330:A:HO2'	1:1A:331:A:H8	1.66	0.42
1:1A:823:G:C6	1:1A:824:A:C6	3.07	0.42
1:1A:883:G:O2'	1:1A:884:C:H5	2.03	0.42
1:1A:1056:G:H1'	1:1A:1103:A:N6	2.34	0.42
1:1A:1231:G:H2'	1:1A:1232:G:H8	1.83	0.42
1:1A:1482:G:C6	1:1A:1507:A:C6	3.07	0.42
1:1A:2123:G:H2'	1:1A:2124:G:H8	1.84	0.42
1:1A:2553:G:H8	1:1A:2553:G:OP1	2.02	0.42
1:1A:2720:U:H2'	1:1A:2721:A:C8	2.55	0.42
3:1D:108:PRO:HD2	3:1D:111:LEU:HD22	2.00	0.42
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.19	0.42
7:1H:121:ILE:HD13	7:1H:121:ILE:HA	1.88	0.42
8:1I:73:GLU:HG2	8:1I:139:GLN:O	2.19	0.42
9:1N:111:PRO:HA	9:1N:114:ARG:NH1	2.34	0.42
14:1S:23:ARG:HB2	14:1S:86:ALA:HB2	2.02	0.42
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.75	0.42
28:16:25:LYS:HB3	28:16:34:LEU:HD11	2.01	0.42
32:1a:827:U:C4	32:1a:870:U:C4	3.07	0.42
32:1a:890:G:O2'	32:1a:906:G:O6	2.23	0.42
32:1a:1117:G:H5"	40:1i:104:ARG:CZ	2.50	0.42
36:1e:12:LEU:CB	36:1e:31:LEU:HB3	2.49	0.42
1:2A:271(Q):G:H5'	8:2I:42:SER:OG	2.20	0.42
1:2A:414:C:H1'	1:2A:1864:U:H1'	2.02	0.42
1:2A:981:A:H3'	1:2A:982:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1249:U:O4	11:2P:18:ARG:HD2	2.19	0.42
1:2A:2177:C:H2'	1:2A:2178:C:O4'	2.19	0.42
3:2D:254:THR:OG1	3:2D:254:THR:O	2.38	0.42
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	2.02	0.42
5:2F:18:ARG:NH1	5:2F:127:GLU:OE2	2.53	0.42
5:2F:33:LEU:HB3	11:2P:6:LEU:HD21	2.00	0.42
5:2F:34:TRP:CH2	5:2F:38:ARG:HD2	2.54	0.42
5:2F:117:ARG:HG3	5:2F:192:LEU:HD12	2.02	0.42
32:2a:64:G:C4'	32:2a:65:U:H3'	2.46	0.42
32:2a:426:G:H2'	32:2a:427:U:O4'	2.18	0.42
32:2a:617:G:H4'	47:2p:44:THR:O	2.18	0.42
32:2a:954:G:H2'	32:2a:955:U:H6	1.84	0.42
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.54	0.42
32:2a:1016:A:H1'	32:2a:1218:C:H1'	2.02	0.42
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.54	0.42
32:2a:1347:G:N2	32:2a:1374:A:O5'	2.52	0.42
32:2a:1366:C:H2'	32:2a:1367:C:H6	1.84	0.42
32:2a:1507:A:H2'	32:2a:1508:G:O4'	2.20	0.42
33:2b:52:GLU:O	33:2b:56:ARG:NH1	2.52	0.42
33:2b:57:PHE:HB2	33:2b:199:TYR:CZ	2.53	0.42
35:2d:17:VAL:HG12	35:2d:18:LYS:H	1.84	0.42
40:2i:23:ASN:OD1	40:2i:25:LYS:HG2	2.19	0.42
43:2l:48:PRO:HB3	53:2v:21:C:H4'	2.02	0.42
51:2t:26:ASN:O	51:2t:30:LYS:HG2	2.19	0.42
54:2w:10:G:H2'	54:2w:11:C:H6	1.84	0.42
1:1A:7:G:H2'	1:1A:8:A:C8	2.55	0.42
1:1A:411:G:C5	11:1P:72:PRO:HB3	2.55	0.42
1:1A:670:A:H4'	1:1A:671:C:O5'	2.20	0.42
1:1A:981:A:H8	1:1A:982:C:C5	2.38	0.42
1:1A:1235:G:C6	1:1A:1236:G:N1	2.88	0.42
1:1A:1385:G:H1'	1:1A:1386:C:C6	2.55	0.42
1:1A:1823:G:N2	62:1A:4447:HOH:O	2.44	0.42
1:1A:1851:U:O4	62:1A:4216:HOH:O	2.21	0.42
1:1A:2343:C:HO2'	1:1A:2373:G:HO2'	1.64	0.42
1:1A:2474:C:H5"	1:1A:2475:C:OP2	2.19	0.42
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.54	0.42
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.55	0.42
3:1D:141:VAL:CG1	3:1D:162:SER:HB3	2.50	0.42
5:1F:11:VAL:HG22	5:1F:125:LEU:HB2	2.02	0.42
5:1F:37:VAL:O	5:1F:41:LEU:HG	2.19	0.42
6:1G:142:PRO:HG2	6:1G:143:GLU:OE2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:149:ARG:HD2	7:1H:164:TYR:CE2	2.54	0.42
8:1I:72:LEU:HD23	8:1I:72:LEU:HA	1.93	0.42
10:1O:73:ASP:OD1	10:1O:75:SER:HB3	2.20	0.42
15:1T:11:GLU:O	15:1T:15:VAL:HG23	2.20	0.42
23:11:57:GLU:O	23:11:57:GLU:HG3	2.20	0.42
32:1a:429:U:O2'	35:1d:22:LYS:NZ	2.51	0.42
32:1a:553:A:H5"	43:1l:24:VAL:HG21	2.01	0.42
32:1a:742:G:H2'	32:1a:743:U:O4'	2.19	0.42
32:1a:1376:U:H2'	32:1a:1377:A:H8	1.85	0.42
33:1b:82:ARG:HD2	33:1b:92:TYR:OH	2.20	0.42
34:1c:201:TYR:CD2	34:1c:201:TYR:N	2.88	0.42
38:1g:92:SER:O	38:1g:96:GLN:HG3	2.20	0.42
45:1n:21:TYR:HE1	45:1n:23:ARG:HH21	1.68	0.42
50:1s:49:ILE:O	50:1s:51:VAL:HG23	2.20	0.42
55:1x:17:C:OP1	55:1x:61:C:H5"	2.19	0.42
1:2A:136:G:H2'	1:2A:137:C:C6	2.55	0.42
1:2A:195:A:H5"	1:2A:196:A:O5'	2.19	0.42
1:2A:862:G:H2'	1:2A:863:A:O4'	2.19	0.42
1:2A:879:G:N3	1:2A:880:G:H1'	2.35	0.42
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.55	0.42
1:2A:1401:G:C5	1:2A:1402:C:C4	3.07	0.42
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.55	0.42
2:2B:83:G:N1	2:2B:94:C:N3	2.54	0.42
16:2U:52:ARG:HG2	16:2U:55:ARG:NH2	2.34	0.42
20:2Y:54:LYS:C	20:2Y:56:PRO:HD3	2.44	0.42
21:2Z:79:ARG:HB2	21:2Z:80:ARG:NH1	2.34	0.42
21:2Z:98:MET:HE3	21:2Z:98:MET:HB3	1.84	0.42
21:2Z:134:PRO:HG3	21:2Z:161:VAL:CG2	2.48	0.42
30:28:60:LEU:HD23	30:28:60:LEU:HA	1.92	0.42
31:29:18:ARG:NH1	31:29:21:GLY:HA2	2.35	0.42
32:2a:965:A:OP1	32:2a:1198:G:H5"	2.20	0.42
32:2a:1121:U:O2'	32:2a:1122:U:H5'	2.20	0.42
33:2b:16:HIS:C	33:2b:18:GLY:N	2.78	0.42
34:2c:91:LEU:HD11	34:2c:101:LEU:CD1	2.47	0.42
38:2g:23:VAL:HG22	38:2g:43:PHE:HZ	1.84	0.42
40:2i:40:LEU:HD11	40:2i:42:ARG:HB2	2.00	0.42
40:2i:99:LEU:HB3	40:2i:101:PHE:CE2	2.54	0.42
54:2w:11:C:H2'	54:2w:12:U:H6	1.83	0.42
56:2y:18:G:N1	56:2y:55:PSU:C4	2.85	0.42
1:1A:196:A:H2'	1:1A:196:A:N3	2.35	0.42
1:1A:222:A:N1	1:1A:233:A:H5"	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:581:C:H2'	1:1A:582:G:C8	2.55	0.42
1:1A:582:G:H2'	1:1A:583:G:H8	1.83	0.42
1:1A:736:C:H6	1:1A:736:C:O5'	2.03	0.42
1:1A:1048:A:OP2	1:1A:1110:G:N2	2.41	0.42
1:1A:1065:U:H1'	1:1A:1074:G:N1	2.34	0.42
1:1A:1352:U:OP2	62:1A:4222:HOH:O	2.22	0.42
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.20	0.42
1:1A:2478:A:OP2	31:19:2:LYS:NZ	2.42	0.42
1:1A:2479:G:OP1	1:1A:2537:U:H1'	2.20	0.42
13:1R:30:THR:OG1	13:1R:75:LEU:HD11	2.20	0.42
22:10:18:ALA:HB3	22:10:20:ARG:NH1	2.33	0.42
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.84	0.42
25:13:44:ARG:O	25:13:48:GLU:HG3	2.19	0.42
32:1a:197:A:C6	32:1a:221:C:H4'	2.55	0.42
32:1a:243:A:C2	32:1a:245:C:C2	3.08	0.42
32:1a:685:G:O2'	32:1a:686:U:H5'	2.19	0.42
32:1a:757:U:H2'	32:1a:758:G:O4'	2.20	0.42
32:1a:1106:G:H2'	32:1a:1107:C:H6	1.84	0.42
32:1a:1250:A:H2	32:1a:1353:G:H21	1.65	0.42
32:1a:1316:G:H5"	45:1n:17:LYS:HE3	2.01	0.42
34:1c:47:LEU:HD22	34:1c:70:VAL:HG11	2.00	0.42
35:1d:52:SER:OG	35:1d:53:ASP:N	2.52	0.42
37:1f:97:PHE:N	49:1r:30:ASP:OD1	2.48	0.42
40:1i:11:LYS:C	40:1i:13:ALA:N	2.78	0.42
40:1i:47:LEU:O	40:1i:50:LEU:HD12	2.20	0.42
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.19	0.42
46:1o:87:ILE:HG22	46:1o:88:ARG:H	1.83	0.42
48:1q:11:VAL:HG12	48:1q:85:VAL:HG13	2.01	0.42
54:1w:33:U:H5'	54:1w:37:MIA:H151	2.02	0.42
56:1y:6:G:O6	56:1y:7:A:N6	2.53	0.42
1:2A:774:A:N3	1:2A:774:A:H2'	2.35	0.42
1:2A:918:A:O2'	2:2B:97:G:N2	2.51	0.42
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.20	0.42
1:2A:2127:G:N1	1:2A:2160:G:O6	2.52	0.42
1:2A:2136:C:N4	1:2A:2155:G:H1	2.13	0.42
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.85	0.42
1:2A:2726:U:O2'	1:2A:2727:G:H8	2.02	0.42
32:2a:9:G:H1	32:2a:25:C:H42	1.68	0.42
32:2a:281:G:OP2	32:2a:281:G:H2'	2.19	0.42
32:2a:782:A:OP1	32:2a:1521:G:N2	2.48	0.42
32:2a:967:5MC:H2'	32:2a:968:A:N7	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:991:U:C4	32:2a:1212:U:H1'	2.55	0.42
32:2a:1065:U:H1'	32:2a:1066:C:OP2	2.19	0.42
32:2a:1258:G:H2'	32:2a:1259:C:H6	1.84	0.42
32:2a:1452:C:O2'	32:2a:1456:G:H5"	2.19	0.42
33:2b:132:LYS:O	33:2b:136:VAL:HG23	2.19	0.42
34:2c:47:LEU:HD11	34:2c:76:VAL:HA	2.01	0.42
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	2.01	0.42
43:2l:10:LEU:O	43:2l:14:GLY:N	2.52	0.42
46:2o:21:ASP:OD2	46:2o:24:SER:OG	2.30	0.42
51:2t:67:ALA:HA	51:2t:72:LEU:O	2.20	0.42
51:2t:73:HIS:CE1	51:2t:75:ASN:HD22	2.37	0.42
54:2w:14:A:H61	54:2w:21:A:H2	1.68	0.42
1:1A:956:G:N2	1:1A:959:A:H3'	2.35	0.42
1:1A:971:C:H2'	1:1A:972:G:O4'	2.20	0.42
1:1A:1473:G:H2'	1:1A:1474:C:O4'	2.20	0.42
1:1A:1698:A:C8	1:1A:1700:A:O4'	2.72	0.42
1:1A:1791:A:H3'	1:1A:1792:G:H8	1.85	0.42
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.55	0.42
2:1B:8:U:H5"	14:1S:15:ARG:HH22	1.84	0.42
3:1D:2:ALA:O	3:1D:20:ASP:HB3	2.20	0.42
3:1D:127:VAL:HA	3:1D:193:VAL:HG12	2.02	0.42
4:1E:59:VAL:HG23	4:1E:64:LYS:HE2	2.02	0.42
7:1H:84:SER:HA	7:1H:133:VAL:O	2.19	0.42
11:1P:126:VAL:HA	11:1P:146:VAL:HB	2.01	0.42
21:1Z:34:ASN:O	21:1Z:35:ARG:HD2	2.19	0.42
32:1a:36:C:OP1	43:1l:123:LYS:NZ	2.36	0.42
32:1a:160:A:H1'	32:1a:344:A:C8	2.54	0.42
32:1a:418:C:H2'	32:1a:419:C:H6	1.83	0.42
32:1a:919:A:O2'	32:1a:1080:A:N1	2.42	0.42
32:1a:1203:C:OP1	45:1n:3:ARG:HD2	2.19	0.42
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	2.01	0.42
32:1a:1360:A:OP1	32:1a:1360:A:H8	2.03	0.42
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.49	0.42
45:1n:9:LYS:CG	45:1n:12:ARG:HH21	2.32	0.42
49:1r:25:THR:HB	49:1r:42:ARG:HH22	1.84	0.42
1:2A:330:A:H2	1:2A:1210:A:O2'	2.03	0.42
1:2A:762:U:H4'	1:2A:763:G:O5'	2.19	0.42
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.84	0.42
1:2A:2121:G:N2	1:2A:2177:C:N3	2.59	0.42
1:2A:2238:G:H4'	1:2A:2239:G:OP1	2.19	0.42
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:57:A:C4	6:2G:29:TRP:HB3	2.55	0.42
6:2G:60:LEU:HD22	6:2G:68:PRO:HG3	2.02	0.42
6:2G:122:PRO:CB	6:2G:170:ARG:HH21	2.28	0.42
7:2H:3:ARG:HH21	7:2H:54:ARG:NH1	2.17	0.42
8:2I:55:ALA:O	8:2I:58:LEU:HB3	2.20	0.42
25:23:8:LEU:HD23	25:23:30:ARG:O	2.20	0.42
26:24:47:GLN:O	26:24:48:ARG:C	2.63	0.42
32:2a:266:G:H5'	32:2a:266:G:N3	2.35	0.42
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.84	0.42
32:2a:929:G:H1	32:2a:1388:C:N4	2.16	0.42
32:2a:1016:A:N6	32:2a:1017:G:C2	2.88	0.42
32:2a:1145:C:H4'	32:2a:1146:A:H8	1.85	0.42
32:2a:1239:A:H4'	32:2a:1240:U:H5'	2.00	0.42
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.85	0.42
35:2d:50:ARG:NH1	36:2e:10:MET:HE3	2.34	0.42
35:2d:69:GLY:O	35:2d:118:ARG:NH1	2.53	0.42
40:2i:88:TYR:C	40:2i:88:TYR:CD2	2.98	0.42
44:2m:49:THR:O	44:2m:53:VAL:HG13	2.19	0.42
1:1A:751:A:C6	1:1A:789:A:C5	3.08	0.42
1:1A:783:A:H4'	1:1A:2588:G:H4'	2.01	0.42
1:1A:1124:C:H1'	31:19:36:GLN:OE1	2.20	0.42
1:1A:1630:G:H2'	1:1A:1631:C:C6	2.55	0.42
1:1A:2154:G:C6	1:1A:2155:G:C8	3.08	0.42
2:1B:29:A:O2'	2:1B:58:A:N1	2.44	0.42
2:1B:38:C:H2'	2:1B:39:A:C8	2.54	0.42
4:1E:111:ARG:HG2	4:1E:118:LYS:HD3	2.02	0.42
8:1I:12:LEU:HG	8:1I:19:VAL:HG21	2.02	0.42
11:1P:63:PRO:HB2	30:18:30:ARG:NH2	2.35	0.42
12:1Q:115:MET:HE3	12:1Q:131:ILE:HG21	2.02	0.42
32:1a:44:G:C6	32:1a:45:U:C2	3.08	0.42
32:1a:61:G:H2'	32:1a:62:U:O4'	2.20	0.42
32:1a:392:G:H2'	32:1a:393:A:C8	2.55	0.42
32:1a:1330:U:O4	32:1a:1331:G:N1	2.53	0.42
32:1a:1519:MA6:H102	32:1a:1520:G:O2'	2.19	0.42
42:1k:116:HIS:N	42:1k:116:HIS:CD2	2.88	0.42
56:1y:19:G:O4'	56:1y:57:G:N1	2.52	0.42
1:2A:359:A:H8	1:2A:359:A:O5'	2.03	0.42
1:2A:952:G:C6	1:2A:953:A:N7	2.88	0.42
1:2A:952:G:N1	1:2A:966:G:C6	2.88	0.42
1:2A:1197:G:H2'	1:2A:1198:U:C6	2.55	0.42
1:2A:2119:A:OP1	1:2A:2119:A:H2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2135:A:OP1	1:2A:2160:G:H1'	2.19	0.42
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.19	0.42
2:2B:3:C:H2'	2:2B:4:C:C6	2.55	0.42
2:2B:110:G:C2'	2:2B:111:G:H5'	2.50	0.42
4:2E:98:PRO:HB3	4:2E:173:VAL:O	2.20	0.42
8:2I:51:ILE:HD12	8:2I:51:ILE:HA	1.91	0.42
9:2N:104:LYS:HB2	9:2N:117:PHE:CE1	2.55	0.42
11:2P:83:VAL:O	11:2P:115:LEU:N	2.51	0.42
14:2S:80:LEU:HD23	14:2S:80:LEU:HA	1.82	0.42
32:2a:257:G:H2'	32:2a:258:G:O4'	2.20	0.42
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.84	0.42
32:2a:1085:U:H3'	32:2a:1086:U:H6	1.84	0.42
32:2a:1306:A:H1'	32:2a:1332:A:C2	2.55	0.42
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.34	0.42
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	2.02	0.42
35:2d:196:LEU:HD23	35:2d:196:LEU:HA	1.86	0.42
36:2e:78:HIS:CD2	36:2e:142:LEU:HD22	2.55	0.42
42:2k:104:GLN:O	42:2k:106:LYS:N	2.53	0.42
44:2m:108:ARG:NH1	44:2m:114:ARG:HG2	2.34	0.42
54:2w:18:G:H4'	54:2w:60:U:C5	2.55	0.42
56:2y:26:A:C6	56:2y:27:G:N7	2.88	0.42
1:1A:265:A:N1	1:1A:427:U:O2'	2.39	0.42
1:1A:271(M):G:O2'	1:1A:271(N):U:H5"	2.19	0.42
1:1A:557:U:H2'	1:1A:558:G:C8	2.54	0.42
1:1A:651:G:OP1	30:18:19:SER:OG	2.29	0.42
1:1A:1395:A:C6	1:1A:1398:C:C2	3.08	0.42
1:1A:1937:A:N6	62:1A:4498:HOH:O	2.48	0.42
1:1A:1946:U:H2'	1:1A:1947:C:C6	2.54	0.42
2:1B:4:C:H2'	2:1B:5:C:C6	2.55	0.42
3:1D:183:ARG:HG2	3:1D:184:LYS:N	2.35	0.42
5:1F:34:TRP:CH2	11:1P:8:PRO:HB3	2.55	0.42
12:1Q:51:ARG:O	12:1Q:55:VAL:HG23	2.19	0.42
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	2.01	0.42
32:1a:69:G:H2'	32:1a:70:G:H8	1.83	0.42
32:1a:189(F):U:O4	48:1q:72:ARG:NH2	2.53	0.42
32:1a:299:G:C6	32:1a:300:A:C6	3.07	0.42
32:1a:405:U:O4	35:1d:2:GLY:N	2.53	0.42
32:1a:611:A:H61	32:1a:629:G:H1	1.67	0.42
32:1a:1037:C:O5'	32:1a:1037:C:H6	2.03	0.42
41:1j:5:ARG:HD3	41:1j:71:LEU:HD11	2.01	0.42
1:2A:45:C:OP2	1:2A:215:G:H2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:143(A):C:H2'	1:2A:144:C:H6	1.84	0.42
1:2A:393:C:H2'	1:2A:394:A:C8	2.54	0.42
1:2A:414:C:H2'	1:2A:415:A:C8	2.54	0.42
1:2A:460:A:H2'	1:2A:461:C:O4'	2.20	0.42
1:2A:523:C:H2'	1:2A:524:U:O4'	2.20	0.42
1:2A:720:C:H2'	1:2A:721:C:C6	2.54	0.42
1:2A:1364:G:P	23:21:3:LYS:HG3	2.60	0.42
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.35	0.42
1:2A:1821:A:H2'	1:2A:1822:G:H8	1.84	0.42
1:2A:2114:A:N6	1:2A:2115:G:H21	2.11	0.42
1:2A:2115:G:O2'	1:2A:2117:A:N7	2.50	0.42
1:2A:2400:G:N2	1:2A:2417:C:C2	2.88	0.42
2:2B:33:G:C6	2:2B:34:U:C4	3.07	0.42
6:2G:104:GLU:OE1	26:24:24:THR:OG1	2.38	0.42
7:2H:122:THR:OG1	7:2H:134:SER:HB2	2.20	0.42
9:2N:29:LYS:O	9:2N:33:LEU:HG	2.19	0.42
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.53	0.42
15:2T:24:PRO:HA	15:2T:49:VAL:O	2.20	0.42
15:2T:107:ASP:OD1	62:2T:301:HOH:O	2.22	0.42
17:2V:24:LYS:HE2	17:2V:24:LYS:HB3	1.81	0.42
32:2a:336:C:H2'	32:2a:337:C:C6	2.55	0.42
32:2a:421:U:H6	32:2a:421:U:H2'	1.64	0.42
32:2a:1029:C:N4	32:2a:1032:G:C6	2.87	0.42
32:2a:1198:G:H2'	32:2a:1199:U:H6	1.85	0.42
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.85	0.42
32:2a:1305:G:C4	32:2a:1331:G:N2	2.88	0.42
34:2c:77:ILE:HA	34:2c:84:ILE:CB	2.49	0.42
36:2e:101:ILE:HG13	36:2e:119:LEU:HD23	2.01	0.42
38:2g:94:ARG:HA	38:2g:94:ARG:HD2	1.93	0.42
40:2i:57:GLY:C	40:2i:59:PHE:H	2.27	0.42
41:2j:8:LEU:HB3	41:2j:96:ILE:HG12	2.01	0.42
43:2l:53:ARG:HD2	43:2l:93:LEU:HD11	2.01	0.42
1:1A:41:C:H2'	1:1A:42:G:O4'	2.19	0.41
1:1A:687:C:H2'	1:1A:688:U:O4'	2.19	0.41
1:1A:1052:C:H2'	1:1A:1053:C:H6	1.84	0.41
1:1A:1655:A:H1'	4:1E:113:PHE:CD2	2.54	0.41
1:1A:1657:C:H2'	1:1A:1658:C:C6	2.55	0.41
1:1A:1740:G:H2'	1:1A:1741:A:H8	1.84	0.41
1:1A:2116:G:H3'	1:1A:2117:A:C8	2.55	0.41
1:1A:2489:G:C6	1:1A:2490:G:N1	2.88	0.41
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2628:C:O5'	1:1A:2628:C:H6	2.02	0.41
3:1D:19:ALA:HB3	3:1D:21:PHE:CE1	2.55	0.41
3:1D:218:ARG:HB3	3:1D:219:PRO:HD2	2.01	0.41
32:1a:598:U:H2'	32:1a:599:C:C6	2.55	0.41
35:1d:111:ALA:HA	35:1d:161:ASN:HD22	1.84	0.41
39:1h:11:THR:HG22	39:1h:14:ARG:NH2	2.36	0.41
39:1h:11:THR:HG22	39:1h:14:ARG:NH1	2.34	0.41
41:1j:49:VAL:HG21	45:1n:41:ARG:O	2.20	0.41
42:1k:20:TYR:HA	42:1k:83:ILE:O	2.19	0.41
45:1n:3:ARG:HH22	45:1n:23:ARG:NH1	2.18	0.41
49:1r:34:TYR:O	49:1r:73:ALA:HB2	2.20	0.41
54:1w:37:MIA:H162	54:1w:37:MIA:H121	1.91	0.41
56:1y:2:C:H42	56:1y:71:G:H1	1.68	0.41
1:2A:535:C:H2'	1:2A:536:A:H8	1.84	0.41
1:2A:566:U:OP1	11:2P:29:LYS:HD3	2.20	0.41
1:2A:2079:U:H2'	1:2A:2080:G:O4'	2.20	0.41
1:2A:2206:G:OP2	1:2A:2206:G:H4'	2.19	0.41
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	2.02	0.41
2:2B:18:G:H2'	2:2B:19:G:H8	1.85	0.41
3:2D:181:GLU:HG3	3:2D:272:ALA:O	2.20	0.41
9:2N:55:VAL:HA	9:2N:123:TYR:O	2.20	0.41
11:2P:84:ASN:CG	11:2P:117:GLU:HB3	2.45	0.41
21:2Z:106:GLY:CA	21:2Z:141:VAL:HB	2.49	0.41
32:2a:12:U:H4'	32:2a:526:C:O2'	2.20	0.41
32:2a:865:A:H2	32:2a:918:A:H4'	1.85	0.41
32:2a:953:G:C6	32:2a:954:G:C5	3.08	0.41
32:2a:953:G:C5	32:2a:954:G:C8	3.08	0.41
32:2a:1507:A:OP2	53:2v:13:A:N6	2.52	0.41
34:2c:123:GLN:HG2	34:2c:126:ARG:NH1	2.35	0.41
37:2f:46:ARG:HD2	37:2f:46:ARG:HA	1.88	0.41
42:2k:19:ALA:HB2	42:2k:32:ILE:HG13	2.02	0.41
50:2s:37:ARG:O	50:2s:70:LYS:NZ	2.52	0.41
55:2x:43:A:H2'	55:2x:44:A:C8	2.55	0.41
1:1A:380:U:H2'	1:1A:381:G:H8	1.85	0.41
1:1A:458:G:O2'	1:1A:469:G:O6	2.24	0.41
1:1A:545:G:OP1	1:1A:545:G:H4'	2.21	0.41
1:1A:577:G:O2'	1:1A:1254:A:OP1	2.37	0.41
1:1A:881:G:C2	1:1A:882:G:H1'	2.55	0.41
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.19	0.41
1:1A:2045:C:H2'	1:1A:2046:G:O4'	2.20	0.41
1:1A:2227:A:N6	1:1A:2228:G:C6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2615:U:H2'	1:1A:2616:C:C6	2.54	0.41
1:1A:2838:G:H2'	1:1A:2839:G:O4'	2.20	0.41
2:1B:43:C:H2'	2:1B:44:G:H5"	2.02	0.41
7:1H:3:ARG:HE	7:1H:54:ARG:HH12	1.67	0.41
8:1I:87:LYS:HB3	8:1I:87:LYS:HE3	1.59	0.41
24:12:1:MET:SD	24:12:56:GLN:HG2	2.59	0.41
32:1a:491:G:H2'	32:1a:492:G:O4'	2.20	0.41
32:1a:826:C:H2'	32:1a:827:U:C6	2.55	0.41
32:1a:827:U:H5"	32:1a:828:A:OP2	2.20	0.41
32:1a:865:A:N3	32:1a:918:A:O2'	2.45	0.41
32:1a:1216:G:H5"	45:1n:5:ALA:CB	2.50	0.41
32:1a:1239:A:H62	32:1a:1299:A:H62	1.65	0.41
32:1a:1328:C:H2'	32:1a:1329:A:O4'	2.20	0.41
34:1c:200:ALA:C	34:1c:201:TYR:HD2	2.28	0.41
1:2A:218:A:C2	1:2A:235:U:H4'	2.54	0.41
1:2A:1301:A:O2'	1:2A:1303:G:N7	2.45	0.41
1:2A:1359:A:C2	1:2A:1372:U:O4	2.74	0.41
1:2A:1650:G:C2	1:2A:1651:G:H1'	2.55	0.41
1:2A:1835:G:N3	1:2A:1835:G:H2'	2.35	0.41
1:2A:1993:U:H4'	4:2E:128:SER:OG	2.20	0.41
1:2A:2305:A:H2'	1:2A:2306:C:O4'	2.20	0.41
1:2A:2405:G:C5'	11:2P:75:ILE:HD13	2.48	0.41
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.55	0.41
1:2A:2724:C:OP1	4:2E:118:LYS:NZ	2.48	0.41
3:2D:166:GLN:HG3	3:2D:182:LEU:HD21	2.03	0.41
3:2D:206:LEU:HA	3:2D:211:ARG:HD3	2.02	0.41
5:2F:117:ARG:HH22	5:2F:187:VAL:HA	1.85	0.41
6:2G:67:LYS:HE2	26:24:5:ILE:HD12	2.02	0.41
7:2H:25:LYS:HG2	7:2H:27:LYS:HE3	2.02	0.41
10:2O:12:ASP:HA	10:2O:99:PHE:HD2	1.85	0.41
13:2R:56:LYS:HE2	13:2R:56:LYS:HB3	1.84	0.41
29:27:8:ASN:HB3	29:27:11:LYS:HB3	2.02	0.41
32:2a:10:A:H2'	32:2a:11:G:H8	1.85	0.41
32:2a:253:U:H2'	32:2a:254:G:C8	2.55	0.41
32:2a:259:G:H1	32:2a:267:C:H42	1.68	0.41
32:2a:395:C:N4	32:2a:396:G:O6	2.53	0.41
32:2a:757:U:H2'	32:2a:758:G:O4'	2.19	0.41
32:2a:868:C:H3'	32:2a:869:G:H8	1.85	0.41
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.20	0.41
32:2a:1051:C:C4	32:2a:1052:U:C4	3.08	0.41
32:2a:1095:U:C4	32:2a:1096:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1134:G:C2	32:2a:1141:C:C2	3.08	0.41
32:2a:1177:G:H8	32:2a:1177:G:O5'	2.03	0.41
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.20	0.41
33:2b:88:ALA:HB2	33:2b:219:VAL:HG23	2.02	0.41
34:2c:45:LYS:HG3	34:2c:46:GLU:OE2	2.20	0.41
38:2g:28:ASN:HA	38:2g:31:MET:HE2	2.02	0.41
38:2g:78:ARG:HE	38:2g:79:ARG:HG3	1.85	0.41
39:2h:9:MET:HE2	39:2h:9:MET:HB3	1.87	0.41
42:2k:48:ILE:HD12	42:2k:63:LEU:HB2	2.01	0.41
55:2x:8:4SU:O5'	55:2x:8:4SU:H6	2.20	0.41
56:2y:14:A:N6	56:2y:21:A:H2	2.17	0.41
1:1A:218:A:H2	1:1A:235:U:H4'	1.85	0.41
1:1A:746:A:H2'	1:1A:2612:C:H5"	2.02	0.41
1:1A:858:U:O2	1:1A:2268:A:H2'	2.20	0.41
1:1A:1013:C:OP2	62:1A:4213:HOH:O	2.21	0.41
1:1A:1643:G:H2'	1:1A:1644:C:O4'	2.20	0.41
1:1A:1709:U:C2	1:1A:1750:G:N2	2.88	0.41
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.20	0.41
1:1A:2489:G:O6	1:1A:2490:G:N1	2.53	0.41
2:1B:87:G:N2	2:1B:89:G:H3'	2.35	0.41
5:1F:144:LYS:HE3	5:1F:144:LYS:HB3	1.74	0.41
7:1H:37:VAL:HG13	7:1H:68:THR:HG21	2.02	0.41
8:1I:68:LEU:HD13	8:1I:109:ILE:HD11	2.01	0.41
10:1O:11:ALA:HB2	10:1O:83:ALA:HB1	2.01	0.41
19:1X:27:THR:HA	19:1X:79:ALA:O	2.20	0.41
25:13:5:LYS:HG3	25:13:36:VAL:HG22	2.02	0.41
28:16:9:LEU:HD11	28:16:34:LEU:HD12	2.01	0.41
30:18:33:ASN:HA	30:18:36:LYS:HD2	2.01	0.41
32:1a:323:U:H5'	51:1t:23:ARG:HB2	2.01	0.41
32:1a:408:A:H2'	32:1a:409:G:O4'	2.20	0.41
32:1a:512:U:H2'	32:1a:513:C:C6	2.56	0.41
32:1a:792:A:H4'	32:1a:793:U:H5"	2.02	0.41
32:1a:1030(D):A:H2'	32:1a:1031:G:H4'	2.03	0.41
32:1a:1106:G:O3'	34:1c:172:ARG:HB2	2.20	0.41
33:1b:118:LEU:HD13	33:1b:142:LEU:HB2	2.03	0.41
34:1c:120:VAL:O	34:1c:124:ILE:HG12	2.20	0.41
38:1g:90:GLU:CD	38:1g:90:GLU:H	2.28	0.41
40:1i:99:LEU:HB3	40:1i:101:PHE:CE2	2.56	0.41
42:1k:111:ASP:CG	49:1r:84:LYS:HG2	2.46	0.41
51:1t:10:LEU:HD22	51:1t:10:LEU:HA	1.74	0.41
1:2A:94(A):G:O2'	24:22:45:SER:O	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:106:C:O2	1:2A:294:A:O2'	2.34	0.41
1:2A:1192:G:OP2	11:2P:17:LYS:NZ	2.50	0.41
1:2A:1223:G:N2	1:2A:1225:G:H3'	2.35	0.41
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.55	0.41
1:2A:1359:A:H2	1:2A:1372:U:O4	2.03	0.41
1:2A:1385:G:O6	1:2A:1403:C:N4	2.54	0.41
5:2F:155:LEU:HD22	5:2F:185:ASP:O	2.20	0.41
6:2G:124:SER:O	6:2G:124:SER:OG	2.38	0.41
8:2I:38:LEU:HB2	8:2I:40:THR:CG2	2.50	0.41
8:2I:52:ARG:HE	8:2I:52:ARG:HB2	1.36	0.41
15:2T:1:MET:HE2	15:2T:1:MET:HB3	1.91	0.41
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.55	0.41
35:2d:26:CYS:CB	61:2d:302:SF4:S1	3.03	0.41
36:2e:143:ARG:NH2	39:2h:77:GLU:OE1	2.51	0.41
45:2n:32:SER:OG	45:2n:41:ARG:HB3	2.21	0.41
49:2r:66:LEU:HG	49:2r:70:ILE:HD11	2.01	0.41
56:2y:1:G:C6	56:2y:2:C:C4	3.08	0.41
1:1A:337:C:H2'	1:1A:338:G:O4'	2.20	0.41
1:1A:492:A:H2'	1:1A:493:G:O4'	2.20	0.41
1:1A:685:A:C8	1:1A:773:U:O4	2.73	0.41
1:1A:1416:G:O2'	1:1A:1417:C:H5	2.04	0.41
1:1A:2093:G:H1	1:1A:2196:C:H42	1.68	0.41
1:1A:2149:G:C6	1:1A:2150:U:C2	3.08	0.41
1:1A:2703:C:H2'	1:1A:2704:C:H6	1.85	0.41
1:1A:2809:A:C6	1:1A:2810:A:C6	3.09	0.41
1:1A:2886:G:H2'	1:1A:2887:U:C6	2.53	0.41
4:1E:11:MET:HB3	4:1E:11:MET:HE2	1.72	0.41
4:1E:13:ARG:HH12	10:1O:74:GLY:HA2	1.85	0.41
8:1I:62:LYS:HE3	8:1I:136:VAL:HG23	2.02	0.41
8:1I:88:ILE:H	8:1I:88:ILE:HD12	1.83	0.41
17:1V:40:LEU:HD23	17:1V:40:LEU:HA	1.77	0.41
18:1W:17:VAL:O	18:1W:21:VAL:HG23	2.20	0.41
26:14:54:GLY:HA2	26:14:55:ARG:HA	1.96	0.41
32:1a:58:C:H2'	32:1a:59:A:H8	1.84	0.41
32:1a:505:G:OP2	32:1a:535:A:H5'	2.20	0.41
32:1a:520:A:O2'	43:1l:73:GLU:OE1	2.20	0.41
32:1a:1219:U:OP1	45:1n:19:ARG:NH1	2.49	0.41
33:1b:74:LYS:NZ	33:1b:166:ASP:HB2	2.35	0.41
34:1c:19:GLU:OE2	34:1c:54:ARG:HG3	2.20	0.41
37:1f:14:LEU:HD22	37:1f:18:GLN:HB3	2.02	0.41
47:1p:21:VAL:HG22	47:1p:33:ILE:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1y:25:C:H2'	56:1y:26:A:H8	1.84	0.41
56:1y:66:U:C4	56:1y:67:C:C4	3.09	0.41
1:2A:39:C:H2'	1:2A:40:C:C6	2.54	0.41
1:2A:453:C:H5"	62:2A:4085:HOH:O	2.21	0.41
1:2A:744:G:OP1	62:2A:3992:HOH:O	2.22	0.41
1:2A:1389:G:N2	1:2A:1399:C:O2	2.53	0.41
1:2A:1400:G:H2'	1:2A:1401:G:H8	1.85	0.41
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.20	0.41
1:2A:1865:G:C2	1:2A:1878:G:C5	3.07	0.41
1:2A:2230:G:H1'	23:21:45:ASN:OD1	2.20	0.41
1:2A:2259:G:C2	1:2A:2282:G:N1	2.89	0.41
1:2A:2284:C:O2'	1:2A:2288:A:N1	2.53	0.41
1:2A:2587:A:N6	1:2A:2608:G:O2'	2.53	0.41
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.53	0.41
1:2A:2760:C:H2'	1:2A:2761:G:H5"	2.03	0.41
14:2S:67:ARG:HH22	14:2S:103:GLU:HB3	1.85	0.41
20:2Y:37:VAL:N	20:2Y:67:LEU:O	2.47	0.41
20:2Y:86:ARG:HB2	20:2Y:98:VAL:CG2	2.50	0.41
21:2Z:23:LYS:HD3	21:2Z:40:ASP:HA	2.01	0.41
21:2Z:27:VAL:HG12	21:2Z:85:HIS:HE1	1.86	0.41
30:28:34:TRP:CE2	30:28:35:GLN:HG2	2.56	0.41
32:2a:195:A:O3'	51:2t:68:LYS:NZ	2.48	0.41
32:2a:251:G:C4	32:2a:266:G:N7	2.88	0.41
32:2a:392:G:H2'	32:2a:393:A:H8	1.86	0.41
32:2a:681:C:H5"	32:2a:682:G:OP2	2.20	0.41
32:2a:689:C:H2'	32:2a:690:G:O4'	2.20	0.41
32:2a:977:A:H2	32:2a:1224:G:C5	2.38	0.41
32:2a:983:A:H2'	32:2a:1201:A:N6	2.35	0.41
32:2a:1227:A:H3'	32:2a:1227:A:N3	2.35	0.41
32:2a:1395:C:H5"	32:2a:1402:4OC:H4'	2.01	0.41
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.56	0.41
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.20	0.41
32:2a:1492:A:O5'	43:2l:47:LYS:HG3	2.20	0.41
33:2b:114:ARG:HG2	33:2b:141:GLU:OE2	2.20	0.41
40:2i:48:GLU:HA	40:2i:51:ARG:HD2	2.01	0.41
48:2q:3:LYS:HB3	48:2q:61:GLU:HB3	2.03	0.41
1:1A:61:G:H8	1:1A:61:G:O5'	2.03	0.41
1:1A:271(A):A:N1	1:1A:272(D):G:O2'	2.44	0.41
1:1A:380:U:H2'	1:1A:381:G:C8	2.56	0.41
1:1A:460:A:H2'	1:1A:461:C:O4'	2.20	0.41
1:1A:699:A:H2'	1:1A:700:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1087:G:H8	1:1A:1087:G:OP2	2.03	0.41
1:1A:1252:G:OP1	62:1A:4223:HOH:O	2.22	0.41
1:1A:2355:C:H5'	62:1A:4195:HOH:O	2.20	0.41
1:1A:2886:G:O2'	27:15:32:PRO:HD2	2.20	0.41
2:1B:76:G:H2'	2:1B:77:U:O4'	2.20	0.41
4:1E:60:ASN:OD1	4:1E:63:LEU:HG	2.21	0.41
22:10:59:LEU:HA	22:10:59:LEU:HD23	1.74	0.41
24:12:25:VAL:HG11	24:12:61:LEU:HD21	2.02	0.41
32:1a:62:U:O2'	32:1a:379:C:H1'	2.21	0.41
32:1a:922:G:C6	32:1a:923:A:C6	3.08	0.41
35:1d:43:HIS:HB3	35:1d:46:LYS:HD2	2.03	0.41
36:1e:91:LEU:HD12	36:1e:120:THR:HG22	2.03	0.41
36:1e:118:ILE:HG12	36:1e:119:LEU:N	2.35	0.41
37:1f:55:ASP:HB2	37:1f:86:ARG:HH12	1.85	0.41
40:1i:56:LEU:H	40:1i:56:LEU:HD12	1.84	0.41
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	2.02	0.41
51:1t:44:ALA:HA	51:1t:92:LEU:HD21	2.02	0.41
1:2A:79:G:H2'	1:2A:80:G:C8	2.55	0.41
1:2A:348:G:H2'	1:2A:349:G:O4'	2.20	0.41
1:2A:375:C:H2'	1:2A:376:C:H6	1.85	0.41
1:2A:478:A:N6	1:2A:480:A:N1	2.68	0.41
1:2A:910:A:H2	1:2A:2264:C:O2	2.01	0.41
1:2A:1186:G:C2	1:2A:1187:G:H1'	2.56	0.41
1:2A:1401:G:C2	1:2A:1402:C:C2	3.08	0.41
1:2A:1558:A:H4'	1:2A:1559:G:O5'	2.20	0.41
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.48	0.41
1:2A:1712:C:N4	1:2A:1747(A):G:O6	2.52	0.41
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.83	0.41
1:2A:2106:G:O6	1:2A:2183:C:N3	2.54	0.41
1:2A:2262:U:OP1	1:2A:2387:U:O2'	2.32	0.41
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.53	0.41
1:2A:2809:A:C6	1:2A:2810:A:C6	3.09	0.41
4:2E:3:GLY:HA3	4:2E:81:ILE:HD12	2.03	0.41
4:2E:76:ARG:NH1	62:2E:404:HOH:O	2.54	0.41
8:2I:80:PRO:HA	8:2I:145:VAL:O	2.20	0.41
13:2R:19:ALA:O	13:2R:23:ASN:ND2	2.53	0.41
18:2W:1:MET:HE2	18:2W:62:HIS:HB3	2.03	0.41
21:2Z:145:GLU:O	21:2Z:147:GLY:N	2.52	0.41
26:24:40:HIS:O	26:24:44:THR:HG22	2.20	0.41
29:27:1:MET:O	29:27:3:ARG:HG2	2.20	0.41
32:2a:129(A):G:C6	32:2a:189(H):G:H1'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:179:A:C2	32:2a:180:U:C2	3.08	0.41
32:2a:280:C:N4	48:2q:39:SER:OG	2.51	0.41
32:2a:389:A:N6	32:2a:390:C:O2	2.53	0.41
32:2a:664:G:P	49:2r:64:ARG:HH21	2.43	0.41
32:2a:1029:C:H1'	32:2a:1033:G:N2	2.34	0.41
32:2a:1325:C:H5"	52:2u:17:THR:HG21	2.01	0.41
33:2b:36:ARG:O	33:2b:38:GLY:N	2.52	0.41
34:2c:32:LEU:HD23	34:2c:32:LEU:HA	1.77	0.41
37:2f:99:ALA:HB3	49:2r:29:PHE:CE1	2.55	0.41
54:2w:54:5MU:H2'	54:2w:55:PSU:O4'	2.19	0.41
55:2x:18:G:C2	55:2x:58:A:C5	3.08	0.41
1:1A:432:A:N6	62:1A:4542:HOH:O	2.52	0.41
1:1A:807:U:O2'	1:1A:808:G:H5'	2.20	0.41
1:1A:910:A:N1	1:1A:2277:G:H1'	2.36	0.41
1:1A:944:G:H5"	1:1A:945:A:O5'	2.21	0.41
1:1A:1789:A:H2'	1:1A:1790:C:C6	2.56	0.41
1:1A:2143:C:H2'	1:1A:2144:U:C4'	2.51	0.41
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.38	0.41
5:1F:34:TRP:HA	11:1P:6:LEU:HD13	2.03	0.41
7:1H:17:VAL:HG11	7:1H:50:VAL:HG21	2.02	0.41
7:1H:62:LYS:HE2	7:1H:62:LYS:HB3	1.79	0.41
9:1N:100:GLU:HG3	9:1N:122:VAL:HG21	2.02	0.41
17:1V:20:LEU:HD12	17:1V:20:LEU:HA	1.86	0.41
20:1Y:55:TYR:N	20:1Y:56:PRO:HD3	2.36	0.41
20:1Y:102:CYS:SG	20:1Y:104:GLY:N	2.93	0.41
24:12:31:GLU:O	24:12:35:LEU:HG	2.20	0.41
32:1a:262:A:C6	32:1a:263:A:C6	3.09	0.41
32:1a:601:C:H2'	32:1a:602:A:H8	1.85	0.41
32:1a:642:A:N7	39:1h:115:SER:HA	2.36	0.41
32:1a:1404:5MC:H2'	32:1a:1405:G:C8	2.56	0.41
34:1c:59:ARG:HG2	34:1c:64:VAL:HB	2.02	0.41
35:1d:24:GLU:H	35:1d:24:GLU:HG2	1.58	0.41
35:1d:85:LYS:HD3	35:1d:85:LYS:HA	1.86	0.41
42:1k:34:ASP:OD2	42:1k:38:ASN:HB2	2.21	0.41
44:1m:67:GLU:OE2	44:1m:71:ARG:NH1	2.50	0.41
48:1q:50:LYS:H	48:1q:50:LYS:HG2	1.74	0.41
1:2A:271(S):G:C6	1:2A:271(T):C:C4	3.09	0.41
1:2A:282:A:C4	1:2A:359:A:C2	3.08	0.41
1:2A:684:G:OP1	29:27:16:HIS:ND1	2.46	0.41
1:2A:921:G:C2	1:2A:922:U:C2	3.08	0.41
1:2A:946:G:H2'	1:2A:947:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1160:G:C6	1:2A:1161:C:N3	2.89	0.41
1:2A:1482:G:H1	1:2A:1506:C:H42	1.67	0.41
1:2A:1631(A):A:OP2	1:2A:1682:G:N2	2.50	0.41
1:2A:2080:G:N2	1:2A:2241:A:C4	2.89	0.41
1:2A:2175:C:O5'	1:2A:2175:C:H6	2.04	0.41
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.83	0.41
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.21	0.41
6:2G:17:PRO:HA	6:2G:20:ILE:HD12	2.02	0.41
10:2O:53:LYS:H	10:2O:53:LYS:HG3	1.67	0.41
15:2T:29:ARG:NE	15:2T:46:GLU:OE1	2.48	0.41
18:2W:7:ALA:HB2	18:2W:50:VAL:HG22	2.02	0.41
19:2X:60:ARG:NH1	29:27:47:ARG:HH12	2.17	0.41
23:21:3:LYS:H	23:21:61:ARG:HH12	1.67	0.41
32:2a:790:A:C6	32:2a:791:G:C6	3.08	0.41
32:2a:853:G:C6	32:2a:854:G:N7	2.88	0.41
32:2a:972:C:O2'	41:2j:55:LYS:O	2.38	0.41
32:2a:1251:A:N1	32:2a:1354:C:H1'	2.35	0.41
32:2a:1328:C:O3'	44:2m:29:ARG:HG3	2.21	0.41
32:2a:1502:A:C8	32:2a:1505:G:N2	2.88	0.41
33:2b:195:ASP:O	39:2h:68:ARG:NH2	2.53	0.41
34:2c:130:VAL:HG21	34:2c:158:GLY:H	1.85	0.41
37:2f:4:TYR:CE1	37:2f:92:LYS:HG2	2.55	0.41
38:2g:27:ILE:HG22	38:2g:39:ALA:HB1	2.02	0.41
38:2g:120:ILE:O	38:2g:124:LEU:HB2	2.20	0.41
44:2m:37:THR:HG21	44:2m:56:LEU:HD13	2.03	0.41
55:2x:33:U:N3	55:2x:36:U:OP2	2.48	0.41
1:1A:118:A:H3'	1:1A:119:A:H5"	2.03	0.41
1:1A:1327:C:C4	1:1A:1328:G:C6	3.07	0.41
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.86	0.41
1:1A:1474:C:H2'	1:1A:1475:G:H8	1.84	0.41
1:1A:1511:C:H2'	1:1A:1512:U:C6	2.56	0.41
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.21	0.41
1:1A:1711:C:H2'	1:1A:1712:C:C6	2.55	0.41
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.19	0.41
1:1A:2250:G:C5	12:1Q:83:MET:HB2	2.55	0.41
2:1B:25:A:OP2	62:1B:303:HOH:O	2.20	0.41
2:1B:42:C:O2	6:1G:92:VAL:HA	2.20	0.41
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.20	0.41
16:1U:92:ARG:HA	16:1U:95:LEU:HB2	2.01	0.41
32:1a:259:G:H2'	32:1a:260:G:O4'	2.20	0.41
32:1a:441:A:H3'	32:1a:442:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1266:G:N2	32:1a:1270:C:N3	2.69	0.41
33:1b:47:THR:O	33:1b:50:GLU:N	2.54	0.41
39:1h:81:HIS:HB2	39:1h:138:TRP:CD1	2.55	0.41
45:1n:57:ARG:HE	45:1n:57:ARG:HB3	1.64	0.41
48:1q:12:SER:HB3	48:1q:20:THR:CB	2.51	0.41
48:1q:64:PRO:HA	48:1q:70:ARG:HD3	2.03	0.41
51:1t:66:ALA:HB1	51:1t:71:THR:HG22	2.02	0.41
55:1x:71:C:H2'	55:1x:72:A:O4'	2.20	0.41
1:2A:127:A:H5"	1:2A:128:C:C6	2.56	0.41
1:2A:263:C:H2'	1:2A:264:C:O4'	2.21	0.41
1:2A:335:C:H5"	20:2Y:84:ARG:HD3	2.02	0.41
1:2A:675:A:C4	1:2A:804:A:C2	3.09	0.41
1:2A:702:G:C2	1:2A:731:C:C2	3.08	0.41
1:2A:1185:C:H5"	1:2A:1186:G:OP1	2.21	0.41
1:2A:1374:G:H2'	1:2A:1375:C:C6	2.55	0.41
1:2A:1449:A:N6	1:2A:1450:G:N3	2.68	0.41
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.20	0.41
1:2A:2028:U:H2'	1:2A:2029:G:O4'	2.21	0.41
1:2A:2129:C:H5'	1:2A:2130:U:OP2	2.21	0.41
1:2A:2412:A:C2	1:2A:2413:G:H1'	2.56	0.41
2:2B:93:G:OP1	21:2Z:79:ARG:NH2	2.54	0.41
2:2B:105:A:O2'	21:2Z:29:TYR:HD1	2.03	0.41
3:2D:14:ARG:HH11	3:2D:14:ARG:HB2	1.86	0.41
7:2H:33:LEU:HD21	7:2H:136:ILE:HG13	2.03	0.41
7:2H:84:SER:HA	7:2H:133:VAL:O	2.21	0.41
10:2O:1:MET:HE3	10:2O:32:TYR:CZ	2.55	0.41
11:2P:77:ARG:HB2	11:2P:78:PRO:HD2	2.03	0.41
21:2Z:59:LEU:HD12	21:2Z:69:THR:HG21	2.03	0.41
24:22:35:LEU:HB3	24:22:50:ILE:HG12	2.02	0.41
28:26:35:GLU:OE2	28:26:50:ARG:NE	2.54	0.41
32:2a:65:U:H4'	32:2a:66:G:C5'	2.50	0.41
32:2a:106:C:O2'	32:2a:379:C:H5"	2.21	0.41
32:2a:367:U:H3	32:2a:393:A:H2	1.64	0.41
32:2a:520:A:OP1	43:2l:52:LEU:HB2	2.20	0.41
36:2e:98:THR:H	36:2e:117:ASP:CG	2.29	0.41
39:2h:20:TYR:CE2	39:2h:75:ARG:HG2	2.56	0.41
41:2j:50:ILE:HA	41:2j:60:ARG:HD3	2.03	0.41
42:2k:45:GLY:O	42:2k:48:ILE:HG12	2.21	0.41
50:2s:63:THR:HG23	50:2s:66:MET:HE3	2.02	0.41
1:1A:272(F):C:N4	1:1A:363(D):G:H1	2.18	0.41
1:1A:297:C:OP2	62:1A:4219:HOH:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:518:G:H4'	18:1W:18:ARG:NE	2.36	0.41
1:1A:565:C:H2'	1:1A:566:U:O4'	2.21	0.41
1:1A:728:G:H4'	3:1D:13:ARG:HE	1.85	0.41
1:1A:1006:C:O2'	9:1N:106:MET:HB3	2.21	0.41
1:1A:1047:G:H1'	1:1A:1111:A:N6	2.35	0.41
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.21	0.41
1:1A:2630:G:H2'	1:1A:2631:G:C8	2.56	0.41
1:1A:2841:C:H2'	1:1A:2842:G:H8	1.84	0.41
4:1E:9:VAL:HA	15:1T:3:ARG:HD3	2.02	0.41
4:1E:60:ASN:O	4:1E:64:LYS:HG3	2.21	0.41
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	2.02	0.41
28:16:11:LEU:HD23	28:16:11:LEU:HA	1.83	0.41
32:1a:198:G:C5	32:1a:220:G:C2	3.09	0.41
32:1a:247:G:OP2	48:1q:100:LYS:N	2.43	0.41
32:1a:802:A:H3'	32:1a:803:G:H8	1.85	0.41
32:1a:825:G:H2'	32:1a:826:C:C6	2.56	0.41
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.37	0.41
32:1a:1346:A:H61	32:1a:1374:A:H3'	1.86	0.41
32:1a:1358:U:H3'	32:1a:1359:C:C6	2.56	0.41
32:1a:1382:C:H2'	32:1a:1383:C:C6	2.56	0.41
44:1m:122:LYS:HD2	44:1m:122:LYS:HA	1.92	0.41
1:2A:26:G:C6	1:2A:27:G:N1	2.89	0.41
1:2A:220:G:O2'	1:2A:233:A:N3	2.45	0.41
1:2A:272:G:N7	1:2A:421:U:H2'	2.36	0.41
1:2A:729:G:H2'	1:2A:1775:U:O2	2.21	0.41
1:2A:920:G:H2'	1:2A:921:G:H8	1.86	0.41
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.85	0.41
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.56	0.41
1:2A:1388:G:H1	1:2A:1399:C:H42	1.69	0.41
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.55	0.41
1:2A:1478:G:O2'	1:2A:1558:A:N1	2.49	0.41
1:2A:2250:G:HO2'	1:2A:2496:C:P	2.37	0.41
2:2B:24:G:H5'	2:2B:25:A:N7	2.36	0.41
4:2E:32:PRO:HA	4:2E:90:THR:HA	2.01	0.41
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.21	0.41
8:2I:43:ASN:ND2	23:21:75:GLU:OE2	2.53	0.41
11:2P:135:LEU:HD23	11:2P:135:LEU:HA	1.85	0.41
12:2Q:27:VAL:HG11	12:2Q:134:ARG:HB2	2.03	0.41
13:2R:87:TYR:CD1	13:2R:90:ARG:HD2	2.56	0.41
14:2S:64:GLU:O	14:2S:68:GLN:HG2	2.21	0.41
21:2Z:100:VAL:HA	21:2Z:101:PRO:HD3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:110:C:H2'	32:2a:111:G:O4'	2.21	0.41
32:2a:189(E):U:O2'	32:2a:189(F):U:H5'	2.20	0.41
32:2a:194:C:H2'	32:2a:195:A:H5"	2.02	0.41
32:2a:1105:A:H2'	32:2a:1106:G:C8	2.54	0.41
32:2a:1144:G:N2	32:2a:1146:A:H62	2.18	0.41
33:2b:100:GLY:HA2	33:2b:103:THR:OG1	2.20	0.41
33:2b:118:LEU:HD12	33:2b:122:PHE:HB2	2.01	0.41
34:2c:39:ILE:HD12	34:2c:57:ILE:HD13	2.02	0.41
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.61	0.41
37:2f:45:LEU:HD12	37:2f:59:TYR:CD1	2.55	0.41
38:2g:102:ARG:HG2	38:2g:106:GLN:OE1	2.20	0.41
1:1A:225:A:N1	1:1A:228:A:N6	2.68	0.41
1:1A:304:G:H2'	1:1A:305:U:C6	2.56	0.41
1:1A:573:G:O2'	1:1A:574:C:H3'	2.21	0.41
1:1A:730:C:H2'	1:1A:731:C:H6	1.85	0.41
1:1A:903:C:H2'	1:1A:904:C:C6	2.55	0.41
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.56	0.41
1:1A:1169:G:H8	1:1A:1169:G:O5'	2.04	0.41
1:1A:1341:U:O4'	19:1X:57:LEU:HD22	2.21	0.41
1:1A:1400:G:C6	1:1A:1401:G:C6	3.09	0.41
1:1A:1587:A:H2'	1:1A:1588:C:H6	1.86	0.41
1:1A:1594:G:C4	1:1A:1595:G:C8	3.09	0.41
1:1A:1754:C:H2'	1:1A:1755:A:O4'	2.21	0.41
1:1A:1835:G:O6	62:1A:4225:HOH:O	2.22	0.41
1:1A:1881:C:H2'	1:1A:1882:C:C6	2.55	0.41
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.45	0.41
1:1A:2129:C:C4	1:1A:2130:U:C4	3.09	0.41
1:1A:2139:C:N3	1:1A:2152:G:N2	2.68	0.41
1:1A:2147:G:H2'	1:1A:2148:G:O4'	2.21	0.41
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.56	0.41
1:1A:2393:A:H2'	1:1A:2394:C:C6	2.56	0.41
1:1A:2519:U:C6	1:1A:2542:A:N6	2.89	0.41
1:1A:2543:G:H2'	1:1A:2544:G:O4'	2.21	0.41
1:1A:2684:U:O2'	10:1O:68:GLU:OE2	2.25	0.41
1:1A:2785:C:H1'	4:1E:66:HIS:HE1	1.85	0.41
1:1A:2790:A:H3'	1:1A:2790:A:N3	2.36	0.41
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.20	0.41
4:1E:47:VAL:O	4:1E:80:GLU:HA	2.21	0.41
5:1F:135:LYS:HB2	5:1F:138:GLU:HG3	2.03	0.41
6:1G:122:PRO:HB3	6:1G:170:ARG:HH12	1.86	0.41
6:1G:133:LEU:HG	6:1G:157:ILE:HB	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:76:THR:O	8:1I:105:HIS:NE2	2.54	0.41
9:1N:68:GLU:H	9:1N:68:GLU:HG3	1.72	0.41
12:1Q:115:MET:HE2	12:1Q:115:MET:HB3	1.66	0.41
14:1S:3:ARG:HD3	14:1S:3:ARG:HA	1.72	0.41
14:1S:98:VAL:H	14:1S:98:VAL:HG23	1.62	0.41
15:1T:127:ALA:C	15:1T:129:ARG:N	2.79	0.41
16:1U:85:LYS:HB3	16:1U:85:LYS:HE2	1.81	0.41
17:1V:24:LYS:HE2	17:1V:24:LYS:HB3	1.77	0.41
20:1Y:74:PRO:O	20:1Y:82:PRO:HA	2.21	0.41
21:1Z:45:ASP:O	21:1Z:49:ARG:HB2	2.21	0.41
21:1Z:52:SER:C	21:1Z:54:HIS:N	2.77	0.41
32:1a:141:A:C2	32:1a:142:G:C4	3.09	0.41
32:1a:265:G:H2'	32:1a:267:C:C5	2.54	0.41
32:1a:345:C:H5'	32:1a:346:G:C4	2.56	0.41
32:1a:533:A:O2'	32:1a:535:A:OP2	2.28	0.41
32:1a:729:A:H2'	32:1a:730:G:C8	2.55	0.41
32:1a:741:G:H2'	32:1a:742:G:O4'	2.21	0.41
32:1a:939:G:C6	32:1a:940:C:N4	2.88	0.41
32:1a:1008:C:N3	32:1a:1021:G:C6	2.88	0.41
32:1a:1059:C:N4	32:1a:1198:G:H1	2.16	0.41
32:1a:1144:G:C6	32:1a:1145:C:N4	2.89	0.41
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.84	0.41
33:1b:19:HIS:CG	33:1b:20:GLU:H	2.39	0.41
36:1e:142:LEU:HD23	36:1e:142:LEU:HA	1.87	0.41
39:1h:6:ILE:O	39:1h:10:LEU:HG	2.21	0.41
39:1h:119:LEU:HB3	39:1h:123:GLU:HB3	2.03	0.41
47:1p:28:ARG:NH1	47:1p:29:ASP:OD2	2.33	0.41
47:1p:58:TYR:O	47:1p:62:VAL:HG22	2.21	0.41
1:2A:331:A:C4	1:2A:1209:G:C6	3.09	0.41
1:2A:654:A:H2	1:2A:655:A:C2	2.39	0.41
1:2A:782:A:H5'	1:2A:783:A:N7	2.36	0.41
1:2A:819:A:C4	1:2A:1189:A:C2	3.09	0.41
1:2A:887:A:H4'	1:2A:888:C:C5	2.56	0.41
1:2A:1011:G:H1'	1:2A:1013:C:O4'	2.21	0.41
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.56	0.41
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.53	0.41
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.21	0.41
1:2A:2066:C:O2'	1:2A:2067:G:H5'	2.21	0.41
1:2A:2156:G:H2'	1:2A:2157:G:C4	2.56	0.41
1:2A:2351:G:OP1	30:28:46:ARG:NH1	2.53	0.41
1:2A:2401:U:H2'	1:2A:2402:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2529:G:OP2	1:2A:2530:A:H5"	2.21	0.41
1:2A:2831:G:OP1	1:2A:2834:G:H4'	2.21	0.41
3:2D:129:ASN:O	3:2D:192:THR:HA	2.20	0.41
5:2F:47:GLY:O	5:2F:94:PRO:HA	2.21	0.41
6:2G:11:TYR:O	6:2G:16:ARG:N	2.51	0.41
7:2H:7:LEU:HB3	7:2H:69:ARG:NE	2.34	0.41
7:2H:54:ARG:HG2	7:2H:65:HIS:CE1	2.56	0.41
7:2H:103:LEU:HB3	7:2H:115:VAL:HG23	2.02	0.41
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	2.03	0.41
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	2.02	0.41
8:2I:37:VAL:HG12	8:2I:38:LEU:HD12	2.02	0.41
8:2I:130:TYR:CD2	8:2I:138:ILE:HD12	2.48	0.41
10:2O:76:ALA:HB3	15:2T:75:ILE:HB	2.02	0.41
12:2Q:35:VAL:HG22	12:2Q:102:VAL:HG22	2.03	0.41
22:20:65:GLY:HA3	22:20:82:ARG:O	2.21	0.41
24:22:62:THR:O	24:22:66:GLU:HG3	2.21	0.41
26:24:13:ARG:HA	26:24:23:GLU:HA	2.02	0.41
26:24:61:ARG:HH21	26:24:67:TYR:HE2	1.69	0.41
32:2a:113:G:O2'	32:2a:354:G:H5'	2.20	0.41
32:2a:428:G:OP2	35:2d:10:ARG:HD2	2.21	0.41
32:2a:570:G:O5'	32:2a:570:G:H8	2.04	0.41
32:2a:678:U:H2'	32:2a:679:C:C6	2.56	0.41
32:2a:792:A:H4'	32:2a:793:U:H5"	2.03	0.41
32:2a:866:C:C4	32:2a:867:G:H1'	2.55	0.41
32:2a:1026:G:C6	32:2a:1036:G:N2	2.89	0.41
32:2a:1168:A:C6	32:2a:1169:A:C6	3.09	0.41
32:2a:1324:A:C4'	32:2a:1362:C:H4'	2.51	0.41
32:2a:1429:C:H2'	32:2a:1430:C:C6	2.55	0.41
33:2b:125:PRO:O	33:2b:127:ILE:N	2.54	0.41
35:2d:50:ARG:HG3	35:2d:51:PRO:N	2.34	0.41
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.21	0.41
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.35	0.41
42:2k:19:ALA:HA	42:2k:32:ILE:HA	2.02	0.41
42:2k:75:TYR:CD2	42:2k:75:TYR:N	2.89	0.41
44:2m:22:ILE:HG23	44:2m:67:GLU:OE1	2.21	0.41
46:2o:64:ARG:HD3	46:2o:68:ARG:NH2	2.36	0.41
47:2p:60:LEU:HD13	47:2p:60:LEU:HA	1.90	0.41
48:2q:6:LEU:HB2	48:2q:59:ILE:HG12	2.02	0.41
54:2w:10:G:O2'	54:2w:11:C:H5'	2.21	0.41
54:2w:19:G:H1	54:2w:56:C:H42	1.69	0.41
55:2x:76:31H:O2'	62:2x:201:HOH:O	2.13	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:710:G:H2'	1:1A:711:G:C8	2.56	0.41
1:1A:888:C:O2'	44:1m:79:LYS:HE2	2.21	0.41
1:1A:945:A:C4	1:1A:2448:A:C2	3.09	0.41
1:1A:1095:A:C8	1:1A:1096:A:C8	3.09	0.41
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.21	0.41
1:1A:1783:A:H5'	1:1A:2608:G:H4'	2.01	0.41
1:1A:2167:U:O2	1:1A:2167:U:H2'	2.20	0.41
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.20	0.41
1:1A:2399:G:H1'	62:16:201:HOH:O	2.21	0.41
1:1A:2590:A:H2'	1:1A:2591:C:H6	1.86	0.41
6:1G:82:LEU:HD21	6:1G:88:ILE:HG21	2.03	0.41
6:1G:151:ALA:HB3	6:1G:153:ARG:NH1	2.36	0.41
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	2.03	0.41
7:1H:105:LEU:HB2	7:1H:113:VAL:HB	2.01	0.41
12:1Q:78:PRO:HG2	12:1Q:81:VAL:HG11	2.03	0.41
17:1V:77:ALA:O	17:1V:79:VAL:HB	2.21	0.41
32:1a:660:G:N7	62:1a:1965:HOH:O	2.37	0.41
32:1a:920:U:H2'	32:1a:921:U:C6	2.56	0.41
32:1a:1040:U:H2'	32:1a:1041:A:C8	2.44	0.41
32:1a:1107:C:O2	32:1a:1191:A:O2'	2.38	0.41
33:1b:59:GLU:HG3	33:1b:221:LEU:HG	2.02	0.41
33:1b:158:LEU:HA	33:1b:159:PRO:HD3	1.91	0.41
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.76	0.41
36:1e:67:VAL:HB	36:1e:136:MET:HE1	2.03	0.41
38:1g:70:LYS:HD3	38:1g:96:GLN:HB3	2.03	0.41
41:1j:46:ARG:NH2	41:1j:64:GLU:OE1	2.54	0.41
44:1m:4:ILE:HB	44:1m:57:ARG:HG3	2.02	0.41
44:1m:18:ALA:HA	44:1m:21:TYR:HD2	1.86	0.41
46:1o:9:GLN:O	46:1o:13:GLN:N	2.34	0.41
47:1p:15:PRO:HD2	47:1p:42:ARG:CD	2.42	0.41
56:1y:55:PSU:H6	56:1y:55:PSU:O5'	2.04	0.41
1:2A:19:C:H2'	1:2A:20:C:H6	1.86	0.41
1:2A:526:A:N3	1:2A:2044:C:H1'	2.36	0.41
1:2A:751:A:C6	1:2A:789:A:C5	3.08	0.41
1:2A:892:G:H3'	1:2A:893:C:H5"	2.02	0.41
1:2A:1857:G:C6	1:2A:1858:G:N1	2.89	0.41
1:2A:2238:G:OP2	62:2A:3993:HOH:O	2.22	0.41
1:2A:2484:G:C2	1:2A:2485:G:C8	3.08	0.41
1:2A:2561:A:H2'	1:2A:2562:U:O4'	2.21	0.41
2:2B:52:A:H62	14:2S:33:LYS:HG2	1.86	0.41
2:2B:74:U:H2'	2:2B:75:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:118:PRO:HD2	7:2H:121:ILE:HG13	2.03	0.41
14:2S:11:LYS:HG3	14:2S:91:PRO:HB3	2.02	0.41
14:2S:93:LYS:HD2	14:2S:95:HIS:CB	2.50	0.41
27:25:29:THR:O	27:25:30:LEU:HD23	2.19	0.41
32:2a:78:G:N2	32:2a:92:C:C2	2.89	0.41
32:2a:621:A:H2'	32:2a:622:A:C8	2.56	0.41
32:2a:770:C:OP1	62:2a:1916:HOH:O	2.22	0.41
32:2a:896:C:N4	62:2a:1950:HOH:O	2.53	0.41
32:2a:908:A:H2'	32:2a:909:A:H8	1.86	0.41
32:2a:933:G:OP2	38:2g:3:ARG:HD2	2.21	0.41
32:2a:1224:G:H1	32:2a:1363:C:H42	1.68	0.41
32:2a:1402:4OC:H2'	32:2a:1403:C:O4'	2.21	0.41
32:2a:1441:G:H8	32:2a:1441:G:O5'	2.04	0.41
33:2b:167:PRO:HG2	33:2b:192:SER:HB3	2.03	0.41
34:2c:44:GLU:OE2	34:2c:52:LEU:HG	2.21	0.41
34:2c:137:ALA:HA	34:2c:140:ARG:NH1	2.36	0.41
37:2f:5:GLU:HA	37:2f:64:GLN:HA	2.02	0.41
43:2l:6:THR:HG23	43:2l:9:GLN:CD	2.45	0.41
44:2m:91:ARG:HD2	44:2m:96:LEU:CB	2.51	0.41
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.20	0.41
51:2t:14:LYS:O	51:2t:18:GLN:HB2	2.21	0.41
55:2x:36:U:H2'	55:2x:37:A:C8	2.56	0.41
1:1A:436:C:H2'	1:1A:437:G:C8	2.55	0.40
1:1A:448:U:H5'	62:1A:5482:HOH:O	2.21	0.40
1:1A:1528:A:OP2	1:1A:1541:G:N1	2.54	0.40
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.56	0.40
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.20	0.40
1:1A:1937:A:C2	1:1A:1939:5MU:C4	3.09	0.40
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.21	0.40
1:1A:2637:U:H5"	4:1E:82:ARG:NH1	2.36	0.40
15:1T:1:MET:HE3	15:1T:1:MET:HB2	1.97	0.40
19:1X:31:HIS:ND1	19:1X:32:PRO:HD2	2.36	0.40
21:1Z:16:SER:HB2	21:1Z:20:ARG:NH2	2.36	0.40
28:16:17:LYS:HE3	28:16:17:LYS:HB3	1.92	0.40
32:1a:28:G:O2'	32:1a:296:U:H5"	2.21	0.40
32:1a:109:A:C6	32:1a:326:G:C6	3.10	0.40
32:1a:251:G:C6	32:1a:266:G:C6	3.09	0.40
32:1a:279:A:C5	48:1q:98:LEU:HD22	2.56	0.40
32:1a:581:G:O5'	32:1a:581:G:H8	2.04	0.40
32:1a:627:G:H2'	32:1a:628:G:C8	2.56	0.40
32:1a:764:C:H5"	46:1o:50:HIS:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:986:A:C6	32:1a:987:G:C6	3.09	0.40
33:1b:19:HIS:HA	33:1b:39:ILE:CG2	2.52	0.40
33:1b:43:ASP:O	33:1b:47:THR:HG23	2.20	0.40
34:1c:201:TYR:N	34:1c:201:TYR:HD2	2.19	0.40
41:1j:8:LEU:HD22	41:1j:96:ILE:HG22	2.03	0.40
41:1j:45:ARG:HB3	41:1j:65:LEU:HB3	2.03	0.40
43:1l:26:ALA:HA	43:1l:64:TYR:CD1	2.56	0.40
43:1l:113:ARG:O	43:1l:114:LYS:HD3	2.21	0.40
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	2.02	0.40
56:1y:8:4SU:O2'	56:1y:21:A:N1	2.53	0.40
1:2A:117:G:C6	1:2A:119:A:C6	3.09	0.40
1:2A:224:G:N7	1:2A:420:C:H4'	2.36	0.40
1:2A:632:A:H2'	1:2A:633:A:H8	1.86	0.40
1:2A:649:G:C6	1:2A:650:C:C4	3.09	0.40
1:2A:1171:G:H8	1:2A:1171:G:O5'	2.03	0.40
1:2A:1654:A:C1'	1:2A:2823:A:H5'	2.50	0.40
1:2A:1803:A:H4'	3:2D:259:THR:HG23	2.03	0.40
1:2A:1825:A:O4'	3:2D:254:THR:HG21	2.21	0.40
1:2A:2220:G:H2'	1:2A:2221:G:C8	2.56	0.40
1:2A:2694:G:C6	1:2A:2695:C:C4	3.10	0.40
1:2A:2837:G:H21	13:2R:45:ARG:HH12	1.68	0.40
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.37	0.40
8:2I:23:PRO:HB3	8:2I:27:ARG:NH2	2.36	0.40
8:2I:69:LYS:HD3	8:2I:136:VAL:CG2	2.50	0.40
8:2I:117:GLU:H	8:2I:117:GLU:CD	2.23	0.40
15:2T:127:ALA:C	15:2T:129:ARG:N	2.75	0.40
29:27:23:ARG:O	29:27:28:ARG:NH1	2.54	0.40
31:29:4:ARG:HD2	31:29:6:SER:O	2.21	0.40
32:2a:270:A:C5	32:2a:271:C:C4	3.09	0.40
32:2a:320:C:H2'	32:2a:321:A:O4'	2.22	0.40
32:2a:1015:A:O2'	32:2a:1219:U:H5'	2.22	0.40
32:2a:1109:C:O5'	32:2a:1109:C:H6	2.04	0.40
35:2d:61:LYS:HG3	35:2d:203:VAL:HG23	2.03	0.40
35:2d:158:ILE:O	35:2d:162:LEU:N	2.47	0.40
38:2g:10:ARG:H	38:2g:10:ARG:HG2	1.58	0.40
42:2k:53:SER:C	42:2k:55:LYS:H	2.29	0.40
43:2l:8:ASN:HB2	48:2q:34:LYS:HZ2	1.85	0.40
50:2s:32:LYS:HD2	50:2s:34:TRP:CZ3	2.56	0.40
56:2y:34:G:H2'	56:2y:35:A:C8	2.56	0.40
1:1A:243:U:OP1	30:18:6:THR:OG1	2.20	0.40
1:1A:708:C:H2'	1:1A:709:U:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1022:G:C5	1:1A:1140:C:C4	3.08	0.40
1:1A:1050:A:C2	1:1A:2751:G:C5	3.09	0.40
1:1A:1171:G:OP2	1:1A:1174:A:N6	2.54	0.40
1:1A:1919:A:O3'	32:1a:1517:G:H1'	2.20	0.40
7:1H:24:VAL:HG21	7:1H:72:ILE:HG12	2.03	0.40
7:1H:97:ARG:NE	7:1H:104:GLU:OE1	2.53	0.40
21:1Z:40:ASP:OD2	21:1Z:43:GLU:HG3	2.21	0.40
22:10:18:ALA:HB3	22:10:20:ARG:HH11	1.87	0.40
25:13:35:ARG:HE	25:13:37:LEU:HD21	1.86	0.40
32:1a:243:A:C2	32:1a:246:A:C8	3.10	0.40
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.56	0.40
32:1a:1151:A:N3	41:1j:39:PRO:HG3	2.36	0.40
33:1b:33:TYR:C	33:1b:33:TYR:CD2	2.99	0.40
34:1c:87:LEU:O	34:1c:91:LEU:HB2	2.21	0.40
44:1m:16:ASP:N	44:1m:16:ASP:OD1	2.54	0.40
1:2A:265:A:H1'	1:2A:266:G:O4'	2.22	0.40
1:2A:629:G:H4'	1:2A:650:C:O2	2.21	0.40
1:2A:659:C:H2'	1:2A:660:G:C8	2.53	0.40
1:2A:797:C:H2'	1:2A:798:G:O4'	2.21	0.40
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.21	0.40
1:2A:1920:4OC:O5'	1:2A:1920:4OC:H6	2.21	0.40
1:2A:1927:A:C6	1:2A:1928:A:C6	3.10	0.40
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.36	0.40
1:2A:2543:G:C2	1:2A:2765:A:H2'	2.56	0.40
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.21	0.40
5:2F:108:LYS:HE2	5:2F:108:LYS:HB2	1.88	0.40
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.57	0.40
9:2N:43:THR:HB	9:2N:46:VAL:HG22	2.03	0.40
13:2R:97:VAL:O	13:2R:98:LEU:HD23	2.21	0.40
17:2V:39:LEU:HD23	17:2V:47:VAL:HA	2.03	0.40
17:2V:40:LEU:HB2	17:2V:46:VAL:HG23	2.02	0.40
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.56	0.40
32:2a:130:A:H5'	48:2q:63:ARG:HH11	1.86	0.40
32:2a:294:U:H2'	32:2a:295:C:H6	1.86	0.40
32:2a:502:G:H2'	32:2a:503:C:O4'	2.21	0.40
32:2a:807:A:H2'	32:2a:808:C:C6	2.56	0.40
32:2a:1207:2MG:H2'	32:2a:1208:C:C6	2.56	0.40
35:2d:32:ALA:O	35:2d:36:ARG:N	2.44	0.40
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	2.02	0.40
38:2g:52:GLU:HG2	38:2g:53:LYS:H	1.85	0.40
39:2h:119:LEU:HB3	39:2h:123:GLU:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:33:PHE:CE2	40:2i:43:ALA:HB1	2.56	0.40
42:2k:98:LEU:O	42:2k:101:SER:OG	2.19	0.40
49:2r:48:GLY:O	49:2r:74:ARG:NH2	2.54	0.40
55:2x:61:C:H2'	55:2x:62:C:C6	2.50	0.40
56:2y:11:C:H2'	56:2y:12:U:H6	1.86	0.40
1:1A:272:G:O2'	1:1A:421:U:OP2	2.21	0.40
1:1A:376:C:H2'	1:1A:377:C:C6	2.56	0.40
1:1A:455:C:N3	1:1A:473:G:H5'	2.37	0.40
1:1A:755:C:H2'	1:1A:756:C:C6	2.57	0.40
1:1A:839:U:H2'	1:1A:840:C:C6	2.56	0.40
1:1A:1084:A:C6	1:1A:1085:A:C5	3.09	0.40
1:1A:1190:G:H2'	1:1A:1191:G:H8	1.86	0.40
1:1A:1651:G:N2	1:1A:2007:C:C2	2.90	0.40
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.22	0.40
6:1G:7:LEU:HA	6:1G:7:LEU:HD23	1.85	0.40
9:1N:5:VAL:HA	9:1N:6:PRO:HD3	1.86	0.40
10:1O:112:MET:HE3	10:1O:112:MET:HB3	1.96	0.40
18:1W:24:ILE:HG13	18:1W:71:VAL:HG11	2.02	0.40
25:13:3:ARG:HB2	25:13:59:VAL:HG23	2.02	0.40
31:19:24:TYR:CE1	31:19:35:ARG:HB2	2.56	0.40
37:1f:36:ARG:HH22	37:1f:38:GLU:HG2	1.86	0.40
46:1o:18:PHE:O	46:1o:20:GLY:N	2.55	0.40
47:1p:12:LYS:HG2	47:1p:13:HIS:ND1	2.37	0.40
54:1w:71:G:N3	54:1w:71:G:H2'	2.37	0.40
1:2A:465:G:OP1	29:27:12:ARG:NH2	2.53	0.40
1:2A:527:C:C4	1:2A:2779:U:H2'	2.56	0.40
1:2A:597:U:H2'	1:2A:598:G:C8	2.56	0.40
1:2A:672:C:OP1	1:2A:801:G:N2	2.45	0.40
1:2A:704:G:N3	1:2A:726:G:C2	2.90	0.40
1:2A:718:A:H3'	1:2A:719:C:H6	1.85	0.40
1:2A:1164:G:C6	1:2A:1165:U:C4	3.09	0.40
1:2A:1187:G:OP2	1:2A:1187:G:H8	2.05	0.40
1:2A:1421:G:C2	1:2A:1422:G:C8	3.09	0.40
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.57	0.40
1:2A:1446:C:H42	1:2A:1465:G:H1	1.70	0.40
1:2A:1833:U:H2'	1:2A:1834:U:O4'	2.22	0.40
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.22	0.40
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.22	0.40
1:2A:2532:G:N2	1:2A:2663:G:O2'	2.55	0.40
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.56	0.40
1:2A:2745:C:H4'	7:2H:142:GLY:C	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:27:LEU:HD22	15:2T:1:MET:SD	2.61	0.40
4:2E:110:GLY:HA2	4:2E:161:GLY:HA3	2.02	0.40
8:2I:50:ARG:HA	8:2I:53:ALA:HB3	2.04	0.40
10:2O:113:LYS:HA	10:2O:113:LYS:HD3	1.81	0.40
16:2U:102:GLU:OE2	17:2V:13:ARG:NH2	2.54	0.40
17:2V:73:SER:HA	17:2V:83:ARG:O	2.21	0.40
32:2a:174:C:H2'	32:2a:175:C:C6	2.55	0.40
32:2a:555:C:H2'	32:2a:556:C:C6	2.55	0.40
32:2a:688:G:C6	32:2a:700:G:C2	3.09	0.40
32:2a:774:G:C2	32:2a:806:C:N3	2.89	0.40
32:2a:779:C:H1'	42:2k:120:ARG:HD2	2.03	0.40
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.87	0.40
32:2a:1376:U:OP1	38:2g:98:SER:HB3	2.22	0.40
34:2c:23:TYR:OH	41:2j:9:ARG:HG2	2.22	0.40
34:2c:91:LEU:CD1	34:2c:101:LEU:HB2	2.51	0.40
36:2e:7:GLU:HB3	36:2e:112:LEU:HD22	2.02	0.40
36:2e:57:LYS:HG3	36:2e:61:TYR:HE2	1.85	0.40
36:2e:132:ALA:O	36:2e:135:THR:OG1	2.30	0.40
39:2h:29:SER:HB3	39:2h:32:LYS:HD3	2.03	0.40
39:2h:100:ILE:H	39:2h:100:ILE:HG13	1.67	0.40
40:2i:37:PHE:CE1	40:2i:70:LYS:HB3	2.56	0.40
42:2k:18:ARG:HB2	42:2k:83:ILE:HD11	2.03	0.40
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.21	0.40
1:1A:1949:G:C6	1:1A:1950:G:C6	3.10	0.40
1:1A:2334:G:H4'	1:1A:2335:A:OP2	2.21	0.40
1:1A:2516:G:O2'	1:1A:2517:C:H5'	2.20	0.40
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.28	0.40
5:1F:54:ARG:NH2	62:1F:407:HOH:O	2.55	0.40
8:1I:103:ARG:HG2	8:1I:104:GLN:HG3	2.02	0.40
13:1R:96:ARG:HH12	13:1R:118:GLU:CD	2.30	0.40
30:18:8:LYS:HD3	30:18:8:LYS:HA	1.82	0.40
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.84	0.40
32:1a:235:C:H2'	32:1a:236:G:H8	1.87	0.40
32:1a:1155:G:H2'	32:1a:1156:G:O4'	2.22	0.40
32:1a:1191:A:P	34:1c:4:LYS:HZ2	2.41	0.40
33:1b:212:GLN:NE2	33:1b:234:PRO:O	2.52	0.40
34:1c:28:GLN:HA	34:1c:31:HIS:ND1	2.37	0.40
35:1d:64:LEU:O	35:1d:67:ILE:HB	2.21	0.40
35:1d:172:PRO:C	35:1d:174:LEU:H	2.29	0.40
39:1h:103:VAL:CG2	39:1h:110:ALA:HB2	2.51	0.40
40:1i:86:VAL:C	40:1i:88:TYR:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:35:GLY:HA3	43:1l:60:LEU:HD23	2.04	0.40
51:1t:74:LYS:HE3	51:1t:74:LYS:HB3	1.81	0.40
1:2A:11:G:C2'	1:2A:12:U:H5'	2.52	0.40
1:2A:35:G:H1'	1:2A:454:A:C4	2.56	0.40
1:2A:271(U):G:H2'	1:2A:271(V):G:H8	1.86	0.40
1:2A:312:G:H4'	1:2A:331:A:N3	2.37	0.40
1:2A:460:A:H62	1:2A:469:G:N2	2.17	0.40
1:2A:647:G:H8	1:2A:647:G:O5'	2.03	0.40
1:2A:1010:A:N3	1:2A:1153:C:H1'	2.35	0.40
1:2A:1021:A:H2'	1:2A:1023:U:H5'	2.03	0.40
1:2A:1023:U:H2'	1:2A:1024:G:O4'	2.21	0.40
1:2A:1365:A:OP2	23:21:3:LYS:HG2	2.21	0.40
1:2A:1401:G:C6	1:2A:1402:C:C4	3.10	0.40
1:2A:1450:G:H1	1:2A:1462:C:H42	1.70	0.40
1:2A:1613:G:N1	1:2A:1617:C:O2'	2.48	0.40
1:2A:1794:U:H1'	1:2A:1900:A:N3	2.36	0.40
8:2I:124:GLY:O	8:2I:144:VAL:HG23	2.21	0.40
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	2.04	0.40
21:2Z:70:LEU:HD12	21:2Z:70:LEU:HA	1.83	0.40
21:2Z:159:PRO:HA	21:2Z:160:GLY:HA2	1.63	0.40
26:24:62:ARG:HB2	26:24:63:TYR:CE2	2.56	0.40
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.56	0.40
32:2a:16:A:N1	32:2a:919:A:H2	2.18	0.40
32:2a:99:U:H2'	32:2a:100:C:C6	2.56	0.40
32:2a:254:G:H1	32:2a:272:C:H42	1.70	0.40
32:2a:262:A:H4'	51:2t:75:ASN:HB2	2.03	0.40
32:2a:442:C:N4	32:2a:492:G:H1	2.10	0.40
32:2a:523:A:N1	43:2l:92:0TD:H6	2.36	0.40
32:2a:533:A:O2'	32:2a:534:U:H5"	2.22	0.40
32:2a:583:A:H2'	32:2a:584:G:O4'	2.20	0.40
32:2a:687:A:H4'	32:2a:688:G:O5'	2.22	0.40
32:2a:777:A:H2'	32:2a:778:G:C8	2.56	0.40
32:2a:838:G:H1	32:2a:848:C:N4	2.19	0.40
32:2a:900:A:H2'	32:2a:901:A:C8	2.57	0.40
32:2a:977:A:C2	32:2a:1224:G:C5	3.10	0.40
32:2a:1313:U:O4	50:2s:2:PRO:HD2	2.22	0.40
34:2c:7:PRO:O	34:2c:11:ARG:HD2	2.21	0.40
34:2c:113:ALA:HB1	34:2c:200:ALA:O	2.21	0.40
34:2c:180:ALA:HB1	34:2c:182:ILE:HG23	2.03	0.40
34:2c:206:GLU:H	34:2c:206:GLU:HG2	1.56	0.40
38:2g:70:LYS:O	38:2g:138:LYS:HD2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:84:LEU:HB3	43:2l:104:VAL:HG11	2.03	0.40
54:2w:66:U:H5'	54:2w:67:C:OP2	2.21	0.40
1:1A:104:U:H3'	1:1A:105:C:C6	2.57	0.40
1:1A:286:C:H2'	1:1A:287:C:C6	2.57	0.40
1:1A:459:U:OP2	29:17:39:ARG:NH1	2.49	0.40
1:1A:478:A:C6	1:1A:480:A:C6	3.10	0.40
1:1A:870:A:H2'	1:1A:871:U:O4'	2.21	0.40
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.36	0.40
1:1A:1142(A):A:C4	1:1A:1144:G:N7	2.89	0.40
1:1A:1252:G:OP1	1:1A:1252:G:H8	2.04	0.40
1:1A:2131:G:N2	1:1A:2133:G:N3	2.69	0.40
1:1A:2579:C:H4'	4:1E:134:ILE:HG12	2.03	0.40
1:1A:2854:G:H2'	1:1A:2855:C:O4'	2.21	0.40
2:1B:111:G:H2'	2:1B:112:U:O4'	2.20	0.40
10:1O:106:LEU:HB3	10:1O:111:PHE:HB2	2.04	0.40
21:1Z:30:ASN:C	21:1Z:32:HIS:H	2.30	0.40
31:19:29:ASN:HB3	31:19:32:HIS:ND1	2.37	0.40
32:1a:194:C:C2'	32:1a:195:A:H5"	2.47	0.40
32:1a:522:C:H41	43:1l:53:ARG:NH1	2.19	0.40
32:1a:621:A:H2'	32:1a:622:A:C8	2.56	0.40
32:1a:719:C:O2'	49:1r:49:LYS:HB3	2.21	0.40
32:1a:807:A:H2'	32:1a:808:C:C6	2.56	0.40
32:1a:1370:G:C2	32:1a:1371:G:C8	3.10	0.40
34:1c:22:TRP:CB	34:1c:59:ARG:HB2	2.50	0.40
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	2.04	0.40
36:1e:15:ARG:HE	36:1e:15:ARG:HB3	1.44	0.40
36:1e:76:ILE:HD12	36:1e:78:HIS:O	2.22	0.40
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.54	0.40
44:1m:67:GLU:HG3	44:1m:71:ARG:HH22	1.86	0.40
48:1q:81:ARG:NH2	48:1q:84:LEU:HD21	2.36	0.40
51:1t:92:LEU:HD23	51:1t:92:LEU:HA	1.85	0.40
1:2A:9:U:N3	1:2A:2629:A:C2	2.90	0.40
1:2A:629:G:H5"	1:2A:650:C:O2'	2.22	0.40
1:2A:1184:G:C6	1:2A:1185:C:C4	3.10	0.40
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.22	0.40
1:2A:2577:A:H5"	1:2A:2578:G:H5'	2.04	0.40
1:2A:2659:G:H2'	1:2A:2661:G:OP2	2.22	0.40
1:2A:2893:G:H5"	1:2A:2894:G:O4'	2.21	0.40
2:2B:111:G:C2	2:2B:112:U:C2	3.09	0.40
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.55	0.40
5:2F:195:ASP:O	5:2F:199:TRP:N	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:15:VAL:HA	6:2G:175:LEU:HD13	2.03	0.40
11:2P:38:GLN:C	11:2P:40:SER:H	2.28	0.40
14:2S:10:ARG:O	14:2S:14:VAL:HG23	2.22	0.40
14:2S:23:ARG:HG2	14:2S:24:LEU:N	2.36	0.40
15:2T:31:SER:HA	15:2T:44:ASP:HA	2.04	0.40
16:2U:16:LYS:O	16:2U:20:LEU:HG	2.22	0.40
21:2Z:3:TYR:O	21:2Z:57:ILE:HA	2.21	0.40
21:2Z:128:VAL:HG22	21:2Z:129:SER:H	1.86	0.40
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG23	2.03	0.40
32:2a:878:G:OP1	39:2h:90:GLY:N	2.45	0.40
32:2a:983:A:H3'	32:2a:983:A:N3	2.36	0.40
32:2a:1055:A:C6	32:2a:1206:G:C5	3.09	0.40
32:2a:1117:G:H5"	40:2i:104:ARG:CZ	2.51	0.40
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.56	0.40
32:2a:1467:G:O5'	32:2a:1467:G:H8	2.03	0.40
35:2d:98:GLU:OE2	35:2d:107:ARG:NH1	2.55	0.40
47:2p:26:ARG:HA	47:2p:26:ARG:HD3	1.94	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
3	1D	273/276 (99%)	251 (92%)	19 (7%)	3 (1%)	11 25
3	2D	273/276 (99%)	250 (92%)	22 (8%)	1 (0%)	30 51
4	1E	202/206 (98%)	190 (94%)	10 (5%)	2 (1%)	12 28
4	2E	202/206 (98%)	186 (92%)	14 (7%)	2 (1%)	12 28
5	1F	201/210 (96%)	192 (96%)	8 (4%)	1 (0%)	24 46
5	2F	201/210 (96%)	184 (92%)	15 (8%)	2 (1%)	12 28
6	1G	179/182 (98%)	154 (86%)	22 (12%)	3 (2%)	7 15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
6	2G	179/182 (98%)	149 (83%)	24 (13%)	6 (3%)	3 4
7	1H	172/180 (96%)	157 (91%)	14 (8%)	1 (1%)	21 42
7	2H	172/180 (96%)	153 (89%)	19 (11%)	0	100 100
8	1I	144/148 (97%)	128 (89%)	16 (11%)	0	100 100
8	2I	144/148 (97%)	119 (83%)	24 (17%)	1 (1%)	18 38
9	1N	138/140 (99%)	129 (94%)	9 (6%)	0	100 100
9	2N	138/140 (99%)	130 (94%)	8 (6%)	0	100 100
10	1O	120/122 (98%)	111 (92%)	9 (8%)	0	100 100
10	2O	120/122 (98%)	106 (88%)	13 (11%)	1 (1%)	16 34
11	1P	147/150 (98%)	128 (87%)	14 (10%)	5 (3%)	3 4
11	2P	147/150 (98%)	129 (88%)	14 (10%)	4 (3%)	4 7
12	1Q	139/141 (99%)	128 (92%)	11 (8%)	0	100 100
12	2Q	139/141 (99%)	121 (87%)	18 (13%)	0	100 100
13	1R	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	14 30
13	2R	116/118 (98%)	106 (91%)	10 (9%)	0	100 100
14	1S	108/112 (96%)	103 (95%)	5 (5%)	0	100 100
14	2S	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	14 30
15	1T	129/146 (88%)	115 (89%)	13 (10%)	1 (1%)	16 34
15	2T	129/146 (88%)	114 (88%)	14 (11%)	1 (1%)	16 34
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100 100
16	2U	114/118 (97%)	109 (96%)	5 (4%)	0	100 100
17	1V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	12 28
17	2V	99/101 (98%)	90 (91%)	7 (7%)	2 (2%)	6 12
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100 100
18	2W	110/113 (97%)	102 (93%)	7 (6%)	1 (1%)	14 30
19	1X	93/96 (97%)	86 (92%)	6 (6%)	1 (1%)	11 25
19	2X	93/96 (97%)	86 (92%)	6 (6%)	1 (1%)	11 25
20	1Y	105/110 (96%)	95 (90%)	10 (10%)	0	100 100
20	2Y	105/110 (96%)	100 (95%)	5 (5%)	0	100 100
21	1Z	148/206 (72%)	127 (86%)	19 (13%)	2 (1%)	9 19
21	2Z	156/206 (76%)	130 (83%)	24 (15%)	2 (1%)	9 21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
22	10	81/85 (95%)	78 (96%)	3 (4%)	0	100 100
22	20	81/85 (95%)	77 (95%)	2 (2%)	2 (2%)	4 8
23	11	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11 25
23	21	95/98 (97%)	91 (96%)	4 (4%)	0	100 100
24	12	68/72 (94%)	64 (94%)	4 (6%)	0	100 100
24	22	68/72 (94%)	68 (100%)	0	0	100 100
25	13	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
25	23	57/60 (95%)	52 (91%)	4 (7%)	1 (2%)	6 14
26	14	67/71 (94%)	53 (79%)	10 (15%)	4 (6%)	1 1
26	24	67/71 (94%)	46 (69%)	16 (24%)	5 (8%)	1 1
27	15	57/60 (95%)	57 (100%)	0	0	100 100
27	25	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
28	26	51/54 (94%)	48 (94%)	3 (6%)	0	100 100
29	17	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
29	27	46/49 (94%)	44 (96%)	2 (4%)	0	100 100
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100 100
30	28	62/65 (95%)	58 (94%)	4 (6%)	0	100 100
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
33	1b	229/256 (90%)	184 (80%)	37 (16%)	8 (4%)	3 4
33	2b	229/256 (90%)	185 (81%)	36 (16%)	8 (4%)	3 4
34	1c	204/239 (85%)	177 (87%)	25 (12%)	2 (1%)	12 28
34	2c	204/239 (85%)	168 (82%)	34 (17%)	2 (1%)	12 28
35	1d	206/209 (99%)	189 (92%)	15 (7%)	2 (1%)	12 28
35	2d	206/209 (99%)	184 (89%)	21 (10%)	1 (0%)	24 46
36	1e	146/162 (90%)	132 (90%)	12 (8%)	2 (1%)	9 19
36	2e	146/162 (90%)	119 (82%)	22 (15%)	5 (3%)	3 4
37	1f	98/101 (97%)	89 (91%)	9 (9%)	0	100 100
37	2f	98/101 (97%)	87 (89%)	11 (11%)	0	100 100
38	1g	153/156 (98%)	139 (91%)	13 (8%)	1 (1%)	18 38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
38	2g	153/156 (98%)	134 (88%)	17 (11%)	2 (1%)	9 21
39	1h	135/138 (98%)	123 (91%)	12 (9%)	0	100 100
39	2h	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	18 38
40	1i	125/128 (98%)	111 (89%)	13 (10%)	1 (1%)	16 34
40	2i	125/128 (98%)	109 (87%)	16 (13%)	0	100 100
41	1j	95/105 (90%)	84 (88%)	6 (6%)	5 (5%)	1 1
41	2j	94/105 (90%)	77 (82%)	14 (15%)	3 (3%)	3 5
42	1k	112/129 (87%)	95 (85%)	16 (14%)	1 (1%)	14 30
42	2k	112/129 (87%)	91 (81%)	18 (16%)	3 (3%)	4 7
43	1l	119/132 (90%)	110 (92%)	9 (8%)	0	100 100
43	2l	119/132 (90%)	108 (91%)	11 (9%)	0	100 100
44	1m	121/126 (96%)	109 (90%)	10 (8%)	2 (2%)	7 15
44	2m	120/126 (95%)	99 (82%)	21 (18%)	0	100 100
45	1n	58/61 (95%)	55 (95%)	3 (5%)	0	100 100
45	2n	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	7 15
46	1o	86/89 (97%)	76 (88%)	6 (7%)	4 (5%)	2 2
46	2o	86/89 (97%)	81 (94%)	5 (6%)	0	100 100
47	1p	80/88 (91%)	70 (88%)	9 (11%)	1 (1%)	9 21
47	2p	80/88 (91%)	71 (89%)	8 (10%)	1 (1%)	9 21
48	1q	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	12 28
48	2q	97/105 (92%)	86 (89%)	10 (10%)	1 (1%)	12 28
49	1r	66/88 (75%)	60 (91%)	5 (8%)	1 (2%)	8 18
49	2r	66/88 (75%)	57 (86%)	9 (14%)	0	100 100
50	1s	81/93 (87%)	69 (85%)	11 (14%)	1 (1%)	10 23
50	2s	81/93 (87%)	66 (82%)	14 (17%)	1 (1%)	10 23
51	1t	94/106 (89%)	86 (92%)	6 (6%)	2 (2%)	5 11
51	2t	94/106 (89%)	82 (87%)	10 (11%)	2 (2%)	5 11
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100 100
52	2u	21/27 (78%)	19 (90%)	0	2 (10%)	0 0
All	All	11370/12128 (94%)	10197 (90%)	1047 (9%)	126 (1%)	11 25

All (126) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
11	1P	29	LYS
11	1P	45	LEU
21	1Z	53	ILE
23	11	3	LYS
26	14	62	ARG
41	1j	79	ARG
44	1m	67	GLU
44	1m	106	ASN
6	2G	43	LEU
6	2G	51	ARG
8	2I	10	GLU
11	2P	29	LYS
17	2V	79	VAL
26	24	48	ARG
33	2b	9	GLU
33	2b	17	PHE
33	2b	74	LYS
42	2k	104	GLN
48	2q	68	ARG
4	1E	28	ALA
6	1G	181	ARG
15	1T	37	GLY
21	1Z	163	LEU
26	14	45	GLY
33	1b	17	PHE
33	1b	126	GLU
33	1b	129	GLU
34	1c	66	VAL
35	1d	195	ALA
38	1g	55	GLY
41	1j	29	ARG
42	1k	49	GLY
47	1p	44	THR
50	1s	81	ARG
51	1t	100	ILE
5	2F	130	ALA
6	2G	42	GLY
6	2G	47	LYS
6	2G	96	ARG
22	20	73	GLY
33	2b	123	ALA
33	2b	126	GLU

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Mol	Chain	Res	Type
34	2c	156	ARG
36	2e	77	PRO
38	2g	55	GLY
38	2g	80	VAL
39	2h	133	LEU
42	2k	49	GLY
42	2k	105	VAL
3	1D	257	LEU
11	1P	139	LYS
17	1V	79	VAL
26	14	49	PHE
33	1b	13	ALA
33	1b	124	SER
49	1r	26	LEU
4	2E	28	ALA
5	2F	21	ALA
11	2P	45	LEU
14	2S	84	GLN
17	2V	53	GLU
25	23	38	GLU
26	24	49	PHE
33	2b	20	GLU
33	2b	21	ARG
36	2e	66	MET
36	2e	107	ARG
41	2j	78	ASN
50	2s	81	ARG
52	2u	3	LYS
4	1E	52	LEU
11	1P	38	GLN
11	1P	93	GLY
13	1R	107	ASP
33	1b	8	LYS
34	1c	65	ALA
40	1i	12	GLU
41	1j	55	LYS
41	1j	78	ASN
46	1o	19	PRO
48	1q	61	GLU
4	2E	52	LEU
11	2P	36	LYS
11	2P	38	GLN

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Mol	Chain	Res	Type
21	2Z	52	SER
36	2e	37	ARG
41	2j	29	ARG
26	14	53	GLU
33	1b	231	GLU
36	1e	70	PRO
36	1e	85	GLY
18	2W	60	ASN
21	2Z	146	ILE
33	2b	125	PRO
35	2d	186	LEU
45	2n	14	PRO
47	2p	52	ASP
3	1D	49	ILE
6	1G	24	GLY
7	1H	55	PRO
46	1o	88	ARG
22	20	13	GLY
26	24	65	ASP
34	2c	73	PRO
36	2e	11	ILE
41	2j	77	PRO
33	1b	131	PRO
3	2D	271	ILE
26	24	11	PRO
26	24	45	GLY
51	2t	98	PRO
52	2u	23	PRO
19	1X	94	GLY
41	1j	77	PRO
46	1o	23	GLY
10	2O	43	VAL
3	1D	244	ARG
35	1d	178	VAL
46	1o	87	ILE
51	1t	96	GLY
6	2G	24	GLY
19	2X	94	GLY
51	2t	47	GLY
6	1G	44	GLY
15	2T	37	GLY

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	215/218 (99%)	204 (95%)	11 (5%)	21 45
3	2D	215/218 (99%)	201 (94%)	14 (6%)	15 35
4	1E	164/166 (99%)	154 (94%)	10 (6%)	17 37
4	2E	164/166 (99%)	150 (92%)	14 (8%)	10 22
5	1F	160/166 (96%)	140 (88%)	20 (12%)	4 9
5	2F	159/166 (96%)	140 (88%)	19 (12%)	5 10
6	1G	143/156 (92%)	126 (88%)	17 (12%)	5 10
6	2G	143/156 (92%)	127 (89%)	16 (11%)	6 12
7	1H	144/148 (97%)	133 (92%)	11 (8%)	12 27
7	2H	144/148 (97%)	128 (89%)	16 (11%)	6 12
8	1I	113/124 (91%)	99 (88%)	14 (12%)	4 9
8	2I	105/124 (85%)	79 (75%)	26 (25%)	1 1
9	1N	118/119 (99%)	104 (88%)	14 (12%)	5 10
9	2N	118/119 (99%)	105 (89%)	13 (11%)	6 13
10	1O	100/100 (100%)	95 (95%)	5 (5%)	22 46
10	2O	100/100 (100%)	88 (88%)	12 (12%)	5 10
11	1P	115/116 (99%)	104 (90%)	11 (10%)	8 17
11	2P	115/116 (99%)	103 (90%)	12 (10%)	7 14
12	1Q	111/111 (100%)	106 (96%)	5 (4%)	24 50
12	2Q	111/111 (100%)	103 (93%)	8 (7%)	13 30
13	1R	101/101 (100%)	93 (92%)	8 (8%)	11 26
13	2R	101/101 (100%)	95 (94%)	6 (6%)	18 38
14	1S	86/88 (98%)	74 (86%)	12 (14%)	3 6
14	2S	85/88 (97%)	69 (81%)	16 (19%)	1 2
15	1T	115/127 (91%)	106 (92%)	9 (8%)	11 26
15	2T	113/127 (89%)	97 (86%)	16 (14%)	3 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
16	1U	93/94 (99%)	87 (94%)	6 (6%)	15 35
16	2U	93/94 (99%)	87 (94%)	6 (6%)	15 35
17	1V	80/82 (98%)	70 (88%)	10 (12%)	4 9
17	2V	80/82 (98%)	70 (88%)	10 (12%)	4 9
18	1W	90/92 (98%)	82 (91%)	8 (9%)	9 20
18	2W	90/92 (98%)	83 (92%)	7 (8%)	11 26
19	1X	77/78 (99%)	75 (97%)	2 (3%)	40 68
19	2X	77/78 (99%)	74 (96%)	3 (4%)	28 55
20	1Y	85/91 (93%)	75 (88%)	10 (12%)	5 10
20	2Y	85/91 (93%)	75 (88%)	10 (12%)	5 10
21	1Z	135/179 (75%)	119 (88%)	16 (12%)	5 10
21	2Z	137/179 (76%)	117 (85%)	20 (15%)	3 6
22	10	65/67 (97%)	64 (98%)	1 (2%)	57 80
22	20	65/67 (97%)	61 (94%)	4 (6%)	16 36
23	11	80/83 (96%)	75 (94%)	5 (6%)	16 36
23	21	80/83 (96%)	77 (96%)	3 (4%)	29 56
24	12	65/67 (97%)	62 (95%)	3 (5%)	24 49
24	22	65/67 (97%)	60 (92%)	5 (8%)	12 27
25	13	51/52 (98%)	40 (78%)	11 (22%)	1 2
25	23	50/52 (96%)	47 (94%)	3 (6%)	17 37
26	14	59/63 (94%)	53 (90%)	6 (10%)	7 15
26	24	53/63 (84%)	40 (76%)	13 (24%)	1 1
27	15	50/52 (96%)	45 (90%)	5 (10%)	7 16
27	25	50/52 (96%)	45 (90%)	5 (10%)	7 16
28	16	51/52 (98%)	44 (86%)	7 (14%)	3 7
28	26	50/52 (96%)	45 (90%)	5 (10%)	7 16
29	17	41/42 (98%)	39 (95%)	2 (5%)	22 47
29	27	41/42 (98%)	36 (88%)	5 (12%)	5 10
30	18	54/55 (98%)	50 (93%)	4 (7%)	13 29
30	28	54/55 (98%)	52 (96%)	2 (4%)	30 57
31	19	34/34 (100%)	33 (97%)	1 (3%)	37 65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	29	34/34 (100%)	33 (97%)	1 (3%)	37 65
33	1b	192/220 (87%)	162 (84%)	30 (16%)	2 4
33	2b	187/220 (85%)	153 (82%)	34 (18%)	2 3
34	1c	142/188 (76%)	128 (90%)	14 (10%)	7 16
34	2c	140/188 (74%)	124 (89%)	16 (11%)	5 11
35	1d	169/181 (93%)	144 (85%)	25 (15%)	3 6
35	2d	173/181 (96%)	151 (87%)	22 (13%)	4 9
36	1e	113/123 (92%)	93 (82%)	20 (18%)	2 3
36	2e	114/123 (93%)	99 (87%)	15 (13%)	4 8
37	1f	84/90 (93%)	73 (87%)	11 (13%)	4 8
37	2f	85/90 (94%)	76 (89%)	9 (11%)	6 14
38	1g	119/127 (94%)	105 (88%)	14 (12%)	5 10
38	2g	120/127 (94%)	101 (84%)	19 (16%)	2 4
39	1h	114/119 (96%)	100 (88%)	14 (12%)	4 9
39	2h	114/119 (96%)	99 (87%)	15 (13%)	4 8
40	1i	90/99 (91%)	78 (87%)	12 (13%)	4 8
40	2i	89/99 (90%)	75 (84%)	14 (16%)	2 4
41	1j	66/92 (72%)	59 (89%)	7 (11%)	6 14
41	2j	69/92 (75%)	57 (83%)	12 (17%)	2 3
42	1k	82/99 (83%)	72 (88%)	10 (12%)	5 10
42	2k	83/99 (84%)	71 (86%)	12 (14%)	3 6
43	1l	96/108 (89%)	87 (91%)	9 (9%)	8 18
43	2l	96/108 (89%)	87 (91%)	9 (9%)	8 18
44	1m	93/101 (92%)	82 (88%)	11 (12%)	5 10
44	2m	92/101 (91%)	77 (84%)	15 (16%)	2 4
45	1n	49/50 (98%)	41 (84%)	8 (16%)	2 4
45	2n	49/50 (98%)	45 (92%)	4 (8%)	10 24
46	1o	78/80 (98%)	70 (90%)	8 (10%)	7 15
46	2o	78/80 (98%)	70 (90%)	8 (10%)	7 15
47	1p	69/74 (93%)	61 (88%)	8 (12%)	5 11
47	2p	68/74 (92%)	60 (88%)	8 (12%)	5 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	1q	94/97 (97%)	83 (88%)	11 (12%)	5 11
48	2q	94/97 (97%)	85 (90%)	9 (10%)	8 17
49	1r	59/77 (77%)	53 (90%)	6 (10%)	7 15
49	2r	59/77 (77%)	50 (85%)	9 (15%)	3 5
50	1s	69/80 (86%)	66 (96%)	3 (4%)	26 51
50	2s	67/80 (84%)	53 (79%)	14 (21%)	1 2
51	1t	70/82 (85%)	63 (90%)	7 (10%)	7 16
51	2t	70/82 (85%)	66 (94%)	4 (6%)	18 40
52	1u	18/22 (82%)	18 (100%)	0	100 100
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19 40
All	All	9303/10064 (92%)	8292 (89%)	1011 (11%)	6 13

All (1011) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	32	SER
3	1D	37	LEU
3	1D	99	ASP
3	1D	173	VAL
3	1D	181	GLU
3	1D	204	ILE
3	1D	229	VAL
3	1D	242	ARG
3	1D	254	THR
3	1D	259	THR
3	1D	261	LYS
4	1E	7	VAL
4	1E	9	VAL
4	1E	47	VAL
4	1E	49	LEU
4	1E	75	VAL
4	1E	83	ASP
4	1E	89	ASP
4	1E	90	THR
4	1E	97	LYS
4	1E	134	ILE
5	1F	20	LEU
5	1F	33	LEU

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Mol	Chain	Res	Type
5	1F	53	THR
5	1F	70	THR
5	1F	74	ARG
5	1F	88	VAL
5	1F	93	LYS
5	1F	98	SER
5	1F	106	ARG
5	1F	127	GLU
5	1F	132	VAL
5	1F	140	LEU
5	1F	154	VAL
5	1F	158	THR
5	1F	162	LEU
5	1F	175	THR
5	1F	183	VAL
5	1F	192	LEU
5	1F	197	ASP
5	1F	201	VAL
6	1G	3	LEU
6	1G	21	ARG
6	1G	31	VAL
6	1G	39	ILE
6	1G	43	LEU
6	1G	45	GLU
6	1G	49	ASP
6	1G	62	LEU
6	1G	82	LEU
6	1G	108	ASN
6	1G	114	ILE
6	1G	126	ASP
6	1G	132	ASN
6	1G	133	LEU
6	1G	140	ILE
6	1G	149	VAL
6	1G	159	VAL
7	1H	16	SER
7	1H	17	VAL
7	1H	24	VAL
7	1H	40	GLU
7	1H	56	SER
7	1H	77	LYS
7	1H	88	LEU

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Mol	Chain	Res	Type
7	1H	99	VAL
7	1H	113	VAL
7	1H	129	THR
7	1H	132	ARG
8	1I	2	LYS
8	1I	37	VAL
8	1I	45	LYS
8	1I	47	LEU
8	1I	75	LEU
8	1I	77	LEU
8	1I	85	GLU
8	1I	87	LYS
8	1I	91	SER
8	1I	101	LEU
8	1I	127	VAL
8	1I	133	HIS
8	1I	140	LEU
8	1I	141	LYS
9	1N	10	GLU
9	1N	14	VAL
9	1N	28	THR
9	1N	32	THR
9	1N	48	MET
9	1N	58	ASP
9	1N	61	ARG
9	1N	67	LEU
9	1N	68	GLU
9	1N	96	GLU
9	1N	131	GLN
9	1N	137	LYS
9	1N	138	LEU
9	1N	140	VAL
10	1O	35	VAL
10	1O	77	ILE
10	1O	89	ASN
10	1O	112	MET
10	1O	114	ILE
11	1P	3	LEU
11	1P	7	ARG
11	1P	45	LEU
11	1P	56	SER
11	1P	71	VAL

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Mol	Chain	Res	Type
11	1P	79	ARG
11	1P	100	LEU
11	1P	101	VAL
11	1P	144	GLU
11	1P	147	LEU
11	1P	148	LEU
12	1Q	43	THR
12	1Q	64	ILE
12	1Q	75	THR
12	1Q	85	LYS
12	1Q	109	VAL
13	1R	15	SER
13	1R	36	THR
13	1R	67	LEU
13	1R	73	VAL
13	1R	91	GLN
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	3	ARG
14	1S	8	GLU
14	1S	13	ARG
14	1S	36	TYR
14	1S	43	GLU
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	69	VAL
14	1S	88	ASP
14	1S	98	VAL
14	1S	110	LEU
15	1T	21	GLU
15	1T	28	VAL
15	1T	30	VAL
15	1T	40	THR
15	1T	49	VAL
15	1T	74	ARG
15	1T	96	ARG
15	1T	106	SER
15	1T	109	GLU
16	1U	9	VAL
16	1U	59	ARG

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Mol	Chain	Res	Type
16	1U	74	LEU
16	1U	78	THR
16	1U	95	LEU
16	1U	117	GLN
17	1V	10	LYS
17	1V	32	THR
17	1V	39	LEU
17	1V	46	VAL
17	1V	61	VAL
17	1V	70	ILE
17	1V	78	LYS
17	1V	79	VAL
17	1V	85	LYS
17	1V	100	ARG
18	1W	4	LYS
18	1W	6	ILE
18	1W	11	ARG
18	1W	17	VAL
18	1W	24	ILE
18	1W	30	GLU
18	1W	63	ASP
18	1W	96	ILE
19	1X	75	ASP
19	1X	90	GLU
20	1Y	1	MET
20	1Y	7	VAL
20	1Y	14	LEU
20	1Y	21	LYS
20	1Y	26	LYS
20	1Y	38	ILE
20	1Y	67	LEU
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	99	CYS
21	1Z	33	LEU
21	1Z	49	ARG
21	1Z	53	ILE
21	1Z	86	VAL
21	1Z	92	SER
21	1Z	119	GLU
21	1Z	124	ILE
21	1Z	126	VAL

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Mol	Chain	Res	Type
21	1Z	129	SER
21	1Z	139	VAL
21	1Z	150	LEU
21	1Z	153	SER
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	162	GLU
21	1Z	171	ILE
22	10	63	VAL
23	11	46	LEU
23	11	57	GLU
23	11	59	THR
23	11	65	SER
23	11	85	LEU
24	12	41	ILE
24	12	53	LEU
24	12	65	ASN
25	13	6	VAL
25	13	18	ASP
25	13	23	LEU
25	13	24	LYS
25	13	29	ARG
25	13	34	GLU
25	13	40	THR
25	13	44	ARG
25	13	54	VAL
25	13	56	VAL
25	13	60	GLU
26	14	49	PHE
26	14	53	GLU
26	14	57	GLU
26	14	59	PHE
26	14	63	TYR
26	14	67	TYR
27	15	6	VAL
27	15	15	ARG
27	15	40	LYS
27	15	58	LEU
27	15	60	VAL
28	16	9	LEU
28	16	14	THR
28	16	19	ARG

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Mol	Chain	Res	Type
28	16	35	GLU
28	16	44	ARG
28	16	47	THR
28	16	48	VAL
29	17	29	LYS
29	17	46	VAL
30	18	4	MET
30	18	41	ILE
30	18	43	GLN
30	18	50	LEU
31	19	6	SER
33	1b	10	LEU
33	1b	11	LEU
33	1b	12	GLU
33	1b	25	ASN
33	1b	33	TYR
33	1b	39	ILE
33	1b	48	MET
33	1b	54	THR
33	1b	101	MET
33	1b	108	ILE
33	1b	111	ARG
33	1b	112	VAL
33	1b	127	ILE
33	1b	128	GLU
33	1b	130	ARG
33	1b	140	HIS
33	1b	157	ARG
33	1b	160	ASP
33	1b	176	GLU
33	1b	178	ARG
33	1b	180	LEU
33	1b	185	ILE
33	1b	196	LEU
33	1b	200	ILE
33	1b	208	ILE
33	1b	209	ARG
33	1b	215	LEU
33	1b	219	VAL
33	1b	222	ILE
33	1b	233	SER
34	1c	3	ASN

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Mol	Chain	Res	Type
34	1c	45	LYS
34	1c	46	GLU
34	1c	47	LEU
34	1c	64	VAL
34	1c	66	VAL
34	1c	103	VAL
34	1c	144	SER
34	1c	166	GLU
34	1c	178	LEU
34	1c	192	THR
34	1c	195	VAL
34	1c	201	TYR
34	1c	207	VAL
35	1d	15	GLU
35	1d	19	LEU
35	1d	21	LEU
35	1d	24	GLU
35	1d	26	CYS
35	1d	28	SER
35	1d	52	SER
35	1d	76	ARG
35	1d	83	SER
35	1d	85	LYS
35	1d	86	LYS
35	1d	112	VAL
35	1d	115	ARG
35	1d	127	THR
35	1d	135	LEU
35	1d	141	ARG
35	1d	144	ASP
35	1d	148	VAL
35	1d	157	LEU
35	1d	158	ILE
35	1d	176	LEU
35	1d	178	VAL
35	1d	188	LEU
35	1d	193	ASP
35	1d	194	LEU
36	1e	8	GLU
36	1e	12	LEU
36	1e	13	ILE
36	1e	15	ARG

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Mol	Chain	Res	Type
36	1e	16	THR
36	1e	20	GLN
36	1e	32	VAL
36	1e	37	ARG
36	1e	41	VAL
36	1e	51	VAL
36	1e	53	LEU
36	1e	63	ARG
36	1e	67	VAL
36	1e	75	THR
36	1e	82	VAL
36	1e	91	LEU
36	1e	112	LEU
36	1e	116	THR
36	1e	118	ILE
36	1e	135	THR
37	1f	10	LEU
37	1f	19	LEU
37	1f	21	LEU
37	1f	24	GLU
37	1f	36	ARG
37	1f	55	ASP
37	1f	70	ASP
37	1f	72	VAL
37	1f	77	ARG
37	1f	78	GLU
37	1f	85	VAL
38	1g	10	ARG
38	1g	12	LEU
38	1g	16	LEU
38	1g	21	VAL
38	1g	27	ILE
38	1g	31	MET
38	1g	50	ILE
38	1g	53	LYS
38	1g	59	LEU
38	1g	78	ARG
38	1g	104	LEU
38	1g	110	GLN
38	1g	113	GLU
38	1g	125	MET
39	1h	24	THR

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Mol	Chain	Res	Type
39	1h	29	SER
39	1h	35	ILE
39	1h	45	ILE
39	1h	51	VAL
39	1h	52	ASP
39	1h	54	ASP
39	1h	68	ARG
39	1h	79	VAL
39	1h	82	HIS
39	1h	83	ILE
39	1h	112	LEU
39	1h	118	VAL
39	1h	133	LEU
40	1i	17	VAL
40	1i	27	THR
40	1i	38	GLN
40	1i	41	VAL
40	1i	50	LEU
40	1i	64	THR
40	1i	92	TYR
40	1i	96	LEU
40	1i	97	LYS
40	1i	103	THR
40	1i	108	VAL
40	1i	128	ARG
41	1j	8	LEU
41	1j	19	SER
41	1j	34	VAL
41	1j	46	ARG
41	1j	81	THR
41	1j	92	THR
41	1j	98	ILE
42	1k	14	VAL
42	1k	25	TYR
42	1k	31	THR
42	1k	48	ILE
42	1k	80	VAL
42	1k	87	THR
42	1k	98	LEU
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL

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Mol	Chain	Res	Type
43	1l	18	VAL
43	1l	39	VAL
43	1l	40	VAL
43	1l	44	THR
43	1l	58	VAL
43	1l	62	SER
43	1l	83	VAL
43	1l	122	THR
43	1l	123	LYS
44	1m	4	ILE
44	1m	8	GLU
44	1m	19	LEU
44	1m	54	VAL
44	1m	56	LEU
44	1m	63	THR
44	1m	64	TRP
44	1m	70	LEU
44	1m	98	VAL
44	1m	106	ASN
44	1m	117	VAL
45	1n	3	ARG
45	1n	6	LEU
45	1n	13	THR
45	1n	18	VAL
45	1n	31	ARG
45	1n	33	VAL
45	1n	50	LYS
45	1n	56	VAL
46	1o	6	GLU
46	1o	24	SER
46	1o	27	VAL
46	1o	32	LEU
46	1o	33	THR
46	1o	43	LEU
46	1o	84	LYS
46	1o	87	ILE
47	1p	11	SER
47	1p	20	VAL
47	1p	21	VAL
47	1p	22	THR
47	1p	40	ASP
47	1p	60	LEU

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Mol	Chain	Res	Type
47	1p	67	THR
47	1p	76	GLN
48	1q	5	VAL
48	1q	9	VAL
48	1q	22	LEU
48	1q	23	VAL
48	1q	35	VAL
48	1q	45	HIS
48	1q	53	LEU
48	1q	57	VAL
48	1q	72	ARG
48	1q	74	LEU
48	1q	86	GLU
49	1r	22	VAL
49	1r	26	LEU
49	1r	37	VAL
49	1r	56	THR
49	1r	65	ILE
49	1r	84	LYS
50	1s	19	VAL
50	1s	37	ARG
50	1s	79	THR
51	1t	10	LEU
51	1t	13	LEU
51	1t	24	LEU
51	1t	37	SER
51	1t	41	ILE
51	1t	54	LYS
51	1t	71	THR
3	2D	3	VAL
3	2D	14	ARG
3	2D	16	MET
3	2D	35	LYS
3	2D	37	LEU
3	2D	71	ASP
3	2D	73	VAL
3	2D	113	VAL
3	2D	141	VAL
3	2D	145	VAL
3	2D	204	ILE
3	2D	229	VAL
3	2D	242	ARG

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Mol	Chain	Res	Type
3	2D	259	THR
4	2E	9	VAL
4	2E	11	MET
4	2E	12	THR
4	2E	40	GLU
4	2E	55	ASN
4	2E	77	ILE
4	2E	90	THR
4	2E	93	VAL
4	2E	103	ASP
4	2E	116	VAL
4	2E	119	ARG
4	2E	134	ILE
4	2E	175	VAL
4	2E	199	ARG
5	2F	20	LEU
5	2F	33	LEU
5	2F	51	THR
5	2F	57	VAL
5	2F	70	THR
5	2F	77	ASP
5	2F	82	ILE
5	2F	107	LYS
5	2F	135	LYS
5	2F	145	GLU
5	2F	154	VAL
5	2F	161	GLU
5	2F	165	ARG
5	2F	176	LEU
5	2F	183	VAL
5	2F	186	ILE
5	2F	187	VAL
5	2F	192	LEU
5	2F	200	GLU
6	2G	4	ASP
6	2G	19	LEU
6	2G	43	LEU
6	2G	45	GLU
6	2G	51	ARG
6	2G	53	LEU
6	2G	60	LEU
6	2G	109	VAL

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Mol	Chain	Res	Type
6	2G	111	LEU
6	2G	114	ILE
6	2G	130	ASN
6	2G	135	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	159	VAL
6	2G	165	THR
7	2H	4	ILE
7	2H	7	LEU
7	2H	17	VAL
7	2H	41	MET
7	2H	44	VAL
7	2H	46	GLU
7	2H	49	VAL
7	2H	57	ASP
7	2H	67	LEU
7	2H	70	THR
7	2H	76	VAL
7	2H	90	LYS
7	2H	101	ARG
7	2H	115	VAL
7	2H	119	GLU
7	2H	172	LYS
8	2I	12	LEU
8	2I	15	VAL
8	2I	19	VAL
8	2I	22	LYS
8	2I	37	VAL
8	2I	38	LEU
8	2I	43	ASN
8	2I	45	LYS
8	2I	47	LEU
8	2I	52	ARG
8	2I	58	LEU
8	2I	61	ARG
8	2I	68	LEU
8	2I	69	LYS
8	2I	77	LEU
8	2I	82	ARG
8	2I	86	THR
8	2I	87	LYS

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Mol	Chain	Res	Type
8	2I	92	VAL
8	2I	108	THR
8	2I	116	LEU
8	2I	117	GLU
8	2I	123	LEU
8	2I	125	GLU
8	2I	127	VAL
8	2I	144	VAL
9	2N	2	LYS
9	2N	15	LEU
9	2N	29	LYS
9	2N	38	HIS
9	2N	43	THR
9	2N	48	MET
9	2N	55	VAL
9	2N	62	VAL
9	2N	63	THR
9	2N	85	ILE
9	2N	96	GLU
9	2N	131	GLN
9	2N	137	LYS
10	2O	14	THR
10	2O	21	CYS
10	2O	24	VAL
10	2O	35	VAL
10	2O	45	GLU
10	2O	52	VAL
10	2O	53	LYS
10	2O	65	THR
10	2O	89	ASN
10	2O	96	THR
10	2O	113	LYS
10	2O	115	VAL
11	2P	45	LEU
11	2P	46	LYS
11	2P	70	GLN
11	2P	71	VAL
11	2P	76	LYS
11	2P	83	VAL
11	2P	95	VAL
11	2P	96	THR
11	2P	101	VAL

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Mol	Chain	Res	Type
11	2P	133	SER
11	2P	135	LEU
11	2P	147	LEU
12	2Q	10	ARG
12	2Q	18	LYS
12	2Q	38	GLU
12	2Q	56	ARG
12	2Q	75	THR
12	2Q	97	VAL
12	2Q	110	THR
12	2Q	127	ILE
13	2R	24	GLN
13	2R	67	LEU
13	2R	73	VAL
13	2R	95	THR
13	2R	100	LEU
13	2R	114	VAL
14	2S	11	LYS
14	2S	12	PHE
14	2S	15	ARG
14	2S	28	VAL
14	2S	35	ILE
14	2S	36	TYR
14	2S	58	LEU
14	2S	63	THR
14	2S	64	GLU
14	2S	65	VAL
14	2S	78	LEU
14	2S	82	ILE
14	2S	84	GLN
14	2S	85	VAL
14	2S	99	LYS
14	2S	110	LEU
15	2T	9	LEU
15	2T	15	VAL
15	2T	28	VAL
15	2T	31	SER
15	2T	40	THR
15	2T	46	GLU
15	2T	49	VAL
15	2T	70	VAL
15	2T	72	VAL

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Mol	Chain	Res	Type
15	2T	75	ILE
15	2T	89	VAL
15	2T	96	ARG
15	2T	104	ASN
15	2T	107	ASP
15	2T	115	ARG
15	2T	124	ASP
16	2U	59	ARG
16	2U	74	LEU
16	2U	78	THR
16	2U	95	LEU
16	2U	100	VAL
16	2U	111	GLU
17	2V	12	TYR
17	2V	32	THR
17	2V	38	LEU
17	2V	45	THR
17	2V	46	VAL
17	2V	52	VAL
17	2V	61	VAL
17	2V	79	VAL
17	2V	84	LYS
17	2V	98	GLU
18	2W	11	ARG
18	2W	17	VAL
18	2W	20	VAL
18	2W	50	VAL
18	2W	92	ARG
18	2W	96	ILE
18	2W	106	ILE
19	2X	70	LEU
19	2X	80	ILE
19	2X	81	VAL
20	2Y	1	MET
20	2Y	11	ASP
20	2Y	14	LEU
20	2Y	15	VAL
20	2Y	37	VAL
20	2Y	49	VAL
20	2Y	72	VAL
20	2Y	85	VAL
20	2Y	99	CYS

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Mol	Chain	Res	Type
20	2Y	101	LYS
21	2Z	5	LEU
21	2Z	18	LEU
21	2Z	31	ARG
21	2Z	42	VAL
21	2Z	67	LEU
21	2Z	71	VAL
21	2Z	81	ARG
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	100	VAL
21	2Z	122	ARG
21	2Z	126	VAL
21	2Z	133	ILE
21	2Z	137	ILE
21	2Z	144	LEU
21	2Z	148	ASP
21	2Z	149	SER
21	2Z	150	LEU
21	2Z	154	ASP
21	2Z	170	THR
22	20	14	ARG
22	20	30	VAL
22	20	40	GLN
22	20	68	GLU
23	21	46	LEU
23	21	65	SER
23	21	71	TYR
24	22	1	MET
24	22	9	GLN
24	22	34	GLU
24	22	65	ASN
24	22	70	GLN
25	23	31	LEU
25	23	52	HIS
25	23	59	VAL
26	24	21	VAL
26	24	22	ILE
26	24	26	SER
26	24	27	THR
26	24	31	ILE
26	24	33	VAL

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Mol	Chain	Res	Type
26	24	34	GLU
26	24	49	PHE
26	24	50	VAL
26	24	56	VAL
26	24	63	TYR
26	24	67	TYR
26	24	68	ARG
27	25	6	VAL
27	25	13	LYS
27	25	44	THR
27	25	55	ARG
27	25	58	LEU
28	26	9	LEU
28	26	13	CYS
28	26	32	ASN
28	26	35	GLU
28	26	48	VAL
29	27	1	MET
29	27	4	THR
29	27	24	THR
29	27	41	ARG
29	27	46	VAL
30	28	37	SER
30	28	59	LYS
31	29	33	LYS
33	2b	8	LYS
33	2b	9	GLU
33	2b	16	HIS
33	2b	30	ARG
33	2b	44	LEU
33	2b	58	ILE
33	2b	59	GLU
33	2b	67	THR
33	2b	71	VAL
33	2b	76	GLN
33	2b	80	ILE
33	2b	82	ARG
33	2b	94	ASN
33	2b	95	GLN
33	2b	102	LEU
33	2b	108	ILE
33	2b	112	VAL

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Mol	Chain	Res	Type
33	2b	115	LEU
33	2b	127	ILE
33	2b	144	ARG
33	2b	154	LEU
33	2b	157	ARG
33	2b	162	ILE
33	2b	168	THR
33	2b	169	LYS
33	2b	172	ILE
33	2b	185	ILE
33	2b	189	ASP
33	2b	193	ASP
33	2b	198	ASP
33	2b	219	VAL
33	2b	224	GLN
33	2b	229	VAL
33	2b	236	TYR
34	2c	14	ILE
34	2c	17	ASP
34	2c	32	LEU
34	2c	39	ILE
34	2c	44	GLU
34	2c	52	LEU
34	2c	55	VAL
34	2c	69	HIS
34	2c	70	VAL
34	2c	103	VAL
34	2c	132	ARG
34	2c	140	ARG
34	2c	153	VAL
34	2c	173	VAL
34	2c	188	LEU
34	2c	190	ARG
35	2d	17	VAL
35	2d	19	LEU
35	2d	22	LYS
35	2d	31	CYS
35	2d	42	GLN
35	2d	45	GLN
35	2d	58	LEU
35	2d	59	ARG
35	2d	60	GLU

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Mol	Chain	Res	Type
35	2d	83	SER
35	2d	94	LEU
35	2d	96	LEU
35	2d	113	SER
35	2d	127	THR
35	2d	129	ASN
35	2d	135	LEU
35	2d	141	ARG
35	2d	150	GLU
35	2d	155	LEU
35	2d	162	LEU
35	2d	178	VAL
35	2d	193	ASP
36	2e	6	PHE
36	2e	8	GLU
36	2e	12	LEU
36	2e	13	ILE
36	2e	20	GLN
36	2e	38	GLN
36	2e	53	LEU
36	2e	55	VAL
36	2e	73	ASN
36	2e	78	HIS
36	2e	83	GLU
36	2e	100	VAL
36	2e	101	ILE
36	2e	125	SER
36	2e	147	ASP
37	2f	7	ASN
37	2f	9	VAL
37	2f	15	ASP
37	2f	19	LEU
37	2f	63	TYR
37	2f	66	GLU
37	2f	69	GLU
37	2f	75	LEU
37	2f	92	LYS
38	2g	4	ARG
38	2g	9	VAL
38	2g	15	ASP
38	2g	16	LEU
38	2g	23	VAL

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Mol	Chain	Res	Type
38	2g	24	THR
38	2g	27	ILE
38	2g	30	ILE
38	2g	52	GLU
38	2g	64	GLN
38	2g	78	ARG
38	2g	79	ARG
38	2g	85	TYR
38	2g	98	SER
38	2g	115	ARG
38	2g	129	GLU
38	2g	139	GLU
38	2g	146	GLU
38	2g	155	ARG
39	2h	3	THR
39	2h	26	VAL
39	2h	29	SER
39	2h	45	ILE
39	2h	49	GLU
39	2h	63	LEU
39	2h	75	ARG
39	2h	82	HIS
39	2h	84	ARG
39	2h	109	ILE
39	2h	112	LEU
39	2h	118	VAL
39	2h	127	LEU
39	2h	133	LEU
39	2h	137	VAL
40	2i	35	GLU
40	2i	40	LEU
40	2i	41	VAL
40	2i	50	LEU
40	2i	54	ASP
40	2i	56	LEU
40	2i	65	VAL
40	2i	88	TYR
40	2i	89	ASN
40	2i	102	LEU
40	2i	103	THR
40	2i	105	ASP
40	2i	111	ARG

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Mol	Chain	Res	Type
40	2i	113	LYS
41	2j	8	LEU
41	2j	21	GLN
41	2j	23	ILE
41	2j	38	ILE
41	2j	50	ILE
41	2j	65	LEU
41	2j	66	ARG
41	2j	67	THR
41	2j	72	VAL
41	2j	84	GLN
41	2j	96	ILE
41	2j	97	GLU
42	2k	14	VAL
42	2k	21	ILE
42	2k	24	SER
42	2k	40	ILE
42	2k	41	THR
42	2k	48	ILE
42	2k	73	MET
42	2k	78	GLN
42	2k	79	SER
42	2k	80	VAL
42	2k	87	THR
42	2k	105	VAL
43	2l	18	VAL
43	2l	38	THR
43	2l	40	VAL
43	2l	43	VAL
43	2l	52	LEU
43	2l	83	VAL
43	2l	97	ARG
43	2l	102	ARG
43	2l	122	THR
44	2m	4	ILE
44	2m	14	ARG
44	2m	15	VAL
44	2m	19	LEU
44	2m	22	ILE
44	2m	32	GLU
44	2m	37	THR
44	2m	47	ASP

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Mol	Chain	Res	Type
44	2m	60	VAL
44	2m	62	ASN
44	2m	66	LEU
44	2m	67	GLU
44	2m	73	GLU
44	2m	103	THR
44	2m	106	ASN
45	2n	15	LYS
45	2n	18	VAL
45	2n	33	VAL
45	2n	49	HIS
46	2o	5	LYS
46	2o	7	GLU
46	2o	26	GLU
46	2o	27	VAL
46	2o	56	LEU
46	2o	76	GLU
46	2o	84	LYS
46	2o	87	ILE
47	2p	2	VAL
47	2p	20	VAL
47	2p	42	ARG
47	2p	45	THR
47	2p	60	LEU
47	2p	61	SER
47	2p	67	THR
47	2p	73	LEU
48	2q	5	VAL
48	2q	19	VAL
48	2q	35	VAL
48	2q	36	ILE
48	2q	39	SER
48	2q	73	VAL
48	2q	82	MET
48	2q	84	LEU
48	2q	99	SER
49	2r	22	VAL
49	2r	26	LEU
49	2r	31	LEU
49	2r	37	VAL
49	2r	42	ARG
49	2r	49	LYS

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Mol	Chain	Res	Type
49	2r	69	THR
49	2r	82	THR
49	2r	85	LEU
50	2s	7	LYS
50	2s	14	HIS
50	2s	16	LEU
50	2s	20	LEU
50	2s	27	GLU
50	2s	30	LEU
50	2s	37	ARG
50	2s	49	ILE
50	2s	56	GLN
50	2s	57	HIS
50	2s	67	VAL
50	2s	71	LEU
50	2s	77	THR
50	2s	81	ARG
51	2t	31	SER
51	2t	39	LYS
51	2t	45	GLN
51	2t	72	LEU
52	2u	15	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (144) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	116	GLN
3	1D	126	GLN
4	1E	48	GLN
4	1E	54	GLN
4	1E	55	ASN
4	1E	192	ASN
5	1F	69	HIS
6	1G	26	GLN
6	1G	121	ASN
6	1G	132	ASN
9	1N	131	GLN
10	1O	3	GLN
10	1O	5	GLN
12	1Q	57	HIS
12	1Q	113	GLN
12	1Q	123	HIS

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Mol	Chain	Res	Type
13	1R	71	GLN
15	1T	43	GLN
15	1T	58	ASN
15	1T	84	GLN
19	1X	82	GLN
20	1Y	6	HIS
21	1Z	65	GLN
21	1Z	73	GLN
21	1Z	75	ASN
21	1Z	151	HIS
22	10	50	ASN
23	11	56	GLN
24	12	9	GLN
24	12	43	GLN
24	12	65	ASN
25	13	32	GLN
29	17	36	GLN
33	1b	37	ASN
33	1b	40	HIS
33	1b	113	HIS
33	1b	224	GLN
34	1c	6	HIS
34	1c	123	GLN
34	1c	162	GLN
35	1d	77	ASN
35	1d	123	HIS
35	1d	161	ASN
35	1d	201	GLN
36	1e	20	GLN
36	1e	38	GLN
36	1e	78	HIS
37	1f	18	GLN
37	1f	57	GLN
37	1f	73	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	64	GLN
38	1g	148	ASN
39	1h	82	HIS
40	1i	38	GLN
40	1i	89	ASN

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Mol	Chain	Res	Type
40	1i	124	GLN
41	1j	56	HIS
41	1j	62	HIS
41	1j	68	HIS
42	1k	117	ASN
43	1l	80	HIS
43	1l	99	HIS
44	1m	62	ASN
45	1n	49	HIS
46	1o	13	GLN
46	1o	46	HIS
46	1o	50	HIS
47	1p	14	ASN
47	1p	76	GLN
50	1s	47	HIS
50	1s	57	HIS
50	1s	83	HIS
3	2D	87	ASN
3	2D	116	GLN
4	2E	48	GLN
5	2F	69	HIS
6	2G	40	ASN
6	2G	132	ASN
8	2I	105	HIS
8	2I	133	HIS
8	2I	139	GLN
10	2O	5	GLN
10	2O	90	GLN
11	2P	70	GLN
12	2Q	12	GLN
12	2Q	13	GLN
12	2Q	57	HIS
13	2R	61	HIS
14	2S	38	GLN
15	2T	55	ASN
15	2T	58	ASN
15	2T	90	GLN
16	2U	94	ASN
16	2U	117	GLN
19	2X	82	GLN
21	2Z	50	GLN
22	20	35	ASN

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Mol	Chain	Res	Type
23	21	56	GLN
24	22	70	GLN
25	23	32	GLN
26	24	40	HIS
26	24	46	GLN
27	25	23	HIS
30	28	35	GLN
33	2b	76	GLN
33	2b	94	ASN
33	2b	135	GLN
34	2c	104	GLN
34	2c	170	GLN
35	2d	45	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	199	ASN
36	2e	56	GLN
36	2e	130	ASN
37	2f	13	ASN
37	2f	84	ASN
37	2f	100	ASN
38	2g	37	ASN
38	2g	51	GLN
38	2g	86	GLN
38	2g	148	ASN
40	2i	58	HIS
40	2i	89	ASN
41	2j	33	GLN
41	2j	69	ASN
42	2k	116	HIS
42	2k	117	ASN
43	2l	99	HIS
44	2m	62	ASN
44	2m	106	ASN
45	2n	49	HIS
46	2o	13	GLN
46	2o	37	ASN
49	2r	63	GLN
50	2s	69	HIS

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Mol	Chain	Res	Type
50	2s	83	HIS
51	2t	75	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	507 (17%)	27 (0%)
1	2A	2791/2915 (95%)	549 (19%)	23 (0%)
2	1B	119/121 (98%)	11 (9%)	0
2	2B	118/121 (97%)	26 (22%)	0
32	1a	1497/1521 (98%)	268 (17%)	0
32	2a	1501/1521 (98%)	331 (22%)	0
53	1v	12/24 (50%)	1 (8%)	0
53	2v	12/24 (50%)	1 (8%)	0
54	1w	70/76 (92%)	24 (34%)	0
54	2w	67/76 (88%)	20 (29%)	0
55	1x	74/77 (96%)	15 (20%)	0
55	2x	74/77 (96%)	14 (18%)	0
56	1y	72/76 (94%)	27 (37%)	0
56	2y	70/76 (92%)	26 (37%)	0
All	All	9341/9620 (97%)	1820 (19%)	50 (0%)

All (1820) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	27	G
1	1A	34	C
1	1A	36	G
1	1A	45	C
1	1A	55	G
1	1A	58	G
1	1A	71	A
1	1A	72	U
1	1A	74	A
1	1A	75	G
1	1A	78	A
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A

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Mol	Chain	Res	Type
1	1A	120	U
1	1A	125	G
1	1A	131	G
1	1A	139	G
1	1A	140	G
1	1A	141	A
1	1A	154(A)	C
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	200	U
1	1A	201	C
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	223	A
1	1A	226	G
1	1A	228	A
1	1A	229	A
1	1A	230	U
1	1A	233	A
1	1A	248	G
1	1A	265	A
1	1A	269	U
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(O)	C
1	1A	271(R)	G
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	272(I)	U
1	1A	275	G
1	1A	279	C
1	1A	283	A
1	1A	311	A
1	1A	329	G
1	1A	330	A

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Mol	Chain	Res	Type
1	1A	342	G
1	1A	352	G
1	1A	357	A
1	1A	363	G
1	1A	363(A)	A
1	1A	363(B)	G
1	1A	380	U
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	428	A
1	1A	442	G
1	1A	444	C
1	1A	448	U
1	1A	451	C
1	1A	454	A
1	1A	455	C
1	1A	481	G
1	1A	489	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	568	U
1	1A	573	G
1	1A	574	C
1	1A	575	A
1	1A	586	A
1	1A	592	G
1	1A	603	A

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Mol	Chain	Res	Type
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	621	A
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	648	G
1	1A	652(A)	A
1	1A	652(E)	G
1	1A	652(F)	G
1	1A	652(T)	C
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	719	C
1	1A	730	C
1	1A	749	C
1	1A	762	U
1	1A	764	A
1	1A	765	G
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	783	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	802	A
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	861	A
1	1A	866	A

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Mol	Chain	Res	Type
1	1A	879	G
1	1A	880	G
1	1A	883	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	890	A
1	1A	892	G
1	1A	894	C
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	899	A
1	1A	907	U
1	1A	910	A
1	1A	914	C
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	995	C
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1025	G
1	1A	1026	U
1	1A	1033	U
1	1A	1038	C
1	1A	1041	C
1	1A	1044	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G

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Mol	Chain	Res	Type
1	1A	1048	A
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1063	G
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1081	U
1	1A	1083	U
1	1A	1087	G
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1093	G
1	1A	1094	U
1	1A	1096	A
1	1A	1097	U
1	1A	1098	A
1	1A	1099	G
1	1A	1101	U
1	1A	1102	C
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1117	G
1	1A	1128	A
1	1A	1130	U
1	1A	1131	G
1	1A	1132	A
1	1A	1135	C
1	1A	1136	G
1	1A	1149	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U

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Mol	Chain	Res	Type
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1220	A
1	1A	1229	G
1	1A	1237	A
1	1A	1244	G
1	1A	1248	G
1	1A	1252	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1289	C
1	1A	1290	C
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1313	U
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1369	G
1	1A	1372	U
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1395	A
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1427	A
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1461	G

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Mol	Chain	Res	Type
1	1A	1467	C
1	1A	1473	G
1	1A	1482	G
1	1A	1493	C
1	1A	1507	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1532	C
1	1A	1539	G
1	1A	1540	U
1	1A	1541	G
1	1A	1543	C
1	1A	1554	A
1	1A	1558	A
1	1A	1559	G
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1612	C
1	1A	1615	C
1	1A	1648	C
1	1A	1658	C
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1722	A
1	1A	1740	G
1	1A	1745	C
1	1A	1746	G
1	1A	1756	G
1	1A	1761	C
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G

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Mol	Chain	Res	Type
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1816	G
1	1A	1828	G
1	1A	1847	A
1	1A	1861	G
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1916	A
1	1A	1927	A
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1980	G
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2035	G
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G

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Mol	Chain	Res	Type
1	1A	2062	A
1	1A	2069	G
1	1A	2099	U
1	1A	2100	G
1	1A	2104	G
1	1A	2108	C
1	1A	2110	G
1	1A	2112	G
1	1A	2113	U
1	1A	2116	G
1	1A	2121	G
1	1A	2127	G
1	1A	2129	C
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2136	C
1	1A	2140	C
1	1A	2142	C
1	1A	2143	C
1	1A	2144	U
1	1A	2146	C
1	1A	2150	U
1	1A	2151	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2162	G
1	1A	2165	G
1	1A	2166	G
1	1A	2168	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2174	C
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G

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Mol	Chain	Res	Type
1	1A	2189	U
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2208	A
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2259	G
1	1A	2268	A
1	1A	2269	A
1	1A	2280	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2305	A
1	1A	2307	G
1	1A	2308	G
1	1A	2312	U
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2358	G
1	1A	2361	A
1	1A	2383	G
1	1A	2385	C
1	1A	2396	G
1	1A	2405	G
1	1A	2406	U
1	1A	2410	G
1	1A	2422	A
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2438	U

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Mol	Chain	Res	Type
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2502	G
1	1A	2505	G
1	1A	2518	A
1	1A	2520	C
1	1A	2525	G
1	1A	2529	G
1	1A	2530	A
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2574	G
1	1A	2578	G
1	1A	2585	U
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2675	A
1	1A	2689	U
1	1A	2690	C
1	1A	2703	C
1	1A	2711	A
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2726	U
1	1A	2733	A
1	1A	2739	U
1	1A	2744	G

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Mol	Chain	Res	Type
1	1A	2752	C
1	1A	2757	A
1	1A	2758	A
1	1A	2763	G
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2793	G
1	1A	2794	C
1	1A	2802	G
1	1A	2810	A
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2825	C
1	1A	2833	G
1	1A	2834	G
1	1A	2835	A
1	1A	2836	U
1	1A	2855	C
1	1A	2872	G
1	1A	2875	C
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
1	1A	2895	U
2	1B	2	C
2	1B	12	C
2	1B	15	A
2	1B	35	U
2	1B	42	C
2	1B	52	A
2	1B	56	G
2	1B	65	C
2	1B	73	A
2	1B	85	G
2	1B	110	G
32	1a	5	U
32	1a	7	G

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Mol	Chain	Res	Type
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	52	G
32	1a	61	G
32	1a	77	G
32	1a	79	G
32	1a	91	C
32	1a	92	C
32	1a	93	G
32	1a	98	G
32	1a	105	G
32	1a	116	A
32	1a	121	C
32	1a	129(A)	G
32	1a	131	C
32	1a	151	A
32	1a	153	C
32	1a	161	A
32	1a	163	C
32	1a	173	U
32	1a	174	C
32	1a	175	C
32	1a	180	U
32	1a	182	U
32	1a	189	G
32	1a	189(H)	G
32	1a	189(J)	G
32	1a	194	C
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G

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Mol	Chain	Res	Type
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	274	A
32	1a	283	C
32	1a	289	G
32	1a	311	C
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	345	C
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	388	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	410	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	423	G
32	1a	429	U
32	1a	439	A
32	1a	441	A
32	1a	452	A
32	1a	453	A
32	1a	461	A
32	1a	470	C
32	1a	479	C
32	1a	485	G

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Mol	Chain	Res	Type
32	1a	496	A
32	1a	498	U
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	536	C
32	1a	545	C
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	607	A
32	1a	630	G
32	1a	653	A
32	1a	665	A
32	1a	666	G
32	1a	672	U
32	1a	684	A
32	1a	687	A
32	1a	688	G
32	1a	693	G
32	1a	695	A
32	1a	721	G
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	734	G
32	1a	745	C
32	1a	749	C
32	1a	753	A
32	1a	755	G
32	1a	766	A
32	1a	777	A

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Mol	Chain	Res	Type
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	803	G
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	827	U
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G
32	1a	855	G
32	1a	870	U
32	1a	872	A
32	1a	874	G
32	1a	876	G
32	1a	891	U
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	950	U
32	1a	955	U
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	983	A
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	997	U

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Mol	Chain	Res	Type
32	1a	1000	U
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1011	G
32	1a	1020	U
32	1a	1021	G
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1033	G
32	1a	1039	C
32	1a	1040	U
32	1a	1044	A
32	1a	1051	C
32	1a	1068	G
32	1a	1081	G
32	1a	1085	U
32	1a	1091	U
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1123	A
32	1a	1124	G
32	1a	1125	U
32	1a	1132	C
32	1a	1134	G
32	1a	1135	U
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G

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Mol	Chain	Res	Type
32	1a	1146	A
32	1a	1152	A
32	1a	1154	G
32	1a	1159	U
32	1a	1160	G
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1204	A
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1275	A
32	1a	1276	G
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1363(A)	A
32	1a	1381	U
32	1a	1394	A
32	1a	1402	4OC
32	1a	1419	G
32	1a	1442	G

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Mol	Chain	Res	Type
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1446	U
32	1a	1487	G
32	1a	1492	A
32	1a	1494	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
53	1v	13	A
54	1w	7	A
54	1w	8	4SU
54	1w	9	A
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	21	A
54	1w	23	A
54	1w	24	G
54	1w	27	G
54	1w	36	A
54	1w	45	U
54	1w	46	7MG
54	1w	47	U
54	1w	48	C
54	1w	50	U
54	1w	61	C
54	1w	62	C
54	1w	63	G
54	1w	68	C
54	1w	70	G
54	1w	71	G
54	1w	73	A
54	1w	74	C
55	1x	3	C
55	1x	7	G
55	1x	8	4SU

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Mol	Chain	Res	Type
55	1x	9	G
55	1x	17(A)	U
55	1x	21	A
55	1x	44	A
55	1x	47	U
55	1x	48	C
55	1x	51	C
55	1x	52	G
55	1x	59	A
55	1x	61	C
55	1x	63	G
55	1x	64	G
56	1y	2	C
56	1y	6	G
56	1y	8	4SU
56	1y	9	A
56	1y	13	C
56	1y	14	A
56	1y	19	G
56	1y	20	U
56	1y	21	A
56	1y	26	A
56	1y	35	A
56	1y	39	PSU
56	1y	40	C
56	1y	44	G
56	1y	45	U
56	1y	46	7MG
56	1y	47	U
56	1y	48	C
56	1y	53	G
56	1y	57	G
56	1y	58	A
56	1y	59	U
56	1y	61	C
56	1y	64	A
56	1y	65	G
56	1y	69	G
56	1y	70	G
1	2A	7	G
1	2A	12	U
1	2A	14	A

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Mol	Chain	Res	Type
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	36	G
1	2A	38	A
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	76	C
1	2A	79	G
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	95	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	120	U
1	2A	121	G
1	2A	141	A
1	2A	154(A)	C
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	222	A
1	2A	225	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	233	A
1	2A	248	G
1	2A	265	A
1	2A	266	G
1	2A	271(F)	C
1	2A	271(J)	C

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Mol	Chain	Res	Type
1	2A	271(K)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(B)	G
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	295	G
1	2A	311	A
1	2A	317	G
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	335	C
1	2A	342	G
1	2A	352	G
1	2A	363	G
1	2A	363(B)	G
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	403	U
1	2A	411	G
1	2A	412	A
1	2A	421	U
1	2A	430	G
1	2A	431	U
1	2A	434	U
1	2A	443	A
1	2A	444	C
1	2A	455	C
1	2A	457	A
1	2A	480	A
1	2A	481	G
1	2A	482	A
1	2A	499	U
1	2A	501	A
1	2A	504	U
1	2A	505	A
1	2A	509	C

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Mol	Chain	Res	Type
1	2A	527	C
1	2A	528	A
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	551	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	574	C
1	2A	575	A
1	2A	586	A
1	2A	588	U
1	2A	603	A
1	2A	604	G
1	2A	606	U
1	2A	607	U
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	651	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(D)	C
1	2A	664	C
1	2A	669	G
1	2A	671	C
1	2A	686	G
1	2A	701	G
1	2A	708	C
1	2A	717	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	774	A

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Mol	Chain	Res	Type
1	2A	775	G
1	2A	776	G
1	2A	779	U
1	2A	782	A
1	2A	783	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	793	A
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	828	U
1	2A	832	G
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	868	U
1	2A	872	A
1	2A	874	G
1	2A	875	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	904	C
1	2A	910	A
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A

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Mol	Chain	Res	Type
1	2A	946	G
1	2A	953	A
1	2A	957	A
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	981	A
1	2A	983	A
1	2A	990	A
1	2A	996	A
1	2A	999	U
1	2A	1005	C
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1021	A
1	2A	1022	G
1	2A	1023	U
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1036	G
1	2A	1038	C
1	2A	1039	G
1	2A	1042	G
1	2A	1043	C
1	2A	1114	G
1	2A	1116	C
1	2A	1121	C
1	2A	1122	G
1	2A	1126	A
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1142(A)	A
1	2A	1144	G
1	2A	1155	A
1	2A	1169	G

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Mol	Chain	Res	Type
1	2A	1170	G
1	2A	1171	G
1	2A	1195	G
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1221	C
1	2A	1244	G
1	2A	1247	A
1	2A	1248	G
1	2A	1253	A
1	2A	1256	G
1	2A	1264	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1320	C
1	2A	1333	C
1	2A	1341	U
1	2A	1345	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1379	A
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1392	A
1	2A	1412	A
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C

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Mol	Chain	Res	Type
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1461	G
1	2A	1463	C
1	2A	1467	C
1	2A	1471	A
1	2A	1479	G
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1541	G
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1588	C
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1616	A
1	2A	1648	C
1	2A	1653	G
1	2A	1654	A
1	2A	1664	A
1	2A	1667	G

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Mol	Chain	Res	Type
1	2A	1674	G
1	2A	1675	C
1	2A	1680	U
1	2A	1695	G
1	2A	1696	G
1	2A	1698	A
1	2A	1700	A
1	2A	1701	A
1	2A	1707	G
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U
1	2A	1740	G
1	2A	1747	G
1	2A	1750	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1812	A
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
1	2A	1861	G
1	2A	1877	A
1	2A	1878	G
1	2A	1881	C
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G

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Mol	Chain	Res	Type
1	2A	1930	G
1	2A	1931	U
1	2A	1936	A
1	2A	1938	A
1	2A	1940	U
1	2A	1955	U
1	2A	1963	U
1	2A	1966	A
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2033	A
1	2A	2036	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2063	C
1	2A	2069	G
1	2A	2093	G
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2113	U
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2124	G
1	2A	2125	G
1	2A	2126	A

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Mol	Chain	Res	Type
1	2A	2127	G
1	2A	2128	C
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2139	C
1	2A	2141	G
1	2A	2142	C
1	2A	2146	C
1	2A	2150	U
1	2A	2151	G
1	2A	2153	G
1	2A	2157	G
1	2A	2158	A
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2169	A
1	2A	2172	U
1	2A	2174	C
1	2A	2176	A
1	2A	2178	C
1	2A	2182	G
1	2A	2185	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2267	A
1	2A	2269	A

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Mol	Chain	Res	Type
1	2A	2274	A
1	2A	2275	C
1	2A	2278	A
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2305	A
1	2A	2308	G
1	2A	2312	U
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2335	A
1	2A	2336	A
1	2A	2346	A
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2358	G
1	2A	2366	A
1	2A	2370	G
1	2A	2374	C
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2403	C
1	2A	2406	U
1	2A	2414	G
1	2A	2422	A
1	2A	2425	A
1	2A	2426	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2434	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2445	G

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Mol	Chain	Res	Type
1	2A	2448	A
1	2A	2457	U
1	2A	2459	A
1	2A	2465	C
1	2A	2469	A
1	2A	2476	A
1	2A	2477	C
1	2A	2480	C
1	2A	2481	G
1	2A	2490	G
1	2A	2491	U
1	2A	2494	G
1	2A	2497	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2507	C
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2532	G
1	2A	2537	U
1	2A	2554	U
1	2A	2555	U
1	2A	2562	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G
1	2A	2582	G
1	2A	2602	A
1	2A	2609	U
1	2A	2610	C
1	2A	2611	U
1	2A	2612	C
1	2A	2616	C
1	2A	2629	A
1	2A	2630	G
1	2A	2634	G
1	2A	2636	U
1	2A	2646	C

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Mol	Chain	Res	Type
1	2A	2648	C
1	2A	2654	A
1	2A	2662	A
1	2A	2679	A
1	2A	2686	G
1	2A	2689	U
1	2A	2690	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G
1	2A	2726	U
1	2A	2733	A
1	2A	2751	G
1	2A	2758	A
1	2A	2759	G
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2779	U
1	2A	2780	G
1	2A	2789	C
1	2A	2793	G
1	2A	2794	C
1	2A	2802	G
1	2A	2803	C
1	2A	2805	G
1	2A	2807	G
1	2A	2810	A
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2835	A
1	2A	2839	G
1	2A	2861	G
1	2A	2872	G
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U

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Mol	Chain	Res	Type
2	2B	2	C
2	2B	8	U
2	2B	13	A
2	2B	17	C
2	2B	20	C
2	2B	33	G
2	2B	34	U
2	2B	40	U
2	2B	41	U
2	2B	42	C
2	2B	52	A
2	2B	56	G
2	2B	63	G
2	2B	67	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	84	C
2	2B	85	G
2	2B	88	C
2	2B	102	A
2	2B	105	A
2	2B	106	G
2	2B	110	G
2	2B	111	G
2	2B	120	A
32	2a	9	G
32	2a	22	G
32	2a	27	G
32	2a	32	A
32	2a	39	G
32	2a	41	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	66	G
32	2a	73	G
32	2a	88	A
32	2a	89	C
32	2a	97	G
32	2a	116	A

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Mol	Chain	Res	Type
32	2a	121	C
32	2a	129(A)	G
32	2a	131	C
32	2a	137	C
32	2a	143	A
32	2a	144	G
32	2a	151	A
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	189(A)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	189(G)	G
32	2a	189(H)	G
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	217	C
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	281	G
32	2a	283	C
32	2a	287	U
32	2a	289	G
32	2a	301	G
32	2a	306	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	345	C
32	2a	350	G
32	2a	352	C
32	2a	353	A
32	2a	354	G

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Mol	Chain	Res	Type
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	383	A
32	2a	384	G
32	2a	389	A
32	2a	396	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	410	G
32	2a	411	A
32	2a	412	A
32	2a	413	G
32	2a	414	A
32	2a	421	U
32	2a	423	G
32	2a	424	G
32	2a	427	U
32	2a	428	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	441	A
32	2a	442	C
32	2a	447	G
32	2a	452	A
32	2a	457	C
32	2a	470	C
32	2a	476	G
32	2a	484	G
32	2a	485	G
32	2a	487	A
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	506	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G

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Mol	Chain	Res	Type
32	2a	527	7MG
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	549	C
32	2a	559	A
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	598	U
32	2a	601	C
32	2a	607	A
32	2a	630	G
32	2a	653	A
32	2a	662	G
32	2a	665	A
32	2a	681	C
32	2a	687	A
32	2a	688	G
32	2a	693	G
32	2a	695	A
32	2a	703	G
32	2a	712	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	749	C
32	2a	755	G
32	2a	756	C
32	2a	768	A
32	2a	773	G
32	2a	774	G
32	2a	777	A
32	2a	787	A
32	2a	793	U
32	2a	794	A

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Mol	Chain	Res	Type
32	2a	810	C
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	853	G
32	2a	858	G
32	2a	859	A
32	2a	880	C
32	2a	887	G
32	2a	891	U
32	2a	902	G
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	932	C
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	962	C
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	997	U
32	2a	999	C
32	2a	1001	A
32	2a	1001(A)	G
32	2a	1002	G

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Mol	Chain	Res	Type
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1007	C
32	2a	1009	G
32	2a	1011	G
32	2a	1019	C
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1029	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1035	A
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1042	G
32	2a	1043	C
32	2a	1051	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1078	U
32	2a	1079	G
32	2a	1081	G
32	2a	1086	U
32	2a	1092	A
32	2a	1093	A
32	2a	1094	G
32	2a	1095	U
32	2a	1097	C
32	2a	1101	A
32	2a	1106	G

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Mol	Chain	Res	Type
32	2a	1108	G
32	2a	1109	C
32	2a	1115	C
32	2a	1122	U
32	2a	1123	A
32	2a	1124	G
32	2a	1125	U
32	2a	1126	U
32	2a	1128	C
32	2a	1129	C
32	2a	1130	A
32	2a	1133	G
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1155	G
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1160	G
32	2a	1172	C
32	2a	1173	G
32	2a	1181	G
32	2a	1182	G
32	2a	1184	G
32	2a	1192	C
32	2a	1193	G
32	2a	1196	U
32	2a	1197	G
32	2a	1201	A
32	2a	1202	G
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U

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Mol	Chain	Res	Type
32	2a	1241	G
32	2a	1246	C
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1262	C
32	2a	1264	C
32	2a	1270	C
32	2a	1273	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1289	A
32	2a	1294	G
32	2a	1299	A
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1321	C
32	2a	1323	G
32	2a	1336	C
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1354	C
32	2a	1359	C
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1368	G
32	2a	1370	G
32	2a	1378	C
32	2a	1381	U
32	2a	1388	C
32	2a	1400	5MC

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Mol	Chain	Res	Type
32	2a	1404	5MC
32	2a	1405	G
32	2a	1416	G
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1478	C
32	2a	1492	A
32	2a	1494	G
32	2a	1504	G
32	2a	1506	U
32	2a	1517	G
32	2a	1519	MA6
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
32	2a	1532	U
53	2v	13	A
54	2w	3	C
54	2w	11	C
54	2w	14	A
54	2w	19	G
54	2w	22	G
54	2w	27	G
54	2w	32	PSU
54	2w	46	7MG
54	2w	47	U
54	2w	48	C
54	2w	49	C
54	2w	50	U
54	2w	51	U
54	2w	58	A
54	2w	62	C
54	2w	65	G
54	2w	69	G
54	2w	70	G
54	2w	73	A
54	2w	74	C

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Mol	Chain	Res	Type
55	2x	9	G
55	2x	13	C
55	2x	18	G
55	2x	19	G
55	2x	21	A
55	2x	23	C
55	2x	46	G
55	2x	47	U
55	2x	52	G
55	2x	53	G
55	2x	56	C
55	2x	61	C
55	2x	63	G
55	2x	67	C
56	2y	9	A
56	2y	14	A
56	2y	15	G
56	2y	19	G
56	2y	25	C
56	2y	26	A
56	2y	27	G
56	2y	40	C
56	2y	41	C
56	2y	45	U
56	2y	46	7MG
56	2y	48	C
56	2y	49	C
56	2y	52	G
56	2y	53	G
56	2y	56	C
56	2y	57	G
56	2y	58	A
56	2y	59	U
56	2y	61	C
56	2y	65	G
56	2y	67	C
56	2y	68	C
56	2y	69	G
56	2y	70	G
56	2y	73	A

All (50) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	195	A
1	1A	196	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	529	A
1	1A	548	A
1	1A	746	A
1	1A	764	A
1	1A	1047	G
1	1A	1067	A
1	1A	1174	A
1	1A	1176	G
1	1A	1379	A
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1663	C
1	1A	1992	G
1	1A	2134	A
1	1A	2181	G
1	1A	2183	C
1	1A	2406	U
1	1A	2430	A
1	1A	2629	A
1	1A	2689	U
1	1A	2756	U
1	2A	195	A
1	2A	228	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	752	A
1	2A	827	U
1	2A	856	C
1	2A	900	A
1	2A	1026	U
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1653	G

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Mol	Chain	Res	Type
1	2A	1913	A
1	2A	1992	G
1	2A	2062	A
1	2A	2119	A
1	2A	2126	A
1	2A	2286	A
1	2A	2689	U

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

88 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	$\#\|Z\| > 2$
32	MA6	1a	1518	32	23,26,27	0.40	0	33,38,41	2.13	9 (27%)
55	31H	1x	76	55,57	31,34,35	1.20	4 (12%)	35,47,50	2.11	12 (34%)
56	PSU	2y	39	56	18,21,22	1.41	2 (11%)	21,30,33	1.85	3 (14%)
56	MIA	2y	37	56	21,24,32	1.57	4 (19%)	30,35,47	2.04	10 (33%)
32	UR3	2a	1498	32	19,22,23	1.10	2 (10%)	26,32,35	1.79	3 (11%)
1	4OC	2A	1920	1	19,22,24	0.77	0	25,31,35	0.89	1 (4%)
55	5MU	1x	54	55	19,22,23	1.40	4 (21%)	27,32,35	1.86	6 (22%)
32	5MC	1a	1400	32	19,22,23	1.52	3 (15%)	26,32,35	1.19	3 (11%)
56	5MU	2y	54	56	19,22,23	1.41	4 (21%)	27,32,35	1.90	5 (18%)
32	2MG	1a	1207	32	23,26,27	1.34	3 (13%)	33,38,41	2.11	6 (18%)
56	PSU	1y	32	56	18,21,22	1.35	2 (11%)	21,30,33	1.86	3 (14%)
32	M2G	2a	966	32	24,27,28	1.33	4 (16%)	33,40,43	1.90	5 (15%)
55	PSU	1x	55	55	18,21,22	1.36	2 (11%)	21,30,33	1.98	3 (14%)
32	MA6	2a	1519	32	23,26,27	0.44	0	33,38,41	2.10	9 (27%)
56	PSU	2y	32	56	18,21,22	1.34	2 (11%)	21,30,33	2.03	4 (19%)
56	PSU	2y	55	56	18,21,22	1.35	3 (16%)	21,30,33	2.22	4 (19%)
55	4SU	1x	8	55	18,21,22	2.04	6 (33%)	25,30,33	1.46	5 (20%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	7MG	1a	527	32,57	23,26,27	1.34	3 (13%)	27,39,42	2.68	7 (25%)
54	5MU	2w	54	54	19,22,23	1.37	5 (26%)	27,32,35	1.71	6 (22%)
55	PSU	2x	55	55	18,21,22	1.35	2 (11%)	21,30,33	1.99	5 (23%)
55	31H	2x	76	55,57	31,34,35	1.21	3 (9%)	35,47,50	2.08	12 (34%)
1	OMU	1A	2552	1	19,22,23	1.17	2 (10%)	25,31,34	1.88	6 (24%)
1	MA6	2A	2058	1	23,26,27	0.44	0	33,38,41	1.95	11 (33%)
1	4OC	1A	1920	1	19,22,24	0.83	0	25,31,35	1.05	2 (8%)
56	PSU	1y	39	56	18,21,22	1.41	2 (11%)	21,30,33	2.11	4 (19%)
32	5MC	2a	1404	32	19,22,23	1.69	3 (15%)	26,32,35	1.19	2 (7%)
54	MIA	2w	37	54	24,27,32	2.01	5 (20%)	32,39,47	2.57	10 (31%)
54	5MU	1w	54	54	19,22,23	1.37	5 (26%)	27,32,35	2.12	6 (22%)
1	5MU	1A	1915	1	19,22,23	1.44	4 (21%)	27,32,35	2.19	5 (18%)
32	5MC	2a	967	32,57	19,22,23	1.77	3 (15%)	26,32,35	1.07	2 (7%)
1	5MC	1A	1962	1,57	19,22,23	1.67	3 (15%)	26,32,35	1.11	3 (11%)
1	MA6	1A	2058	1,57	23,26,27	0.47	0	33,38,41	2.22	11 (33%)
32	7MG	2a	527	32,57	23,26,27	1.30	3 (13%)	27,39,42	2.61	8 (29%)
56	7MG	1y	46	56	23,26,27	1.32	3 (13%)	27,39,42	2.58	6 (22%)
56	PSU	1y	55	56	18,21,22	1.44	2 (11%)	21,30,33	2.08	4 (19%)
1	5MU	2A	1915	1	19,22,23	1.42	5 (26%)	27,32,35	2.07	6 (22%)
54	MIA	1w	37	54	28,31,32	2.30	7 (25%)	38,44,47	2.75	15 (39%)
32	5MC	1a	1407	32	19,22,23	1.46	2 (10%)	26,32,35	1.11	3 (11%)
54	4SU	1w	8	54	18,21,22	1.79	5 (27%)	25,30,33	1.84	5 (20%)
54	PSU	2w	32	54	18,21,22	1.35	2 (11%)	21,30,33	1.88	3 (14%)
1	5MC	1A	1942	1,57	19,22,23	1.48	3 (15%)	26,32,35	1.19	3 (11%)
56	4SU	1y	8	56	18,21,22	1.73	4 (22%)	25,30,33	2.11	5 (20%)
56	7MG	2y	46	56	23,26,27	1.38	3 (13%)	27,39,42	2.78	8 (29%)
32	4OC	1a	1402	32	20,23,24	0.75	0	25,32,35	0.84	1 (4%)
1	PSU	1A	2605	1,57	18,21,22	1.46	3 (16%)	21,30,33	2.11	5 (23%)
1	OMU	2A	2552	1,57	19,22,23	1.31	2 (10%)	25,31,34	1.99	6 (24%)
54	PSU	1w	39	54	18,21,22	1.27	2 (11%)	21,30,33	2.33	4 (19%)
32	5MC	2a	1400	32	19,22,23	1.76	3 (15%)	26,32,35	1.23	3 (11%)
32	5MC	1a	1404	32	19,22,23	1.80	3 (15%)	26,32,35	1.30	5 (19%)
54	4SU	2w	8	54	18,21,22	1.73	4 (22%)	25,30,33	2.37	6 (24%)
1	OMG	1A	2251	1,55,57	23,26,27	1.28	3 (13%)	32,38,41	1.91	6 (18%)
1	2MA	2A	2503	1,57	22,25,26	1.47	5 (22%)	32,37,40	2.17	9 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	PSU	2A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	2.03	3 (14%)
54	7MG	2w	46	54	23,26,27	1.30	3 (13%)	27,39,42	2.67	7 (25%)
1	PSU	2A	2605	1	18,21,22	1.38	3 (16%)	21,30,33	2.07	5 (23%)
43	0TD	1l	92	43	8,9,10	4.73	1 (12%)	6,11,13	2.23	3 (50%)
55	5MC	1x	32	55	19,22,23	1.65	3 (15%)	26,32,35	1.24	3 (11%)
32	5MC	2a	1407	32	19,22,23	1.61	3 (15%)	26,32,35	1.23	3 (11%)
54	PSU	2w	39	54	18,21,22	1.29	2 (11%)	21,30,33	2.27	4 (19%)
32	M2G	1a	966	32	24,27,28	1.29	3 (12%)	33,40,43	1.83	6 (18%)
1	5MU	1A	1939	1,57	19,22,23	1.43	5 (26%)	27,32,35	2.38	6 (22%)
55	4SU	2x	8	55	18,21,22	2.19	5 (27%)	25,30,33	1.74	6 (24%)
1	OMG	2A	2251	1,55	23,26,27	1.22	4 (17%)	32,38,41	1.95	7 (21%)
54	PSU	2w	55	54	18,21,22	1.38	2 (11%)	21,30,33	2.02	3 (14%)
32	PSU	2a	516	32	18,21,22	1.38	2 (11%)	21,30,33	1.99	4 (19%)
54	7MG	1w	46	54	23,26,27	1.36	3 (13%)	27,39,42	2.59	7 (25%)
32	MA6	2a	1518	32	23,26,27	0.43	0	33,38,41	2.08	10 (30%)
56	4SU	2y	8	56	18,21,22	1.76	4 (22%)	25,30,33	2.08	6 (24%)
1	PSU	2A	1917	1	18,21,22	1.38	2 (11%)	21,30,33	2.08	4 (19%)
1	PSU	1A	1911	1	18,21,22	1.43	3 (16%)	21,30,33	2.00	4 (19%)
54	PSU	1w	55	54	18,21,22	1.43	2 (11%)	21,30,33	2.02	3 (14%)
55	5MC	2x	32	55	19,22,23	1.77	3 (15%)	26,32,35	1.36	4 (15%)
32	UR3	1a	1498	32	19,22,23	1.07	1 (5%)	26,32,35	1.76	4 (15%)
32	PSU	1a	516	32,57	18,21,22	1.42	3 (16%)	21,30,33	2.11	5 (23%)
1	5MC	2A	1962	1,57	19,22,23	1.59	3 (15%)	26,32,35	1.19	2 (7%)
54	PSU	1w	32	54	18,21,22	1.36	2 (11%)	21,30,33	2.02	4 (19%)
55	5MU	2x	54	55	19,22,23	1.47	4 (21%)	27,32,35	2.10	6 (22%)
43	0TD	2l	92	43	8,9,10	4.60	1 (12%)	6,11,13	2.18	3 (50%)
32	5MC	1a	967	32	19,22,23	1.65	3 (15%)	26,32,35	1.21	5 (19%)
1	5MU	2A	1939	1	19,22,23	1.45	6 (31%)	27,32,35	2.39	6 (22%)
32	MA6	1a	1519	32	23,26,27	0.46	0	33,38,41	2.24	11 (33%)
1	PSU	1A	1917	1	18,21,22	1.38	2 (11%)	21,30,33	1.87	5 (23%)
1	5MC	2A	1942	1	19,22,23	1.70	3 (15%)	26,32,35	1.14	3 (11%)
1	2MA	1A	2503	1,57	22,25,26	1.46	4 (18%)	32,37,40	2.28	8 (25%)
56	MIA	1y	37	56	21,24,32	1.58	4 (19%)	30,35,47	1.99	7 (23%)
32	4OC	2a	1402	32,57	20,23,24	0.77	0	25,32,35	1.21	2 (8%)
32	2MG	2a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.10	8 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	5MU	1y	54	56	19,22,23	1.44	6 (31%)	27,32,35	1.95	6 (22%)

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
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
55	31H	1x	76	55,57	-	9/22/40/41	0/3/3/3
56	PSU	2y	39	56	-	0/7/25/26	0/2/2/2
56	MIA	2y	37	56	-	0/7/25/34	0/3/3/3
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
1	4OC	2A	1920	1	-	0/9/27/30	0/2/2/2
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
56	5MU	2y	54	56	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	1/9/27/28	0/3/3/3
56	PSU	1y	32	56	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
56	PSU	2y	32	56	-	0/7/25/26	0/2/2/2
56	PSU	2y	55	56	-	2/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	32,57	-	2/7/37/38	0/3/3/3
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
55	31H	2x	76	55,57	-	6/22/40/41	0/3/3/3
1	OMU	1A	2552	1	-	0/9/27/28	0/2/2/2
1	MA6	2A	2058	1	-	0/11/29/30	0/3/3/3
1	4OC	1A	1920	1	-	1/9/27/30	0/2/2/2
56	PSU	1y	39	56	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	3/7/25/26	0/2/2/2
54	MIA	2w	37	54	-	0/11/29/34	0/3/3/3
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32,57	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	1,57	-	0/7/25/26	0/2/2/2
1	MA6	1A	2058	1,57	-	0/11/29/30	0/3/3/3
32	7MG	2a	527	32,57	-	3/7/37/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	7MG	1y	46	56	-	2/7/37/38	0/3/3/3
56	PSU	1y	55	56	-	1/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
54	MIA	1w	37	54	-	2/15/33/34	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
54	PSU	2w	32	54	-	2/7/25/26	0/2/2/2
1	5MC	1A	1942	1,57	-	0/7/25/26	0/2/2/2
56	4SU	1y	8	56	-	3/7/25/26	0/2/2/2
56	7MG	2y	46	56	-	4/7/37/38	0/3/3/3
32	4OC	1a	1402	32	-	3/9/29/30	0/2/2/2
1	PSU	1A	2605	1,57	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	1,57	-	1/9/27/28	0/2/2/2
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
54	4SU	2w	8	54	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,55,57	-	0/9/27/28	0/3/3/3
1	2MA	2A	2503	1,57	-	1/7/25/26	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
54	7MG	2w	46	54	-	3/7/37/38	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	1/7/12/14	-
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	5MU	1A	1939	1,57	-	0/7/25/26	0/2/2/2
55	4SU	2x	8	55	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	1,55	-	0/9/27/28	0/3/3/3
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32	-	2/7/25/26	0/2/2/2
54	7MG	1w	46	54	-	1/7/37/38	0/3/3/3
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
56	4SU	2y	8	56	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
54	PSU	1w	55	54	-	0/7/25/26	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	PSU	1a	516	32,57	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,57	-	1/7/25/26	0/2/2/2
54	PSU	1w	32	54	-	0/7/25/26	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-
32	5MC	1a	967	32	-	1/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	1,57	-	1/7/25/26	0/3/3/3
56	MIA	1y	37	56	-	0/7/25/34	0/3/3/3
32	4OC	2a	1402	32,57	-	2/9/29/30	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
56	5MU	1y	54	56	-	0/7/25/26	0/2/2/2

All (249) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.93	1.69	1.82
43	2l	92	0TD	CB-SB	-12.73	1.69	1.82
54	1w	37	MIA	C2-S10	-7.22	1.69	1.75
32	2a	967	5MC	C5-C4	6.57	1.49	1.44
54	1w	37	MIA	C13-C14	6.55	1.52	1.32
32	1a	1404	5MC	C5-C4	6.42	1.49	1.44
32	2a	1400	5MC	C5-C4	6.40	1.49	1.44
55	2x	32	5MC	C5-C4	6.39	1.49	1.44
54	2w	37	MIA	C2-S10	-6.24	1.70	1.75
1	2A	1942	5MC	C5-C4	6.14	1.48	1.44
1	1A	1962	5MC	C5-C4	6.11	1.48	1.44
32	2a	1404	5MC	C5-C4	6.09	1.48	1.44
55	1x	32	5MC	C5-C4	6.07	1.48	1.44
32	1a	967	5MC	C5-C4	6.06	1.48	1.44
32	2a	1407	5MC	C5-C4	5.74	1.48	1.44
1	2A	1962	5MC	C5-C4	5.47	1.48	1.44
32	1a	1400	5MC	C5-C4	5.25	1.48	1.44
1	1A	1942	5MC	C5-C4	5.23	1.48	1.44
32	1a	1407	5MC	C5-C4	5.21	1.48	1.44
55	2x	8	4SU	C4-N3	-5.12	1.32	1.37
54	2w	37	MIA	C5-C4	5.02	1.48	1.39
56	1y	37	MIA	C5-C4	4.92	1.47	1.39
55	2x	8	4SU	C4-S4	-4.88	1.60	1.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	2y	37	MIA	C5-C4	4.81	1.47	1.39
54	2w	8	4SU	C4-S4	-4.71	1.60	1.68
54	1w	8	4SU	C4-S4	-4.69	1.60	1.68
55	1x	8	4SU	C4-N3	-4.64	1.32	1.37
56	2y	8	4SU	C4-S4	-4.62	1.60	1.68
54	1w	37	MIA	C5-C4	4.55	1.47	1.39
56	1y	8	4SU	C4-S4	-4.52	1.60	1.68
1	2A	2503	2MA	C5-C4	4.34	1.46	1.39
1	1A	2503	2MA	C5-C4	4.30	1.46	1.39
56	1y	55	PSU	C6-C5	4.23	1.40	1.35
55	1x	8	4SU	C4-S4	-4.19	1.61	1.68
56	1y	39	PSU	C6-C5	4.08	1.39	1.35
54	1w	55	PSU	C6-C5	4.07	1.39	1.35
55	2x	76	31H	C5-N7	-3.82	1.32	1.39
56	1y	32	PSU	C6-C5	3.80	1.39	1.35
54	2w	55	PSU	C6-C5	3.71	1.39	1.35
55	1x	8	4SU	C2-N3	-3.70	1.31	1.38
56	2y	39	PSU	C6-C5	3.70	1.39	1.35
1	2A	2605	PSU	C6-C5	3.68	1.39	1.35
32	2a	516	PSU	C6-C5	3.67	1.39	1.35
32	1a	516	PSU	C6-C5	3.66	1.39	1.35
1	2A	1917	PSU	C6-C5	3.65	1.39	1.35
54	2w	32	PSU	C6-C5	3.61	1.39	1.35
54	2w	46	7MG	C4-N9	-3.60	1.33	1.37
55	1x	55	PSU	C6-C5	3.57	1.39	1.35
56	2y	46	7MG	C5-C4	3.55	1.48	1.37
55	1x	76	31H	C5-N7	-3.54	1.32	1.39
55	2x	8	4SU	C2-N3	-3.51	1.31	1.38
1	1A	1911	PSU	C6-C5	3.50	1.39	1.35
32	2a	527	7MG	C4-N9	-3.48	1.33	1.37
56	1y	46	7MG	C5-C4	3.47	1.48	1.37
55	2x	55	PSU	C6-C5	3.47	1.39	1.35
56	2y	32	PSU	C6-C5	3.46	1.39	1.35
32	1a	527	7MG	C4-N9	-3.43	1.33	1.37
54	1w	46	7MG	C4-N9	-3.41	1.33	1.37
54	1w	46	7MG	C5-C4	3.36	1.48	1.37
1	2A	1911	PSU	C6-C5	3.36	1.39	1.35
55	1x	76	31H	C5-C4	-3.30	1.33	1.39
32	2a	966	M2G	C5-C4	3.29	1.47	1.38
32	2a	1207	2MG	C5-C4	3.28	1.47	1.38
54	1w	39	PSU	C6-C5	3.24	1.38	1.35
54	2w	39	PSU	C6-C5	3.22	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	2y	55	PSU	C6-C5	3.22	1.38	1.35
55	2x	8	4SU	C5-C4	-3.21	1.38	1.42
54	2w	46	7MG	C5-C4	3.21	1.47	1.37
32	2a	527	7MG	C5-C4	3.21	1.47	1.37
32	1a	527	7MG	C5-C4	3.20	1.47	1.37
1	1A	2605	PSU	C4-N3	-3.20	1.32	1.38
1	1A	2605	PSU	C6-C5	3.19	1.38	1.35
54	1w	32	PSU	C6-C5	3.19	1.38	1.35
32	1a	966	M2G	C5-C4	3.19	1.47	1.38
55	2x	76	31H	C5-C4	-3.19	1.33	1.39
32	1a	1207	2MG	C5-C4	3.13	1.47	1.38
1	1A	1915	5MU	C6-C5	3.11	1.39	1.34
1	1A	2251	OMG	C5-C4	3.09	1.47	1.38
1	1A	1915	5MU	C2-N1	3.08	1.43	1.38
32	2a	1404	5MC	C6-C5	3.08	1.39	1.34
1	1A	1917	PSU	C6-C5	3.06	1.38	1.35
1	2A	1915	5MU	C6-C5	3.02	1.39	1.34
1	2A	1942	5MC	C6-C5	2.97	1.39	1.34
1	1A	1962	5MC	C6-C5	2.97	1.39	1.34
32	2a	1400	5MC	C6-C5	2.97	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.97	1.33	1.38
54	1w	8	4SU	C4-N3	-2.95	1.34	1.37
32	1a	966	M2G	C2-N2	2.95	1.40	1.35
56	1y	54	5MU	C6-C5	2.93	1.39	1.34
55	1x	54	5MU	C4-N3	-2.91	1.33	1.38
32	2a	966	M2G	C2-N2	2.91	1.40	1.35
55	2x	54	5MU	C6-C5	2.90	1.39	1.34
1	2A	1939	5MU	C6-C5	2.90	1.39	1.34
32	1a	1207	2MG	C6-N1	-2.88	1.33	1.38
1	2A	1962	5MC	C6-C5	2.87	1.39	1.34
56	2y	8	4SU	C4-N3	-2.86	1.34	1.37
32	2a	967	5MC	C6-C5	2.84	1.39	1.34
1	1A	1911	PSU	C4-N3	-2.83	1.33	1.38
56	2y	37	MIA	C5-C6	2.82	1.48	1.41
55	1x	8	4SU	C5-C4	-2.82	1.39	1.42
1	2A	1939	5MU	C4-N3	-2.81	1.33	1.38
56	1y	37	MIA	C5-C6	2.80	1.48	1.41
54	2w	37	MIA	C5-C6	2.77	1.48	1.41
56	2y	8	4SU	C5-C4	-2.76	1.39	1.42
55	2x	32	5MC	C6-C5	2.76	1.39	1.34
56	1y	8	4SU	C4-N3	-2.76	1.34	1.37
56	2y	54	5MU	C4-N3	-2.75	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1x	54	5MU	C6-C5	2.75	1.39	1.34
56	2y	54	5MU	C6-C5	2.75	1.39	1.34
32	1a	1400	5MC	C6-C5	2.74	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.74	1.33	1.38
1	2A	2251	OMG	C5-C4	2.74	1.46	1.38
1	2A	2251	OMG	C6-N1	-2.74	1.33	1.38
54	1w	37	MIA	C5-C6	2.73	1.48	1.41
54	1w	54	5MU	C6-C5	2.72	1.39	1.34
32	1a	1404	5MC	C6-C5	2.72	1.39	1.34
55	2x	54	5MU	C2-N1	2.72	1.42	1.38
54	2w	8	4SU	C4-N3	-2.70	1.34	1.37
1	2A	1911	PSU	C4-N3	-2.69	1.33	1.38
1	1A	1939	5MU	C2-N3	-2.69	1.33	1.38
54	2w	54	5MU	C4-N3	-2.69	1.33	1.38
1	2A	2552	OMU	C5-C4	2.69	1.49	1.43
1	1A	2552	OMU	C4-N3	-2.68	1.34	1.38
55	2x	76	31H	C5-C6	-2.68	1.33	1.41
32	2a	1407	5MC	C6-C5	2.67	1.39	1.34
54	1w	32	PSU	C4-N3	-2.67	1.33	1.38
55	2x	54	5MU	C4-N3	-2.67	1.33	1.38
32	1a	516	PSU	C4-N3	-2.65	1.33	1.38
1	1A	1917	PSU	C4-N3	-2.64	1.33	1.38
56	2y	39	PSU	C4-N3	-2.64	1.33	1.38
54	1w	8	4SU	C5-C4	-2.63	1.39	1.42
1	1A	1939	5MU	C6-C5	2.61	1.38	1.34
1	1A	2503	2MA	C5-C6	2.61	1.48	1.41
55	1x	76	31H	C5-C6	-2.60	1.33	1.41
56	1y	8	4SU	C2-N1	2.59	1.42	1.38
32	2a	1498	UR3	C2-N1	2.59	1.42	1.38
1	2A	1917	PSU	C4-N3	-2.58	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.57	1.33	1.38
54	2w	8	4SU	C5-C4	-2.56	1.39	1.42
1	2A	2552	OMU	C4-N3	-2.56	1.34	1.38
56	2y	8	4SU	C2-N1	2.56	1.42	1.38
55	2x	55	PSU	C4-N3	-2.56	1.34	1.38
56	2y	54	5MU	C2-N1	2.54	1.42	1.38
1	1A	1942	5MC	C6-N1	-2.53	1.33	1.38
1	2A	2503	2MA	C8-N7	2.52	1.36	1.31
56	1y	46	7MG	C4-N9	-2.52	1.34	1.37
56	2y	46	7MG	C6-N1	-2.52	1.34	1.38
32	1a	1498	UR3	C2-N1	2.51	1.42	1.38
32	1a	966	M2G	C6-N1	-2.51	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	1y	54	5MU	C4-N3	-2.51	1.34	1.38
32	1a	1407	5MC	C6-C5	2.51	1.38	1.34
56	2y	46	7MG	C8-N9	2.51	1.47	1.45
1	1A	2605	PSU	C2-N3	-2.51	1.33	1.37
54	2w	54	5MU	C6-C5	2.49	1.38	1.34
1	2A	2605	PSU	C4-N3	-2.47	1.34	1.38
55	1x	32	5MC	C6-C5	2.47	1.38	1.34
55	2x	54	5MU	C4-C5	2.47	1.48	1.44
56	1y	8	4SU	C5-C4	-2.47	1.39	1.42
56	1y	54	5MU	C2-N1	2.46	1.42	1.38
56	1y	54	5MU	C4-C5	2.46	1.48	1.44
32	2a	516	PSU	C4-N3	-2.46	1.34	1.38
32	1a	967	5MC	C6-C5	2.45	1.38	1.34
55	1x	54	5MU	C2-N3	-2.45	1.33	1.38
1	2A	2605	PSU	C2-N3	-2.45	1.33	1.37
1	2A	1939	5MU	C6-N1	-2.45	1.33	1.38
54	1w	54	5MU	C4-N3	-2.45	1.34	1.38
1	2A	2503	2MA	C5-C6	2.45	1.47	1.41
54	2w	8	4SU	C2-N1	2.44	1.42	1.38
1	2A	1915	5MU	C4-N3	-2.43	1.34	1.38
55	2x	32	5MC	C6-N1	-2.43	1.33	1.38
56	2y	37	MIA	C8-N7	2.43	1.36	1.31
1	2A	1915	5MU	C2-N1	2.42	1.42	1.38
32	2a	966	M2G	C6-N1	-2.41	1.34	1.38
1	1A	2552	OMU	C2-N3	-2.39	1.33	1.38
32	2a	1207	2MG	C6-N1	-2.39	1.34	1.38
1	2A	1915	5MU	C4-C5	2.39	1.48	1.44
54	1w	37	MIA	C8-N7	2.38	1.36	1.31
1	2A	2503	2MA	C5-N7	-2.38	1.34	1.39
56	1y	37	MIA	C8-N7	2.37	1.36	1.31
32	1a	1404	5MC	C6-N1	-2.37	1.34	1.38
54	1w	54	5MU	C2-N1	2.36	1.42	1.38
55	1x	32	5MC	C6-N1	-2.36	1.34	1.38
54	2w	39	PSU	C4-N3	-2.35	1.34	1.38
56	1y	32	PSU	C4-N3	-2.34	1.34	1.38
54	2w	55	PSU	C4-N3	-2.34	1.34	1.38
56	2y	32	PSU	C4-N3	-2.34	1.34	1.38
54	2w	37	MIA	C5-N7	-2.33	1.34	1.39
1	1A	1915	5MU	C4-N3	-2.33	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.33	1.34	1.39
32	2a	1407	5MC	C6-N1	-2.32	1.34	1.38
32	1a	967	5MC	C6-N1	-2.32	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2503	2MA	C5-N7	-2.32	1.34	1.39
56	1y	39	PSU	C4-N3	-2.32	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.31	1.33	1.38
54	1w	8	4SU	C2-N1	2.31	1.42	1.38
1	2A	1939	5MU	C2-N1	2.29	1.42	1.38
56	1y	55	PSU	C4-N3	-2.29	1.34	1.38
54	1w	39	PSU	C4-N3	-2.28	1.34	1.38
56	2y	55	PSU	C4-N3	-2.27	1.34	1.38
32	1a	527	7MG	C6-N1	-2.26	1.34	1.38
54	2w	32	PSU	C4-N3	-2.25	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.24	1.34	1.39
54	1w	37	MIA	C5-N7	-2.23	1.35	1.39
32	2a	527	7MG	C6-N1	-2.23	1.34	1.38
54	2w	54	5MU	C2-N3	-2.23	1.34	1.38
54	2w	54	5MU	C4-C5	2.22	1.48	1.44
1	2A	1962	5MC	C6-N1	-2.22	1.34	1.38
56	1y	46	7MG	C6-N1	-2.21	1.34	1.38
1	1A	2503	2MA	C4-N9	-2.21	1.33	1.37
54	2w	37	MIA	C8-N7	2.21	1.35	1.31
1	1A	1942	5MC	C6-C5	2.21	1.38	1.34
55	1x	55	PSU	C4-N3	-2.20	1.34	1.38
54	1w	46	7MG	C6-N1	-2.17	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.17	1.34	1.38
1	1A	1939	5MU	C4-C5	2.16	1.48	1.44
1	2A	2503	2MA	C4-N9	-2.16	1.33	1.37
54	1w	54	5MU	C4-C5	2.15	1.48	1.44
55	1x	76	31H	C3'-N3'	2.15	1.49	1.45
56	2y	54	5MU	C2-N3	-2.14	1.34	1.38
1	2A	2251	OMG	C4-N9	-2.14	1.32	1.38
1	2A	1939	5MU	C4-C5	2.14	1.48	1.44
1	1A	1962	5MC	C6-N1	-2.13	1.34	1.38
56	2y	37	MIA	C5-N7	-2.13	1.35	1.39
32	2a	1404	5MC	C6-N1	-2.13	1.34	1.38
56	1y	37	MIA	C5-N7	-2.13	1.35	1.39
32	1a	516	PSU	O4'-C1'	-2.13	1.40	1.43
32	1a	1207	2MG	C2-N3	2.11	1.36	1.32
54	1w	37	MIA	C4-N9	-2.11	1.33	1.37
1	2A	1942	5MC	C6-N1	-2.11	1.34	1.38
56	2y	55	PSU	C2-N1	-2.11	1.33	1.36
56	1y	54	5MU	C2-N3	-2.11	1.34	1.38
54	2w	46	7MG	C5-C6	2.10	1.48	1.43
1	2A	1915	5MU	C6-N1	-2.10	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1911	PSU	C2-N3	-2.09	1.34	1.37
55	1x	8	4SU	C6-C5	2.09	1.39	1.35
32	1a	1400	5MC	C6-N1	-2.08	1.34	1.38
32	2a	1498	UR3	C6-C5	2.08	1.39	1.35
55	1x	54	5MU	C4-C5	2.08	1.48	1.44
55	2x	8	4SU	C2-N1	2.07	1.41	1.38
32	2a	966	M2G	C5-N7	-2.06	1.34	1.39
32	2a	1207	2MG	C5-N7	-2.05	1.35	1.39
55	1x	8	4SU	O2-C2	2.05	1.26	1.23
54	1w	55	PSU	C4-N3	-2.04	1.35	1.38
54	2w	54	5MU	C6-N1	-2.03	1.34	1.38
1	1A	1915	5MU	C4-C5	2.03	1.48	1.44
56	1y	54	5MU	C6-N1	-2.02	1.34	1.38
32	2a	967	5MC	C6-N1	-2.02	1.34	1.38
54	1w	8	4SU	C2-N3	-2.01	1.34	1.38
54	1w	54	5MU	C2-N3	-2.00	1.34	1.38

All (477) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	2y	46	7MG	N9-C4-N3	9.90	139.96	125.46
54	2w	37	MIA	C5-C4-N3	-9.21	117.48	127.18
32	1a	527	7MG	N9-C4-N3	9.04	138.71	125.46
56	1y	46	7MG	N9-C4-N3	8.95	138.58	125.46
54	1w	37	MIA	C12-C13-C14	-8.85	111.13	127.01
54	1w	46	7MG	N9-C4-N3	8.79	138.33	125.46
32	2a	527	7MG	N9-C4-N3	8.62	138.09	125.46
54	2w	46	7MG	N9-C4-N3	8.31	137.63	125.46
1	1A	2503	2MA	C5-C4-N3	-7.77	119.00	127.18
54	1w	37	MIA	C5-C4-N3	-7.51	119.27	127.18
1	2A	2503	2MA	C5-C4-N3	-7.44	119.34	127.18
54	2w	37	MIA	N3-C4-N9	7.37	136.34	126.99
32	2a	1498	UR3	C4-N3-C2	-7.07	118.89	124.58
54	1w	39	PSU	N1-C2-N3	6.99	122.54	115.17
32	1a	1207	2MG	C2-N3-C4	6.94	120.68	112.00
54	2w	39	PSU	N1-C2-N3	6.86	122.41	115.17
54	2w	8	4SU	C4-N3-C2	-6.83	120.77	127.31
1	1A	2503	2MA	N3-C4-N9	6.61	135.38	126.99
1	2A	1917	PSU	N1-C2-N3	6.59	122.12	115.17
32	1a	516	PSU	N1-C2-N3	6.55	122.08	115.17
1	1A	2605	PSU	N1-C2-N3	6.50	122.02	115.17
32	1a	1498	UR3	C4-N3-C2	-6.49	119.36	124.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1y	39	PSU	N1-C2-N3	6.46	121.98	115.17
56	2y	55	PSU	N1-C2-N3	6.40	121.92	115.17
32	2a	1207	2MG	C2-N3-C4	6.35	119.94	112.00
1	1A	1911	PSU	N1-C2-N3	6.34	121.86	115.17
55	2x	55	PSU	N1-C2-N3	6.32	121.83	115.17
32	2a	966	M2G	C5-C4-N3	-6.26	118.43	128.39
1	2A	1911	PSU	N1-C2-N3	6.24	121.75	115.17
56	1y	55	PSU	N1-C2-N3	6.21	121.72	115.17
56	1y	8	4SU	C4-N3-C2	-6.20	121.38	127.31
54	2w	55	PSU	N1-C2-N3	6.17	121.68	115.17
56	2y	32	PSU	N1-C2-N3	6.17	121.67	115.17
54	1w	55	PSU	N1-C2-N3	6.13	121.63	115.17
55	1x	55	PSU	N1-C2-N3	6.13	121.63	115.17
54	1w	32	PSU	N1-C2-N3	6.09	121.59	115.17
32	2a	516	PSU	N1-C2-N3	6.01	121.50	115.17
1	2A	2605	PSU	N1-C2-N3	6.01	121.50	115.17
1	1A	2058	MA6	N1-C2-N3	-5.98	119.53	128.58
56	2y	39	PSU	N1-C2-N3	5.97	121.47	115.17
1	2A	1939	5MU	C4-N3-C2	-5.90	119.60	127.34
1	1A	2251	OMG	C5-C4-N3	-5.86	119.06	128.39
1	1A	1939	5MU	C4-N3-C2	-5.84	119.69	127.34
1	1A	1939	5MU	C5-C4-N3	5.82	120.38	115.32
32	2a	1207	2MG	C5-C4-N3	-5.79	119.17	128.39
55	1x	76	31H	N1-C2-N3	-5.79	119.82	128.58
55	2x	76	31H	N1-C2-N3	-5.76	119.86	128.58
56	1y	37	MIA	C5-C4-N3	-5.76	118.78	126.72
32	2a	527	7MG	N9-C8-N7	-5.74	95.24	103.37
54	2w	32	PSU	N1-C2-N3	5.74	121.22	115.17
56	1y	32	PSU	N1-C2-N3	5.73	121.21	115.17
32	1a	1207	2MG	C5-C4-N3	-5.72	119.29	128.39
54	2w	46	7MG	N9-C8-N7	-5.71	95.28	103.37
1	2A	1939	5MU	N3-C2-N1	5.71	122.32	114.89
32	1a	966	M2G	C5-C4-N3	-5.67	119.36	128.39
54	1w	37	MIA	N3-C4-N9	5.66	134.18	126.99
1	1A	1917	PSU	N1-C2-N3	5.65	121.12	115.17
56	2y	46	7MG	C5-C4-N3	-5.63	117.57	128.13
54	1w	46	7MG	N9-C8-N7	-5.60	95.44	103.37
56	2y	8	4SU	C4-N3-C2	-5.60	121.95	127.31
54	2w	8	4SU	C5-C4-N3	5.57	119.93	114.75
1	2A	2251	OMG	C5-C4-N3	-5.55	119.56	128.39
32	1a	527	7MG	N9-C8-N7	-5.53	95.55	103.37
1	2A	2503	2MA	N3-C4-N9	5.49	133.96	126.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1y	46	7MG	C5-C4-N3	-5.47	117.86	128.13
56	2y	37	MIA	C5-C4-N3	-5.46	119.20	126.72
56	2y	55	PSU	O2-C2-N1	-5.38	117.25	122.79
32	1a	1519	MA6	N1-C2-N3	-5.36	120.47	128.58
32	1a	1518	MA6	N1-C2-N3	-5.35	120.49	128.58
1	2A	2058	MA6	N1-C2-N3	-5.33	120.52	128.58
1	1A	1915	5MU	O4-C4-C5	-5.32	118.84	124.92
32	1a	527	7MG	C5-C4-N3	-5.30	118.19	128.13
55	1x	76	31H	C5-C4-N3	-5.27	119.46	126.72
55	2x	76	31H	C5-C4-N3	-5.25	119.48	126.72
55	2x	54	5MU	N3-C2-N1	5.24	121.72	114.89
32	2a	1518	MA6	N1-C2-N3	-5.24	120.66	128.58
1	2A	2552	OMU	N3-C2-N1	5.19	121.64	114.89
1	2A	1915	5MU	N3-C2-N1	5.18	121.64	114.89
1	1A	1915	5MU	C4-N3-C2	-5.15	120.58	127.34
54	2w	46	7MG	C5-C4-N3	-5.14	118.47	128.13
1	1A	1915	5MU	N3-C2-N1	5.10	121.53	114.89
56	2y	46	7MG	N9-C8-N7	-5.09	96.17	103.37
54	1w	39	PSU	C4-N3-C2	-5.07	119.39	126.37
1	2A	1915	5MU	C4-N3-C2	-5.07	120.69	127.34
32	2a	1519	MA6	N1-C2-N3	-5.04	120.95	128.58
54	1w	54	5MU	C4-N3-C2	-5.04	120.74	127.34
56	1y	8	4SU	C5-C4-N3	4.99	119.40	114.75
1	1A	2552	OMU	N3-C2-N1	4.97	121.36	114.89
56	1y	46	7MG	N9-C8-N7	-4.97	96.33	103.37
1	2A	1939	5MU	O4-C4-C5	-4.97	119.23	124.92
32	2a	966	M2G	N9-C4-N3	4.95	135.86	125.95
55	2x	54	5MU	C4-N3-C2	-4.94	120.86	127.34
1	2A	2251	OMG	C2-N3-C4	4.92	120.78	112.30
32	2a	527	7MG	C5-C4-N3	-4.91	118.91	128.13
54	1w	54	5MU	N3-C2-N1	4.91	121.28	114.89
1	2A	1939	5MU	C5-C4-N3	4.90	119.58	115.32
32	1a	1518	MA6	C5-C4-N3	-4.89	119.99	126.72
54	1w	8	4SU	C5-C4-N3	4.88	119.29	114.75
54	2w	39	PSU	C4-N3-C2	-4.88	119.65	126.37
1	1A	2251	OMG	C2-N3-C4	4.88	120.70	112.30
56	1y	54	5MU	N3-C2-N1	4.86	121.22	114.89
56	2y	8	4SU	C5-C4-N3	4.86	119.27	114.75
1	2A	2552	OMU	C4-N3-C2	-4.83	120.61	126.61
1	1A	1915	5MU	C5-C4-N3	4.82	119.51	115.32
1	1A	1939	5MU	N3-C2-N1	4.80	121.14	114.89
1	1A	1939	5MU	O4-C4-C5	-4.77	119.46	124.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	2w	8	4SU	C5-C4-S4	-4.77	118.86	124.31
54	1w	46	7MG	C5-C4-N3	-4.76	119.19	128.13
54	1w	8	4SU	C4-N3-C2	-4.76	122.75	127.31
54	1w	54	5MU	C5-C4-N3	4.72	119.42	115.32
55	1x	54	5MU	N3-C2-N1	4.72	121.03	114.89
32	2a	1519	MA6	C5-C4-N3	-4.68	120.27	126.72
54	1w	55	PSU	O2-C2-N1	-4.64	118.00	122.79
54	2w	46	7MG	C2-N3-C4	4.62	120.26	112.30
1	1A	2552	OMU	C4-N3-C2	-4.62	120.87	126.61
1	1A	1939	5MU	C5-C6-N1	-4.61	118.31	123.31
56	1y	54	5MU	C4-N3-C2	-4.58	121.34	127.34
32	2a	1518	MA6	C5-C4-N3	-4.57	120.42	126.72
54	1w	54	5MU	O4-C4-C5	-4.57	119.69	124.92
32	1a	966	M2G	C2-N3-C4	4.57	120.96	112.51
1	1A	2605	PSU	C4-N3-C2	-4.56	120.09	126.37
54	2w	39	PSU	O2-C2-N1	-4.55	118.09	122.79
1	1A	2251	OMG	N9-C4-N3	4.53	135.02	125.95
56	1y	37	MIA	N3-C4-N9	4.52	134.86	127.17
54	1w	37	MIA	C15-C14-C13	-4.48	109.20	122.66
32	2a	966	M2G	C2-N3-C4	4.47	120.78	112.51
56	2y	54	5MU	C5-C4-N3	4.46	119.20	115.32
56	1y	46	7MG	C2-N3-C4	4.43	119.93	112.30
32	1a	527	7MG	C2-N3-C4	4.41	119.90	112.30
54	1w	39	PSU	O2-C2-N1	-4.40	118.25	122.79
1	2A	2605	PSU	C4-N3-C2	-4.39	120.32	126.37
56	2y	46	7MG	C2-N3-C4	4.39	119.86	112.30
56	2y	37	MIA	N3-C4-N9	4.39	134.63	127.17
32	1a	1519	MA6	C2-N1-C6	4.37	122.50	111.83
32	1a	1519	MA6	C5-N7-C8	4.37	110.31	103.45
54	2w	8	4SU	N3-C2-N1	4.32	120.52	114.89
56	2y	54	5MU	C4-N3-C2	-4.32	121.67	127.34
1	2A	1939	5MU	C5-C6-N1	-4.30	118.64	123.31
56	2y	54	5MU	N3-C2-N1	4.30	120.49	114.89
32	2a	527	7MG	C2-N3-C4	4.30	119.71	112.30
32	1a	1519	MA6	C4-C5-N7	-4.24	105.73	110.58
56	2y	54	5MU	O4-C4-C5	-4.24	120.06	124.92
56	1y	55	PSU	O2-C2-N1	-4.20	118.45	122.79
55	1x	54	5MU	C4-N3-C2	-4.20	121.84	127.34
55	2x	55	PSU	C4-N3-C2	-4.19	120.60	126.37
1	2A	2058	MA6	C2-N1-C6	4.17	122.03	111.83
32	1a	1207	2MG	N9-C4-N3	4.17	134.29	125.95
1	2A	1911	PSU	C4-N3-C2	-4.17	120.63	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1915	5MU	C5-C4-N3	4.16	118.94	115.32
32	1a	516	PSU	C4-N3-C2	-4.15	120.66	126.37
56	1y	39	PSU	C4-N3-C2	-4.11	120.71	126.37
56	2y	8	4SU	N3-C2-N1	4.11	120.24	114.89
55	2x	54	5MU	C5-C4-N3	4.10	118.89	115.32
1	2A	1917	PSU	C4-N3-C2	-4.09	120.73	126.37
32	2a	1518	MA6	C2-N1-C6	4.09	121.82	111.83
1	2A	2251	OMG	N9-C4-N3	4.07	134.09	125.95
32	1a	966	M2G	N9-C4-N3	4.07	134.08	125.95
1	1A	2058	MA6	C4-N9-C8	4.06	110.00	105.74
56	2y	8	4SU	C5-C4-S4	-4.06	119.67	124.31
32	1a	1519	MA6	N9-C8-N7	-4.03	108.21	113.94
55	2x	8	4SU	C5-C4-N3	4.03	118.50	114.75
1	2A	1915	5MU	O4-C4-C5	-4.03	120.31	124.92
56	1y	54	5MU	C5-C4-N3	4.02	118.82	115.32
32	2a	1519	MA6	C2-N1-C6	4.01	121.62	111.83
56	2y	32	PSU	C4-N3-C2	-4.01	120.85	126.37
32	2a	1404	5MC	C5-C6-N1	-4.00	118.97	123.31
56	1y	8	4SU	C5-C4-S4	-4.00	119.74	124.31
32	2a	516	PSU	C4-N3-C2	-3.99	120.88	126.37
54	1w	46	7MG	C2-N3-C4	3.97	119.14	112.30
56	1y	54	5MU	O4-C4-C5	-3.95	120.40	124.92
1	1A	2058	MA6	C2-N1-C6	3.95	121.47	111.83
54	1w	37	MIA	C6-C5-N7	3.93	136.71	132.43
32	1a	1207	2MG	C6-C5-N7	3.92	137.43	130.29
55	1x	54	5MU	C5-C4-N3	3.92	118.73	115.32
56	1y	39	PSU	O2-C2-N1	-3.91	118.76	122.79
54	1w	32	PSU	C4-N3-C2	-3.90	121.00	126.37
32	2a	1519	MA6	C4-C5-N7	-3.89	106.13	110.58
32	1a	1518	MA6	C2-N1-C6	3.89	121.34	111.83
32	1a	1518	MA6	C2-N3-C4	3.88	121.31	111.83
56	1y	8	4SU	N3-C2-N1	3.88	119.94	114.89
32	2a	1207	2MG	N9-C4-N3	3.88	133.71	125.95
32	2a	1519	MA6	C5-N7-C8	3.87	109.54	103.45
54	2w	32	PSU	C4-N3-C2	-3.86	121.05	126.37
55	1x	55	PSU	O2-C2-N1	-3.84	118.83	122.79
1	1A	1911	PSU	C4-N3-C2	-3.83	121.09	126.37
56	2y	32	PSU	O2-C2-N1	-3.83	118.84	122.79
32	2a	1400	5MC	C5-C6-N1	-3.82	119.16	123.31
54	1w	37	MIA	C16-C14-C13	-3.82	111.19	122.66
54	2w	55	PSU	O2-C2-N1	-3.82	118.85	122.79
56	2y	37	MIA	N3-C2-N1	-3.82	122.80	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	1x	32	5MC	C5-C6-N1	-3.80	119.19	123.31
54	2w	55	PSU	C4-N3-C2	-3.79	121.14	126.37
1	1A	1917	PSU	C4-N3-C2	-3.79	121.15	126.37
55	1x	55	PSU	C4-N3-C2	-3.78	121.16	126.37
1	1A	2503	2MA	N6-C6-N1	3.76	122.10	117.03
1	1A	2058	MA6	N9-C8-N7	-3.76	108.60	113.94
55	2x	8	4SU	C1'-N1-C2	3.76	124.34	117.59
55	2x	54	5MU	O4-C4-C5	-3.73	120.65	124.92
56	2y	37	MIA	C2-N3-C4	3.72	120.92	111.83
54	2w	54	5MU	N3-C2-N1	3.72	119.73	114.89
32	1a	1518	MA6	C5-N7-C8	3.71	109.28	103.45
32	2a	1518	MA6	C5-N7-C8	3.69	109.25	103.45
32	1a	966	M2G	C6-C5-N7	3.69	137.01	130.29
54	1w	32	PSU	O2-C2-N1	-3.68	118.99	122.79
55	2x	8	4SU	C6-C5-C4	-3.68	116.77	119.95
32	1a	1519	MA6	C5-C4-N3	-3.68	121.65	126.72
54	2w	54	5MU	C5-C4-N3	3.65	118.50	115.32
56	2y	55	PSU	C4-N3-C2	-3.65	121.34	126.37
32	2a	1518	MA6	C2-N3-C4	3.64	120.72	111.83
56	1y	32	PSU	C4-N3-C2	-3.64	121.36	126.37
54	2w	54	5MU	C4-N3-C2	-3.63	122.58	127.34
1	2A	1911	PSU	O2-C2-N1	-3.62	119.05	122.79
1	1A	2058	MA6	C2-N3-C4	3.62	120.67	111.83
55	2x	32	5MC	C5-C6-N1	-3.61	119.39	123.31
56	1y	37	MIA	C2-N3-C4	3.61	120.64	111.83
32	2a	1519	MA6	C2-N3-C4	3.60	120.63	111.83
1	1A	2058	MA6	N3-C4-N9	3.59	133.28	127.17
54	2w	37	MIA	C2-N3-C4	3.58	121.67	112.29
1	2A	2552	OMU	O2-C2-N1	-3.58	118.14	122.80
32	2a	516	PSU	O2-C2-N1	-3.57	119.11	122.79
1	2A	1917	PSU	O2-C2-N1	-3.56	119.12	122.79
1	2A	2058	MA6	C5-C4-N3	-3.56	121.82	126.72
56	2y	39	PSU	C4-N3-C2	-3.55	121.49	126.37
56	1y	55	PSU	C4-N3-C2	-3.54	121.50	126.37
32	1a	1518	MA6	C4-C5-N7	-3.54	106.54	110.58
54	1w	8	4SU	C5-C4-S4	-3.54	120.27	124.31
56	1y	37	MIA	C4-C5-N7	-3.53	106.55	110.58
1	2A	2503	2MA	C4-C5-N7	-3.52	106.56	110.58
32	2a	1407	5MC	C5-C4-N3	-3.51	118.15	121.75
54	1w	37	MIA	C2-N3-C4	3.51	121.47	112.29
55	1x	54	5MU	O4-C4-C5	-3.50	120.91	124.92
32	2a	1207	2MG	C6-C5-N7	3.48	136.62	130.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2251	OMG	C6-C5-N7	3.48	136.62	130.29
43	1l	92	0TD	CSB-SB-CB	3.47	108.61	102.36
55	2x	76	31H	N9-C8-N7	-3.46	109.02	113.94
54	1w	37	MIA	C4-C5-N7	-3.46	106.62	110.58
55	2x	76	31H	C2-N3-C4	3.45	120.27	111.83
1	1A	1942	5MC	C5-C4-N3	-3.43	118.24	121.75
55	1x	76	31H	C2-N3-C4	3.43	120.20	111.83
56	2y	37	MIA	C4-C5-N7	-3.42	106.68	110.58
32	2a	1518	MA6	N9-C8-N7	-3.41	109.09	113.94
43	2l	92	0TD	CSB-SB-CB	-3.40	96.25	102.36
32	1a	1404	5MC	C5-C4-N3	-3.39	118.28	121.75
55	1x	76	31H	N9-C8-N7	-3.39	109.13	113.94
55	1x	8	4SU	O2-C2-N1	3.37	127.18	122.80
55	1x	76	31H	CA-N-CN	-3.36	117.65	122.82
32	1a	1518	MA6	N9-C8-N7	-3.36	109.17	113.94
1	1A	2058	MA6	C10-N6-C6	-3.35	112.00	120.52
32	2a	1518	MA6	C4-C5-N7	-3.35	106.75	110.58
32	2a	1519	MA6	N9-C8-N7	-3.34	109.19	113.94
54	2w	37	MIA	C4-C5-N7	-3.33	106.77	110.58
32	1a	1519	MA6	C2-N3-C4	3.33	119.96	111.83
1	2A	2058	MA6	C2-N3-C4	3.33	119.95	111.83
54	2w	54	5MU	O4-C4-C5	-3.32	121.12	124.92
56	1y	37	MIA	N3-C2-N1	-3.30	123.58	128.58
1	1A	1911	PSU	O2-C2-N1	-3.30	119.39	122.79
1	2A	2058	MA6	C10-N6-C6	-3.28	112.17	120.52
1	2A	1962	5MC	C5-C6-N1	-3.26	119.77	123.31
32	1a	1400	5MC	C5-C6-N1	-3.24	119.79	123.31
1	2A	1915	5MU	C5-C6-N1	-3.24	119.79	123.31
1	1A	1962	5MC	C5-C4-N3	-3.24	118.44	121.75
54	1w	55	PSU	C4-N3-C2	-3.22	121.93	126.37
32	2a	967	5MC	C5-C6-N1	-3.22	119.81	123.31
32	1a	1518	MA6	N3-C4-N9	3.20	132.61	127.17
43	1l	92	0TD	OD2-CG-CB	3.19	120.05	113.15
32	1a	1407	5MC	C5-C4-N3	-3.18	118.50	121.75
54	2w	32	PSU	O2-C2-N1	-3.18	119.51	122.79
1	1A	1917	PSU	O2-C2-N1	-3.17	119.52	122.79
32	2a	1518	MA6	N3-C4-N9	3.17	132.56	127.17
32	2a	1402	4OC	O2-C2-N3	-3.16	117.35	122.33
1	2A	1942	5MC	C5-C6-N1	-3.15	119.89	123.31
32	2a	1498	UR3	C5-C4-N3	3.14	119.17	115.04
54	2w	46	7MG	C5-C6-N1	3.13	116.44	110.94
1	1A	2552	OMU	C5-C4-N3	3.12	119.17	114.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	54	5MU	C5-C6-N1	-3.11	119.93	123.31
55	2x	8	4SU	O2-C2-N1	3.11	126.84	122.80
55	2x	32	5MC	C5-C4-N3	-3.10	118.58	121.75
32	1a	527	7MG	C5-C6-N1	3.10	116.39	110.94
32	1a	516	PSU	O2-C2-N1	-3.09	119.60	122.79
55	2x	76	31H	C5-N7-C8	3.08	108.29	103.45
1	1A	2503	2MA	C4-N9-C8	3.07	108.96	105.74
56	1y	32	PSU	O2-C2-N1	-3.06	119.63	122.79
43	2l	92	0TD	OD2-CG-CB	3.05	119.74	113.15
1	1A	1915	5MU	C5-C6-N1	-3.05	120.00	123.31
56	2y	46	7MG	C5-C4-N9	-3.04	102.44	106.33
54	1w	8	4SU	N3-C2-N1	3.04	118.84	114.89
1	1A	2058	MA6	C5-C4-N3	-3.03	122.54	126.72
1	1A	1939	5MU	O2-C2-N1	-3.02	118.87	122.80
54	1w	46	7MG	C5-C4-N9	-3.02	102.47	106.33
32	1a	1498	UR3	C5-C4-N3	3.00	118.99	115.04
55	1x	76	31H	C5-C4-N9	2.99	109.07	105.81
1	2A	2552	OMU	C2'-C1'-N1	-2.99	108.57	114.24
32	2a	1207	2MG	C4-C5-N7	-2.99	105.94	110.67
1	1A	2251	OMG	C6-C5-N7	2.99	135.72	130.29
55	1x	8	4SU	C6-C5-C4	-2.98	117.37	119.95
54	1w	54	5MU	C5-C6-N1	-2.97	120.08	123.31
32	2a	1407	5MC	C5-C6-N1	-2.97	120.08	123.31
32	1a	1207	2MG	C4-C5-N7	-2.95	106.00	110.67
32	2a	966	M2G	C6-C5-N7	2.95	135.66	130.29
1	2A	1942	5MC	C5-C4-N3	-2.95	118.73	121.75
32	2a	527	7MG	C5-C6-N1	2.93	116.10	110.94
55	2x	76	31H	C5-C4-N9	2.93	109.00	105.81
1	1A	2552	OMU	O2-C2-N1	-2.93	118.99	122.80
55	1x	76	31H	C5-N7-C8	2.92	108.04	103.45
55	1x	54	5MU	C5-C6-N1	-2.91	120.16	123.31
55	2x	76	31H	C4'-O4'-C1'	-2.90	103.06	109.47
56	1y	54	5MU	C5-C6-N1	-2.89	120.17	123.31
32	1a	1404	5MC	C5-C6-N1	-2.89	120.17	123.31
55	1x	32	5MC	C5-C4-N3	-2.89	118.79	121.75
1	1A	1942	5MC	C5-C6-N1	-2.88	120.19	123.31
1	2A	2058	MA6	N3-C4-N9	2.87	132.05	127.17
1	1A	2552	OMU	O4-C4-C5	-2.87	120.21	125.16
1	2A	2058	MA6	N9-C8-N7	-2.87	109.87	113.94
1	2A	2605	PSU	C6-C5-C4	-2.85	116.25	118.17
32	2a	1519	MA6	N3-C4-N9	2.82	131.97	127.17
56	2y	54	5MU	C5-C6-N1	-2.82	120.25	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	32	5MC	O2-C2-N3	-2.81	117.90	122.33
55	1x	8	4SU	C5-C4-N3	2.81	117.36	114.75
1	1A	2503	2MA	C4-C5-N7	-2.80	107.38	110.58
1	2A	2503	2MA	C2-N1-C6	2.80	122.40	118.10
56	2y	37	MIA	C4-N9-C8	2.80	108.68	105.74
32	2a	967	5MC	C5-C4-N3	-2.80	118.89	121.75
55	1x	76	31H	C4'-O4'-C1'	-2.78	103.33	109.47
32	1a	1498	UR3	C1'-N1-C2	2.78	121.59	117.04
55	2x	55	PSU	O2-C2-N1	-2.78	119.92	122.79
32	1a	1400	5MC	O2-C2-N3	-2.76	117.98	122.33
32	2a	1400	5MC	C5-C4-N3	-2.75	118.93	121.75
55	1x	8	4SU	C1'-N1-C2	2.74	122.50	117.59
54	2w	54	5MU	C5-C6-N1	-2.73	120.35	123.31
1	2A	2058	MA6	C5-N7-C8	2.73	107.74	103.45
32	1a	967	5MC	C5-C4-N3	-2.72	118.97	121.75
1	1A	2058	MA6	C5-N7-C8	2.71	107.70	103.45
32	2a	1207	2MG	N2-C2-N3	-2.69	117.08	120.51
32	1a	967	5MC	C5-C6-N1	-2.69	120.39	123.31
54	1w	37	MIA	N3-C2-N1	-2.69	122.09	127.00
55	1x	76	31H	C6-C5-C4	2.65	120.80	117.18
32	2a	1498	UR3	C3U-N3-C4	2.64	121.53	117.87
1	1A	1962	5MC	C5-C6-N1	-2.63	120.46	123.31
54	1w	8	4SU	C1'-N1-C2	2.63	122.31	117.59
54	2w	8	4SU	C1'-N1-C2	2.63	122.31	117.59
1	2A	1939	5MU	O2-C2-N1	-2.62	119.39	122.80
32	2a	527	7MG	C5-C4-N9	-2.62	102.98	106.33
56	2y	8	4SU	C6-N1-C2	-2.62	117.81	121.00
1	2A	1915	5MU	O2-C2-N1	-2.61	119.39	122.80
1	2A	2503	2MA	C4-N9-C8	2.61	108.48	105.74
54	1w	37	MIA	C4-N9-C8	2.61	108.48	105.74
1	2A	2503	2MA	C6-C5-N7	2.60	137.10	132.09
56	2y	39	PSU	O2-C2-N1	-2.60	120.11	122.79
1	1A	1942	5MC	CM5-C5-C6	-2.59	119.35	122.85
32	2a	1404	5MC	C5-C4-N3	-2.58	119.11	121.75
54	2w	54	5MU	C5M-C5-C4	2.57	121.53	118.78
56	1y	37	MIA	C5-N7-C8	2.57	107.49	103.45
32	2a	1402	4OC	C6-C5-C4	2.57	120.09	117.00
1	2A	2552	OMU	C5-C4-N3	2.56	118.39	114.80
56	2y	37	MIA	C5-N7-C8	2.56	107.47	103.45
55	2x	76	31H	N3-C4-N9	2.56	131.51	127.17
32	1a	527	7MG	C5-C4-N9	-2.53	103.09	106.33
55	1x	76	31H	N3-C4-N9	2.53	131.47	127.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1y	37	MIA	C4-N9-C8	2.53	108.39	105.74
32	1a	1400	5MC	C5-C4-N3	-2.52	119.17	121.75
55	1x	76	31H	OCN-CN-N	-2.52	118.81	125.32
54	2w	37	MIA	C5-N7-C8	2.50	107.39	103.45
54	2w	46	7MG	O6-C6-C5	-2.50	121.48	127.62
54	1w	37	MIA	C2-N1-C6	2.50	122.28	117.54
1	1A	1920	4OC	O2-C2-N3	-2.50	118.39	122.33
1	2A	1962	5MC	C5-C4-N3	-2.49	119.20	121.75
54	1w	39	PSU	C5-C6-N1	-2.49	118.68	122.14
32	2a	966	M2G	C4-C5-N7	-2.49	106.73	110.67
56	1y	55	PSU	C6-C5-C4	-2.48	116.50	118.17
1	1A	2605	PSU	C5-C6-N1	-2.48	118.70	122.14
56	1y	8	4SU	C1'-N1-C2	2.47	122.03	117.59
1	1A	2058	MA6	C5-C6-N6	-2.46	121.43	125.33
54	1w	46	7MG	C5-C6-N1	2.46	115.27	110.94
32	1a	516	PSU	O4'-C1'-C2'	2.46	108.56	105.15
54	1w	37	MIA	C5-N7-C8	2.46	107.32	103.45
1	1A	2552	OMU	C2'-C1'-N1	-2.46	109.58	114.24
1	2A	2503	2MA	C5-N7-C8	2.45	107.31	103.45
54	1w	32	PSU	C6-C5-C4	-2.45	116.52	118.17
1	1A	2605	PSU	O2-C2-N1	-2.45	120.27	122.79
56	2y	46	7MG	C5-C6-N1	2.44	115.24	110.94
55	2x	76	31H	C4-C5-N7	-2.44	107.79	110.58
55	1x	8	4SU	O2-C2-N3	-2.44	116.99	121.49
55	2x	76	31H	C6-C5-C4	2.44	120.50	117.18
1	2A	2251	OMG	C4-C5-N7	-2.43	106.83	110.67
32	2a	1519	MA6	C4-C5-C6	2.42	118.42	115.91
55	1x	32	5MC	O2-C2-N3	-2.41	118.53	122.33
32	1a	1407	5MC	C5-C6-N1	-2.40	120.71	123.31
56	1y	46	7MG	C5-C6-N1	2.39	115.14	110.94
56	2y	55	PSU	C6-C5-C4	-2.38	116.57	118.17
43	2l	92	0TD	OD1-CG-CB	-2.38	117.46	122.44
32	1a	967	5MC	C1'-N1-C6	-2.37	117.24	121.15
32	2a	1407	5MC	O2-C2-N3	-2.37	118.59	122.33
32	1a	1519	MA6	C4-N9-C1'	-2.37	121.08	126.63
55	1x	76	31H	C4-C5-N7	-2.37	107.87	110.58
32	1a	966	M2G	C4-C5-N7	-2.37	106.92	110.67
1	2A	2605	PSU	O2-C2-N3	-2.37	117.66	121.86
55	2x	8	4SU	O2-C2-N3	-2.36	117.14	121.49
55	2x	55	PSU	C5-C6-N1	-2.36	118.87	122.14
32	1a	527	7MG	O6-C6-C5	-2.36	121.83	127.62
32	1a	516	PSU	C5-C6-N1	-2.34	118.89	122.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	8	4SU	S4-C4-N3	-2.34	117.75	120.20
1	1A	2251	OMG	O6-C6-C5	-2.34	120.35	126.53
1	1A	2605	PSU	O2-C2-N3	-2.33	117.71	121.86
54	2w	37	MIA	C12-N6-C6	-2.33	120.69	122.85
1	2A	2251	OMG	CM2-O2'-C2'	-2.32	108.52	114.47
1	2A	2058	MA6	C9-N6-C6	2.31	126.40	120.52
32	1a	1402	4OC	C6-C5-C4	2.31	119.78	117.00
55	2x	76	31H	OCN-CN-N	-2.30	119.37	125.32
1	1A	2058	MA6	C9-N6-C6	2.30	126.38	120.52
54	2w	37	MIA	N3-C2-N1	-2.30	122.80	127.00
32	1a	1404	5MC	O2-C2-N3	-2.28	118.73	122.33
32	1a	1498	UR3	C6-N1-C2	-2.28	119.94	121.80
54	2w	39	PSU	C5-C6-N1	-2.26	119.00	122.14
32	2a	1518	MA6	C4-C5-C6	2.24	118.23	115.91
54	2w	37	MIA	C2-N1-C6	2.24	121.80	117.54
54	1w	46	7MG	O6-C6-C5	-2.24	122.13	127.62
32	2a	1400	5MC	O2-C2-N3	-2.23	118.81	122.33
32	1a	1404	5MC	CM5-C5-C6	-2.23	119.83	122.85
56	1y	39	PSU	C6-C5-C4	-2.23	116.67	118.17
32	1a	1404	5MC	C1'-N1-C6	-2.22	117.49	121.15
1	2A	1942	5MC	O2-C2-N3	-2.21	118.84	122.33
1	2A	2552	OMU	O4-C4-C5	-2.21	121.35	125.16
54	1w	54	5MU	O2-C2-N1	-2.20	119.93	122.80
54	2w	46	7MG	N2-C2-N3	-2.19	115.39	119.67
1	1A	2251	OMG	C4-C5-N7	-2.19	107.21	110.67
32	1a	967	5MC	CM5-C5-C6	-2.18	119.91	122.85
32	1a	1519	MA6	C4-N9-C8	2.18	108.02	105.74
1	2A	1920	4OC	O2-C2-N3	-2.17	118.91	122.33
56	1y	46	7MG	C5-C4-N9	-2.17	103.56	106.33
55	2x	32	5MC	C1'-N1-C6	-2.17	117.58	121.15
54	2w	37	MIA	C6-C5-N7	2.15	134.78	132.43
56	2y	37	MIA	C6-C5-N7	2.15	136.24	132.09
32	2a	1207	2MG	N1-C2-N2	2.13	118.73	116.56
32	1a	1207	2MG	C8-N7-C5	2.13	108.05	104.26
1	2A	2058	MA6	C4-N9-C8	2.13	107.97	105.74
55	1x	54	5MU	O2-C2-N1	-2.13	120.03	122.80
56	2y	46	7MG	O6-C6-C5	-2.12	122.41	127.62
1	2A	2503	2MA	N6-C6-N1	2.12	119.89	117.03
1	2A	2251	OMG	O6-C6-C5	-2.11	120.96	126.53
32	1a	1519	MA6	C6-C5-N7	2.11	136.80	133.43
1	2A	2503	2MA	N9-C8-N7	-2.11	110.95	113.94
1	1A	2503	2MA	C5-N7-C8	2.10	106.75	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	967	5MC	O2-C2-N3	-2.10	119.02	122.33
43	1l	92	0TD	OD1-CG-CB	-2.10	118.05	122.44
32	2a	516	PSU	O4'-C1'-C2'	2.09	108.05	105.15
32	2a	1207	2MG	C2-N1-C6	-2.09	122.02	124.55
1	1A	1917	PSU	C5-C6-N1	-2.09	119.24	122.14
32	2a	527	7MG	C6-C5-C4	-2.09	118.73	122.40
32	1a	1518	MA6	C4-C5-C6	2.08	118.06	115.91
56	2y	32	PSU	C6-C5-C4	-2.08	116.77	118.17
32	2a	527	7MG	O6-C6-C5	-2.08	122.52	127.62
1	1A	2503	2MA	C2-N1-C6	2.07	121.29	118.10
54	1w	37	MIA	C11-S10-C2	-2.07	100.69	102.25
56	2y	37	MIA	N9-C8-N7	-2.07	111.00	113.94
1	1A	1962	5MC	CM5-C5-C6	-2.07	120.05	122.85
1	2A	1917	PSU	O4'-C1'-C2'	2.07	108.01	105.15
54	1w	37	MIA	C16-C14-C15	-2.06	109.84	114.59
54	2w	8	4SU	O2-C2-N1	-2.06	120.11	122.80
56	2y	8	4SU	C1'-N1-C2	2.06	121.28	117.59
1	1A	1920	4OC	C1'-N1-C2	2.05	122.98	118.44
56	1y	54	5MU	O2-C2-N1	-2.05	120.12	122.80
54	1w	37	MIA	N9-C8-N7	-2.05	111.03	113.94
32	1a	1519	MA6	N3-C4-N9	2.05	130.65	127.17
55	2x	76	31H	O4'-C1'-N9	2.04	112.02	108.09
56	2y	37	MIA	C2-N1-C6	2.04	122.09	118.73
55	2x	54	5MU	C1'-N1-C2	2.04	121.26	117.59
32	2a	1518	MA6	C4-N9-C8	2.04	107.88	105.74
55	2x	55	PSU	O2-C2-N3	-2.04	118.24	121.86
32	1a	1407	5MC	CM5-C5-C6	-2.03	120.11	122.85
56	2y	46	7MG	O4'-C1'-N9	-2.02	106.54	109.30
1	2A	2605	PSU	C5-C6-N1	-2.02	119.33	122.14
1	1A	1911	PSU	C5-C6-N1	-2.02	119.33	122.14
54	2w	37	MIA	C4-C5-C6	2.01	118.45	116.78
1	1A	1917	PSU	O4'-C1'-C2'	2.01	107.94	105.15
1	1A	2503	2MA	C6-C5-N7	2.00	135.95	132.09
1	2A	2058	MA6	C4-C5-N7	-2.00	108.29	110.58
32	1a	966	M2G	C5-C6-N1	2.00	118.35	113.25

There are no chirality outliers.

All (68) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
56	1y	46	7MG	C4'-C5'-O5'-P
32	1a	1207	2MG	N3-C2-N2-CM2

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Mol	Chain	Res	Type	Atoms
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
54	2w	32	PSU	O4'-C4'-C5'-O5'
54	1w	37	MIA	C12-C13-C14-C16
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
54	2w	32	PSU	C3'-C4'-C5'-O5'
54	2w	46	7MG	O4'-C4'-C5'-O5'
54	2w	46	7MG	C3'-C4'-C5'-O5'
55	1x	76	31H	C3'-C4'-C5'-O5'
56	1y	8	4SU	C3'-C4'-C5'-O5'
1	2A	1917	PSU	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
56	1y	8	4SU	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
55	1x	76	31H	C4'-C5'-O5'-P
32	2a	1400	5MC	C3'-C4'-C5'-O5'
55	2x	76	31H	CB-CG-SD-CE
55	2x	76	31H	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
55	1x	76	31H	O4'-C4'-C5'-O5'
32	1a	527	7MG	O4'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
55	2x	76	31H	O4'-C4'-C5'-O5'
55	1x	76	31H	N-CA-CB-CG
55	1x	76	31H	C-CA-CB-CG
55	1x	76	31H	CA-CB-CG-SD
1	2A	1917	PSU	C3'-C4'-C5'-O5'
32	2a	1404	5MC	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1404	5MC	C3'-C4'-C5'-O5'
56	2y	46	7MG	O4'-C1'-N9-C4
56	2y	46	7MG	C2'-C1'-N9-C8
56	2y	46	7MG	O4'-C4'-C5'-O5'
55	1x	76	31H	CB-CA-N-CN
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
54	1w	46	7MG	C4'-C5'-O5'-P
56	1y	55	PSU	O4'-C1'-C5-C4

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Mol	Chain	Res	Type	Atoms
32	2a	516	PSU	O4'-C1'-C5-C4
55	2x	76	31H	O-C-CA-N
1	2A	2503	2MA	O4'-C4'-C5'-O5'
55	2x	76	31H	N3'-C-CA-N
32	2a	1519	MA6	C4'-C5'-O5'-P
55	2x	76	31H	C4'-C5'-O5'-P
1	1A	2503	2MA	C4'-C5'-O5'-P
56	2y	46	7MG	C3'-C4'-C5'-O5'
32	2a	527	7MG	C4'-C5'-O5'-P
56	2y	55	PSU	O4'-C1'-C5-C6
32	2a	516	PSU	O4'-C1'-C5-C6
32	1a	1402	4OC	C3'-C2'-O2'-CM2
55	1x	76	31H	O-C-CA-N
54	2w	46	7MG	C2'-C1'-N9-C8
55	1x	76	31H	N3'-C-CA-N
32	1a	967	5MC	O4'-C4'-C5'-O5'
56	2y	55	PSU	C2'-C1'-C5-C6
54	1w	37	MIA	C5-C6-N6-C12
56	1y	46	7MG	C2'-C1'-N9-C8
1	1A	1920	4OC	C2'-C1'-N1-C2
1	2A	1962	5MC	O4'-C4'-C5'-O5'
1	2A	2552	OMU	O4'-C4'-C5'-O5'
32	2a	1404	5MC	C4'-C5'-O5'-P
56	1y	8	4SU	C2'-C1'-N1-C2

There are no ring outliers.

50 monomers are involved in 81 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1518	MA6	1	0
55	1x	76	31H	2	0
56	2y	39	PSU	1	0
56	2y	37	MIA	1	0
1	2A	1920	4OC	2	0
32	2a	966	M2G	1	0
32	2a	1519	MA6	2	0
56	2y	32	PSU	1	0
56	2y	55	PSU	4	0
55	1x	8	4SU	1	0
54	2w	54	5MU	1	0
55	2x	76	31H	2	0
1	1A	2552	OMU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	2058	MA6	4	0
56	1y	39	PSU	1	0
1	1A	1915	5MU	1	0
32	2a	967	5MC	3	0
1	1A	2058	MA6	2	0
56	1y	46	7MG	1	0
56	1y	55	PSU	3	0
1	2A	1915	5MU	3	0
54	1w	37	MIA	2	0
56	1y	8	4SU	2	0
32	1a	1402	4OC	2	0
1	2A	2552	OMU	1	0
32	1a	1404	5MC	1	0
1	1A	2251	OMG	3	0
1	2A	2503	2MA	1	0
43	1l	92	0TD	1	0
32	1a	966	M2G	2	0
1	1A	1939	5MU	2	0
55	2x	8	4SU	1	0
1	2A	2251	OMG	1	0
54	2w	55	PSU	1	0
32	2a	516	PSU	1	0
32	2a	1518	MA6	2	0
56	2y	8	4SU	2	0
1	2A	1917	PSU	1	0
55	2x	32	5MC	1	0
32	1a	1498	UR3	1	0
32	1a	516	PSU	1	0
1	2A	1962	5MC	1	0
43	2l	92	0TD	2	0
32	1a	967	5MC	2	0
1	2A	1939	5MU	1	0
32	1a	1519	MA6	1	0
1	1A	2503	2MA	1	0
32	2a	1402	4OC	5	0
32	2a	1207	2MG	5	0
56	1y	54	5MU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2765 ligands modelled in this entry, 2761 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	6IF	1A	4089	-	30,34,34	1.10	2 (6%)	30,49,49	1.67	4 (13%)
61	SF4	1d	501	35	0,12,12	-	-	-		
61	SF4	2d	302	35	0,12,12	-	-	-		
59	6IF	2A	3857	-	30,34,34	0.88	2 (6%)	30,49,49	1.33	5 (16%)

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
59	6IF	1A	4089	-	-	3/22/65/65	0/3/3/3
61	SF4	1d	501	35	-	-	0/6/5/5
61	SF4	2d	302	35	-	-	0/6/5/5
59	6IF	2A	3857	-	-	3/22/65/65	0/3/3/3

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	1A	4089	6IF	CG-CB	-2.53	1.49	1.53
59	2A	3857	6IF	OAF-CAA	2.40	1.46	1.42
59	1A	4089	6IF	CAA-CAB	-2.30	1.49	1.53
59	2A	3857	6IF	OAV-CB	2.20	1.44	1.42

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	1A	4089	6IF	CAB-CAA-SBE	-5.92	102.38	111.30
59	1A	4089	6IF	OAF-CAA-SBE	3.60	120.13	110.30
59	2A	3857	6IF	CD2-CAY-CAX	-3.45	108.63	113.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	2A	3857	6IF	CAA-OAF-CAE	-3.25	109.91	114.17
59	1A	4089	6IF	CAA-CAB-CAC	3.01	116.43	110.55
59	2A	3857	6IF	CAK-CAI-CAG	-2.78	110.52	114.17
59	1A	4089	6IF	CAK-CAI-CAG	-2.74	110.57	114.17
59	2A	3857	6IF	CBB-CBA-CAY	-2.55	111.74	116.68
59	2A	3857	6IF	OAF-CAE-CAG	2.27	111.17	105.79

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
59	1A	4089	6IF	O-C-CA-CB
59	1A	4089	6IF	NAH-C-CA-CB
59	2A	3857	6IF	O-C-CA-CB
59	2A	3857	6IF	NAH-C-CA-CB
59	1A	4089	6IF	CAY-CBA-CBB-CBC
59	2A	3857	6IF	O-C-CA-N

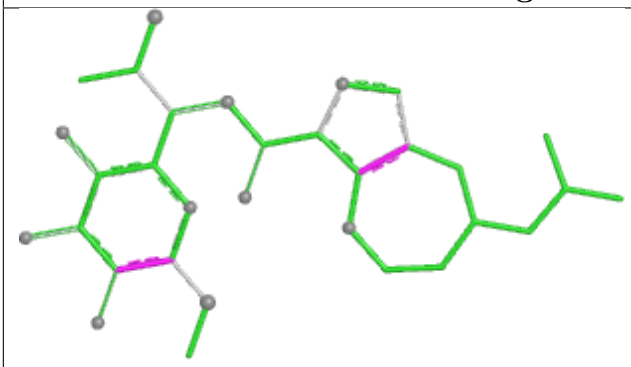
There are no ring outliers.

4 monomers are involved in 15 short contacts:

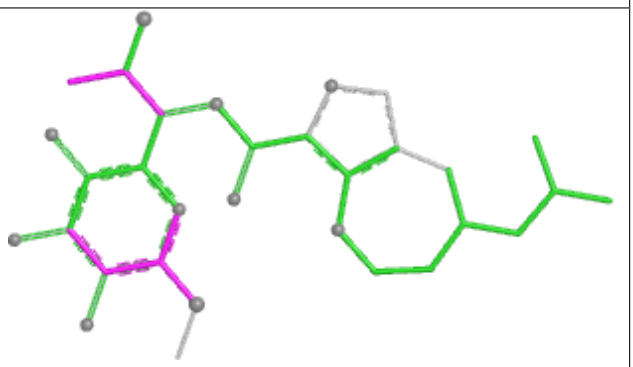
Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1A	4089	6IF	3	0
61	1d	501	SF4	3	0
61	2d	302	SF4	6	0
59	2A	3857	6IF	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

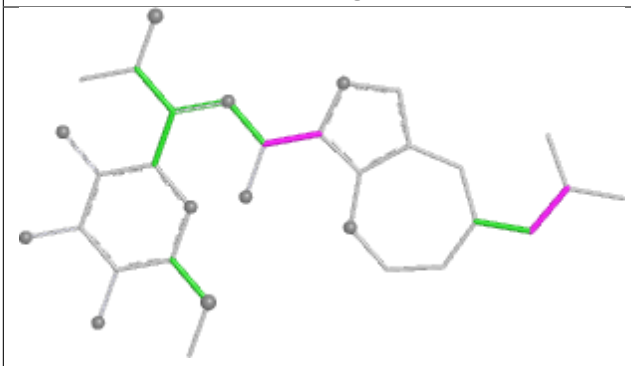
Ligand 6IF 1A 4089



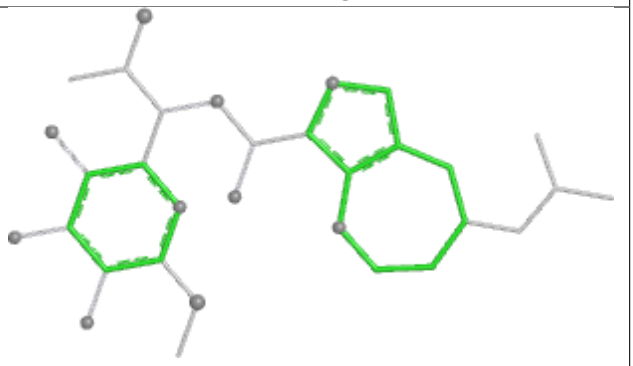
Bond lengths



Bond angles

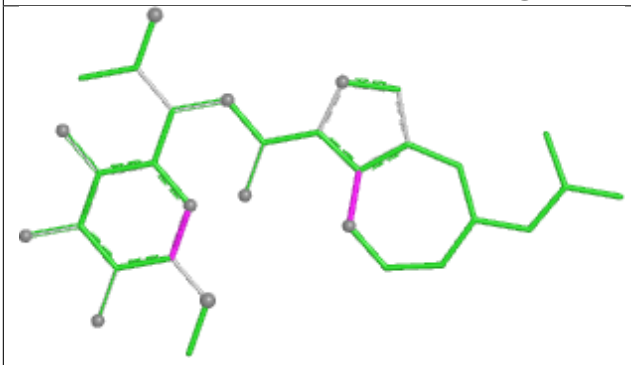


Torsions

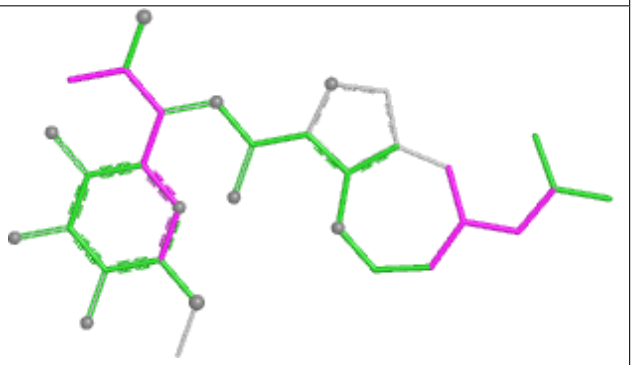


Rings

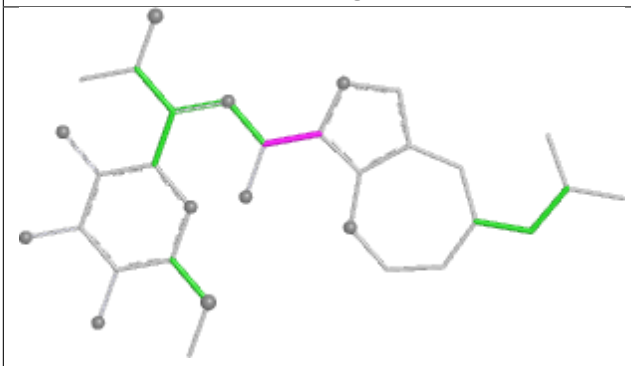
Ligand 6IF 2A 3857



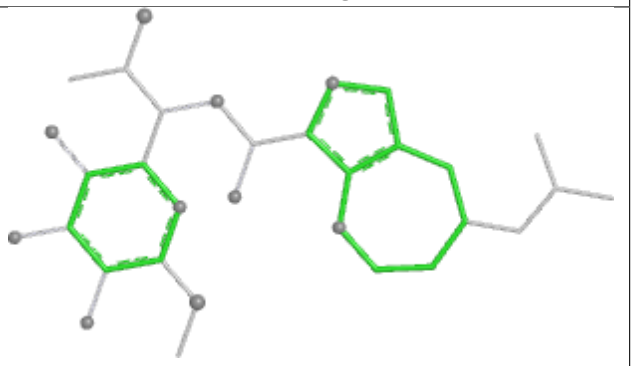
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2859/2915 (98%)	-0.45	87 (3%) 52 47	18, 36, 88, 101	0
1	2A	2788/2915 (95%)	0.07	65 (2%) 61 55	34, 57, 87, 98	0
2	1B	120/121 (99%)	-0.35	0 100 100	29, 47, 62, 84	0
2	2B	120/121 (99%)	0.45	0 100 100	58, 73, 78, 84	0
3	1D	275/276 (99%)	0.06	2 (0%) 84 82	18, 39, 54, 61	0
3	2D	275/276 (99%)	0.35	2 (0%) 84 82	31, 52, 65, 81	0
4	1E	204/206 (99%)	-0.03	2 (0%) 79 76	19, 40, 60, 71	0
4	2E	204/206 (99%)	0.53	3 (1%) 72 68	33, 58, 68, 74	0
5	1F	203/210 (96%)	-0.03	0 100 100	19, 42, 60, 76	0
5	2F	203/210 (96%)	0.50	2 (0%) 79 76	36, 63, 72, 77	0
6	1G	181/182 (99%)	0.42	6 (3%) 49 43	39, 57, 69, 76	0
6	2G	181/182 (99%)	1.01	16 (8%) 15 12	64, 73, 78, 84	0
7	1H	174/180 (96%)	0.26	3 (1%) 69 64	37, 52, 64, 68	0
7	2H	174/180 (96%)	1.12	17 (9%) 13 10	62, 77, 85, 89	0
8	1I	146/148 (98%)	0.56	2 (1%) 73 69	44, 68, 74, 78	0
8	2I	146/148 (98%)	0.89	9 (6%) 26 21	54, 70, 79, 82	0
9	1N	140/140 (100%)	-0.08	1 (0%) 84 82	23, 39, 61, 70	0
9	2N	140/140 (100%)	0.58	3 (2%) 63 58	45, 62, 73, 83	0
10	1O	122/122 (100%)	-0.01	2 (1%) 70 66	28, 43, 57, 62	0
10	2O	122/122 (100%)	0.55	0 100 100	47, 59, 69, 78	0
11	1P	149/150 (99%)	0.18	1 (0%) 84 82	20, 45, 67, 71	0
11	2P	149/150 (99%)	0.71	3 (2%) 65 60	40, 63, 79, 84	0
12	1Q	141/141 (100%)	0.05	0 100 100	27, 41, 56, 72	0
12	2Q	141/141 (100%)	0.72	3 (2%) 63 58	50, 64, 72, 80	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.24	0 100 100	24, 34, 48, 58	0
13	2R	118/118 (100%)	0.36	3 (2%) 58 52	42, 51, 61, 72	0
14	1S	110/112 (98%)	0.12	0 100 100	39, 48, 59, 65	0
14	2S	110/112 (98%)	0.95	7 (6%) 25 20	58, 66, 75, 79	0
15	1T	131/146 (89%)	0.20	3 (2%) 61 55	34, 46, 66, 72	0
15	2T	131/146 (89%)	0.44	1 (0%) 82 80	49, 60, 69, 76	0
16	1U	116/118 (98%)	-0.19	0 100 100	21, 30, 48, 53	0
16	2U	116/118 (98%)	0.68	4 (3%) 48 42	43, 60, 71, 74	0
17	1V	101/101 (100%)	-0.22	0 100 100	21, 38, 54, 72	0
17	2V	101/101 (100%)	0.76	4 (3%) 42 37	42, 66, 75, 85	0
18	1W	112/113 (99%)	-0.30	1 (0%) 81 78	23, 32, 48, 80	0
18	2W	112/113 (99%)	0.40	2 (1%) 67 63	38, 50, 62, 77	0
19	1X	95/96 (98%)	-0.10	0 100 100	29, 40, 56, 73	0
19	2X	95/96 (98%)	0.58	2 (2%) 63 58	48, 60, 72, 79	0
20	1Y	107/110 (97%)	0.33	1 (0%) 81 78	34, 48, 61, 71	0
20	2Y	107/110 (97%)	0.88	1 (0%) 81 78	49, 66, 76, 82	0
21	1Z	154/206 (74%)	0.40	2 (1%) 75 71	37, 58, 75, 83	0
21	2Z	160/206 (77%)	1.03	16 (10%) 12 9	59, 74, 84, 88	0
22	10	83/85 (97%)	0.16	3 (3%) 46 40	26, 38, 58, 73	0
22	20	83/85 (97%)	0.89	7 (8%) 17 13	48, 61, 71, 77	0
23	11	97/98 (98%)	0.37	2 (2%) 63 58	28, 46, 66, 72	0
23	21	97/98 (98%)	0.60	2 (2%) 63 58	37, 55, 71, 74	0
24	12	70/72 (97%)	0.10	2 (2%) 53 48	31, 48, 59, 65	0
24	22	70/72 (97%)	0.73	3 (4%) 40 34	58, 68, 75, 85	0
25	13	59/60 (98%)	-0.25	0 100 100	23, 35, 58, 75	0
25	23	59/60 (98%)	0.63	2 (3%) 48 42	56, 63, 70, 73	0
26	14	69/71 (97%)	0.87	9 (13%) 7 5	49, 71, 80, 84	0
26	24	69/71 (97%)	1.00	7 (10%) 12 9	66, 78, 87, 90	0
27	15	59/60 (98%)	-0.28	0 100 100	21, 33, 53, 60	0
27	25	59/60 (98%)	0.30	1 (1%) 69 64	37, 51, 69, 74	0
28	16	53/54 (98%)	-0.14	0 100 100	33, 42, 54, 59	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.58	2 (3%) 44 38	50, 57, 63, 65	0
29	17	48/49 (97%)	-0.16	0 100 100	22, 27, 47, 57	0
29	27	48/49 (97%)	0.13	1 (2%) 63 58	35, 45, 60, 66	0
30	18	64/65 (98%)	0.03	1 (1%) 70 66	28, 35, 45, 51	0
30	28	64/65 (98%)	0.68	1 (1%) 70 66	39, 53, 61, 64	0
31	19	37/37 (100%)	0.06	0 100 100	25, 40, 56, 61	0
31	29	37/37 (100%)	0.88	1 (2%) 56 50	54, 66, 71, 79	0
32	1a	1488/1521 (97%)	0.24	28 (1%) 66 61	37, 65, 86, 101	0
32	2a	1491/1521 (98%)	0.57	56 (3%) 44 38	50, 74, 89, 101	0
33	1b	231/256 (90%)	0.86	18 (7%) 19 15	63, 73, 80, 84	0
33	2b	231/256 (90%)	1.13	30 (12%) 7 5	68, 78, 85, 93	0
34	1c	206/239 (86%)	0.68	8 (3%) 43 38	56, 69, 76, 80	0
34	2c	206/239 (86%)	1.23	36 (17%) 4 3	66, 77, 83, 89	0
35	1d	208/209 (99%)	0.80	10 (4%) 35 30	54, 67, 73, 79	0
35	2d	208/209 (99%)	0.82	8 (3%) 44 38	58, 67, 75, 80	0
36	1e	148/162 (91%)	0.50	2 (1%) 73 69	52, 63, 71, 76	0
36	2e	148/162 (91%)	1.07	14 (9%) 14 10	62, 73, 79, 84	0
37	1f	100/101 (99%)	0.54	2 (2%) 65 60	51, 64, 71, 73	0
37	2f	100/101 (99%)	0.61	1 (1%) 79 76	61, 68, 73, 77	0
38	1g	155/156 (99%)	0.81	17 (10%) 10 8	57, 66, 74, 95	0
38	2g	155/156 (99%)	1.03	18 (11%) 9 7	63, 73, 80, 89	0
39	1h	137/138 (99%)	0.56	5 (3%) 46 40	55, 65, 72, 82	0
39	2h	137/138 (99%)	1.13	17 (12%) 8 6	64, 73, 79, 84	0
40	1i	127/128 (99%)	1.14	14 (11%) 10 8	50, 72, 79, 81	0
40	2i	127/128 (99%)	1.53	36 (28%) 1 1	68, 76, 81, 85	0
41	1j	97/105 (92%)	1.02	6 (6%) 26 21	59, 71, 80, 85	0
41	2j	96/105 (91%)	1.71	32 (33%) 1 1	70, 78, 83, 86	0
42	1k	114/129 (88%)	0.61	3 (2%) 57 51	47, 64, 71, 73	0
42	2k	114/129 (88%)	0.93	6 (5%) 32 26	54, 70, 77, 80	0
43	1l	121/132 (91%)	0.36	2 (1%) 69 64	44, 55, 64, 65	0
43	2l	121/132 (91%)	0.78	6 (4%) 34 28	56, 66, 73, 77	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	123/126 (97%)	0.81	9 (7%) 21 17	52, 66, 74, 78	0
44	2m	122/126 (96%)	1.31	19 (15%) 5 4	64, 75, 80, 82	0
45	1n	60/61 (98%)	1.10	5 (8%) 17 13	59, 65, 72, 73	0
45	2n	60/61 (98%)	1.97	27 (45%) 0 0	71, 79, 86, 88	0
46	1o	88/89 (98%)	0.74	3 (3%) 48 42	48, 61, 71, 74	0
46	2o	88/89 (98%)	0.89	3 (3%) 48 42	60, 70, 77, 85	0
47	1p	82/88 (93%)	1.24	11 (13%) 7 5	59, 68, 72, 76	0
47	2p	82/88 (93%)	1.07	6 (7%) 21 17	55, 66, 73, 77	0
48	1q	99/105 (94%)	0.88	7 (7%) 22 17	56, 63, 72, 78	0
48	2q	99/105 (94%)	0.85	6 (6%) 27 22	59, 68, 76, 80	0
49	1r	68/88 (77%)	0.50	2 (2%) 53 48	51, 64, 72, 74	0
49	2r	68/88 (77%)	0.63	2 (2%) 53 48	63, 70, 77, 83	0
50	1s	83/93 (89%)	0.85	3 (3%) 46 40	58, 67, 73, 77	0
50	2s	83/93 (89%)	1.44	19 (22%) 2 2	69, 79, 83, 87	0
51	1t	96/106 (90%)	0.79	8 (8%) 17 13	56, 65, 76, 80	0
51	2t	96/106 (90%)	0.96	11 (11%) 9 7	55, 66, 75, 84	0
52	1u	23/27 (85%)	0.79	0 100 100	59, 63, 67, 69	0
52	2u	23/27 (85%)	1.57	3 (13%) 7 5	70, 75, 78, 81	0
53	1v	13/24 (54%)	0.55	1 (7%) 19 15	49, 61, 78, 90	0
53	2v	13/24 (54%)	1.11	1 (7%) 19 15	67, 77, 86, 93	0
54	1w	65/76 (85%)	0.94	7 (10%) 11 8	59, 81, 93, 98	0
54	2w	63/76 (82%)	1.11	10 (15%) 5 4	75, 86, 96, 100	0
55	1x	71/77 (92%)	0.07	0 100 100	27, 59, 74, 86	0
55	2x	71/77 (92%)	0.40	1 (1%) 73 69	47, 73, 84, 87	0
56	1y	67/76 (88%)	0.61	3 (4%) 38 32	37, 82, 92, 95	0
56	2y	66/76 (86%)	0.94	2 (3%) 52 47	56, 89, 93, 96	0
All	All	20867/21748 (95%)	0.36	864 (4%) 41 36	18, 62, 83, 101	0

All (864) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
38	1g	81	GLY	7.6
1	1A	652(V)	C	7.3

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Mol	Chain	Res	Type	RSRZ
1	2A	652(U)	G	6.9
1	2A	652(T)	C	6.7
1	2A	652(C)	G	6.6
1	1A	653	A	6.4
44	2m	124	PRO	6.4
45	1n	2	ALA	6.4
23	11	2	SER	6.3
1	1A	654	A	6.2
1	1A	652(C)	G	6.1
1	2A	652(V)	C	5.7
1	2A	654	A	5.6
40	2i	10	ARG	5.4
45	2n	2	ALA	5.4
1	1A	652(D)	C	5.4
1	1A	652(U)	G	5.3
1	2A	653	A	5.3
1	1A	652(S)	C	5.3
38	1g	85	TYR	5.3
38	1g	79	ARG	5.0
44	2m	123	ALA	4.9
1	2A	2146	C	4.8
54	1w	74	C	4.7
27	25	29	THR	4.7
40	2i	82	ALA	4.6
1	2A	883	G	4.6
41	2j	77	PRO	4.6
21	2Z	172	ALA	4.5
40	2i	102	LEU	4.5
34	2c	200	ALA	4.5
54	1w	71	G	4.5
41	2j	47	PHE	4.5
33	1b	213	LEU	4.5
22	10	3	HIS	4.4
38	2g	83	ALA	4.4
38	1g	80	VAL	4.4
45	2n	59	ALA	4.3
35	1d	2	GLY	4.3
1	1A	652(T)	C	4.3
22	20	2	ALA	4.3
21	1Z	146	ILE	4.3
1	1A	652(E)	G	4.2
32	2a	1032	G	4.2

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Mol	Chain	Res	Type	RSRZ
1	1A	885	C	4.2
33	2b	71	VAL	4.2
1	2A	652(D)	C	4.1
51	2t	83	ARG	4.1
22	20	7	LEU	4.1
44	1m	124	PRO	4.0
1	1A	1078	U	4.0
21	1Z	141	VAL	4.0
1	2A	2112	G	4.0
1	2A	884	C	4.0
1	1A	652(F)	G	3.9
34	2c	2	GLY	3.9
11	2P	15	ARG	3.9
40	2i	11	LYS	3.9
1	1A	2115	G	3.9
33	2b	7	VAL	3.9
38	2g	80	VAL	3.9
40	1i	106	ALA	3.9
23	21	2	SER	3.8
34	2c	149	ALA	3.8
54	2w	73	A	3.8
47	1p	19	ILE	3.8
44	2m	102	ARG	3.8
32	1a	1002	G	3.7
32	2a	1033	G	3.7
1	2A	2115	G	3.7
32	2a	1002	G	3.7
1	1A	1059	G	3.6
44	2m	106	ASN	3.6
32	1a	1036	G	3.6
45	2n	34	TYR	3.6
32	2a	1117	G	3.6
1	1A	1094	U	3.6
26	14	56	VAL	3.6
45	2n	4	LYS	3.6
54	2w	71	G	3.5
33	2b	165	VAL	3.5
36	2e	33	VAL	3.5
1	2A	652(B)	A	3.5
40	1i	72	GLY	3.5
39	2h	83	ILE	3.5
40	1i	14	VAL	3.5

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Mol	Chain	Res	Type	RSRZ
38	1g	154	TYR	3.5
21	2Z	146	ILE	3.5
1	1A	1057	A	3.5
50	2s	78	ARG	3.5
1	1A	888	C	3.4
32	1a	1038	C	3.4
32	2a	1116	C	3.4
1	2A	2802	G	3.4
50	2s	82	GLY	3.4
33	2b	121	LEU	3.4
45	2n	7	ILE	3.4
38	2g	81	GLY	3.4
1	1A	2112	G	3.4
50	2s	80	TYR	3.4
38	2g	38	LEU	3.4
41	2j	26	ALA	3.4
45	2n	21	TYR	3.4
32	1a	1001(A)	G	3.4
1	1A	896	A	3.3
33	2b	34	ALA	3.3
41	2j	27	ALA	3.3
1	2A	2155	G	3.3
29	27	1	MET	3.3
34	2c	195	VAL	3.3
39	1h	61	VAL	3.3
41	2j	55	LYS	3.3
1	1A	2109	U	3.3
1	2A	2118	U	3.3
1	2A	885	C	3.3
45	2n	14	PRO	3.3
15	1T	130	ALA	3.3
1	1A	1096	A	3.3
1	2A	882	G	3.3
25	23	42	ALA	3.3
33	2b	161	ALA	3.3
33	2b	237	ALA	3.3
1	1A	1080	C	3.3
34	2c	8	ILE	3.3
41	2j	65	LEU	3.3
43	2l	56	ALA	3.3
6	2G	20	ILE	3.3
39	2h	133	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
50	2s	77	THR	3.2
1	2A	652(E)	G	3.2
38	1g	78	ARG	3.2
38	1g	156	TRP	3.2
18	2W	112	GLY	3.2
34	1c	207	VAL	3.2
40	2i	99	LEU	3.2
22	20	6	GLY	3.2
45	2n	38	GLY	3.2
1	2A	2803	C	3.2
45	2n	15	LYS	3.2
1	2A	2133	G	3.2
11	2P	109	GLY	3.2
15	1T	131	ALA	3.2
33	1b	62	ALA	3.2
21	2Z	174	VAL	3.2
1	1A	1092	C	3.1
45	2n	3	ARG	3.1
41	2j	63	PHE	3.1
1	1A	1087	G	3.1
32	2a	1220	G	3.1
26	14	58	ARG	3.1
43	2l	19	ARG	3.1
41	2j	78	ASN	3.1
32	2a	1149	C	3.1
33	1b	61	LEU	3.1
1	1A	2117	A	3.1
1	2A	2119	A	3.1
54	1w	73	A	3.1
34	2c	5	ILE	3.1
41	2j	59	SER	3.1
1	2A	2144	U	3.1
40	2i	105	ASP	3.1
32	1a	1003	G	3.1
32	2a	1031	G	3.1
32	1a	1035	A	3.1
32	2a	1219	U	3.1
40	2i	19	LEU	3.1
14	2S	34	HIS	3.1
32	2a	1017	G	3.1
54	1w	1	G	3.1
34	2c	182	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
44	2m	72	ALA	3.1
40	2i	14	VAL	3.1
7	2H	2	SER	3.1
1	2A	2114	A	3.0
32	2a	1016	A	3.0
21	2Z	144	LEU	3.0
1	1A	2113	U	3.0
44	2m	100	GLY	3.0
40	2i	13	ALA	3.0
43	2l	18	VAL	3.0
1	2A	2123	G	3.0
32	2a	1034	G	3.0
1	2A	1536	C	3.0
1	1A	1095	A	3.0
48	2q	100	LYS	3.0
21	2Z	164	ALA	3.0
1	1A	1070	A	3.0
28	26	20	ASN	3.0
40	1i	10	ARG	3.0
41	2j	75	ILE	3.0
1	1A	897	C	3.0
1	1A	2174	C	3.0
34	2c	137	ALA	3.0
26	24	56	VAL	3.0
33	1b	7	VAL	3.0
53	2v	24	A	3.0
40	2i	96	LEU	2.9
40	2i	127	LYS	2.9
36	2e	109	ILE	2.9
18	1W	112	GLY	2.9
6	2G	160	VAL	2.9
7	2H	35	VAL	2.9
21	2Z	33	LEU	2.9
1	1A	1079	C	2.9
1	1A	2170	A	2.9
32	2a	1001(A)	G	2.9
55	2x	70	G	2.9
50	2s	2	PRO	2.9
40	2i	83	ARG	2.9
45	2n	12	ARG	2.9
35	1d	20	TYR	2.9
39	2h	131	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
41	2j	67	THR	2.9
44	2m	105	THR	2.9
32	2a	1018	C	2.9
32	2a	1030	C	2.9
54	2w	74	C	2.9
9	2N	45	ASN	2.9
35	1d	5	ILE	2.9
47	1p	68	ASP	2.9
14	2S	33	LYS	2.9
40	2i	79	LEU	2.9
43	1l	91	LYS	2.9
1	1A	2111	C	2.9
32	1a	1286	A	2.9
38	1g	34	GLY	2.9
8	2I	68	LEU	2.8
22	20	43	THR	2.8
1	1A	1086	A	2.8
1	1A	2119	A	2.8
32	1a	1025	U	2.8
32	2a	1150	U	2.8
36	2e	45	PHE	2.8
47	2p	2	VAL	2.8
32	2a	1030(A)	G	2.8
41	1j	59	SER	2.8
6	2G	133	LEU	2.8
6	1G	50	ALA	2.8
45	2n	25	VAL	2.8
1	2A	2113	U	2.8
44	2m	104	ARG	2.8
1	2A	1509	C	2.8
54	1w	72	C	2.8
54	2w	4	C	2.8
1	1A	1093	G	2.8
14	2S	32	LEU	2.8
14	2S	58	LEU	2.8
33	1b	11	LEU	2.8
51	1t	47	GLY	2.8
34	2c	15	THR	2.8
34	2c	201	TYR	2.8
42	2k	75	TYR	2.8
35	2d	122	ARG	2.8
44	2m	88	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
32	1a	1447	A	2.8
32	2a	1030(B)	C	2.8
54	2w	72	C	2.8
41	2j	62	HIS	2.8
8	2I	146	ALA	2.8
41	2j	64	GLU	2.8
45	2n	10	ALA	2.8
1	1A	2149	G	2.8
1	1A	271(K)	U	2.7
1	1A	1060	U	2.7
6	2G	139	LEU	2.7
40	1i	50	LEU	2.7
50	2s	71	LEU	2.7
7	2H	41	MET	2.7
1	1A	154(A)	C	2.7
1	1A	1509	C	2.7
1	1A	2108	C	2.7
1	1A	1058	G	2.7
1	1A	1062	G	2.7
1	2A	2147	G	2.7
38	2g	37	ASN	2.7
45	2n	61	TRP	2.7
33	2b	40	HIS	2.7
51	1t	103	GLY	2.7
33	1b	12	GLU	2.7
41	2j	46	ARG	2.7
41	2j	54	PHE	2.7
50	2s	79	THR	2.7
24	22	60	LEU	2.7
7	2H	141	VAL	2.7
34	2c	189	ALA	2.7
41	2j	44	VAL	2.7
32	1a	1503	A	2.7
1	2A	2111	C	2.7
32	1a	1006	C	2.7
54	2w	3	C	2.7
51	1t	72	LEU	2.7
6	2G	159	VAL	2.7
36	1e	47	LYS	2.7
40	2i	86	VAL	2.7
43	2l	39	VAL	2.7
46	2o	60	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
1	1A	1063	G	2.6
1	2A	2131	G	2.6
1	2A	2156	G	2.6
32	2a	1021	G	2.6
47	2p	82	GLN	2.6
1	1A	2171	A	2.6
6	2G	172	LEU	2.6
49	1r	78	LEU	2.6
38	2g	82	GLY	2.6
56	2y	4	C	2.6
7	2H	19	VAL	2.6
38	1g	2	ALA	2.6
45	2n	20	ALA	2.6
50	2s	11	VAL	2.6
38	1g	86	GLN	2.6
39	2h	4	ASP	2.6
1	2A	1533	G	2.6
40	2i	9	ARG	2.6
48	1q	75	ARG	2.6
9	2N	83	LYS	2.6
26	14	17	GLY	2.6
50	2s	68	GLY	2.6
50	2s	84	GLY	2.6
1	1A	2114	A	2.6
1	2A	2169	A	2.6
16	2U	63	VAL	2.6
20	1Y	3	VAL	2.6
26	24	35	VAL	2.6
30	28	23	VAL	2.6
44	2m	98	VAL	2.6
47	1p	62	VAL	2.6
10	1O	91	LEU	2.6
38	2g	16	LEU	2.6
39	2h	63	LEU	2.6
40	2i	62	TYR	2.6
45	2n	39	LEU	2.6
22	10	4	LYS	2.6
32	1a	204	U	2.6
39	2h	128	GLY	2.6
44	2m	54	VAL	2.6
50	1s	67	VAL	2.6
1	1A	1064	C	2.6

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Mol	Chain	Res	Type	RSRZ
42	1k	25	TYR	2.6
42	1k	126	ARG	2.6
50	1s	29	ARG	2.6
6	2G	92	VAL	2.6
7	2H	36	PRO	2.6
44	2m	117	VAL	2.6
5	2F	90	PHE	2.6
35	1d	83	SER	2.5
1	1A	2141	G	2.5
8	2I	1	MET	2.5
32	2a	1004	A	2.5
32	2a	1179	A	2.5
35	2d	21	LEU	2.5
30	18	46	ARG	2.5
38	1g	4	ARG	2.5
42	2k	50	TYR	2.5
32	2a	1029	C	2.5
32	2a	1115	C	2.5
47	1p	2	VAL	2.5
51	1t	75	ASN	2.5
1	1A	1066	U	2.5
1	1A	1081	U	2.5
1	2A	1026	U	2.5
3	2D	276	LYS	2.5
28	26	34	LEU	2.5
33	2b	187	LEU	2.5
1	2A	2318	G	2.5
32	1a	1034	G	2.5
32	2a	1030(D)	A	2.5
33	1b	203	GLY	2.5
8	1I	92	VAL	2.5
40	1i	109	VAL	2.5
39	2h	70	GLN	2.5
1	1A	2803	C	2.5
32	2a	1043	C	2.5
54	2w	67	C	2.5
48	1q	14	LYS	2.5
32	1a	1532	U	2.5
32	2a	1196	U	2.5
39	2h	91	ARG	2.5
41	2j	13	HIS	2.5
40	1i	125	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
40	2i	5	TYR	2.5
17	2V	50	PRO	2.5
1	1A	1056	G	2.5
1	2A	652(A)	A	2.5
37	1f	85	VAL	2.5
54	2w	7	A	2.5
40	1i	76	ALA	2.5
40	2i	18	PHE	2.5
44	1m	18	ALA	2.5
33	1b	187	LEU	2.5
34	1c	188	LEU	2.5
34	2c	204	LEU	2.5
51	2t	11	SER	2.5
1	2A	2804	C	2.5
32	2a	1369	C	2.5
1	2A	2897	U	2.5
34	2c	80	GLY	2.5
41	2j	36	GLY	2.5
42	2k	35	PRO	2.5
12	2Q	114	ALA	2.5
41	2j	32	ALA	2.5
33	1b	132	LYS	2.4
39	1h	3	THR	2.4
1	1A	1077	A	2.4
1	2A	2062	A	2.4
32	2a	1001	A	2.4
38	1g	84	ASN	2.4
1	1A	883	G	2.4
32	1a	1033	G	2.4
20	2Y	91	GLU	2.4
1	2A	2145	C	2.4
41	2j	10	GLY	2.4
40	2i	114	TYR	2.4
38	2g	35	LYS	2.4
33	2b	29	ALA	2.4
45	2n	31	ARG	2.4
41	2j	74	ILE	2.4
52	2u	14	TRP	2.4
33	2b	86	GLU	2.4
1	1A	275	G	2.4
1	1A	2151	G	2.4
36	2e	70	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
1	1A	886	C	2.4
34	2c	130	VAL	2.4
41	2j	49	VAL	2.4
1	1A	2118	U	2.4
36	2e	27	ARG	2.4
40	1i	13	ALA	2.4
40	2i	45	ALA	2.4
41	2j	28	ARG	2.4
34	2c	87	LEU	2.4
34	2c	152	ILE	2.4
44	2m	78	ILE	2.4
44	2m	90	LEU	2.4
45	2n	53	LEU	2.4
47	1p	67	THR	2.4
48	2q	43	LEU	2.4
48	2q	99	SER	2.4
11	1P	149	GLU	2.4
1	2A	2310	A	2.4
45	2n	58	LYS	2.4
34	1c	2	GLY	2.4
41	2j	34	VAL	2.4
1	1A	2110	G	2.4
1	2A	2751	G	2.4
8	2I	65	ALA	2.4
14	2S	3	ARG	2.4
32	1a	1030(A)	G	2.4
35	2d	4	TYR	2.4
38	2g	152	ALA	2.4
40	2i	94	ALA	2.4
44	1m	2	ALA	2.4
21	2Z	150	LEU	2.4
1	1A	2804	C	2.4
32	2a	1257	U	2.4
33	2b	67	THR	2.4
36	1e	85	GLY	2.4
51	1t	69	GLY	2.4
43	2l	55	VAL	2.4
1	1A	2801(A)	A	2.4
32	2a	1035	A	2.4
37	1f	45	LEU	2.3
33	2b	214	ILE	2.3
1	1A	2116	G	2.3

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Mol	Chain	Res	Type	RSRZ
1	1A	2130	U	2.3
1	1A	2159	G	2.3
1	1A	2207	G	2.3
1	2A	2154	G	2.3
8	2I	99	GLU	2.3
32	1a	1257	U	2.3
32	2a	1040	U	2.3
32	2a	1253	G	2.3
44	2m	58	GLU	2.3
1	1A	1532	C	2.3
40	1i	8	GLY	2.3
47	2p	42	ARG	2.3
34	2c	141	VAL	2.3
26	14	59	PHE	2.3
35	2d	206	PHE	2.3
41	2j	40	LEU	2.3
33	2b	185	ILE	2.3
50	1s	40	ILE	2.3
33	2b	31	TYR	2.3
47	2p	16	HIS	2.3
40	2i	126	SER	2.3
1	2A	2110	G	2.3
4	1E	56	PRO	2.3
32	2a	1023	G	2.3
32	2a	1224	G	2.3
1	2A	2174	C	2.3
4	2E	115	GLY	2.3
6	1G	21	ARG	2.3
9	1N	140	VAL	2.3
21	2Z	165	VAL	2.3
38	2g	75	VAL	2.3
8	2I	46	ALA	2.3
34	2c	52	LEU	2.3
39	2h	112	LEU	2.3
45	2n	42	ILE	2.3
6	2G	146	TYR	2.3
47	1p	39	TYR	2.3
6	2G	29	TRP	2.3
40	2i	111	ARG	2.3
7	2H	100	GLY	2.3
21	2Z	147	GLY	2.3
34	2c	205	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
46	2o	61	GLY	2.3
1	2A	2132	U	2.3
33	2b	197	VAL	2.3
36	2e	90	VAL	2.3
39	2h	135	CYS	2.3
33	2b	55	PHE	2.3
33	2b	122	PHE	2.3
33	2b	123	ALA	2.3
1	2A	888	C	2.3
1	2A	2149	G	2.3
32	1a	1032	G	2.3
32	2a	630	G	2.3
32	2a	1007	C	2.3
32	2a	1119	C	2.3
43	1l	47	LYS	2.3
51	2t	71	THR	2.3
40	2i	36	TYR	2.3
15	1T	104	ASN	2.3
51	2t	26	ASN	2.3
14	2S	31	SER	2.3
34	2c	17	ASP	2.3
35	1d	37	PRO	2.3
51	2t	86	ARG	2.3
1	2A	229	A	2.3
1	2A	896	A	2.3
17	2V	79	VAL	2.3
22	20	75	LEU	2.3
40	2i	56	LEU	2.3
46	1o	31	LEU	2.3
26	14	49	PHE	2.3
1	1A	2132	U	2.2
1	2A	1113	U	2.2
4	2E	204	ALA	2.2
33	1b	41	ILE	2.2
34	2c	24	ALA	2.2
34	2c	180	ALA	2.2
36	2e	129	ILE	2.2
39	2h	86	ILE	2.2
40	2i	81	ILE	2.2
44	1m	123	ALA	2.2
44	2m	9	ILE	2.2
41	2j	48	THR	2.2

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Mol	Chain	Res	Type	RSRZ
7	1H	86	GLU	2.2
40	2i	4	TYR	2.2
32	2a	972	C	2.2
32	2a	1038	C	2.2
56	1y	56	C	2.2
1	2A	1112	G	2.2
54	2w	70	G	2.2
7	2H	29	PRO	2.2
24	22	4	SER	2.2
50	2s	35	SER	2.2
36	2e	22	GLY	2.2
52	2u	16	GLY	2.2
12	2Q	2	LEU	2.2
18	2W	17	VAL	2.2
33	2b	136	VAL	2.2
40	2i	85	LEU	2.2
51	1t	10	LEU	2.2
15	2T	22	PHE	2.2
33	2b	152	PHE	2.2
33	2b	120	ALA	2.2
34	2c	129	ALA	2.2
34	2c	157	ILE	2.2
38	2g	128	ALA	2.2
39	1h	16	ALA	2.2
45	1n	59	ALA	2.2
50	2s	14	HIS	2.2
50	2s	70	LYS	2.2
1	1A	2167	U	2.2
10	1O	108	GLU	2.2
52	2u	8	THR	2.2
26	24	32	TYR	2.2
35	2d	154	ASN	2.2
48	1q	28	PRO	2.2
1	1A	2143	C	2.2
1	2A	2896	C	2.2
1	2A	2157	G	2.2
1	2A	2893	G	2.2
7	2H	105	LEU	2.2
21	2Z	102	LEU	2.2
32	2a	973	G	2.2
36	2e	114	GLY	2.2
41	1j	93	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
35	1d	120	LEU	2.2
49	1r	40	LEU	2.2
54	1w	70	G	2.2
56	1y	19	G	2.2
16	2U	105	VAL	2.2
35	2d	112	VAL	2.2
38	1g	87	VAL	2.2
7	2H	89	ILE	2.2
14	2S	35	ILE	2.2
34	1c	8	ILE	2.2
41	1j	47	PHE	2.2
45	2n	16	PHE	2.2
34	2c	53	ALA	2.2
44	1m	30	ALA	2.2
1	1A	1098	A	2.2
6	2G	145	THR	2.2
11	2P	65	ARG	2.2
26	14	55	ARG	2.2
26	24	55	ARG	2.2
38	2g	154	TYR	2.2
48	2q	30	PRO	2.2
3	2D	210	GLY	2.2
7	1H	175	LYS	2.2
22	10	6	GLY	2.2
35	2d	155	LEU	2.2
36	2e	74	GLY	2.2
26	24	66	SER	2.2
39	1h	54	ASP	2.2
45	1n	58	LYS	2.2
50	2s	18	LYS	2.2
51	2t	74	LYS	2.2
33	1b	136	VAL	2.2
42	2k	80	VAL	2.2
32	1a	1028	C	2.2
34	2c	14	ILE	2.2
45	2n	37	PHE	2.2
51	2t	41	ILE	2.2
35	1d	111	ALA	2.2
45	1n	20	ALA	2.2
1	1A	1089	G	2.2
1	1A	1091	G	2.2
1	1A	2120	G	2.2

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Mol	Chain	Res	Type	RSRZ
26	14	57	GLU	2.2
32	2a	1385	G	2.2
54	1w	19	G	2.2
26	14	52	THR	2.2
33	2b	190	THR	2.2
45	2n	22	THR	2.2
1	1A	1073	A	2.2
1	2A	2170	A	2.2
32	2a	1005	A	2.2
32	2a	1225	A	2.2
33	1b	236	TYR	2.2
23	11	98	LEU	2.2
24	22	10	LEU	2.2
33	2b	227	GLY	2.2
34	1c	47	LEU	2.2
34	2c	12	LEU	2.2
34	2c	197	GLY	2.2
40	2i	80	GLY	2.2
45	2n	55	GLY	2.2
19	2X	1	MET	2.2
16	2U	90	VAL	2.2
38	1g	77	SER	2.2
40	2i	17	VAL	2.2
41	2j	35	SER	2.2
41	2j	38	ILE	2.2
41	2j	50	ILE	2.2
47	1p	21	VAL	2.2
48	1q	90	ILE	2.2
51	2t	88	VAL	2.2
38	2g	26	PHE	2.2
33	2b	88	ALA	2.1
38	2g	40	ALA	2.1
38	2g	156	TRP	2.1
40	2i	106	ALA	2.1
45	1n	61	TRP	2.1
50	2s	75	ALA	2.1
3	1D	262	ARG	2.1
34	2c	190	ARG	2.1
46	2o	68	ARG	2.1
7	2H	55	PRO	2.1
7	2H	128	PRO	2.1
32	1a	630	G	2.1

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Mol	Chain	Res	Type	RSRZ
35	1d	197	PRO	2.1
54	2w	5	G	2.1
17	2V	11	GLN	2.1
19	2X	69	TYR	2.1
43	2l	52	LEU	2.1
46	1o	57	LEU	2.1
48	2q	98	LEU	2.1
49	2r	85	LEU	2.1
6	2G	134	GLY	2.1
17	2V	8	GLY	2.1
53	1v	12	A	2.1
6	1G	149	VAL	2.1
6	2G	39	ILE	2.1
7	2H	136	ILE	2.1
13	2R	69	ASP	2.1
26	24	50	VAL	2.1
34	1c	39	ILE	2.1
35	1d	170	VAL	2.1
38	2g	61	VAL	2.1
39	1h	118	VAL	2.1
39	2h	111	ILE	2.1
41	2j	56	HIS	2.1
50	2s	45	VAL	2.1
16	2U	79	PHE	2.1
21	2Z	44	PHE	2.1
35	2d	209	ARG	2.1
7	2H	85	LYS	2.1
40	2i	49	PRO	2.1
1	1A	898	C	2.1
1	1A	2145	C	2.1
1	2A	894	C	2.1
1	2A	2183	C	2.1
32	1a	1037	C	2.1
32	2a	1226	C	2.1
36	2e	20	GLN	2.1
37	2f	84	ASN	2.1
38	1g	59	LEU	2.1
39	2h	2	LEU	2.1
48	2q	42	TYR	2.1
41	1j	52	GLY	2.1
42	2k	49	GLY	2.1
42	2k	90	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	881	G	2.1
3	1D	98	VAL	2.1
21	2Z	57	ILE	2.1
21	2Z	85	HIS	2.1
26	24	65	ASP	2.1
32	1a	1023	G	2.1
32	2a	1061	G	2.1
32	2a	1127	G	2.1
32	2a	1131	G	2.1
33	2b	200	ILE	2.1
34	2c	75	VAL	2.1
34	2c	198	VAL	2.1
36	2e	55	VAL	2.1
39	2h	97	VAL	2.1
40	1i	81	ILE	2.1
40	1i	91	ASP	2.1
44	2m	53	VAL	2.1
45	2n	18	VAL	2.1
48	1q	13	ASP	2.1
21	2Z	149	SER	2.1
24	12	37	PHE	2.1
32	1a	1030(D)	A	2.1
32	2a	1092	A	2.1
32	2a	1285	A	2.1
33	1b	225	ALA	2.1
47	1p	24	ALA	2.1
47	2p	48	TRP	2.1
50	2s	32	LYS	2.1
6	2G	142	PRO	2.1
7	2H	39	PRO	2.1
39	2h	67	PRO	2.1
41	1j	77	PRO	2.1
46	1o	19	PRO	2.1
39	2h	9	MET	2.1
9	2N	23	LEU	2.1
23	21	46	LEU	2.1
33	1b	10	LEU	2.1
33	2b	44	LEU	2.1
44	2m	96	LEU	2.1
35	1d	154	ASN	2.1
6	1G	146	TYR	2.1
8	2I	84	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
34	2c	6	HIS	2.1
34	2c	184	TYR	2.1
1	1A	2129	C	2.1
1	1A	2146	C	2.1
32	1a	454	C	2.1
32	2a	1045	C	2.1
33	1b	165	VAL	2.1
40	2i	109	VAL	2.1
24	12	69	ARG	2.1
33	1b	120	ALA	2.1
33	1b	237	ALA	2.1
38	1g	5	ARG	2.1
40	2i	12	GLU	2.1
47	1p	28	ARG	2.1
48	1q	68	ARG	2.1
1	1A	879	G	2.1
1	1A	1055	G	2.1
1	1A	1088	A	2.1
1	2A	1142	U	2.1
22	20	49	LYS	2.1
32	2a	80	G	2.1
32	1a	1531	A	2.1
34	2c	4	LYS	2.1
56	2y	64	A	2.1
7	2H	12	PRO	2.1
33	2b	91	PRO	2.1
38	2g	89	MET	2.1
42	1k	13	GLN	2.1
47	1p	82	GLN	2.1
8	2I	12	LEU	2.1
45	2n	6	LEU	2.1
6	2G	119	GLY	2.1
40	1i	115	GLY	2.1
45	2n	49	HIS	2.1
51	2t	63	ILE	2.1
34	2c	151	VAL	2.1
36	2e	69	VAL	2.1
44	1m	53	VAL	2.1
4	2E	51	PHE	2.1
6	1G	80	PHE	2.1
48	1q	71	PHE	2.1
8	1I	27	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
50	2s	13	ASP	2.0
25	23	25	ALA	2.0
34	2c	121	ALA	2.0
44	1m	51	ALA	2.0
51	2t	97	ALA	2.0
1	1A	34	C	2.0
1	1A	2136	C	2.0
32	1a	1027	C	2.0
32	1a	1030(B)	C	2.0
44	1m	122	LYS	2.0
4	1E	62	PRO	2.0
7	2H	21	PRO	2.0
6	1G	26	GLN	2.0
32	2a	1532	U	2.0
36	2e	110	LEU	2.0
38	1g	12	LEU	2.0
44	1m	48	LEU	2.0
51	1t	13	LEU	2.0
1	1A	1099	G	2.0
1	1A	2148	G	2.0
1	2A	1171	G	2.0
32	1a	1026	G	2.0
32	2a	965	A	2.0
32	2a	994	A	2.0
32	2a	1324	A	2.0
56	1y	18	G	2.0
33	1b	19	HIS	2.0
6	2G	157	ILE	2.0
40	2i	63	ILE	2.0
5	2F	183	VAL	2.0
6	2G	178	PHE	2.0
31	29	19	ARG	2.0
41	1j	43	ARG	2.0
51	1t	83	ARG	2.0
22	20	68	GLU	2.0
39	2h	136	GLU	2.0
12	2Q	53	ALA	2.0
33	2b	173	ALA	2.0
34	1c	65	ALA	2.0
7	1H	2	SER	2.0
21	2Z	142	SER	2.0
21	2Z	166	SER	2.0

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Mol	Chain	Res	Type	RSRZ
8	2I	137	PRO	2.0
33	2b	125	PRO	2.0
40	2i	103	THR	2.0
41	2j	42	THR	2.0
44	2m	103	THR	2.0
47	1p	22	THR	2.0
13	2R	65	LEU	2.0
34	1c	52	LEU	2.0
1	1A	1097	U	2.0
1	2A	1249	U	2.0
32	2a	84	U	2.0
26	14	54	GLY	2.0
38	2g	34	GLY	2.0
50	2s	49	ILE	2.0
51	2t	69	GLY	2.0
1	2A	899	A	2.0
1	2A	2173	A	2.0
13	2R	68	ARG	2.0
40	1i	104	ARG	2.0
41	2j	66	ARG	2.0
49	2r	86	VAL	2.0
47	2p	38	TYR	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	7MG	2w	46	24/25	0.68	0.14	73,84,97,109	0
54	7MG	1w	46	24/25	0.71	0.14	73,83,99,115	0
56	4SU	2y	8	20/21	0.74	0.14	79,91,105,109	0
56	7MG	2y	46	24/25	0.74	0.14	81,93,98,108	0
56	7MG	1y	46	24/25	0.74	0.14	77,89,97,101	0
56	PSU	1y	55	20/21	0.74	0.13	76,88,98,107	0
56	PSU	2y	55	20/21	0.77	0.15	82,89,98,99	0
56	5MU	2y	54	21/22	0.79	0.12	78,88,95,104	0
54	PSU	2w	32	20/21	0.80	0.14	74,81,91,101	0
54	PSU	2w	55	20/21	0.80	0.12	65,83,91,93	0
56	PSU	1y	32	20/21	0.83	0.14	70,76,82,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	4SU	2w	8	20/21	0.83	0.13	79,89,97,102	0
56	PSU	2y	32	20/21	0.83	0.12	77,84,94,100	0
56	MIA	2y	37	22/30	0.84	0.11	75,80,90,95	0
32	2MG	2a	1207	24/25	0.85	0.12	73,80,84,86	0
56	PSU	2y	39	20/21	0.85	0.11	70,79,93,96	0
56	5MU	1y	54	21/22	0.86	0.12	69,78,89,89	0
55	PSU	2x	55	20/21	0.86	0.11	63,70,80,81	0
54	4SU	1w	8	20/21	0.87	0.12	68,80,88,90	0
32	5MC	2a	967	21/22	0.88	0.16	61,70,76,83	0
56	4SU	1y	8	20/21	0.88	0.10	81,85,89,89	0
55	5MU	2x	54	21/22	0.88	0.10	68,72,77,85	0
1	5MU	2A	1915	21/22	0.88	0.10	63,70,78,85	0
55	4SU	2x	8	20/21	0.89	0.10	64,72,82,83	0
32	M2G	2a	966	25/26	0.90	0.17	62,70,82,86	0
43	0TD	2l	92	10/11	0.90	0.13	63,66,70,80	0
56	PSU	1y	39	20/21	0.90	0.10	64,72,79,80	0
55	PSU	1x	55	20/21	0.90	0.10	51,59,66,75	0
56	MIA	1y	37	22/30	0.90	0.09	69,74,80,86	0
1	4OC	2A	1920	21/23	0.91	0.11	59,65,69,71	0
54	5MU	2w	54	21/22	0.91	0.10	62,74,79,82	0
54	PSU	1w	55	20/21	0.91	0.09	62,73,80,84	0
32	PSU	2a	516	20/21	0.91	0.11	67,74,79,80	0
54	PSU	1w	32	20/21	0.91	0.12	59,70,75,76	0
32	2MG	1a	1207	24/25	0.91	0.12	57,65,70,77	0
54	PSU	2w	39	20/21	0.91	0.10	67,78,83,83	0
32	7MG	2a	527	24/25	0.91	0.13	55,65,70,76	0
32	5MC	2a	1400	21/22	0.92	0.15	62,71,78,80	0
54	MIA	2w	37	25/30	0.92	0.10	70,77,83,90	0
55	5MC	2x	32	21/22	0.92	0.12	60,65,73,75	0
54	5MU	1w	54	21/22	0.92	0.09	59,66,71,74	0
54	PSU	1w	39	20/21	0.92	0.10	64,69,75,76	0
1	PSU	2A	1911	20/21	0.92	0.11	53,65,73,74	0
32	4OC	2a	1402	22/23	0.93	0.12	56,65,69,73	0
43	0TD	1l	92	10/11	0.93	0.11	43,51,56,57	0
55	5MU	1x	54	21/22	0.93	0.10	51,60,65,73	0
1	5MU	1A	1915	21/22	0.94	0.10	40,47,52,65	0
54	MIA	1w	37	29/30	0.94	0.10	45,59,66,67	0
32	PSU	1a	516	20/21	0.94	0.09	52,59,63,65	0
55	4SU	1x	8	20/21	0.94	0.10	50,67,71,71	0
32	UR3	2a	1498	21/22	0.94	0.12	57,61,67,68	0
1	MA6	2A	2058	24/25	0.95	0.11	32,43,47,49	0
32	M2G	1a	966	25/26	0.95	0.09	47,55,60,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	5MC	2a	1404	21/22	0.95	0.10	52,61,65,67	0
32	5MC	2a	1407	21/22	0.95	0.10	53,59,68,71	0
1	OMU	2A	2552	21/22	0.95	0.09	40,47,53,58	0
32	MA6	2a	1518	24/25	0.95	0.11	53,68,73,74	0
1	PSU	2A	1917	20/21	0.95	0.07	57,68,77,78	0
1	5MC	2A	1942	21/22	0.95	0.10	52,58,65,68	0
32	7MG	1a	527	24/25	0.95	0.08	42,51,59,64	0
1	OMG	2A	2251	24/25	0.96	0.08	31,39,45,48	0
32	5MC	1a	1407	21/22	0.96	0.09	29,42,47,49	0
1	5MU	2A	1939	21/22	0.96	0.09	37,45,51,53	0
32	5MC	1a	967	21/22	0.96	0.08	46,58,60,63	0
1	PSU	2A	2605	20/21	0.96	0.08	37,44,48,49	0
32	MA6	1a	1519	24/25	0.96	0.09	38,44,49,54	0
32	MA6	2a	1519	24/25	0.96	0.11	53,66,71,74	0
1	5MC	1A	1942	21/22	0.96	0.08	34,41,47,52	0
1	PSU	1A	1911	20/21	0.96	0.08	41,50,54,57	0
55	5MC	1x	32	21/22	0.96	0.09	46,55,61,65	0
32	5MC	1a	1400	21/22	0.96	0.10	44,52,56,59	0
1	5MC	2A	1962	21/22	0.96	0.08	47,53,58,75	0
32	4OC	1a	1402	22/23	0.96	0.09	42,47,55,57	0
1	PSU	1A	1917	20/21	0.96	0.10	41,46,48,55	0
32	5MC	1a	1404	21/22	0.96	0.11	38,43,47,48	0
55	31H	2x	76	32/33	0.96	0.09	32,50,60,68	0
1	MA6	1A	2058	24/25	0.97	0.07	17,30,37,39	0
1	2MA	2A	2503	23/24	0.97	0.08	31,39,46,54	0
32	UR3	1a	1498	21/22	0.97	0.08	38,44,46,47	0
1	4OC	1A	1920	21/23	0.97	0.08	37,45,50,54	0
55	31H	1x	76	32/33	0.97	0.08	19,32,42,42	10
1	OMG	1A	2251	24/25	0.97	0.07	22,27,31,35	0
1	PSU	1A	2605	20/21	0.98	0.06	24,27,33,34	0
1	2MA	1A	2503	23/24	0.98	0.07	14,22,29,32	0
32	MA6	1a	1518	24/25	0.98	0.07	36,44,47,48	0
1	5MC	1A	1962	21/22	0.98	0.06	25,34,38,44	0
1	OMU	1A	2552	21/22	0.98	0.08	22,30,34,36	0
1	5MU	1A	1939	21/22	0.98	0.07	24,31,35,49	0

6.3 Carbohydrates (i)

There are no oligosaccharides 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, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3304	1/1	0.60	0.38	76,76,76,76	0
57	MG	2A	3642	1/1	0.61	0.27	79,79,79,79	0
57	MG	2a	1792	1/1	0.61	0.25	76,76,76,76	0
57	MG	2A	3700	1/1	0.68	0.23	72,72,72,72	0
57	MG	2A	3779	1/1	0.69	0.25	62,62,62,62	0
57	MG	2a	1789	1/1	0.69	0.13	78,78,78,78	0
57	MG	1a	1763	1/1	0.69	0.17	75,75,75,75	0
57	MG	1a	1744	1/1	0.70	0.10	69,69,69,69	0
57	MG	2A	3839	1/1	0.70	0.18	59,59,59,59	0
57	MG	1A	3451	1/1	0.74	0.24	73,73,73,73	0
57	MG	1A	3951	1/1	0.75	0.34	50,50,50,50	0
57	MG	1a	1751	1/1	0.75	0.12	50,50,50,50	0
57	MG	1A	3797	1/1	0.76	0.14	56,56,56,56	0
57	MG	2a	1696	1/1	0.76	0.15	77,77,77,77	0
57	MG	1a	1802	1/1	0.76	0.19	66,66,66,66	0
57	MG	1a	1680	1/1	0.76	0.23	70,70,70,70	0
57	MG	2A	3259	1/1	0.77	0.30	60,60,60,60	0
57	MG	1O	204	1/1	0.77	0.16	55,55,55,55	0
57	MG	1a	1705	1/1	0.77	0.19	64,64,64,64	0
57	MG	2A	3667	1/1	0.77	0.14	57,57,57,57	0
57	MG	1a	1673	1/1	0.77	0.18	68,68,68,68	0
57	MG	1A	3879	1/1	0.78	0.12	40,40,40,40	0
57	MG	2A	3654	1/1	0.78	0.19	70,70,70,70	0
57	MG	1B	222	1/1	0.78	0.13	54,54,54,54	0
57	MG	1x	109	1/1	0.79	0.16	64,64,64,64	0
57	MG	2A	3849	1/1	0.79	0.15	44,44,44,44	0
57	MG	2R	201	1/1	0.79	0.23	69,69,69,69	0
57	MG	1G	204	1/1	0.79	0.13	63,63,63,63	0
57	MG	2a	1744	1/1	0.79	0.32	69,69,69,69	0
57	MG	2a	1780	1/1	0.79	0.19	65,65,65,65	0
57	MG	1A	3763	1/1	0.79	0.13	56,56,56,56	0
57	MG	1A	3943	1/1	0.79	0.15	51,51,51,51	0
57	MG	1A	3097	1/1	0.80	0.13	53,53,53,53	0
57	MG	1a	1811	1/1	0.80	0.23	63,63,63,63	0
57	MG	1x	102	1/1	0.80	0.23	56,56,56,56	0
57	MG	1A	4083	1/1	0.80	0.15	56,56,56,56	0
57	MG	2A	3099	1/1	0.80	0.21	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1703	1/1	0.80	0.14	62,62,62,62	0
57	MG	1A	3877	1/1	0.80	0.12	34,34,34,34	0
57	MG	1A	3458	1/1	0.80	0.14	53,53,53,53	0
57	MG	1O	201	1/1	0.80	0.12	68,68,68,68	0
57	MG	1A	3361	1/1	0.80	0.19	53,53,53,53	0
57	MG	2v	101	1/1	0.80	0.17	65,65,65,65	0
57	MG	2A	3838	1/1	0.81	0.13	70,70,70,70	0
57	MG	1A	4074	1/1	0.81	0.17	58,58,58,58	0
57	MG	2A	3524	1/1	0.81	0.13	64,64,64,64	0
57	MG	1B	227	1/1	0.81	0.23	75,75,75,75	0
57	MG	1x	110	1/1	0.81	0.21	71,71,71,71	0
57	MG	2A	3660	1/1	0.81	0.23	65,65,65,65	0
57	MG	2A	3045	1/1	0.81	0.19	61,61,61,61	0
57	MG	10	102	1/1	0.81	0.20	60,60,60,60	0
57	MG	1A	3766	1/1	0.81	0.10	20,20,20,20	0
57	MG	2a	1798	1/1	0.81	0.14	59,59,59,59	0
57	MG	2a	1801	1/1	0.81	0.15	78,78,78,78	0
57	MG	2a	1806	1/1	0.81	0.11	69,69,69,69	0
57	MG	2A	3833	1/1	0.81	0.14	51,51,51,51	0
57	MG	2A	3107	1/1	0.82	0.16	64,64,64,64	0
57	MG	1a	1767	1/1	0.82	0.14	66,66,66,66	0
57	MG	1A	3709	1/1	0.82	0.18	59,59,59,59	0
57	MG	2a	1621	1/1	0.82	0.22	71,71,71,71	0
57	MG	2a	1651	1/1	0.82	0.24	82,82,82,82	0
57	MG	2A	3329	1/1	0.82	0.12	61,61,61,61	0
57	MG	2A	3706	1/1	0.82	0.12	63,63,63,63	0
57	MG	2A	3766	1/1	0.82	0.12	59,59,59,59	0
57	MG	2A	3777	1/1	0.82	0.15	48,48,48,48	0
57	MG	2A	3356	1/1	0.82	0.19	67,67,67,67	0
57	MG	2A	3783	1/1	0.82	0.17	76,76,76,76	0
57	MG	2A	3827	1/1	0.82	0.10	53,53,53,53	0
57	MG	1A	3976	1/1	0.82	0.08	25,25,25,25	0
57	MG	1A	4069	1/1	0.82	0.14	59,59,59,59	0
57	MG	2x	102	1/1	0.82	0.23	71,71,71,71	0
57	MG	1Q	206	1/1	0.83	0.14	35,35,35,35	0
57	MG	1Z	304	1/1	0.83	0.10	57,57,57,57	0
57	MG	1A	4034	1/1	0.83	0.17	61,61,61,61	0
57	MG	15	109	1/1	0.83	0.14	60,60,60,60	0
57	MG	1A	3819	1/1	0.83	0.12	27,27,27,27	0
57	MG	2A	3079	1/1	0.83	0.17	59,59,59,59	0
57	MG	1A	3858	1/1	0.83	0.19	56,56,56,56	0
57	MG	1A	3460	1/1	0.83	0.23	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3203	1/1	0.83	0.22	70,70,70,70	0
57	MG	2A	3215	1/1	0.83	0.15	55,55,55,55	0
57	MG	1A	3378	1/1	0.83	0.12	64,64,64,64	0
57	MG	1A	3400	1/1	0.83	0.12	39,39,39,39	0
57	MG	1E	311	1/1	0.83	0.16	65,65,65,65	0
57	MG	2A	3330	1/1	0.83	0.20	62,62,62,62	0
57	MG	2a	1605	1/1	0.83	0.21	68,68,68,68	0
57	MG	2A	3336	1/1	0.83	0.10	54,54,54,54	0
57	MG	2a	1650	1/1	0.83	0.25	77,77,77,77	0
57	MG	2A	3340	1/1	0.83	0.19	67,67,67,67	0
57	MG	2A	3354	1/1	0.83	0.09	63,63,63,63	0
57	MG	1A	3946	1/1	0.83	0.15	54,54,54,54	0
57	MG	2A	3469	1/1	0.83	0.11	57,57,57,57	0
57	MG	1A	3230	1/1	0.83	0.17	64,64,64,64	0
57	MG	2A	3527	1/1	0.83	0.14	66,66,66,66	0
57	MG	2A	3571	1/1	0.83	0.18	65,65,65,65	0
57	MG	2A	3609	1/1	0.83	0.21	73,73,73,73	0
57	MG	2A	3633	1/1	0.83	0.22	49,49,49,49	0
57	MG	2a	1816	1/1	0.83	0.22	56,56,56,56	0
57	MG	1a	1794	1/1	0.83	0.11	53,53,53,53	0
57	MG	1A	3185	1/1	0.83	0.23	55,55,55,55	0
57	MG	1A	3058	1/1	0.84	0.17	55,55,55,55	0
57	MG	2A	3836	1/1	0.84	0.19	59,59,59,59	0
57	MG	1a	1742	1/1	0.84	0.16	73,73,73,73	0
57	MG	1A	3720	1/1	0.84	0.12	52,52,52,52	0
57	MG	1A	3830	1/1	0.84	0.14	69,69,69,69	0
57	MG	2A	3602	1/1	0.84	0.13	42,42,42,42	0
57	MG	2a	1603	1/1	0.84	0.11	61,61,61,61	0
57	MG	2A	3205	1/1	0.84	0.14	61,61,61,61	0
57	MG	1T	202	1/1	0.84	0.21	57,57,57,57	0
57	MG	2a	1649	1/1	0.84	0.11	58,58,58,58	0
57	MG	1A	3541	1/1	0.84	0.14	53,53,53,53	0
57	MG	2A	3649	1/1	0.84	0.15	78,78,78,78	0
57	MG	2a	1653	1/1	0.84	0.09	55,55,55,55	0
57	MG	2a	1685	1/1	0.84	0.19	63,63,63,63	0
57	MG	2A	3299	1/1	0.84	0.28	71,71,71,71	0
57	MG	2a	1708	1/1	0.84	0.20	66,66,66,66	0
57	MG	2a	1739	1/1	0.84	0.13	62,62,62,62	0
57	MG	2A	3302	1/1	0.84	0.11	55,55,55,55	0
57	MG	1A	3957	1/1	0.84	0.13	52,52,52,52	0
57	MG	1A	3965	1/1	0.84	0.11	62,62,62,62	0
57	MG	2A	3705	1/1	0.84	0.11	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1795	1/1	0.84	0.21	66,66,66,66	0
57	MG	1a	1607	1/1	0.84	0.17	66,66,66,66	0
57	MG	2a	1799	1/1	0.84	0.10	58,58,58,58	0
57	MG	1a	1672	1/1	0.84	0.16	77,77,77,77	0
57	MG	1A	3590	1/1	0.84	0.37	77,77,77,77	0
57	MG	1F	315	1/1	0.84	0.13	50,50,50,50	0
57	MG	1A	4015	1/1	0.84	0.13	57,57,57,57	0
57	MG	2A	3385	1/1	0.84	0.09	66,66,66,66	0
57	MG	1R	203	1/1	0.85	0.16	52,52,52,52	0
57	MG	2A	3479	1/1	0.85	0.32	66,66,66,66	0
57	MG	2A	3504	1/1	0.85	0.17	47,47,47,47	0
57	MG	1A	3637	1/1	0.85	0.11	59,59,59,59	0
57	MG	2B	219	1/1	0.85	0.20	66,66,66,66	0
57	MG	2A	3111	1/1	0.85	0.32	63,63,63,63	0
57	MG	2A	3528	1/1	0.85	0.26	68,68,68,68	0
57	MG	1A	3677	1/1	0.85	0.10	48,48,48,48	0
57	MG	2A	3593	1/1	0.85	0.16	44,44,44,44	0
57	MG	2a	1627	1/1	0.85	0.11	58,58,58,58	0
57	MG	1A	3994	1/1	0.85	0.13	42,42,42,42	0
57	MG	1a	1761	1/1	0.85	0.11	57,57,57,57	0
57	MG	2A	3628	1/1	0.85	0.12	45,45,45,45	0
57	MG	2A	3228	1/1	0.85	0.46	76,76,76,76	0
57	MG	2a	1679	1/1	0.85	0.29	75,75,75,75	0
57	MG	13	101	1/1	0.85	0.19	41,41,41,41	0
57	MG	1A	3526	1/1	0.85	0.09	64,64,64,64	0
57	MG	2a	1697	1/1	0.85	0.18	68,68,68,68	0
57	MG	1A	3477	1/1	0.85	0.10	52,52,52,52	0
57	MG	2a	1714	1/1	0.85	0.15	73,73,73,73	0
57	MG	1a	1623	1/1	0.85	0.20	57,57,57,57	0
57	MG	1a	1809	1/1	0.85	0.18	70,70,70,70	0
57	MG	2a	1754	1/1	0.85	0.27	62,62,62,62	0
57	MG	2A	3694	1/1	0.85	0.17	63,63,63,63	0
57	MG	1A	4056	1/1	0.85	0.13	49,49,49,49	0
57	MG	1A	3516	1/1	0.85	0.20	67,67,67,67	0
57	MG	1A	4073	1/1	0.85	0.12	38,38,38,38	0
57	MG	2a	1797	1/1	0.85	0.20	70,70,70,70	0
57	MG	2A	3717	1/1	0.85	0.21	61,61,61,61	0
57	MG	1a	1683	1/1	0.85	0.12	61,61,61,61	0
57	MG	1a	1688	1/1	0.85	0.19	56,56,56,56	0
57	MG	2A	3357	1/1	0.85	0.15	68,68,68,68	0
57	MG	1A	3866	1/1	0.85	0.13	40,40,40,40	0
57	MG	2a	1819	1/1	0.85	0.16	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3404	1/1	0.85	0.20	57,57,57,57	0
57	MG	2w	103	1/1	0.85	0.13	65,65,65,65	0
57	MG	2A	3443	1/1	0.85	0.12	60,60,60,60	0
57	MG	1A	3621	1/1	0.86	0.17	53,53,53,53	0
57	MG	1w	105	1/1	0.86	0.12	60,60,60,60	0
57	MG	1A	3517	1/1	0.86	0.11	62,62,62,62	0
57	MG	2A	3314	1/1	0.86	0.13	56,56,56,56	0
57	MG	2A	3616	1/1	0.86	0.13	49,49,49,49	0
57	MG	2A	3326	1/1	0.86	0.07	57,57,57,57	0
57	MG	1A	3794	1/1	0.86	0.09	22,22,22,22	0
57	MG	1A	3672	1/1	0.86	0.10	28,28,28,28	0
57	MG	2A	3648	1/1	0.86	0.10	69,69,69,69	0
57	MG	1Y	202	1/1	0.86	0.14	61,61,61,61	0
57	MG	1A	4079	1/1	0.86	0.16	55,55,55,55	0
57	MG	2A	3341	1/1	0.86	0.21	70,70,70,70	0
57	MG	1A	3804	1/1	0.86	0.23	25,25,25,25	0
57	MG	2A	3104	1/1	0.86	0.09	54,54,54,54	0
57	MG	2a	1705	1/1	0.86	0.11	74,74,74,74	0
57	MG	1A	3813	1/1	0.86	0.16	51,51,51,51	0
57	MG	13	107	1/1	0.86	0.09	53,53,53,53	0
57	MG	2a	1720	1/1	0.86	0.21	62,62,62,62	0
57	MG	2A	3181	1/1	0.86	0.14	52,52,52,52	0
57	MG	2A	3435	1/1	0.86	0.08	59,59,59,59	0
57	MG	2A	3732	1/1	0.86	0.12	48,48,48,48	0
57	MG	2a	1769	1/1	0.86	0.19	73,73,73,73	0
57	MG	2a	1779	1/1	0.86	0.12	65,65,65,65	0
57	MG	2A	3736	1/1	0.86	0.13	66,66,66,66	0
57	MG	1A	3090	1/1	0.86	0.16	73,73,73,73	0
57	MG	2A	3456	1/1	0.86	0.14	71,71,71,71	0
57	MG	1A	3708	1/1	0.86	0.10	57,57,57,57	0
57	MG	1A	3488	1/1	0.86	0.11	51,51,51,51	0
57	MG	2A	3788	1/1	0.86	0.10	51,51,51,51	0
57	MG	2A	3823	1/1	0.86	0.14	42,42,42,42	0
57	MG	1A	3025	1/1	0.86	0.16	58,58,58,58	0
57	MG	2A	3514	1/1	0.86	0.13	48,48,48,48	0
57	MG	2a	1809	1/1	0.86	0.13	65,65,65,65	0
57	MG	1A	3867	1/1	0.86	0.17	47,47,47,47	0
57	MG	2A	3266	1/1	0.86	0.09	52,52,52,52	0
57	MG	2a	1830	1/1	0.86	0.09	67,67,67,67	0
57	MG	2A	3289	1/1	0.86	0.10	70,70,70,70	0
57	MG	2A	3548	1/1	0.86	0.15	38,38,38,38	0
57	MG	2A	3855	1/1	0.86	0.13	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3510	1/1	0.87	0.22	61,61,61,61	0
57	MG	1A	3651	1/1	0.87	0.16	40,40,40,40	0
57	MG	1B	219	1/1	0.87	0.14	57,57,57,57	0
57	MG	2A	3240	1/1	0.87	0.16	62,62,62,62	0
57	MG	2A	3257	1/1	0.87	0.17	66,66,66,66	0
57	MG	1A	4003	1/1	0.87	0.09	71,71,71,71	0
57	MG	2A	3565	1/1	0.87	0.10	47,47,47,47	0
57	MG	1A	3655	1/1	0.87	0.08	29,29,29,29	0
57	MG	2A	3574	1/1	0.87	0.19	55,55,55,55	0
57	MG	2a	1611	1/1	0.87	0.24	63,63,63,63	0
57	MG	1a	1602	1/1	0.87	0.11	49,49,49,49	0
57	MG	2A	3294	1/1	0.87	0.14	61,61,61,61	0
57	MG	2A	3608	1/1	0.87	0.16	45,45,45,45	0
57	MG	1A	4019	1/1	0.87	0.13	43,43,43,43	0
57	MG	1A	4022	1/1	0.87	0.20	40,40,40,40	0
57	MG	1t	201	1/1	0.87	0.26	62,62,62,62	0
57	MG	1G	203	1/1	0.87	0.10	61,61,61,61	0
57	MG	2A	3635	1/1	0.87	0.14	56,56,56,56	0
57	MG	2A	3322	1/1	0.87	0.14	64,64,64,64	0
57	MG	1w	106	1/1	0.87	0.10	54,54,54,54	0
57	MG	1A	3148	1/1	0.87	0.11	40,40,40,40	0
57	MG	1A	3502	1/1	0.87	0.13	54,54,54,54	0
57	MG	2A	3334	1/1	0.87	0.24	63,63,63,63	0
57	MG	2A	3665	1/1	0.87	0.14	55,55,55,55	0
57	MG	2a	1729	1/1	0.87	0.18	49,49,49,49	0
57	MG	1A	3963	1/1	0.87	0.18	65,65,65,65	0
57	MG	2A	3684	1/1	0.87	0.10	72,72,72,72	0
57	MG	1A	4070	1/1	0.87	0.12	54,54,54,54	0
57	MG	1a	1690	1/1	0.87	0.25	61,61,61,61	0
57	MG	2A	3350	1/1	0.87	0.10	61,61,61,61	0
57	MG	2A	3085	1/1	0.87	0.13	58,58,58,58	0
57	MG	2A	3087	1/1	0.87	0.24	62,62,62,62	0
57	MG	2A	3727	1/1	0.87	0.11	74,74,74,74	0
57	MG	1A	3194	1/1	0.87	0.21	48,48,48,48	0
57	MG	2A	3100	1/1	0.87	0.22	62,62,62,62	0
57	MG	1S	202	1/1	0.87	0.19	63,63,63,63	0
57	MG	2A	3420	1/1	0.87	0.27	61,61,61,61	0
57	MG	1a	1714	1/1	0.87	0.20	54,54,54,54	0
57	MG	2A	3781	1/1	0.87	0.17	73,73,73,73	0
57	MG	1a	1736	1/1	0.87	0.10	59,59,59,59	0
57	MG	2A	3784	1/1	0.87	0.10	79,79,79,79	0
57	MG	2A	3127	1/1	0.87	0.09	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1820	1/1	0.87	0.26	66,66,66,66	0
57	MG	2a	1822	1/1	0.87	0.18	62,62,62,62	0
57	MG	2A	3821	1/1	0.87	0.10	78,78,78,78	0
57	MG	2m	201	1/1	0.87	0.19	73,73,73,73	0
57	MG	1A	3972	1/1	0.87	0.10	28,28,28,28	0
57	MG	1A	4077	1/1	0.87	0.17	51,51,51,51	0
57	MG	1A	3892	1/1	0.87	0.14	65,65,65,65	0
57	MG	2y	105	1/1	0.87	0.30	63,63,63,63	0
57	MG	1A	3793	1/1	0.88	0.10	18,18,18,18	0
57	MG	2A	3191	1/1	0.88	0.14	61,61,61,61	0
57	MG	2A	3492	1/1	0.88	0.11	62,62,62,62	0
57	MG	2A	3194	1/1	0.88	0.19	51,51,51,51	0
57	MG	1A	4071	1/1	0.88	0.11	63,63,63,63	0
57	MG	1A	3463	1/1	0.88	0.16	59,59,59,59	0
57	MG	2A	3520	1/1	0.88	0.19	65,65,65,65	0
57	MG	2A	3206	1/1	0.88	0.11	52,52,52,52	0
57	MG	1A	3471	1/1	0.88	0.12	45,45,45,45	0
57	MG	1A	3534	1/1	0.88	0.17	48,48,48,48	0
57	MG	2A	3530	1/1	0.88	0.16	50,50,50,50	0
57	MG	2A	3236	1/1	0.88	0.16	69,69,69,69	0
57	MG	2a	1606	1/1	0.88	0.12	57,57,57,57	0
57	MG	1a	1804	1/1	0.88	0.09	61,61,61,61	0
57	MG	2a	1620	1/1	0.88	0.19	68,68,68,68	0
57	MG	1a	1805	1/1	0.88	0.15	72,72,72,72	0
57	MG	1A	3960	1/1	0.88	0.10	61,61,61,61	0
57	MG	2a	1631	1/1	0.88	0.21	66,66,66,66	0
57	MG	2A	3577	1/1	0.88	0.10	55,55,55,55	0
57	MG	1A	3808	1/1	0.88	0.07	32,32,32,32	0
57	MG	2A	3269	1/1	0.88	0.17	56,56,56,56	0
57	MG	2A	3278	1/1	0.88	0.19	66,66,66,66	0
57	MG	1b	301	1/1	0.88	0.12	62,62,62,62	0
57	MG	1a	1603	1/1	0.88	0.18	67,67,67,67	0
57	MG	2a	1688	1/1	0.88	0.21	60,60,60,60	0
57	MG	2a	1692	1/1	0.88	0.25	59,59,59,59	0
57	MG	1B	202	1/1	0.88	0.16	50,50,50,50	0
57	MG	1A	3811	1/1	0.88	0.15	65,65,65,65	0
57	MG	1A	3331	1/1	0.88	0.20	47,47,47,47	0
57	MG	1A	3975	1/1	0.88	0.08	32,32,32,32	0
57	MG	2A	3318	1/1	0.88	0.11	62,62,62,62	0
57	MG	1A	3693	1/1	0.88	0.11	36,36,36,36	0
57	MG	2a	1723	1/1	0.88	0.14	65,65,65,65	0
57	MG	1y	101	1/1	0.88	0.11	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3983	1/1	0.88	0.09	32,32,32,32	0
57	MG	2A	3046	1/1	0.88	0.16	59,59,59,59	0
57	MG	2A	3072	1/1	0.88	0.09	42,42,42,42	0
57	MG	2a	1755	1/1	0.88	0.09	74,74,74,74	0
57	MG	1A	3694	1/1	0.88	0.08	26,26,26,26	0
57	MG	2a	1770	1/1	0.88	0.11	51,51,51,51	0
57	MG	2A	3688	1/1	0.88	0.13	65,65,65,65	0
57	MG	1A	3843	1/1	0.88	0.15	56,56,56,56	0
57	MG	1A	3705	1/1	0.88	0.09	46,46,46,46	0
57	MG	2A	3703	1/1	0.88	0.10	58,58,58,58	0
57	MG	2A	3089	1/1	0.88	0.14	61,61,61,61	0
57	MG	1A	3580	1/1	0.88	0.14	40,40,40,40	0
57	MG	2A	3710	1/1	0.88	0.13	48,48,48,48	0
57	MG	1Q	204	1/1	0.88	0.10	72,72,72,72	0
57	MG	1A	3341	1/1	0.88	0.07	48,48,48,48	0
57	MG	2A	3728	1/1	0.88	0.09	58,58,58,58	0
57	MG	2a	1808	1/1	0.88	0.24	67,67,67,67	0
57	MG	2A	3105	1/1	0.88	0.10	57,57,57,57	0
57	MG	2A	3386	1/1	0.88	0.08	50,50,50,50	0
57	MG	2A	3392	1/1	0.88	0.13	57,57,57,57	0
57	MG	1A	3207	1/1	0.88	0.13	67,67,67,67	0
57	MG	2A	3407	1/1	0.88	0.17	42,42,42,42	0
57	MG	1A	3311	1/1	0.88	0.16	48,48,48,48	0
57	MG	2A	3117	1/1	0.88	0.11	52,52,52,52	0
57	MG	2A	3441	1/1	0.88	0.12	64,64,64,64	0
57	MG	2w	102	1/1	0.88	0.10	62,62,62,62	0
57	MG	1A	3644	1/1	0.88	0.11	57,57,57,57	0
57	MG	2w	105	1/1	0.88	0.12	75,75,75,75	0
57	MG	2w	106	1/1	0.88	0.16	66,66,66,66	0
57	MG	2A	3789	1/1	0.88	0.10	56,56,56,56	0
57	MG	2y	101	1/1	0.88	0.09	65,65,65,65	0
57	MG	2A	3159	1/1	0.88	0.27	62,62,62,62	0
57	MG	2A	3476	1/1	0.89	0.27	64,64,64,64	0
57	MG	2A	3824	1/1	0.89	0.10	54,54,54,54	0
57	MG	2A	3248	1/1	0.89	0.09	49,49,49,49	0
57	MG	2A	3006	1/1	0.89	0.19	61,61,61,61	0
57	MG	2A	3494	1/1	0.89	0.19	54,54,54,54	0
57	MG	2A	3500	1/1	0.89	0.13	63,63,63,63	0
57	MG	1A	3659	1/1	0.89	0.08	44,44,44,44	0
57	MG	1A	4082	1/1	0.89	0.09	46,46,46,46	0
57	MG	2A	3853	1/1	0.89	0.11	62,62,62,62	0
57	MG	2A	3268	1/1	0.89	0.16	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2B	210	1/1	0.89	0.25	66,66,66,66	0
57	MG	2B	215	1/1	0.89	0.11	56,56,56,56	0
57	MG	1A	3404	1/1	0.89	0.10	58,58,58,58	0
57	MG	2G	201	1/1	0.89	0.11	67,67,67,67	0
57	MG	2A	3271	1/1	0.89	0.09	50,50,50,50	0
57	MG	2V	202	1/1	0.89	0.18	66,66,66,66	0
57	MG	1A	3411	1/1	0.89	0.11	45,45,45,45	0
57	MG	2A	3282	1/1	0.89	0.14	65,65,65,65	0
57	MG	1A	3918	1/1	0.89	0.10	35,35,35,35	0
57	MG	2A	3290	1/1	0.89	0.07	43,43,43,43	0
57	MG	2A	3558	1/1	0.89	0.11	34,34,34,34	0
57	MG	1A	3437	1/1	0.89	0.22	65,65,65,65	0
57	MG	2A	3296	1/1	0.89	0.17	50,50,50,50	0
57	MG	1A	3822	1/1	0.89	0.14	51,51,51,51	0
57	MG	2a	1646	1/1	0.89	0.08	66,66,66,66	0
57	MG	2A	3300	1/1	0.89	0.15	54,54,54,54	0
57	MG	2A	3301	1/1	0.89	0.20	52,52,52,52	0
57	MG	1B	232	1/1	0.89	0.15	64,64,64,64	0
57	MG	1a	1601	1/1	0.89	0.30	68,68,68,68	0
57	MG	2a	1657	1/1	0.89	0.11	72,72,72,72	0
57	MG	1A	3336	1/1	0.89	0.11	60,60,60,60	0
57	MG	1F	311	1/1	0.89	0.09	38,38,38,38	0
57	MG	1A	3457	1/1	0.89	0.10	41,41,41,41	0
57	MG	2A	3629	1/1	0.89	0.12	46,46,46,46	0
57	MG	2A	3323	1/1	0.89	0.18	48,48,48,48	0
57	MG	2A	3324	1/1	0.89	0.12	60,60,60,60	0
57	MG	1a	1620	1/1	0.89	0.12	50,50,50,50	0
57	MG	2A	3647	1/1	0.89	0.12	46,46,46,46	0
57	MG	2A	3328	1/1	0.89	0.17	76,76,76,76	0
57	MG	1A	4068	1/1	0.89	0.14	61,61,61,61	0
57	MG	2A	3120	1/1	0.89	0.19	66,66,66,66	0
57	MG	2A	3656	1/1	0.89	0.11	59,59,59,59	0
57	MG	1a	1629	1/1	0.89	0.10	49,49,49,49	0
57	MG	2A	3146	1/1	0.89	0.14	51,51,51,51	0
57	MG	2a	1749	1/1	0.89	0.14	65,65,65,65	0
57	MG	2a	1753	1/1	0.89	0.26	69,69,69,69	0
57	MG	2A	3148	1/1	0.89	0.12	61,61,61,61	0
57	MG	1a	1643	1/1	0.89	0.09	63,63,63,63	0
57	MG	2a	1768	1/1	0.89	0.11	56,56,56,56	0
57	MG	1a	1662	1/1	0.89	0.07	51,51,51,51	0
57	MG	2A	3183	1/1	0.89	0.12	62,62,62,62	0
57	MG	2A	3699	1/1	0.89	0.10	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1f	202	1/1	0.89	0.12	57,57,57,57	0
57	MG	2a	1788	1/1	0.89	0.18	68,68,68,68	0
57	MG	1A	3844	1/1	0.89	0.09	55,55,55,55	0
57	MG	2A	3374	1/1	0.89	0.08	45,45,45,45	0
57	MG	2A	3383	1/1	0.89	0.10	59,59,59,59	0
57	MG	2A	3195	1/1	0.89	0.19	59,59,59,59	0
57	MG	2A	3716	1/1	0.89	0.13	60,60,60,60	0
57	MG	2A	3201	1/1	0.89	0.08	55,55,55,55	0
57	MG	1v	101	1/1	0.89	0.25	67,67,67,67	0
57	MG	1A	3850	1/1	0.89	0.09	68,68,68,68	0
57	MG	1A	3795	1/1	0.89	0.09	46,46,46,46	0
57	MG	2A	3214	1/1	0.89	0.15	40,40,40,40	0
57	MG	2a	1810	1/1	0.89	0.17	54,54,54,54	0
57	MG	2a	1815	1/1	0.89	0.24	61,61,61,61	0
57	MG	2A	3433	1/1	0.89	0.23	63,63,63,63	0
57	MG	2A	3773	1/1	0.89	0.12	62,62,62,62	0
57	MG	2A	3776	1/1	0.89	0.11	69,69,69,69	0
57	MG	1A	3707	1/1	0.89	0.14	51,51,51,51	0
57	MG	2a	1824	1/1	0.89	0.11	66,66,66,66	0
57	MG	1A	3368	1/1	0.89	0.18	44,44,44,44	0
57	MG	2l	204	1/1	0.89	0.11	70,70,70,70	0
57	MG	2A	3235	1/1	0.89	0.19	53,53,53,53	0
57	MG	2q	201	1/1	0.89	0.12	61,61,61,61	0
57	MG	2A	3451	1/1	0.89	0.17	62,62,62,62	0
57	MG	1A	3868	1/1	0.89	0.24	45,45,45,45	0
57	MG	2A	3459	1/1	0.89	0.09	44,44,44,44	0
57	MG	2A	3460	1/1	0.89	0.10	42,42,42,42	0
57	MG	2A	3791	1/1	0.89	0.10	58,58,58,58	0
57	MG	2w	107	1/1	0.89	0.17	54,54,54,54	0
57	MG	2A	3798	1/1	0.89	0.15	58,58,58,58	0
57	MG	2A	3810	1/1	0.89	0.15	53,53,53,53	0
57	MG	1a	1695	1/1	0.89	0.12	48,48,48,48	0
57	MG	2A	3782	1/1	0.90	0.18	66,66,66,66	0
57	MG	1A	3392	1/1	0.90	0.07	58,58,58,58	0
57	MG	2A	3190	1/1	0.90	0.14	51,51,51,51	0
57	MG	1A	3589	1/1	0.90	0.21	58,58,58,58	0
57	MG	2A	3192	1/1	0.90	0.23	59,59,59,59	0
57	MG	1a	1756	1/1	0.90	0.07	42,42,42,42	0
57	MG	1a	1760	1/1	0.90	0.23	65,65,65,65	0
57	MG	2A	3809	1/1	0.90	0.18	74,74,74,74	0
57	MG	1R	206	1/1	0.90	0.11	27,27,27,27	0
57	MG	1A	3279	1/1	0.90	0.13	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3857	1/1	0.90	0.09	40,40,40,40	0
57	MG	2A	3470	1/1	0.90	0.08	51,51,51,51	0
57	MG	1a	1793	1/1	0.90	0.10	64,64,64,64	0
57	MG	2A	3207	1/1	0.90	0.21	60,60,60,60	0
57	MG	1T	203	1/1	0.90	0.12	32,32,32,32	0
57	MG	1T	205	1/1	0.90	0.10	46,46,46,46	0
57	MG	2A	3496	1/1	0.90	0.09	57,57,57,57	0
57	MG	2A	3223	1/1	0.90	0.12	39,39,39,39	0
57	MG	2A	3503	1/1	0.90	0.12	54,54,54,54	0
57	MG	1W	207	1/1	0.90	0.10	44,44,44,44	0
57	MG	1A	3604	1/1	0.90	0.10	58,58,58,58	0
57	MG	2B	213	1/1	0.90	0.09	65,65,65,65	0
57	MG	1A	3713	1/1	0.90	0.09	46,46,46,46	0
57	MG	2A	3238	1/1	0.90	0.13	47,47,47,47	0
57	MG	1a	1810	1/1	0.90	0.17	51,51,51,51	0
57	MG	2P	201	1/1	0.90	0.13	55,55,55,55	0
57	MG	1A	3607	1/1	0.90	0.14	36,36,36,36	0
57	MG	2A	3251	1/1	0.90	0.08	44,44,44,44	0
57	MG	2X	101	1/1	0.90	0.09	61,61,61,61	0
57	MG	2X	102	1/1	0.90	0.08	69,69,69,69	0
57	MG	21	102	1/1	0.90	0.18	51,51,51,51	0
57	MG	1A	3735	1/1	0.90	0.09	60,60,60,60	0
57	MG	2A	3536	1/1	0.90	0.09	47,47,47,47	0
57	MG	1A	3743	1/1	0.90	0.09	54,54,54,54	0
57	MG	2A	3549	1/1	0.90	0.09	48,48,48,48	0
57	MG	2a	1614	1/1	0.90	0.15	56,56,56,56	0
57	MG	2a	1617	1/1	0.90	0.14	65,65,65,65	0
57	MG	15	103	1/1	0.90	0.16	33,33,33,33	0
57	MG	2A	3560	1/1	0.90	0.09	49,49,49,49	0
57	MG	2a	1626	1/1	0.90	0.16	68,68,68,68	0
57	MG	1A	3761	1/1	0.90	0.08	32,32,32,32	0
57	MG	2a	1630	1/1	0.90	0.11	82,82,82,82	0
57	MG	18	105	1/1	0.90	0.11	53,53,53,53	0
57	MG	2a	1636	1/1	0.90	0.17	58,58,58,58	0
57	MG	2a	1638	1/1	0.90	0.27	62,62,62,62	0
57	MG	2a	1644	1/1	0.90	0.09	50,50,50,50	0
57	MG	1A	3762	1/1	0.90	0.08	19,19,19,19	0
57	MG	1A	3905	1/1	0.90	0.17	32,32,32,32	0
57	MG	2A	3582	1/1	0.90	0.12	77,77,77,77	0
57	MG	2A	3591	1/1	0.90	0.10	39,39,39,39	0
57	MG	2a	1652	1/1	0.90	0.16	67,67,67,67	0
57	MG	2A	3281	1/1	0.90	0.16	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3594	1/1	0.90	0.11	49,49,49,49	0
57	MG	2A	3595	1/1	0.90	0.19	63,63,63,63	0
57	MG	1x	108	1/1	0.90	0.18	68,68,68,68	0
57	MG	2A	3603	1/1	0.90	0.07	41,41,41,41	0
57	MG	2a	1689	1/1	0.90	0.10	72,72,72,72	0
57	MG	2a	1690	1/1	0.90	0.20	70,70,70,70	0
57	MG	1A	3916	1/1	0.90	0.14	63,63,63,63	0
57	MG	1A	3218	1/1	0.90	0.11	43,43,43,43	0
57	MG	1x	112	1/1	0.90	0.20	66,66,66,66	0
57	MG	2A	3619	1/1	0.90	0.08	63,63,63,63	0
57	MG	1A	3934	1/1	0.90	0.09	60,60,60,60	0
57	MG	1A	3410	1/1	0.90	0.08	45,45,45,45	0
57	MG	2A	3632	1/1	0.90	0.08	51,51,51,51	0
57	MG	2A	3016	1/1	0.90	0.08	54,54,54,54	0
57	MG	2A	3035	1/1	0.90	0.10	47,47,47,47	0
57	MG	2a	1732	1/1	0.90	0.19	60,60,60,60	0
57	MG	2a	1734	1/1	0.90	0.18	57,57,57,57	0
57	MG	1B	206	1/1	0.90	0.09	47,47,47,47	0
57	MG	2a	1741	1/1	0.90	0.24	66,66,66,66	0
57	MG	1A	3497	1/1	0.90	0.12	61,61,61,61	0
57	MG	2A	3049	1/1	0.90	0.19	41,41,41,41	0
57	MG	2a	1752	1/1	0.90	0.25	57,57,57,57	0
57	MG	2A	3064	1/1	0.90	0.18	53,53,53,53	0
57	MG	2A	3650	1/1	0.90	0.12	47,47,47,47	0
57	MG	1a	1660	1/1	0.90	0.10	50,50,50,50	0
57	MG	2a	1767	1/1	0.90	0.12	71,71,71,71	0
57	MG	2A	3078	1/1	0.90	0.12	47,47,47,47	0
57	MG	1B	220	1/1	0.90	0.09	39,39,39,39	0
57	MG	1a	1669	1/1	0.90	0.14	52,52,52,52	0
57	MG	2A	3327	1/1	0.90	0.06	67,67,67,67	0
57	MG	2A	3675	1/1	0.90	0.12	58,58,58,58	0
57	MG	2A	3679	1/1	0.90	0.14	63,63,63,63	0
57	MG	2A	3683	1/1	0.90	0.12	55,55,55,55	0
57	MG	1A	3349	1/1	0.90	0.16	45,45,45,45	0
57	MG	2A	3687	1/1	0.90	0.14	52,52,52,52	0
57	MG	1A	3324	1/1	0.90	0.21	56,56,56,56	0
57	MG	2A	3690	1/1	0.90	0.09	28,28,28,28	0
57	MG	2A	3691	1/1	0.90	0.18	56,56,56,56	0
57	MG	1A	3268	1/1	0.90	0.11	52,52,52,52	0
57	MG	2a	1804	1/1	0.90	0.09	60,60,60,60	0
57	MG	1a	1681	1/1	0.90	0.19	64,64,64,64	0
57	MG	1A	3661	1/1	0.90	0.14	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1685	1/1	0.90	0.16	52,52,52,52	0
57	MG	1A	3670	1/1	0.90	0.07	25,25,25,25	0
57	MG	2a	1813	1/1	0.90	0.22	60,60,60,60	0
57	MG	2A	3109	1/1	0.90	0.18	59,59,59,59	0
57	MG	1A	3810	1/1	0.90	0.11	59,59,59,59	0
57	MG	2A	3712	1/1	0.90	0.09	58,58,58,58	0
57	MG	1A	3369	1/1	0.90	0.14	46,46,46,46	0
57	MG	1A	3335	1/1	0.90	0.10	53,53,53,53	0
57	MG	1G	205	1/1	0.90	0.08	49,49,49,49	0
57	MG	2a	1829	1/1	0.90	0.13	63,63,63,63	0
57	MG	2A	3131	1/1	0.90	0.09	57,57,57,57	0
57	MG	2g	201	1/1	0.90	0.11	66,66,66,66	0
57	MG	2j	201	1/1	0.90	0.08	70,70,70,70	0
57	MG	2A	3132	1/1	0.90	0.14	41,41,41,41	0
57	MG	1A	3685	1/1	0.90	0.10	12,12,12,12	0
57	MG	2A	3739	1/1	0.90	0.09	47,47,47,47	0
57	MG	2A	3744	1/1	0.90	0.13	57,57,57,57	0
57	MG	2A	3752	1/1	0.90	0.11	57,57,57,57	0
57	MG	2A	3765	1/1	0.90	0.18	60,60,60,60	0
57	MG	1a	1720	1/1	0.90	0.19	59,59,59,59	0
57	MG	2A	3158	1/1	0.90	0.11	51,51,51,51	0
57	MG	1A	3389	1/1	0.90	0.10	58,58,58,58	0
57	MG	2w	109	1/1	0.90	0.07	73,73,73,73	0
57	MG	2A	3416	1/1	0.90	0.18	57,57,57,57	0
57	MG	2A	3418	1/1	0.90	0.23	51,51,51,51	0
57	MG	1A	3571	1/1	0.90	0.17	45,45,45,45	0
60	ZN	14	102	1/1	0.90	0.12	122,122,122,122	0
57	MG	1A	3944	1/1	0.91	0.12	52,52,52,52	0
57	MG	1A	3776	1/1	0.91	0.09	41,41,41,41	0
57	MG	2A	3186	1/1	0.91	0.11	59,59,59,59	0
57	MG	2A	3799	1/1	0.91	0.09	45,45,45,45	0
57	MG	2A	3805	1/1	0.91	0.10	56,56,56,56	0
57	MG	1A	3947	1/1	0.91	0.08	39,39,39,39	0
57	MG	1A	3778	1/1	0.91	0.22	62,62,62,62	0
57	MG	1A	3787	1/1	0.91	0.18	74,74,74,74	0
57	MG	2A	3473	1/1	0.91	0.11	57,57,57,57	0
57	MG	1A	3445	1/1	0.91	0.14	58,58,58,58	0
57	MG	1A	3177	1/1	0.91	0.22	38,38,38,38	0
57	MG	1A	3325	1/1	0.91	0.08	38,38,38,38	0
57	MG	1A	3971	1/1	0.91	0.12	22,22,22,22	0
57	MG	1a	1791	1/1	0.91	0.08	59,59,59,59	0
57	MG	1A	3029	1/1	0.91	0.16	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3095	1/1	0.91	0.07	46,46,46,46	0
57	MG	1A	3806	1/1	0.91	0.10	50,50,50,50	0
57	MG	1A	3002	1/1	0.91	0.15	60,60,60,60	0
57	MG	2B	202	1/1	0.91	0.08	48,48,48,48	0
57	MG	2B	206	1/1	0.91	0.20	65,65,65,65	0
57	MG	2A	3513	1/1	0.91	0.12	54,54,54,54	0
57	MG	1A	3989	1/1	0.91	0.10	51,51,51,51	0
57	MG	1V	206	1/1	0.91	0.10	61,61,61,61	0
57	MG	2B	216	1/1	0.91	0.09	58,58,58,58	0
57	MG	2A	3234	1/1	0.91	0.20	54,54,54,54	0
57	MG	2D	302	1/1	0.91	0.13	52,52,52,52	0
57	MG	2D	304	1/1	0.91	0.10	40,40,40,40	0
57	MG	2F	304	1/1	0.91	0.08	45,45,45,45	0
57	MG	2F	308	1/1	0.91	0.14	50,50,50,50	0
57	MG	2A	3525	1/1	0.91	0.12	55,55,55,55	0
57	MG	1W	201	1/1	0.91	0.13	33,33,33,33	0
57	MG	1A	3100	1/1	0.91	0.19	47,47,47,47	0
57	MG	1X	107	1/1	0.91	0.08	57,57,57,57	0
57	MG	2A	3239	1/1	0.91	0.08	45,45,45,45	0
57	MG	1A	4001	1/1	0.91	0.10	47,47,47,47	0
57	MG	2Z	301	1/1	0.91	0.07	62,62,62,62	0
57	MG	1h	201	1/1	0.91	0.07	63,63,63,63	0
57	MG	26	101	1/1	0.91	0.12	39,39,39,39	0
57	MG	28	102	1/1	0.91	0.13	55,55,55,55	0
57	MG	2A	3554	1/1	0.91	0.06	46,46,46,46	0
57	MG	1n	101	1/1	0.91	0.24	56,56,56,56	0
57	MG	1A	3475	1/1	0.91	0.13	38,38,38,38	0
57	MG	2A	3561	1/1	0.91	0.14	63,63,63,63	0
57	MG	2A	3258	1/1	0.91	0.14	56,56,56,56	0
57	MG	2A	3566	1/1	0.91	0.09	50,50,50,50	0
57	MG	1A	3120	1/1	0.91	0.22	30,30,30,30	0
57	MG	2A	3265	1/1	0.91	0.11	54,54,54,54	0
57	MG	1A	3674	1/1	0.91	0.12	37,37,37,37	0
57	MG	1A	4020	1/1	0.91	0.09	49,49,49,49	0
57	MG	2a	1629	1/1	0.91	0.17	62,62,62,62	0
57	MG	1A	3355	1/1	0.91	0.12	42,42,42,42	0
57	MG	15	105	1/1	0.91	0.13	36,36,36,36	0
57	MG	1A	4027	1/1	0.91	0.09	32,32,32,32	0
57	MG	1A	3242	1/1	0.91	0.21	38,38,38,38	0
57	MG	2a	1640	1/1	0.91	0.24	63,63,63,63	0
57	MG	1A	4050	1/1	0.91	0.11	48,48,48,48	0
57	MG	2a	1645	1/1	0.91	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3285	1/1	0.91	0.10	56,56,56,56	0
57	MG	2A	3286	1/1	0.91	0.13	52,52,52,52	0
57	MG	1A	3244	1/1	0.91	0.12	40,40,40,40	0
57	MG	1A	3254	1/1	0.91	0.12	47,47,47,47	0
57	MG	1a	1604	1/1	0.91	0.07	53,53,53,53	0
57	MG	2A	3295	1/1	0.91	0.10	46,46,46,46	0
57	MG	2a	1655	1/1	0.91	0.09	50,50,50,50	0
57	MG	1A	3704	1/1	0.91	0.12	44,44,44,44	0
57	MG	2a	1658	1/1	0.91	0.17	67,67,67,67	0
57	MG	2a	1659	1/1	0.91	0.07	60,60,60,60	0
57	MG	2a	1669	1/1	0.91	0.29	62,62,62,62	0
57	MG	2a	1675	1/1	0.91	0.09	61,61,61,61	0
57	MG	2a	1678	1/1	0.91	0.13	57,57,57,57	0
57	MG	2A	3631	1/1	0.91	0.10	46,46,46,46	0
57	MG	2A	3297	1/1	0.91	0.12	62,62,62,62	0
57	MG	1A	3257	1/1	0.91	0.11	53,53,53,53	0
57	MG	1A	3706	1/1	0.91	0.09	36,36,36,36	0
57	MG	1a	1624	1/1	0.91	0.11	51,51,51,51	0
57	MG	2A	3645	1/1	0.91	0.14	71,71,71,71	0
57	MG	2a	1693	1/1	0.91	0.14	58,58,58,58	0
57	MG	2A	3050	1/1	0.91	0.16	66,66,66,66	0
57	MG	1A	3519	1/1	0.91	0.06	58,58,58,58	0
57	MG	2a	1701	1/1	0.91	0.17	51,51,51,51	0
57	MG	2A	3309	1/1	0.91	0.20	49,49,49,49	0
57	MG	2A	3066	1/1	0.91	0.18	71,71,71,71	0
57	MG	2a	1709	1/1	0.91	0.18	65,65,65,65	0
57	MG	2A	3651	1/1	0.91	0.18	66,66,66,66	0
57	MG	2a	1717	1/1	0.91	0.14	53,53,53,53	0
57	MG	2A	3070	1/1	0.91	0.11	54,54,54,54	0
57	MG	1A	3132	1/1	0.91	0.11	46,46,46,46	0
57	MG	1A	3271	1/1	0.91	0.16	48,48,48,48	0
57	MG	2A	3662	1/1	0.91	0.07	51,51,51,51	0
57	MG	1A	3876	1/1	0.91	0.09	52,52,52,52	0
57	MG	2A	3083	1/1	0.91	0.12	51,51,51,51	0
57	MG	1A	3273	1/1	0.91	0.07	43,43,43,43	0
57	MG	1A	3147	1/1	0.91	0.08	25,25,25,25	0
57	MG	2A	3681	1/1	0.91	0.13	53,53,53,53	0
57	MG	2A	3682	1/1	0.91	0.10	45,45,45,45	0
57	MG	1A	4088	1/1	0.91	0.27	45,45,45,45	0
57	MG	1A	3407	1/1	0.91	0.08	37,37,37,37	0
57	MG	2A	3685	1/1	0.91	0.13	61,61,61,61	0
57	MG	2a	1757	1/1	0.91	0.17	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1765	1/1	0.91	0.13	77,77,77,77	0
57	MG	2A	3686	1/1	0.91	0.09	64,64,64,64	0
57	MG	2A	3331	1/1	0.91	0.10	52,52,52,52	0
57	MG	1A	3294	1/1	0.91	0.08	36,36,36,36	0
57	MG	2A	3102	1/1	0.91	0.13	46,46,46,46	0
57	MG	1B	207	1/1	0.91	0.18	59,59,59,59	0
57	MG	2A	3693	1/1	0.91	0.17	66,66,66,66	0
57	MG	1B	215	1/1	0.91	0.07	32,32,32,32	0
57	MG	1A	3909	1/1	0.91	0.10	31,31,31,31	0
57	MG	2A	3353	1/1	0.91	0.07	67,67,67,67	0
57	MG	1a	1689	1/1	0.91	0.22	42,42,42,42	0
57	MG	1A	3910	1/1	0.91	0.12	45,45,45,45	0
57	MG	1A	3307	1/1	0.91	0.08	40,40,40,40	0
57	MG	2A	3707	1/1	0.91	0.08	61,61,61,61	0
57	MG	2A	3358	1/1	0.91	0.13	53,53,53,53	0
57	MG	2A	3711	1/1	0.91	0.09	51,51,51,51	0
57	MG	2A	3367	1/1	0.91	0.15	58,58,58,58	0
57	MG	2a	1807	1/1	0.91	0.17	61,61,61,61	0
57	MG	2A	3369	1/1	0.91	0.08	52,52,52,52	0
57	MG	1a	1699	1/1	0.91	0.10	61,61,61,61	0
57	MG	1A	3417	1/1	0.91	0.13	45,45,45,45	0
57	MG	1A	3932	1/1	0.91	0.07	22,22,22,22	0
57	MG	2a	1814	1/1	0.91	0.12	61,61,61,61	0
57	MG	1a	1708	1/1	0.91	0.36	66,66,66,66	0
57	MG	2A	3733	1/1	0.91	0.08	50,50,50,50	0
57	MG	2A	3391	1/1	0.91	0.09	56,56,56,56	0
57	MG	2A	3737	1/1	0.91	0.10	52,52,52,52	0
57	MG	2a	1821	1/1	0.91	0.14	66,66,66,66	0
57	MG	2A	3738	1/1	0.91	0.08	41,41,41,41	0
57	MG	2A	3135	1/1	0.91	0.12	60,60,60,60	0
57	MG	2a	1825	1/1	0.91	0.23	61,61,61,61	0
57	MG	2a	1828	1/1	0.91	0.13	52,52,52,52	0
57	MG	2A	3740	1/1	0.91	0.09	56,56,56,56	0
57	MG	2A	3399	1/1	0.91	0.21	50,50,50,50	0
57	MG	2A	3749	1/1	0.91	0.11	64,64,64,64	0
57	MG	2A	3142	1/1	0.91	0.18	54,54,54,54	0
57	MG	2l	201	1/1	0.91	0.14	68,68,68,68	0
57	MG	2A	3754	1/1	0.91	0.10	61,61,61,61	0
57	MG	2A	3761	1/1	0.91	0.09	52,52,52,52	0
57	MG	2A	3405	1/1	0.91	0.27	53,53,53,53	0
57	MG	1A	3082	1/1	0.91	0.24	34,34,34,34	0
57	MG	2A	3411	1/1	0.91	0.28	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3775	1/1	0.91	0.19	74,74,74,74	0
57	MG	1a	1715	1/1	0.91	0.20	52,52,52,52	0
57	MG	2A	3152	1/1	0.91	0.09	36,36,36,36	0
57	MG	2A	3157	1/1	0.91	0.08	66,66,66,66	0
57	MG	2A	3423	1/1	0.91	0.19	58,58,58,58	0
57	MG	1A	3612	1/1	0.91	0.09	10,10,10,10	0
57	MG	1a	1723	1/1	0.91	0.23	69,69,69,69	0
57	MG	2A	3173	1/1	0.91	0.12	61,61,61,61	0
57	MG	2y	106	1/1	0.91	0.12	64,64,64,64	0
57	MG	2A	3179	1/1	0.91	0.15	68,68,68,68	0
57	MG	1A	4085	1/1	0.92	0.16	58,58,58,58	0
57	MG	1A	3592	1/1	0.92	0.11	66,66,66,66	0
57	MG	2A	3461	1/1	0.92	0.11	47,47,47,47	0
57	MG	2A	3837	1/1	0.92	0.10	56,56,56,56	0
57	MG	2A	3464	1/1	0.92	0.09	53,53,53,53	0
57	MG	2A	3467	1/1	0.92	0.23	51,51,51,51	0
57	MG	2A	3172	1/1	0.92	0.10	52,52,52,52	0
57	MG	1A	3593	1/1	0.92	0.07	39,39,39,39	0
57	MG	1a	1696	1/1	0.92	0.17	43,43,43,43	0
57	MG	1a	1698	1/1	0.92	0.12	53,53,53,53	0
57	MG	1A	3596	1/1	0.92	0.07	44,44,44,44	0
57	MG	2B	207	1/1	0.92	0.11	47,47,47,47	0
57	MG	2A	3185	1/1	0.92	0.15	54,54,54,54	0
57	MG	1a	1701	1/1	0.92	0.12	50,50,50,50	0
57	MG	2B	214	1/1	0.92	0.14	50,50,50,50	0
57	MG	1A	3603	1/1	0.92	0.09	31,31,31,31	0
57	MG	1a	1704	1/1	0.92	0.10	56,56,56,56	0
57	MG	1B	210	1/1	0.92	0.10	49,49,49,49	0
57	MG	1a	1707	1/1	0.92	0.09	50,50,50,50	0
57	MG	1A	3026	1/1	0.92	0.16	63,63,63,63	0
57	MG	2E	307	1/1	0.92	0.11	51,51,51,51	0
57	MG	2F	303	1/1	0.92	0.13	57,57,57,57	0
57	MG	1a	1709	1/1	0.92	0.12	56,56,56,56	0
57	MG	1A	3235	1/1	0.92	0.33	35,35,35,35	0
57	MG	2A	3519	1/1	0.92	0.10	35,35,35,35	0
57	MG	1A	3942	1/1	0.92	0.07	49,49,49,49	0
57	MG	2Q	202	1/1	0.92	0.11	52,52,52,52	0
57	MG	1A	3297	1/1	0.92	0.30	62,62,62,62	0
57	MG	2T	201	1/1	0.92	0.12	56,56,56,56	0
57	MG	1a	1721	1/1	0.92	0.08	52,52,52,52	0
57	MG	2A	3208	1/1	0.92	0.35	63,63,63,63	0
57	MG	1a	1722	1/1	0.92	0.12	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1B	223	1/1	0.92	0.12	61,61,61,61	0
57	MG	20	101	1/1	0.92	0.18	52,52,52,52	0
57	MG	2A	3534	1/1	0.92	0.10	45,45,45,45	0
57	MG	1a	1724	1/1	0.92	0.39	67,67,67,67	0
57	MG	27	102	1/1	0.92	0.16	53,53,53,53	0
57	MG	1A	3617	1/1	0.92	0.08	27,27,27,27	0
57	MG	28	103	1/1	0.92	0.16	53,53,53,53	0
57	MG	1A	3302	1/1	0.92	0.23	55,55,55,55	0
57	MG	1D	311	1/1	0.92	0.12	41,41,41,41	0
57	MG	1A	3791	1/1	0.92	0.08	23,23,23,23	0
57	MG	2a	1609	1/1	0.92	0.14	73,73,73,73	0
57	MG	1A	3464	1/1	0.92	0.09	49,49,49,49	0
57	MG	2a	1612	1/1	0.92	0.21	59,59,59,59	0
57	MG	1A	3467	1/1	0.92	0.08	39,39,39,39	0
57	MG	1G	202	1/1	0.92	0.21	64,64,64,64	0
57	MG	2A	3242	1/1	0.92	0.19	62,62,62,62	0
57	MG	2A	3569	1/1	0.92	0.16	44,44,44,44	0
57	MG	2A	3243	1/1	0.92	0.15	58,58,58,58	0
57	MG	2A	3573	1/1	0.92	0.12	48,48,48,48	0
57	MG	2A	3245	1/1	0.92	0.16	62,62,62,62	0
57	MG	1A	3958	1/1	0.92	0.11	62,62,62,62	0
57	MG	1A	3959	1/1	0.92	0.10	50,50,50,50	0
57	MG	2a	1634	1/1	0.92	0.29	63,63,63,63	0
57	MG	2a	1635	1/1	0.92	0.12	72,72,72,72	0
57	MG	1A	3184	1/1	0.92	0.18	42,42,42,42	0
57	MG	2a	1637	1/1	0.92	0.15	58,58,58,58	0
57	MG	1N	205	1/1	0.92	0.07	51,51,51,51	0
57	MG	1A	3962	1/1	0.92	0.10	65,65,65,65	0
57	MG	2a	1642	1/1	0.92	0.09	57,57,57,57	0
57	MG	1A	3386	1/1	0.92	0.08	47,47,47,47	0
57	MG	2A	3596	1/1	0.92	0.10	50,50,50,50	0
57	MG	1A	3076	1/1	0.92	0.10	45,45,45,45	0
57	MG	2A	3267	1/1	0.92	0.37	59,59,59,59	0
57	MG	1A	3967	1/1	0.92	0.10	60,60,60,60	0
57	MG	1A	3805	1/1	0.92	0.08	39,39,39,39	0
57	MG	2A	3614	1/1	0.92	0.10	49,49,49,49	0
57	MG	2A	3270	1/1	0.92	0.10	53,53,53,53	0
57	MG	1A	3314	1/1	0.92	0.18	57,57,57,57	0
57	MG	2A	3625	1/1	0.92	0.07	47,47,47,47	0
57	MG	2A	3626	1/1	0.92	0.13	48,48,48,48	0
57	MG	2A	3276	1/1	0.92	0.16	47,47,47,47	0
57	MG	2a	1667	1/1	0.92	0.09	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3277	1/1	0.92	0.12	55,55,55,55	0
57	MG	2a	1673	1/1	0.92	0.17	57,57,57,57	0
57	MG	2A	3630	1/1	0.92	0.09	41,41,41,41	0
57	MG	2a	1677	1/1	0.92	0.15	68,68,68,68	0
57	MG	1A	3974	1/1	0.92	0.07	23,23,23,23	0
57	MG	1S	203	1/1	0.92	0.09	56,56,56,56	0
57	MG	1A	3079	1/1	0.92	0.25	35,35,35,35	0
57	MG	2A	3284	1/1	0.92	0.08	55,55,55,55	0
57	MG	1A	3023	1/1	0.92	0.08	45,45,45,45	0
57	MG	2A	3643	1/1	0.92	0.13	56,56,56,56	0
57	MG	1A	3406	1/1	0.92	0.07	44,44,44,44	0
57	MG	1V	204	1/1	0.92	0.08	32,32,32,32	0
57	MG	2a	1695	1/1	0.92	0.14	66,66,66,66	0
57	MG	1A	3264	1/1	0.92	0.09	48,48,48,48	0
57	MG	1A	3679	1/1	0.92	0.08	43,43,43,43	0
57	MG	2a	1700	1/1	0.92	0.18	57,57,57,57	0
57	MG	1A	3995	1/1	0.92	0.10	28,28,28,28	0
57	MG	2a	1704	1/1	0.92	0.13	75,75,75,75	0
57	MG	1W	210	1/1	0.92	0.09	30,30,30,30	0
57	MG	1x	107	1/1	0.92	0.10	58,58,58,58	0
57	MG	2A	3298	1/1	0.92	0.10	51,51,51,51	0
57	MG	1A	3999	1/1	0.92	0.09	33,33,33,33	0
57	MG	2a	1716	1/1	0.92	0.12	36,36,36,36	0
57	MG	1A	3333	1/1	0.92	0.12	45,45,45,45	0
57	MG	1Z	303	1/1	0.92	0.10	64,64,64,64	0
57	MG	2a	1721	1/1	0.92	0.12	52,52,52,52	0
57	MG	2a	1722	1/1	0.92	0.10	66,66,66,66	0
57	MG	1A	3216	1/1	0.92	0.07	40,40,40,40	0
57	MG	2a	1725	1/1	0.92	0.14	60,60,60,60	0
57	MG	2a	1727	1/1	0.92	0.20	61,61,61,61	0
57	MG	2A	3672	1/1	0.92	0.10	45,45,45,45	0
57	MG	1A	4011	1/1	0.92	0.15	55,55,55,55	0
57	MG	1A	3839	1/1	0.92	0.08	36,36,36,36	0
57	MG	1A	3412	1/1	0.92	0.21	49,49,49,49	0
57	MG	1A	3165	1/1	0.92	0.17	48,48,48,48	0
57	MG	2a	1743	1/1	0.92	0.26	62,62,62,62	0
57	MG	2A	3041	1/1	0.92	0.13	47,47,47,47	0
57	MG	2a	1745	1/1	0.92	0.11	65,65,65,65	0
57	MG	2a	1748	1/1	0.92	0.14	52,52,52,52	0
57	MG	1A	3847	1/1	0.92	0.14	41,41,41,41	0
57	MG	2a	1751	1/1	0.92	0.29	69,69,69,69	0
57	MG	1A	4023	1/1	0.92	0.09	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	18	101	1/1	0.92	0.17	48,48,48,48	0
57	MG	18	104	1/1	0.92	0.13	41,41,41,41	0
57	MG	2A	3059	1/1	0.92	0.16	55,55,55,55	0
57	MG	2A	3063	1/1	0.92	0.14	48,48,48,48	0
57	MG	2a	1758	1/1	0.92	0.14	57,57,57,57	0
57	MG	2a	1761	1/1	0.92	0.08	67,67,67,67	0
57	MG	1A	4025	1/1	0.92	0.09	30,30,30,30	0
57	MG	1A	3565	1/1	0.92	0.08	23,23,23,23	0
57	MG	2A	3332	1/1	0.92	0.10	43,43,43,43	0
57	MG	1A	4030	1/1	0.92	0.07	43,43,43,43	0
57	MG	2A	3335	1/1	0.92	0.13	53,53,53,53	0
57	MG	2a	1778	1/1	0.92	0.09	67,67,67,67	0
57	MG	1A	3418	1/1	0.92	0.16	45,45,45,45	0
57	MG	2A	3073	1/1	0.92	0.12	65,65,65,65	0
57	MG	2a	1784	1/1	0.92	0.18	55,55,55,55	0
57	MG	2a	1787	1/1	0.92	0.13	59,59,59,59	0
57	MG	1A	4047	1/1	0.92	0.09	30,30,30,30	0
57	MG	2A	3342	1/1	0.92	0.31	57,57,57,57	0
57	MG	2A	3346	1/1	0.92	0.07	49,49,49,49	0
57	MG	1A	3227	1/1	0.92	0.14	22,22,22,22	0
57	MG	2A	3352	1/1	0.92	0.12	49,49,49,49	0
57	MG	1a	1613	1/1	0.92	0.08	59,59,59,59	0
57	MG	1A	3863	1/1	0.92	0.10	29,29,29,29	0
57	MG	1A	4058	1/1	0.92	0.16	41,41,41,41	0
57	MG	1A	4059	1/1	0.92	0.09	42,42,42,42	0
57	MG	2a	1805	1/1	0.92	0.06	51,51,51,51	0
57	MG	2A	3094	1/1	0.92	0.12	53,53,53,53	0
57	MG	2A	3362	1/1	0.92	0.13	65,65,65,65	0
57	MG	2A	3098	1/1	0.92	0.14	59,59,59,59	0
57	MG	1a	1628	1/1	0.92	0.15	48,48,48,48	0
57	MG	1A	4066	1/1	0.92	0.10	54,54,54,54	0
57	MG	2A	3378	1/1	0.92	0.12	62,62,62,62	0
57	MG	1a	1632	1/1	0.92	0.13	54,54,54,54	0
57	MG	1a	1636	1/1	0.92	0.12	51,51,51,51	0
57	MG	2A	3747	1/1	0.92	0.10	42,42,42,42	0
57	MG	2a	1818	1/1	0.92	0.23	63,63,63,63	0
57	MG	1A	3581	1/1	0.92	0.16	42,42,42,42	0
57	MG	1a	1654	1/1	0.92	0.13	53,53,53,53	0
57	MG	1A	3274	1/1	0.92	0.07	39,39,39,39	0
57	MG	2A	3397	1/1	0.92	0.16	41,41,41,41	0
57	MG	2A	3398	1/1	0.92	0.15	46,46,46,46	0
57	MG	1A	3710	1/1	0.92	0.11	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1827	1/1	0.92	0.14	55,55,55,55	0
57	MG	2A	3771	1/1	0.92	0.11	71,71,71,71	0
57	MG	2A	3402	1/1	0.92	0.18	51,51,51,51	0
57	MG	1A	3870	1/1	0.92	0.23	38,38,38,38	0
57	MG	1a	1671	1/1	0.92	0.07	62,62,62,62	0
57	MG	2A	3122	1/1	0.92	0.09	53,53,53,53	0
57	MG	2A	3409	1/1	0.92	0.17	44,44,44,44	0
57	MG	2A	3410	1/1	0.92	0.10	49,49,49,49	0
57	MG	2A	3125	1/1	0.92	0.12	60,60,60,60	0
57	MG	1A	3354	1/1	0.92	0.13	64,64,64,64	0
57	MG	1A	3591	1/1	0.92	0.10	42,42,42,42	0
57	MG	2v	102	1/1	0.92	0.15	57,57,57,57	0
57	MG	1A	3725	1/1	0.92	0.13	56,56,56,56	0
57	MG	2A	3422	1/1	0.92	0.23	55,55,55,55	0
57	MG	1A	4078	1/1	0.92	0.07	41,41,41,41	0
57	MG	2A	3431	1/1	0.92	0.18	59,59,59,59	0
57	MG	1a	1682	1/1	0.92	0.13	56,56,56,56	0
57	MG	1A	3880	1/1	0.92	0.12	24,24,24,24	0
57	MG	1a	1684	1/1	0.92	0.14	60,60,60,60	0
57	MG	2A	3151	1/1	0.92	0.14	53,53,53,53	0
57	MG	2y	103	1/1	0.92	0.09	43,43,43,43	0
57	MG	2y	104	1/1	0.92	0.10	73,73,73,73	0
57	MG	1A	3731	1/1	0.92	0.10	53,53,53,53	0
57	MG	1A	3734	1/1	0.92	0.09	43,43,43,43	0
57	MG	2A	3457	1/1	0.92	0.15	55,55,55,55	0
57	MG	1A	3312	1/1	0.93	0.06	28,28,28,28	0
57	MG	2A	3138	1/1	0.93	0.21	45,45,45,45	0
57	MG	2A	3426	1/1	0.93	0.08	44,44,44,44	0
57	MG	2A	3830	1/1	0.93	0.06	37,37,37,37	0
57	MG	1A	4072	1/1	0.93	0.12	41,41,41,41	0
57	MG	1A	3700	1/1	0.93	0.07	29,29,29,29	0
57	MG	2A	3434	1/1	0.93	0.21	48,48,48,48	0
57	MG	2A	3147	1/1	0.93	0.18	65,65,65,65	0
57	MG	1A	3251	1/1	0.93	0.09	58,58,58,58	0
57	MG	1A	3252	1/1	0.93	0.08	45,45,45,45	0
57	MG	2A	3850	1/1	0.93	0.10	57,57,57,57	0
57	MG	2A	3449	1/1	0.93	0.13	56,56,56,56	0
57	MG	1A	3253	1/1	0.93	0.09	47,47,47,47	0
57	MG	1A	3529	1/1	0.93	0.21	44,44,44,44	0
57	MG	2B	204	1/1	0.93	0.12	61,61,61,61	0
57	MG	1A	3531	1/1	0.93	0.20	45,45,45,45	0
57	MG	1A	3883	1/1	0.93	0.12	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3162	1/1	0.93	0.14	52,52,52,52	0
57	MG	2A	3164	1/1	0.93	0.06	65,65,65,65	0
57	MG	2A	3170	1/1	0.93	0.06	44,44,44,44	0
57	MG	2A	3465	1/1	0.93	0.09	36,36,36,36	0
57	MG	2A	3466	1/1	0.93	0.06	53,53,53,53	0
57	MG	1A	3889	1/1	0.93	0.10	23,23,23,23	0
57	MG	1A	4087	1/1	0.93	0.20	53,53,53,53	0
57	MG	1A	3326	1/1	0.93	0.09	35,35,35,35	0
57	MG	2D	305	1/1	0.93	0.22	60,60,60,60	0
57	MG	2E	301	1/1	0.93	0.14	55,55,55,55	0
57	MG	2A	3472	1/1	0.93	0.20	56,56,56,56	0
57	MG	1A	3894	1/1	0.93	0.08	44,44,44,44	0
57	MG	1A	3904	1/1	0.93	0.16	37,37,37,37	0
57	MG	1A	3538	1/1	0.93	0.11	39,39,39,39	0
57	MG	2A	3480	1/1	0.93	0.13	49,49,49,49	0
57	MG	2A	3489	1/1	0.93	0.11	57,57,57,57	0
57	MG	1A	3155	1/1	0.93	0.13	23,23,23,23	0
57	MG	1A	3716	1/1	0.93	0.11	37,37,37,37	0
57	MG	2A	3495	1/1	0.93	0.08	61,61,61,61	0
57	MG	2U	202	1/1	0.93	0.13	50,50,50,50	0
57	MG	1a	1702	1/1	0.93	0.22	55,55,55,55	0
57	MG	2A	3498	1/1	0.93	0.19	55,55,55,55	0
57	MG	1A	3912	1/1	0.93	0.07	33,33,33,33	0
57	MG	2A	3501	1/1	0.93	0.06	72,72,72,72	0
57	MG	1A	3557	1/1	0.93	0.26	60,60,60,60	0
57	MG	1A	3722	1/1	0.93	0.12	66,66,66,66	0
57	MG	25	104	1/1	0.93	0.10	55,55,55,55	0
57	MG	2A	3505	1/1	0.93	0.23	56,56,56,56	0
57	MG	2A	3506	1/1	0.93	0.15	58,58,58,58	0
57	MG	1A	3922	1/1	0.93	0.09	39,39,39,39	0
57	MG	1A	3928	1/1	0.93	0.09	52,52,52,52	0
57	MG	2a	1601	1/1	0.93	0.12	59,59,59,59	0
57	MG	1B	230	1/1	0.93	0.17	57,57,57,57	0
57	MG	1a	1711	1/1	0.93	0.43	69,69,69,69	0
57	MG	1A	3724	1/1	0.93	0.09	43,43,43,43	0
57	MG	2A	3523	1/1	0.93	0.08	50,50,50,50	0
57	MG	1A	3933	1/1	0.93	0.10	33,33,33,33	0
57	MG	1a	1717	1/1	0.93	0.09	51,51,51,51	0
57	MG	1a	1718	1/1	0.93	0.15	41,41,41,41	0
57	MG	2A	3218	1/1	0.93	0.10	60,60,60,60	0
57	MG	2a	1618	1/1	0.93	0.21	60,60,60,60	0
57	MG	1A	3558	1/1	0.93	0.15	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3226	1/1	0.93	0.14	51,51,51,51	0
57	MG	2a	1622	1/1	0.93	0.08	60,60,60,60	0
57	MG	1A	3938	1/1	0.93	0.07	41,41,41,41	0
57	MG	2A	3538	1/1	0.93	0.07	41,41,41,41	0
57	MG	2a	1628	1/1	0.93	0.15	57,57,57,57	0
57	MG	2A	3541	1/1	0.93	0.09	46,46,46,46	0
57	MG	2A	3231	1/1	0.93	0.10	56,56,56,56	0
57	MG	1F	313	1/1	0.93	0.33	55,55,55,55	0
57	MG	2a	1633	1/1	0.93	0.25	54,54,54,54	0
57	MG	2A	3551	1/1	0.93	0.17	44,44,44,44	0
57	MG	1A	3941	1/1	0.93	0.08	48,48,48,48	0
57	MG	1A	3562	1/1	0.93	0.10	34,34,34,34	0
57	MG	1A	3733	1/1	0.93	0.07	38,38,38,38	0
57	MG	1A	3416	1/1	0.93	0.08	54,54,54,54	0
57	MG	1A	3211	1/1	0.93	0.06	42,42,42,42	0
57	MG	2a	1641	1/1	0.93	0.16	59,59,59,59	0
57	MG	1I	201	1/1	0.93	0.10	55,55,55,55	0
57	MG	2a	1643	1/1	0.93	0.22	62,62,62,62	0
57	MG	1N	204	1/1	0.93	0.11	41,41,41,41	0
57	MG	1A	3576	1/1	0.93	0.10	40,40,40,40	0
57	MG	2A	3246	1/1	0.93	0.07	48,48,48,48	0
57	MG	1A	3948	1/1	0.93	0.09	49,49,49,49	0
57	MG	2A	3575	1/1	0.93	0.10	53,53,53,53	0
57	MG	1O	202	1/1	0.93	0.13	64,64,64,64	0
57	MG	1A	3746	1/1	0.93	0.07	49,49,49,49	0
57	MG	2A	3589	1/1	0.93	0.13	57,57,57,57	0
57	MG	2a	1654	1/1	0.93	0.06	48,48,48,48	0
57	MG	1a	1770	1/1	0.93	0.12	53,53,53,53	0
57	MG	2a	1656	1/1	0.93	0.09	67,67,67,67	0
57	MG	1a	1774	1/1	0.93	0.08	61,61,61,61	0
57	MG	2A	3263	1/1	0.93	0.08	63,63,63,63	0
57	MG	1a	1775	1/1	0.93	0.14	50,50,50,50	0
57	MG	2a	1660	1/1	0.93	0.20	59,59,59,59	0
57	MG	1a	1790	1/1	0.93	0.08	74,74,74,74	0
57	MG	1A	3955	1/1	0.93	0.09	30,30,30,30	0
57	MG	2a	1672	1/1	0.93	0.17	53,53,53,53	0
57	MG	1A	3752	1/1	0.93	0.12	40,40,40,40	0
57	MG	1R	202	1/1	0.93	0.13	41,41,41,41	0
57	MG	2a	1676	1/1	0.93	0.12	73,73,73,73	0
57	MG	1a	1800	1/1	0.93	0.21	64,64,64,64	0
57	MG	1A	3755	1/1	0.93	0.10	49,49,49,49	0
57	MG	2A	3272	1/1	0.93	0.06	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1680	1/1	0.93	0.15	64,64,64,64	0
57	MG	2A	3275	1/1	0.93	0.09	52,52,52,52	0
57	MG	2A	3620	1/1	0.93	0.09	54,54,54,54	0
57	MG	1A	3757	1/1	0.93	0.10	20,20,20,20	0
57	MG	1S	201	1/1	0.93	0.19	46,46,46,46	0
57	MG	1A	3160	1/1	0.93	0.08	55,55,55,55	0
57	MG	1A	3422	1/1	0.93	0.07	40,40,40,40	0
57	MG	1T	201	1/1	0.93	0.12	49,49,49,49	0
57	MG	1A	3586	1/1	0.93	0.19	43,43,43,43	0
57	MG	1f	201	1/1	0.93	0.08	39,39,39,39	0
57	MG	1A	3432	1/1	0.93	0.18	44,44,44,44	0
57	MG	2A	3288	1/1	0.93	0.07	58,58,58,58	0
57	MG	2a	1702	1/1	0.93	0.12	56,56,56,56	0
57	MG	2a	1703	1/1	0.93	0.10	69,69,69,69	0
57	MG	2A	3639	1/1	0.93	0.13	55,55,55,55	0
57	MG	1A	3161	1/1	0.93	0.18	39,39,39,39	0
57	MG	1V	201	1/1	0.93	0.18	22,22,22,22	0
57	MG	2A	3644	1/1	0.93	0.10	59,59,59,59	0
57	MG	2a	1713	1/1	0.93	0.09	69,69,69,69	0
57	MG	2A	3292	1/1	0.93	0.14	41,41,41,41	0
57	MG	2a	1715	1/1	0.93	0.09	53,53,53,53	0
57	MG	1A	3968	1/1	0.93	0.11	51,51,51,51	0
57	MG	1A	3969	1/1	0.93	0.09	48,48,48,48	0
57	MG	1w	103	1/1	0.93	0.09	55,55,55,55	0
57	MG	1A	3270	1/1	0.93	0.06	30,30,30,30	0
57	MG	1A	3783	1/1	0.93	0.06	42,42,42,42	0
57	MG	1x	101	1/1	0.93	0.07	34,34,34,34	0
57	MG	1A	3785	1/1	0.93	0.07	33,33,33,33	0
57	MG	1A	3219	1/1	0.93	0.07	32,32,32,32	0
57	MG	1A	3220	1/1	0.93	0.06	28,28,28,28	0
57	MG	2a	1731	1/1	0.93	0.20	57,57,57,57	0
57	MG	2A	3663	1/1	0.93	0.09	62,62,62,62	0
57	MG	2a	1733	1/1	0.93	0.19	63,63,63,63	0
57	MG	2A	3303	1/1	0.93	0.12	54,54,54,54	0
57	MG	2a	1735	1/1	0.93	0.32	51,51,51,51	0
57	MG	1A	3066	1/1	0.93	0.07	27,27,27,27	0
57	MG	2a	1740	1/1	0.93	0.23	50,50,50,50	0
57	MG	2A	3306	1/1	0.93	0.08	45,45,45,45	0
57	MG	2A	3674	1/1	0.93	0.17	51,51,51,51	0
57	MG	1A	3986	1/1	0.93	0.11	21,21,21,21	0
57	MG	1x	111	1/1	0.93	0.10	51,51,51,51	0
57	MG	2A	3680	1/1	0.93	0.07	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3136	1/1	0.93	0.09	48,48,48,48	0
57	MG	2A	3321	1/1	0.93	0.12	56,56,56,56	0
57	MG	1A	3281	1/1	0.93	0.45	32,32,32,32	0
57	MG	1A	3605	1/1	0.93	0.09	23,23,23,23	0
57	MG	2A	3011	1/1	0.93	0.16	44,44,44,44	0
57	MG	2A	3325	1/1	0.93	0.09	63,63,63,63	0
57	MG	13	108	1/1	0.93	0.07	36,36,36,36	0
57	MG	2A	3027	1/1	0.93	0.29	52,52,52,52	0
57	MG	2A	3689	1/1	0.93	0.12	54,54,54,54	0
57	MG	1A	3293	1/1	0.93	0.11	45,45,45,45	0
57	MG	1A	3234	1/1	0.93	0.06	52,52,52,52	0
57	MG	2A	3692	1/1	0.93	0.10	54,54,54,54	0
57	MG	2A	3044	1/1	0.93	0.07	31,31,31,31	0
57	MG	1A	3053	1/1	0.93	0.13	51,51,51,51	0
57	MG	2a	1777	1/1	0.93	0.07	55,55,55,55	0
57	MG	17	105	1/1	0.93	0.15	50,50,50,50	0
57	MG	2A	3047	1/1	0.93	0.15	51,51,51,51	0
57	MG	17	107	1/1	0.93	0.12	47,47,47,47	0
57	MG	2a	1782	1/1	0.93	0.15	50,50,50,50	0
57	MG	1A	4006	1/1	0.93	0.08	69,69,69,69	0
57	MG	2a	1786	1/1	0.93	0.12	60,60,60,60	0
57	MG	2A	3056	1/1	0.93	0.12	61,61,61,61	0
57	MG	1A	3474	1/1	0.93	0.14	47,47,47,47	0
57	MG	1A	3387	1/1	0.93	0.23	43,43,43,43	0
57	MG	2a	1791	1/1	0.93	0.18	57,57,57,57	0
57	MG	2A	3344	1/1	0.93	0.11	53,53,53,53	0
57	MG	1A	4017	1/1	0.93	0.11	57,57,57,57	0
57	MG	2A	3715	1/1	0.93	0.18	54,54,54,54	0
57	MG	2A	3349	1/1	0.93	0.07	51,51,51,51	0
57	MG	1A	3476	1/1	0.93	0.11	41,41,41,41	0
57	MG	2A	3725	1/1	0.93	0.09	48,48,48,48	0
57	MG	2a	1802	1/1	0.93	0.20	49,49,49,49	0
57	MG	2a	1803	1/1	0.93	0.11	56,56,56,56	0
57	MG	2A	3068	1/1	0.93	0.09	40,40,40,40	0
57	MG	1A	3649	1/1	0.93	0.10	31,31,31,31	0
57	MG	2A	3730	1/1	0.93	0.10	73,73,73,73	0
57	MG	1A	3004	1/1	0.93	0.07	29,29,29,29	0
57	MG	1A	3482	1/1	0.93	0.19	46,46,46,46	0
57	MG	1a	1610	1/1	0.93	0.10	54,54,54,54	0
57	MG	1A	3483	1/1	0.93	0.12	54,54,54,54	0
57	MG	1a	1618	1/1	0.93	0.10	48,48,48,48	0
57	MG	1A	3831	1/1	0.93	0.06	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3368	1/1	0.93	0.24	65,65,65,65	0
57	MG	1a	1622	1/1	0.93	0.19	55,55,55,55	0
57	MG	1A	3154	1/1	0.93	0.06	55,55,55,55	0
57	MG	1A	3664	1/1	0.93	0.14	34,34,34,34	0
57	MG	2A	3096	1/1	0.93	0.09	48,48,48,48	0
57	MG	2A	3384	1/1	0.93	0.12	53,53,53,53	0
57	MG	2A	3758	1/1	0.93	0.09	55,55,55,55	0
57	MG	1a	1625	1/1	0.93	0.30	50,50,50,50	0
57	MG	1A	3493	1/1	0.93	0.05	35,35,35,35	0
57	MG	2A	3388	1/1	0.93	0.09	50,50,50,50	0
57	MG	2A	3768	1/1	0.93	0.09	49,49,49,49	0
57	MG	1A	3246	1/1	0.93	0.07	47,47,47,47	0
57	MG	1A	3849	1/1	0.93	0.17	42,42,42,42	0
57	MG	1A	3498	1/1	0.93	0.12	48,48,48,48	0
57	MG	1a	1640	1/1	0.93	0.10	46,46,46,46	0
57	MG	1a	1641	1/1	0.93	0.08	66,66,66,66	0
57	MG	2l	203	1/1	0.93	0.13	61,61,61,61	0
57	MG	2A	3778	1/1	0.93	0.09	45,45,45,45	0
57	MG	1A	3501	1/1	0.93	0.10	42,42,42,42	0
57	MG	1a	1645	1/1	0.93	0.09	49,49,49,49	0
57	MG	2r	101	1/1	0.93	0.18	68,68,68,68	0
57	MG	1a	1647	1/1	0.93	0.14	46,46,46,46	0
57	MG	1A	3401	1/1	0.93	0.09	45,45,45,45	0
57	MG	2w	101	1/1	0.93	0.13	53,53,53,53	0
57	MG	2A	3408	1/1	0.93	0.07	40,40,40,40	0
57	MG	1a	1657	1/1	0.93	0.23	57,57,57,57	0
57	MG	2w	104	1/1	0.93	0.06	43,43,43,43	0
57	MG	1A	3862	1/1	0.93	0.06	43,43,43,43	0
57	MG	1A	3507	1/1	0.93	0.15	48,48,48,48	0
57	MG	2A	3795	1/1	0.93	0.09	46,46,46,46	0
57	MG	2A	3413	1/1	0.93	0.13	42,42,42,42	0
57	MG	2A	3415	1/1	0.93	0.12	55,55,55,55	0
57	MG	2x	103	1/1	0.93	0.11	71,71,71,71	0
57	MG	2A	3800	1/1	0.93	0.07	35,35,35,35	0
57	MG	2A	3129	1/1	0.93	0.07	38,38,38,38	0
57	MG	1A	3514	1/1	0.93	0.13	68,68,68,68	0
57	MG	2A	3419	1/1	0.93	0.14	45,45,45,45	0
57	MG	2A	3811	1/1	0.93	0.12	50,50,50,50	0
58	K	2A	3444	1/1	0.93	0.16	75,75,75,75	0
57	MG	1a	1670	1/1	0.93	0.14	45,45,45,45	0
60	ZN	24	501	1/1	0.93	0.15	134,134,134,134	0
57	MG	1A	3532	1/1	0.94	0.15	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3001	1/1	0.94	0.24	46,46,46,46	0
57	MG	2A	3351	1/1	0.94	0.10	49,49,49,49	0
57	MG	1W	209	1/1	0.94	0.08	29,29,29,29	0
57	MG	1A	3272	1/1	0.94	0.07	27,27,27,27	0
57	MG	1A	3744	1/1	0.94	0.05	23,23,23,23	0
57	MG	2A	3018	1/1	0.94	0.16	45,45,45,45	0
57	MG	2A	3019	1/1	0.94	0.07	35,35,35,35	0
57	MG	2A	3023	1/1	0.94	0.17	64,64,64,64	0
57	MG	2A	3359	1/1	0.94	0.17	44,44,44,44	0
57	MG	1A	3964	1/1	0.94	0.08	33,33,33,33	0
57	MG	2A	3792	1/1	0.94	0.07	55,55,55,55	0
57	MG	2A	3366	1/1	0.94	0.25	52,52,52,52	0
57	MG	2A	3033	1/1	0.94	0.10	43,43,43,43	0
57	MG	1Y	203	1/1	0.94	0.13	48,48,48,48	0
57	MG	1A	3189	1/1	0.94	0.11	41,41,41,41	0
57	MG	2A	3372	1/1	0.94	0.11	51,51,51,51	0
57	MG	1A	3193	1/1	0.94	0.27	34,34,34,34	0
57	MG	1A	3754	1/1	0.94	0.07	18,18,18,18	0
57	MG	2A	3379	1/1	0.94	0.15	55,55,55,55	0
57	MG	2A	3382	1/1	0.94	0.09	51,51,51,51	0
57	MG	10	107	1/1	0.94	0.07	42,42,42,42	0
57	MG	11	102	1/1	0.94	0.17	43,43,43,43	0
57	MG	1A	3543	1/1	0.94	0.08	43,43,43,43	0
57	MG	2A	3829	1/1	0.94	0.12	49,49,49,49	0
57	MG	1A	3546	1/1	0.94	0.13	45,45,45,45	0
57	MG	2A	3051	1/1	0.94	0.08	62,62,62,62	0
57	MG	2A	3389	1/1	0.94	0.07	46,46,46,46	0
57	MG	2A	3053	1/1	0.94	0.13	45,45,45,45	0
57	MG	1A	3759	1/1	0.94	0.07	32,32,32,32	0
57	MG	2A	3057	1/1	0.94	0.19	46,46,46,46	0
57	MG	2A	3848	1/1	0.94	0.11	47,47,47,47	0
57	MG	1A	3973	1/1	0.94	0.11	33,33,33,33	0
57	MG	1A	3550	1/1	0.94	0.13	32,32,32,32	0
57	MG	15	106	1/1	0.94	0.17	36,36,36,36	0
57	MG	1A	3554	1/1	0.94	0.24	31,31,31,31	0
57	MG	2A	3856	1/1	0.94	0.10	49,49,49,49	0
57	MG	2B	201	1/1	0.94	0.25	56,56,56,56	0
57	MG	2A	3067	1/1	0.94	0.10	48,48,48,48	0
57	MG	1A	3125	1/1	0.94	0.13	45,45,45,45	0
57	MG	2B	205	1/1	0.94	0.07	48,48,48,48	0
57	MG	1A	3280	1/1	0.94	0.27	40,40,40,40	0
57	MG	1A	3772	1/1	0.94	0.08	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3206	1/1	0.94	0.09	54,54,54,54	0
57	MG	1A	3990	1/1	0.94	0.06	61,61,61,61	0
57	MG	1A	3286	1/1	0.94	0.08	33,33,33,33	0
57	MG	2A	3414	1/1	0.94	0.25	56,56,56,56	0
57	MG	1A	3570	1/1	0.94	0.12	24,24,24,24	0
57	MG	1A	3413	1/1	0.94	0.08	44,44,44,44	0
57	MG	2A	3417	1/1	0.94	0.18	55,55,55,55	0
57	MG	2A	3086	1/1	0.94	0.07	36,36,36,36	0
57	MG	1A	3572	1/1	0.94	0.10	41,41,41,41	0
57	MG	1a	1605	1/1	0.94	0.08	50,50,50,50	0
57	MG	2A	3091	1/1	0.94	0.07	36,36,36,36	0
57	MG	1A	3415	1/1	0.94	0.07	47,47,47,47	0
57	MG	2A	3425	1/1	0.94	0.13	47,47,47,47	0
57	MG	2F	307	1/1	0.94	0.11	47,47,47,47	0
57	MG	1A	4004	1/1	0.94	0.07	60,60,60,60	0
57	MG	2A	3428	1/1	0.94	0.22	50,50,50,50	0
57	MG	2O	201	1/1	0.94	0.08	67,67,67,67	0
57	MG	2A	3429	1/1	0.94	0.08	50,50,50,50	0
57	MG	2P	203	1/1	0.94	0.16	63,63,63,63	0
57	MG	2Q	201	1/1	0.94	0.07	49,49,49,49	0
57	MG	1A	3288	1/1	0.94	0.08	41,41,41,41	0
57	MG	1A	4008	1/1	0.94	0.08	50,50,50,50	0
57	MG	1A	3016	1/1	0.94	0.12	53,53,53,53	0
57	MG	1A	3582	1/1	0.94	0.09	33,33,33,33	0
57	MG	2A	3436	1/1	0.94	0.26	41,41,41,41	0
57	MG	2A	3439	1/1	0.94	0.07	59,59,59,59	0
57	MG	1A	3208	1/1	0.94	0.05	26,26,26,26	0
57	MG	1A	3800	1/1	0.94	0.07	29,29,29,29	0
57	MG	1A	3133	1/1	0.94	0.10	26,26,26,26	0
57	MG	1A	4021	1/1	0.94	0.06	29,29,29,29	0
57	MG	1A	3431	1/1	0.94	0.09	32,32,32,32	0
57	MG	2A	3115	1/1	0.94	0.11	61,61,61,61	0
57	MG	1A	3134	1/1	0.94	0.11	34,34,34,34	0
57	MG	2A	3119	1/1	0.94	0.19	53,53,53,53	0
57	MG	1a	1633	1/1	0.94	0.09	35,35,35,35	0
57	MG	2A	3462	1/1	0.94	0.11	43,43,43,43	0
57	MG	1A	3434	1/1	0.94	0.11	56,56,56,56	0
57	MG	2a	1604	1/1	0.94	0.18	41,41,41,41	0
57	MG	1a	1638	1/1	0.94	0.21	48,48,48,48	0
57	MG	1a	1639	1/1	0.94	0.19	50,50,50,50	0
57	MG	1A	3809	1/1	0.94	0.06	54,54,54,54	0
57	MG	1A	3032	1/1	0.94	0.13	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3595	1/1	0.94	0.10	33,33,33,33	0
57	MG	2A	3133	1/1	0.94	0.12	47,47,47,47	0
57	MG	2a	1616	1/1	0.94	0.13	54,54,54,54	0
57	MG	1A	4035	1/1	0.94	0.07	25,25,25,25	0
57	MG	1A	3443	1/1	0.94	0.13	37,37,37,37	0
57	MG	2A	3140	1/1	0.94	0.13	40,40,40,40	0
57	MG	1a	1650	1/1	0.94	0.21	62,62,62,62	0
57	MG	2A	3483	1/1	0.94	0.29	57,57,57,57	0
57	MG	2a	1623	1/1	0.94	0.15	58,58,58,58	0
57	MG	2a	1624	1/1	0.94	0.18	55,55,55,55	0
57	MG	2A	3486	1/1	0.94	0.12	61,61,61,61	0
57	MG	2A	3487	1/1	0.94	0.13	50,50,50,50	0
57	MG	2A	3143	1/1	0.94	0.15	44,44,44,44	0
57	MG	2A	3145	1/1	0.94	0.12	68,68,68,68	0
57	MG	1A	4048	1/1	0.94	0.12	16,16,16,16	0
57	MG	1A	3816	1/1	0.94	0.07	39,39,39,39	0
57	MG	1A	3310	1/1	0.94	0.15	38,38,38,38	0
57	MG	2A	3150	1/1	0.94	0.10	52,52,52,52	0
57	MG	1a	1661	1/1	0.94	0.13	45,45,45,45	0
57	MG	1A	3447	1/1	0.94	0.09	39,39,39,39	0
57	MG	1a	1665	1/1	0.94	0.14	52,52,52,52	0
57	MG	1A	3826	1/1	0.94	0.09	37,37,37,37	0
57	MG	1A	4062	1/1	0.94	0.14	52,52,52,52	0
57	MG	2A	3161	1/1	0.94	0.16	39,39,39,39	0
57	MG	2A	3509	1/1	0.94	0.08	26,26,26,26	0
57	MG	1A	3829	1/1	0.94	0.07	47,47,47,47	0
57	MG	1A	4067	1/1	0.94	0.08	47,47,47,47	0
57	MG	2A	3167	1/1	0.94	0.12	66,66,66,66	0
57	MG	2A	3169	1/1	0.94	0.08	44,44,44,44	0
57	MG	1A	3143	1/1	0.94	0.05	29,29,29,29	0
57	MG	1a	1677	1/1	0.94	0.12	63,63,63,63	0
57	MG	1a	1679	1/1	0.94	0.10	63,63,63,63	0
57	MG	2A	3175	1/1	0.94	0.08	45,45,45,45	0
57	MG	2A	3176	1/1	0.94	0.06	38,38,38,38	0
57	MG	1A	3456	1/1	0.94	0.10	63,63,63,63	0
57	MG	1A	3838	1/1	0.94	0.18	56,56,56,56	0
57	MG	2A	3532	1/1	0.94	0.15	52,52,52,52	0
57	MG	1A	3611	1/1	0.94	0.06	34,34,34,34	0
57	MG	1A	3842	1/1	0.94	0.09	35,35,35,35	0
57	MG	1A	3033	1/1	0.94	0.08	39,39,39,39	0
57	MG	1A	3081	1/1	0.94	0.11	29,29,29,29	0
57	MG	2a	1662	1/1	0.94	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3619	1/1	0.94	0.10	34,34,34,34	0
57	MG	1A	3459	1/1	0.94	0.12	34,34,34,34	0
57	MG	1A	3624	1/1	0.94	0.05	35,35,35,35	0
57	MG	1a	1691	1/1	0.94	0.31	52,52,52,52	0
57	MG	2A	3197	1/1	0.94	0.14	43,43,43,43	0
57	MG	1a	1693	1/1	0.94	0.21	43,43,43,43	0
57	MG	2A	3202	1/1	0.94	0.06	45,45,45,45	0
57	MG	2A	3564	1/1	0.94	0.12	59,59,59,59	0
57	MG	1A	4080	1/1	0.94	0.10	40,40,40,40	0
57	MG	1A	3853	1/1	0.94	0.07	37,37,37,37	0
57	MG	2a	1681	1/1	0.94	0.15	59,59,59,59	0
57	MG	2a	1682	1/1	0.94	0.09	72,72,72,72	0
57	MG	2a	1683	1/1	0.94	0.19	55,55,55,55	0
57	MG	1A	3627	1/1	0.94	0.07	38,38,38,38	0
57	MG	2a	1686	1/1	0.94	0.11	65,65,65,65	0
57	MG	1A	4084	1/1	0.94	0.12	43,43,43,43	0
57	MG	1a	1700	1/1	0.94	0.18	52,52,52,52	0
57	MG	2A	3212	1/1	0.94	0.10	49,49,49,49	0
57	MG	1A	3629	1/1	0.94	0.09	67,67,67,67	0
57	MG	1A	4086	1/1	0.94	0.19	53,53,53,53	0
57	MG	2a	1694	1/1	0.94	0.16	72,72,72,72	0
57	MG	2A	3579	1/1	0.94	0.14	54,54,54,54	0
57	MG	2A	3581	1/1	0.94	0.09	50,50,50,50	0
57	MG	2A	3217	1/1	0.94	0.08	63,63,63,63	0
57	MG	2A	3586	1/1	0.94	0.07	45,45,45,45	0
57	MG	1A	3861	1/1	0.94	0.11	46,46,46,46	0
57	MG	2A	3220	1/1	0.94	0.12	57,57,57,57	0
57	MG	1A	3037	1/1	0.94	0.18	57,57,57,57	0
57	MG	2A	3225	1/1	0.94	0.24	40,40,40,40	0
57	MG	1A	3642	1/1	0.94	0.11	31,31,31,31	0
57	MG	2a	1707	1/1	0.94	0.18	65,65,65,65	0
57	MG	1A	3462	1/1	0.94	0.13	34,34,34,34	0
57	MG	1A	3647	1/1	0.94	0.10	37,37,37,37	0
57	MG	2a	1710	1/1	0.94	0.12	58,58,58,58	0
57	MG	2a	1711	1/1	0.94	0.07	63,63,63,63	0
57	MG	2A	3232	1/1	0.94	0.19	53,53,53,53	0
57	MG	2A	3604	1/1	0.94	0.07	41,41,41,41	0
57	MG	2A	3606	1/1	0.94	0.13	49,49,49,49	0
57	MG	2A	3233	1/1	0.94	0.07	34,34,34,34	0
57	MG	1A	3046	1/1	0.94	0.10	16,16,16,16	0
57	MG	2a	1719	1/1	0.94	0.19	57,57,57,57	0
57	MG	2A	3611	1/1	0.94	0.15	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3047	1/1	0.94	0.14	35,35,35,35	0
57	MG	1A	3465	1/1	0.94	0.08	47,47,47,47	0
57	MG	2A	3617	1/1	0.94	0.11	38,38,38,38	0
57	MG	2A	3618	1/1	0.94	0.07	30,30,30,30	0
57	MG	1A	3466	1/1	0.94	0.05	27,27,27,27	0
57	MG	2a	1728	1/1	0.94	0.16	51,51,51,51	0
57	MG	1A	3329	1/1	0.94	0.10	54,54,54,54	0
57	MG	2A	3622	1/1	0.94	0.14	39,39,39,39	0
57	MG	1A	3237	1/1	0.94	0.10	37,37,37,37	0
57	MG	2A	3241	1/1	0.94	0.12	42,42,42,42	0
57	MG	1a	1719	1/1	0.94	0.10	57,57,57,57	0
57	MG	1A	3332	1/1	0.94	0.19	62,62,62,62	0
57	MG	2a	1737	1/1	0.94	0.13	61,61,61,61	0
57	MG	1A	3888	1/1	0.94	0.08	33,33,33,33	0
57	MG	1A	3240	1/1	0.94	0.12	30,30,30,30	0
57	MG	1D	304	1/1	0.94	0.07	25,25,25,25	0
57	MG	2a	1742	1/1	0.94	0.17	43,43,43,43	0
57	MG	2A	3250	1/1	0.94	0.12	49,49,49,49	0
57	MG	1D	309	1/1	0.94	0.07	38,38,38,38	0
57	MG	2A	3253	1/1	0.94	0.22	53,53,53,53	0
57	MG	2A	3641	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3255	1/1	0.94	0.11	60,60,60,60	0
57	MG	2a	1750	1/1	0.94	0.17	45,45,45,45	0
57	MG	1a	1728	1/1	0.94	0.14	61,61,61,61	0
57	MG	1A	3096	1/1	0.94	0.09	40,40,40,40	0
57	MG	1a	1739	1/1	0.94	0.11	48,48,48,48	0
57	MG	2A	3646	1/1	0.94	0.11	53,53,53,53	0
57	MG	2A	3260	1/1	0.94	0.12	50,50,50,50	0
57	MG	1E	309	1/1	0.94	0.08	51,51,51,51	0
57	MG	2A	3264	1/1	0.94	0.17	59,59,59,59	0
57	MG	2a	1759	1/1	0.94	0.08	57,57,57,57	0
57	MG	1a	1743	1/1	0.94	0.10	50,50,50,50	0
57	MG	2a	1762	1/1	0.94	0.06	64,64,64,64	0
57	MG	2a	1764	1/1	0.94	0.09	50,50,50,50	0
57	MG	1A	3162	1/1	0.94	0.24	43,43,43,43	0
57	MG	2A	3653	1/1	0.94	0.08	51,51,51,51	0
57	MG	1a	1745	1/1	0.94	0.06	55,55,55,55	0
57	MG	1a	1746	1/1	0.94	0.07	49,49,49,49	0
57	MG	1a	1748	1/1	0.94	0.11	38,38,38,38	0
57	MG	1F	304	1/1	0.94	0.07	38,38,38,38	0
57	MG	1A	3899	1/1	0.94	0.16	54,54,54,54	0
57	MG	1A	3339	1/1	0.94	0.16	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3681	1/1	0.94	0.08	51,51,51,51	0
57	MG	1A	3245	1/1	0.94	0.07	47,47,47,47	0
57	MG	1a	1764	1/1	0.94	0.12	47,47,47,47	0
57	MG	2a	1785	1/1	0.94	0.07	58,58,58,58	0
57	MG	1A	3484	1/1	0.94	0.23	53,53,53,53	0
57	MG	2A	3677	1/1	0.94	0.13	58,58,58,58	0
57	MG	1a	1769	1/1	0.94	0.09	68,68,68,68	0
57	MG	1A	3487	1/1	0.94	0.12	41,41,41,41	0
57	MG	1A	3914	1/1	0.94	0.08	27,27,27,27	0
57	MG	1A	3698	1/1	0.94	0.05	17,17,17,17	0
57	MG	1a	1788	1/1	0.94	0.07	60,60,60,60	0
57	MG	2A	3287	1/1	0.94	0.17	50,50,50,50	0
57	MG	1a	1789	1/1	0.94	0.07	52,52,52,52	0
57	MG	1N	201	1/1	0.94	0.28	53,53,53,53	0
57	MG	2a	1800	1/1	0.94	0.23	59,59,59,59	0
57	MG	1A	3015	1/1	0.94	0.08	48,48,48,48	0
57	MG	2A	3291	1/1	0.94	0.15	48,48,48,48	0
57	MG	1A	3490	1/1	0.94	0.13	52,52,52,52	0
57	MG	1A	3927	1/1	0.94	0.07	41,41,41,41	0
57	MG	1a	1797	1/1	0.94	0.12	42,42,42,42	0
57	MG	1a	1798	1/1	0.94	0.18	61,61,61,61	0
57	MG	1a	1799	1/1	0.94	0.20	59,59,59,59	0
57	MG	1A	3170	1/1	0.94	0.12	28,28,28,28	0
57	MG	2A	3698	1/1	0.94	0.07	38,38,38,38	0
57	MG	1a	1801	1/1	0.94	0.11	63,63,63,63	0
57	MG	2a	1811	1/1	0.94	0.10	58,58,58,58	0
57	MG	2a	1812	1/1	0.94	0.09	46,46,46,46	0
57	MG	1A	3174	1/1	0.94	0.06	32,32,32,32	0
57	MG	1Q	202	1/1	0.94	0.06	40,40,40,40	0
57	MG	1Q	203	1/1	0.94	0.08	42,42,42,42	0
57	MG	1A	3356	1/1	0.94	0.08	39,39,39,39	0
57	MG	1A	3027	1/1	0.94	0.06	24,24,24,24	0
57	MG	2A	3709	1/1	0.94	0.09	53,53,53,53	0
57	MG	1R	201	1/1	0.94	0.20	55,55,55,55	0
57	MG	1A	3180	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3311	1/1	0.94	0.15	52,52,52,52	0
57	MG	1A	3181	1/1	0.94	0.17	63,63,63,63	0
57	MG	2A	3315	1/1	0.94	0.14	53,53,53,53	0
57	MG	2A	3317	1/1	0.94	0.07	43,43,43,43	0
57	MG	1R	205	1/1	0.94	0.09	23,23,23,23	0
57	MG	1A	3374	1/1	0.94	0.06	42,42,42,42	0
57	MG	1k	201	1/1	0.94	0.14	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2f	202	1/1	0.94	0.08	67,67,67,67	0
57	MG	1l	202	1/1	0.94	0.07	64,64,64,64	0
57	MG	1A	3260	1/1	0.94	0.09	39,39,39,39	0
57	MG	1A	3182	1/1	0.94	0.05	34,34,34,34	0
57	MG	2A	3734	1/1	0.94	0.13	61,61,61,61	0
57	MG	2A	3735	1/1	0.94	0.13	46,46,46,46	0
57	MG	1A	3721	1/1	0.94	0.10	53,53,53,53	0
57	MG	1v	102	1/1	0.94	0.07	57,57,57,57	0
57	MG	2q	202	1/1	0.94	0.08	59,59,59,59	0
57	MG	1A	3265	1/1	0.94	0.06	36,36,36,36	0
57	MG	2t	201	1/1	0.94	0.18	49,49,49,49	0
57	MG	1w	104	1/1	0.94	0.13	55,55,55,55	0
57	MG	1A	3522	1/1	0.94	0.15	50,50,50,50	0
57	MG	1A	3523	1/1	0.94	0.07	26,26,26,26	0
57	MG	1w	107	1/1	0.94	0.10	49,49,49,49	0
57	MG	1T	204	1/1	0.94	0.14	53,53,53,53	0
57	MG	1A	3952	1/1	0.94	0.08	44,44,44,44	0
57	MG	2A	3753	1/1	0.94	0.07	48,48,48,48	0
57	MG	1U	202	1/1	0.94	0.21	49,49,49,49	0
57	MG	2A	3756	1/1	0.94	0.12	54,54,54,54	0
57	MG	2A	3757	1/1	0.94	0.09	61,61,61,61	0
57	MG	2x	101	1/1	0.94	0.07	46,46,46,46	0
57	MG	2A	3339	1/1	0.94	0.07	53,53,53,53	0
57	MG	2A	3760	1/1	0.94	0.11	59,59,59,59	0
57	MG	1A	3729	1/1	0.94	0.08	49,49,49,49	0
57	MG	1A	3116	1/1	0.94	0.06	30,30,30,30	0
57	MG	1A	3060	1/1	0.94	0.12	37,37,37,37	0
57	MG	2A	3767	1/1	0.94	0.07	51,51,51,51	0
57	MG	1A	3187	1/1	0.94	0.14	31,31,31,31	0
58	K	1A	3560	1/1	0.94	0.18	73,73,73,73	0
57	MG	2A	3345	1/1	0.94	0.15	49,49,49,49	0
59	6IF	2A	3857	32/32	0.94	0.12	39,47,56,59	0
57	MG	1W	202	1/1	0.94	0.10	43,43,43,43	0
57	MG	2A	3347	1/1	0.94	0.20	48,48,48,48	0
57	MG	2A	3825	1/1	0.95	0.09	43,43,43,43	0
57	MG	1A	3223	1/1	0.95	0.08	37,37,37,37	0
57	MG	1A	3420	1/1	0.95	0.12	31,31,31,31	0
57	MG	2A	3110	1/1	0.95	0.10	50,50,50,50	0
57	MG	1A	3695	1/1	0.95	0.07	41,41,41,41	0
57	MG	1a	1664	1/1	0.95	0.07	49,49,49,49	0
57	MG	1A	3697	1/1	0.95	0.07	21,21,21,21	0
57	MG	1a	1667	1/1	0.95	0.17	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3110	1/1	0.95	0.05	33,33,33,33	0
57	MG	2A	3840	1/1	0.95	0.07	46,46,46,46	0
57	MG	2A	3121	1/1	0.95	0.20	52,52,52,52	0
57	MG	1A	3882	1/1	0.95	0.04	25,25,25,25	0
57	MG	1A	3533	1/1	0.95	0.20	50,50,50,50	0
57	MG	2A	3852	1/1	0.95	0.16	45,45,45,45	0
57	MG	2A	3126	1/1	0.95	0.11	41,41,41,41	0
57	MG	2A	3854	1/1	0.95	0.15	47,47,47,47	0
57	MG	1A	3884	1/1	0.95	0.09	33,33,33,33	0
57	MG	1A	3887	1/1	0.95	0.09	21,21,21,21	0
57	MG	2A	3430	1/1	0.95	0.16	39,39,39,39	0
57	MG	1A	3702	1/1	0.95	0.07	35,35,35,35	0
57	MG	1B	203	1/1	0.95	0.08	33,33,33,33	0
57	MG	1B	204	1/1	0.95	0.17	68,68,68,68	0
57	MG	1B	205	1/1	0.95	0.08	52,52,52,52	0
57	MG	1A	3427	1/1	0.95	0.08	38,38,38,38	0
57	MG	2B	208	1/1	0.95	0.12	60,60,60,60	0
57	MG	2A	3437	1/1	0.95	0.20	58,58,58,58	0
57	MG	2B	212	1/1	0.95	0.13	41,41,41,41	0
57	MG	1A	3891	1/1	0.95	0.10	20,20,20,20	0
57	MG	1A	3535	1/1	0.95	0.11	26,26,26,26	0
57	MG	2A	3442	1/1	0.95	0.14	47,47,47,47	0
57	MG	1B	211	1/1	0.95	0.11	46,46,46,46	0
57	MG	2A	3448	1/1	0.95	0.07	41,41,41,41	0
57	MG	1a	1686	1/1	0.95	0.07	62,62,62,62	0
57	MG	1A	3430	1/1	0.95	0.06	38,38,38,38	0
57	MG	1B	216	1/1	0.95	0.05	30,30,30,30	0
57	MG	1A	3896	1/1	0.95	0.11	42,42,42,42	0
57	MG	2E	306	1/1	0.95	0.07	39,39,39,39	0
57	MG	2A	3458	1/1	0.95	0.11	49,49,49,49	0
57	MG	2F	301	1/1	0.95	0.10	44,44,44,44	0
57	MG	1A	3145	1/1	0.95	0.16	30,30,30,30	0
57	MG	1a	1692	1/1	0.95	0.27	56,56,56,56	0
57	MG	2F	305	1/1	0.95	0.11	59,59,59,59	0
57	MG	1B	221	1/1	0.95	0.08	47,47,47,47	0
57	MG	2A	3155	1/1	0.95	0.07	36,36,36,36	0
57	MG	2A	3156	1/1	0.95	0.06	46,46,46,46	0
57	MG	1A	3542	1/1	0.95	0.07	33,33,33,33	0
57	MG	1A	3087	1/1	0.95	0.05	35,35,35,35	0
57	MG	2P	202	1/1	0.95	0.07	49,49,49,49	0
57	MG	1A	3338	1/1	0.95	0.09	26,26,26,26	0
57	MG	2A	3160	1/1	0.95	0.17	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3061	1/1	0.95	0.11	40,40,40,40	0
57	MG	1A	3911	1/1	0.95	0.19	57,57,57,57	0
57	MG	2A	3163	1/1	0.95	0.07	65,65,65,65	0
57	MG	1D	302	1/1	0.95	0.09	43,43,43,43	0
57	MG	2V	201	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3438	1/1	0.95	0.11	41,41,41,41	0
57	MG	1D	307	1/1	0.95	0.08	38,38,38,38	0
57	MG	1D	308	1/1	0.95	0.14	41,41,41,41	0
57	MG	1A	3718	1/1	0.95	0.06	43,43,43,43	0
57	MG	1A	3555	1/1	0.95	0.26	45,45,45,45	0
57	MG	20	102	1/1	0.95	0.09	38,38,38,38	0
57	MG	2A	3174	1/1	0.95	0.09	48,48,48,48	0
57	MG	25	102	1/1	0.95	0.14	49,49,49,49	0
57	MG	25	103	1/1	0.95	0.07	47,47,47,47	0
57	MG	2A	3490	1/1	0.95	0.13	41,41,41,41	0
57	MG	2A	3491	1/1	0.95	0.23	54,54,54,54	0
57	MG	1A	3441	1/1	0.95	0.17	35,35,35,35	0
57	MG	28	101	1/1	0.95	0.10	59,59,59,59	0
57	MG	1A	3919	1/1	0.95	0.05	42,42,42,42	0
57	MG	1E	313	1/1	0.95	0.07	51,51,51,51	0
57	MG	1a	1712	1/1	0.95	0.05	35,35,35,35	0
57	MG	1a	1713	1/1	0.95	0.26	44,44,44,44	0
57	MG	2A	3184	1/1	0.95	0.16	44,44,44,44	0
57	MG	1A	3055	1/1	0.95	0.06	35,35,35,35	0
57	MG	2A	3502	1/1	0.95	0.08	52,52,52,52	0
57	MG	2a	1608	1/1	0.95	0.09	48,48,48,48	0
57	MG	1F	310	1/1	0.95	0.07	29,29,29,29	0
57	MG	2A	3188	1/1	0.95	0.05	52,52,52,52	0
57	MG	1A	3924	1/1	0.95	0.07	44,44,44,44	0
57	MG	2a	1613	1/1	0.95	0.17	52,52,52,52	0
57	MG	1A	3559	1/1	0.95	0.08	36,36,36,36	0
57	MG	2a	1615	1/1	0.95	0.14	56,56,56,56	0
57	MG	1A	3347	1/1	0.95	0.11	47,47,47,47	0
57	MG	1A	3348	1/1	0.95	0.20	55,55,55,55	0
57	MG	1A	3730	1/1	0.95	0.07	49,49,49,49	0
57	MG	1A	3238	1/1	0.95	0.07	21,21,21,21	0
57	MG	2A	3518	1/1	0.95	0.07	47,47,47,47	0
57	MG	2A	3198	1/1	0.95	0.09	37,37,37,37	0
57	MG	1A	3935	1/1	0.95	0.11	63,63,63,63	0
57	MG	2A	3522	1/1	0.95	0.09	49,49,49,49	0
57	MG	2a	1625	1/1	0.95	0.19	62,62,62,62	0
57	MG	1A	3353	1/1	0.95	0.05	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3128	1/1	0.95	0.06	34,34,34,34	0
57	MG	1a	1735	1/1	0.95	0.14	58,58,58,58	0
57	MG	1N	202	1/1	0.95	0.05	26,26,26,26	0
57	MG	1A	3573	1/1	0.95	0.08	27,27,27,27	0
57	MG	1A	3574	1/1	0.95	0.08	55,55,55,55	0
57	MG	2a	1632	1/1	0.95	0.18	50,50,50,50	0
57	MG	1A	3156	1/1	0.95	0.16	21,21,21,21	0
57	MG	2A	3213	1/1	0.95	0.07	34,34,34,34	0
57	MG	1A	3159	1/1	0.95	0.14	46,46,46,46	0
57	MG	2A	3537	1/1	0.95	0.10	50,50,50,50	0
57	MG	1A	3748	1/1	0.95	0.09	41,41,41,41	0
57	MG	2A	3539	1/1	0.95	0.15	40,40,40,40	0
57	MG	2a	1639	1/1	0.95	0.13	46,46,46,46	0
57	MG	1A	3750	1/1	0.95	0.05	31,31,31,31	0
57	MG	1a	1747	1/1	0.95	0.16	52,52,52,52	0
57	MG	1A	3751	1/1	0.95	0.08	58,58,58,58	0
57	MG	2A	3222	1/1	0.95	0.11	51,51,51,51	0
57	MG	2A	3552	1/1	0.95	0.06	60,60,60,60	0
57	MG	1A	3357	1/1	0.95	0.09	45,45,45,45	0
57	MG	1a	1752	1/1	0.95	0.09	50,50,50,50	0
57	MG	2a	1648	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3461	1/1	0.95	0.15	43,43,43,43	0
57	MG	1a	1758	1/1	0.95	0.08	52,52,52,52	0
57	MG	2A	3563	1/1	0.95	0.07	47,47,47,47	0
57	MG	2A	3229	1/1	0.95	0.09	51,51,51,51	0
57	MG	1a	1759	1/1	0.95	0.07	45,45,45,45	0
57	MG	1A	3585	1/1	0.95	0.10	30,30,30,30	0
57	MG	1A	3131	1/1	0.95	0.06	29,29,29,29	0
57	MG	2A	3570	1/1	0.95	0.12	57,57,57,57	0
57	MG	1a	1762	1/1	0.95	0.12	62,62,62,62	0
57	MG	2A	3572	1/1	0.95	0.08	28,28,28,28	0
57	MG	1A	3364	1/1	0.95	0.10	37,37,37,37	0
57	MG	1R	204	1/1	0.95	0.41	38,38,38,38	0
57	MG	2a	1661	1/1	0.95	0.12	44,44,44,44	0
57	MG	1a	1766	1/1	0.95	0.12	67,67,67,67	0
57	MG	2a	1663	1/1	0.95	0.06	54,54,54,54	0
57	MG	2a	1665	1/1	0.95	0.17	57,57,57,57	0
57	MG	1A	3366	1/1	0.95	0.08	50,50,50,50	0
57	MG	1A	3292	1/1	0.95	0.08	43,43,43,43	0
57	MG	2a	1671	1/1	0.95	0.26	49,49,49,49	0
57	MG	1A	3057	1/1	0.95	0.08	46,46,46,46	0
57	MG	1a	1771	1/1	0.95	0.08	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3249	1/1	0.95	0.14	47,47,47,47	0
57	MG	2A	3244	1/1	0.95	0.17	41,41,41,41	0
57	MG	1A	3767	1/1	0.95	0.06	21,21,21,21	0
57	MG	1a	1780	1/1	0.95	0.07	50,50,50,50	0
57	MG	2A	3247	1/1	0.95	0.09	52,52,52,52	0
57	MG	1a	1787	1/1	0.95	0.06	49,49,49,49	0
57	MG	2A	3249	1/1	0.95	0.06	36,36,36,36	0
57	MG	2A	3600	1/1	0.95	0.13	58,58,58,58	0
57	MG	1A	3966	1/1	0.95	0.06	58,58,58,58	0
57	MG	1A	3083	1/1	0.95	0.10	24,24,24,24	0
57	MG	1A	3379	1/1	0.95	0.07	37,37,37,37	0
57	MG	1A	3777	1/1	0.95	0.09	38,38,38,38	0
57	MG	1A	3597	1/1	0.95	0.09	38,38,38,38	0
57	MG	1A	3601	1/1	0.95	0.06	19,19,19,19	0
57	MG	2a	1691	1/1	0.95	0.14	44,44,44,44	0
57	MG	1A	3381	1/1	0.95	0.09	48,48,48,48	0
57	MG	1A	3786	1/1	0.95	0.06	22,22,22,22	0
57	MG	2A	3262	1/1	0.95	0.06	52,52,52,52	0
57	MG	1A	3382	1/1	0.95	0.21	45,45,45,45	0
57	MG	1A	3383	1/1	0.95	0.27	31,31,31,31	0
57	MG	1A	3384	1/1	0.95	0.24	39,39,39,39	0
57	MG	2a	1698	1/1	0.95	0.14	52,52,52,52	0
57	MG	1A	3385	1/1	0.95	0.22	29,29,29,29	0
57	MG	1W	208	1/1	0.95	0.06	36,36,36,36	0
57	MG	2A	3623	1/1	0.95	0.07	32,32,32,32	0
57	MG	1A	3298	1/1	0.95	0.14	37,37,37,37	0
57	MG	1a	1808	1/1	0.95	0.11	49,49,49,49	0
57	MG	1A	3164	1/1	0.95	0.06	34,34,34,34	0
57	MG	1A	3991	1/1	0.95	0.10	35,35,35,35	0
57	MG	1A	3992	1/1	0.95	0.07	38,38,38,38	0
57	MG	2A	3273	1/1	0.95	0.15	52,52,52,52	0
57	MG	1A	3799	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3305	1/1	0.95	0.10	44,44,44,44	0
57	MG	2a	1712	1/1	0.95	0.13	70,70,70,70	0
57	MG	1A	3086	1/1	0.95	0.09	30,30,30,30	0
57	MG	2A	3637	1/1	0.95	0.06	35,35,35,35	0
57	MG	10	101	1/1	0.95	0.10	35,35,35,35	0
57	MG	2A	3280	1/1	0.95	0.14	52,52,52,52	0
57	MG	1A	3622	1/1	0.95	0.06	19,19,19,19	0
57	MG	10	103	1/1	0.95	0.14	38,38,38,38	0
57	MG	2A	3283	1/1	0.95	0.19	46,46,46,46	0
57	MG	1m	3001	1/1	0.95	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	10	105	1/1	0.95	0.17	54,54,54,54	0
57	MG	10	106	1/1	0.95	0.09	56,56,56,56	0
57	MG	1A	3169	1/1	0.95	0.09	38,38,38,38	0
57	MG	10	108	1/1	0.95	0.10	46,46,46,46	0
57	MG	1w	102	1/1	0.95	0.23	50,50,50,50	0
57	MG	1A	3495	1/1	0.95	0.07	50,50,50,50	0
57	MG	1A	3255	1/1	0.95	0.14	31,31,31,31	0
57	MG	13	105	1/1	0.95	0.12	38,38,38,38	0
57	MG	1A	3631	1/1	0.95	0.06	17,17,17,17	0
57	MG	2A	3659	1/1	0.95	0.15	66,66,66,66	0
57	MG	1A	3632	1/1	0.95	0.10	27,27,27,27	0
57	MG	1w	109	1/1	0.95	0.08	48,48,48,48	0
57	MG	2a	1738	1/1	0.95	0.25	49,49,49,49	0
57	MG	14	101	1/1	0.95	0.08	57,57,57,57	0
57	MG	15	101	1/1	0.95	0.14	29,29,29,29	0
57	MG	1x	103	1/1	0.95	0.09	49,49,49,49	0
57	MG	1x	104	1/1	0.95	0.08	42,42,42,42	0
57	MG	1x	106	1/1	0.95	0.12	54,54,54,54	0
57	MG	1A	4014	1/1	0.95	0.07	46,46,46,46	0
57	MG	15	104	1/1	0.95	0.22	25,25,25,25	0
57	MG	1A	3633	1/1	0.95	0.06	38,38,38,38	0
57	MG	2A	3305	1/1	0.95	0.06	50,50,50,50	0
57	MG	1A	3217	1/1	0.95	0.14	30,30,30,30	0
57	MG	2A	3307	1/1	0.95	0.06	39,39,39,39	0
57	MG	1A	3639	1/1	0.95	0.10	24,24,24,24	0
57	MG	2A	3310	1/1	0.95	0.09	45,45,45,45	0
57	MG	17	101	1/1	0.95	0.09	31,31,31,31	0
57	MG	2A	3312	1/1	0.95	0.14	57,57,57,57	0
57	MG	2a	1756	1/1	0.95	0.18	48,48,48,48	0
57	MG	17	104	1/1	0.95	0.06	30,30,30,30	0
57	MG	1A	3313	1/1	0.95	0.09	40,40,40,40	0
57	MG	17	106	1/1	0.95	0.07	41,41,41,41	0
57	MG	2A	3008	1/1	0.95	0.09	41,41,41,41	0
57	MG	2A	3319	1/1	0.95	0.19	57,57,57,57	0
57	MG	2A	3320	1/1	0.95	0.08	52,52,52,52	0
57	MG	1A	3109	1/1	0.95	0.16	32,32,32,32	0
57	MG	2A	3013	1/1	0.95	0.08	58,58,58,58	0
57	MG	2A	3697	1/1	0.95	0.11	34,34,34,34	0
57	MG	1A	3827	1/1	0.95	0.11	58,58,58,58	0
57	MG	2A	3017	1/1	0.95	0.06	48,48,48,48	0
57	MG	2a	1774	1/1	0.95	0.11	68,68,68,68	0
57	MG	2a	1776	1/1	0.95	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3646	1/1	0.95	0.08	31,31,31,31	0
57	MG	2A	3702	1/1	0.95	0.07	53,53,53,53	0
57	MG	1A	3505	1/1	0.95	0.07	36,36,36,36	0
57	MG	2A	3020	1/1	0.95	0.06	48,48,48,48	0
57	MG	2a	1781	1/1	0.95	0.08	55,55,55,55	0
57	MG	1A	4026	1/1	0.95	0.07	25,25,25,25	0
57	MG	2a	1783	1/1	0.95	0.11	50,50,50,50	0
57	MG	1A	3506	1/1	0.95	0.11	50,50,50,50	0
57	MG	2A	3029	1/1	0.95	0.08	55,55,55,55	0
57	MG	2A	3030	1/1	0.95	0.05	55,55,55,55	0
57	MG	1A	3835	1/1	0.95	0.07	46,46,46,46	0
57	MG	2A	3034	1/1	0.95	0.09	49,49,49,49	0
57	MG	1A	4033	1/1	0.95	0.06	39,39,39,39	0
57	MG	2a	1790	1/1	0.95	0.10	70,70,70,70	0
57	MG	2A	3036	1/1	0.95	0.12	47,47,47,47	0
57	MG	2A	3038	1/1	0.95	0.07	28,28,28,28	0
57	MG	2a	1793	1/1	0.95	0.10	54,54,54,54	0
57	MG	2a	1794	1/1	0.95	0.15	50,50,50,50	0
57	MG	2A	3720	1/1	0.95	0.19	50,50,50,50	0
57	MG	2A	3721	1/1	0.95	0.08	57,57,57,57	0
57	MG	1A	3409	1/1	0.95	0.13	46,46,46,46	0
57	MG	2A	3042	1/1	0.95	0.16	51,51,51,51	0
57	MG	2A	3043	1/1	0.95	0.05	50,50,50,50	0
57	MG	1a	1606	1/1	0.95	0.13	66,66,66,66	0
57	MG	1A	3653	1/1	0.95	0.13	36,36,36,36	0
57	MG	1A	4038	1/1	0.95	0.10	49,49,49,49	0
57	MG	1A	4041	1/1	0.95	0.07	22,22,22,22	0
57	MG	1a	1616	1/1	0.95	0.12	59,59,59,59	0
57	MG	1a	1617	1/1	0.95	0.08	44,44,44,44	0
57	MG	1A	3511	1/1	0.95	0.13	54,54,54,54	0
57	MG	2A	3052	1/1	0.95	0.07	45,45,45,45	0
57	MG	1A	3317	1/1	0.95	0.07	54,54,54,54	0
57	MG	1A	3321	1/1	0.95	0.06	32,32,32,32	0
57	MG	2A	3743	1/1	0.95	0.08	36,36,36,36	0
57	MG	1A	4051	1/1	0.95	0.06	22,22,22,22	0
57	MG	2A	3746	1/1	0.95	0.09	59,59,59,59	0
57	MG	2A	3058	1/1	0.95	0.19	58,58,58,58	0
57	MG	1A	4055	1/1	0.95	0.18	44,44,44,44	0
57	MG	2A	3061	1/1	0.95	0.07	42,42,42,42	0
57	MG	2A	3360	1/1	0.95	0.05	41,41,41,41	0
57	MG	1A	3662	1/1	0.95	0.07	21,21,21,21	0
57	MG	2A	3363	1/1	0.95	0.27	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1627	1/1	0.95	0.16	55,55,55,55	0
57	MG	1A	3262	1/1	0.95	0.15	50,50,50,50	0
57	MG	2a	1823	1/1	0.95	0.14	55,55,55,55	0
57	MG	1A	3669	1/1	0.95	0.07	22,22,22,22	0
57	MG	1a	1630	1/1	0.95	0.26	58,58,58,58	0
57	MG	2A	3762	1/1	0.95	0.06	61,61,61,61	0
57	MG	2A	3069	1/1	0.95	0.10	54,54,54,54	0
57	MG	1a	1631	1/1	0.95	0.15	54,54,54,54	0
57	MG	2A	3376	1/1	0.95	0.09	53,53,53,53	0
57	MG	2d	301	1/1	0.95	0.17	45,45,45,45	0
57	MG	2e	201	1/1	0.95	0.08	57,57,57,57	0
57	MG	2A	3071	1/1	0.95	0.07	42,42,42,42	0
57	MG	2A	3770	1/1	0.95	0.07	61,61,61,61	0
57	MG	1A	3518	1/1	0.95	0.10	66,66,66,66	0
57	MG	2k	201	1/1	0.95	0.09	64,64,64,64	0
57	MG	2A	3380	1/1	0.95	0.13	57,57,57,57	0
57	MG	2l	202	1/1	0.95	0.12	51,51,51,51	0
57	MG	2A	3381	1/1	0.95	0.10	62,62,62,62	0
57	MG	1A	3855	1/1	0.95	0.07	37,37,37,37	0
57	MG	2A	3076	1/1	0.95	0.06	48,48,48,48	0
57	MG	2A	3077	1/1	0.95	0.10	24,24,24,24	0
57	MG	1A	3263	1/1	0.95	0.10	37,37,37,37	0
57	MG	1A	3520	1/1	0.95	0.08	43,43,43,43	0
57	MG	1A	3139	1/1	0.95	0.09	50,50,50,50	0
57	MG	1A	3140	1/1	0.95	0.13	33,33,33,33	0
57	MG	1A	3524	1/1	0.95	0.14	29,29,29,29	0
57	MG	2A	3786	1/1	0.95	0.06	62,62,62,62	0
57	MG	1a	1642	1/1	0.95	0.18	52,52,52,52	0
57	MG	2A	3395	1/1	0.95	0.12	56,56,56,56	0
57	MG	1A	3864	1/1	0.95	0.07	37,37,37,37	0
57	MG	2A	3090	1/1	0.95	0.07	47,47,47,47	0
57	MG	1A	3865	1/1	0.95	0.06	27,27,27,27	0
57	MG	2A	3401	1/1	0.95	0.15	41,41,41,41	0
57	MG	1a	1646	1/1	0.95	0.14	39,39,39,39	0
57	MG	1A	3267	1/1	0.95	0.08	35,35,35,35	0
57	MG	2A	3801	1/1	0.95	0.09	46,46,46,46	0
57	MG	2A	3802	1/1	0.95	0.10	50,50,50,50	0
57	MG	2x	104	1/1	0.95	0.08	67,67,67,67	0
57	MG	2x	105	1/1	0.95	0.20	62,62,62,62	0
57	MG	2x	106	1/1	0.95	0.13	58,58,58,58	0
57	MG	1a	1648	1/1	0.95	0.09	43,43,43,43	0
57	MG	2y	102	1/1	0.95	0.06	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	4076	1/1	0.95	0.17	55,55,55,55	0
57	MG	1A	3687	1/1	0.95	0.09	24,24,24,24	0
57	MG	1A	3688	1/1	0.95	0.10	72,72,72,72	0
57	MG	2A	3814	1/1	0.95	0.07	39,39,39,39	0
57	MG	2A	3819	1/1	0.95	0.06	45,45,45,45	0
57	MG	2A	3820	1/1	0.95	0.06	30,30,30,30	0
59	6IF	1A	4089	32/32	0.95	0.10	24,31,39,45	0
57	MG	1a	1658	1/1	0.95	0.12	48,48,48,48	0
57	MG	1a	1659	1/1	0.95	0.09	66,66,66,66	0
57	MG	2A	3412	1/1	0.95	0.11	58,58,58,58	0
57	MG	1A	3011	1/1	0.96	0.09	40,40,40,40	0
57	MG	2A	3453	1/1	0.96	0.08	49,49,49,49	0
57	MG	2A	3454	1/1	0.96	0.06	50,50,50,50	0
57	MG	1A	3917	1/1	0.96	0.06	43,43,43,43	0
57	MG	1F	314	1/1	0.96	0.04	37,37,37,37	0
57	MG	1A	3544	1/1	0.96	0.08	53,53,53,53	0
57	MG	1G	201	1/1	0.96	0.09	40,40,40,40	0
57	MG	2B	203	1/1	0.96	0.10	54,54,54,54	0
57	MG	1A	3089	1/1	0.96	0.07	40,40,40,40	0
57	MG	1A	3039	1/1	0.96	0.18	24,24,24,24	0
57	MG	1A	3553	1/1	0.96	0.06	29,29,29,29	0
57	MG	1A	3436	1/1	0.96	0.08	36,36,36,36	0
57	MG	1A	3042	1/1	0.96	0.06	33,33,33,33	0
57	MG	2B	209	1/1	0.96	0.10	38,38,38,38	0
57	MG	1A	3256	1/1	0.96	0.10	40,40,40,40	0
57	MG	2B	211	1/1	0.96	0.12	43,43,43,43	0
57	MG	1A	3440	1/1	0.96	0.24	31,31,31,31	0
57	MG	1A	3062	1/1	0.96	0.11	48,48,48,48	0
57	MG	1a	1737	1/1	0.96	0.16	51,51,51,51	0
57	MG	1a	1738	1/1	0.96	0.09	62,62,62,62	0
57	MG	2A	3177	1/1	0.96	0.08	50,50,50,50	0
57	MG	2B	217	1/1	0.96	0.12	68,68,68,68	0
57	MG	1A	3561	1/1	0.96	0.09	31,31,31,31	0
57	MG	1N	206	1/1	0.96	0.05	39,39,39,39	0
57	MG	1A	3014	1/1	0.96	0.08	22,22,22,22	0
57	MG	2A	3482	1/1	0.96	0.11	34,34,34,34	0
57	MG	1A	3940	1/1	0.96	0.07	72,72,72,72	0
57	MG	2E	303	1/1	0.96	0.07	53,53,53,53	0
57	MG	2A	3485	1/1	0.96	0.20	44,44,44,44	0
57	MG	1A	3343	1/1	0.96	0.23	35,35,35,35	0
57	MG	1P	202	1/1	0.96	0.12	33,33,33,33	0
57	MG	2F	302	1/1	0.96	0.06	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3187	1/1	0.96	0.07	45,45,45,45	0
57	MG	1A	3568	1/1	0.96	0.14	35,35,35,35	0
57	MG	1A	3099	1/1	0.96	0.07	34,34,34,34	0
57	MG	1a	1750	1/1	0.96	0.09	48,48,48,48	0
57	MG	2A	3493	1/1	0.96	0.26	36,36,36,36	0
57	MG	1A	3448	1/1	0.96	0.14	55,55,55,55	0
57	MG	2N	201	1/1	0.96	0.10	58,58,58,58	0
57	MG	1A	3945	1/1	0.96	0.05	40,40,40,40	0
57	MG	1a	1755	1/1	0.96	0.07	43,43,43,43	0
57	MG	1A	3732	1/1	0.96	0.08	32,32,32,32	0
57	MG	1A	3001	1/1	0.96	0.08	41,41,41,41	0
57	MG	1A	3455	1/1	0.96	0.07	30,30,30,30	0
57	MG	1A	3144	1/1	0.96	0.17	40,40,40,40	0
57	MG	1A	3738	1/1	0.96	0.12	28,28,28,28	0
57	MG	1A	3575	1/1	0.96	0.06	35,35,35,35	0
57	MG	2T	203	1/1	0.96	0.09	63,63,63,63	0
57	MG	1A	3350	1/1	0.96	0.10	50,50,50,50	0
57	MG	1A	3577	1/1	0.96	0.09	43,43,43,43	0
57	MG	1a	1765	1/1	0.96	0.11	51,51,51,51	0
57	MG	2A	3209	1/1	0.96	0.10	60,60,60,60	0
57	MG	1A	3197	1/1	0.96	0.15	37,37,37,37	0
57	MG	1A	3198	1/1	0.96	0.07	18,18,18,18	0
57	MG	2A	3516	1/1	0.96	0.10	41,41,41,41	0
57	MG	1a	1768	1/1	0.96	0.06	54,54,54,54	0
57	MG	1A	3204	1/1	0.96	0.14	54,54,54,54	0
57	MG	23	101	1/1	0.96	0.06	51,51,51,51	0
57	MG	23	102	1/1	0.96	0.04	41,41,41,41	0
57	MG	25	101	1/1	0.96	0.12	38,38,38,38	0
57	MG	1A	3583	1/1	0.96	0.08	33,33,33,33	0
57	MG	1A	3584	1/1	0.96	0.08	42,42,42,42	0
57	MG	2A	3219	1/1	0.96	0.14	39,39,39,39	0
57	MG	1A	3104	1/1	0.96	0.30	33,33,33,33	0
57	MG	2A	3221	1/1	0.96	0.16	48,48,48,48	0
57	MG	1U	201	1/1	0.96	0.05	23,23,23,23	0
57	MG	1a	1776	1/1	0.96	0.06	55,55,55,55	0
57	MG	2A	3224	1/1	0.96	0.14	46,46,46,46	0
57	MG	1a	1778	1/1	0.96	0.09	49,49,49,49	0
57	MG	1A	3105	1/1	0.96	0.05	25,25,25,25	0
57	MG	1a	1784	1/1	0.96	0.07	59,59,59,59	0
57	MG	1a	1786	1/1	0.96	0.07	61,61,61,61	0
57	MG	2A	3230	1/1	0.96	0.18	51,51,51,51	0
57	MG	2a	1607	1/1	0.96	0.15	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1U	203	1/1	0.96	0.12	33,33,33,33	0
57	MG	2A	3540	1/1	0.96	0.07	37,37,37,37	0
57	MG	1U	204	1/1	0.96	0.18	38,38,38,38	0
57	MG	2A	3547	1/1	0.96	0.12	40,40,40,40	0
57	MG	1U	206	1/1	0.96	0.21	36,36,36,36	0
57	MG	1U	207	1/1	0.96	0.05	27,27,27,27	0
57	MG	1U	209	1/1	0.96	0.08	38,38,38,38	0
57	MG	1A	3587	1/1	0.96	0.09	32,32,32,32	0
57	MG	1A	3358	1/1	0.96	0.07	44,44,44,44	0
57	MG	2A	3555	1/1	0.96	0.07	67,67,67,67	0
57	MG	2a	1619	1/1	0.96	0.25	63,63,63,63	0
57	MG	2A	3556	1/1	0.96	0.06	39,39,39,39	0
57	MG	1a	1796	1/1	0.96	0.04	48,48,48,48	0
57	MG	1A	3359	1/1	0.96	0.08	47,47,47,47	0
57	MG	1A	3360	1/1	0.96	0.24	51,51,51,51	0
57	MG	1A	3051	1/1	0.96	0.08	34,34,34,34	0
57	MG	1W	204	1/1	0.96	0.12	31,31,31,31	0
57	MG	1A	3210	1/1	0.96	0.09	21,21,21,21	0
57	MG	1A	3769	1/1	0.96	0.07	21,21,21,21	0
57	MG	2A	3567	1/1	0.96	0.08	51,51,51,51	0
57	MG	1A	3468	1/1	0.96	0.17	61,61,61,61	0
57	MG	1A	3150	1/1	0.96	0.09	31,31,31,31	0
57	MG	1a	1806	1/1	0.96	0.18	49,49,49,49	0
57	MG	1A	3367	1/1	0.96	0.21	55,55,55,55	0
57	MG	1Y	201	1/1	0.96	0.09	33,33,33,33	0
57	MG	1A	3985	1/1	0.96	0.11	26,26,26,26	0
57	MG	1A	3599	1/1	0.96	0.06	25,25,25,25	0
57	MG	1A	3987	1/1	0.96	0.06	40,40,40,40	0
57	MG	1e	201	1/1	0.96	0.09	61,61,61,61	0
57	MG	2A	3580	1/1	0.96	0.06	64,64,64,64	0
57	MG	1A	3277	1/1	0.96	0.16	29,29,29,29	0
57	MG	1A	3213	1/1	0.96	0.09	46,46,46,46	0
57	MG	1A	3370	1/1	0.96	0.15	43,43,43,43	0
57	MG	2A	3587	1/1	0.96	0.07	43,43,43,43	0
57	MG	2A	3588	1/1	0.96	0.07	41,41,41,41	0
57	MG	2A	3261	1/1	0.96	0.10	57,57,57,57	0
57	MG	1A	3479	1/1	0.96	0.08	42,42,42,42	0
57	MG	1A	3789	1/1	0.96	0.09	38,38,38,38	0
57	MG	2a	1647	1/1	0.96	0.13	52,52,52,52	0
57	MG	1A	3790	1/1	0.96	0.09	39,39,39,39	0
57	MG	1A	3996	1/1	0.96	0.04	27,27,27,27	0
57	MG	1p	101	1/1	0.96	0.07	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3599	1/1	0.96	0.06	70,70,70,70	0
57	MG	1A	3480	1/1	0.96	0.10	42,42,42,42	0
57	MG	2A	3601	1/1	0.96	0.06	56,56,56,56	0
57	MG	1A	3608	1/1	0.96	0.09	34,34,34,34	0
57	MG	11	104	1/1	0.96	0.06	42,42,42,42	0
57	MG	1w	101	1/1	0.96	0.21	53,53,53,53	0
57	MG	12	102	1/1	0.96	0.10	38,38,38,38	0
57	MG	2A	3607	1/1	0.96	0.10	42,42,42,42	0
57	MG	1A	3609	1/1	0.96	0.06	37,37,37,37	0
57	MG	1A	3153	1/1	0.96	0.05	35,35,35,35	0
57	MG	2A	3610	1/1	0.96	0.07	38,38,38,38	0
57	MG	1A	3377	1/1	0.96	0.19	38,38,38,38	0
57	MG	2A	3613	1/1	0.96	0.06	35,35,35,35	0
57	MG	2a	1664	1/1	0.96	0.20	53,53,53,53	0
57	MG	1A	3798	1/1	0.96	0.07	27,27,27,27	0
57	MG	2a	1666	1/1	0.96	0.15	48,48,48,48	0
57	MG	1A	4009	1/1	0.96	0.07	33,33,33,33	0
57	MG	1A	3615	1/1	0.96	0.07	42,42,42,42	0
57	MG	2A	3279	1/1	0.96	0.12	42,42,42,42	0
57	MG	1A	3616	1/1	0.96	0.11	29,29,29,29	0
57	MG	1A	3802	1/1	0.96	0.07	41,41,41,41	0
57	MG	1A	3006	1/1	0.96	0.09	45,45,45,45	0
57	MG	1A	3485	1/1	0.96	0.08	32,32,32,32	0
57	MG	1x	105	1/1	0.96	0.07	49,49,49,49	0
57	MG	15	107	1/1	0.96	0.12	26,26,26,26	0
57	MG	1A	3283	1/1	0.96	0.06	51,51,51,51	0
57	MG	16	101	1/1	0.96	0.06	44,44,44,44	0
57	MG	1A	3380	1/1	0.96	0.07	38,38,38,38	0
57	MG	1A	3489	1/1	0.96	0.10	51,51,51,51	0
57	MG	1A	3285	1/1	0.96	0.05	39,39,39,39	0
57	MG	1A	4024	1/1	0.96	0.08	49,49,49,49	0
57	MG	1x	113	1/1	0.96	0.13	61,61,61,61	0
57	MG	2a	1687	1/1	0.96	0.07	50,50,50,50	0
57	MG	2A	3636	1/1	0.96	0.21	39,39,39,39	0
57	MG	1x	114	1/1	0.96	0.07	50,50,50,50	0
57	MG	1A	3491	1/1	0.96	0.18	25,25,25,25	0
57	MG	1A	3112	1/1	0.96	0.15	28,28,28,28	0
57	MG	2A	3002	1/1	0.96	0.27	54,54,54,54	0
57	MG	2A	3003	1/1	0.96	0.23	49,49,49,49	0
57	MG	2A	3004	1/1	0.96	0.23	56,56,56,56	0
57	MG	18	103	1/1	0.96	0.19	47,47,47,47	0
57	MG	1A	3814	1/1	0.96	0.17	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3115	1/1	0.96	0.07	47,47,47,47	0
57	MG	1A	3496	1/1	0.96	0.08	33,33,33,33	0
57	MG	2a	1699	1/1	0.96	0.17	66,66,66,66	0
57	MG	1A	3634	1/1	0.96	0.10	51,51,51,51	0
57	MG	1A	3635	1/1	0.96	0.06	16,16,16,16	0
57	MG	1A	3290	1/1	0.96	0.07	33,33,33,33	0
57	MG	1A	4040	1/1	0.96	0.07	37,37,37,37	0
57	MG	2A	3308	1/1	0.96	0.09	44,44,44,44	0
57	MG	2A	3655	1/1	0.96	0.12	66,66,66,66	0
57	MG	2a	1706	1/1	0.96	0.10	63,63,63,63	0
57	MG	1A	3054	1/1	0.96	0.07	28,28,28,28	0
57	MG	2A	3658	1/1	0.96	0.09	49,49,49,49	0
57	MG	1A	4045	1/1	0.96	0.07	49,49,49,49	0
57	MG	2A	3024	1/1	0.96	0.07	34,34,34,34	0
57	MG	2A	3661	1/1	0.96	0.12	51,51,51,51	0
57	MG	2A	3025	1/1	0.96	0.09	51,51,51,51	0
57	MG	1a	1609	1/1	0.96	0.19	50,50,50,50	0
57	MG	2A	3664	1/1	0.96	0.08	54,54,54,54	0
57	MG	1A	3640	1/1	0.96	0.07	24,24,24,24	0
57	MG	1A	3500	1/1	0.96	0.07	36,36,36,36	0
57	MG	2A	3670	1/1	0.96	0.06	41,41,41,41	0
57	MG	2a	1718	1/1	0.96	0.13	61,61,61,61	0
57	MG	2A	3671	1/1	0.96	0.14	46,46,46,46	0
57	MG	1a	1615	1/1	0.96	0.07	56,56,56,56	0
57	MG	1A	3833	1/1	0.96	0.04	30,30,30,30	0
57	MG	1A	3117	1/1	0.96	0.09	33,33,33,33	0
57	MG	1A	4052	1/1	0.96	0.07	40,40,40,40	0
57	MG	1A	3837	1/1	0.96	0.05	43,43,43,43	0
57	MG	2A	3039	1/1	0.96	0.11	50,50,50,50	0
57	MG	2A	3040	1/1	0.96	0.10	57,57,57,57	0
57	MG	1A	3645	1/1	0.96	0.06	40,40,40,40	0
57	MG	1A	4057	1/1	0.96	0.10	48,48,48,48	0
57	MG	1A	3225	1/1	0.96	0.05	32,32,32,32	0
57	MG	1A	3840	1/1	0.96	0.08	56,56,56,56	0
57	MG	1a	1626	1/1	0.96	0.17	56,56,56,56	0
57	MG	1A	4061	1/1	0.96	0.08	43,43,43,43	0
57	MG	1A	3119	1/1	0.96	0.14	35,35,35,35	0
57	MG	1A	3648	1/1	0.96	0.07	35,35,35,35	0
57	MG	2A	3333	1/1	0.96	0.06	58,58,58,58	0
57	MG	1A	3229	1/1	0.96	0.07	26,26,26,26	0
57	MG	1A	3846	1/1	0.96	0.10	59,59,59,59	0
57	MG	1A	3650	1/1	0.96	0.05	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3337	1/1	0.96	0.07	42,42,42,42	0
57	MG	1A	3396	1/1	0.96	0.15	49,49,49,49	0
57	MG	1a	1635	1/1	0.96	0.08	51,51,51,51	0
57	MG	1A	3509	1/1	0.96	0.13	30,30,30,30	0
57	MG	1a	1637	1/1	0.96	0.07	52,52,52,52	0
57	MG	2A	3701	1/1	0.96	0.13	27,27,27,27	0
57	MG	2A	3343	1/1	0.96	0.07	47,47,47,47	0
57	MG	1A	3851	1/1	0.96	0.05	44,44,44,44	0
57	MG	2A	3060	1/1	0.96	0.09	65,65,65,65	0
57	MG	1A	3852	1/1	0.96	0.07	20,20,20,20	0
57	MG	2A	3062	1/1	0.96	0.15	47,47,47,47	0
57	MG	2A	3708	1/1	0.96	0.10	43,43,43,43	0
57	MG	1A	3021	1/1	0.96	0.07	37,37,37,37	0
57	MG	1A	3656	1/1	0.96	0.05	18,18,18,18	0
57	MG	1A	3658	1/1	0.96	0.06	51,51,51,51	0
57	MG	2a	1760	1/1	0.96	0.12	63,63,63,63	0
57	MG	1A	3303	1/1	0.96	0.10	41,41,41,41	0
57	MG	1A	3860	1/1	0.96	0.05	37,37,37,37	0
57	MG	2a	1763	1/1	0.96	0.08	67,67,67,67	0
57	MG	1A	3515	1/1	0.96	0.09	38,38,38,38	0
57	MG	1A	4081	1/1	0.96	0.06	33,33,33,33	0
57	MG	2a	1766	1/1	0.96	0.07	64,64,64,64	0
57	MG	2A	3718	1/1	0.96	0.07	55,55,55,55	0
57	MG	2A	3719	1/1	0.96	0.10	66,66,66,66	0
57	MG	1A	3403	1/1	0.96	0.08	35,35,35,35	0
57	MG	1a	1649	1/1	0.96	0.07	48,48,48,48	0
57	MG	1A	3231	1/1	0.96	0.07	32,32,32,32	0
57	MG	2a	1775	1/1	0.96	0.09	46,46,46,46	0
57	MG	1A	3667	1/1	0.96	0.06	24,24,24,24	0
57	MG	1a	1656	1/1	0.96	0.11	48,48,48,48	0
57	MG	1A	3163	1/1	0.96	0.05	33,33,33,33	0
57	MG	2A	3365	1/1	0.96	0.17	40,40,40,40	0
57	MG	1A	3124	1/1	0.96	0.24	44,44,44,44	0
57	MG	1A	3085	1/1	0.96	0.08	32,32,32,32	0
57	MG	2A	3084	1/1	0.96	0.07	47,47,47,47	0
57	MG	1A	3166	1/1	0.96	0.04	33,33,33,33	0
57	MG	2A	3370	1/1	0.96	0.09	41,41,41,41	0
57	MG	2A	3371	1/1	0.96	0.04	38,38,38,38	0
57	MG	1A	3869	1/1	0.96	0.05	33,33,33,33	0
57	MG	1A	3676	1/1	0.96	0.04	24,24,24,24	0
57	MG	2A	3742	1/1	0.96	0.11	51,51,51,51	0
57	MG	2A	3375	1/1	0.96	0.08	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3088	1/1	0.96	0.07	41,41,41,41	0
57	MG	2A	3745	1/1	0.96	0.07	44,44,44,44	0
57	MG	1a	1663	1/1	0.96	0.08	40,40,40,40	0
57	MG	1A	3239	1/1	0.96	0.12	34,34,34,34	0
57	MG	2A	3748	1/1	0.96	0.10	45,45,45,45	0
57	MG	1A	3167	1/1	0.96	0.13	39,39,39,39	0
57	MG	2A	3751	1/1	0.96	0.09	41,41,41,41	0
57	MG	2A	3092	1/1	0.96	0.08	44,44,44,44	0
57	MG	1a	1666	1/1	0.96	0.12	52,52,52,52	0
57	MG	2A	3095	1/1	0.96	0.12	63,63,63,63	0
57	MG	2A	3755	1/1	0.96	0.05	66,66,66,66	0
57	MG	1A	3680	1/1	0.96	0.05	25,25,25,25	0
57	MG	2A	3097	1/1	0.96	0.10	48,48,48,48	0
57	MG	1A	3525	1/1	0.96	0.15	38,38,38,38	0
57	MG	2A	3759	1/1	0.96	0.15	52,52,52,52	0
57	MG	1A	3126	1/1	0.96	0.15	22,22,22,22	0
57	MG	1A	3686	1/1	0.96	0.09	16,16,16,16	0
57	MG	2A	3390	1/1	0.96	0.13	55,55,55,55	0
57	MG	2A	3101	1/1	0.96	0.09	34,34,34,34	0
57	MG	1B	212	1/1	0.96	0.07	60,60,60,60	0
57	MG	2A	3394	1/1	0.96	0.13	32,32,32,32	0
57	MG	1A	3127	1/1	0.96	0.08	70,70,70,70	0
57	MG	1A	3323	1/1	0.96	0.06	37,37,37,37	0
57	MG	1B	218	1/1	0.96	0.05	43,43,43,43	0
57	MG	2A	3772	1/1	0.96	0.05	37,37,37,37	0
57	MG	1A	3689	1/1	0.96	0.07	22,22,22,22	0
57	MG	2a	1817	1/1	0.96	0.10	51,51,51,51	0
57	MG	2A	3400	1/1	0.96	0.15	54,54,54,54	0
57	MG	1A	3173	1/1	0.96	0.10	28,28,28,28	0
57	MG	1A	3009	1/1	0.96	0.05	24,24,24,24	0
57	MG	2A	3112	1/1	0.96	0.16	45,45,45,45	0
57	MG	1A	3247	1/1	0.96	0.07	50,50,50,50	0
57	MG	1A	3893	1/1	0.96	0.06	43,43,43,43	0
57	MG	2A	3118	1/1	0.96	0.16	59,59,59,59	0
57	MG	1B	225	1/1	0.96	0.07	49,49,49,49	0
57	MG	2a	1826	1/1	0.96	0.15	49,49,49,49	0
57	MG	1B	226	1/1	0.96	0.05	47,47,47,47	0
57	MG	1A	3696	1/1	0.96	0.09	18,18,18,18	0
57	MG	2A	3787	1/1	0.96	0.14	62,62,62,62	0
57	MG	1B	229	1/1	0.96	0.05	39,39,39,39	0
57	MG	1A	3327	1/1	0.96	0.08	48,48,48,48	0
57	MG	1A	3424	1/1	0.96	0.09	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3900	1/1	0.96	0.05	24,24,24,24	0
57	MG	2A	3793	1/1	0.96	0.05	68,68,68,68	0
57	MG	2A	3794	1/1	0.96	0.12	46,46,46,46	0
57	MG	2A	3128	1/1	0.96	0.12	73,73,73,73	0
57	MG	2A	3796	1/1	0.96	0.10	39,39,39,39	0
57	MG	1A	3902	1/1	0.96	0.08	34,34,34,34	0
57	MG	1D	305	1/1	0.96	0.09	44,44,44,44	0
57	MG	1D	306	1/1	0.96	0.09	24,24,24,24	0
57	MG	1a	1697	1/1	0.96	0.22	61,61,61,61	0
57	MG	1A	3699	1/1	0.96	0.10	37,37,37,37	0
57	MG	2A	3137	1/1	0.96	0.12	63,63,63,63	0
57	MG	2A	3424	1/1	0.96	0.09	57,57,57,57	0
57	MG	1A	3539	1/1	0.96	0.13	42,42,42,42	0
57	MG	1A	3701	1/1	0.96	0.11	25,25,25,25	0
57	MG	2A	3141	1/1	0.96	0.14	58,58,58,58	0
57	MG	2A	3818	1/1	0.96	0.06	48,48,48,48	0
57	MG	1A	3540	1/1	0.96	0.07	42,42,42,42	0
57	MG	1E	301	1/1	0.96	0.06	25,25,25,25	0
57	MG	1E	302	1/1	0.96	0.11	34,34,34,34	0
57	MG	2A	3432	1/1	0.96	0.10	35,35,35,35	0
57	MG	1E	303	1/1	0.96	0.10	36,36,36,36	0
57	MG	1A	3703	1/1	0.96	0.09	34,34,34,34	0
57	MG	1A	3129	1/1	0.96	0.07	31,31,31,31	0
57	MG	2A	3149	1/1	0.96	0.06	52,52,52,52	0
57	MG	1A	3913	1/1	0.96	0.05	54,54,54,54	0
57	MG	2A	3831	1/1	0.96	0.07	54,54,54,54	0
57	MG	2A	3832	1/1	0.96	0.17	44,44,44,44	0
57	MG	2A	3438	1/1	0.96	0.09	40,40,40,40	0
57	MG	2A	3834	1/1	0.96	0.09	53,53,53,53	0
57	MG	1A	3178	1/1	0.96	0.07	40,40,40,40	0
57	MG	2A	3440	1/1	0.96	0.08	34,34,34,34	0
57	MG	1a	1710	1/1	0.96	0.17	51,51,51,51	0
57	MG	2A	3153	1/1	0.96	0.15	55,55,55,55	0
57	MG	1F	305	1/1	0.96	0.11	25,25,25,25	0
57	MG	2A	3841	1/1	0.96	0.16	60,60,60,60	0
57	MG	2A	3842	1/1	0.96	0.11	48,48,48,48	0
57	MG	2A	3846	1/1	0.96	0.09	48,48,48,48	0
57	MG	2A	3447	1/1	0.96	0.08	44,44,44,44	0
57	MG	1F	308	1/1	0.96	0.13	31,31,31,31	0
57	MG	1A	3915	1/1	0.96	0.06	33,33,33,33	0
57	MG	2A	3851	1/1	0.96	0.17	47,47,47,47	0
60	ZN	2n	501	1/1	0.96	0.05	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3320	1/1	0.97	0.07	45,45,45,45	0
57	MG	1A	4012	1/1	0.97	0.04	23,23,23,23	0
57	MG	2A	3515	1/1	0.97	0.08	52,52,52,52	0
57	MG	1A	3820	1/1	0.97	0.04	17,17,17,17	0
57	MG	2A	3517	1/1	0.97	0.05	46,46,46,46	0
57	MG	2B	218	1/1	0.97	0.09	58,58,58,58	0
57	MG	1A	3200	1/1	0.97	0.06	32,32,32,32	0
57	MG	2D	301	1/1	0.97	0.12	48,48,48,48	0
57	MG	1Z	301	1/1	0.97	0.12	46,46,46,46	0
57	MG	1Z	302	1/1	0.97	0.06	37,37,37,37	0
57	MG	2A	3521	1/1	0.97	0.06	27,27,27,27	0
57	MG	1A	3824	1/1	0.97	0.04	35,35,35,35	0
57	MG	1A	4018	1/1	0.97	0.04	30,30,30,30	0
57	MG	2E	305	1/1	0.97	0.16	44,44,44,44	0
57	MG	1Z	305	1/1	0.97	0.04	30,30,30,30	0
57	MG	1A	3322	1/1	0.97	0.07	37,37,37,37	0
57	MG	2A	3526	1/1	0.97	0.04	34,34,34,34	0
57	MG	1A	3201	1/1	0.97	0.06	45,45,45,45	0
57	MG	1A	3654	1/1	0.97	0.04	23,23,23,23	0
57	MG	1A	3013	1/1	0.97	0.14	24,24,24,24	0
57	MG	1A	3205	1/1	0.97	0.06	29,29,29,29	0
57	MG	2F	306	1/1	0.97	0.08	44,44,44,44	0
57	MG	2A	3533	1/1	0.97	0.04	55,55,55,55	0
57	MG	1A	3056	1/1	0.97	0.07	38,38,38,38	0
57	MG	1A	3834	1/1	0.97	0.07	46,46,46,46	0
57	MG	11	101	1/1	0.97	0.10	35,35,35,35	0
57	MG	1A	3527	1/1	0.97	0.14	28,28,28,28	0
57	MG	11	103	1/1	0.97	0.07	31,31,31,31	0
57	MG	1A	3084	1/1	0.97	0.12	41,41,41,41	0
57	MG	12	101	1/1	0.97	0.05	29,29,29,29	0
57	MG	2A	3542	1/1	0.97	0.06	49,49,49,49	0
57	MG	2A	3543	1/1	0.97	0.09	33,33,33,33	0
57	MG	2A	3544	1/1	0.97	0.06	38,38,38,38	0
57	MG	2R	202	1/1	0.97	0.05	47,47,47,47	0
57	MG	2A	3546	1/1	0.97	0.06	46,46,46,46	0
57	MG	2T	202	1/1	0.97	0.08	42,42,42,42	0
57	MG	1A	3530	1/1	0.97	0.09	29,29,29,29	0
57	MG	2U	201	1/1	0.97	0.13	45,45,45,45	0
57	MG	1l	201	1/1	0.97	0.05	52,52,52,52	0
57	MG	1A	4031	1/1	0.97	0.11	32,32,32,32	0
57	MG	2A	3550	1/1	0.97	0.07	28,28,28,28	0
57	MG	1A	3421	1/1	0.97	0.08	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3666	1/1	0.97	0.03	25,25,25,25	0
57	MG	2X	103	1/1	0.97	0.06	49,49,49,49	0
57	MG	2A	3553	1/1	0.97	0.07	53,53,53,53	0
57	MG	1A	3328	1/1	0.97	0.14	41,41,41,41	0
57	MG	1A	3668	1/1	0.97	0.10	16,16,16,16	0
57	MG	1A	3423	1/1	0.97	0.08	32,32,32,32	0
57	MG	1A	3258	1/1	0.97	0.04	28,28,28,28	0
57	MG	2A	3559	1/1	0.97	0.07	44,44,44,44	0
57	MG	2A	3252	1/1	0.97	0.11	43,43,43,43	0
57	MG	1A	4043	1/1	0.97	0.06	38,38,38,38	0
57	MG	2A	3562	1/1	0.97	0.10	69,69,69,69	0
57	MG	2A	3254	1/1	0.97	0.12	55,55,55,55	0
57	MG	1A	3426	1/1	0.97	0.05	41,41,41,41	0
57	MG	1A	3848	1/1	0.97	0.04	16,16,16,16	0
57	MG	1A	3536	1/1	0.97	0.13	40,40,40,40	0
57	MG	15	108	1/1	0.97	0.09	37,37,37,37	0
57	MG	1A	3537	1/1	0.97	0.06	48,48,48,48	0
57	MG	1A	3330	1/1	0.97	0.04	36,36,36,36	0
57	MG	1w	108	1/1	0.97	0.07	66,66,66,66	0
57	MG	1A	3259	1/1	0.97	0.05	39,39,39,39	0
57	MG	17	102	1/1	0.97	0.04	33,33,33,33	0
57	MG	1A	3123	1/1	0.97	0.13	38,38,38,38	0
57	MG	1A	3261	1/1	0.97	0.06	52,52,52,52	0
57	MG	1A	3433	1/1	0.97	0.11	37,37,37,37	0
57	MG	1A	3043	1/1	0.97	0.06	22,22,22,22	0
57	MG	2a	1610	1/1	0.97	0.06	50,50,50,50	0
57	MG	17	108	1/1	0.97	0.05	37,37,37,37	0
57	MG	1A	3435	1/1	0.97	0.07	28,28,28,28	0
57	MG	1A	4060	1/1	0.97	0.07	31,31,31,31	0
57	MG	1A	3545	1/1	0.97	0.05	53,53,53,53	0
57	MG	1A	3028	1/1	0.97	0.14	29,29,29,29	0
57	MG	1A	4063	1/1	0.97	0.13	53,53,53,53	0
57	MG	1A	3690	1/1	0.97	0.05	40,40,40,40	0
57	MG	1A	3547	1/1	0.97	0.15	34,34,34,34	0
57	MG	2A	3592	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3337	1/1	0.97	0.05	46,46,46,46	0
57	MG	1A	3552	1/1	0.97	0.14	25,25,25,25	0
57	MG	1A	3212	1/1	0.97	0.13	38,38,38,38	0
57	MG	1A	3059	1/1	0.97	0.06	33,33,33,33	0
57	MG	1a	1608	1/1	0.97	0.04	48,48,48,48	0
57	MG	1A	3340	1/1	0.97	0.06	41,41,41,41	0
57	MG	2A	3005	1/1	0.97	0.17	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3442	1/1	0.97	0.09	34,34,34,34	0
57	MG	2A	3007	1/1	0.97	0.08	48,48,48,48	0
57	MG	1a	1611	1/1	0.97	0.12	27,27,27,27	0
57	MG	2A	3605	1/1	0.97	0.06	43,43,43,43	0
57	MG	2A	3010	1/1	0.97	0.11	53,53,53,53	0
57	MG	1a	1612	1/1	0.97	0.07	54,54,54,54	0
57	MG	1A	3871	1/1	0.97	0.23	42,42,42,42	0
57	MG	2A	3014	1/1	0.97	0.29	52,52,52,52	0
57	MG	2A	3015	1/1	0.97	0.13	49,49,49,49	0
57	MG	1a	1614	1/1	0.97	0.13	48,48,48,48	0
57	MG	2A	3612	1/1	0.97	0.04	44,44,44,44	0
57	MG	1A	4075	1/1	0.97	0.08	35,35,35,35	0
57	MG	1A	3873	1/1	0.97	0.18	28,28,28,28	0
57	MG	1A	3874	1/1	0.97	0.13	26,26,26,26	0
57	MG	1A	3215	1/1	0.97	0.08	27,27,27,27	0
57	MG	2A	3022	1/1	0.97	0.05	43,43,43,43	0
57	MG	1a	1619	1/1	0.97	0.07	61,61,61,61	0
57	MG	1A	3342	1/1	0.97	0.11	42,42,42,42	0
57	MG	1a	1621	1/1	0.97	0.07	54,54,54,54	0
57	MG	2A	3026	1/1	0.97	0.09	50,50,50,50	0
57	MG	1A	3017	1/1	0.97	0.11	30,30,30,30	0
57	MG	1A	3345	1/1	0.97	0.04	25,25,25,25	0
57	MG	2A	3627	1/1	0.97	0.08	61,61,61,61	0
57	MG	1A	3881	1/1	0.97	0.05	23,23,23,23	0
57	MG	1A	3564	1/1	0.97	0.11	24,24,24,24	0
57	MG	1A	3449	1/1	0.97	0.10	43,43,43,43	0
57	MG	1A	3567	1/1	0.97	0.06	34,34,34,34	0
57	MG	1A	3885	1/1	0.97	0.06	42,42,42,42	0
57	MG	1A	3346	1/1	0.97	0.04	38,38,38,38	0
57	MG	1A	3452	1/1	0.97	0.07	49,49,49,49	0
57	MG	1B	201	1/1	0.97	0.13	40,40,40,40	0
57	MG	1A	3454	1/1	0.97	0.06	37,37,37,37	0
57	MG	2A	3638	1/1	0.97	0.04	49,49,49,49	0
57	MG	2A	3316	1/1	0.97	0.04	32,32,32,32	0
57	MG	1A	3269	1/1	0.97	0.08	35,35,35,35	0
57	MG	1A	3048	1/1	0.97	0.16	29,29,29,29	0
57	MG	1A	3049	1/1	0.97	0.09	25,25,25,25	0
57	MG	1A	3065	1/1	0.97	0.08	42,42,42,42	0
57	MG	1A	3038	1/1	0.97	0.04	26,26,26,26	0
57	MG	1B	208	1/1	0.97	0.08	45,45,45,45	0
57	MG	2A	3048	1/1	0.97	0.12	24,24,24,24	0
57	MG	2a	1668	1/1	0.97	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1B	209	1/1	0.97	0.13	46,46,46,46	0
57	MG	2a	1670	1/1	0.97	0.10	50,50,50,50	0
57	MG	1A	3897	1/1	0.97	0.08	35,35,35,35	0
57	MG	1A	3898	1/1	0.97	0.07	38,38,38,38	0
57	MG	1A	3221	1/1	0.97	0.10	29,29,29,29	0
57	MG	2a	1674	1/1	0.97	0.06	44,44,44,44	0
57	MG	2A	3652	1/1	0.97	0.08	38,38,38,38	0
57	MG	1a	1644	1/1	0.97	0.16	61,61,61,61	0
57	MG	1B	213	1/1	0.97	0.08	43,43,43,43	0
57	MG	1B	214	1/1	0.97	0.12	56,56,56,56	0
57	MG	1A	3275	1/1	0.97	0.06	43,43,43,43	0
57	MG	1A	3222	1/1	0.97	0.05	22,22,22,22	0
57	MG	1B	217	1/1	0.97	0.07	25,25,25,25	0
57	MG	1A	3171	1/1	0.97	0.20	27,27,27,27	0
57	MG	1a	1653	1/1	0.97	0.09	48,48,48,48	0
57	MG	2a	1684	1/1	0.97	0.11	62,62,62,62	0
57	MG	1A	3727	1/1	0.97	0.04	22,22,22,22	0
57	MG	1a	1655	1/1	0.97	0.05	46,46,46,46	0
57	MG	2A	3065	1/1	0.97	0.06	46,46,46,46	0
57	MG	1A	3906	1/1	0.97	0.04	22,22,22,22	0
57	MG	1A	3908	1/1	0.97	0.07	22,22,22,22	0
57	MG	2A	3668	1/1	0.97	0.05	33,33,33,33	0
57	MG	1A	3070	1/1	0.97	0.07	48,48,48,48	0
57	MG	1A	3072	1/1	0.97	0.14	31,31,31,31	0
57	MG	1B	224	1/1	0.97	0.06	33,33,33,33	0
57	MG	2A	3673	1/1	0.97	0.14	50,50,50,50	0
57	MG	1A	3101	1/1	0.97	0.13	38,38,38,38	0
57	MG	1A	3284	1/1	0.97	0.08	38,38,38,38	0
57	MG	1A	3102	1/1	0.97	0.05	23,23,23,23	0
57	MG	2A	3348	1/1	0.97	0.15	54,54,54,54	0
57	MG	2A	3074	1/1	0.97	0.05	52,52,52,52	0
57	MG	1A	3588	1/1	0.97	0.22	45,45,45,45	0
57	MG	1A	3103	1/1	0.97	0.06	25,25,25,25	0
57	MG	1B	231	1/1	0.97	0.08	42,42,42,42	0
57	MG	1A	3736	1/1	0.97	0.06	36,36,36,36	0
57	MG	2A	3081	1/1	0.97	0.11	65,65,65,65	0
57	MG	1a	1668	1/1	0.97	0.09	55,55,55,55	0
57	MG	1B	233	1/1	0.97	0.06	29,29,29,29	0
57	MG	1A	3737	1/1	0.97	0.11	15,15,15,15	0
57	MG	1D	303	1/1	0.97	0.06	36,36,36,36	0
57	MG	1A	3473	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3741	1/1	0.97	0.12	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1674	1/1	0.97	0.05	45,45,45,45	0
57	MG	2A	3364	1/1	0.97	0.03	42,42,42,42	0
57	MG	1a	1675	1/1	0.97	0.13	45,45,45,45	0
57	MG	2A	3696	1/1	0.97	0.04	37,37,37,37	0
57	MG	1A	3920	1/1	0.97	0.06	45,45,45,45	0
57	MG	1a	1678	1/1	0.97	0.11	51,51,51,51	0
57	MG	2A	3093	1/1	0.97	0.06	36,36,36,36	0
57	MG	1A	3742	1/1	0.97	0.06	37,37,37,37	0
57	MG	1A	3232	1/1	0.97	0.07	46,46,46,46	0
57	MG	1A	3289	1/1	0.97	0.08	21,21,21,21	0
57	MG	1D	310	1/1	0.97	0.13	21,21,21,21	0
57	MG	2A	3704	1/1	0.97	0.04	51,51,51,51	0
57	MG	1A	3142	1/1	0.97	0.15	22,22,22,22	0
57	MG	2a	1724	1/1	0.97	0.15	54,54,54,54	0
57	MG	1D	312	1/1	0.97	0.08	30,30,30,30	0
57	MG	2a	1726	1/1	0.97	0.14	60,60,60,60	0
57	MG	1A	3930	1/1	0.97	0.04	33,33,33,33	0
57	MG	2A	3377	1/1	0.97	0.15	35,35,35,35	0
57	MG	1A	3291	1/1	0.97	0.12	56,56,56,56	0
57	MG	2a	1730	1/1	0.97	0.22	43,43,43,43	0
57	MG	1A	3478	1/1	0.97	0.05	34,34,34,34	0
57	MG	2A	3103	1/1	0.97	0.13	62,62,62,62	0
57	MG	1E	304	1/1	0.97	0.31	40,40,40,40	0
57	MG	2A	3714	1/1	0.97	0.10	51,51,51,51	0
57	MG	1E	306	1/1	0.97	0.12	20,20,20,20	0
57	MG	2a	1736	1/1	0.97	0.07	40,40,40,40	0
57	MG	1E	307	1/1	0.97	0.06	34,34,34,34	0
57	MG	2A	3108	1/1	0.97	0.05	43,43,43,43	0
57	MG	1A	3371	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3598	1/1	0.97	0.03	20,20,20,20	0
57	MG	1a	1694	1/1	0.97	0.05	42,42,42,42	0
57	MG	1A	3936	1/1	0.97	0.06	40,40,40,40	0
57	MG	2A	3723	1/1	0.97	0.07	56,56,56,56	0
57	MG	2A	3724	1/1	0.97	0.15	56,56,56,56	0
57	MG	1F	301	1/1	0.97	0.08	27,27,27,27	0
57	MG	2a	1746	1/1	0.97	0.18	49,49,49,49	0
57	MG	2a	1747	1/1	0.97	0.27	56,56,56,56	0
57	MG	1F	303	1/1	0.97	0.07	22,22,22,22	0
57	MG	1A	3753	1/1	0.97	0.06	47,47,47,47	0
57	MG	2A	3729	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3939	1/1	0.97	0.06	66,66,66,66	0
57	MG	2A	3731	1/1	0.97	0.13	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1F	306	1/1	0.97	0.04	24,24,24,24	0
57	MG	2A	3396	1/1	0.97	0.14	29,29,29,29	0
57	MG	1A	3073	1/1	0.97	0.15	42,42,42,42	0
57	MG	1A	3074	1/1	0.97	0.11	31,31,31,31	0
57	MG	2A	3124	1/1	0.97	0.17	45,45,45,45	0
57	MG	1A	3108	1/1	0.97	0.08	28,28,28,28	0
57	MG	1F	312	1/1	0.97	0.11	27,27,27,27	0
57	MG	1A	3295	1/1	0.97	0.09	34,34,34,34	0
57	MG	2A	3403	1/1	0.97	0.16	45,45,45,45	0
57	MG	2A	3741	1/1	0.97	0.05	48,48,48,48	0
57	MG	1a	1706	1/1	0.97	0.08	47,47,47,47	0
57	MG	1A	3296	1/1	0.97	0.13	39,39,39,39	0
57	MG	2A	3130	1/1	0.97	0.10	51,51,51,51	0
57	MG	1A	3606	1/1	0.97	0.07	44,44,44,44	0
57	MG	1A	3186	1/1	0.97	0.07	40,40,40,40	0
57	MG	1A	3052	1/1	0.97	0.09	32,32,32,32	0
57	MG	2A	3134	1/1	0.97	0.12	39,39,39,39	0
57	MG	1A	3300	1/1	0.97	0.05	25,25,25,25	0
57	MG	2a	1771	1/1	0.97	0.13	56,56,56,56	0
57	MG	2a	1773	1/1	0.97	0.06	50,50,50,50	0
57	MG	1A	3768	1/1	0.97	0.05	42,42,42,42	0
57	MG	1A	3610	1/1	0.97	0.07	21,21,21,21	0
57	MG	2A	3139	1/1	0.97	0.09	43,43,43,43	0
57	MG	1A	3954	1/1	0.97	0.09	18,18,18,18	0
57	MG	1A	3771	1/1	0.97	0.05	31,31,31,31	0
57	MG	1a	1716	1/1	0.97	0.06	53,53,53,53	0
57	MG	1A	3241	1/1	0.97	0.11	25,25,25,25	0
57	MG	1A	3773	1/1	0.97	0.05	31,31,31,31	0
57	MG	2A	3421	1/1	0.97	0.12	35,35,35,35	0
57	MG	1A	3077	1/1	0.97	0.08	39,39,39,39	0
57	MG	1A	3492	1/1	0.97	0.13	42,42,42,42	0
57	MG	1A	3304	1/1	0.97	0.04	29,29,29,29	0
57	MG	1A	3780	1/1	0.97	0.04	40,40,40,40	0
57	MG	1O	203	1/1	0.97	0.05	43,43,43,43	0
57	MG	1A	3781	1/1	0.97	0.07	47,47,47,47	0
57	MG	1a	1726	1/1	0.97	0.10	53,53,53,53	0
57	MG	2A	3769	1/1	0.97	0.11	59,59,59,59	0
57	MG	1a	1727	1/1	0.97	0.06	48,48,48,48	0
57	MG	2A	3154	1/1	0.97	0.07	44,44,44,44	0
57	MG	1A	3494	1/1	0.97	0.20	32,32,32,32	0
57	MG	1a	1730	1/1	0.97	0.05	60,60,60,60	0
57	MG	2A	3774	1/1	0.97	0.06	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1732	1/1	0.97	0.04	45,45,45,45	0
57	MG	1a	1733	1/1	0.97	0.10	39,39,39,39	0
57	MG	1P	203	1/1	0.97	0.05	23,23,23,23	0
57	MG	1A	3784	1/1	0.97	0.04	50,50,50,50	0
57	MG	1A	3243	1/1	0.97	0.16	39,39,39,39	0
57	MG	1A	3388	1/1	0.97	0.19	37,37,37,37	0
57	MG	1Q	205	1/1	0.97	0.04	40,40,40,40	0
57	MG	1A	3190	1/1	0.97	0.22	23,23,23,23	0
57	MG	2A	3165	1/1	0.97	0.06	46,46,46,46	0
57	MG	1A	3970	1/1	0.97	0.11	43,43,43,43	0
57	MG	2A	3445	1/1	0.97	0.12	54,54,54,54	0
57	MG	2A	3446	1/1	0.97	0.12	25,25,25,25	0
57	MG	2A	3168	1/1	0.97	0.09	46,46,46,46	0
57	MG	1A	3623	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3391	1/1	0.97	0.07	34,34,34,34	0
57	MG	2A	3450	1/1	0.97	0.21	42,42,42,42	0
57	MG	1A	3308	1/1	0.97	0.18	46,46,46,46	0
57	MG	2A	3452	1/1	0.97	0.09	43,43,43,43	0
57	MG	1A	3309	1/1	0.97	0.10	44,44,44,44	0
57	MG	1A	3398	1/1	0.97	0.06	44,44,44,44	0
57	MG	2A	3455	1/1	0.97	0.13	60,60,60,60	0
57	MG	1a	1749	1/1	0.97	0.08	60,60,60,60	0
57	MG	1A	3504	1/1	0.97	0.05	34,34,34,34	0
57	MG	1A	3978	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3979	1/1	0.97	0.04	32,32,32,32	0
57	MG	2A	3808	1/1	0.97	0.04	57,57,57,57	0
57	MG	2A	3180	1/1	0.97	0.07	49,49,49,49	0
57	MG	1A	3981	1/1	0.97	0.05	44,44,44,44	0
57	MG	2A	3182	1/1	0.97	0.10	51,51,51,51	0
57	MG	2A	3813	1/1	0.97	0.08	52,52,52,52	0
57	MG	2A	3463	1/1	0.97	0.05	46,46,46,46	0
57	MG	2A	3816	1/1	0.97	0.11	76,76,76,76	0
57	MG	2A	3817	1/1	0.97	0.06	42,42,42,42	0
57	MG	1A	3796	1/1	0.97	0.08	37,37,37,37	0
57	MG	1a	1757	1/1	0.97	0.09	63,63,63,63	0
57	MG	1A	3984	1/1	0.97	0.06	17,17,17,17	0
57	MG	1A	3399	1/1	0.97	0.10	46,46,46,46	0
57	MG	2A	3468	1/1	0.97	0.05	60,60,60,60	0
57	MG	1A	3192	1/1	0.97	0.14	26,26,26,26	0
57	MG	1A	3111	1/1	0.97	0.07	33,33,33,33	0
57	MG	2A	3471	1/1	0.97	0.17	54,54,54,54	0
57	MG	2A	3189	1/1	0.97	0.07	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3636	1/1	0.97	0.04	11,11,11,11	0
57	MG	2A	3474	1/1	0.97	0.22	39,39,39,39	0
57	MG	2A	3475	1/1	0.97	0.08	30,30,30,30	0
57	MG	1A	3508	1/1	0.97	0.10	23,23,23,23	0
57	MG	1A	3638	1/1	0.97	0.07	42,42,42,42	0
57	MG	2A	3193	1/1	0.97	0.16	46,46,46,46	0
57	MG	2A	3481	1/1	0.97	0.15	46,46,46,46	0
57	MG	1A	3030	1/1	0.97	0.07	18,18,18,18	0
57	MG	1A	3993	1/1	0.97	0.05	25,25,25,25	0
57	MG	2A	3484	1/1	0.97	0.11	44,44,44,44	0
57	MG	1A	3510	1/1	0.97	0.26	36,36,36,36	0
57	MG	1A	3641	1/1	0.97	0.04	22,22,22,22	0
57	MG	2A	3843	1/1	0.97	0.10	37,37,37,37	0
57	MG	2A	3844	1/1	0.97	0.05	44,44,44,44	0
57	MG	2A	3199	1/1	0.97	0.05	39,39,39,39	0
57	MG	2A	3200	1/1	0.97	0.10	39,39,39,39	0
57	MG	2w	108	1/1	0.97	0.06	69,69,69,69	0
57	MG	1V	203	1/1	0.97	0.09	16,16,16,16	0
57	MG	1A	3080	1/1	0.97	0.06	31,31,31,31	0
57	MG	1V	205	1/1	0.97	0.05	31,31,31,31	0
57	MG	2A	3204	1/1	0.97	0.06	41,41,41,41	0
57	MG	1A	3250	1/1	0.97	0.05	27,27,27,27	0
57	MG	1A	3316	1/1	0.97	0.09	24,24,24,24	0
57	MG	1A	4002	1/1	0.97	0.06	58,58,58,58	0
57	MG	2A	3497	1/1	0.97	0.11	46,46,46,46	0
57	MG	1A	3812	1/1	0.97	0.09	21,21,21,21	0
57	MG	1A	3408	1/1	0.97	0.11	31,31,31,31	0
57	MG	1A	3041	1/1	0.97	0.10	34,34,34,34	0
57	MG	1A	3319	1/1	0.97	0.05	34,34,34,34	0
57	MG	1A	3817	1/1	0.97	0.07	21,21,21,21	0
57	MG	1X	101	1/1	0.97	0.21	33,33,33,33	0
57	MG	2A	3216	1/1	0.97	0.11	45,45,45,45	0
57	MG	1X	104	1/1	0.97	0.07	36,36,36,36	0
57	MG	2A	3508	1/1	0.97	0.11	42,42,42,42	0
57	MG	1X	105	1/1	0.97	0.06	48,48,48,48	0
60	ZN	2Y	501	1/1	0.97	0.04	100,100,100,100	0
57	MG	1X	106	1/1	0.97	0.06	29,29,29,29	0
57	MG	2A	3512	1/1	0.97	0.07	63,63,63,63	0
57	MG	1A	3765	1/1	0.98	0.05	22,22,22,22	0
57	MG	2A	3393	1/1	0.98	0.04	36,36,36,36	0
57	MG	1a	1792	1/1	0.98	0.04	47,47,47,47	0
57	MG	1A	3175	1/1	0.98	0.07	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3176	1/1	0.98	0.07	29,29,29,29	0
57	MG	1a	1795	1/1	0.98	0.07	53,53,53,53	0
57	MG	1A	3138	1/1	0.98	0.05	37,37,37,37	0
57	MG	2A	3657	1/1	0.98	0.05	42,42,42,42	0
57	MG	2A	3166	1/1	0.98	0.07	51,51,51,51	0
57	MG	17	103	1/1	0.98	0.08	27,27,27,27	0
57	MG	1A	3224	1/1	0.98	0.05	40,40,40,40	0
57	MG	1A	3770	1/1	0.98	0.05	19,19,19,19	0
57	MG	1A	3643	1/1	0.98	0.04	28,28,28,28	0
57	MG	2A	3171	1/1	0.98	0.07	39,39,39,39	0
57	MG	1A	3031	1/1	0.98	0.17	21,21,21,21	0
57	MG	1A	3179	1/1	0.98	0.09	38,38,38,38	0
57	MG	2A	3666	1/1	0.98	0.11	40,40,40,40	0
57	MG	1a	1803	1/1	0.98	0.08	47,47,47,47	0
57	MG	1A	3921	1/1	0.98	0.04	32,32,32,32	0
57	MG	2A	3669	1/1	0.98	0.05	43,43,43,43	0
57	MG	18	102	1/1	0.98	0.04	29,29,29,29	0
57	MG	1A	3774	1/1	0.98	0.10	25,25,25,25	0
57	MG	2A	3178	1/1	0.98	0.09	39,39,39,39	0
57	MG	1a	1807	1/1	0.98	0.14	38,38,38,38	0
57	MG	1A	3775	1/1	0.98	0.05	34,34,34,34	0
57	MG	1A	3925	1/1	0.98	0.09	24,24,24,24	0
57	MG	2A	3676	1/1	0.98	0.10	42,42,42,42	0
57	MG	19	101	1/1	0.98	0.08	32,32,32,32	0
57	MG	2A	3678	1/1	0.98	0.11	44,44,44,44	0
57	MG	1A	3019	1/1	0.98	0.04	29,29,29,29	0
57	MG	1A	3549	1/1	0.98	0.04	39,39,39,39	0
57	MG	1A	3929	1/1	0.98	0.06	41,41,41,41	0
57	MG	1A	3276	1/1	0.98	0.14	20,20,20,20	0
57	MG	1A	3779	1/1	0.98	0.07	21,21,21,21	0
57	MG	1A	3393	1/1	0.98	0.21	31,31,31,31	0
57	MG	1A	3394	1/1	0.98	0.04	30,30,30,30	0
57	MG	1A	3782	1/1	0.98	0.04	20,20,20,20	0
57	MG	1A	3395	1/1	0.98	0.04	36,36,36,36	0
57	MG	1A	3652	1/1	0.98	0.07	43,43,43,43	0
57	MG	2A	3427	1/1	0.98	0.04	42,42,42,42	0
57	MG	1A	3472	1/1	0.98	0.06	34,34,34,34	0
57	MG	1A	3556	1/1	0.98	0.11	25,25,25,25	0
57	MG	1A	3141	1/1	0.98	0.19	30,30,30,30	0
57	MG	2A	3196	1/1	0.98	0.07	45,45,45,45	0
57	MG	1A	3788	1/1	0.98	0.09	46,46,46,46	0
57	MG	2A	3695	1/1	0.98	0.09	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3397	1/1	0.98	0.14	37,37,37,37	0
57	MG	1A	3657	1/1	0.98	0.04	17,17,17,17	0
57	MG	1A	3278	1/1	0.98	0.10	32,32,32,32	0
57	MG	1B	228	1/1	0.98	0.09	65,65,65,65	0
57	MG	1A	3792	1/1	0.98	0.06	23,23,23,23	0
57	MG	1A	3067	1/1	0.98	0.04	18,18,18,18	0
57	MG	1A	3183	1/1	0.98	0.05	44,44,44,44	0
57	MG	1A	3949	1/1	0.98	0.06	45,45,45,45	0
57	MG	1A	3950	1/1	0.98	0.06	10,10,10,10	0
57	MG	1D	301	1/1	0.98	0.18	31,31,31,31	0
57	MG	1A	3563	1/1	0.98	0.10	23,23,23,23	0
57	MG	1A	3663	1/1	0.98	0.04	17,17,17,17	0
57	MG	2A	3210	1/1	0.98	0.07	42,42,42,42	0
57	MG	2A	3211	1/1	0.98	0.03	33,33,33,33	0
57	MG	1A	3953	1/1	0.98	0.04	47,47,47,47	0
57	MG	1A	3334	1/1	0.98	0.09	33,33,33,33	0
57	MG	1A	3665	1/1	0.98	0.05	28,28,28,28	0
57	MG	1A	3956	1/1	0.98	0.07	54,54,54,54	0
57	MG	1A	3068	1/1	0.98	0.11	20,20,20,20	0
57	MG	1A	3566	1/1	0.98	0.12	32,32,32,32	0
57	MG	1A	3113	1/1	0.98	0.11	29,29,29,29	0
57	MG	1A	3481	1/1	0.98	0.05	43,43,43,43	0
57	MG	1A	3961	1/1	0.98	0.05	48,48,48,48	0
57	MG	1A	3569	1/1	0.98	0.11	33,33,33,33	0
57	MG	1A	3671	1/1	0.98	0.04	26,26,26,26	0
57	MG	2A	3722	1/1	0.98	0.06	38,38,38,38	0
57	MG	1A	3807	1/1	0.98	0.06	30,30,30,30	0
57	MG	1x	115	1/1	0.98	0.11	54,54,54,54	0
57	MG	1A	3405	1/1	0.98	0.07	43,43,43,43	0
57	MG	2A	3726	1/1	0.98	0.06	50,50,50,50	0
57	MG	1E	305	1/1	0.98	0.09	29,29,29,29	0
57	MG	2A	3227	1/1	0.98	0.20	45,45,45,45	0
57	MG	1A	3236	1/1	0.98	0.18	31,31,31,31	0
57	MG	1A	3088	1/1	0.98	0.12	17,17,17,17	0
57	MG	1A	3146	1/1	0.98	0.05	28,28,28,28	0
57	MG	1E	310	1/1	0.98	0.09	17,17,17,17	0
57	MG	1A	3678	1/1	0.98	0.07	23,23,23,23	0
57	MG	1E	312	1/1	0.98	0.08	31,31,31,31	0
57	MG	1A	3486	1/1	0.98	0.06	38,38,38,38	0
57	MG	2A	3009	1/1	0.98	0.05	56,56,56,56	0
57	MG	1A	3287	1/1	0.98	0.05	50,50,50,50	0
57	MG	1F	302	1/1	0.98	0.13	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3012	1/1	0.98	0.04	37,37,37,37	0
57	MG	1A	3815	1/1	0.98	0.05	34,34,34,34	0
57	MG	1A	3069	1/1	0.98	0.10	22,22,22,22	0
57	MG	2A	3477	1/1	0.98	0.09	32,32,32,32	0
57	MG	2A	3478	1/1	0.98	0.09	47,47,47,47	0
57	MG	1A	3682	1/1	0.98	0.05	17,17,17,17	0
57	MG	1A	3684	1/1	0.98	0.05	35,35,35,35	0
57	MG	1F	307	1/1	0.98	0.07	42,42,42,42	0
57	MG	1A	3020	1/1	0.98	0.03	21,21,21,21	0
57	MG	1A	3821	1/1	0.98	0.08	37,37,37,37	0
57	MG	1A	3578	1/1	0.98	0.09	40,40,40,40	0
57	MG	2A	3750	1/1	0.98	0.04	30,30,30,30	0
57	MG	2A	3021	1/1	0.98	0.05	33,33,33,33	0
57	MG	1A	3980	1/1	0.98	0.05	51,51,51,51	0
57	MG	1A	3579	1/1	0.98	0.06	36,36,36,36	0
57	MG	2A	3488	1/1	0.98	0.08	45,45,45,45	0
57	MG	1A	3982	1/1	0.98	0.04	26,26,26,26	0
57	MG	1A	3825	1/1	0.98	0.10	34,34,34,34	0
57	MG	1A	3118	1/1	0.98	0.12	20,20,20,20	0
57	MG	1A	3344	1/1	0.98	0.14	36,36,36,36	0
57	MG	2A	3028	1/1	0.98	0.09	42,42,42,42	0
57	MG	2A	3256	1/1	0.98	0.16	38,38,38,38	0
57	MG	1A	3828	1/1	0.98	0.08	27,27,27,27	0
57	MG	1A	3152	1/1	0.98	0.15	34,34,34,34	0
57	MG	2A	3763	1/1	0.98	0.05	52,52,52,52	0
57	MG	2A	3764	1/1	0.98	0.04	41,41,41,41	0
57	MG	2A	3031	1/1	0.98	0.03	30,30,30,30	0
57	MG	2A	3032	1/1	0.98	0.08	52,52,52,52	0
57	MG	1A	3988	1/1	0.98	0.06	55,55,55,55	0
57	MG	1A	3691	1/1	0.98	0.06	29,29,29,29	0
57	MG	1A	3091	1/1	0.98	0.11	26,26,26,26	0
57	MG	1A	3832	1/1	0.98	0.04	36,36,36,36	0
57	MG	2A	3037	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3195	1/1	0.98	0.04	31,31,31,31	0
57	MG	1A	3092	1/1	0.98	0.04	25,25,25,25	0
57	MG	2A	3507	1/1	0.98	0.10	33,33,33,33	0
57	MG	1A	3419	1/1	0.98	0.15	37,37,37,37	0
57	MG	1A	3836	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3121	1/1	0.98	0.12	31,31,31,31	0
57	MG	1A	3998	1/1	0.98	0.04	24,24,24,24	0
57	MG	1A	3199	1/1	0.98	0.04	28,28,28,28	0
57	MG	2A	3780	1/1	0.98	0.03	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3499	1/1	0.98	0.03	34,34,34,34	0
57	MG	2A	3274	1/1	0.98	0.07	38,38,38,38	0
57	MG	1A	3351	1/1	0.98	0.03	27,27,27,27	0
57	MG	1P	204	1/1	0.98	0.21	23,23,23,23	0
57	MG	2A	3785	1/1	0.98	0.05	45,45,45,45	0
57	MG	1P	205	1/1	0.98	0.06	37,37,37,37	0
57	MG	1Q	201	1/1	0.98	0.11	28,28,28,28	0
57	MG	1A	3352	1/1	0.98	0.05	48,48,48,48	0
57	MG	1a	1687	1/1	0.98	0.15	42,42,42,42	0
57	MG	2A	3790	1/1	0.98	0.05	42,42,42,42	0
57	MG	1A	3044	1/1	0.98	0.04	25,25,25,25	0
57	MG	1A	3425	1/1	0.98	0.05	52,52,52,52	0
57	MG	2A	3054	1/1	0.98	0.10	47,47,47,47	0
57	MG	1A	4007	1/1	0.98	0.06	43,43,43,43	0
57	MG	1A	3845	1/1	0.98	0.04	30,30,30,30	0
57	MG	1A	3594	1/1	0.98	0.11	34,34,34,34	0
57	MG	2A	3797	1/1	0.98	0.04	34,34,34,34	0
57	MG	1A	4010	1/1	0.98	0.03	43,43,43,43	0
57	MG	2A	3529	1/1	0.98	0.10	45,45,45,45	0
57	MG	1A	3045	1/1	0.98	0.10	27,27,27,27	0
57	MG	2A	3531	1/1	0.98	0.06	34,34,34,34	0
57	MG	1A	3299	1/1	0.98	0.11	22,22,22,22	0
57	MG	2A	3803	1/1	0.98	0.06	38,38,38,38	0
57	MG	2A	3804	1/1	0.98	0.06	32,32,32,32	0
57	MG	1A	3428	1/1	0.98	0.08	34,34,34,34	0
57	MG	2A	3807	1/1	0.98	0.04	53,53,53,53	0
57	MG	1A	3429	1/1	0.98	0.07	30,30,30,30	0
57	MG	2A	3535	1/1	0.98	0.06	46,46,46,46	0
57	MG	1A	4016	1/1	0.98	0.07	45,45,45,45	0
57	MG	2A	3293	1/1	0.98	0.07	48,48,48,48	0
57	MG	2A	3812	1/1	0.98	0.05	42,42,42,42	0
57	MG	1A	3203	1/1	0.98	0.06	26,26,26,26	0
57	MG	1A	3600	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3711	1/1	0.98	0.06	39,39,39,39	0
57	MG	1A	3854	1/1	0.98	0.06	36,36,36,36	0
57	MG	1A	3712	1/1	0.98	0.04	21,21,21,21	0
57	MG	1A	3856	1/1	0.98	0.18	26,26,26,26	0
57	MG	1A	3301	1/1	0.98	0.14	32,32,32,32	0
57	MG	2A	3545	1/1	0.98	0.07	30,30,30,30	0
57	MG	1A	3714	1/1	0.98	0.05	30,30,30,30	0
57	MG	1A	3715	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3602	1/1	0.98	0.03	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1772	1/1	0.98	0.04	61,61,61,61	0
57	MG	2A	3075	1/1	0.98	0.05	37,37,37,37	0
57	MG	2A	3828	1/1	0.98	0.08	49,49,49,49	0
57	MG	1A	3035	1/1	0.98	0.09	34,34,34,34	0
57	MG	1A	4028	1/1	0.98	0.04	28,28,28,28	0
57	MG	1A	3719	1/1	0.98	0.09	36,36,36,36	0
57	MG	1A	3513	1/1	0.98	0.13	40,40,40,40	0
57	MG	2A	3080	1/1	0.98	0.04	34,34,34,34	0
57	MG	1A	3098	1/1	0.98	0.03	28,28,28,28	0
57	MG	1V	202	1/1	0.98	0.23	30,30,30,30	0
57	MG	2A	3557	1/1	0.98	0.05	47,47,47,47	0
57	MG	1A	3036	1/1	0.98	0.21	26,26,26,26	0
57	MG	2A	3313	1/1	0.98	0.07	55,55,55,55	0
57	MG	1A	3723	1/1	0.98	0.08	51,51,51,51	0
57	MG	1A	4036	1/1	0.98	0.04	38,38,38,38	0
57	MG	1A	4037	1/1	0.98	0.08	49,49,49,49	0
57	MG	1A	3008	1/1	0.98	0.04	23,23,23,23	0
57	MG	1A	4039	1/1	0.98	0.05	29,29,29,29	0
57	MG	1W	203	1/1	0.98	0.12	38,38,38,38	0
57	MG	2A	3847	1/1	0.98	0.04	37,37,37,37	0
57	MG	1A	3306	1/1	0.98	0.03	29,29,29,29	0
57	MG	1W	205	1/1	0.98	0.04	47,47,47,47	0
57	MG	2A	3568	1/1	0.98	0.13	41,41,41,41	0
57	MG	1A	3078	1/1	0.98	0.06	31,31,31,31	0
57	MG	2a	1796	1/1	0.98	0.07	48,48,48,48	0
57	MG	1a	1725	1/1	0.98	0.12	49,49,49,49	0
57	MG	1A	4042	1/1	0.98	0.04	26,26,26,26	0
57	MG	1A	3728	1/1	0.98	0.07	57,57,57,57	0
57	MG	1A	4044	1/1	0.98	0.05	36,36,36,36	0
57	MG	1A	3209	1/1	0.98	0.04	33,33,33,33	0
57	MG	1a	1731	1/1	0.98	0.05	39,39,39,39	0
57	MG	1X	103	1/1	0.98	0.10	45,45,45,45	0
57	MG	1A	3439	1/1	0.98	0.06	27,27,27,27	0
57	MG	1A	3875	1/1	0.98	0.16	37,37,37,37	0
57	MG	1A	3521	1/1	0.98	0.04	34,34,34,34	0
57	MG	1A	3614	1/1	0.98	0.04	17,17,17,17	0
57	MG	2A	3583	1/1	0.98	0.12	42,42,42,42	0
57	MG	1A	3130	1/1	0.98	0.05	43,43,43,43	0
57	MG	2A	3106	1/1	0.98	0.07	43,43,43,43	0
57	MG	1A	4053	1/1	0.98	0.06	39,39,39,39	0
57	MG	1a	1740	1/1	0.98	0.05	48,48,48,48	0
57	MG	2A	3590	1/1	0.98	0.07	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3338	1/1	0.98	0.05	57,57,57,57	0
57	MG	1a	1741	1/1	0.98	0.05	41,41,41,41	0
57	MG	1A	3005	1/1	0.98	0.04	46,46,46,46	0
57	MG	1A	3050	1/1	0.98	0.10	24,24,24,24	0
57	MG	1A	3618	1/1	0.98	0.04	33,33,33,33	0
57	MG	2A	3113	1/1	0.98	0.07	43,43,43,43	0
57	MG	2A	3597	1/1	0.98	0.05	63,63,63,63	0
57	MG	2A	3114	1/1	0.98	0.04	41,41,41,41	0
57	MG	1A	3168	1/1	0.98	0.07	43,43,43,43	0
57	MG	2D	303	1/1	0.98	0.04	28,28,28,28	0
57	MG	1A	3444	1/1	0.98	0.04	26,26,26,26	0
57	MG	1A	3739	1/1	0.98	0.04	33,33,33,33	0
57	MG	1A	3740	1/1	0.98	0.05	10,10,10,10	0
57	MG	2E	302	1/1	0.98	0.03	37,37,37,37	0
57	MG	1A	3373	1/1	0.98	0.10	37,37,37,37	0
57	MG	2E	304	1/1	0.98	0.13	44,44,44,44	0
57	MG	1A	3446	1/1	0.98	0.09	37,37,37,37	0
57	MG	10	104	1/1	0.98	0.06	37,37,37,37	0
57	MG	2A	3123	1/1	0.98	0.08	54,54,54,54	0
57	MG	2f	201	1/1	0.98	0.06	48,48,48,48	0
57	MG	2E	308	1/1	0.98	0.06	38,38,38,38	0
57	MG	1A	4064	1/1	0.98	0.12	38,38,38,38	0
57	MG	1a	1753	1/1	0.98	0.03	42,42,42,42	0
57	MG	2A	3355	1/1	0.98	0.04	39,39,39,39	0
57	MG	1A	4065	1/1	0.98	0.06	30,30,30,30	0
57	MG	1A	3890	1/1	0.98	0.04	21,21,21,21	0
57	MG	1A	3010	1/1	0.98	0.08	44,44,44,44	0
57	MG	10	109	1/1	0.98	0.04	36,36,36,36	0
57	MG	2A	3615	1/1	0.98	0.12	49,49,49,49	0
57	MG	1A	3625	1/1	0.98	0.07	33,33,33,33	0
57	MG	1A	3626	1/1	0.98	0.03	20,20,20,20	0
57	MG	1A	3375	1/1	0.98	0.04	35,35,35,35	0
57	MG	1A	3895	1/1	0.98	0.04	41,41,41,41	0
57	MG	11	105	1/1	0.98	0.09	41,41,41,41	0
57	MG	2A	3621	1/1	0.98	0.04	41,41,41,41	0
57	MG	11	106	1/1	0.98	0.04	50,50,50,50	0
57	MG	1A	3628	1/1	0.98	0.04	23,23,23,23	0
57	MG	1A	3376	1/1	0.98	0.08	19,19,19,19	0
57	MG	1A	3630	1/1	0.98	0.11	29,29,29,29	0
57	MG	13	102	1/1	0.98	0.18	39,39,39,39	0
57	MG	13	104	1/1	0.98	0.05	41,41,41,41	0
57	MG	1A	3450	1/1	0.98	0.07	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2T	204	1/1	0.98	0.03	35,35,35,35	0
57	MG	13	106	1/1	0.98	0.05	30,30,30,30	0
57	MG	2A	3144	1/1	0.98	0.06	47,47,47,47	0
57	MG	1a	1773	1/1	0.98	0.05	50,50,50,50	0
57	MG	1A	3063	1/1	0.98	0.06	29,29,29,29	0
57	MG	2A	3634	1/1	0.98	0.08	37,37,37,37	0
57	MG	1A	3315	1/1	0.98	0.10	25,25,25,25	0
57	MG	1A	3135	1/1	0.98	0.05	34,34,34,34	0
57	MG	1A	3758	1/1	0.98	0.04	28,28,28,28	0
57	MG	1a	1779	1/1	0.98	0.08	46,46,46,46	0
57	MG	15	102	1/1	0.98	0.06	28,28,28,28	0
57	MG	21	101	1/1	0.98	0.07	40,40,40,40	0
57	MG	2A	3640	1/1	0.98	0.16	44,44,44,44	0
57	MG	1a	1783	1/1	0.98	0.04	47,47,47,47	0
57	MG	1A	3172	1/1	0.98	0.17	32,32,32,32	0
57	MG	1a	1785	1/1	0.98	0.07	52,52,52,52	0
57	MG	1A	3907	1/1	0.98	0.03	22,22,22,22	0
57	MG	2A	3387	1/1	0.98	0.08	49,49,49,49	0
57	MG	1A	3760	1/1	0.98	0.05	35,35,35,35	0
57	MG	1A	3266	1/1	0.98	0.15	36,36,36,36	0
57	MG	1A	3064	1/1	0.98	0.03	28,28,28,28	0
57	MG	1A	3137	1/1	0.98	0.06	16,16,16,16	0
61	SF4	2d	302	8/8	0.98	0.04	65,77,84,86	0
57	MG	2A	3576	1/1	0.99	0.09	48,48,48,48	0
57	MG	2A	3822	1/1	0.99	0.07	42,42,42,42	0
57	MG	2A	3237	1/1	0.99	0.05	49,49,49,49	0
57	MG	2A	3578	1/1	0.99	0.05	39,39,39,39	0
57	MG	1A	3282	1/1	0.99	0.03	25,25,25,25	0
57	MG	2A	3826	1/1	0.99	0.06	28,28,28,28	0
57	MG	1A	3726	1/1	0.99	0.02	26,26,26,26	0
57	MG	1A	3673	1/1	0.99	0.03	31,31,31,31	0
57	MG	1A	3226	1/1	0.99	0.06	26,26,26,26	0
57	MG	1A	3997	1/1	0.99	0.05	31,31,31,31	0
57	MG	2A	3584	1/1	0.99	0.04	26,26,26,26	0
57	MG	2A	3585	1/1	0.99	0.04	40,40,40,40	0
57	MG	13	103	1/1	0.99	0.04	30,30,30,30	0
57	MG	1A	3675	1/1	0.99	0.03	40,40,40,40	0
57	MG	2A	3835	1/1	0.99	0.05	46,46,46,46	0
57	MG	1A	3923	1/1	0.99	0.04	10,10,10,10	0
57	MG	2A	3136	1/1	0.99	0.09	29,29,29,29	0
57	MG	1N	203	1/1	0.99	0.03	26,26,26,26	0
57	MG	1A	4000	1/1	0.99	0.04	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3713	1/1	0.99	0.03	42,42,42,42	0
57	MG	1A	3202	1/1	0.99	0.03	28,28,28,28	0
57	MG	1a	1777	1/1	0.99	0.04	58,58,58,58	0
57	MG	2A	3361	1/1	0.99	0.08	27,27,27,27	0
57	MG	1A	3414	1/1	0.99	0.04	42,42,42,42	0
57	MG	2A	3845	1/1	0.99	0.03	32,32,32,32	0
57	MG	1A	3926	1/1	0.99	0.03	21,21,21,21	0
57	MG	1a	1676	1/1	0.99	0.18	35,35,35,35	0
57	MG	2A	3598	1/1	0.99	0.04	43,43,43,43	0
57	MG	1a	1781	1/1	0.99	0.04	54,54,54,54	0
57	MG	1a	1782	1/1	0.99	0.03	39,39,39,39	0
57	MG	1A	3228	1/1	0.99	0.13	22,22,22,22	0
57	MG	1A	4005	1/1	0.99	0.03	33,33,33,33	0
57	MG	1A	3453	1/1	0.99	0.06	43,43,43,43	0
57	MG	1P	201	1/1	0.99	0.11	28,28,28,28	0
57	MG	1A	3040	1/1	0.99	0.10	36,36,36,36	0
57	MG	1A	3007	1/1	0.99	0.04	32,32,32,32	0
57	MG	2A	3373	1/1	0.99	0.09	47,47,47,47	0
57	MG	1A	3931	1/1	0.99	0.03	39,39,39,39	0
57	MG	1A	3859	1/1	0.99	0.03	30,30,30,30	0
57	MG	1A	3075	1/1	0.99	0.03	24,24,24,24	0
57	MG	1A	3683	1/1	0.99	0.07	19,19,19,19	0
57	MG	1A	4013	1/1	0.99	0.04	17,17,17,17	0
57	MG	1A	3318	1/1	0.99	0.10	24,24,24,24	0
57	MG	1A	3034	1/1	0.99	0.05	16,16,16,16	0
57	MG	1A	3937	1/1	0.99	0.04	35,35,35,35	0
57	MG	1A	3233	1/1	0.99	0.08	50,50,50,50	0
57	MG	1A	3022	1/1	0.99	0.04	16,16,16,16	0
57	MG	1A	3801	1/1	0.99	0.03	24,24,24,24	0
57	MG	2A	3499	1/1	0.99	0.06	49,49,49,49	0
57	MG	1A	3114	1/1	0.99	0.04	24,24,24,24	0
57	MG	2A	3055	1/1	0.99	0.06	42,42,42,42	0
57	MG	1A	3803	1/1	0.99	0.05	26,26,26,26	0
57	MG	1A	3018	1/1	0.99	0.09	42,42,42,42	0
57	MG	2A	3624	1/1	0.99	0.07	34,34,34,34	0
57	MG	1A	3503	1/1	0.99	0.12	33,33,33,33	0
57	MG	1A	3745	1/1	0.99	0.05	25,25,25,25	0
57	MG	1A	3872	1/1	0.99	0.11	31,31,31,31	0
57	MG	1A	3024	1/1	0.99	0.03	24,24,24,24	0
57	MG	1A	3747	1/1	0.99	0.03	34,34,34,34	0
57	MG	1A	3692	1/1	0.99	0.02	25,25,25,25	0
57	MG	1A	4029	1/1	0.99	0.02	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3511	1/1	0.99	0.04	42,42,42,42	0
57	MG	1A	3749	1/1	0.99	0.03	26,26,26,26	0
57	MG	1A	3548	1/1	0.99	0.03	29,29,29,29	0
57	MG	1A	4032	1/1	0.99	0.06	26,26,26,26	0
57	MG	1A	3878	1/1	0.99	0.03	44,44,44,44	0
57	MG	1A	3188	1/1	0.99	0.15	25,25,25,25	0
57	MG	1U	205	1/1	0.99	0.03	24,24,24,24	0
57	MG	1A	3390	1/1	0.99	0.04	37,37,37,37	0
57	MG	1A	3551	1/1	0.99	0.10	23,23,23,23	0
57	MG	1U	208	1/1	0.99	0.12	26,26,26,26	0
57	MG	1A	3149	1/1	0.99	0.09	36,36,36,36	0
57	MG	2A	3406	1/1	0.99	0.07	31,31,31,31	0
57	MG	1B	234	1/1	0.99	0.03	22,22,22,22	0
57	MG	1A	3012	1/1	0.99	0.06	29,29,29,29	0
57	MG	1n	102	1/1	0.99	0.08	39,39,39,39	0
57	MG	1A	3756	1/1	0.99	0.08	35,35,35,35	0
57	MG	1A	3818	1/1	0.99	0.06	22,22,22,22	0
57	MG	1A	3886	1/1	0.99	0.03	37,37,37,37	0
57	MG	1A	3214	1/1	0.99	0.07	32,32,32,32	0
57	MG	2A	3082	1/1	0.99	0.03	42,42,42,42	0
57	MG	1A	3469	1/1	0.99	0.04	36,36,36,36	0
57	MG	1A	3470	1/1	0.99	0.03	32,32,32,32	0
57	MG	1A	3512	1/1	0.99	0.11	22,22,22,22	0
57	MG	1A	4046	1/1	0.99	0.03	35,35,35,35	0
57	MG	1A	3823	1/1	0.99	0.10	22,22,22,22	0
57	MG	1W	206	1/1	0.99	0.03	34,34,34,34	0
57	MG	1A	3191	1/1	0.99	0.10	27,27,27,27	0
57	MG	1A	4049	1/1	0.99	0.05	21,21,21,21	0
57	MG	1A	3151	1/1	0.99	0.09	30,30,30,30	0
57	MG	2T	205	1/1	0.99	0.06	44,44,44,44	0
57	MG	1a	1729	1/1	0.99	0.05	54,54,54,54	0
57	MG	1A	3071	1/1	0.99	0.04	23,23,23,23	0
57	MG	1A	3764	1/1	0.99	0.10	22,22,22,22	0
57	MG	1X	102	1/1	0.99	0.04	27,27,27,27	0
57	MG	1A	3362	1/1	0.99	0.06	34,34,34,34	0
57	MG	1a	1734	1/1	0.99	0.03	36,36,36,36	0
57	MG	1a	1634	1/1	0.99	0.08	23,23,23,23	0
57	MG	1A	4054	1/1	0.99	0.05	27,27,27,27	0
57	MG	1A	3363	1/1	0.99	0.04	29,29,29,29	0
57	MG	1A	3003	1/1	0.99	0.06	19,19,19,19	0
57	MG	1E	308	1/1	0.99	0.12	30,30,30,30	0
57	MG	1A	3365	1/1	0.99	0.09	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3093	1/1	0.99	0.06	16,16,16,16	0
57	MG	1A	3901	1/1	0.99	0.05	34,34,34,34	0
57	MG	1A	3402	1/1	0.99	0.05	24,24,24,24	0
57	MG	1A	3977	1/1	0.99	0.04	29,29,29,29	0
57	MG	1E	314	1/1	0.99	0.03	27,27,27,27	0
57	MG	1A	3903	1/1	0.99	0.04	29,29,29,29	0
57	MG	1A	3660	1/1	0.99	0.07	34,34,34,34	0
57	MG	27	101	1/1	0.99	0.04	38,38,38,38	0
57	MG	1A	3613	1/1	0.99	0.02	30,30,30,30	0
57	MG	1A	3196	1/1	0.99	0.09	24,24,24,24	0
57	MG	1A	3248	1/1	0.99	0.16	32,32,32,32	0
57	MG	1A	3106	1/1	0.99	0.04	25,25,25,25	0
57	MG	2A	3806	1/1	0.99	0.03	53,53,53,53	0
57	MG	2a	1602	1/1	0.99	0.06	43,43,43,43	0
57	MG	1a	1651	1/1	0.99	0.04	40,40,40,40	0
57	MG	2A	3116	1/1	0.99	0.05	35,35,35,35	0
57	MG	1a	1652	1/1	0.99	0.08	42,42,42,42	0
57	MG	1A	3717	1/1	0.99	0.07	23,23,23,23	0
57	MG	1A	3122	1/1	0.99	0.06	37,37,37,37	0
57	MG	1F	309	1/1	0.99	0.08	34,34,34,34	0
57	MG	1A	3841	1/1	0.99	0.05	44,44,44,44	0
57	MG	1A	3157	1/1	0.99	0.11	33,33,33,33	0
57	MG	2A	3815	1/1	0.99	0.04	24,24,24,24	0
60	ZN	1Y	204	1/1	0.99	0.02	70,70,70,70	0
57	MG	1A	3372	1/1	0.99	0.03	27,27,27,27	0
60	ZN	1n	103	1/1	0.99	0.03	59,59,59,59	0
57	MG	1A	3620	1/1	0.99	0.06	40,40,40,40	0
57	MG	1A	3528	1/1	0.99	0.10	32,32,32,32	0
60	ZN	25	105	1/1	0.99	0.02	58,58,58,58	0
60	ZN	26	102	1/1	0.99	0.04	50,50,50,50	0
60	ZN	29	501	1/1	0.99	0.04	64,64,64,64	0
57	MG	1A	3107	1/1	0.99	0.13	41,41,41,41	0
61	SF4	1d	501	8/8	0.99	0.04	58,59,67,70	0
57	MG	1A	3094	1/1	0.99	0.03	31,31,31,31	0
60	ZN	15	110	1/1	1.00	0.02	44,44,44,44	0
60	ZN	16	102	1/1	1.00	0.02	43,43,43,43	0
60	ZN	19	102	1/1	1.00	0.04	39,39,39,39	0
57	MG	1A	3158	1/1	1.00	0.03	32,32,32,32	0
57	MG	1a	1772	1/1	1.00	0.03	48,48,48,48	0
57	MG	1a	1754	1/1	1.00	0.09	49,49,49,49	0

6.5 Other polymers (i)

There are no such residues in this entry.