Full wwPDB X-ray Structure Validation Report (i)

Nov 4, 2026 – 06:42 PM EST

PDB ID	:	9DFE / pdb_00009dfe
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with lasso peptide lariocidin and protein Y at 2.60A resolution
Authors	:	Aleksandrova, E.V.; Travin, D.Y.; Jangra, M.; Kaur, M.; Darwish, L.; Koteva, K.; Klepacki, D.; Wang, W.; Tiffany, M.; Sokaribo, A.; Coombes, B.K.; Vazquez-Laslop, N.; Wright, G.D.; Mankin, A.S.; Polikanov, Y.S.
Deposited on	:	2024-08-29
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 (i) 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 (i)) were used in the production of this report:

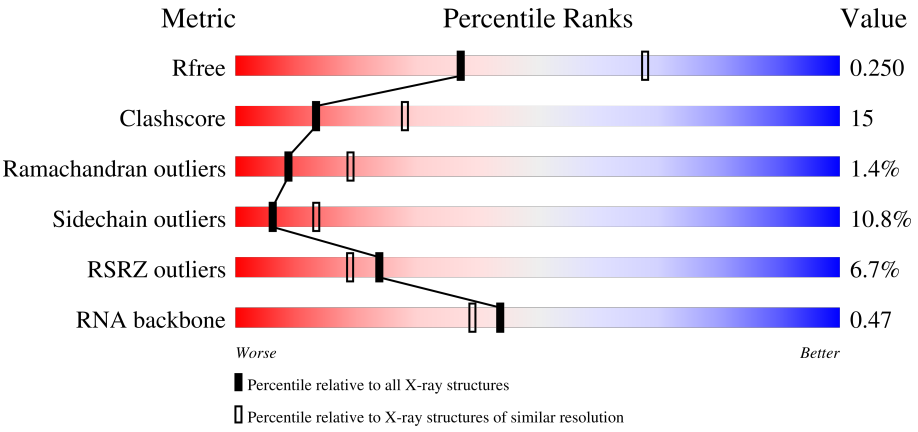
MolProbity	:	4-5-2 with Phenix2.2
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.2
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.51

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	7% 40% 40% 15%
1	2A	2915	7% 40% 42% 14%
2	1B	121	2% 50% 41% 7%

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Mol	Chain	Length	Quality of chain
2	2B	121	2% 36% 50% 11%
3	1D	276	% 65% 29% 5%
3	2D	276	% 66% 29%
4	1E	206	65% 29% 5%
4	2E	206	58% 35% 6%
5	1F	210	% 69% 23%
5	2F	210	60% 33%
6	1G	182	4% 51% 42% 7%
6	2G	182	20% 49% 46%
7	1H	180	2% 59% 34%
7	2H	180	9% 47% 40% 9%
8	1I	148	% 59% 33% 7%
8	2I	148	3% 59% 35%
9	1N	140	67% 27% 6%
9	2N	140	% 61% 34%
10	1O	122	69% 27%
10	2O	122	62% 31% 7%
11	1P	150	% 63% 33%
11	2P	150	2% 72% 23% 5%
12	1Q	141	% 67% 30%
12	2Q	141	% 62% 31% 7%
13	1R	118	65% 31%
13	2R	118	61% 34% 5%
14	1S	112	62% 32%
14	2S	112	6% 55% 37% 6%

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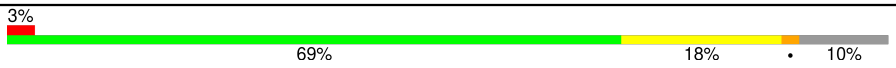
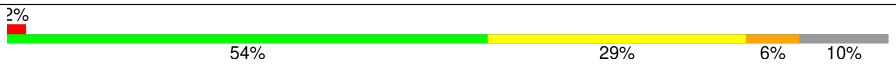
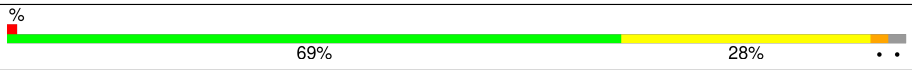
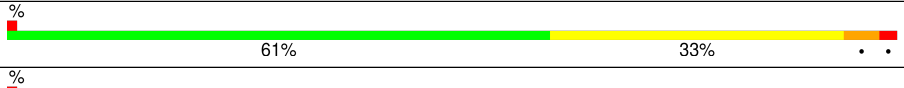
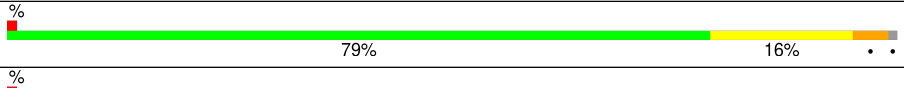
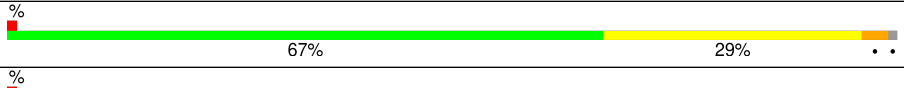
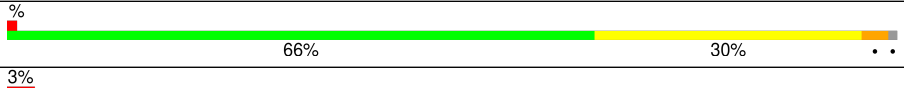
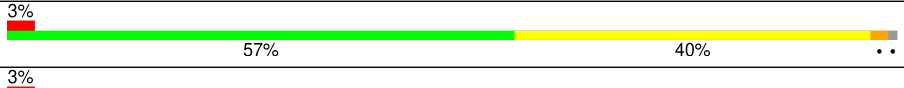
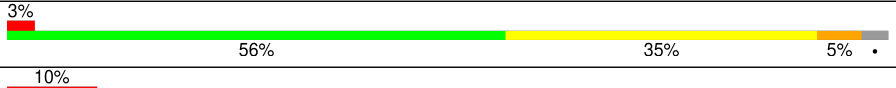
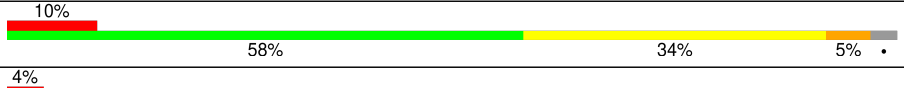
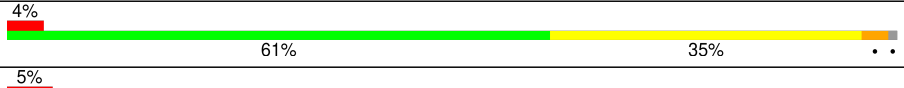
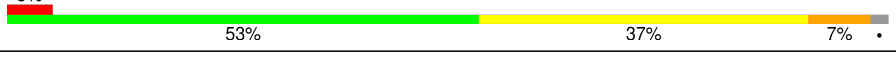
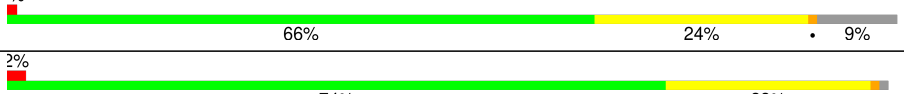
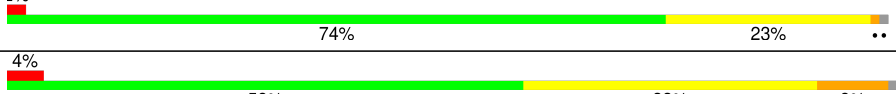
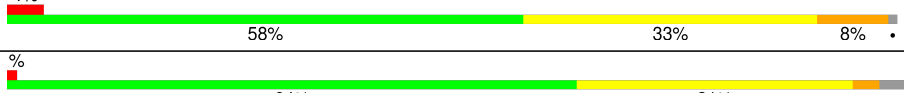
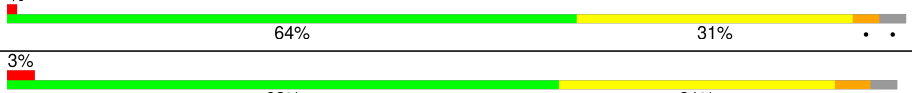
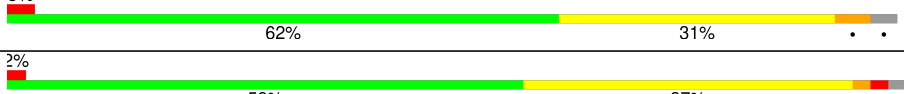
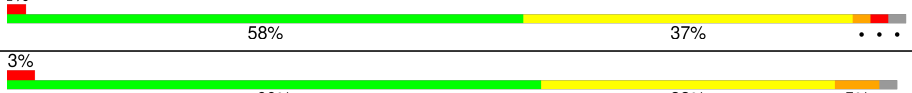
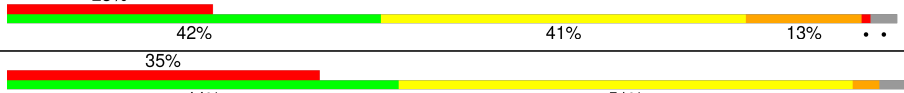
Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	

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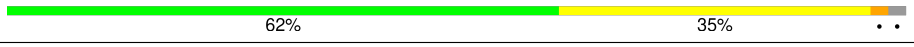
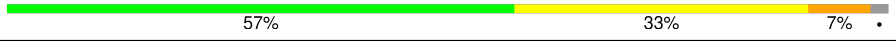
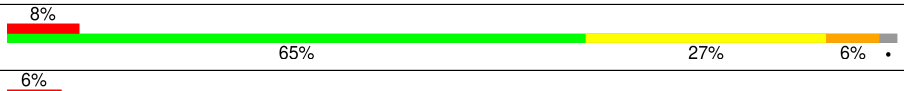
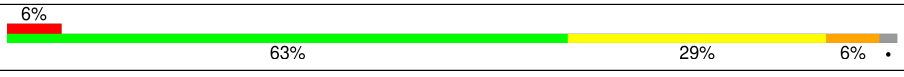
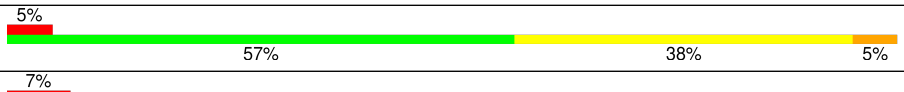
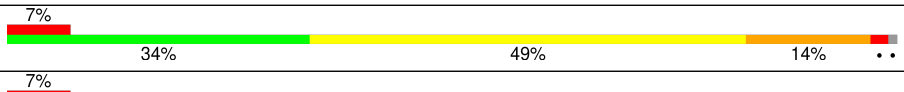
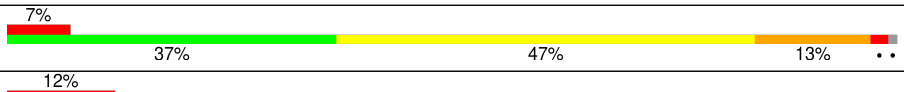
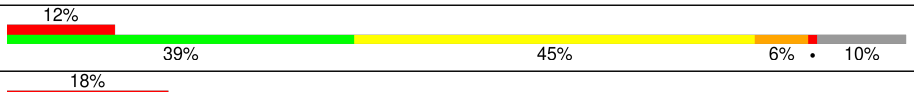
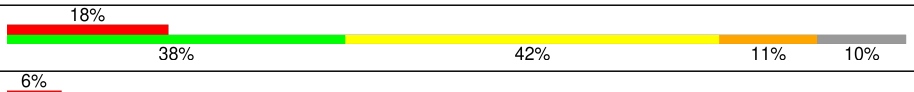
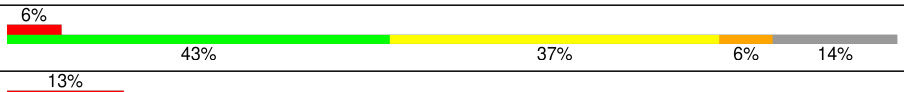
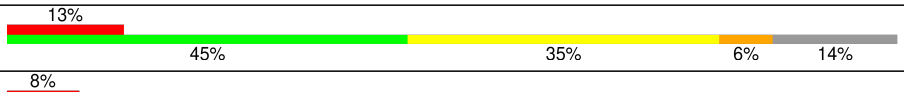
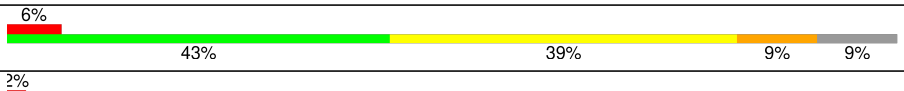
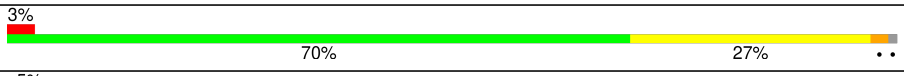
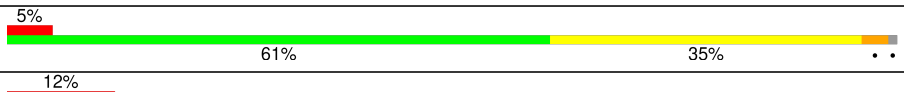
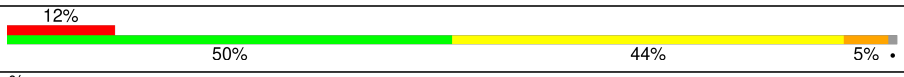
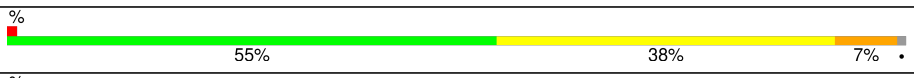
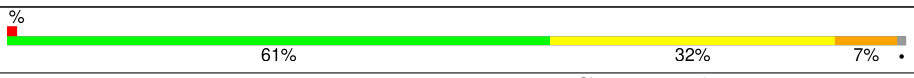
Mol	Chain	Length	Quality of chain
27	25	60	
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	

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Mol	Chain	Length	Quality of chain
40	1i	128	39% 46% 45% 8%
40	2i	128	43% 44% 45% 10%
41	1j	105	28% 44% 44% 8%
41	2j	105	44% 44% 42% 6% 9%
42	1k	129	5% 57% 28% 12%
42	2k	129	3% 64% 19% 5% 12%
43	1l	132	% 57% 34% 8%
43	2l	132	2% 60% 30% 8%
44	1m	126	10% 46% 40% 6% 8%
44	2m	126	11% 40% 43% 7% 10%
45	1n	61	11% 46% 49%
45	2n	61	36% 52% 43%
46	1o	89	6% 48% 45% 6%
46	2o	89	4% 70% 25%
47	1p	88	13% 47% 36% 10% 7%
47	2p	88	8% 55% 33% 6% 7%
48	1q	105	2% 57% 29% 9% 6%
48	2q	105	2% 53% 35% 6% 6%
49	1r	88	3% 40% 35% 23%
49	2r	88	% 49% 25% 23%
50	1s	93	20% 46% 37% 6% 11%
50	2s	93	27% 39% 51% 11%
51	1t	106	10% 54% 33% 9%
51	2t	106	8% 58% 28% 5% 8%
52	1u	27	15% 52% 33% 15%

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Mol	Chain	Length	Quality of chain
52	2u	27	48% 52% 33% 15%
53	1y	113	4% 57% 24% 5% 14%
53	2y	113	12% 53% 29% 15%
54	1z	18	11% 61% 33% 6%
54	2z	18	33% 56% 33% 6% 6%

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
55	MG	1A	3275	-	-	-	X
55	MG	1A	3643	-	-	-	X
55	MG	1A	3756	-	-	-	X
55	MG	1a	3003	-	-	-	X
55	MG	1a	3238	-	-	-	X
55	MG	2A	3639	-	-	-	X

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 298738 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	2872	Total	C	N	O	P	0	0	0
			61869	27540	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

- 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
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- 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
			2131	1346	422	360	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
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	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	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	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
			1121	722	208	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 933	C 588	N 171	O 170	S 4	0	0	0

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total 877	C 553	N 175	O 149	0	0	0
14	2S	110	Total 870	C 549	N 173	O 148	0	0	0

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

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

- 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
			775	498	141	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
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	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
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	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
			592	368	119	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
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	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
			459	288	90	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	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- 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
			1842	1175	330	332	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
			1558	979	305	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
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	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
			1133	716	214	199	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
			814	516	144	151	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
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	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
			1098	694	210	192	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
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

- 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
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	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
			834	520	156	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	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	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
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	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
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	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 protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1y	97	Total 764	C 478	N 144	O 139	S 3	0	0	0
53	2y	96	Total 749	C 468	N 141	O 137	S 3	0	0	0

- Molecule 54 is a protein called Lasso peptide lariocidin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
54	1z	18	Total 132	C 81	N 29	O 22	0	0	0
54	2z	18	Total 132	C 81	N 29	O 22	0	0	0

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	1026	Total 1026	Mg 1026	0	0
55	1B	31	Total 31	Mg 31	0	0
55	1D	18	Total 18	Mg 18	0	0
55	1E	9	Total 9	Mg 9	0	0
55	1F	20	Total 20	Mg 20	0	0
55	1G	4	Total 4	Mg 4	0	0
55	1H	2	Total 2	Mg 2	0	0
55	1N	4	Total 4	Mg 4	0	0
55	1O	1	Total 1	Mg 1	0	0
55	1P	5	Total 5	Mg 5	0	0
55	1Q	5	Total 5	Mg 5	0	0
55	1R	5	Total 5	Mg 5	0	0
55	1S	1	Total 1	Mg 1	0	0
55	1T	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1U	8	Total Mg 8 8	0	0
55	1V	7	Total Mg 7 7	0	0
55	1W	2	Total Mg 2 2	0	0
55	1X	1	Total Mg 1 1	0	0
55	1Y	1	Total Mg 1 1	0	0
55	1Z	1	Total Mg 1 1	0	0
55	10	7	Total Mg 7 7	0	0
55	11	5	Total Mg 5 5	0	0
55	13	3	Total Mg 3 3	0	0
55	15	8	Total Mg 8 8	0	0
55	17	6	Total Mg 6 6	0	0
55	18	1	Total Mg 1 1	0	0
55	19	2	Total Mg 2 2	0	0
55	1a	277	Total Mg 277 277	0	0
55	1b	1	Total Mg 1 1	0	0
55	1d	5	Total Mg 5 5	0	0
55	1e	6	Total Mg 6 6	0	0
55	1f	1	Total Mg 1 1	0	0
55	1g	2	Total Mg 2 2	0	0
55	1h	1	Total Mg 1 1	0	0
55	1i	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1k	1	Total Mg 1 1	0	0
55	1l	2	Total Mg 2 2	0	0
55	1m	2	Total Mg 2 2	0	0
55	1n	1	Total Mg 1 1	0	0
55	1o	2	Total Mg 2 2	0	0
55	1r	1	Total Mg 1 1	0	0
55	1t	1	Total Mg 1 1	0	0
55	1y	3	Total Mg 3 3	0	0
55	1z	1	Total Mg 1 1	0	0
55	2A	745	Total Mg 745 745	0	0
55	2B	20	Total Mg 20 20	0	0
55	2D	12	Total Mg 12 12	0	0
55	2E	7	Total Mg 7 7	0	0
55	2F	4	Total Mg 4 4	0	0
55	2G	3	Total Mg 3 3	0	0
55	2I	1	Total Mg 1 1	0	0
55	2N	1	Total Mg 1 1	0	0
55	2O	1	Total Mg 1 1	0	0
55	2P	1	Total Mg 1 1	0	0
55	2Q	4	Total Mg 4 4	0	0
55	2R	2	Total Mg 2 2	0	0

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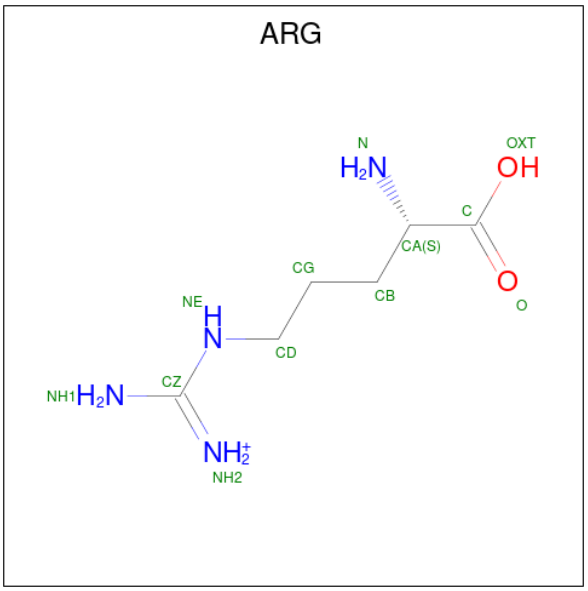
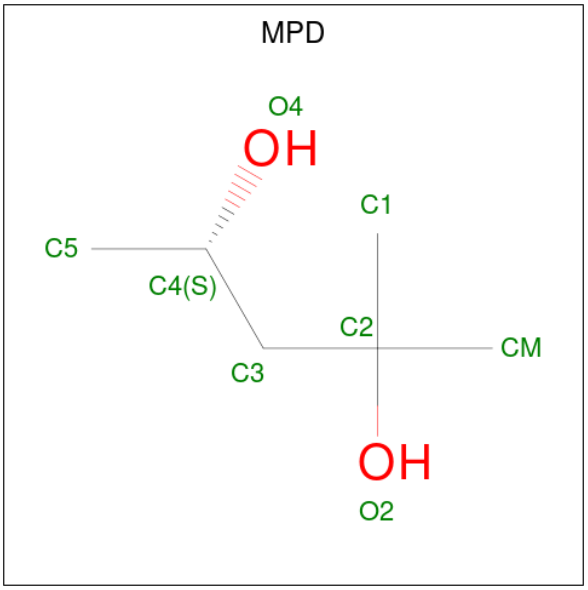
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	2T	4	Total Mg 4 4	0	0
55	2V	3	Total Mg 3 3	0	0
55	2W	3	Total Mg 3 3	0	0
55	20	1	Total Mg 1 1	0	0
55	21	1	Total Mg 1 1	0	0
55	23	2	Total Mg 2 2	0	0
55	25	3	Total Mg 3 3	0	0
55	27	1	Total Mg 1 1	0	0
55	28	2	Total Mg 2 2	0	0
55	2a	193	Total Mg 193 193	0	0
55	2e	1	Total Mg 1 1	0	0
55	2f	1	Total Mg 1 1	0	0
55	2h	1	Total Mg 1 1	0	0
55	2j	1	Total Mg 1 1	0	0
55	2k	1	Total Mg 1 1	0	0
55	2n	1	Total Mg 1 1	0	0
55	2p	1	Total Mg 1 1	0	0
55	2r	1	Total Mg 1 1	0	0
55	2t	1	Total Mg 1 1	0	0
55	2y	1	Total Mg 1 1	0	0

- Molecule 56 is ARGININE (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1B	1	Total C N O 12 6 4 2	0	0

- Molecule 57 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).

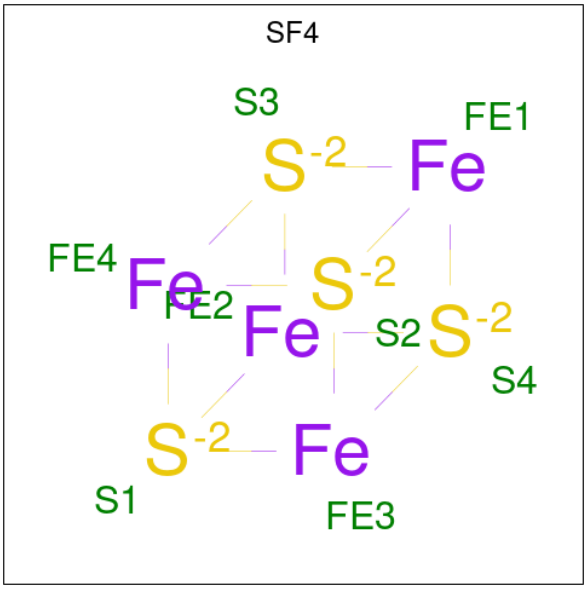


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1T	1	Total C O 8 6 2	0	0
57	18	1	Total C O 8 6 2	0	0
57	2A	1	Total C O 8 6 2	0	0

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1Y	1	Total Zn 1 1	0	0
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0
58	19	1	Total Zn 1 1	0	0
58	1n	1	Total Zn 1 1	0	0
58	2Y	1	Total Zn 1 1	0	0
58	24	1	Total Zn 1 1	0	0
58	25	1	Total Zn 1 1	0	0
58	26	1	Total Zn 1 1	0	0
58	29	1	Total Zn 1 1	0	0
58	2n	1	Total Zn 1 1	0	0

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1d	1	Total Fe S 8 4 4	0	0
59	2d	1	Total Fe S 8 4 4	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	4144	Total O 4144 4144	0	0
60	1B	113	Total O 113 113	0	0
60	1D	128	Total O 128 128	0	0
60	1E	79	Total O 79 79	0	0
60	1F	64	Total O 64 64	0	0
60	1G	22	Total O 22 22	0	0
60	1H	16	Total O 16 16	0	0
60	1I	8	Total O 8 8	0	0
60	1N	55	Total O 55 55	0	0
60	1O	31	Total O 31 31	0	0
60	1P	64	Total O 64 64	0	0
60	1Q	43	Total O 43 43	0	0
60	1R	34	Total O 34 34	0	0
60	1S	14	Total O 14 14	0	0
60	1T	40	Total O 40 40	0	0
60	1U	47	Total O 47 47	0	0
60	1V	39	Total O 39 39	0	0
60	1W	26	Total O 26 26	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1X	24	Total O 24 24	0	0
60	1Y	15	Total O 15 15	0	0
60	1Z	12	Total O 12 12	0	0
60	10	26	Total O 26 26	0	0
60	11	26	Total O 26 26	0	0
60	12	16	Total O 16 16	0	0
60	13	23	Total O 23 23	0	0
60	14	2	Total O 2 2	0	0
60	15	26	Total O 26 26	0	0
60	16	24	Total O 24 24	0	0
60	17	17	Total O 17 17	0	0
60	18	32	Total O 32 32	0	0
60	19	9	Total O 9 9	0	0
60	1a	606	Total O 606 606	0	0
60	1b	1	Total O 1 1	0	0
60	1d	9	Total O 9 9	0	0
60	1e	5	Total O 5 5	0	0
60	1f	2	Total O 2 2	0	0
60	1g	1	Total O 1 1	0	0
60	1h	1	Total O 1 1	0	0
60	1j	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1l	6	Total O 6 6	0	0
60	1m	2	Total O 2 2	0	0
60	1n	2	Total O 2 2	0	0
60	1o	6	Total O 6 6	0	0
60	1p	2	Total O 2 2	0	0
60	1t	1	Total O 1 1	0	0
60	1u	2	Total O 2 2	0	0
60	1y	7	Total O 7 7	0	0
60	1z	1	Total O 1 1	0	0
60	2A	2652	Total O 2652 2652	0	0
60	2B	72	Total O 72 72	0	0
60	2D	58	Total O 58 58	0	0
60	2E	35	Total O 35 35	0	0
60	2F	23	Total O 23 23	0	0
60	2G	8	Total O 8 8	0	0
60	2H	4	Total O 4 4	0	0
60	2I	7	Total O 7 7	0	0
60	2N	7	Total O 7 7	0	0
60	2O	21	Total O 21 21	0	0
60	2P	28	Total O 28 28	0	0
60	2Q	29	Total O 29 29	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2R	26	Total O 26 26	0	0
60	2S	8	Total O 8 8	0	0
60	2T	12	Total O 12 12	0	0
60	2U	18	Total O 18 18	0	0
60	2V	6	Total O 6 6	0	0
60	2W	22	Total O 22 22	0	0
60	2X	9	Total O 9 9	0	0
60	2Y	5	Total O 5 5	0	0
60	2Z	15	Total O 15 15	0	0
60	20	17	Total O 17 17	0	0
60	21	22	Total O 22 22	0	0
60	22	5	Total O 5 5	0	0
60	23	3	Total O 3 3	0	0
60	24	3	Total O 3 3	0	0
60	25	8	Total O 8 8	0	0
60	26	6	Total O 6 6	0	0
60	27	11	Total O 11 11	0	0
60	28	17	Total O 17 17	0	0
60	29	2	Total O 2 2	0	0
60	2a	465	Total O 465 465	0	0
60	2d	4	Total O 4 4	0	0

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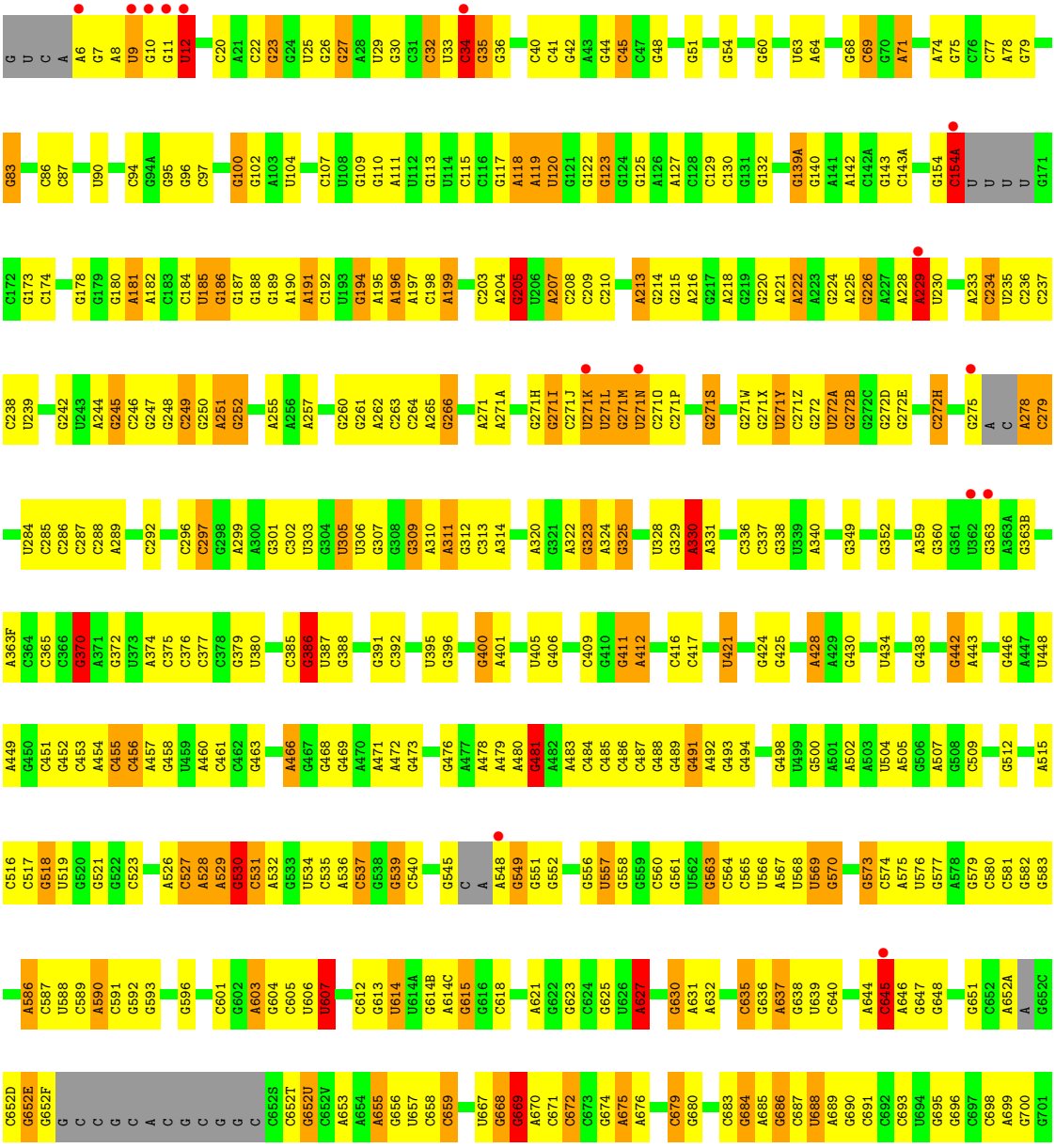
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2e	2	Total O 2 2	0	0
60	2f	1	Total O 1 1	0	0
60	2j	2	Total O 2 2	0	0
60	2l	3	Total O 3 3	0	0
60	2n	1	Total O 1 1	0	0
60	2o	2	Total O 2 2	0	0
60	2p	2	Total O 2 2	0	0
60	2q	1	Total O 1 1	0	0
60	2r	5	Total O 5 5	0	0
60	2t	2	Total O 2 2	0	0
60	2y	6	Total O 6 6	0	0

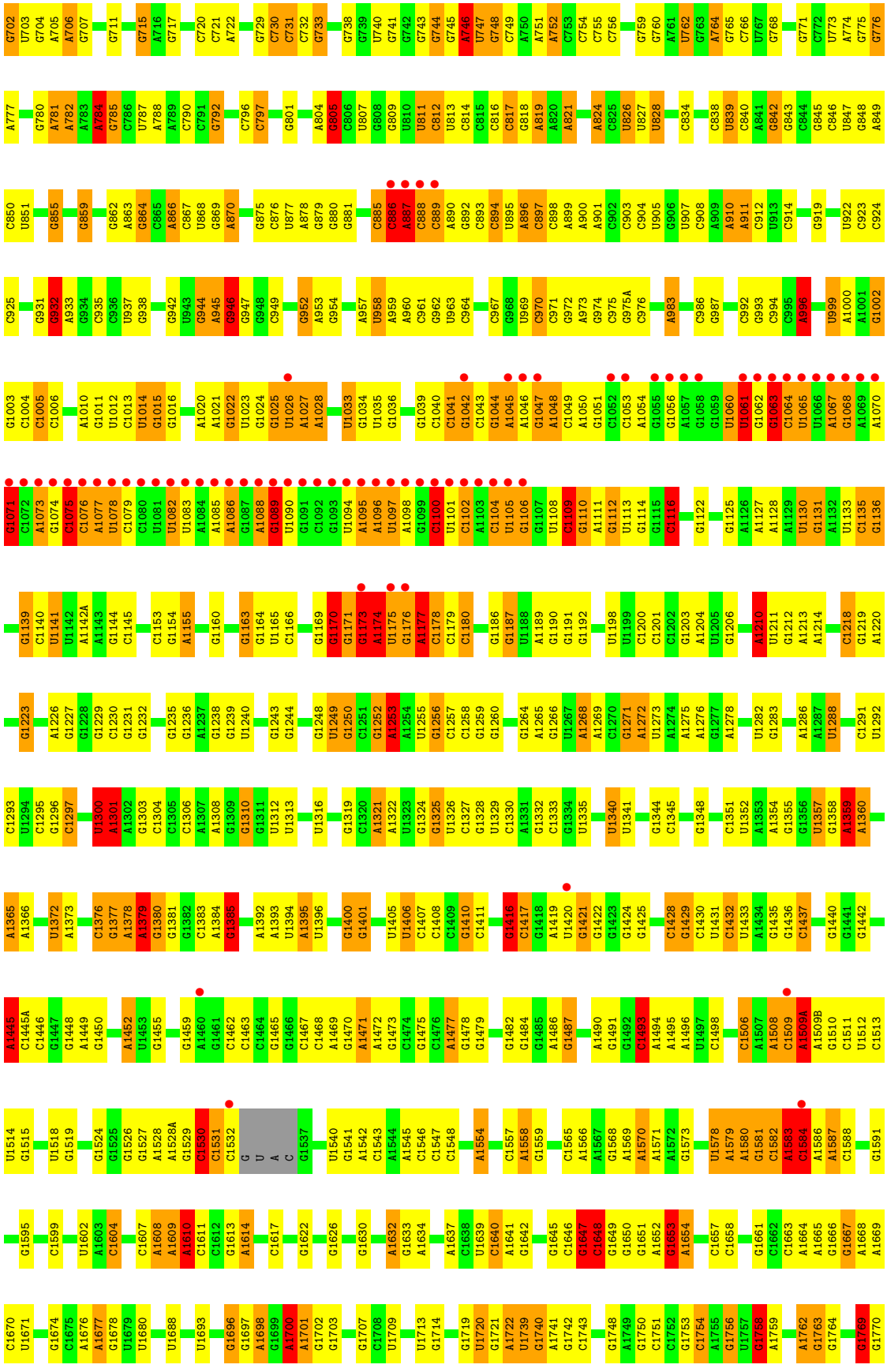
3 Residue-property plots (i)

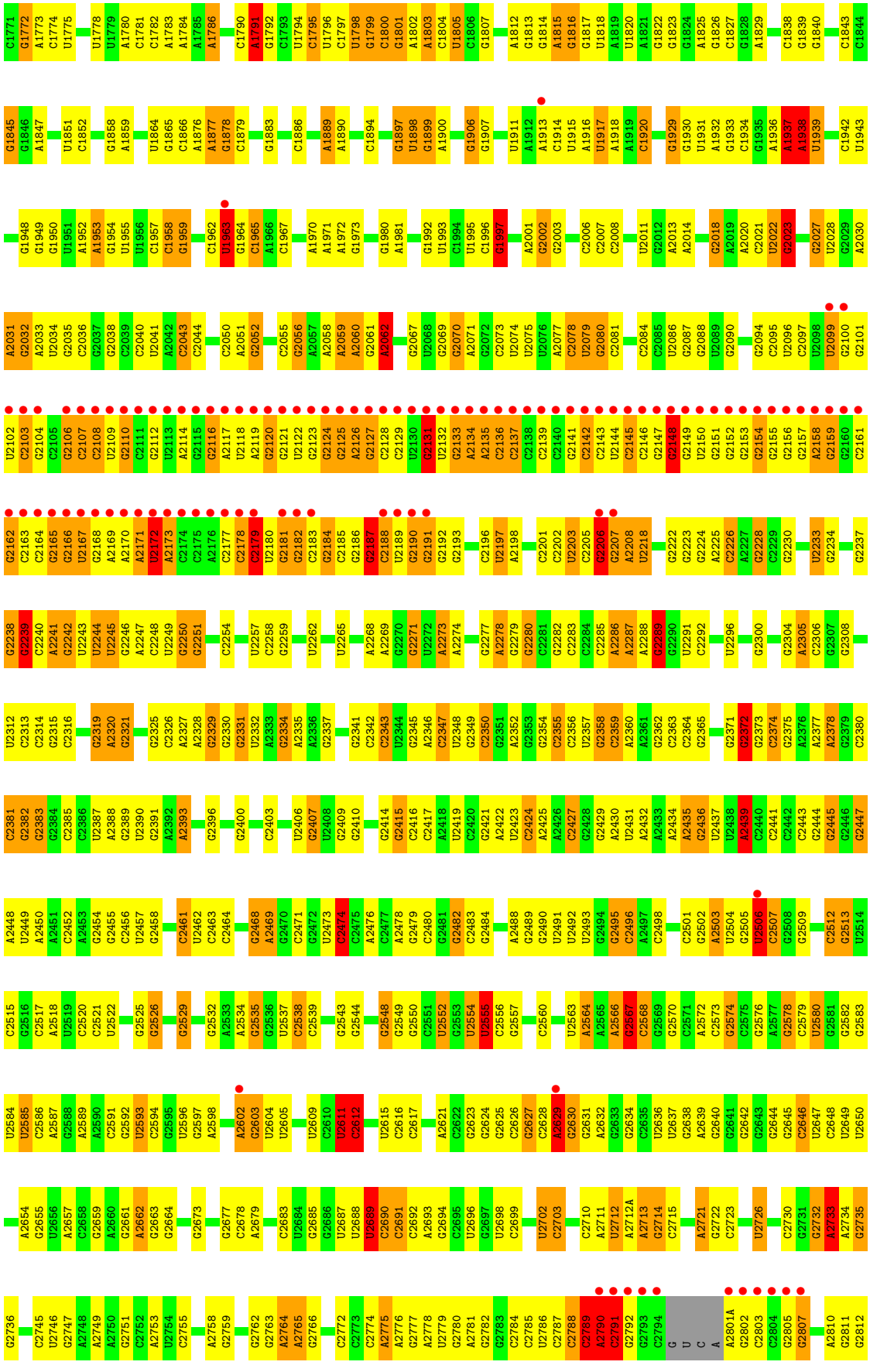
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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



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G1845 G1846 A1847 U1851 C1852 G1858 A1859 U1864 G1865 C1866 A1876 A1877 G1878 C1879 G1883 C1886 A1889 A1890 C1894 G1897 U1898 G1899 A1900 G1906 G1907 U1911 A1912 A1913 C1914 U1915 A1916 U1917 A1918 A1919 C1920 G1929 G1930 U1931 A1932 G1933 C1934 G1935 A1936 A1937 A1938 U1939 C1942 U1943
G1948 G1949 G1950 U1951 A1952 A1953 G1954 U1955 U1956 C1957 C1958 G1959 C1962 U1963 G1964 C1965 A1966 C1967 A1970 A1971 A1972 G1973 G1980 A1981 G1992 U1993 C1994 U1995 C1996 G1997 A2001 G2002 G2003 C2006 C2007 C2008 U2011 G2012 A2013 A2014 G2018 A2019 A2020 C2021 U2022 G2023 G2027 U2028 G2029 A2030
A2031 G2032 A2033 U2034 G2035 C2036 G2037 G2038 C2039 C2040 U2041 A2042 C2043 C2044 C2050 A2051 G2052 C2055 G2056 A2057 A2058 A2059 A2060 G2061 A2062 G2067 U2068 G2069 G2070 A2071 G2072 C2073 U2074 U2075 U2076 A2077 C2078 U2079 G2080 C2081 C2084 C2085 U2086 G2087 G2088 U2089 G2090 G2094 C2095 U2096 C2097 U2098 U2099 G2100 G2101
U2102 C2103 G2104 C2105 G2106 C2107 C2108 U2109 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 C2128 C2129 U2130 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2140 G2141 C2142 C2143 U2144 G2145 C2146 G2147 G2148 G2149 U2150 G2151 G2152 G2153 G2154 G2155 G2156 G2157 A2158 G2159 G2160 C2161
G2162 C2163 C2164 G2165 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 G2181 G2182 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2190 G2191 G2192 G2193 C2196 U2197 A2198 C2201 C2202 U2203 C2205 G2206 G2207 A2208 U2218 G2222 G2223 G2224 A2225 C2226 A2227 G2228 C2229 G2230 U2233 G2234 G2237
G2238 G2239 C2240 A2241 G2242 U2243 U2244 U2245 G2246 A2247 C2248 U2249 G2250 G2251 C2254 U2257 C2258 G2259 U2262 U2265 A2268 A2269 G2270 G2271 U2272 A2273 A2274 G2277 A2278 G2279 G2280 C2281 G2282 C2283 C2284 C2285 A2286 A2287 A2288 G2289 G2290 U2291 C2292 U2296 G2300 G2304 A2305 C2306 G2307 G2308
U2312 C2313 C2314 G2315 C2316 G2319 A2320 G2321 G2325 C2326 A2327 A2328 G2329 G2330 G2331 U2332 A2333 G2334 A2335 A2336 G2337 G2341 C2342 C2343 U2344 G2345 A2346 C2347 U2348 G2349 C2350 G2351 A2352 G2353 G2354 C2355 C2356 U2357 G2358 C2359 A2360 A2361 G2362 C2363 C2364 G2365 G2371 G2372 G2373 G2374 G2375 A2376 A2377 A2378 G2379 C2380
C2381 G2382 G2383 G2384 C2385 C2386 U2387 A2388 G2389 U2390 G2391 A2392 A2393 G2396 G2400 C2403 U2406 G2407 U2408 G2409 G2410 G2414 G2415 C2416 C2417 A2418 U2419 C2420 G2421 A2422 U2423 C2424 A2425 A2426 C2427 G2428 G2429 A2430 U2431 A2432 A2433 A2434 A2435 G2436 U2437 U2438 A2439 C2440 C2441 C2442 C2443 C2444 G2445 G2446 G2447
A2448 U2449 A2450 A2451 C2452 A2453 G2454 G2455 C2456 U2457 G2458 C2461 U2462 C2463 C2464 G2468 A2469 G2470 C2471 G2472 U2473 C2474 C2475 A2476 C2477 A2478 G2479 C2480 G2481 G2482 C2483 G2484 A2488 G2489 G2490 U2491 U2492 U2493 G2494 G2495 C2496 A2497 C2498 C2501 G2502 A2503 U2504 G2505 U2506 C2507 G2508 G2509 C2512 G2513 U2514
C2515 G2516 C2517 A2518 U2519 C2520 C2521 U2522 G2525 G2526 G2529 G2532 A2533 A2534 G2535 G2536 U2537 C2538 C2539 G2543 G2544 G2548 G2549 G2550 C2551 U2552 G2553 U2554 U2585 C2556 G2557 C2560 U2563 A2564 A2565 A2566 G2567 C2568 G2569 G2570 C2571 A2572 C2573 G2574 C2575 G2576 A2577 G2578 C2579 U2580 G2581 G2582 G2583
U2584 U2585 C2586 A2587 G2588 A2589 A2590 C2591 G2592 U2593 C2594 G2595 U2596 G2597 A2598 A2602 G2603 U2604 U2605 U2609 C2610 U2611 C2612 U2615 C2616 C2617 A2621 C2622 G2623 G2624 G2625 C2626 G2627 C2628 A2629 G2630 G2631 A2632 G2633 G2634 C2635 U2636 U2637 G2638 A2639 G2640 G2641 G2642 G2643 G2644 G2645 C2646 U2647 C2648 U2649 U2650
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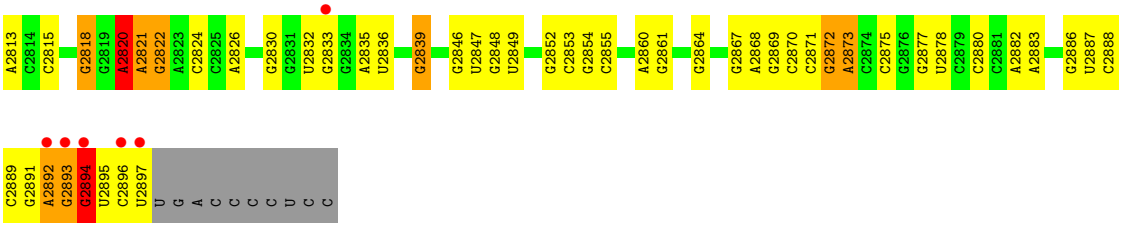
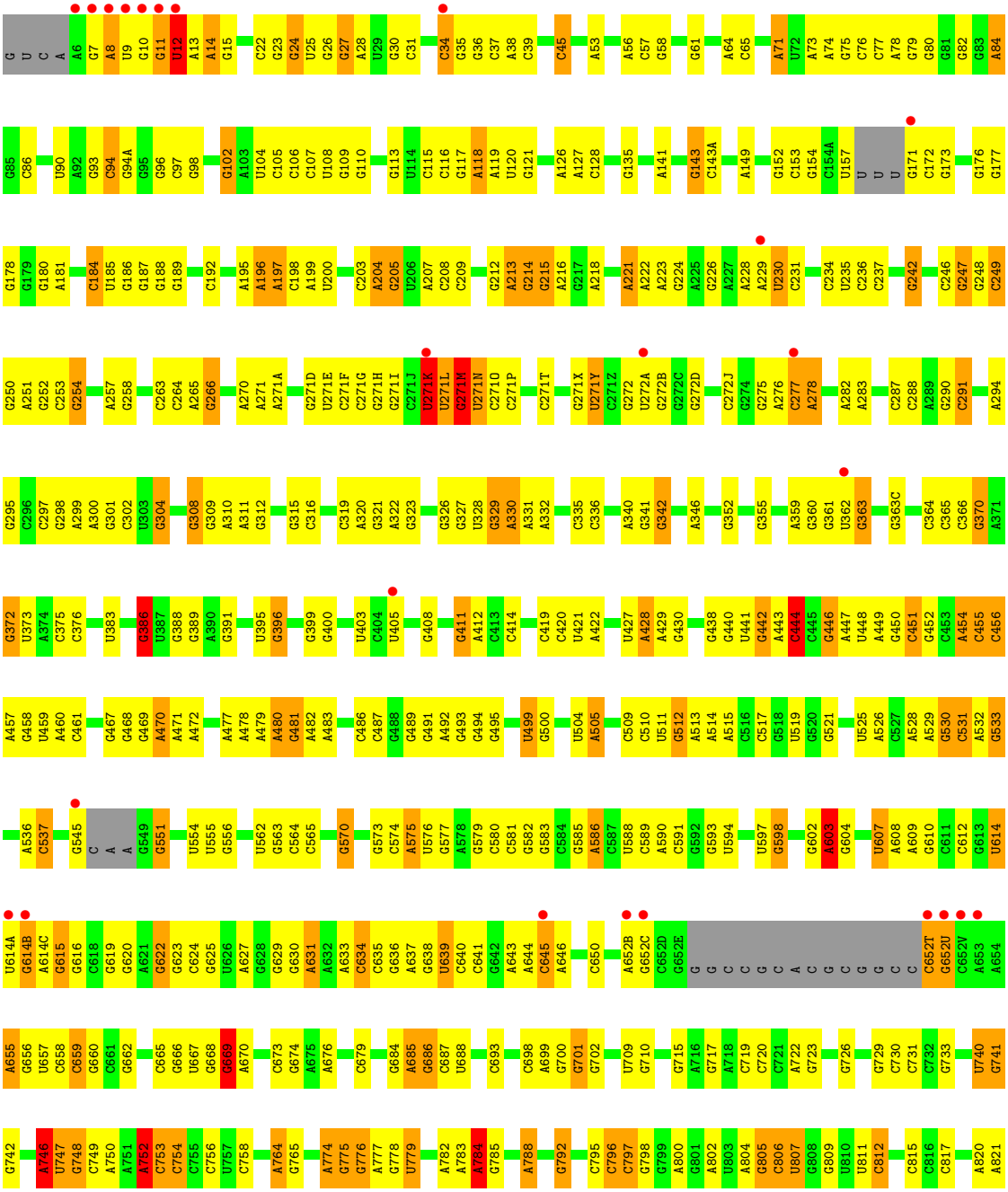
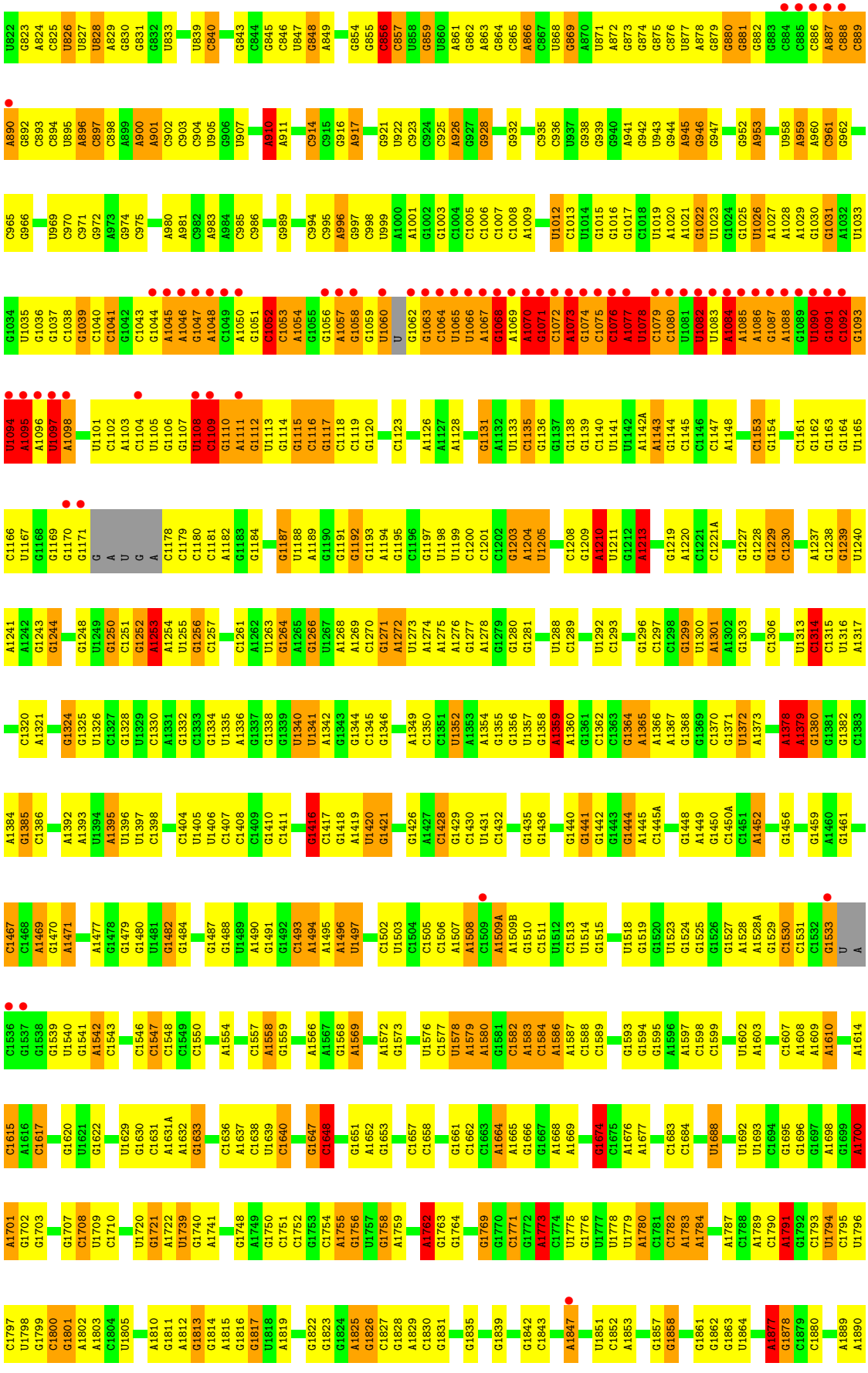
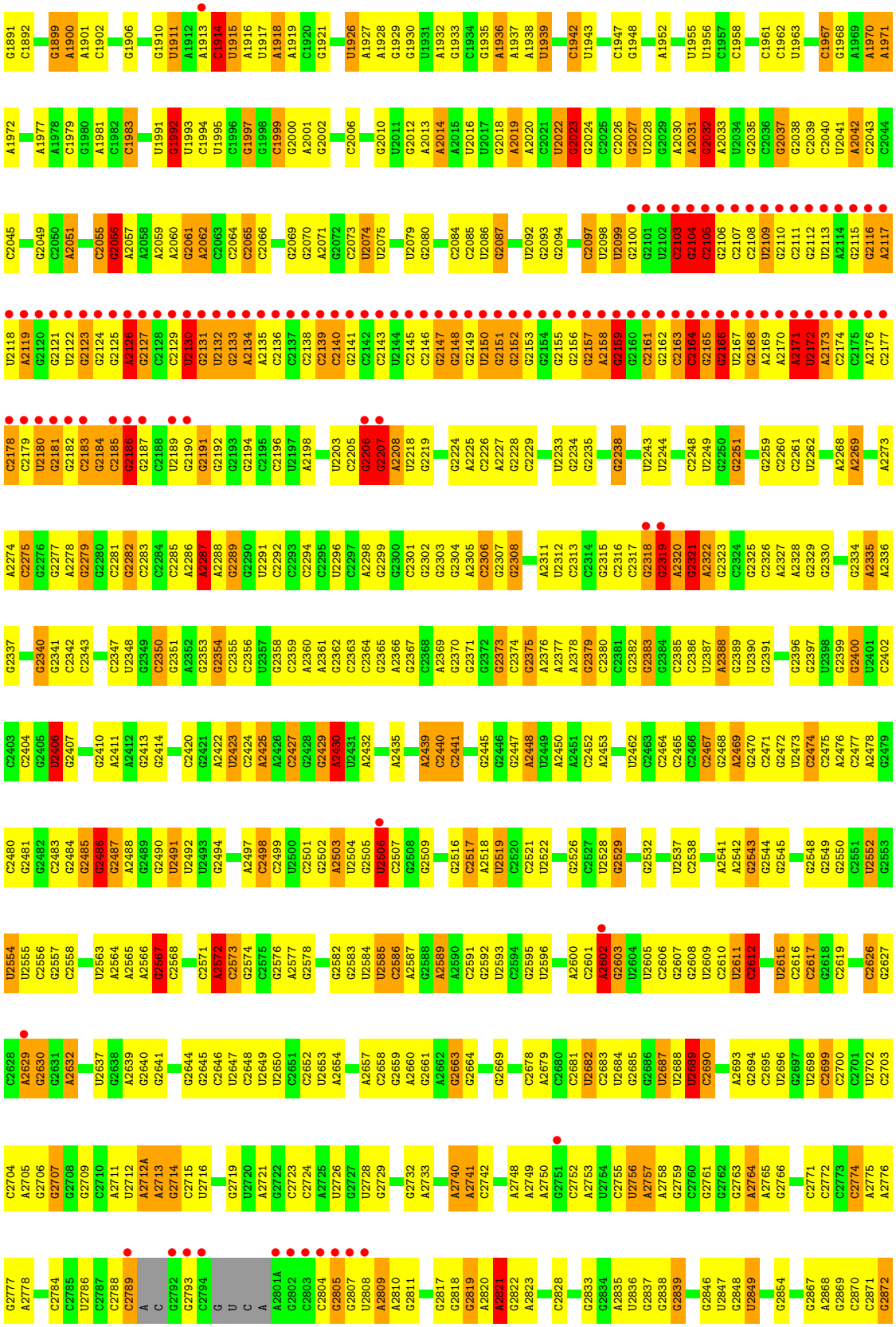


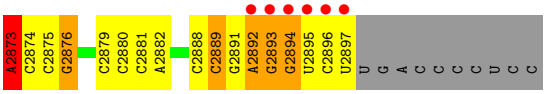
• Molecule 1: 23S Ribosomal RNA

Chain 2A:



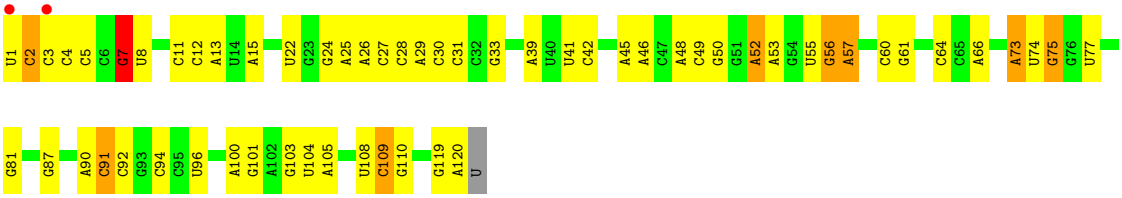






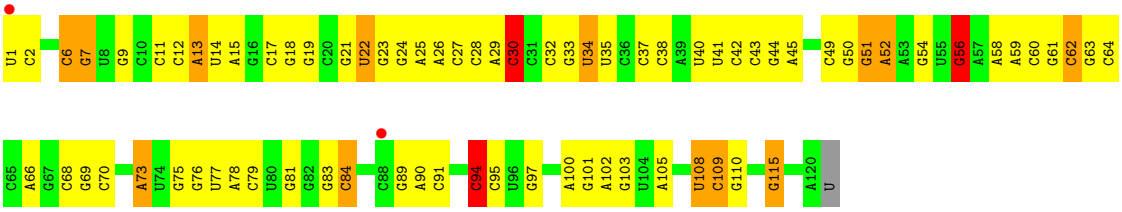
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



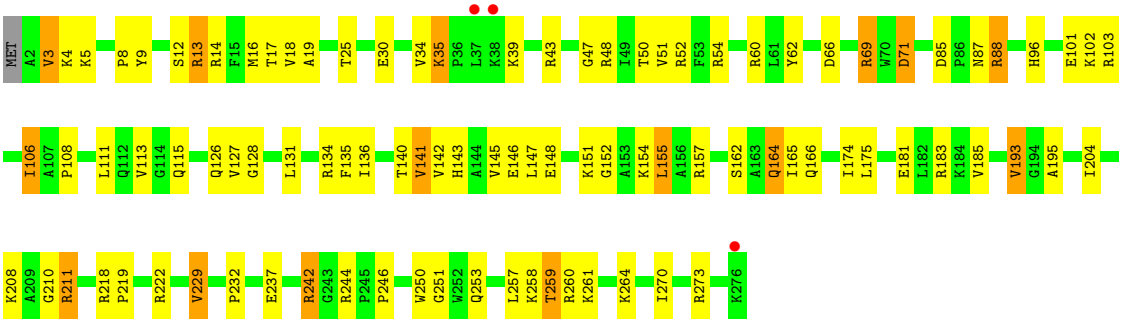
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



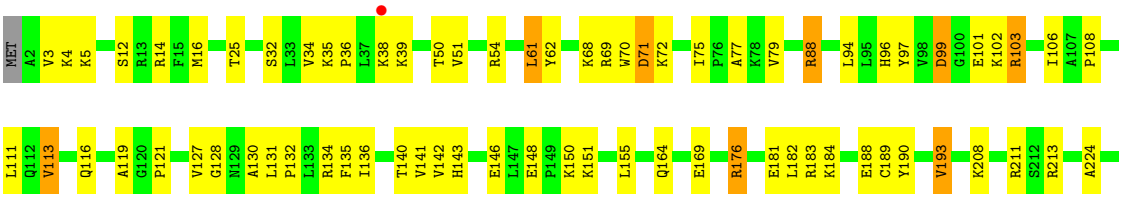
• Molecule 3: 50S ribosomal protein L2

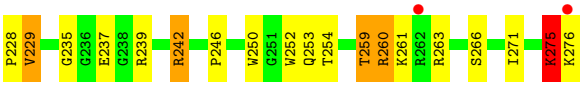
Chain 1D:



• Molecule 3: 50S ribosomal protein L2

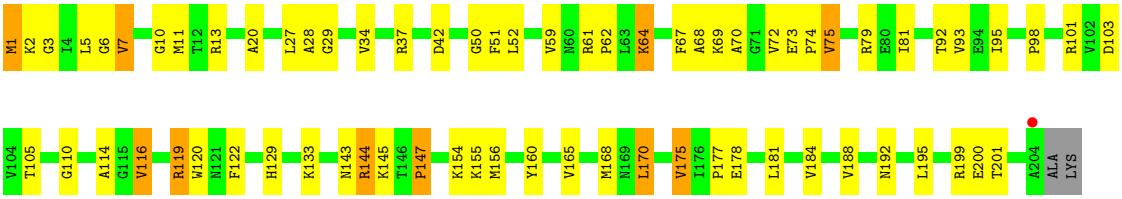
Chain 2D:





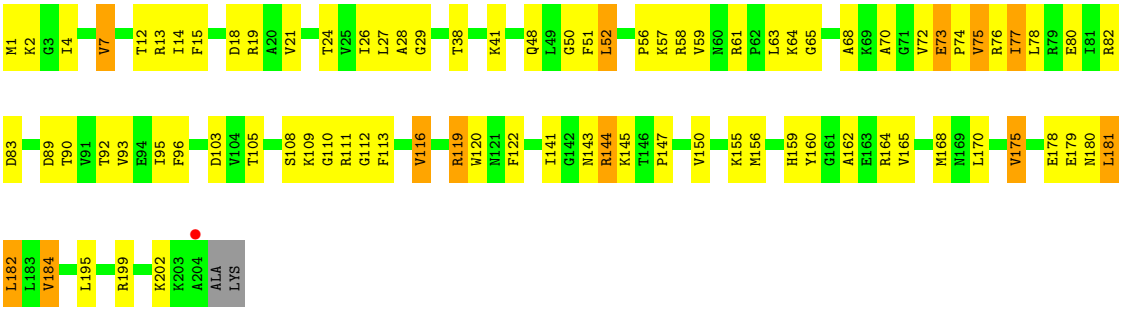
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



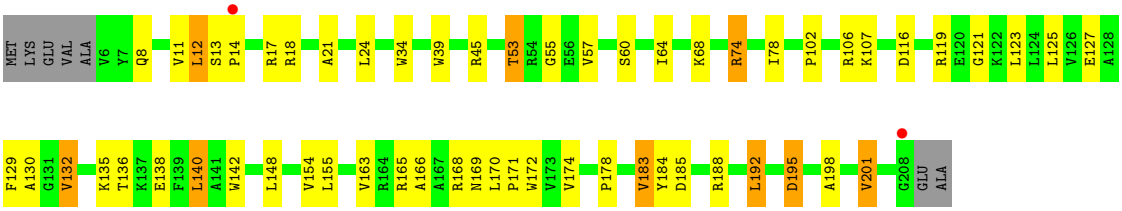
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



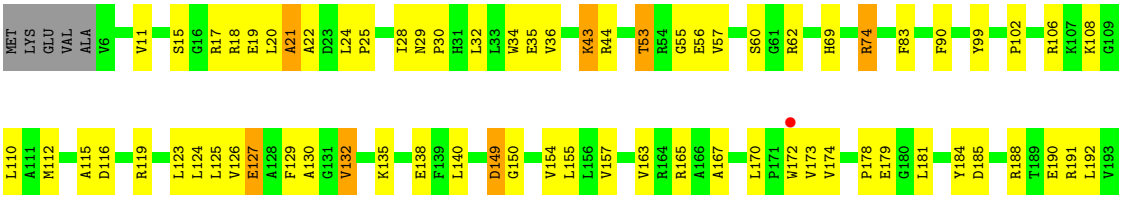
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



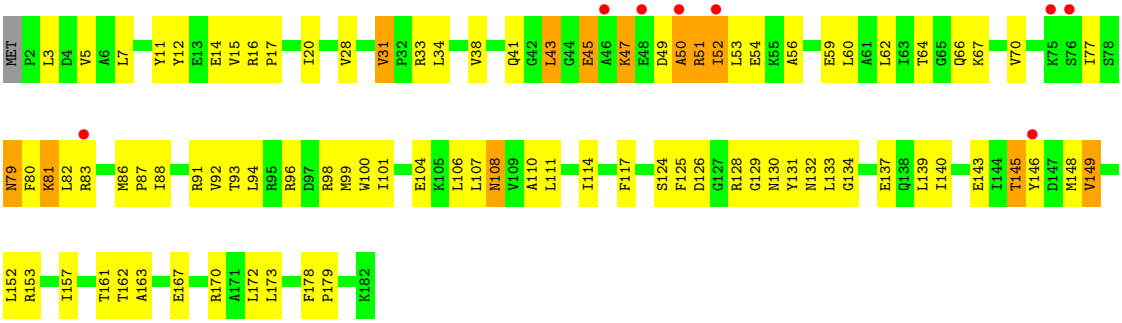
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



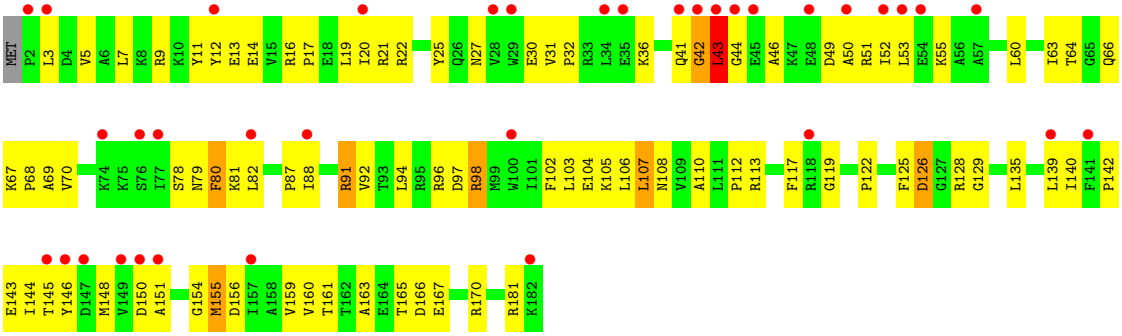
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



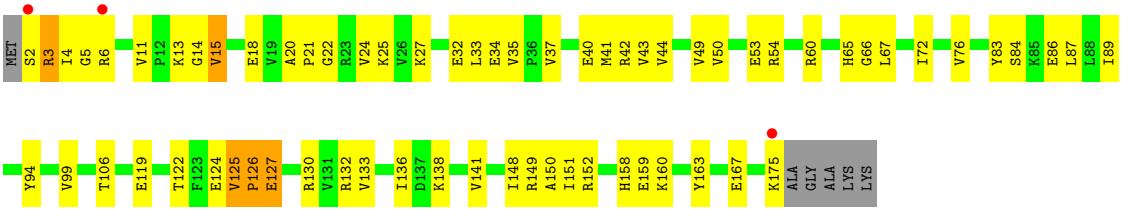
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



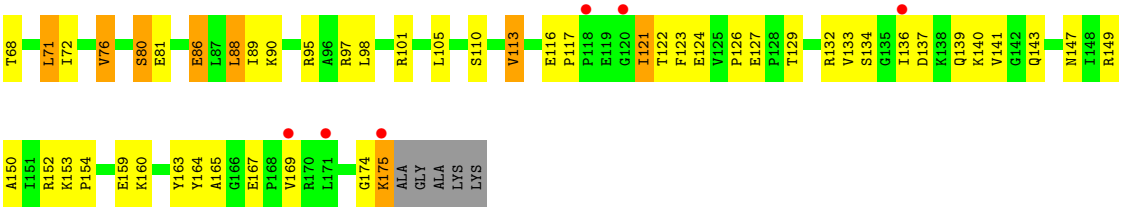
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



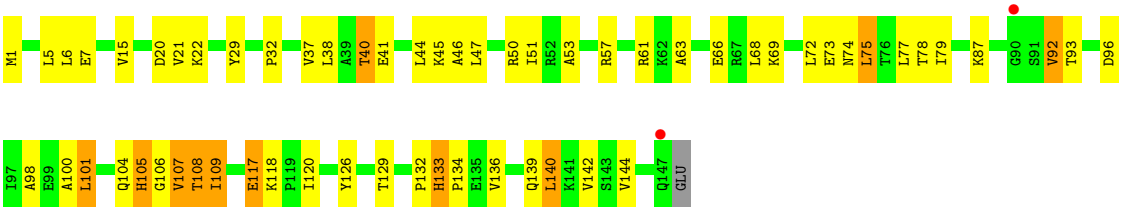
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



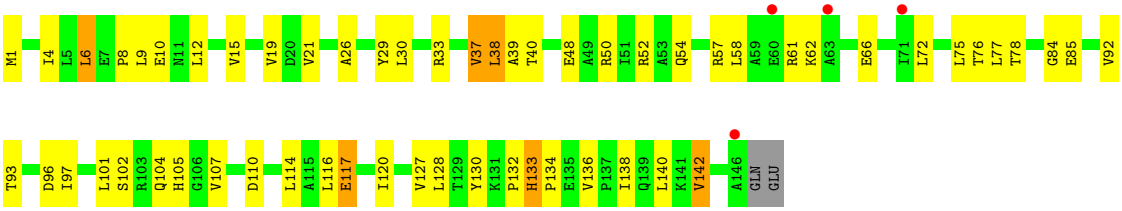
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



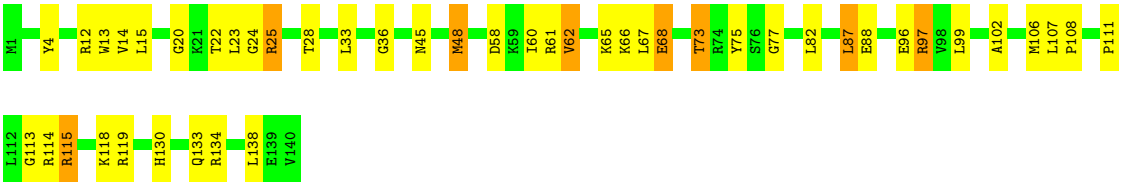
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



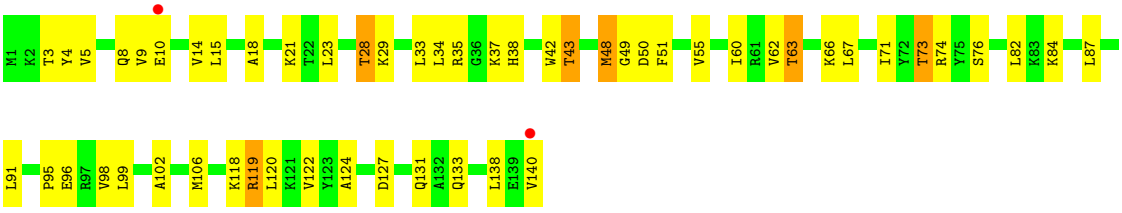
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



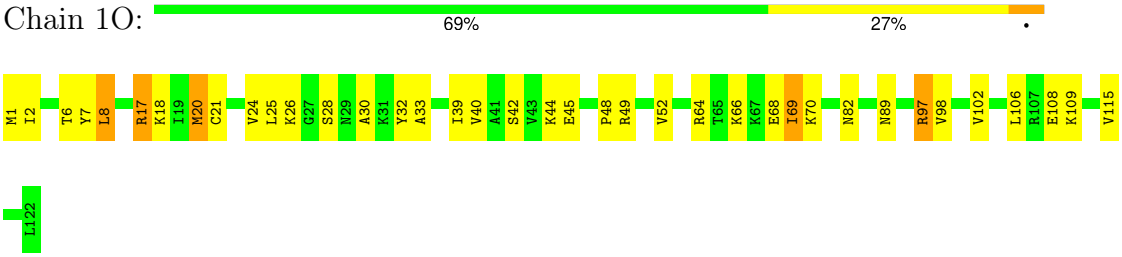
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



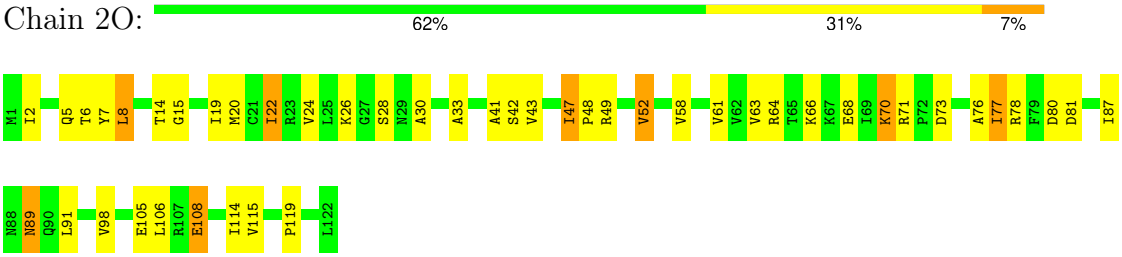
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



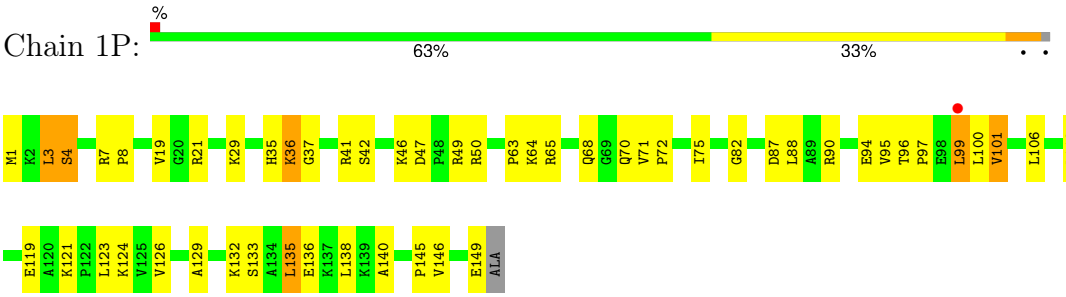
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



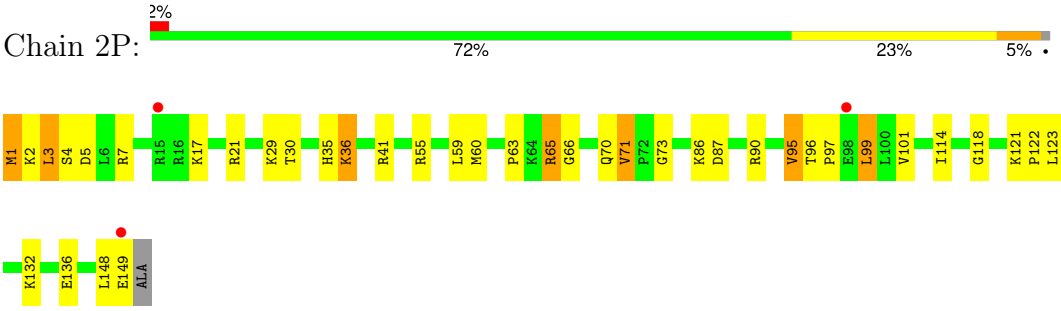
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



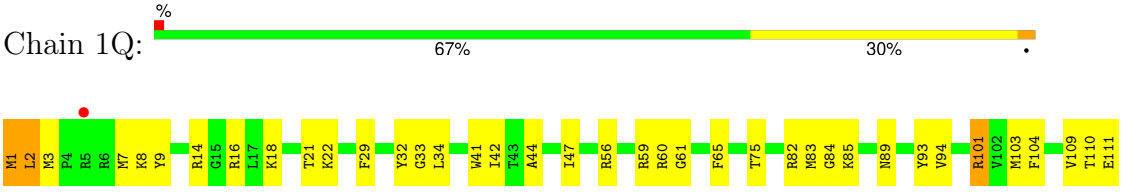
• Molecule 11: 50S ribosomal protein L15

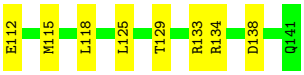
Chain 2P:



• Molecule 12: 50S ribosomal protein L16

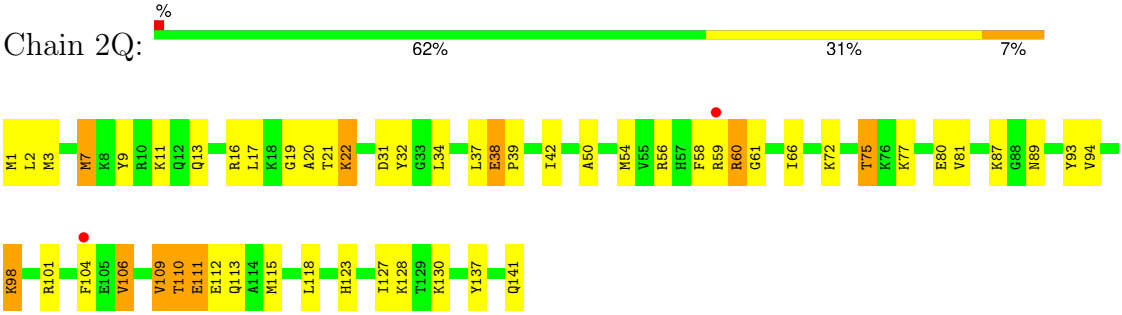
Chain 1Q:





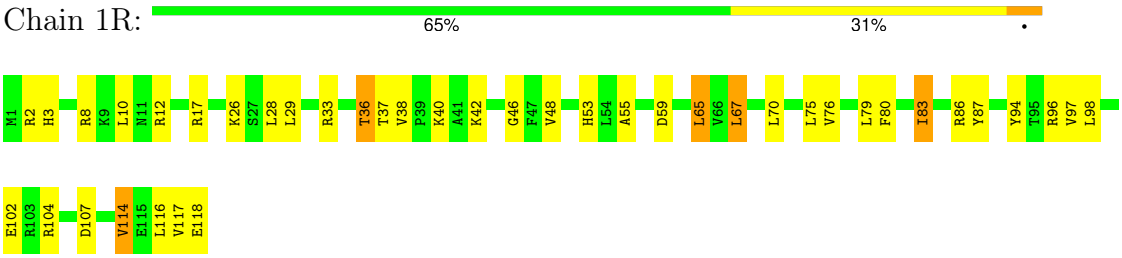
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



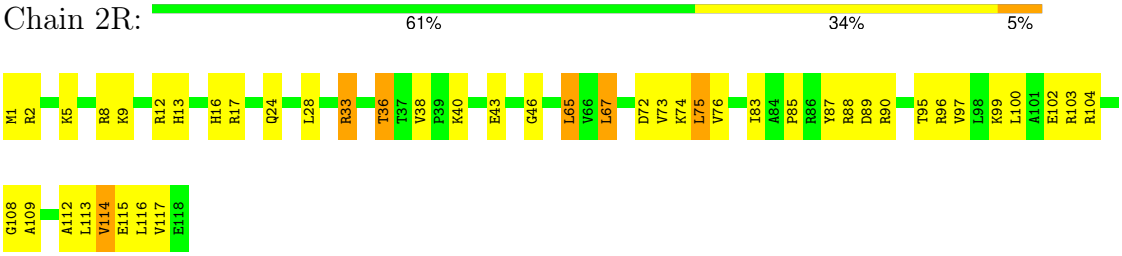
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



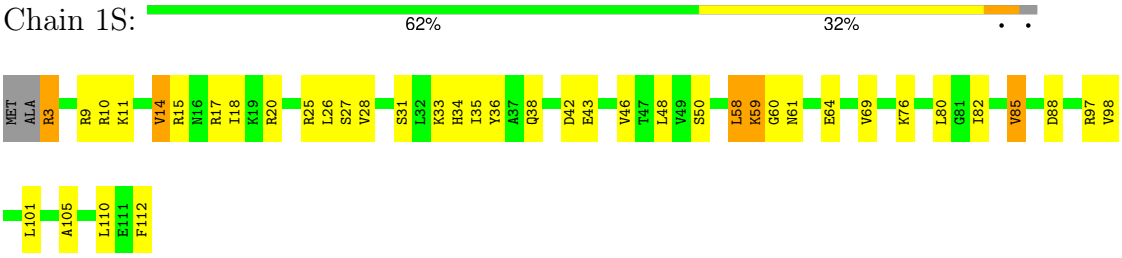
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



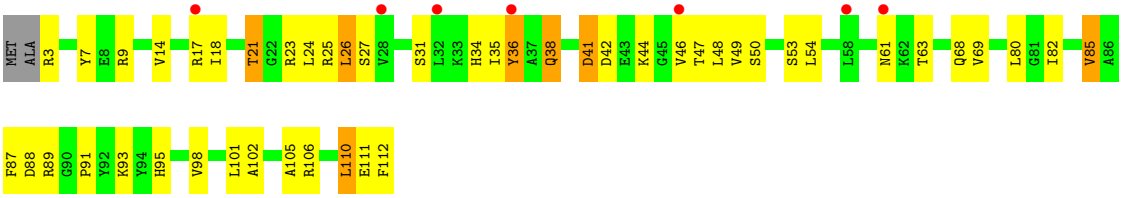
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



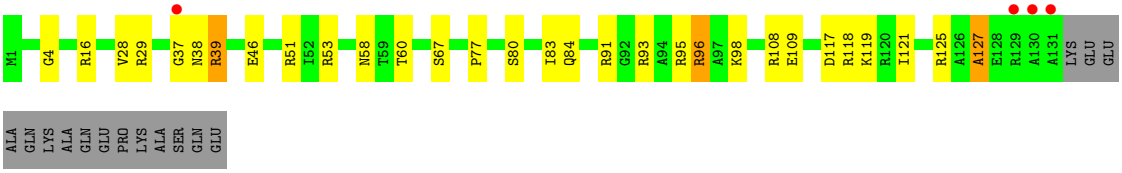
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



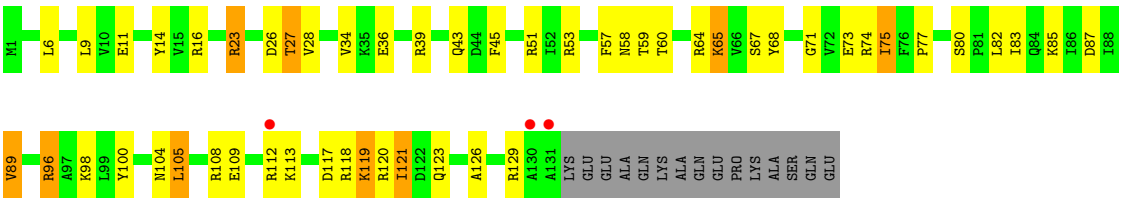
• Molecule 15: 50S ribosomal protein L19

Chain 1T:



• Molecule 15: 50S ribosomal protein L19

Chain 2T:

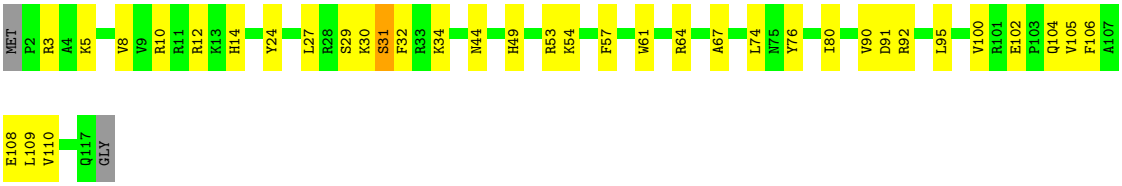


• Molecule 16: 50S ribosomal protein L20

Chain 1U:

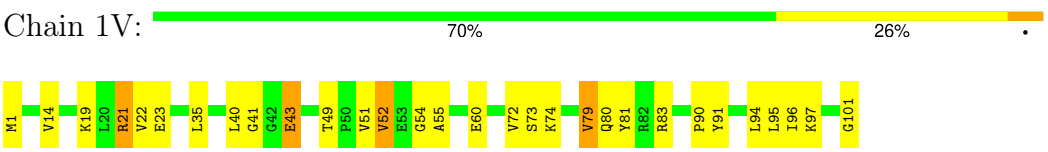
• Molecule 16: 50S ribosomal protein L20

Chain 2U:



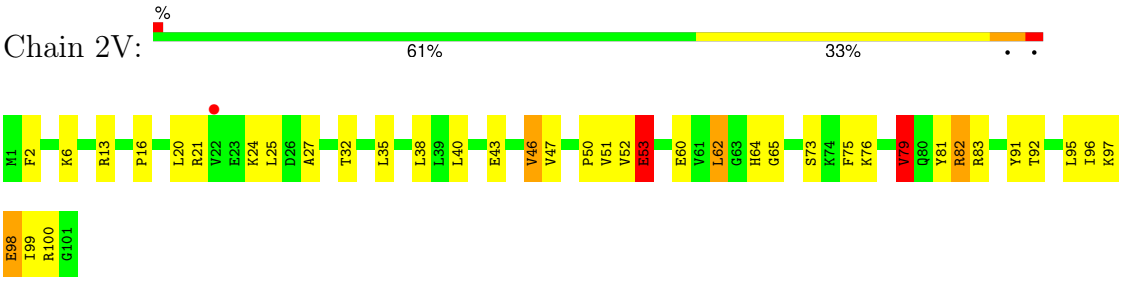
• Molecule 17: 50S ribosomal protein L21

Chain 1V:



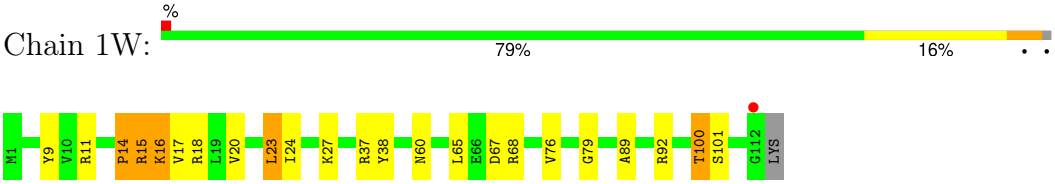
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



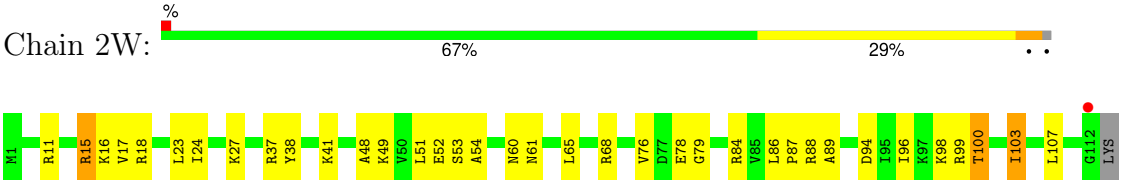
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



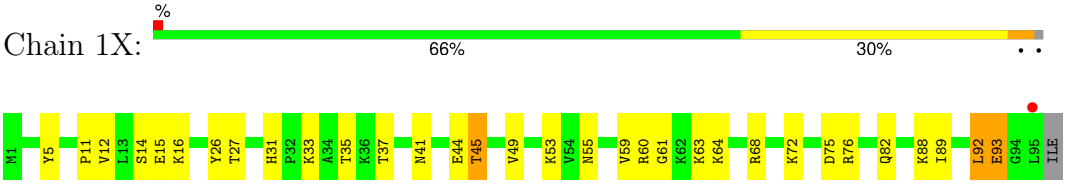
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



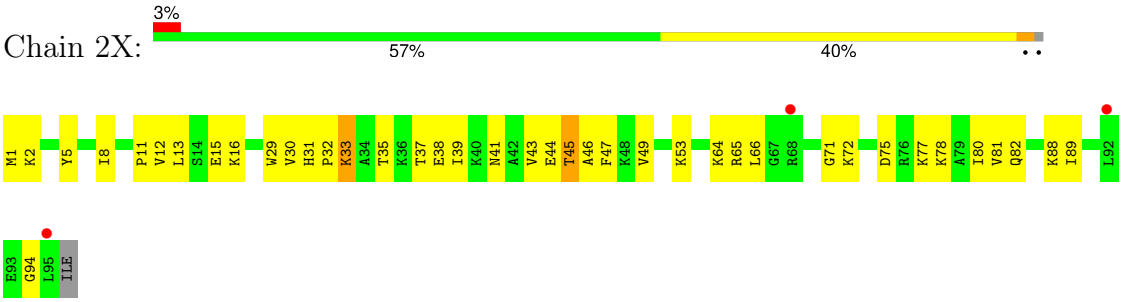
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



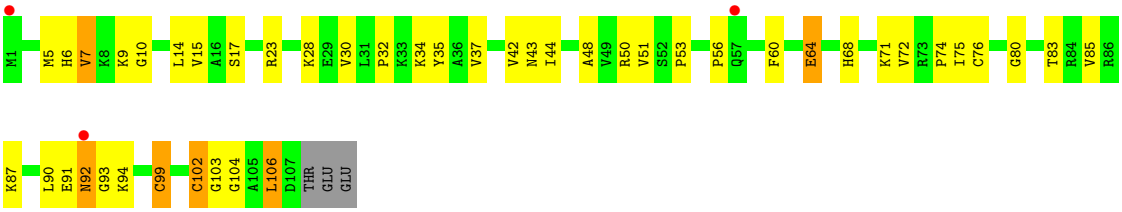
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



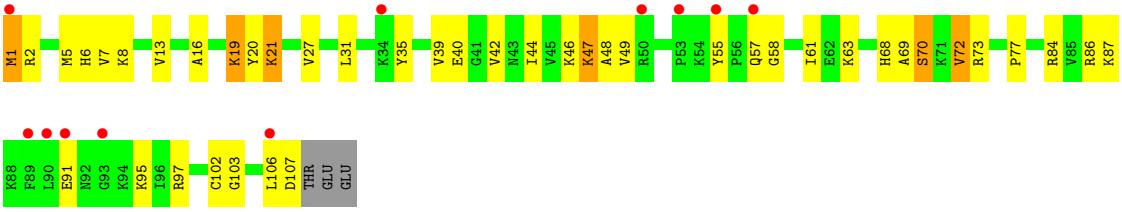
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



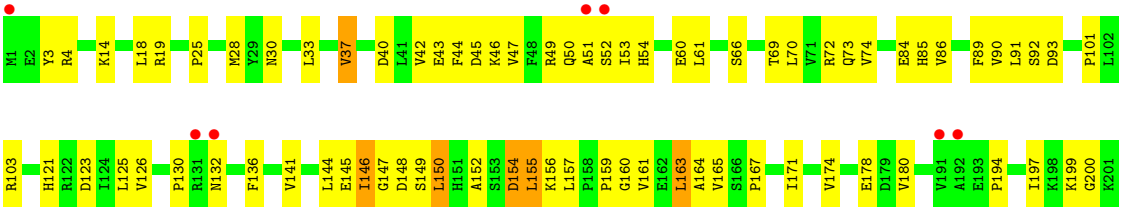
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



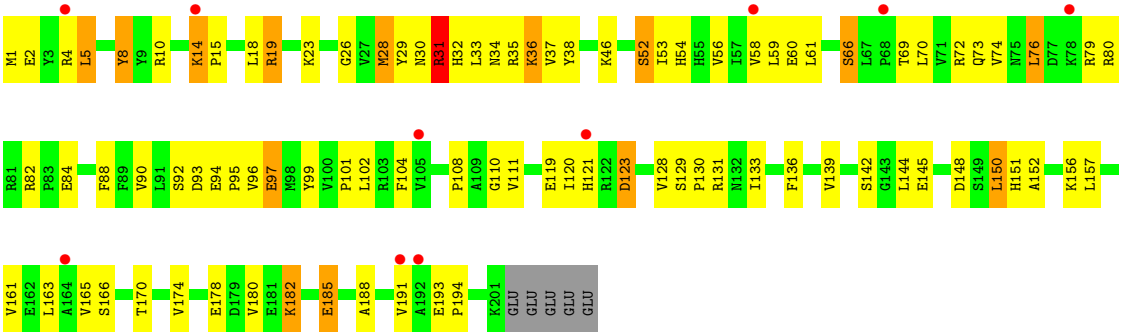
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



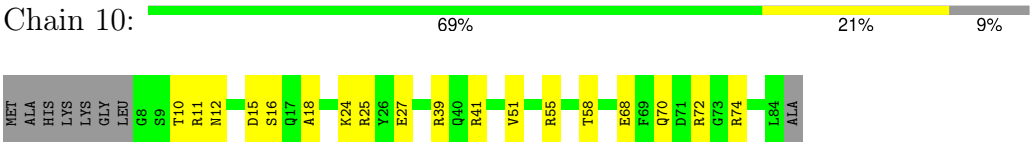
• Molecule 21: 50S ribosomal protein L25

Chain 2Z:



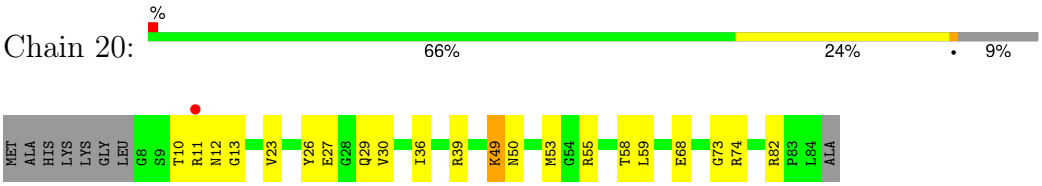
• Molecule 22: 50S ribosomal protein L27

Chain 10:



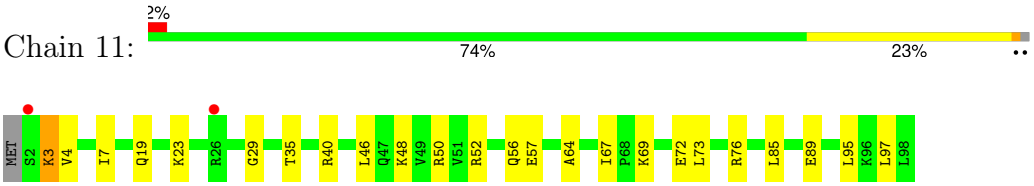
• Molecule 22: 50S ribosomal protein L27

Chain 20:



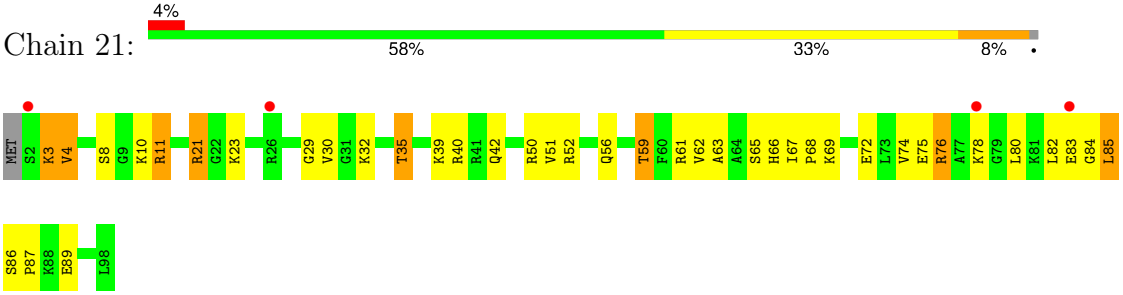
• Molecule 23: 50S ribosomal protein L28

Chain 11:



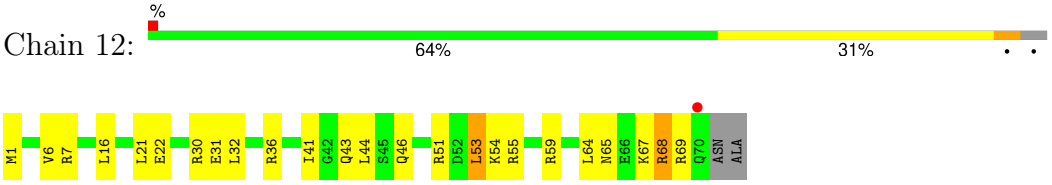
• Molecule 23: 50S ribosomal protein L28

Chain 21:



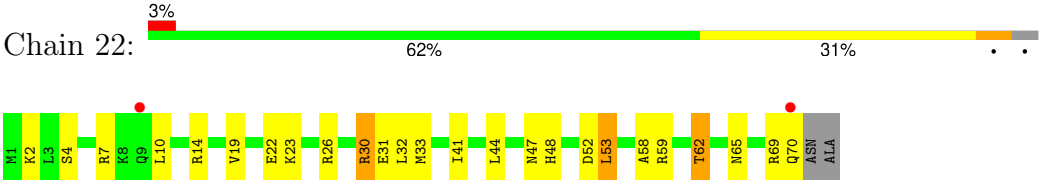
• Molecule 24: 50S ribosomal protein L29

Chain 12:



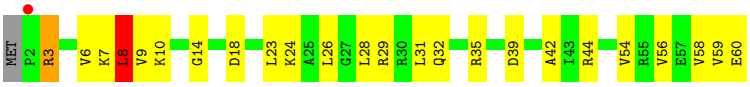
• Molecule 24: 50S ribosomal protein L29

Chain 22:



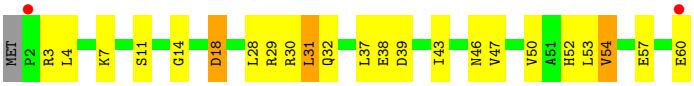
• Molecule 25: 50S ribosomal protein L30

Chain 13:



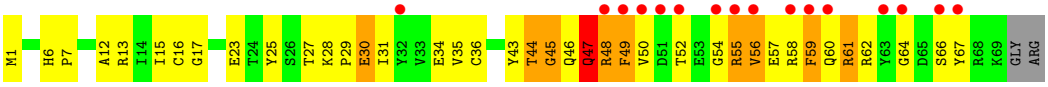
• Molecule 25: 50S ribosomal protein L30

Chain 23:



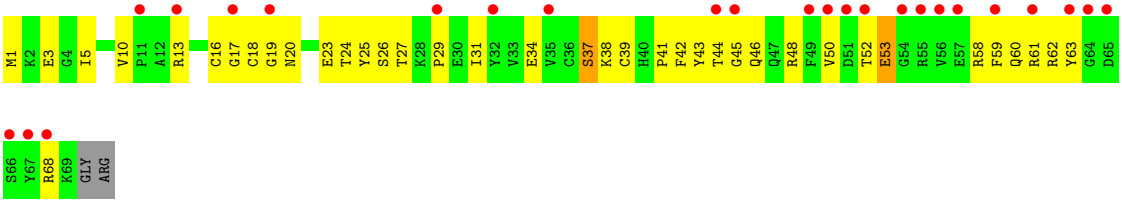
• Molecule 26: 50S ribosomal protein L31

Chain 14:



• Molecule 26: 50S ribosomal protein L31

Chain 24:

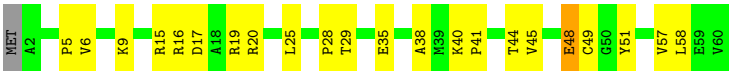


• Molecule 27: 50S ribosomal protein L32

Chain 15:

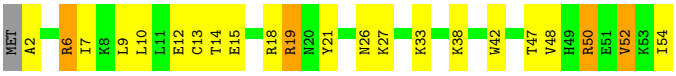
• Molecule 27: 50S ribosomal protein L32

Chain 25:



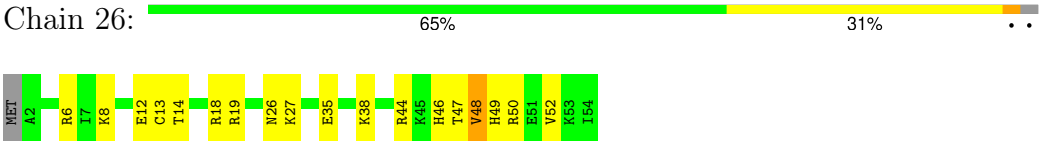
• Molecule 28: 50S ribosomal protein L33

Chain 16:



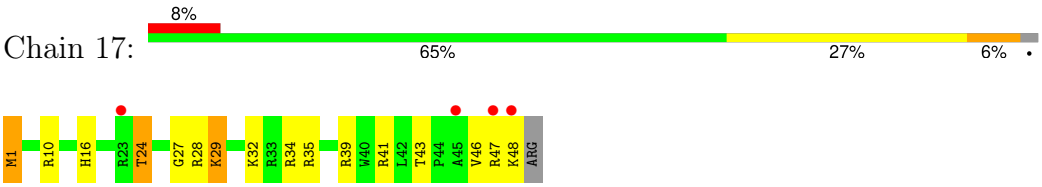
• Molecule 28: 50S ribosomal protein L33

Chain 26:



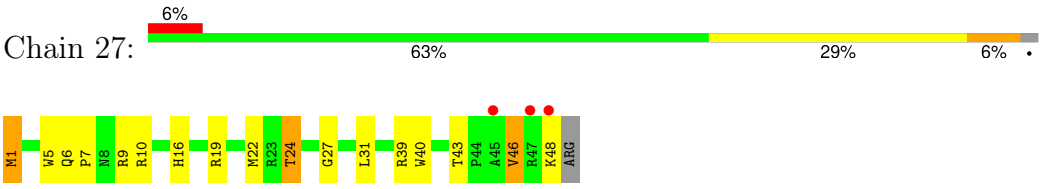
• Molecule 29: 50S ribosomal protein L34

Chain 17:



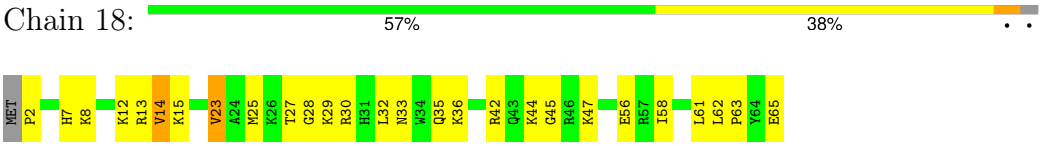
• Molecule 29: 50S ribosomal protein L34

Chain 27:



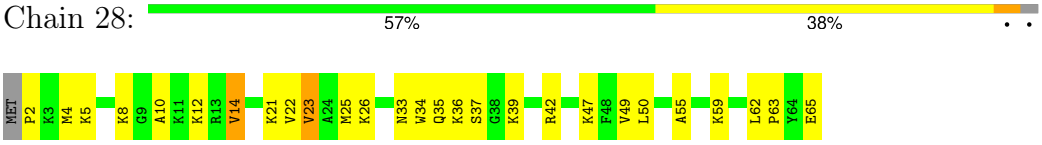
• Molecule 30: 50S ribosomal protein L35

Chain 18:



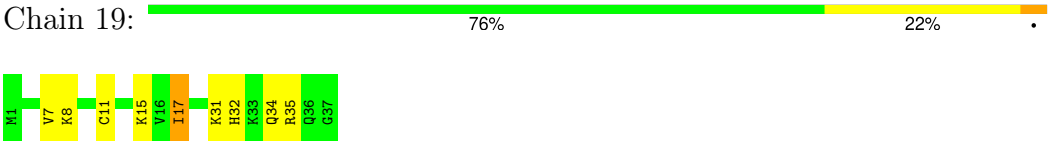
• Molecule 30: 50S ribosomal protein L35

Chain 28:



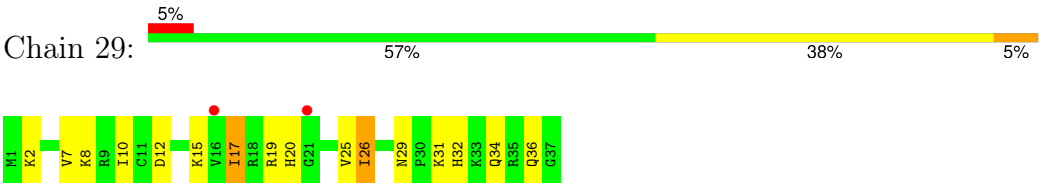
• Molecule 31: 50S ribosomal protein L36

Chain 19:



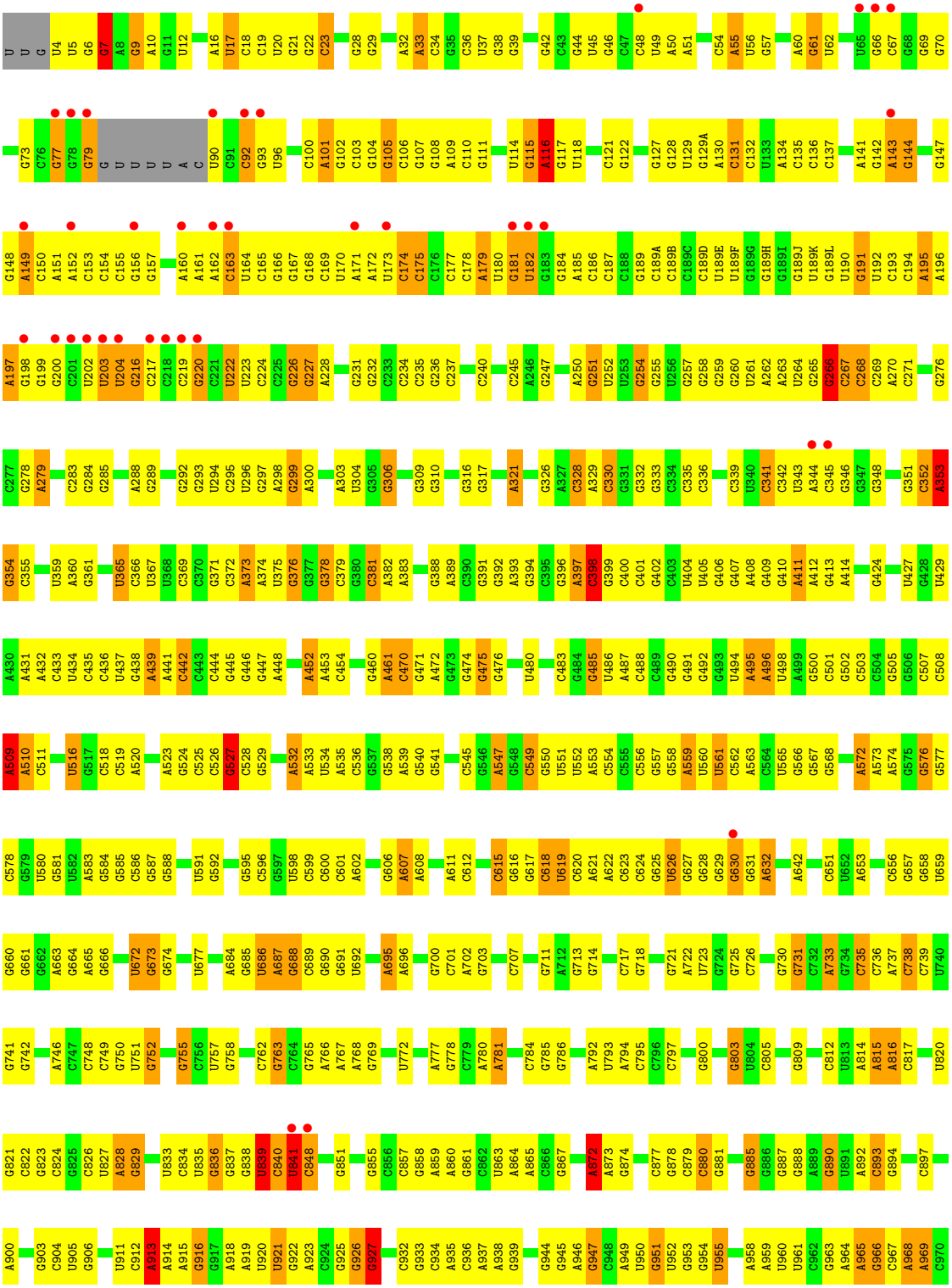
• Molecule 31: 50S ribosomal protein L36

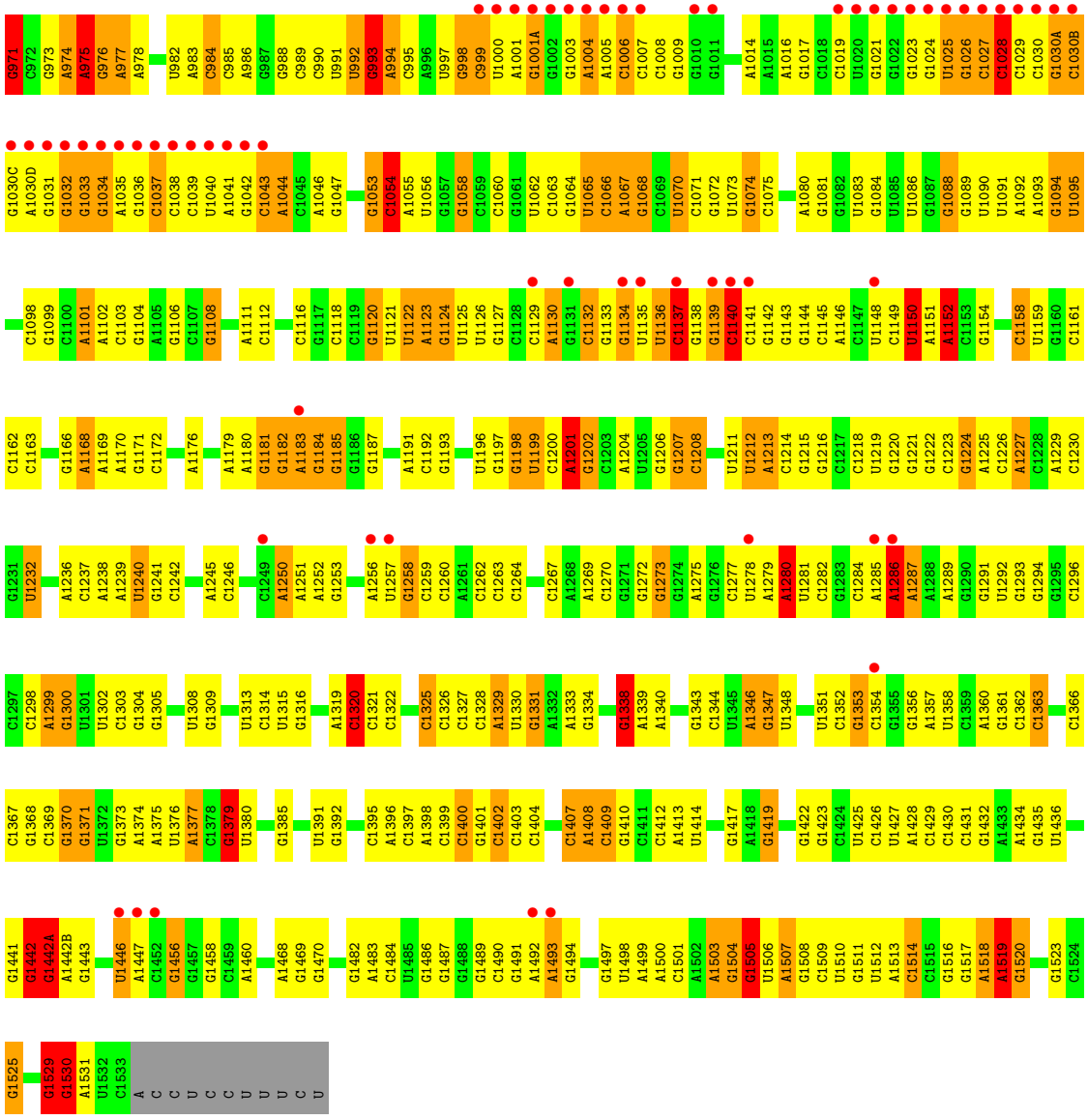
Chain 29:



• Molecule 32: 16S Ribosomal RNA

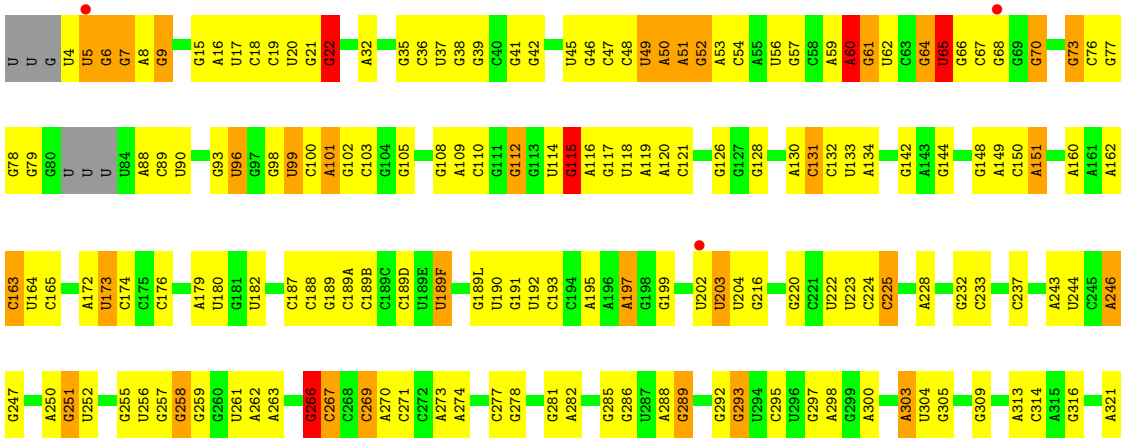
Chain 1a:

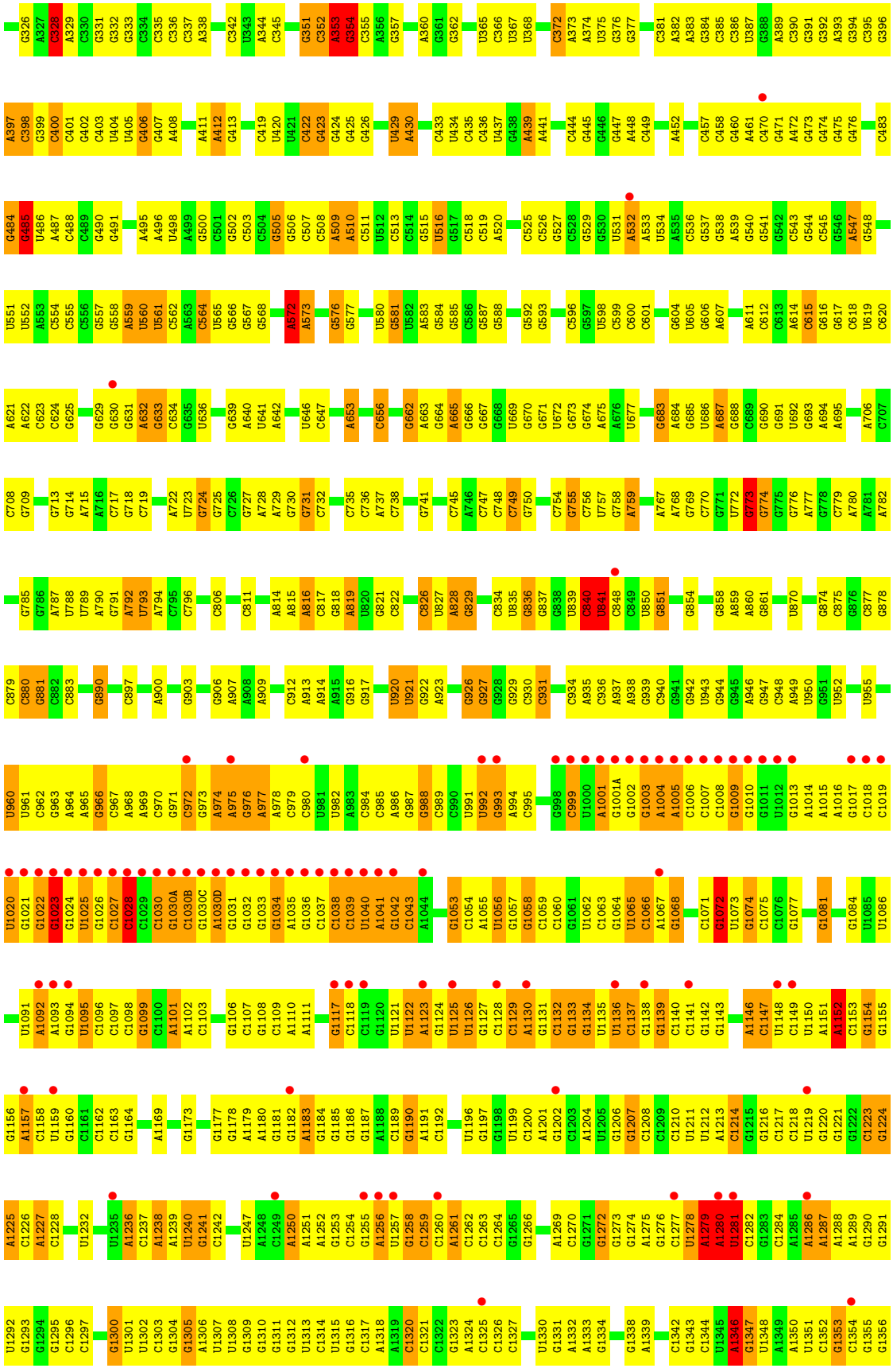


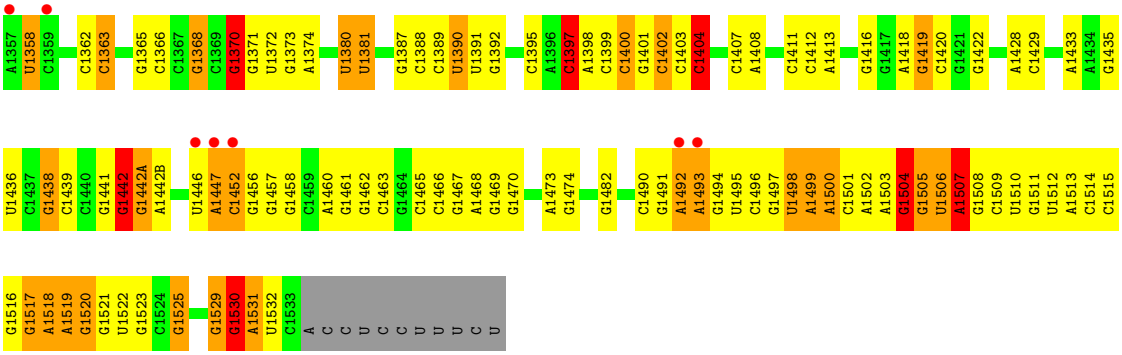


• Molecule 32: 16S Ribosomal RNA

Chain 2a:

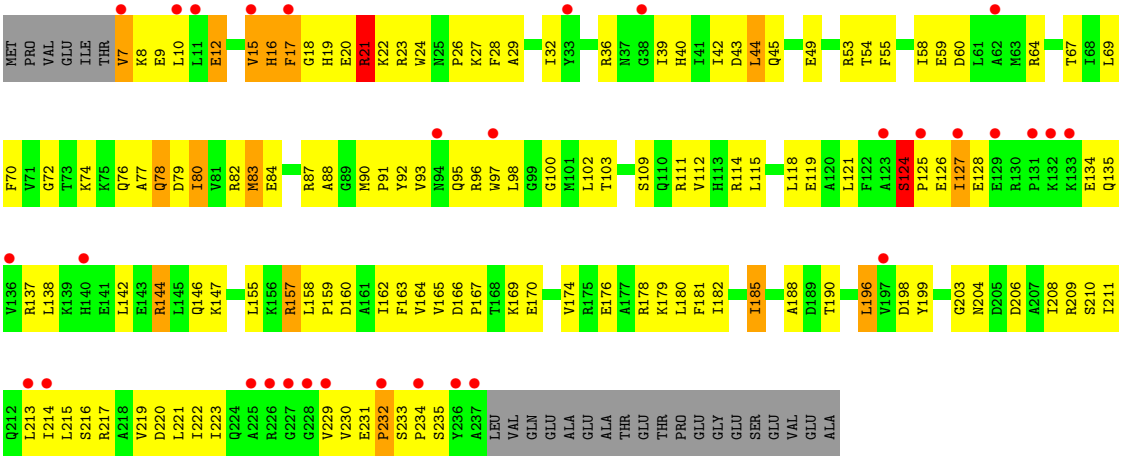






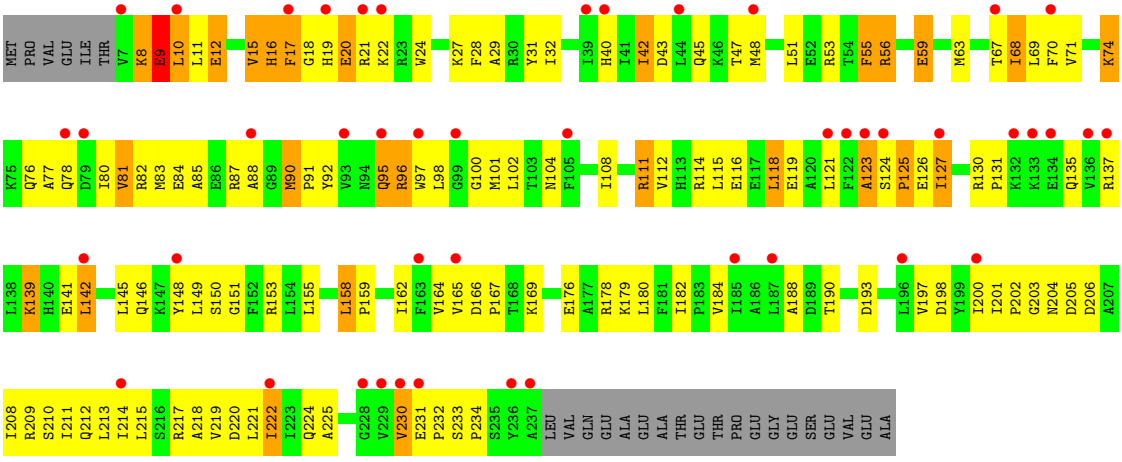
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



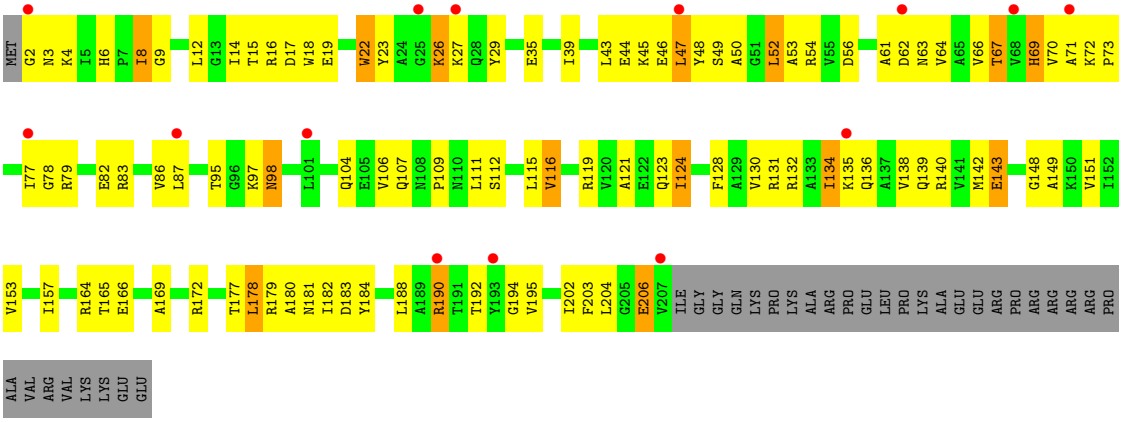
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



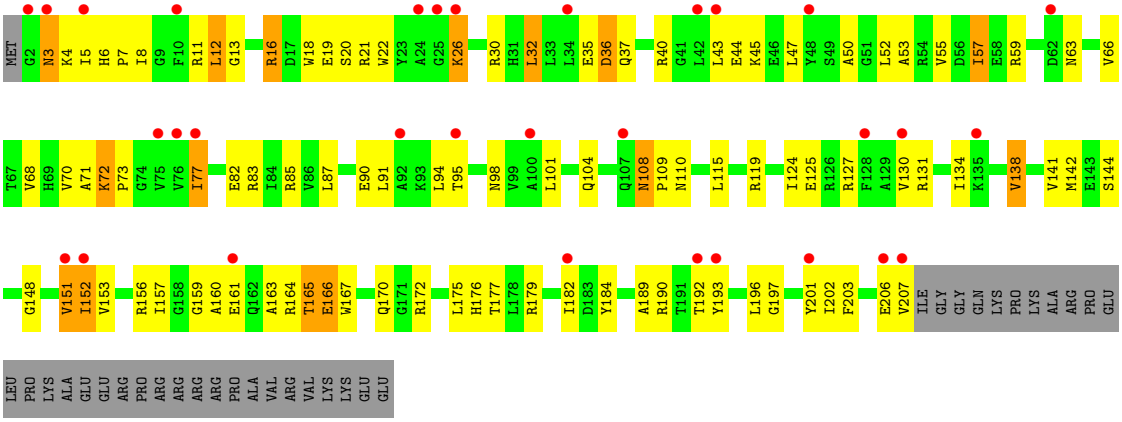
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



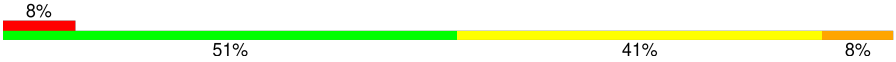
• Molecule 34: 30S ribosomal protein S3

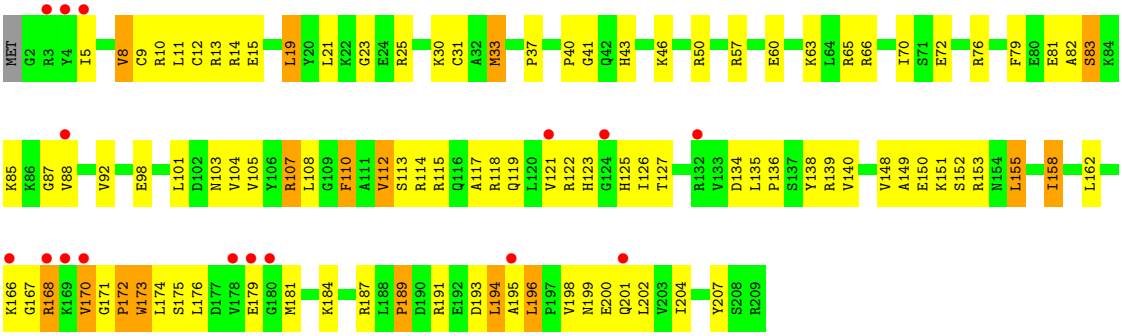
Chain 2c:



• Molecule 35: 30S ribosomal protein S4

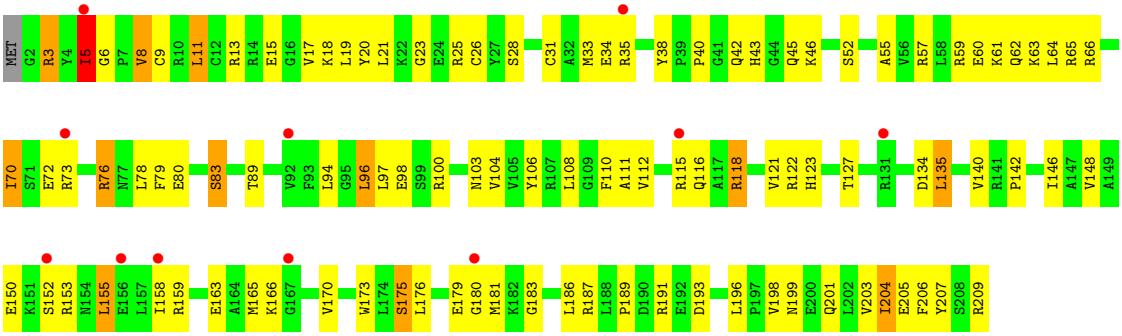
Chain 1d:





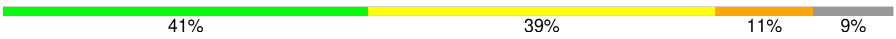
• Molecule 35: 30S ribosomal protein S4

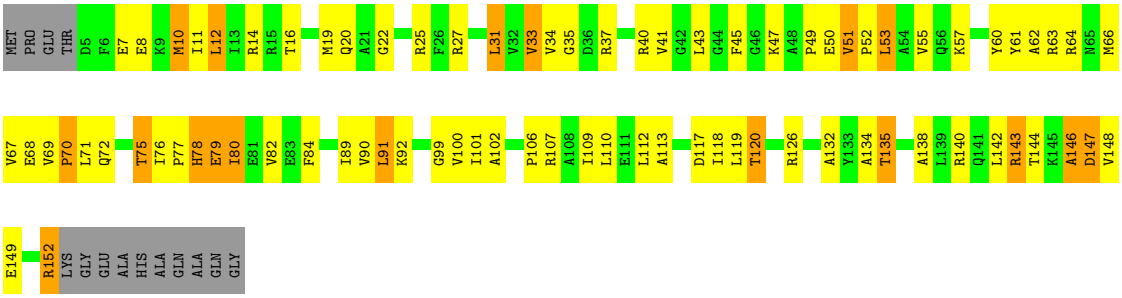
Chain 2d:



• Molecule 36: 30S ribosomal protein S5

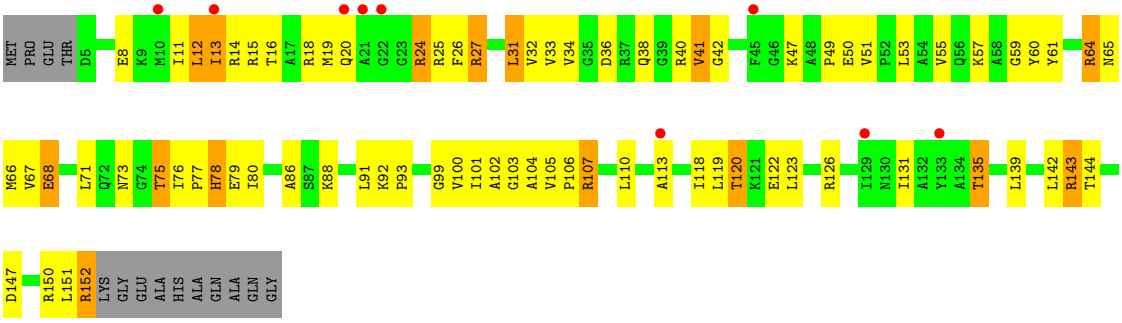
Chain 1e:





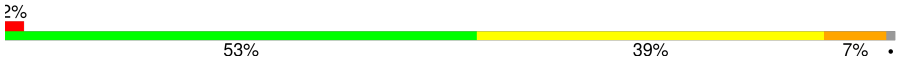
• Molecule 36: 30S ribosomal protein S5

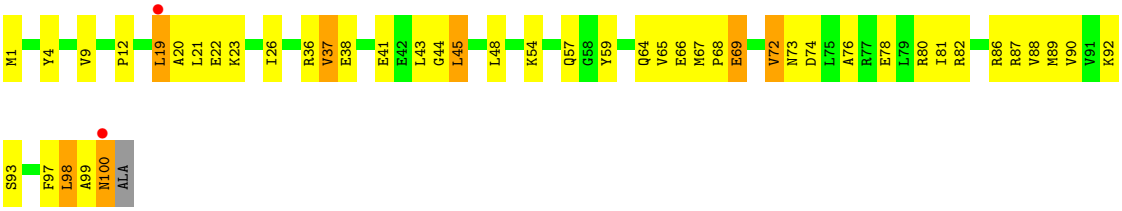
Chain 2e:



• Molecule 37: 30S ribosomal protein S6

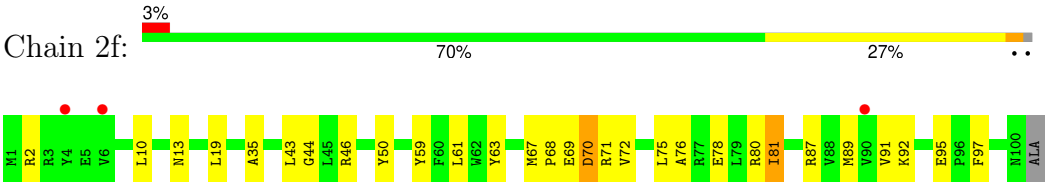
Chain 1f:





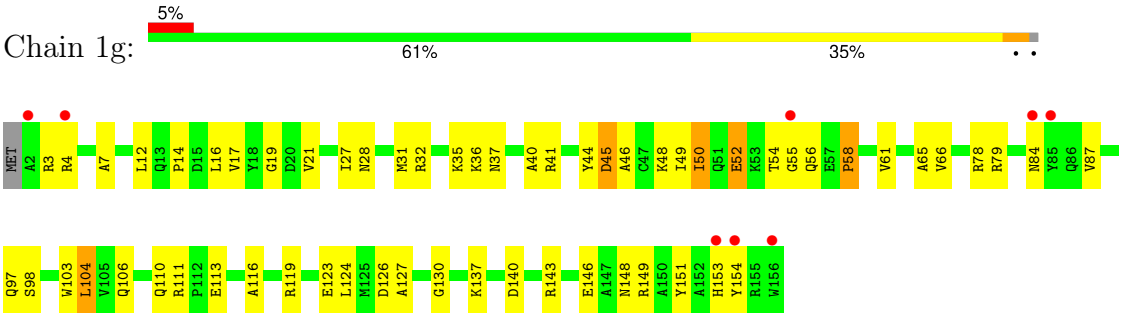
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



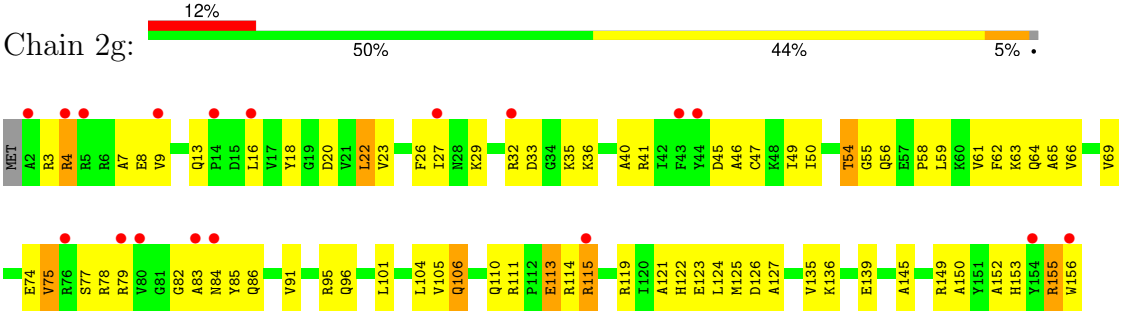
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



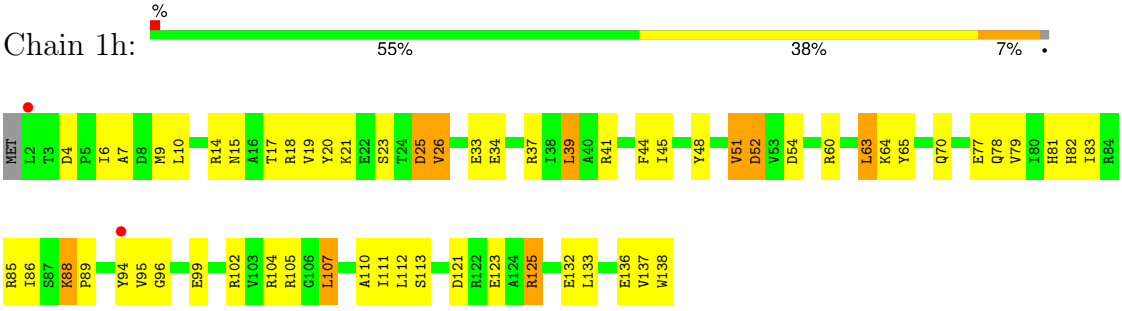
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



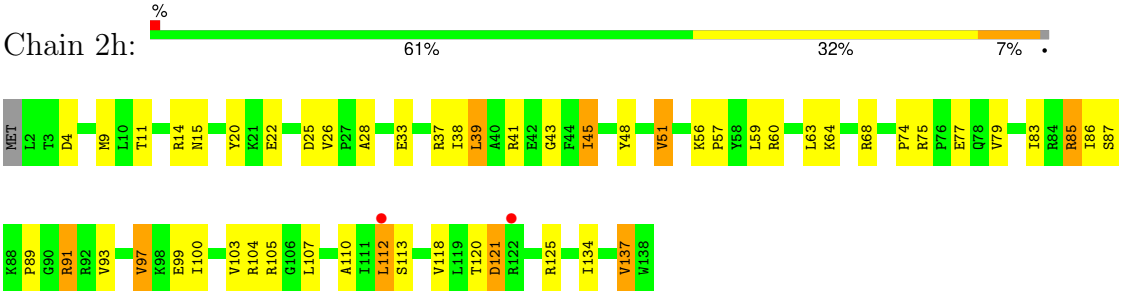
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



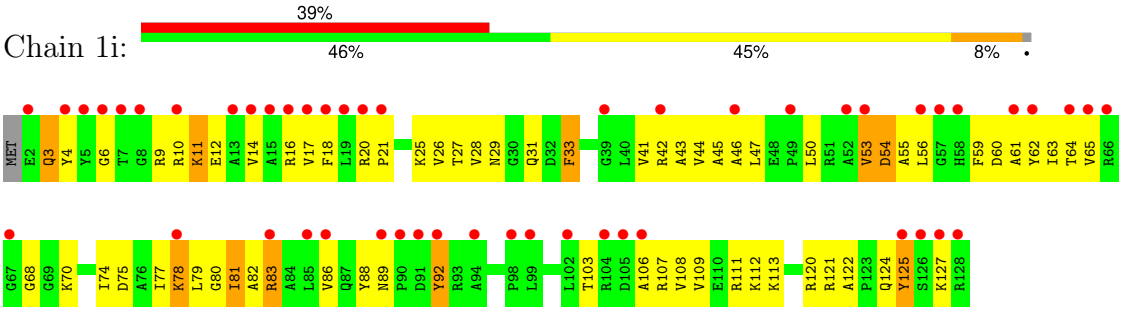
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



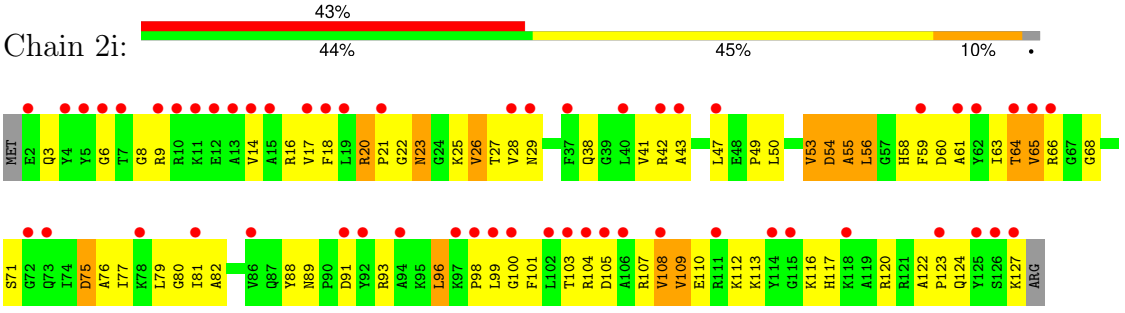
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



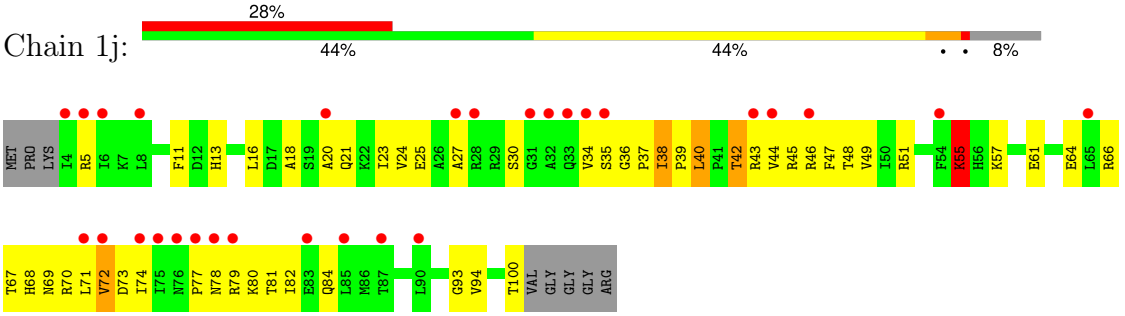
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



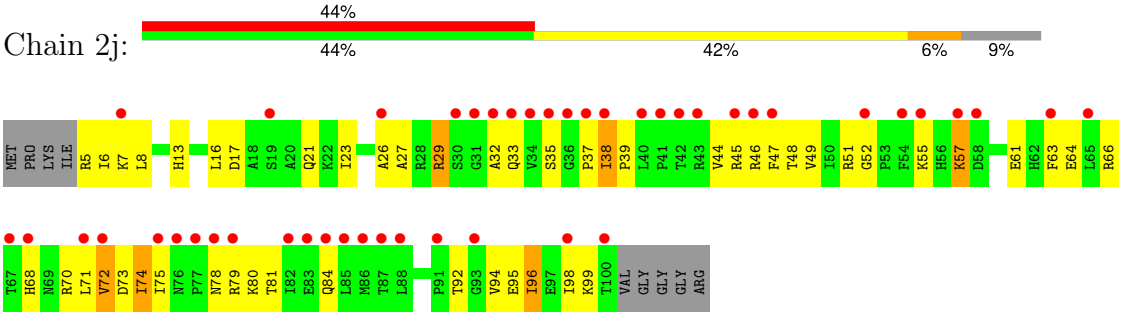
• Molecule 41: 30S ribosomal protein S10

Chain 1j:



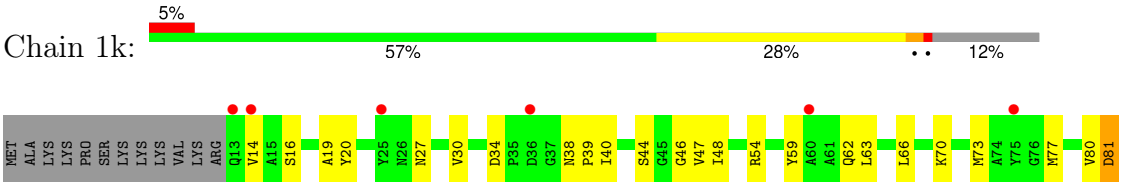
• Molecule 41: 30S ribosomal protein S10

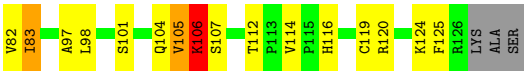
Chain 2j:



• Molecule 42: 30S ribosomal protein S11

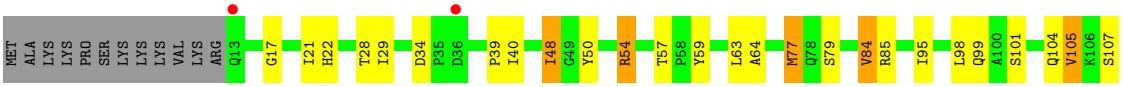
Chain 1k:

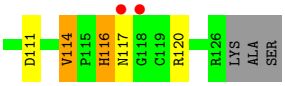




• Molecule 42: 30S ribosomal protein S11

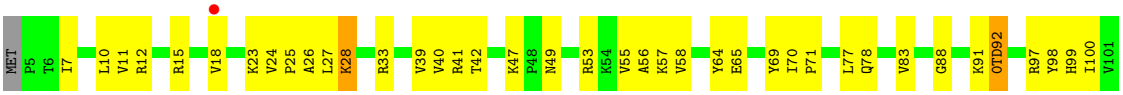
Chain 2k:

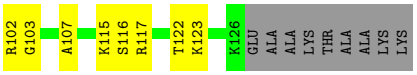




• Molecule 43: 30S ribosomal protein S12

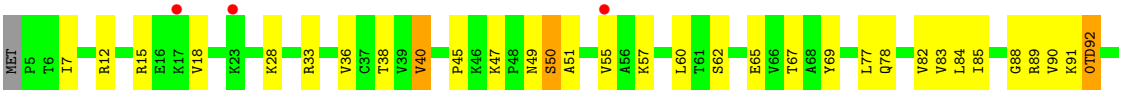
Chain 1l:

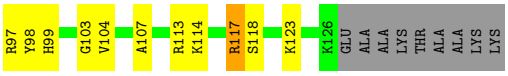




• Molecule 43: 30S ribosomal protein S12

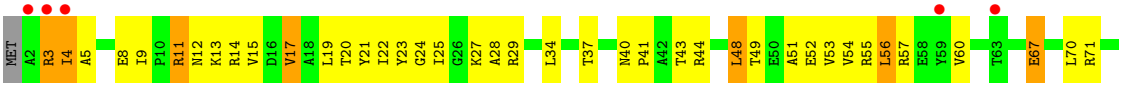
Chain 2l:

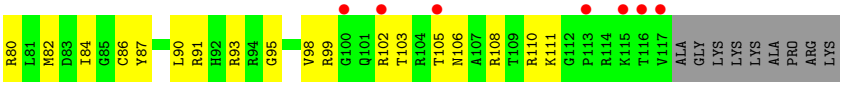




• Molecule 44: 30S ribosomal protein S13

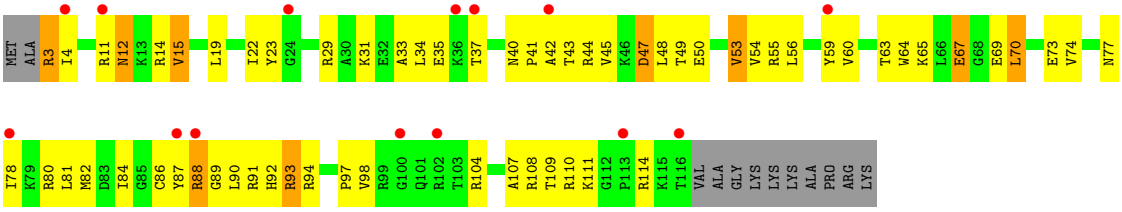
Chain 1m:



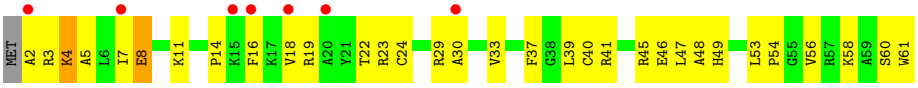


• Molecule 44: 30S ribosomal protein S13

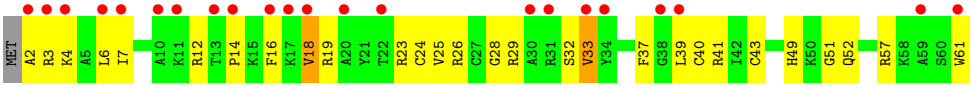
Chain 2m:



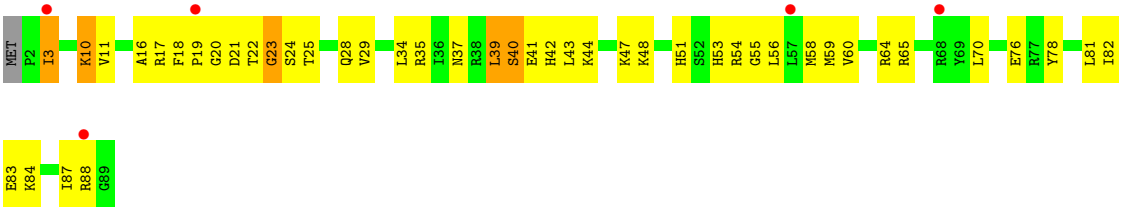
• Molecule 45: 30S ribosomal protein S14 type Z



• Molecule 45: 30S ribosomal protein S14 type Z

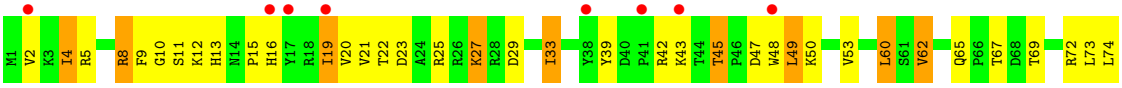


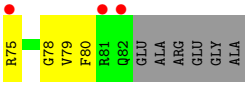
• Molecule 46: 30S ribosomal protein S15



• Molecule 46: 30S ribosomal protein S15

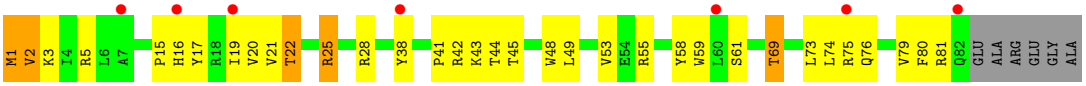
• Molecule 47: 30S ribosomal protein S16





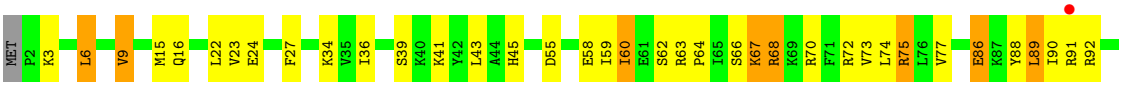
• Molecule 47: 30S ribosomal protein S16

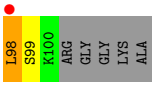
Chain 2p:



• Molecule 48: 30S ribosomal protein S17

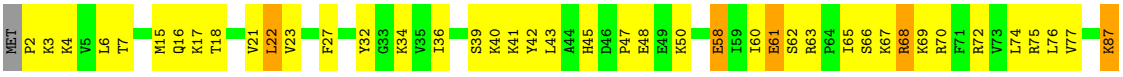
Chain 1q:

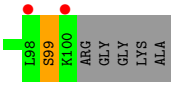




• Molecule 48: 30S ribosomal protein S17

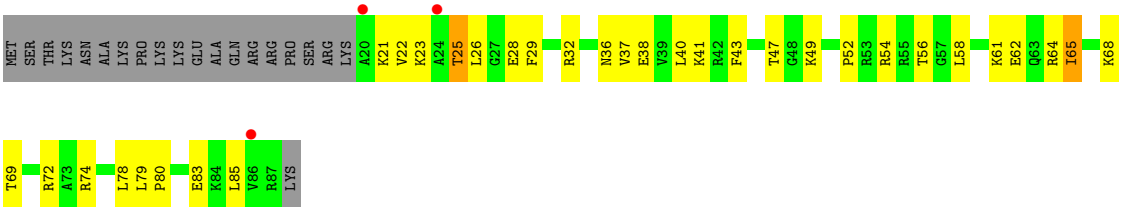
Chain 2q:





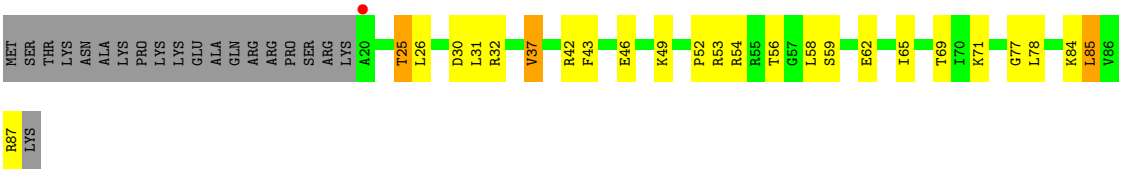
• Molecule 49: 30S ribosomal protein S18

Chain 1r:



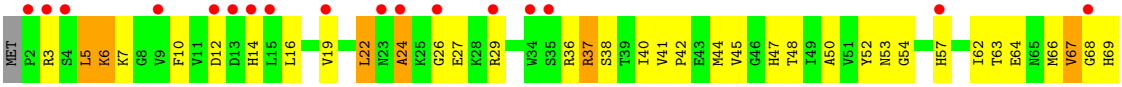
• Molecule 49: 30S ribosomal protein S18

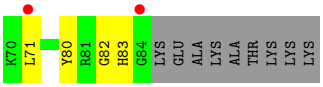
Chain 2r:



• Molecule 50: 30S ribosomal protein S19

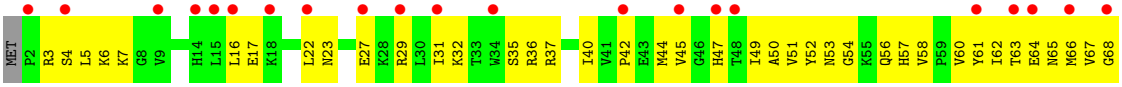
Chain 1s:

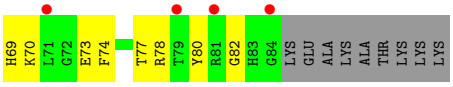




• Molecule 50: 30S ribosomal protein S19

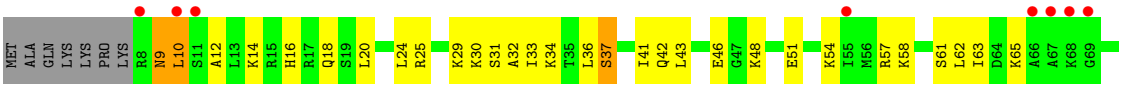
Chain 2s:

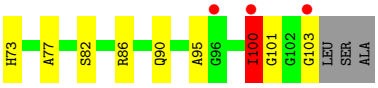




• Molecule 51: 30S ribosomal protein S20

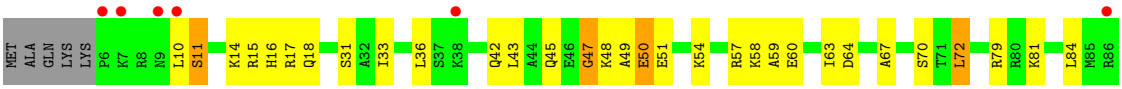
Chain 1t:

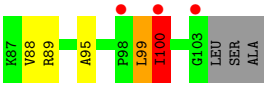




• Molecule 51: 30S ribosomal protein S20

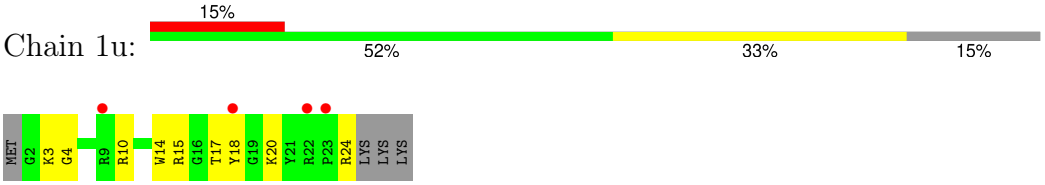
Chain 2t:





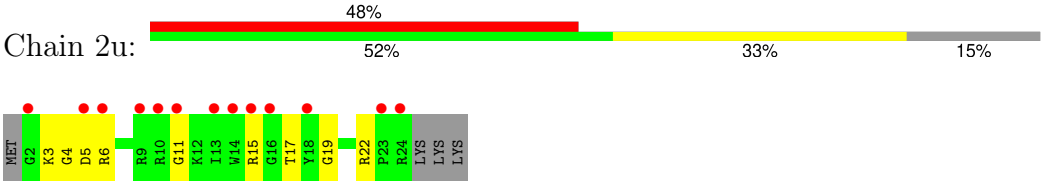
• Molecule 52: 30S ribosomal protein Thx

Chain 1u:



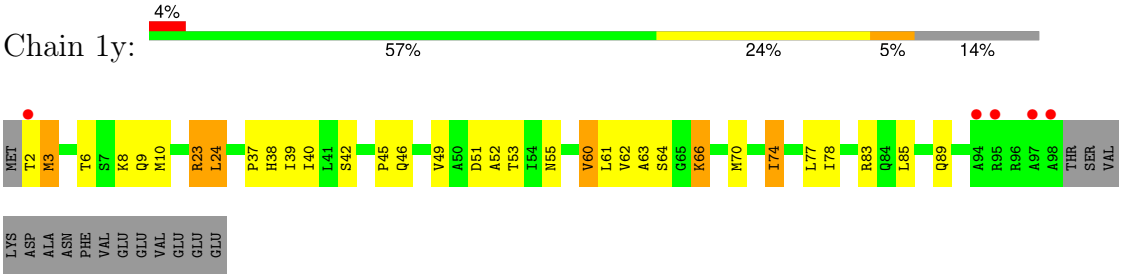
• Molecule 52: 30S ribosomal protein Thx

Chain 2u:



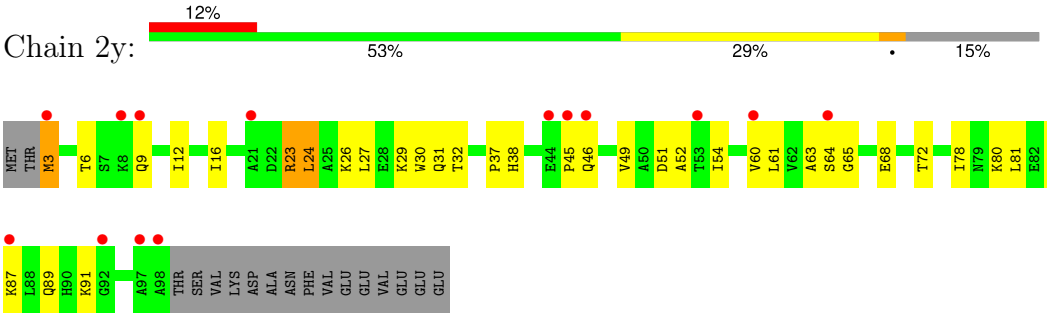
• Molecule 53: Ribosome-associated inhibitor A

Chain 1y:



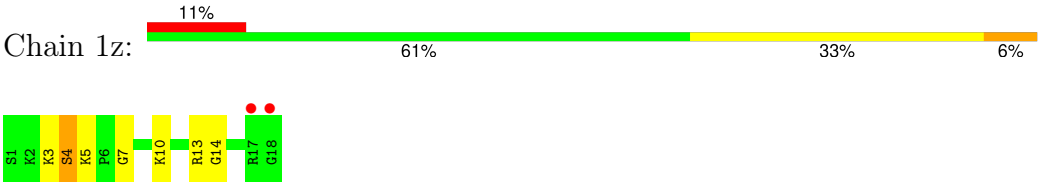
• Molecule 53: Ribosome-associated inhibitor A

Chain 2y:



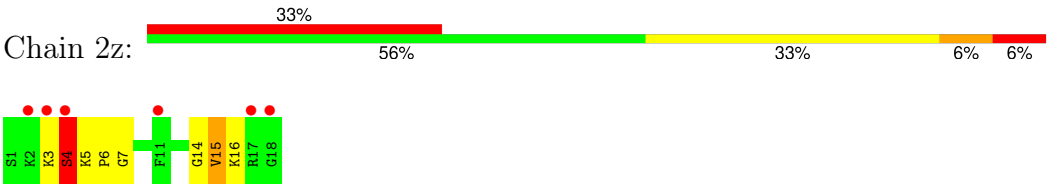
• Molecule 54: Lasso peptide lariocidin

Chain 1z:



• Molecule 54: Lasso peptide lariocidin

Chain 2z:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	207.14Å 444.01Å 615.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	55.97 – 2.60 55.97 – 2.60	Depositor EDS
% Data completeness (in resolution range)	99.9 (55.97-2.60) 100.0 (55.97-2.60)	Depositor EDS
R_{merge}	0.26	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.24 (at 2.62Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.202 , 0.252 0.201 , 0.250	Depositor DCC
R_{free} test set	86070 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	44.1	Xtriage
Anisotropy	0.067	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 53.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	298738	wwPDB-VP
Average B, all atoms (Å^2)	53.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% 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: 2MG, 4OC, UR3, MPD, MG, M2G, PSU, G7M, ZN, OMU, MA6, 2MA, OMG, OMC, 5MU, SF4, 5MC, 0TD

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	1.22	58/69031 (0.1%)	1.58	1104/107754 (1.0%)
1	2A	0.99	25/68903 (0.0%)	1.42	601/107552 (0.6%)
2	1B	0.97	1/2876 (0.0%)	1.42	16/4486 (0.4%)
2	2B	0.76	0/2878	1.31	15/4490 (0.3%)
3	1D	0.63	0/2181	0.80	0/2940
3	2D	0.53	0/2186	0.75	0/2944
4	1E	0.60	0/1592	0.79	0/2149
4	2E	0.48	0/1592	0.69	0/2149
5	1F	0.57	0/1619	0.76	0/2193
5	2F	0.45	0/1615	0.71	0/2188
6	1G	0.44	0/1451	0.66	1/1961 (0.1%)
6	2G	0.38	0/1449	0.57	0/1957
7	1H	0.48	0/1356	0.68	0/1834
7	2H	0.40	0/1350	0.59	0/1826
8	1I	0.43	0/1109	0.67	0/1512
8	2I	0.37	0/1091	0.57	0/1490
9	1N	0.63	0/1148	0.77	1/1547 (0.1%)
9	2N	0.43	0/1144	0.62	0/1543
10	1O	0.61	0/943	0.73	0/1269
10	2O	0.48	0/943	0.70	0/1269
11	1P	0.58	0/1152	0.75	2/1533 (0.1%)
11	2P	0.48	0/1152	0.67	0/1533
12	1Q	0.59	0/1143	0.72	0/1527
12	2Q	0.46	0/1143	0.64	0/1527
13	1R	0.64	0/982	0.77	0/1312
13	2R	0.52	0/982	0.74	2/1312 (0.2%)
14	1S	0.48	0/887	0.67	0/1180
14	2S	0.40	0/880	0.60	0/1172
15	1T	0.56	0/1105	0.73	0/1477
15	2T	0.46	0/1097	0.66	0/1468
16	1U	0.67	0/977	0.76	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.45	0/977	0.67	0/1301
17	1V	0.61	0/786	0.76	0/1053
17	2V	0.40	0/782	0.62	0/1049
18	1W	0.63	0/897	0.71	0/1205
18	2W	0.53	0/897	0.66	0/1205
19	1X	0.59	0/764	0.69	0/1025
19	2X	0.48	0/764	0.62	0/1025
20	1Y	0.58	0/823	0.80	0/1099
20	2Y	0.48	0/823	0.70	0/1100
21	1Z	0.44	0/1620	0.67	0/2200
21	2Z	0.40	0/1590	0.61	0/2162
22	10	0.59	0/616	0.73	0/821
22	20	0.43	0/616	0.63	0/821
23	11	0.57	0/761	0.65	0/1013
23	21	0.58	0/766	0.71	0/1018
24	12	0.57	0/590	0.69	0/781
24	22	0.43	0/594	0.60	0/785
25	13	0.60	0/474	0.81	2/635 (0.3%)
25	23	0.41	0/469	0.62	0/630
26	14	0.46	0/559	0.80	2/754 (0.3%)
26	24	0.56	0/549	0.79	1/741 (0.1%)
27	15	0.61	0/473	0.70	0/639
27	25	0.52	0/469	0.74	0/635
28	16	0.62	0/460	0.84	0/613
28	26	0.47	0/456	0.65	0/608
29	17	0.69	0/426	0.77	0/561
29	27	0.56	0/426	0.72	0/561
30	18	0.65	0/525	0.78	0/691
30	28	0.49	0/525	0.61	0/691
31	19	0.66	0/310	0.76	0/407
31	29	0.45	0/310	0.66	0/407
32	1a	0.85	2/35795 (0.0%)	1.35	235/55864 (0.4%)
32	2a	0.82	5/35890 (0.0%)	1.32	203/56012 (0.4%)
33	1b	0.43	0/1876	0.69	0/2533
33	2b	0.47	0/1860	0.68	0/2518
34	1c	0.40	0/1582	0.61	0/2137
34	2c	0.40	0/1566	0.56	0/2119
35	1d	0.41	0/1695	0.66	0/2274
35	2d	0.39	0/1698	0.67	0/2277
36	1e	0.42	0/1149	0.62	0/1548
36	2e	0.40	0/1149	0.65	0/1548
37	1f	0.42	0/827	0.60	0/1120
37	2f	0.44	0/829	0.61	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.39	0/1254	0.58	1/1683 (0.1%)
38	2g	0.40	0/1248	0.57	0/1676
39	1h	0.39	0/1118	0.65	0/1506
39	2h	0.39	0/1108	0.61	0/1494
40	1i	0.40	0/1005	0.64	0/1351
40	2i	0.47	1/985 (0.1%)	0.59	0/1329
41	1j	0.44	0/732	0.60	0/993
41	2j	0.42	0/723	0.56	0/984
42	1k	0.47	1/849 (0.1%)	0.68	1/1150 (0.1%)
42	2k	0.40	0/848	0.66	2/1149 (0.2%)
43	1l	0.42	0/937	0.67	0/1260
43	2l	0.40	0/937	0.63	0/1260
44	1m	0.39	0/924	0.62	0/1242
44	2m	0.40	0/905	0.65	0/1217
45	1n	0.39	0/501	0.55	0/664
45	2n	0.39	0/501	0.61	0/664
46	1o	0.42	0/739	0.60	0/985
46	2o	0.41	0/739	0.56	0/985
47	1p	0.42	0/697	0.72	0/939
47	2p	0.42	0/693	0.64	0/935
48	1q	0.39	0/836	0.62	0/1117
48	2q	0.41	0/836	0.63	0/1117
49	1r	0.40	0/560	0.67	0/746
49	2r	0.41	0/560	0.66	0/746
50	1s	0.37	0/663	0.65	0/895
50	2s	0.40	0/660	0.53	0/893
51	1t	0.43	0/734	0.67	0/969
51	2t	0.39	0/736	0.59	0/976
52	1u	0.33	0/203	0.69	0/266
52	2u	0.36	0/203	0.59	0/266
53	1y	0.41	0/776	0.62	0/1048
53	2y	0.39	0/761	0.57	0/1030
54	1z	0.42	0/133	0.83	0/168
54	2z	0.45	0/133	0.67	0/168
All	All	0.89	93/310207 (0.0%)	1.28	2189/463575 (0.5%)

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
11	1P	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
11	2P	0	1
14	1S	0	1
17	1V	0	1
19	1X	0	1
26	14	0	1
29	17	0	1
29	27	0	1
30	18	0	1
33	1b	0	1
33	2b	0	1
35	1d	0	1
43	2l	0	1
47	2p	0	1
All	All	0	14

All (93) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	330	A	N9-C4	-9.11	1.32	1.37
1	1A	1649	G	N7-C5	-7.11	1.34	1.39
1	1A	2062	A	N9-C4	6.87	1.42	1.37
2	1B	100	A	N3-C4	-6.83	1.30	1.34
1	1A	1791	A	N9-C4	-6.81	1.33	1.37
1	1A	570	G	C6-O6	-6.60	1.18	1.24
1	2A	1046	A	N9-C4	6.59	1.41	1.37
1	1A	1067	A	N9-C4	6.54	1.41	1.37
1	1A	2790	A	N9-C4	6.54	1.41	1.37
1	1A	2764	A	N9-C4	-6.39	1.34	1.37
1	2A	1378	A	N9-C4	-6.33	1.34	1.37
1	2A	1092	C	C5'-C4'	6.29	1.55	1.51
1	1A	1310	G	C5-C4	-6.18	1.34	1.38
42	1k	106	LYS	CA-C	6.18	1.61	1.52
1	1A	2685	G	C6-O6	-6.16	1.18	1.24
32	2a	1003	G	N9-C4	6.15	1.42	1.38
1	2A	2805	G	N9-C4	6.11	1.42	1.38
40	2i	91	ASP	CA-C	6.00	1.60	1.52
1	1A	1073	A	N9-C4	5.99	1.41	1.37
1	1A	1775	U	C2-N3	-5.99	1.33	1.37
1	1A	1791	A	C5-C4	-5.96	1.34	1.38
32	2a	1030(D)	A	N9-C4	5.96	1.41	1.37
1	2A	1076	C	N1-C2	5.96	1.46	1.40
1	1A	2028	U	C4-O4	-5.89	1.19	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2593	U	C4-O4	-5.81	1.19	1.23
1	1A	1648	C	N3-C4	-5.77	1.29	1.33
1	2A	126	A	N9-C4	-5.77	1.34	1.37
1	2A	2057	A	N9-C4	-5.74	1.34	1.37
32	2a	1499	A	N9-C4	-5.73	1.34	1.37
1	1A	2506	U	N1-C2	5.71	1.43	1.38
1	2A	2506	U	N1-C2	5.69	1.43	1.38
1	1A	2587	A	N3-C4	-5.67	1.31	1.34
1	1A	2593	U	C2-N3	-5.65	1.33	1.37
1	1A	2011	U	C2-O2	-5.61	1.17	1.22
1	1A	2062	A	N3-C4	5.61	1.38	1.34
1	2A	1082	U	N1-C2	5.61	1.43	1.38
1	1A	1326	U	C4-O4	-5.58	1.19	1.23
1	1A	113	G	N9-C4	-5.55	1.33	1.38
1	1A	944	G	C8-N7	-5.55	1.27	1.30
1	1A	2249	U	C2-N3	-5.54	1.33	1.37
1	1A	299	A	N3-C4	-5.54	1.31	1.34
32	1a	1483	A	N9-C4	-5.50	1.34	1.37
1	1A	2765	A	N7-C5	-5.45	1.35	1.39
1	1A	1775	U	C2-O2	-5.45	1.17	1.22
1	1A	1393	A	N3-C4	-5.44	1.31	1.34
1	1A	2021	C	N1-C6	-5.43	1.33	1.37
1	2A	2821	A	N9-C4	-5.42	1.34	1.37
1	1A	1063	G	N3-C4	5.42	1.39	1.35
1	1A	1610	A	N9-C4	-5.41	1.34	1.37
1	1A	2450	A	N9-C4	-5.40	1.34	1.37
1	1A	442	G	N7-C5	-5.40	1.36	1.39
1	1A	1131	G	C6-N1	-5.38	1.35	1.39
1	2A	2602	A	N3-C4	5.36	1.38	1.34
1	1A	2078	C	N1-C6	-5.35	1.33	1.37
1	1A	229	A	N9-C4	5.35	1.41	1.37
1	2A	2104	G	N1-C2	-5.34	1.33	1.37
1	2A	1091	G	N9-C4	5.32	1.42	1.38
1	2A	2593	U	C4-O4	-5.32	1.19	1.23
1	1A	1045	A	N3-C4	5.31	1.38	1.34
1	2A	910	A	C6-N1	-5.31	1.31	1.35
1	2A	741	G	N3-C4	-5.30	1.31	1.35
1	1A	2685	G	C6-N1	-5.29	1.35	1.39
1	2A	1773	A	N7-C5	-5.29	1.36	1.39
1	1A	675	A	C6-N1	-5.28	1.31	1.35
1	1A	2319	G	N9-C4	-5.25	1.33	1.38
1	2A	1935	G	C5-C4	-5.25	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1620	G	N7-C5	-5.22	1.36	1.39
32	2a	1279	A	N9-C4	5.22	1.41	1.37
1	1A	2393	A	N9-C4	-5.20	1.34	1.37
1	2A	633	A	N9-C4	-5.19	1.34	1.37
1	1A	1067	A	N3-C4	5.18	1.38	1.34
1	1A	2638	G	N7-C5	-5.16	1.36	1.39
1	2A	2819	G	N3-C4	-5.14	1.31	1.35
1	1A	1250	G	C5-C4	-5.12	1.34	1.38
32	2a	965	A	N9-C4	-5.11	1.34	1.37
1	1A	1190	G	N7-C5	-5.11	1.36	1.39
1	2A	1077	A	N9-C4	5.10	1.41	1.37
1	1A	2090	G	C5-C4	-5.08	1.34	1.38
1	1A	751	A	N3-C4	-5.08	1.31	1.34
1	1A	953	A	N9-C4	-5.05	1.34	1.37
1	2A	1661	G	C5'-C4'	-5.05	1.47	1.51
1	1A	655	A	N9-C4	-5.04	1.34	1.37
1	1A	983	A	N9-C4	-5.04	1.34	1.37
32	1a	1493	A	N9-C4	5.03	1.40	1.37
1	2A	2014	A	N9-C4	-5.03	1.34	1.37
1	1A	205	G	C5-C6	-5.03	1.37	1.42
1	1A	1981	A	C6-N1	-5.03	1.32	1.35
1	1A	2445	G	C6-N1	-5.03	1.36	1.39
1	1A	2642	G	C5-C4	-5.03	1.34	1.38
1	1A	2319	G	N3-C4	-5.02	1.31	1.35
1	2A	444	C	N1-C2	-5.01	1.35	1.40
1	1A	34	C	N1-C6	5.01	1.40	1.37
1	1A	668	G	C5'-C4'	-5.00	1.47	1.51

All (2189) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2104	G	C5-C6-O6	16.06	138.24	128.60
1	1A	330	A	C2-N3-C4	-15.63	102.79	110.60
1	1A	1086	A	N1-C6-N6	-15.55	109.27	118.60
1	1A	570	G	C5-C6-O6	-13.90	120.26	128.60
1	1A	330	A	N1-C2-N3	13.54	136.07	129.30
1	1A	1075	C	N1-C2-O2	13.25	126.85	118.90
1	1A	512	G	O4'-C1'-N9	12.66	118.33	108.20
1	1A	2593	U	N3-C4-O4	-12.65	110.54	119.40
1	2A	2185	C	N1-C2-O2	12.54	126.42	118.90
2	1B	57	A	N9-C4-C5	-12.53	100.79	105.80
1	2A	2104	G	N1-C6-O6	-12.37	112.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2685	G	N1-C6-O6	-12.35	112.49	119.90
1	2A	1092	C	N1-C2-O2	11.29	125.67	118.90
1	2A	2104	G	N3-C2-N2	11.06	127.64	119.90
1	1A	330	A	C5-N7-C8	-10.97	98.42	103.90
1	1A	205	G	N9-C4-C5	-10.69	101.12	105.40
1	2A	1076	C	C6-N1-C2	-10.65	116.04	120.30
1	1A	1372	U	N3-C4-O4	10.52	126.76	119.40
1	1A	1075	C	C2-N1-C1'	10.12	129.93	118.80
1	1A	2319	G	N3-C4-N9	-10.07	119.96	126.00
1	1A	2319	G	N3-C4-C5	10.01	133.61	128.60
1	2A	1071	G	N7-C8-N9	9.88	118.04	113.10
1	1A	2490	G	C8-N9-C4	9.82	110.33	106.40
1	2A	1092	C	O5'-C5'-C4'	9.78	117.22	109.40
1	1A	226	G	O4'-C1'-N9	9.76	116.01	108.20
1	2A	1071	G	C8-N9-C4	-9.71	102.52	106.40
1	1A	615	G	N1-C6-O6	-9.70	114.08	119.90
1	1A	614	U	C5-C4-O4	9.63	131.68	125.90
1	1A	2371	G	C5-C6-O6	-9.60	122.84	128.60
1	1A	51	G	C5-C6-O6	-9.59	122.84	128.60
1	1A	1004	C	N1-C2-O2	-9.56	113.16	118.90
1	1A	1609	A	C8-N9-C4	9.52	109.61	105.80
1	2A	2427	C	C6-N1-C2	9.47	124.09	120.30
1	1A	846	C	C6-N1-C2	9.42	124.07	120.30
1	1A	205	G	C4-C5-N7	9.40	114.56	110.80
1	1A	1086	A	C5-C6-N6	9.39	131.22	123.70
1	2A	249	C	C6-N1-C2	9.36	124.05	120.30
1	1A	1372	U	C5-C4-O4	-9.30	120.32	125.90
1	1A	530	G	C5-C6-O6	-9.17	123.10	128.60
2	1B	91	C	C6-N1-C2	9.16	123.97	120.30
1	1A	2137	C	C6-N1-C2	-9.12	116.65	120.30
1	2A	1094	U	O4'-C1'-N1	9.12	114.88	108.50
1	1A	115	C	C6-N1-C2	9.11	123.94	120.30
32	1a	921	U	C2-N3-C4	9.06	132.44	127.00
1	1A	386	G	C5-C6-O6	-9.02	123.19	128.60
1	1A	205	G	N3-C2-N2	9.01	126.21	119.90
1	1A	2289	G	N1-C6-O6	8.99	125.29	119.90
2	2B	115	G	C8-N9-C4	8.95	109.98	106.40
1	2A	1092	C	N3-C2-O2	-8.90	115.67	121.90
1	1A	686	G	N9-C4-C5	-8.90	101.84	105.40
1	1A	205	G	C8-N9-C4	8.89	109.95	106.40
1	2A	1111	A	O4'-C1'-N9	8.84	114.69	108.50
1	2A	512	G	O4'-C1'-N9	8.82	115.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2179	C	C2-N1-C1'	8.78	128.46	118.80
1	1A	2371	G	C5-C6-N1	8.78	115.89	111.50
1	1A	1330	C	C6-N1-C2	8.78	123.81	120.30
1	1A	1559	G	C4-N9-C1'	-8.77	115.10	126.50
1	1A	1958	C	N1-C2-O2	-8.75	113.65	118.90
1	2A	1771	C	C6-N1-C2	8.73	123.79	120.30
32	1a	299	G	C5-C6-O6	-8.70	123.38	128.60
32	1a	1150	U	C2-N3-C4	8.70	132.22	127.00
1	1A	1772	G	C8-N9-C4	8.68	109.87	106.40
1	1A	1006	C	C5-C6-N1	-8.65	116.67	121.00
32	1a	781	A	C8-N9-C4	8.62	109.25	105.80
1	1A	1075	C	C6-N1-C1'	-8.60	110.48	120.80
1	1A	34	C	O4'-C1'-N1	8.60	115.08	108.20
1	1A	846	C	C5-C6-N1	-8.59	116.70	121.00
1	2A	2104	G	N1-C2-N2	-8.57	108.49	116.20
1	1A	1697	G	C5-C6-O6	-8.56	123.46	128.60
1	1A	2319	G	C2-N3-C4	-8.56	107.62	111.90
1	1A	330	A	N7-C8-N9	8.53	118.06	113.80
1	1A	1783	A	O4'-C1'-N9	-8.50	102.55	108.50
1	1A	2021	C	C6-N1-C2	8.50	123.70	120.30
1	1A	805	G	C8-N9-C4	8.49	109.80	106.40
32	1a	1158	C	C4-C5-C6	8.48	121.64	117.40
1	1A	2789	C	N1-C2-O2	-8.46	113.82	118.90
1	1A	2691	C	C5-C6-N1	-8.45	116.77	121.00
32	1a	1150	U	C5-C4-O4	8.45	130.97	125.90
1	2A	1997	G	O5'-C5'-C4'	8.44	116.15	109.40
1	1A	1697	G	N1-C6-O6	8.43	124.96	119.90
32	1a	299	G	N1-C6-O6	8.42	124.95	119.90
1	1A	2848	G	O4'-C1'-N9	8.41	114.93	108.20
1	1A	2137	C	N3-C2-O2	-8.41	116.02	121.90
1	1A	494	G	C5-C6-O6	-8.39	123.57	128.60
1	2A	1075	C	N1-C2-O2	8.38	123.92	118.90
1	1A	762	U	C5-C4-O4	-8.37	120.88	125.90
1	1A	539	G	C8-N9-C4	8.37	109.75	106.40
1	1A	1192	G	C8-N9-C4	8.34	109.74	106.40
1	1A	2137	C	N3-C4-C5	-8.34	118.57	121.90
1	2A	1791	A	O5'-C5'-C4'	8.33	116.07	109.40
1	1A	530	G	N3-C2-N2	-8.33	114.07	119.90
32	2a	909	A	C8-N9-C4	8.32	109.13	105.80
2	2B	6	C	C6-N1-C2	8.31	123.62	120.30
1	1A	1395	A	C8-N9-C4	8.29	109.11	105.80
1	2A	2157	G	C8-N9-C4	-8.29	103.08	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	185	U	C5-C6-N1	-8.28	118.56	122.70
32	1a	376	G	C8-N9-C4	8.24	109.70	106.40
1	1A	2249	U	N3-C4-O4	-8.24	113.64	119.40
1	1A	2496	C	C6-N1-C2	8.22	123.59	120.30
1	1A	615	G	C5-C6-O6	8.20	133.52	128.60
32	2a	819	A	N1-C6-N6	8.19	123.52	118.60
1	1A	1385	G	O4'-C1'-N9	8.17	114.73	108.20
1	2A	2318	G	O4'-C1'-N9	8.17	114.73	108.20
1	1A	671	C	N3-C4-N4	-8.16	112.28	118.00
1	1A	1786	A	C8-N9-C4	8.16	109.07	105.80
1	2A	2185	C	C2-N3-C4	8.15	123.97	119.90
32	1a	1530	G	N1-C6-O6	8.14	124.79	119.90
1	1A	2028	U	N3-C4-C5	8.14	119.48	114.60
1	2A	845	G	O4'-C1'-N9	8.14	114.71	108.20
1	2A	1076	C	N1-C2-O2	8.14	123.78	118.90
32	2a	266	G	P-O3'-C3'	8.14	129.46	119.70
1	1A	2246	G	C8-N9-C4	8.12	109.65	106.40
1	2A	1071	G	C5-N7-C8	-8.12	100.24	104.30
32	2a	1003	G	N3-C4-C5	-8.11	124.54	128.60
1	1A	1432	C	C6-N1-C2	-8.11	117.06	120.30
1	1A	1258	C	N1-C2-O2	-8.09	114.05	118.90
1	2A	214	G	O4'-C1'-N9	8.09	114.16	108.50
1	2A	679	C	N1-C2-O2	-8.08	114.05	118.90
1	1A	771	G	C8-N9-C4	8.08	109.63	106.40
1	1A	2154	G	N3-C2-N2	8.08	125.55	119.90
32	1a	1396	A	C6-N1-C2	8.08	123.44	118.60
32	1a	1442	G	C2-N3-C4	8.07	115.94	111.90
1	1A	1428	C	C6-N1-C2	8.05	123.52	120.30
1	1A	2568	C	C5-C4-N4	-8.05	114.56	120.20
32	2a	770	C	C6-N1-C2	8.05	123.52	120.30
1	1A	1559	G	C6-C5-N7	8.03	135.22	130.40
1	1A	301	G	C8-N9-C4	8.01	109.60	106.40
1	2A	2186	G	C5-C6-O6	8.00	133.40	128.60
1	1A	2137	C	C2-N1-C1'	7.99	127.59	118.80
32	1a	1181	G	N3-C4-C5	7.98	132.59	128.60
1	1A	2506	U	C2-N1-C1'	7.98	127.27	117.70
1	2A	2206	G	C4-N9-C1'	-7.96	116.16	126.50
1	1A	1332	G	C5-C6-O6	-7.95	123.83	128.60
32	2a	266	G	N3-C4-C5	-7.93	124.64	128.60
1	1A	805	G	N9-C4-C5	-7.92	102.23	105.40
1	1A	2060	A	C8-N9-C4	7.89	108.95	105.80
1	1A	1637	A	C8-N9-C4	7.88	108.95	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	733	G	N1-C6-O6	7.87	124.62	119.90
1	2A	1075	C	N3-C2-O2	-7.86	116.40	121.90
1	2A	383	U	O4'-C1'-N1	7.86	114.00	108.50
1	1A	2495	G	N1-C6-O6	7.84	124.60	119.90
32	1a	1204	A	C6-N1-C2	7.82	123.29	118.60
32	2a	70	G	C5-C6-N1	-7.81	107.59	111.50
32	1a	1137	C	C5-C6-N1	7.80	124.90	121.00
1	1A	2154	G	C6-N1-C2	7.79	129.78	125.10
1	1A	1648	C	N3-C4-N4	-7.76	112.57	118.00
1	2A	2032	G	N7-C8-N9	-7.76	109.22	113.10
1	1A	570	G	C5-C6-N1	7.75	115.37	111.50
1	1A	704	G	O4'-C1'-N9	7.74	114.39	108.20
1	1A	2593	U	C5-C4-O4	7.74	130.54	125.90
1	1A	1180	C	C6-N1-C2	7.72	123.39	120.30
1	2A	1082	U	N3-C2-O2	-7.72	116.80	122.20
1	1A	386	G	N1-C6-O6	7.72	124.53	119.90
1	2A	961	C	N3-C2-O2	7.70	127.29	121.90
1	1A	690	G	C8-N9-C4	7.70	109.48	106.40
1	1A	570	G	C4-C5-N7	7.69	113.88	110.80
32	2a	483	C	C6-N1-C2	7.68	123.37	120.30
1	2A	2206	G	C8-N9-C4	7.68	109.47	106.40
1	1A	51	G	N1-C6-O6	7.68	124.51	119.90
1	1A	2463	C	N3-C4-C5	7.67	124.97	121.90
1	2A	2805	G	O5'-C5'-C4'	7.67	115.53	109.40
1	2A	1093	G	O5'-C5'-C4'	7.65	115.52	109.40
1	1A	530	G	N1-C6-O6	7.65	124.49	119.90
1	2A	24	G	C8-N9-C4	7.64	109.46	106.40
32	1a	1137	C	C6-N1-C2	-7.62	117.25	120.30
1	2A	2032	G	C8-N9-C4	7.62	109.45	106.40
1	2A	1253	A	C5-N7-C8	7.61	107.70	103.90
32	1a	1123	A	C6-N1-C2	7.59	123.16	118.60
1	1A	1416	G	O4'-C1'-N9	7.58	114.27	108.20
1	1A	2070	G	C2-N3-C4	-7.58	108.11	111.90
1	1A	1300	U	P-O3'-C3'	7.56	128.78	119.70
1	1A	1599	C	N3-C4-N4	-7.56	112.71	118.00
1	2A	2382	G	C8-N9-C4	7.56	109.42	106.40
1	2A	961	C	C6-N1-C2	7.54	123.32	120.30
1	1A	2691	C	C6-N1-C2	7.54	123.32	120.30
1	1A	845	G	O4'-C1'-N9	7.53	114.22	108.20
1	1A	1187	G	N1-C6-O6	-7.52	115.39	119.90
32	2a	1003	G	C2-N3-C4	7.52	115.66	111.90
1	1A	2187	G	C5-C6-O6	-7.52	124.09	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	99	U	N1-C2-O2	-7.51	117.54	122.80
32	1a	1056	U	C5-C4-O4	7.51	130.40	125.90
1	1A	2678	C	N3-C4-C5	-7.50	118.90	121.90
32	1a	784	C	C6-N1-C2	7.49	123.30	120.30
1	1A	1559	G	C8-N9-C1'	7.49	136.73	127.00
1	2A	2774	C	N1-C2-O2	7.48	123.39	118.90
1	1A	1795	C	N3-C4-C5	7.48	124.89	121.90
32	1a	143	A	C8-N9-C4	7.48	108.79	105.80
1	2A	1937	A	O4'-C1'-N9	7.48	114.18	108.20
1	1A	1086	A	C6-C5-N7	7.47	137.53	132.30
1	1A	2319	G	C5-N7-C8	-7.47	100.57	104.30
1	2A	1579	A	N1-C6-N6	7.47	123.08	118.60
1	1A	512	G	N7-C8-N9	-7.46	109.37	113.10
1	2A	1688	U	C5-C6-N1	-7.46	118.97	122.70
1	1A	2319	G	O4'-C1'-N9	7.46	114.16	108.20
1	1A	35	G	C8-N9-C4	7.45	109.38	106.40
1	2A	1076	C	N3-C2-O2	-7.45	116.68	121.90
1	2A	1082	U	N1-C2-O2	7.45	128.01	122.80
1	1A	1075	C	N3-C2-O2	-7.45	116.69	121.90
32	1a	1056	U	C2-N3-C4	7.44	131.47	127.00
32	1a	1030(B)	C	C6-N1-C2	-7.43	117.33	120.30
1	1A	2079	U	N1-C2-N3	7.42	119.35	114.90
32	2a	1042	G	C8-N9-C4	7.42	109.37	106.40
1	2A	1070	A	O5'-C5'-C4'	7.41	115.33	109.40
1	1A	2791	C	C6-N1-C2	-7.41	117.34	120.30
1	2A	1073	A	P-O3'-C3'	7.41	128.59	119.70
1	1A	1379	A	C8-N9-C4	7.40	108.76	105.80
1	2A	2805	G	O4'-C1'-N9	7.40	113.68	108.50
32	2a	1058	G	C5-C6-O6	-7.40	124.16	128.60
1	1A	1064	C	C5-C6-N1	7.39	124.70	121.00
1	1A	83	G	C4-C5-N7	7.39	113.75	110.80
1	1A	702	G	C5-C6-O6	-7.39	124.17	128.60
9	1N	25	ARG	NE-CZ-NH1	-7.38	114.12	121.50
1	2A	2319	G	N3-C4-N9	-7.37	121.58	126.00
1	1A	614	U	N3-C2-O2	-7.37	117.04	122.20
1	1A	330	A	C4-C5-N7	7.37	114.39	110.70
1	1A	1573	G	N1-C6-O6	7.37	124.32	119.90
1	1A	846	C	C2-N3-C4	-7.37	116.22	119.90
1	1A	2457	U	N1-C2-O2	-7.36	117.65	122.80
1	1A	2153	G	N3-C4-N9	-7.34	121.60	126.00
32	1a	190	U	C5-C6-N1	7.33	126.37	122.70
1	1A	886	C	N1-C2-O2	7.33	123.30	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2427	C	C6-N1-C2	7.33	123.23	120.30
1	2A	2602	A	P-O3'-C3'	7.33	128.49	119.70
1	2A	2022	U	C5-C4-O4	-7.33	121.50	125.90
1	1A	1667	G	C8-N9-C4	7.32	109.33	106.40
1	1A	570	G	N1-C6-O6	7.32	124.29	119.90
1	1A	1907	G	O5'-C5'-C4'	7.31	115.25	109.40
32	1a	763	G	C5-C6-O6	7.31	132.99	128.60
1	1A	2539	C	C6-N1-C2	7.30	123.22	120.30
32	1a	781	A	N9-C4-C5	-7.30	102.88	105.80
1	2A	1068	G	O5'-C5'-C4'	7.29	115.24	109.40
1	1A	1424	G	C8-N9-C4	7.28	109.31	106.40
1	1A	521	G	C8-N9-C4	7.27	109.31	106.40
1	2A	2689	U	P-O3'-C3'	7.26	128.41	119.70
1	2A	2104	G	C6-N1-C2	7.26	129.46	125.10
1	1A	1823	G	C8-N9-C4	7.25	109.30	106.40
1	1A	2598	A	C8-N9-C4	7.25	108.70	105.80
1	1A	1061	U	N1-C2-O2	7.24	127.87	122.80
1	2A	662	G	C8-N9-C4	7.24	109.30	106.40
1	2A	2612	C	O5'-C5'-C4'	7.23	115.18	109.40
1	1A	2028	U	N3-C4-O4	-7.22	114.34	119.40
1	2A	2509	G	N1-C6-O6	7.22	124.23	119.90
1	1A	1559	G	N3-C4-N9	-7.20	121.68	126.00
1	1A	2593	U	N3-C4-C5	7.19	118.91	114.60
1	2A	2282	G	N1-C6-O6	7.19	124.21	119.90
1	1A	1257	C	N3-C4-C5	-7.19	119.03	121.90
1	2A	2430	A	C2-N3-C4	7.19	114.19	110.60
1	1A	1236	G	C8-N9-C4	7.18	109.27	106.40
1	1A	805	G	N3-C2-N2	7.17	124.92	119.90
1	2A	2478	A	C8-N9-C4	7.16	108.67	105.80
32	1a	1181	G	C6-N1-C2	7.14	129.39	125.10
1	1A	1648	C	C5-C4-N4	7.14	125.20	120.20
1	2A	784	A	C8-N9-C4	7.13	108.65	105.80
1	1A	400	G	N1-C6-O6	7.13	124.18	119.90
1	1A	1573	G	C5-C6-O6	-7.12	124.33	128.60
32	1a	997	U	C5-C4-O4	7.12	130.17	125.90
1	1A	671	C	C5-C4-N4	7.11	125.17	120.20
1	1A	2490	G	N9-C4-C5	-7.10	102.56	105.40
1	1A	2461	C	C2-N3-C4	-7.10	116.35	119.90
1	1A	2662	A	C8-N9-C4	-7.08	102.97	105.80
26	24	19	GLY	N-CA-C	-7.08	106.06	115.40
1	1A	645	C	C5-C6-N1	7.07	124.54	121.00
1	2A	1913	A	C5-C6-N1	-7.07	114.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1943	U	C5-C6-N1	-7.07	119.17	122.70
1	1A	2007	C	N3-C4-C5	7.07	124.73	121.90
1	1A	912	C	N3-C2-O2	-7.07	116.95	121.90
1	1A	512	G	C8-N9-C4	7.07	109.23	106.40
1	2A	205	G	C8-N9-C4	7.06	109.23	106.40
1	2A	1372	U	C5-C4-O4	-7.06	121.66	125.90
1	1A	1276	A	C8-N9-C4	7.06	108.62	105.80
1	2A	570	G	C5-C6-O6	-7.06	124.37	128.60
32	1a	971	G	N3-C4-C5	7.05	132.13	128.60
1	2A	332	A	C8-N9-C4	7.05	108.62	105.80
1	1A	2685	G	C5-C6-N1	7.05	115.03	111.50
32	2a	878	G	C8-N9-C4	7.05	109.22	106.40
1	2A	1187	G	N1-C6-O6	-7.05	115.67	119.90
32	1a	1123	A	C5-C6-N6	7.04	129.34	123.70
1	2A	2821	A	C2-N3-C4	-7.04	107.08	110.60
1	1A	2018	G	N1-C6-O6	7.04	124.12	119.90
32	1a	157	G	O5'-C5'-C4'	7.04	115.03	109.40
1	1A	1609	A	N1-C2-N3	-7.04	125.78	129.30
1	2A	2319	G	N3-C4-C5	7.04	132.12	128.60
1	1A	117	G	N1-C6-O6	7.04	124.12	119.90
1	2A	659	C	C6-N1-C2	7.03	123.11	120.30
32	1a	1530	G	N3-C4-C5	7.03	132.12	128.60
1	1A	1348	G	N3-C2-N2	-7.03	114.98	119.90
1	2A	2140	C	C2-N3-C4	7.03	123.42	119.90
1	1A	568	U	N3-C4-C5	7.03	118.81	114.60
1	1A	2203	U	C5-C6-N1	-7.02	119.19	122.70
1	1A	2206	G	C4-C5-N7	7.02	113.61	110.80
32	1a	795	C	N1-C2-O2	-7.02	114.69	118.90
1	2A	2805	G	N3-C4-C5	-7.01	125.09	128.60
1	1A	1253	A	N7-C8-N9	-7.01	110.30	113.80
1	2A	2042	A	C8-N9-C4	7.01	108.60	105.80
1	1A	1973	G	N1-C6-O6	-7.00	115.70	119.90
1	1A	1272	A	O5'-C5'-C4'	7.00	115.00	109.40
1	2A	2427	C	N3-C2-O2	7.00	126.80	121.90
1	2A	733	G	N9-C4-C5	-6.99	102.60	105.40
1	1A	1493	C	C2-N1-C1'	6.98	126.48	118.80
1	1A	1609	A	N7-C8-N9	-6.98	110.31	113.80
1	1A	1667	G	N1-C6-O6	-6.97	115.72	119.90
1	1A	297	C	N1-C2-O2	-6.96	114.72	118.90
32	1a	792	A	C8-N9-C4	6.95	108.58	105.80
1	2A	669	G	C8-N9-C4	6.95	109.18	106.40
1	1A	1963	U	C2-N1-C1'	6.95	126.03	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1058	G	N1-C6-O6	6.94	124.07	119.90
1	2A	2185	C	N3-C4-N4	-6.94	113.14	118.00
32	1a	1442	G	N3-C4-C5	-6.94	125.13	128.60
1	2A	1076	C	C2-N1-C1'	6.93	126.43	118.80
1	2A	2517	C	O4'-C1'-N1	6.93	113.74	108.20
1	1A	1400	G	N1-C6-O6	-6.92	115.75	119.90
1	1A	1301	A	O5'-C5'-C4'	6.91	114.93	109.40
1	1A	139(A)	G	C5-C6-O6	-6.91	124.46	128.60
32	1a	572	A	C8-N9-C4	6.91	108.56	105.80
1	1A	2495	G	N3-C2-N2	-6.90	115.07	119.90
32	1a	955	U	C2-N3-C4	6.90	131.14	127.00
1	2A	2023	G	O5'-C5'-C4'	6.89	114.91	109.40
1	2A	1662	C	C2-N3-C4	-6.88	116.46	119.90
1	2A	1441	G	N3-C4-C5	6.87	132.04	128.60
1	1A	1086	A	C2-N3-C4	6.87	114.03	110.60
1	1A	846	C	N3-C4-C5	6.87	124.65	121.90
1	1A	1958	C	N3-C2-O2	6.86	126.70	121.90
32	2a	841	U	C5-C6-N1	6.85	126.12	122.70
32	1a	227	G	C8-N9-C4	6.85	109.14	106.40
1	2A	2000	G	C5-C6-O6	-6.84	124.49	128.60
1	1A	1820	U	C5-C6-N1	-6.84	119.28	122.70
1	1A	1200	C	N1-C2-O2	-6.84	114.80	118.90
1	1A	2067	G	C5-C6-O6	-6.83	124.50	128.60
1	1A	527	C	N1-C2-O2	-6.83	114.80	118.90
1	2A	806	C	N1-C2-O2	-6.83	114.80	118.90
1	1A	1252	G	N3-C4-N9	-6.83	121.91	126.00
1	1A	12	U	O5'-C5'-C4'	6.82	114.86	109.40
1	2A	936	C	C6-N1-C2	6.81	123.03	120.30
32	2a	1499	A	C8-N9-C4	6.81	108.52	105.80
1	1A	693	C	N1-C2-O2	6.80	122.98	118.90
1	1A	1282	U	C5-C6-N1	-6.80	119.30	122.70
1	1A	2457	U	N3-C2-O2	6.80	126.96	122.20
32	2a	999	C	N1-C2-O2	6.78	122.97	118.90
1	1A	676	A	C8-N9-C4	6.78	108.51	105.80
32	2a	1199	U	C5-C4-O4	6.78	129.97	125.90
1	1A	1815	A	N9-C4-C5	6.78	108.51	105.80
1	1A	954	G	N1-C6-O6	-6.78	115.83	119.90
1	1A	2468	G	O4'-C1'-N9	6.78	113.62	108.20
32	2a	687	A	P-O3'-C3'	6.77	127.83	119.70
32	1a	77	G	N3-C4-N9	-6.77	121.94	126.00
1	1A	539	G	N7-C8-N9	-6.76	109.72	113.10
1	1A	752	A	C8-N9-C4	6.75	108.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1092	C	C6-N1-C2	-6.75	117.60	120.30
1	1A	1006	C	C6-N1-C2	6.75	123.00	120.30
32	1a	353	A	C5'-C4'-O4'	-6.75	103.73	109.80
32	2a	877	C	C6-N1-C2	6.75	123.00	120.30
1	1A	1067	A	C2-N3-C4	6.74	113.97	110.60
1	1A	2501	C	C6-N1-C2	6.74	123.00	120.30
1	2A	247	G	C8-N9-C4	6.73	109.09	106.40
1	2A	482	A	N1-C6-N6	6.73	122.64	118.60
1	2A	2608	G	C5-C6-O6	-6.73	124.56	128.60
1	1A	2782	G	C5-C6-O6	-6.73	124.56	128.60
1	2A	2163	C	C5-C6-N1	6.73	124.36	121.00
32	1a	1530	G	C5-C6-O6	-6.72	124.57	128.60
1	1A	1164	G	N1-C6-O6	-6.72	115.87	119.90
1	1A	2258	C	N1-C2-O2	-6.71	114.87	118.90
1	1A	1359	A	N1-C2-N3	-6.71	125.94	129.30
1	1A	2432	A	C8-N9-C4	6.71	108.48	105.80
1	1A	1351	C	C2-N3-C4	-6.71	116.55	119.90
1	2A	1052	C	C6-N1-C2	-6.71	117.62	120.30
32	2a	1028	C	C6-N1-C2	-6.71	117.62	120.30
1	1A	2241	A	N1-C6-N6	-6.71	114.58	118.60
32	1a	1484	C	C6-N1-C2	6.70	122.98	120.30
1	2A	446	G	C8-N9-C4	6.70	109.08	106.40
1	2A	1350	C	C6-N1-C2	6.70	122.98	120.30
1	1A	596	G	C8-N9-C4	6.69	109.08	106.40
1	1A	2289	G	C5-C6-O6	-6.69	124.59	128.60
1	1A	1064	C	C2-N3-C4	6.69	123.25	119.90
1	1A	2596	U	N1-C2-O2	-6.69	118.12	122.80
1	1A	2137	C	N1-C2-O2	6.68	122.91	118.90
11	1P	36	LYS	CA-C-N	-6.68	112.12	121.67
11	1P	36	LYS	C-N-CA	-6.68	112.12	121.67
1	1A	1006	C	C2-N3-C4	-6.68	116.56	119.90
1	1A	1845	G	N1-C6-O6	-6.67	115.90	119.90
1	2A	2724	C	N1-C2-O2	-6.67	114.90	118.90
32	2a	588	G	O5'-C5'-C4'	6.67	114.74	109.40
1	1A	1428	C	C5-C6-N1	-6.67	117.67	121.00
2	2B	52	A	N1-C6-N6	6.66	122.60	118.60
32	2a	65	U	P-O3'-C3'	6.66	127.70	119.70
1	1A	2223	G	C8-N9-C4	6.66	109.06	106.40
1	1A	325	G	C5-C6-O6	-6.65	124.61	128.60
1	2A	2260	C	C6-N1-C2	-6.65	117.64	120.30
1	1A	1617	C	N1-C2-O2	-6.64	114.92	118.90
1	1A	2246	G	C5-C6-O6	-6.64	124.61	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2246	G	N7-C8-N9	-6.64	109.78	113.10
1	2A	1648	C	O5'-P-OP1	-6.64	88.07	108.00
1	1A	1530	C	O4'-C1'-N1	6.64	113.51	108.20
1	1A	194	G	C5-C6-O6	-6.63	124.62	128.60
1	1A	494	G	N1-C6-O6	6.63	123.88	119.90
1	2A	2105	C	C2-N3-C4	6.63	123.22	119.90
1	1A	816	C	N1-C2-O2	-6.63	114.92	118.90
1	2A	1071	G	C4-C5-N7	6.63	113.45	110.80
1	2A	1783	A	O4'-C1'-N9	-6.62	103.86	108.50
1	1A	946	G	N9-C4-C5	-6.62	102.75	105.40
1	1A	1131	G	N1-C6-O6	-6.62	115.93	119.90
1	2A	482	A	N9-C4-C5	-6.62	103.15	105.80
1	1A	139(A)	G	N1-C6-O6	6.61	123.86	119.90
32	1a	1499	A	C8-N9-C4	6.61	108.44	105.80
1	1A	2002	G	C5-N7-C8	6.60	107.60	104.30
1	1A	2772	C	C5-C6-N1	-6.59	117.70	121.00
1	2A	1314	C	C2-N1-C1'	6.59	126.05	118.80
1	1A	372	G	O4'-C1'-N9	6.59	113.47	108.20
1	1A	1583	A	C8-N9-C4	6.59	108.44	105.80
1	1A	130	C	C6-N1-C2	6.59	122.93	120.30
1	1A	302	C	C6-N1-C2	-6.59	117.67	120.30
1	1A	2081	C	C5-C6-N1	-6.58	117.71	121.00
1	1A	2436	G	C5-C6-N1	6.58	114.79	111.50
1	1A	1034	G	C8-N9-C4	6.58	109.03	106.40
1	1A	6	A	O5'-C5'-C4'	6.58	114.66	109.40
1	2A	1320	C	C6-N1-C2	6.58	122.93	120.30
1	2A	622	G	C8-N9-C4	6.57	109.03	106.40
1	1A	2639	A	N9-C4-C5	-6.56	103.17	105.80
32	2a	366	C	C5-C6-N1	-6.56	117.72	121.00
1	2A	1008	C	N3-C2-O2	-6.56	117.31	121.90
1	1A	521	G	N1-C6-O6	-6.55	115.97	119.90
1	1A	864	G	N9-C4-C5	-6.54	102.78	105.40
1	2A	746	A	O4'-C1'-N9	6.54	113.44	108.20
32	2a	266	G	N3-C4-N9	6.54	129.93	126.00
1	1A	567	A	N1-C2-N3	-6.54	126.03	129.30
1	2A	2577	A	N1-C6-N6	6.54	122.52	118.60
32	1a	900	A	C8-N9-C4	6.53	108.41	105.80
1	1A	2249	U	C5-C4-O4	6.53	129.82	125.90
1	1A	2439	A	O5'-C5'-C4'	6.53	114.62	109.40
32	2a	1146	A	O5'-C5'-C4'	6.53	114.62	109.40
1	1A	1357	U	N1-C2-O2	6.52	127.37	122.80
1	2A	1359	A	N1-C2-N3	-6.52	126.04	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	746	A	O4'-C1'-N9	6.51	113.41	108.20
1	1A	2534	A	N1-C6-N6	6.51	122.51	118.60
1	2A	833	U	C2-N3-C4	6.51	130.91	127.00
1	1A	2568	C	N3-C4-N4	6.51	122.56	118.00
1	1A	1602	U	C5-C6-N1	-6.51	119.45	122.70
1	1A	2179	C	C5-C6-N1	6.51	124.25	121.00
1	1A	409	C	C6-N1-C2	6.50	122.90	120.30
1	1A	1192	G	N7-C8-N9	-6.50	109.85	113.10
1	1A	826	U	N3-C4-O4	-6.50	114.85	119.40
1	1A	2593	U	N1-C2-O2	6.50	127.35	122.80
32	1a	588	G	O5'-C5'-C4'	6.50	114.60	109.40
1	1A	2424	C	N1-C2-O2	-6.50	115.00	118.90
32	1a	1320	C	O5'-C5'-C4'	6.50	114.60	109.40
1	2A	1109	C	N1-C2-O2	6.49	122.80	118.90
1	2A	1647	G	O4'-C1'-N9	-6.49	103.01	108.20
1	1A	2306	C	N1-C2-O2	6.49	122.79	118.90
1	1A	864	G	C4-C5-N7	6.49	113.39	110.80
1	1A	1700	A	C8-N9-C4	6.49	108.39	105.80
1	1A	2639	A	C8-N9-C4	6.48	108.39	105.80
32	1a	1150	U	N3-C4-C5	-6.48	110.71	114.60
1	1A	2894	G	N3-C4-N9	-6.48	122.11	126.00
1	1A	246	C	N1-C2-O2	-6.48	115.01	118.90
1	1A	824	A	C8-N9-C4	6.48	108.39	105.80
1	1A	1015	G	C5-C6-O6	-6.48	124.71	128.60
1	1A	732	C	C5-C4-N4	6.47	124.73	120.20
1	1A	2120	G	O5'-C5'-C4'	6.47	114.58	109.40
1	1A	2685	G	C5-C6-O6	6.47	132.48	128.60
32	1a	175	C	C6-N1-C2	-6.47	117.71	120.30
1	1A	1190	G	C5-N7-C8	6.46	107.53	104.30
1	2A	856	C	C6-N1-C2	-6.46	117.72	120.30
32	2a	1530	G	C8-N9-C4	6.46	108.98	106.40
1	1A	1164	G	C4-C5-N7	-6.46	108.22	110.80
1	2A	521	G	C5-C6-O6	6.46	132.47	128.60
1	2A	1350	C	N3-C2-O2	6.46	126.42	121.90
1	1A	87	C	N3-C4-C5	6.46	124.48	121.90
1	2A	1031	G	N1-C6-O6	6.45	123.77	119.90
1	1A	2424	C	C2-N1-C1'	-6.45	111.71	118.80
1	2A	961	C	N1-C2-O2	-6.45	115.03	118.90
1	1A	564	C	N3-C2-O2	6.44	126.41	121.90
1	2A	2028	U	N3-C4-O4	-6.44	114.89	119.40
32	2a	656	C	O5'-C5'-C4'	6.43	114.55	109.40
1	2A	2306	C	N1-C2-O2	6.43	122.76	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2626	C	C6-N1-C2	6.43	122.87	120.30
1	1A	731	C	C6-N1-C2	-6.43	117.73	120.30
1	1A	2153	G	C8-N9-C1'	6.43	135.36	127.00
1	2A	826	U	C5-C6-N1	-6.43	119.49	122.70
1	1A	2179	C	N1-C2-O2	6.43	122.76	118.90
1	1A	2070	G	N1-C2-N2	-6.42	110.42	116.20
1	1A	2371	G	C4-C5-N7	6.41	113.36	110.80
1	1A	213	A	C4-C5-C6	-6.41	113.80	117.00
32	1a	9	G	O5'-C5'-C4'	6.41	114.53	109.40
32	1a	1431	C	N3-C2-O2	6.41	126.39	121.90
1	1A	570	G	N9-C4-C5	-6.41	102.84	105.40
1	2A	574	C	C6-N1-C2	6.41	122.86	120.30
1	1A	688	U	C2-N3-C4	-6.40	123.16	127.00
1	1A	2435	A	O5'-C5'-C4'	-6.40	104.28	109.40
1	1A	2421	G	C8-N9-C4	6.40	108.96	106.40
1	1A	2893	G	N9-C4-C5	-6.40	102.84	105.40
1	2A	2157	G	N7-C8-N9	6.40	116.30	113.10
1	1A	2380	C	N1-C2-O2	-6.39	115.06	118.90
32	1a	398	C	N1-C2-O2	-6.39	115.06	118.90
32	2a	1099	G	C5-C6-O6	6.39	132.43	128.60
1	1A	1105	U	C5-C6-N1	6.39	125.89	122.70
32	1a	1067	A	P-O3'-C3'	6.38	127.36	119.70
32	2a	266	G	C4-N9-C1'	6.38	134.80	126.50
1	1A	185	U	C2-N3-C4	-6.38	123.17	127.00
32	1a	893	C	C6-N1-C2	6.38	122.85	120.30
1	1A	1198	U	N1-C2-O2	-6.38	118.33	122.80
1	1A	1177	A	C8-N9-C4	-6.38	103.25	105.80
1	1A	2894	G	C8-N9-C1'	6.38	135.29	127.00
1	2A	2279	G	N3-C4-C5	6.37	131.79	128.60
1	2A	8	A	O5'-C5'-C4'	6.37	114.50	109.40
32	1a	266	G	C4-N9-C1'	6.37	134.78	126.50
1	1A	2894	G	C4-N9-C1'	-6.37	118.22	126.50
1	2A	1123	C	C6-N1-C2	6.37	122.85	120.30
1	2A	2318	G	C8-N9-C4	-6.37	103.85	106.40
32	2a	921	U	C2-N3-C4	6.37	130.82	127.00
1	2A	1780	A	C5-C6-N1	-6.36	114.52	117.70
1	1A	1359	A	C6-N1-C2	6.36	122.42	118.60
1	1A	1680	U	C5-C4-O4	6.36	129.72	125.90
1	2A	1204	A	C8-N9-C4	6.36	108.34	105.80
1	1A	1825	A	N7-C8-N9	-6.36	110.62	113.80
32	1a	968	A	C8-N9-C4	6.36	108.34	105.80
32	1a	1225	A	C6-N1-C2	6.36	122.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	635	C	C6-N1-C2	-6.36	117.76	120.30
1	1A	1395	A	N7-C8-N9	-6.36	110.62	113.80
1	2A	469	G	C5-C6-O6	-6.36	124.79	128.60
32	2a	1380	U	C5-C4-O4	6.36	129.71	125.90
1	2A	2427	C	N1-C2-O2	-6.35	115.09	118.90
1	2A	454	A	C8-N9-C4	6.35	108.34	105.80
1	2A	1163	G	C8-N9-C4	6.34	108.94	106.40
1	2A	442	G	N1-C6-O6	6.34	123.71	119.90
25	13	8	LEU	CA-C-N	-6.34	115.00	122.36
25	13	8	LEU	C-N-CA	-6.34	115.00	122.36
32	1a	1363	C	C2-N1-C1'	-6.34	111.83	118.80
1	2A	2022	U	N1-C2-O2	-6.34	118.36	122.80
1	1A	2790	A	C2-N3-C4	6.34	113.77	110.60
1	1A	2612	C	O5'-C5'-C4'	6.33	114.46	109.40
1	1A	2246	G	C5-C6-N1	6.33	114.66	111.50
32	1a	971	G	N3-C4-N9	-6.33	122.20	126.00
1	1A	2574	G	N1-C6-O6	-6.33	116.10	119.90
32	2a	1030(D)	A	O5'-C5'-C4'	6.33	114.46	109.40
32	2a	1500	A	O4'-C1'-N9	-6.33	104.07	108.50
1	1A	2507	C	C6-N1-C2	-6.33	117.77	120.30
1	2A	1097	U	C5-C6-N1	6.32	125.86	122.70
1	1A	90	U	C5-C4-O4	6.32	129.69	125.90
32	1a	595	G	N3-C4-N9	6.32	129.79	126.00
32	2a	1019	C	O5'-C5'-C4'	6.32	114.45	109.40
1	1A	635	C	C5-C4-N4	6.31	124.62	120.20
1	1A	2424	C	N3-C2-O2	6.31	126.32	121.90
1	1A	252	G	N3-C2-N2	-6.31	115.48	119.90
1	1A	2188	C	C2-N1-C1'	-6.31	111.86	118.80
1	1A	205	G	N1-C2-N2	-6.30	110.53	116.20
1	1A	22	C	C6-N1-C2	6.30	122.82	120.30
1	2A	2577	A	C2-N3-C4	-6.30	107.45	110.60
1	2A	226	G	O4'-C1'-N9	6.30	113.24	108.20
1	2A	386	G	C8-N9-C4	6.29	108.92	106.40
1	2A	1573	G	N7-C8-N9	-6.29	109.95	113.10
1	1A	1282	U	C2-N3-C4	-6.29	123.23	127.00
1	2A	1647	G	C8-N9-C4	6.29	108.92	106.40
1	1A	2002	G	N7-C8-N9	-6.28	109.96	113.10
1	2A	1617	C	N1-C2-O2	-6.28	115.13	118.90
1	1A	1647	G	O4'-C1'-N9	-6.28	103.18	108.20
1	1A	2759	G	N3-C2-N2	-6.28	115.50	119.90
1	1A	271(J)	C	C6-N1-C2	6.28	122.81	120.30
1	1A	1015	G	N1-C6-O6	6.27	123.66	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	656	G	N9-C4-C5	6.27	107.91	105.40
1	1A	975(A)	G	C5'-C4'-O4'	-6.27	104.16	109.80
32	1a	1185	G	N3-C4-C5	6.26	131.73	128.60
1	1A	1253	A	C8-N9-C4	6.26	108.31	105.80
1	1A	2070	G	C4-C5-N7	6.26	113.31	110.80
1	2A	94(A)	G	N1-C6-O6	6.26	123.66	119.90
1	2A	1071	G	N1-C6-O6	6.26	123.66	119.90
1	1A	127	A	C8-N9-C4	6.26	108.30	105.80
1	2A	1084	A	O5'-C5'-C4'	6.26	114.41	109.40
32	2a	909	A	N9-C4-C5	-6.26	103.30	105.80
1	1A	1327	C	N1-C2-O2	-6.25	115.15	118.90
1	1A	2580	U	C5-C6-N1	-6.25	119.57	122.70
1	1A	2776	A	N9-C4-C5	-6.25	103.30	105.80
1	1A	391	G	C8-N9-C4	6.25	108.90	106.40
32	2a	176	C	O5'-C5'-C4'	6.25	114.40	109.40
1	1A	1801	G	C5-C6-O6	-6.24	124.85	128.60
1	2A	2893	G	O5'-C5'-C4'	6.24	114.39	109.40
1	1A	1015	G	C4-C5-N7	6.24	113.30	110.80
1	1A	2380	C	N3-C2-O2	6.24	126.27	121.90
1	1A	615	G	N1-C2-N2	-6.24	110.59	116.20
1	1A	1327	C	N3-C2-O2	6.23	126.26	121.90
32	2a	1173	G	N3-C4-N9	-6.23	122.26	126.00
1	1A	2081	C	C6-N1-C2	6.23	122.79	120.30
32	2a	237	C	C6-N1-C2	6.23	122.79	120.30
1	1A	449	A	C8-N9-C4	6.23	108.29	105.80
1	1A	1602	U	N3-C4-C5	6.22	118.33	114.60
1	1A	1256	G	C8-N9-C4	6.22	108.89	106.40
1	1A	2018	G	C5-C6-O6	-6.22	124.87	128.60
1	1A	2539	C	N3-C4-C5	6.22	124.39	121.90
1	1A	2245	U	C2-N3-C4	-6.22	123.27	127.00
1	1A	1131	G	C5-C6-O6	6.22	132.33	128.60
32	2a	1134	G	C8-N9-C4	-6.21	103.92	106.40
1	1A	627	A	C8-N9-C4	6.21	108.28	105.80
1	2A	458	G	O5'-C5'-C4'	6.21	114.36	109.40
1	2A	1200	C	C6-N1-C2	6.21	122.78	120.30
1	1A	1351	C	N3-C4-C5	6.20	124.38	121.90
1	2A	2168	G	O4'-C1'-N9	6.20	112.84	108.50
32	1a	607	A	O5'-C5'-C4'	6.20	114.36	109.40
1	2A	1800	C	C6-N1-C2	-6.20	117.82	120.30
1	2A	442	G	C5-C6-O6	-6.20	124.88	128.60
1	2A	2586	C	N3-C4-N4	6.20	122.34	118.00
2	2B	94	C	C6-N1-C2	6.19	122.78	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	763	G	N1-C6-O6	-6.19	116.19	119.90
1	1A	2721	A	C8-N9-C4	6.19	108.28	105.80
1	2A	12	U	N1-C2-O2	6.19	127.13	122.80
1	2A	1123	C	N3-C2-O2	6.19	126.23	121.90
1	1A	1082	U	N3-C4-O4	-6.19	115.07	119.40
1	1A	1210	A	N9-C4-C5	6.19	108.27	105.80
32	2a	1525	G	C5-C6-O6	6.19	132.31	128.60
1	2A	1076	C	C5-C6-N1	6.18	124.09	121.00
1	2A	1899	G	C5-C6-O6	-6.18	124.89	128.60
1	1A	1033	U	C6-N1-C2	6.18	124.71	121.00
1	1A	370	G	N3-C2-N2	6.18	124.22	119.90
32	2a	773	G	O5'-C5'-C4'	6.18	114.34	109.40
1	1A	2355	C	N3-C4-C5	6.18	124.37	121.90
32	2a	1058	G	C8-N9-C4	6.18	108.87	106.40
1	1A	652(U)	G	O5'-C5'-C4'	6.18	114.34	109.40
1	1A	782	A	C8-N9-C4	6.18	108.27	105.80
1	2A	1826	G	N1-C6-O6	-6.18	116.19	119.90
32	1a	1019	C	O5'-C5'-C4'	6.17	114.34	109.40
32	1a	975	A	O4'-C1'-N9	-6.17	103.26	108.20
1	2A	2207	G	N7-C8-N9	6.17	116.19	113.10
32	1a	1329	A	C6-N1-C2	6.17	122.30	118.60
1	1A	97	C	N3-C2-O2	-6.16	117.59	121.90
1	2A	1791	A	C5'-C4'-C3'	-6.16	106.14	116.00
1	1A	1845	G	C5-C6-O6	6.16	132.29	128.60
32	2a	1442	G	C5-C6-O6	-6.16	124.91	128.60
1	1A	698	C	C6-N1-C2	6.15	122.76	120.30
1	1A	2079	U	N1-C2-O2	-6.15	118.49	122.80
1	1A	1086	A	C4-C5-C6	-6.15	113.92	117.00
1	1A	2352	A	C8-N9-C4	6.15	108.26	105.80
32	1a	752	G	N1-C6-O6	6.15	123.59	119.90
1	2A	37	C	C6-N1-C2	6.15	122.76	120.30
1	1A	2534	A	C5-C6-N6	-6.15	118.78	123.70
1	2A	467	G	C8-N9-C4	6.15	108.86	106.40
1	2A	779	U	C2-N3-C4	-6.15	123.31	127.00
1	2A	1120	G	N3-C4-C5	6.15	131.67	128.60
1	2A	1695	G	C8-N9-C4	6.15	108.86	106.40
1	1A	686	G	C4-C5-N7	6.14	113.26	110.80
32	2a	611	A	C8-N9-C4	6.14	108.26	105.80
1	1A	1198	U	N1-C2-N3	6.14	118.58	114.90
1	1A	1661	G	N7-C8-N9	-6.14	110.03	113.10
1	2A	2464	C	C6-N1-C2	6.14	122.75	120.30
1	1A	1253	A	C5-N7-C8	6.14	106.97	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1696	G	N7-C8-N9	-6.13	110.03	113.10
1	2A	756	C	N1-C2-O2	-6.13	115.22	118.90
1	2A	1819	A	C5-C6-N1	-6.13	114.64	117.70
32	2a	70	G	C6-N1-C2	6.13	128.78	125.10
32	2a	1225	A	C5-C6-N6	6.13	128.60	123.70
1	1A	2691	C	C2-N3-C4	-6.13	116.83	119.90
32	2a	819	A	C5-C6-N6	-6.13	118.80	123.70
1	1A	1128	A	O5'-C5'-C4'	6.12	114.30	109.40
1	1A	209	C	C6-N1-C2	6.12	122.75	120.30
1	1A	1131	G	N1-C2-N2	-6.12	110.69	116.20
1	2A	2249	U	N3-C4-O4	-6.12	115.12	119.40
32	2a	1286	A	C8-N9-C4	-6.12	103.35	105.80
1	2A	752	A	C8-N9-C4	-6.11	103.36	105.80
1	2A	2595	G	N9-C4-C5	-6.11	102.95	105.40
1	1A	1376	C	C5-C6-N1	-6.11	117.94	121.00
1	1A	912	C	C6-N1-C2	-6.11	117.86	120.30
32	1a	872	A	O4'-C1'-N9	6.11	113.09	108.20
1	1A	615	G	N3-C2-N2	6.11	124.17	119.90
32	1a	803	G	C5-C6-O6	6.10	132.26	128.60
32	1a	1442	G	N3-C4-N9	6.10	129.66	126.00
1	1A	690	G	N7-C8-N9	-6.10	110.05	113.10
1	2A	1382	G	C5-C6-O6	-6.10	124.94	128.60
1	2A	1398	C	N3-C2-O2	6.10	126.17	121.90
1	1A	976	C	C6-N1-C2	-6.09	117.86	120.30
1	1A	2202	C	N1-C2-O2	-6.09	115.24	118.90
1	1A	788	A	C8-N9-C4	6.09	108.24	105.80
32	1a	115	G	P-O3'-C3'	6.09	127.01	119.70
1	1A	797	C	N1-C2-O2	-6.09	115.25	118.90
1	1A	2512	C	C2-N3-C4	-6.09	116.86	119.90
1	1A	2153	G	C4-N9-C1'	-6.09	118.58	126.50
1	1A	2329	G	C4-C5-N7	6.08	113.23	110.80
32	2a	400	C	N3-C2-O2	6.08	126.16	121.90
1	2A	2549	G	O5'-C5'-C4'	6.08	114.27	109.40
1	1A	1187	G	N3-C2-N2	6.08	124.16	119.90
1	2A	143	G	C4-C5-N7	-6.08	108.37	110.80
1	2A	1416	G	C8-N9-C4	6.08	108.83	106.40
1	1A	1164	G	C5-N7-C8	6.08	107.34	104.30
32	2a	1123	A	N1-C6-N6	-6.07	114.96	118.60
1	1A	2506	U	N1-C2-O2	6.07	127.05	122.80
32	1a	191	G	O5'-C5'-C4'	6.07	114.26	109.40
1	2A	866	A	O4'-C1'-N9	-6.07	104.25	108.50
1	2A	1784	A	C8-N9-C4	6.07	108.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2572	A	C8-N9-C4	6.07	108.23	105.80
1	2A	2595	G	C8-N9-C4	6.07	108.83	106.40
32	2a	1473	A	N7-C8-N9	-6.07	110.77	113.80
1	1A	669	G	C8-N9-C4	6.06	108.83	106.40
1	1A	564	C	N1-C2-O2	-6.06	115.26	118.90
1	1A	1445	A	O4'-C1'-N9	6.06	113.05	108.20
1	1A	771	G	N9-C4-C5	-6.06	102.98	105.40
32	1a	376	G	N7-C8-N9	-6.06	110.07	113.10
1	2A	594	U	C5-C6-N1	-6.06	119.67	122.70
1	1A	330	A	N3-C4-C5	6.05	131.04	126.80
1	1A	1136	G	C8-N9-C4	6.05	108.82	106.40
1	1A	2424	C	C6-N1-C2	6.05	122.72	120.30
1	2A	652(T)	C	C5-C6-N1	6.05	124.03	121.00
32	1a	1220	G	O5'-C5'-C4'	6.05	114.24	109.40
32	2a	955	U	C2-N3-C4	6.05	130.63	127.00
1	1A	702	G	N1-C6-O6	6.05	123.53	119.90
1	2A	2039	C	N1-C2-O2	-6.05	115.27	118.90
1	2A	519	U	O5'-C5'-C4'	6.04	114.23	109.40
32	2a	1381	U	O5'-C5'-C4'	6.04	114.23	109.40
1	1A	531	C	C2-N1-C1'	-6.04	112.16	118.80
1	1A	870	A	C8-N9-C4	6.04	108.22	105.80
1	1A	1257	C	C6-N1-C2	-6.04	117.88	120.30
1	1A	1559	G	N3-C4-C5	6.04	131.62	128.60
1	2A	2848	G	O4'-C1'-N9	6.04	113.03	108.20
1	2A	2103	C	C2-N3-C4	6.04	122.92	119.90
1	1A	887	A	N1-C2-N3	6.03	132.32	129.30
1	2A	1077	A	C2-N3-C4	6.03	113.62	110.60
1	2A	102	G	N1-C6-O6	-6.03	116.28	119.90
1	1A	83	G	N9-C4-C5	-6.03	102.99	105.40
1	2A	1880	C	C6-N1-C2	6.02	122.71	120.30
1	2A	2056	G	O4'-C1'-N9	-6.02	104.28	108.50
1	2A	866	A	N9-C4-C5	-6.02	103.39	105.80
1	2A	205	G	N7-C8-N9	-6.02	110.09	113.10
32	2a	244	U	N3-C4-C5	6.02	118.21	114.60
32	2a	1099	G	C4-C5-N7	-6.02	108.39	110.80
32	2a	1074	G	N1-C6-O6	6.02	123.51	119.90
1	1A	2596	U	C5-C6-N1	-6.01	119.69	122.70
32	1a	1493	A	C2-N3-C4	6.01	113.61	110.60
1	1A	266	G	N9-C4-C5	-6.01	103.00	105.40
1	1A	756	C	C6-N1-C1'	6.01	128.01	120.80
1	1A	1075	C	C5-C6-N1	6.01	124.00	121.00
1	1A	2517	C	O4'-C1'-N1	6.01	113.01	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	353	A	C5'-C4'-O4'	-6.01	104.39	109.80
1	1A	2637	U	C5-C6-N1	-6.01	119.70	122.70
32	1a	226	G	C8-N9-C4	6.01	108.80	106.40
1	2A	1983	C	N1-C2-O2	-6.01	115.30	118.90
1	1A	1425	G	N1-C6-O6	6.01	123.50	119.90
1	1A	2059	A	O4'-C1'-N9	6.00	112.70	108.50
1	1A	2023	G	C5-C6-O6	-6.00	125.00	128.60
1	1A	2228	G	N1-C6-O6	-6.00	116.30	119.90
1	1A	2788	C	C6-N1-C2	6.00	122.70	120.30
1	2A	1967	C	N3-C4-C5	6.00	124.30	121.90
1	1A	679	C	O5'-C5'-C4'	6.00	114.20	109.40
1	1A	2179	C	C6-N1-C1'	-6.00	113.60	120.80
1	2A	1936	A	N9-C4-C5	-6.00	103.40	105.80
1	1A	2893	G	C4-C5-N7	6.00	113.20	110.80
1	2A	1071	G	C6-C5-N7	-6.00	126.80	130.40
1	2A	1817	G	C4-C5-N7	6.00	113.20	110.80
1	1A	2639	A	N1-C6-N6	6.00	122.20	118.60
1	2A	470	A	C5-N7-C8	-6.00	100.90	103.90
1	2A	1070	A	N1-C6-N6	-6.00	115.00	118.60
1	1A	1190	G	N7-C8-N9	-6.00	110.10	113.10
1	1A	2371	G	N3-C4-N9	6.00	129.60	126.00
32	1a	376	G	C4-N9-C1'	-5.99	118.71	126.50
1	2A	942	G	C8-N9-C4	5.99	108.80	106.40
1	2A	2185	C	C5-C4-N4	5.99	124.39	120.20
1	1A	1100	C	O4'-C1'-N1	5.99	112.69	108.50
1	2A	1997	G	C5'-C4'-O4'	5.99	115.19	109.80
1	1A	518	G	N1-C6-O6	-5.99	116.31	119.90
1	1A	568	U	C2-N3-C4	-5.99	123.41	127.00
1	1A	1936	A	O4'-C1'-N9	5.99	112.99	108.20
1	1A	2022	U	N1-C2-O2	-5.99	118.61	122.80
1	2A	591	C	N1-C2-O2	-5.99	115.31	118.90
1	2A	1779	U	O4'-C1'-N1	5.99	112.69	108.50
1	1A	1609	A	N9-C4-C5	-5.98	103.41	105.80
2	2B	1	U	C2-N1-C1'	5.98	124.88	117.70
1	1A	1383	C	C2-N1-C1'	-5.98	112.22	118.80
1	1A	1649	G	C5-C6-O6	-5.98	125.01	128.60
1	1A	1997	G	C5'-C4'-O4'	5.98	115.18	109.80
1	2A	1372	U	C5-C6-N1	5.98	125.69	122.70
1	2A	1813	G	N1-C6-O6	-5.98	116.31	119.90
1	2A	1416	G	O4'-C1'-N9	5.97	112.98	108.20
42	1k	106	LYS	CA-C-O	-5.97	111.97	120.51
1	2A	2485	G	O5'-C5'-C4'	5.97	114.18	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1028	A	N1-C6-N6	5.97	122.18	118.60
1	1A	129	C	C2-N1-C1'	-5.97	112.24	118.80
1	1A	819	A	C5-C6-N6	5.97	128.47	123.70
1	1A	1173	G	O4'-C1'-N9	5.96	112.97	108.20
32	1a	1442(A)	G	C5-C6-O6	-5.96	125.02	128.60
1	2A	928	G	C8-N9-C4	-5.96	104.01	106.40
1	2A	1200	C	C5-C6-N1	-5.96	118.02	121.00
1	2A	1359	A	C2-N3-C4	5.96	113.58	110.60
1	2A	2681	C	C2-N3-C4	-5.96	116.92	119.90
1	1A	2596	U	N3-C2-O2	5.96	126.37	122.20
32	2a	572	A	C8-N9-C4	5.96	108.18	105.80
1	2A	2019	A	C8-N9-C4	5.96	108.18	105.80
1	2A	205	G	C4-N9-C1'	-5.95	118.76	126.50
1	2A	756	C	N3-C2-O2	5.95	126.07	121.90
1	2A	1441	G	C8-N9-C4	5.95	108.78	106.40
1	1A	2187	G	N9-C4-C5	-5.95	103.02	105.40
1	2A	748	G	N1-C6-O6	-5.95	116.33	119.90
1	1A	2391	G	O4'-C1'-N9	5.94	112.96	108.20
32	1a	993	G	O5'-C5'-C4'	5.94	114.15	109.40
1	2A	2521	C	C6-N1-C2	5.94	122.68	120.30
1	2A	1926	U	N1-C2-N3	5.94	118.47	114.90
1	1A	1297	C	N1-C2-O2	-5.94	115.34	118.90
1	1A	1345	C	C5-C6-N1	-5.94	118.03	121.00
1	2A	1078	U	O4'-C1'-N1	5.94	112.95	108.20
1	2A	2430	A	O4'-C1'-N9	5.94	112.95	108.20
32	2a	929	G	N3-C4-N9	-5.94	122.44	126.00
32	2a	1370	G	O5'-C5'-C4'	5.94	114.15	109.40
32	1a	913	A	P-O3'-C3'	5.94	126.82	119.70
1	2A	1662	C	N1-C2-O2	-5.94	115.34	118.90
1	1A	1758	G	C8-N9-C4	5.93	108.77	106.40
1	1A	1838	C	C2-N1-C1'	-5.93	112.27	118.80
32	1a	1199	U	C5-C4-O4	5.93	129.46	125.90
1	2A	1314	C	O5'-C5'-C4'	5.93	114.14	109.40
32	2a	1223	C	O5'-C5'-C4'	5.93	114.14	109.40
32	1a	1446	U	O4'-C1'-N1	5.93	112.65	108.50
1	2A	1610	A	N9-C4-C5	-5.93	103.43	105.80
32	2a	295	C	C6-N1-C2	5.93	122.67	120.30
1	1A	213	A	N1-C2-N3	-5.93	126.34	129.30
1	1A	392	C	C6-N1-C2	5.92	122.67	120.30
1	1A	1661	G	C8-N9-C4	5.92	108.77	106.40
1	1A	855	G	O5'-C5'-C4'	5.92	114.14	109.40
1	1A	1667	G	N7-C8-N9	-5.92	110.14	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1815	A	N1-C6-N6	-5.92	115.05	118.60
1	2A	1091	G	C2-N3-C4	5.92	114.86	111.90
1	1A	1632	A	C5-N7-C8	5.92	106.86	103.90
1	2A	2805	G	N1-C6-O6	-5.92	116.35	119.90
32	2a	1042	G	C5-C6-O6	-5.92	125.05	128.60
1	2A	1914	C	C5-C6-N1	5.92	123.96	121.00
1	1A	1033	U	C5-C6-N1	-5.91	119.74	122.70
1	1A	2080	G	C2-N3-C4	5.91	114.86	111.90
32	1a	1442(A)	G	N1-C6-O6	5.91	123.45	119.90
1	2A	1341	U	N1-C2-O2	-5.91	118.66	122.80
1	1A	2145	C	O5'-C5'-C4'	5.91	114.13	109.40
1	1A	2179	C	C6-N1-C2	-5.91	117.94	120.30
32	2a	826	C	C6-N1-C2	5.91	122.66	120.30
1	1A	1815	A	C8-N9-C4	-5.91	103.44	105.80
1	1A	2349	G	C8-N9-C4	5.91	108.76	106.40
1	1A	252	G	C2-N3-C4	5.91	114.85	111.90
1	1A	834	C	C6-N1-C2	5.91	122.66	120.30
1	1A	1063	G	N1-C2-N3	-5.90	120.36	123.90
1	2A	1839	G	C8-N9-C4	5.90	108.76	106.40
32	2a	890	G	O4'-C1'-N9	5.90	112.92	108.20
1	1A	2374	C	C5-C4-N4	-5.90	116.07	120.20
1	1A	2506	U	C6-N1-C1'	-5.90	112.94	121.20
32	1a	1514	C	C6-N1-C2	-5.90	117.94	120.30
1	1A	12	U	N3-C2-O2	-5.90	118.07	122.20
1	2A	2279	G	C8-N9-C4	5.89	108.76	106.40
1	1A	1425	G	C5-C6-O6	-5.89	125.07	128.60
2	1B	1	U	C5-C6-N1	5.89	125.64	122.70
1	1A	2070	G	C6-C5-N7	-5.89	126.87	130.40
1	2A	788	A	N9-C4-C5	-5.89	103.44	105.80
1	1A	1696	G	C4-C5-N7	-5.89	108.44	110.80
1	1A	449	A	N7-C8-N9	-5.89	110.86	113.80
1	2A	1210	A	P-O3'-C3'	5.89	126.76	119.70
1	1A	1677	A	N1-C2-N3	5.88	132.24	129.30
1	2A	469	G	N1-C6-O6	5.88	123.43	119.90
1	2A	2000	G	N1-C6-O6	5.88	123.43	119.90
1	2A	2152	G	O5'-C5'-C4'	5.88	114.11	109.40
1	1A	90	U	N3-C2-O2	-5.88	118.08	122.20
1	1A	1259	G	N7-C8-N9	-5.88	110.16	113.10
1	2A	2849	U	O5'-C5'-C4'	5.88	114.11	109.40
32	2a	1058	G	N9-C4-C5	-5.88	103.05	105.40
32	1a	900	A	N9-C4-C5	-5.88	103.45	105.80
32	1a	1123	A	C5-C6-N1	-5.88	114.76	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1661	G	C5-N7-C8	5.88	107.24	104.30
1	1A	2730	C	O5'-C5'-C4'	5.88	114.10	109.40
1	2A	12	U	N3-C2-O2	-5.88	118.09	122.20
1	2A	655	A	O5'-C5'-C4'	5.88	114.10	109.40
1	1A	1565	C	N3-C4-C5	5.88	124.25	121.90
1	1A	574	C	N1-C2-O2	-5.87	115.38	118.90
1	1A	1774	C	N3-C4-C5	5.87	124.25	121.90
2	1B	100	A	O5'-C5'-C4'	5.87	114.09	109.40
32	1a	904	C	C5-C6-N1	-5.87	118.07	121.00
1	2A	2340	G	C2-N3-C4	-5.87	108.97	111.90
1	2A	22	C	C6-N1-C2	5.86	122.64	120.30
32	2a	572	A	N7-C8-N9	-5.86	110.87	113.80
32	2a	1030(B)	C	C6-N1-C2	-5.86	117.95	120.30
1	1A	1653	G	C8-N9-C4	-5.86	104.06	106.40
1	1A	1696	G	C8-N9-C4	5.86	108.75	106.40
1	1A	271(Y)	U	O4'-C1'-N1	5.86	112.89	108.20
1	1A	706	A	C2-N3-C4	-5.86	107.67	110.60
1	1A	1400	G	C6-C5-N7	5.86	133.91	130.40
32	2a	1474	G	N3-C4-C5	5.86	131.53	128.60
32	1a	984	C	C6-N1-C2	5.86	122.64	120.30
32	2a	1003	G	N3-C4-N9	5.86	129.51	126.00
1	1A	1938	A	O5'-C5'-C4'	5.85	114.08	109.40
1	1A	655	A	C5-N7-C8	-5.85	100.97	103.90
1	1A	952	G	N1-C6-O6	5.85	123.41	119.90
32	1a	217	C	C6-N1-C2	5.85	122.64	120.30
32	1a	92	C	N1-C2-O2	-5.85	115.39	118.90
1	2A	2287	A	O4'-C1'-N9	5.84	112.88	108.20
1	2A	2138	C	C2-N3-C4	5.84	122.82	119.90
32	2a	7	G	N3-C4-C5	5.84	131.52	128.60
1	2A	1253	A	N7-C8-N9	-5.84	110.88	113.80
32	2a	1225	A	C6-N1-C2	5.84	122.10	118.60
1	1A	139(A)	G	C5-N7-C8	5.84	107.22	104.30
1	1A	2596	U	C2-N3-C4	-5.84	123.50	127.00
1	2A	2804	C	C6-N1-C2	-5.84	117.97	120.30
1	2A	614	U	N3-C2-O2	-5.83	118.12	122.20
1	1A	2596	U	C6-N1-C2	5.83	124.50	121.00
1	1A	313	C	N3-C4-N4	-5.83	113.92	118.00
1	1A	2646	C	C6-N1-C2	5.83	122.63	120.30
32	1a	1379	G	N9-C4-C5	5.83	107.73	105.40
1	1A	1487	G	C8-N9-C4	-5.83	104.07	106.40
1	2A	482	A	C5-C6-N6	-5.83	119.04	123.70
1	2A	2130	U	C5-C6-N1	5.83	125.61	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	780	G	C8-N9-C4	5.83	108.73	106.40
1	2A	2363	C	C6-N1-C2	5.83	122.63	120.30
1	1A	1256	G	N9-C4-C5	-5.83	103.07	105.40
1	1A	1296	G	N3-C2-N2	-5.83	115.82	119.90
2	1B	87	G	C4-N9-C1'	-5.83	118.93	126.50
1	1A	395	U	O4'-C1'-N1	5.82	112.86	108.20
1	1A	557	U	C2-N3-C4	-5.82	123.51	127.00
1	1A	1141	U	N3-C4-O4	-5.82	115.32	119.40
1	1A	1170	G	N7-C8-N9	5.82	116.01	113.10
1	1A	2822	G	C8-N9-C4	5.82	108.73	106.40
2	1B	41	U	C5-C6-N1	-5.82	119.79	122.70
1	1A	1332	G	N9-C4-C5	-5.82	103.07	105.40
1	1A	1637	A	N9-C4-C5	-5.82	103.47	105.80
1	1A	1959	G	C8-N9-C4	5.82	108.73	106.40
1	1A	323	G	N3-C2-N2	5.82	123.97	119.90
32	2a	1173	G	N3-C2-N2	-5.82	115.83	119.90
32	2a	1529	G	O5'-C5'-C4'	5.82	114.06	109.40
32	1a	266	G	P-O3'-C3'	5.82	126.68	119.70
1	2A	456	C	C6-N1-C2	5.82	122.63	120.30
1	1A	2257	U	N1-C2-N3	5.82	118.39	114.90
1	1A	2612	C	C5'-C4'-O4'	-5.82	104.56	109.80
1	1A	784	A	N1-C2-N3	-5.81	126.39	129.30
1	2A	2321	G	P-O3'-C3'	5.81	126.67	119.70
32	2a	1327	C	C6-N1-C2	5.81	122.62	120.30
32	1a	1185	G	N3-C4-N9	-5.81	122.52	126.00
1	2A	204	A	N7-C8-N9	-5.81	110.90	113.80
1	1A	250	G	C8-N9-C4	-5.81	104.08	106.40
1	2A	2087	G	N1-C6-O6	5.81	123.38	119.90
1	1A	391	G	N7-C8-N9	-5.80	110.20	113.10
1	1A	1680	U	N3-C4-O4	-5.80	115.34	119.40
2	1B	104	U	C6-N1-C2	5.80	124.48	121.00
1	1A	711	G	N1-C6-O6	5.80	123.38	119.90
32	1a	549	C	N1-C2-O2	-5.80	115.42	118.90
1	1A	2289	G	N3-C4-C5	5.80	131.50	128.60
32	2a	881	G	C8-N9-C4	5.80	108.72	106.40
1	1A	213	A	O5'-C5'-C4'	5.80	114.04	109.40
1	2A	2893	G	O4'-C1'-N9	-5.80	103.56	108.20
1	1A	1772	G	N9-C1'-C2'	-5.80	105.62	112.00
1	2A	806	C	N3-C4-C5	-5.79	119.58	121.90
1	1A	2512	C	C4-C5-C6	5.79	120.30	117.40
1	1A	1164	G	C6-C5-N7	5.79	133.87	130.40
1	1A	1326	U	N3-C4-O4	-5.79	115.35	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1086	A	N9-C4-C5	5.79	108.11	105.80
1	1A	1640	C	O4'-C1'-N1	5.79	112.55	108.50
1	2A	2687	U	C5-C4-O4	-5.79	122.43	125.90
1	1A	1954	G	C5-C6-O6	-5.79	125.13	128.60
1	1A	1155	A	N1-C2-N3	-5.78	126.41	129.30
1	2A	2073	C	N1-C2-O2	-5.78	115.43	118.90
32	2a	913	A	P-O3'-C3'	5.78	126.64	119.70
1	1A	2023	G	N1-C6-O6	5.78	123.37	119.90
1	2A	444	C	C2-N1-C1'	-5.78	112.44	118.80
1	2A	254	G	N1-C6-O6	5.78	123.37	119.90
1	2A	698	C	C4-C5-C6	5.78	120.29	117.40
32	2a	293	G	C8-N9-C4	-5.78	104.09	106.40
1	1A	260	G	N3-C2-N2	-5.78	115.86	119.90
1	2A	679	C	N3-C2-O2	5.78	125.94	121.90
1	1A	425	G	C8-N9-C4	-5.77	104.09	106.40
1	1A	530	G	N1-C2-N2	5.77	121.40	116.20
1	1A	637	A	C8-N9-C4	5.77	108.11	105.80
1	1A	27	G	C8-N9-C4	5.77	108.71	106.40
1	2A	1899	G	C6-C5-N7	-5.77	126.94	130.40
1	1A	686	G	N3-C2-N2	5.77	123.94	119.90
2	1B	1	U	C2-N1-C1'	5.77	124.62	117.70
1	1A	932	G	C8-N9-C4	5.77	108.71	106.40
1	1A	329	G	O4'-C1'-N9	-5.77	103.59	108.20
1	1A	1633	G	C5-C6-O6	-5.76	125.14	128.60
32	1a	951	G	N3-C2-N2	-5.76	115.86	119.90
1	2A	750	A	N9-C4-C5	-5.76	103.49	105.80
32	2a	1442	G	N3-C4-N9	5.76	129.46	126.00
1	1A	2512	C	C5-C6-N1	-5.76	118.12	121.00
1	2A	958	U	N3-C2-O2	-5.76	118.17	122.20
1	1A	2490	G	N7-C8-N9	-5.76	110.22	113.10
1	1A	2021	C	N3-C2-O2	5.76	125.93	121.90
1	2A	1280	G	O5'-C5'-C4'	5.76	114.01	109.40
1	2A	2024	G	C5-C6-N1	-5.76	108.62	111.50
32	1a	611	A	C8-N9-C4	5.76	108.10	105.80
1	1A	1798	U	N3-C4-O4	-5.75	115.37	119.40
1	2A	1416	G	N3-C4-C5	5.75	131.48	128.60
1	2A	1977	A	N1-C6-N6	-5.75	115.15	118.60
1	1A	2070	G	N9-C4-C5	-5.75	103.10	105.40
1	1A	2692	C	C2-N3-C4	-5.75	117.02	119.90
1	2A	1471	A	C8-N9-C4	-5.75	103.50	105.80
32	2a	1123	A	C5-C6-N6	5.75	128.30	123.70
32	1a	984	C	C2-N1-C1'	-5.75	112.47	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2687	U	N3-C2-O2	5.75	126.23	122.20
1	1A	2689	U	P-O3'-C3'	5.75	126.60	119.70
1	1A	2712	U	O4'-C1'-N1	5.75	112.80	108.20
1	1A	1109	C	C5-C6-N1	5.75	123.87	121.00
1	1A	1654	A	C5-N7-C8	5.75	106.77	103.90
1	2A	37	C	C5-C6-N1	-5.75	118.13	121.00
1	2A	659	C	C5-C6-N1	-5.75	118.13	121.00
1	2A	444	C	C5'-C4'-O4'	-5.74	104.63	109.80
1	1A	1127	A	C8-N9-C4	5.74	108.10	105.80
1	2A	1092	C	C2-N1-C1'	5.74	125.11	118.80
1	1A	64	A	C2-N3-C4	-5.74	107.73	110.60
1	1A	395	U	N1-C2-O2	5.74	126.82	122.80
1	1A	1373	A	O5'-C5'-C4'	5.74	113.99	109.40
1	2A	2340	G	N1-C6-O6	5.74	123.34	119.90
1	1A	2237	G	N9-C4-C5	-5.74	103.11	105.40
1	2A	12	U	C2-N1-C1'	5.74	124.58	117.70
1	2A	1073	A	O5'-C5'-C4'	5.73	113.99	109.40
32	2a	266	G	C6-C5-N7	-5.73	126.96	130.40
1	1A	325	G	N1-C6-O6	5.73	123.34	119.90
1	1A	730	C	N3-C4-C5	5.73	124.19	121.90
1	2A	1579	A	C5-C6-N6	-5.73	119.11	123.70
1	1A	1308	A	N1-C6-N6	-5.73	115.16	118.60
1	2A	2375	G	C4-N9-C1'	-5.73	119.05	126.50
32	2a	199	G	N3-C4-C5	5.73	131.47	128.60
1	2A	1573	G	C4-C5-N7	-5.73	108.51	110.80
1	2A	2206	G	N3-C4-C5	5.73	131.46	128.60
32	2a	1003	G	C8-N9-C4	-5.73	104.11	106.40
1	1A	1235	G	N3-C2-N2	-5.73	115.89	119.90
32	1a	240	C	N1-C2-O2	-5.73	115.46	118.90
32	1a	595	G	C8-N9-C1'	-5.72	119.56	127.00
1	2A	1251	C	N1-C2-O2	-5.72	115.47	118.90
1	1A	834	C	C5-C6-N1	-5.72	118.14	121.00
32	1a	1058	G	C5-C6-O6	-5.72	125.17	128.60
1	2A	1008	C	C6-N1-C2	-5.72	118.01	120.30
1	1A	1786	A	N7-C8-N9	-5.72	110.94	113.80
1	1A	2381	C	C2-N3-C4	-5.72	117.04	119.90
1	1A	22	C	N3-C2-O2	5.71	125.90	121.90
1	1A	1186	G	C8-N9-C4	5.71	108.69	106.40
1	1A	1186	G	N3-C4-C5	5.71	131.46	128.60
1	2A	113	G	N3-C4-N9	-5.71	122.57	126.00
1	2A	1030	G	N1-C6-O6	5.71	123.33	119.90
1	2A	1153	C	N1-C2-O2	-5.71	115.47	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	69	C	N1-C2-O2	-5.71	115.47	118.90
1	1A	748	G	C8-N9-C4	5.71	108.69	106.40
1	2A	184	C	C6-N1-C2	5.71	122.58	120.30
1	1A	387	U	N3-C2-O2	5.71	126.20	122.20
1	1A	20	C	C2-N3-C4	-5.71	117.05	119.90
1	1A	587	C	N3-C4-C5	-5.71	119.62	121.90
1	1A	2636	U	N3-C4-O4	-5.71	115.40	119.40
1	2A	1379	A	N9-C4-C5	-5.71	103.52	105.80
1	2A	1999	C	N3-C4-C5	5.71	124.18	121.90
1	2A	1831	G	C2-N3-C4	-5.71	109.05	111.90
1	1A	1139	G	C4-C5-N7	-5.71	108.52	110.80
1	1A	23	G	C4-C5-N7	-5.70	108.52	110.80
1	1A	2419	U	N3-C4-C5	5.70	118.02	114.60
1	2A	639	U	C5-C4-O4	5.70	129.32	125.90
1	1A	132	G	C8-N9-C4	5.70	108.68	106.40
1	1A	971	C	N1-C2-O2	-5.70	115.48	118.90
1	2A	662	G	N7-C8-N9	-5.70	110.25	113.10
1	2A	2122	U	C5-C4-O4	5.70	129.32	125.90
1	1A	512	G	N9-C4-C5	-5.70	103.12	105.40
1	1A	2359	C	C6-N1-C2	-5.70	118.02	120.30
2	1B	91	C	N3-C4-C5	5.70	124.18	121.90
32	2a	266	G	O4'-C1'-N9	-5.70	103.64	108.20
1	1A	691	C	C5-C6-N1	5.69	123.85	121.00
1	2A	2022	U	N3-C4-O4	5.69	123.39	119.40
1	2A	2185	C	N1-C2-N3	-5.69	115.22	119.20
1	1A	1116	C	C5-C6-N1	5.69	123.84	121.00
1	1A	1214	A	C8-N9-C4	5.69	108.08	105.80
1	1A	2162	G	O5'-C5'-C4'	5.69	113.95	109.40
1	1A	2893	G	N1-C2-N3	-5.69	120.49	123.90
1	1A	480	A	C8-N9-C4	5.69	108.08	105.80
1	1A	652(A)	A	O5'-C5'-C4'	5.69	113.95	109.40
1	1A	1591	G	N1-C6-O6	-5.69	116.49	119.90
1	1A	1934	C	C6-N1-C2	5.69	122.58	120.30
32	1a	132	C	C6-N1-C2	5.69	122.58	120.30
1	2A	1847	A	O4'-C1'-N9	5.69	112.75	108.20
1	1A	473	G	N7-C8-N9	-5.68	110.26	113.10
1	1A	2084	C	C6-N1-C2	5.68	122.57	120.30
1	2A	1748	G	O5'-C5'-C4'	5.68	113.95	109.40
1	1A	781	A	C2-N3-C4	5.68	113.44	110.60
1	2A	1340	U	N3-C2-O2	5.68	126.18	122.20
1	1A	188	G	C4-C5-N7	-5.68	108.53	110.80
1	1A	1701	A	N1-C6-N6	5.68	122.01	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	672	C	N3-C4-C5	5.68	124.17	121.90
1	1A	1648	C	C5'-C4'-O4'	-5.67	104.70	109.80
1	2A	1583	A	O5'-C5'-C4'	5.67	113.93	109.40
1	2A	1992	G	C2'-C3'-O3'	5.67	121.97	109.50
1	1A	2058	A	N1-C6-N6	-5.67	115.20	118.60
1	1A	2434	A	N9-C4-C5	5.67	108.07	105.80
1	2A	61	G	N1-C6-O6	5.67	123.30	119.90
1	2A	2249	U	N3-C4-C5	5.67	118.00	114.60
1	1A	120	U	N1-C2-O2	-5.66	118.84	122.80
1	1A	1661	G	C4-C5-N7	-5.66	108.53	110.80
1	2A	1597	A	O5'-C5'-C4'	5.66	113.93	109.40
1	2A	2306	C	O5'-C5'-C4'	5.66	113.93	109.40
1	2A	1306	C	C5-C6-N1	5.66	123.83	121.00
1	1A	330	A	N9-C1'-C2'	-5.66	106.64	114.00
1	1A	2820	A	N9-C4-C5	-5.66	103.54	105.80
32	1a	1140	C	O5'-C5'-C4'	5.66	113.93	109.40
32	2a	683	G	O5'-C5'-C4'	5.66	113.93	109.40
1	1A	1248	G	C8-N9-C4	5.66	108.66	106.40
1	1A	1288	U	C5-C6-N1	-5.66	119.87	122.70
1	2A	693	C	C6-N1-C2	5.66	122.56	120.30
1	1A	2226	C	C6-N1-C2	5.66	122.56	120.30
1	2A	1755	A	N1-C6-N6	-5.65	115.21	118.60
1	2A	2741	A	C8-N9-C4	5.65	108.06	105.80
1	1A	686	G	N1-C2-N2	-5.65	111.12	116.20
32	1a	378	G	N3-C4-C5	5.65	131.42	128.60
32	1a	490	G	C8-N9-C4	5.65	108.66	106.40
32	2a	328	C	C6-N1-C2	5.65	122.56	120.30
1	1A	95	G	C2-N3-C4	-5.65	109.08	111.90
1	1A	2058	A	C6-N1-C2	-5.65	115.21	118.60
1	1A	1648	C	O5'-C5'-C4'	5.64	113.92	109.40
32	1a	204	U	N1-C2-O2	5.64	126.75	122.80
1	1A	2564	A	N9-C1'-C2'	5.64	118.21	112.00
1	2A	24	G	N1-C6-O6	5.64	123.29	119.90
1	2A	2000	G	C4-C5-N7	5.64	113.06	110.80
32	1a	925	G	N1-C6-O6	5.64	123.28	119.90
1	1A	1106	G	O5'-C5'-C4'	5.64	113.91	109.40
1	2A	1992	G	P-O3'-C3'	5.64	126.47	119.70
1	2A	2632	A	C8-N9-C4	5.64	108.06	105.80
32	2a	1065	U	P-O3'-C3'	5.64	126.47	119.70
1	1A	480	A	O5'-C5'-C4'	5.64	113.91	109.40
1	1A	607	U	C6-N1-C2	5.64	124.38	121.00
1	1A	1626	G	C5-C6-O6	5.64	131.98	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1286	A	C8-N9-C4	-5.63	103.55	105.80
1	2A	2805	G	C5'-C4'-O4'	5.63	114.87	109.80
1	1A	487	C	N1-C2-O2	-5.63	115.52	118.90
32	1a	1431	C	N1-C2-O2	-5.63	115.52	118.90
1	2A	2186	G	N1-C6-O6	-5.63	116.52	119.90
1	2A	2469	A	C8-N9-C4	5.63	108.05	105.80
32	2a	402	G	N1-C6-O6	-5.63	116.52	119.90
1	1A	688	U	N1-C2-N3	5.63	118.28	114.90
1	1A	2343	C	N1-C2-O2	-5.63	115.52	118.90
1	2A	1252	G	O4'-C1'-N9	-5.63	103.70	108.20
1	2A	1979	C	C5-C4-N4	-5.62	116.26	120.20
32	2a	1473	A	C8-N9-C4	5.62	108.05	105.80
1	1A	801	G	C5-C6-O6	-5.62	125.23	128.60
32	1a	841	U	C6-N1-C2	-5.62	117.63	121.00
1	1A	1250	G	C8-N9-C4	5.62	108.65	106.40
1	1A	2474	C	N1-C2-O2	5.62	122.27	118.90
1	2A	2619	C	C5-C6-N1	-5.62	118.19	121.00
1	1A	94	C	C6-N1-C2	-5.62	118.05	120.30
1	1A	1372	U	C5-C6-N1	5.62	125.51	122.70
32	1a	687	A	P-O3'-C3'	5.62	126.44	119.70
32	2a	6	G	O5'-C5'-C4'	5.62	113.89	109.40
1	1A	1633	G	C5-C6-N1	5.61	114.31	111.50
1	1A	2178	C	O5'-C5'-C4'	5.61	113.89	109.40
1	2A	1776	G	N3-C4-N9	5.61	129.37	126.00
1	2A	2486	G	C5-C6-O6	-5.61	125.23	128.60
32	2a	662	G	N1-C6-O6	5.61	123.27	119.90
1	2A	684	G	N1-C6-O6	5.61	123.27	119.90
1	2A	2809	A	O5'-C5'-C4'	5.61	113.89	109.40
32	2a	244	U	C6-N1-C2	5.61	124.37	121.00
1	1A	1344	G	N3-C4-C5	5.61	131.40	128.60
1	1A	1807	G	N9-C1'-C2'	-5.61	105.83	112.00
1	1A	2685	G	C6-C5-N7	5.61	133.76	130.40
1	1A	946	G	C4-C5-N7	5.61	113.04	110.80
1	1A	1377	G	C5-C6-O6	5.61	131.96	128.60
1	1A	1899	G	C4-C5-N7	5.61	113.04	110.80
1	1A	2265	U	N1-C2-O2	-5.61	118.88	122.80
32	1a	1529	G	O5'-C5'-C4'	5.61	113.88	109.40
1	2A	1899	G	C4-C5-N7	5.61	113.04	110.80
1	1A	406	G	N3-C4-N9	-5.60	122.64	126.00
1	1A	528	A	N9-C1'-C2'	5.60	118.16	112.00
1	1A	1493	C	C6-N1-C1'	-5.60	114.08	120.80
32	1a	997	U	C2-N3-C4	5.60	130.36	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2044	C	N1-C2-O2	-5.60	115.54	118.90
1	2A	754	C	N3-C4-C5	-5.60	119.66	121.90
32	1a	1377	A	N1-C6-N6	5.60	121.96	118.60
1	2A	2593	U	N3-C4-O4	-5.60	115.48	119.40
1	2A	1997	G	N3-C4-N9	5.60	129.36	126.00
1	1A	1174	A	O5'-C5'-C4'	5.60	113.88	109.40
1	2A	2065	C	N1-C2-O2	5.60	122.26	118.90
32	2a	1281	U	N3-C2-O2	-5.60	118.28	122.20
1	1A	627	A	N7-C8-N9	-5.59	111.00	113.80
1	1A	756	C	C2-N1-C1'	-5.59	112.65	118.80
1	1A	2504	U	N3-C4-O4	-5.59	115.48	119.40
1	1A	29	U	C5-C4-O4	5.59	129.25	125.90
1	1A	1754	C	N1-C2-O2	-5.59	115.55	118.90
32	1a	1181	G	N3-C4-N9	-5.59	122.64	126.00
1	2A	2774	C	N3-C4-N4	-5.59	114.09	118.00
1	1A	2626	C	C6-N1-C2	5.59	122.54	120.30
32	1a	595	G	N3-C4-C5	-5.59	125.81	128.60
1	2A	27	G	O4'-C1'-N9	5.59	112.67	108.20
1	2A	733	G	C8-N9-C4	5.59	108.64	106.40
1	1A	1937	A	O4'-C1'-N9	5.59	112.67	108.20
1	1A	2056	G	O4'-C1'-N9	-5.59	104.59	108.50
32	1a	1396	A	C5-C6-N1	-5.59	114.91	117.70
1	2A	213	A	C4-C5-C6	-5.59	114.21	117.00
1	1A	1401	G	C8-N9-C4	5.58	108.63	106.40
1	1A	2419	U	N3-C4-O4	-5.58	115.49	119.40
1	2A	143	G	N9-C4-C5	5.58	107.63	105.40
1	2A	1370	C	N3-C4-N4	-5.58	114.09	118.00
1	2A	1469	A	O5'-C5'-C4'	5.58	113.87	109.40
1	1A	573	G	C5-C6-O6	-5.58	125.25	128.60
1	2A	914	C	N1-C2-O2	5.58	122.25	118.90
1	1A	1770	G	C8-N9-C4	5.58	108.63	106.40
1	2A	1097	U	N1-C1'-C2'	5.58	118.14	112.00
1	1A	1953	A	C8-N9-C4	5.58	108.03	105.80
1	1A	2567	G	N7-C8-N9	-5.58	110.31	113.10
32	1a	894	G	C4-N9-C1'	-5.58	119.25	126.50
1	2A	562	U	N3-C2-O2	-5.58	118.30	122.20
32	2a	366	C	C2-N1-C1'	-5.58	112.66	118.80
32	2a	423	G	C4-C5-N7	5.58	113.03	110.80
1	1A	952	G	C5-C6-O6	-5.58	125.25	128.60
32	1a	784	C	C5-C6-N1	-5.58	118.21	121.00
32	1a	1142	G	C6-C5-N7	5.58	133.75	130.40
32	1a	904	C	C6-N1-C2	5.57	122.53	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	537	C	N1-C2-O2	-5.57	115.56	118.90
1	2A	1825	A	C4-C5-C6	5.57	119.78	117.00
1	1A	1997	G	O5'-C5'-C4'	5.57	113.86	109.40
1	1A	2762	G	C8-N9-C4	5.57	108.63	106.40
1	2A	693	C	C5-C6-N1	-5.57	118.22	121.00
1	1A	2732	G	C5-C6-O6	5.57	131.94	128.60
1	1A	35	G	N9-C4-C5	-5.56	103.17	105.40
1	1A	1332	G	N1-C6-O6	5.56	123.24	119.90
32	2a	534	U	N1-C2-O2	5.56	126.69	122.80
32	1a	1074	G	N1-C6-O6	5.56	123.24	119.90
1	1A	1898	U	C5-C6-N1	-5.56	119.92	122.70
1	2A	521	G	C5-C6-N1	-5.56	108.72	111.50
1	2A	673	C	C6-N1-C2	5.56	122.52	120.30
1	2A	2032	G	C5-N7-C8	5.56	107.08	104.30
32	2a	1420	C	C6-N1-C2	-5.56	118.08	120.30
1	1A	1075	C	C5-C4-N4	-5.56	116.31	120.20
1	1A	1772	G	N3-C4-C5	5.56	131.38	128.60
1	1A	2436	G	C6-N1-C2	-5.56	121.77	125.10
1	1A	2509	G	C2-N3-C4	5.56	114.68	111.90
1	2A	2467	C	N1-C2-O2	5.56	122.23	118.90
32	2a	532	A	O5'-C5'-C4'	5.56	113.85	109.40
32	2a	1474	G	N3-C4-N9	-5.56	122.67	126.00
1	1A	2008	C	N1-C2-O2	-5.55	115.57	118.90
1	1A	689	A	N1-C6-N6	-5.55	115.27	118.60
1	1A	787	U	N3-C2-O2	-5.55	118.31	122.20
1	1A	867	C	N1-C2-O2	-5.55	115.57	118.90
1	2A	355	G	O5'-C5'-C4'	5.55	113.84	109.40
32	2a	7	G	C8-N9-C4	5.55	108.62	106.40
32	2a	615	C	O5'-C5'-C4'	5.55	113.84	109.40
1	1A	385	C	N1-C2-O2	-5.55	115.57	118.90
1	2A	78	A	O5'-C5'-C4'	5.55	113.84	109.40
1	2A	1692	U	C5-C6-N1	-5.55	119.93	122.70
1	1A	2782	G	N1-C6-O6	5.54	123.23	119.90
32	1a	925	G	C5-C6-O6	-5.54	125.27	128.60
1	2A	670	A	O4'-C1'-N9	-5.54	103.76	108.20
1	1A	271(W)	G	C5-C6-N1	-5.54	108.73	111.50
32	1a	189(J)	G	O5'-C5'-C4'	5.54	113.83	109.40
1	2A	2019	A	N7-C8-N9	-5.54	111.03	113.80
1	1A	518	G	C5-C6-O6	5.54	131.92	128.60
1	1A	1570	A	C8-N9-C4	5.54	108.02	105.80
32	1a	549	C	C6-N1-C2	5.54	122.52	120.30
1	1A	817	C	N3-C2-O2	-5.54	118.02	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1258	C	N3-C2-O2	5.54	125.78	121.90
1	1A	1351	C	C5-C4-N4	-5.54	116.32	120.20
1	2A	2319	G	O5'-C5'-C4'	5.54	113.83	109.40
1	2A	1961	C	N1-C2-O2	-5.54	115.58	118.90
1	2A	2707	G	C2-N3-C4	-5.54	109.13	111.90
32	2a	246	A	C8-N9-C4	5.54	108.01	105.80
1	1A	64	A	C8-N9-C4	5.53	108.01	105.80
1	2A	1187	G	C5-C6-O6	5.53	131.92	128.60
32	2a	22	G	O5'-C5'-C4'	5.53	113.83	109.40
1	1A	20	C	C5-C6-N1	-5.53	118.23	121.00
1	1A	311	A	O5'-C5'-C4'	5.53	113.83	109.40
32	1a	266	G	N3-C4-C5	-5.53	125.83	128.60
1	2A	372	G	O4'-C1'-N9	5.53	112.63	108.20
1	1A	2289	G	O4'-C1'-N9	-5.53	104.63	108.50
32	1a	839	U	P-O3'-C3'	5.53	126.34	119.70
1	1A	234	C	N3-C4-C5	5.53	124.11	121.90
1	1A	816	C	C2-N3-C4	-5.53	117.14	119.90
1	1A	452	G	C5-C6-N1	5.53	114.26	111.50
1	1A	2027	G	C2-N3-C4	5.53	114.66	111.90
1	1A	2526	G	N1-C6-O6	5.53	123.22	119.90
1	1A	2378	A	N1-C6-N6	5.52	121.91	118.60
1	1A	48	G	N3-C2-N2	-5.52	116.03	119.90
1	1A	2060	A	C2-N3-C4	-5.52	107.84	110.60
1	2A	1688	U	C2-N1-C1'	-5.52	111.07	117.70
1	1A	2239	G	N1-C6-O6	-5.52	116.59	119.90
1	1A	2702	U	C6-N1-C2	5.52	124.31	121.00
32	1a	965	A	C5-N7-C8	-5.52	101.14	103.90
1	2A	1700	A	O5'-C5'-C4'	5.52	113.81	109.40
32	2a	400	C	C6-N1-C2	5.52	122.51	120.30
1	2A	1092	C	C5-C6-N1	5.52	123.76	121.00
1	1A	125	G	O4'-C1'-N9	-5.51	103.79	108.20
32	1a	1204	A	C5-C6-N1	-5.51	114.94	117.70
32	1a	1530	G	C4-C5-N7	5.51	113.01	110.80
1	2A	752	A	N7-C8-N9	5.51	116.56	113.80
1	2A	1573	G	C5-N7-C8	5.51	107.06	104.30
1	2A	2617	C	C6-N1-C2	5.51	122.51	120.30
32	2a	897	C	C6-N1-C2	5.51	122.51	120.30
32	2a	1152	A	C8-N9-C4	-5.51	103.59	105.80
1	1A	1630	G	C8-N9-C4	5.51	108.61	106.40
1	1A	2002	G	C4-C5-N7	-5.51	108.59	110.80
1	1A	2321	G	O5'-C5'-C4'	5.51	113.81	109.40
1	1A	1995	U	O5'-C5'-C4'	5.51	113.81	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1008	C	N1-C2-O2	5.51	122.21	118.90
1	2A	2105	C	N3-C4-C5	-5.51	119.70	121.90
32	1a	1296	C	N1-C2-O2	-5.51	115.60	118.90
1	2A	1695	G	N9-C4-C5	-5.51	103.20	105.40
32	2a	73	G	C5-C6-O6	5.51	131.90	128.60
1	1A	1663	C	N1-C2-O2	-5.50	115.60	118.90
32	1a	116	A	N1-C6-N6	5.50	121.90	118.60
1	2A	1444	G	N1-C6-O6	-5.50	116.60	119.90
1	1A	2273	A	C8-N9-C4	5.50	108.00	105.80
32	1a	897	C	N1-C2-O2	-5.50	115.60	118.90
1	2A	2126	A	P-O3'-C3'	5.50	126.30	119.70
32	2a	277	C	C6-N1-C2	5.50	122.50	120.30
32	2a	99	U	C2-N1-C1'	-5.50	111.10	117.70
1	1A	2570	G	N3-C4-N9	-5.50	122.70	126.00
1	1A	1392	A	N1-C6-N6	5.50	121.90	118.60
1	1A	2452	C	N3-C4-C5	5.50	124.10	121.90
1	2A	926	A	O5'-C5'-C4'	5.50	113.80	109.40
1	2A	1097	U	C2-N1-C1'	5.50	124.29	117.70
1	1A	1025	G	N3-C2-N2	-5.49	116.06	119.90
1	1A	1282	U	N1-C2-N3	5.49	118.20	114.90
1	1A	2629	A	N1-C2-N3	5.49	132.05	129.30
32	1a	1181	G	C4-N9-C1'	-5.49	119.36	126.50
1	1A	1400	G	C4-C5-N7	-5.49	108.60	110.80
1	1A	2623	G	C8-N9-C4	-5.49	104.20	106.40
1	2A	1997	G	N3-C4-C5	-5.49	125.86	128.60
32	2a	840	C	C2-N1-C1'	5.49	124.84	118.80
32	2a	1023	G	N3-C4-N9	-5.49	122.71	126.00
32	1a	1054	C	N3-C2-O2	-5.49	118.06	121.90
1	1A	2894	G	N3-C4-C5	5.49	131.34	128.60
2	1B	94	C	N1-C2-O2	-5.49	115.61	118.90
1	2A	2430	A	N1-C2-N3	-5.49	126.56	129.30
1	2A	203	C	C6-N1-C2	5.48	122.49	120.30
1	2A	1264	G	N3-C2-N2	-5.48	116.06	119.90
1	1A	529	A	O4'-C1'-N9	5.48	112.58	108.20
1	2A	1133	U	C2-N3-C4	-5.48	123.71	127.00
1	1A	621	A	C5-N7-C8	-5.48	101.16	103.90
1	2A	482	A	C8-N9-C4	5.48	107.99	105.80
32	2a	1395	C	N3-C4-C5	-5.48	119.71	121.90
2	1B	7	G	C5-C6-O6	-5.48	125.31	128.60
1	2A	2406	U	O4'-C1'-N1	-5.48	103.82	108.20
1	1A	2371	G	N9-C4-C5	-5.48	103.21	105.40
1	1A	2624	G	C5-C6-O6	-5.48	125.31	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	64	G	N3-C4-C5	5.48	131.34	128.60
1	1A	325	G	N3-C4-C5	5.47	131.34	128.60
1	1A	1236	G	N7-C8-N9	-5.47	110.36	113.10
1	1A	2374	C	N3-C4-N4	5.47	121.83	118.00
1	2A	460	A	N1-C2-N3	-5.47	126.56	129.30
1	2A	1250	G	N3-C4-N9	-5.47	122.72	126.00
32	2a	1397	C	N1-C2-O2	5.47	122.19	118.90
32	1a	1142	G	C4-N9-C1'	-5.47	119.39	126.50
1	2A	2171	A	O5'-C5'-C4'	5.47	113.78	109.40
1	1A	1005	C	C6-N1-C2	5.47	122.49	120.30
1	1A	1799	G	C8-N9-C4	5.47	108.59	106.40
32	1a	921	U	C5-C6-N1	5.47	125.43	122.70
1	2A	2111	C	C5-C6-N1	5.47	123.73	121.00
1	1A	252	G	N1-C2-N2	5.47	121.12	116.20
1	1A	2222	G	C8-N9-C4	5.47	108.59	106.40
1	2A	1899	G	N3-C4-N9	5.47	129.28	126.00
1	1A	986	C	C4-C5-C6	-5.47	114.67	117.40
1	1A	2677	G	N3-C4-C5	5.47	131.33	128.60
32	1a	1039	C	N1-C2-O2	5.47	122.18	118.90
32	1a	1525	G	N3-C4-C5	5.47	131.33	128.60
1	1A	826	U	C5-C6-N1	-5.46	119.97	122.70
1	2A	460	A	C5-C6-N6	-5.46	119.33	123.70
1	1A	194	G	C4-C5-N7	5.46	112.98	110.80
1	1A	2172	U	O5'-C5'-C4'	5.46	113.77	109.40
1	1A	911	A	C2-N3-C4	-5.46	107.87	110.60
1	1A	2598	A	N7-C8-N9	-5.46	111.07	113.80
32	2a	354	G	C6-C5-N7	-5.46	127.12	130.40
1	1A	2073	C	C2-N3-C4	-5.46	117.17	119.90
32	2a	792	A	O4'-C1'-N9	5.46	112.57	108.20
1	1A	2137	C	C4-C5-C6	5.46	120.13	117.40
6	1G	96	ARG	CB-CA-C	-5.46	110.26	116.54
1	2A	2111	C	C6-N1-C2	-5.46	118.12	120.30
1	1A	370	G	O4'-C1'-N9	-5.46	103.83	108.20
32	1a	129	U	C5-C4-O4	5.46	129.17	125.90
1	2A	242	G	C8-N9-C4	5.46	108.58	106.40
32	2a	1438	G	O5'-C5'-C4'	5.46	113.77	109.40
1	1A	1122	G	C5-C6-N1	5.46	114.23	111.50
1	1A	684	G	C5-C6-O6	-5.45	125.33	128.60
1	1A	996	A	C8-N9-C4	5.45	107.98	105.80
1	1A	1108	U	N1-C2-O2	-5.45	118.98	122.80
32	1a	1198	G	O5'-C5'-C4'	5.45	113.76	109.40
1	1A	1074	G	O5'-C5'-C4'	5.45	113.76	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2206	G	C8-N9-C1'	5.45	134.09	127.00
1	1A	1071	G	C8-N9-C4	-5.45	104.22	106.40
1	1A	1131	G	N3-C2-N2	5.45	123.71	119.90
1	1A	1249	U	C5-C6-N1	-5.45	119.98	122.70
1	1A	1308	A	N9-C4-C5	5.45	107.98	105.80
1	2A	226	G	N3-C4-N9	-5.45	122.73	126.00
1	2A	1877	A	O5'-C5'-C4'	5.45	113.76	109.40
1	2A	2238	G	C5-C6-O6	-5.45	125.33	128.60
1	1A	251	A	C8-N9-C4	5.45	107.98	105.80
1	1A	2776	A	C8-N9-C4	5.45	107.98	105.80
1	2A	1582	C	C6-N1-C2	5.45	122.48	120.30
32	1a	1158	C	C5-C6-N1	-5.44	118.28	121.00
1	1A	2289	G	C4-C5-N7	5.44	112.98	110.80
1	2A	90	U	O5'-C5'-C4'	5.44	113.75	109.40
1	2A	2501	C	C6-N1-C2	5.44	122.48	120.30
32	2a	1390	U	N1-C2-O2	-5.44	118.99	122.80
1	1A	2812	G	O5'-C5'-C4'	5.44	113.75	109.40
1	1A	1772	G	N7-C8-N9	-5.44	110.38	113.10
32	1a	1442	G	C5-C6-N1	5.44	114.22	111.50
32	2a	353	A	O5'-C5'-C4'	5.44	113.75	109.40
1	1A	587	C	C6-N1-C2	-5.43	118.13	120.30
1	1A	691	C	C6-N1-C2	-5.43	118.13	120.30
1	1A	2689	U	N3-C4-O4	5.43	123.20	119.40
32	1a	353	A	O5'-C5'-C4'	5.43	113.75	109.40
1	2A	966	G	N3-C4-N9	-5.43	122.74	126.00
1	2A	1379	A	N1-C6-N6	5.43	121.86	118.60
1	2A	1826	G	N3-C4-C5	-5.43	125.88	128.60
1	2A	2159	G	O5'-C5'-C4'	5.43	113.75	109.40
32	2a	747	C	O5'-C5'-C4'	5.43	113.75	109.40
1	1A	1383	C	C6-N1-C2	5.43	122.47	120.30
1	1A	2271	G	N9-C4-C5	-5.43	103.23	105.40
1	2A	1048	A	O5'-C5'-C4'	5.43	113.75	109.40
1	2A	1999	C	C6-N1-C2	5.43	122.47	120.30
2	2B	115	G	N9-C4-C5	-5.43	103.23	105.40
32	2a	115	G	P-O3'-C3'	5.43	126.22	119.70
1	1A	249	C	C6-N1-C2	5.43	122.47	120.30
1	2A	1115	G	C8-N9-C4	5.43	108.57	106.40
1	2A	1633	G	C8-N9-C4	-5.43	104.23	106.40
1	1A	2018	G	N9-C4-C5	-5.43	103.23	105.40
2	1B	33	G	N3-C4-C5	5.43	131.31	128.60
1	2A	1213	A	O4'-C1'-N9	-5.43	104.70	108.50
1	2A	2045	C	C6-N1-C2	5.43	122.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1524	G	N1-C6-O6	-5.42	116.65	119.90
1	2A	1995	U	C5-C4-O4	5.42	129.16	125.90
1	1A	2555	U	C2-N1-C1'	-5.42	111.19	117.70
1	1A	1141	U	O4'-C1'-N1	5.42	112.54	108.20
1	2A	614	U	C5-C4-O4	5.42	129.15	125.90
1	2A	1632	A	N1-C6-N6	5.42	121.85	118.60
1	1A	2332	U	C4-C5-C6	-5.42	116.45	119.70
1	2A	2238	G	C5-N7-C8	-5.42	101.59	104.30
1	2A	61	G	C5-N7-C8	-5.42	101.59	104.30
32	2a	722	A	N1-C6-N6	5.42	121.85	118.60
32	1a	803	G	C5-C6-N1	-5.42	108.79	111.50
1	2A	2424	C	C2-N1-C1'	-5.42	112.84	118.80
32	2a	142	G	O5'-C5'-C4'	5.42	113.73	109.40
1	2A	467	G	N9-C1'-C2'	-5.41	106.04	112.00
1	1A	455	C	N1-C2-O2	-5.41	115.65	118.90
1	1A	1769	G	C5-C6-O6	-5.41	125.35	128.60
32	1a	1280	A	O5'-C5'-C4'	5.41	113.73	109.40
1	1A	2233	U	N1-C2-N3	5.41	118.15	114.90
1	2A	61	G	C4-C5-N7	5.41	112.96	110.80
1	1A	1288	U	C6-N1-C2	5.41	124.25	121.00
1	2A	1992	G	N3-C4-C5	-5.41	125.90	128.60
1	2A	2549	G	N3-C2-N2	-5.41	116.11	119.90
32	2a	328	C	C5-C6-N1	-5.41	118.30	121.00
32	2a	1201	A	O5'-C5'-C4'	5.41	113.73	109.40
1	2A	2740	A	C8-N9-C4	5.41	107.96	105.80
1	1A	656	G	N3-C4-N9	-5.41	122.76	126.00
1	1A	2182	G	N9-C4-C5	5.41	107.56	105.40
1	1A	2644	G	C2-N3-C4	-5.41	109.20	111.90
32	2a	70	G	C5-C6-O6	5.41	131.84	128.60
1	2A	1306	C	C2-N3-C4	5.40	122.60	119.90
1	1A	1740	G	C6-C5-N7	5.40	133.64	130.40
1	1A	2032	G	N7-C8-N9	-5.40	110.40	113.10
32	1a	1088	G	N3-C2-N2	-5.40	116.12	119.90
1	1A	489	G	N1-C6-O6	5.40	123.14	119.90
1	2A	676	A	C2-N3-C4	-5.40	107.90	110.60
32	2a	419	C	C6-N1-C2	5.40	122.46	120.30
1	1A	2788	C	C5-C6-N1	-5.40	118.30	121.00
32	2a	225	C	O5'-C5'-C4'	5.40	113.72	109.40
32	2a	572	A	C4-N9-C1'	-5.40	116.58	126.30
1	1A	1613	G	C8-N9-C4	5.40	108.56	106.40
1	2A	1131	G	O4'-C1'-N9	5.40	112.52	108.20
13	2R	85	PRO	CA-C-N	-5.40	111.52	122.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	2R	85	PRO	C-N-CA	-5.40	111.52	122.31
1	1A	309	G	N1-C6-O6	-5.40	116.66	119.90
1	1A	377	C	C6-N1-C2	5.40	122.46	120.30
1	1A	587	C	C5-C4-N4	5.40	123.98	120.20
1	1A	1089	G	N3-C4-C5	-5.39	125.90	128.60
1	1A	1894	C	C6-N1-C2	-5.39	118.14	120.30
1	1A	2807	G	C8-N9-C4	-5.39	104.24	106.40
1	2A	2576	G	O5'-C5'-C4'	5.39	113.72	109.40
1	1A	557	U	N1-C2-N3	5.39	118.14	114.90
1	1A	1015	G	N9-C4-C5	-5.39	103.24	105.40
1	1A	1250	G	N1-C6-O6	-5.39	116.66	119.90
1	1A	2689	U	C4'-C3'-O3'	5.39	120.72	109.40
1	2A	1967	C	C6-N1-C2	5.39	122.46	120.30
32	1a	780	A	C8-N9-C4	5.39	107.96	105.80
1	1A	867	C	N3-C2-O2	5.39	125.67	121.90
32	1a	179	A	O5'-C5'-C4'	5.39	113.71	109.40
1	1A	1650	G	C2-N3-C4	-5.39	109.21	111.90
32	1a	1362	C	O5'-C5'-C4'	5.39	113.71	109.40
1	2A	2194	G	N3-C2-N2	-5.39	116.13	119.90
32	1a	1000	U	O5'-C5'-C4'	5.39	113.71	109.40
1	1A	2052	G	C5-N7-C8	5.38	106.99	104.30
1	1A	2434	A	C8-N9-C4	-5.38	103.65	105.80
1	1A	2759	G	N1-C2-N2	5.38	121.05	116.20
1	2A	470	A	O5'-C5'-C4'	5.38	113.71	109.40
1	2A	2010	G	N3-C2-N2	-5.38	116.13	119.90
1	2A	2065	C	N3-C2-O2	-5.38	118.13	121.90
1	1A	645	C	N1-C2-O2	5.38	122.13	118.90
1	1A	2003	G	C5-C6-N1	5.38	114.19	111.50
32	1a	534	U	C2-N1-C1'	-5.38	111.24	117.70
32	2a	929	G	N3-C2-N2	-5.38	116.13	119.90
1	1A	29	U	N3-C4-O4	-5.38	115.63	119.40
1	1A	1378	A	O5'-C5'-C4'	5.38	113.71	109.40
32	1a	306	G	O5'-C5'-C4'	5.38	113.71	109.40
42	2k	116	HIS	CA-C-N	5.38	131.39	121.70
42	2k	116	HIS	C-N-CA	5.38	131.39	121.70
1	2A	856	C	C3'-C2'-C1'	-5.38	97.53	101.30
32	2a	1504	G	C4-N9-C1'	-5.38	119.51	126.50
1	1A	115	C	N3-C2-O2	5.38	125.67	121.90
1	1A	1693	U	O4'-C1'-N1	-5.38	103.90	108.20
1	2A	1239	G	C5-C6-O6	-5.38	125.37	128.60
2	2B	62	C	C6-N1-C2	5.38	122.45	120.30
1	1A	491	G	C6-C5-N7	5.38	133.63	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1475	G	N3-C2-N2	-5.38	116.14	119.90
1	1A	1889	A	C8-N9-C4	5.38	107.95	105.80
1	2A	204	A	C8-N9-C4	5.38	107.95	105.80
1	2A	1408	C	N1-C2-O2	-5.38	115.67	118.90
1	1A	2645	G	N7-C8-N9	5.38	115.79	113.10
1	1A	2427	C	C5-C6-N1	-5.37	118.31	121.00
1	2A	414	C	C5-C6-N1	-5.37	118.31	121.00
1	1A	2677	G	N3-C4-N9	-5.37	122.78	126.00
32	1a	266	G	C8-N9-C1'	-5.37	120.02	127.00
1	1A	2242	G	N3-C2-N2	-5.37	116.14	119.90
1	1A	2646	C	O5'-C5'-C4'	5.37	113.70	109.40
1	1A	1210	A	C4-C5-C6	5.37	119.68	117.00
32	1a	381	C	N3-C4-C5	-5.37	119.75	121.90
32	1a	1351	U	N1-C2-O2	-5.37	119.04	122.80
1	2A	1362	C	C5-C6-N1	-5.37	118.32	121.00
1	1A	2258	C	C2-N3-C4	-5.36	117.22	119.90
1	2A	936	C	C5-C6-N1	-5.36	118.32	121.00
2	2B	22	U	C6-N1-C2	-5.36	117.78	121.00
32	2a	1281	U	O4'-C1'-N1	5.36	112.25	108.50
2	2B	30	C	N3-C4-C5	-5.36	119.75	121.90
1	1A	2167	U	C4-C5-C6	5.36	122.92	119.70
1	2A	1771	C	N3-C4-C5	5.36	124.04	121.90
1	2A	2184	G	N3-C4-C5	5.36	131.28	128.60
1	1A	2148	G	C8-N9-C4	5.36	108.54	106.40
1	1A	2501	C	C2-N1-C1'	-5.36	112.91	118.80
32	1a	1030(B)	C	C5-C6-N1	5.36	123.68	121.00
1	2A	944	G	N9-C4-C5	-5.36	103.26	105.40
32	2a	1158	C	O5'-C5'-C4'	5.36	113.69	109.40
1	1A	821	A	N1-C2-N3	-5.36	126.62	129.30
1	1A	2070	G	N3-C2-N2	5.36	123.65	119.90
1	1A	2134	A	N1-C6-N6	-5.36	115.39	118.60
32	2a	639	G	O5'-C5'-C4'	5.36	113.68	109.40
1	1A	2538	C	N3-C4-C5	5.35	124.04	121.90
1	2A	598	G	C8-N9-C4	5.35	108.54	106.40
32	2a	841	U	O5'-C5'-C4'	5.35	113.68	109.40
1	1A	751	A	C8-N9-C4	-5.35	103.66	105.80
1	1A	1133	U	C2-N1-C1'	-5.35	111.28	117.70
1	1A	1965	C	C6-N1-C2	5.35	122.44	120.30
1	1A	2319	G	C4-C5-N7	5.35	112.94	110.80
1	1A	2535	G	O5'-C5'-C4'	5.35	113.68	109.40
1	1A	379	G	N7-C8-N9	-5.35	110.42	113.10
1	2A	395	U	O4'-C1'-N1	5.35	112.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	424	G	C5-C6-O6	-5.35	125.39	128.60
1	1A	491	G	N1-C6-O6	-5.35	116.69	119.90
1	1A	1034	G	N7-C8-N9	-5.35	110.42	113.10
1	1A	2593	U	N3-C2-O2	-5.35	118.45	122.20
2	1B	75	G	C8-N9-C4	5.35	108.54	106.40
1	1A	732	C	C6-N1-C2	-5.35	118.16	120.30
1	2A	807	U	O5'-C5'-C4'	5.35	113.68	109.40
32	2a	1072	G	N3-C4-N9	-5.35	122.79	126.00
1	1A	1308	A	C8-N9-C4	-5.35	103.66	105.80
1	1A	406	G	N1-C2-N2	5.34	121.01	116.20
32	2a	60	A	P-O3'-C3'	5.34	126.11	119.70
1	1A	1602	U	C2-N3-C4	-5.34	123.79	127.00
38	1g	87	VAL	N-CA-C	5.34	113.16	107.76
1	2A	460	A	N1-C6-N6	5.34	121.81	118.60
1	1A	570	G	N3-C4-N9	5.34	129.20	126.00
1	1A	2826	A	N7-C8-N9	-5.34	111.13	113.80
32	1a	483	C	C6-N1-C2	5.34	122.44	120.30
1	2A	1082	U	C2-N1-C1'	5.34	124.11	117.70
1	2A	1762	A	C8-N9-C4	5.34	107.94	105.80
1	1A	2230	G	C8-N9-C4	5.34	108.54	106.40
1	2A	1192	G	C8-N9-C4	5.34	108.54	106.40
1	2A	2301	C	O5'-C5'-C4'	5.34	113.67	109.40
1	1A	630	G	N9-C1'-C2'	-5.34	106.13	112.00
1	2A	2589	A	C8-N9-C4	5.34	107.94	105.80
1	1A	1325	G	C8-N9-C4	-5.33	104.27	106.40
1	1A	1823	G	N9-C4-C5	-5.33	103.27	105.40
32	2a	1286	A	N7-C8-N9	5.33	116.47	113.80
1	1A	2363	C	C6-N1-C2	5.33	122.43	120.30
1	1A	2153	G	N3-C4-C5	5.33	131.26	128.60
1	1A	2154	G	N1-C2-N3	-5.33	120.70	123.90
1	1A	129	C	C6-N1-C1'	5.33	127.19	120.80
1	1A	1630	G	N7-C8-N9	-5.33	110.44	113.10
1	1A	2634	G	N9-C4-C5	-5.33	103.27	105.40
1	1A	1250	G	N7-C8-N9	-5.33	110.44	113.10
32	1a	1525	G	C4-N9-C1'	-5.33	119.58	126.50
32	2a	303	A	C2-N3-C4	-5.33	107.94	110.60
32	2a	1442	G	N1-C6-O6	5.33	123.10	119.90
1	1A	139(A)	G	N7-C8-N9	-5.33	110.44	113.10
1	1A	1170	G	C8-N9-C4	-5.33	104.27	106.40
32	2a	285	G	N3-C4-C5	5.33	131.26	128.60
1	1A	453	C	C6-N1-C2	-5.32	118.17	120.30
1	1A	706	A	C8-N9-C4	5.32	107.93	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2463	C	C6-N1-C2	5.32	122.43	120.30
32	1a	371	G	N1-C6-O6	5.32	123.09	119.90
32	1a	894	G	C8-N9-C1'	5.32	133.92	127.00
1	1A	1351	C	N1-C2-O2	-5.32	115.71	118.90
1	2A	271(Y)	U	O4'-C1'-N1	5.32	112.46	108.20
32	2a	878	G	N7-C8-N9	-5.32	110.44	113.10
32	1a	1225	A	C5-C6-N6	5.32	127.96	123.70
32	2a	295	C	C2-N3-C4	-5.32	117.24	119.90
1	2A	570	G	N1-C6-O6	5.32	123.09	119.90
1	2A	2373	G	N1-C6-O6	5.32	123.09	119.90
1	1A	1763	G	N1-C6-O6	-5.32	116.71	119.90
32	1a	885	G	N3-C2-N2	-5.32	116.18	119.90
1	1A	850	C	C6-N1-C2	5.32	122.43	120.30
1	1A	2735	G	N3-C4-N9	-5.32	122.81	126.00
1	2A	277	C	N3-C2-O2	-5.31	118.18	121.90
1	2A	2037	G	N3-C4-C5	5.31	131.26	128.60
1	1A	245	G	C5-C6-O6	-5.31	125.41	128.60
1	1A	266	G	C8-N9-C4	5.31	108.52	106.40
1	1A	2153	G	C6-C5-N7	5.31	133.59	130.40
32	1a	431	A	C8-N9-C4	5.31	107.92	105.80
32	2a	1259	C	C6-N1-C2	-5.31	118.18	120.30
1	1A	185	U	N3-C4-C5	5.31	117.78	114.60
1	1A	2501	C	N3-C4-N4	-5.31	114.28	118.00
1	2A	1615	C	N3-C4-C5	-5.31	119.78	121.90
1	1A	2372	G	C5-C6-O6	-5.31	125.42	128.60
1	2A	1603	A	N1-C2-N3	-5.31	126.65	129.30
1	2A	1997	G	N3-C2-N2	5.31	123.61	119.90
1	1A	1584	C	O4'-C1'-N1	5.30	112.21	108.50
1	2A	1780	A	C6-N1-C2	5.30	121.78	118.60
1	1A	424	G	C8-N9-C4	5.30	108.52	106.40
1	1A	2058	A	C4-C5-N7	-5.30	108.05	110.70
32	1a	1329	A	N3-C4-C5	5.30	130.51	126.80
1	2A	1692	U	C2-N3-C4	-5.30	123.82	127.00
1	2A	2184	G	N3-C4-N9	-5.30	122.82	126.00
1	2A	2427	C	N3-C4-C5	5.30	124.02	121.90
32	2a	526	C	C4-C5-C6	-5.30	114.75	117.40
1	1A	1632	A	N7-C8-N9	-5.30	111.15	113.80
1	1A	1799	G	N7-C8-N9	-5.30	110.45	113.10
32	1a	1152	A	O5'-C5'-C4'	5.30	113.64	109.40
1	1A	199	A	C8-N9-C4	5.30	107.92	105.80
1	1A	842	G	N3-C4-N9	-5.30	122.82	126.00
1	1A	1344	G	C8-N9-C4	5.30	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1477	A	C8-N9-C4	5.30	107.92	105.80
1	1A	2090	G	C5-C6-N1	5.30	114.15	111.50
1	1A	2627	G	N7-C8-N9	-5.30	110.45	113.10
32	1a	615	C	C6-N1-C2	-5.30	118.18	120.30
32	1a	1065	U	P-O3'-C3'	5.30	126.06	119.70
1	1A	704	G	C2-N3-C4	5.29	114.55	111.90
1	1A	1748	G	C8-N9-C4	5.29	108.52	106.40
1	1A	473	G	C5-N7-C8	5.29	106.95	104.30
1	1A	672	C	C2-N3-C4	-5.29	117.25	119.90
1	1A	1133	U	C5-C6-N1	-5.29	120.05	122.70
1	1A	1626	G	N1-C6-O6	-5.29	116.72	119.90
1	2A	2610	C	C6-N1-C2	-5.29	118.18	120.30
32	2a	38	G	C8-N9-C4	5.29	108.52	106.40
1	1A	2241	A	C5-C6-N6	5.29	127.93	123.70
1	2A	939	G	C5-C6-O6	-5.29	125.42	128.60
1	2A	1314	C	C5-C6-N1	5.29	123.65	121.00
1	2A	2821	A	C8-N9-C4	5.29	107.92	105.80
32	2a	1530	G	N3-C4-C5	5.29	131.25	128.60
1	1A	788	A	N9-C4-C5	-5.29	103.69	105.80
1	1A	2036	C	N1-C2-O2	-5.29	115.73	118.90
1	1A	2496	C	C5-C6-N1	-5.29	118.36	121.00
1	1A	2736	G	N7-C8-N9	-5.29	110.46	113.10
1	1A	181	A	N1-C6-N6	-5.29	115.43	118.60
1	1A	949	C	N3-C4-N4	-5.28	114.30	118.00
1	1A	2187	G	C4-C5-N7	5.28	112.91	110.80
2	2B	115	G	N7-C8-N9	-5.28	110.46	113.10
1	1A	34	C	C6-N1-C2	-5.28	118.19	120.30
1	1A	2081	C	C2-N3-C4	-5.28	117.26	119.90
1	1A	637	A	O5'-C5'-C4'	5.28	113.62	109.40
1	1A	954	G	C5-C6-O6	5.28	131.77	128.60
1	2A	2186	G	C6-N1-C2	5.28	128.27	125.10
32	2a	372	C	N1-C2-O2	5.28	122.07	118.90
1	1A	207	A	C8-N9-C4	5.28	107.91	105.80
1	1A	1164	G	C5-C6-O6	5.28	131.77	128.60
1	1A	2331	G	C8-N9-C4	5.28	108.51	106.40
1	2A	2259	G	C5-C6-O6	5.28	131.77	128.60
1	1A	204	A	C4-C5-C6	-5.28	114.36	117.00
1	1A	1283	G	C5-C6-O6	5.28	131.77	128.60
1	1A	1992	G	O4'-C1'-N9	-5.28	103.98	108.20
1	1A	2507	C	N3-C4-C5	-5.28	119.79	121.90
1	2A	2506	U	C2-N1-C1'	5.28	124.03	117.70
32	2a	49	U	C5-C6-N1	-5.28	120.06	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	466	A	C5-C6-N6	-5.27	119.48	123.70
1	2A	2080	G	C5-C6-N1	5.27	114.14	111.50
1	1A	481	G	O4'-C1'-N9	5.27	112.42	108.20
32	1a	905	U	N1-C2-O2	-5.27	119.11	122.80
32	2a	387	U	O5'-C5'-C4'	5.27	113.62	109.40
1	2A	1169	G	O5'-C5'-C4'	5.27	113.62	109.40
32	2a	9	G	O5'-C5'-C4'	5.27	113.62	109.40
1	1A	191	A	N7-C8-N9	-5.27	111.17	113.80
1	1A	2629	A	C2-N3-C4	-5.27	107.97	110.60
1	1A	442	G	C4-N9-C1'	5.26	133.34	126.50
1	1A	488	G	C4-C5-N7	-5.26	108.69	110.80
1	1A	2673	G	N3-C2-N2	-5.26	116.22	119.90
32	2a	269	C	C6-N1-C2	5.26	122.41	120.30
1	1A	2088	G	N3-C4-C5	5.26	131.23	128.60
1	1A	2289	G	N9-C4-C5	-5.26	103.30	105.40
1	1A	2474	C	C6-N1-C1'	-5.26	114.48	120.80
1	1A	2735	G	C5-C6-O6	5.26	131.76	128.60
1	2A	2440	C	N3-C4-C5	-5.26	119.80	121.90
1	1A	185	U	C6-N1-C2	5.26	124.16	121.00
1	2A	2085	C	N3-C4-C5	5.26	124.00	121.90
1	1A	2715	C	C6-N1-C2	5.26	122.40	120.30
1	1A	952	G	C4-C5-N7	5.26	112.90	110.80
1	1A	2515	C	C2-N3-C4	-5.26	117.27	119.90
32	1a	17	U	O5'-C5'-C4'	5.26	113.61	109.40
32	1a	1028	C	C2-N3-C4	5.26	122.53	119.90
1	2A	505	A	O5'-C5'-C4'	5.26	113.61	109.40
1	2A	2035	G	C8-N9-C4	5.26	108.50	106.40
1	2A	2172	U	P-O3'-C3'	5.26	126.01	119.70
1	1A	766	C	C6-N1-C2	5.25	122.40	120.30
1	1A	2566	A	N1-C6-N6	5.25	121.75	118.60
32	2a	665	A	C2-N3-C4	-5.25	107.97	110.60
1	1A	570	G	C6-N1-C2	-5.25	121.95	125.10
1	1A	1958	C	C2-N1-C1'	-5.25	113.02	118.80
1	2A	271(M)	G	P-O3'-C3'	5.25	126.00	119.70
1	2A	796	C	C2-N3-C4	-5.25	117.27	119.90
1	2A	1947	C	C6-N1-C2	5.25	122.40	120.30
1	2A	2689	U	N3-C2-O2	-5.25	118.52	122.20
32	2a	99	U	N3-C2-O2	5.25	125.88	122.20
32	2a	1003	G	C4-N9-C1'	5.25	133.33	126.50
1	1A	859	G	N1-C6-O6	5.25	123.05	119.90
1	1A	1805	U	C2-N3-C4	-5.25	123.85	127.00
32	1a	1396	A	N1-C2-N3	-5.25	126.67	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1192	G	N7-C8-N9	-5.25	110.47	113.10
1	2A	1252	G	C8-N9-C4	5.25	108.50	106.40
1	2A	2185	C	O5'-C5'-C4'	5.25	113.60	109.40
1	2A	1791	A	C2-N3-C4	5.25	113.22	110.60
1	2A	2509	G	N3-C2-N2	-5.25	116.22	119.90
1	2A	2587	A	C8-N9-C4	5.25	107.90	105.80
1	1A	552	G	N3-C2-N2	5.25	123.57	119.90
1	1A	2378	A	O4'-C1'-N9	-5.25	104.83	108.50
1	1A	1899	G	C5-N7-C8	-5.25	101.68	104.30
1	1A	2789	C	C2-N1-C1'	-5.25	113.03	118.80
32	1a	1325	C	C6-N1-C2	5.25	122.40	120.30
1	2A	1094	U	C4-C5-C6	5.25	122.85	119.70
1	1A	2431	U	N3-C2-O2	-5.25	118.53	122.20
32	1a	149	A	N1-C6-N6	5.25	121.75	118.60
1	2A	1204	A	N9-C4-C5	-5.25	103.70	105.80
1	2A	1825	A	C8-N9-C4	-5.25	103.70	105.80
1	2A	2103	C	C5-C4-N4	5.25	123.87	120.20
1	2A	2139	C	C2-N3-C4	5.25	122.52	119.90
32	2a	1280	A	O5'-C5'-C4'	5.25	113.60	109.40
1	1A	186	G	C8-N9-C4	5.24	108.50	106.40
1	1A	446	G	N1-C6-O6	5.24	123.05	119.90
1	2A	188	G	C6-C5-N7	-5.24	127.25	130.40
32	2a	96	U	N1-C2-O2	-5.24	119.13	122.80
32	2a	483	C	C2-N1-C1'	-5.24	113.03	118.80
32	1a	695	A	N1-C6-N6	5.24	121.75	118.60
32	1a	863	U	C2-N1-C1'	-5.24	111.41	117.70
1	1A	1559	G	C4-C5-C6	-5.24	115.66	118.80
1	2A	2423	U	C6-N1-C2	5.24	124.14	121.00
32	2a	266	G	C8-N9-C1'	-5.24	120.19	127.00
1	1A	301	G	C2-N3-C4	-5.24	109.28	111.90
1	1A	686	G	C8-N9-C4	5.24	108.50	106.40
1	1A	2501	C	N3-C4-C5	5.24	124.00	121.90
1	2A	2375	G	C8-N9-C1'	5.24	133.81	127.00
1	1A	122	G	C8-N9-C4	5.24	108.50	106.40
1	1A	512	G	C5-N7-C8	5.24	106.92	104.30
1	1A	2538	C	C6-N1-C2	5.24	122.39	120.30
1	2A	652(T)	C	C6-N1-C2	-5.24	118.21	120.30
1	1A	1276	A	N7-C8-N9	-5.23	111.18	113.80
32	1a	772	U	C5-C4-O4	-5.23	122.76	125.90
32	1a	1419	G	C5-C6-N1	-5.23	108.88	111.50
1	1A	1377	G	N1-C6-O6	-5.23	116.76	119.90
1	1A	1626	G	N9-C4-C5	5.23	107.49	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2080	G	N1-C6-O6	-5.23	116.76	119.90
1	2A	2139	C	C5-C6-N1	5.23	123.62	121.00
1	1A	2555	U	C5-C6-N1	-5.23	120.08	122.70
1	2A	2166	G	N7-C8-N9	5.23	115.72	113.10
1	1A	732	C	C6-N1-C1'	5.23	127.08	120.80
1	1A	1316	U	O5'-C5'-C4'	5.23	113.58	109.40
1	1A	2452	C	C2-N3-C4	-5.23	117.29	119.90
32	1a	267	C	O5'-C5'-C4'	5.23	113.58	109.40
1	1A	2813	A	N1-C6-N6	-5.23	115.46	118.60
32	1a	880	C	C2-N1-C1'	-5.23	113.05	118.80
2	2B	97	G	C4-N9-C1'	-5.23	119.71	126.50
1	1A	271(S)	G	O5'-C5'-C4'	5.22	113.58	109.40
1	1A	2319	G	N7-C8-N9	5.22	115.71	113.10
1	2A	2084	C	N1-C2-O2	-5.22	115.77	118.90
1	2A	2873	A	O4'-C1'-N9	5.22	112.38	108.20
1	2A	2027	G	C5-C6-O6	5.22	131.73	128.60
32	2a	1056	U	C2-N3-C4	5.22	130.13	127.00
1	1A	2058	A	N1-C2-N3	5.22	131.91	129.30
1	1A	2382	G	N1-C6-O6	-5.22	116.77	119.90
1	2A	2519	U	N1-C2-O2	-5.22	119.14	122.80
1	1A	2056	G	C4-C5-N7	5.22	112.89	110.80
1	2A	2519	U	C5-C4-O4	-5.22	122.77	125.90
1	1A	1653	G	P-O3'-C3'	5.22	125.96	119.70
1	2A	1825	A	N3-C4-C5	-5.22	123.15	126.80
1	1A	2655	G	O4'-C1'-N9	5.22	112.37	108.20
1	2A	1091	G	C5'-C4'-O4'	-5.22	105.10	109.80
32	2a	112	G	N1-C2-N2	5.22	120.89	116.20
1	1A	379	G	C5-N7-C8	5.21	106.91	104.30
1	1A	590	A	O5'-C5'-C4'	5.21	113.57	109.40
1	1A	596	G	N7-C8-N9	-5.21	110.49	113.10
1	2A	399	G	O5'-C5'-C4'	5.21	113.57	109.40
1	1A	452	G	C6-N1-C2	-5.21	121.97	125.10
32	1a	700	G	C5-C6-O6	-5.21	125.47	128.60
1	2A	1979	C	N3-C4-N4	5.21	121.65	118.00
1	1A	330	A	C6-C5-N7	-5.21	128.66	132.30
1	1A	1468	C	N1-C2-O2	-5.21	115.78	118.90
32	1a	7	G	O4'-C1'-N9	5.21	112.36	108.20
32	1a	947	G	C8-N9-C4	5.21	108.48	106.40
1	2A	1378	A	C8-N9-C4	5.21	107.88	105.80
1	2A	2186	G	C6-C5-N7	5.21	133.52	130.40
32	2a	1133	G	N3-C2-N2	-5.21	116.25	119.90
1	1A	996	A	N7-C8-N9	-5.21	111.20	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	332	A	N7-C8-N9	-5.21	111.20	113.80
1	2A	1647	G	N7-C8-N9	-5.21	110.50	113.10
1	2A	2282	G	N3-C4-C5	5.21	131.20	128.60
1	1A	1428	C	C2-N1-C1'	-5.20	113.08	118.80
1	1A	1775	U	N1-C2-N3	5.20	118.02	114.90
1	1A	1786	A	N9-C4-C5	-5.20	103.72	105.80
1	2A	2687	U	N1-C2-N3	-5.20	111.78	114.90
1	1A	113	G	N3-C4-N9	-5.20	122.88	126.00
1	1A	817	C	N1-C2-O2	5.20	122.02	118.90
1	1A	205	G	N3-C4-N9	5.20	129.12	126.00
32	1a	9	G	N9-C4-C5	-5.20	103.32	105.40
1	1A	27	G	N1-C6-O6	5.20	123.02	119.90
1	1A	537	C	C6-N1-C2	5.20	122.38	120.30
1	1A	846	C	C2-N1-C1'	-5.20	113.08	118.80
32	1a	1054	C	N1-C2-O2	5.20	122.02	118.90
32	1a	1363	C	C6-N1-C1'	5.20	127.04	120.80
1	2A	2452	C	N1-C2-O2	-5.20	115.78	118.90
1	1A	246	C	C4-C5-C6	5.20	120.00	117.40
1	1A	2629	A	O4'-C1'-N9	5.20	112.36	108.20
32	1a	1033	G	N3-C2-N2	5.20	123.54	119.90
1	2A	2238	G	C4-C5-N7	5.20	112.88	110.80
2	2B	56	G	O5'-C5'-C4'	5.20	113.56	109.40
32	2a	1346	A	C8-N9-C4	5.20	107.88	105.80
1	1A	1680	U	N3-C2-O2	-5.19	118.56	122.20
32	2a	495	A	O5'-C5'-C4'	5.19	113.56	109.40
1	1A	2254	C	C4-C5-C6	5.19	120.00	117.40
1	1A	2597	G	N9-C1'-C2'	5.19	117.71	112.00
1	2A	936	C	N3-C4-C5	5.19	123.98	121.90
1	2A	2854	G	N3-C4-C5	5.19	131.20	128.60
1	1A	199	A	N7-C8-N9	-5.19	111.20	113.80
1	1A	2355	C	C6-N1-C2	5.19	122.38	120.30
32	1a	19	C	O5'-C5'-C4'	5.19	113.55	109.40
1	2A	633	A	N1-C6-N6	5.19	121.71	118.60
1	2A	2487	G	N9-C4-C5	-5.19	103.32	105.40
1	1A	1204	A	C2-N3-C4	-5.19	108.00	110.60
32	1a	538	G	N3-C4-C5	5.19	131.19	128.60
1	2A	2105	C	C5-C6-N1	5.19	123.59	121.00
1	1A	2300	G	N1-C6-O6	5.19	123.01	119.90
1	1A	491	G	N9-C4-C5	5.19	107.47	105.40
32	1a	738	C	C6-N1-C2	-5.18	118.23	120.30
32	1a	1204	A	C5-C6-N6	5.18	127.85	123.70
1	1A	1130	U	N1-C2-O2	-5.18	119.17	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1201	A	P-O3'-C3'	5.18	125.92	119.70
1	2A	1382	G	N1-C6-O6	5.18	123.01	119.90
1	2A	2699	C	C6-N1-C2	5.18	122.37	120.30
2	2B	43	C	O5'-C5'-C4'	5.18	113.55	109.40
32	2a	912	C	N1-C2-O2	-5.18	115.79	118.90
1	1A	2803	C	C6-N1-C2	-5.18	118.23	120.30
1	1A	123	G	O5'-C5'-C4'	5.18	113.54	109.40
1	1A	812	C	C2-N3-C4	-5.18	117.31	119.90
1	1A	2248	C	N3-C4-C5	5.18	123.97	121.90
1	1A	2319	G	C8-N9-C4	-5.18	104.33	106.40
1	1A	1429	G	C6-C5-N7	5.18	133.51	130.40
1	1A	2548	G	C8-N9-C4	5.18	108.47	106.40
32	2a	266	G	C8-N9-C4	-5.18	104.33	106.40
32	2a	295	C	N3-C4-C5	5.18	123.97	121.90
1	1A	1257	C	C4-C5-C6	5.17	119.99	117.40
32	2a	1158	C	C2-N1-C1'	5.17	124.49	118.80
1	1A	2520	C	C6-N1-C2	5.17	122.37	120.30
32	1a	1232	U	C2-N3-C4	5.17	130.10	127.00
32	1a	1371	G	O5'-C5'-C4'	5.17	113.54	109.40
1	2A	1674	G	O4'-C1'-N9	-5.17	104.06	108.20
1	2A	1299	G	C4-C5-N7	-5.17	108.73	110.80
1	2A	1839	G	O5'-C5'-C4'	5.17	113.54	109.40
1	1A	748	G	C5-C6-O6	-5.17	125.50	128.60
1	1A	1219	G	N3-C4-C5	5.17	131.18	128.60
1	1A	2178	C	O4'-C1'-N1	5.17	112.12	108.50
1	1A	2662	A	N7-C8-N9	5.17	116.38	113.80
1	1A	10	G	O5'-C5'-C4'	5.17	113.53	109.40
1	1A	1410	G	N1-C6-O6	5.17	123.00	119.90
32	1a	927	G	C8-N9-C4	5.17	108.47	106.40
32	2a	1286	A	O5'-C5'-C4'	5.17	113.53	109.40
32	1a	254	G	N3-C4-C5	5.17	131.18	128.60
32	1a	341	C	C5-C6-N1	-5.17	118.42	121.00
32	1a	365	U	O4'-C1'-N1	5.17	112.12	108.50
32	2a	485	G	O5'-C5'-C4'	5.17	113.53	109.40
32	1a	23	C	O5'-C5'-C4'	5.16	113.53	109.40
1	2A	936	C	N3-C4-N4	-5.16	114.39	118.00
1	2A	1787	A	N9-C4-C5	-5.16	103.73	105.80
1	1A	2154	G	C5-C6-O6	5.16	131.70	128.60
1	2A	1739	U	O5'-C5'-C4'	5.16	113.53	109.40
1	1A	234	C	N3-C4-N4	-5.16	114.39	118.00
1	1A	2043	C	N3-C4-C5	-5.16	119.84	121.90
1	2A	2281	C	N3-C2-O2	-5.16	118.29	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2578	G	N1-C6-O6	-5.16	116.81	119.90
32	1a	949	A	C6-N1-C2	5.16	121.69	118.60
1	2A	2191	G	N1-C6-O6	5.16	122.99	119.90
1	2A	2761	G	O5'-C5'-C4'	5.16	113.53	109.40
1	1A	301	G	N3-C4-C5	5.16	131.18	128.60
1	1A	2580	U	N3-C2-O2	-5.16	118.59	122.20
1	1A	2759	G	O5'-C5'-C4'	5.16	113.53	109.40
2	1B	57	A	C4-C5-C6	-5.16	114.42	117.00
1	2A	460	A	N9-C4-C5	-5.16	103.74	105.80
1	2A	603	A	O5'-C5'-C4'	5.16	113.52	109.40
32	2a	1387	G	C4-C5-N7	-5.16	108.74	110.80
1	2A	2828	C	C6-N1-C2	5.15	122.36	120.30
1	1A	2131	G	O5'-C5'-C4'	5.15	113.52	109.40
32	1a	509	A	C8-N9-C4	-5.15	103.74	105.80
32	1a	1161	C	C6-N1-C2	5.15	122.36	120.30
1	2A	2804	C	N3-C4-C5	-5.15	119.84	121.90
32	2a	787	A	C8-N9-C4	5.15	107.86	105.80
1	1A	768	G	N3-C4-N9	-5.15	122.91	126.00
1	1A	1016	G	C5-C6-O6	-5.15	125.51	128.60
1	1A	2058	A	C5-N7-C8	5.15	106.47	103.90
1	1A	2090	G	N7-C8-N9	-5.15	110.52	113.10
32	1a	554	C	N1-C2-O2	-5.15	115.81	118.90
1	2A	574	C	N3-C2-O2	5.15	125.51	121.90
1	2A	1817	G	N9-C4-C5	-5.15	103.34	105.40
2	1B	87	G	C8-N9-C1'	5.15	133.69	127.00
32	1a	894	G	N3-C4-N9	-5.15	122.91	126.00
1	2A	1230	C	C6-N1-C2	5.15	122.36	120.30
32	2a	1043	C	O5'-C5'-C4'	5.15	113.52	109.40
1	1A	252	G	C8-N9-C4	-5.15	104.34	106.40
1	2A	698	C	C5-C6-N1	-5.15	118.43	121.00
1	2A	701	G	C5-C6-O6	5.15	131.69	128.60
1	1A	596	G	C4-N9-C1'	-5.14	119.81	126.50
1	1A	1206	G	N1-C2-N2	5.14	120.83	116.20
1	1A	529	A	C5-N7-C8	-5.14	101.33	103.90
1	1A	655	A	N3-C4-N9	-5.14	123.29	127.40
26	14	54	GLY	CA-C-N	5.14	131.36	121.54
26	14	54	GLY	C-N-CA	5.14	131.36	121.54
32	1a	803	G	N3-C4-N9	-5.14	122.92	126.00
1	2A	2149	G	O5'-C5'-C4'	5.14	113.51	109.40
1	1A	428	A	C5'-C4'-C3'	-5.14	107.78	116.00
1	1A	1377	G	O5'-C5'-C4'	5.14	113.51	109.40
1	1A	1400	G	C5-C6-O6	5.14	131.68	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2461	C	C4-C5-C6	5.14	119.97	117.40
2	2B	64	C	O4'-C1'-N1	5.14	112.10	108.50
32	2a	1523	G	C8-N9-C4	-5.14	104.34	106.40
1	1A	1524	G	C6-C5-N7	5.14	133.48	130.40
32	2a	791	G	N3-C4-C5	5.14	131.17	128.60
1	1A	696	G	N3-C4-C5	5.14	131.17	128.60
32	1a	1395	C	C2-N3-C4	5.14	122.47	119.90
1	1A	205	G	C5-C6-O6	-5.13	125.52	128.60
1	1A	213	A	C6-C5-N7	5.13	135.89	132.30
1	1A	618	C	N3-C2-O2	-5.13	118.31	121.90
1	1A	782	A	N9-C4-C5	-5.13	103.75	105.80
1	1A	2079	U	C2-N3-C4	-5.13	123.92	127.00
32	1a	266	G	O4'-C1'-N9	-5.13	104.09	108.20
1	2A	1120	G	N3-C4-N9	-5.13	122.92	126.00
1	1A	32	C	C2-N1-C1'	-5.13	113.16	118.80
1	2A	1708	C	N1-C2-O2	-5.13	115.82	118.90
1	1A	1698	A	C8-N9-C4	5.13	107.85	105.80
1	1A	1980	G	C8-N9-C4	-5.13	104.35	106.40
1	1A	83	G	C5-C6-O6	-5.13	125.52	128.60
1	1A	222	A	C8-N9-C4	5.13	107.85	105.80
32	2a	70	G	C2-N3-C4	-5.13	109.34	111.90
32	2a	819	A	C4-C5-N7	5.13	113.26	110.70
32	2a	1058	G	N1-C6-O6	5.13	122.98	119.90
1	1A	731	C	N1-C2-N3	5.13	122.79	119.20
1	1A	967	C	C6-N1-C2	-5.13	118.25	120.30
1	2A	271(K)	U	C6-N1-C2	-5.13	117.92	121.00
1	2A	1648	C	C5'-C4'-O4'	-5.13	105.19	109.80
1	2A	848	G	C8-N9-C4	-5.12	104.35	106.40
32	2a	1043	C	O4'-C1'-N1	5.12	112.09	108.50
1	1A	242	G	C8-N9-C4	5.12	108.45	106.40
1	1A	1475	G	N1-C2-N2	5.12	120.81	116.20
1	1A	2813	A	C5-N7-C8	5.12	106.46	103.90
32	1a	276	G	C2-N3-C4	-5.12	109.34	111.90
1	2A	797	C	C6-N1-C2	-5.12	118.25	120.30
1	1A	1272	A	N1-C6-N6	-5.12	115.53	118.60
1	1A	2789	C	C2-N3-C4	-5.12	117.34	119.90
32	1a	1442	G	P-O3'-C3'	5.12	125.84	119.70
1	2A	2602	A	O4'-C1'-N9	5.12	112.30	108.20
1	1A	2245	U	N3-C4-O4	-5.12	115.82	119.40
1	1A	2645	G	C5-N7-C8	-5.12	101.74	104.30
1	2A	1108	U	C5-C6-N1	5.12	125.26	122.70
1	1A	1792	G	C8-N9-C4	5.12	108.45	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	997	U	N1-C2-O2	5.12	126.38	122.80
1	2A	304	G	C8-N9-C4	5.12	108.45	106.40
32	2a	819	A	C6-C5-N7	-5.12	128.72	132.30
1	1A	2415	G	C8-N9-C4	-5.12	104.35	106.40
2	1B	101	G	C8-N9-C4	5.12	108.45	106.40
1	1A	1223	G	N1-C6-O6	-5.11	116.83	119.90
1	1A	1791	A	C4-C5-C6	-5.11	114.44	117.00
1	2A	115	C	C6-N1-C2	5.11	122.35	120.30
1	2A	1497	U	C5-C4-O4	5.11	128.97	125.90
1	2A	2281	C	C6-N1-C2	-5.11	118.25	120.30
1	1A	2329	G	C5-C6-O6	-5.11	125.53	128.60
1	2A	1364	G	O5'-C5'-C4'	5.11	113.49	109.40
1	2A	1769	G	O5'-C5'-C4'	5.11	113.49	109.40
1	1A	1304	C	N3-C4-C5	5.11	123.94	121.90
1	1A	1825	A	C8-N9-C4	5.11	107.84	105.80
32	1a	1046	A	O5'-C5'-C4'	5.11	113.49	109.40
1	1A	1333	C	N3-C4-C5	-5.11	119.86	121.90
1	2A	798	G	N9-C4-C5	5.11	107.44	105.40
1	1A	9	U	N1-C2-O2	5.10	126.37	122.80
1	1A	1160	G	C5-C6-O6	-5.10	125.54	128.60
1	1A	1383	C	N1-C2-O2	-5.10	115.84	118.90
1	2A	408	G	C8-N9-C4	5.10	108.44	106.40
1	2A	461	C	N1-C2-O2	-5.10	115.84	118.90
1	2A	1341	U	C2-N1-C1'	-5.10	111.58	117.70
32	2a	593	G	N3-C4-C5	5.10	131.15	128.60
1	1A	953	A	C8-N9-C4	5.10	107.84	105.80
32	2a	1034	G	N3-C2-N2	-5.10	116.33	119.90
1	1A	1587	A	N1-C6-N6	-5.10	115.54	118.60
1	1A	388	G	C5-C6-O6	5.10	131.66	128.60
1	1A	516	C	C6-N1-C2	5.10	122.34	120.30
1	1A	935	C	C2-N3-C4	-5.10	117.35	119.90
1	1A	2188	C	C6-N1-C1'	5.10	126.92	120.80
32	1a	268	C	O5'-C5'-C4'	5.10	113.48	109.40
1	2A	1143	A	O5'-C5'-C4'	5.10	113.48	109.40
32	2a	525	C	N3-C4-C5	-5.10	119.86	121.90
1	1A	1340	U	C5-C6-N1	-5.09	120.15	122.70
32	1a	949	A	O5'-C5'-C4'	5.09	113.48	109.40
1	1A	568	U	C5-C4-O4	-5.09	122.84	125.90
1	1A	1740	G	N1-C6-O6	-5.09	116.84	119.90
1	1A	442	G	C6-C5-N7	-5.09	127.34	130.40
1	1A	1897	G	N3-C4-C5	5.09	131.15	128.60
1	1A	2461	C	N1-C2-N3	5.09	122.76	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	915	A	C8-N9-C4	5.09	107.84	105.80
1	2A	966	G	N3-C4-C5	5.09	131.15	128.60
1	2A	1324	G	O4'-C1'-N9	5.09	112.27	108.20
32	2a	266	G	C2'-C3'-O3'	5.09	120.70	109.50
32	2a	1150	U	C5-C4-O4	5.09	128.96	125.90
32	1a	872	A	N1-C6-N6	5.09	121.65	118.60
1	1A	933	A	C8-N9-C4	5.09	107.83	105.80
1	1A	1141	U	C5-C4-O4	5.09	128.95	125.90
1	1A	40	C	C4-C5-C6	5.09	119.94	117.40
1	1A	1061	U	N3-C2-O2	-5.09	118.64	122.20
1	1A	1163	G	C5-C6-O6	-5.09	125.55	128.60
1	1A	2197	U	C5-C6-N1	-5.09	120.16	122.70
1	2A	1227	G	C5-C6-O6	-5.09	125.55	128.60
1	1A	494	G	C4-C5-N7	5.08	112.83	110.80
1	2A	308	G	C5-C6-O6	-5.08	125.55	128.60
1	1A	1335	U	N3-C4-C5	5.08	117.65	114.60
32	1a	266	G	N3-C4-N9	5.08	129.05	126.00
1	2A	1109	C	C2-N1-C1'	5.08	124.39	118.80
1	2A	2186	G	C4-C5-N7	-5.08	108.77	110.80
1	1A	970	C	C5-C4-N4	-5.08	116.64	120.20
32	2a	115	G	N3-C4-C5	-5.08	126.06	128.60
32	2a	907	A	C8-N9-C4	-5.08	103.77	105.80
1	1A	310	A	O5'-C5'-C4'	5.08	113.46	109.40
1	1A	1128	A	N7-C8-N9	-5.08	111.26	113.80
1	1A	2233	U	C2-N3-C4	-5.08	123.95	127.00
1	1A	2416	C	N1-C2-O2	-5.08	115.85	118.90
1	2A	612	C	O5'-C5'-C4'	5.08	113.46	109.40
1	2A	2506	U	N1-C2-O2	5.08	126.35	122.80
1	1A	2358	G	C8-N9-C4	5.08	108.43	106.40
32	1a	890	G	O5'-C5'-C4'	5.08	113.46	109.40
32	1a	1408	A	O5'-C5'-C4'	5.08	113.46	109.40
1	1A	191	A	C8-N9-C4	5.08	107.83	105.80
1	1A	489	G	N3-C4-C5	5.08	131.14	128.60
1	1A	744	G	C5-C6-N1	-5.08	108.96	111.50
1	1A	1163	G	N1-C6-O6	5.08	122.94	119.90
1	1A	1554	A	C8-N9-C4	5.08	107.83	105.80
1	2A	1471	A	N7-C8-N9	5.08	116.34	113.80
1	2A	2612	C	C6-N1-C2	5.08	122.33	120.30
32	2a	449	C	O5'-C5'-C4'	5.08	113.46	109.40
32	1a	442	C	C6-N1-C2	-5.07	118.27	120.30
1	2A	2895	U	C5-C6-N1	5.07	125.24	122.70
32	2a	1256	A	P-O3'-C3'	5.07	125.79	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1268	A	C5-C6-N1	-5.07	115.16	117.70
1	1A	1602	U	N3-C2-O2	-5.07	118.65	122.20
1	2A	1266	G	O5'-C5'-C4'	5.07	113.46	109.40
32	2a	991	U	P-O3'-C3'	5.07	125.79	119.70
1	1A	1306	C	O5'-C5'-C4'	5.07	113.46	109.40
1	1A	2182	G	C8-N9-C1'	5.07	133.59	127.00
1	2A	1994	C	C6-N1-C2	5.07	122.33	120.30
1	1A	1100	C	N1-C1'-C2'	-5.07	106.42	112.00
1	1A	2374	C	C2-N3-C4	-5.07	117.37	119.90
32	1a	702	A	N9-C4-C5	-5.07	103.77	105.80
1	1A	2383	G	C2-N3-C4	-5.07	109.37	111.90
1	2A	1097	U	C6-N1-C2	-5.07	117.96	121.00
1	2A	2619	C	C6-N1-C2	5.07	122.33	120.30
32	2a	64	G	C8-N9-C4	5.07	108.43	106.40
1	1A	529	A	C2-N3-C4	-5.07	108.07	110.60
1	1A	866	A	N9-C4-C5	-5.07	103.77	105.80
1	1A	1406	U	N1-C2-N3	5.07	117.94	114.90
1	2A	2593	U	N3-C4-C5	5.07	117.64	114.60
2	2B	52	A	C5-C6-N6	-5.07	119.65	123.70
1	1A	1475	G	N1-C6-O6	5.06	122.94	119.90
1	1A	434	U	N1-C2-O2	-5.06	119.26	122.80
1	1A	569	U	N1-C2-O2	-5.06	119.26	122.80
1	1A	859	G	O4'-C1'-N9	-5.06	104.15	108.20
1	1A	949	C	C5-C6-N1	-5.06	118.47	121.00
1	1A	2570	G	N3-C4-C5	5.06	131.13	128.60
1	2A	570	G	C4-C5-N7	5.06	112.83	110.80
1	2A	2185	C	N3-C2-O2	-5.06	118.36	121.90
32	2a	96	U	C2-N1-C1'	-5.06	111.62	117.70
1	1A	305	U	N1-C2-O2	-5.06	119.26	122.80
1	1A	1002	G	N1-C6-O6	5.06	122.94	119.90
1	1A	1014	U	N3-C2-O2	-5.06	118.66	122.20
32	2a	1507	A	O4'-C1'-N9	-5.06	104.96	108.50
1	1A	1614	A	C2-N3-C4	-5.06	108.07	110.60
32	1a	1028	C	C5-C6-N1	5.06	123.53	121.00
1	2A	1794	U	C5-C4-O4	-5.06	122.86	125.90
1	1A	1049	C	C6-N1-C2	-5.06	118.28	120.30
1	1A	1709	U	N1-C2-O2	-5.06	119.26	122.80
1	1A	2070	G	O5'-C5'-C4'	5.06	113.45	109.40
1	2A	277	C	C6-N1-C2	-5.06	118.28	120.30
32	2a	1173	G	N1-C2-N2	5.06	120.75	116.20
1	1A	154(A)	C	N3-C4-C5	5.06	123.92	121.90
1	1A	1707	G	N1-C6-O6	5.06	122.93	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	626	U	C6-N1-C2	5.06	124.03	121.00
1	1A	1506	C	O5'-C5'-C4'	5.05	113.44	109.40
32	1a	1054	C	N3-C4-N4	-5.05	114.46	118.00
1	2A	428	A	O5'-C5'-C4'	5.05	113.44	109.40
1	2A	1001	A	N1-C6-N6	5.05	121.63	118.60
1	2A	2042	A	N3-C4-C5	5.05	130.34	126.80
32	2a	1399	C	N1-C2-O2	-5.05	115.87	118.90
1	1A	738	G	C2-N3-C4	-5.05	109.38	111.90
32	1a	1385	G	N3-C4-N9	-5.05	122.97	126.00
1	1A	659	C	N3-C4-N4	-5.05	114.47	118.00
1	1A	2166	G	O5'-C5'-C4'	5.05	113.44	109.40
1	1A	2244	U	N3-C4-O4	-5.05	115.87	119.40
1	1A	2733	A	N1-C6-N6	5.05	121.63	118.60
1	1A	2893	G	C8-N9-C4	5.05	108.42	106.40
32	1a	872	A	N9-C4-C5	-5.05	103.78	105.80
1	2A	446	G	N9-C4-C5	-5.05	103.38	105.40
32	2a	656	C	C6-N1-C2	-5.05	118.28	120.30
32	2a	1190	G	N3-C4-N9	-5.05	122.97	126.00
1	2A	1801	G	N1-C2-N2	-5.05	111.66	116.20
1	2A	1992	G	C8-N9-C4	-5.05	104.38	106.40
1	1A	1102	C	O5'-C5'-C4'	5.05	113.44	109.40
1	1A	2206	G	C5-C6-O6	-5.05	125.57	128.60
1	1A	2062	A	O4'-C1'-N9	-5.04	104.16	108.20
1	1A	2513	G	C8-N9-C4	5.04	108.42	106.40
1	2A	2022	U	C2-N3-C4	-5.04	123.97	127.00
32	2a	770	C	C5-C6-N1	-5.04	118.48	121.00
1	1A	864	G	C6-C5-N7	-5.04	127.37	130.40
32	1a	1338	G	C5-C6-O6	5.04	131.63	128.60
1	1A	2018	G	C8-N9-C4	5.04	108.42	106.40
1	1A	2273	A	N9-C4-C5	-5.04	103.78	105.80
1	2A	113	G	N3-C4-C5	5.04	131.12	128.60
1	2A	2567	G	C5-C6-O6	-5.04	125.58	128.60
1	1A	866	A	O4'-C1'-N9	-5.04	104.97	108.50
1	1A	1248	G	N9-C4-C5	-5.04	103.39	105.40
1	1A	1803	A	N1-C2-N3	-5.04	126.78	129.30
1	1A	2181	G	N1-C6-O6	-5.04	116.88	119.90
1	1A	2187	G	N1-C6-O6	5.04	122.92	119.90
1	2A	1758	G	C5-C6-O6	-5.04	125.58	128.60
1	1A	593	G	O5'-C5'-C4'	5.04	113.43	109.40
1	1A	1063	G	C6-N1-C2	5.04	128.12	125.10
1	1A	1791	A	N3-C4-C5	5.04	130.33	126.80
32	1a	105	G	O5'-C5'-C4'	5.04	113.43	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2356	C	N1-C2-O2	-5.04	115.88	118.90
1	1A	1604	C	C2-N3-C4	5.04	122.42	119.90
32	1a	904	C	C2-N1-C1'	-5.04	113.26	118.80
32	2a	991	U	C5-C6-N1	5.04	125.22	122.70
1	1A	181	A	O4'-C1'-N9	-5.03	104.98	108.50
1	1A	653	A	N1-C6-N6	5.03	121.62	118.60
1	1A	992	C	C6-N1-C2	5.03	122.31	120.30
1	1A	1332	G	C8-N9-C4	5.03	108.41	106.40
1	2A	1204	A	N1-C6-N6	5.03	121.62	118.60
32	2a	897	C	C5-C6-N1	-5.03	118.48	121.00
1	1A	406	G	N3-C2-N2	-5.03	116.38	119.90
1	1A	2807	G	N7-C8-N9	5.03	115.61	113.10
1	2A	1095	A	O5'-C5'-C4'	5.03	113.42	109.40
1	1A	2435	A	C2-N3-C4	-5.03	108.09	110.60
32	1a	927	G	C5-C6-O6	-5.03	125.58	128.60
1	2A	1568	G	O4'-C1'-N9	-5.03	104.98	108.50
1	1A	271(X)	G	C5-C6-N1	-5.03	108.99	111.50
1	1A	960	A	C8-N9-C4	5.03	107.81	105.80
1	1A	999	U	O5'-P-OP2	-5.03	92.92	108.00
1	1A	2118	U	O5'-C5'-C4'	5.03	113.42	109.40
1	2A	34	C	C6-N1-C2	-5.03	118.29	120.30
1	2A	61	G	C5-C6-O6	-5.03	125.58	128.60
32	2a	1042	G	N9-C4-C5	-5.03	103.39	105.40
32	1a	266	G	C6-C5-N7	-5.03	127.39	130.40
32	1a	1181	G	C8-N9-C4	5.03	108.41	106.40
1	2A	2051	A	N1-C6-N6	5.03	121.62	118.60
1	2A	2185	C	C4-C5-C6	-5.03	114.89	117.40
32	2a	837	G	O5'-C5'-C4'	5.03	113.42	109.40
1	1A	2560	C	C4-C5-C6	5.02	119.91	117.40
32	1a	1043	C	O5'-C5'-C4'	5.02	113.42	109.40
1	2A	2164	C	C6-N1-C2	-5.02	118.29	120.30
1	1A	377	C	N3-C2-O2	5.02	125.42	121.90
1	1A	2775	A	C8-N9-C4	5.02	107.81	105.80
1	2A	892	G	N3-C4-N9	-5.02	122.99	126.00
1	2A	1203	G	C8-N9-C4	5.02	108.41	106.40
1	2A	1313	U	C2-N1-C1'	5.02	123.72	117.70
1	2A	2016	U	N3-C2-O2	5.02	125.72	122.20
1	1A	2073	C	N1-C2-O2	-5.02	115.89	118.90
1	2A	2400	G	O5'-C5'-C4'	5.02	113.42	109.40
1	2A	487	C	N3-C4-N4	5.02	121.51	118.00
1	1A	2482	G	C8-N9-C4	5.02	108.41	106.40
1	2A	1090	U	C5-C6-N1	5.01	125.21	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2432	A	N1-C6-N6	5.01	121.61	118.60
1	1A	396	G	C5-C6-O6	-5.01	125.59	128.60
1	1A	463	G	C4-N9-C1'	-5.01	119.98	126.50
1	1A	498	G	O5'-C5'-C4'	5.01	113.41	109.40
1	1A	780	G	N9-C4-C5	-5.01	103.39	105.40
1	1A	801	G	N1-C6-O6	5.01	122.91	119.90
32	1a	595	G	C4-N9-C1'	5.01	133.01	126.50
32	1a	809	G	C2-N3-C4	-5.01	109.39	111.90
1	1A	195	A	P-O3'-C3'	5.01	125.71	119.70
1	1A	1437	C	C6-N1-C2	-5.01	118.30	120.30
1	1A	1845	G	N9-C4-C5	5.01	107.40	105.40
1	1A	2611	U	N1-C1'-C2'	5.01	117.51	112.00
1	1A	2832	U	C5-C6-N1	-5.01	120.19	122.70
32	1a	1493	A	N1-C6-N6	-5.01	115.59	118.60
1	1A	1815	A	C6-N1-C2	-5.01	115.59	118.60
32	1a	955	U	C5-C4-O4	5.01	128.91	125.90
1	1A	1465	G	O5'-C5'-C4'	5.01	113.41	109.40
1	1A	1602	U	N3-C4-O4	-5.01	115.90	119.40
1	1A	2480	C	N1-C2-O2	-5.01	115.90	118.90
32	1a	1505	G	N9-C4-C5	5.01	107.40	105.40
1	2A	1252	G	O5'-C5'-C4'	5.01	113.41	109.40
1	2A	1296	G	N3-C2-N2	5.01	123.40	119.90
1	2A	1582	C	C5-C6-N1	-5.01	118.50	121.00
32	2a	365	U	O4'-C1'-N1	5.01	112.00	108.50
1	1A	623	G	C5-C6-N1	5.00	114.00	111.50
1	1A	1139	G	N9-C4-C5	5.00	107.40	105.40
1	2A	1228	G	N3-C4-C5	5.00	131.10	128.60
1	1A	1509(A)	A	O4'-C1'-N9	5.00	112.00	108.50
32	1a	144	G	O5'-C5'-C4'	5.00	113.40	109.40
1	2A	24	G	N9-C4-C5	-5.00	103.40	105.40
1	2A	1301	A	O4'-C1'-N9	5.00	112.20	108.20
1	1A	552	G	N1-C2-N2	-5.00	111.70	116.20
1	1A	914	C	C2-N3-C4	-5.00	117.40	119.90
1	1A	1617	C	C2-N3-C4	-5.00	117.40	119.90
1	1A	2403	C	C6-N1-C2	-5.00	118.30	120.30
1	2A	1378	A	C2-N3-C4	-5.00	108.10	110.60

There are no chirality outliers.

All (14) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
26	14	67	TYR	Peptide

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Mol	Chain	Res	Type	Group
29	17	46	VAL	Peptide
30	18	13	ARG	Peptide
11	1P	35	HIS	Peptide
14	1S	58	LEU	Peptide
17	1V	54	GLY	Peptide
19	1X	93	GLU	Peptide
33	1b	126	GLU	Peptide
35	1d	189	PRO	Peptide
29	27	46	VAL	Peptide
11	2P	35	HIS	Peptide
33	2b	19	HIS	Peptide
43	2l	82	VAL	Peptide
47	2p	19	ILE	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	61869	0	31204	1050	0
1	2A	61758	0	31151	1217	0
2	1B	2572	0	1305	40	0
2	2B	2573	0	1306	60	0
3	1D	2131	0	2207	88	0
3	2D	2136	0	2218	73	0
4	1E	1559	0	1618	58	0
4	2E	1559	0	1618	69	0
5	1F	1584	0	1625	49	0
5	2F	1580	0	1619	57	0
6	1G	1426	0	1445	69	0
6	2G	1424	0	1441	78	0
7	1H	1330	0	1407	44	0
7	2H	1324	0	1402	57	0
8	1I	1094	0	1127	46	0
8	2I	1076	0	1094	41	0
9	1N	1121	0	1195	33	0
9	2N	1117	0	1184	35	0
10	1O	933	0	996	26	0
10	2O	933	0	996	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	1P	1135	0	1212	42	0
11	2P	1135	0	1212	27	0
12	1Q	1122	0	1179	40	0
12	2Q	1122	0	1179	40	0
13	1R	968	0	1033	31	0
13	2R	968	0	1033	32	0
14	1S	877	0	938	35	0
14	2S	870	0	923	35	0
15	1T	1091	0	1151	24	0
15	2T	1083	0	1136	46	0
16	1U	959	0	1019	29	0
16	2U	959	0	1019	30	0
17	1V	775	0	841	20	0
17	2V	771	0	829	26	0
18	1W	886	0	940	21	0
18	2W	886	0	940	27	0
19	1X	750	0	814	28	0
19	2X	750	0	814	33	0
20	1Y	810	0	892	28	0
20	2Y	810	0	887	37	0
21	1Z	1587	0	1598	49	0
21	2Z	1557	0	1564	61	0
22	10	608	0	622	14	0
22	20	608	0	622	13	0
23	11	754	0	823	18	0
23	21	759	0	837	30	0
24	12	588	0	643	22	0
24	22	592	0	654	24	0
25	13	469	0	518	17	0
25	23	464	0	514	16	0
26	14	546	0	522	28	0
26	24	536	0	514	40	0
27	15	459	0	476	13	0
27	25	455	0	465	19	0
28	16	453	0	473	18	0
28	26	449	0	469	14	0
29	17	418	0	467	17	0
29	27	418	0	467	13	0
30	18	517	0	582	28	0
30	28	517	0	582	22	0
31	19	307	0	335	8	0
31	29	307	0	335	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	1a	32246	0	16294	793	1
32	2a	32331	0	16338	791	0
33	1b	1842	0	1862	114	0
33	2b	1825	0	1828	114	0
34	1c	1558	0	1557	79	0
34	2c	1542	0	1517	84	0
35	1d	1665	0	1687	85	0
35	2d	1668	0	1703	81	0
36	1e	1133	0	1191	66	0
36	2e	1133	0	1191	66	0
37	1f	814	0	808	35	0
37	2f	816	0	808	22	0
38	1g	1235	0	1249	38	0
38	2g	1229	0	1238	55	0
39	1h	1098	0	1143	43	0
39	2h	1088	0	1126	47	0
40	1i	986	0	990	51	0
40	2i	966	0	953	64	0
41	1j	719	0	672	45	0
41	2j	710	0	661	45	1
42	1k	834	0	838	29	0
42	2k	833	0	836	21	0
43	1l	932	0	981	33	0
43	2l	932	0	981	26	0
44	1m	914	0	954	48	0
44	2m	895	0	920	57	0
45	1n	492	0	529	26	0
45	2n	492	0	529	29	0
46	1o	728	0	760	33	0
46	2o	728	0	760	20	0
47	1p	681	0	697	41	0
47	2p	677	0	686	33	0
48	1q	823	0	891	31	0
48	2q	823	0	891	40	0
49	1r	555	0	618	27	0
49	2r	555	0	618	23	0
50	1s	648	0	658	35	0
50	2s	645	0	635	48	0
51	1t	732	0	809	26	0
51	2t	733	0	795	26	0
52	1u	199	0	208	10	0
52	2u	199	0	208	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	1y	764	0	786	32	0
53	2y	749	0	757	35	0
54	1z	132	0	145	4	0
54	2z	132	0	145	6	0
55	10	7	0	0	0	0
55	11	5	0	0	0	0
55	13	3	0	0	0	0
55	15	8	0	0	0	0
55	17	6	0	0	0	0
55	18	1	0	0	0	0
55	19	2	0	0	0	0
55	1A	1026	0	0	0	0
55	1B	31	0	0	0	0
55	1D	18	0	0	0	0
55	1E	9	0	0	0	0
55	1F	20	0	0	0	0
55	1G	4	0	0	0	0
55	1H	2	0	0	0	0
55	1N	4	0	0	0	0
55	1O	1	0	0	0	0
55	1P	5	0	0	0	0
55	1Q	5	0	0	0	0
55	1R	5	0	0	0	0
55	1S	1	0	0	0	0
55	1T	5	0	0	0	0
55	1U	8	0	0	0	0
55	1V	7	0	0	0	0
55	1W	2	0	0	0	0
55	1X	1	0	0	0	0
55	1Y	1	0	0	0	0
55	1Z	1	0	0	0	0
55	1a	277	0	0	0	0
55	1b	1	0	0	0	0
55	1d	5	0	0	0	0
55	1e	6	0	0	0	0
55	1f	1	0	0	0	0
55	1g	2	0	0	0	0
55	1h	1	0	0	0	0
55	1i	1	0	0	0	0
55	1k	1	0	0	0	0
55	1l	2	0	0	0	0
55	1m	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	1n	1	0	0	0	0
55	1o	2	0	0	0	0
55	1r	1	0	0	0	0
55	1t	1	0	0	0	0
55	1y	3	0	0	0	0
55	1z	1	0	0	0	0
55	20	1	0	0	0	0
55	21	1	0	0	0	0
55	23	2	0	0	0	0
55	25	3	0	0	0	0
55	27	1	0	0	0	0
55	28	2	0	0	0	0
55	2A	745	0	0	0	0
55	2B	20	0	0	0	0
55	2D	12	0	0	0	0
55	2E	7	0	0	0	0
55	2F	4	0	0	0	0
55	2G	3	0	0	0	0
55	2I	1	0	0	0	0
55	2N	1	0	0	0	0
55	2O	1	0	0	0	0
55	2P	1	0	0	0	0
55	2Q	4	0	0	0	0
55	2R	2	0	0	0	0
55	2T	4	0	0	0	0
55	2V	3	0	0	0	0
55	2W	3	0	0	0	0
55	2a	193	0	0	0	0
55	2e	1	0	0	0	0
55	2f	1	0	0	0	0
55	2h	1	0	0	0	0
55	2j	1	0	0	0	0
55	2k	1	0	0	0	0
55	2n	1	0	0	0	0
55	2p	1	0	0	0	0
55	2r	1	0	0	0	0
55	2t	1	0	0	0	0
55	2y	1	0	0	0	0
56	1B	12	0	12	4	0
57	18	8	0	14	5	0
57	1T	8	0	14	1	0
57	2A	8	0	14	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	1	0
59	2d	8	0	0	1	0
60	10	26	0	0	3	0
60	11	26	0	0	1	0
60	12	16	0	0	4	0
60	13	23	0	0	0	0
60	14	2	0	0	0	0
60	15	26	0	0	1	0
60	16	24	0	0	1	0
60	17	17	0	0	3	0
60	18	32	0	0	3	0
60	19	9	0	0	0	0
60	1A	4144	0	0	138	0
60	1B	113	0	0	6	0
60	1D	128	0	0	11	0
60	1E	79	0	0	1	0
60	1F	64	0	0	3	0
60	1G	22	0	0	0	0
60	1H	16	0	0	0	0
60	1I	8	0	0	0	0
60	1N	55	0	0	1	0
60	1O	31	0	0	1	0
60	1P	64	0	0	2	0
60	1Q	43	0	0	5	0
60	1R	34	0	0	0	0
60	1S	14	0	0	1	0
60	1T	40	0	0	5	0
60	1U	47	0	0	5	0
60	1V	39	0	0	2	0
60	1W	26	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1X	24	0	0	2	0
60	1Y	15	0	0	1	0
60	1Z	12	0	0	1	0
60	1a	606	0	0	37	0
60	1b	1	0	0	0	0
60	1d	9	0	0	3	0
60	1e	5	0	0	0	0
60	1f	2	0	0	0	0
60	1g	1	0	0	0	0
60	1h	1	0	0	0	0
60	1j	1	0	0	0	0
60	1l	6	0	0	0	0
60	1m	2	0	0	0	0
60	1n	2	0	0	0	0
60	1o	6	0	0	0	0
60	1p	2	0	0	1	0
60	1t	1	0	0	0	0
60	1u	2	0	0	0	0
60	1y	7	0	0	1	0
60	1z	1	0	0	0	0
60	20	17	0	0	1	0
60	21	22	0	0	2	0
60	22	5	0	0	1	0
60	23	3	0	0	0	0
60	24	3	0	0	0	0
60	25	8	0	0	3	0
60	26	6	0	0	1	0
60	27	11	0	0	1	0
60	28	17	0	0	1	0
60	29	2	0	0	0	0
60	2A	2652	0	0	142	0
60	2B	72	0	0	8	0
60	2D	58	0	0	4	0
60	2E	35	0	0	6	0
60	2F	23	0	0	3	0
60	2G	8	0	0	3	0
60	2H	4	0	0	1	0
60	2I	7	0	0	1	0
60	2N	7	0	0	1	0
60	2O	21	0	0	1	0
60	2P	28	0	0	1	0
60	2Q	29	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2R	26	0	0	4	0
60	2S	8	0	0	2	0
60	2T	12	0	0	3	0
60	2U	18	0	0	0	0
60	2V	6	0	0	1	0
60	2W	22	0	0	1	0
60	2X	9	0	0	0	0
60	2Y	5	0	0	1	0
60	2Z	15	0	0	3	0
60	2a	465	0	0	34	0
60	2d	4	0	0	0	0
60	2e	2	0	0	0	0
60	2f	1	0	0	0	0
60	2j	2	0	0	1	0
60	2l	3	0	0	0	0
60	2n	1	0	0	0	0
60	2o	2	0	0	0	0
60	2p	2	0	0	0	0
60	2q	1	0	0	0	0
60	2r	5	0	0	0	0
60	2t	2	0	0	1	0
60	2y	6	0	0	1	0
All	All	298738	0	194736	6865	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 15.

All (6865) 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	1.45	1.14
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.31	1.11
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.36	1.07
29:17:24:THR:HG22	29:17:27:GLY:H	1.23	1.03
29:27:24:THR:HG22	29:27:27:GLY:H	1.25	0.99
34:2c:131:ARG:HD3	34:2c:166:GLU:HG2	1.41	0.98
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.06	0.98
21:1Z:199:LYS:NZ	60:1Z:401:HOH:O	1.97	0.96
1:1A:1865:G:OP1	60:1A:4103:HOH:O	1.82	0.95
1:2A:2427:C:OP1	60:2A:3807:HOH:O	1.83	0.95
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.49	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.48	0.95
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.00	0.94
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.49	0.94
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.32	0.93
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.02	0.93
1:1A:1359:A:H61	1:1A:1372:U:H3	0.93	0.93
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.33	0.92
32:2a:73:G:H1	32:2a:96:U:H3	1.17	0.92
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.49	0.92
1:1A:2165:G:H2'	1:1A:2166:G:H8	1.33	0.92
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.51	0.92
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.34	0.92
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.18	0.91
32:1a:664:G:H22	32:1a:741:G:H1	1.13	0.91
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.34	0.91
1:1A:2127:G:H1'	1:1A:2173:A:H2	1.33	0.90
32:1a:1158:C:H5	32:1a:1181:G:H1	1.14	0.90
1:1A:1082:U:O4	1:1A:1086:A:N1	2.05	0.90
60:1A:4104:HOH:O	4:1E:110:GLY:O	1.90	0.90
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.53	0.90
1:1A:1359:A:N6	1:1A:1372:U:H3	1.70	0.89
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.05	0.89
22:10:10:THR:HG22	22:10:12:ASN:H	1.37	0.89
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.06	0.89
32:2a:1441:G:H5"	32:2a:1442:G:H5'	1.54	0.89
1:1A:2822:G:OP2	60:1A:4104:HOH:O	1.88	0.89
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.52	0.89
32:2a:975:A:H4'	32:2a:976:G:H5"	1.54	0.88
1:1A:826:U:OP1	60:1A:4105:HOH:O	1.91	0.88
1:1A:1271:G:OP2	60:1A:4106:HOH:O	1.92	0.88
1:2A:364:C:OP2	60:2A:3808:HOH:O	1.92	0.88
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.06	0.87
1:2A:2602:A:H1'	1:2A:2603:G:H5"	1.56	0.87
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.08	0.87
33:1b:231:GLU:HB3	33:1b:232:PRO:HD2	1.55	0.87
1:1A:1085:A:HO2'	1:1A:1104:C:HO2'	1.12	0.87
1:1A:1648:C:OP1	60:1A:4106:HOH:O	1.92	0.87
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.08	0.87
34:2c:35:GLU:HG2	34:2c:59:ARG:HH22	1.37	0.86
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.54	0.86
1:2A:1664:A:OP1	60:2A:3809:HOH:O	1.92	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:66:A:H61	2:2B:109:C:H5'	1.40	0.86
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.09	0.86
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.55	0.86
1:1A:1024:G:OP2	60:1A:4107:HOH:O	1.92	0.86
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.08	0.86
1:1A:330:A:H2	1:1A:1210:A:HO2'	0.90	0.86
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.08	0.86
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.09	0.86
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.57	0.86
32:2a:572:A:OP1	60:2a:3203:HOH:O	1.93	0.86
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.58	0.85
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.09	0.85
1:1A:11:G:H2'	1:1A:12:U:H5"	1.56	0.85
14:1S:3:ARG:HA	14:1S:3:ARG:HH11	1.40	0.85
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.09	0.85
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.22	0.85
1:2A:962:G:OP1	60:2A:3810:HOH:O	1.94	0.85
60:1A:4243:HOH:O	11:1P:37:GLY:HA3	1.75	0.85
1:1A:2447:G:OP2	60:1A:4108:HOH:O	1.95	0.85
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.09	0.85
32:2a:1500:A:OP2	60:2a:3204:HOH:O	1.95	0.85
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.58	0.85
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.10	0.84
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.09	0.84
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.56	0.84
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.10	0.84
1:1A:272(H):C:N4	1:1A:363(B):G:O6	2.10	0.84
1:1A:2027:G:OP2	60:1A:4109:HOH:O	1.95	0.84
34:2c:52:LEU:HD21	34:2c:55:VAL:HG23	1.60	0.84
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.11	0.84
4:2E:110:GLY:O	60:2R:3401:HOH:O	1.95	0.84
32:1a:1027:C:H42	32:1a:1034:G:H1	1.25	0.83
1:1A:2602:A:N7	60:1A:4124:HOH:O	2.10	0.83
1:1A:2427:C:OP1	60:1A:4105:HOH:O	1.96	0.83
1:2A:585:G:OP2	60:2A:3812:HOH:O	1.97	0.83
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.60	0.83
32:2a:1106:G:H5"	34:2c:172:ARG:HG2	1.59	0.83
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.60	0.83
27:25:15:ARG:NH1	60:25:201:HOH:O	2.07	0.83
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.14	0.83
1:1A:2165:G:H2'	1:1A:2166:G:C8	2.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1271:G:OP2	60:2A:3813:HOH:O	1.97	0.83
34:2c:13:GLY:HA3	45:2n:57:ARG:HH22	1.44	0.83
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.59	0.82
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.43	0.82
19:1X:35:THR:HG22	19:1X:37:THR:H	1.45	0.82
32:2a:1318:A:H5"	50:2s:3:ARG:HH22	1.41	0.82
1:1A:1082:U:H3	1:1A:1086:A:H61	0.82	0.82
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.60	0.82
44:1m:11:ARG:O	44:1m:13:LYS:N	2.13	0.82
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HB	1.60	0.82
33:2b:78:GLN:HE22	33:2b:95:GLN:HE21	1.27	0.82
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.62	0.82
32:2a:664:G:H22	32:2a:741:G:H1	1.24	0.82
35:2d:6:GLY:H	35:2d:115:ARG:HH12	1.27	0.82
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.43	0.82
34:1c:181:ASN:HD22	34:1c:204:LEU:HB2	1.44	0.82
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.61	0.82
33:2b:15:VAL:HG13	33:2b:209:ARG:HB3	1.61	0.82
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.62	0.82
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.61	0.82
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.61	0.82
32:1a:258:G:N7	60:1a:3311:HOH:O	2.13	0.81
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.61	0.81
1:2A:1023:U:OP2	60:2A:3814:HOH:O	1.98	0.81
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.62	0.81
1:2A:365:C:OP2	60:2A:3808:HOH:O	1.98	0.81
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.60	0.81
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.60	0.81
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.44	0.81
34:2c:108:ASN:HD21	34:2c:144:SER:HB3	1.41	0.81
41:1j:34:VAL:HG12	41:1j:74:ILE:HA	1.62	0.81
19:2X:2:LYS:NZ	19:2X:38:GLU:OE2	2.14	0.81
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.14	0.81
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.12	0.80
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.15	0.80
33:1b:163:PHE:HD1	33:1b:185:ILE:HG13	1.45	0.80
19:1X:31:HIS:CD2	19:1X:33:LYS:H	1.96	0.80
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.63	0.80
1:1A:2821:A:OP2	60:1A:4104:HOH:O	2.00	0.80
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.13	0.80
19:2X:35:THR:HG22	19:2X:37:THR:H	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.46	0.80
32:1a:148:G:H2'	32:1a:149:A:H8	1.47	0.80
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.64	0.80
32:1a:1158:C:H5	32:1a:1181:G:N1	1.79	0.80
12:2Q:109:VAL:HG13	12:2Q:113:GLN:HB3	1.64	0.80
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.14	0.80
6:1G:16:ARG:HH21	6:1G:31:VAL:HG21	1.46	0.80
23:11:3:LYS:HG3	23:11:4:VAL:H	1.47	0.79
32:1a:812:C:N3	60:1a:3319:HOH:O	2.16	0.79
1:2A:1314:C:OP1	60:2A:3816:HOH:O	2.01	0.79
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.64	0.79
1:2A:2574:G:OP1	60:2A:3815:HOH:O	1.99	0.79
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.15	0.79
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.65	0.79
26:24:16:CYS:SG	26:24:17:GLY:N	2.54	0.79
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.64	0.79
32:2a:1129:C:H2'	32:2a:1139:G:N7	1.97	0.79
1:2A:1101:U:H2'	1:2A:1102:C:H6	1.47	0.78
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.64	0.78
32:2a:54:C:O2	32:2a:357:G:N2	2.14	0.78
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.17	0.78
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.47	0.78
1:1A:2602:A:H1'	1:1A:2603:G:H5"	1.66	0.78
32:2a:70:G:H1	32:2a:99:U:H3	1.27	0.78
1:2A:2821:A:OP2	60:2R:3401:HOH:O	2.00	0.78
32:2a:134:A:H61	47:2p:25:ARG:HH22	1.31	0.78
44:2m:3:ARG:HH21	44:2m:53:VAL:HG21	1.46	0.78
1:2A:135:G:N7	60:2A:3860:HOH:O	2.16	0.78
41:2j:44:VAL:HG13	41:2j:66:ARG:HG2	1.65	0.78
1:2A:1647:G:OP1	60:2A:3813:HOH:O	1.99	0.78
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.65	0.78
2:2B:81:G:N7	60:2B:307:HOH:O	2.17	0.78
32:2a:547:A:OP1	60:2a:3205:HOH:O	2.02	0.78
1:2A:826:U:OP1	60:2A:3807:HOH:O	2.02	0.77
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.64	0.77
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.17	0.77
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.16	0.77
32:2a:854:G:N7	60:2a:3217:HOH:O	2.17	0.77
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.67	0.77
32:1a:411:A:OP2	35:1d:25:ARG:NH2	2.17	0.77
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2589:A:OP1	60:2A:3819:HOH:O	2.01	0.77
32:1a:677:U:H3	32:1a:713:G:H22	1.29	0.77
33:1b:15:VAL:HG23	33:1b:209:ARG:HG2	1.64	0.77
1:1A:2407:G:OP1	60:1A:4111:HOH:O	2.02	0.77
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.17	0.77
1:2A:331:A:N1	60:2A:3865:HOH:O	2.17	0.77
1:2A:2490:G:O6	60:2A:3817:HOH:O	2.01	0.77
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.17	0.77
32:2a:1278:U:H5"	32:2a:1279:A:H5'	1.65	0.77
1:2A:1041:C:H42	1:2A:1114:G:H1	1.29	0.77
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.67	0.77
1:1A:187:G:OP2	60:1A:4116:HOH:O	2.03	0.77
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.66	0.77
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.17	0.77
32:2a:59:A:N1	60:2a:3219:HOH:O	2.18	0.77
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.66	0.76
1:2A:1006:C:OP2	60:2A:3820:HOH:O	2.02	0.76
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.50	0.76
1:2A:2711:A:OP2	60:2A:3818:HOH:O	2.01	0.76
32:2a:42:G:OP1	60:2a:3206:HOH:O	2.03	0.76
33:2b:178:ARG:HH22	39:2h:68:ARG:HH12	1.31	0.76
1:1A:1670:C:OP2	60:1A:4110:HOH:O	2.02	0.76
32:1a:366:C:N3	60:1a:3323:HOH:O	2.18	0.76
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.68	0.76
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.13	0.76
1:2A:2810:A:N6	1:2A:2891:G:O2'	2.19	0.76
7:2H:101:ARG:HH12	7:2H:122:THR:HG22	1.51	0.76
21:2Z:2:GLU:HG2	21:2Z:56:VAL:HB	1.68	0.76
32:2a:903:G:OP1	60:2a:3207:HOH:O	2.03	0.76
1:1A:330:A:H2	1:1A:1210:A:O2'	1.69	0.76
1:1A:2464:C:O2'	60:1A:4112:HOH:O	2.02	0.76
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.59	0.76
32:1a:474:G:H2'	32:1a:475:G:H8	1.49	0.76
32:1a:532:A:N6	32:1a:1206:G:O2'	2.18	0.76
32:1a:757:U:H2'	32:1a:758:G:O4'	1.86	0.76
34:1c:70:VAL:HG12	34:1c:72:LYS:H	1.48	0.76
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.19	0.76
47:1p:12:LYS:NZ	60:1p:101:HOH:O	2.14	0.76
34:2c:138:VAL:HG23	34:2c:151:VAL:HG12	1.68	0.76
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.33	0.76
1:2A:823:G:N7	60:2A:3872:HOH:O	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2070:G:OP2	60:1A:4114:HOH:O	2.02	0.76
3:2D:237:GLU:OE2	60:2D:401:HOH:O	2.04	0.76
32:1a:235:C:H5'	48:1q:70:ARG:HG2	1.68	0.75
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.21	0.75
1:2A:2707:G:OP1	60:2A:3821:HOH:O	2.04	0.75
4:2E:59:VAL:HG12	4:2E:64:LYS:HG2	1.65	0.75
1:1A:2507:C:OP1	60:1A:4115:HOH:O	2.03	0.75
11:1P:96:THR:HG22	11:1P:99:LEU:HB2	1.69	0.75
32:1a:1314:C:OP1	50:1s:6:LYS:NZ	2.15	0.75
1:1A:1702:G:N7	60:1A:4155:HOH:O	2.19	0.75
36:1e:8:GLU:HG2	36:1e:34:VAL:HG12	1.69	0.75
32:2a:1505:G:OP1	60:2a:3208:HOH:O	2.04	0.75
10:2O:73:ASP:O	60:2O:301:HOH:O	2.05	0.75
1:1A:2102:U:O2	1:1A:2187:G:O6	2.03	0.75
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.19	0.75
36:1e:12:LEU:HD11	36:1e:14:ARG:HB3	1.67	0.75
1:2A:685:A:OP1	60:2A:3823:HOH:O	2.04	0.75
1:2A:783:A:OP2	60:2A:3819:HOH:O	2.04	0.75
34:2c:70:VAL:HG22	34:2c:72:LYS:H	1.52	0.75
32:1a:673:G:H2'	32:1a:674:G:C8	2.22	0.75
1:2A:843:G:N2	1:2A:935:C:O2	2.18	0.75
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.20	0.75
32:1a:317:G:OP2	60:1a:3304:HOH:O	2.04	0.75
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.19	0.75
32:2a:1500:A:OP1	60:2a:3208:HOH:O	2.04	0.75
35:2d:175:SER:HB3	35:2d:186:LEU:HD11	1.69	0.75
5:1F:116:ASP:OD2	11:1P:1:MET:N	2.19	0.75
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.68	0.75
1:1A:9:U:H3	1:1A:2629:A:H2	1.35	0.75
1:1A:143:G:H4'	19:1X:35:THR:HG21	1.68	0.75
1:1A:1858:G:O6	60:1A:4113:HOH:O	2.02	0.75
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.20	0.75
1:1A:2807:G:N1	1:1A:2893:G:O6	2.20	0.74
1:1A:1063:G:H1	1:1A:1075:C:N4	1.84	0.74
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.20	0.74
45:1n:4:LYS:HD3	45:1n:7:ILE:HD11	1.68	0.74
1:2A:1793:C:OP1	60:2A:3822:HOH:O	2.04	0.74
32:2a:474:G:H2'	32:2a:475:G:H8	1.52	0.74
32:2a:962:C:O2'	60:2a:3209:HOH:O	2.05	0.74
1:2A:11:G:H2'	1:2A:12:U:H5"	1.69	0.74
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.69	0.74
1:1A:286:C:H2'	1:1A:287:C:C6	2.23	0.74
32:1a:1060:C:H5"	41:1j:51:ARG:HG2	1.68	0.74
34:2c:83:ARG:O	34:2c:87:LEU:N	2.21	0.74
32:2a:1151:A:HO2'	32:2a:1152:A:H8	1.34	0.74
1:1A:2396:G:O6	60:1A:4117:HOH:O	2.04	0.74
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.69	0.74
1:2A:1324:G:N7	60:2A:3875:HOH:O	2.18	0.74
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.35	0.74
9:1N:73:THR:HG23	9:1N:82:LEU:HD11	1.68	0.74
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	1.69	0.74
1:2A:2706:G:N7	60:2A:3891:HOH:O	2.21	0.74
32:2a:391:G:N7	60:2a:3224:HOH:O	2.21	0.74
1:1A:2375:G:O2'	60:1A:4118:HOH:O	2.05	0.74
32:1a:1239:A:H62	32:1a:1299:A:N6	1.86	0.74
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.21	0.74
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.20	0.74
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.23	0.73
41:2j:74:ILE:O	60:2j:302:HOH:O	2.06	0.73
45:2n:3:ARG:HE	45:2n:3:ARG:HA	1.53	0.73
32:1a:1094:G:OP1	60:1a:3306:HOH:O	2.06	0.73
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.21	0.73
1:1A:123:G:OP2	60:1A:4120:HOH:O	2.06	0.73
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.68	0.73
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.70	0.73
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.17	0.73
1:2A:526:A:OP1	60:2A:3827:HOH:O	2.07	0.73
1:2A:2707:G:OP2	60:2A:3826:HOH:O	2.06	0.73
4:1E:29:GLY:HA3	60:1E:411:HOH:O	1.88	0.73
34:1c:190:ARG:HB2	34:1c:190:ARG:HH21	1.54	0.73
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.17	0.73
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.21	0.73
2:1B:64:C:O2'	60:1B:301:HOH:O	2.04	0.73
3:1D:66:ASP:OD2	60:1D:401:HOH:O	2.06	0.73
1:2A:198:C:OP2	60:2A:3801:HOH:O	2.06	0.73
1:2A:2099:U:H3	1:2A:2190:G:H1	1.34	0.73
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.71	0.73
34:2c:8:ILE:HG12	34:2c:184:TYR:HB3	1.71	0.73
1:1A:2121:G:H1	1:1A:2177:C:H42	1.37	0.73
1:2A:775:G:O3'	60:2A:3824:HOH:O	2.06	0.73
2:2B:58:A:OP2	60:2B:302:HOH:O	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.54	0.73
1:2A:1721:G:H8	1:2A:1741:A:H62	1.35	0.73
32:2a:662:G:O2'	32:2a:836:G:OP1	2.05	0.73
4:1E:59:VAL:HG12	4:1E:64:LYS:HG2	1.70	0.73
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.71	0.73
38:2g:46:ALA:HA	38:2g:49:ILE:HD12	1.70	0.73
44:2m:81:LEU:HD21	44:2m:88:ARG:HH21	1.54	0.73
33:1b:163:PHE:CD1	33:1b:185:ILE:HG13	2.23	0.73
1:2A:731:C:OP1	60:2A:3825:HOH:O	2.06	0.73
32:2a:134:A:N6	47:2p:25:ARG:HH22	1.85	0.73
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.54	0.73
1:1A:1381:G:N7	60:1A:4169:HOH:O	2.21	0.72
1:1A:1669:A:OP2	60:1A:4110:HOH:O	2.06	0.72
32:1a:574:A:OP2	60:1a:3305:HOH:O	2.06	0.72
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.21	0.72
32:2a:890:G:O2'	32:2a:906:G:O6	2.05	0.72
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.71	0.72
1:2A:1602:U:O4	60:2A:3830:HOH:O	2.07	0.72
42:2k:98:LEU:O	42:2k:101:SER:OG	2.05	0.72
17:1V:95:LEU:HD23	17:1V:97:LYS:HE3	1.71	0.72
37:1f:100:ASN:HD21	49:1r:23:LYS:HE2	1.53	0.72
1:2A:2377:A:N3	60:2A:3895:HOH:O	2.21	0.72
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.22	0.72
1:2A:2548:G:O6	60:2A:3829:HOH:O	2.07	0.72
32:2a:411:A:OP2	35:2d:25:ARG:NH2	2.21	0.72
1:1A:60:G:OP2	60:1A:4119:HOH:O	2.05	0.72
1:1A:1647:G:OP1	60:1A:4106:HOH:O	2.06	0.72
32:2a:475:G:H2'	32:2a:476:G:H8	1.52	0.72
44:2m:3:ARG:HB3	44:2m:4:ILE:HD12	1.71	0.72
1:1A:847:U:OP2	60:1A:4121:HOH:O	2.08	0.72
1:2A:1017:G:N7	60:2A:3893:HOH:O	2.21	0.72
1:2A:1419:A:OP2	60:2A:3828:HOH:O	2.07	0.72
1:2A:2789:C:H42	1:2A:2894:G:H1	1.34	0.72
33:2b:47:THR:HG22	33:2b:202:PRO:HG2	1.71	0.72
32:2a:475:G:H2'	32:2a:476:G:C8	2.25	0.72
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.71	0.72
2:2B:41:U:H5	6:2G:70:VAL:HB	1.55	0.72
32:2a:187:C:O2'	51:2t:89:ARG:HD3	1.90	0.72
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.70	0.72
1:1A:2805:G:H2'	1:1A:2807:G:H8	1.55	0.72
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:88:LEU:HD22	7:2H:165:ALA:HA	1.72	0.72
1:1A:9:U:N3	1:1A:2629:A:H2	1.88	0.72
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.54	0.72
1:2A:2049:G:N7	60:2A:3903:HOH:O	2.22	0.72
2:2B:76:G:O6	60:2B:303:HOH:O	2.07	0.72
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.72	0.72
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.72	0.71
12:1Q:22:LYS:NZ	60:1Q:301:HOH:O	2.23	0.71
32:1a:165:C:H2'	32:1a:166:G:C8	2.25	0.71
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.23	0.71
1:2A:1097:U:O2'	1:2A:1098:A:O4'	2.06	0.71
6:1G:66:GLN:HG3	26:14:1:MET:HE1	1.71	0.71
8:1I:72:LEU:C	8:1I:74:ASN:H	1.98	0.71
16:1U:101:ARG:NH2	60:1U:301:HOH:O	2.21	0.71
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.25	0.71
32:1a:1277:C:O2'	32:1a:1279:A:H1'	1.91	0.71
1:2A:1086:A:OP1	1:2A:1104:C:O2'	2.08	0.71
4:2E:202:LYS:NZ	60:2E:402:HOH:O	2.22	0.71
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.05	0.71
38:2g:20:ASP:HB3	38:2g:23:VAL:HG22	1.71	0.71
26:14:13:ARG:HB2	26:14:30:GLU:HG3	1.72	0.71
32:2a:117:G:OP2	60:2a:3210:HOH:O	2.08	0.71
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.73	0.71
1:2A:2306:C:N4	6:2G:42:GLY:O	2.23	0.71
38:2g:113:GLU:HG3	38:2g:119:ARG:HG2	1.70	0.71
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.73	0.71
1:1A:715:G:H21	46:1o:40:SER:HB2	1.54	0.71
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.23	0.71
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.24	0.71
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.72	0.71
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.24	0.71
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.73	0.71
53:2y:9:GLN:NE2	60:2y:302:HOH:O	2.23	0.71
41:2j:78:ASN:O	41:2j:80:LYS:N	2.24	0.71
32:1a:1224:G:OP2	60:1a:3307:HOH:O	2.07	0.71
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.21	0.71
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.25	0.71
33:2b:47:THR:O	33:2b:51:LEU:N	2.24	0.71
33:2b:59:GLU:HG3	33:2b:221:LEU:HD11	1.72	0.71
33:2b:96:ARG:HG2	33:2b:98:LEU:HD23	1.73	0.71
1:1A:1416:G:N2	1:1A:1582:C:O2	2.15	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1315:C:OP2	60:2A:3816:HOH:O	2.07	0.70
1:2A:2591:C:OP1	60:2A:3833:HOH:O	2.08	0.70
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.54	0.70
54:2z:5:LYS:O	54:2z:16:LYS:NZ	2.24	0.70
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	1.73	0.70
49:2r:26:LEU:HD11	49:2r:42:ARG:HD2	1.71	0.70
32:1a:975:A:H4'	32:1a:976:G:H5"	1.72	0.70
50:1s:41:VAL:HG22	50:1s:44:MET:HE3	1.73	0.70
1:2A:2051:A:OP2	60:2A:3835:HOH:O	2.09	0.70
2:2B:115:G:N7	60:2B:308:HOH:O	2.24	0.70
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.22	0.70
34:2c:134:ILE:HG23	34:2c:151:VAL:HG13	1.72	0.70
37:2f:2:ARG:CZ	37:2f:69:GLU:HG2	2.21	0.70
44:1m:67:GLU:OE1	44:1m:71:ARG:NH2	2.25	0.70
1:2A:53:A:OP2	60:2A:3834:HOH:O	2.09	0.70
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.74	0.70
1:1A:2242:G:OP1	60:1A:4122:HOH:O	2.08	0.70
24:12:59:ARG:NH2	60:12:101:HOH:O	2.24	0.70
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.25	0.70
40:1i:29:ASN:ND2	40:1i:65:VAL:O	2.21	0.70
1:1A:486:C:O2'	18:1W:60:ASN:ND2	2.23	0.70
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.24	0.70
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.72	0.70
32:1a:262:A:H2'	32:1a:263:A:C8	2.26	0.70
32:1a:946:A:H2'	32:1a:947:G:C8	2.27	0.70
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.25	0.70
60:2A:3822:HOH:O	32:2a:773:G:OP1	2.09	0.70
2:2B:49:C:OP1	60:2B:304:HOH:O	2.09	0.70
3:2D:224:ALA:O	60:2D:402:HOH:O	2.09	0.70
32:2a:393:A:OP1	60:2a:3212:HOH:O	2.09	0.70
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.07	0.70
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.24	0.70
1:2A:2712(A):A:OP2	60:2A:3818:HOH:O	2.07	0.70
32:2a:222:U:H2'	32:2a:223:U:C6	2.27	0.70
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.73	0.70
1:1A:2121:G:N2	60:1A:4178:HOH:O	2.23	0.70
32:1a:532:A:H2	32:1a:1206:G:H21	1.38	0.70
37:1f:45:LEU:HD12	37:1f:59:TYR:HD1	1.56	0.70
1:2A:1281:G:N7	60:2A:3908:HOH:O	2.23	0.70
1:2A:981:A:OP1	60:2A:3837:HOH:O	2.10	0.70
6:2G:145:THR:HG22	6:2G:148:MET:HE3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:70:SER:O	60:2t:301:HOH:O	2.09	0.70
1:1A:1169:G:O6	1:1A:1180:C:N4	2.15	0.70
37:1f:4:TYR:HD1	37:1f:92:LYS:HA	1.55	0.70
35:2d:3:ARG:HD3	35:2d:118:ARG:HD3	1.73	0.70
32:1a:137:C:N4	32:1a:226:G:O6	2.20	0.69
34:1c:181:ASN:ND2	34:1c:204:LEU:HB2	2.07	0.69
32:2a:920:U:H2'	32:2a:921:U:C6	2.27	0.69
32:2a:1110:A:OP2	60:2a:3211:HOH:O	2.09	0.69
33:2b:158:LEU:HD21	33:2b:180:LEU:HD13	1.74	0.69
1:1A:1068:G:O2'	1:1A:1096:A:O2'	2.07	0.69
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.25	0.69
32:1a:92:C:H2'	32:1a:93:G:C8	2.27	0.69
32:1a:1030(C):G:H2'	32:1a:1030(D):A:H8	1.57	0.69
32:1a:1505:G:O6	60:1a:3308:HOH:O	2.08	0.69
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.73	0.69
1:2A:309:G:N3	1:2A:329:G:O2'	2.24	0.69
1:2A:881:G:H1	1:2A:895:U:H3	1.41	0.69
1:2A:1187:G:OP1	60:2A:3840:HOH:O	2.11	0.69
1:2A:1890:A:OP2	60:2A:3832:HOH:O	2.08	0.69
6:2G:66:GLN:HG3	26:24:1:MET:HE1	1.74	0.69
1:2A:76:C:O2'	24:22:62:THR:OG1	2.10	0.69
3:2D:261:LYS:NZ	60:2D:403:HOH:O	2.25	0.69
3:2D:71:ASP:CB	3:2D:103:ARG:HH22	2.04	0.69
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.73	0.69
1:1A:1325:G:OP1	60:1A:4125:HOH:O	2.10	0.69
1:1A:2143:C:N3	1:1A:2148:G:O6	2.26	0.69
32:1a:1504:G:OP1	32:1a:1507:A:H4'	1.93	0.69
26:24:59:PHE:HD1	26:24:61:ARG:HB2	1.55	0.69
1:1A:1312:U:OP2	19:1X:63:LYS:NZ	2.24	0.69
1:1A:2805:G:H2'	1:1A:2807:G:C8	2.26	0.69
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.73	0.69
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.74	0.69
49:1r:52:PRO:HB2	49:1r:54:ARG:HG2	1.75	0.69
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.56	0.69
10:2O:76:ALA:HB3	15:2T:75:ILE:HG13	1.73	0.69
19:2X:5:TYR:HA	24:22:33:MET:HE3	1.74	0.69
26:24:59:PHE:HE2	50:2s:64:GLU:HB2	1.58	0.69
32:2a:448:A:P	32:2a:485:G:H22	2.16	0.69
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.26	0.69
1:1A:1721:G:H5'	1:1A:1722:A:OP2	1.93	0.69
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.10	0.69
36:2e:122:GLU:HB2	36:2e:126:ARG:HD3	1.74	0.69
1:1A:1173:G:OP2	60:1A:4127:HOH:O	2.11	0.69
1:1A:1359:A:N1	1:1A:1372:U:O4	2.26	0.69
32:1a:1075:C:OP1	33:1b:179:LYS:NZ	2.22	0.69
32:1a:1373:G:H5"	38:1g:36:LYS:HE2	1.75	0.69
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.57	0.69
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.26	0.69
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.27	0.69
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.27	0.68
32:1a:1054:C:H41	53:1y:46:GLN:CD	2.02	0.68
44:1m:40:ASN:HB3	44:1m:43:THR:HG23	1.75	0.68
32:1a:269:C:H2'	32:1a:270:A:C8	2.28	0.68
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.26	0.68
32:2a:164:U:H2'	32:2a:165:C:C6	2.28	0.68
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.59	0.68
1:2A:468:G:N7	29:27:39:ARG:NH2	2.41	0.68
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.05	0.68
1:2A:1702:G:N7	60:2A:3915:HOH:O	2.24	0.68
1:2A:2390:U:OP1	60:2A:3843:HOH:O	2.11	0.68
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.75	0.68
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.59	0.68
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.74	0.68
31:29:8:LYS:H	31:29:34:GLN:HE22	1.42	0.68
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.26	0.68
44:2m:15:VAL:O	44:2m:19:LEU:HG	1.94	0.68
1:1A:2550:G:OP1	60:1A:4110:HOH:O	2.11	0.68
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.74	0.68
44:1m:49:THR:HB	44:1m:52:GLU:H	1.58	0.68
1:2A:607:U:OP1	5:2F:102:PRO:HA	1.94	0.68
1:2A:630:G:N7	60:2A:3930:HOH:O	2.26	0.68
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.11	0.68
1:2A:1452:A:OP2	60:2A:3836:HOH:O	2.10	0.68
32:2a:1086:U:H3	32:2a:1099:G:H22	1.42	0.68
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.24	0.68
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.74	0.68
1:2A:452:G:OP2	60:2A:3842:HOH:O	2.11	0.68
1:2A:2006:C:OP2	60:2A:3846:HOH:O	2.12	0.68
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.75	0.68
3:1D:52:ARG:NH2	60:1D:406:HOH:O	2.26	0.68
26:14:59:PHE:HB3	26:14:62:ARG:HH21	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.27	0.68
1:2A:775:G:OP1	60:2A:3811:HOH:O	2.09	0.68
1:2A:999:U:OP2	60:2A:3844:HOH:O	2.11	0.68
1:2A:2602:A:H1'	1:2A:2603:G:C5'	2.23	0.68
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	1.75	0.68
1:2A:800:A:H8	1:2A:800:A:OP1	1.76	0.68
4:2E:199:ARG:NH1	60:2E:402:HOH:O	2.20	0.68
11:2P:95:VAL:HG22	11:2P:125:VAL:HA	1.75	0.68
32:1a:1442:G:O2'	32:1a:1442(A):G:O5'	2.12	0.68
1:2A:1037:G:O6	60:2A:3831:HOH:O	2.08	0.68
1:2A:1803:A:O2'	3:2D:259:THR:HG21	1.93	0.68
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.57	0.68
30:28:62:LEU:HB3	30:28:65:GLU:HG2	1.75	0.68
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.29	0.68
32:1a:965:A:H8	53:1y:8:LYS:HZ3	1.42	0.67
2:2B:7:G:N3	14:2S:38:GLN:NE2	2.36	0.67
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.76	0.67
1:1A:1064:C:H3'	1:1A:1065:U:H5"	1.76	0.67
1:1A:2763:G:OP2	60:1A:4128:HOH:O	2.12	0.67
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.27	0.67
32:1a:177:C:OP1	51:1t:65:LYS:NZ	2.22	0.67
1:2A:2168:G:O2'	1:2A:2170:A:N7	2.26	0.67
11:2P:126:VAL:HG12	11:2P:148:LEU:HD11	1.76	0.67
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.74	0.67
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.59	0.67
32:1a:828:A:H2'	32:1a:829:G:O4'	1.94	0.67
37:1f:89:MET:HE1	49:1r:72:ARG:HB3	1.76	0.67
1:2A:2453:A:OP1	60:2A:3841:HOH:O	2.11	0.67
32:2a:1525:G:OP1	42:2k:120:ARG:NH2	2.27	0.67
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.02	0.67
32:1a:1470:G:N7	60:1a:3344:HOH:O	2.26	0.67
32:1a:1500:A:OP1	60:1a:3310:HOH:O	2.12	0.67
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.60	0.67
32:2a:289:G:OP2	60:2a:3210:HOH:O	2.11	0.67
32:2a:1030:C:N4	32:2a:1032:G:O6	2.28	0.67
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.28	0.67
3:1D:141:VAL:HG12	3:1D:164:GLN:HG3	1.77	0.67
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.27	0.67
34:1c:78:GLY:HA3	34:1c:83:ARG:H	1.60	0.67
1:2A:2353:G:N7	60:2A:3939:HOH:O	2.27	0.67
32:2a:673:G:H2'	32:2a:674:G:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1126:U:O4'	32:2a:1281:U:H1'	1.94	0.67
3:2D:164:GLN:OE1	3:2D:176:ARG:NH2	2.28	0.67
33:2b:101:MET:HA	33:2b:108:ILE:HD12	1.76	0.67
1:1A:288:C:H2'	1:1A:289:A:H8	1.59	0.67
1:1A:530:G:N1	1:1A:2023:G:OP1	2.28	0.67
1:1A:2108:C:H42	1:1A:2181:G:H1	1.43	0.67
1:2A:1009:A:OP2	60:2A:3845:HOH:O	2.12	0.67
1:2A:1688:U:O2	1:2A:1700:A:H5'	1.94	0.67
1:2A:2499:C:OP1	60:2A:3851:HOH:O	2.13	0.67
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.42	0.67
1:1A:2014:A:OP1	60:1A:4129:HOH:O	2.13	0.67
51:1t:33:ILE:O	51:1t:37:SER:OG	2.08	0.67
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.10	0.67
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.26	0.67
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.27	0.67
33:2b:130:ARG:O	33:2b:135:GLN:NE2	2.27	0.67
1:1A:194:G:N3	60:1A:4208:HOH:O	2.27	0.67
2:1B:66:A:H61	2:1B:109:C:H5'	1.57	0.67
32:1a:394:G:O6	60:1a:3309:HOH:O	2.10	0.67
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.30	0.67
20:2Y:68:HIS:CE1	20:2Y:70:SER:HB3	2.30	0.67
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.27	0.67
32:1a:1086:U:H3	32:1a:1099:G:H22	1.39	0.67
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.59	0.67
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.60	0.67
33:2b:67:THR:HA	33:2b:90:MET:HE2	1.77	0.67
32:1a:567:G:N3	60:1a:3355:HOH:O	2.28	0.66
1:2A:947:G:OP2	60:2A:3847:HOH:O	2.13	0.66
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.29	0.66
32:2a:1023:G:H2'	32:2a:1024:G:H8	1.61	0.66
32:1a:77:G:H1	32:1a:92:C:H42	1.42	0.66
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.77	0.66
1:2A:2632:A:HO2'	1:2A:2811:G:HO2'	1.42	0.66
7:2H:90:LYS:HD2	7:2H:159:GLU:HG2	1.77	0.66
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.21	0.66
34:2c:13:GLY:HA3	45:2n:57:ARG:NH2	2.11	0.66
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.77	0.66
7:1H:124:GLU:OE2	7:1H:132:ARG:HD2	1.94	0.66
28:16:13:CYS:SG	28:16:47:THR:HG21	2.36	0.66
32:1a:1300:G:N7	60:1a:3349:HOH:O	2.27	0.66
32:1a:1503:A:H5'	32:1a:1531:A:H1'	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.13	0.66
1:2A:1332:G:OP1	60:2A:3816:HOH:O	2.13	0.66
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.28	0.66
1:2A:2136:C:C2	1:2A:2155:G:N2	2.62	0.66
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.30	0.66
14:2S:25:ARG:NH2	14:2S:88:ASP:OD2	2.22	0.66
32:2a:1400:5MC:C2	53:2y:63:ALA:HA	2.30	0.66
1:1A:2506:U:OP2	60:1A:4131:HOH:O	2.14	0.66
2:2B:44:G:OP1	6:2G:98:ARG:NH2	2.28	0.66
1:1A:2190:G:H2'	1:1A:2191:G:O4'	1.95	0.66
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD11	1.75	0.66
26:14:16:CYS:SG	26:14:17:GLY:N	2.68	0.66
37:2f:68:PRO:HG2	37:2f:71:ARG:HD2	1.78	0.66
1:1A:607:U:OP1	5:1F:102:PRO:HA	1.95	0.66
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.60	0.66
60:1A:4104:HOH:O	13:1R:3:HIS:NE2	2.28	0.66
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.61	0.66
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.29	0.66
43:2l:57:LYS:HG3	43:2l:67:THR:HG22	1.77	0.66
1:1A:286:C:H2'	1:1A:287:C:H6	1.61	0.66
1:1A:1721:G:H3'	1:1A:1722:A:H5"	1.78	0.66
1:1A:1803:A:O2'	3:1D:259:THR:HG21	1.96	0.66
1:2A:304:G:O6	60:2A:3838:HOH:O	2.10	0.66
6:2G:46:ALA:HB2	6:2G:53:LEU:HD12	1.77	0.66
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	1.95	0.66
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.77	0.66
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.31	0.66
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.78	0.66
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.77	0.66
1:2A:901:A:H2'	1:2A:902:C:H6	1.60	0.66
9:2N:50:ASP:OD1	60:2N:301:HOH:O	2.13	0.66
32:2a:392:G:H2'	32:2a:393:A:H8	1.60	0.66
1:1A:1094:U:O2'	1:1A:1096:A:N7	2.27	0.66
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.31	0.66
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.60	0.66
1:2A:1352:U:OP2	60:2A:3852:HOH:O	2.14	0.66
1:2A:1371:G:O6	60:2A:3839:HOH:O	2.10	0.66
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.77	0.66
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.07	0.66
32:2a:881:G:P	43:2l:12:ARG:HH22	2.18	0.66
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.77	0.66
34:1c:47:LEU:HB2	34:1c:52:LEU:HD22	1.76	0.66
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.14	0.66
6:2G:67:LYS:N	60:2G:302:HOH:O	2.22	0.66
12:2Q:109:VAL:O	60:2Q:301:HOH:O	2.14	0.66
41:2j:6:ILE:HG12	41:2j:98:ILE:HD13	1.76	0.66
9:1N:115:ARG:HA	9:1N:118:LYS:HD2	1.77	0.65
32:1a:435:C:H2'	32:1a:436:C:H6	1.61	0.65
40:1i:16:ARG:HH11	40:1i:64:THR:HG21	1.61	0.65
1:2A:2139:C:H42	1:2A:2152:G:H1	1.43	0.65
36:2e:51:VAL:O	36:2e:55:VAL:HG23	1.95	0.65
1:1A:226:G:H21	1:1A:228:A:H62	1.41	0.65
32:1a:486:U:H2'	32:1a:487:A:H8	1.62	0.65
33:1b:15:VAL:HG21	33:1b:213:LEU:HB2	1.77	0.65
53:1y:9:GLN:OE1	60:1y:302:HOH:O	2.14	0.65
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.28	0.65
15:2T:43:GLN:OE1	60:2T:301:HOH:O	2.13	0.65
32:2a:560:U:O2'	32:2a:561:U:OP2	2.13	0.65
32:2a:642:A:N3	39:2h:113:SER:OG	2.29	0.65
1:1A:271(L):U:H4'	8:1I:50:ARG:NH2	2.12	0.65
1:1A:2129:C:N3	1:1A:2159:G:O6	2.30	0.65
1:1A:2350:C:OP2	60:1A:4130:HOH:O	2.13	0.65
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.62	0.65
17:1V:60:GLU:OE1	17:1V:97:LYS:NZ	2.28	0.65
18:1W:65:LEU:HD12	18:1W:68:ARG:HE	1.61	0.65
32:1a:45:U:H2'	32:1a:46:G:C8	2.31	0.65
32:1a:984:C:H42	32:1a:1221:G:H1	1.45	0.65
32:1a:1136:U:H5"	32:1a:1137:C:C2	2.31	0.65
32:1a:1279:A:H4'	32:1a:1281:U:H5	1.61	0.65
1:2A:635:C:O2'	1:2A:639:U:OP1	2.13	0.65
1:2A:848:G:OP1	60:2A:3849:HOH:O	2.13	0.65
1:2A:1069:A:C6	1:2A:1095:A:H4'	2.31	0.65
5:2F:17:ARG:NH2	5:2F:19:GLU:OE2	2.29	0.65
21:2Z:157:LEU:HD13	21:2Z:161:VAL:HG12	1.78	0.65
33:2b:71:VAL:HG23	33:2b:164:VAL:HA	1.78	0.65
36:2e:8:GLU:HG2	36:2e:34:VAL:HG12	1.78	0.65
41:2j:8:LEU:HB3	41:2j:16:LEU:HD22	1.78	0.65
2:2B:75:G:OP1	60:2B:305:HOH:O	2.14	0.65
6:2G:146:TYR:HB3	44:2m:11:ARG:HH12	1.61	0.65
1:1A:7:G:H2'	1:1A:8:A:O4'	1.96	0.65
1:1A:376:C:OP1	60:1A:4134:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.32	0.65
32:1a:474:G:H2'	32:1a:475:G:C8	2.31	0.65
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.62	0.65
50:1s:40:ILE:HA	50:1s:44:MET:SD	2.37	0.65
1:2A:479:A:N3	1:2A:481:G:H5"	2.12	0.65
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.32	0.65
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.62	0.65
4:2E:103:ASP:OD2	60:2E:401:HOH:O	2.14	0.65
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.30	0.65
30:18:15:LYS:HB3	57:18:102:MPD:H52	1.78	0.65
32:1a:1414:U:H3	32:1a:1486:G:H1	1.43	0.65
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	1.77	0.65
1:2A:1418:G:H2'	1:2A:1579:A:N6	2.10	0.65
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.29	0.65
14:2S:101:LEU:HB3	60:2S:202:HOH:O	1.97	0.65
1:1A:228:A:H8	1:1A:229:A:H5'	1.61	0.65
1:1A:2346:A:N1	60:1A:4233:HOH:O	2.29	0.65
32:1a:169:C:H2'	32:1a:170:U:H6	1.60	0.65
1:2A:1153:C:OP2	60:2A:3844:HOH:O	2.14	0.65
29:27:24:THR:HG22	29:27:27:GLY:N	2.07	0.65
32:2a:1301:U:O2'	32:2a:1302:U:H5'	1.97	0.65
40:2i:59:PHE:HZ	40:2i:88:TYR:CZ	2.15	0.65
1:1A:30:G:OP1	60:1A:4132:HOH:O	2.14	0.65
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.30	0.65
1:2A:1814:G:OP1	60:2A:3850:HOH:O	2.13	0.65
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	1.79	0.65
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.31	0.65
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.78	0.65
1:1A:363(F):A:N1	60:1A:4240:HOH:O	2.30	0.65
1:1A:1082:U:N3	1:1A:1086:A:N6	2.18	0.65
1:1A:2062:A:N3	60:1A:4235:HOH:O	2.29	0.65
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.13	0.65
32:1a:142:G:H2'	32:1a:143:A:H8	1.61	0.65
1:2A:2541:A:N7	60:2A:3962:HOH:O	2.29	0.65
6:2G:27:ASN:HB3	6:2G:30:GLU:HG3	1.79	0.65
1:1A:942:G:O6	60:1A:4126:HOH:O	2.11	0.65
1:1A:1671:U:O4	60:1A:4110:HOH:O	2.13	0.65
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.60	0.65
32:1a:1501:C:OP1	60:1a:3315:HOH:O	2.14	0.65
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.79	0.65
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:88:TYR:HD2	48:1q:89:LEU:HD23	1.62	0.65
1:2A:1250:G:H5"	60:2A:6028:HOH:O	1.97	0.65
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.20	0.65
1:2A:1669:A:H5"	1:2A:2550:G:OP1	1.97	0.65
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.78	0.65
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.78	0.65
56:1B:232:ARG:N	60:1B:307:HOH:O	2.30	0.64
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.79	0.64
32:1a:165:C:H2'	32:1a:166:G:H8	1.61	0.64
32:1a:382:A:H2'	32:1a:383:A:H8	1.62	0.64
1:2A:2125:G:O2'	1:2A:2173:A:N6	2.31	0.64
35:2d:11:LEU:HG	35:2d:66:ARG:HD3	1.79	0.64
1:1A:733:G:OP1	60:1A:4137:HOH:O	2.15	0.64
1:1A:1529:G:C2'	1:1A:1530:C:H5'	2.27	0.64
1:1A:2372:G:N3	60:1A:4246:HOH:O	2.30	0.64
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.62	0.64
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.12	0.64
1:2A:468:G:O2'	5:2F:62:ARG:NH2	2.29	0.64
1:2A:1332:G:OP2	60:2A:3854:HOH:O	2.14	0.64
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.62	0.64
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.29	0.64
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.30	0.64
1:2A:207:A:OP2	60:2A:3857:HOH:O	2.15	0.64
1:2A:447:A:OP1	60:2A:3853:HOH:O	2.14	0.64
1:2A:1209:G:OP2	60:2A:3859:HOH:O	2.15	0.64
32:2a:457:C:H2'	32:2a:458:C:H6	1.62	0.64
43:2l:91:LYS:HD3	43:2l:92:0TD:H8	1.79	0.64
32:1a:309:G:O2'	32:1a:607:A:N1	2.31	0.64
32:1a:1162:C:H2'	32:1a:1163:C:H6	1.62	0.64
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.33	0.64
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.30	0.64
26:24:41:PRO:O	26:24:46:GLN:HA	1.97	0.64
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.32	0.64
49:2r:25:THR:O	49:2r:25:THR:OG1	2.11	0.64
1:1A:2870:C:H5"	13:1R:65:LEU:HD21	1.80	0.64
32:1a:803:G:OP1	60:1a:3312:HOH:O	2.14	0.64
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.12	0.64
35:1d:194:LEU:HD13	35:1d:195:ALA:H	1.62	0.64
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.31	0.64
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.80	0.64
15:2T:96:ARG:NH2	60:2T:302:HOH:O	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1078:U:C5	1:1A:1088:A:H5"	2.32	0.64
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.33	0.64
34:2c:35:GLU:HG2	34:2c:59:ARG:NH2	2.12	0.64
49:2r:31:LEU:HD13	49:2r:62:GLU:HB2	1.80	0.64
1:1A:271(L):U:H4'	8:1I:50:ARG:HH22	1.60	0.64
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.11	0.64
22:10:10:THR:HG22	22:10:12:ASN:N	2.12	0.64
1:2A:804:A:OP1	60:2A:3856:HOH:O	2.15	0.64
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.32	0.64
38:2g:54:THR:O	38:2g:56:GLN:N	2.29	0.64
1:1A:813:U:H2'	1:1A:814:C:C6	2.33	0.64
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.78	0.64
1:1A:2051:A:H5'	1:1A:2578:G:O4'	1.98	0.64
32:1a:376:G:OP1	47:1p:5:ARG:HB2	1.97	0.64
32:1a:651:C:OP1	60:1a:3317:HOH:O	2.15	0.64
32:1a:737:A:H2'	32:1a:738:C:C6	2.33	0.64
33:1b:21:ARG:HA	33:1b:39:ILE:HA	1.80	0.64
1:2A:2140:C:H2'	1:2A:2141:G:C8	2.33	0.64
10:2O:71:ARG:NE	10:2O:105:GLU:OE2	2.28	0.64
26:24:46:GLN:HB3	26:24:48:ARG:HH12	1.63	0.64
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.79	0.64
1:1A:456:C:H4'	60:1A:4665:HOH:O	1.98	0.64
11:1P:140:ALA:O	25:23:38:GLU:HG2	1.98	0.64
32:1a:841:U:H5	32:1a:848:C:H1'	1.61	0.64
53:1y:85:LEU:O	53:1y:89:GLN:HG2	1.97	0.64
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.32	0.64
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.32	0.64
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.31	0.64
27:25:45:VAL:HG11	27:25:58:LEU:HD13	1.79	0.64
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.13	0.64
32:2a:1504:G:OP1	32:2a:1507:A:H4'	1.97	0.64
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.30	0.64
32:1a:583:A:N6	32:1a:758:G:O2'	2.31	0.64
32:1a:1027:C:N4	32:1a:1034:G:H1	1.95	0.64
35:1d:65:ARG:NH1	35:1d:70:ILE:O	2.32	0.64
37:1f:100:ASN:ND2	49:1r:23:LYS:HE2	2.13	0.64
1:2A:1364:G:OP2	23:21:3:LYS:HG3	1.97	0.64
8:2I:78:THR:H	8:2I:104:GLN:HE22	1.45	0.64
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.13	0.64
32:2a:130:A:O2'	32:2a:131:C:O5'	2.13	0.64
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.30	0.63
56:1B:232:ARG:N	60:1B:308:HOH:O	2.31	0.63
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.79	0.63
1:2A:1110:G:H1'	1:2A:1111:A:C8	2.33	0.63
1:2A:2298:A:H62	1:2A:2318:G:H8	1.46	0.63
2:2B:56:G:O2'	60:2B:306:HOH:O	2.15	0.63
32:2a:149:A:H2'	32:2a:150:C:C6	2.33	0.63
32:2a:999:C:H42	32:2a:1042:G:H1	1.45	0.63
33:2b:127:ILE:HA	33:2b:130:ARG:HG2	1.80	0.63
1:1A:759:G:N7	60:1A:4252:HOH:O	2.30	0.63
1:1A:1095:A:H2'	1:1A:1096:A:C8	2.33	0.63
1:1A:2131:G:N7	1:1A:2158:A:N6	2.45	0.63
7:1H:24:VAL:HG11	7:1H:43:VAL:HG11	1.79	0.63
17:1V:21:ARG:HD3	17:1V:91:TYR:CE1	2.33	0.63
32:1a:73:G:H1	32:1a:96:U:H3	1.46	0.63
32:1a:664:G:N2	32:1a:741:G:H1	1.91	0.63
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.33	0.63
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.79	0.63
32:2a:79:G:H1	32:2a:90:U:H3	1.44	0.63
32:2a:273:A:H1'	48:2q:16:GLN:HE21	1.63	0.63
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.81	0.63
40:2i:49:PRO:HB3	40:2i:96:LEU:HD21	1.81	0.63
53:2y:37:PRO:HB3	53:2y:54:ILE:HG12	1.80	0.63
1:1A:2022:U:O2'	1:1A:2617:C:H5'	1.98	0.63
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.32	0.63
32:1a:21:G:OP1	60:1a:3316:HOH:O	2.15	0.63
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.80	0.63
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.80	0.63
1:2A:1179:C:H2'	1:2A:1180:C:C6	2.33	0.63
1:2A:1345:C:OP2	60:2A:3855:HOH:O	2.15	0.63
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.16	0.63
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.33	0.63
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.33	0.63
33:2b:115:LEU:O	33:2b:119:GLU:N	2.20	0.63
36:2e:78:HIS:HD2	39:2h:107:LEU:HD12	1.62	0.63
3:1D:54:ARG:HD3	60:1D:426:HOH:O	1.99	0.63
3:1D:147:LEU:HD22	3:1D:155:LEU:HD11	1.79	0.63
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.34	0.63
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.30	0.63
32:2a:559:A:H4'	32:2a:560:U:H5"	1.81	0.63
32:2a:1060:C:H4'	41:2j:51:ARG:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:438:G:N7	60:1A:4249:HOH:O	2.30	0.63
1:1A:1174:A:N7	60:1A:4127:HOH:O	2.30	0.63
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	1.99	0.63
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.81	0.63
6:1G:179:PRO:HG3	26:14:43:TYR:OH	1.98	0.63
32:1a:881:G:P	43:1l:12:ARG:HH22	2.22	0.63
1:2A:901:A:H2'	1:2A:902:C:C6	2.33	0.63
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.29	0.63
7:2H:80:SER:OG	7:2H:81:GLU:N	2.30	0.63
32:2a:192:U:H2'	32:2a:193:C:H6	1.62	0.63
1:1A:2127:G:H1'	1:1A:2173:A:C2	2.25	0.63
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.79	0.63
12:1Q:101:ARG:HD2	60:1Q:320:HOH:O	1.99	0.63
32:1a:814:A:H2'	32:1a:816:A:H5"	1.79	0.63
1:2A:443:A:H1'	1:2A:1201:C:O4'	1.99	0.63
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.79	0.63
11:2P:1:MET:HE3	11:2P:5:ASP:HB3	1.80	0.63
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.30	0.63
34:1c:79:ARG:H	34:1c:82:GLU:HB3	1.64	0.63
39:1h:77:GLU:OE2	39:1h:81:HIS:NE2	2.32	0.63
32:2a:1239:A:H4'	32:2a:1240:U:H5"	1.81	0.63
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.34	0.63
35:1d:76:ARG:HD3	35:1d:207:TYR:CE1	2.34	0.63
1:2A:602:G:O2'	1:2A:655:A:N6	2.32	0.63
1:2A:824:A:H1'	1:2A:2358:G:N7	2.14	0.63
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.81	0.63
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.27	0.63
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.33	0.63
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.80	0.63
17:2V:60:GLU:HB2	17:2V:97:LYS:HE2	1.79	0.63
25:23:7:LYS:HE3	25:23:32:GLN:HE21	1.63	0.63
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	1.81	0.63
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.34	0.63
1:1A:1604:C:OP2	60:1A:4138:HOH:O	2.15	0.63
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.81	0.63
1:2A:1031:G:N3	31:29:36:GLN:NE2	2.47	0.63
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.34	0.63
15:2T:77:PRO:HG2	15:2T:80:SER:HB2	1.81	0.63
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.81	0.63
53:2y:51:ASP:OD1	53:2y:64:SER:OG	2.14	0.63
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.80	0.62
8:2I:48:GLU:HG3	8:2I:52:ARG:HH11	1.64	0.62
11:2P:121:LYS:O	11:2P:123:LEU:N	2.33	0.62
1:1A:566:U:H5"	11:1P:29:LYS:HE3	1.81	0.62
57:1T:206:MPD:O2	60:1T:301:HOH:O	2.14	0.62
41:1j:16:LEU:HD22	41:1j:68:HIS:HB2	1.81	0.62
1:2A:530:G:H4'	1:2A:531:C:OP1	1.99	0.62
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.32	0.62
1:2A:2115:G:O2'	1:2A:2166:G:N2	2.32	0.62
32:2a:1210:C:H2'	32:2a:1211:U:H5"	1.79	0.62
40:2i:99:LEU:HB3	40:2i:101:PHE:CE1	2.34	0.62
53:2y:23:ARG:HG3	53:2y:78:ILE:HG13	1.80	0.62
60:1A:5176:HOH:O	4:1E:144:ARG:HD3	1.97	0.62
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.80	0.62
29:17:35:ARG:NH1	60:17:202:HOH:O	2.32	0.62
8:2I:77:LEU:HB3	8:2I:142:VAL:HG13	1.81	0.62
9:2N:14:VAL:HG11	9:2N:138:LEU:HD12	1.82	0.62
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.34	0.62
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.35	0.62
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.81	0.62
1:2A:299:A:N1	1:2A:322:A:O2'	2.26	0.62
1:2A:2184:G:C2	1:2A:2185:C:H1'	2.35	0.62
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.81	0.62
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.33	0.62
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.63	0.62
32:2a:1401:G:O6	53:2y:83:ARG:NH2	2.33	0.62
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.00	0.62
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.81	0.62
1:2A:1064:C:H42	1:2A:1074:G:H1	1.47	0.62
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.34	0.62
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.32	0.62
40:2i:110:GLU:OE2	40:2i:113:LYS:NZ	2.27	0.62
3:1D:4:LYS:HB3	3:1D:18:VAL:HG23	1.81	0.62
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.82	0.62
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.80	0.62
5:2F:140:LEU:HD11	5:2F:170:LEU:HD21	1.80	0.62
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.80	0.62
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.34	0.62
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.35	0.62
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.65	0.62
1:2A:271(L):U:H5"	8:2I:50:ARG:CZ	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.35	0.62
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.27	0.62
14:2S:25:ARG:HD3	14:2S:42:ASP:OD2	2.00	0.62
45:2n:4:LYS:HA	45:2n:7:ILE:HG12	1.82	0.62
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.33	0.62
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.82	0.62
32:1a:316:G:OP2	32:1a:351:G:O2'	2.18	0.62
32:1a:1004:A:O2'	32:1a:1038:C:O2	2.16	0.62
36:1e:140:ARG:O	36:1e:143:ARG:NH2	2.33	0.62
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.81	0.62
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.82	0.62
1:2A:674:G:O2'	5:2F:74:ARG:HD3	1.99	0.62
1:2A:796:C:H2'	1:2A:797:C:C6	2.34	0.62
1:2A:1335:U:OP1	19:2X:65:ARG:NH2	2.32	0.62
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.35	0.62
6:2G:41:GLN:HB3	6:2G:43:LEU:HD22	1.82	0.62
9:2N:21:LYS:NZ	9:2N:140:VAL:OXT	2.32	0.62
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.63	0.62
32:1a:222:U:H2'	32:1a:223:U:C6	2.35	0.62
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.34	0.62
1:2A:614(B):G:H2'	5:2F:44:ARG:HH11	1.63	0.62
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.00	0.62
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.34	0.62
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.33	0.62
1:1A:2114:A:H1'	1:1A:2168:G:H5'	1.80	0.62
1:1A:2319:G:H22	14:1S:3:ARG:HH11	1.48	0.62
2:1B:7:G:H5"	2:1B:7:G:H8	1.65	0.62
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.24	0.62
5:1F:123:LEU:HD13	5:1F:192:LEU:HD13	1.81	0.62
10:1O:32:TYR:N	60:1O:301:HOH:O	2.20	0.62
11:1P:113:LYS:HG3	11:1P:129:ALA:HB3	1.82	0.62
32:1a:250:A:H4'	32:1a:251:G:O5'	2.00	0.62
49:1r:37:VAL:HG22	49:1r:78:LEU:HB3	1.82	0.62
60:2A:5277:HOH:O	5:2F:53:THR:HG21	1.98	0.62
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.82	0.62
19:2X:35:THR:HG22	19:2X:37:THR:N	2.12	0.62
32:2a:286:G:O6	60:2a:3213:HOH:O	2.13	0.62
32:2a:1226:C:N4	44:2m:104:ARG:HD2	2.15	0.62
32:2a:1401:G:OP1	53:2y:80:LYS:HE2	2.00	0.62
44:2m:47:ASP:N	44:2m:47:ASP:OD1	2.33	0.62
50:2s:49:ILE:HG13	50:2s:62:ILE:HD11	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.35	0.61
33:1b:53:ARG:NH1	33:1b:198:ASP:O	2.28	0.61
6:2G:135:LEU:HB2	6:2G:155:MET:HE3	1.81	0.61
23:21:50:ARG:HG2	23:21:59:THR:CG2	2.30	0.61
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.34	0.61
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.64	0.61
33:2b:63:MET:HG3	33:2b:225:ALA:HB1	1.81	0.61
33:2b:80:ILE:HD12	33:2b:208:ILE:HG23	1.82	0.61
33:2b:102:LEU:HB3	33:2b:180:LEU:HD12	1.83	0.61
48:2q:62:SER:OG	48:2q:72:ARG:HG3	2.00	0.61
52:2u:6:ARG:NH2	52:2u:15:ARG:HH22	1.97	0.61
1:1A:958:U:H5"	12:1Q:14:ARG:HD3	1.82	0.61
1:1A:1582:C:H2'	1:1A:1583:A:H8	1.64	0.61
3:1D:71:ASP:CB	3:1D:103:ARG:HH12	2.13	0.61
32:1a:1080:A:H5'	36:1e:14:ARG:HH21	1.64	0.61
1:2A:493:G:OP2	60:2A:3863:HOH:O	2.16	0.61
1:2A:2168:G:H22	1:2A:2171:A:H2'	1.64	0.61
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.82	0.61
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.35	0.61
32:2a:538:G:H5"	43:2l:114:LYS:HB2	1.82	0.61
32:2a:624:C:H2'	32:2a:625:G:H8	1.66	0.61
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.82	0.61
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.47	0.61
16:1U:33:ARG:NH1	60:1U:302:HOH:O	2.32	0.61
29:17:32:LYS:NZ	60:17:201:HOH:O	2.24	0.61
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.00	0.61
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.65	0.61
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.65	0.61
21:2Z:10:ARG:HB3	21:2Z:36:LYS:HB2	1.81	0.61
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.83	0.61
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.64	0.61
1:2A:2235:G:N7	60:2A:3985:HOH:O	2.31	0.61
7:2H:30:LYS:HG3	7:2H:80:SER:O	2.01	0.61
13:2R:100:LEU:HD21	13:2R:113:LEU:HD23	1.83	0.61
32:2a:992:U:H4'	32:2a:993:G:O5'	2.00	0.61
34:2c:40:ARG:NH1	34:2c:55:VAL:O	2.34	0.61
1:1A:1131:G:H21	9:1N:73:THR:CG2	2.14	0.61
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.81	0.61
1:1A:2207:G:O2'	1:1A:2208:A:OP1	2.16	0.61
1:1A:2789:C:O2	1:1A:2894:G:N1	2.33	0.61
26:14:46:GLN:O	26:14:48:ARG:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:23:GLY:HA3	35:1d:112:VAL:HB	1.83	0.61
1:2A:668:G:H5'	1:2A:669:G:OP2	2.01	0.61
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.65	0.61
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.36	0.61
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.74	0.61
23:21:75:GLU:O	23:21:78:LYS:HG3	2.00	0.61
32:2a:56:U:H2'	32:2a:57:G:C8	2.36	0.61
32:2a:173:U:H5"	32:2a:197:A:O4'	2.00	0.61
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.14	0.61
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.01	0.61
1:1A:307:G:H21	1:1A:330:A:H62	1.49	0.61
1:1A:1176:G:H21	1:1A:1178:C:P	2.23	0.61
1:1A:2751:G:C2	7:1H:2:SER:HB3	2.35	0.61
46:1o:87:ILE:HG22	46:1o:88:ARG:H	1.66	0.61
32:2a:286:G:N7	60:2a:3247:HOH:O	2.31	0.61
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.82	0.61
33:2b:81:VAL:O	33:2b:85:ALA:N	2.34	0.61
1:1A:228:A:C8	1:1A:229:A:H5'	2.36	0.61
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.33	0.61
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.14	0.61
32:1a:17:U:H2'	32:1a:18:C:C6	2.36	0.61
35:1d:166:LYS:HB2	35:1d:168:ARG:NH2	2.16	0.61
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.65	0.61
44:1m:20:THR:C	44:1m:22:ILE:H	2.09	0.61
32:2a:316:G:OP2	32:2a:351:G:O2'	2.19	0.61
32:2a:943:U:H1'	40:2i:124:GLN:HE22	1.65	0.61
50:2s:42:PRO:HA	50:2s:45:VAL:HG13	1.83	0.61
32:1a:376:G:H4'	47:1p:5:ARG:HH11	1.65	0.61
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.34	0.61
1:2A:579:G:H2'	1:2A:580:C:C6	2.35	0.61
7:2H:11:VAL:HG13	7:2H:15:VAL:HG23	1.82	0.61
8:2I:8:PRO:O	60:2I:301:HOH:O	2.16	0.61
32:2a:646:U:H2'	32:2a:647:C:C6	2.35	0.61
32:2a:1027:C:O2'	32:2a:1034:G:N2	2.34	0.61
32:2a:1154:G:H2'	32:2a:1155:G:H8	1.66	0.61
32:2a:1240:U:C2	38:2g:32:ARG:HG3	2.35	0.61
1:1A:1877:A:H5"	1:1A:1878:G:OP2	2.00	0.61
1:1A:2006:C:OP2	60:1A:4141:HOH:O	2.16	0.61
1:1A:2602:A:N7	60:1A:4264:HOH:O	2.31	0.61
1:1A:2818:G:OP1	60:1A:4142:HOH:O	2.16	0.61
32:1a:666:G:H5'	32:1a:726:C:H1'	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.84	0.61
44:1m:11:ARG:C	44:1m:13:LYS:H	2.08	0.61
44:1m:20:THR:HA	44:1m:25:ILE:O	1.99	0.61
1:2A:1045:A:H5'	1:2A:1047:G:P	2.40	0.61
1:2A:2429:G:OP1	60:2A:3807:HOH:O	2.16	0.61
32:2a:420:U:O2'	32:2a:423:G:O6	2.18	0.61
32:2a:548:G:OP1	60:2a:3216:HOH:O	2.16	0.61
1:1A:1324:G:N7	60:1A:4254:HOH:O	2.31	0.61
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.35	0.61
1:1A:2129:C:O2	1:1A:2159:G:N1	2.33	0.61
1:1A:2687:U:H2'	1:1A:2688:U:O4'	1.99	0.61
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	1.82	0.61
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.82	0.61
38:1g:48:LYS:O	38:1g:52:GLU:HG2	2.01	0.61
1:2A:247:G:H4'	1:2A:386:G:C5	2.36	0.61
1:2A:1110:G:H1'	1:2A:1111:A:H8	1.66	0.61
14:2S:24:LEU:HD22	14:2S:41:ASP:HB2	1.83	0.61
32:2a:457:C:H2'	32:2a:458:C:C6	2.35	0.61
38:2g:69:VAL:HG21	38:2g:104:LEU:HD21	1.83	0.61
40:2i:9:ARG:HB3	40:2i:104:ARG:HH21	1.64	0.61
1:1A:1358:G:OP2	60:1A:4143:HOH:O	2.16	0.60
33:1b:42:ILE:HD12	33:1b:203:GLY:HA2	1.83	0.60
37:1f:20:ALA:HA	37:1f:23:LYS:HD3	1.83	0.60
51:1t:46:GLU:HG3	51:1t:48:LYS:HD2	1.81	0.60
1:2A:236:C:H2'	1:2A:237:C:C6	2.36	0.60
1:2A:2134:A:C8	1:2A:2157:G:H4'	2.36	0.60
1:1A:2103:C:H1'	1:1A:2187:G:N2	2.15	0.60
1:1A:2615:U:H2'	1:1A:2616:C:H6	1.66	0.60
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.83	0.60
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.82	0.60
31:19:8:LYS:H	31:19:34:GLN:HE22	1.49	0.60
32:1a:986:A:H1'	50:1s:54:GLY:O	2.01	0.60
32:1a:1025:U:O4	32:1a:1035:A:N6	2.34	0.60
34:2c:85:ARG:HB3	34:2c:85:ARG:NH1	2.15	0.60
36:2e:78:HIS:CE1	36:2e:142:LEU:HD23	2.36	0.60
32:1a:310:G:OP2	47:1p:27:LYS:NZ	2.35	0.60
33:1b:87:ARG:HD2	33:1b:233:SER:HB3	1.83	0.60
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.34	0.60
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.32	0.60
1:2A:1830:C:OP2	60:2A:3864:HOH:O	2.17	0.60
23:21:4:VAL:HG11	23:21:11:ARG:HH21	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.36	0.60
33:2b:114:ARG:HG3	33:2b:118:LEU:HD12	1.82	0.60
32:1a:7:G:H5'	32:1a:298:A:O4'	2.02	0.60
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.02	0.60
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.17	0.60
50:1s:36:ARG:NH1	50:1s:52:TYR:O	2.34	0.60
1:2A:667:U:O2	30:28:2:PRO:HD2	2.01	0.60
1:2A:752:A:H3'	29:27:1:MET:HE1	1.83	0.60
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.17	0.60
1:2A:2134:A:O2'	1:2A:2159:G:N3	2.34	0.60
26:24:24:THR:OG1	26:24:25:TYR:N	2.29	0.60
32:2a:392:G:H2'	32:2a:393:A:C8	2.36	0.60
1:1A:1053:C:N3	1:1A:1106:G:O6	2.35	0.60
5:1F:148:LEU:HD22	5:1F:154:VAL:HG21	1.83	0.60
21:1Z:125:LEU:HG	21:1Z:164:ALA:HB3	1.83	0.60
28:16:12:GLU:OE1	28:16:19:ARG:NH1	2.35	0.60
7:2H:17:VAL:HG13	7:2H:26:VAL:HG22	1.84	0.60
28:26:8:LYS:NZ	60:26:601:HOH:O	2.30	0.60
51:2t:57:ARG:HH12	51:2t:100:ILE:HB	1.64	0.60
1:1A:483:A:H5"	20:1Y:50:ARG:HH11	1.66	0.60
1:1A:2038:G:O6	60:1A:4139:HOH:O	2.15	0.60
1:1A:2589:A:OP2	60:1A:4145:HOH:O	2.17	0.60
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	1.83	0.60
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.17	0.60
1:2A:1092:C:H2'	1:2A:1092:C:O2	2.02	0.60
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.37	0.60
21:2Z:4:ARG:HG2	21:2Z:58:VAL:HB	1.83	0.60
32:2a:986:A:H1'	50:2s:54:GLY:O	2.02	0.60
32:2a:1130:A:H5'	40:2i:18:PHE:CE2	2.36	0.60
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.66	0.60
1:1A:784:A:H5'	1:1A:785:G:OP1	2.02	0.60
1:1A:1227:G:OP2	16:1U:16:LYS:NZ	2.29	0.60
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.37	0.60
32:1a:507:C:OP2	32:1a:508:C:O2'	2.17	0.60
32:1a:685:G:O2'	32:1a:686:U:H5'	2.02	0.60
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.34	0.60
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.37	0.60
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.01	0.60
1:2A:1334:G:O6	60:2A:3848:HOH:O	2.13	0.60
14:2S:93:LYS:HG2	14:2S:95:HIS:HB3	1.82	0.60
32:2a:814:A:H2'	32:2a:816:A:H5'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.17	0.60
36:2e:41:VAL:HG23	36:2e:67:VAL:HG13	1.84	0.60
1:1A:887:A:H2	1:1A:889:C:OP2	1.85	0.60
1:1A:1075:C:H2'	1:1A:1076:C:H3'	1.82	0.60
1:1A:1104:C:H2'	1:1A:1105:U:C5	2.36	0.60
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.02	0.60
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.84	0.60
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.29	0.60
14:2S:23:ARG:NH1	14:2S:85:VAL:O	2.35	0.60
26:24:42:PHE:O	26:24:46:GLN:NE2	2.34	0.60
32:2a:447:G:O6	32:2a:485:G:O2'	2.18	0.60
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.02	0.60
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.37	0.60
1:1A:2022:U:OP1	60:1A:4135:HOH:O	2.16	0.60
1:1A:2181:G:H2'	1:1A:2182:G:C8	2.36	0.60
7:1H:148:ILE:HA	7:1H:151:ILE:HD12	1.84	0.60
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.82	0.60
26:14:62:ARG:O	26:14:64:GLY:HA2	2.02	0.60
32:1a:523:A:N1	43:1l:92:0TD:H6	2.16	0.60
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.34	0.60
32:2a:841:U:OP1	32:2a:841:U:H6	1.85	0.60
33:2b:184:VAL:H	33:2b:198:ASP:HB2	1.66	0.60
35:2d:3:ARG:HD3	35:2d:118:ARG:HH11	1.66	0.60
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.83	0.60
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.17	0.60
5:1F:132:VAL:HG22	5:1F:163:VAL:HG22	1.84	0.60
32:1a:752:G:N7	60:1a:3359:HOH:O	2.31	0.60
32:1a:1036:G:H5"	32:1a:1037:C:H5	1.67	0.60
1:2A:639:U:H2'	1:2A:640:C:C6	2.37	0.60
1:2A:660:G:H5'	5:2F:99:TYR:CE1	2.37	0.60
1:2A:972:G:O2'	60:2A:3861:HOH:O	2.16	0.60
4:2E:4:ILE:HG21	4:2E:28:ALA:HB1	1.84	0.60
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.84	0.60
32:2a:1095:U:H5"	32:2a:1109:C:O2	2.02	0.60
1:1A:271(K):U:O2	8:1I:50:ARG:HG3	2.02	0.59
11:1P:87:ASP:O	11:1P:90:ARG:NH1	2.35	0.59
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.35	0.59
60:1a:3768:HOH:O	45:1n:3:ARG:HG2	2.01	0.59
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.36	0.59
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.37	0.59
6:2G:105:LYS:HE3	6:2G:143:GLU:OE2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.00	0.59
7:2H:45:VAL:HA	7:2H:50:VAL:HG22	1.83	0.59
15:2T:16:ARG:NH2	15:2T:83:ILE:O	2.34	0.59
54:2z:3:LYS:O	54:2z:4:SER:HB2	2.02	0.59
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.83	0.59
1:1A:1495:A:O2'	1:1A:1496:A:H5'	2.02	0.59
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.36	0.59
60:1B:320:HOH:O	14:1S:98:VAL:HG23	2.01	0.59
32:1a:731:G:H5'	32:1a:766:A:H4'	1.84	0.59
50:1s:22:LEU:O	50:1s:27:GLU:N	2.35	0.59
53:1y:3:MET:HG3	53:1y:37:PRO:HG2	1.84	0.59
1:2A:644:A:H4'	1:2A:645:C:C5	2.36	0.59
1:2A:1359:A:N1	1:2A:1372:U:O4	2.35	0.59
32:1a:757:U:O2'	32:1a:879:C:O2	2.20	0.59
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.37	0.59
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.00	0.59
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.82	0.59
1:2A:323:G:O2'	1:2A:1205:U:N3	2.30	0.59
19:2X:1:MET:HE1	24:22:26:ARG:HH21	1.66	0.59
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.19	0.59
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.85	0.59
5:1F:13:SER:HA	5:1F:127:GLU:HG3	1.83	0.59
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.82	0.59
36:1e:69:VAL:O	36:1e:71:LEU:N	2.33	0.59
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.37	0.59
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	1.82	0.59
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.50	0.59
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.02	0.59
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.84	0.59
1:1A:530:G:O6	60:1A:4135:HOH:O	2.15	0.59
1:1A:1097:U:H3'	1:1A:1098:A:H8	1.66	0.59
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.36	0.59
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.02	0.59
32:1a:1370:G:O6	60:1a:3314:HOH:O	2.14	0.59
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.35	0.59
2:2B:33:G:O2'	2:2B:34:U:H5'	2.02	0.59
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	1.85	0.59
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.84	0.59
32:2a:1314:C:H2'	32:2a:1315:U:H6	1.68	0.59
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.37	0.59
44:2m:81:LEU:HD22	44:2m:88:ARG:HE	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2142:C:N3	1:1A:2149:G:O6	2.36	0.59
26:14:59:PHE:N	26:14:59:PHE:CD1	2.70	0.59
32:1a:629:G:H2'	32:1a:630:G:O4'	2.02	0.59
32:1a:1293:G:H2'	32:1a:1294:G:C8	2.37	0.59
4:2E:178:GLU:CD	4:2E:178:GLU:H	2.10	0.59
32:2a:331:G:O4'	60:2a:3214:HOH:O	2.16	0.59
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.85	0.59
32:2a:1262:C:H2'	32:2a:1263:C:C6	2.37	0.59
33:2b:15:VAL:O	33:2b:17:PHE:N	2.35	0.59
1:1A:247:G:H4'	1:1A:386:G:C5	2.38	0.59
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.02	0.59
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.35	0.59
32:1a:404:U:OP2	35:1d:118:ARG:NH2	2.36	0.59
6:2G:32:PRO:HB3	6:2G:163:ALA:HB2	1.85	0.59
26:24:46:GLN:HB3	26:24:48:ARG:NH1	2.16	0.59
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.21	0.59
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.37	0.59
25:13:3:ARG:HB2	25:13:59:VAL:HG23	1.84	0.59
32:1a:1303:C:OP1	60:1a:3321:HOH:O	2.17	0.59
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.84	0.59
45:1n:8:GLU:HA	45:1n:11:LYS:HD2	1.85	0.59
1:2A:2062:A:N3	60:2A:3987:HOH:O	2.31	0.59
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.85	0.59
26:24:59:PHE:CE2	50:2s:64:GLU:HB2	2.37	0.59
32:2a:1492:A:H2'	32:2a:1493:A:H5"	1.85	0.59
32:1a:841:U:C5	32:1a:848:C:H1'	2.37	0.59
32:1a:867:G:O2'	32:1a:873:A:N1	2.36	0.59
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.37	0.59
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.84	0.59
1:2A:922:U:H2'	1:2A:923:C:C6	2.37	0.59
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.36	0.59
32:1a:629:G:H3'	32:1a:630:G:H5"	1.83	0.59
32:1a:1031:G:H2'	32:1a:1032:G:H5'	1.84	0.59
1:2A:994:C:O2'	1:2A:996:A:OP1	2.14	0.59
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.37	0.59
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.20	0.59
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.85	0.59
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.85	0.59
1:1A:1176:G:H1'	1:1A:1177:A:H5"	1.84	0.58
20:1Y:17:SER:OG	20:1Y:71:LYS:NZ	2.27	0.58
32:1a:1135:U:H4'	32:1a:1136:U:C5	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.85	0.58
50:1s:3:ARG:HH11	50:1s:10:PHE:HB2	1.68	0.58
32:2a:1255:G:OP1	41:2j:45:ARG:NH2	2.29	0.58
32:2a:1416:G:OP2	60:2a:3215:HOH:O	2.16	0.58
34:2c:124:ILE:HG21	34:2c:130:VAL:HG13	1.85	0.58
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.38	0.58
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.86	0.58
5:1F:188:ARG:NH2	60:1F:403:HOH:O	2.34	0.58
10:1O:97:ARG:HD3	32:1a:339:C:OP2	2.02	0.58
19:1X:31:HIS:HD2	19:1X:33:LYS:N	1.89	0.58
32:1a:1284:C:OP2	32:1a:1285:A:O2'	2.20	0.58
1:2A:686:G:H1	29:27:16:HIS:CD2	2.21	0.58
1:2A:876:C:H2'	1:2A:877:U:O4'	2.03	0.58
1:2A:1057:A:H2'	1:2A:1058:G:H8	1.66	0.58
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.18	0.58
2:2B:56:G:H5'	6:2G:27:ASN:ND2	2.17	0.58
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.85	0.58
1:1A:1959:G:N7	60:1A:4271:HOH:O	2.32	0.58
19:1X:63:LYS:O	19:1X:64:LYS:HD3	2.03	0.58
24:12:51:ARG:HD3	24:12:55:ARG:NH1	2.18	0.58
32:1a:486:U:H2'	32:1a:487:A:C8	2.38	0.58
41:1j:78:ASN:O	41:1j:80:LYS:N	2.36	0.58
1:2A:856:C:O4'	22:20:27:GLU:HB3	2.04	0.58
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.17	0.58
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.38	0.58
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.84	0.58
32:2a:21:G:H2'	32:2a:22:G:C8	2.38	0.58
33:2b:21:ARG:O	33:2b:40:HIS:ND1	2.32	0.58
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.02	0.58
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.85	0.58
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.19	0.58
1:1A:2683:C:H5'	15:1T:58:ASN:ND2	2.19	0.58
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.18	0.58
32:1a:1054:C:H5	53:1y:46:GLN:HE22	1.50	0.58
35:1d:11:LEU:HD13	35:1d:66:ARG:HG2	1.84	0.58
1:2A:478:A:N1	1:2A:500:G:H4'	2.18	0.58
1:2A:777:A:O2'	60:2A:3811:HOH:O	1.95	0.58
3:2D:228:PRO:HD3	3:2D:235:GLY:HA3	1.84	0.58
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.85	0.58
32:2a:1073:U:O2'	33:2b:104:ASN:OD1	2.20	0.58
34:2c:7:PRO:HG2	34:2c:184:TYR:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:103:MET:HE1	12:1Q:125:LEU:HD13	1.86	0.58
30:18:8:LYS:NZ	60:18:202:HOH:O	2.31	0.58
32:1a:826:C:H2'	32:1a:827:U:H6	1.69	0.58
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.38	0.58
49:1r:37:VAL:CG2	49:1r:78:LEU:HB3	2.33	0.58
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.18	0.58
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.63	0.58
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.39	0.58
15:2T:109:GLU:HG2	15:2T:112:ARG:HH22	1.68	0.58
26:24:53:GLU:H	26:24:53:GLU:CD	2.09	0.58
30:28:23:VAL:HG11	30:28:47:LYS:HD3	1.85	0.58
32:2a:675:A:O2'	42:2k:114:VAL:O	2.20	0.58
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.38	0.58
1:1A:184:C:H2'	1:1A:185:U:C6	2.39	0.58
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.84	0.58
13:1R:59:ASP:OD1	13:1R:59:ASP:N	2.36	0.58
27:15:40:LYS:NZ	27:15:41:PRO:O	2.36	0.58
32:1a:28:G:O2'	32:1a:296:U:OP1	2.18	0.58
37:1f:36:ARG:NH2	37:1f:66:GLU:OE1	2.37	0.58
26:24:13:ARG:HH22	26:24:23:GLU:HG2	1.68	0.58
36:2e:139:LEU:HA	36:2e:142:LEU:HD12	1.86	0.58
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.03	0.58
47:2p:53:VAL:HG13	47:2p:79:VAL:HG22	1.85	0.58
1:1A:2820:A:P	13:1R:2:ARG:HH22	2.26	0.58
32:1a:300:A:H1'	32:1a:565:U:O2	2.03	0.58
32:1a:359:U:H2'	32:1a:360:A:C8	2.39	0.58
38:1g:126:ASP:O	38:1g:130:GLY:N	2.37	0.58
1:2A:1067:A:H4'	1:2A:1068:G:OP2	2.04	0.58
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.37	0.58
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.03	0.58
1:2A:2749:A:H1'	7:2H:63:SER:HB3	1.85	0.58
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	1.85	0.58
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	1.85	0.58
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.86	0.58
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.19	0.58
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.86	0.58
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.19	0.58
10:1O:2:ILE:HG13	10:1O:8:LEU:HD11	1.86	0.58
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.86	0.58
37:1f:67:MET:HG3	37:1f:68:PRO:HD2	1.84	0.58
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.33	0.58
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.34	0.58
1:1A:579:G:H2'	1:1A:580:C:C6	2.39	0.58
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.21	0.58
1:1A:1063:G:N1	1:1A:1075:C:N4	2.52	0.58
15:1T:98:LYS:NZ	60:1T:303:HOH:O	2.26	0.58
24:12:65:ASN:O	24:12:69:ARG:HG3	2.04	0.58
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.84	0.58
39:1h:81:HIS:N	39:1h:138:TRP:O	2.37	0.58
39:1h:112:LEU:HD22	39:1h:133:LEU:HA	1.86	0.58
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.39	0.58
1:2A:388:G:O2'	1:2A:389:G:N7	2.35	0.58
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.04	0.58
4:2E:13:ARG:HG2	15:2T:58:ASN:HD21	1.68	0.58
15:2T:65:LYS:HE2	15:2T:67:SER:HB2	1.84	0.58
18:2W:53:SER:OG	60:2W:301:HOH:O	2.16	0.58
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.21	0.58
26:24:10:VAL:HG11	26:24:29:PRO:HG3	1.85	0.58
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.86	0.58
34:2c:12:LEU:HD11	45:2n:51:GLY:HA2	1.86	0.58
1:1A:185:U:H4'	1:1A:218:A:H4'	1.86	0.58
2:1B:22:U:O4	60:1B:302:HOH:O	2.14	0.58
24:12:16:LEU:O	24:12:67:LYS:NZ	2.36	0.58
32:1a:927:G:O2'	32:1a:1503:A:N7	2.36	0.58
49:1r:25:THR:O	49:1r:25:THR:OG1	2.18	0.58
50:1s:38:SER:HB2	50:1s:71:LEU:HD12	1.86	0.58
1:2A:775:G:N3	60:2A:4003:HOH:O	2.33	0.58
1:2A:1189:A:OP2	60:2A:3862:HOH:O	2.16	0.58
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.18	0.58
7:2H:35:VAL:HG13	7:2H:71:LEU:HD22	1.85	0.58
21:2Z:95:PRO:HA	21:2Z:129:SER:HA	1.86	0.58
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.16	0.58
42:2k:79:SER:HB2	42:2k:104:GLN:HB3	1.86	0.58
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.03	0.57
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.02	0.57
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.86	0.57
25:13:7:LYS:HE3	25:13:32:GLN:HE21	1.69	0.57
32:1a:540:G:H2'	32:1a:541:G:O4'	2.03	0.57
1:2A:2304:G:H22	1:2A:2312:U:H3	1.51	0.57
13:2R:8:ARG:HE	13:2R:43:GLU:HG2	1.68	0.57
31:29:2:LYS:NZ	31:29:31:LYS:O	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.39	0.57
1:1A:220:G:O6	60:1A:4140:HOH:O	2.16	0.57
1:1A:486:C:H4'	18:1W:60:ASN:ND2	2.19	0.57
60:1A:5613:HOH:O	30:18:42:ARG:HD2	2.02	0.57
3:1D:242:ARG:NH1	60:1D:414:HOH:O	2.36	0.57
9:1N:67:LEU:HD23	9:1N:87:LEU:HD13	1.86	0.57
32:1a:612:C:O2	32:1a:629:G:N2	2.37	0.57
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.86	0.57
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.86	0.57
1:2A:171:G:H2'	1:2A:172:C:C6	2.39	0.57
1:2A:236:C:H2'	1:2A:237:C:H6	1.68	0.57
1:2A:451:C:H5'	60:2A:3842:HOH:O	2.04	0.57
1:2A:588:U:H2'	1:2A:589:C:C6	2.39	0.57
1:2A:1044:G:H1'	1:2A:1048:A:H1'	1.86	0.57
2:2B:6:C:H2'	2:2B:7:G:H5"	1.85	0.57
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.86	0.57
6:2G:165:THR:HG22	6:2G:167:GLU:N	2.18	0.57
11:2P:7:ARG:NH1	60:2P:301:HOH:O	2.18	0.57
32:2a:1236:A:O2'	32:2a:1304:G:H4'	2.03	0.57
39:2h:14:ARG:NH1	39:2h:83:ILE:O	2.36	0.57
40:2i:3:GLN:HE21	40:2i:20:ARG:NE	1.97	0.57
2:1B:81:G:N7	56:1B:232:ARG:NH2	2.40	0.57
6:1G:50:ALA:C	6:1G:52:ILE:H	2.12	0.57
32:1a:56:U:H2'	32:1a:57:G:C8	2.39	0.57
32:1a:435:C:H2'	32:1a:436:C:C6	2.40	0.57
33:1b:178:ARG:NH1	33:1b:196:LEU:O	2.37	0.57
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.30	0.57
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.04	0.57
39:1h:33:GLU:HG2	39:1h:48:TYR:CE1	2.38	0.57
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.39	0.57
49:1r:58:LEU:HB3	49:1r:62:GLU:HG3	1.86	0.57
1:2A:1336:A:OP2	19:2X:64:LYS:NZ	2.34	0.57
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.39	0.57
3:2D:275:LYS:HA	3:2D:276:LYS:C	2.28	0.57
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.19	0.57
33:2b:87:ARG:CZ	33:2b:233:SER:HB3	2.35	0.57
34:2c:22:TRP:CH2	34:2c:32:LEU:HB3	2.39	0.57
51:2t:43:LEU:O	51:2t:47:GLY:N	2.37	0.57
1:1A:365:C:OP2	60:1A:4146:HOH:O	2.17	0.57
1:1A:639:U:H2'	1:1A:640:C:C6	2.39	0.57
1:1A:1652:A:OP1	13:1R:8:ARG:HD3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1805:U:O2	3:1D:50:THR:HB	2.04	0.57
1:1A:2548:G:O6	60:1A:4144:HOH:O	2.16	0.57
60:1A:7512:HOH:O	18:1W:92:ARG:HD2	2.04	0.57
34:1c:44:GLU:HA	34:1c:52:LEU:HD23	1.87	0.57
1:2A:2355:C:H1'	22:20:39:ARG:HH21	1.68	0.57
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.39	0.57
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.04	0.57
9:2N:18:ALA:HB1	9:2N:60:ILE:HD13	1.86	0.57
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.39	0.57
32:2a:433:C:H2'	32:2a:434:U:C6	2.38	0.57
32:2a:1023:G:H2'	32:2a:1024:G:C8	2.39	0.57
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.70	0.57
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.22	0.57
1:1A:1041:C:H5'	1:1A:1042:G:OP2	2.05	0.57
7:1H:27:LYS:HG2	7:1H:32:GLU:HG2	1.86	0.57
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.37	0.57
32:1a:1325:C:H4'	52:1u:17:THR:HG21	1.87	0.57
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.03	0.57
33:1b:210:SER:O	33:1b:214:ILE:HG12	2.03	0.57
36:1e:33:VAL:HG22	36:1e:112:LEU:HD12	1.86	0.57
40:1i:79:LEU:O	40:1i:83:ARG:HG2	2.05	0.57
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.20	0.57
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.40	0.57
21:2Z:31:ARG:HG3	60:2Z:305:HOH:O	2.05	0.57
32:2a:266:G:N3	32:2a:266:G:H5"	2.19	0.57
32:2a:572:A:OP2	60:2a:3218:HOH:O	2.17	0.57
36:2e:93:PRO:HG2	39:2h:105:ARG:HG3	1.87	0.57
1:1A:2154:G:H2'	1:1A:2155:G:H8	1.69	0.57
3:1D:237:GLU:OE2	60:1D:402:HOH:O	2.16	0.57
32:1a:447:G:H2'	32:1a:485:G:N2	2.20	0.57
39:1h:34:GLU:OE1	39:1h:37:ARG:NH2	2.35	0.57
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.19	0.57
1:2A:1071:G:C8	1:2A:1071:G:H3'	2.40	0.57
40:2i:28:VAL:HG22	40:2i:63:ILE:HD12	1.85	0.57
1:1A:1026:U:OP1	60:1A:4107:HOH:O	2.17	0.57
1:1A:1173:G:N3	1:1A:1177:A:H2	2.02	0.57
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.05	0.57
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.22	0.57
1:1A:2279:G:H4'	21:1Z:199:LYS:HG2	1.87	0.57
6:1G:77:ILE:HB	6:1G:82:LEU:HB2	1.87	0.57
8:1I:104:GLN:O	8:1I:106:GLY:N	2.31	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	1.85	0.57
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	1.87	0.57
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.37	0.57
32:1a:1047:G:OP1	45:1n:4:LYS:NZ	2.38	0.57
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.40	0.57
33:1b:114:ARG:O	33:1b:118:LEU:HG	2.05	0.57
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	1.85	0.57
1:2A:788:A:N6	60:2A:3823:HOH:O	2.36	0.57
1:2A:871:U:H2'	1:2A:872:A:C8	2.40	0.57
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.40	0.57
8:2I:75:LEU:HD11	8:2I:105:HIS:ND1	2.19	0.57
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.04	0.57
16:2U:102:GLU:HG3	17:2V:2:PHE:CZ	2.40	0.57
32:2a:757:U:OP1	32:2a:822:C:O2'	2.23	0.57
36:2e:20:GLN:NE2	36:2e:25:ARG:HD2	2.20	0.57
40:2i:42:ARG:NH1	40:2i:75:ASP:OD2	2.38	0.57
1:1A:588:U:H2'	1:1A:589:C:C6	2.40	0.57
1:1A:2584:U:H2'	1:1A:2585:U:H2'	1.87	0.57
32:1a:985:C:H2'	32:1a:986:A:C8	2.39	0.57
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.03	0.57
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.70	0.57
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	1.86	0.57
1:2A:740:U:H2'	1:2A:741:G:C8	2.40	0.57
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.19	0.57
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.87	0.57
32:2a:1304:G:N2	32:2a:1332:A:OP2	2.34	0.57
36:2e:60:TYR:CE1	36:2e:64:ARG:HD2	2.40	0.57
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.38	0.57
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.05	0.57
41:2j:47:PHE:N	41:2j:63:PHE:O	2.33	0.57
1:1A:271(A):A:N1	1:1A:272(D):G:O2'	2.31	0.57
1:1A:2108:C:N4	1:1A:2181:G:H1	2.02	0.57
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.87	0.57
6:1G:49:ASP:O	6:1G:51:ARG:N	2.38	0.57
32:1a:741:G:H2'	32:1a:742:G:O4'	2.05	0.57
32:1a:920:U:H2'	32:1a:921:U:C6	2.39	0.57
32:1a:1040:U:H2'	32:1a:1041:A:C8	2.40	0.57
35:1d:60:GLU:OE1	35:1d:199:ASN:N	2.33	0.57
40:1i:50:LEU:HA	40:1i:53:VAL:HG22	1.87	0.57
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.39	0.57
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.87	0.57
32:2a:222:U:H2'	32:2a:223:U:H6	1.69	0.57
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.20	0.57
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.40	0.57
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.39	0.57
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.05	0.57
34:1c:8:ILE:HD13	34:1c:184:TYR:HB3	1.87	0.57
35:1d:50:ARG:HH22	36:1e:10:MET:HE3	1.70	0.57
38:1g:41:ARG:O	38:1g:45:ASP:HB2	2.05	0.57
49:1r:47:THR:OG1	49:1r:49:LYS:HG3	2.03	0.57
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.69	0.57
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.86	0.57
7:2H:117:PRO:HG3	7:2H:123:PHE:CD2	2.39	0.57
24:22:19:VAL:O	24:22:23:LYS:HG2	2.04	0.57
26:24:59:PHE:CD1	26:24:61:ARG:HB2	2.38	0.57
32:2a:164:U:H2'	32:2a:165:C:H6	1.70	0.57
32:2a:1314:C:OP2	50:2s:4:SER:OG	2.20	0.57
33:2b:150:SER:OG	33:2b:151:GLY:N	2.38	0.57
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.39	0.56
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	1.86	0.56
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.05	0.56
32:1a:642:A:N3	39:1h:113:SER:OG	2.38	0.56
33:1b:144:ARG:HH11	33:1b:144:ARG:HB2	1.68	0.56
51:1t:42:GLN:NE2	51:1t:46:GLU:OE1	2.37	0.56
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.39	0.56
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.68	0.56
1:2A:1272:A:OP1	60:2A:3867:HOH:O	2.17	0.56
1:2A:2522:U:O2'	1:2A:2647:U:OP1	2.19	0.56
6:2G:142:PRO:HB2	26:24:31:ILE:HG21	1.87	0.56
32:2a:922:G:C6	32:2a:923:A:C6	2.93	0.56
54:2z:6:PRO:O	54:2z:15:VAL:HG22	2.04	0.56
1:1A:288:C:H2'	1:1A:289:A:C8	2.40	0.56
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.39	0.56
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.29	0.56
1:1A:1440:G:O6	60:1A:4148:HOH:O	2.18	0.56
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.40	0.56
4:1E:103:ASP:OD2	4:1E:168:MET:HE2	2.05	0.56
35:1d:189:PRO:HB3	35:1d:193:ASP:HB2	1.87	0.56
1:2A:2019:A:H4'	16:2U:34:LYS:HD2	1.87	0.56
2:2B:42:C:N3	6:2G:91:ARG:NH1	2.51	0.56
32:2a:1216:G:OP1	45:2n:2:ALA:HA	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:11:LEU:CD1	33:2b:217:ARG:HH12	2.18	0.56
40:2i:53:VAL:O	40:2i:55:ALA:N	2.38	0.56
47:2p:74:LEU:HG	47:2p:79:VAL:HG21	1.88	0.56
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.03	0.56
1:1A:154(A):C:H3'	60:1A:8038:HOH:O	2.03	0.56
1:1A:922:U:H2'	1:1A:923:C:C6	2.40	0.56
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.86	0.56
1:1A:2319:G:H22	14:1S:3:ARG:HA	1.69	0.56
1:1A:2791:C:OP2	1:1A:2791:C:H6	1.86	0.56
15:1T:39:ARG:H	15:1T:39:ARG:HD3	1.69	0.56
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.38	0.56
32:1a:520:A:N1	32:1a:536:C:H1'	2.20	0.56
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.88	0.56
32:1a:833:U:H2'	32:1a:834:C:C6	2.41	0.56
32:1a:1171:G:H2'	32:1a:1172:C:H6	1.70	0.56
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.70	0.56
1:2A:1213:A:N3	1:2A:1238:G:O2'	2.37	0.56
1:2A:2348:U:OP2	30:28:42:ARG:NH2	2.38	0.56
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.86	0.56
16:2U:92:ARG:HA	16:2U:95:LEU:HB2	1.87	0.56
21:2Z:72:ARG:NH1	21:2Z:97:GLU:O	2.34	0.56
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.21	0.56
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.41	0.56
4:1E:1:MET:HE1	4:1E:199:ARG:HB3	1.87	0.56
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.40	0.56
26:14:58:ARG:NH2	50:1s:68:GLY:HA3	2.19	0.56
32:1a:600:C:H2'	32:1a:601:C:H6	1.69	0.56
32:1a:600:C:H2'	32:1a:601:C:C6	2.41	0.56
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	1.88	0.56
44:1m:9:ILE:HG21	44:1m:22:ILE:HD11	1.86	0.56
1:2A:1067:A:O4'	1:2A:1068:G:N2	2.38	0.56
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.88	0.56
1:2A:2133:G:C2	1:2A:2157:G:H2'	2.40	0.56
1:2A:2660:A:H2'	1:2A:2661:G:O4'	2.06	0.56
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.40	0.56
32:2a:1125:U:O2'	32:2a:1126:U:O5'	2.17	0.56
1:1A:1300:U:H4'	1:1A:1301:A:C5'	2.36	0.56
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.22	0.56
3:1D:85:ASP:OD2	3:1D:88:ARG:HD2	2.06	0.56
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	1.87	0.56
30:18:15:LYS:HB3	57:18:102:MPD:C5	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:97:C:OP1	24:22:2:LYS:NZ	2.27	0.56
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.19	0.56
32:2a:946:A:H2'	32:2a:947:G:C8	2.40	0.56
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.87	0.56
50:2s:53:ASN:HD21	50:2s:56:GLN:HB2	1.70	0.56
1:1A:868:U:H3'	60:1A:4239:HOH:O	2.05	0.56
17:1V:101:GLY:HA3	60:1V:311:HOH:O	2.06	0.56
27:15:35:GLU:HG3	27:15:51:TYR:CD1	2.41	0.56
32:1a:375:U:OP1	47:1p:69:THR:OG1	2.18	0.56
32:1a:944:G:OP1	60:1a:3322:HOH:O	2.17	0.56
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.86	0.56
50:1s:42:PRO:HA	50:1s:45:VAL:HG23	1.87	0.56
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.05	0.56
32:2a:1220:G:H1'	50:2s:52:TYR:HD2	1.69	0.56
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.40	0.56
42:2k:54:ARG:HA	42:2k:57:THR:HG23	1.88	0.56
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.06	0.56
6:1G:11:TYR:CZ	6:1G:16:ARG:HD3	2.41	0.56
21:1Z:44:PHE:CZ	21:1Z:86:VAL:HG11	2.40	0.56
32:1a:169:C:H2'	32:1a:170:U:C6	2.40	0.56
32:1a:826:C:H2'	32:1a:827:U:C6	2.41	0.56
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.41	0.56
1:2A:597:U:H2'	1:2A:598:G:C8	2.41	0.56
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.70	0.56
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.05	0.56
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.41	0.56
33:2b:8:LYS:O	33:2b:9:GLU:HB2	2.04	0.56
34:2c:3:ASN:N	34:2c:3:ASN:OD1	2.36	0.56
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.05	0.56
1:1A:492:A:H2'	1:1A:493:G:O4'	2.05	0.56
1:1A:1094:U:H2'	1:1A:1096:A:OP2	2.05	0.56
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.38	0.56
32:1a:189(A):C:H2'	32:1a:189(B):C:H6	1.70	0.56
44:1m:3:ARG:HD2	44:1m:9:ILE:HG12	1.86	0.56
50:1s:3:ARG:NH1	50:1s:10:PHE:HB2	2.21	0.56
1:2A:7:G:H2'	1:2A:8:A:O4'	2.05	0.56
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.41	0.56
1:2A:1541:G:H3'	1:2A:1542:A:H2'	1.86	0.56
1:2A:2390:U:P	30:28:35:GLN:HE22	2.29	0.56
7:2H:105:LEU:HB2	7:2H:113:VAL:HG13	1.88	0.56
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:41:ASP:OD2	14:2S:44:LYS:HB2	2.06	0.56
32:2a:407:G:H5"	35:2d:115:ARG:HB3	1.87	0.56
32:2a:839:U:H5"	32:2a:840:C:H5	1.71	0.56
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.71	0.56
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.71	0.56
1:1A:34:C:O2'	1:1A:35:G:H5'	2.06	0.56
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.41	0.56
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.38	0.56
4:1E:13:ARG:HD2	4:1E:20:ALA:HB1	1.88	0.56
32:1a:1239:A:H62	32:1a:1299:A:H62	1.51	0.56
35:1d:87:GLY:O	60:1d:401:HOH:O	2.18	0.56
1:2A:900:A:C4	1:2A:901:A:C8	2.94	0.56
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.41	0.56
1:2A:1420:U:HO2'	1:2A:1421:G:P	2.28	0.56
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.41	0.56
1:2A:2115:G:N2	1:2A:2119:A:H5'	2.21	0.56
1:2A:2367:G:OP2	60:2A:3870:HOH:O	2.18	0.56
2:2B:66:A:N6	2:2B:109:C:H5'	2.17	0.56
2:2B:94:C:H2'	2:2B:95:C:H6	1.71	0.56
8:2I:62:LYS:HG2	8:2I:133:HIS:CE1	2.40	0.56
17:2V:65:GLY:HA3	17:2V:91:TYR:CZ	2.41	0.56
18:2W:79:GLY:HA3	18:2W:100:THR:HG22	1.86	0.56
32:2a:4:U:C4	39:2h:105:ARG:HD3	2.40	0.56
32:2a:192:U:H2'	32:2a:193:C:C6	2.40	0.56
32:2a:406:G:H5'	35:2d:5:ILE:HG13	1.87	0.56
1:1A:969:U:H2'	1:1A:970:C:C6	2.41	0.56
1:1A:1101:U:H2'	1:1A:1102:C:H6	1.70	0.56
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.06	0.56
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.86	0.56
32:1a:149:A:O2'	32:1a:150:C:H5'	2.06	0.56
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.35	0.56
32:1a:1456:G:N1	51:1t:51:GLU:OE2	2.39	0.56
33:1b:96:ARG:HG2	33:1b:98:LEU:HD23	1.88	0.56
36:1e:90:VAL:O	36:1e:120:THR:HA	2.05	0.56
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.88	0.56
1:2A:1094:U:OP1	1:2A:1096:A:N6	2.37	0.56
1:2A:1428:C:O2'	1:2A:1569:A:OP2	2.20	0.56
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.41	0.56
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.06	0.56
36:2e:80:ILE:HD12	39:2h:104:ARG:HH22	1.71	0.56
39:2h:26:VAL:HG22	39:2h:59:LEU:HB2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2z:7:GLY:HA2	54:2z:14:GLY:HA2	1.88	0.56
1:1A:887:A:H4'	1:1A:888:C:OP1	2.07	0.55
1:1A:1678:G:H5"	1:1A:1678:G:N3	2.20	0.55
1:1A:2615:U:H2'	1:1A:2616:C:C6	2.40	0.55
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.05	0.55
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.88	0.55
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.88	0.55
15:1T:93:ARG:NH2	60:1T:304:HOH:O	2.32	0.55
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.87	0.55
26:14:58:ARG:HG2	50:1s:67:VAL:HG22	1.88	0.55
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.06	0.55
49:1r:43:PHE:HE1	49:1r:58:LEU:HD11	1.70	0.55
1:2A:121:G:H4'	1:2A:149:A:H5'	1.87	0.55
1:2A:272:G:N7	1:2A:421:U:H2'	2.20	0.55
1:2A:1015:G:O2'	1:2A:1016:G:H5'	2.06	0.55
1:2A:1077:A:H2'	1:2A:1078:U:O2	2.06	0.55
32:2a:15:G:C4'	36:2e:24:ARG:HH21	2.20	0.55
32:2a:1289:A:H2'	32:2a:1290:G:H5'	1.87	0.55
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.41	0.55
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.07	0.55
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	1.87	0.55
39:2h:112:LEU:HA	39:2h:134:ILE:HG12	1.87	0.55
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.37	0.55
1:1A:2127:G:H21	1:1A:2173:A:H1'	1.72	0.55
6:1G:64:THR:HG21	6:1G:92:VAL:HG11	1.88	0.55
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.41	0.55
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.88	0.55
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.41	0.55
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.39	0.55
32:1a:501:C:H1'	32:1a:549:C:H1'	1.87	0.55
33:1b:163:PHE:HA	33:1b:185:ILE:O	2.06	0.55
44:1m:23:TYR:HE2	44:1m:70:LEU:HD22	1.71	0.55
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.38	0.55
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.41	0.55
1:2A:2273:A:O2'	1:2A:2274:A:H5'	2.06	0.55
4:2E:59:VAL:O	4:2E:64:LYS:HE2	2.07	0.55
31:29:15:LYS:HG2	31:29:17:ILE:HD13	1.88	0.55
32:2a:790:A:H4'	53:2y:31:GLN:OE1	2.07	0.55
33:2b:123:ALA:HB3	33:2b:125:PRO:HD2	1.89	0.55
34:2c:148:GLY:N	34:2c:203:PHE:HB3	2.22	0.55
24:12:54:LYS:NZ	60:12:103:HOH:O	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:44:G:H2'	32:1a:45:U:O4'	2.07	0.55
32:1a:539:A:H2'	32:1a:540:G:C8	2.40	0.55
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.87	0.55
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.71	0.55
7:2H:72:ILE:O	7:2H:76:VAL:HG13	2.06	0.55
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.41	0.55
32:2a:474:G:H2'	32:2a:475:G:C8	2.38	0.55
33:2b:178:ARG:HH22	39:2h:68:ARG:NH1	2.03	0.55
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.06	0.55
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.28	0.55
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.39	0.55
3:1D:108:PRO:HD2	3:1D:111:LEU:HD22	1.87	0.55
29:17:24:THR:HG22	29:17:27:GLY:N	2.07	0.55
30:18:47:LYS:HZ3	57:18:102:MPD:H51	1.72	0.55
32:1a:620:C:H2'	32:1a:621:A:O4'	2.07	0.55
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.39	0.55
33:1b:76:GLN:HB3	33:1b:206:ASP:O	2.05	0.55
34:1c:69:HIS:HD2	34:1c:104:GLN:HG2	1.71	0.55
44:1m:84:ILE:HG13	44:1m:86:CYS:H	1.72	0.55
46:1o:44:LYS:O	46:1o:47:LYS:NZ	2.39	0.55
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.06	0.55
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.89	0.55
21:2Z:8:TYR:N	21:2Z:8:TYR:CD2	2.75	0.55
23:21:62:VAL:HG22	23:21:63:ALA:O	2.05	0.55
32:2a:7:G:H5'	32:2a:298:A:O4'	2.06	0.55
32:2a:179:A:H2'	32:2a:180:U:C6	2.41	0.55
32:2a:250:A:N3	32:2a:250:A:H5'	2.21	0.55
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.39	0.55
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.41	0.55
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.88	0.55
48:2q:22:LEU:HD22	48:2q:41:LYS:HG2	1.89	0.55
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.38	0.55
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.41	0.55
32:1a:995:C:H4'	45:1n:8:GLU:OE2	2.07	0.55
33:1b:230:VAL:HG22	33:1b:231:GLU:H	1.72	0.55
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.89	0.55
51:1t:61:SER:O	51:1t:65:LYS:HG3	2.06	0.55
1:2A:326:G:N7	60:2A:4014:HOH:O	2.33	0.55
3:2D:134:ARG:NH1	3:2D:188:GLU:OE2	2.38	0.55
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.41	0.55
12:2Q:58:PHE:O	12:2Q:60:ARG:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:27:19:ARG:HG2	29:27:19:ARG:HH11	1.71	0.55
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.41	0.55
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.40	0.55
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.42	0.55
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.03	0.55
35:2d:187:ARG:NH1	35:2d:193:ASP:OD2	2.32	0.55
1:1A:721:C:H2'	1:1A:722:A:C8	2.41	0.55
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.42	0.55
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.06	0.55
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.72	0.55
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.71	0.55
6:1G:143:GLU:O	26:14:28:LYS:NZ	2.40	0.55
16:1U:34:LYS:HE2	16:1U:34:LYS:HA	1.88	0.55
32:1a:985:C:H2'	32:1a:986:A:H8	1.71	0.55
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.41	0.55
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	1.89	0.55
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.42	0.55
37:1f:19:LEU:HD22	37:1f:23:LYS:HD2	1.86	0.55
37:1f:22:GLU:O	37:1f:26:ILE:HG13	2.06	0.55
4:2E:29:GLY:HA3	60:2E:406:HOH:O	2.07	0.55
7:2H:27:LYS:HG2	7:2H:32:GLU:HB2	1.87	0.55
32:2a:425:G:O3'	35:2d:45:GLN:NE2	2.39	0.55
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.07	0.55
6:1G:17:PRO:HA	6:1G:20:ILE:HD12	1.89	0.55
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.21	0.55
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CG	2.40	0.55
32:1a:297:G:H4'	32:1a:557:G:H4'	1.89	0.55
32:1a:341:C:H2'	32:1a:342:C:C6	2.41	0.55
32:1a:533:A:O2'	32:1a:535:A:OP2	2.20	0.55
32:1a:974:A:H8	32:1a:974:A:OP1	1.90	0.55
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.07	0.55
1:2A:2145:C:O2'	1:2A:2147:G:N2	2.39	0.55
10:2O:7:TYR:HE1	10:2O:20:MET:HE3	1.72	0.55
10:2O:64:ARG:NH1	10:2O:81:ASP:OD1	2.39	0.55
1:1A:1097:U:H2'	1:1A:1098:A:O4'	2.07	0.55
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.41	0.55
1:1A:1800:C:OP1	3:1D:264:LYS:NZ	2.40	0.55
1:1A:2745:C:H2'	1:1A:2746:U:O4'	2.07	0.55
17:1V:80:GLN:HB2	60:1V:306:HOH:O	2.07	0.55
26:14:58:ARG:HB3	26:14:59:PHE:CD1	2.41	0.55
32:1a:1309:G:N7	44:1m:99:ARG:NH2	2.52	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:67:LYS:HA	48:1q:70:ARG:NH1	2.21	0.55
1:2A:921:G:H4'	1:2A:2269:A:C5	2.41	0.55
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.22	0.55
1:2A:1640:C:H6	1:2A:1640:C:H5"	1.72	0.55
1:1A:1529:G:O2'	1:1A:1530:C:H5'	2.06	0.55
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.89	0.55
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	1.88	0.55
30:18:23:VAL:CG1	30:18:47:LYS:HD3	2.36	0.55
32:1a:673:G:H5"	37:1f:87:ARG:CZ	2.37	0.55
32:1a:713:G:H2'	32:1a:714:G:C8	2.42	0.55
32:1a:1212:U:H5"	32:1a:1213:A:H5'	1.88	0.55
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.42	0.55
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.89	0.55
33:1b:134:GLU:O	33:1b:138:LEU:HD12	2.07	0.55
1:2A:218:A:C2	1:2A:235:U:H4'	2.42	0.55
1:2A:271(T):C:N4	60:2A:4085:HOH:O	2.39	0.55
1:2A:551:G:H8	1:2A:551:G:OP2	1.89	0.55
1:2A:2248:C:OP2	60:2A:3868:HOH:O	2.18	0.55
11:2P:70:GLN:O	11:2P:73:GLY:N	2.38	0.55
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.07	0.55
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD23	1.88	0.55
24:22:44:LEU:HD23	24:22:47:ASN:HA	1.88	0.55
30:28:34:TRP:O	60:28:201:HOH:O	2.18	0.55
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.31	0.55
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.20	0.55
46:2o:11:VAL:HG21	46:2o:34:LEU:HD22	1.89	0.55
53:2y:6:THR:OG1	53:2y:38:HIS:HE1	1.90	0.55
1:1A:213:A:H2'	1:1A:214:G:O4'	2.07	0.55
1:1A:1721:G:C2	1:1A:1739:U:OP2	2.60	0.55
1:1A:2319:G:H22	14:1S:3:ARG:NH1	2.04	0.55
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.07	0.55
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.89	0.55
20:1Y:91:GLU:HA	20:1Y:91:GLU:OE2	2.07	0.55
32:1a:4:U:O4	39:1h:105:ARG:HD3	2.06	0.55
32:1a:616:G:O2'	32:1a:617:G:H5'	2.07	0.55
1:2A:1698:A:C8	1:2A:1700:A:O4'	2.60	0.55
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.42	0.55
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.22	0.55
32:2a:653:A:OP1	39:2h:56:LYS:NZ	2.33	0.55
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.22	0.55
32:2a:1493:A:H2'	32:2a:1494:G:H5'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:88:ALA:HA	33:2b:222:ILE:HD11	1.89	0.55
34:2c:18:TRP:HE3	34:2c:18:TRP:H	1.54	0.55
48:2q:45:HIS:CG	48:2q:47:PRO:HD3	2.42	0.55
51:2t:64:ASP:CG	51:2t:81:LYS:HZ3	2.15	0.55
1:1A:947:G:O6	60:1A:4147:HOH:O	2.17	0.54
1:1A:1141:U:P	9:1N:25:ARG:HH12	2.30	0.54
5:1F:129:PHE:HB3	5:1F:132:VAL:HG13	1.87	0.54
21:1Z:132:ASN:ND2	21:1Z:159:PRO:O	2.33	0.54
32:1a:523:A:C2	43:1l:92:0TD:H5	2.42	0.54
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.07	0.54
36:1e:102:ALA:O	36:1e:107:ARG:NH1	2.40	0.54
38:1g:65:ALA:HB1	38:1g:127:ALA:HB3	1.88	0.54
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.07	0.54
1:2A:530:G:N1	1:2A:2023:G:OP1	2.36	0.54
1:2A:1359:A:H61	1:2A:1372:U:H3	1.55	0.54
1:2A:1364:G:P	23:21:3:LYS:HG3	2.47	0.54
3:2D:121:PRO:HB3	3:2D:135:PHE:CE2	2.42	0.54
19:2X:46:ALA:O	24:22:30:ARG:NH2	2.40	0.54
27:25:16:ARG:HD2	27:25:20:ARG:NH1	2.22	0.54
32:2a:814:A:H2'	32:2a:816:A:C5'	2.37	0.54
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.39	0.54
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.71	0.54
45:2n:24:CYS:HB3	45:2n:28:GLY:H	1.72	0.54
1:1A:674:G:H1'	5:1F:74:ARG:HD3	1.89	0.54
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.43	0.54
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.07	0.54
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.41	0.54
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.42	0.54
34:1c:70:VAL:HG12	34:1c:72:LYS:N	2.21	0.54
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.07	0.54
1:2A:263:C:H2'	1:2A:264:C:O4'	2.07	0.54
1:2A:746:A:H2'	1:2A:2612:C:H5"	1.87	0.54
1:2A:868:U:C4	1:2A:869:G:N7	2.75	0.54
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.37	0.54
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.07	0.54
21:2Z:96:VAL:N	21:2Z:128:VAL:O	2.39	0.54
25:23:3:ARG:HB2	25:23:60:GLU:HA	1.88	0.54
30:28:23:VAL:HG13	30:28:47:LYS:HB3	1.89	0.54
32:2a:444:C:H2'	32:2a:445:G:H8	1.72	0.54
39:2h:20:TYR:HE2	39:2h:75:ARG:HD2	1.72	0.54
41:2j:5:ARG:HA	41:2j:73:ASP:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:987:G:O2'	1:1A:1000:A:N3	2.36	0.54
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.42	0.54
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.08	0.54
32:1a:174:C:H2'	32:1a:175:C:C6	2.42	0.54
32:1a:199:G:H2'	32:1a:200:G:H8	1.72	0.54
47:1p:75:ARG:O	47:1p:78:GLY:N	2.31	0.54
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.43	0.54
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.06	0.54
1:2A:1701:A:OP2	60:2A:3877:HOH:O	2.18	0.54
3:2D:97:TYR:HB3	3:2D:99:ASP:HB3	1.88	0.54
5:2F:29:ASN:HB3	5:2F:32:LEU:HB3	1.90	0.54
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.08	0.54
32:2a:434:U:H2'	32:2a:435:C:C6	2.42	0.54
32:2a:617:G:H5'	47:2p:45:THR:HG22	1.89	0.54
32:2a:1228:C:H5'	44:2m:114:ARG:HG2	1.89	0.54
33:2b:18:GLY:HA3	33:2b:42:ILE:H	1.71	0.54
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.47	0.54
1:1A:2151:G:C2	1:1A:2152:G:H1'	2.43	0.54
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.32	0.54
36:1e:68:GLU:O	36:1e:70:PRO:HD3	2.06	0.54
41:1j:42:THR:HG23	41:1j:68:HIS:HA	1.87	0.54
50:1s:16:LEU:HA	50:1s:19:VAL:HG12	1.89	0.54
1:2A:1371:G:HO2'	1:2A:1372:U:H5	1.56	0.54
2:2B:45:A:OP2	6:2G:96:ARG:NH2	2.40	0.54
19:2X:5:TYR:HA	24:22:33:MET:CE	2.37	0.54
25:23:11:SER:HA	25:23:31:LEU:HD21	1.90	0.54
32:2a:1435:G:H2'	32:2a:1436:U:H6	1.71	0.54
34:2c:7:PRO:O	34:2c:11:ARG:HD2	2.08	0.54
1:1A:910:A:N1	1:1A:2277:G:H1'	2.23	0.54
1:1A:2109:U:H2'	1:1A:2110:G:C8	2.42	0.54
1:1A:2659:G:O2'	7:1H:175:LYS:NZ	2.38	0.54
6:1G:107:LEU:HD22	6:1G:178:PHE:HA	1.90	0.54
6:1G:124:SER:HB2	6:1G:131:TYR:CZ	2.43	0.54
20:1Y:102:CYS:SG	20:1Y:104:GLY:N	2.68	0.54
32:1a:408:A:OP1	35:1d:113:SER:OG	2.21	0.54
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.41	0.54
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.07	0.54
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.90	0.54
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.72	0.54
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.89	0.54
1:2A:643:A:N1	1:2A:2369:A:O2'	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1144:G:C6	1:2A:1145:C:C4	2.96	0.54
8:2I:77:LEU:HD22	8:2I:101:LEU:HG	1.90	0.54
32:2a:677:U:H3	32:2a:713:G:H22	1.54	0.54
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.71	0.54
32:2a:1181:G:O2'	32:2a:1182:G:N7	2.37	0.54
48:2q:76:LEU:HD12	48:2q:77:VAL:H	1.72	0.54
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.07	0.54
1:1A:1843:C:H5'	3:1D:253:GLN:HE22	1.73	0.54
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.43	0.54
32:1a:438:G:C4'	35:1d:123:HIS:HD2	2.21	0.54
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.08	0.54
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.42	0.54
1:2A:38:A:H2'	1:2A:39:C:C6	2.43	0.54
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.42	0.54
1:2A:1139:G:O2'	1:2A:1143:A:N1	2.36	0.54
1:2A:1529:G:C2'	1:2A:1530:C:H5'	2.38	0.54
1:2A:1583:A:H5'	1:2A:1584:C:OP1	2.07	0.54
1:2A:2059:A:OP2	60:2A:3871:HOH:O	2.18	0.54
1:2A:2287:A:O2'	1:2A:2289:G:N7	2.39	0.54
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.43	0.54
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.41	0.54
15:2T:74:ARG:NH2	60:2T:301:HOH:O	2.41	0.54
17:2V:6:LYS:HB2	17:2V:38:LEU:HD11	1.90	0.54
31:29:12:ASP:OD1	31:29:12:ASP:N	2.40	0.54
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.21	0.54
1:1A:2126:A:H4'	1:1A:2127:G:O5'	2.06	0.54
1:1A:2602:A:H1'	1:1A:2603:G:C5'	2.35	0.54
5:1F:165:ARG:HA	5:1F:168:ARG:HD3	1.90	0.54
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.55	0.54
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.42	0.54
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.07	0.54
41:1j:44:VAL:HG13	41:1j:66:ARG:HD2	1.88	0.54
41:1j:81:THR:OG1	41:1j:82:ILE:N	2.39	0.54
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.41	0.54
1:2A:2789:C:N4	1:2A:2894:G:H1	2.05	0.54
5:2F:207:GLY:O	60:2F:401:HOH:O	2.18	0.54
12:2Q:112:GLU:HG3	12:2Q:113:GLN:N	2.23	0.54
21:2Z:10:ARG:HD3	21:2Z:37:VAL:O	2.08	0.54
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.89	0.54
32:2a:1122:U:C4	32:2a:1123:A:N7	2.75	0.54
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.88	0.54
1:1A:375:C:H2'	1:1A:376:C:C6	2.43	0.54
1:1A:1268:A:C2	1:1A:2013:A:C4	2.96	0.54
1:1A:2245:U:O2'	1:1A:2436:G:OP2	2.25	0.54
32:1a:353:A:H5'	32:1a:353:A:H8	1.73	0.54
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.38	0.54
32:1a:1360:A:H8	32:1a:1360:A:OP1	1.91	0.54
33:1b:12:GLU:O	33:1b:15:VAL:HG12	2.08	0.54
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.89	0.54
1:2A:315:G:H2'	1:2A:316:C:C6	2.43	0.54
1:2A:1341:U:O2	19:2X:80:ILE:HD12	2.07	0.54
6:2G:41:GLN:O	6:2G:43:LEU:N	2.40	0.54
10:2O:22:ILE:HG23	10:2O:41:ALA:HA	1.89	0.54
32:2a:435:C:H2'	32:2a:436:C:C6	2.42	0.54
32:2a:587:G:OP1	39:2h:89:PRO:HB3	2.08	0.54
32:2a:1005:A:O2'	32:2a:1036:G:N2	2.41	0.54
36:2e:143:ARG:NH1	39:2h:77:GLU:OE1	2.41	0.54
1:1A:749:C:OP2	60:1A:4153:HOH:O	2.18	0.54
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.23	0.54
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.43	0.54
32:1a:128:G:O2'	48:1q:3:LYS:HE2	2.07	0.54
32:1a:186:C:H2'	32:1a:187:C:C6	2.43	0.54
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.42	0.54
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.42	0.54
33:1b:82:ARG:HG3	33:1b:92:TYR:CZ	2.42	0.54
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.30	0.54
35:1d:60:GLU:OE2	35:1d:63:LYS:NZ	2.37	0.54
50:1s:3:ARG:HH12	50:1s:10:PHE:HD1	1.55	0.54
1:2A:873:G:N2	1:2A:905:U:C2	2.76	0.54
1:2A:889:C:O2'	1:2A:890:A:O5'	2.23	0.54
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.38	0.54
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.08	0.54
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.41	0.54
14:2S:18:ILE:O	14:2S:21:THR:HG23	2.08	0.54
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.38	0.54
19:2X:1:MET:HE1	24:22:26:ARG:NH2	2.21	0.54
32:2a:15:G:H4'	36:2e:24:ARG:HH21	1.72	0.54
32:2a:993:G:N3	32:2a:993:G:H2'	2.23	0.54
32:2a:1227:A:OP1	50:2s:80:TYR:OH	2.21	0.54
37:2f:43:LEU:HB3	37:2f:46:ARG:NH1	2.23	0.54
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:47:LEU:HB3	40:2i:50:LEU:HD12	1.89	0.54
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.23	0.54
1:1A:2780:G:OP1	9:1N:118:LYS:HE2	2.08	0.54
9:1N:130:HIS:HB3	9:1N:133:GLN:HG2	1.89	0.54
32:1a:815:A:N7	32:1a:1509:C:O2'	2.38	0.54
32:1a:890:G:O2'	32:1a:906:G:O6	2.21	0.54
34:1c:83:ARG:O	34:1c:86:VAL:N	2.40	0.54
40:1i:45:ALA:HB1	40:1i:78:LYS:HZ2	1.72	0.54
1:2A:614(A):U:H4'	1:2A:614(B):G:H5"	1.90	0.54
2:2B:13:A:N1	2:2B:69:G:O2'	2.38	0.54
19:2X:35:THR:N	19:2X:38:GLU:OE1	2.24	0.54
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.90	0.54
32:2a:1162:C:H2'	32:2a:1163:C:C6	2.43	0.54
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.73	0.54
35:2d:3:ARG:O	35:2d:5:ILE:HG22	2.08	0.54
42:2k:17:GLY:HA3	42:2k:77:MET:HE1	1.89	0.54
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.90	0.53
10:1O:24:VAL:HG13	10:1O:33:ALA:HB2	1.89	0.53
32:1a:933:G:OP2	38:1g:3:ARG:HB2	2.07	0.53
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.72	0.53
1:2A:614:U:H5	60:2A:6177:HOH:O	1.91	0.53
1:2A:631:A:H1'	11:2P:66:GLY:HA2	1.90	0.53
1:2A:722:A:H2'	1:2A:723:G:O4'	2.08	0.53
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.44	0.53
1:2A:2130:U:H2'	1:2A:2158:A:N6	2.24	0.53
2:2B:33:G:C2'	2:2B:34:U:H5'	2.38	0.53
7:2H:150:ALA:HA	7:2H:153:LYS:HG3	1.89	0.53
16:2U:27:LEU:HB3	16:2U:31:SER:HB3	1.90	0.53
23:21:56:GLN:HB3	23:21:87:PRO:HG3	1.89	0.53
32:2a:335:C:H2'	32:2a:336:C:C6	2.43	0.53
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.08	0.53
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.89	0.53
40:2i:23:ASN:N	40:2i:23:ASN:OD1	2.40	0.53
44:2m:15:VAL:HG23	44:2m:41:PRO:HA	1.89	0.53
1:1A:218:A:C2	1:1A:235:U:H4'	2.44	0.53
1:1A:721:C:H2'	1:1A:722:A:H8	1.73	0.53
1:1A:818:G:H4'	1:1A:838:C:O3'	2.07	0.53
1:1A:2683:C:H5'	15:1T:58:ASN:HD22	1.73	0.53
3:1D:71:ASP:HB3	3:1D:103:ARG:HH12	1.72	0.53
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.23	0.53
32:1a:1025:U:C2	32:1a:1036:G:O6	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1191:A:H5”	34:1c:4:LYS:HZ2	1.73	0.53
34:1c:50:ALA:HB1	34:1c:70:VAL:HG11	1.90	0.53
34:1c:138:VAL:O	34:1c:142:MET:HG2	2.09	0.53
1:2A:96:G:H4’	24:22:48:HIS:CD2	2.43	0.53
1:2A:747:U:O2	1:2A:2014:A:H1’	2.08	0.53
1:2A:1084:A:H3’	1:2A:1085:A:H4’	1.89	0.53
1:2A:2375:G:O2’	1:2A:2377:A:N7	2.30	0.53
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.89	0.53
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.91	0.53
26:24:59:PHE:HA	26:24:61:ARG:N	2.22	0.53
32:2a:947:G:O3’	44:2m:109:THR:OG1	2.25	0.53
32:2a:1056:U:OP1	34:2c:163:ALA:N	2.38	0.53
32:2a:1057:G:O3’	34:2c:197:GLY:HA3	2.07	0.53
33:2b:16:HIS:HB2	33:2b:204:ASN:CB	2.38	0.53
34:2c:26:LYS:HB2	41:2j:45:ARG:HH21	1.73	0.53
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.40	0.53
1:1A:1140:C:O3’	9:1N:25:ARG:NH1	2.39	0.53
1:1A:1721:G:H8	1:1A:1741:A:H62	1.55	0.53
1:1A:2271:G:OP1	22:10:18:ALA:HB1	2.08	0.53
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.37	0.53
7:1H:158:HIS:O	7:1H:160:LYS:N	2.41	0.53
32:1a:1071:C:H5”	36:1e:49:PRO:HG2	1.88	0.53
40:1i:3:GLN:HB2	40:1i:20:ARG:HG2	1.89	0.53
1:2A:774:A:H2’	1:2A:774:A:N3	2.23	0.53
1:2A:1041:C:N4	1:2A:1114:G:H1	2.03	0.53
32:2a:389:A:C6	32:2a:390:C:H1’	2.44	0.53
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.07	0.53
1:1A:569:U:C4	1:1A:570:G:C6	2.97	0.53
1:1A:699:A:H2’	1:1A:700:G:O4’	2.08	0.53
1:1A:706:A:H2’	1:1A:707:G:O4’	2.08	0.53
1:1A:919:G:N2	1:1A:2269:A:OP2	2.39	0.53
1:1A:2632:A:O2’	1:1A:2811:G:O2’	2.21	0.53
32:1a:800:G:O6	60:1a:3320:HOH:O	2.17	0.53
1:2A:1648:C:OP1	60:2A:3813:HOH:O	2.19	0.53
3:2D:102:LYS:C	3:2D:103:ARG:HG2	2.33	0.53
7:2H:121:ILE:HD12	7:2H:133:VAL:HG12	1.91	0.53
12:2Q:20:ALA:HB2	21:2Z:79:ARG:HB2	1.91	0.53
32:2a:187:C:H2’	32:2a:188:C:H6	1.72	0.53
32:2a:860:A:H2’	32:2a:861:G:O4’	2.09	0.53
39:2h:38:ILE:HD11	39:2h:118:VAL:O	2.08	0.53
41:2j:13:HIS:HB3	41:2j:68:HIS:CD2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:26:ALA:O	41:2j:84:GLN:NE2	2.36	0.53
1:1A:875:G:H2'	1:1A:876:C:O4'	2.08	0.53
1:1A:1063:G:N2	1:1A:1075:C:N3	2.43	0.53
1:1A:1762:A:N1	60:1A:4290:HOH:O	2.34	0.53
1:1A:2018:G:H1'	60:1A:4694:HOH:O	2.08	0.53
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.43	0.53
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.09	0.53
9:1N:62:VAL:HG13	9:1N:66:LYS:HB2	1.91	0.53
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.08	0.53
16:1U:112:ARG:HH11	16:1U:112:ARG:HG2	1.73	0.53
32:1a:1129:C:O2	32:1a:1130:A:N6	2.37	0.53
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.24	0.53
32:1a:1313:U:P	50:1s:5:LEU:HB2	2.47	0.53
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.08	0.53
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.32	0.53
47:1p:39:TYR:CD1	47:1p:49:LEU:HD23	2.43	0.53
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.43	0.53
1:2A:370:G:OP2	1:2A:370:G:H8	1.91	0.53
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.41	0.53
1:2A:2644:G:O6	60:2A:3858:HOH:O	2.15	0.53
2:2B:28:C:H2'	2:2B:29:A:O4'	2.08	0.53
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.35	0.53
6:2G:145:THR:H	6:2G:148:MET:HE3	1.73	0.53
32:2a:1238:A:OP2	60:2a:3220:HOH:O	2.18	0.53
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.43	0.53
32:2a:1304:G:O2'	32:2a:1333:A:N6	2.36	0.53
33:2b:116:GLU:HA	33:2b:119:GLU:HB2	1.89	0.53
38:2g:77:SER:OG	38:2g:86:GLN:NE2	2.42	0.53
41:2j:6:ILE:HG21	41:2j:23:ILE:HD13	1.91	0.53
49:2r:37:VAL:HG23	49:2r:78:LEU:HB3	1.91	0.53
1:1A:523:C:H4'	1:1A:540:C:O2	2.09	0.53
1:1A:2096:U:H2'	1:1A:2097:C:H6	1.74	0.53
1:1A:2207:G:HO2'	1:1A:2208:A:P	2.31	0.53
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.74	0.53
6:1G:70:VAL:HG11	6:1G:87:PRO:HB3	1.91	0.53
7:1H:124:GLU:O	7:1H:126:PRO:HD3	2.09	0.53
26:14:60:GLN:O	26:14:60:GLN:NE2	2.41	0.53
32:1a:130:A:C8	48:1q:63:ARG:HG3	2.43	0.53
32:1a:1492:A:P	43:1l:47:LYS:HE3	2.48	0.53
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	1.90	0.53
1:2A:14:A:OP2	60:2A:3876:HOH:O	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.09	0.53
1:2A:2755:C:HO2'	1:2A:2756:U:H6	1.57	0.53
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	1.90	0.53
6:2G:113:ARG:NH2	6:2G:139:LEU:O	2.42	0.53
32:2a:585:G:N3	32:2a:879:C:H4'	2.24	0.53
32:2a:974:A:H8	32:2a:974:A:OP1	1.91	0.53
32:2a:1009:G:H1	32:2a:1020:U:H3	1.57	0.53
34:2c:20:SER:OG	34:2c:22:TRP:NE1	2.35	0.53
35:2d:100:ARG:HH22	35:2d:118:ARG:HH21	1.56	0.53
47:2p:21:VAL:HG21	47:2p:59:TRP:CD1	2.42	0.53
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.44	0.53
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.24	0.53
1:1A:1762:A:H2'	60:1A:7742:HOH:O	2.09	0.53
1:1A:2171:A:N3	1:1A:2172:U:N3	2.57	0.53
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.36	0.53
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.09	0.53
17:1V:19:LYS:HA	17:1V:94:LEU:O	2.09	0.53
32:1a:690:G:C6	32:1a:691:G:C6	2.97	0.53
33:1b:9:GLU:HB2	33:1b:217:ARG:HH22	1.72	0.53
47:1p:79:VAL:HG23	47:1p:80:PHE:CD1	2.44	0.53
1:2A:271(K):U:H4'	1:2A:271(L):U:OP1	2.07	0.53
14:2S:49:VAL:HG22	14:2S:80:LEU:HD12	1.91	0.53
21:2Z:30:ASN:O	21:2Z:32:HIS:N	2.41	0.53
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.42	0.53
32:2a:7:G:O2'	36:2e:120:THR:O	2.27	0.53
32:2a:109:A:H2'	32:2a:326:G:N2	2.24	0.53
32:2a:662:G:H2'	32:2a:663:A:C8	2.43	0.53
32:2a:1053:G:H4'	32:2a:1054:C:H3'	1.90	0.53
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.08	0.53
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.43	0.53
1:1A:284:U:H2'	1:1A:285:C:C6	2.44	0.53
1:1A:720:C:H2'	1:1A:721:C:H6	1.74	0.53
1:1A:764:A:H2	3:1D:219:PRO:HG3	1.74	0.53
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.09	0.53
1:1A:1100:C:H2'	1:1A:1101:U:O4'	2.09	0.53
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.42	0.53
1:1A:2103:C:H1'	1:1A:2187:G:H22	1.73	0.53
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.24	0.53
10:1O:49:ARG:NH2	32:1a:1423:G:OP1	2.31	0.53
15:1T:51:ARG:HG3	15:1T:98:LYS:HE3	1.91	0.53
18:1W:37:ARG:NH1	27:15:48:GLU:OE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:251:G:H4'	32:1a:252:U:O5'	2.09	0.53
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.08	0.53
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.08	0.53
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.21	0.53
49:1r:56:THR:HB	49:1r:58:LEU:HD13	1.90	0.53
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.36	0.53
32:2a:35:G:O2'	43:2l:118:SER:O	2.27	0.53
32:2a:1346:A:N1	32:2a:1374:A:H5"	2.23	0.53
38:2g:78:ARG:HD2	38:2g:156:TRP:CZ3	2.44	0.53
38:2g:113:GLU:OE1	38:2g:122:HIS:ND1	2.42	0.53
40:2i:29:ASN:ND2	40:2i:65:VAL:O	2.41	0.53
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.41	0.53
1:1A:1210:A:H5"	1:1A:1212:G:O4'	2.09	0.53
1:1A:2070:G:H2'	1:1A:2071:A:O4'	2.09	0.53
32:1a:539:A:OP2	43:1l:115:LYS:NZ	2.42	0.53
32:1a:1106:G:H5"	34:1c:172:ARG:HG2	1.90	0.53
42:1k:98:LEU:O	42:1k:101:SER:OG	2.18	0.53
44:1m:49:THR:O	44:1m:53:VAL:N	2.36	0.53
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.24	0.53
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.72	0.53
1:2A:2378:A:OP2	60:2A:3874:HOH:O	2.18	0.53
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.43	0.53
32:2a:565:U:OP2	32:2a:566:G:O2'	2.21	0.53
32:2a:1005:A:C5	32:2a:1006:C:H1'	2.44	0.53
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.74	0.53
1:1A:203:C:OP1	60:1A:4157:HOH:O	2.19	0.53
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.42	0.53
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.44	0.53
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.44	0.53
12:1Q:32:TYR:CE1	12:1Q:133:ARG:HD3	2.44	0.53
19:1X:26:TYR:OH	19:1X:93:GLU:OE2	2.24	0.53
26:14:55:ARG:N	26:14:56:VAL:HA	2.24	0.53
32:1a:137:C:N3	32:1a:226:G:N1	2.44	0.53
36:1e:35:GLY:HA3	36:1e:112:LEU:HB3	1.90	0.53
43:1l:71:PRO:O	43:1l:102:ARG:HD3	2.09	0.53
50:1s:12:ASP:OD1	50:1s:37:ARG:NH1	2.42	0.53
1:2A:375:C:H2'	1:2A:376:C:C6	2.44	0.53
14:2S:87:PHE:HZ	60:2S:202:HOH:O	1.92	0.53
32:2a:384:G:H2'	32:2a:385:C:C6	2.44	0.53
41:2j:98:ILE:HD12	41:2j:99:LYS:H	1.74	0.53
51:2t:51:GLU:HA	51:2t:54:LYS:HE2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:236:C:H2'	1:1A:237:C:C6	2.43	0.52
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.25	0.52
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.09	0.52
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.09	0.52
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	1.91	0.52
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.90	0.52
3:1D:88:ARG:NH1	60:1D:417:HOH:O	2.42	0.52
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.90	0.52
9:1N:102:ALA:O	9:1N:106:MET:HG3	2.09	0.52
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.08	0.52
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.42	0.52
48:1q:67:LYS:O	48:1q:68:ARG:HB2	2.09	0.52
54:1z:7:GLY:HA2	54:1z:14:GLY:HA2	1.91	0.52
1:2A:449:A:OP2	60:2A:3878:HOH:O	2.19	0.52
1:2A:1026:U:H4'	1:2A:1027:A:OP1	2.08	0.52
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.43	0.52
6:2G:102:PHE:CE2	6:2G:106:LEU:HD22	2.43	0.52
26:24:18:CYS:SG	26:24:39:CYS:HB3	2.48	0.52
32:2a:149:A:O2'	32:2a:150:C:H5'	2.08	0.52
48:2q:4:LYS:H	48:2q:61:GLU:HG2	1.73	0.52
1:1A:2662:A:H8	1:1A:2662:A:O5'	1.92	0.52
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.91	0.52
4:1E:50:GLY:HA3	4:1E:75:VAL:HG11	1.92	0.52
6:1G:11:TYR:CE2	6:1G:16:ARG:HD3	2.45	0.52
7:1H:18:GLU:OE2	7:1H:27:LYS:NZ	2.42	0.52
14:1S:59:LYS:HD2	14:1S:60:GLY:N	2.24	0.52
34:1c:8:ILE:HG13	34:1c:16:ARG:NE	2.24	0.52
40:1i:18:PHE:O	40:1i:61:ALA:HA	2.10	0.52
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.73	0.52
1:2A:13:A:N1	1:2A:525:U:H2'	2.24	0.52
1:2A:2019:A:C4'	16:2U:34:LYS:HD2	2.39	0.52
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.73	0.52
4:2E:28:ALA:HB3	4:2E:93:VAL:CG1	2.39	0.52
6:2G:14:GLU:C	6:2G:17:PRO:HD2	2.34	0.52
8:2I:58:LEU:HD11	8:2I:133:HIS:HE1	1.75	0.52
11:2P:114:ILE:HG13	11:2P:125:VAL:HG11	1.90	0.52
32:2a:17:U:H2'	32:2a:18:C:C6	2.45	0.52
32:2a:61:G:H2'	32:2a:62:U:O4'	2.09	0.52
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.44	0.52
33:2b:18:GLY:HA2	33:2b:42:ILE:HB	1.91	0.52
33:2b:87:ARG:NH2	33:2b:220:ASP:OD1	2.33	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.44	0.52
1:1A:1227:G:OP1	16:1U:13:LYS:NZ	2.43	0.52
1:1A:2080:G:OP1	23:11:35:THR:HG21	2.08	0.52
32:1a:293:G:C5	32:1a:294:U:C5	2.98	0.52
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.44	0.52
32:1a:1380:U:C4	38:1g:3:ARG:HG2	2.43	0.52
1:2A:2307:G:H4'	1:2A:2308:G:O5'	2.09	0.52
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.09	0.52
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HD3	1.91	0.52
26:24:59:PHE:HA	26:24:60:GLN:C	2.34	0.52
32:2a:73:G:H2'	32:2a:76:C:C6	2.44	0.52
32:2a:576:G:O6	32:2a:880:C:O2'	2.27	0.52
53:2y:3:MET:HG3	53:2y:37:PRO:HG2	1.91	0.52
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.45	0.52
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.58	0.52
6:1G:81:LYS:O	6:1G:86:MET:HE1	2.09	0.52
32:1a:859:A:H2'	32:1a:860:A:O4'	2.08	0.52
1:2A:812:C:H1'	1:2A:1250:G:C2	2.43	0.52
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.74	0.52
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.40	0.52
9:2N:9:VAL:HG12	9:2N:10:GLU:O	2.09	0.52
12:2Q:17:LEU:HB3	12:2Q:39:PRO:HB2	1.89	0.52
32:2a:309:G:O2'	32:2a:607:A:N1	2.36	0.52
32:2a:748:C:H4'	32:2a:749:C:O5'	2.09	0.52
44:2m:29:ARG:HD3	44:2m:64:TRP:CE2	2.44	0.52
1:1A:2154:G:H2'	1:1A:2155:G:C8	2.43	0.52
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.42	0.52
10:1O:18:LYS:HB2	10:1O:45:GLU:HB3	1.91	0.52
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.25	0.52
32:1a:179:A:C5	32:1a:180:U:C4	2.98	0.52
32:1a:911:U:H2'	32:1a:912:C:C6	2.45	0.52
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.92	0.52
1:2A:441:U:H2'	1:2A:442:G:C8	2.44	0.52
1:2A:1241:A:OP2	60:2A:3869:HOH:O	2.18	0.52
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.44	0.52
1:2A:1805:U:O2	3:2D:50:THR:HB	2.09	0.52
1:2A:2177:C:H2'	1:2A:2178:C:O4'	2.09	0.52
1:2A:2306:C:H3'	1:2A:2307:G:H2'	1.91	0.52
1:2A:2689:U:P	1:2A:2719:G:H22	2.33	0.52
25:23:4:LEU:HG	25:23:39:ASP:HB2	1.90	0.52
32:2a:64:G:H4'	32:2a:65:U:H3'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:95:GLN:HB3	33:2b:148:TYR:HD1	1.74	0.52
43:2l:88:GLY:O	43:2l:99:HIS:HD2	1.92	0.52
45:2n:3:ARG:HE	45:2n:3:ARG:CA	2.19	0.52
1:1A:412:A:H8	1:1A:412:A:OP2	1.93	0.52
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.45	0.52
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.41	0.52
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.44	0.52
1:1A:2473:U:H2'	1:1A:2474:C:H6	1.74	0.52
1:1A:2789:C:O3'	1:1A:2790:A:H4'	2.10	0.52
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.73	0.52
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.91	0.52
32:1a:109:A:H2'	32:1a:326:G:N2	2.25	0.52
32:1a:547:A:OP1	60:1a:3325:HOH:O	2.19	0.52
32:1a:688:G:H5'	42:1k:46:GLY:C	2.35	0.52
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.41	0.52
35:1d:152:SER:O	35:1d:158:ILE:HD11	2.10	0.52
43:1l:117:ARG:HB3	43:1l:122:THR:HB	1.91	0.52
1:2A:2371:G:N3	28:26:46:HIS:HE1	2.07	0.52
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.91	0.52
20:2Y:16:ALA:HB2	20:2Y:73:ARG:HD3	1.90	0.52
25:23:18:ASP:OD1	25:23:18:ASP:N	2.38	0.52
32:2a:1343:G:H2'	32:2a:1344:C:C6	2.45	0.52
35:2d:159:ARG:O	35:2d:163:GLU:N	2.41	0.52
1:1A:207:A:H2'	1:1A:208:C:O4'	2.09	0.52
1:1A:284:U:H2'	1:1A:285:C:H6	1.73	0.52
1:1A:314:A:N7	60:1A:4293:HOH:O	2.34	0.52
1:1A:2143:C:O2	1:1A:2148:G:N1	2.35	0.52
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.92	0.52
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.09	0.52
32:1a:411:A:OP2	35:1d:30:LYS:HD2	2.08	0.52
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.74	0.52
34:1c:43:LEU:HD22	34:1c:47:LEU:HD11	1.92	0.52
1:2A:212:G:H2'	1:2A:213:A:O4'	2.08	0.52
1:2A:455:C:N3	1:2A:472:A:H2'	2.25	0.52
1:2A:1082:U:H3'	1:2A:1082:U:O2	2.09	0.52
1:2A:1115:G:H2'	1:2A:1116:C:C6	2.44	0.52
1:2A:1450:G:O2'	1:2A:1450(A):C:H5'	2.09	0.52
3:2D:96:HIS:NE2	3:2D:102:LYS:HE2	2.25	0.52
6:2G:129:GLY:O	6:2G:161:THR:HB	2.10	0.52
8:2I:104:GLN:HE21	8:2I:105:HIS:CE1	2.27	0.52
15:2T:53:ARG:HB3	15:2T:53:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:93:ASP:HB2	21:2Z:131:ARG:HH12	1.75	0.52
25:23:43:ILE:O	25:23:47:VAL:HG23	2.09	0.52
26:24:13:ARG:NH2	26:24:23:GLU:HG2	2.24	0.52
27:25:15:ARG:HG2	60:25:203:HOH:O	2.09	0.52
32:2a:401:C:O2'	32:2a:621:A:N3	2.42	0.52
32:2a:926:G:C4	53:2y:91:LYS:HG3	2.44	0.52
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.23	0.52
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	2.07	0.52
47:2p:5:ARG:NE	47:2p:22:THR:HG21	2.25	0.52
48:2q:27:PHE:CZ	48:2q:36:ILE:HD11	2.44	0.52
48:2q:62:SER:OG	48:2q:72:ARG:NH1	2.42	0.52
1:1A:762:U:OP1	60:1A:4151:HOH:O	2.18	0.52
1:1A:2116:G:P	1:1A:2166:G:H21	2.33	0.52
1:1A:2122:U:H2'	1:1A:2123:G:O4'	2.09	0.52
1:1A:2572:A:N7	4:1E:145:LYS:HB2	2.25	0.52
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.44	0.52
4:1E:5:LEU:CD2	4:1E:79:ARG:HB2	2.40	0.52
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.92	0.52
21:1Z:4:ARG:NE	21:1Z:60:GLU:OE2	2.31	0.52
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.42	0.52
32:1a:382:A:H2'	32:1a:383:A:C8	2.43	0.52
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.45	0.52
32:1a:606:G:H1'	32:1a:632:A:N6	2.24	0.52
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.32	0.52
47:1p:49:LEU:HD13	47:1p:50:LYS:N	2.25	0.52
51:1t:9:ASN:N	51:1t:9:ASN:OD1	2.43	0.52
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.45	0.52
1:2A:2116:G:H3'	1:2A:2117:A:C8	2.44	0.52
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.08	0.52
1:2A:2506:U:OP1	4:2E:144:ARG:NH2	2.43	0.52
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.44	0.52
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	1.92	0.52
32:2a:52:G:O2'	32:2a:53:A:H5'	2.10	0.52
32:2a:1126:U:H4'	32:2a:1281:U:O2'	2.10	0.52
44:2m:87:TYR:HA	44:2m:90:LEU:HD12	1.92	0.52
1:1A:581:C:H2'	1:1A:582:G:C8	2.45	0.52
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.25	0.52
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.27	0.52
32:1a:100:C:H2'	32:1a:101:A:C8	2.45	0.52
32:1a:820:U:H4'	32:1a:821:G:OP2	2.10	0.52
32:1a:1124:G:OP1	41:1j:36:GLY:N	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:228:A:H2'	1:2A:230:U:O4'	2.09	0.52
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.45	0.52
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.75	0.52
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.75	0.52
1:2A:1914:C:OP2	1:2A:1914:C:H6	1.93	0.52
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.45	0.52
7:2H:59:ARG:O	7:2H:63:SER:OG	2.28	0.52
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.44	0.52
32:2a:622:A:C8	32:2a:623:C:C6	2.98	0.52
32:2a:976:G:N2	32:2a:1363:C:OP2	2.32	0.52
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.10	0.52
34:2c:182:ILE:HG12	34:2c:203:PHE:CD1	2.44	0.52
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.92	0.52
41:2j:16:LEU:HD23	41:2j:94:VAL:HG22	1.91	0.52
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.92	0.52
1:1A:752:A:H3'	29:17:1:MET:HE1	1.91	0.52
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.42	0.52
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.25	0.52
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.45	0.52
3:1D:30:GLU:OE2	60:1D:403:HOH:O	2.18	0.52
4:1E:119:ARG:CG	4:1E:160:TYR:HB2	2.40	0.52
32:1a:932:C:H5"	38:1g:4:ARG:CZ	2.40	0.52
32:1a:1219:U:OP1	45:1n:19:ARG:NH2	2.40	0.52
33:1b:15:VAL:CG2	33:1b:209:ARG:HG2	2.35	0.52
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.92	0.52
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.91	0.52
44:1m:84:ILE:HD11	44:1m:86:CYS:HB2	1.92	0.52
51:1t:14:LYS:HG2	51:1t:18:GLN:HE21	1.75	0.52
1:2A:1299:G:O6	60:2A:3880:HOH:O	2.19	0.52
1:2A:2467:C:H4'	12:2Q:123:HIS:CG	2.45	0.52
4:2E:52:LEU:O	4:2E:76:ARG:N	2.42	0.52
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.92	0.52
33:2b:53:ARG:HA	33:2b:56:ARG:HH21	1.75	0.52
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.44	0.51
1:1A:2849:U:P	15:1T:95:ARG:HH12	2.33	0.51
3:1D:157:ARG:O	60:1D:404:HOH:O	2.19	0.51
6:1G:34:LEU:HD12	6:1G:100:TRP:CH2	2.45	0.51
8:1I:29:TYR:C	8:1I:32:PRO:HD2	2.36	0.51
21:1Z:54:HIS:HB3	21:1Z:101:PRO:HD3	1.92	0.51
23:11:72:GLU:O	23:11:76:ARG:HG3	2.09	0.51
32:1a:141:A:H1'	32:1a:182:U:O2	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:255:G:H1'	48:1q:16:GLN:OE1	2.10	0.51
32:1a:316:G:H4'	60:1a:3576:HOH:O	2.09	0.51
32:1a:448:A:C4	32:1a:487:A:C2	2.98	0.51
32:1a:527:G7M:H5"	32:1a:527:G7M:H8	1.91	0.51
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.25	0.51
32:1a:926:G:H5"	32:1a:927:G:O5'	2.11	0.51
32:1a:1060:C:N4	34:1c:2:GLY:HA3	2.25	0.51
1:2A:1188:U:C4'	17:2V:79:VAL:HG22	2.40	0.51
1:2A:2143:C:N3	1:2A:2148:G:O6	2.43	0.51
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.46	0.51
32:2a:1374:A:OP1	38:2g:36:LYS:NZ	2.43	0.51
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.92	0.51
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.92	0.51
1:1A:154:G:C6	1:1A:154(A):C:N4	2.78	0.51
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.45	0.51
1:1A:2127:G:H2'	1:1A:2128:C:O4'	2.10	0.51
1:1A:2696:U:O3'	60:1A:4160:HOH:O	2.19	0.51
2:1B:66:A:H61	2:1B:108:U:H2'	1.75	0.51
3:1D:147:LEU:HD13	3:1D:155:LEU:HD21	1.91	0.51
5:1F:178:PRO:HB2	5:1F:201:VAL:CG2	2.40	0.51
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.44	0.51
9:1N:68:GLU:HG3	9:1N:88:GLU:OE2	2.10	0.51
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.43	0.51
32:1a:6:G:H4'	32:1a:298:A:H4'	1.92	0.51
32:1a:199:G:H2'	32:1a:200:G:C8	2.45	0.51
32:1a:864:A:H2'	32:1a:865:A:C8	2.45	0.51
40:1i:50:LEU:HB2	40:1i:55:ALA:HB3	1.91	0.51
1:2A:12:U:H2'	1:2A:12:U:O2	2.10	0.51
1:2A:30:G:H2'	1:2A:31:C:C6	2.45	0.51
1:2A:65:C:O2'	1:2A:456:C:N3	2.38	0.51
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.44	0.51
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.39	0.51
1:2A:2161:C:H2'	1:2A:2162:G:C8	2.46	0.51
8:2I:132:PRO:HD2	8:2I:136:VAL:O	2.09	0.51
28:26:38:LYS:HB2	28:26:49:HIS:CE1	2.44	0.51
32:2a:1095:U:P	32:2a:1108:G:H1	2.32	0.51
38:2g:150:ALA:HA	42:2k:59:TYR:HB3	1.92	0.51
4:1E:98:PRO:HD3	4:1E:175:VAL:HG13	1.92	0.51
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.09	0.51
32:1a:171:A:H2'	32:1a:172:A:C8	2.45	0.51
32:1a:528:C:H6	32:1a:528:C:H5"	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:944:G:H1'	32:1a:1339:A:H61	1.76	0.51
32:1a:1226:C:H4'	50:1s:80:TYR:OH	2.11	0.51
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.46	0.51
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.11	0.51
34:1c:181:ASN:HD21	34:1c:204:LEU:HD12	1.75	0.51
35:1d:118:ARG:HG2	35:1d:136:PRO:HB3	1.92	0.51
36:1e:60:TYR:HE1	36:1e:64:ARG:NH1	2.08	0.51
47:1p:45:THR:HG22	47:1p:47:ASP:H	1.76	0.51
1:2A:180:G:N1	1:2A:214:G:N7	2.54	0.51
1:2A:459:U:H5"	29:27:40:TRP:CD2	2.45	0.51
1:2A:1009:A:H8	1:2A:1009:A:O5'	1.93	0.51
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.11	0.51
1:2A:2104:G:O6	1:2A:2185:C:N3	2.43	0.51
1:2A:2484:G:C2	1:2A:2485:G:C8	2.98	0.51
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.45	0.51
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.91	0.51
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.74	0.51
32:2a:509:A:C8	32:2a:509:A:H3'	2.44	0.51
32:2a:984:C:OP1	54:2z:3:LYS:NZ	2.32	0.51
32:2a:1005:A:H1'	32:2a:1025:U:O2	2.10	0.51
32:2a:1146:A:H3'	32:2a:1147:C:H5"	1.92	0.51
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.11	0.51
35:2d:61:LYS:HD2	35:2d:207:TYR:OH	2.10	0.51
38:2g:16:LEU:CD1	40:2i:42:ARG:HA	2.40	0.51
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.44	0.51
49:2r:65:ILE:O	49:2r:69:THR:HG23	2.10	0.51
1:1A:740:U:H2'	1:1A:741:G:C8	2.46	0.51
1:1A:754:C:H2'	1:1A:755:C:C6	2.45	0.51
1:1A:2139:C:H42	1:1A:2152:G:H1	1.57	0.51
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.93	0.51
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.93	0.51
30:18:47:LYS:NZ	57:18:102:MPD:H51	2.26	0.51
32:1a:344:A:O5'	32:1a:345:C:H5	1.94	0.51
32:1a:359:U:H2'	32:1a:360:A:H8	1.76	0.51
32:1a:591:U:H2'	32:1a:592:G:C8	2.46	0.51
35:1d:12:CYS:HB3	35:1d:33:MET:HG2	1.93	0.51
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.91	0.51
1:2A:297:C:H2'	1:2A:298:G:O4'	2.10	0.51
1:2A:657:U:H2'	1:2A:658:C:C6	2.45	0.51
1:2A:2105:C:N4	1:2A:2106:G:O6	2.43	0.51
1:2A:2740:A:C6	1:2A:2764:A:C8	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.92	0.51
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.92	0.51
19:2X:72:LYS:NZ	19:2X:75:ASP:OD1	2.43	0.51
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.45	0.51
32:2a:502:G:H2'	32:2a:503:C:O4'	2.10	0.51
32:2a:583:A:H2'	32:2a:584:G:O4'	2.11	0.51
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.74	0.51
1:1A:817:C:H4'	1:1A:932:G:C5	2.46	0.51
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.75	0.51
15:1T:108:ARG:HH11	15:1T:109:GLU:HG3	1.76	0.51
32:1a:69:G:H2'	32:1a:70:G:H8	1.76	0.51
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.46	0.51
32:1a:1187:G:H5'	40:1i:113:LYS:HE3	1.91	0.51
35:1d:150:GLU:HG3	35:1d:151:LYS:N	2.24	0.51
1:2A:656:G:H2'	1:2A:657:U:O4'	2.10	0.51
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.46	0.51
1:2A:2186:G:C2	1:2A:2187:G:C5	2.99	0.51
3:2D:25:THR:HG21	3:2D:113:VAL:HG11	1.93	0.51
26:24:61:ARG:O	26:24:61:ARG:HD3	2.10	0.51
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.93	0.51
39:2h:33:GLU:HG3	39:2h:48:TYR:CE1	2.45	0.51
1:1A:272:G:H4'	1:1A:272(A):U:H5"	1.93	0.51
1:1A:1377:G:H2'	60:1A:6277:HOH:O	2.11	0.51
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.40	0.51
1:1A:2239:G:H5'	3:1D:251:GLY:HA3	1.93	0.51
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.43	0.51
17:1V:49:THR:HG22	17:1V:49:THR:O	2.11	0.51
32:1a:232:G:H1'	32:1a:262:A:N1	2.25	0.51
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.44	0.51
32:1a:991:U:C5	32:1a:1212:U:H1'	2.45	0.51
32:1a:1308:U:OP1	44:1m:98:VAL:N	2.39	0.51
33:1b:40:HIS:HB3	33:1b:190:THR:HG21	1.92	0.51
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.93	0.51
49:1r:74:ARG:HG2	49:1r:80:PRO:O	2.11	0.51
50:1s:36:ARG:NH1	50:1s:53:ASN:HA	2.25	0.51
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.46	0.51
1:2A:1288:U:OP1	60:2A:3881:HOH:O	2.19	0.51
1:2A:2341:G:H2'	1:2A:2342:C:C6	2.46	0.51
15:2T:118:ARG:NH2	15:2T:121:ILE:HG21	2.26	0.51
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.11	0.51
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:20:53:MET:HG3	22:20:59:LEU:HD23	1.90	0.51
25:23:4:LEU:O	25:23:37:LEU:N	2.32	0.51
32:2a:4:U:O4	39:2h:105:ARG:HD3	2.11	0.51
32:2a:232:G:H1'	32:2a:262:A:N1	2.26	0.51
32:2a:620:C:C2	35:2d:135:LEU:HG	2.45	0.51
32:2a:1004:A:H5"	32:2a:1025:U:C5	2.45	0.51
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.46	0.51
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.42	0.51
32:2a:1388:C:H2'	32:2a:1389:C:C6	2.46	0.51
38:2g:41:ARG:O	38:2g:45:ASP:HB2	2.10	0.51
1:1A:118:A:C8	1:1A:119:A:C8	2.99	0.51
1:1A:271(M):G:P	8:1I:57:ARG:HH22	2.33	0.51
1:1A:548:A:H61	17:1V:19:LYS:H	1.58	0.51
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.10	0.51
1:1A:1652:A:O2'	1:1A:1653:G:H5'	2.10	0.51
1:1A:2136:C:OP2	1:1A:2136:C:H6	1.93	0.51
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.10	0.51
22:10:70:GLN:HG2	22:10:72:ARG:HG3	1.92	0.51
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.75	0.51
32:1a:1304:G:C6	32:1a:1305:G:N1	2.79	0.51
35:1d:173:TRP:HB2	35:1d:187:ARG:O	2.11	0.51
50:1s:3:ARG:HH21	50:1s:7:LYS:HE2	1.75	0.51
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.43	0.51
1:2A:1358:G:OP2	60:2A:3882:HOH:O	2.19	0.51
1:2A:2317:C:C2'	1:2A:2318:G:H5'	2.39	0.51
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.11	0.51
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	1.93	0.51
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.45	0.51
8:2I:97:ILE:HD12	8:2I:114:LEU:HD21	1.93	0.51
11:2P:59:LEU:HG	11:2P:60:MET:HE2	1.92	0.51
34:2c:148:GLY:H	34:2c:203:PHE:HB3	1.76	0.51
49:2r:58:LEU:HB3	49:2r:62:GLU:HG3	1.91	0.51
1:1A:1751:C:O2'	1:1A:2861:G:O2'	2.23	0.51
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.16	0.51
28:16:7:ILE:HG21	28:16:27:LYS:HD3	1.92	0.51
29:17:24:THR:CG2	29:17:27:GLY:H	2.08	0.51
32:1a:60:A:H4'	32:1a:61:G:H5'	1.92	0.51
32:1a:69:G:H2'	32:1a:70:G:C8	2.46	0.51
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.45	0.51
33:1b:128:GLU:O	33:1b:135:GLN:NE2	2.44	0.51
43:1l:26:ALA:HB3	43:1l:98:TYR:CZ	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:18:PHE:HB2	46:1o:19:PRO:HD2	1.92	0.51
1:2A:1349:A:OP1	60:2A:3873:HOH:O	2.18	0.51
1:2A:1502:C:H2'	1:2A:1503:U:H6	1.76	0.51
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.11	0.51
1:2A:2164:C:H3'	1:2A:2165:G:H8	1.75	0.51
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	1.92	0.51
4:2E:105:THR:HG21	4:2E:164:ARG:NH1	2.26	0.51
6:2G:25:TYR:HB3	6:2G:30:GLU:HB2	1.92	0.51
23:21:30:VAL:HG13	60:21:209:HOH:O	2.09	0.51
32:2a:93:G:H2'	32:2a:96:U:O4'	2.11	0.51
32:2a:395:C:N4	60:2a:3273:HOH:O	2.42	0.51
32:2a:1277:C:O2'	32:2a:1279:A:C8	2.64	0.51
38:2g:40:ALA:HB3	40:2i:41:VAL:HG21	1.91	0.51
41:2j:37:PRO:HA	41:2j:72:VAL:HG13	1.93	0.51
44:2m:84:ILE:HG13	44:2m:86:CYS:H	1.75	0.51
48:2q:67:LYS:O	48:2q:68:ARG:HB2	2.11	0.51
50:2s:66:MET:HB2	50:2s:74:PHE:CZ	2.45	0.51
1:1A:731:C:OP1	60:1A:4154:HOH:O	2.19	0.51
1:1A:937:U:H2'	1:1A:938:G:O4'	2.10	0.51
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.25	0.51
1:1A:1756:G:H4'	1:1A:1758:G:O4'	2.11	0.51
1:1A:1948:G:O6	60:1A:4156:HOH:O	2.19	0.51
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.10	0.51
8:1I:108:THR:O	8:1I:109:ILE:HD13	2.10	0.51
14:1S:105:ALA:HB1	14:1S:110:LEU:HD12	1.92	0.51
28:16:15:GLU:HG3	28:16:47:THR:HG23	1.93	0.51
33:1b:72:GLY:HA2	33:1b:165:VAL:HG12	1.93	0.51
33:1b:157:ARG:HG2	33:1b:158:LEU:H	1.76	0.51
37:1f:37:VAL:HA	37:1f:65:VAL:HG12	1.93	0.51
39:1h:17:THR:HB	39:1h:78:GLN:OE1	2.11	0.51
1:2A:528:A:O2'	1:2A:529:A:H5'	2.10	0.51
1:2A:581:C:H2'	1:2A:582:G:C8	2.46	0.51
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.46	0.51
1:2A:2139:C:N4	1:2A:2152:G:H1	2.08	0.51
2:2B:68:C:H2'	2:2B:69:G:H8	1.76	0.51
7:2H:14:GLY:HA2	60:2H:201:HOH:O	2.11	0.51
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.92	0.51
25:23:50:VAL:O	25:23:54:VAL:HB	2.11	0.51
32:2a:376:G:H5"	47:2p:5:ARG:HD2	1.93	0.51
32:2a:850:U:H2'	32:2a:851:G:H5"	1.91	0.51
32:2a:1521:G:H2'	32:2a:1522:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:862:G:H2'	1:1A:863:A:O4'	2.11	0.51
1:1A:1139:G:O3'	9:1N:24:GLY:HA3	2.10	0.51
1:1A:1255:U:OP2	60:1A:4161:HOH:O	2.20	0.51
32:1a:160:A:H2'	32:1a:161:A:O4'	2.10	0.51
32:1a:191:G:H1'	51:1t:103:GLY:HA3	1.92	0.51
34:1c:23:TYR:H	41:1j:93:GLY:HA2	1.76	0.51
35:1d:8:VAL:HG22	35:1d:21:LEU:HD13	1.93	0.51
35:1d:152:SER:O	35:1d:155:LEU:HB2	2.10	0.51
1:2A:821:A:H2'	1:2A:946:G:H5"	1.93	0.51
1:2A:848:G:H2'	1:2A:849:A:C8	2.45	0.51
1:2A:887:A:H2'	1:2A:889:C:OP2	2.11	0.51
1:2A:1324:G:O6	60:2A:3879:HOH:O	2.19	0.51
3:2D:71:ASP:HB3	3:2D:103:ARG:NH2	2.15	0.51
31:29:15:LYS:HB3	31:29:26:ILE:HG13	1.93	0.51
32:2a:73:G:N2	32:2a:96:U:O2	2.31	0.51
32:2a:353:A:H5'	32:2a:353:A:H8	1.76	0.51
32:2a:815:A:N7	32:2a:1509:C:O2'	2.42	0.51
33:2b:80:ILE:HD11	33:2b:212:GLN:HB2	1.93	0.51
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.46	0.51
46:2o:21:ASP:OD2	46:2o:24:SER:HB3	2.12	0.51
1:1A:476:G:H4'	1:1A:502:A:N1	2.26	0.50
1:1A:635:C:O2	1:1A:639:U:H5"	2.11	0.50
1:1A:1218:C:H5"	1:1A:1218:C:H6	1.76	0.50
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.26	0.50
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.47	0.50
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	1.92	0.50
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.92	0.50
44:1m:95:GLY:O	44:1m:110:ARG:HB3	2.11	0.50
45:1n:39:LEU:HD11	45:1n:47:LEU:HD12	1.93	0.50
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.76	0.50
1:2A:1090:U:H3	1:2A:1102:C:H1'	1.75	0.50
1:2A:1179:C:H2'	1:2A:1180:C:H6	1.73	0.50
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.38	0.50
1:2A:2136:C:O2	1:2A:2156:G:O2'	2.29	0.50
1:2A:2507:C:H5"	1:2A:2573:C:N4	2.26	0.50
11:2P:96:THR:HG23	11:2P:99:LEU:H	1.75	0.50
15:2T:119:LYS:O	15:2T:123:GLN:HG3	2.10	0.50
21:2Z:182:LYS:O	21:2Z:185:GLU:HG3	2.11	0.50
32:2a:6:G:C4	36:2e:119:LEU:HD11	2.46	0.50
32:2a:377:G:H5'	47:2p:5:ARG:HH12	1.76	0.50
32:2a:473:G:H2'	32:2a:474:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:718:G:C8	42:2k:116:HIS:HB3	2.46	0.50
32:2a:1306:A:H2'	32:2a:1307:U:O4'	2.11	0.50
40:2i:50:LEU:HB2	40:2i:56:LEU:HD23	1.93	0.50
1:1A:107:C:OP1	60:1A:4159:HOH:O	2.19	0.50
1:1A:111:A:H4'	24:12:69:ARG:NH1	2.26	0.50
1:1A:272:G:O2'	1:1A:421:U:OP2	2.17	0.50
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.26	0.50
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.93	0.50
60:1A:4507:HOH:O	11:1P:19:VAL:HG22	2.10	0.50
24:12:1:MET:HE2	24:12:6:VAL:HG22	1.92	0.50
32:1a:1006:C:H2'	32:1a:1007:C:C6	2.46	0.50
35:1d:167:GLY:H	35:1d:168:ARG:CZ	2.24	0.50
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.10	0.50
42:1k:105:VAL:HG23	42:1k:105:VAL:O	2.11	0.50
47:1p:53:VAL:HG22	47:1p:79:VAL:HG12	1.92	0.50
1:2A:1007:C:OP1	9:2N:37:LYS:NZ	2.36	0.50
1:2A:1448:G:O2'	1:2A:1528(A):A:N1	2.43	0.50
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.25	0.50
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.11	0.50
1:2A:2064:C:H2'	1:2A:2065:C:C6	2.47	0.50
1:2A:2116:G:H5'	1:2A:2117:A:N7	2.26	0.50
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.12	0.50
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.93	0.50
32:2a:273:A:N6	32:2a:274:A:C6	2.80	0.50
32:2a:737:A:H2'	32:2a:738:C:C6	2.45	0.50
1:1A:139(A):G:O2'	1:1A:140:G:H5'	2.11	0.50
1:1A:2790:A:H2'	1:1A:2790:A:N3	2.26	0.50
10:1O:1:MET:HE3	10:1O:32:TYR:CE2	2.47	0.50
10:1O:7:TYR:HE1	10:1O:20:MET:HE3	1.76	0.50
11:1P:68:GLN:HG3	60:1P:301:HOH:O	2.10	0.50
12:1Q:21:THR:HG21	12:1Q:101:ARG:CB	2.40	0.50
26:14:43:TYR:O	26:14:45:GLY:N	2.44	0.50
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.93	0.50
32:1a:36:C:OP1	43:1l:123:LYS:HE3	2.10	0.50
32:1a:254:G:H1'	48:1q:15:MET:HG2	1.93	0.50
32:1a:409:G:H2'	32:1a:410:G:O4'	2.11	0.50
32:1a:1058:G:O6	60:1a:3326:HOH:O	2.19	0.50
33:1b:15:VAL:HG11	33:1b:213:LEU:HD22	1.93	0.50
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.75	0.50
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.93	0.50
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1003:G:N2	1:2A:1153:C:C2	2.80	0.50
1:2A:1045:A:H5'	1:2A:1047:G:OP1	2.11	0.50
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.46	0.50
1:2A:2756:U:H1'	1:2A:2757:A:H5"	1.92	0.50
32:2a:1496:C:OP2	53:2y:26:LYS:NZ	2.40	0.50
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.93	0.50
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.11	0.50
7:1H:40:GLU:CD	7:1H:60:ARG:HH12	2.20	0.50
32:1a:110:C:H2'	32:1a:111:G:O4'	2.11	0.50
32:1a:990:C:N4	32:1a:991:U:O4	2.45	0.50
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.35	0.50
33:1b:111:ARG:HG2	33:1b:111:ARG:HH11	1.76	0.50
35:1d:43:HIS:HA	35:1d:46:LYS:HG3	1.94	0.50
36:1e:79:GLU:H	36:1e:79:GLU:CD	2.19	0.50
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.11	0.50
1:2A:2660:A:C6	1:2A:2661:G:C6	2.99	0.50
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.12	0.50
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.93	0.50
32:2a:735:C:H2'	32:2a:736:C:C6	2.47	0.50
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.46	0.50
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.77	0.50
32:2a:1103:C:P	33:2b:96:ARG:HH22	2.34	0.50
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.26	0.50
37:2f:46:ARG:NH1	37:2f:46:ARG:HB2	2.26	0.50
37:2f:61:LEU:HD13	37:2f:63:TYR:OH	2.12	0.50
48:2q:48:GLU:OE1	48:2q:50:LYS:NZ	2.30	0.50
51:2t:67:ALA:HA	51:2t:72:LEU:O	2.11	0.50
1:1A:443:A:N7	5:1F:45:ARG:HG2	2.27	0.50
1:1A:2240:C:O2'	1:1A:2241:A:H5'	2.12	0.50
2:1B:2:C:H2'	2:1B:3:C:C6	2.47	0.50
31:19:7:VAL:HA	31:19:34:GLN:HE21	1.77	0.50
32:1a:148:G:H2'	32:1a:149:A:C8	2.37	0.50
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.45	0.50
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.35	0.50
33:1b:87:ARG:NH1	33:1b:233:SER:OG	2.45	0.50
1:2A:996:A:O3'	16:2U:91:ASP:HB2	2.12	0.50
1:2A:1971:A:O2'	3:2D:239:ARG:HG2	2.12	0.50
4:2E:144:ARG:NH1	60:2E:407:HOH:O	2.45	0.50
7:2H:101:ARG:NH2	7:2H:121:ILE:O	2.45	0.50
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HB2	1.92	0.50
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:105:LEU:HD13	15:2T:109:GLU:HB3	1.93	0.50
21:2Z:29:TYR:HA	21:2Z:33:LEU:O	2.12	0.50
32:2a:757:U:H2'	32:2a:758:G:O4'	2.12	0.50
32:2a:1055:A:H2'	34:2c:156:ARG:HD2	1.93	0.50
35:2d:13:ARG:HB2	35:2d:40:PRO:HD3	1.93	0.50
35:2d:31:CYS:SG	35:2d:33:MET:HB2	2.51	0.50
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.94	0.50
44:2m:50:GLU:O	44:2m:54:VAL:HG12	2.11	0.50
1:1A:931:G:H5"	25:13:29:ARG:HH21	1.77	0.50
32:1a:33:A:H2'	32:1a:34:C:C6	2.46	0.50
32:1a:258:G:H2'	32:1a:259:G:H8	1.76	0.50
33:1b:19:HIS:HE1	33:1b:206:ASP:OD2	1.95	0.50
53:1y:49:VAL:HG22	53:1y:66:LYS:HE3	1.94	0.50
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.10	0.50
1:2A:2362:G:N3	60:2A:4029:HOH:O	2.34	0.50
1:2A:2400:G:H4'	28:26:18:ARG:HG2	1.94	0.50
4:2E:48:GLN:HB2	4:2E:80:GLU:HG2	1.94	0.50
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CE1	2.46	0.50
17:2V:98:GLU:OE1	17:2V:100:ARG:NH1	2.45	0.50
21:2Z:104:PHE:HD1	21:2Z:139:VAL:HB	1.76	0.50
32:2a:338:A:H2	32:2a:351:G:H22	1.58	0.50
32:2a:375:U:C4	32:2a:376:G:N7	2.80	0.50
32:2a:520:A:N1	32:2a:536:C:H1'	2.26	0.50
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.93	0.50
33:2b:230:VAL:HG13	33:2b:231:GLU:O	2.12	0.50
44:2m:81:LEU:O	44:2m:89:GLY:HA3	2.12	0.50
1:1A:236:C:H2'	1:1A:237:C:H6	1.75	0.50
1:1A:2304:G:H22	1:1A:2312:U:H3	1.60	0.50
3:1D:166:GLN:HB2	3:1D:174:ILE:HG22	1.94	0.50
22:10:41:ARG:HA	60:10:202:HOH:O	2.10	0.50
32:1a:501:C:H2'	32:1a:502:G:C8	2.47	0.50
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.27	0.50
36:1e:101:ILE:O	36:1e:120:THR:HG23	2.11	0.50
37:1f:44:GLY:HA2	37:1f:59:TYR:CZ	2.47	0.50
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.45	0.50
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.41	0.50
1:2A:1842:G:O2'	3:2D:253:GLN:NE2	2.42	0.50
1:2A:2771:C:H5"	4:2E:202:LYS:HD3	1.93	0.50
4:2E:72:VAL:HG12	4:2E:73:GLU:O	2.11	0.50
4:2E:96:PHE:O	4:2E:175:VAL:HG11	2.12	0.50
10:2O:80:ASP:CG	15:2T:71:GLY:HA3	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:385:C:H2'	32:2a:386:C:H6	1.77	0.50
32:2a:1490:C:H2'	32:2a:1491:G:H8	1.76	0.50
35:2d:76:ARG:HD3	35:2d:207:TYR:CE1	2.47	0.50
41:2j:8:LEU:CD2	41:2j:96:ILE:HG23	2.42	0.50
1:1A:9:U:N3	1:1A:2629:A:C2	2.72	0.50
1:1A:1470:G:H5"	1:1A:1471:A:OP1	2.11	0.50
1:1A:2040:C:H2'	1:1A:2041:U:O4'	2.12	0.50
1:1A:2166:G:OP2	1:1A:2167:U:H5	1.93	0.50
2:1B:91:C:O2'	2:1B:92:C:H5'	2.12	0.50
3:1D:9:TYR:CZ	3:1D:13:ARG:HG3	2.46	0.50
4:1E:67:PHE:CZ	4:1E:75:VAL:HG12	2.46	0.50
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.77	0.50
16:1U:79:PHE:CZ	16:1U:83:LEU:HD11	2.47	0.50
30:18:28:GLY:O	30:18:36:LYS:NZ	2.34	0.50
32:1a:509:A:OP2	60:1a:3328:HOH:O	2.20	0.50
32:1a:945:G:C2	32:1a:946:A:C8	2.99	0.50
36:1e:40:ARG:HG2	36:1e:68:GLU:OE2	2.12	0.50
1:2A:360:G:H2'	1:2A:361:G:O4'	2.12	0.50
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.47	0.50
1:2A:1630:G:H2'	1:2A:1631:C:C6	2.47	0.50
1:2A:1631(A):A:N6	60:2A:3921:HOH:O	2.25	0.50
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.47	0.50
1:2A:2319:G:C2	14:2S:3:ARG:HA	2.47	0.50
1:2A:2582:G:C2	1:2A:2583:G:C8	3.00	0.50
6:2G:165:THR:HG22	6:2G:167:GLU:H	1.75	0.50
20:2Y:39:VAL:HB	20:2Y:42:VAL:HB	1.94	0.50
24:22:19:VAL:O	24:22:23:LYS:HE3	2.12	0.50
32:2a:393:A:C2	32:2a:394:G:C8	3.00	0.50
32:2a:1232:U:H5"	40:2i:124:GLN:O	2.11	0.50
41:2j:13:HIS:N	41:2j:68:HIS:HD2	2.10	0.50
1:1A:1508:A:H4'	1:1A:1509(A):A:C5	2.47	0.50
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.47	0.50
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.47	0.50
1:1A:2218:U:O4'	23:11:52:ARG:NH1	2.44	0.50
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.12	0.50
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.11	0.50
6:1G:62:LEU:HD12	6:1G:148:MET:HE1	1.93	0.50
6:1G:83:ARG:O	6:1G:86:MET:HB2	2.12	0.50
13:1R:29:LEU:HD22	13:1R:79:LEU:HD13	1.93	0.50
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.12	0.50
32:1a:42:G:O2'	32:1a:622:A:N1	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1398:A:N1	36:1e:19:MET:HE2	2.27	0.50
33:1b:16:HIS:O	33:1b:18:GLY:N	2.45	0.50
35:1d:107:ARG:NH2	35:1d:194:LEU:HG	2.27	0.50
1:2A:499:U:H5"	20:2Y:46:LYS:HD2	1.94	0.50
1:2A:514:A:N3	1:2A:581:C:O2'	2.37	0.50
1:2A:1016:G:H2'	1:2A:1017:G:H8	1.77	0.50
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.27	0.50
1:2A:2741:A:N6	1:2A:2763:G:H1'	2.27	0.50
7:2H:163:TYR:CE1	7:2H:169:VAL:HG22	2.47	0.50
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.47	0.50
32:2a:102:G:H2'	32:2a:103:C:H6	1.77	0.50
32:2a:834:C:C4	32:2a:835:U:C4	3.00	0.50
32:2a:1141:C:H2'	32:2a:1142:G:C8	2.47	0.50
32:2a:1352:C:OP1	52:2u:3:LYS:NZ	2.34	0.50
36:2e:78:HIS:HA	39:2h:105:ARG:HG3	1.92	0.50
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.11	0.50
51:2t:60:GLU:HG2	51:2t:81:LYS:HD2	1.92	0.50
1:1A:41:C:H2'	1:1A:42:G:O4'	2.12	0.49
1:1A:876:C:H2'	1:1A:877:U:O4'	2.12	0.49
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.47	0.49
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	1.94	0.49
32:1a:351:G:H4'	32:1a:352:C:OP1	2.11	0.49
32:1a:749:C:H2'	32:1a:750:G:H8	1.77	0.49
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.77	0.49
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.47	0.49
32:1a:1299:A:N3	32:1a:1299:A:H5"	2.27	0.49
1:2A:221:A:N1	1:2A:265:A:O2'	2.45	0.49
1:2A:1065:U:H4'	1:2A:1066:U:OP1	2.10	0.49
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.46	0.49
60:2A:3926:HOH:O	12:2Q:75:THR:HG23	2.12	0.49
6:2G:55:LYS:HG2	6:2G:150:ASP:OD1	2.11	0.49
7:2H:57:ASP:O	7:2H:62:LYS:HD2	2.12	0.49
17:2V:13:ARG:NH1	60:2V:301:HOH:O	2.45	0.49
32:2a:605:U:H2'	32:2a:606:G:C8	2.47	0.49
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.26	0.49
32:2a:1124:G:H4'	32:2a:1125:U:OP1	2.12	0.49
32:2a:1207:2MG:H2'	32:2a:1208:C:H6	1.77	0.49
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.47	0.49
34:2c:189:ALA:HB3	34:2c:196:LEU:HB2	1.92	0.49
1:1A:2362:G:OP1	30:18:44:LYS:NZ	2.36	0.49
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:551:U:H2'	32:1a:552:U:C6	2.47	0.49
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.40	0.49
32:1a:975:A:H5'	32:1a:975:A:H8	1.76	0.49
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.90	0.49
34:1c:26:LYS:HD2	34:1c:27:LYS:NZ	2.27	0.49
38:1g:28:ASN:HD21	38:1g:36:LYS:HZ2	1.59	0.49
44:1m:51:ALA:HA	44:1m:54:VAL:HG22	1.94	0.49
1:2A:271(L):U:H4'	1:2A:271(M):G:H5'	1.94	0.49
1:2A:1180:C:H2'	1:2A:1181:C:C6	2.47	0.49
1:2A:1356:G:OP2	60:2A:3883:HOH:O	2.19	0.49
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.44	0.49
1:2A:2601:C:H3'	1:2A:2602:A:H5"	1.94	0.49
1:2A:2750:A:H8	1:2A:2750:A:OP1	1.94	0.49
2:2B:77:U:OP1	21:2Z:19:ARG:NH2	2.45	0.49
2:2B:94:C:H2'	2:2B:95:C:C6	2.47	0.49
14:2S:25:ARG:NH1	14:2S:42:ASP:OD2	2.35	0.49
26:24:48:ARG:HH11	26:24:48:ARG:HA	1.77	0.49
30:28:34:TRP:CG	30:28:35:GLN:N	2.80	0.49
32:2a:706:A:H5"	42:2k:22:HIS:CE1	2.47	0.49
34:2c:36:ASP:O	34:2c:40:ARG:HG2	2.12	0.49
35:2d:43:HIS:HA	35:2d:46:LYS:HD2	1.93	0.49
40:2i:127:LYS:HD2	53:2y:60:VAL:HG21	1.94	0.49
47:2p:43:LYS:HA	47:2p:48:TRP:HB3	1.93	0.49
1:1A:848:G:H2'	1:1A:849:A:C8	2.47	0.49
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.12	0.49
1:1A:1448:G:H1'	1:1A:1528:A:N1	2.27	0.49
1:1A:2099:U:H3	1:1A:2190:G:H1	1.58	0.49
60:1A:4694:HOH:O	16:1U:34:LYS:HE3	2.11	0.49
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.94	0.49
32:1a:178:C:H2'	32:1a:179:A:O4'	2.12	0.49
32:1a:663:A:H2'	32:1a:664:G:O4'	2.13	0.49
36:1e:53:LEU:H	36:1e:53:LEU:CD1	2.23	0.49
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.77	0.49
42:1k:70:LYS:HA	42:1k:73:MET:HE2	1.93	0.49
50:1s:47:HIS:O	50:1s:62:ILE:HD12	2.12	0.49
1:2A:674:G:H1'	5:2F:74:ARG:HD2	1.94	0.49
1:2A:1070:A:N3	1:2A:1070:A:H5'	2.28	0.49
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.12	0.49
2:2B:89:G:OP2	2:2B:89:G:H8	1.96	0.49
5:2F:125:LEU:HD23	5:2F:194:MET:HB2	1.93	0.49
9:2N:28:THR:HG22	9:2N:29:LYS:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:14:VAL:HG13	30:28:22:VAL:HG13	1.94	0.49
32:2a:738:C:H5"	37:2f:69:GLU:HB3	1.94	0.49
32:2a:979:C:H2'	32:2a:980:C:H5'	1.95	0.49
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.26	0.49
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.26	0.49
32:2a:1499:A:H1'	32:2a:1520:G:H5'	1.94	0.49
38:2g:22:LEU:HG	38:2g:62:PHE:CE2	2.46	0.49
1:1A:12:U:O4	60:1A:4152:HOH:O	2.18	0.49
1:1A:944:G:H5"	1:1A:945:A:O5'	2.12	0.49
1:1A:1176:G:N2	1:1A:1178:C:OP2	2.43	0.49
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	1.95	0.49
8:1I:68:LEU:HD21	8:1I:109:ILE:HD11	1.93	0.49
32:1a:46:G:O2'	32:1a:365:U:H1'	2.13	0.49
35:1d:9:CYS:O	35:1d:13:ARG:HG3	2.12	0.49
37:1f:45:LEU:HD12	37:1f:59:TYR:CD1	2.44	0.49
39:1h:81:HIS:HB2	39:1h:138:TRP:CD1	2.47	0.49
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.76	0.49
1:2A:1629:U:H2'	1:2A:1630:G:C8	2.47	0.49
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.27	0.49
1:2A:2158:A:H1'	1:2A:2159:G:C8	2.47	0.49
26:24:26:SER:OG	26:24:27:THR:N	2.45	0.49
32:2a:738:C:OP1	37:2f:2:ARG:NH1	2.46	0.49
32:2a:970:C:OP2	60:2a:3221:HOH:O	2.19	0.49
32:2a:1296:C:H4'	32:2a:1302:U:C5	2.47	0.49
33:2b:78:GLN:NE2	33:2b:95:GLN:HE21	2.05	0.49
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.44	0.49
1:1A:1410:G:H2'	1:1A:1411:C:C6	2.48	0.49
1:1A:2177:C:H2'	1:1A:2178:C:O4'	2.12	0.49
60:1A:4150:HOH:O	11:1P:70:GLN:HG2	2.12	0.49
8:1I:6:LEU:O	8:1I:7:GLU:HG3	2.13	0.49
32:1a:262:A:H5'	51:1t:73:HIS:CG	2.48	0.49
32:1a:718:G:C8	42:1k:116:HIS:HB3	2.47	0.49
32:1a:1124:G:N2	32:1a:1125:U:O4	2.44	0.49
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.12	0.49
36:1e:45:PHE:CE2	36:1e:47:LYS:HD2	2.47	0.49
53:1y:40:ILE:HB	53:1y:51:ASP:HB2	1.94	0.49
1:2A:965:C:OP2	60:2A:3886:HOH:O	2.20	0.49
1:2A:1056:G:H5"	1:2A:1057:A:H5'	1.94	0.49
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.76	0.49
1:2A:1693:U:H1'	3:2D:14:ARG:NH1	2.27	0.49
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:75:ILE:HG21	3:2D:99:ASP:HB2	1.93	0.49
10:2O:68:GLU:HB3	10:2O:78:ARG:HD3	1.95	0.49
11:2P:59:LEU:HD11	30:28:10:ALA:HA	1.94	0.49
24:22:23:LYS:HE2	24:22:26:ARG:HH12	1.76	0.49
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.48	0.49
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.27	0.49
38:2g:33:ASP:HB2	38:2g:35:LYS:HG3	1.93	0.49
41:2j:26:ALA:O	41:2j:29:ARG:HB3	2.13	0.49
44:2m:60:VAL:HG13	44:2m:64:TRP:CZ3	2.48	0.49
44:2m:82:MET:O	44:2m:93:ARG:NH1	2.46	0.49
47:2p:43:LYS:HA	47:2p:48:TRP:CB	2.42	0.49
1:1A:855:G:O2'	22:10:27:GLU:OE2	2.26	0.49
1:1A:892:G:H2'	1:1A:893:C:C6	2.47	0.49
1:1A:904:C:H2'	1:1A:905:U:C6	2.46	0.49
1:1A:1075:C:N4	1:1A:1077:A:N1	2.61	0.49
1:1A:2373:G:H2'	1:1A:2374:C:C6	2.47	0.49
1:1A:2877:G:O2'	1:1A:2878:U:H5'	2.13	0.49
2:1B:74:U:H2'	2:1B:75:G:O4'	2.12	0.49
8:1I:61:ARG:C	8:1I:63:ALA:H	2.20	0.49
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.45	0.49
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.13	0.49
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	1.95	0.49
22:10:39:ARG:HD3	22:10:58:THR:HG23	1.95	0.49
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.47	0.49
32:1a:932:C:H5"	38:1g:4:ARG:NH1	2.28	0.49
32:1a:1043:C:H2'	32:1a:1044:A:H5"	1.95	0.49
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.11	0.49
32:1a:1237:C:O2'	32:1a:1300:G:N1	2.38	0.49
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.37	0.49
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.45	0.49
1:2A:1108:U:H3'	1:2A:1109:C:H6	1.78	0.49
1:2A:2182:G:H2'	1:2A:2183:C:H6	1.78	0.49
1:2A:2430:A:H2'	1:2A:2430:A:N3	2.27	0.49
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.13	0.49
2:2B:83:G:H2'	2:2B:84:C:H5"	1.94	0.49
7:2H:149:ARG:HD3	7:2H:164:TYR:CE1	2.47	0.49
18:2W:65:LEU:HD12	18:2W:68:ARG:HE	1.78	0.49
19:2X:41:ASN:O	19:2X:45:THR:HG23	2.12	0.49
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.12	0.49
32:2a:624:C:H2'	32:2a:625:G:C8	2.47	0.49
32:2a:975:A:N1	41:2j:48:THR:HB	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.93	0.49
1:1A:667:U:O2	30:18:2:PRO:HD2	2.13	0.49
1:1A:2121:G:H1	1:1A:2177:C:N4	2.06	0.49
6:1G:66:GLN:HB3	6:1G:92:VAL:HG21	1.93	0.49
20:1Y:14:LEU:HB2	20:1Y:75:ILE:HD11	1.95	0.49
21:1Z:30:ASN:HA	21:1Z:89:PHE:HE1	1.78	0.49
23:11:85:LEU:HB3	23:11:89:GLU:HB2	1.93	0.49
32:1a:118:U:H3'	32:1a:288:A:H61	1.78	0.49
32:1a:1005:A:H5"	32:1a:1006:C:OP2	2.13	0.49
34:1c:26:LYS:HD2	34:1c:27:LYS:HZ3	1.77	0.49
35:1d:167:GLY:H	35:1d:168:ARG:NH1	2.10	0.49
40:1i:6:GLY:O	40:1i:17:VAL:HG12	2.13	0.49
40:1i:26:VAL:HG12	40:1i:33:PHE:HB2	1.95	0.49
43:1l:103:GLY:N	43:1l:107:ALA:O	2.45	0.49
5:2F:18:ARG:HH22	5:2F:127:GLU:CD	2.21	0.49
20:2Y:7:VAL:HG11	20:2Y:27:VAL:HG21	1.94	0.49
32:2a:960:U:C5	50:2s:78:ARG:HD3	2.48	0.49
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.48	0.49
35:2d:173:TRP:CE2	35:2d:189:PRO:HG3	2.48	0.49
41:2j:38:ILE:HG23	41:2j:71:LEU:O	2.11	0.49
48:2q:4:LYS:N	48:2q:61:GLU:HG2	2.28	0.49
48:2q:43:LEU:HD12	48:2q:68:ARG:HB3	1.95	0.49
1:1A:400:G:N7	60:1A:4302:HOH:O	2.35	0.49
1:1A:548:A:N6	17:1V:19:LYS:H	2.10	0.49
1:1A:839:U:H2'	1:1A:840:C:C6	2.48	0.49
1:1A:1400:G:H2'	1:1A:1401:G:C8	2.48	0.49
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.42	0.49
1:1A:2120:G:C2	1:1A:2179:C:C2	3.01	0.49
32:1a:840:C:H4'	32:1a:841:U:OP1	2.12	0.49
32:1a:1241:G:OP1	38:1g:35:LYS:NZ	2.45	0.49
33:1b:83:MET:SD	33:1b:234:PRO:HB2	2.53	0.49
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.48	0.49
38:1g:148:ASN:HD22	42:1k:54:ARG:HH22	1.61	0.49
54:1z:4:SER:OG	54:1z:5:LYS:N	2.41	0.49
1:2A:230:U:H2'	1:2A:231:C:C6	2.47	0.49
2:2B:41:U:C5	6:2G:70:VAL:HB	2.43	0.49
4:2E:120:TRP:CD1	4:2E:155:LYS:HB3	2.48	0.49
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	1.94	0.49
17:2V:76:LYS:HD2	17:2V:81:TYR:CD2	2.48	0.49
21:2Z:102:LEU:HB3	21:2Z:104:PHE:CE1	2.48	0.49
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:269:C:H2'	32:2a:270:A:C8	2.48	0.49
32:2a:313:A:H2'	32:2a:314:C:C6	2.48	0.49
32:2a:439:A:H2'	32:2a:441:A:O4'	2.13	0.49
32:2a:714:G:H2'	32:2a:715:A:C8	2.48	0.49
32:2a:936:C:H2'	32:2a:937:A:O4'	2.13	0.49
33:2b:68:ILE:HG22	33:2b:70:PHE:CE2	2.47	0.49
1:1A:1252:G:N3	16:1U:33:ARG:HG2	2.28	0.49
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.13	0.49
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.12	0.49
12:1Q:32:TYR:CZ	12:1Q:133:ARG:HD3	2.48	0.49
16:1U:81:HIS:CE1	16:1U:85:LYS:HD2	2.48	0.49
20:1Y:76:CYS:O	20:1Y:80:GLY:HA2	2.12	0.49
21:1Z:125:LEU:HB3	21:1Z:165:VAL:HG13	1.93	0.49
32:1a:260:G:H2'	32:1a:261:U:C6	2.48	0.49
32:1a:376:G:O3'	47:1p:5:ARG:HD2	2.13	0.49
32:1a:487:A:H2'	32:1a:488:C:O4'	2.13	0.49
32:1a:509:A:C8	32:1a:509:A:H3'	2.47	0.49
32:1a:736:C:H2'	32:1a:737:A:C8	2.48	0.49
41:1j:18:ALA:O	41:1j:21:GLN:HB3	2.13	0.49
41:1j:30:SER:HB2	41:1j:84:GLN:HE21	1.78	0.49
44:1m:82:MET:HG2	44:1m:93:ARG:HG2	1.94	0.49
47:1p:4:ILE:HG12	47:1p:21:VAL:HG23	1.93	0.49
1:2A:489:G:H2'	1:2A:491:G:O4'	2.13	0.49
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.13	0.49
1:2A:2169:A:H2'	1:2A:2170:A:O4'	2.13	0.49
1:2A:2807:G:N2	1:2A:2893:G:O6	2.44	0.49
7:2H:140:LYS:HB2	7:2H:140:LYS:HE3	1.58	0.49
8:2I:38:LEU:HB3	8:2I:40:THR:HG23	1.94	0.49
8:2I:75:LEU:HD11	8:2I:105:HIS:CG	2.48	0.49
32:2a:382:A:H2'	32:2a:383:A:C8	2.48	0.49
32:2a:600:C:H2'	32:2a:601:C:C6	2.47	0.49
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.13	0.49
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.48	0.49
33:2b:131:PRO:O	33:2b:135:GLN:HG2	2.13	0.49
35:2d:175:SER:H	35:2d:186:LEU:HD13	1.78	0.49
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.93	0.49
1:1A:234:C:H2'	1:1A:235:U:H6	1.78	0.49
1:1A:1044:G:O2'	1:1A:1111:A:N1	2.26	0.49
1:1A:1340:U:OP1	19:1X:16:LYS:NZ	2.40	0.49
1:1A:1719:G:C2'	1:1A:1720:U:H5'	2.43	0.49
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.48	0.49
1:1A:2721:A:H5"	60:1A:4444:HOH:O	2.12	0.49
12:1Q:8:LYS:HG3	21:1Z:197:ILE:HD12	1.94	0.49
12:1Q:60:ARG:HA	21:1Z:178:GLU:O	2.13	0.49
19:1X:5:TYR:CE2	24:12:30:ARG:HB2	2.48	0.49
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.95	0.49
32:1a:77:G:H1	32:1a:92:C:N4	2.07	0.49
32:1a:265:G:H5'	48:1q:64:PRO:O	2.12	0.49
32:1a:343:U:O2'	32:1a:344:A:H2'	2.12	0.49
35:1d:76:ARG:HD3	35:1d:207:TYR:CZ	2.47	0.49
1:2A:301:G:C4	1:2A:302:C:C5	3.01	0.49
1:2A:1653:G:C6	13:2R:9:LYS:HB2	2.48	0.49
5:2F:179:GLU:CD	5:2F:179:GLU:H	2.21	0.49
7:2H:25:LYS:HE3	7:2H:27:LYS:NZ	2.28	0.49
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.48	0.49
13:2R:73:VAL:HG23	60:2R:3416:HOH:O	2.12	0.49
14:2S:26:LEU:HD12	14:2S:85:VAL:HG11	1.95	0.49
32:2a:114:U:O2'	32:2a:115:G:H5'	2.13	0.49
32:2a:987:G:H2'	32:2a:988:G:C8	2.47	0.49
32:2a:1138:G:H2'	32:2a:1140:C:H5'	1.95	0.49
34:2c:159:GLY:HA2	34:2c:193:TYR:CD1	2.47	0.49
38:2g:101:LEU:O	38:2g:105:VAL:HG23	2.12	0.49
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.28	0.49
1:1A:305:U:H2'	1:1A:306:U:C6	2.48	0.48
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.29	0.48
1:1A:1769:G:O2'	1:1A:1958:C:OP1	2.29	0.48
2:1B:66:A:N6	2:1B:108:U:H2'	2.28	0.48
2:1B:90:A:N7	2:1B:91:C:H1'	2.28	0.48
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.13	0.48
11:1P:101:VAL:HG23	11:1P:106:LEU:HB3	1.95	0.48
32:1a:228:A:H4'	47:1p:62:VAL:HG11	1.95	0.48
32:1a:495:A:H4'	32:1a:496:A:OP1	2.12	0.48
32:1a:562:C:H4'	32:1a:563:A:O5'	2.13	0.48
32:1a:977:A:H1'	32:1a:982:U:O4	2.13	0.48
34:1c:6:HIS:NE2	34:1c:8:ILE:HB	2.29	0.48
34:1c:35:GLU:HG2	34:1c:39:ILE:HD11	1.95	0.48
38:1g:151:TYR:HE2	42:1k:54:ARG:NH1	2.09	0.48
1:2A:35:G:H2'	1:2A:36:G:O4'	2.13	0.48
1:2A:45:C:OP2	1:2A:215:G:H5'	2.13	0.48
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.28	0.48
1:2A:2104:G:N7	1:2A:2186:G:N3	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2125:G:H21	1:2A:2126:A:N6	2.10	0.48
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.48	0.48
1:2A:2474:C:H5"	1:2A:2475:C:OP2	2.12	0.48
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.78	0.48
9:2N:42:TRP:HA	9:2N:48:MET:HE1	1.95	0.48
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	1.95	0.48
32:2a:1355:G:H2'	32:2a:1356:G:C8	2.48	0.48
32:2a:1400:5MC:N3	53:2y:63:ALA:HA	2.28	0.48
35:2d:31:CYS:HA	59:2d:501:SF4:S3	2.53	0.48
36:2e:40:ARG:HG2	36:2e:68:GLU:OE2	2.13	0.48
40:2i:25:LYS:H	40:2i:60:ASP:HB3	1.78	0.48
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.94	0.48
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.78	0.48
50:2s:42:PRO:O	50:2s:45:VAL:HG22	2.13	0.48
1:1A:307:G:H21	1:1A:330:A:N6	2.11	0.48
1:1A:411:G:C5	11:1P:72:PRO:HB3	2.48	0.48
1:1A:630:G:OP2	30:18:15:LYS:NZ	2.35	0.48
1:1A:870:A:C2	1:1A:908:C:C2	3.01	0.48
1:1A:2137:C:H5	1:1A:2155:G:C2	2.31	0.48
8:1I:38:LEU:HD21	60:11:214:HOH:O	2.12	0.48
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.95	0.48
26:14:12:ALA:HA	26:14:29:PRO:O	2.13	0.48
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.40	0.48
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.46	0.48
35:1d:119:GLN:HG3	35:1d:123:HIS:CE1	2.48	0.48
35:1d:194:LEU:HD13	35:1d:195:ALA:N	2.26	0.48
40:1i:45:ALA:HB1	40:1i:78:LYS:NZ	2.28	0.48
44:1m:23:TYR:CE2	44:1m:70:LEU:HD22	2.48	0.48
53:1y:70:MET:O	53:1y:74:ILE:HD12	2.13	0.48
1:2A:271(N):U:OP1	1:2A:271(N):U:H2'	2.12	0.48
1:2A:300:A:H1'	1:2A:319:C:H1'	1.95	0.48
1:2A:1851:U:H2'	1:2A:1852:C:O4'	2.13	0.48
1:2A:2391:G:O6	1:2A:2425:A:H8	1.95	0.48
1:2A:2410:G:C2	1:2A:2411:A:H1'	2.48	0.48
2:2B:73:A:C4	2:2B:105:A:C2	3.02	0.48
2:2B:78:A:C2	2:2B:100:A:C4	3.01	0.48
33:2b:118:LEU:HB3	33:2b:142:LEU:HG	1.94	0.48
34:2c:53:ALA:HB2	34:2c:115:LEU:HD11	1.94	0.48
34:2c:153:VAL:O	34:2c:165:THR:HA	2.13	0.48
36:2e:12:LEU:HD11	36:2e:14:ARG:HB3	1.94	0.48
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.38	0.48
3:1D:134:ARG:HD3	3:1D:135:PHE:CZ	2.48	0.48
6:1G:12:TYR:HA	6:1G:16:ARG:HG2	1.95	0.48
11:1P:121:LYS:O	11:1P:123:LEU:N	2.44	0.48
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.94	0.48
22:10:24:LYS:O	22:10:25:ARG:NH1	2.39	0.48
26:14:61:ARG:HG3	26:14:62:ARG:H	1.78	0.48
32:1a:106:C:O2'	32:1a:379:C:H5"	2.14	0.48
32:1a:127:G:N3	60:1a:3372:HOH:O	2.35	0.48
32:1a:560:U:O2'	32:1a:561:U:OP2	2.27	0.48
32:1a:738:C:H2'	32:1a:739:C:C6	2.48	0.48
32:1a:1162:C:H2'	32:1a:1163:C:C6	2.46	0.48
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.48	0.48
32:1a:1417:G:H22	32:1a:1482:G:H2'	1.79	0.48
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.13	0.48
4:2E:120:TRP:CG	4:2E:155:LYS:HB3	2.49	0.48
6:2G:51:ARG:HD3	6:2G:87:PRO:HD2	1.95	0.48
6:2G:163:ALA:O	60:2G:301:HOH:O	2.20	0.48
8:2I:8:PRO:HD3	8:2I:15:VAL:HB	1.95	0.48
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD21	1.94	0.48
15:2T:108:ARG:HG2	15:2T:108:ARG:O	2.14	0.48
17:2V:20:LEU:HD12	17:2V:21:ARG:H	1.79	0.48
26:24:61:ARG:HD2	50:2s:42:PRO:HG2	1.95	0.48
32:2a:1054:C:H41	53:2y:46:GLN:NE2	2.10	0.48
32:2a:1237:C:HO2'	32:2a:1300:G:H1	1.59	0.48
32:2a:1277:C:H4'	32:2a:1281:U:H5	1.79	0.48
32:2a:1500:A:N7	60:2a:3253:HOH:O	2.35	0.48
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.95	0.48
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.48	0.48
42:2k:48:ILE:HG13	42:2k:63:LEU:HB2	1.95	0.48
50:2s:32:LYS:HB2	50:2s:32:LYS:HE3	1.45	0.48
53:2y:85:LEU:O	53:2y:89:GLN:HG2	2.13	0.48
1:1A:303:U:O4	60:1A:4163:HOH:O	2.20	0.48
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.24	0.48
1:1A:1075:C:N4	1:1A:1077:A:C2	2.80	0.48
1:1A:1111:A:N3	1:1A:1112:G:H1'	2.28	0.48
1:1A:1179:C:O2'	1:1A:1180:C:H5'	2.14	0.48
1:1A:1614:A:P	1:1A:1614:A:H8	2.36	0.48
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.30	0.48
1:1A:2207:G:H2'	1:1A:2208:A:C2	2.48	0.48
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.14	0.48
15:1T:96:ARG:NH2	60:1T:308:HOH:O	2.46	0.48
32:1a:433:C:H2'	32:1a:434:U:H6	1.79	0.48
32:1a:583:A:H2'	32:1a:584:G:O4'	2.14	0.48
32:1a:1138:G:H3'	32:1a:1138:G:N3	2.28	0.48
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.49	0.48
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.78	0.48
33:1b:215:LEU:O	33:1b:219:VAL:HG23	2.14	0.48
34:1c:149:ALA:O	34:1c:169:ALA:HA	2.14	0.48
43:1l:88:GLY:O	43:1l:99:HIS:HD2	1.95	0.48
53:1y:24:LEU:HD11	53:1y:39:ILE:HD11	1.96	0.48
1:2A:56:A:H2'	1:2A:57:C:O4'	2.13	0.48
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.46	0.48
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.49	0.48
1:2A:1956:U:H1'	1:2A:2552:OMU:OP1	2.13	0.48
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.48	0.48
1:2A:2600:A:C6	1:2A:2601:C:N4	2.82	0.48
2:2B:68:C:H2'	2:2B:69:G:C8	2.49	0.48
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.12	0.48
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.95	0.48
32:2a:811:C:H4'	32:2a:900:A:N6	2.29	0.48
32:2a:814:A:N7	32:2a:816:A:C4	2.81	0.48
32:2a:1066:C:O2'	32:2a:1067:A:H5'	2.12	0.48
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.49	0.48
50:2s:61:TYR:CE2	50:2s:63:THR:HG22	2.48	0.48
1:1A:191:A:H2'	1:1A:192:C:C6	2.48	0.48
1:1A:478:A:N1	1:1A:500:G:H4'	2.27	0.48
1:1A:897:C:H2'	1:1A:898:C:C6	2.48	0.48
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.48	0.48
1:1A:1566:A:OP1	3:1D:211:ARG:NH1	2.43	0.48
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.13	0.48
2:1B:91:C:OP1	12:1Q:16:ARG:HD2	2.13	0.48
3:1D:258:LYS:HE2	3:1D:273:ARG:CZ	2.43	0.48
5:1F:34:TRP:CH2	11:1P:8:PRO:HB3	2.49	0.48
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.47	0.48
21:1Z:147:GLY:HA2	21:1Z:174:VAL:O	2.13	0.48
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.39	0.48
32:1a:109:A:H2'	32:1a:326:G:H21	1.79	0.48
32:1a:1144:G:N2	32:1a:1146:A:H62	2.11	0.48
1:2A:71:A:H3'	1:2A:71:A:OP2	2.14	0.48
1:2A:127:A:H5"	1:2A:128:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:597:U:H2'	1:2A:598:G:H8	1.78	0.48
1:2A:1418:G:H2'	1:2A:1579:A:H61	1.76	0.48
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.26	0.48
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.43	0.48
1:2A:1968:G:OP2	60:2A:3885:HOH:O	2.19	0.48
1:2A:2126:A:C2	1:2A:2162:G:N3	2.81	0.48
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.55	0.48
1:2A:2544:G:H1'	1:2A:2646:C:H4'	1.95	0.48
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.13	0.48
7:2H:86:GLU:HG3	7:2H:132:ARG:NH1	2.27	0.48
14:2S:34:HIS:ND1	14:2S:53:SER:OG	2.42	0.48
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.46	0.48
32:2a:8:A:H5'	36:2e:101:ILE:HG22	1.95	0.48
32:2a:45:U:H2'	32:2a:46:G:C8	2.47	0.48
32:2a:49:U:OP2	60:2a:3222:HOH:O	2.20	0.48
32:2a:109:A:H2'	32:2a:326:G:H21	1.77	0.48
32:2a:163:C:H2'	32:2a:164:U:O4'	2.14	0.48
32:2a:433:C:H2'	32:2a:434:U:H6	1.78	0.48
32:2a:435:C:H2'	32:2a:436:C:H6	1.78	0.48
32:2a:581:G:OP1	46:2o:61:GLY:HA3	2.14	0.48
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.49	0.48
32:2a:1186:G:H21	45:2n:61:TRP:C	2.22	0.48
32:2a:1220:G:H1'	50:2s:52:TYR:CD2	2.46	0.48
35:2d:15:GLU:OE1	35:2d:63:LYS:HG3	2.14	0.48
35:2d:173:TRP:NE1	35:2d:189:PRO:HG3	2.29	0.48
44:2m:37:THR:O	44:2m:55:ARG:HD3	2.13	0.48
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.13	0.48
1:1A:312:G:H4'	1:1A:331:A:C2	2.49	0.48
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.95	0.48
2:1B:24:G:N7	2:1B:56:G:H2'	2.28	0.48
18:1W:24:ILE:HA	18:1W:27:LYS:HG3	1.95	0.48
32:1a:184:G:H2'	32:1a:185:A:H8	1.78	0.48
32:1a:472:A:H5"	47:1p:80:PHE:HB3	1.95	0.48
32:1a:757:U:OP1	32:1a:822:C:O2'	2.30	0.48
32:1a:1053:G:N7	32:1a:1200:C:H5"	2.28	0.48
34:1c:63:ASN:HB3	34:1c:98:ASN:OD1	2.12	0.48
35:1d:31:CYS:HA	59:1d:306:SF4:S3	2.53	0.48
38:1g:124:LEU:HD23	38:1g:124:LEU:HA	1.61	0.48
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	1.95	0.48
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.12	0.48
1:2A:116:C:H2'	1:2A:117:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:322:A:C5	1:2A:340:A:C2	3.01	0.48
1:2A:340:A:H2'	1:2A:341:G:O4'	2.13	0.48
1:2A:1916:A:N1	32:2a:1408:A:O2'	2.44	0.48
1:2A:2131:G:H5"	1:2A:2132:U:H5'	1.95	0.48
1:2A:2758:A:H2'	1:2A:2759:G:O4'	2.14	0.48
4:2E:170:LEU:HB3	4:2E:184:VAL:HG22	1.96	0.48
6:2G:150:ASP:CG	6:2G:151:ALA:H	2.20	0.48
18:2W:37:ARG:HG2	18:2W:38:TYR:CE2	2.48	0.48
22:20:26:TYR:O	22:20:29:GLN:HG3	2.14	0.48
23:21:89:GLU:HG2	60:21:221:HOH:O	2.14	0.48
25:23:46:ASN:O	25:23:50:VAL:HG22	2.14	0.48
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.49	0.48
32:2a:292:G:N7	32:2a:293:G:H1'	2.29	0.48
32:2a:600:C:OP1	39:2h:97:VAL:HG22	2.13	0.48
32:2a:942:G:C2	32:2a:1342:C:C2	3.01	0.48
32:2a:1146:A:H5'	32:2a:1147:C:OP2	2.13	0.48
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.12	0.48
39:2h:39:LEU:HD21	39:2h:137:VAL:HG21	1.96	0.48
44:2m:31:LYS:O	44:2m:35:GLU:HG2	2.13	0.48
45:2n:32:SER:O	45:2n:40:CYS:HA	2.13	0.48
50:2s:80:TYR:CZ	50:2s:82:GLY:HA2	2.48	0.48
51:2t:51:GLU:HG3	51:2t:54:LYS:NZ	2.28	0.48
1:1A:271(M):G:O2'	1:1A:271(N):U:H5"	2.14	0.48
1:1A:287:C:O2'	1:1A:288:C:H5'	2.14	0.48
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.48	0.48
16:1U:33:ARG:NH2	60:1U:307:HOH:O	2.46	0.48
32:1a:17:U:H1'	32:1a:1080:A:N3	2.29	0.48
32:1a:1187:G:H4'	40:1i:111:ARG:HH11	1.78	0.48
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.95	0.48
44:1m:14:ARG:HG3	44:1m:44:ARG:NH1	2.29	0.48
53:1y:64:SER:OG	53:1y:66:LYS:NZ	2.46	0.48
1:2A:805:G:OP1	60:2A:3856:HOH:O	2.20	0.48
1:2A:1027:A:C6	1:2A:1126:A:C4	3.02	0.48
1:2A:1762:A:N6	60:2A:4181:HOH:O	2.45	0.48
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.44	0.48
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.78	0.48
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.94	0.48
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.94	0.48
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.13	0.48
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.46	0.48
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.14	0.48
34:2c:50:ALA:O	34:2c:72:LYS:HB2	2.14	0.48
40:2i:14:VAL:HG22	40:2i:66:ARG:O	2.13	0.48
1:1A:528:A:O2'	1:1A:529:A:H5'	2.14	0.48
1:1A:539:G:H2'	1:1A:540:C:C6	2.49	0.48
1:1A:897:C:H2'	1:1A:898:C:H6	1.78	0.48
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.14	0.48
1:1A:1273:U:H4'	1:1A:1275:A:OP1	2.12	0.48
1:1A:1512:U:H2'	1:1A:1513:C:H6	1.78	0.48
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.24	0.48
1:1A:2801(A):A:N3	1:1A:2895:U:H1'	2.29	0.48
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.46	0.48
4:1E:34:VAL:HG22	4:1E:72:VAL:HG11	1.96	0.48
4:1E:101:ARG:HB2	4:1E:201:THR:HG21	1.94	0.48
24:12:32:LEU:HB2	24:12:53:LEU:HD13	1.95	0.48
28:16:50:ARG:HE	28:16:50:ARG:HB2	1.39	0.48
32:1a:407:G:H2'	32:1a:408:A:H8	1.79	0.48
32:1a:835:U:OP1	49:1r:64:ARG:NH1	2.40	0.48
32:1a:984:C:N4	32:1a:1221:G:H1	2.12	0.48
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.02	0.48
33:1b:60:ASP:O	33:1b:64:ARG:HG3	2.14	0.48
33:1b:102:LEU:HB2	33:1b:176:GLU:HB3	1.95	0.48
35:1d:121:VAL:HG22	35:1d:126:ILE:HG13	1.96	0.48
39:1h:23:SER:HA	39:1h:63:LEU:HD22	1.95	0.48
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.96	0.48
49:1r:37:VAL:O	49:1r:41:LYS:HG2	2.14	0.48
1:2A:888:C:H2'	1:2A:889:C:C2	2.49	0.48
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.62	0.48
3:2D:16:MET:HE3	3:2D:16:MET:HB2	1.52	0.48
4:2E:56:PRO:C	4:2E:58:ARG:H	2.22	0.48
6:2G:145:THR:HG22	6:2G:148:MET:HB2	1.95	0.48
32:2a:15:G:H21	36:2e:18:ARG:HA	1.79	0.48
32:2a:767:A:H2'	32:2a:768:A:O4'	2.14	0.48
32:2a:1130:A:H2'	32:2a:1131:G:H8	1.77	0.48
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.13	0.48
33:2b:43:ASP:O	33:2b:47:THR:HG23	2.13	0.48
34:2c:182:ILE:HG12	34:2c:203:PHE:HD1	1.78	0.48
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.47	0.48
53:2y:32:THR:HG21	53:2y:85:LEU:HD11	1.95	0.48
1:1A:581:C:H2'	1:1A:582:G:H8	1.79	0.48
1:1A:851:U:O2'	25:13:42:ALA:O	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1053:C:O2	1:1A:1106:G:N1	2.44	0.48
1:1A:2142:C:O2	1:1A:2149:G:N1	2.36	0.48
1:1A:2892:A:N6	1:1A:2893:G:N1	2.62	0.48
32:1a:142:G:H2'	32:1a:143:A:C8	2.47	0.48
32:1a:545:C:H5'	35:1d:72:GLU:CB	2.43	0.48
33:1b:59:GLU:HB3	33:1b:221:LEU:HD21	1.96	0.48
36:1e:76:ILE:HD12	36:1e:142:LEU:HD21	1.95	0.48
36:1e:89:ILE:HG21	36:1e:135:THR:HA	1.95	0.48
41:1j:27:ALA:HB3	41:1j:34:VAL:HG11	1.95	0.48
46:1o:11:VAL:HG21	46:1o:34:LEU:HD22	1.96	0.48
48:1q:43:LEU:HD12	48:1q:68:ARG:HB3	1.96	0.48
1:2A:608:A:H2'	1:2A:609:A:C8	2.49	0.48
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.49	0.48
1:2A:1059:G:OP2	1:2A:1060:U:H2'	2.14	0.48
1:2A:1338:G:O2'	1:2A:1393:A:N1	2.44	0.48
1:2A:1395:A:O2'	1:2A:1397:U:OP2	2.32	0.48
1:2A:1416:G:HO2'	1:2A:1417:C:H5	1.61	0.48
1:2A:1676:A:H2'	1:2A:1677:A:O4'	2.14	0.48
1:2A:1783:A:O2'	1:2A:2607:G:O2'	2.27	0.48
3:2D:34:VAL:HA	3:2D:62:TYR:O	2.14	0.48
4:2E:111:ARG:HA	13:2R:1:MET:SD	2.53	0.48
10:2O:63:VAL:HG12	10:2O:106:LEU:HD11	1.96	0.48
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.14	0.48
21:2Z:108:PRO:HB2	21:2Z:111:VAL:HG23	1.96	0.48
32:2a:796:C:O5'	32:2a:796:C:H6	1.97	0.48
32:2a:1125:U:C2	41:2j:38:ILE:HD12	2.48	0.48
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.14	0.48
34:2c:6:HIS:ND1	45:2n:49:HIS:HB3	2.28	0.48
35:2d:78:LEU:HD22	35:2d:96:LEU:HB3	1.96	0.48
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.14	0.48
38:2g:149:ARG:HG2	42:2k:59:TYR:CE1	2.49	0.48
40:2i:22:GLY:HA3	40:2i:60:ASP:OD2	2.13	0.48
46:2o:54:ARG:CG	46:2o:58:MET:HE2	2.44	0.48
1:1A:271(H):G:O2'	1:1A:271(I):G:H8	1.97	0.48
1:1A:1310:G:H1'	1:1A:1611:C:H5'	1.95	0.48
1:1A:2250:G:N3	1:1A:2250:G:H5"	2.29	0.48
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.49	0.48
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.21	0.48
14:1S:3:ARG:HA	14:1S:3:ARG:NH1	2.20	0.48
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.95	0.48
32:1a:438:G:H4'	35:1d:123:HIS:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:523:A:H2	43:1l:92:0TD:H5	1.79	0.48
32:1a:524:G:H2'	32:1a:525:C:C6	2.49	0.48
32:1a:857:C:H2'	32:1a:858:G:O4'	2.14	0.48
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.37	0.48
33:1b:23:ARG:HG2	33:1b:23:ARG:O	2.14	0.48
33:1b:77:ALA:HB2	33:1b:165:VAL:HG21	1.95	0.48
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.96	0.48
34:1c:134:ILE:HG23	34:1c:151:VAL:HG13	1.95	0.48
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.14	0.48
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.13	0.48
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.95	0.48
1:2A:71:A:N7	19:2X:31:HIS:HE1	2.12	0.48
1:2A:620:G:H8	1:2A:622:G:O6	1.97	0.48
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.49	0.48
1:2A:1079:C:N4	1:2A:1080:C:C2	2.81	0.48
1:2A:1192:G:OP2	11:2P:17:LYS:NZ	2.47	0.48
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.49	0.48
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.30	0.48
7:2H:53:GLU:HA	7:2H:65:HIS:HE2	1.78	0.48
32:2a:926:G:H5"	32:2a:927:G:O5'	2.14	0.48
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.49	0.48
35:2d:79:PHE:CE1	35:2d:204:ILE:HD13	2.49	0.48
44:2m:40:ASN:HD22	44:2m:41:PRO:HD2	1.79	0.48
51:2t:54:LYS:HA	51:2t:57:ARG:NH2	2.29	0.48
1:1A:271(M):G:OP1	8:1I:53:ALA:HB1	2.13	0.47
1:1A:819:A:C4	1:1A:1189:A:C2	3.02	0.47
1:1A:1171:G:N7	1:1A:1173:G:N7	2.62	0.47
1:1A:1260:G:OP1	60:1A:4164:HOH:O	2.20	0.47
1:1A:1378:A:OP1	29:17:10:ARG:NH2	2.47	0.47
12:1Q:32:TYR:OH	12:1Q:111:GLU:OE1	2.24	0.47
14:1S:11:LYS:O	14:1S:15:ARG:HB2	2.13	0.47
32:1a:10:A:OP2	36:1e:126:ARG:HD2	2.15	0.47
32:1a:1227:A:OP2	44:1m:111:LYS:NZ	2.39	0.47
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.14	0.47
32:1a:1375:A:C6	32:1a:1376:U:C4	3.02	0.47
34:1c:123:GLN:HG2	34:1c:128:PHE:HD2	1.79	0.47
35:1d:81:GLU:O	35:1d:85:LYS:HB2	2.14	0.47
36:1e:51:VAL:O	36:1e:55:VAL:HG23	2.13	0.47
40:1i:50:LEU:HA	40:1i:53:VAL:CG2	2.44	0.47
1:2A:493:G:H2'	1:2A:494:G:O4'	2.13	0.47
1:2A:1450:G:H2'	1:2A:1450(A):C:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.49	0.47
26:24:18:CYS:C	26:24:20:ASN:H	2.20	0.47
26:24:58:ARG:HB2	26:24:59:PHE:CE2	2.49	0.47
32:2a:537:G:H5"	43:2l:113:ARG:HH12	1.77	0.47
32:2a:1071:C:O2'	32:2a:1072:G:H5'	2.14	0.47
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.41	0.47
32:2a:1390:U:H2'	32:2a:1391:U:C6	2.48	0.47
32:2a:1458:G:H5"	51:2t:31:SER:HB2	1.96	0.47
34:2c:125:GLU:HG2	34:2c:190:ARG:O	2.13	0.47
1:1A:370:G:H8	1:1A:370:G:OP2	1.97	0.47
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.14	0.47
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.15	0.47
1:1A:1478:G:H1'	1:1A:1557:C:O2'	2.14	0.47
1:1A:1797:C:H4'	3:1D:257:LEU:O	2.13	0.47
1:1A:2572:A:C8	4:1E:144:ARG:HD2	2.50	0.47
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.14	0.47
32:1a:185:A:C6	32:1a:186:C:C4	3.01	0.47
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.48	0.47
33:1b:9:GLU:HB2	33:1b:217:ARG:HH12	1.79	0.47
34:1c:95:THR:O	34:1c:97:LYS:HG2	2.14	0.47
35:1d:173:TRP:HE1	35:1d:193:ASP:HB3	1.79	0.47
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.46	0.47
41:1j:49:VAL:HG12	45:1n:41:ARG:HB2	1.95	0.47
42:1k:81:ASP:N	42:1k:81:ASP:OD1	2.47	0.47
46:1o:78:TYR:CZ	46:1o:82:ILE:HD13	2.49	0.47
1:2A:30:G:C5	1:2A:31:C:C4	3.02	0.47
1:2A:652(T):C:H2'	1:2A:652(U):G:H8	1.78	0.47
1:2A:910:A:N1	1:2A:2277:G:H1'	2.29	0.47
1:2A:1048:A:C2	1:2A:1112:G:N3	2.83	0.47
1:2A:1059:G:C2	1:2A:1079:C:N4	2.82	0.47
2:2B:14:U:OP2	2:2B:70:C:O2'	2.28	0.47
2:2B:17:C:H2'	2:2B:18:G:O4'	2.14	0.47
7:2H:3:ARG:HG2	7:2H:6:ARG:CG	2.44	0.47
11:2P:126:VAL:HG12	11:2P:148:LEU:CD1	2.43	0.47
21:2Z:92:SER:OG	60:2Z:301:HOH:O	2.20	0.47
30:28:8:LYS:HB3	30:28:12:LYS:HE3	1.95	0.47
31:29:17:ILE:HG12	31:29:26:ILE:HD11	1.97	0.47
32:2a:615:C:H2'	32:2a:616:G:O4'	2.14	0.47
32:2a:1124:G:N2	32:2a:1127:G:N3	2.61	0.47
39:2h:121:ASP:HB2	39:2h:125:ARG:CZ	2.44	0.47
41:2j:39:PRO:HA	41:2j:70:ARG:HD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.44	0.47
1:1A:185:U:H2'	1:1A:186:G:C8	2.49	0.47
1:1A:320:A:OP1	5:1F:135:LYS:NZ	2.44	0.47
1:1A:337:C:H2'	1:1A:338:G:O4'	2.15	0.47
1:1A:1477:A:C2	1:1A:1515:G:C2	3.02	0.47
1:1A:2169:A:H8	1:1A:2169:A:OP1	1.97	0.47
2:1B:29:A:H2'	2:1B:30:C:O4'	2.13	0.47
3:1D:43:ARG:HG2	3:1D:47:GLY:O	2.14	0.47
3:1D:60:ARG:NH1	60:1D:413:HOH:O	2.35	0.47
6:1G:52:ILE:H	6:1G:52:ILE:HG13	1.55	0.47
20:1Y:44:ILE:HD13	20:1Y:64:GLU:HG3	1.95	0.47
31:19:11:CYS:HB3	31:19:32:HIS:HE1	1.78	0.47
32:1a:44:G:C2	32:1a:45:U:H1'	2.49	0.47
32:1a:373:A:H2'	32:1a:374:A:H8	1.78	0.47
32:1a:657:G:H4'	46:1o:28:GLN:HG2	1.96	0.47
33:1b:231:GLU:HB3	33:1b:232:PRO:CD	2.35	0.47
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.13	0.47
41:1j:45:ARG:HD3	41:1j:47:PHE:CZ	2.49	0.47
42:1k:34:ASP:OD1	42:1k:38:ASN:N	2.47	0.47
1:2A:82:G:H5'	1:2A:295:G:O2'	2.14	0.47
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.62	0.47
1:2A:1021:A:H3'	1:2A:1021:A:N3	2.30	0.47
1:2A:1203:G:C6	1:2A:1204:A:N6	2.82	0.47
2:2B:42:C:O2	6:2G:92:VAL:HA	2.14	0.47
12:2Q:54:MET:HE1	12:2Q:104:PHE:HB3	1.96	0.47
22:20:36:ILE:HD12	22:20:58:THR:HG21	1.96	0.47
24:22:4:SER:HA	24:22:7:ARG:NH1	2.29	0.47
29:27:1:MET:HE2	29:27:1:MET:H1	1.79	0.47
32:2a:1136:U:OP2	32:2a:1137:C:N4	2.46	0.47
32:2a:1277:C:O2'	32:2a:1279:A:H8	1.96	0.47
32:2a:1350:A:C6	32:2a:1351:U:C4	3.02	0.47
40:2i:9:ARG:CB	40:2i:104:ARG:HE	2.22	0.47
49:2r:37:VAL:CG2	49:2r:78:LEU:HB3	2.44	0.47
1:1A:226:G:N2	1:1A:228:A:H62	2.10	0.47
1:1A:247:G:H4'	1:1A:386:G:C6	2.49	0.47
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.49	0.47
1:1A:2544:G:H1'	1:1A:2646:C:H4'	1.97	0.47
6:1G:33:ARG:H	6:1G:162:THR:HG1	1.57	0.47
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	1.96	0.47
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.66	0.47
24:12:22:GLU:HG2	24:12:64:LEU:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:266:G:H5”	32:1a:268:C:H41	1.78	0.47
32:1a:785:G:O2’	32:1a:786:G:H5’	2.14	0.47
32:1a:998:G:H2’	32:1a:999:C:C6	2.49	0.47
32:1a:1305:G:H5”	52:1u:4:GLY:HA3	1.96	0.47
32:1a:1442:G:HO2’	32:1a:1442(A):G:P	2.35	0.47
32:1a:1486:G:H2’	32:1a:1487:G:O4’	2.15	0.47
32:1a:1491:G:H2’	32:1a:1492:A:C8	2.48	0.47
34:1c:203:PHE:HZ	34:1c:206:GLU:HG2	1.78	0.47
1:2A:320:A:OP1	5:2F:135:LYS:HE3	2.14	0.47
1:2A:536:A:H2’	1:2A:537:C:C6	2.49	0.47
1:2A:660:G:H5’	5:2F:99:TYR:CD1	2.50	0.47
1:2A:749:C:H4’	1:2A:1271:G:N3	2.28	0.47
1:2A:1266:G:O2’	1:2A:2012:G:O6	2.29	0.47
1:2A:1802:A:N1	1:2A:1822:G:H1’	2.30	0.47
1:2A:2104:G:N2	1:2A:2105:C:C4	2.82	0.47
1:2A:2817:G:OP1	13:2R:99:LYS:NZ	2.45	0.47
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.97	0.47
21:2Z:165:VAL:HG23	21:2Z:166:SER:O	2.13	0.47
26:24:46:GLN:O	26:24:48:ARG:N	2.46	0.47
32:2a:99:U:H2’	32:2a:100:C:C6	2.49	0.47
32:2a:1117:G:N2	32:2a:1180:A:H1’	2.30	0.47
32:2a:1261:A:H3’	32:2a:1262:C:C6	2.48	0.47
44:2m:80:ARG:HH22	50:2s:69:HIS:CE1	2.33	0.47
1:1A:278:A:H2’	1:1A:279:C:C6	2.49	0.47
1:1A:1116:C:H6	1:1A:1116:C:H5”	1.78	0.47
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.48	0.47
1:1A:1252:G:C2	1:1A:1253:A:C2	3.03	0.47
1:1A:1486:A:H2’	1:1A:1487:G:H8	1.79	0.47
1:1A:1582:C:H2’	1:1A:1583:A:C8	2.46	0.47
2:1B:30:C:H2’	2:1B:31:C:H5’	1.97	0.47
5:1F:136:THR:HA	5:1F:166:ALA:O	2.15	0.47
6:1G:137:GLU:HG2	6:1G:152:LEU:HD13	1.95	0.47
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.31	0.47
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.48	0.47
32:1a:49:U:C2	32:1a:361:G:N2	2.82	0.47
32:1a:189(A):C:H2’	32:1a:189(B):C:C6	2.49	0.47
32:1a:503:C:OP2	43:1l:116:SER:OG	2.28	0.47
32:1a:1112:C:C4	34:1c:178:LEU:HD12	2.50	0.47
33:1b:16:HIS:C	33:1b:18:GLY:H	2.22	0.47
36:1e:34:VAL:HG22	36:1e:62:ALA:HB1	1.96	0.47
39:1h:111:ILE:C	39:1h:112:LEU:HD23	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:82:ALA:O	40:1i:86:VAL:HG23	2.15	0.47
46:1o:3:ILE:H	46:1o:3:ILE:HG13	1.40	0.47
50:1s:6:LYS:HE2	50:1s:6:LYS:HB3	1.70	0.47
1:2A:184:C:H2'	1:2A:185:U:C6	2.50	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.49	0.47
1:2A:366:C:OP2	1:2A:403:U:O2'	2.26	0.47
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.14	0.47
1:2A:1440:G:H2'	1:2A:1441:G:O4'	2.14	0.47
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.49	0.47
1:2A:2532:G:N2	1:2A:2663:G:O2'	2.48	0.47
14:2S:31:SER:HG	14:2S:34:HIS:H	1.63	0.47
15:2T:98:LYS:HB3	15:2T:100:TYR:CE2	2.49	0.47
23:21:8:SER:HB3	23:21:66:HIS:NE2	2.30	0.47
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.48	0.47
32:2a:538:G:H2'	32:2a:539:A:C8	2.49	0.47
33:2b:77:ALA:O	33:2b:81:VAL:HG12	2.14	0.47
44:2m:94:ARG:NH2	50:2s:80:TYR:O	2.48	0.47
47:2p:15:PRO:HD2	47:2p:42:ARG:CD	2.44	0.47
50:2s:23:ASN:HA	50:2s:27:GLU:OE2	2.15	0.47
1:1A:2127:G:N2	1:1A:2173:A:H1'	2.29	0.47
8:1I:61:ARG:HB3	8:1I:133:HIS:HD2	1.78	0.47
26:14:44:THR:OG1	26:14:47:GLN:HB2	2.14	0.47
32:1a:122:G:H8	32:1a:122:G:OP1	1.97	0.47
32:1a:624:C:H4'	47:1p:10:GLY:C	2.40	0.47
32:1a:659:U:C2	32:1a:660:G:C8	3.03	0.47
32:1a:672:U:HO2'	32:1a:673:G:H8	1.61	0.47
32:1a:1198:G:C6	32:1a:1199:U:C4	3.02	0.47
32:1a:1456:G:H22	51:1t:43:LEU:HD11	1.79	0.47
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.49	0.47
33:1b:181:PHE:HD1	39:1h:70:GLN:HB3	1.80	0.47
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.95	0.47
40:1i:16:ARG:NH1	40:1i:64:THR:HG21	2.29	0.47
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.14	0.47
1:2A:411:G:H5"	60:2A:4569:HOH:O	2.15	0.47
1:2A:863:A:H2'	1:2A:864:G:C8	2.49	0.47
1:2A:921:G:H2'	1:2A:922:U:C6	2.49	0.47
1:2A:1261:C:H4'	60:2A:4703:HOH:O	2.13	0.47
1:2A:2119:A:H61	1:2A:2168:G:H21	1.63	0.47
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.30	0.47
1:2A:2494:G:O2'	12:2Q:80:GLU:HA	2.14	0.47
4:2E:26:ILE:HB	4:2E:182:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.95	0.47
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.79	0.47
21:2Z:8:TYR:N	21:2Z:8:TYR:HD2	2.13	0.47
32:2a:1261:A:H3'	32:2a:1262:C:H6	1.79	0.47
32:2a:1305:G:H5'	52:2u:4:GLY:C	2.39	0.47
32:2a:1347:G:H22	32:2a:1374:A:P	2.37	0.47
1:1A:527:C:N3	1:1A:2779:U:H2'	2.29	0.47
1:1A:534:U:H2'	1:1A:535:C:C6	2.50	0.47
1:1A:1056:G:N2	1:1A:1102:C:C5	2.83	0.47
1:1A:2035:G:N7	60:1A:4315:HOH:O	2.35	0.47
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.49	0.47
1:1A:2640:G:OP1	9:1N:97:ARG:NH2	2.48	0.47
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.12	0.47
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.45	0.47
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.45	0.47
4:1E:114:ALA:HB3	4:1E:119:ARG:HG3	1.97	0.47
6:1G:3:LEU:HD12	6:1G:101:ILE:HD11	1.96	0.47
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.97	0.47
13:1R:36:THR:HG22	13:1R:37:THR:H	1.79	0.47
14:1S:85:VAL:HG12	14:1S:112:PHE:HB3	1.96	0.47
20:1Y:48:ALA:HA	20:1Y:60:PHE:CD1	2.50	0.47
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.96	0.47
32:1a:136:C:O3'	47:1p:65:GLN:NE2	2.48	0.47
32:1a:509:A:C6	32:1a:510:A:N1	2.82	0.47
32:1a:1108:G:O6	60:1a:3313:HOH:O	2.14	0.47
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.45	0.47
33:1b:138:LEU:O	33:1b:142:LEU:N	2.35	0.47
34:1c:22:TRP:HA	41:1j:93:GLY:HA2	1.96	0.47
35:1d:79:PHE:CE1	35:1d:204:ILE:HD13	2.49	0.47
40:1i:89:ASN:O	40:1i:92:TYR:HB2	2.15	0.47
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.95	0.47
48:1q:60:ILE:O	48:1q:62:SER:OG	2.31	0.47
49:1r:43:PHE:CE1	49:1r:58:LEU:HD11	2.49	0.47
1:2A:9:U:O4	1:2A:2629:A:H2	1.98	0.47
1:2A:77:C:OP1	24:22:59:ARG:HD3	2.15	0.47
1:2A:290:G:H2'	1:2A:291:C:O4'	2.15	0.47
1:2A:320:A:H4'	1:2A:322:A:C8	2.49	0.47
1:2A:341:G:H2'	1:2A:342:G:O4'	2.15	0.47
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.47	0.47
1:2A:533:G:N2	16:2U:49:HIS:HE1	2.13	0.47
1:2A:900:A:H2'	1:2A:901:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1051:G:C6	1:2A:1052:C:C4	3.03	0.47
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.15	0.47
1:2A:2032:G:O2'	4:2E:145:LYS:HE3	2.14	0.47
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.14	0.47
1:2A:2251:OMG:C8	1:2A:2450:A:H4'	2.50	0.47
1:2A:2582:G:OP2	60:2A:3887:HOH:O	2.20	0.47
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.15	0.47
1:2A:2721:A:O2'	1:2A:2874:C:H5'	2.14	0.47
1:2A:2870:C:H5"	13:2R:65:LEU:HD21	1.96	0.47
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.43	0.47
6:2G:108:ASN:O	26:24:37:SER:N	2.48	0.47
9:2N:73:THR:OG1	9:2N:82:LEU:HD11	2.14	0.47
32:2a:134:A:N1	47:2p:25:ARG:NH2	2.63	0.47
32:2a:404:U:H2'	32:2a:405:U:H6	1.80	0.47
32:2a:921:U:H2'	32:2a:922:G:O4'	2.14	0.47
32:2a:960:U:H5	50:2s:78:ARG:HD3	1.79	0.47
32:2a:1058:G:H2'	32:2a:1059:C:C6	2.49	0.47
32:2a:1126:U:O4	41:2j:71:LEU:HD13	2.15	0.47
32:2a:1291:G:C6	32:2a:1292:U:C4	3.02	0.47
33:2b:221:LEU:O	33:2b:221:LEU:HD12	2.14	0.47
35:2d:64:LEU:HD13	35:2d:198:VAL:HG21	1.97	0.47
35:2d:199:ASN:OD1	35:2d:201:GLN:HB3	2.14	0.47
37:2f:97:PHE:HB2	49:2r:32:ARG:NH1	2.30	0.47
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.96	0.47
40:2i:54:ASP:O	40:2i:56:LEU:N	2.47	0.47
41:2j:33:GLN:O	41:2j:74:ILE:HA	2.15	0.47
43:2l:97:ARG:HB2	43:2l:98:TYR:CE2	2.49	0.47
45:2n:3:ARG:O	45:2n:7:ILE:HG23	2.15	0.47
53:2y:3:MET:CB	53:2y:37:PRO:HG2	2.44	0.47
1:1A:228:A:H2'	1:1A:230:U:O4'	2.15	0.47
1:1A:590:A:H2'	1:1A:591:C:O4'	2.15	0.47
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.50	0.47
7:1H:66:GLY:O	7:1H:67:LEU:C	2.56	0.47
8:1I:104:GLN:HE21	8:1I:105:HIS:CE1	2.32	0.47
18:1W:79:GLY:CA	18:1W:100:THR:HG22	2.41	0.47
30:18:61:LEU:O	30:18:63:PRO:HD3	2.14	0.47
32:1a:1168:A:H2'	32:1a:1169:A:O4'	2.14	0.47
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.50	0.47
53:1y:74:ILE:O	53:1y:78:ILE:HG12	2.14	0.47
1:2A:644:A:H4'	1:2A:645:C:H5	1.79	0.47
1:2A:1040:C:H2'	1:2A:1041:C:H5"	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1813:G:H1'	3:2D:50:THR:OG1	2.15	0.47
1:2A:1843:C:H5'	3:2D:253:GLN:HE22	1.80	0.47
1:2A:2353:G:H2'	1:2A:2354:G:O4'	2.15	0.47
3:2D:36:PRO:HA	3:2D:61:LEU:HD12	1.97	0.47
6:2G:51:ARG:HE	6:2G:51:ARG:HB2	1.51	0.47
6:2G:122:PRO:HB3	6:2G:170:ARG:NH1	2.30	0.47
8:2I:101:LEU:HD23	8:2I:101:LEU:HA	1.67	0.47
17:2V:82:ARG:O	17:2V:83:ARG:HD3	2.14	0.47
21:2Z:4:ARG:NH2	21:2Z:66:SER:HB2	2.30	0.47
32:2a:390:C:H2'	32:2a:391:G:C8	2.49	0.47
32:2a:404:U:H2'	32:2a:405:U:C6	2.50	0.47
32:2a:429:U:OP1	35:2d:13:ARG:NH1	2.48	0.47
32:2a:1338:G:C6	32:2a:1339:A:C6	3.02	0.47
38:2g:18:TYR:CD1	38:2g:59:LEU:HB2	2.50	0.47
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.97	0.47
1:1A:296:C:H2'	1:1A:297:C:C6	2.50	0.47
1:1A:1408:C:C2	1:1A:1595:G:N2	2.83	0.47
1:1A:1530:C:O2'	1:1A:1531:C:P	2.73	0.47
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.14	0.47
1:1A:1963:U:H4'	1:1A:1964:G:OP1	2.15	0.47
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.50	0.47
6:1G:15:VAL:HG11	6:1G:172:LEU:HD12	1.97	0.47
11:1P:96:THR:CG2	11:1P:99:LEU:H	2.28	0.47
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.15	0.47
19:1X:59:VAL:O	60:1X:201:HOH:O	2.20	0.47
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.29	0.47
32:1a:1417:G:N2	32:1a:1482:G:H2'	2.30	0.47
33:1b:174:VAL:O	33:1b:178:ARG:HG3	2.14	0.47
41:1j:38:ILE:HG12	41:1j:71:LEU:HB3	1.96	0.47
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.42	0.47
1:2A:715:G:C2	46:2o:56:LEU:HD21	2.50	0.47
1:2A:1180:C:H2'	1:2A:1181:C:H6	1.80	0.47
1:2A:2026:C:H2'	1:2A:2027:G:O4'	2.15	0.47
1:2A:2185:C:N4	1:2A:2186:G:C6	2.83	0.47
1:2A:2335:A:C8	1:2A:2337:G:C5	3.02	0.47
1:2A:2563:U:H4'	10:2O:28:SER:HA	1.97	0.47
1:2A:2573:C:OP1	60:2A:3815:HOH:O	2.20	0.47
1:2A:2888:C:H2'	1:2A:2889:C:H6	1.80	0.47
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.58	0.47
9:2N:4:TYR:CG	16:2U:100:VAL:HG11	2.50	0.47
32:2a:50:A:N1	32:2a:360:A:O2'	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:375:U:C2	32:2a:376:G:C8	3.03	0.47
32:2a:444:C:H2'	32:2a:445:G:C8	2.49	0.47
32:2a:505:G:H2'	32:2a:506:G:H8	1.80	0.47
32:2a:1380:U:C2	38:2g:3:ARG:NH1	2.83	0.47
32:2a:1532:U:H6	32:2a:1532:U:O5'	1.97	0.47
39:2h:87:SER:HB2	39:2h:93:VAL:HB	1.97	0.47
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.39	0.47
44:2m:19:LEU:HD11	44:2m:34:LEU:HD21	1.97	0.47
1:1A:7:G:H4'	9:1N:13:TRP:CH2	2.49	0.47
1:1A:647:G:H2'	1:1A:648:G:O4'	2.15	0.47
1:1A:969:U:O3'	25:13:14:GLY:HA2	2.15	0.47
1:1A:2179:C:H5'	1:1A:2180:U:OP2	2.15	0.47
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.49	0.47
1:1A:2390:U:P	30:18:35:GLN:HE22	2.38	0.47
4:1E:10:GLY:HA2	4:1E:192:ASN:OD1	2.15	0.47
6:1G:125:PHE:CZ	6:1G:173:LEU:HD12	2.50	0.47
12:1Q:3:MET:HE2	60:1Q:325:HOH:O	2.15	0.47
18:1W:20:VAL:O	18:1W:23:LEU:HB2	2.15	0.47
19:1X:44:GLU:HG2	19:1X:49:VAL:O	2.14	0.47
28:16:33:LYS:HD3	28:16:33:LYS:HA	1.74	0.47
38:1g:104:LEU:HD12	38:1g:123:GLU:HG3	1.97	0.47
44:1m:87:TYR:HA	44:1m:90:LEU:HD12	1.96	0.47
47:1p:49:LEU:HD21	47:1p:73:LEU:HB3	1.96	0.47
51:1t:82:SER:O	51:1t:86:ARG:HG3	2.15	0.47
1:2A:287:C:H2'	1:2A:288:C:H6	1.79	0.47
1:2A:945:A:C4	1:2A:2448:A:C2	3.03	0.47
1:2A:1079:C:C4	1:2A:1080:C:C2	3.02	0.47
1:2A:1372:U:H2'	1:2A:1373:A:H5'	1.96	0.47
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.50	0.47
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.50	0.47
1:2A:2600:A:O2'	1:2A:2601:C:H5'	2.14	0.47
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.50	0.47
60:2B:304:HOH:O	14:2S:98:VAL:HG23	2.15	0.47
4:2E:119:ARG:HG2	4:2E:160:TYR:HB2	1.97	0.47
12:2Q:61:GLY:O	21:2Z:178:GLU:HB2	2.14	0.47
31:29:7:VAL:HA	31:29:34:GLN:NE2	2.30	0.47
32:2a:412:A:C8	35:2d:35:ARG:NH1	2.83	0.47
32:2a:562:C:H1'	43:2l:15:ARG:HB3	1.97	0.47
34:2c:37:GLN:HE22	45:2n:52:GLN:HB3	1.80	0.47
35:2d:8:VAL:O	35:2d:11:LEU:HB2	2.15	0.47
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:100:G:O3'	24:12:7:ARG:NH2	2.48	0.46
1:1A:234:C:H2'	1:1A:235:U:C6	2.50	0.46
1:1A:271(H):G:HO2'	1:1A:271(I):G:H8	1.61	0.46
1:1A:486:C:H4'	18:1W:60:ASN:HD22	1.78	0.46
1:1A:588:U:O4	1:1A:670:A:H1'	2.14	0.46
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.32	0.46
1:1A:1419:A:O2'	1:1A:1421:G:N7	2.43	0.46
1:1A:1583:A:H5"	1:1A:1584:C:OP1	2.15	0.46
1:1A:1886:C:O5'	1:1A:1886:C:H6	1.99	0.46
1:1A:2278:A:O2'	21:1Z:199:LYS:HD3	2.15	0.46
8:1I:66:GLU:HA	8:1I:69:LYS:HB3	1.97	0.46
13:1R:55:ALA:HA	13:1R:80:PHE:CZ	2.50	0.46
17:1V:52:VAL:HG22	17:1V:55:ALA:HB3	1.97	0.46
18:1W:37:ARG:HG2	18:1W:38:TYR:CE2	2.50	0.46
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.22	0.46
32:1a:1407:5MC:HM51	32:1a:1407:5MC:OP2	2.15	0.46
32:1a:1456:G:H8	32:1a:1456:G:OP1	1.98	0.46
33:1b:213:LEU:HD23	33:1b:214:ILE:HD13	1.97	0.46
34:1c:45:LYS:HE2	34:1c:45:LYS:HB2	1.72	0.46
36:1e:80:ILE:HG23	36:1e:91:LEU:HB2	1.97	0.46
46:1o:87:ILE:HG22	46:1o:88:ARG:N	2.29	0.46
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.96	0.46
1:2A:242:G:C8	30:28:5:LYS:HG2	2.50	0.46
1:2A:271(X):G:C2	1:2A:271(Y):U:O4	2.68	0.46
1:2A:1210:A:H2'	60:2A:4946:HOH:O	2.15	0.46
1:2A:1288:U:OP1	1:2A:1289:C:N4	2.44	0.46
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	1.97	0.46
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.15	0.46
5:2F:178:PRO:HB3	5:2F:198:ALA:HA	1.97	0.46
18:2W:51:LEU:HD12	18:2W:51:LEU:HA	1.59	0.46
32:2a:101:A:H5"	51:2t:10:LEU:HD21	1.96	0.46
32:2a:664:G:N2	32:2a:741:G:H1	2.04	0.46
32:2a:1191:A:OP1	34:2c:4:LYS:HG3	2.16	0.46
32:2a:1346:A:H5"	40:2i:120:ARG:HH12	1.80	0.46
34:2c:142:MET:HG3	34:2c:170:GLN:HB3	1.97	0.46
1:1A:11:G:H2'	1:1A:12:U:C5'	2.36	0.46
1:1A:1341:U:H1'	19:1X:55:ASN:HD22	1.80	0.46
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.15	0.46
1:1A:2892:A:N6	1:1A:2893:G:C6	2.84	0.46
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.98	0.46
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.97	0.46
6:1G:145:THR:OG1	6:1G:148:MET:HG2	2.16	0.46
21:1Z:121:HIS:HB3	21:1Z:123:ASP:O	2.16	0.46
32:1a:556:C:O2'	32:1a:557:G:H5'	2.16	0.46
32:1a:1031:G:C2'	32:1a:1032:G:H5'	2.45	0.46
32:1a:1054:C:H41	53:1y:46:GLN:NE2	2.13	0.46
32:1a:1054:C:C6	53:1y:45:PRO:HG2	2.50	0.46
32:1a:1130:A:O3'	40:1i:20:ARG:NH2	2.47	0.46
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.30	0.46
32:1a:1402:4OC:O5'	32:1a:1402:4OC:H6	2.15	0.46
35:1d:14:ARG:HD3	35:1d:14:ARG:HA	1.79	0.46
35:1d:108:LEU:HB3	35:1d:176:LEU:HD13	1.97	0.46
35:1d:172:PRO:C	35:1d:187:ARG:HH21	2.23	0.46
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.96	0.46
1:2A:152:G:H2'	1:2A:153:C:C6	2.49	0.46
1:2A:271(N):U:O2'	1:2A:271(O):C:H5'	2.15	0.46
1:2A:815:C:C2	1:2A:1193:G:C2	3.03	0.46
1:2A:1069:A:C5	1:2A:1095:A:H4'	2.50	0.46
1:2A:1857:G:C6	1:2A:1858:G:N1	2.83	0.46
1:2A:2184:G:N2	1:2A:2185:C:H1'	2.30	0.46
1:2A:2228:G:C5	1:2A:2229:C:C4	3.03	0.46
4:2E:51:PHE:C	4:2E:75:VAL:HG22	2.41	0.46
4:2E:119:ARG:CG	4:2E:160:TYR:HB2	2.45	0.46
6:2G:13:GLU:O	6:2G:17:PRO:HG2	2.16	0.46
18:2W:76:VAL:HG22	18:2W:103:ILE:HG23	1.96	0.46
30:28:55:ALA:O	30:28:59:LYS:HG3	2.14	0.46
32:2a:398:C:OP2	60:2a:3223:HOH:O	2.20	0.46
32:2a:406:G:C5'	35:2d:5:ILE:HG13	2.45	0.46
32:2a:1009:G:C2	32:2a:1010:G:C8	3.04	0.46
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.80	0.46
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.97	0.46
32:2a:1347:G:H5"	40:2i:107:ARG:HB3	1.98	0.46
32:2a:1397:C:O2	32:2a:1397:C:H2'	2.15	0.46
32:2a:1452:C:H5'	32:2a:1457:G:C4	2.49	0.46
1:1A:109:G:H2'	1:1A:110:G:O4'	2.15	0.46
1:1A:1579:A:H2'	1:1A:1580:A:C8	2.50	0.46
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.34	0.46
1:1A:2343:C:H5'	60:1A:7813:HOH:O	2.14	0.46
1:1A:2872:G:O2'	1:1A:2873:A:H5'	2.16	0.46
4:1E:67:PHE:O	4:1E:70:ALA:O	2.33	0.46
6:1G:53:LEU:O	6:1G:56:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:75:LEU:HD22	8:1I:105:HIS:ND1	2.30	0.46
32:1a:1004:A:C6	32:1a:1037:C:C4	3.03	0.46
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.38	0.46
32:1a:1286:A:C2	52:1u:18:TYR:OH	2.69	0.46
38:1g:28:ASN:HD21	38:1g:36:LYS:NZ	2.13	0.46
40:1i:6:GLY:HA3	40:1i:83:ARG:HB2	1.98	0.46
41:1j:64:GLU:CD	41:1j:66:ARG:HD3	2.40	0.46
53:1y:61:LEU:HD11	53:1y:85:LEU:HB2	1.97	0.46
1:2A:419:C:H2'	1:2A:420:C:O4'	2.15	0.46
1:2A:492:A:H2'	1:2A:493:G:O4'	2.16	0.46
1:2A:989:G:OP2	25:23:11:SER:OG	2.29	0.46
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.30	0.46
1:2A:2203:U:O2'	1:2A:2205:C:H5'	2.15	0.46
1:2A:2661:G:O6	7:2H:175:LYS:NZ	2.48	0.46
1:2A:2712:U:H1'	1:2A:2712(A):A:C8	2.51	0.46
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.97	0.46
9:2N:38:HIS:O	16:2U:67:ALA:HB1	2.15	0.46
32:2a:36:C:H2'	32:2a:37:U:O4'	2.15	0.46
32:2a:67:C:H2'	32:2a:68:G:C8	2.50	0.46
32:2a:572:A:N3	32:2a:917:G:H1'	2.30	0.46
32:2a:623:C:H6	32:2a:623:C:O5'	1.99	0.46
32:2a:772:U:H2'	32:2a:773:G:O4'	2.16	0.46
32:2a:1460:A:H2'	32:2a:1461:G:O4'	2.16	0.46
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.50	0.46
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.89	0.46
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.40	0.46
1:1A:272(B):G:H4'	60:1A:6329:HOH:O	2.16	0.46
1:1A:1358:G:N1	1:1A:1372:U:OP2	2.33	0.46
1:1A:2864:G:OP1	15:1T:119:LYS:HD2	2.15	0.46
60:1A:4133:HOH:O	28:16:19:ARG:HD3	2.16	0.46
4:1E:103:ASP:CG	4:1E:168:MET:HE2	2.39	0.46
4:1E:178:GLU:H	4:1E:178:GLU:CD	2.23	0.46
12:1Q:1:MET:HB3	12:1Q:1:MET:HE2	1.70	0.46
14:1S:28:VAL:HG13	14:1S:101:LEU:HD13	1.97	0.46
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.81	0.46
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.50	0.46
33:1b:70:PHE:CD1	33:1b:163:PHE:HB3	2.50	0.46
35:1d:148:VAL:HG12	35:1d:149:ALA:O	2.15	0.46
35:1d:153:ARG:O	35:1d:181:MET:HE1	2.15	0.46
36:1e:99:GLY:O	36:1e:117:ASP:HA	2.14	0.46
42:1k:19:ALA:HB3	42:1k:82:VAL:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:20:GLY:O	46:1o:22:THR:HG23	2.16	0.46
53:1y:52:ALA:HB3	53:1y:77:LEU:HD11	1.98	0.46
1:2A:471:A:H2'	1:2A:472:A:O4'	2.16	0.46
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.15	0.46
1:2A:1057:A:H1'	1:2A:1082:U:O4	2.14	0.46
1:2A:1252:G:C2	1:2A:1253:A:C2	3.04	0.46
1:2A:1263:U:C4	1:2A:1264:G:C6	3.03	0.46
1:2A:1539:G:H2'	1:2A:1540:U:O4'	2.15	0.46
1:2A:1771:C:O2'	60:2A:3866:HOH:O	2.17	0.46
1:2A:2504:U:H6	1:2A:2504:U:O5'	1.99	0.46
1:2A:2591:C:H2'	1:2A:2592:G:C8	2.51	0.46
7:2H:23:ARG:HB2	7:2H:23:ARG:CZ	2.45	0.46
8:2I:38:LEU:O	8:2I:40:THR:N	2.42	0.46
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.80	0.46
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.48	0.46
22:20:30:VAL:HG12	60:20:213:HOH:O	2.13	0.46
32:2a:300:A:H1'	32:2a:565:U:O2	2.15	0.46
32:2a:448:A:OP2	32:2a:485:G:N1	2.36	0.46
32:2a:573:A:N3	32:2a:883:C:O2'	2.46	0.46
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.14	0.46
32:2a:1162:C:H2'	32:2a:1163:C:H6	1.79	0.46
32:2a:1314:C:OP1	50:2s:6:LYS:NZ	2.43	0.46
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.51	0.46
33:2b:119:GLU:OE2	33:2b:153:ARG:NH1	2.48	0.46
34:2c:52:LEU:HG	34:2c:68:VAL:HG13	1.96	0.46
35:2d:76:ARG:NH2	35:2d:80:GLU:OE1	2.31	0.46
36:2e:152:ARG:HB3	39:2h:43:GLY:O	2.15	0.46
39:2h:4:ASP:OD2	39:2h:85:ARG:NH1	2.41	0.46
44:2m:44:ARG:HA	44:2m:44:ARG:HD3	1.83	0.46
1:1A:645:C:O2	1:1A:645:C:H2'	2.16	0.46
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.16	0.46
1:1A:1213:A:N3	1:1A:1238:G:O2'	2.46	0.46
1:1A:1578:U:H2'	1:1A:1579:A:H5'	1.97	0.46
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.15	0.46
1:1A:2182:G:H2'	1:1A:2183:C:C6	2.50	0.46
1:1A:2786:U:OP1	4:1E:69:LYS:HD2	2.16	0.46
4:1E:64:LYS:O	4:1E:68:ALA:N	2.46	0.46
5:1F:11:VAL:HA	5:1F:125:LEU:O	2.15	0.46
6:1G:82:LEU:HD21	6:1G:88:ILE:HG21	1.97	0.46
8:1I:98:ALA:C	8:1I:100:ALA:H	2.23	0.46
11:1P:119:GLU:OE1	25:23:3:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:152:A:N6	32:1a:169:C:N3	2.64	0.46
32:1a:234:C:H2'	32:1a:235:C:H6	1.80	0.46
32:1a:1004:A:C5	32:1a:1037:C:C2	3.03	0.46
34:1c:112:SER:HA	34:1c:183:ASP:OD2	2.14	0.46
37:1f:4:TYR:CD1	37:1f:92:LYS:HA	2.42	0.46
46:1o:10:LYS:HE2	46:1o:10:LYS:HB2	1.71	0.46
50:1s:24:ALA:C	50:1s:26:GLY:H	2.24	0.46
51:1t:25:ARG:O	51:1t:29:LYS:HG3	2.15	0.46
1:2A:107:C:H2'	1:2A:108:U:H6	1.80	0.46
1:2A:764:A:N1	1:2A:1789:A:O2'	2.43	0.46
1:2A:1059:G:OP1	1:2A:1060:U:H5"	2.16	0.46
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.49	0.46
1:2A:1527:G:H5"	1:2A:1528:A:OP1	2.16	0.46
1:2A:2351:G:H8	1:2A:2351:G:O5'	1.99	0.46
1:2A:2413:G:H2'	1:2A:2414:G:O4'	2.16	0.46
1:2A:2586:C:H6	1:2A:2586:C:O5'	1.98	0.46
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.39	0.46
3:2D:136:ILE:HG22	3:2D:140:THR:OG1	2.15	0.46
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	1.98	0.46
8:2I:62:LYS:HG2	8:2I:133:HIS:NE2	2.30	0.46
9:2N:118:LYS:C	9:2N:120:LEU:H	2.23	0.46
12:2Q:110:THR:HB	12:2Q:113:GLN:HB2	1.97	0.46
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.59	0.46
27:25:35:GLU:HG2	60:25:205:HOH:O	2.15	0.46
28:26:35:GLU:HG2	28:26:50:ARG:HG3	1.98	0.46
41:2j:38:ILE:O	41:2j:38:ILE:HG12	2.15	0.46
1:1A:328:U:H4'	20:1Y:68:HIS:CG	2.51	0.46
1:1A:700:G:O2'	1:1A:1632:A:N3	2.37	0.46
1:1A:957:A:N1	1:1A:2458:G:H4'	2.30	0.46
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.97	0.46
1:1A:1580:A:OP2	1:1A:1580:A:H8	1.98	0.46
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.31	0.46
1:1A:2630:G:H2'	1:1A:2631:G:O4'	2.16	0.46
22:10:15:ASP:OD1	22:10:16:SER:N	2.49	0.46
32:1a:269:C:H2'	32:1a:270:A:H8	1.75	0.46
33:1b:27:LYS:C	33:1b:29:ALA:H	2.24	0.46
41:1j:64:GLU:OE2	41:1j:66:ARG:HD3	2.15	0.46
52:1u:18:TYR:CG	52:1u:24:ARG:HD3	2.51	0.46
1:2A:93:G:H2'	1:2A:94:C:C6	2.51	0.46
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.51	0.46
1:2A:995:C:O2	9:2N:3:THR:OG1	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1022:G:C5	1:2A:1140:C:C4	3.03	0.46
1:2A:1197:G:O2'	1:2A:1198:U:H5'	2.16	0.46
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.16	0.46
1:2A:1708:C:O2'	1:2A:1709:U:H5'	2.14	0.46
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.15	0.46
60:2A:5520:HOH:O	18:2W:16:LYS:HE2	2.15	0.46
4:2E:1:MET:HB3	4:2E:83:ASP:O	2.14	0.46
8:2I:128:LEU:HD12	8:2I:142:VAL:HG21	1.98	0.46
17:2V:40:LEU:HB2	17:2V:46:VAL:HB	1.97	0.46
20:2Y:5:MET:HE1	20:2Y:69:ALA:HB2	1.98	0.46
20:2Y:40:GLU:O	20:2Y:42:VAL:HG23	2.16	0.46
32:2a:19:C:H5"	36:2e:86:ALA:CB	2.45	0.46
32:2a:788:U:H2'	32:2a:789:U:O4'	2.15	0.46
32:2a:1057:G:C4	32:2a:1204:A:C2	3.04	0.46
32:2a:1075:C:H5"	33:2b:179:LYS:HE3	1.97	0.46
36:2e:27:ARG:HE	36:2e:27:ARG:HB2	1.43	0.46
1:1A:54:G:O2'	29:17:35:ARG:HD3	2.16	0.46
1:1A:262:A:N3	1:1A:430:G:O2'	2.40	0.46
1:1A:745:G:OP1	4:1E:133:LYS:HE3	2.16	0.46
1:1A:962:G:O2'	1:1A:963:U:H5'	2.16	0.46
1:1A:2751:G:C4	7:1H:2:SER:HA	2.51	0.46
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.98	0.46
15:1T:51:ARG:NH1	60:1T:309:HOH:O	2.46	0.46
18:1W:9:TYR:HA	18:1W:100:THR:HG23	1.98	0.46
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.66	0.46
27:15:40:LYS:HE2	27:15:44:THR:O	2.16	0.46
32:1a:173:U:H5"	32:1a:197:A:O4'	2.16	0.46
32:1a:922:G:C6	32:1a:923:A:C6	3.04	0.46
32:1a:992:U:H4'	32:1a:993:G:H5'	1.98	0.46
32:1a:1095:U:P	32:1a:1108:G:H1	2.39	0.46
44:1m:54:VAL:HG12	44:1m:57:ARG:NH1	2.31	0.46
47:1p:25:ARG:HH11	47:1p:25:ARG:HG3	1.80	0.46
1:2A:275:G:H2'	1:2A:276:A:O4'	2.16	0.46
1:2A:494:G:H3'	60:2A:3923:HOH:O	2.15	0.46
1:2A:1181:C:H2'	1:2A:1182:A:C8	2.51	0.46
1:2A:1889:A:O2'	1:2A:2087:G:H5'	2.15	0.46
1:2A:2182:G:H2'	1:2A:2183:C:C6	2.49	0.46
1:2A:2355:C:O2	22:20:39:ARG:NH2	2.47	0.46
1:2A:2808:U:O2'	1:2A:2809:A:H5'	2.16	0.46
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.36	0.46
14:2S:24:LEU:HD12	14:2S:82:ILE:HG23	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:32:PRO:HA	19:2X:77:LYS:HB2	1.98	0.46
20:2Y:13:VAL:HB	20:2Y:72:VAL:HG22	1.97	0.46
20:2Y:68:HIS:ND1	20:2Y:70:SER:HB3	2.31	0.46
32:2a:612:C:O2	32:2a:629:G:N2	2.49	0.46
32:2a:999:C:N4	32:2a:1042:G:H1	2.12	0.46
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.30	0.46
32:2a:1313:U:OP1	50:2s:5:LEU:HB2	2.15	0.46
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.14	0.46
33:2b:111:ARG:HH11	33:2b:111:ARG:HA	1.80	0.46
38:2g:74:GLU:OE2	38:2g:95:ARG:NE	2.47	0.46
39:2h:97:VAL:HA	39:2h:100:ILE:HG13	1.98	0.46
42:2k:21:ILE:HB	42:2k:84:VAL:HG22	1.98	0.46
42:2k:48:ILE:HG13	42:2k:63:LEU:CB	2.45	0.46
44:2m:49:THR:O	44:2m:53:VAL:HG12	2.16	0.46
45:2n:6:LEU:HB3	45:2n:23:ARG:NH2	2.30	0.46
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.16	0.46
1:1A:1321:A:H2'	1:1A:1322:A:O4'	2.16	0.46
1:1A:1657:C:H2'	1:1A:1658:C:C6	2.51	0.46
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.16	0.46
1:1A:1805:U:H5"	3:1D:250:TRP:CD2	2.51	0.46
1:1A:2156:G:H2'	1:1A:2157:G:H5'	1.97	0.46
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.51	0.46
11:1P:94:GLU:HG3	11:1P:124:LYS:HD2	1.98	0.46
32:1a:958:A:C6	32:1a:959:A:C6	3.03	0.46
32:1a:1030(A):G:H2'	32:1a:1030(C):G:OP2	2.15	0.46
34:1c:19:GLU:O	34:1c:56:ASP:HA	2.16	0.46
52:1u:3:LYS:HD2	52:1u:14:TRP:HD1	1.80	0.46
1:2A:610:G:N2	1:2A:619:G:H1'	2.30	0.46
1:2A:686:G:H5"	60:2A:3823:HOH:O	2.15	0.46
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.98	0.46
1:2A:861:A:N3	2:2B:79:C:O2'	2.47	0.46
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.50	0.46
1:2A:1356:G:H2'	1:2A:1357:U:O4'	2.16	0.46
1:2A:1740:G:H2'	1:2A:1741:A:C8	2.50	0.46
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.50	0.46
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.98	0.46
1:2A:2055:C:H5'	1:2A:2056:G:O5'	2.15	0.46
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.80	0.46
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.31	0.46
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.49	0.46
2:2B:37:C:C5	2:2B:38:C:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:13:ARG:O	15:2T:57:PHE:HE2	1.99	0.46
9:2N:37:LYS:HG3	9:2N:42:TRP:NE1	2.31	0.46
16:2U:76:TYR:CE2	16:2U:80:ILE:HG13	2.51	0.46
17:2V:76:LYS:HB2	17:2V:81:TYR:HB3	1.98	0.46
19:2X:47:PHE:O	19:2X:49:VAL:HG13	2.15	0.46
26:24:46:GLN:C	26:24:48:ARG:H	2.24	0.46
32:2a:228:A:O2'	47:2p:2:VAL:HG21	2.15	0.46
32:2a:270:A:H2'	32:2a:271:C:C6	2.51	0.46
32:2a:403:C:O2'	32:2a:404:U:H5'	2.16	0.46
33:2b:197:VAL:CG1	33:2b:200:ILE:HG13	2.46	0.46
35:2d:78:LEU:HD23	35:2d:78:LEU:HA	1.79	0.46
35:2d:163:GLU:HG3	35:2d:166:LYS:HE2	1.98	0.46
40:2i:116:LYS:HA	40:2i:123:PRO:HD3	1.98	0.46
40:2i:117:HIS:CD2	40:2i:123:PRO:HA	2.50	0.46
48:2q:58:GLU:O	48:2q:74:LEU:N	2.46	0.46
50:2s:69:HIS:HB3	50:2s:73:GLU:CD	2.41	0.46
1:1A:657:U:H2'	1:1A:658:C:C6	2.50	0.46
1:1A:1508:A:C2'	1:1A:1509:C:H5"	2.45	0.46
1:1A:1568:G:H5'	3:1D:60:ARG:HA	1.98	0.46
1:1A:1781:C:N4	60:1A:4654:HOH:O	2.49	0.46
1:1A:2137:C:C5	1:1A:2155:G:C2	3.04	0.46
5:1F:183:VAL:HG13	60:1F:418:HOH:O	2.16	0.46
7:1H:35:VAL:O	7:1H:37:VAL:HG13	2.16	0.46
8:1I:41:GLU:HG2	8:1I:45:LYS:NZ	2.30	0.46
9:1N:20:GLY:HA2	9:1N:61:ARG:HG2	1.96	0.46
12:1Q:1:MET:HG3	12:1Q:44:ALA:HB1	1.97	0.46
31:19:7:VAL:HA	31:19:34:GLN:NE2	2.30	0.46
32:1a:407:G:H2'	32:1a:408:A:C8	2.50	0.46
32:1a:657:G:C2	32:1a:658:G:C8	3.03	0.46
32:1a:1432:G:O6	60:1a:3327:HOH:O	2.19	0.46
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.15	0.46
36:1e:60:TYR:HE1	36:1e:64:ARG:HH11	1.63	0.46
36:1e:89:ILE:HG12	36:1e:135:THR:HG23	1.97	0.46
1:2A:438:G:H2'	1:2A:440:G:C8	2.50	0.46
1:2A:483:A:O4'	20:2Y:48:ALA:HB1	2.16	0.46
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.50	0.46
1:2A:2340:G:H2'	1:2A:2341:G:C8	2.51	0.46
1:2A:2723:C:OP1	4:2E:109:LYS:HD3	2.16	0.46
2:2B:32:C:H2'	2:2B:33:G:O4'	2.16	0.46
2:2B:61:G:C6	2:2B:62:C:C4	3.04	0.46
4:2E:15:PHE:HA	4:2E:19:ARG:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:141:ILE:HD12	4:2E:150:VAL:HG21	1.97	0.46
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.98	0.46
8:2I:37:VAL:HG12	8:2I:38:LEU:H	1.81	0.46
21:2Z:52:SER:HG	21:2Z:53:ILE:H	1.60	0.46
32:2a:373:A:H2'	32:2a:374:A:H8	1.80	0.46
32:2a:736:C:H2'	32:2a:737:A:C8	2.51	0.46
32:2a:839:U:H5"	32:2a:840:C:C5	2.51	0.46
32:2a:1034:G:H2'	32:2a:1035:A:C8	2.50	0.46
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.50	0.46
32:2a:1388:C:H2'	32:2a:1389:C:H6	1.80	0.46
38:2g:16:LEU:HD12	40:2i:42:ARG:HA	1.98	0.46
50:2s:51:VAL:O	50:2s:58:VAL:N	2.45	0.46
1:1A:251:A:C5	1:1A:252:G:H1'	2.50	0.46
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.98	0.46
1:1A:900:A:C4	1:1A:901:A:C8	3.04	0.46
1:1A:1231:G:H2'	1:1A:1232:G:C8	2.52	0.46
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.97	0.46
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.49	0.46
1:1A:2462:U:C2	1:1A:2489:G:N2	2.84	0.46
1:1A:2543:G:H2'	1:1A:2544:G:O4'	2.15	0.46
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.51	0.46
4:1E:177:PRO:HD2	4:1E:178:GLU:OE1	2.16	0.46
6:1G:16:ARG:NH2	6:1G:31:VAL:HG21	2.25	0.46
6:1G:99:MET:HE2	6:1G:99:MET:HB3	1.81	0.46
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.16	0.46
9:1N:62:VAL:CG1	9:1N:66:LYS:HB2	2.46	0.46
10:1O:25:LEU:HD23	10:1O:25:LEU:HA	1.86	0.46
16:1U:27:LEU:HB3	16:1U:31:SER:HB3	1.98	0.46
20:1Y:28:LYS:NZ	20:1Y:64:GLU:OE1	2.48	0.46
28:16:19:ARG:CZ	28:16:52:VAL:HG11	2.46	0.46
32:1a:618:C:H3'	32:1a:619:U:H5"	1.97	0.46
32:1a:658:G:C2	32:1a:749:C:N3	2.83	0.46
32:1a:1080:A:H5'	36:1e:14:ARG:NH2	2.31	0.46
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.51	0.46
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.46	0.46
33:1b:22:LYS:C	33:1b:24:TRP:H	2.24	0.46
33:1b:79:ASP:O	33:1b:82:ARG:N	2.49	0.46
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.16	0.46
34:1c:177:THR:HG22	34:1c:180:ALA:H	1.81	0.46
35:1d:191:ARG:HD2	35:1d:200:GLU:OE1	2.16	0.46
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:824:A:H2'	1:2A:825:C:O4'	2.16	0.46
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.15	0.46
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.97	0.46
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.16	0.46
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.50	0.46
24:22:59:ARG:NH2	60:22:102:HOH:O	2.45	0.46
32:2a:36:C:OP1	43:2l:123:LYS:HE3	2.16	0.46
32:2a:56:U:H2'	32:2a:57:G:H8	1.81	0.46
32:2a:335:C:O2	32:2a:1433:A:H2	1.98	0.46
32:2a:507:C:H3'	32:2a:508:C:H2'	1.97	0.46
32:2a:1038:C:H2'	32:2a:1039:C:H6	1.81	0.46
32:2a:1295:G:O2'	32:2a:1302:U:O4	2.25	0.46
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.24	0.46
40:2i:49:PRO:CG	40:2i:82:ALA:HB2	2.46	0.46
44:2m:70:LEU:O	44:2m:74:VAL:HG23	2.16	0.46
50:2s:63:THR:H	50:2s:66:MET:HG2	1.81	0.46
1:1A:44:G:H5"	1:1A:45:C:OP1	2.15	0.45
1:1A:322:A:H5'	1:1A:340:A:H1'	1.98	0.45
1:1A:548:A:O2'	1:1A:549:G:OP1	2.32	0.45
1:1A:2196:C:O2'	1:1A:2197:U:H5'	2.16	0.45
1:1A:2348:U:OP2	30:18:42:ARG:NH2	2.47	0.45
1:1A:2777:G:O6	60:1A:4149:HOH:O	2.18	0.45
2:1B:26:A:H2'	2:1B:27:C:O4'	2.16	0.45
7:1H:87:LEU:HA	7:1H:163:TYR:O	2.17	0.45
11:1P:124:LYS:HE2	11:1P:146:VAL:HG21	1.99	0.45
14:1S:58:LEU:HD23	14:1S:58:LEU:HA	1.81	0.45
23:11:50:ARG:HD2	23:11:57:GLU:OE2	2.15	0.45
24:12:44:LEU:HD12	24:12:44:LEU:HA	1.81	0.45
32:1a:153:C:H2'	32:1a:154:C:C6	2.51	0.45
32:1a:222:U:C2	32:1a:223:U:C5	3.03	0.45
32:1a:404:U:H2'	32:1a:405:U:H6	1.81	0.45
32:1a:861:G:O2'	32:1a:874:G:O2'	2.34	0.45
32:1a:993:G:H2'	32:1a:993:G:N3	2.31	0.45
33:1b:17:PHE:HB3	33:1b:44:LEU:HD21	1.98	0.45
34:1c:8:ILE:HD11	34:1c:184:TYR:H	1.81	0.45
35:1d:107:ARG:HD2	35:1d:107:ARG:HA	1.57	0.45
39:1h:111:ILE:O	39:1h:112:LEU:HD23	2.16	0.45
49:1r:56:THR:HB	49:1r:58:LEU:CD1	2.45	0.45
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.81	0.45
1:2A:839:U:H2'	1:2A:840:C:C6	2.50	0.45
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1418:G:H8	1:2A:1418:G:O5'	1.99	0.45
1:2A:1638:C:O3'	1:2A:2709:G:N2	2.49	0.45
1:2A:1825:A:O4'	3:2D:254:THR:HG21	2.16	0.45
1:2A:2094:G:N2	1:2A:2196:C:H1'	2.30	0.45
1:2A:2321:G:N3	1:2A:2321:G:H2'	2.31	0.45
1:2A:2473:U:O2	1:2A:2473:U:H2'	2.15	0.45
14:2S:7:TYR:CZ	14:2S:91:PRO:HG3	2.51	0.45
27:25:48:GLU:H	27:25:48:GLU:HG2	1.42	0.45
32:2a:374:A:C6	32:2a:375:U:C4	3.04	0.45
32:2a:554:C:H2'	32:2a:555:C:H6	1.81	0.45
32:2a:685:G:H5'	42:2k:39:PRO:O	2.16	0.45
32:2a:1307:U:H2'	32:2a:1308:U:C6	2.51	0.45
32:2a:1326:C:OP1	52:2u:17:THR:OG1	2.26	0.45
32:2a:1346:A:H61	32:2a:1374:A:H3'	1.81	0.45
32:2a:1493:A:C2'	32:2a:1494:G:H5'	2.46	0.45
33:2b:12:GLU:HA	33:2b:15:VAL:HB	1.98	0.45
39:2h:45:ILE:HG22	39:2h:63:LEU:HA	1.97	0.45
44:2m:37:THR:HG21	44:2m:56:LEU:HA	1.98	0.45
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.51	0.45
1:1A:1897:G:H2'	1:1A:1898:U:O4'	2.15	0.45
2:1B:7:G:H5"	2:1B:7:G:C8	2.50	0.45
8:1I:29:TYR:O	8:1I:32:PRO:HD2	2.16	0.45
23:11:19:GLN:O	23:11:35:THR:HG22	2.16	0.45
25:13:24:LYS:HB2	25:13:24:LYS:HE2	1.77	0.45
32:1a:585:G:N3	32:1a:879:C:H4'	2.31	0.45
32:1a:1137:C:O5'	32:1a:1137:C:H6	1.99	0.45
36:1e:7:GLU:CD	36:1e:37:ARG:HE	2.23	0.45
48:1q:27:PHE:CZ	48:1q:36:ILE:HD11	2.52	0.45
49:1r:22:VAL:HA	49:1r:25:THR:HG23	1.97	0.45
53:1y:6:THR:OG1	53:1y:38:HIS:HE1	1.99	0.45
1:2A:23:G:OP1	1:2A:504:U:N3	2.45	0.45
1:2A:276:A:H5"	1:2A:278:A:C8	2.51	0.45
1:2A:636:G:H4'	1:2A:638:G:O3'	2.16	0.45
1:2A:829:A:N7	1:2A:2248:C:H5'	2.31	0.45
1:2A:904:C:H2'	1:2A:905:U:C6	2.52	0.45
1:2A:2150:U:N3	1:2A:2151:G:C5	2.84	0.45
2:2B:78:A:H2'	2:2B:79:C:O4'	2.17	0.45
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.99	0.45
11:2P:65:ARG:HG3	11:2P:66:GLY:N	2.30	0.45
16:2U:14:HIS:HA	16:2U:32:PHE:CD1	2.52	0.45
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.56	0.45
32:2a:353:A:H5'	32:2a:353:A:C8	2.52	0.45
32:2a:977:A:O2'	32:2a:979:C:OP2	2.29	0.45
32:2a:1092:A:H5"	38:2g:4:ARG:CZ	2.46	0.45
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.16	0.45
36:2e:103:GLY:O	36:2e:106:PRO:HD2	2.16	0.45
53:2y:52:ALA:CB	53:2y:81:LEU:HD11	2.46	0.45
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.52	0.45
1:1A:375:C:H5"	60:1A:4905:HOH:O	2.15	0.45
1:1A:612:C:H2'	1:1A:613:G:O4'	2.17	0.45
1:1A:821:A:H2'	1:1A:946:G:H5"	1.98	0.45
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.49	0.45
1:1A:2059:A:C8	1:1A:2503:2MA:HM22	2.52	0.45
1:1A:2101:G:H2'	1:1A:2102:U:O4'	2.17	0.45
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.16	0.45
6:1G:106:LEU:O	6:1G:111:LEU:HG	2.16	0.45
8:1I:105:HIS:CD2	8:1I:105:HIS:N	2.84	0.45
15:1T:29:ARG:NE	15:1T:46:GLU:OE1	2.49	0.45
32:1a:735:C:H2'	32:1a:736:C:C6	2.51	0.45
32:1a:1258:G:H2'	32:1a:1259:C:C6	2.52	0.45
34:1c:121:ALA:O	34:1c:124:ILE:HG12	2.15	0.45
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.68	0.45
1:2A:86:C:H4'	1:2A:104:U:H1'	1.98	0.45
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.25	0.45
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.51	0.45
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.51	0.45
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.16	0.45
4:2E:24:THR:HB	4:2E:184:VAL:HG12	1.97	0.45
26:24:58:ARG:HH21	50:2s:68:GLY:H	1.64	0.45
32:2a:316:G:H4'	60:2a:3440:HOH:O	2.16	0.45
32:2a:519:C:OP2	43:2l:50:SER:OG	2.35	0.45
32:2a:554:C:H2'	32:2a:555:C:C6	2.51	0.45
32:2a:567:G:H2'	32:2a:568:G:O4'	2.16	0.45
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.39	0.45
33:2b:112:VAL:HG22	33:2b:149:LEU:HD22	1.98	0.45
34:2c:71:ALA:HB2	34:2c:109:PRO:HG3	1.98	0.45
36:2e:143:ARG:HH11	39:2h:77:GLU:CD	2.24	0.45
43:2l:117:ARG:CZ	43:2l:117:ARG:HB2	2.46	0.45
47:2p:48:TRP:HH2	47:2p:76:GLN:NE2	2.14	0.45
49:2r:58:LEU:HD23	49:2r:62:GLU:HG3	1.98	0.45
1:1A:576:U:H2'	1:1A:577:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:747:U:O2	1:1A:2014:A:H1'	2.17	0.45
1:1A:898:C:H2'	1:1A:899:A:O4'	2.16	0.45
1:1A:1249:U:H5"	60:1A:4350:HOH:O	2.15	0.45
1:1A:2439:A:H5'	1:1A:2439:A:H8	1.82	0.45
1:1A:2625:G:O6	60:1A:4162:HOH:O	2.20	0.45
60:1A:6886:HOH:O	25:13:24:LYS:HD2	2.16	0.45
8:1I:1:MET:N	8:1I:21:VAL:O	2.41	0.45
8:1I:46:ALA:O	8:1I:50:ARG:HG2	2.17	0.45
12:1Q:41:TRP:HB3	12:1Q:94:VAL:HG21	1.99	0.45
32:1a:66:G:O4'	32:1a:173:U:C4	2.69	0.45
32:1a:303:A:H2'	32:1a:304:U:O4'	2.17	0.45
32:1a:833:U:H2'	32:1a:834:C:H6	1.79	0.45
32:1a:1425:U:H2'	32:1a:1426:C:H6	1.80	0.45
43:1l:70:ILE:CG1	43:1l:100:ILE:HD12	2.46	0.45
48:1q:86:GLU:O	48:1q:90:ILE:HG12	2.16	0.45
53:1y:3:MET:HE2	53:1y:3:MET:HB3	1.56	0.45
53:1y:55:ASN:OD1	53:1y:60:VAL:HG12	2.16	0.45
1:2A:603:A:N1	1:2A:625:G:O2'	2.46	0.45
1:2A:828:U:H4'	1:2A:831:G:N1	2.31	0.45
1:2A:830:G:H4'	1:2A:831:G:OP2	2.17	0.45
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.05	0.45
1:2A:1358:G:O2'	1:2A:1359:A:H5"	2.16	0.45
1:2A:1494:A:C2	1:2A:1495:A:C4	3.04	0.45
1:2A:2097:C:H2'	1:2A:2098:U:O4'	2.15	0.45
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.52	0.45
1:2A:2302:G:C6	1:2A:2315:G:C6	3.04	0.45
1:2A:2376:A:H8	1:2A:2376:A:OP1	2.00	0.45
2:2B:59:A:H2'	2:2B:60:C:O4'	2.16	0.45
5:2F:192:LEU:HD21	5:2F:194:MET:HE2	1.98	0.45
6:2G:46:ALA:HA	6:2G:49:ASP:O	2.17	0.45
22:20:68:GLU:OE1	22:20:82:ARG:HD2	2.16	0.45
28:26:14:THR:OG1	28:26:48:VAL:O	2.23	0.45
32:2a:671:G:C6	32:2a:672:U:C4	3.05	0.45
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.17	0.45
32:2a:1287:A:C6	32:2a:1288:A:C6	3.05	0.45
32:2a:1310:G:H2'	32:2a:1311:G:C8	2.51	0.45
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.52	0.45
33:2b:82:ARG:HG3	33:2b:92:TYR:CZ	2.51	0.45
33:2b:87:ARG:HH21	33:2b:219:VAL:HB	1.82	0.45
45:2n:25:VAL:HG22	45:2n:39:LEU:HD23	1.97	0.45
50:2s:51:VAL:O	50:2s:57:HIS:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:702:G:H2'	1:1A:703:U:H6	1.82	0.45
1:1A:754:C:H2'	1:1A:755:C:H6	1.81	0.45
1:1A:1203:G:H5'	11:1P:3:LEU:HD23	1.97	0.45
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.25	0.45
1:1A:1422:G:H1'	1:1A:1496:A:N1	2.31	0.45
1:1A:1529:G:C6	1:1A:1530:C:C4	3.04	0.45
1:1A:2479:G:OP1	1:1A:2537:U:H1'	2.17	0.45
3:1D:136:ILE:HG22	3:1D:140:THR:OG1	2.17	0.45
21:1Z:28:MET:HG3	21:1Z:37:VAL:HG11	1.98	0.45
32:1a:1116:C:O2'	40:1i:108:VAL:HG11	2.17	0.45
35:1d:43:HIS:ND1	35:1d:46:LYS:HE3	2.31	0.45
35:1d:79:PHE:O	35:1d:83:SER:OG	2.33	0.45
35:1d:114:ARG:HA	35:1d:117:ALA:HB3	1.99	0.45
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.97	0.45
40:1i:4:TYR:CE1	40:1i:88:TYR:HA	2.50	0.45
1:2A:246:C:H5'	11:2P:71:VAL:HG23	1.98	0.45
1:2A:328:U:H4'	20:2Y:68:HIS:CE1	2.51	0.45
1:2A:624:C:O5'	1:2A:624:C:H6	1.98	0.45
1:2A:881:G:C2	1:2A:882:G:C4	3.05	0.45
1:2A:897:C:H2'	1:2A:898:C:C6	2.52	0.45
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.51	0.45
1:2A:1823:G:OP1	3:2D:54:ARG:NH1	2.48	0.45
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.51	0.45
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.98	0.45
60:2A:4070:HOH:O	18:2W:18:ARG:HD3	2.16	0.45
8:2I:1:MET:N	8:2I:21:VAL:O	2.35	0.45
13:2R:74:LYS:HD2	60:2R:3414:HOH:O	2.15	0.45
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.52	0.45
32:2a:20:U:H1'	32:2a:916:G:N2	2.32	0.45
32:2a:519:C:H2'	32:2a:520:A:C8	2.52	0.45
32:2a:683:G:C6	32:2a:684:A:C5	3.05	0.45
32:2a:922:G:H1'	36:2e:19:MET:HB2	1.98	0.45
32:2a:926:G:O6	53:2y:87:LYS:HD3	2.16	0.45
32:2a:1223:C:H3'	32:2a:1224:G:H5"	1.98	0.45
32:2a:1291:G:O2'	40:2i:38:GLN:OE1	2.27	0.45
34:2c:19:GLU:HB3	34:2c:40:ARG:HH22	1.81	0.45
35:2d:176:LEU:HA	35:2d:183:GLY:HA2	1.98	0.45
36:2e:11:ILE:HG21	36:2e:105:VAL:HG22	1.99	0.45
44:2m:65:LYS:HE2	44:2m:69:GLU:HG2	1.98	0.45
1:1A:320:A:H4'	1:1A:322:A:C8	2.51	0.45
1:1A:416:C:O2'	1:1A:417:C:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:536:A:H2'	1:1A:537:C:C6	2.52	0.45
1:1A:1445:A:H4'	1:1A:1445(A):C:OP2	2.17	0.45
1:1A:1803:A:H2'	1:1A:1804:C:O4'	2.16	0.45
1:1A:1906:G:H5"	1:1A:1929:G:O2'	2.17	0.45
4:1E:51:PHE:C	4:1E:75:VAL:HG22	2.42	0.45
5:1F:178:PRO:HB2	5:1F:201:VAL:HG21	1.97	0.45
32:1a:427:U:H5'	35:1d:41:GLY:HA2	1.98	0.45
32:1a:491:G:H2'	32:1a:492:G:O4'	2.17	0.45
32:1a:762:C:H2'	32:1a:763:G:H8	1.81	0.45
32:1a:951:G:O4'	32:1a:971:G:H5'	2.17	0.45
32:1a:1229:A:H4'	53:1y:2:THR:OG1	2.17	0.45
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.97	0.45
35:1d:176:LEU:HD12	35:1d:176:LEU:HA	1.81	0.45
36:1e:60:TYR:CE1	36:1e:64:ARG:HD2	2.50	0.45
40:1i:70:LYS:O	40:1i:74:ILE:HG13	2.17	0.45
42:1k:104:GLN:O	42:1k:106:LYS:N	2.49	0.45
51:1t:30:LYS:O	51:1t:34:LYS:HG3	2.17	0.45
1:2A:719:C:H2'	1:2A:720:C:C6	2.51	0.45
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.16	0.45
1:2A:1181:C:H2'	1:2A:1182:A:H8	1.82	0.45
1:2A:1277:G:O2'	13:2R:24:GLN:HG2	2.15	0.45
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.72	0.45
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.16	0.45
1:2A:2648:C:H2'	1:2A:2649:U:H6	1.80	0.45
9:2N:38:HIS:NE2	9:2N:50:ASP:OD2	2.50	0.45
9:2N:60:ILE:HD12	9:2N:60:ILE:HA	1.69	0.45
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.98	0.45
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.99	0.45
32:2a:128:G:O2'	48:2q:3:LYS:HE2	2.17	0.45
32:2a:300:A:O2'	32:2a:564:C:N3	2.39	0.45
32:2a:399:G:H2'	32:2a:400:C:C6	2.52	0.45
32:2a:576:G:N1	32:2a:759:A:OP1	2.41	0.45
32:2a:1093:A:N3	32:2a:1109:C:O2'	2.45	0.45
32:2a:1202:G:O4'	45:2n:29:ARG:NH1	2.50	0.45
32:2a:1288:A:N3	32:2a:1352:C:O2'	2.42	0.45
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.28	0.45
36:2e:103:GLY:O	36:2e:104:ALA:C	2.59	0.45
41:2j:38:ILE:HD13	41:2j:71:LEU:HD23	1.99	0.45
1:1A:747:U:O2'	18:1W:92:ARG:NH2	2.50	0.45
1:1A:1491:G:O2'	3:1D:101:GLU:HB2	2.17	0.45
1:1A:2030:A:H4'	1:1A:2031:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2135:A:N6	1:1A:2155:G:H22	2.14	0.45
1:1A:2181:G:H2'	1:1A:2182:G:H8	1.81	0.45
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.17	0.45
1:1A:2496:C:P	12:1Q:82:ARG:HG2	2.57	0.45
2:1B:52:A:N6	14:1S:33:LYS:HG2	2.32	0.45
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.60	0.45
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.80	0.45
10:1O:64:ARG:O	10:1O:82:ASN:HA	2.17	0.45
11:1P:46:LYS:HB3	11:1P:46:LYS:HE3	1.60	0.45
26:14:62:ARG:HD3	26:14:62:ARG:HA	1.66	0.45
32:1a:174:C:H2'	32:1a:175:C:H6	1.81	0.45
32:1a:195:A:C6	32:1a:196:A:N1	2.85	0.45
32:1a:236:G:H2'	32:1a:237:C:O4'	2.17	0.45
32:1a:437:U:O3'	35:1d:125:HIS:CE1	2.69	0.45
32:1a:539:A:H2'	32:1a:540:G:H8	1.81	0.45
32:1a:562:C:H1'	43:1l:15:ARG:HB3	1.98	0.45
32:1a:565:U:H3'	32:1a:566:G:H2'	1.98	0.45
32:1a:580:U:H2'	32:1a:581:G:O4'	2.17	0.45
32:1a:839:U:H3'	32:1a:840:C:C6	2.52	0.45
32:1a:952:U:O2'	32:1a:953:G:H5'	2.16	0.45
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.56	0.45
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.64	0.45
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.50	0.45
35:1d:171:GLY:C	35:1d:173:TRP:H	2.25	0.45
43:1l:40:VAL:HG11	43:1l:77:LEU:O	2.15	0.45
44:1m:80:ARG:HH22	50:1s:69:HIS:HE1	1.64	0.45
51:1t:57:ARG:HD3	51:1t:101:GLY:O	2.17	0.45
54:1z:10:LYS:HB2	54:1z:13:ARG:HD2	1.97	0.45
1:2A:223:A:O4'	1:2A:422:A:H5'	2.16	0.45
1:2A:247:G:H4'	1:2A:386:G:C6	2.52	0.45
1:2A:603:A:C8	1:2A:655:A:N1	2.85	0.45
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.31	0.45
1:2A:1782:C:H1'	1:2A:2609:U:H5"	1.97	0.45
1:2A:2311:A:C2	6:2G:80:PHE:HB3	2.52	0.45
2:2B:29:A:H2'	2:2B:30:C:O4'	2.16	0.45
8:2I:77:LEU:HD13	8:2I:101:LEU:HD23	1.98	0.45
16:2U:8:VAL:O	16:2U:12:ARG:HG3	2.17	0.45
16:2U:90:VAL:O	16:2U:95:LEU:HG	2.17	0.45
23:21:80:LEU:HD23	23:21:82:LEU:HD21	1.99	0.45
32:2a:109:A:C6	32:2a:326:G:C6	3.04	0.45
32:2a:262:A:C6	32:2a:263:A:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:429:U:H1'	32:2a:430:A:H5"	1.98	0.45
32:2a:458:C:H2'	32:2a:460:G:O4'	2.16	0.45
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.23	0.45
32:2a:1054:C:C6	53:2y:45:PRO:HG2	2.51	0.45
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.52	0.45
32:2a:1402:4OC:O2	32:2a:1500:A:N1	2.49	0.45
38:2g:27:ILE:CD1	38:2g:40:ALA:HA	2.46	0.45
38:2g:75:VAL:HG13	38:2g:145:ALA:HA	1.99	0.45
49:2r:62:GLU:HA	49:2r:65:ILE:HG13	1.99	0.45
50:2s:3:ARG:HH11	50:2s:7:LYS:HG2	1.82	0.45
50:2s:22:LEU:HD23	50:2s:22:LEU:HA	1.85	0.45
1:1A:999:U:O2'	1:1A:1000:A:H5'	2.17	0.45
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.32	0.45
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.50	0.45
1:1A:2100:G:H1	1:1A:2189:U:H3	1.65	0.45
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.51	0.45
4:1E:119:ARG:HG2	4:1E:160:TYR:HB2	1.98	0.45
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.52	0.45
6:1G:50:ALA:O	6:1G:52:ILE:N	2.50	0.45
11:1P:100:LEU:HD23	11:1P:100:LEU:HA	1.79	0.45
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.41	0.45
16:1U:104:GLN:NE2	16:1U:105:VAL:HG23	2.32	0.45
31:19:15:LYS:HG2	31:19:17:ILE:HD13	1.99	0.45
32:1a:391:G:C6	32:1a:392:G:C5	3.05	0.45
32:1a:607:A:H2'	32:1a:608:A:O4'	2.17	0.45
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.16	0.45
32:1a:1229:A:H2'	32:1a:1230:C:H6	1.80	0.45
33:1b:7:VAL:O	33:1b:217:ARG:NH2	2.50	0.45
36:1e:43:LEU:HD21	36:1e:132:ALA:HB1	1.98	0.45
41:1j:55:LYS:H	41:1j:55:LYS:HG3	1.58	0.45
43:1l:56:ALA:HB2	43:1l:70:ILE:HD11	1.99	0.45
1:2A:71:A:H5"	1:2A:73:A:C8	2.51	0.45
1:2A:980:A:N3	1:2A:2037:G:O2'	2.49	0.45
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.51	0.45
1:2A:1456:G:OP2	60:2A:3889:HOH:O	2.21	0.45
1:2A:1576:U:H2'	1:2A:1577:C:H6	1.82	0.45
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.31	0.45
4:2E:64:LYS:O	4:2E:68:ALA:N	2.43	0.45
32:2a:328:C:H4'	32:2a:329:A:H5'	1.99	0.45
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.52	0.45
32:2a:826:C:H2'	32:2a:827:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1232:U:H6	32:2a:1232:U:O5'	2.00	0.45
32:2a:1275:A:H2'	32:2a:1276:G:O4'	2.17	0.45
37:2f:78:GLU:O	37:2f:81:ILE:HB	2.17	0.45
38:2g:22:LEU:HG	38:2g:62:PHE:HE2	1.82	0.45
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.17	0.45
1:1A:517:C:OP2	27:15:13:LYS:HE2	2.17	0.45
1:1A:776:G:H4'	1:1A:777:A:O5'	2.17	0.45
1:1A:1547:C:H2'	1:1A:1548:C:C6	2.52	0.45
1:1A:1580:A:H5"	1:1A:1581:G:OP2	2.17	0.45
8:1I:87:LYS:HE3	8:1I:87:LYS:HB2	1.60	0.45
19:1X:60:ARG:NH2	29:17:47:ARG:HH12	2.15	0.45
21:1Z:199:LYS:HG3	21:1Z:200:GLY:N	2.32	0.45
32:1a:189:G:C6	32:1a:189(L):G:N1	2.85	0.45
32:1a:189(D):C:H1'	32:1a:189(H):G:N2	2.32	0.45
32:1a:399:G:H2'	32:1a:400:C:C6	2.52	0.45
32:1a:865:A:C2	32:1a:918:A:H4'	2.52	0.45
32:1a:1068:G:H8	32:1a:1068:G:OP2	2.00	0.45
32:1a:1169:A:H2'	32:1a:1170:A:C8	2.52	0.45
32:1a:1202:G:H1'	45:1n:29:ARG:HD2	1.98	0.45
35:1d:201:GLN:HA	35:1d:204:ILE:HG12	1.98	0.45
37:1f:80:ARG:NH1	37:1f:88:VAL:O	2.50	0.45
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.99	0.45
1:2A:575:A:OP2	1:2A:2055:C:N4	2.44	0.45
1:2A:709:U:H2'	1:2A:710:G:C8	2.52	0.45
1:2A:854:G:O6	60:2A:3884:HOH:O	2.20	0.45
1:2A:921:G:C6	1:2A:922:U:C4	3.05	0.45
1:2A:1079:C:C6	1:2A:1088:A:C2	3.05	0.45
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.16	0.45
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.17	0.45
1:2A:1740:G:H2'	1:2A:1741:A:H8	1.82	0.45
1:2A:1853:A:N1	1:2A:2087:G:H1'	2.32	0.45
1:2A:1948:G:N3	32:2a:1418:A:H2	2.15	0.45
1:2A:2228:G:C6	1:2A:2229:C:C4	3.05	0.45
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.48	0.45
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.52	0.45
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.32	0.45
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.14	0.45
6:2G:139:LEU:HA	6:2G:144:ILE:HB	1.97	0.45
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.58	0.45
8:2I:92:VAL:HB	8:2I:120:ILE:HB	1.98	0.45
12:2Q:21:THR:HG21	12:2Q:101:ARG:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.48	0.45
19:2X:32:PRO:HA	19:2X:77:LYS:HD3	1.99	0.45
21:2Z:145:GLU:HB2	21:2Z:148:ASP:OD2	2.17	0.45
32:2a:37:U:O2'	32:2a:500:G:H4'	2.17	0.45
32:2a:391:G:C6	32:2a:392:G:C5	3.05	0.45
32:2a:691:G:H2'	32:2a:692:U:C6	2.51	0.45
32:2a:1200:C:OP2	60:2a:3225:HOH:O	2.21	0.45
32:2a:1310:G:H2'	32:2a:1311:G:H8	1.81	0.45
32:2a:1358:U:H5"	45:2n:33:VAL:O	2.17	0.45
32:2a:1505:G:H4'	32:2a:1506:U:H5"	1.99	0.45
33:2b:63:MET:CG	33:2b:225:ALA:HB1	2.46	0.45
38:2g:83:ALA:HB3	38:2g:85:TYR:CE1	2.52	0.45
38:2g:106:GLN:O	38:2g:110:GLN:HG3	2.17	0.45
47:2p:74:LEU:O	47:2p:79:VAL:HG23	2.16	0.45
1:1A:292:C:C2	1:1A:349:G:C2	3.05	0.45
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.52	0.45
1:1A:2125:G:O2'	1:1A:2126:A:H5'	2.16	0.45
1:1A:2315:G:H2'	1:1A:2316:C:C6	2.52	0.45
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.99	0.45
3:1D:34:VAL:HA	3:1D:62:TYR:O	2.17	0.45
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.52	0.45
15:1T:125:ARG:NH1	32:1a:1443:G:H5'	2.32	0.45
26:14:7:PRO:HB2	26:14:27:THR:CG2	2.47	0.45
32:1a:393:A:N6	60:1a:3309:HOH:O	2.49	0.45
32:1a:691:G:H2'	32:1a:692:U:C6	2.52	0.45
32:1a:1251:A:H5'	40:1i:12:GLU:HB3	1.99	0.45
32:1a:1516:G:N1	32:1a:1519:MA6:OP2	2.48	0.45
33:1b:185:ILE:HG22	33:1b:199:TYR:CD2	2.52	0.45
43:1l:39:VAL:HG11	43:1l:41:ARG:HD3	1.99	0.45
1:2A:25:U:C4	1:2A:26:G:C6	3.05	0.45
1:2A:251:A:H2'	1:2A:252:G:O4'	2.17	0.45
1:2A:807:U:P	11:2P:36:LYS:HE2	2.57	0.45
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.76	0.45
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.51	0.45
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.17	0.45
1:2A:2741:A:H61	1:2A:2763:G:H1'	1.82	0.45
32:2a:102:G:H2'	32:2a:103:C:C6	2.51	0.45
32:2a:297:G:N2	32:2a:300:A:OP2	2.47	0.45
32:2a:515:G:H2'	32:2a:516:PSU:O4'	2.16	0.45
33:2b:78:GLN:HE22	33:2b:95:GLN:NE2	2.06	0.45
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:83:SER:HA	35:2d:89:THR:OG1	2.16	0.45
38:2g:47:CYS:O	38:2g:58:PRO:HG3	2.17	0.45
40:2i:96:LEU:H	40:2i:98:PRO:HD2	1.81	0.45
53:2y:12:ILE:HG23	53:2y:16:ILE:HB	1.99	0.45
1:1A:893:C:O2'	1:1A:894:C:H5'	2.16	0.44
1:1A:1952:A:OP1	10:1O:42:SER:OG	2.31	0.44
1:1A:2377:A:N6	60:1A:4118:HOH:O	2.47	0.44
3:1D:96:HIS:CD2	3:1D:102:LYS:HD3	2.52	0.44
7:1H:89:ILE:HG22	7:1H:94:TYR:HB3	1.98	0.44
12:1Q:42:ILE:HG22	12:1Q:47:ILE:HG13	2.00	0.44
20:1Y:7:VAL:HG23	20:1Y:74:PRO:HD3	1.98	0.44
24:12:21:LEU:HD23	24:12:21:LEU:HA	1.65	0.44
27:15:35:GLU:HG3	27:15:51:TYR:CG	2.51	0.44
32:1a:721:G:H4'	32:1a:722:A:O4'	2.18	0.44
32:1a:1458:G:H5'	51:1t:32:ALA:HB2	1.99	0.44
34:1c:6:HIS:CD2	34:1c:8:ILE:HB	2.52	0.44
34:1c:9:GLY:HA2	34:1c:12:LEU:HD12	1.99	0.44
35:1d:33:MET:SD	35:1d:37:PRO:HA	2.56	0.44
40:1i:125:TYR:OH	40:1i:127:LYS:NZ	2.37	0.44
51:1t:20:LEU:O	51:1t:24:LEU:HG	2.17	0.44
51:1t:63:ILE:HG22	51:1t:77:ALA:HB1	1.99	0.44
1:2A:555:U:O2'	1:2A:556:G:N7	2.39	0.44
1:2A:1016:G:C4	1:2A:1017:G:C8	3.05	0.44
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.31	0.44
1:2A:2104:G:O6	1:2A:2186:G:C4	2.70	0.44
1:2A:2119:A:C2	1:2A:2171:A:H5'	2.52	0.44
3:2D:252:TRP:HB3	60:2D:456:HOH:O	2.17	0.44
4:2E:103:ASP:CG	4:2E:168:MET:HG2	2.42	0.44
6:2G:80:PHE:O	6:2G:82:LEU:N	2.51	0.44
32:2a:68:G:H22	32:2a:101:A:H2	1.65	0.44
32:2a:1055:A:C6	32:2a:1206:G:C5	3.05	0.44
32:2a:1305:G:H5'	52:2u:4:GLY:CA	2.47	0.44
43:2l:77:LEU:HD21	43:2l:107:ALA:HA	2.00	0.44
49:2r:31:LEU:HD21	49:2r:58:LEU:HD21	1.99	0.44
1:1A:32:C:O2'	1:1A:33:U:H5'	2.17	0.44
1:1A:96:G:OP1	24:12:46:GLN:NE2	2.51	0.44
1:1A:563:G:N2	60:1A:4694:HOH:O	2.50	0.44
1:1A:1341:U:O2'	19:1X:55:ASN:ND2	2.50	0.44
8:1I:120:ILE:HG21	8:1I:126:TYR:CE2	2.53	0.44
19:1X:26:TYR:CG	19:1X:89:ILE:HD12	2.52	0.44
32:1a:21:G:H2'	32:1a:22:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:37:U:O2'	32:1a:500:G:H4'	2.17	0.44
32:1a:117:G:H2'	32:1a:118:U:O4'	2.18	0.44
32:1a:299:G:O5'	32:1a:299:G:H8	1.99	0.44
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.33	0.44
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.32	0.44
33:1b:16:HIS:C	33:1b:18:GLY:N	2.76	0.44
33:1b:67:THR:N	33:1b:160:ASP:OD2	2.48	0.44
33:1b:229:VAL:HG12	33:1b:230:VAL:O	2.17	0.44
34:1c:46:GLU:O	34:1c:48:TYR:N	2.50	0.44
34:1c:69:HIS:CD2	34:1c:104:GLN:HG2	2.50	0.44
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.17	0.44
46:1o:37:ASN:O	46:1o:41:GLU:HG2	2.17	0.44
1:2A:1071:G:H3'	1:2A:1071:G:H8	1.81	0.44
1:2A:1533:G:O5'	1:2A:1533:G:H8	2.00	0.44
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.17	0.44
4:2E:156:MET:HB3	60:2E:421:HOH:O	2.16	0.44
8:2I:72:LEU:HD12	8:2I:138:ILE:HG21	1.99	0.44
13:2R:13:HIS:CE1	13:2R:16:HIS:HB2	2.52	0.44
15:2T:53:ARG:O	15:2T:59:THR:HG23	2.18	0.44
19:2X:88:LYS:HB2	19:2X:88:LYS:HE3	1.70	0.44
32:2a:640:A:HO2'	32:2a:641:U:H5'	1.83	0.44
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.17	0.44
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.32	0.44
32:2a:1297:C:O2'	38:2g:114:ARG:NH1	2.49	0.44
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.99	0.44
34:2c:22:TRP:CZ3	34:2c:32:LEU:HB3	2.52	0.44
40:2i:23:ASN:CG	40:2i:25:LYS:HG2	2.41	0.44
44:2m:44:ARG:HB2	44:2m:47:ASP:OD1	2.17	0.44
46:2o:7:GLU:O	46:2o:11:VAL:HG23	2.17	0.44
47:2p:55:ARG:O	47:2p:58:TYR:N	2.50	0.44
1:1A:198:C:H5'	1:1A:2244:U:OP1	2.17	0.44
1:1A:271(L):U:OP1	8:1I:50:ARG:NH1	2.50	0.44
1:1A:322:A:OP2	5:1F:169:ASN:HB2	2.16	0.44
1:1A:987:G:OP1	25:13:10:LYS:NZ	2.50	0.44
1:1A:1651:G:H2'	1:1A:1652:A:O4'	2.17	0.44
1:1A:2454:G:OP1	60:1A:4165:HOH:O	2.21	0.44
1:1A:2552:OMU:H2'	1:1A:2554:U:H5"	2.00	0.44
4:1E:2:LYS:HG3	4:1E:200:GLU:HB2	1.98	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.69	0.44
14:1S:35:ILE:HG12	14:1S:101:LEU:HD12	1.99	0.44
32:1a:135:C:H2'	32:1a:136:C:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:812:C:OP1	32:1a:903:G:H1'	2.17	0.44
32:1a:919:A:O2'	32:1a:920:U:H5'	2.17	0.44
32:1a:1213:A:C5	32:1a:1215:G:C4	3.06	0.44
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.17	0.44
33:1b:9:GLU:HB2	33:1b:217:ARG:NH2	2.32	0.44
33:1b:69:LEU:HD13	33:1b:91:PRO:HB2	1.98	0.44
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.50	0.44
1:2A:189:G:OP2	23:21:39:LYS:NZ	2.50	0.44
1:2A:197:A:OP1	60:2A:3801:HOH:O	2.21	0.44
1:2A:643:A:C8	28:26:44:ARG:NH1	2.85	0.44
1:2A:1270:C:H5"	1:2A:1271:G:O5'	2.17	0.44
1:2A:1324:G:O2'	1:2A:1326:U:OP2	2.34	0.44
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.17	0.44
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.53	0.44
1:2A:2092:U:H4'	1:2A:2093:G:O5'	2.18	0.44
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.16	0.44
5:2F:132:VAL:HA	5:2F:138:GLU:HB3	1.98	0.44
32:2a:281:G:O3'	32:2a:282:A:H8	2.01	0.44
32:2a:745:C:H1'	32:2a:836:G:O2'	2.16	0.44
32:2a:792:A:H4'	32:2a:793:U:O5'	2.17	0.44
32:2a:828:A:H2'	32:2a:829:G:O4'	2.17	0.44
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.32	0.44
34:2c:36:ASP:OD2	34:2c:57:ILE:HD12	2.17	0.44
35:2d:72:GLU:O	35:2d:76:ARG:HB2	2.17	0.44
39:2h:37:ARG:HH22	39:2h:41:ARG:HH21	1.66	0.44
53:2y:49:VAL:HA	53:2y:65:GLY:O	2.17	0.44
1:1A:479:A:N3	1:1A:481:G:H5"	2.32	0.44
1:1A:879:G:H2'	1:1A:880:G:O4'	2.18	0.44
1:1A:1010:A:OP2	60:1A:4167:HOH:O	2.21	0.44
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.33	0.44
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.17	0.44
1:1A:2206:G:H8	1:1A:2207:G:N2	2.15	0.44
1:1A:2662:A:H2'	1:1A:2663:G:O4'	2.18	0.44
60:1A:5889:HOH:O	4:1E:156:MET:HG2	2.16	0.44
2:1B:11:C:OP2	2:1B:12:C:H5	1.99	0.44
20:1Y:5:MET:HE3	20:1Y:32:PRO:HA	1.99	0.44
23:11:3:LYS:HD2	23:11:4:VAL:HG23	2.00	0.44
23:11:73:LEU:HD22	23:11:97:LEU:HB2	1.99	0.44
32:1a:110:C:O2'	47:1p:25:ARG:O	2.32	0.44
32:1a:448:A:P	32:1a:485:G:H22	2.40	0.44
32:1a:748:C:O5'	32:1a:748:C:H6	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:758:G:OP1	60:1a:3329:HOH:O	2.21	0.44
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.52	0.44
32:1a:1250:A:H2'	32:1a:1251:A:C8	2.52	0.44
32:1a:1286:A:H2'	32:1a:1287:A:C4'	2.38	0.44
33:1b:70:PHE:O	33:1b:92:TYR:HA	2.18	0.44
35:1d:10:ARG:HB2	35:1d:40:PRO:HG3	2.00	0.44
36:1e:146:ALA:O	36:1e:149:GLU:N	2.51	0.44
38:1g:17:VAL:HB	38:1g:44:TYR:CE1	2.53	0.44
42:1k:62:GLN:O	42:1k:66:LEU:HG	2.18	0.44
1:2A:287:C:H2'	1:2A:288:C:C6	2.53	0.44
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.44
1:2A:729:G:C4	1:2A:1775:U:O2	2.70	0.44
1:2A:864:G:H1'	1:2A:914:C:H42	1.81	0.44
1:2A:1063:G:H2'	1:2A:1065:U:H6	1.83	0.44
1:2A:2115:G:N2	1:2A:2171:A:H61	2.15	0.44
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.51	0.44
3:2D:68:LYS:O	3:2D:69:ARG:HB2	2.18	0.44
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.18	0.44
15:2T:45:PHE:CE1	15:2T:74:ARG:HG3	2.53	0.44
18:2W:24:ILE:HA	18:2W:27:LYS:HG3	1.98	0.44
32:2a:543:C:O2'	32:2a:544:G:H5'	2.16	0.44
32:2a:735:C:O2'	32:2a:736:C:H5'	2.18	0.44
32:2a:874:G:O2'	32:2a:875:C:H5'	2.17	0.44
32:2a:938:A:N6	32:2a:939:G:C6	2.86	0.44
33:2b:42:ILE:HD13	33:2b:203:GLY:HA2	1.99	0.44
33:2b:92:TYR:CE2	33:2b:151:GLY:HA3	2.53	0.44
34:2c:7:PRO:HG3	34:2c:201:TYR:HE1	1.83	0.44
35:2d:165:MET:HE3	35:2d:165:MET:HB3	1.88	0.44
36:2e:47:LYS:HD3	36:2e:47:LYS:N	2.32	0.44
40:2i:49:PRO:HG2	40:2i:82:ALA:HB2	1.99	0.44
40:2i:77:ILE:O	40:2i:81:ILE:HB	2.17	0.44
40:2i:88:TYR:CD2	40:2i:89:ASN:HB2	2.52	0.44
50:2s:42:PRO:C	50:2s:44:MET:H	2.26	0.44
1:1A:557:U:O2	9:1N:45:ASN:HB2	2.18	0.44
1:1A:1045:A:O2'	1:1A:1047:G:C5	2.71	0.44
1:1A:1064:C:H3'	1:1A:1065:U:C5'	2.45	0.44
1:1A:1176:G:N3	1:1A:1178:C:OP2	2.51	0.44
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.53	0.44
3:1D:87:ASN:HA	60:1D:413:HOH:O	2.17	0.44
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.99	0.44
11:1P:4:SER:HB2	60:1P:312:HOH:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:33:GLY:HA2	12:1Q:104:PHE:O	2.18	0.44
21:1Z:25:PRO:O	21:1Z:85:HIS:HA	2.17	0.44
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.45	0.44
22:10:11:ARG:HG2	60:10:212:HOH:O	2.17	0.44
32:1a:444:C:H2'	32:1a:445:G:H8	1.82	0.44
32:1a:765:G:H5"	32:1a:766:A:OP1	2.18	0.44
32:1a:993:G:O2'	32:1a:995:C:N4	2.27	0.44
33:1b:45:GLN:O	33:1b:49:GLU:HG3	2.17	0.44
33:1b:128:GLU:O	33:1b:128:GLU:HG3	2.18	0.44
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.53	0.44
38:1g:14:PRO:HB3	38:1g:19:GLY:C	2.42	0.44
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	2.00	0.44
1:2A:375:C:H2'	1:2A:376:C:H6	1.82	0.44
1:2A:391:G:H1'	1:2A:411:G:O4'	2.17	0.44
1:2A:702:G:C2	1:2A:731:C:C2	3.06	0.44
1:2A:985:C:H2'	1:2A:986:C:H6	1.82	0.44
1:2A:1029:A:OP1	12:2Q:128:LYS:HE2	2.18	0.44
1:2A:1275:A:N3	1:2A:1276:A:H1'	2.33	0.44
1:2A:1751:C:H2'	1:2A:1752:C:C6	2.52	0.44
1:2A:2173:A:P	1:2A:2174:C:H41	2.41	0.44
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.45	0.44
1:2A:2571:C:H5"	1:2A:2572:A:H5"	1.98	0.44
2:2B:24:G:H4'	2:2B:25:A:N7	2.33	0.44
3:2D:228:PRO:HD3	3:2D:235:GLY:CA	2.47	0.44
5:2F:202:PHE:CZ	5:2F:206:ILE:HD13	2.53	0.44
10:2O:89:ASN:ND2	10:2O:89:ASN:H	2.14	0.44
13:2R:97:VAL:CG2	13:2R:114:VAL:HG13	2.47	0.44
32:2a:352:C:H4'	32:2a:354:G:OP1	2.17	0.44
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.36	0.44
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.16	0.44
40:2i:3:GLN:HG3	40:2i:20:ARG:HG2	2.00	0.44
40:2i:21:PRO:HA	40:2i:59:PHE:CD2	2.53	0.44
46:2o:67:LEU:HD23	46:2o:67:LEU:HA	1.67	0.44
48:2q:87:LYS:H	48:2q:87:LYS:HG2	1.58	0.44
50:2s:40:ILE:HA	50:2s:44:MET:SD	2.57	0.44
51:2t:50:GLU:HB2	51:2t:99:LEU:HD12	1.99	0.44
1:1A:83:G:N2	1:1A:102:G:H1'	2.32	0.44
1:1A:189:G:H2'	1:1A:205:G:N2	2.33	0.44
1:1A:483:A:H5"	20:1Y:50:ARG:NH1	2.32	0.44
1:1A:668:G:H5'	1:1A:669:G:OP2	2.17	0.44
1:1A:781:A:P	3:1D:218:ARG:HH22	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.18	0.44
1:1A:1582:C:C2	1:1A:1583:A:C8	3.06	0.44
1:1A:1959:G:O2'	60:1A:4123:HOH:O	2.10	0.44
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.18	0.44
1:1A:2495:G:O2'	12:1Q:83:MET:HE3	2.17	0.44
19:1X:88:LYS:HB2	19:1X:88:LYS:HE3	1.73	0.44
30:18:14:VAL:HG11	30:18:58:ILE:HG21	1.99	0.44
32:1a:321:A:N7	32:1a:328:C:O2'	2.48	0.44
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.52	0.44
32:1a:1399:C:H4'	32:1a:1400:5MC:O5'	2.18	0.44
33:1b:158:LEU:HD12	33:1b:158:LEU:HA	1.88	0.44
35:1d:82:ALA:O	60:1d:402:HOH:O	2.21	0.44
44:1m:20:THR:C	44:1m:22:ILE:N	2.76	0.44
47:1p:4:ILE:HG22	47:1p:19:ILE:HD11	1.98	0.44
49:1r:47:THR:O	49:1r:83:GLU:N	2.42	0.44
50:1s:19:VAL:HG23	50:1s:47:HIS:CE1	2.52	0.44
1:2A:98:G:OP2	24:22:2:LYS:HG2	2.17	0.44
1:2A:593:G:H4'	30:28:63:PRO:HB3	1.97	0.44
1:2A:666:G:H1'	30:28:4:MET:HE3	2.00	0.44
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.53	0.44
1:2A:2639:A:H2'	1:2A:2640:G:O4'	2.17	0.44
13:2R:88:ARG:NH2	13:2R:89:ASP:OD1	2.50	0.44
16:2U:108:GLU:HG2	17:2V:47:VAL:HG21	2.00	0.44
32:2a:5:U:H5"	32:2a:6:G:C5	2.53	0.44
32:2a:641:U:O3'	32:2a:642:A:H8	2.01	0.44
32:2a:728:A:H2'	32:2a:729:A:C8	2.52	0.44
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.53	0.44
32:2a:1252:A:H8	32:2a:1252:A:O5'	2.00	0.44
33:2b:28:PHE:CD2	33:2b:31:TYR:HB2	2.52	0.44
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.98	0.44
33:2b:100:GLY:O	33:2b:104:ASN:N	2.44	0.44
35:2d:23:GLY:O	35:2d:26:CYS:HB2	2.17	0.44
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.16	0.44
36:2e:78:HIS:HD1	36:2e:78:HIS:C	2.26	0.44
36:2e:79:GLU:OE1	39:2h:105:ARG:HG2	2.18	0.44
41:2j:78:ASN:C	41:2j:80:LYS:H	2.25	0.44
50:2s:47:HIS:O	50:2s:61:TYR:HA	2.17	0.44
1:1A:78:A:H2'	1:1A:79:G:C8	2.53	0.44
1:1A:570:G:H2'	1:1A:2030:A:N7	2.33	0.44
1:1A:842:G:H2'	1:1A:843:G:O4'	2.17	0.44
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.46	0.44
5:1F:14:PRO:HD2	5:1F:127:GLU:OE1	2.17	0.44
23:11:23:LYS:HD2	23:11:29:GLY:CA	2.48	0.44
32:1a:16:A:O2'	36:1e:16:THR:HB	2.18	0.44
32:1a:184:G:N2	32:1a:194:C:C2	2.86	0.44
32:1a:198:G:C5	32:1a:220:G:C2	3.06	0.44
32:1a:584:G:H2'	32:1a:585:G:C8	2.52	0.44
32:1a:1216:G:OP1	45:1n:2:ALA:HA	2.18	0.44
33:1b:16:HIS:HB3	33:1b:210:SER:CB	2.42	0.44
35:1d:150:GLU:HG3	35:1d:151:LYS:H	1.82	0.44
38:1g:28:ASN:HA	38:1g:31:MET:HE2	1.99	0.44
1:2A:952:G:C6	1:2A:953:A:N7	2.86	0.44
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.18	0.44
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.52	0.44
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.26	0.44
1:2A:2340:G:H2'	1:2A:2341:G:H8	1.83	0.44
3:2D:16:MET:HE1	3:2D:208:LYS:HD3	1.99	0.44
3:2D:260:ARG:NH2	3:2D:266:SER:OG	2.50	0.44
6:2G:49:ASP:O	6:2G:50:ALA:C	2.61	0.44
7:2H:40:GLU:O	7:2H:55:PRO:HD3	2.17	0.44
7:2H:137:ASP:O	7:2H:141:VAL:HG23	2.18	0.44
19:2X:8:ILE:HB	24:22:33:MET:HE2	1.99	0.44
21:2Z:1:MET:O	21:2Z:2:GLU:HG3	2.17	0.44
32:2a:973:G:H3'	32:2a:974:A:H5"	2.00	0.44
32:2a:1003:G:N7	32:2a:1004:A:H1'	2.32	0.44
32:2a:1125:U:OP2	41:2j:35:SER:HB2	2.17	0.44
32:2a:1292:U:C2	32:2a:1293:G:C8	3.05	0.44
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.17	0.44
33:2b:71:VAL:HG11	33:2b:97:TRP:HE1	1.81	0.44
34:2c:77:ILE:O	34:2c:83:ARG:N	2.50	0.44
34:2c:110:ASN:O	34:2c:141:VAL:HG22	2.18	0.44
34:2c:152:ILE:HG22	34:2c:167:TRP:HB2	2.00	0.44
38:2g:149:ARG:HG3	38:2g:149:ARG:O	2.17	0.44
45:2n:24:CYS:SG	45:2n:39:LEU:HA	2.58	0.44
1:1A:184:C:H2'	1:1A:185:U:H6	1.82	0.44
1:1A:687:C:H2'	1:1A:688:U:O4'	2.18	0.44
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.52	0.44
1:1A:972:G:OP2	1:1A:973:A:O2'	2.34	0.44
1:1A:1020:A:H4'	1:1A:1021:A:O5'	2.17	0.44
1:1A:1328:G:O2'	1:1A:1329:U:H2'	2.18	0.44
1:1A:1493:C:H5	1:1A:2206:G:HO2'	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2203:U:O4'	3:1D:151:LYS:HE2	2.18	0.44
4:1E:37:ARG:HA	4:1E:42:ASP:OD2	2.18	0.44
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.53	0.44
10:1O:25:LEU:HG	10:1O:40:VAL:HG23	1.99	0.44
20:1Y:53:PRO:O	20:1Y:56:PRO:HD3	2.17	0.44
30:18:56:GLU:HG2	60:18:225:HOH:O	2.17	0.44
32:1a:438:G:O2'	32:1a:494:U:O4	2.27	0.44
32:1a:984:C:H2'	32:1a:985:C:C6	2.53	0.44
32:1a:1232:U:H5"	40:1i:124:GLN:O	2.18	0.44
33:1b:24:TRP:CE3	33:1b:26:PRO:HA	2.52	0.44
35:1d:76:ARG:HD2	35:1d:76:ARG:HA	1.77	0.44
35:1d:122:ARG:HD2	35:1d:122:ARG:HA	1.48	0.44
39:1h:86:ILE:O	39:1h:88:LYS:HG2	2.18	0.44
40:1i:106:ALA:O	40:1i:108:VAL:HG13	2.18	0.44
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.71	0.44
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.53	0.44
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.53	0.44
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.32	0.44
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.25	0.44
1:2A:2070:G:H2'	1:2A:2071:A:O4'	2.18	0.44
1:2A:2752:C:H2'	1:2A:2753:A:O4'	2.18	0.44
1:2A:2819:G:H2'	1:2A:2821:A:N7	2.33	0.44
7:2H:127:GLU:C	7:2H:129:THR:H	2.26	0.44
19:2X:30:VAL:HG21	19:2X:39:ILE:HD11	1.99	0.44
28:26:13:CYS:SG	28:26:47:THR:HG21	2.58	0.44
32:2a:187:C:H2'	32:2a:188:C:C6	2.52	0.44
32:2a:391:G:P	47:2p:28:ARG:HH22	2.40	0.44
32:2a:669:U:H2'	32:2a:670:G:O4'	2.18	0.44
32:2a:717:C:H6	32:2a:717:C:H5"	1.83	0.44
32:2a:1040:U:C4	32:2a:1041:A:N7	2.86	0.44
36:2e:33:VAL:HA	36:2e:42:GLY:O	2.17	0.44
50:2s:61:TYR:HE2	50:2s:63:THR:HG22	1.83	0.44
50:2s:63:THR:HB	50:2s:65:ASN:HD22	1.83	0.44
50:2s:74:PHE:CD2	50:2s:74:PHE:N	2.86	0.44
1:1A:863:A:H2'	1:1A:864:G:C8	2.52	0.44
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.83	0.44
1:1A:1496:A:H2'	1:1A:1498:C:C4	2.53	0.44
1:1A:1545:A:H2'	1:1A:1546:C:O4'	2.18	0.44
2:1B:73:A:C4	2:1B:105:A:C2	3.05	0.44
8:1I:68:LEU:HD11	8:1I:107:VAL:HG13	2.00	0.44
26:14:35:VAL:HG22	26:14:36:CYS:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:17:1:MET:HE2	29:17:1:MET:HB3	1.57	0.44
29:17:34:ARG:NH1	29:17:41:ARG:O	2.51	0.44
32:1a:92:C:H2'	32:1a:93:G:H8	1.80	0.44
32:1a:262:A:C6	32:1a:263:A:C6	3.05	0.44
32:1a:437:U:C4	32:1a:438:G:C6	3.06	0.44
32:1a:461:A:O2'	32:1a:470:C:H5'	2.18	0.44
32:1a:576:G:O6	32:1a:880:C:O2'	2.33	0.44
32:1a:1111:A:N1	34:1c:177:THR:OG1	2.50	0.44
32:1a:1501:C:OP1	32:1a:1508:G:H4'	2.17	0.44
35:1d:173:TRP:NE1	35:1d:193:ASP:HB3	2.33	0.44
1:2A:257:A:H2'	1:2A:258:G:O4'	2.18	0.44
1:2A:588:U:H1'	5:2F:90:PHE:CG	2.52	0.44
1:2A:686:G:H8	29:27:6:GLN:O	2.01	0.44
1:2A:969:U:O3'	25:23:14:GLY:HA2	2.18	0.44
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.83	0.44
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.17	0.44
1:2A:2528:U:O2'	1:2A:2529:G:H3'	2.18	0.44
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.42	0.44
6:2G:63:ILE:HG22	6:2G:102:PHE:HE1	1.83	0.44
7:2H:20:ALA:HB1	7:2H:21:PRO:CD	2.48	0.44
15:2T:82:LEU:H	15:2T:82:LEU:HD12	1.82	0.44
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.99	0.44
32:2a:397:A:H3'	32:2a:397:A:N3	2.32	0.44
32:2a:985:C:H2'	32:2a:986:A:C8	2.52	0.44
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.99	0.44
32:2a:1272:G:H2'	32:2a:1273:G:O4'	2.18	0.44
33:2b:29:ALA:HA	33:2b:32:ILE:HD12	1.99	0.44
37:2f:76:ALA:HB1	37:2f:80:ARG:NH2	2.33	0.44
41:2j:47:PHE:CE1	45:2n:37:PHE:HE2	2.36	0.44
44:2m:12:ASN:O	44:2m:44:ARG:HD2	2.18	0.44
46:2o:4:THR:N	46:2o:7:GLU:OE1	2.49	0.44
51:2t:59:ALA:O	51:2t:63:ILE:HG13	2.18	0.44
1:1A:26:G:C6	1:1A:27:G:N1	2.86	0.43
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.51	0.43
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.18	0.43
1:1A:1250:G:H5"	60:1U:329:HOH:O	2.18	0.43
1:1A:2335:A:C8	1:1A:2337:G:C5	3.06	0.43
1:1A:2721:A:H2'	1:1A:2722:G:O4'	2.18	0.43
2:1B:91:C:P	12:1Q:16:ARG:HH11	2.41	0.43
6:1G:66:GLN:OE1	6:1G:98:ARG:NE	2.46	0.43
32:1a:114:U:H1'	32:1a:353:A:H1'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:453:A:C6	32:1a:454:C:C4	3.06	0.43
32:1a:587:G:OP1	39:1h:89:PRO:HB3	2.18	0.43
32:1a:591:U:H2'	32:1a:592:G:H8	1.83	0.43
32:1a:601:C:H2'	32:1a:602:A:C8	2.53	0.43
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.53	0.43
32:1a:1428:A:H2'	32:1a:1429:C:O4'	2.18	0.43
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.17	0.43
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.51	0.43
33:1b:44:LEU:HD13	33:1b:44:LEU:HA	1.78	0.43
50:1s:64:GLU:O	50:1s:67:VAL:HG13	2.18	0.43
1:2A:396:G:H1'	23:21:42:GLN:HB3	2.01	0.43
1:2A:581:C:H2'	1:2A:582:G:H8	1.81	0.43
1:2A:615:G:OP2	5:2F:43:LYS:HE3	2.18	0.43
1:2A:817:C:O2'	1:2A:839:U:H5"	2.18	0.43
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.53	0.43
1:2A:1243:G:H2'	1:2A:1244:G:O4'	2.17	0.43
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.81	0.43
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.17	0.43
1:2A:1919:A:N1	32:2a:1495:U:O2'	2.39	0.43
1:2A:2104:G:N2	1:2A:2105:C:N3	2.65	0.43
1:2A:2389:G:H5"	1:2A:2390:U:O4'	2.18	0.43
12:2Q:72:LYS:O	12:2Q:93:TYR:HA	2.18	0.43
12:2Q:109:VAL:HG22	12:2Q:113:GLN:OE1	2.17	0.43
20:2Y:6:HIS:H	20:2Y:6:HIS:CD2	2.35	0.43
23:21:3:LYS:HB2	23:21:61:ARG:NH2	2.17	0.43
23:21:72:GLU:O	23:21:76:ARG:HG3	2.18	0.43
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.43	0.43
27:25:35:GLU:HG3	27:25:51:TYR:CD1	2.53	0.43
32:2a:160:A:H1'	32:2a:344:A:C5	2.53	0.43
32:2a:1038:C:H2'	32:2a:1039:C:C6	2.53	0.43
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.81	0.43
32:2a:1519:MA6:H92	32:2a:1520:G:O2'	2.18	0.43
33:2b:213:LEU:HD12	33:2b:217:ARG:HG2	2.00	0.43
34:2c:50:ALA:HB1	34:2c:72:LYS:O	2.18	0.43
36:2e:60:TYR:CZ	36:2e:64:ARG:HD2	2.51	0.43
37:2f:46:ARG:HB2	37:2f:46:ARG:HH11	1.82	0.43
39:2h:113:SER:HB3	39:2h:134:ILE:HD11	2.00	0.43
44:2m:86:CYS:HB2	50:2s:73:GLU:HB3	1.99	0.43
45:2n:26:ARG:HD3	45:2n:43:CYS:SG	2.58	0.43
49:2r:85:LEU:HD21	49:2r:87:ARG:NH1	2.33	0.43
51:2t:14:LYS:O	51:2t:18:GLN:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:2y:30:TRP:CD1	53:2y:89:GLN:HG3	2.53	0.43
1:1A:77:C:OP1	24:12:59:ARG:HD3	2.18	0.43
1:1A:271:A:N3	1:1A:365:C:O2'	2.46	0.43
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.18	0.43
1:1A:636:G:OP1	11:1P:132:LYS:HE2	2.17	0.43
1:1A:746:A:H2'	1:1A:2612:C:H5"	1.98	0.43
1:1A:1173:G:C2	1:1A:1175:U:H4'	2.53	0.43
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.18	0.43
1:1A:2106:G:C6	1:1A:2107:C:C2	3.06	0.43
1:1A:2203:U:H4'	3:1D:151:LYS:HG2	2.00	0.43
1:1A:2612:C:OP2	27:15:2:ALA:N	2.51	0.43
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.26	0.43
4:1E:5:LEU:HD21	4:1E:79:ARG:HB2	2.01	0.43
4:1E:119:ARG:HG2	4:1E:160:TYR:CG	2.53	0.43
4:1E:120:TRP:CE3	4:1E:155:LYS:HD3	2.53	0.43
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	1.99	0.43
32:1a:219:C:H2'	32:1a:220:G:O4'	2.18	0.43
32:1a:1071:C:H2'	32:1a:1072:G:C8	2.53	0.43
32:1a:1151:A:O4'	41:1j:39:PRO:HB2	2.18	0.43
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.19	0.43
32:1a:1417:G:H2'	32:1a:1482:G:N2	2.32	0.43
38:1g:32:ARG:HG2	38:1g:32:ARG:HH11	1.84	0.43
40:1i:53:VAL:HB	40:1i:92:TYR:CZ	2.53	0.43
41:1j:46:ARG:HA	41:1j:64:GLU:HA	2.00	0.43
43:1l:7:ILE:O	43:1l:11:VAL:HG23	2.18	0.43
44:1m:15:VAL:HG22	44:1m:43:THR:O	2.17	0.43
1:2A:24:G:O2'	18:2W:78:GLU:O	2.33	0.43
1:2A:107:C:H2'	1:2A:108:U:C6	2.53	0.43
1:2A:234:C:H2'	1:2A:235:U:C6	2.52	0.43
1:2A:895:U:O3'	1:2A:896:A:H3'	2.18	0.43
1:2A:1091:G:O6	1:2A:1101:U:N3	2.51	0.43
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.18	0.43
1:2A:1495:A:O2'	1:2A:1496:A:H5'	2.18	0.43
1:2A:1789:A:H2'	1:2A:1790:C:O4'	2.18	0.43
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.18	0.43
1:2A:2109:U:OP1	1:2A:2150:U:H4'	2.18	0.43
1:2A:2119:A:H61	1:2A:2168:G:N2	2.16	0.43
1:2A:2125:G:H1	1:2A:2172:U:P	2.41	0.43
1:2A:2391:G:N2	1:2A:2425:A:OP1	2.42	0.43
3:2D:132:PRO:HG3	3:2D:190:TYR:CE2	2.53	0.43
7:2H:101:ARG:HG2	7:2H:117:PRO:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:14:THR:O	10:2O:52:VAL:HG23	2.18	0.43
12:2Q:72:LYS:HB3	12:2Q:94:VAL:CG2	2.48	0.43
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.17	0.43
21:2Z:144:LEU:HD23	21:2Z:144:LEU:HA	1.78	0.43
32:2a:484:G:C8	32:2a:486:U:C2	3.05	0.43
32:2a:487:A:H2'	32:2a:488:C:O4'	2.18	0.43
32:2a:1055:A:O2'	34:2c:161:GLU:HG3	2.18	0.43
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.53	0.43
36:2e:31:LEU:HD23	36:2e:31:LEU:HA	1.73	0.43
37:2f:97:PHE:N	49:2r:30:ASP:OD1	2.50	0.43
41:2j:52:GLY:O	45:2n:41:ARG:NH1	2.42	0.43
53:2y:27:LEU:HD11	53:2y:81:LEU:HD13	1.99	0.43
1:1A:324:A:H2'	1:1A:325:G:O4'	2.18	0.43
1:1A:1313:U:H2'	1:1A:1610:A:C2	2.53	0.43
1:1A:1578:U:C2'	1:1A:1579:A:H5'	2.48	0.43
1:1A:2162:G:H5"	1:1A:2164:C:N4	2.33	0.43
1:1A:2269:A:H5"	60:1A:5121:HOH:O	2.18	0.43
1:1A:2839:G:H5'	13:1R:46:GLY:CA	2.48	0.43
2:1B:91:C:H5'	12:1Q:18:LYS:HA	2.00	0.43
2:1B:119:G:H2'	2:1B:120:A:O4'	2.18	0.43
6:1G:50:ALA:C	6:1G:52:ILE:N	2.75	0.43
7:1H:42:ARG:NH1	7:1H:53:GLU:OE1	2.52	0.43
7:1H:99:VAL:O	7:1H:99:VAL:HG23	2.18	0.43
7:1H:126:PRO:HG2	7:1H:130:ARG:HH21	1.83	0.43
10:1O:17:ARG:HH11	10:1O:17:ARG:HG2	1.82	0.43
15:1T:91:ARG:HB3	15:1T:117:ASP:HB3	2.00	0.43
19:1X:49:VAL:HG11	19:1X:89:ILE:HG12	2.00	0.43
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	2.00	0.43
21:1Z:144:LEU:HA	21:1Z:144:LEU:HD23	1.73	0.43
21:1Z:152:ALA:HB3	21:1Z:167:PRO:HA	2.00	0.43
25:13:28:LEU:HD23	25:13:28:LEU:HA	1.80	0.43
28:16:18:ARG:HD2	28:16:42:TRP:CG	2.54	0.43
32:1a:23:C:OP2	32:1a:561:U:N3	2.43	0.43
32:1a:689:C:H2'	32:1a:690:G:O4'	2.18	0.43
32:1a:1500:A:OP2	60:1a:3330:HOH:O	2.21	0.43
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.18	0.43
34:1c:190:ARG:HB2	34:1c:190:ARG:NH2	2.28	0.43
35:1d:119:GLN:O	35:1d:123:HIS:ND1	2.52	0.43
36:1e:31:LEU:HD23	36:1e:45:PHE:CD1	2.54	0.43
36:1e:66:MET:HE3	36:1e:66:MET:HB3	1.79	0.43
37:1f:19:LEU:HD21	37:1f:59:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:103:TRP:CD2	38:1g:137:LYS:HG2	2.53	0.43
46:1o:35:ARG:CZ	46:1o:59:MET:HE2	2.47	0.43
48:1q:58:GLU:O	48:1q:74:LEU:N	2.45	0.43
1:2A:554:U:C4	1:2A:555:U:C4	3.06	0.43
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.52	0.43
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.54	0.43
1:2A:2056:G:N2	27:25:5:PRO:HA	2.32	0.43
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.48	0.43
13:2R:104:ARG:HD2	13:2R:109:ALA:HB3	1.99	0.43
18:2W:41:LYS:HE3	27:25:25:LEU:HD11	2.00	0.43
23:21:10:LYS:NZ	23:21:65:SER:OG	2.43	0.43
34:2c:5:ILE:HD11	41:2j:61:GLU:OE2	2.19	0.43
34:2c:156:ARG:NE	34:2c:160:ALA:O	2.46	0.43
36:2e:79:GLU:CD	39:2h:105:ARG:HG2	2.44	0.43
36:2e:88:LYS:HB3	36:2e:123:LEU:HB2	1.99	0.43
40:2i:59:PHE:CZ	40:2i:88:TYR:CZ	3.01	0.43
1:1A:582:G:H2'	1:1A:583:G:C8	2.53	0.43
1:1A:863:A:OP2	12:1Q:22:LYS:HD2	2.18	0.43
1:1A:1722:A:O2'	1:1A:1740:G:N7	2.47	0.43
1:1A:2129:C:C2	1:1A:2159:G:N1	2.75	0.43
1:1A:2201:C:OP1	23:11:48:LYS:NZ	2.41	0.43
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.33	0.43
1:1A:2582:G:C2	1:1A:2583:G:C8	3.06	0.43
2:1B:96:U:OP1	21:1Z:14:LYS:NZ	2.48	0.43
6:1G:59:GLU:CD	6:1G:153:ARG:HH11	2.26	0.43
8:1I:47:LEU:O	8:1I:51:ILE:HG13	2.18	0.43
8:1I:93:THR:N	8:1I:96:ASP:HB2	2.34	0.43
12:1Q:42:ILE:CG2	12:1Q:47:ILE:HG13	2.48	0.43
14:1S:76:LYS:O	14:1S:80:LEU:HD13	2.19	0.43
32:1a:67:C:O2'	32:1a:171:A:H1'	2.19	0.43
32:1a:79:G:C6	32:1a:90:U:N3	2.86	0.43
32:1a:116:A:C8	32:1a:116:A:OP2	2.71	0.43
32:1a:343:U:O2'	32:1a:346:G:O6	2.33	0.43
32:1a:369:C:OP2	32:1a:388:G:N1	2.50	0.43
32:1a:717:C:H6	32:1a:717:C:H5"	1.83	0.43
32:1a:887:G:H2'	32:1a:888:G:O4'	2.19	0.43
32:1a:1468:A:H8	32:1a:1468:A:O5'	2.02	0.43
33:1b:164:VAL:HG11	33:1b:170:GLU:HB2	2.01	0.43
35:1d:57:ARG:NH2	36:1e:107:ARG:HD3	2.34	0.43
38:1g:149:ARG:HD3	42:1k:59:TYR:CE1	2.53	0.43
44:1m:3:ARG:NE	44:1m:8:GLU:OE2	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:24:CYS:SG	45:1n:40:CYS:N	2.85	0.43
45:1n:53:LEU:HB2	45:1n:56:VAL:HB	2.01	0.43
46:1o:43:LEU:HD12	46:1o:56:LEU:HD22	2.01	0.43
47:1p:8:ARG:C	47:1p:9:PHE:HD1	2.27	0.43
53:1y:23:ARG:HA	53:1y:23:ARG:HD2	1.56	0.43
1:2A:272(J):C:H42	1:2A:363:G:H1	1.65	0.43
1:2A:444:C:H5"	60:2F:408:HOH:O	2.18	0.43
1:2A:531:C:H5'	60:2A:5980:HOH:O	2.17	0.43
1:2A:1487:G:H2'	1:2A:1488:G:O4'	2.18	0.43
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.19	0.43
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.18	0.43
1:2A:1751:C:H2'	1:2A:1752:C:H6	1.84	0.43
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.53	0.43
1:2A:2177:C:C4	1:2A:2178:C:C5	3.07	0.43
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.51	0.43
4:2E:50:GLY:HA3	4:2E:75:VAL:HG11	2.00	0.43
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.19	0.43
7:2H:89:ILE:O	7:2H:129:THR:HG23	2.17	0.43
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	2.01	0.43
9:2N:51:PHE:CZ	9:2N:119:ARG:HD2	2.53	0.43
9:2N:71:ILE:HG21	9:2N:84:LYS:HB3	2.01	0.43
11:2P:2:LYS:HB3	11:2P:5:ASP:OD2	2.18	0.43
12:2Q:19:GLY:O	12:2Q:98:LYS:HG2	2.17	0.43
16:2U:24:TYR:HB2	16:2U:29:SER:HB3	1.99	0.43
18:2W:84:ARG:HG3	18:2W:98:LYS:HD2	1.99	0.43
23:21:32:LYS:HA	23:21:32:LYS:HD2	1.87	0.43
32:2a:258:G:H2'	32:2a:259:G:H8	1.83	0.43
32:2a:394:G:C6	32:2a:395:C:C4	3.06	0.43
32:2a:690:G:H2'	32:2a:691:G:C8	2.53	0.43
32:2a:693:G:H2'	32:2a:694:A:C8	2.53	0.43
32:2a:1092:A:N3	32:2a:1183:A:N6	2.66	0.43
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.18	0.43
32:2a:1316:G:H4'	45:2n:18:VAL:HG13	2.00	0.43
33:2b:56:ARG:HE	33:2b:56:ARG:HB2	1.44	0.43
35:2d:13:ARG:CB	35:2d:40:PRO:HD3	2.47	0.43
38:2g:91:VAL:O	38:2g:96:GLN:HG3	2.19	0.43
42:2k:99:GLN:HG2	42:2k:105:VAL:HG11	2.00	0.43
45:2n:4:LYS:HD3	45:2n:7:ILE:HD11	1.99	0.43
47:2p:58:TYR:O	47:2p:61:SER:OG	2.24	0.43
48:2q:72:ARG:HG3	48:2q:72:ARG:HH11	1.83	0.43
49:2r:59:SER:OG	49:2r:62:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:64:GLU:HA	50:2s:67:VAL:HG23	2.00	0.43
1:1A:225:A:O2'	1:1A:257:A:H4'	2.18	0.43
1:1A:272(H):C:H6	1:1A:272(H):C:H5"	1.83	0.43
1:1A:1472:A:H2'	1:1A:1473:G:O4'	2.19	0.43
1:1A:1920:OMC:H1'	1:1A:1920:OMC:HM23	1.80	0.43
1:1A:2576:G:H1'	60:1A:5117:HOH:O	2.19	0.43
1:1A:2751:G:C5	7:1H:2:SER:N	2.87	0.43
5:1F:53:THR:HG22	5:1F:55:GLY:N	2.33	0.43
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.52	0.43
13:1R:104:ARG:NH1	13:1R:107:ASP:OD2	2.51	0.43
23:11:7:ILE:HG21	23:11:69:LYS:HB3	2.01	0.43
24:12:41:ILE:HG13	24:12:43:GLN:HG3	2.00	0.43
32:1a:270:A:H2'	32:1a:271:C:C6	2.53	0.43
32:1a:381:C:H2'	32:1a:382:A:O4'	2.18	0.43
32:1a:391:G:C5	32:1a:392:G:C8	3.07	0.43
32:1a:627:G:O2'	32:1a:628:G:H5'	2.18	0.43
32:1a:964:A:N3	32:1a:969:A:O2'	2.46	0.43
32:1a:983:A:H2	32:1a:984:C:C6	2.36	0.43
32:1a:1369:C:OP1	45:1n:61:TRP:NE1	2.47	0.43
34:1c:6:HIS:CD2	34:1c:6:HIS:C	2.96	0.43
36:1e:84:PHE:HB3	36:1e:134:ALA:HB2	1.99	0.43
39:1h:41:ARG:O	39:1h:41:ARG:HG2	2.19	0.43
40:1i:43:ALA:O	40:1i:45:ALA:N	2.52	0.43
47:1p:21:VAL:O	47:1p:33:ILE:HG13	2.18	0.43
51:1t:54:LYS:HA	51:1t:57:ARG:NH2	2.33	0.43
53:1y:10:MET:HB3	53:1y:10:MET:HE2	1.53	0.43
1:2A:438:G:H2'	1:2A:440:G:H8	1.84	0.43
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.52	0.43
1:2A:820:A:H1'	1:2A:943:U:H1'	2.01	0.43
1:2A:864:G:C6	1:2A:865:C:N4	2.86	0.43
1:2A:875:G:O2'	21:2Z:151:HIS:HE1	2.00	0.43
1:2A:969:U:H2'	1:2A:970:C:C6	2.54	0.43
1:2A:1019:U:OP1	1:2A:1035:U:O2'	2.27	0.43
1:2A:1019:U:H2'	1:2A:1020:A:H8	1.83	0.43
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.53	0.43
1:2A:2365:G:O6	30:28:39:LYS:HE3	2.18	0.43
1:2A:2821:A:C2	1:2A:2822:G:C4	3.07	0.43
2:2B:101:G:H2'	2:2B:102:A:O4'	2.18	0.43
8:2I:29:TYR:O	8:2I:33:ARG:HD2	2.18	0.43
8:2I:134:PRO:C	8:2I:136:VAL:H	2.27	0.43
10:2O:15:GLY:HA2	10:2O:47:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:2W:38:TYR:O	27:25:28:PRO:HB3	2.19	0.43
18:2W:86:LEU:HD22	18:2W:96:ILE:HD11	2.01	0.43
32:2a:972:C:O3'	41:2j:57:LYS:HD3	2.19	0.43
32:2a:1027:C:H5"	32:2a:1028:C:C5	2.54	0.43
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.54	0.43
1:1A:143(A):C:H1'	60:1A:5461:HOH:O	2.18	0.43
1:1A:606:U:H4'	1:1A:658:C:H4'	1.99	0.43
1:1A:614:U:H5'	1:1A:614(C):A:N6	2.34	0.43
1:1A:828:U:C5	1:1A:2247:A:H4'	2.54	0.43
1:1A:878:A:H2'	1:1A:879:G:H5'	2.00	0.43
1:1A:1772:G:OP2	60:1A:4170:HOH:O	2.21	0.43
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.32	0.43
1:1A:2050:C:H1'	4:1E:156:MET:HE2	2.00	0.43
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.54	0.43
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.54	0.43
2:1B:3:C:H2'	2:1B:4:C:H6	1.82	0.43
2:1B:55:U:O2'	2:1B:57:A:N7	2.49	0.43
15:1T:91:ARG:HB2	15:1T:121:ILE:HG13	2.01	0.43
16:1U:49:HIS:HA	16:1U:52:ARG:HG3	2.01	0.43
19:1X:26:TYR:CD2	19:1X:89:ILE:HD12	2.53	0.43
32:1a:107:G:H2'	32:1a:108:G:O4'	2.19	0.43
32:1a:264:U:H2'	32:1a:265:G:O4'	2.18	0.43
32:1a:721:G:C6	32:1a:733:A:C2	3.07	0.43
32:1a:730:G:O6	46:1o:51:HIS:NE2	2.49	0.43
32:1a:1125:U:HO2'	32:1a:1126:U:P	2.42	0.43
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.34	0.43
33:1b:55:PHE:HD1	33:1b:58:ILE:HD12	1.83	0.43
34:1c:134:ILE:HD11	34:1c:153:VAL:HB	2.00	0.43
36:1e:11:ILE:HB	36:1e:31:LEU:HB3	2.01	0.43
36:1e:148:VAL:HG13	36:1e:152:ARG:NH2	2.33	0.43
38:1g:54:THR:O	38:1g:56:GLN:N	2.44	0.43
41:1j:16:LEU:CD2	41:1j:70:ARG:HG2	2.48	0.43
42:1k:44:SER:OG	42:1k:47:VAL:HG23	2.19	0.43
1:2A:57:C:H2'	1:2A:58:G:O4'	2.19	0.43
1:2A:639:U:H2'	1:2A:640:C:H6	1.83	0.43
1:2A:861:A:C2	1:2A:917:A:C4	3.06	0.43
1:2A:1495:A:H2'	1:2A:1496:A:H8	1.79	0.43
1:2A:1582:C:O2'	1:2A:1586:A:N3	2.50	0.43
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.49	0.43
1:2A:1707:G:H2'	1:2A:1708:C:C6	2.54	0.43
1:2A:2641:G:H5"	9:2N:76:SER:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:3:LEU:HD13	6:2G:97:ASP:OD2	2.18	0.43
32:2a:297:G:H4'	32:2a:557:G:H4'	2.00	0.43
32:2a:841:U:H6	32:2a:841:U:P	2.41	0.43
32:2a:939:G:H2'	32:2a:940:C:C6	2.53	0.43
32:2a:972:C:OP2	41:2j:57:LYS:HE2	2.18	0.43
32:2a:1141:C:C2	32:2a:1142:G:C8	3.06	0.43
32:2a:1238:A:N7	32:2a:1303:C:H1'	2.33	0.43
32:2a:1446:U:H4'	32:2a:1447:A:C6	2.54	0.43
32:2a:1501:C:OP2	32:2a:1504:G:O2'	2.31	0.43
33:2b:121:LEU:O	33:2b:127:ILE:HG23	2.18	0.43
41:2j:5:ARG:HA	41:2j:73:ASP:OD1	2.18	0.43
44:2m:78:ILE:HG23	44:2m:92:HIS:ND1	2.33	0.43
1:1A:244:A:C2	1:1A:255:A:C4	3.07	0.43
1:1A:658:C:H2'	1:1A:659:C:C6	2.54	0.43
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.49	0.43
1:1A:796:C:H2'	1:1A:797:C:C6	2.53	0.43
1:1A:904:C:H2'	1:1A:905:U:H6	1.83	0.43
1:1A:1170:G:H8	1:1A:1170:G:H5"	1.83	0.43
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.54	0.43
1:1A:1827:C:OP2	3:1D:222:ARG:NH1	2.50	0.43
1:1A:1957:C:O2'	1:1A:1958:C:H5'	2.19	0.43
1:1A:2852:G:H2'	1:1A:2853:C:O4'	2.18	0.43
2:1B:60:C:C2	2:1B:61:G:C8	3.06	0.43
6:1G:28:VAL:O	6:1G:31:VAL:HG23	2.19	0.43
8:1I:104:GLN:C	8:1I:106:GLY:H	2.25	0.43
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.19	0.43
15:1T:53:ARG:NH2	15:1T:58:ASN:O	2.52	0.43
17:1V:1:MET:HE1	17:1V:43:GLU:HB2	1.99	0.43
32:1a:292:G:C5	32:1a:293:G:H1'	2.52	0.43
32:1a:622:A:C8	32:1a:623:C:C6	3.06	0.43
32:1a:1143:G:H2'	32:1a:1144:G:C8	2.53	0.43
32:1a:1267:C:O2	52:1u:20:LYS:HD2	2.19	0.43
32:1a:1269:A:C2	32:1a:1313:U:O4'	2.72	0.43
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.54	0.43
41:1j:20:ALA:HB1	41:1j:37:PRO:HB3	2.00	0.43
1:2A:109:G:H2'	1:2A:110:G:O4'	2.18	0.43
1:2A:198:C:H5'	1:2A:2244:U:OP1	2.18	0.43
1:2A:372:G:H8	23:21:65:SER:O	2.02	0.43
1:2A:856:C:H3'	1:2A:856:C:C6	2.54	0.43
1:2A:1219:G:H1	1:2A:1230:C:H42	1.66	0.43
1:2A:1479:G:C6	1:2A:1480:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1547:C:H2'	1:2A:1548:C:H6	1.83	0.43
1:2A:1665:A:H2'	1:2A:1666:G:O4'	2.19	0.43
2:2B:66:A:N6	2:2B:108:U:H3'	2.33	0.43
9:2N:91:LEU:HA	9:2N:95:PRO:HA	2.00	0.43
12:2Q:56:ARG:HA	21:2Z:180:VAL:CG1	2.48	0.43
13:2R:38:VAL:HG22	13:2R:112:ALA:HB2	2.00	0.43
20:2Y:21:LYS:HE3	20:2Y:21:LYS:HB2	1.76	0.43
32:2a:189(F):U:O4	48:2q:72:ARG:NH1	2.52	0.43
32:2a:262:A:H2'	32:2a:263:A:C8	2.53	0.43
32:2a:381:C:H2'	32:2a:382:A:O4'	2.17	0.43
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.34	0.43
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.54	0.43
36:2e:76:ILE:HD12	36:2e:78:HIS:O	2.19	0.43
39:2h:38:ILE:HD12	39:2h:118:VAL:HG12	2.01	0.43
41:2j:98:ILE:HD12	41:2j:99:LYS:N	2.34	0.43
1:1A:411:G:OP1	60:1A:4111:HOH:O	2.21	0.43
1:1A:885:C:H2'	1:1A:886:C:O4'	2.18	0.43
1:1A:887:A:H1'	1:1A:888:C:O5'	2.19	0.43
1:1A:1252:G:C2	16:1U:33:ARG:HG2	2.54	0.43
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.34	0.43
1:1A:2818:G:H3'	60:1A:6974:HOH:O	2.18	0.43
6:1G:167:GLU:CD	6:1G:167:GLU:H	2.27	0.43
25:13:9:VAL:HG12	25:13:32:GLN:HE22	1.83	0.43
32:1a:12:U:H4'	32:1a:526:C:O2'	2.18	0.43
32:1a:381:C:N4	32:1a:382:A:C6	2.86	0.43
32:1a:396:G:O2'	32:1a:398:C:OP1	2.34	0.43
32:1a:491:G:C6	32:1a:492:G:C5	3.07	0.43
32:1a:673:G:N2	32:1a:674:G:C2	2.87	0.43
32:1a:834:C:H2'	32:1a:835:U:C6	2.54	0.43
32:1a:975:A:H4'	32:1a:976:G:C5'	2.46	0.43
32:1a:1134:G:C6	32:1a:1135:U:C2	3.07	0.43
32:1a:1456:G:N2	51:1t:43:LEU:HD11	2.34	0.43
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.87	0.43
37:1f:12:PRO:HG3	37:1f:57:GLN:O	2.19	0.43
38:1g:106:GLN:O	38:1g:110:GLN:HG2	2.19	0.43
40:1i:111:ARG:HG2	40:1i:112:LYS:N	2.34	0.43
48:1q:74:LEU:HG	48:1q:75:ARG:HG2	2.01	0.43
1:2A:84:A:H5"	20:2Y:8:LYS:HG2	2.01	0.43
1:2A:185:U:H4'	1:2A:218:A:H4'	2.01	0.43
1:2A:421:U:O2'	60:2A:3892:HOH:O	2.21	0.43
1:2A:878:A:C5	1:2A:900:A:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.33	0.43
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.51	0.43
6:2G:103:LEU:HA	6:2G:106:LEU:HB3	2.01	0.43
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG22	2.01	0.43
12:2Q:75:THR:HA	12:2Q:89:ASN:O	2.19	0.43
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.18	0.43
29:27:22:MET:SD	29:27:31:LEU:HD12	2.59	0.43
32:2a:509:A:H5"	35:2d:55:ALA:HB2	2.00	0.43
32:2a:944:G:N1	32:2a:1338:G:OP2	2.45	0.43
32:2a:1077:G:N1	32:2a:1081:G:C6	2.86	0.43
32:2a:1097:C:H1'	32:2a:1169:A:H2	1.84	0.43
32:2a:1121:U:O2'	32:2a:1122:U:H5'	2.19	0.43
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.18	0.43
32:2a:1157:A:C5	32:2a:1180:A:C6	3.07	0.43
32:2a:1261:A:H5"	32:2a:1262:C:OP2	2.19	0.43
32:2a:1401:G:H2'	32:2a:1402:4OC:O4'	2.18	0.43
33:2b:137:ARG:O	33:2b:141:GLU:HG3	2.19	0.43
35:2d:20:TYR:HD1	35:2d:26:CYS:HB3	1.84	0.43
35:2d:61:LYS:HD3	35:2d:206:PHE:CE2	2.53	0.43
36:2e:15:ARG:HD2	36:2e:26:PHE:CG	2.54	0.43
38:2g:26:PHE:CE2	38:2g:124:LEU:HD11	2.53	0.43
39:2h:11:THR:HG22	39:2h:15:ASN:ND2	2.34	0.43
40:2i:16:ARG:HD3	40:2i:64:THR:HG21	2.01	0.43
44:2m:59:TYR:O	44:2m:63:THR:N	2.52	0.43
44:2m:92:HIS:CE1	44:2m:98:VAL:HG11	2.53	0.43
44:2m:108:ARG:HD3	44:2m:108:ARG:HA	1.83	0.43
1:1A:613:G:O2'	1:1A:614(C):A:N1	2.45	0.43
1:1A:644:A:H4'	1:1A:645:C:H5	1.83	0.43
1:1A:824:A:H1'	1:1A:2358:G:N7	2.34	0.43
1:1A:885:C:H1'	1:1A:892:G:N2	2.34	0.43
1:1A:1014:U:H2'	1:1A:1015:G:C8	2.53	0.43
1:1A:1022:G:C5	1:1A:1140:C:C4	3.06	0.43
1:1A:1048:A:OP2	1:1A:1109:C:N4	2.51	0.43
1:1A:1416:G:O2'	1:1A:1417:C:H5	2.02	0.43
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.18	0.43
1:1A:2400:G:N2	1:1A:2417:C:C2	2.86	0.43
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.36	0.43
9:1N:114:ARG:NH2	60:1N:306:HOH:O	2.46	0.43
11:1P:132:LYS:O	11:1P:136:GLU:HG3	2.18	0.43
25:13:18:ASP:OD1	25:13:18:ASP:N	2.52	0.43
32:1a:184:G:O4'	32:1a:224:C:H4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:250:A:H5'	32:1a:252:U:O4'	2.19	0.43
32:1a:293:G:C6	32:1a:294:U:C4	3.07	0.43
32:1a:389:A:N3	32:1a:389:A:H2'	2.33	0.43
32:1a:892:A:H2'	32:1a:893:C:C6	2.53	0.43
32:1a:976:G:C8	32:1a:1358:U:C2	3.07	0.43
32:1a:1054:C:H4'	32:1a:1055:A:O5'	2.17	0.43
32:1a:1308:U:H5"	44:1m:98:VAL:CG2	2.49	0.43
32:1a:1401:G:N7	53:1y:83:ARG:NH2	2.57	0.43
41:1j:21:GLN:HG3	41:1j:25:GLU:OE2	2.19	0.43
41:1j:35:SER:OG	41:1j:73:ASP:HB2	2.18	0.43
42:1k:20:TYR:O	42:1k:30:VAL:HA	2.19	0.43
46:1o:56:LEU:HD12	46:1o:56:LEU:HA	1.71	0.43
47:1p:74:LEU:HB3	47:1p:79:VAL:HG21	2.00	0.43
50:1s:22:LEU:CD1	50:1s:29:ARG:H	2.32	0.43
1:2A:271(D):G:C2	1:2A:271(E):U:C2	3.07	0.43
1:2A:330:A:HO2'	1:2A:331:A:H8	1.63	0.43
1:2A:565:C:H1'	1:2A:577:G:N2	2.33	0.43
1:2A:570:G:H2'	1:2A:2030:A:N7	2.34	0.43
1:2A:776:G:P	60:2A:3824:HOH:O	2.77	0.43
1:2A:784:A:C8	1:2A:792:G:C5	3.07	0.43
1:2A:1208:C:C4	1:2A:1209:G:N7	2.86	0.43
1:2A:1449:A:H2'	1:2A:1450:G:O4'	2.19	0.43
1:2A:1862:G:O2'	1:2A:1863:G:H5'	2.19	0.43
1:2A:2471:C:H2'	1:2A:2472:G:O4'	2.19	0.43
1:2A:2658:C:H2'	1:2A:2659:G:O4'	2.18	0.43
1:2A:2685:G:P	15:2T:51:ARG:HH12	2.42	0.43
1:2A:2699:C:H2'	1:2A:2700:C:O4'	2.18	0.43
4:2E:27:LEU:HD12	4:2E:180:ASN:O	2.18	0.43
4:2E:56:PRO:C	4:2E:58:ARG:N	2.77	0.43
5:2F:196:LEU:HD23	5:2F:196:LEU:HA	1.87	0.43
10:2O:61:VAL:HG11	10:2O:114:ILE:HD13	2.00	0.43
12:2Q:21:THR:HG21	12:2Q:101:ARG:HB2	2.01	0.43
20:2Y:7:VAL:HG21	20:2Y:72:VAL:CG1	2.48	0.43
32:2a:42:G:H5"	60:2a:3206:HOH:O	2.19	0.43
32:2a:243:A:C2	32:2a:246:A:C8	3.07	0.43
32:2a:257:G:H2'	32:2a:258:G:O4'	2.19	0.43
32:2a:540:G:H2'	32:2a:541:G:O4'	2.19	0.43
32:2a:604:G:C6	32:2a:605:U:C4	3.06	0.43
32:2a:692:U:H2'	32:2a:694:A:OP2	2.18	0.43
32:2a:922:G:C2	32:2a:923:A:C4	3.06	0.43
32:2a:1075:C:OP1	33:2b:179:LYS:NZ	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.54	0.43
32:2a:1317:C:O2	50:2s:37:ARG:NH1	2.52	0.43
32:2a:1446:U:H4'	32:2a:1447:A:N1	2.33	0.43
32:2a:1511:G:H2'	32:2a:1512:U:O4'	2.19	0.43
33:2b:69:LEU:HD12	33:2b:69:LEU:HA	1.84	0.43
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.86	0.43
36:2e:131:ILE:O	36:2e:135:THR:OG1	2.35	0.43
43:2l:40:VAL:HG21	43:2l:78:GLN:C	2.44	0.43
44:2m:73:GLU:O	44:2m:77:ASN:N	2.38	0.43
47:2p:75:ARG:HG3	47:2p:80:PHE:CD2	2.54	0.43
48:2q:18:THR:OG1	48:2q:69:LYS:HD2	2.18	0.43
51:2t:33:ILE:HD13	51:2t:63:ILE:HA	2.01	0.43
1:1A:581:C:H5"	60:1U:332:HOH:O	2.18	0.43
1:1A:638:G:C5	1:1A:651:G:C2	3.07	0.43
1:1A:1611:C:OP1	60:1A:4168:HOH:O	2.21	0.43
1:1A:2107:C:C4	1:1A:2108:C:N4	2.87	0.43
1:1A:2347:C:O2'	28:16:21:TYR:OH	2.34	0.43
1:1A:2849:U:N3	1:1A:2867:G:O4'	2.49	0.43
1:1A:2875:C:O2'	15:1T:4:GLY:HA3	2.18	0.43
2:1B:4:C:H2'	2:1B:5:C:O4'	2.19	0.43
2:1B:66:A:N6	2:1B:109:C:H5'	2.30	0.43
3:1D:13:ARG:HA	3:1D:13:ARG:HD2	1.86	0.43
23:11:3:LYS:HG3	23:11:4:VAL:N	2.26	0.43
24:12:30:ARG:HD3	60:12:109:HOH:O	2.19	0.43
28:16:38:LYS:HE3	28:16:38:LYS:HB3	1.89	0.43
32:1a:79:G:N1	32:1a:90:U:N3	2.66	0.43
32:1a:330:C:OP2	60:1a:3331:HOH:O	2.22	0.43
32:1a:404:U:P	35:1d:118:ARG:HH21	2.41	0.43
32:1a:559:A:P	36:1e:126:ARG:HH22	2.42	0.43
32:1a:738:C:H2'	32:1a:739:C:H6	1.84	0.43
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.34	0.43
32:1a:1325:C:O2'	32:1a:1326:C:H5'	2.19	0.43
33:1b:102:LEU:HD13	33:1b:182:ILE:HD12	1.99	0.43
34:1c:109:PRO:C	34:1c:111:LEU:H	2.27	0.43
37:1f:41:GLU:HG2	37:1f:43:LEU:CD1	2.49	0.43
39:1h:4:ASP:OD1	39:1h:85:ARG:NH1	2.52	0.43
45:1n:14:PRO:HG2	45:1n:16:PHE:O	2.19	0.43
1:2A:186:G:N2	60:2A:4372:HOH:O	2.52	0.43
1:2A:282:A:C4	1:2A:359:A:C2	3.07	0.43
1:2A:644:A:C2	1:2A:2369:A:H1'	2.54	0.43
1:2A:742:G:H4'	1:2A:1676:A:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1029:A:N1	1:2A:2465:C:O2'	2.49	0.43
1:2A:1045:A:C8	1:2A:1047:G:N3	2.87	0.43
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.19	0.43
1:2A:1404:C:O2'	1:2A:1405:U:H5'	2.19	0.43
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.49	0.43
1:2A:2013:A:N6	1:2A:2014:A:C6	2.87	0.43
1:2A:2130:U:H2'	1:2A:2158:A:C6	2.54	0.43
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.33	0.43
1:2A:2771:C:H2'	1:2A:2772:C:C6	2.53	0.43
2:2B:56:G:H5'	6:2G:27:ASN:HD22	1.84	0.43
32:2a:60:A:H4'	32:2a:61:G:O5'	2.19	0.43
32:2a:110:C:O2'	47:2p:25:ARG:O	2.32	0.43
32:2a:920:U:H2'	32:2a:921:U:H6	1.77	0.43
32:2a:949:A:C6	32:2a:950:U:C4	3.06	0.43
32:2a:1054:C:H4'	32:2a:1055:A:O5'	2.19	0.43
32:2a:1136:U:OP1	32:2a:1136:U:H6	2.02	0.43
34:2c:57:ILE:HD13	34:2c:66:VAL:HG22	2.01	0.43
36:2e:66:MET:HE3	36:2e:66:MET:HB3	1.88	0.43
38:2g:20:ASP:OD2	38:2g:59:LEU:HD11	2.19	0.43
38:2g:62:PHE:CD2	38:2g:63:LYS:HG3	2.54	0.43
38:2g:111:ARG:HE	38:2g:123:GLU:HB2	1.84	0.43
48:2q:22:LEU:CD1	48:2q:39:SER:HB2	2.48	0.43
53:2y:61:LEU:HD11	53:2y:85:LEU:HB2	2.00	0.43
1:1A:221:A:N1	1:1A:265:A:O2'	2.46	0.42
1:1A:221:A:O4'	1:1A:233:A:H1'	2.19	0.42
1:1A:264:C:O2'	1:1A:265:A:H2'	2.19	0.42
1:1A:672:C:OP2	11:1P:42:SER:OG	2.37	0.42
1:1A:773:U:OP1	60:1A:4172:HOH:O	2.22	0.42
1:1A:1101:U:H2'	1:1A:1102:C:C6	2.52	0.42
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.19	0.42
1:1A:2287:A:O2'	1:1A:2289:G:N7	2.50	0.42
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.18	0.42
1:1A:2690:C:H5"	1:1A:2872:G:H21	1.84	0.42
3:1D:16:MET:HE3	3:1D:16:MET:HB2	1.86	0.42
8:1I:133:HIS:HD1	8:1I:133:HIS:C	2.26	0.42
25:13:32:GLN:NE2	25:13:32:GLN:HA	2.34	0.42
32:1a:203:U:H5'	32:1a:216:G:N2	2.34	0.42
32:1a:278:G:OP2	48:1q:41:LYS:HE2	2.19	0.42
32:1a:333:G:H4'	51:1t:16:HIS:CE1	2.53	0.42
32:1a:711:G:OP1	37:1f:54:LYS:NZ	2.48	0.42
32:1a:1379:G:C6	32:1a:1380:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1468:A:H2'	32:1a:1469:G:O4'	2.18	0.42
32:1a:1519:MA6:H102	32:1a:1520:G:O2'	2.19	0.42
33:1b:80:ILE:HD11	33:1b:211:ILE:HG22	2.01	0.42
33:1b:158:LEU:HG	33:1b:182:ILE:HD11	2.00	0.42
35:1d:173:TRP:CE2	35:1d:189:PRO:HG3	2.54	0.42
38:1g:50:ILE:CD1	38:1g:58:PRO:HA	2.46	0.42
53:1y:49:VAL:CG2	53:1y:66:LYS:HE3	2.49	0.42
1:2A:300:A:H1'	1:2A:319:C:C1'	2.49	0.42
1:2A:685:A:H5"	60:2A:3823:HOH:O	2.19	0.42
1:2A:839:U:H1'	1:2A:1191:G:H1'	2.01	0.42
1:2A:879:G:C6	1:2A:880:G:C5	3.07	0.42
1:2A:1090:U:H2'	1:2A:1091:G:C8	2.52	0.42
1:2A:1346:G:OP2	60:2A:3855:HOH:O	2.21	0.42
1:2A:1448:G:H2'	1:2A:1449:A:C8	2.53	0.42
1:2A:1805:U:H5"	3:2D:250:TRP:CD2	2.54	0.42
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.54	0.42
1:2A:2156:G:N7	1:2A:2157:G:N2	2.68	0.42
2:2B:90:A:N7	2:2B:91:C:H1'	2.34	0.42
6:2G:9:ARG:O	6:2G:13:GLU:HB2	2.19	0.42
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.54	0.42
9:2N:23:LEU:HD13	9:2N:98:VAL:HG12	2.00	0.42
21:2Z:4:ARG:HH21	21:2Z:60:GLU:HG2	1.83	0.42
26:24:34:GLU:OE1	26:24:34:GLU:N	2.34	0.42
32:2a:300:A:N1	60:2a:3258:HOH:O	2.37	0.42
32:2a:1107:C:C4	32:2a:1108:G:C8	3.07	0.42
32:2a:1317:C:N4	45:2n:19:ARG:HH21	2.17	0.42
33:2b:27:LYS:HD2	33:2b:193:ASP:OD1	2.19	0.42
33:2b:167:PRO:HG3	33:2b:188:ALA:HB2	2.01	0.42
34:2c:70:VAL:HG22	34:2c:72:LYS:N	2.27	0.42
44:2m:45:VAL:HA	44:2m:48:LEU:HD13	2.00	0.42
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	2.01	0.42
1:1A:743:G:H2'	1:1A:744:G:O4'	2.19	0.42
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.19	0.42
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.20	0.42
1:1A:2787:C:O4'	4:1E:62:PRO:HA	2.19	0.42
2:1B:28:C:H5"	14:1S:31:SER:HB3	2.00	0.42
3:1D:131:LEU:N	3:1D:131:LEU:HD12	2.34	0.42
6:1G:125:PHE:CZ	6:1G:170:ARG:HA	2.54	0.42
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.61	0.42
15:1T:125:ARG:O	15:1T:127:ALA:O	2.37	0.42
30:18:8:LYS:HB3	30:18:12:LYS:HE3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:393:A:OP1	47:1p:13:HIS:HE1	2.02	0.42
32:1a:684:A:C6	32:1a:685:G:C6	3.07	0.42
32:1a:1226:C:O2'	44:1m:103:THR:O	2.27	0.42
32:1a:1313:U:OP1	50:1s:5:LEU:HB2	2.20	0.42
32:1a:1367:C:H4'	41:1j:48:THR:HG21	2.01	0.42
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.19	0.42
34:1c:46:GLU:C	34:1c:48:TYR:H	2.26	0.42
34:1c:134:ILE:HG23	34:1c:151:VAL:CG1	2.48	0.42
35:1d:158:ILE:O	35:1d:162:LEU:HD12	2.19	0.42
41:1j:45:ARG:HD3	41:1j:47:PHE:HZ	1.83	0.42
46:1o:39:LEU:O	46:1o:42:HIS:N	2.52	0.42
53:1y:24:LEU:HD23	53:1y:24:LEU:HA	1.83	0.42
1:2A:826:U:H4'	11:2P:55:ARG:HB3	2.01	0.42
1:2A:1117:G:OP2	1:2A:1117:G:H8	2.02	0.42
1:2A:1891:G:C6	1:2A:1892:C:C4	3.07	0.42
29:27:9:ARG:HD3	60:27:202:HOH:O	2.18	0.42
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.83	0.42
32:2a:191:G:C6	32:2a:192:U:C4	3.07	0.42
32:2a:233:C:O5'	32:2a:233:C:H6	2.01	0.42
32:2a:335:C:H2'	32:2a:336:C:H6	1.83	0.42
32:2a:587:G:N2	32:2a:754:C:OP2	2.49	0.42
32:2a:724:G:C2	32:2a:725:G:C8	3.07	0.42
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.42	0.42
33:2b:11:LEU:HD12	33:2b:217:ARG:HH12	1.83	0.42
33:2b:55:PHE:HD1	33:2b:55:PHE:HA	1.66	0.42
34:2c:85:ARG:HB3	34:2c:85:ARG:CZ	2.49	0.42
35:2d:62:GLN:O	35:2d:66:ARG:HG3	2.19	0.42
36:2e:19:MET:SD	36:2e:24:ARG:HB3	2.58	0.42
36:2e:32:VAL:HG11	36:2e:59:GLY:HA2	2.00	0.42
44:2m:19:LEU:O	44:2m:22:ILE:HG13	2.19	0.42
1:1A:68:G:H2'	1:1A:69:C:O4'	2.19	0.42
1:1A:86:C:H4'	1:1A:104:U:H1'	2.01	0.42
1:1A:185:U:H2'	1:1A:186:G:H8	1.83	0.42
1:1A:556:G:H2'	1:1A:557:U:C6	2.54	0.42
1:1A:1607:C:N4	1:1A:1622:G:OP2	2.36	0.42
1:1A:1645:G:H5"	1:1A:1646:C:H5'	2.00	0.42
1:1A:2526:G:N2	60:1A:4752:HOH:O	2.51	0.42
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.54	0.42
1:1A:2712:U:H2'	1:1A:2714:G:H5"	2.00	0.42
6:1G:3:LEU:HD13	26:14:25:TYR:CE1	2.54	0.42
8:1I:129:THR:HG22	8:1I:139:GLN:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:76:ARG:NH1	60:1X:203:HOH:O	2.52	0.42
20:1Y:23:ARG:HD2	60:1Y:307:HOH:O	2.18	0.42
26:14:34:GLU:HB2	44:1m:57:ARG:CZ	2.49	0.42
28:16:14:THR:HG21	28:16:50:ARG:HH21	1.84	0.42
32:1a:509:A:H3'	60:1a:3328:HOH:O	2.19	0.42
32:1a:657:G:O2'	60:1a:3332:HOH:O	2.22	0.42
32:1a:701:C:O2	32:1a:703:G:N1	2.52	0.42
32:1a:814:A:N7	32:1a:816:A:C4	2.87	0.42
33:1b:84:GLU:OE1	33:1b:216:SER:HA	2.19	0.42
34:1c:70:VAL:HG12	34:1c:71:ALA:N	2.34	0.42
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	2.01	0.42
44:1m:15:VAL:O	44:1m:19:LEU:HG	2.20	0.42
53:1y:70:MET:HE2	53:1y:70:MET:HB3	1.87	0.42
1:2A:36:G:O2'	1:2A:450:G:H2'	2.18	0.42
1:2A:207:A:H2'	1:2A:208:C:O4'	2.19	0.42
1:2A:336:C:O2'	20:2Y:35:TYR:OH	2.24	0.42
1:2A:609:A:H2'	1:2A:610:G:O4'	2.19	0.42
1:2A:623:G:H2'	1:2A:624:C:C6	2.55	0.42
1:2A:658:C:H2'	1:2A:659:C:C6	2.53	0.42
1:2A:1051:G:C5	1:2A:1052:C:C4	3.07	0.42
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.54	0.42
1:2A:2728:U:H2'	1:2A:2729:G:H8	1.82	0.42
1:2A:2740:A:C6	1:2A:2741:A:C6	3.07	0.42
6:2G:16:ARG:HD2	6:2G:31:VAL:HG11	2.01	0.42
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	2.00	0.42
19:2X:5:TYR:CG	24:22:30:ARG:HA	2.54	0.42
32:2a:444:C:C2	32:2a:445:G:C8	3.06	0.42
32:2a:502:G:OP1	43:2l:118:SER:HB3	2.19	0.42
32:2a:557:G:N1	32:2a:558:G:C2	2.87	0.42
32:2a:560:U:HO2'	32:2a:561:U:P	2.40	0.42
32:2a:1071:C:H5"	36:2e:49:PRO:HG2	2.01	0.42
34:2c:71:ALA:C	34:2c:73:PRO:HD3	2.45	0.42
34:2c:91:LEU:O	34:2c:94:LEU:N	2.51	0.42
39:2h:51:VAL:HG11	39:2h:60:ARG:HH11	1.84	0.42
42:2k:85:ARG:HE	42:2k:111:ASP:HB3	1.84	0.42
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	2.01	0.42
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.55	0.42
48:2q:32:TYR:O	48:2q:34:LYS:N	2.46	0.42
51:2t:36:LEU:HD13	51:2t:58:LYS:HG3	2.00	0.42
1:1A:374:A:C2	1:1A:401:A:C4	3.07	0.42
1:1A:784:A:H3'	60:1A:4740:HOH:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1840:G:N7	60:1A:4339:HOH:O	2.37	0.42
1:1A:1877:A:H8	1:1A:1877:A:OP2	2.03	0.42
1:1A:2161:C:H2'	1:1A:2162:G:O4'	2.19	0.42
1:1A:2282:G:H4'	1:1A:2389:G:O2'	2.19	0.42
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.85	0.42
1:1A:2469:A:H4'	12:1Q:56:ARG:HG2	2.02	0.42
1:1A:2483:C:H2'	1:1A:2484:G:O4'	2.20	0.42
1:1A:2784:C:H1'	4:1E:37:ARG:NH1	2.34	0.42
60:1A:6279:HOH:O	18:1W:16:LYS:HE2	2.20	0.42
2:1B:39:A:O2'	2:1B:46:A:N1	2.43	0.42
3:1D:5:LYS:HB3	3:1D:5:LYS:HE3	1.51	0.42
5:1F:64:ILE:CG2	5:1F:78:ILE:HG23	2.48	0.42
8:1I:104:GLN:HB2	8:1I:105:HIS:CD2	2.55	0.42
9:1N:107:LEU:HD23	9:1N:107:LEU:HA	1.80	0.42
13:1R:10:LEU:HA	13:1R:10:LEU:HD23	1.79	0.42
30:18:47:LYS:CE	57:18:102:MPD:H51	2.50	0.42
32:1a:529:G:O6	43:1l:49:ASN:HA	2.20	0.42
32:1a:567:G:H2'	32:1a:568:G:O4'	2.18	0.42
32:1a:823:G:H2'	32:1a:824:C:O4'	2.19	0.42
32:1a:1122:U:C4	32:1a:1123:A:N7	2.87	0.42
32:1a:1123:A:H61	32:1a:1149:C:N4	2.18	0.42
32:1a:1446:U:O2'	32:1a:1447:A:H3'	2.18	0.42
34:1c:130:VAL:HG21	34:1c:157:ILE:HG23	2.01	0.42
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.55	0.42
39:1h:25:ASP:OD1	39:1h:60:ARG:HG3	2.20	0.42
47:1p:72:ARG:O	47:1p:75:ARG:N	2.52	0.42
48:1q:9:VAL:HA	48:1q:55:ASP:O	2.19	0.42
48:1q:92:ARG:HD3	48:1q:92:ARG:HA	1.86	0.42
52:1u:15:ARG:HD3	52:1u:15:ARG:HA	1.80	0.42
1:2A:58:G:O2'	1:2A:73:A:N1	2.50	0.42
1:2A:266:G:N2	1:2A:427:U:H1'	2.35	0.42
1:2A:719:C:H2'	1:2A:720:C:H6	1.85	0.42
1:2A:947:G:N2	1:2A:971:C:C2	2.87	0.42
1:2A:959:A:C6	1:2A:960:A:C6	3.07	0.42
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.19	0.42
1:2A:1528(A):A:H2'	1:2A:1529:G:O4'	2.20	0.42
1:2A:1707:G:C5	1:2A:1756:G:C6	3.07	0.42
1:2A:2190:G:H2'	1:2A:2191:G:O4'	2.19	0.42
1:2A:2370:G:C6	1:2A:2371:G:C6	3.08	0.42
1:2A:2519:U:C6	1:2A:2542:A:N6	2.87	0.42
1:2A:2875:C:H2'	1:2A:2876:G:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:92:THR:O	4:2E:95:ILE:HG23	2.19	0.42
5:2F:30:PRO:HB3	11:2P:1:MET:HE1	2.01	0.42
5:2F:155:LEU:HD12	5:2F:174:VAL:O	2.19	0.42
13:2R:1:MET:HB2	13:2R:1:MET:HE3	1.57	0.42
23:21:85:LEU:HD12	23:21:89:GLU:OE1	2.19	0.42
30:28:23:VAL:CG1	30:28:47:LYS:HD3	2.48	0.42
32:2a:1206:G:H2'	32:2a:1207:2MG:O4'	2.19	0.42
32:2a:1441:G:H1'	32:2a:1461:G:N2	2.35	0.42
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.53	0.42
32:2a:1505:G:OP2	60:2a:3204:HOH:O	2.22	0.42
33:2b:76:GLN:HE21	33:2b:206:ASP:HA	1.85	0.42
34:2c:157:ILE:HD12	34:2c:164:ARG:HB3	2.01	0.42
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.85	0.42
43:2l:60:LEU:HD11	43:2l:85:ILE:HD11	2.02	0.42
47:2p:38:TYR:O	47:2p:49:LEU:HD12	2.19	0.42
1:1A:180:G:OP2	29:17:32:LYS:HE2	2.19	0.42
1:1A:249:C:O2'	11:1P:64:LYS:NZ	2.35	0.42
1:1A:565:C:H2'	1:1A:566:U:O4'	2.20	0.42
1:1A:631:A:H1'	1:1A:2415:G:O2'	2.20	0.42
1:1A:685:A:H1'	1:1A:688:U:O4	2.19	0.42
1:1A:1023:U:OP2	60:1A:4107:HOH:O	2.21	0.42
1:1A:1365:A:N6	1:1A:1366:A:C6	2.87	0.42
1:1A:1405:U:H2'	1:1A:1406:U:H6	1.83	0.42
1:1A:1702:G:H2'	1:1A:1703:G:O4'	2.20	0.42
1:1A:1721:G:H3'	1:1A:1722:A:C5'	2.48	0.42
1:1A:1949:G:C6	1:1A:1950:G:C6	3.07	0.42
1:1A:2094:G:OP1	8:1I:22:LYS:HD2	2.19	0.42
1:1A:2169:A:H2'	1:1A:2170:A:C8	2.54	0.42
1:1A:2345:G:OP2	28:16:38:LYS:NZ	2.47	0.42
6:1G:132:ASN:HA	6:1G:157:ILE:O	2.19	0.42
7:1H:72:ILE:O	7:1H:76:VAL:HG23	2.19	0.42
10:1O:26:LYS:O	10:1O:30:ALA:HB2	2.19	0.42
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.54	0.42
24:12:36:ARG:HD3	60:12:110:HOH:O	2.18	0.42
30:18:33:ASN:HA	30:18:36:LYS:HD2	2.02	0.42
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.17	0.42
32:1a:344:A:H4'	32:1a:345:C:OP2	2.18	0.42
32:1a:523:A:H61	43:1l:92:0TD:CG	2.33	0.42
32:1a:692:U:H1'	32:1a:695:A:N7	2.35	0.42
32:1a:1222:G:O2'	32:1a:1223:C:H5'	2.19	0.42
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:185:ILE:HA	33:1b:199:TYR:O	2.19	0.42
34:1c:52:LEU:HA	34:1c:70:VAL:HG22	2.00	0.42
34:1c:52:LEU:HD12	34:1c:53:ALA:H	1.84	0.42
35:1d:149:ALA:HB3	35:1d:152:SER:OG	2.19	0.42
40:1i:92:TYR:HD1	40:1i:92:TYR:HA	1.72	0.42
47:1p:60:LEU:HD21	47:1p:80:PHE:HE1	1.84	0.42
49:1r:38:GLU:OE1	49:1r:41:LYS:HD3	2.19	0.42
51:1t:54:LYS:HA	51:1t:57:ARG:CZ	2.50	0.42
1:2A:486:C:O2'	18:2W:60:ASN:ND2	2.53	0.42
1:2A:629:G:H4'	1:2A:650:C:O2	2.19	0.42
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.18	0.42
1:2A:2131:G:O5'	1:2A:2131:G:H8	2.02	0.42
1:2A:2168:G:H2'	1:2A:2170:A:OP2	2.20	0.42
1:2A:2294:C:P	14:2S:89:ARG:HH22	2.42	0.42
1:2A:2652:C:H2'	1:2A:2653:U:O4'	2.19	0.42
2:2B:51:G:OP2	14:2S:61:ASN:HA	2.19	0.42
7:2H:53:GLU:HA	7:2H:65:HIS:NE2	2.34	0.42
10:2O:108:GLU:H	10:2O:108:GLU:HG3	1.53	0.42
12:2Q:32:TYR:HB2	12:2Q:106:VAL:HG23	2.00	0.42
20:2Y:95:LYS:HB3	20:2Y:95:LYS:HE2	1.90	0.42
24:22:31:GLU:HB3	24:22:53:LEU:HD11	2.02	0.42
32:2a:224:C:H2'	32:2a:225:C:H6	1.84	0.42
32:2a:251:G:H4'	32:2a:252:U:O5'	2.18	0.42
32:2a:633:G:H2'	32:2a:634:C:C6	2.54	0.42
32:2a:1287:A:N3	32:2a:1353:G:O2'	2.45	0.42
33:2b:87:ARG:NH1	33:2b:233:SER:HB3	2.34	0.42
33:2b:146:GLN:O	33:2b:150:SER:HB3	2.20	0.42
33:2b:219:VAL:O	33:2b:222:ILE:HG13	2.19	0.42
36:2e:75:THR:HG23	36:2e:76:ILE:N	2.34	0.42
39:2h:110:ALA:O	39:2h:120:THR:HA	2.19	0.42
40:2i:3:GLN:NE2	40:2i:20:ARG:HE	2.04	0.42
48:2q:76:LEU:HD12	48:2q:77:VAL:N	2.34	0.42
53:2y:3:MET:HB2	53:2y:37:PRO:HG2	2.01	0.42
53:2y:54:ILE:HB	53:2y:61:LEU:HB2	2.00	0.42
1:1A:271(K):U:H4'	1:1A:271(L):U:OP2	2.19	0.42
1:1A:471:A:H2'	1:1A:472:A:O4'	2.18	0.42
1:1A:518:G:H2'	1:1A:519:U:C6	2.55	0.42
1:1A:887:A:N3	1:1A:888:C:H3'	2.35	0.42
1:1A:1508:A:O2'	1:1A:1509:C:H5"	2.19	0.42
1:1A:2206:G:H2'	1:1A:2207:G:C2	2.55	0.42
1:1A:2579:C:H2'	1:1A:2580:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2784:C:O2'	1:1A:2785:C:H5'	2.19	0.42
60:1A:5481:HOH:O	4:1E:129:HIS:HE1	2.02	0.42
6:1G:47:LYS:HB2	6:1G:86:MET:HE3	2.02	0.42
8:1I:77:LEU:HD12	8:1I:77:LEU:HA	1.59	0.42
9:1N:96:GLU:H	9:1N:96:GLU:CD	2.28	0.42
11:1P:88:LEU:HD11	11:1P:114:ILE:HD12	2.01	0.42
30:18:32:LEU:O	30:18:36:LYS:HE3	2.20	0.42
32:1a:586:C:O2'	32:1a:878:G:H4'	2.18	0.42
32:1a:1104:G:H4'	33:1b:111:ARG:NH1	2.34	0.42
33:1b:54:THR:HA	33:1b:199:TYR:HB3	2.01	0.42
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	2.00	0.42
37:1f:44:GLY:HA2	37:1f:59:TYR:CE2	2.55	0.42
42:1k:66:LEU:CD2	42:1k:97:ALA:HB1	2.49	0.42
44:1m:24:GLY:O	44:1m:29:ARG:HD2	2.19	0.42
1:2A:192:C:O2'	1:2A:802:A:N3	2.52	0.42
1:2A:644:A:H5"	1:2A:645:C:OP1	2.18	0.42
1:2A:758:C:O2'	1:2A:1981:A:N3	2.48	0.42
1:2A:1147:C:O2'	1:2A:1148:A:H5'	2.19	0.42
1:2A:1759:A:H4'	1:2A:2715:C:O4'	2.20	0.42
1:2A:1902:C:H5'	3:2D:246:PRO:HD3	2.00	0.42
1:2A:2292:C:H4'	1:2A:2375:G:H4'	2.02	0.42
1:2A:2399:G:H2'	1:2A:2400:G:O4'	2.19	0.42
1:2A:2406:U:H6	1:2A:2406:U:H2'	1.67	0.42
1:2A:2786:U:O2'	4:2E:65:GLY:HA3	2.20	0.42
1:2A:2807:G:C2	1:2A:2893:G:O6	2.73	0.42
1:2A:2892:A:N6	1:2A:2893:G:O6	2.52	0.42
6:2G:119:GLY:HA3	6:2G:181:ARG:HB2	2.02	0.42
17:2V:53:GLU:H	17:2V:53:GLU:HG2	1.67	0.42
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	2.01	0.42
32:2a:179:A:H2'	32:2a:180:U:H6	1.84	0.42
32:2a:529:G:O6	43:2l:49:ASN:HA	2.20	0.42
32:2a:538:G:H2'	32:2a:539:A:H8	1.84	0.42
32:2a:598:U:H2'	32:2a:599:C:C6	2.54	0.42
32:2a:719:C:N4	49:2r:71:LYS:HE2	2.35	0.42
32:2a:790:A:H61	32:2a:1498:UR3:P	2.43	0.42
32:2a:1004:A:H5"	32:2a:1025:U:C4	2.55	0.42
32:2a:1009:G:C6	32:2a:1021:G:C6	3.08	0.42
32:2a:1030(C):G:H2'	32:2a:1030(D):A:H8	1.84	0.42
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.08	0.42
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.54	0.42
35:2d:9:CYS:O	35:2d:13:ARG:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:25:ARG:HA	35:2d:28:SER:HB3	2.01	0.42
38:2g:111:ARG:HD3	38:2g:113:GLU:OE2	2.19	0.42
48:2q:62:SER:CB	48:2q:72:ARG:HG3	2.49	0.42
1:1A:551:G:O2'	1:1A:1220:A:N3	2.45	0.42
1:1A:760:G:OP1	60:1A:4166:HOH:O	2.21	0.42
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.20	0.42
1:1A:1495:A:C6	1:1A:1496:A:C6	3.08	0.42
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.54	0.42
1:1A:2180:U:H2'	1:1A:2181:G:O4'	2.19	0.42
1:1A:2330:G:H2'	1:1A:2331:G:O4'	2.20	0.42
1:1A:2461:C:H2'	1:1A:2462:U:C6	2.55	0.42
1:1A:2726:U:H4'	10:1O:1:MET:HE1	2.02	0.42
1:1A:2836:U:C4	1:1A:2883:A:N6	2.87	0.42
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.54	0.42
14:1S:61:ASN:HB3	14:1S:64:GLU:CD	2.45	0.42
18:1W:14:PRO:O	18:1W:15:ARG:C	2.62	0.42
32:1a:66:G:C6	32:1a:67:C:C5	3.08	0.42
32:1a:102:G:C6	32:1a:103:C:C4	3.08	0.42
32:1a:227:G:O2'	47:1p:62:VAL:HG22	2.20	0.42
32:1a:254:G:OP1	48:1q:67:LYS:O	2.38	0.42
32:1a:545:C:O2'	32:1a:549:C:H5"	2.20	0.42
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.84	0.42
32:1a:1103:C:H5"	33:1b:98:LEU:HD13	2.01	0.42
32:1a:1206:G:O4'	34:1c:194:GLY:HA2	2.19	0.42
32:1a:1408:A:C2'	32:1a:1409:C:H5'	2.48	0.42
33:1b:157:ARG:HE	33:1b:157:ARG:HB3	1.22	0.42
40:1i:10:ARG:HG2	40:1i:75:ASP:HB2	2.02	0.42
42:1k:59:TYR:CE2	42:1k:63:LEU:HD11	2.55	0.42
44:1m:80:ARG:HH22	50:1s:69:HIS:CE1	2.38	0.42
1:2A:586:A:N1	1:2A:809:G:O2'	2.46	0.42
1:2A:1069:A:O2'	1:2A:1071:G:OP2	2.27	0.42
1:2A:1268:A:C2	1:2A:2013:A:C4	3.08	0.42
1:2A:1359:A:C6	1:2A:1372:U:O4	2.73	0.42
1:2A:1513:C:H2'	1:2A:1514:U:C6	2.55	0.42
1:2A:2554:U:H2'	1:2A:2555:U:C6	2.55	0.42
1:2A:2563:U:O2	1:2A:2565:A:H8	2.02	0.42
1:2A:2784:C:O3'	4:2E:41:LYS:HD2	2.20	0.42
5:2F:123:LEU:HD12	5:2F:124:LEU:H	1.84	0.42
6:2G:103:LEU:O	6:2G:107:LEU:HG	2.20	0.42
14:2S:68:GLN:HA	14:2S:68:GLN:HE21	1.84	0.42
21:2Z:14:LYS:NZ	21:2Z:15:PRO:HD2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:93:ASP:HB2	21:2Z:131:ARG:NH1	2.34	0.42
26:24:59:PHE:HD1	26:24:61:ARG:CB	2.30	0.42
32:2a:51:A:N7	32:2a:114:U:O2'	2.48	0.42
32:2a:224:C:H2'	32:2a:225:C:C6	2.55	0.42
32:2a:471:G:C6	32:2a:472:A:C5	3.07	0.42
32:2a:490:G:H2'	32:2a:491:G:H8	1.83	0.42
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.55	0.42
33:2b:32:ILE:HD13	33:2b:40:HIS:HD2	1.84	0.42
33:2b:135:GLN:O	33:2b:139:LYS:HB2	2.19	0.42
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	2.01	0.42
44:2m:84:ILE:HD11	44:2m:86:CYS:SG	2.59	0.42
48:2q:58:GLU:OE1	48:2q:75:ARG:NE	2.52	0.42
1:1A:210:C:OP2	29:17:29:LYS:HE3	2.19	0.42
1:1A:244:A:H2'	1:1A:245:G:O4'	2.20	0.42
1:1A:262:A:H2'	1:1A:263:C:O4'	2.20	0.42
1:1A:309:G:C5	1:1A:330:A:C6	3.08	0.42
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.20	0.42
1:1A:720:C:H2'	1:1A:721:C:C6	2.53	0.42
1:1A:849:A:C2	25:13:24:LYS:HG2	2.55	0.42
1:1A:1063:G:H1	1:1A:1075:C:H42	1.62	0.42
1:1A:1223:G:N2	1:1A:1226:A:OP2	2.44	0.42
1:1A:1494:A:C2	1:1A:1495:A:C4	3.08	0.42
1:1A:1698:A:C8	1:1A:1700:A:O4'	2.73	0.42
1:1A:2474:C:O2	1:1A:2474:C:H2'	2.19	0.42
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.54	0.42
1:1A:2807:G:C2	1:1A:2893:G:O6	2.72	0.42
3:1D:175:LEU:HD23	3:1D:175:LEU:HA	1.78	0.42
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	2.02	0.42
27:15:59:GLU:HB2	60:15:223:HOH:O	2.20	0.42
32:1a:22:G:O2'	32:1a:913:A:N1	2.52	0.42
32:1a:28:G:C6	32:1a:29:G:C5	3.08	0.42
32:1a:67:C:H4'	32:1a:172:A:O4'	2.20	0.42
32:1a:452:A:O2'	32:1a:453:A:OP2	2.31	0.42
32:1a:472:A:H4'	47:1p:80:PHE:O	2.20	0.42
32:1a:944:G:H1'	32:1a:1339:A:N6	2.33	0.42
32:1a:1003:G:N2	32:1a:1038:C:C4	2.88	0.42
32:1a:1063:C:OP2	32:1a:1064:G:O2'	2.29	0.42
32:1a:1092:A:C6	32:1a:1093:A:C6	3.08	0.42
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.51	0.42
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.55	0.42
32:1a:1329:A:H4'	44:1m:24:GLY:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:19:LEU:CD2	37:1f:23:LYS:HD2	2.50	0.42
39:1h:39:LEU:HD12	39:1h:44:PHE:HB2	2.02	0.42
39:1h:121:ASP:OD2	39:1h:125:ARG:NH2	2.52	0.42
41:1j:30:SER:HB3	41:1j:81:THR:N	2.35	0.42
46:1o:53:HIS:O	46:1o:56:LEU:HB3	2.20	0.42
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.19	0.42
1:2A:208:C:H2'	1:2A:209:C:C6	2.55	0.42
1:2A:224:G:N7	1:2A:420:C:H4'	2.34	0.42
1:2A:570:G:H2'	1:2A:2030:A:C5	2.54	0.42
1:2A:855:G:C6	1:2A:856:C:C4	3.08	0.42
1:2A:1062:G:N2	1:2A:1077:A:H2	2.18	0.42
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.55	0.42
1:2A:1482:G:C2	1:2A:1484:G:C8	3.07	0.42
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.54	0.42
1:2A:2040:C:H2'	1:2A:2041:U:O4'	2.19	0.42
1:2A:2133:G:H2'	1:2A:2157:G:O2'	2.20	0.42
1:2A:2163:C:C2	1:2A:2164:C:H1'	2.55	0.42
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.83	0.42
3:2D:79:VAL:HG12	3:2D:113:VAL:HA	2.01	0.42
12:2Q:7:MET:HE1	21:2Z:194:PRO:HB2	2.02	0.42
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.20	0.42
16:2U:57:PHE:HB3	16:2U:61:TRP:CZ2	2.54	0.42
17:2V:95:LEU:HD12	17:2V:96:ILE:N	2.34	0.42
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.19	0.42
26:24:48:ARG:O	26:24:50:VAL:N	2.49	0.42
31:29:8:LYS:HB3	31:29:8:LYS:HE2	1.88	0.42
32:2a:49:U:O2	32:2a:362:G:H1'	2.19	0.42
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.34	0.42
32:2a:1126:U:N3	32:2a:1280:A:OP1	2.52	0.42
35:2d:148:VAL:HG21	35:2d:158:ILE:HG21	2.01	0.42
1:1A:679:C:H2'	1:1A:680:G:H8	1.85	0.42
1:1A:1065:U:OP1	1:1A:1065:U:H4'	2.19	0.42
1:1A:1163:G:H4'	17:1V:90:PRO:HG2	2.01	0.42
1:1A:1275:A:N1	1:1A:1295:C:O2'	2.48	0.42
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.55	0.42
1:1A:2095:C:H2'	1:1A:2096:U:O4'	2.20	0.42
8:1I:72:LEU:O	8:1I:74:ASN:N	2.52	0.42
12:1Q:89:ASN:ND2	60:1Q:304:HOH:O	2.47	0.42
25:13:26:LEU:O	25:13:35:ARG:NE	2.53	0.42
32:1a:29:G:O2'	32:1a:295:C:H4'	2.19	0.42
32:1a:103:C:C4	32:1a:104:G:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:279:A:N7	48:1q:98:LEU:HD22	2.35	0.42
32:1a:516:PSU:O2'	32:1a:519:C:N3	2.45	0.42
32:1a:659:U:H2'	32:1a:660:G:H8	1.84	0.42
32:1a:781:A:OP1	32:1a:1523:G:H5'	2.20	0.42
32:1a:1136:U:H5"	32:1a:1137:C:N1	2.34	0.42
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.19	0.42
32:1a:1330:U:H2'	32:1a:1331:G:H5'	2.02	0.42
41:1j:23:ILE:HD13	41:1j:23:ILE:HA	1.87	0.42
42:1k:66:LEU:HD23	42:1k:97:ALA:HB1	2.02	0.42
1:2A:429:A:H2'	1:2A:430:G:C8	2.55	0.42
1:2A:454:A:H4'	1:2A:455:C:OP2	2.19	0.42
1:2A:699:A:C2	1:2A:1633:G:N3	2.88	0.42
1:2A:1039:G:H2'	1:2A:1040:C:O4'	2.20	0.42
1:2A:1063:G:C4	1:2A:1065:U:C5	3.08	0.42
1:2A:1068:G:O4'	1:2A:1068:G:P	2.78	0.42
1:2A:1638:C:H2'	1:2A:1639:U:O4'	2.20	0.42
1:2A:2123:G:N2	1:2A:2176:A:H1'	2.35	0.42
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.55	0.42
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.43	0.42
1:2A:2838:G:C2	1:2A:2881:C:C2	3.08	0.42
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.20	0.42
4:2E:70:ALA:O	4:2E:72:VAL:N	2.53	0.42
6:2G:53:LEU:HD23	6:2G:53:LEU:HA	1.63	0.42
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.20	0.42
19:2X:31:HIS:HD2	19:2X:33:LYS:H	1.68	0.42
32:2a:131:C:H2'	32:2a:132:C:H6	1.85	0.42
32:2a:505:G:H2'	32:2a:506:G:C8	2.53	0.42
32:2a:509:A:C6	32:2a:510:A:N1	2.88	0.42
32:2a:685:G:C2	32:2a:686:U:C4	3.08	0.42
32:2a:779:C:H2'	32:2a:780:A:O4'	2.20	0.42
32:2a:952:U:H4'	32:2a:964:A:N1	2.35	0.42
32:2a:976:G:C8	32:2a:1358:U:C2	3.07	0.42
32:2a:988:G:C6	32:2a:989:C:C4	3.07	0.42
32:2a:1057:G:C5	32:2a:1204:A:C2	3.08	0.42
32:2a:1154:G:H2'	32:2a:1155:G:C8	2.52	0.42
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.20	0.42
33:2b:16:HIS:CB	33:2b:210:SER:HB3	2.50	0.42
33:2b:48:MET:HE2	33:2b:48:MET:HB3	1.76	0.42
34:2c:63:ASN:CB	34:2c:98:ASN:HB2	2.49	0.42
35:2d:152:SER:O	35:2d:155:LEU:HB2	2.19	0.42
38:2g:20:ASP:HB3	38:2g:23:VAL:CG2	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:108:VAL:HG12	40:2i:109:VAL:H	1.85	0.42
41:2j:27:ALA:HA	41:2j:81:THR:HG22	2.02	0.42
42:2k:22:HIS:O	42:2k:28:THR:HA	2.20	0.42
44:2m:14:ARG:HD2	44:2m:42:ALA:HA	2.01	0.42
44:2m:60:VAL:HG13	44:2m:64:TRP:CE3	2.55	0.42
53:2y:3:MET:CG	53:2y:37:PRO:HG2	2.49	0.42
1:1A:271(L):U:H4'	8:1I:50:ARG:CZ	2.50	0.42
1:1A:272(E):G:N3	60:1A:4345:HOH:O	2.37	0.42
1:1A:481:G:C4	1:1A:507:A:C2	3.08	0.42
1:1A:528:A:OP2	9:1N:114:ARG:NH1	2.53	0.42
1:1A:645:C:H3'	60:1A:6234:HOH:O	2.20	0.42
1:1A:863:A:H2'	1:1A:864:G:H8	1.85	0.42
1:1A:1153:C:H2'	1:1A:1154:G:O4'	2.20	0.42
1:1A:1484:G:N2	1:1A:1506:C:C2	2.88	0.42
1:1A:1918:A:O2'	1:1A:1920:OMC:N4	2.53	0.42
1:1A:2149:G:H2'	1:1A:2150:U:O4'	2.20	0.42
1:1A:2621:A:H5"	60:1A:4516:HOH:O	2.19	0.42
13:1R:87:TYR:OH	13:1R:116:LEU:HB3	2.20	0.42
28:16:10:LEU:HD21	28:16:54:ILE:HG13	2.02	0.42
32:1a:16:A:N1	32:1a:919:A:H2	2.17	0.42
32:1a:20:U:H1'	32:1a:916:G:N2	2.35	0.42
32:1a:258:G:H2'	32:1a:259:G:C8	2.54	0.42
32:1a:766:A:C8	32:1a:814:A:C6	3.07	0.42
32:1a:767:A:H2'	32:1a:768:A:O4'	2.20	0.42
32:1a:936:C:H2'	32:1a:937:A:O4'	2.19	0.42
32:1a:988:G:H2'	32:1a:989:C:O4'	2.19	0.42
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.83	0.42
32:1a:1216:G:H5"	45:1n:5:ALA:CB	2.50	0.42
32:1a:1347:G:C5	40:1i:107:ARG:NH1	2.88	0.42
32:1a:1360:A:H2'	32:1a:1361:G:O4'	2.20	0.42
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	2.02	0.42
37:1f:97:PHE:CD2	49:1r:65:ILE:HD12	2.55	0.42
38:1g:46:ALA:O	38:1g:49:ILE:N	2.53	0.42
40:1i:20:ARG:O	40:1i:60:ASP:N	2.40	0.42
40:1i:28:VAL:HA	40:1i:63:ILE:O	2.20	0.42
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	2.01	0.42
45:1n:45:ARG:HG2	45:1n:49:HIS:CD2	2.55	0.42
1:2A:638:G:H2'	1:2A:639:U:O4'	2.20	0.42
1:2A:700:G:H2'	1:2A:701:G:O4'	2.20	0.42
1:2A:999:U:C5	1:2A:1154:G:C5	3.08	0.42
1:2A:1094:U:H4'	1:2A:1096:A:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1754:C:H5”	15:2T:113:LYS:HE3	2.02	0.42
1:2A:2168:G:N2	1:2A:2171:A:H2’	2.34	0.42
1:2A:2304:G:N2	6:2G:156:ASP:OD2	2.41	0.42
1:2A:2519:U:C4	1:2A:2542:A:C5	3.08	0.42
1:2A:2645:G:H4’	1:2A:2732:G:O3’	2.20	0.42
2:2B:42:C:C6	6:2G:69:ALA:HB2	2.55	0.42
3:2D:12:SER:OG	3:2D:208:LYS:HB3	2.20	0.42
3:2D:176:ARG:HB3	3:2D:176:ARG:CZ	2.50	0.42
9:2N:15:LEU:HD11	9:2N:55:VAL:HG13	2.02	0.42
9:2N:95:PRO:HG2	9:2N:124:ALA:HB2	2.01	0.42
10:2O:77:ILE:HG13	15:2T:74:ARG:HG2	2.02	0.42
11:2P:3:LEU:HD12	11:2P:3:LEU:HA	1.85	0.42
11:2P:132:LYS:HE2	11:2P:132:LYS:HB2	1.86	0.42
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.55	0.42
20:2Y:1:MET:HE2	20:2Y:1:MET:HB3	1.85	0.42
25:23:28:LEU:HD23	25:23:28:LEU:HA	1.88	0.42
26:24:42:PHE:HD2	26:24:43:TYR:CE1	2.38	0.42
31:29:19:ARG:HG2	31:29:20:HIS:ND1	2.34	0.42
32:2a:337:C:H2’	32:2a:338:A:C8	2.54	0.42
32:2a:434:U:H2’	32:2a:435:C:H6	1.83	0.42
32:2a:617:G:H4’	47:2p:44:THR:O	2.20	0.42
32:2a:633:G:C6	32:2a:634:C:C4	3.08	0.42
32:2a:667:G:OP1	32:2a:732:C:O2’	2.21	0.42
32:2a:930:C:C4	32:2a:931:C:C5	3.08	0.42
32:2a:1003:G:C8	32:2a:1004:A:H1’	2.55	0.42
32:2a:1290:G:C4	32:2a:1291:G:C8	3.07	0.42
32:2a:1304:G:C6	32:2a:1305:G:N1	2.88	0.42
33:2b:28:PHE:CD1	33:2b:190:THR:HA	2.54	0.42
33:2b:77:ALA:CB	33:2b:165:VAL:HG11	2.49	0.42
33:2b:197:VAL:HG12	33:2b:200:ILE:HG13	2.02	0.42
34:2c:91:LEU:HD13	34:2c:101:LEU:HD12	2.01	0.42
35:2d:203:VAL:O	35:2d:206:PHE:HB3	2.19	0.42
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.55	0.42
38:2g:49:ILE:H	38:2g:49:ILE:HG13	1.71	0.42
49:2r:43:PHE:CE1	49:2r:58:LEU:HD11	2.54	0.42
1:1A:729:G:N7	3:1D:210:GLY:N	2.58	0.41
1:1A:839:U:H1’	1:1A:1191:G:H1’	2.02	0.41
1:1A:924:C:H2’	1:1A:925:C:C6	2.55	0.41
1:1A:1035:U:H2’	1:1A:1036:G:C8	2.55	0.41
1:1A:1229:G:C6	1:1A:1230:C:C4	3.08	0.41
1:1A:1665:A:H2’	1:1A:1666:G:O4’	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2133:G:H4'	1:1A:2133:G:OP1	2.20	0.41
1:1A:2443:C:O2'	1:1A:2444:G:H5'	2.20	0.41
1:1A:2521:C:C4	1:1A:2522:U:C4	3.07	0.41
1:1A:2822:G:O2'	1:1A:2824:C:OP2	2.29	0.41
3:1D:3:VAL:HG13	3:1D:17:THR:HB	2.01	0.41
7:1H:3:ARG:HH22	7:1H:66:GLY:H	1.67	0.41
17:1V:1:MET:HA	17:1V:41:GLY:O	2.20	0.41
17:1V:40:LEU:HD23	17:1V:40:LEU:HA	1.82	0.41
21:1Z:132:ASN:ND2	21:1Z:160:GLY:HA3	2.34	0.41
32:1a:192:U:O2'	32:1a:193:C:H5'	2.19	0.41
32:1a:354:G:C2	32:1a:355:C:C6	3.08	0.41
32:1a:460:G:N2	32:1a:471:G:N7	2.68	0.41
32:1a:501:C:H2'	32:1a:502:G:H8	1.85	0.41
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	2.01	0.41
32:1a:1519:MA6:H5"	32:1a:1520:G:OP2	2.19	0.41
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	2.02	0.41
46:1o:29:VAL:HB	46:1o:81:LEU:HD21	2.02	0.41
1:2A:97:C:O3'	24:22:2:LYS:HA	2.20	0.41
1:2A:204:A:H1'	60:2A:4391:HOH:O	2.20	0.41
1:2A:329:G:N2	1:2A:477:A:C6	2.88	0.41
1:2A:510:C:H2'	1:2A:511:U:O4'	2.19	0.41
1:2A:634:C:H2'	1:2A:635:C:C6	2.55	0.41
1:2A:1060:U:N3	1:2A:1062:G:O6	2.53	0.41
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.34	0.41
1:2A:1721:G:N3	1:2A:1721:G:H5"	2.35	0.41
8:2I:48:GLU:HG3	8:2I:52:ARG:HD3	2.01	0.41
10:2O:70:LYS:HE2	10:2O:70:LYS:HB3	1.76	0.41
20:2Y:91:GLU:OE2	20:2Y:91:GLU:HA	2.19	0.41
32:2a:41:G:H2'	32:2a:42:G:H8	1.84	0.41
32:2a:148:G:H2'	32:2a:149:A:H8	1.85	0.41
32:2a:551:U:H2'	32:2a:552:U:C6	2.55	0.41
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.55	0.41
32:2a:1214:C:H1'	54:2z:3:LYS:HG2	2.02	0.41
32:2a:1365:G:H2'	32:2a:1366:C:O4'	2.20	0.41
34:2c:130:VAL:HG21	34:2c:157:ILE:HG23	2.01	0.41
34:2c:175:LEU:HD12	34:2c:175:LEU:H	1.85	0.41
35:2d:65:ARG:HG3	35:2d:70:ILE:HG22	2.01	0.41
47:2p:25:ARG:HE	47:2p:25:ARG:HB3	1.64	0.41
48:2q:67:LYS:O	48:2q:68:ARG:CB	2.68	0.41
52:2u:6:ARG:HE	52:2u:15:ARG:HH12	1.67	0.41
1:1A:196:A:O2'	1:1A:805:G:O6	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:296:C:H2'	1:1A:297:C:H6	1.85	0.41
1:1A:652(D):C:H2'	1:1A:652(E):G:O4'	2.20	0.41
1:1A:896:A:H61	12:1Q:60:ARG:HH12	1.68	0.41
1:1A:1056:G:N2	1:1A:1104:C:N3	2.68	0.41
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.19	0.41
1:1A:1469:A:H2'	1:1A:1470:G:O4'	2.20	0.41
1:1A:2313:C:H4'	6:1G:91:ARG:HG3	2.03	0.41
1:1A:2726:U:C4'	10:1O:1:MET:HE1	2.50	0.41
1:1A:2733:A:H2'	1:1A:2734:A:O4'	2.21	0.41
4:1E:1:MET:O	4:1E:1:MET:HE3	2.20	0.41
6:1G:53:LEU:HD12	6:1G:54:GLU:N	2.34	0.41
6:1G:129:GLY:O	6:1G:161:THR:HB	2.20	0.41
7:1H:84:SER:HA	7:1H:133:VAL:O	2.19	0.41
10:1O:49:ARG:NH1	32:1a:1422:G:O3'	2.40	0.41
12:1Q:61:GLY:O	21:1Z:178:GLU:HB2	2.20	0.41
14:1S:35:ILE:HG23	14:1S:69:VAL:HG21	2.02	0.41
32:1a:335:C:H2'	32:1a:336:C:C6	2.55	0.41
32:1a:452:A:C4	32:1a:453:A:C8	3.08	0.41
32:1a:872:A:C5	32:1a:874:G:C8	3.08	0.41
32:1a:992:U:H4'	32:1a:993:G:C5'	2.50	0.41
32:1a:1083:U:C5	32:1a:1084:G:C6	3.08	0.41
32:1a:1392:G:H8	32:1a:1392:G:O5'	2.04	0.41
33:1b:21:ARG:HB2	33:1b:22:LYS:H	1.46	0.41
39:1h:96:GLY:O	39:1h:99:GLU:HG2	2.19	0.41
42:1k:20:TYR:CE1	42:1k:83:ILE:HD12	2.54	0.41
1:2A:176:G:O2'	1:2A:177:G:H5'	2.20	0.41
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.55	0.41
1:2A:902:C:H2'	1:2A:903:C:C6	2.56	0.41
1:2A:985:C:H2'	1:2A:986:C:C6	2.54	0.41
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.51	0.41
1:2A:1477:A:C2	1:2A:1515:G:C2	3.07	0.41
1:2A:1523:U:C2	1:2A:1524:G:C8	3.07	0.41
1:2A:2059:A:C8	1:2A:2503:2MA:HM22	2.55	0.41
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.18	0.41
1:2A:2404:C:N4	1:2A:2414:G:C6	2.88	0.41
1:2A:2497:A:H5"	60:2A:4216:HOH:O	2.19	0.41
2:2B:75:G:N2	60:2Z:302:HOH:O	2.52	0.41
4:2E:2:LYS:HB2	4:2E:95:ILE:HD12	2.02	0.41
5:2F:106:ARG:H	5:2F:106:ARG:HG3	1.64	0.41
9:2N:131:GLN:C	9:2N:133:GLN:H	2.28	0.41
10:2O:2:ILE:HG13	10:2O:8:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:7:MET:HB2	12:2Q:7:MET:HE3	1.55	0.41
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.55	0.41
32:2a:693:G:H1'	38:2g:82:GLY:HA3	2.02	0.41
32:2a:756:C:H2'	32:2a:757:U:O4'	2.20	0.41
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.20	0.41
34:2c:66:VAL:O	34:2c:101:LEU:HA	2.20	0.41
35:2d:153:ARG:HB3	35:2d:181:MET:SD	2.59	0.41
37:2f:10:LEU:HB2	37:2f:59:TYR:HB3	2.02	0.41
47:2p:1:MET:HE2	47:2p:1:MET:N	2.35	0.41
52:2u:19:GLY:N	52:2u:22:ARG:O	2.53	0.41
1:1A:190:A:P	1:1A:205:G:H22	2.43	0.41
1:1A:603:A:N1	1:1A:625:G:O2'	2.52	0.41
1:1A:1144:G:C6	1:1A:1145:C:C4	3.07	0.41
1:1A:1652:A:C2'	1:1A:1653:G:H5'	2.51	0.41
1:1A:1952:A:C6	1:1A:1953:A:N1	2.88	0.41
4:1E:92:THR:O	4:1E:95:ILE:HG12	2.20	0.41
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.72	0.41
12:1Q:93:TYR:OH	21:1Z:194:PRO:HG2	2.20	0.41
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	2.01	0.41
14:1S:48:LEU:HB3	14:1S:82:ILE:HD11	2.02	0.41
21:1Z:155:LEU:HD12	21:1Z:155:LEU:HA	1.76	0.41
32:1a:147:G:C2	32:1a:148:G:C4	3.08	0.41
32:1a:181:G:H4'	32:1a:182:U:H5'	2.01	0.41
32:1a:444:C:C2	32:1a:445:G:C8	3.08	0.41
32:1a:686:U:O4	32:1a:703:G:H1'	2.19	0.41
32:1a:691:G:H1'	32:1a:696:A:N6	2.35	0.41
32:1a:1001:A:N6	32:1a:1001(A):G:O6	2.52	0.41
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.55	0.41
32:1a:1053:G:O6	32:1a:1199:U:H2'	2.20	0.41
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.56	0.41
32:1a:1120:G:C6	32:1a:1121:U:C4	3.08	0.41
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.20	0.41
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.28	0.41
35:1d:196:LEU:O	35:1d:198:VAL:N	2.52	0.41
36:1e:146:ALA:O	36:1e:147:ASP:C	2.63	0.41
48:1q:24:GLU:HG3	48:1q:39:SER:HB3	2.02	0.41
49:1r:40:LEU:HB3	49:1r:79:LEU:HD11	2.02	0.41
1:2A:456:C:H4'	60:2A:4207:HOH:O	2.19	0.41
1:2A:576:U:H2'	1:2A:577:G:C8	2.55	0.41
1:2A:778:G:C5	1:2A:779:U:C4	3.09	0.41
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2127:G:N3	1:2A:2173:A:C2	2.88	0.41
1:2A:2329:G:H2'	1:2A:2330:G:O4'	2.20	0.41
1:2A:2383:G:OP2	30:28:37:SER:HB2	2.20	0.41
1:2A:2678:C:H2'	1:2A:2679:A:O4'	2.21	0.41
4:2E:119:ARG:HG2	4:2E:160:TYR:CG	2.55	0.41
6:2G:60:LEU:HD23	6:2G:68:PRO:HB3	2.01	0.41
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.46	0.41
32:2a:102:G:N3	32:2a:151:A:H2	2.19	0.41
32:2a:266:G:O2'	32:2a:267:C:OP2	2.26	0.41
32:2a:1097:C:H2'	32:2a:1098:C:H6	1.85	0.41
32:2a:1354:C:H2'	32:2a:1355:G:H8	1.84	0.41
33:2b:118:LEU:HD22	33:2b:142:LEU:HB2	2.01	0.41
35:2d:191:ARG:HD2	35:2d:191:ARG:HA	1.72	0.41
36:2e:36:ASP:OD1	36:2e:38:GLN:N	2.31	0.41
40:2i:28:VAL:HG13	40:2i:63:ILE:HB	2.02	0.41
43:2l:84:LEU:HD12	43:2l:84:LEU:HA	1.86	0.41
1:1A:652(E):G:H3'	1:1A:652(F):G:H8	1.85	0.41
1:1A:1449:A:C4	1:1A:1528(A):A:C2	3.08	0.41
1:1A:1494:A:C6	1:1A:1495:A:C6	3.08	0.41
1:1A:1496:A:H2'	1:1A:1498:C:C5	2.56	0.41
1:1A:1742:G:H2'	1:1A:1743:C:O4'	2.20	0.41
1:1A:2572:A:O5'	1:1A:2574:G:H4'	2.20	0.41
1:1A:2628:C:O2'	1:1A:2781:A:H2'	2.20	0.41
1:1A:2734:A:H2'	1:1A:2735:G:O4'	2.19	0.41
1:1A:2867:G:O2'	1:1A:2868:A:OP2	2.38	0.41
60:1A:5347:HOH:O	16:1U:13:LYS:HE2	2.21	0.41
60:1A:6810:HOH:O	27:15:10:LYS:HD3	2.20	0.41
3:1D:106:ILE:O	3:1D:108:PRO:HD3	2.21	0.41
10:1O:102:VAL:HB	10:1O:106:LEU:HD12	2.02	0.41
32:1a:28:G:H2'	32:1a:29:G:O4'	2.19	0.41
32:1a:180:U:C2'	32:1a:181:G:H5'	2.50	0.41
32:1a:626:U:H2'	32:1a:627:G:C8	2.55	0.41
32:1a:696:A:N1	32:1a:797:C:O2'	2.41	0.41
32:1a:751:U:H4'	46:1o:24:SER:HA	2.02	0.41
34:1c:119:ARG:O	34:1c:123:GLN:HB2	2.20	0.41
35:1d:85:LYS:O	60:1d:402:HOH:O	2.22	0.41
36:1e:110:LEU:HD23	36:1e:110:LEU:HA	1.81	0.41
43:1l:7:ILE:HD13	43:1l:10:LEU:HD12	2.01	0.41
54:1z:3:LYS:HE2	54:1z:3:LYS:HB3	1.80	0.41
1:2A:253:C:H2'	1:2A:254:G:O4'	2.19	0.41
1:2A:448:U:O4	1:2A:583:G:H1'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1056:G:C5'	1:2A:1057:A:H5'	2.50	0.41
1:2A:1510:G:H2'	1:2A:1511:C:O4'	2.21	0.41
1:2A:2117:A:OP2	1:2A:2117:A:H8	2.03	0.41
1:2A:2480:C:N4	1:2A:2481:G:C6	2.88	0.41
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.23	0.41
1:2A:2653:U:O2'	7:2H:110:SER:HB3	2.20	0.41
1:2A:2715:C:H2'	1:2A:2716:U:O4'	2.19	0.41
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.18	0.41
4:2E:63:LEU:HD23	4:2E:63:LEU:HA	1.91	0.41
4:2E:108:SER:O	4:2E:162:ALA:HA	2.20	0.41
5:2F:11:VAL:HB	5:2F:18:ARG:HG2	2.03	0.41
19:2X:44:GLU:HG2	19:2X:49:VAL:O	2.21	0.41
20:2Y:107:ASP:OD2	60:2Y:601:HOH:O	2.22	0.41
23:21:67:ILE:N	23:21:68:PRO:HD2	2.35	0.41
32:2a:303:A:H2'	32:2a:304:U:O4'	2.20	0.41
32:2a:565:U:H3'	32:2a:566:G:H2'	2.01	0.41
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.55	0.41
32:2a:1131:G:O2'	32:2a:1132:C:H5'	2.20	0.41
32:2a:1134:G:N1	32:2a:1135:U:H1'	2.36	0.41
32:2a:1508:G:H2'	32:2a:1509:C:O4'	2.20	0.41
34:2c:8:ILE:HG23	34:2c:16:ARG:HD2	2.02	0.41
38:2g:152:ALA:O	38:2g:155:ARG:HB3	2.20	0.41
1:1A:271(Y):U:O3'	1:1A:271(Z):C:H6	2.02	0.41
1:1A:963:U:H2'	1:1A:964:C:C6	2.56	0.41
1:1A:1429:G:O2'	1:1A:1430:C:H5'	2.19	0.41
1:1A:2163:C:OP1	1:1A:2172:U:H6	2.03	0.41
1:1A:2280:G:O2'	1:1A:2388:A:N1	2.43	0.41
1:1A:2529:G:N7	31:19:31:LYS:NZ	2.59	0.41
1:1A:2663:G:C6	1:1A:2664:G:C4	3.08	0.41
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.21	0.41
3:1D:165:ILE:HA	3:1D:175:LEU:HD23	2.02	0.41
5:1F:121:GLY:HA2	60:1F:449:HOH:O	2.20	0.41
13:1R:96:ARG:HD2	13:1R:98:LEU:HD11	2.02	0.41
20:1Y:68:HIS:HB3	20:1Y:71:LYS:HG3	2.02	0.41
26:14:15:ILE:N	26:14:31:ILE:O	2.38	0.41
31:19:17:ILE:HA	31:19:17:ILE:HD12	1.80	0.41
32:1a:167:G:H2'	32:1a:168:G:O4'	2.21	0.41
32:1a:245:C:O2	32:1a:283:C:N3	2.54	0.41
32:1a:284:G:H2'	32:1a:285:G:H8	1.85	0.41
32:1a:445:G:H2'	32:1a:446:G:O4'	2.21	0.41
32:1a:558:G:H2'	32:1a:559:A:H2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:950:U:O4	44:1m:105:THR:HG21	2.21	0.41
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.21	0.41
32:1a:1443:G:N2	32:1a:1460:A:H1'	2.36	0.41
33:1b:40:HIS:CB	33:1b:190:THR:HG21	2.50	0.41
34:1c:139:GLN:NE2	34:1c:143:GLU:OE2	2.53	0.41
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.45	0.41
35:1d:81:GLU:CD	35:1d:139:ARG:HH12	2.26	0.41
35:1d:191:ARG:HD2	35:1d:200:GLU:CD	2.46	0.41
39:1h:41:ARG:CZ	39:1h:123:GLU:OE2	2.69	0.41
42:1k:77:MET:HE2	42:1k:77:MET:HB2	1.92	0.41
43:1l:28:LYS:HD2	43:1l:28:LYS:HA	1.83	0.41
44:1m:40:ASN:O	44:1m:43:THR:OG1	2.29	0.41
47:1p:23:ASP:OD1	47:1p:25:ARG:HG3	2.20	0.41
1:2A:373:U:OP2	1:2A:400:G:N1	2.35	0.41
1:2A:862:G:H2'	1:2A:863:A:O4'	2.20	0.41
1:2A:925:C:H2'	1:2A:926:A:O4'	2.20	0.41
1:2A:1082:U:O2	1:2A:1085:A:C2	2.74	0.41
1:2A:1431:U:H2'	1:2A:1432:C:O4'	2.20	0.41
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.35	0.41
1:2A:2103:C:N4	1:2A:2185:C:H42	2.17	0.41
1:2A:2516:G:C6	1:2A:2517:C:C4	3.08	0.41
1:2A:2629:A:H1'	1:2A:2630:G:H5"	2.02	0.41
3:2D:169:GLU:OE1	3:2D:184:LYS:HE2	2.20	0.41
7:2H:121:ILE:HD13	7:2H:121:ILE:HA	1.84	0.41
8:2I:58:LEU:O	8:2I:61:ARG:HB2	2.21	0.41
18:2W:48:ALA:O	18:2W:52:GLU:HG2	2.20	0.41
20:2Y:47:LYS:HG3	20:2Y:48:ALA:N	2.33	0.41
27:25:41:PRO:O	27:25:44:THR:OG1	2.34	0.41
31:29:17:ILE:HD12	31:29:17:ILE:HA	1.61	0.41
32:2a:189(A):C:H2'	32:2a:189(B):C:H6	1.86	0.41
32:2a:730:G:C5	32:2a:731:G:H1'	2.55	0.41
32:2a:921:U:O2	36:2e:19:MET:HB2	2.20	0.41
32:2a:1152:A:H2'	32:2a:1153:C:C6	2.56	0.41
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.35	0.41
32:2a:1355:G:H2'	32:2a:1356:G:H8	1.85	0.41
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.20	0.41
33:2b:100:GLY:N	33:2b:176:GLU:OE2	2.39	0.41
33:2b:201:ILE:HG21	33:2b:214:ILE:HD12	2.03	0.41
35:2d:201:GLN:NE2	36:2e:99:GLY:HA2	2.36	0.41
36:2e:151:LEU:HB3	39:2h:79:VAL:HG22	2.03	0.41
38:2g:115:ARG:HH11	38:2g:115:ARG:HG2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2u:6:ARG:CZ	52:2u:15:ARG:HH22	2.34	0.41
1:1A:359:A:H2'	1:1A:360:G:O4'	2.21	0.41
1:1A:468:G:C6	1:1A:469:G:C4	3.09	0.41
1:1A:515:A:H2	1:1A:1260:G:N3	2.19	0.41
1:1A:558:G:OP1	9:1N:111:PRO:HD2	2.20	0.41
1:1A:560:C:H2'	1:1A:561:G:O4'	2.21	0.41
1:1A:903:C:H2'	1:1A:904:C:C6	2.55	0.41
1:1A:1048:A:N1	1:1A:1112:G:O2'	2.40	0.41
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.20	0.41
1:1A:2159:G:O5'	1:1A:2159:G:H8	2.04	0.41
1:1A:2886:G:O2'	1:1A:2887:U:H5'	2.20	0.41
4:1E:59:VAL:O	4:1E:64:LYS:HE2	2.20	0.41
5:1F:12:LEU:HA	5:1F:12:LEU:HD12	1.82	0.41
5:1F:195:ASP:CB	5:1F:198:ALA:H	2.33	0.41
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.48	0.41
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CD1	2.55	0.41
22:10:10:THR:HA	60:10:212:HOH:O	2.20	0.41
32:1a:257:G:C6	32:1a:258:G:C5	3.08	0.41
32:1a:374:A:C6	32:1a:375:U:C4	3.09	0.41
32:1a:606:G:H1'	32:1a:632:A:H61	1.85	0.41
32:1a:1060:C:C4	34:1c:2:GLY:HA3	2.55	0.41
32:1a:1066:C:O2'	32:1a:1067:A:H5'	2.20	0.41
32:1a:1192:C:O2	36:1e:25:ARG:NH2	2.31	0.41
32:1a:1245:A:H2'	32:1a:1246:C:C6	2.55	0.41
32:1a:1492:A:OP1	43:1l:47:LYS:HE3	2.20	0.41
34:1c:70:VAL:N	34:1c:106:VAL:HG23	2.35	0.41
38:1g:140:ASP:O	38:1g:143:ARG:HG2	2.20	0.41
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.56	0.41
1:2A:1050:A:H2'	1:2A:1051:G:H8	1.85	0.41
1:2A:1058:G:H1	1:2A:1080:C:H42	1.69	0.41
1:2A:1435:G:H2'	1:2A:1436:G:O4'	2.20	0.41
1:2A:1505:C:H2'	1:2A:1506:C:H6	1.85	0.41
1:2A:2125:G:H21	1:2A:2126:A:H62	1.67	0.41
1:2A:2150:U:H2'	1:2A:2151:G:O4'	2.21	0.41
1:2A:2164:C:H3'	1:2A:2165:G:C8	2.55	0.41
1:2A:2285:C:C5	28:26:6:ARG:NH2	2.89	0.41
1:2A:2342:C:O5'	1:2A:2342:C:H6	2.03	0.41
1:2A:2615:U:H2'	1:2A:2616:C:C6	2.55	0.41
3:2D:77:ALA:O	3:2D:116:GLN:HG3	2.20	0.41
5:2F:34:TRP:CE3	5:2F:35:GLU:HG2	2.56	0.41
6:2G:44:GLY:C	6:2G:46:ALA:H	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.19	0.41
16:2U:109:LEU:HA	16:2U:109:LEU:HD23	1.75	0.41
22:20:49:LYS:HD3	22:20:50:ASN:ND2	2.36	0.41
30:28:22:VAL:HG12	30:28:50:LEU:HD12	2.03	0.41
32:2a:16:A:O2'	36:2e:16:THR:HB	2.21	0.41
32:2a:130:A:H5'	48:2q:63:ARG:NE	2.36	0.41
32:2a:246:A:O2'	48:2q:99:SER:HA	2.20	0.41
32:2a:273:A:H1'	48:2q:16:GLN:NE2	2.33	0.41
32:2a:437:U:O2'	35:2d:123:HIS:HD2	2.03	0.41
32:2a:1157:A:C5	32:2a:1181:G:C6	3.09	0.41
32:2a:1324:A:C2	32:2a:1325:C:C2	3.09	0.41
32:2a:1504:G:P	60:2a:3236:HOH:O	2.79	0.41
38:2g:50:ILE:HD12	38:2g:61:VAL:HG11	2.02	0.41
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.20	0.41
51:2t:11:SER:O	51:2t:15:ARG:HB2	2.20	0.41
1:1A:1668:A:O4'	1:1A:1669:A:C2	2.74	0.41
1:1A:2052:G:H4'	4:1E:143:ASN:O	2.21	0.41
1:1A:2078:C:C4	1:1A:2079:U:C4	3.09	0.41
1:1A:2107:C:H5'	1:1A:2108:C:OP2	2.20	0.41
1:1A:2713:A:N3	1:1A:2713:A:H2'	2.35	0.41
2:1B:3:C:H2'	2:1B:4:C:C6	2.56	0.41
5:1F:155:LEU:HD12	5:1F:174:VAL:O	2.20	0.41
6:1G:114:ILE:HB	6:1G:117:PHE:HB2	2.02	0.41
32:1a:106:C:O2	32:1a:379:C:H4'	2.21	0.41
32:1a:778:G:H1'	42:1k:119:CYS:HB3	2.03	0.41
32:1a:1152:A:H5'	41:1j:13:HIS:CG	2.56	0.41
32:1a:1198:G:C5	32:1a:1199:U:C4	3.09	0.41
32:1a:1371:G:OP1	40:1i:11:LYS:HB2	2.20	0.41
33:1b:167:PRO:HG2	33:1b:188:ALA:HB2	2.03	0.41
37:1f:98:LEU:HA	49:1r:29:PHE:O	2.20	0.41
42:1k:124:LYS:HE3	42:1k:125:PHE:CE2	2.56	0.41
43:1l:58:VAL:O	43:1l:65:GLU:HA	2.20	0.41
47:1p:50:LYS:HD2	47:1p:50:LYS:HA	1.84	0.41
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.20	0.41
1:2A:271(E):U:H2'	1:2A:271(F):C:H6	1.83	0.41
1:2A:1019:U:H2'	1:2A:1020:A:C8	2.56	0.41
1:2A:1194:A:H2'	1:2A:1195:G:O4'	2.21	0.41
1:2A:1392:A:C6	1:2A:1393:A:C6	3.09	0.41
1:2A:1615:C:C5	1:2A:1617:C:C4	3.08	0.41
1:2A:1910:G:C6	1:2A:1921:G:C6	3.09	0.41
1:2A:2243:U:H2'	1:2A:2244:U:H6	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2370:G:H2'	1:2A:2371:G:C8	2.56	0.41
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.46	0.41
2:2B:35:U:O4	2:2B:50:G:H1'	2.20	0.41
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.86	0.41
10:2O:80:ASP:OD2	15:2T:71:GLY:HA3	2.21	0.41
21:2Z:14:LYS:HE3	21:2Z:14:LYS:HB3	1.78	0.41
30:28:21:LYS:HB3	30:28:49:VAL:HG13	2.02	0.41
32:2a:673:G:N2	32:2a:674:G:C2	2.89	0.41
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.86	0.41
32:2a:1163:C:H2'	32:2a:1164:G:H8	1.86	0.41
32:2a:1372:U:H2'	32:2a:1373:G:O4'	2.20	0.41
33:2b:15:VAL:C	33:2b:17:PHE:H	2.25	0.41
35:2d:17:VAL:C	35:2d:33:MET:HE2	2.46	0.41
35:2d:111:ALA:HB1	35:2d:116:GLN:HG2	2.03	0.41
41:2j:6:ILE:HG21	41:2j:23:ILE:CD1	2.50	0.41
43:2l:57:LYS:HZ2	43:2l:65:GLU:CD	2.27	0.41
46:2o:10:LYS:HE2	46:2o:10:LYS:HB2	1.80	0.41
46:2o:17:ARG:HH11	46:2o:17:ARG:HG3	1.85	0.41
53:2y:30:TRP:HD1	53:2y:89:GLN:HG3	1.85	0.41
1:1A:26:G:O3'	1:1A:1260:G:H4'	2.20	0.41
1:1A:1056:G:N1	1:1A:1102:C:OP2	2.47	0.41
1:1A:1341:U:O4	19:1X:16:LYS:HE2	2.21	0.41
1:1A:1493:C:N4	1:1A:2206:G:H1'	2.35	0.41
1:1A:1865:G:O2'	1:1A:1876:A:N7	2.50	0.41
1:1A:2409:G:H2'	1:1A:2410:G:O4'	2.21	0.41
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.21	0.41
6:1G:14:GLU:O	6:1G:17:PRO:HD2	2.21	0.41
9:1N:24:GLY:O	9:1N:28:THR:HG23	2.20	0.41
12:1Q:2:LEU:HB2	60:1Q:318:HOH:O	2.20	0.41
12:1Q:59:ARG:O	21:1Z:180:VAL:HG22	2.20	0.41
29:17:24:THR:HG23	60:17:209:HOH:O	2.21	0.41
29:17:24:THR:O	29:17:28:ARG:HG3	2.21	0.41
32:1a:401:C:O2'	32:1a:621:A:N3	2.50	0.41
32:1a:684:A:N6	32:1a:685:G:C6	2.88	0.41
32:1a:707:C:O2	42:1k:39:PRO:HD3	2.21	0.41
32:1a:1152:A:OP1	41:1j:68:HIS:ND1	2.54	0.41
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.21	0.41
34:1c:19:GLU:HG2	34:1c:54:ARG:NE	2.36	0.41
46:1o:17:ARG:HG3	46:1o:17:ARG:NH1	2.33	0.41
48:1q:62:SER:CB	48:1q:72:ARG:HG3	2.51	0.41
49:1r:40:LEU:HD23	49:1r:40:LEU:HA	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:79:G:C6	1:2A:80:G:C5	3.09	0.41
1:2A:753:C:H2'	1:2A:754:C:H6	1.85	0.41
1:2A:857:C:H4'	22:20:23:VAL:HG21	2.01	0.41
1:2A:859:G:O2'	1:2A:916:G:O6	2.36	0.41
1:2A:1073:A:C2	1:2A:1074:G:C5	3.08	0.41
1:2A:1255:U:O5'	1:2A:1256:G:H5"	2.21	0.41
1:2A:1577:C:H2'	1:2A:1578:U:C1'	2.50	0.41
1:2A:1614:A:C6	18:2W:87:PRO:HB3	2.56	0.41
1:2A:1637:A:OP2	60:2A:3898:HOH:O	2.22	0.41
1:2A:2228:G:C6	1:2A:2229:C:N3	2.89	0.41
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.34	0.41
1:2A:2544:G:H2'	1:2A:2545:G:O4'	2.21	0.41
1:2A:2776:A:H4'	1:2A:2777:G:H5"	2.01	0.41
2:2B:11:C:OP2	2:2B:12:C:H5	2.01	0.41
3:2D:5:LYS:HB3	3:2D:5:LYS:HE3	1.78	0.41
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	2.02	0.41
6:2G:43:LEU:HD13	6:2G:43:LEU:HA	1.90	0.41
6:2G:63:ILE:CG2	6:2G:102:PHE:HE1	2.34	0.41
8:2I:114:LEU:HD11	8:2I:128:LEU:HB3	2.03	0.41
17:2V:73:SER:HA	17:2V:83:ARG:O	2.21	0.41
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	2.03	0.41
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.18	0.41
21:2Z:30:ASN:C	21:2Z:32:HIS:H	2.29	0.41
21:2Z:130:PRO:HA	21:2Z:133:ILE:HD11	2.03	0.41
32:2a:118:U:H3'	32:2a:288:A:H61	1.86	0.41
32:2a:119:A:H4'	32:2a:120:A:C8	2.56	0.41
32:2a:992:U:H4'	32:2a:993:G:C5'	2.51	0.41
32:2a:1419:G:C5	32:2a:1482:G:C2	3.08	0.41
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	2.03	0.41
40:2i:53:VAL:C	40:2i:55:ALA:N	2.79	0.41
44:2m:15:VAL:HG22	44:2m:43:THR:O	2.21	0.41
44:2m:92:HIS:CD2	44:2m:98:VAL:HG21	2.55	0.41
53:2y:24:LEU:HD23	53:2y:24:LEU:HA	1.90	0.41
1:1A:7:G:H2'	1:1A:8:A:C8	2.56	0.41
1:1A:224:G:H2'	1:1A:225:A:O4'	2.21	0.41
1:1A:466:A:N3	1:1A:683:C:H1'	2.35	0.41
1:1A:601:C:O2'	1:1A:605:C:H5"	2.20	0.41
1:1A:675:A:C8	1:1A:804:A:C6	3.09	0.41
1:1A:888:C:H6	1:1A:888:C:H2'	1.73	0.41
1:1A:895:U:H5'	1:1A:896:A:P	2.61	0.41
1:1A:1529:G:C5	1:1A:1530:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1666:G:O2'	1:1A:1667:G:H5'	2.20	0.41
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.80	0.41
1:1A:1813:G:H1'	3:1D:50:THR:OG1	2.21	0.41
1:1A:1817:G:C6	1:1A:1818:U:C4	3.09	0.41
1:1A:2077:A:O2'	1:1A:2078:C:H5'	2.20	0.41
1:1A:2207:G:H2'	1:1A:2208:A:H2	1.86	0.41
1:1A:2259:G:C8	1:1A:2427:C:C4	3.09	0.41
1:1A:2279:G:HO2'	1:1A:2327:A:HO2'	1.67	0.41
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.56	0.41
1:1A:2436:G:C6	1:1A:2437:U:C4	3.09	0.41
1:1A:2554:U:H2'	1:1A:2555:U:C6	2.56	0.41
1:1A:2615:U:C2	27:15:7:PRO:HA	2.56	0.41
1:1A:2830:G:H4'	60:1A:5948:HOH:O	2.19	0.41
60:1A:4368:HOH:O	18:1W:18:ARG:HD3	2.21	0.41
2:1B:28:C:H2'	2:1B:29:A:O4'	2.21	0.41
2:1B:42:C:O2	6:1G:93:THR:N	2.35	0.41
2:1B:48:A:H2'	2:1B:49:C:C6	2.56	0.41
3:1D:71:ASP:OD2	3:1D:103:ARG:NH1	2.54	0.41
3:1D:229:VAL:HG22	60:1D:466:HOH:O	2.20	0.41
4:1E:6:GLY:O	4:1E:195:LEU:HD12	2.21	0.41
6:1G:45:GLU:O	6:1G:49:ASP:HB2	2.21	0.41
6:1G:91:ARG:HB3	6:1G:91:ARG:NH1	2.35	0.41
6:1G:104:GLU:O	6:1G:108:ASN:HB2	2.20	0.41
7:1H:41:MET:HE3	7:1H:41:MET:HB3	1.64	0.41
8:1I:101:LEU:HD12	8:1I:140:LEU:HD11	2.03	0.41
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.86	0.41
10:1O:68:GLU:H	10:1O:68:GLU:CD	2.29	0.41
16:1U:61:TRP:CZ2	16:1U:93:LYS:HG3	2.56	0.41
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.56	0.41
18:1W:38:TYR:OH	27:15:47:PRO:HG3	2.19	0.41
21:1Z:45:ASP:O	21:1Z:49:ARG:HG3	2.21	0.41
24:12:31:GLU:HB3	24:12:53:LEU:HD11	2.03	0.41
26:14:6:HIS:HA	26:14:7:PRO:HD3	1.91	0.41
32:1a:4:U:H4'	32:1a:5:U:OP2	2.21	0.41
32:1a:38:G:N1	32:1a:397:A:OP1	2.43	0.41
32:1a:163:C:H2'	32:1a:164:U:O4'	2.21	0.41
32:1a:453:A:C5	32:1a:454:C:C4	3.09	0.41
32:1a:577:G:O2'	32:1a:578:C:H5'	2.21	0.41
32:1a:615:C:C2	32:1a:616:G:C8	3.09	0.41
32:1a:725:G:O2'	32:1a:726:C:H5'	2.21	0.41
32:1a:742:G:H4'	46:1o:58:MET:HE1	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:954:G:C2	32:1a:955:U:C2	3.09	0.41
32:1a:1026:G:H2'	32:1a:1026:G:N3	2.36	0.41
32:1a:1071:C:H2'	32:1a:1072:G:H8	1.86	0.41
32:1a:1088:G:C6	32:1a:1089:G:C5	3.09	0.41
32:1a:1123:A:H4'	41:1j:36:GLY:HA3	2.03	0.41
32:1a:1263:C:H2'	32:1a:1264:C:H6	1.86	0.41
32:1a:1291:G:C6	32:1a:1292:U:C4	3.09	0.41
32:1a:1508:G:C6	32:1a:1509:C:C4	3.09	0.41
33:1b:80:ILE:O	33:1b:84:GLU:HG2	2.21	0.41
33:1b:102:LEU:HB3	33:1b:180:LEU:CD1	2.50	0.41
33:1b:142:LEU:HD11	33:1b:146:GLN:NE2	2.36	0.41
33:1b:215:LEU:HD23	33:1b:215:LEU:HA	1.79	0.41
34:1c:157:ILE:CG2	34:1c:164:ARG:HH21	2.34	0.41
38:1g:50:ILE:HD11	38:1g:61:VAL:HB	2.01	0.41
40:1i:10:ARG:HG3	40:1i:11:LYS:H	1.86	0.41
41:1j:30:SER:CB	41:1j:84:GLN:HE21	2.34	0.41
41:1j:44:VAL:HG22	41:1j:66:ARG:HE	1.86	0.41
41:1j:78:ASN:C	41:1j:80:LYS:H	2.29	0.41
42:1k:48:ILE:HD13	42:1k:63:LEU:HD12	2.03	0.41
43:1l:23:LYS:C	43:1l:25:PRO:HD3	2.46	0.41
47:1p:8:ARG:C	47:1p:9:PHE:CD1	2.99	0.41
49:1r:22:VAL:O	49:1r:25:THR:HG23	2.21	0.41
1:2A:26:G:O2'	1:2A:27:G:H5'	2.21	0.41
1:2A:28:A:H1'	1:2A:513:A:C2	2.56	0.41
1:2A:171:G:H2'	1:2A:172:C:H6	1.83	0.41
1:2A:242:G:OP1	60:2A:3899:HOH:O	2.22	0.41
1:2A:323:G:H1'	1:2A:1205:U:O2	2.20	0.41
1:2A:448:U:C4	1:2A:583:G:H1'	2.55	0.41
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.36	0.41
1:2A:687:C:H2'	1:2A:688:U:O4'	2.21	0.41
1:2A:804:A:H2'	1:2A:806:C:C4	2.56	0.41
1:2A:847:U:OP2	1:2A:928:G:O6	2.39	0.41
1:2A:1051:G:C2	1:2A:1052:C:C2	3.08	0.41
1:2A:1062:G:HO2'	1:2A:1063:G:H8	1.64	0.41
1:2A:1077:A:N7	1:2A:1078:U:N3	2.69	0.41
1:2A:1444:G:H2'	1:2A:1445(A):C:C5	2.56	0.41
1:2A:1773:A:H5"	60:2A:4708:HOH:O	2.20	0.41
1:2A:1889:A:H2'	1:2A:1890:A:O4'	2.21	0.41
1:2A:1901:A:N3	1:2A:1901:A:H2'	2.36	0.41
1:2A:2164:C:H5"	1:2A:2165:G:N7	2.36	0.41
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2364:C:O2	22:20:36:ILE:HD11	2.21	0.41
1:2A:2462:U:H1'	1:2A:2491:U:O4	2.21	0.41
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.56	0.41
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.21	0.41
3:2D:96:HIS:CD2	3:2D:102:LYS:HE2	2.55	0.41
3:2D:119:ALA:HA	3:2D:130:ALA:O	2.21	0.41
3:2D:182:LEU:HB3	3:2D:271:ILE:HB	2.03	0.41
7:2H:20:ALA:HB3	7:2H:23:ARG:HB3	2.03	0.41
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	2.02	0.41
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.54	0.41
14:2S:111:GLU:O	14:2S:112:PHE:HB3	2.21	0.41
16:2U:44:ASN:HD21	17:2V:75:PHE:HB3	1.86	0.41
17:2V:100:ARG:HG2	17:2V:100:ARG:HH11	1.85	0.41
18:2W:18:ARG:CG	18:2W:76:VAL:HB	2.51	0.41
20:2Y:7:VAL:HG12	20:2Y:8:LYS:N	2.36	0.41
20:2Y:19:LYS:HB3	20:2Y:20:TYR:CD2	2.56	0.41
27:25:9:LYS:HA	27:25:9:LYS:HD2	1.83	0.41
32:2a:112:G:H21	32:2a:354:G:C4'	2.34	0.41
32:2a:126:G:H4'	32:2a:634:C:H1'	2.03	0.41
32:2a:132:C:H2'	32:2a:133:U:O4'	2.21	0.41
32:2a:189:G:C5	32:2a:189(A):C:C4	3.08	0.41
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.52	0.41
32:2a:490:G:C4	32:2a:491:G:C8	3.08	0.41
32:2a:708:C:H2'	32:2a:709:G:H8	1.85	0.41
32:2a:774:G:N2	32:2a:806:C:C2	2.89	0.41
32:2a:987:G:H2'	32:2a:988:G:H8	1.85	0.41
32:2a:1023:G:C4	32:2a:1024:G:C8	3.09	0.41
32:2a:1108:G:H5'	34:2c:176:HIS:CD2	2.56	0.41
32:2a:1220:G:O3'	50:2s:36:ARG:HD3	2.20	0.41
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.36	0.41
32:2a:1261:A:H5'	32:2a:1284:C:OP1	2.20	0.41
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.54	0.41
32:2a:1442:G:H1'	32:2a:1442(A):G:OP1	2.21	0.41
32:2a:1462:G:C6	32:2a:1463:C:C4	3.09	0.41
33:2b:20:GLU:HB2	33:2b:190:THR:OG1	2.21	0.41
33:2b:80:ILE:HD13	33:2b:80:ILE:HG21	1.87	0.41
33:2b:116:GLU:O	33:2b:119:GLU:N	2.54	0.41
34:2c:45:LYS:HD3	34:2c:45:LYS:HA	1.89	0.41
35:2d:76:ARG:HD2	35:2d:76:ARG:HA	1.68	0.41
36:2e:12:LEU:C	36:2e:13:ILE:HG13	2.46	0.41
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.54	0.41
38:2g:111:ARG:HB2	38:2g:119:ARG:HD2	2.02	0.41
40:2i:58:HIS:C	40:2i:59:PHE:HD2	2.29	0.41
41:2j:17:ASP:OD1	41:2j:70:ARG:NE	2.54	0.41
43:2l:7:ILE:HG21	48:2q:34:LYS:HB2	2.03	0.41
43:2l:38:THR:OG1	43:2l:57:LYS:HB3	2.20	0.41
43:2l:69:TYR:CG	43:2l:90:VAL:HG21	2.56	0.41
49:2r:56:THR:HB	49:2r:58:LEU:CD1	2.50	0.41
1:1A:263:C:H2'	1:1A:264:C:O4'	2.21	0.41
1:1A:491:G:H2'	1:1A:492:A:C8	2.56	0.41
1:1A:868:U:C4	1:1A:869:G:N7	2.88	0.41
1:1A:878:A:C6	1:1A:900:A:C8	3.09	0.41
1:1A:1264:G:C6	1:1A:1265:A:N6	2.89	0.41
1:1A:1452:A:H5"	60:1A:6977:HOH:O	2.20	0.41
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.56	0.41
1:1A:2525:G:N3	60:1A:4348:HOH:O	2.37	0.41
3:1D:162:SER:HB3	3:1D:195:ALA:HA	2.02	0.41
5:1F:107:LYS:HB3	5:1F:107:LYS:HE2	1.95	0.41
5:1F:184:TYR:CE1	11:1P:3:LEU:HD21	2.57	0.41
9:1N:22:THR:O	9:1N:23:LEU:C	2.64	0.41
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.88	0.41
10:1O:69:ILE:HD12	10:1O:69:ILE:HA	1.71	0.41
14:1S:97:ARG:NE	60:1S:302:HOH:O	2.38	0.41
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.45	0.41
21:1Z:46:LYS:HA	21:1Z:46:LYS:HD2	1.97	0.41
32:1a:615:C:H2'	32:1a:616:G:O4'	2.21	0.41
32:1a:974:A:P	45:1n:29:ARG:HH21	2.45	0.41
32:1a:1293:G:H2'	32:1a:1294:G:H8	1.81	0.41
32:1a:1353:G:C2	32:1a:1370:G:C2	3.09	0.41
35:1d:110:PHE:N	35:1d:110:PHE:HD1	2.18	0.41
37:1f:72:VAL:HG23	37:1f:90:VAL:HG11	2.03	0.41
40:1i:77:ILE:O	40:1i:78:LYS:C	2.64	0.41
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.44	0.41
1:2A:359:A:H2'	1:2A:360:G:O4'	2.20	0.41
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.21	0.41
1:2A:2227:A:OP1	3:2D:263:ARG:HD2	2.20	0.41
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.21	0.41
3:2D:97:TYR:HB2	3:2D:101:GLU:O	2.21	0.41
4:2E:50:GLY:HA2	4:2E:77:ILE:O	2.21	0.41
6:2G:55:LYS:NZ	60:2G:304:HOH:O	2.54	0.41
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:43:THR:OG1	16:2U:64:ARG:NH1	2.54	0.41
14:2S:46:VAL:HG12	14:2S:47:THR:O	2.21	0.41
32:2a:436:C:H2'	32:2a:437:U:C6	2.56	0.41
32:2a:580:U:H2'	32:2a:581:G:O4'	2.20	0.41
32:2a:926:G:C6	53:2y:87:LYS:HD3	2.56	0.41
32:2a:976:G:OP1	45:2n:32:SER:N	2.48	0.41
32:2a:1133:G:H2'	32:2a:1134:G:O4'	2.21	0.41
32:2a:1368:G:H5'	40:2i:112:LYS:O	2.20	0.41
32:2a:1502:A:C8	32:2a:1505:G:N2	2.89	0.41
33:2b:145:LEU:HD22	33:2b:149:LEU:HD12	2.01	0.41
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.86	0.41
43:2l:33:ARG:HE	43:2l:62:SER:HB3	1.86	0.41
43:2l:45:PRO:HD2	43:2l:51:ALA:H	1.85	0.41
44:2m:91:ARG:H	44:2m:91:ARG:HG2	1.70	0.41
45:2n:14:PRO:HG2	45:2n:16:PHE:O	2.21	0.41
45:2n:23:ARG:O	45:2n:33:VAL:HG11	2.20	0.41
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.20	0.41
51:2t:49:ALA:O	51:2t:50:GLU:C	2.64	0.41
1:1A:118:A:N3	1:1A:178:G:H1'	2.37	0.40
1:1A:173:G:C6	1:1A:174:C:C4	3.09	0.40
1:1A:484:C:H2'	1:1A:485:C:C6	2.57	0.40
1:1A:586:A:N1	1:1A:809:G:O2'	2.48	0.40
1:1A:631:A:H2'	1:1A:632:A:O4'	2.21	0.40
1:1A:1064:C:O5'	1:1A:1065:U:H5"	2.21	0.40
1:1A:1095:A:C6	1:1A:1096:A:C6	3.09	0.40
1:1A:1713:U:H2'	1:1A:1714:G:H8	1.86	0.40
1:1A:1845:G:OP1	3:1D:258:LYS:NZ	2.51	0.40
1:1A:1916:A:H2'	1:1A:1917:PSU:O4'	2.21	0.40
5:1F:11:VAL:HG22	5:1F:125:LEU:HB2	2.03	0.40
7:1H:22:GLY:HA2	7:1H:37:VAL:O	2.21	0.40
7:1H:150:ALA:C	7:1H:152:ARG:N	2.79	0.40
9:1N:36:GLY:HA3	9:1N:48:MET:HE2	2.04	0.40
10:1O:7:TYR:CZ	10:1O:44:LYS:HG3	2.56	0.40
12:1Q:84:GLY:C	12:1Q:85:LYS:HG3	2.46	0.40
12:1Q:134:ARG:HA	12:1Q:138:ASP:OD2	2.22	0.40
16:1U:18:LEU:HD23	16:1U:18:LEU:HA	1.93	0.40
16:1U:109:LEU:HD23	16:1U:109:LEU:HA	1.92	0.40
18:1W:76:VAL:HG13	18:1W:101:SER:HB3	2.03	0.40
19:1X:61:GLY:N	19:1X:75:ASP:OD1	2.35	0.40
20:1Y:5:MET:CE	20:1Y:32:PRO:HA	2.50	0.40
23:11:3:LYS:CG	23:11:4:VAL:N	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:55:ARG:HG3	24:12:55:ARG:HH21	1.85	0.40
32:1a:22:G:H4'	32:1a:885:G:C8	2.56	0.40
32:1a:154:C:C2'	32:1a:155:C:H5'	2.50	0.40
32:1a:162:A:H3'	32:1a:163:C:H4'	2.03	0.40
32:1a:184:G:O2'	32:1a:185:A:H5'	2.21	0.40
32:1a:203:U:H5'	32:1a:216:G:C2	2.56	0.40
32:1a:439:A:H2'	32:1a:441:A:O4'	2.21	0.40
32:1a:553:A:H5"	43:1l:24:VAL:HG21	2.03	0.40
32:1a:746:A:H4'	32:1a:837:G:O2'	2.20	0.40
32:1a:826:C:H1'	39:1h:15:ASN:HD22	1.86	0.40
32:1a:865:A:H2	32:1a:918:A:H4'	1.84	0.40
32:1a:1098:C:C2	32:1a:1099:G:C8	3.10	0.40
32:1a:1202:G:N2	45:1n:46:GLU:OE1	2.54	0.40
32:1a:1489:G:H2'	32:1a:1490:C:O4'	2.22	0.40
32:1a:1497:G:H1'	32:1a:1518:MA6:H2	2.02	0.40
32:1a:1504:G:OP1	60:1a:3333:HOH:O	2.22	0.40
32:1a:1525:G:P	42:1k:120:ARG:NH2	2.94	0.40
34:1c:87:LEU:HD23	34:1c:87:LEU:HA	1.84	0.40
36:1e:69:VAL:HG21	36:1e:113:ALA:HB1	2.02	0.40
44:1m:19:LEU:HD21	44:1m:56:LEU:HD11	2.03	0.40
1:2A:105:C:H2'	1:2A:106:C:C6	2.56	0.40
1:2A:196:A:N3	1:2A:196:A:H2'	2.36	0.40
1:2A:764:A:O4'	3:2D:213:ARG:HG3	2.21	0.40
1:2A:971:C:H2'	1:2A:972:G:H5'	2.02	0.40
1:2A:1062:G:N3	1:2A:1063:G:H8	2.19	0.40
1:2A:1429:G:O2'	1:2A:1430:C:H5'	2.21	0.40
1:2A:1983:C:H4'	1:2A:2606:C:H4'	2.02	0.40
1:2A:2104:G:O6	1:2A:2185:C:C4	2.74	0.40
1:2A:2303:G:O4'	6:2G:126:ASP:HA	2.22	0.40
3:2D:70:TRP:CD2	3:2D:150:LYS:HD2	2.56	0.40
3:2D:72:LYS:HB3	3:2D:72:LYS:HE3	1.77	0.40
3:2D:146:GLU:HB2	3:2D:189:CYS:HB3	2.03	0.40
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	2.03	0.40
7:2H:34:GLU:OE2	7:2H:34:GLU:N	2.54	0.40
8:2I:6:LEU:HD21	8:2I:37:VAL:HG23	2.03	0.40
10:2O:26:LYS:O	10:2O:30:ALA:HB2	2.21	0.40
18:2W:54:ALA:HB1	18:2W:107:LEU:HG	2.03	0.40
20:2Y:13:VAL:HG11	20:2Y:72:VAL:HG13	2.03	0.40
23:21:83:GLU:OE1	23:21:83:GLU:N	2.48	0.40
27:25:38:ALA:CB	27:25:48:GLU:HG3	2.51	0.40
32:2a:162:A:C5	32:2a:163:C:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:304:U:H2'	32:2a:305:G:C8	2.56	0.40
32:2a:406:G:O3'	35:2d:3:ARG:NH2	2.49	0.40
32:2a:422:C:O4'	32:2a:423:G:C2	2.74	0.40
32:2a:727:G:N2	32:2a:730:G:OP2	2.45	0.40
32:2a:827:U:H2'	32:2a:870:U:O4	2.20	0.40
32:2a:947:G:H2'	32:2a:948:C:C6	2.56	0.40
32:2a:1015:A:N6	32:2a:1016:A:C6	2.89	0.40
32:2a:1133:G:C4	32:2a:1134:G:C8	3.09	0.40
32:2a:1151:A:O4'	41:2j:39:PRO:HB2	2.21	0.40
32:2a:1370:G:O2'	32:2a:1371:G:H5'	2.21	0.40
35:2d:57:ARG:NH2	35:2d:205:GLU:OE1	2.54	0.40
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.20	0.40
43:2l:103:GLY:N	43:2l:107:ALA:O	2.53	0.40
49:2r:31:LEU:CD1	49:2r:62:GLU:HB2	2.50	0.40
1:1A:297:C:H5"	20:1Y:87:LYS:HG3	2.02	0.40
1:1A:526:A:H2'	60:1A:4536:HOH:O	2.21	0.40
1:1A:627:A:N1	1:1A:636:G:O2'	2.43	0.40
1:1A:1021:A:OP2	9:1N:65:LYS:HE2	2.21	0.40
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.56	0.40
1:1A:1376:C:H2'	1:1A:1377:G:O4'	2.21	0.40
1:1A:1526:G:H2'	1:1A:1527:G:O4'	2.21	0.40
1:1A:1634:A:H5"	60:1A:5564:HOH:O	2.21	0.40
1:1A:1651:G:C6	1:1A:1652:A:C5	3.09	0.40
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.20	0.40
1:1A:2124:G:H2'	1:1A:2125:G:H5'	2.03	0.40
1:1A:2455:G:H2'	1:1A:2456:C:C6	2.56	0.40
1:1A:2702:U:H4'	1:1A:2703:C:OP1	2.21	0.40
3:1D:19:ALA:HB2	3:1D:204:ILE:HD11	2.04	0.40
6:1G:66:GLN:HB3	6:1G:92:VAL:CG2	2.52	0.40
11:1P:100:LEU:HD12	11:1P:112:LEU:HD22	2.02	0.40
12:1Q:34:LEU:CD1	12:1Q:129:THR:HB	2.51	0.40
14:1S:26:LEU:HD12	14:1S:85:VAL:HG11	2.02	0.40
32:1a:54:C:O2'	32:1a:55:A:H5'	2.22	0.40
32:1a:198:G:C6	32:1a:220:G:C2	3.09	0.40
32:1a:656:C:O5'	32:1a:656:C:H6	2.04	0.40
32:1a:1330:U:C2'	32:1a:1331:G:H5'	2.51	0.40
33:1b:32:ILE:HG21	33:1b:40:HIS:HD2	1.87	0.40
33:1b:77:ALA:O	33:1b:78:GLN:C	2.64	0.40
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.78	0.40
35:1d:170:VAL:CG1	35:1d:174:LEU:HB2	2.52	0.40
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.21	0.40
1:2A:26:G:C6	1:2A:27:G:N1	2.89	0.40
1:2A:270:A:H2'	1:2A:271:A:O4'	2.20	0.40
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.68	0.40
1:2A:515:A:H1'	1:2A:581:C:H1'	2.02	0.40
1:2A:589:C:H2'	1:2A:590:A:C8	2.57	0.40
1:2A:746:A:H8	60:2A:4236:HOH:O	2.03	0.40
1:2A:1036:G:OP1	7:2H:59:ARG:HD2	2.21	0.40
1:2A:1072:C:H5"	1:2A:1073:A:O5'	2.21	0.40
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.56	0.40
1:2A:2143:C:O2	1:2A:2148:G:N1	2.50	0.40
1:2A:2477:C:N4	31:29:10:ILE:HG12	2.36	0.40
1:2A:2663:G:C6	1:2A:2664:G:C4	3.09	0.40
1:2A:2788:C:H2'	1:2A:2789:C:C5	2.56	0.40
3:2D:275:LYS:HB2	3:2D:275:LYS:HE2	1.86	0.40
5:2F:108:LYS:HB3	5:2F:108:LYS:HE3	1.82	0.40
6:2G:41:GLN:HG2	6:2G:154:GLY:O	2.21	0.40
6:2G:143:GLU:O	6:2G:148:MET:SD	2.79	0.40
8:2I:9:LEU:HB2	8:2I:12:LEU:HB2	2.03	0.40
20:2Y:8:LYS:HD3	20:2Y:97:ARG:CZ	2.52	0.40
21:2Z:70:LEU:HA	21:2Z:70:LEU:HD23	1.77	0.40
22:20:12:ASN:HB3	22:20:13:GLY:H	1.62	0.40
24:22:10:LEU:O	24:22:14:ARG:HG3	2.21	0.40
32:2a:103:C:O2'	32:2a:172:A:N1	2.52	0.40
32:2a:203:U:H3'	32:2a:203:U:OP2	2.22	0.40
32:2a:407:G:H2'	32:2a:408:A:C8	2.56	0.40
32:2a:623:C:H2'	32:2a:624:C:O4'	2.22	0.40
32:2a:636:U:H5'	48:2q:2:PRO:HD3	2.03	0.40
32:2a:653:A:C8	39:2h:56:LYS:HG2	2.56	0.40
32:2a:818:G:O2'	32:2a:819:A:H5'	2.20	0.40
32:2a:1309:G:OP1	44:2m:88:ARG:NH1	2.54	0.40
32:2a:1348:U:OP2	32:2a:1373:G:N2	2.52	0.40
33:2b:124:SER:N	33:2b:125:PRO:HD2	2.36	0.40
35:2d:175:SER:N	35:2d:186:LEU:HD13	2.35	0.40
37:2f:44:GLY:HA2	37:2f:59:TYR:CZ	2.56	0.40
44:2m:97:PRO:N	44:2m:110:ARG:HG2	2.37	0.40
1:1A:25:U:H2'	1:1A:26:G:O4'	2.21	0.40
1:1A:238:C:H2'	1:1A:239:U:O4'	2.21	0.40
1:1A:460:A:H2'	1:1A:461:C:O4'	2.21	0.40
1:1A:1286:A:O2'	1:1A:1288:U:OP2	2.30	0.40
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2679:A:H5'	4:1E:165:VAL:HG21	2.03	0.40
2:1B:8:U:OP1	14:1S:11:LYS:HE2	2.21	0.40
4:1E:11:MET:HE2	4:1E:11:MET:HB3	1.95	0.40
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.52	0.40
12:1Q:118:LEU:HA	12:1Q:118:LEU:HD23	1.75	0.40
13:1R:117:VAL:HG12	13:1R:118:GLU:N	2.37	0.40
15:1T:80:SER:HB3	15:1T:83:ILE:HD12	2.04	0.40
16:1U:104:GLN:HE21	16:1U:105:VAL:HG23	1.86	0.40
20:1Y:83:THR:HG21	20:1Y:99:CYS:HB2	2.03	0.40
23:11:52:ARG:HA	23:11:56:GLN:O	2.21	0.40
32:1a:189(D):C:O2	32:1a:189(H):G:N1	2.55	0.40
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.21	0.40
32:1a:1308:U:H5"	44:1m:98:VAL:HG23	2.03	0.40
33:1b:180:LEU:HD23	33:1b:180:LEU:HA	1.93	0.40
34:1c:135:LYS:HE2	36:1e:53:LEU:HD11	2.02	0.40
34:1c:136:GLN:HB3	34:1c:140:ARG:NH1	2.37	0.40
36:1e:52:PRO:HG2	36:1e:53:LEU:HD12	2.02	0.40
36:1e:106:PRO:O	36:1e:110:LEU:HG	2.22	0.40
45:1n:37:PHE:CE1	45:1n:53:LEU:HD13	2.57	0.40
53:1y:66:LYS:HZ2	53:1y:66:LYS:HG2	1.81	0.40
1:2A:118:A:N3	1:2A:178:G:H1'	2.36	0.40
1:2A:187:G:O2'	1:2A:1365:A:N3	2.50	0.40
1:2A:564:C:H2'	1:2A:565:C:O4'	2.21	0.40
1:2A:864:G:OP2	12:2Q:22:LYS:HG2	2.22	0.40
1:2A:997:G:O2'	1:2A:998:C:H5'	2.22	0.40
1:2A:1075:C:O2	1:2A:1075:C:H2'	2.22	0.40
1:2A:1334:G:OP2	60:2A:3896:HOH:O	2.21	0.40
1:2A:1372:U:O5'	1:2A:1372:U:C6	2.74	0.40
1:2A:2018:G:H2'	1:2A:2019:A:O4'	2.22	0.40
1:2A:2037:G:O2'	1:2A:2038:G:H5'	2.21	0.40
1:2A:2041:U:H2'	1:2A:2042:A:C8	2.56	0.40
1:2A:2688:U:C5	1:2A:2719:G:C5	3.09	0.40
2:2B:73:A:N1	21:2Z:34:ASN:ND2	2.69	0.40
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.47	0.40
10:2O:52:VAL:HG11	10:2O:58:VAL:HG11	2.04	0.40
10:2O:119:PRO:HB2	15:2T:68:TYR:CD2	2.57	0.40
12:2Q:11:LYS:HD3	12:2Q:87:LYS:HG2	2.02	0.40
13:2R:28:LEU:HA	13:2R:28:LEU:HD12	1.78	0.40
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.88	0.40
21:2Z:80:ARG:HD3	21:2Z:82:ARG:HD3	2.03	0.40
24:22:58:ALA:O	24:22:62:THR:OG1	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:20:ASN:HD22	26:24:38:LYS:HB2	1.87	0.40
32:2a:60:A:H1'	32:2a:61:G:O4'	2.21	0.40
32:2a:614:A:H2'	32:2a:615:C:C6	2.56	0.40
32:2a:755:G:OP2	46:2o:65:ARG:HD2	2.21	0.40
32:2a:1057:G:H2'	32:2a:1058:G:C8	2.57	0.40
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.21	0.40
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.56	0.40
33:2b:24:TRP:H	33:2b:24:TRP:CD1	2.38	0.40
34:2c:157:ILE:HG21	34:2c:164:ARG:HH21	1.87	0.40
34:2c:179:ARG:HH11	34:2c:206:GLU:HB2	1.86	0.40
35:2d:94:LEU:HA	35:2d:97:LEU:HB2	2.03	0.40
38:2g:135:VAL:O	38:2g:139:GLU:HG3	2.22	0.40
48:2q:15:MET:HE3	48:2q:15:MET:HB2	1.90	0.40
48:2q:62:SER:CB	48:2q:72:ARG:HH11	2.34	0.40
50:2s:22:LEU:HD12	50:2s:31:ILE:HD11	2.03	0.40
1:1A:705:A:H2'	1:1A:706:A:O4'	2.22	0.40
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.72	0.40
1:1A:1462:C:H2'	1:1A:1463:C:O4'	2.22	0.40
1:1A:1479:G:H1'	1:1A:1558:A:OP1	2.21	0.40
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.54	0.40
1:1A:2319:G:H22	14:1S:3:ARG:HD2	1.87	0.40
1:1A:2443:C:H2'	1:1A:2444:G:H8	1.87	0.40
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	2.02	0.40
5:1F:140:LEU:HD12	5:1F:140:LEU:HA	1.96	0.40
6:1G:41:GLN:HB2	6:1G:60:LEU:HD11	2.03	0.40
19:1X:12:VAL:CG2	19:1X:27:THR:HG22	2.50	0.40
28:16:2:ALA:N	60:16:605:HOH:O	2.54	0.40
32:1a:130:A:O2'	32:1a:131:C:O5'	2.36	0.40
32:1a:432:A:H3'	32:1a:433:C:C6	2.57	0.40
32:1a:755:G:OP2	46:1o:65:ARG:HD2	2.22	0.40
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.86	0.40
33:1b:103:THR:HG1	33:1b:176:GLU:CD	2.29	0.40
33:1b:169:LYS:O	33:1b:169:LYS:HG3	2.22	0.40
35:1d:12:CYS:SG	35:1d:19:LEU:N	2.70	0.40
36:1e:72:GLN:O	36:1e:75:THR:HG22	2.21	0.40
41:1j:40:LEU:N	41:1j:69:ASN:O	2.54	0.40
48:1q:6:LEU:HG	48:1q:23:VAL:HG11	2.03	0.40
50:1s:63:THR:H	50:1s:66:MET:CG	2.35	0.40
1:2A:300:A:N3	1:2A:319:C:H1'	2.36	0.40
1:2A:588:U:H1'	5:2F:90:PHE:HB3	2.03	0.40
1:2A:665:C:H2'	1:2A:666:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.56	0.40
1:2A:1594:G:H2'	1:2A:1595:G:O4'	2.22	0.40
1:2A:2373:G:H2'	1:2A:2374:C:C6	2.55	0.40
2:2B:21:G:O2'	2:2B:22:U:H5'	2.22	0.40
2:2B:24:G:N7	2:2B:56:G:H2'	2.36	0.40
2:2B:25:A:H2'	2:2B:26:A:C8	2.56	0.40
5:2F:53:THR:HG22	5:2F:56:GLU:H	1.86	0.40
5:2F:190:GLU:HA	60:2F:419:HOH:O	2.21	0.40
15:2T:126:ALA:O	15:2T:129:ARG:HG3	2.22	0.40
17:2V:27:ALA:O	17:2V:64:HIS:HE1	2.05	0.40
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.53	0.40
26:24:20:ASN:ND2	26:24:38:LYS:HG2	2.35	0.40
26:24:44:THR:C	26:24:46:GLN:N	2.80	0.40
32:2a:270:A:C5	32:2a:271:C:C4	3.09	0.40
32:2a:382:A:C2	32:2a:383:A:C4	3.10	0.40
32:2a:405:U:O2'	60:2a:3226:HOH:O	2.22	0.40
32:2a:1008:C:C2	32:2a:1022:G:C2	3.10	0.40
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.22	0.40
33:2b:119:GLU:HG3	33:2b:153:ARG:HH22	1.85	0.40
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.59	0.40
38:2g:18:TYR:CG	38:2g:59:LEU:HD13	2.56	0.40
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	2.03	0.40
48:2q:21:VAL:HG12	48:2q:23:VAL:HG23	2.03	0.40
1:1A:142:A:O2'	1:1A:1407:C:O2'	2.32	0.40
1:1A:603:A:C8	1:1A:655:A:C6	3.10	0.40
1:1A:784:A:C8	1:1A:792:G:C5	3.09	0.40
1:1A:1297:C:OP1	1:1A:2710:C:H4'	2.21	0.40
1:1A:1653:G:O3'	13:1R:2:ARG:HB2	2.22	0.40
1:1A:1814:G:C4'	3:1D:51:VAL:HG21	2.51	0.40
1:1A:2127:G:C6	1:1A:2128:C:C4	3.09	0.40
1:1A:2179:C:C2	1:1A:2180:U:C5	3.10	0.40
1:1A:2348:U:O4	1:1A:2382:G:N1	2.55	0.40
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.21	0.40
56:1B:232:ARG:HB2	60:1B:373:HOH:O	2.21	0.40
3:1D:25:THR:HG21	3:1D:113:VAL:HG21	2.04	0.40
3:1D:152:GLY:O	3:1D:154:LYS:HG2	2.22	0.40
4:1E:154:LYS:HD2	4:1E:154:LYS:HA	1.91	0.40
5:1F:130:ALA:HB2	5:1F:142:TRP:HD1	1.86	0.40
7:1H:2:SER:O	7:1H:3:ARG:HB2	2.22	0.40
12:1Q:29:PHE:HB3	12:1Q:65:PHE:CE1	2.57	0.40
13:1R:118:GLU:CD	13:1R:118:GLU:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:45:GLY:HA3	60:18:207:HOH:O	2.21	0.40
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.51	0.40
32:1a:598:U:H2'	32:1a:599:C:C6	2.57	0.40
32:1a:627:G:H2'	32:1a:628:G:C8	2.56	0.40
32:1a:938:A:C6	32:1a:939:G:C5	3.10	0.40
32:1a:994:A:N1	32:1a:1047:G:H4'	2.37	0.40
32:1a:1377:A:H2'	38:1g:7:ALA:HB2	2.03	0.40
33:1b:28:PHE:O	33:1b:32:ILE:HG13	2.21	0.40
34:1c:53:ALA:HB2	34:1c:115:LEU:HD21	2.03	0.40
35:1d:125:HIS:HA	35:1d:152:SER:OG	2.21	0.40
38:1g:146:GLU:OE2	38:1g:149:ARG:HD2	2.21	0.40
41:1j:23:ILE:C	41:1j:25:GLU:H	2.29	0.40
1:2A:35:G:H1'	1:2A:454:A:C4	2.56	0.40
1:2A:195:A:H2'	1:2A:198:C:N4	2.36	0.40
1:2A:480:A:OP2	20:2Y:47:LYS:HD2	2.21	0.40
1:2A:795:C:H2'	1:2A:796:C:C6	2.56	0.40
1:2A:1209:G:O2'	1:2A:1237:A:N1	2.53	0.40
1:2A:1379:A:O5'	1:2A:1379:A:H8	2.04	0.40
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.21	0.40
1:2A:1900:A:N1	1:2A:1970:A:C6	2.89	0.40
1:2A:1911:PSU:H2'	1:2A:1918:A:N1	2.37	0.40
1:2A:2287:A:C8	1:2A:2289:G:C8	3.09	0.40
4:2E:12:THR:OG1	15:2T:11:GLU:OE2	2.38	0.40
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.56	0.40
7:2H:89:ILE:HD11	7:2H:105:LEU:HD22	2.04	0.40
7:2H:152:ARG:HA	7:2H:152:ARG:HD3	1.95	0.40
9:2N:102:ALA:O	9:2N:106:MET:HG3	2.20	0.40
12:2Q:50:ALA:O	12:2Q:54:MET:HG3	2.21	0.40
15:2T:64:ARG:HH11	15:2T:73:GLU:HG3	1.86	0.40
26:24:37:SER:O	26:24:43:TYR:HD2	2.04	0.40
32:2a:76:C:H2'	32:2a:77:G:H8	1.86	0.40
32:2a:540:G:H2'	32:2a:541:G:C8	2.57	0.40
32:2a:632:A:OP2	32:2a:632:A:H8	2.04	0.40
32:2a:841:U:H5"	32:2a:848:C:OP2	2.21	0.40
32:2a:1015:A:H2'	32:2a:1016:A:O4'	2.22	0.40
32:2a:1017:G:H2'	32:2a:1018:C:O4'	2.22	0.40
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.57	0.40
32:2a:1084:G:OP1	32:2a:1086:U:C2	2.74	0.40
32:2a:1110:A:N6	32:2a:1111:A:C6	2.89	0.40
33:2b:32:ILE:HD13	33:2b:40:HIS:CD2	2.56	0.40
34:2c:87:LEU:O	34:2c:90:GLU:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:121:VAL:O	35:2d:134:ASP:HA	2.22	0.40
38:2g:121:ALA:O	38:2g:125:MET:HG3	2.22	0.40
40:2i:93:ARG:HE	40:2i:93:ARG:HB2	1.78	0.40
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	2.04	0.40
42:2k:50:TYR:CD1	42:2k:54:ARG:HD3	2.57	0.40
44:2m:86:CYS:HB3	50:2s:74:PHE:CZ	2.57	0.40
50:2s:5:LEU:HD23	50:2s:5:LEU:HA	1.83	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1162:C:O3'	41:2j:29:ARG:NH2[3_654]	2.18	0.02

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%)	255 (93%)	18 (7%)	0	100	100
3	2D	273/276 (99%)	257 (94%)	14 (5%)	2 (1%)	18	38
4	1E	202/206 (98%)	192 (95%)	9 (4%)	1 (0%)	24	46
4	2E	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	12	28
5	1F	201/210 (96%)	192 (96%)	7 (4%)	2 (1%)	12	28
5	2F	201/210 (96%)	194 (96%)	5 (2%)	2 (1%)	12	28
6	1G	179/182 (98%)	159 (89%)	16 (9%)	4 (2%)	5	10
6	2G	179/182 (98%)	148 (83%)	24 (13%)	7 (4%)	2	3
7	1H	172/180 (96%)	157 (91%)	12 (7%)	3 (2%)	7	15
7	2H	171/180 (95%)	145 (85%)	20 (12%)	6 (4%)	3	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	1I	145/148 (98%)	122 (84%)	19 (13%)	4 (3%)	4 6
8	2I	144/148 (97%)	121 (84%)	17 (12%)	6 (4%)	2 3
9	1N	138/140 (99%)	131 (95%)	7 (5%)	0	100 100
9	2N	138/140 (99%)	127 (92%)	10 (7%)	1 (1%)	18 38
10	1O	120/122 (98%)	111 (92%)	9 (8%)	0	100 100
10	2O	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	16 34
11	1P	147/150 (98%)	133 (90%)	14 (10%)	0	100 100
11	2P	147/150 (98%)	134 (91%)	9 (6%)	4 (3%)	4 7
12	1Q	139/141 (99%)	130 (94%)	9 (6%)	0	100 100
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18 38
13	1R	116/118 (98%)	111 (96%)	4 (3%)	1 (1%)	14 30
13	2R	116/118 (98%)	109 (94%)	7 (6%)	0	100 100
14	1S	108/112 (96%)	98 (91%)	10 (9%)	0	100 100
14	2S	108/112 (96%)	101 (94%)	7 (6%)	0	100 100
15	1T	129/146 (88%)	123 (95%)	5 (4%)	1 (1%)	16 34
15	2T	129/146 (88%)	121 (94%)	8 (6%)	0	100 100
16	1U	114/118 (97%)	113 (99%)	1 (1%)	0	100 100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100 100
17	1V	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6 12
17	2V	99/101 (98%)	93 (94%)	3 (3%)	3 (3%)	3 6
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100 100
18	2W	110/113 (97%)	107 (97%)	3 (3%)	0	100 100
19	1X	93/96 (97%)	91 (98%)	2 (2%)	0	100 100
19	2X	93/96 (97%)	90 (97%)	2 (2%)	1 (1%)	11 25
20	1Y	105/110 (96%)	95 (90%)	8 (8%)	2 (2%)	6 13
20	2Y	105/110 (96%)	95 (90%)	8 (8%)	2 (2%)	6 13
21	1Z	201/206 (98%)	187 (93%)	13 (6%)	1 (0%)	24 46
21	2Z	199/206 (97%)	178 (89%)	17 (8%)	4 (2%)	6 12
22	10	75/85 (88%)	70 (93%)	5 (7%)	0	100 100
22	20	75/85 (88%)	70 (93%)	4 (5%)	1 (1%)	9 21
23	11	95/98 (97%)	87 (92%)	7 (7%)	1 (1%)	11 25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
23	21	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11 25
24	12	68/72 (94%)	66 (97%)	2 (3%)	0	100 100
24	22	68/72 (94%)	64 (94%)	4 (6%)	0	100 100
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
26	14	67/71 (94%)	52 (78%)	8 (12%)	7 (10%)	0 0
26	24	67/71 (94%)	50 (75%)	15 (22%)	2 (3%)	3 6
27	15	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
27	25	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
28	16	51/54 (94%)	48 (94%)	3 (6%)	0	100 100
28	26	51/54 (94%)	50 (98%)	1 (2%)	0	100 100
29	17	46/49 (94%)	46 (100%)	0	0	100 100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
30	18	62/65 (95%)	62 (100%)	0	0	100 100
30	28	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	35 (100%)	0	0	100 100
33	1b	229/256 (90%)	193 (84%)	26 (11%)	10 (4%)	2 2
33	2b	229/256 (90%)	188 (82%)	33 (14%)	8 (4%)	3 4
34	1c	204/239 (85%)	173 (85%)	26 (13%)	5 (2%)	4 8
34	2c	204/239 (85%)	171 (84%)	29 (14%)	4 (2%)	6 12
35	1d	206/209 (99%)	186 (90%)	19 (9%)	1 (0%)	24 46
35	2d	206/209 (99%)	181 (88%)	18 (9%)	7 (3%)	3 4
36	1e	146/162 (90%)	132 (90%)	10 (7%)	4 (3%)	4 7
36	2e	146/162 (90%)	131 (90%)	15 (10%)	0	100 100
37	1f	98/101 (97%)	91 (93%)	7 (7%)	0	100 100
37	2f	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
38	1g	153/156 (98%)	143 (94%)	8 (5%)	2 (1%)	9 21
38	2g	153/156 (98%)	136 (89%)	13 (8%)	4 (3%)	4 7
39	1h	135/138 (98%)	125 (93%)	9 (7%)	1 (1%)	18 38
39	2h	135/138 (98%)	127 (94%)	7 (5%)	1 (1%)	18 38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
40	1i	125/128 (98%)	104 (83%)	15 (12%)	6 (5%)	2 2
40	2i	124/128 (97%)	106 (86%)	14 (11%)	4 (3%)	3 5
41	1j	95/105 (90%)	72 (76%)	19 (20%)	4 (4%)	2 3
41	2j	94/105 (90%)	79 (84%)	12 (13%)	3 (3%)	3 5
42	1k	112/129 (87%)	101 (90%)	8 (7%)	3 (3%)	4 7
42	2k	112/129 (87%)	105 (94%)	6 (5%)	1 (1%)	14 30
43	1l	119/132 (90%)	109 (92%)	10 (8%)	0	100 100
43	2l	119/132 (90%)	110 (92%)	9 (8%)	0	100 100
44	1m	114/126 (90%)	101 (89%)	8 (7%)	5 (4%)	2 2
44	2m	112/126 (89%)	98 (88%)	13 (12%)	1 (1%)	14 30
45	1n	58/61 (95%)	56 (97%)	2 (3%)	0	100 100
45	2n	58/61 (95%)	52 (90%)	6 (10%)	0	100 100
46	1o	86/89 (97%)	78 (91%)	7 (8%)	1 (1%)	10 23
46	2o	86/89 (97%)	82 (95%)	3 (4%)	1 (1%)	10 23
47	1p	80/88 (91%)	66 (82%)	14 (18%)	0	100 100
47	2p	80/88 (91%)	71 (89%)	8 (10%)	1 (1%)	9 21
48	1q	97/105 (92%)	87 (90%)	9 (9%)	1 (1%)	12 28
48	2q	97/105 (92%)	90 (93%)	6 (6%)	1 (1%)	12 28
49	1r	66/88 (75%)	63 (96%)	2 (3%)	1 (2%)	8 18
49	2r	66/88 (75%)	63 (96%)	3 (4%)	0	100 100
50	1s	81/93 (87%)	72 (89%)	8 (10%)	1 (1%)	10 23
50	2s	81/93 (87%)	71 (88%)	8 (10%)	2 (2%)	4 8
51	1t	94/106 (89%)	87 (93%)	5 (5%)	2 (2%)	5 11
51	2t	96/106 (91%)	88 (92%)	5 (5%)	3 (3%)	3 5
52	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100 100
52	2u	21/27 (78%)	17 (81%)	4 (19%)	0	100 100
53	1y	95/113 (84%)	91 (96%)	4 (4%)	0	100 100
53	2y	94/113 (83%)	90 (96%)	4 (4%)	0	100 100
54	1z	16/18 (89%)	14 (88%)	1 (6%)	1 (6%)	1 1
54	2z	16/18 (89%)	12 (75%)	3 (19%)	1 (6%)	1 1
All	All	11661/12390 (94%)	10637 (91%)	859 (7%)	165 (1%)	9 19

All (165) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	1G	43	LEU
6	1G	47	LYS
6	1G	50	ALA
21	1Z	53	ILE
26	14	47	GLN
26	14	61	ARG
33	1b	17	PHE
33	1b	21	ARG
33	1b	127	ILE
39	1h	54	ASP
40	1i	33	PHE
40	1i	54	ASP
41	1j	55	LYS
42	1k	107	SER
54	1z	4	SER
6	2G	43	LEU
6	2G	78	SER
8	2I	10	GLU
8	2I	39	ALA
8	2I	117	GLU
17	2V	79	VAL
19	2X	94	GLY
21	2Z	156	LYS
33	2b	9	GLU
33	2b	17	PHE
33	2b	125	PRO
38	2g	54	THR
38	2g	55	GLY
40	2i	54	ASP
40	2i	55	ALA
40	2i	96	LEU
41	2j	79	ARG
44	2m	67	GLU
51	2t	100	ILE
54	2z	4	SER
6	1G	51	ARG
7	1H	126	PRO
7	1H	159	GLU
8	1I	73	GLU
8	1I	105	HIS
8	1I	107	VAL
17	1V	43	GLU

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Mol	Chain	Res	Type
17	1V	79	VAL
26	14	44	THR
26	14	45	GLY
26	14	55	ARG
33	1b	20	GLU
34	1c	47	LEU
34	1c	61	ALA
34	1c	107	GLN
36	1e	146	ALA
40	1i	11	LYS
41	1j	79	ARG
42	1k	105	VAL
42	1k	106	LYS
44	1m	11	ARG
44	1m	67	GLU
48	1q	68	ARG
49	1r	36	ASN
3	2D	275	LYS
4	2E	57	LYS
5	2F	130	ALA
6	2G	42	GLY
6	2G	81	LYS
7	2H	55	PRO
7	2H	126	PRO
10	2O	5	GLN
11	2P	36	LYS
11	2P	122	PRO
12	2Q	59	ARG
17	2V	53	GLU
20	2Y	58	GLY
22	20	73	GLY
23	21	3	LYS
26	24	62	ARG
33	2b	10	LEU
33	2b	16	HIS
35	2d	3	ARG
35	2d	5	ILE
35	2d	179	GLU
35	2d	180	GLY
38	2g	4	ARG
38	2g	7	ALA
41	2j	75	ILE

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Mol	Chain	Res	Type
47	2p	81	ARG
48	2q	68	ARG
50	2s	17	GLU
51	2t	47	GLY
7	1H	3	ARG
8	1I	117	GLU
20	1Y	102	CYS
23	11	3	LYS
33	1b	8	LYS
34	1c	22	TRP
44	1m	12	ASN
44	1m	106	ASN
50	1s	24	ALA
3	2D	99	ASP
7	2H	47	GLU
8	2I	85	GLU
9	2N	119	ARG
11	2P	136	GLU
20	2Y	2	ARG
33	2b	20	GLU
35	2d	42	GLN
41	2j	55	LYS
50	2s	29	ARG
4	1E	52	LEU
5	1F	195	ASP
15	1T	127	ALA
26	14	48	ARG
33	1b	16	HIS
33	1b	78	GLN
41	1j	24	VAL
44	1m	21	TYR
46	1o	23	GLY
51	1t	95	ALA
4	2E	52	LEU
5	2F	21	ALA
6	2G	117	PHE
7	2H	80	SER
11	2P	29	LYS
21	2Z	52	SER
34	2c	30	ARG
34	2c	95	THR
46	2o	88	ARG

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Mol	Chain	Res	Type
51	2t	95	ALA
33	1b	36	ARG
38	1g	52	GLU
41	1j	77	PRO
51	1t	100	ILE
6	2G	104	GLU
7	2H	20	ALA
7	2H	174	GLY
21	2Z	31	ARG
33	2b	123	ALA
40	2i	43	ALA
5	1F	17	ARG
26	14	49	PHE
36	1e	147	ASP
40	1i	25	LYS
8	2I	133	HIS
21	2Z	188	ALA
33	2b	232	PRO
34	2c	82	GLU
34	2c	108	ASN
13	1R	83	ILE
35	1d	172	PRO
6	2G	52	ILE
26	24	45	GLY
40	1i	44	VAL
8	2I	84	GLY
35	2d	142	PRO
35	2d	204	ILE
20	1Y	51	VAL
33	1b	232	PRO
34	1c	14	ILE
36	1e	22	GLY
38	1g	55	GLY
40	1i	53	VAL
39	2h	86	ILE
33	1b	124	SER
42	2k	105	VAL
36	1e	70	PRO
17	2V	50	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/218 (98%)	193 (90%)	21 (10%)	7 17
3	2D	215/218 (99%)	190 (88%)	25 (12%)	5 11
4	1E	164/166 (99%)	151 (92%)	13 (8%)	11 26
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7 17
5	1F	160/166 (96%)	147 (92%)	13 (8%)	11 24
5	2F	159/166 (96%)	144 (91%)	15 (9%)	8 18
6	1G	144/156 (92%)	130 (90%)	14 (10%)	8 17
6	2G	142/156 (91%)	127 (89%)	15 (11%)	6 14
7	1H	144/148 (97%)	134 (93%)	10 (7%)	14 32
7	2H	143/148 (97%)	117 (82%)	26 (18%)	2 3
8	1I	111/124 (90%)	96 (86%)	15 (14%)	4 7
8	2I	108/124 (87%)	94 (87%)	14 (13%)	4 8
9	1N	119/119 (100%)	104 (87%)	15 (13%)	4 9
9	2N	118/119 (99%)	105 (89%)	13 (11%)	6 13
10	1O	100/100 (100%)	88 (88%)	12 (12%)	5 10
10	2O	100/100 (100%)	89 (89%)	11 (11%)	6 13
11	1P	115/116 (99%)	104 (90%)	11 (10%)	8 17
11	2P	115/116 (99%)	105 (91%)	10 (9%)	9 21
12	1Q	111/111 (100%)	103 (93%)	8 (7%)	13 30
12	2Q	111/111 (100%)	94 (85%)	17 (15%)	3 5
13	1R	101/101 (100%)	93 (92%)	8 (8%)	11 26
13	2R	101/101 (100%)	93 (92%)	8 (8%)	11 26
14	1S	87/88 (99%)	78 (90%)	9 (10%)	7 15
14	2S	85/88 (97%)	74 (87%)	11 (13%)	4 8
15	1T	115/127 (91%)	109 (95%)	6 (5%)	21 44
15	2T	113/127 (89%)	99 (88%)	14 (12%)	4 9

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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%)	90 (97%)	3 (3%)	34 62
17	1V	81/82 (99%)	74 (91%)	7 (9%)	10 22
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%)	84 (93%)	6 (7%)	15 33
19	1X	77/78 (99%)	71 (92%)	6 (8%)	11 26
19	2X	77/78 (99%)	71 (92%)	6 (8%)	11 26
20	1Y	86/91 (94%)	76 (88%)	10 (12%)	5 11
20	2Y	86/91 (94%)	78 (91%)	8 (9%)	8 18
21	1Z	169/179 (94%)	147 (87%)	22 (13%)	4 8
21	2Z	165/179 (92%)	138 (84%)	27 (16%)	2 4
22	10	61/67 (91%)	59 (97%)	2 (3%)	33 61
22	20	61/67 (91%)	57 (93%)	4 (7%)	15 34
23	11	79/83 (95%)	76 (96%)	3 (4%)	29 56
23	21	81/83 (98%)	70 (86%)	11 (14%)	3 7
24	12	65/67 (97%)	63 (97%)	2 (3%)	35 63
24	22	66/67 (98%)	58 (88%)	8 (12%)	5 10
25	13	51/52 (98%)	44 (86%)	7 (14%)	3 7
25	23	50/52 (96%)	45 (90%)	5 (10%)	7 16
26	14	58/63 (92%)	49 (84%)	9 (16%)	2 5
26	24	54/63 (86%)	47 (87%)	7 (13%)	4 8
27	15	51/52 (98%)	48 (94%)	3 (6%)	18 38
27	25	50/52 (96%)	46 (92%)	4 (8%)	11 25
28	16	51/52 (98%)	45 (88%)	6 (12%)	5 10
28	26	50/52 (96%)	47 (94%)	3 (6%)	17 37
29	17	41/42 (98%)	36 (88%)	5 (12%)	5 10
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%)	51 (94%)	3 (6%)	19 40
31	19	34/34 (100%)	32 (94%)	2 (6%)	18 38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	29	34/34 (100%)	32 (94%)	2 (6%)	18 38
33	1b	191/220 (87%)	169 (88%)	22 (12%)	5 11
33	2b	187/220 (85%)	160 (86%)	27 (14%)	3 6
34	1c	144/188 (77%)	121 (84%)	23 (16%)	2 4
34	2c	140/188 (74%)	117 (84%)	23 (16%)	2 4
35	1d	171/181 (94%)	149 (87%)	22 (13%)	4 8
35	2d	172/181 (95%)	149 (87%)	23 (13%)	4 7
36	1e	114/123 (93%)	96 (84%)	18 (16%)	2 4
36	2e	114/123 (93%)	96 (84%)	18 (16%)	2 4
37	1f	85/90 (94%)	73 (86%)	12 (14%)	3 6
37	2f	85/90 (94%)	76 (89%)	9 (11%)	6 14
38	1g	120/127 (94%)	109 (91%)	11 (9%)	8 19
38	2g	119/127 (94%)	105 (88%)	14 (12%)	5 10
39	1h	116/119 (98%)	100 (86%)	16 (14%)	3 7
39	2h	114/119 (96%)	102 (90%)	12 (10%)	6 14
40	1i	91/99 (92%)	77 (85%)	14 (15%)	2 5
40	2i	88/99 (89%)	76 (86%)	12 (14%)	3 7
41	1j	68/92 (74%)	60 (88%)	8 (12%)	5 10
41	2j	68/92 (74%)	57 (84%)	11 (16%)	2 4
42	1k	83/99 (84%)	76 (92%)	7 (8%)	10 23
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8 17
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7 14
43	2l	96/108 (89%)	85 (88%)	11 (12%)	5 11
44	1m	90/101 (89%)	82 (91%)	8 (9%)	9 20
44	2m	87/101 (86%)	78 (90%)	9 (10%)	7 15
45	1n	49/50 (98%)	43 (88%)	6 (12%)	5 10
45	2n	49/50 (98%)	46 (94%)	3 (6%)	17 37
46	1o	78/80 (98%)	69 (88%)	9 (12%)	5 11
46	2o	78/80 (98%)	73 (94%)	5 (6%)	16 35
47	1p	69/74 (93%)	54 (78%)	15 (22%)	1 2
47	2p	68/74 (92%)	61 (90%)	7 (10%)	7 15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	1q	94/97 (97%)	82 (87%)	12 (13%)	4 8
48	2q	94/97 (97%)	86 (92%)	8 (8%)	10 22
49	1r	59/77 (77%)	53 (90%)	6 (10%)	7 15
49	2r	59/77 (77%)	54 (92%)	5 (8%)	10 22
50	1s	68/80 (85%)	62 (91%)	6 (9%)	9 21
50	2s	67/80 (84%)	62 (92%)	5 (8%)	12 28
51	1t	71/82 (87%)	64 (90%)	7 (10%)	7 16
51	2t	70/82 (85%)	63 (90%)	7 (10%)	7 16
52	1u	18/22 (82%)	18 (100%)	0	100 100
52	2u	18/22 (82%)	18 (100%)	0	100 100
53	1y	82/98 (84%)	73 (89%)	9 (11%)	6 13
53	2y	79/98 (81%)	74 (94%)	5 (6%)	16 36
54	1z	13/13 (100%)	13 (100%)	0	100 100
54	2z	13/13 (100%)	11 (85%)	2 (15%)	2 5
All	All	9550/10286 (93%)	8521 (89%)	1029 (11%)	6 13

All (1029) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	13	ARG
3	1D	35	LYS
3	1D	39	LYS
3	1D	69	ARG
3	1D	71	ASP
3	1D	88	ARG
3	1D	106	ILE
3	1D	115	GLN
3	1D	126	GLN
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	164	GLN
3	1D	183	ARG
3	1D	193	VAL
3	1D	211	ARG
3	1D	229	VAL

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Mol	Chain	Res	Type
3	1D	242	ARG
3	1D	259	THR
3	1D	270	ILE
4	1E	1	MET
4	1E	7	VAL
4	1E	64	LYS
4	1E	73	GLU
4	1E	75	VAL
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	147	PRO
4	1E	170	LEU
4	1E	175	VAL
4	1E	181	LEU
4	1E	188	VAL
5	1F	12	LEU
5	1F	18	ARG
5	1F	24	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	60	SER
5	1F	74	ARG
5	1F	132	VAL
5	1F	140	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	31	VAL
6	1G	43	LEU
6	1G	45	GLU
6	1G	52	ILE
6	1G	79	ASN
6	1G	81	LYS
6	1G	108	ASN
6	1G	133	LEU
6	1G	139	LEU
6	1G	140	ILE
6	1G	145	THR

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Mol	Chain	Res	Type
6	1G	149	VAL
7	1H	6	ARG
7	1H	15	VAL
7	1H	44	VAL
7	1H	49	VAL
7	1H	106	THR
7	1H	119	GLU
7	1H	122	THR
7	1H	125	VAL
7	1H	127	GLU
7	1H	141	VAL
8	1I	5	LEU
8	1I	15	VAL
8	1I	20	ASP
8	1I	37	VAL
8	1I	40	THR
8	1I	75	LEU
8	1I	78	THR
8	1I	79	ILE
8	1I	92	VAL
8	1I	101	LEU
8	1I	108	THR
8	1I	109	ILE
8	1I	133	HIS
8	1I	140	LEU
8	1I	144	VAL
9	1N	12	ARG
9	1N	14	VAL
9	1N	15	LEU
9	1N	33	LEU
9	1N	48	MET
9	1N	60	ILE
9	1N	62	VAL
9	1N	68	GLU
9	1N	73	THR
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
9	1N	115	ARG
9	1N	119	ARG
9	1N	134	ARG
10	1O	8	LEU

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Mol	Chain	Res	Type
10	1O	17	ARG
10	1O	20	MET
10	1O	52	VAL
10	1O	66	LYS
10	1O	69	ILE
10	1O	89	ASN
10	1O	97	ARG
10	1O	98	VAL
10	1O	108	GLU
10	1O	109	LYS
10	1O	115	VAL
11	1P	3	LEU
11	1P	4	SER
11	1P	36	LYS
11	1P	71	VAL
11	1P	75	ILE
11	1P	95	VAL
11	1P	99	LEU
11	1P	101	VAL
11	1P	133	SER
11	1P	135	LEU
11	1P	149	GLU
12	1Q	1	MET
12	1Q	2	LEU
12	1Q	7	MET
12	1Q	75	THR
12	1Q	101	ARG
12	1Q	109	VAL
12	1Q	110	THR
12	1Q	112	GLU
13	1R	33	ARG
13	1R	36	THR
13	1R	65	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	86	ARG
13	1R	102	GLU
13	1R	114	VAL
14	1S	3	ARG
14	1S	14	VAL
14	1S	36	TYR
14	1S	38	GLN

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Mol	Chain	Res	Type
14	1S	43	GLU
14	1S	46	VAL
14	1S	50	SER
14	1S	59	LYS
14	1S	85	VAL
15	1T	28	VAL
15	1T	39	ARG
15	1T	67	SER
15	1T	84	GLN
15	1T	96	ARG
15	1T	118	ARG
16	1U	5	LYS
16	1U	30	LYS
16	1U	34	LYS
16	1U	74	LEU
16	1U	108	GLU
16	1U	112	ARG
17	1V	21	ARG
17	1V	35	LEU
17	1V	51	VAL
17	1V	52	VAL
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL
18	1W	11	ARG
18	1W	14	PRO
18	1W	15	ARG
18	1W	16	LYS
18	1W	17	VAL
18	1W	23	LEU
18	1W	67	ASP
18	1W	100	THR
19	1X	14	SER
19	1X	15	GLU
19	1X	45	THR
19	1X	68	ARG
19	1X	72	LYS
19	1X	92	LEU
20	1Y	7	VAL
20	1Y	34	LYS
20	1Y	43	ASN
20	1Y	64	GLU

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Mol	Chain	Res	Type
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	90	LEU
20	1Y	92	ASN
20	1Y	99	CYS
20	1Y	106	LEU
21	1Z	18	LEU
21	1Z	33	LEU
21	1Z	37	VAL
21	1Z	42	VAL
21	1Z	47	VAL
21	1Z	50	GLN
21	1Z	61	LEU
21	1Z	66	SER
21	1Z	72	ARG
21	1Z	74	VAL
21	1Z	93	ASP
21	1Z	126	VAL
21	1Z	146	ILE
21	1Z	149	SER
21	1Z	150	LEU
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	156	LYS
21	1Z	161	VAL
21	1Z	163	LEU
21	1Z	202	GLU
21	1Z	203	GLU
22	10	55	ARG
22	10	74	ARG
23	11	40	ARG
23	11	46	LEU
23	11	95	LEU
24	12	53	LEU
24	12	68	ARG
25	13	3	ARG
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	54	VAL
25	13	56	VAL
25	13	58	VAL

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Mol	Chain	Res	Type
26	14	23	GLU
26	14	30	GLU
26	14	47	GLN
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	56	VAL
26	14	59	PHE
26	14	66	SER
27	15	6	VAL
27	15	29	THR
27	15	40	LYS
28	16	6	ARG
28	16	9	LEU
28	16	19	ARG
28	16	48	VAL
28	16	50	ARG
28	16	52	VAL
29	17	1	MET
29	17	24	THR
29	17	29	LYS
29	17	43	THR
29	17	48	LYS
30	18	14	VAL
30	18	23	VAL
30	18	29	LYS
30	18	30	ARG
31	19	17	ILE
31	19	35	ARG
33	1b	7	VAL
33	1b	10	LEU
33	1b	12	GLU
33	1b	15	VAL
33	1b	21	ARG
33	1b	43	ASP
33	1b	44	LEU
33	1b	74	LYS
33	1b	80	ILE
33	1b	83	MET
33	1b	90	MET
33	1b	93	VAL
33	1b	121	LEU

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Mol	Chain	Res	Type
33	1b	124	SER
33	1b	127	ILE
33	1b	144	ARG
33	1b	157	ARG
33	1b	185	ILE
33	1b	196	LEU
33	1b	208	ILE
33	1b	223	ILE
33	1b	235	SER
34	1c	3	ASN
34	1c	8	ILE
34	1c	26	LYS
34	1c	49	SER
34	1c	52	LEU
34	1c	64	VAL
34	1c	66	VAL
34	1c	67	THR
34	1c	69	HIS
34	1c	98	ASN
34	1c	116	VAL
34	1c	124	ILE
34	1c	132	ARG
34	1c	134	ILE
34	1c	143	GLU
34	1c	165	THR
34	1c	178	LEU
34	1c	182	ILE
34	1c	188	LEU
34	1c	190	ARG
34	1c	192	THR
34	1c	195	VAL
34	1c	206	GLU
35	1d	5	ILE
35	1d	8	VAL
35	1d	19	LEU
35	1d	33	MET
35	1d	83	SER
35	1d	104	VAL
35	1d	107	ARG
35	1d	110	PHE
35	1d	112	VAL
35	1d	127	THR

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Mol	Chain	Res	Type
35	1d	135	LEU
35	1d	140	VAL
35	1d	155	LEU
35	1d	158	ILE
35	1d	168	ARG
35	1d	170	VAL
35	1d	173	TRP
35	1d	175	SER
35	1d	179	GLU
35	1d	184	LYS
35	1d	194	LEU
35	1d	196	LEU
36	1e	10	MET
36	1e	12	LEU
36	1e	27	ARG
36	1e	31	LEU
36	1e	33	VAL
36	1e	41	VAL
36	1e	51	VAL
36	1e	53	LEU
36	1e	67	VAL
36	1e	75	THR
36	1e	78	HIS
36	1e	79	GLU
36	1e	80	ILE
36	1e	91	LEU
36	1e	120	THR
36	1e	135	THR
36	1e	143	ARG
36	1e	152	ARG
37	1f	19	LEU
37	1f	21	LEU
37	1f	37	VAL
37	1f	45	LEU
37	1f	48	LEU
37	1f	69	GLU
37	1f	72	VAL
37	1f	73	ASN
37	1f	74	ASP
37	1f	93	SER
37	1f	98	LEU
37	1f	100	ASN

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Mol	Chain	Res	Type
38	1g	12	LEU
38	1g	16	LEU
38	1g	21	VAL
38	1g	45	ASP
38	1g	50	ILE
38	1g	58	PRO
38	1g	66	VAL
38	1g	97	GLN
38	1g	98	SER
38	1g	104	LEU
38	1g	153	HIS
39	1h	19	VAL
39	1h	21	LYS
39	1h	25	ASP
39	1h	26	VAL
39	1h	39	LEU
39	1h	51	VAL
39	1h	52	ASP
39	1h	63	LEU
39	1h	82	HIS
39	1h	88	LYS
39	1h	95	VAL
39	1h	102	ARG
39	1h	104	ARG
39	1h	107	LEU
39	1h	125	ARG
39	1h	137	VAL
40	1i	3	GLN
40	1i	27	THR
40	1i	31	GLN
40	1i	41	VAL
40	1i	42	ARG
40	1i	47	LEU
40	1i	54	ASP
40	1i	78	LYS
40	1i	81	ILE
40	1i	83	ARG
40	1i	92	TYR
40	1i	103	THR
40	1i	109	VAL
40	1i	125	TYR
41	1j	38	ILE

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Mol	Chain	Res	Type
41	1j	40	LEU
41	1j	42	THR
41	1j	43	ARG
41	1j	55	LYS
41	1j	72	VAL
41	1j	94	VAL
41	1j	100	THR
42	1k	14	VAL
42	1k	16	SER
42	1k	80	VAL
42	1k	81	ASP
42	1k	83	ILE
42	1k	112	THR
42	1k	114	VAL
43	1l	18	VAL
43	1l	28	LYS
43	1l	33	ARG
43	1l	42	THR
43	1l	55	VAL
43	1l	57	LYS
43	1l	64	TYR
43	1l	78	GLN
43	1l	83	VAL
43	1l	91	LYS
44	1m	3	ARG
44	1m	4	ILE
44	1m	17	VAL
44	1m	27	LYS
44	1m	48	LEU
44	1m	56	LEU
44	1m	60	VAL
44	1m	102	ARG
45	1n	4	LYS
45	1n	8	GLU
45	1n	18	VAL
45	1n	22	THR
45	1n	33	VAL
45	1n	60	SER
46	1o	3	ILE
46	1o	10	LYS
46	1o	39	LEU
46	1o	40	SER

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Mol	Chain	Res	Type
46	1o	48	LYS
46	1o	64	ARG
46	1o	76	GLU
46	1o	83	GLU
46	1o	84	LYS
47	1p	2	VAL
47	1p	4	ILE
47	1p	8	ARG
47	1p	11	SER
47	1p	19	ILE
47	1p	20	VAL
47	1p	27	LYS
47	1p	29	ASP
47	1p	33	ILE
47	1p	42	ARG
47	1p	45	THR
47	1p	49	LEU
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
48	1q	6	LEU
48	1q	9	VAL
48	1q	22	LEU
48	1q	34	LYS
48	1q	60	ILE
48	1q	67	LYS
48	1q	75	ARG
48	1q	77	VAL
48	1q	86	GLU
48	1q	89	LEU
48	1q	98	LEU
48	1q	99	SER
49	1r	21	LYS
49	1r	25	THR
49	1r	26	LEU
49	1r	65	ILE
49	1r	68	LYS
49	1r	85	LEU
50	1s	5	LEU
50	1s	6	LYS
50	1s	22	LEU
50	1s	37	ARG

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Mol	Chain	Res	Type
50	1s	48	THR
50	1s	67	VAL
51	1t	9	ASN
51	1t	10	LEU
51	1t	31	SER
51	1t	37	SER
51	1t	62	LEU
51	1t	90	GLN
51	1t	100	ILE
53	1y	3	MET
53	1y	23	ARG
53	1y	24	LEU
53	1y	42	SER
53	1y	53	THR
53	1y	60	VAL
53	1y	62	VAL
53	1y	66	LYS
53	1y	74	ILE
3	2D	3	VAL
3	2D	4	LYS
3	2D	32	SER
3	2D	35	LYS
3	2D	38	LYS
3	2D	39	LYS
3	2D	61	LEU
3	2D	71	ASP
3	2D	88	ARG
3	2D	94	LEU
3	2D	103	ARG
3	2D	106	ILE
3	2D	113	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	176	ARG
3	2D	183	ARG
3	2D	193	VAL
3	2D	211	ARG
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	260	ARG

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Mol	Chain	Res	Type
3	2D	275	LYS
4	2E	7	VAL
4	2E	21	VAL
4	2E	38	THR
4	2E	73	GLU
4	2E	75	VAL
4	2E	77	ILE
4	2E	89	ASP
4	2E	90	THR
4	2E	116	VAL
4	2E	119	ARG
4	2E	144	ARG
4	2E	175	VAL
4	2E	181	LEU
4	2E	182	LEU
4	2E	184	VAL
4	2E	195	LEU
5	2F	15	SER
5	2F	20	LEU
5	2F	24	LEU
5	2F	28	ILE
5	2F	43	LYS
5	2F	53	THR
5	2F	57	VAL
5	2F	60	SER
5	2F	74	ARG
5	2F	126	VAL
5	2F	127	GLU
5	2F	132	VAL
5	2F	149	ASP
5	2F	157	VAL
5	2F	165	ARG
6	2G	5	VAL
6	2G	7	LEU
6	2G	19	LEU
6	2G	21	ARG
6	2G	22	ARG
6	2G	43	LEU
6	2G	79	ASN
6	2G	80	PHE
6	2G	88	ILE
6	2G	91	ARG

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Mol	Chain	Res	Type
6	2G	98	ARG
6	2G	107	LEU
6	2G	126	ASP
6	2G	155	MET
6	2G	159	VAL
7	2H	3	ARG
7	2H	13	LYS
7	2H	15	VAL
7	2H	16	SER
7	2H	18	GLU
7	2H	24	VAL
7	2H	33	LEU
7	2H	47	GLU
7	2H	49	VAL
7	2H	56	SER
7	2H	63	SER
7	2H	68	THR
7	2H	71	LEU
7	2H	76	VAL
7	2H	86	GLU
7	2H	88	LEU
7	2H	95	ARG
7	2H	97	ARG
7	2H	98	LEU
7	2H	113	VAL
7	2H	116	GLU
7	2H	121	ILE
7	2H	134	SER
7	2H	136	ILE
7	2H	139	GLN
7	2H	175	LYS
8	2I	4	ILE
8	2I	6	LEU
8	2I	19	VAL
8	2I	37	VAL
8	2I	38	LEU
8	2I	54	GLN
8	2I	66	GLU
8	2I	76	THR
8	2I	102	SER
8	2I	116	LEU
8	2I	117	GLU

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Mol	Chain	Res	Type
8	2I	127	VAL
8	2I	140	LEU
8	2I	142	VAL
9	2N	5	VAL
9	2N	8	GLN
9	2N	28	THR
9	2N	33	LEU
9	2N	43	THR
9	2N	48	MET
9	2N	62	VAL
9	2N	63	THR
9	2N	67	LEU
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	127	ASP
10	2O	8	LEU
10	2O	22	ILE
10	2O	47	ILE
10	2O	52	VAL
10	2O	66	LYS
10	2O	70	LYS
10	2O	77	ILE
10	2O	89	ASN
10	2O	98	VAL
10	2O	108	GLU
10	2O	115	VAL
11	2P	1	MET
11	2P	3	LEU
11	2P	4	SER
11	2P	30	THR
11	2P	65	ARG
11	2P	71	VAL
11	2P	95	VAL
11	2P	99	LEU
11	2P	101	VAL
11	2P	149	GLU
12	2Q	1	MET
12	2Q	2	LEU
12	2Q	3	MET
12	2Q	7	MET
12	2Q	22	LYS

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Mol	Chain	Res	Type
12	2Q	31	ASP
12	2Q	38	GLU
12	2Q	42	ILE
12	2Q	60	ARG
12	2Q	75	THR
12	2Q	77	LYS
12	2Q	81	VAL
12	2Q	98	LYS
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	111	GLU
13	2R	33	ARG
13	2R	36	THR
13	2R	65	LEU
13	2R	67	LEU
13	2R	75	LEU
13	2R	83	ILE
13	2R	102	GLU
13	2R	114	VAL
14	2S	21	THR
14	2S	26	LEU
14	2S	35	ILE
14	2S	36	TYR
14	2S	38	GLN
14	2S	41	ASP
14	2S	48	LEU
14	2S	50	SER
14	2S	69	VAL
14	2S	85	VAL
14	2S	110	LEU
15	2T	6	LEU
15	2T	23	ARG
15	2T	27	THR
15	2T	28	VAL
15	2T	34	VAL
15	2T	36	GLU
15	2T	65	LYS
15	2T	75	ILE
15	2T	89	VAL
15	2T	96	ARG
15	2T	104	ASN

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Mol	Chain	Res	Type
15	2T	105	LEU
15	2T	119	LYS
15	2T	121	ILE
16	2U	5	LYS
16	2U	31	SER
16	2U	74	LEU
17	2V	32	THR
17	2V	35	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	52	VAL
17	2V	53	GLU
17	2V	62	LEU
17	2V	79	VAL
17	2V	82	ARG
17	2V	98	GLU
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	23	LEU
18	2W	100	THR
18	2W	103	ILE
19	2X	15	GLU
19	2X	33	LYS
19	2X	45	THR
19	2X	66	LEU
19	2X	78	LYS
19	2X	89	ILE
20	2Y	1	MET
20	2Y	19	LYS
20	2Y	21	LYS
20	2Y	31	LEU
20	2Y	47	LYS
20	2Y	57	GLN
20	2Y	70	SER
20	2Y	72	VAL
21	2Z	5	LEU
21	2Z	8	TYR
21	2Z	14	LYS
21	2Z	18	LEU
21	2Z	19	ARG
21	2Z	28	MET

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Mol	Chain	Res	Type
21	2Z	31	ARG
21	2Z	36	LYS
21	2Z	46	LYS
21	2Z	61	LEU
21	2Z	66	SER
21	2Z	74	VAL
21	2Z	76	LEU
21	2Z	94	GLU
21	2Z	97	GLU
21	2Z	119	GLU
21	2Z	120	ILE
21	2Z	121	HIS
21	2Z	123	ASP
21	2Z	136	PHE
21	2Z	142	SER
21	2Z	150	LEU
21	2Z	170	THR
21	2Z	182	LYS
21	2Z	185	GLU
21	2Z	191	VAL
21	2Z	193	GLU
22	20	10	THR
22	20	11	ARG
22	20	49	LYS
22	20	74	ARG
23	21	4	VAL
23	21	11	ARG
23	21	21	ARG
23	21	35	THR
23	21	40	ARG
23	21	52	ARG
23	21	59	THR
23	21	69	LYS
23	21	76	ARG
23	21	85	LEU
23	21	86	SER
24	22	22	GLU
24	22	30	ARG
24	22	32	LEU
24	22	41	ILE
24	22	52	ASP
24	22	53	LEU

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Mol	Chain	Res	Type
24	22	62	THR
24	22	70	GLN
25	23	18	ASP
25	23	29	ARG
25	23	31	LEU
25	23	54	VAL
25	23	57	GLU
26	24	3	GLU
26	24	5	ILE
26	24	37	SER
26	24	52	THR
26	24	53	GLU
26	24	63	TYR
26	24	68	ARG
27	25	6	VAL
27	25	29	THR
27	25	40	LYS
27	25	48	GLU
28	26	27	LYS
28	26	48	VAL
28	26	52	VAL
29	27	1	MET
29	27	24	THR
29	27	43	THR
29	27	46	VAL
29	27	48	LYS
30	28	14	VAL
30	28	23	VAL
30	28	26	LYS
31	29	17	ILE
31	29	26	ILE
33	2b	8	LYS
33	2b	9	GLU
33	2b	10	LEU
33	2b	12	GLU
33	2b	15	VAL
33	2b	22	LYS
33	2b	42	ILE
33	2b	45	GLN
33	2b	55	PHE
33	2b	56	ARG
33	2b	59	GLU

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Mol	Chain	Res	Type
33	2b	68	ILE
33	2b	74	LYS
33	2b	81	VAL
33	2b	90	MET
33	2b	95	GLN
33	2b	96	ARG
33	2b	111	ARG
33	2b	118	LEU
33	2b	126	GLU
33	2b	127	ILE
33	2b	139	LYS
33	2b	142	LEU
33	2b	158	LEU
33	2b	222	ILE
33	2b	224	GLN
33	2b	230	VAL
34	2c	3	ASN
34	2c	12	LEU
34	2c	16	ARG
34	2c	21	ARG
34	2c	26	LYS
34	2c	32	LEU
34	2c	36	ASP
34	2c	43	LEU
34	2c	44	GLU
34	2c	57	ILE
34	2c	72	LYS
34	2c	77	ILE
34	2c	104	GLN
34	2c	119	ARG
34	2c	127	ARG
34	2c	138	VAL
34	2c	151	VAL
34	2c	152	ILE
34	2c	165	THR
34	2c	166	GLU
34	2c	192	THR
34	2c	202	ILE
34	2c	207	VAL
35	2d	5	ILE
35	2d	8	VAL
35	2d	11	LEU

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Mol	Chain	Res	Type
35	2d	19	LEU
35	2d	34	GLU
35	2d	52	SER
35	2d	59	ARG
35	2d	60	GLU
35	2d	70	ILE
35	2d	73	ARG
35	2d	76	ARG
35	2d	83	SER
35	2d	96	LEU
35	2d	104	VAL
35	2d	106	TYR
35	2d	108	LEU
35	2d	118	ARG
35	2d	127	THR
35	2d	135	LEU
35	2d	155	LEU
35	2d	170	VAL
35	2d	175	SER
35	2d	209	ARG
36	2e	12	LEU
36	2e	13	ILE
36	2e	24	ARG
36	2e	27	ARG
36	2e	31	LEU
36	2e	41	VAL
36	2e	64	ARG
36	2e	68	GLU
36	2e	73	ASN
36	2e	75	THR
36	2e	78	HIS
36	2e	91	LEU
36	2e	107	ARG
36	2e	120	THR
36	2e	135	THR
36	2e	143	ARG
36	2e	150	ARG
36	2e	152	ARG
37	2f	13	ASN
37	2f	19	LEU
37	2f	70	ASP
37	2f	81	ILE

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Mol	Chain	Res	Type
37	2f	87	ARG
37	2f	89	MET
37	2f	91	VAL
37	2f	92	LYS
37	2f	95	GLU
38	2g	8	GLU
38	2g	9	VAL
38	2g	13	GLN
38	2g	22	LEU
38	2g	29	LYS
38	2g	64	GLN
38	2g	66	VAL
38	2g	75	VAL
38	2g	106	GLN
38	2g	113	GLU
38	2g	115	ARG
38	2g	136	LYS
38	2g	153	HIS
38	2g	155	ARG
39	2h	22	GLU
39	2h	39	LEU
39	2h	45	ILE
39	2h	51	VAL
39	2h	85	ARG
39	2h	91	ARG
39	2h	97	VAL
39	2h	99	GLU
39	2h	103	VAL
39	2h	112	LEU
39	2h	121	ASP
39	2h	137	VAL
40	2i	20	ARG
40	2i	23	ASN
40	2i	26	VAL
40	2i	27	THR
40	2i	53	VAL
40	2i	56	LEU
40	2i	64	THR
40	2i	65	VAL
40	2i	75	ASP
40	2i	105	ASP
40	2i	108	VAL

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Mol	Chain	Res	Type
40	2i	109	VAL
41	2j	7	LYS
41	2j	21	GLN
41	2j	29	ARG
41	2j	38	ILE
41	2j	46	ARG
41	2j	57	LYS
41	2j	72	VAL
41	2j	74	ILE
41	2j	92	THR
41	2j	95	GLU
41	2j	96	ILE
42	2k	48	ILE
42	2k	54	ARG
42	2k	77	MET
42	2k	84	VAL
42	2k	95	ILE
42	2k	107	SER
42	2k	114	VAL
42	2k	117	ASN
43	2l	18	VAL
43	2l	28	LYS
43	2l	36	VAL
43	2l	40	VAL
43	2l	47	LYS
43	2l	50	SER
43	2l	55	VAL
43	2l	83	VAL
43	2l	89	ARG
43	2l	104	VAL
43	2l	117	ARG
44	2m	3	ARG
44	2m	12	ASN
44	2m	15	VAL
44	2m	47	ASP
44	2m	53	VAL
44	2m	67	GLU
44	2m	70	LEU
44	2m	88	ARG
44	2m	93	ARG
45	2n	12	ARG
45	2n	18	VAL

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Mol	Chain	Res	Type
45	2n	33	VAL
46	2o	3	ILE
46	2o	24	SER
46	2o	39	LEU
46	2o	76	GLU
46	2o	87	ILE
47	2p	1	MET
47	2p	2	VAL
47	2p	20	VAL
47	2p	22	THR
47	2p	25	ARG
47	2p	69	THR
47	2p	73	LEU
48	2q	6	LEU
48	2q	7	THR
48	2q	22	LEU
48	2q	58	GLU
48	2q	60	ILE
48	2q	61	GLU
48	2q	87	LYS
48	2q	99	SER
49	2r	25	THR
49	2r	37	VAL
49	2r	46	GLU
49	2r	84	LYS
49	2r	85	LEU
50	2s	16	LEU
50	2s	35	SER
50	2s	60	VAL
50	2s	70	LYS
50	2s	77	THR
51	2t	11	SER
51	2t	50	GLU
51	2t	72	LEU
51	2t	84	LEU
51	2t	88	VAL
51	2t	99	LEU
51	2t	100	ILE
53	2y	3	MET
53	2y	23	ARG
53	2y	24	LEU
53	2y	29	LYS

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Mol	Chain	Res	Type
53	2y	68	GLU
54	2z	4	SER
54	2z	15	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (175) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	253	GLN
4	1E	48	GLN
4	1E	55	ASN
4	1E	143	ASN
5	1F	8	GLN
5	1F	69	HIS
6	1G	26	GLN
6	1G	132	ASN
7	1H	139	GLN
7	1H	158	HIS
8	1I	104	GLN
8	1I	105	HIS
9	1N	69	GLN
9	1N	94	HIS
9	1N	133	GLN
12	1Q	57	HIS
12	1Q	89	ASN
13	1R	13	HIS
13	1R	71	GLN
14	1S	84	GLN
14	1S	95	HIS
15	1T	58	ASN
15	1T	104	ASN
15	1T	123	GLN
16	1U	72	HIS
18	1W	60	ASN
19	1X	31	HIS
19	1X	55	ASN
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	43	ASN
21	1Z	32	HIS
21	1Z	34	ASN
21	1Z	50	GLN
21	1Z	73	GLN

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Mol	Chain	Res	Type
21	1Z	151	HIS
22	10	12	ASN
23	11	19	GLN
24	12	46	GLN
25	13	32	GLN
26	14	60	GLN
30	18	35	GLN
31	19	34	GLN
33	1b	40	HIS
33	1b	78	GLN
33	1b	95	GLN
33	1b	110	GLN
33	1b	146	GLN
34	1c	6	HIS
34	1c	104	GLN
34	1c	110	ASN
34	1c	181	ASN
35	1d	77	ASN
35	1d	119	GLN
35	1d	201	GLN
36	1e	20	GLN
36	1e	141	GLN
37	1f	73	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	56	GLN
38	1g	86	GLN
38	1g	97	GLN
38	1g	110	GLN
38	1g	148	ASN
40	1i	3	GLN
40	1i	58	HIS
40	1i	73	GLN
40	1i	87	GLN
40	1i	124	GLN
41	1j	56	HIS
42	1k	93	GLN
43	1l	80	HIS
43	1l	99	HIS
46	1o	28	GLN
47	1p	13	HIS
50	1s	47	HIS

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Mol	Chain	Res	Type
50	1s	69	HIS
50	1s	83	HIS
51	1t	16	HIS
51	1t	18	GLN
53	1y	4	ASN
53	1y	36	ASN
53	1y	38	HIS
3	2D	87	ASN
3	2D	116	GLN
3	2D	126	GLN
3	2D	253	GLN
4	2E	48	GLN
4	2E	192	ASN
5	2F	29	ASN
5	2F	69	HIS
7	2H	143	GLN
7	2H	147	ASN
8	2I	43	ASN
8	2I	104	GLN
8	2I	105	HIS
8	2I	133	HIS
9	2N	8	GLN
9	2N	94	HIS
9	2N	133	GLN
10	2O	5	GLN
10	2O	89	ASN
12	2Q	123	HIS
12	2Q	141	GLN
13	2R	13	HIS
14	2S	68	GLN
15	2T	43	GLN
15	2T	58	ASN
15	2T	123	GLN
16	2U	72	HIS
16	2U	81	HIS
16	2U	104	GLN
16	2U	117	GLN
17	2V	64	HIS
19	2X	31	HIS
19	2X	82	GLN
21	2Z	34	ASN
21	2Z	55	HIS

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Mol	Chain	Res	Type
21	2Z	73	GLN
21	2Z	151	HIS
25	23	32	GLN
30	28	35	GLN
31	29	34	GLN
33	2b	78	GLN
33	2b	135	GLN
33	2b	212	GLN
34	2c	37	GLN
34	2c	108	ASN
34	2c	162	GLN
34	2c	176	HIS
35	2d	77	ASN
35	2d	116	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	161	ASN
36	2e	20	GLN
36	2e	78	HIS
37	2f	94	GLN
37	2f	100	ASN
38	2g	13	GLN
38	2g	28	ASN
38	2g	86	GLN
38	2g	97	GLN
38	2g	148	ASN
40	2i	3	GLN
40	2i	58	HIS
40	2i	117	HIS
41	2j	13	HIS
41	2j	21	GLN
41	2j	68	HIS
42	2k	99	GLN
42	2k	104	GLN
42	2k	117	ASN
43	2l	99	HIS
44	2m	40	ASN
44	2m	62	ASN
44	2m	77	ASN
44	2m	106	ASN
46	2o	9	GLN
46	2o	28	GLN

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Mol	Chain	Res	Type
47	2p	76	GLN
48	2q	16	GLN
50	2s	23	ASN
50	2s	53	ASN
50	2s	65	ASN
50	2s	69	HIS
50	2s	83	HIS
51	2t	16	HIS
53	2y	4	ASN
53	2y	9	GLN
53	2y	33	HIS
53	2y	38	HIS
53	2y	46	GLN
53	2y	89	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	451 (15%)	44 (1%)
1	2A	2858/2915 (98%)	511 (17%)	47 (1%)
2	1B	119/121 (98%)	13 (10%)	0
2	2B	119/121 (98%)	22 (18%)	0
32	1a	1497/1521 (98%)	263 (17%)	0
32	2a	1501/1521 (98%)	266 (17%)	0
All	All	8959/9114 (98%)	1526 (17%)	91 (1%)

All (1526) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	23	G
1	1A	34	C
1	1A	36	G
1	1A	45	C
1	1A	63	U
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	100	G
1	1A	118	A
1	1A	119	A

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Mol	Chain	Res	Type
1	1A	120	U
1	1A	154(A)	C
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	197	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	229	A
1	1A	248	G
1	1A	261	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	370	G
1	1A	380	U
1	1A	386	G
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	421	U
1	1A	428	A
1	1A	442	G
1	1A	448	U
1	1A	451	C
1	1A	454	A
1	1A	455	C

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Mol	Chain	Res	Type
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	A
1	1A	592	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	652(U)	G
1	1A	669	G
1	1A	686	G
1	1A	715	G
1	1A	717	G
1	1A	730	C
1	1A	746	A
1	1A	747	U
1	1A	764	A
1	1A	765	G
1	1A	774	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A

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Mol	Chain	Res	Type
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	811	U
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	881	G
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	894	C
1	1A	896	A
1	1A	897	C
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1039	G
1	1A	1041	C
1	1A	1042	G

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Mol	Chain	Res	Type
1	1A	1043	C
1	1A	1044	G
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1063	G
1	1A	1065	U
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	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1083	U
1	1A	1088	A
1	1A	1090	U
1	1A	1095	A
1	1A	1096	A
1	1A	1097	U
1	1A	1100	C
1	1A	1104	C
1	1A	1109	C
1	1A	1110	G
1	1A	1112	G
1	1A	1116	C
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A

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Mol	Chain	Res	Type
1	1A	1178	C
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1244	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1319	G
1	1A	1321	A
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1446	C
1	1A	1450	G
1	1A	1452	A
1	1A	1455	G
1	1A	1459	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1490	A
1	1A	1493	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1514	U

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Mol	Chain	Res	Type
1	1A	1530	C
1	1A	1531	C
1	1A	1532	C
1	1A	1542	A
1	1A	1543	C
1	1A	1554	A
1	1A	1558	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1580	A
1	1A	1581	G
1	1A	1582	C
1	1A	1583	A
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1647	G
1	1A	1648	C
1	1A	1653	G
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1720	U
1	1A	1722	A
1	1A	1739	U
1	1A	1756	G
1	1A	1758	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1769	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C

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Mol	Chain	Res	Type
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1931	U
1	1A	1937	A
1	1A	1938	A
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	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	2034	U
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2099	U
1	1A	2103	C
1	1A	2104	G

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Mol	Chain	Res	Type
1	1A	2106	G
1	1A	2107	C
1	1A	2108	C
1	1A	2110	G
1	1A	2112	G
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2124	G
1	1A	2125	G
1	1A	2126	A
1	1A	2127	G
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	2141	G
1	1A	2142	C
1	1A	2144	U
1	1A	2145	C
1	1A	2146	C
1	1A	2147	G
1	1A	2148	G
1	1A	2158	A
1	1A	2159	G
1	1A	2165	G
1	1A	2171	A
1	1A	2173	A
1	1A	2179	C
1	1A	2184	G
1	1A	2185	C
1	1A	2186	G
1	1A	2187	G
1	1A	2188	C
1	1A	2190	G
1	1A	2191	G
1	1A	2192	G
1	1A	2193	G
1	1A	2198	A
1	1A	2206	G

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Mol	Chain	Res	Type
1	1A	2207	G
1	1A	2208	A
1	1A	2218	U
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2250	G
1	1A	2251	OMG
1	1A	2268	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2320	A
1	1A	2321	G
1	1A	2325	G
1	1A	2326	C
1	1A	2334	G
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2372	G
1	1A	2383	G
1	1A	2385	C
1	1A	2393	A
1	1A	2406	U
1	1A	2407	G
1	1A	2414	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A

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Mol	Chain	Res	Type
1	1A	2449	U
1	1A	2468	G
1	1A	2469	A
1	1A	2471	C
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2482	G
1	1A	2491	U
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2532	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2555	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2585	U
1	1A	2586	C
1	1A	2602	A
1	1A	2603	G
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	2657	A
1	1A	2689	U
1	1A	2690	C
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A

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Mol	Chain	Res	Type
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2839	G
1	1A	2872	G
1	1A	2873	A
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	13	A
2	1B	15	A
2	1B	25	A
2	1B	45	A
2	1B	50	G
2	1B	52	A
2	1B	53	A
2	1B	56	G
2	1B	73	A
2	1B	109	C
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	33	A
32	1a	39	G
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	55	A
32	1a	61	G

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Mol	Chain	Res	Type
32	1a	62	U
32	1a	79	G
32	1a	101	A
32	1a	105	G
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	144	G
32	1a	151	A
32	1a	156	G
32	1a	163	C
32	1a	174	C
32	1a	181	G
32	1a	182	U
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	222	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	279	A
32	1a	289	G
32	1a	306	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	330	C
32	1a	332	G
32	1a	348	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U

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Mol	Chain	Res	Type
32	1a	372	C
32	1a	373	A
32	1a	378	G
32	1a	397	A
32	1a	398	C
32	1a	402	G
32	1a	406	G
32	1a	411	A
32	1a	412	A
32	1a	413	G
32	1a	414	A
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	475	G
32	1a	476	G
32	1a	480	U
32	1a	485	G
32	1a	495	A
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	527	G7M
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	596	C
32	1a	618	C
32	1a	619	U

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Mol	Chain	Res	Type
32	1a	630	G
32	1a	631	G
32	1a	632	A
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	672	U
32	1a	673	G
32	1a	686	U
32	1a	687	A
32	1a	688	G
32	1a	723	U
32	1a	731	G
32	1a	733	A
32	1a	735	C
32	1a	755	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	805	C
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	828	A
32	1a	829	G
32	1a	836	G
32	1a	838	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G
32	1a	855	G
32	1a	872	A
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	935	A
32	1a	960	U

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Mol	Chain	Res	Type
32	1a	961	U
32	1a	963	G
32	1a	966	M2G
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	978	A
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G
32	1a	999	C
32	1a	1001(A)	G
32	1a	1004	A
32	1a	1006	C
32	1a	1021	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(B)	C
32	1a	1032	G
32	1a	1034	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1053	G
32	1a	1054	C
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1070	U
32	1a	1081	G

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Mol	Chain	Res	Type
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1108	G
32	1a	1120	G
32	1a	1122	U
32	1a	1124	G
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1140	C
32	1a	1150	U
32	1a	1152	A
32	1a	1154	G
32	1a	1159	U
32	1a	1166	G
32	1a	1168	A
32	1a	1176	A
32	1a	1182	G
32	1a	1183	A
32	1a	1184	G
32	1a	1185	G
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1208	C
32	1a	1211	U
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1240	U
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U

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Mol	Chain	Res	Type
32	1a	1258	G
32	1a	1270	C
32	1a	1273	G
32	1a	1275	A
32	1a	1278	U
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	1319	A
32	1a	1320	C
32	1a	1322	C
32	1a	1331	G
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1354	C
32	1a	1363	C
32	1a	1370	G
32	1a	1379	G
32	1a	1397	C
32	1a	1409	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1456	G
32	1a	1493	A
32	1a	1494	G
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G

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Mol	Chain	Res	Type
32	1a	1530	G
1	2A	10	G
1	2A	11	G
1	2A	12	U
1	2A	14	A
1	2A	15	G
1	2A	34	C
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	94	C
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	141	A
1	2A	154	G
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	200	U
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(P)	C
1	2A	272(A)	U

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Mol	Chain	Res	Type
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	291	C
1	2A	294	A
1	2A	308	G
1	2A	310	A
1	2A	311	A
1	2A	312	G
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	342	G
1	2A	346	A
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	363(C)	G
1	2A	370	G
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	451	C
1	2A	455	C
1	2A	457	A
1	2A	470	A
1	2A	480	A
1	2A	481	G
1	2A	499	U
1	2A	505	A
1	2A	509	C
1	2A	512	G
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G

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Mol	Chain	Res	Type
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A
1	2A	586	A
1	2A	603	A
1	2A	604	G
1	2A	607	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	631	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	740	U
1	2A	746	A
1	2A	747	U
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	827	U

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Mol	Chain	Res	Type
1	2A	828	U
1	2A	846	C
1	2A	856	C
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	874	G
1	2A	880	G
1	2A	881	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	907	U
1	2A	910	A
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1026	U
1	2A	1033	U
1	2A	1038	C

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Mol	Chain	Res	Type
1	2A	1039	G
1	2A	1041	C
1	2A	1043	C
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1070	A
1	2A	1071	G
1	2A	1072	C
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1080	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1087	G
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1095	A
1	2A	1097	U
1	2A	1098	A

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Mol	Chain	Res	Type
1	2A	1107	G
1	2A	1108	U
1	2A	1109	C
1	2A	1110	G
1	2A	1112	G
1	2A	1116	C
1	2A	1117	G
1	2A	1128	A
1	2A	1135	C
1	2A	1136	G
1	2A	1170	G
1	2A	1171	G
1	2A	1205	U
1	2A	1210	A
1	2A	1211	U
1	2A	1213	A
1	2A	1220	A
1	2A	1229	G
1	2A	1244	G
1	2A	1253	A
1	2A	1256	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	1321	A
1	2A	1342	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1396	U
1	2A	1416	G

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Mol	Chain	Res	Type
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1452	A
1	2A	1459	G
1	2A	1461	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509(A)	A
1	2A	1525	G
1	2A	1530	C
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1554	A
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1640	C
1	2A	1648	C
1	2A	1664	A
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A

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Mol	Chain	Res	Type
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U
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	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1812	A
1	2A	1816	G
1	2A	1828	G
1	2A	1829	A
1	2A	1835	G
1	2A	1847	A
1	2A	1858	G
1	2A	1861	G
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1914	C
1	2A	1918	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1939	5MU
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U

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Mol	Chain	Res	Type
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
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	2069	G
1	2A	2074	U
1	2A	2097	C
1	2A	2099	U
1	2A	2100	G
1	2A	2103	C
1	2A	2104	G
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2112	G
1	2A	2113	U
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2121	G
1	2A	2123	G
1	2A	2124	G
1	2A	2127	G
1	2A	2129	C
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G

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Mol	Chain	Res	Type
1	2A	2150	U
1	2A	2151	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2164	C
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A
1	2A	2178	C
1	2A	2179	C
1	2A	2180	U
1	2A	2181	G
1	2A	2183	C
1	2A	2186	G
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	2219	G
1	2A	2225	A
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2278	A
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A

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Mol	Chain	Res	Type
1	2A	2325	G
1	2A	2326	C
1	2A	2334	G
1	2A	2335	A
1	2A	2336	A
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2366	A
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2396	G
1	2A	2402	C
1	2A	2406	U
1	2A	2407	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2468	G
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2486	G
1	2A	2487	G
1	2A	2491	U
1	2A	2492	U
1	2A	2498	C
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2529	G

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Mol	Chain	Res	Type
1	2A	2543	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2572	A
1	2A	2573	C
1	2A	2585	U
1	2A	2596	U
1	2A	2602	A
1	2A	2603	G
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2669	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2757	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2789	C
1	2A	2793	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2839	G
1	2A	2872	G

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Mol	Chain	Res	Type
1	2A	2873	A
1	2A	2876	G
1	2A	2879	C
1	2A	2889	C
1	2A	2892	A
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	9	G
2	2B	13	A
2	2B	15	A
2	2B	19	G
2	2B	23	G
2	2B	27	C
2	2B	30	C
2	2B	34	U
2	2B	40	U
2	2B	51	G
2	2B	52	A
2	2B	54	G
2	2B	56	G
2	2B	63	G
2	2B	73	A
2	2B	84	C
2	2B	94	C
2	2B	108	U
2	2B	109	C
2	2B	110	G
32	2a	5	U
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	52	G
32	2a	60	A
32	2a	61	G

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Mol	Chain	Res	Type
32	2a	65	U
32	2a	66	G
32	2a	78	G
32	2a	88	A
32	2a	89	C
32	2a	98	G
32	2a	101	A
32	2a	105	G
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	144	G
32	2a	151	A
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(D)	C
32	2a	189(F)	U
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	220	G
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	342	C
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	355	C

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Mol	Chain	Res	Type
32	2a	367	U
32	2a	368	U
32	2a	372	C
32	2a	396	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	422	C
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	513	C
32	2a	518	C
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	581	G
32	2a	592	G
32	2a	596	C

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Mol	Chain	Res	Type
32	2a	618	C
32	2a	630	G
32	2a	631	G
32	2a	632	A
32	2a	633	G
32	2a	653	A
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	749	C
32	2a	755	G
32	2a	759	A
32	2a	773	G
32	2a	774	G
32	2a	776	G
32	2a	777	A
32	2a	785	G
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	858	G
32	2a	859	A
32	2a	880	C
32	2a	914	A
32	2a	920	U
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C

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Mol	Chain	Res	Type
32	2a	935	A
32	2a	960	U
32	2a	961	U
32	2a	963	G
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	982	U
32	2a	988	G
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	995	C
32	2a	1001	A
32	2a	1004	A
32	2a	1005	A
32	2a	1009	G
32	2a	1020	U
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1033	G
32	2a	1037	C
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1041	A
32	2a	1043	C
32	2a	1053	G

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Mol	Chain	Res	Type
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1072	G
32	2a	1081	G
32	2a	1091	U
32	2a	1092	A
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1117	G
32	2a	1122	U
32	2a	1125	U
32	2a	1126	U
32	2a	1128	C
32	2a	1129	C
32	2a	1130	A
32	2a	1132	C
32	2a	1136	U
32	2a	1137	C
32	2a	1139	G
32	2a	1147	C
32	2a	1152	A
32	2a	1154	G
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1177	G
32	2a	1183	A
32	2a	1196	U
32	2a	1197	G
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1250	A
32	2a	1256	A

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Mol	Chain	Res	Type
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1270	C
32	2a	1272	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1287	A
32	2a	1300	G
32	2a	1305	G
32	2a	1320	C
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1363	C
32	2a	1368	G
32	2a	1370	G
32	2a	1381	U
32	2a	1397	C
32	2a	1398	A
32	2a	1404	5MC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1492	A
32	2a	1493	A
32	2a	1504	G
32	2a	1505	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G

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Mol	Chain	Res	Type
32	2a	1530	G
32	2a	1531	A

All (91) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	199	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	573	G
1	1A	746	A
1	1A	764	A
1	1A	774	A
1	1A	776	G
1	1A	790	C
1	1A	827	U
1	1A	839	U
1	1A	859	G
1	1A	887	A
1	1A	958	U
1	1A	974	G
1	1A	1047	G
1	1A	1065	U
1	1A	1067	A
1	1A	1089	G
1	1A	1176	G
1	1A	1210	A
1	1A	1300	U
1	1A	1301	A
1	1A	1379	A
1	1A	1420	U
1	1A	1442	G
1	1A	1608	A
1	1A	1609	A
1	1A	1653	G
1	1A	1762	A
1	1A	2126	A
1	1A	2172	U
1	1A	2225	A
1	1A	2250	G

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Mol	Chain	Res	Type
1	1A	2288	A
1	1A	2308	G
1	1A	2406	U
1	1A	2422	A
1	1A	2439	A
1	1A	2447	G
1	1A	2602	A
1	1A	2689	U
1	2A	196	A
1	2A	215	G
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	310	A
1	2A	512	G
1	2A	530	G
1	2A	685	A
1	2A	746	A
1	2A	752	A
1	2A	764	A
1	2A	774	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	974	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1076	C
1	2A	1142(A)	A
1	2A	1210	A
1	2A	1378	A
1	2A	1379	A
1	2A	1395	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1608	A
1	2A	1992	G

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Mol	Chain	Res	Type
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2275	C
1	2A	2321	G
1	2A	2335	A
1	2A	2406	U
1	2A	2422	A
1	2A	2430	A
1	2A	2439	A
1	2A	2602	A
1	2A	2689	U
1	2A	2756	U

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

48 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	4OC	2a	1402	32	20,23,24	0.76	1 (5%)	25,32,35	1.12	2 (8%)
1	2MA	1A	2503	1,55	22,25,26	1.53	4 (18%)	32,37,40	2.56	8 (25%)
1	OMG	2A	2251	1,55	23,26,27	1.22	2 (8%)	32,38,41	2.03	8 (25%)
1	PSU	1A	1917	1	18,21,22	1.43	2 (11%)	21,30,33	2.08	3 (14%)
32	MA6	2a	1518	32	23,26,27	0.46	0	33,38,41	2.01	10 (30%)
32	5MC	2a	1404	32	19,22,23	1.55	3 (15%)	26,32,35	1.35	3 (11%)
1	5MC	1A	1942	1	19,22,23	1.63	3 (15%)	26,32,35	1.47	2 (7%)
1	2MA	2A	2503	1,55	22,25,26	1.49	4 (18%)	32,37,40	2.83	8 (25%)
1	5MC	2A	1942	1	19,22,23	1.56	3 (15%)	26,32,35	1.19	2 (7%)
1	OMC	1A	1920	1,55	19,22,23	0.83	1 (5%)	25,31,34	1.01	0
1	OMU	2A	2552	1,55	19,22,23	1.40	3 (15%)	25,31,34	1.80	5 (20%)
32	MA6	2a	1519	32	23,26,27	0.37	0	33,38,41	2.01	9 (27%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MU	1A	1915	1,55	19,22,23	1.45	5 (26%)	27,32,35	2.46	8 (29%)
32	5MC	1a	1407	32	19,22,23	1.73	3 (15%)	26,32,35	1.05	3 (11%)
32	5MC	1a	1400	32	19,22,23	1.55	3 (15%)	26,32,35	1.21	3 (11%)
32	5MC	1a	1404	32	19,22,23	1.68	3 (15%)	26,32,35	1.19	3 (11%)
32	UR3	1a	1498	32	19,22,23	1.00	1 (5%)	26,32,35	1.67	3 (11%)
1	PSU	2A	1917	1,55	18,21,22	1.51	3 (16%)	21,30,33	2.10	4 (19%)
32	MA6	1a	1518	32	23,26,27	0.50	0	33,38,41	1.98	8 (24%)
1	5MC	1A	1962	1,55	19,22,23	1.42	3 (15%)	26,32,35	1.27	3 (11%)
32	5MC	1a	967	32	19,22,23	1.48	2 (10%)	26,32,35	1.14	1 (3%)
32	PSU	1a	516	32,55	18,21,22	1.33	3 (16%)	21,30,33	1.75	4 (19%)
1	PSU	1A	1911	1	18,21,22	1.45	2 (11%)	21,30,33	2.03	5 (23%)
1	5MU	1A	1939	1,55	19,22,23	1.64	4 (21%)	27,32,35	2.25	6 (22%)
32	5MC	2a	1400	32	19,22,23	1.97	3 (15%)	26,32,35	1.35	3 (11%)
1	PSU	2A	1911	1	18,21,22	1.43	3 (16%)	21,30,33	1.86	6 (28%)
32	MA6	1a	1519	32	23,26,27	0.53	0	33,38,41	1.89	9 (27%)
1	OMC	2A	1920	1	19,22,23	0.77	0	25,31,34	0.84	0
1	OMG	1A	2251	1,55	23,26,27	1.31	4 (17%)	32,38,41	2.05	6 (18%)
32	M2G	2a	966	32,55	24,27,28	1.38	4 (16%)	33,40,43	1.73	5 (15%)
32	5MC	2a	967	32	19,22,23	1.85	3 (15%)	26,32,35	1.26	1 (3%)
32	PSU	2a	516	32,55	18,21,22	1.30	3 (16%)	21,30,33	2.13	6 (28%)
1	5MU	2A	1915	1	19,22,23	1.53	3 (15%)	27,32,35	2.28	9 (33%)
32	4OC	1a	1402	32	20,23,24	0.78	0	25,32,35	0.86	1 (4%)
32	2MG	2a	1207	32	23,26,27	1.24	4 (17%)	33,38,41	2.10	7 (21%)
32	5MC	2a	1407	32	19,22,23	1.52	3 (15%)	26,32,35	1.27	3 (11%)
32	G7M	2a	527	32	23,26,27	1.55	4 (17%)	34,39,42	1.70	6 (17%)
43	0TD	1l	92	43	8,9,10	3.96	2 (25%)	6,11,13	4.26	2 (33%)
43	0TD	2l	92	43	8,9,10	4.88	3 (37%)	6,11,13	2.65	2 (33%)
1	PSU	1A	2605	1,55	18,21,22	1.54	3 (16%)	21,30,33	1.94	4 (19%)
1	PSU	2A	2605	1	18,21,22	1.36	1 (5%)	21,30,33	2.53	4 (19%)
32	M2G	1a	966	32,55	24,27,28	1.33	4 (16%)	33,40,43	1.69	6 (18%)
1	5MC	2A	1962	1,55	19,22,23	1.69	3 (15%)	26,32,35	1.45	3 (11%)
32	2MG	1a	1207	32,55	23,26,27	1.29	2 (8%)	33,38,41	2.61	12 (36%)
1	OMU	1A	2552	1,55	19,22,23	1.29	3 (15%)	25,31,34	1.86	5 (20%)
32	UR3	2a	1498	32,55	19,22,23	0.95	1 (5%)	26,32,35	1.84	3 (11%)
32	G7M	1a	527	32	23,26,27	1.61	4 (17%)	34,39,42	1.60	5 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MU	2A	1939	1,55	19,22,23	1.63	5 (26%)	27,32,35	2.35	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	4OC	2a	1402	32	-	0/9/29/30	0/2/2/2
1	2MA	1A	2503	1,55	-	1/7/25/26	0/3/3/3
1	OMG	2A	2251	1,55	-	0/9/27/28	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	1404	32	-	2/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,55	-	1/7/25/26	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1,55	-	0/9/27/28	0/2/2/2
1	OMU	2A	2552	1,55	-	0/9/27/28	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
1	5MU	1A	1915	1,55	-	2/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1,55	-	1/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	5MC	1A	1962	1,55	-	2/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32,55	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1,55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
1	OMG	1A	2251	1,55	-	1/9/27/28	0/3/3/3
32	M2G	2a	966	32,55	-	0/11/29/30	0/3/3/3
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32,55	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	32	-	1/7/25/26	0/3/3/3
43	0TD	1l	92	43	-	3/7/12/14	-
43	0TD	2l	92	43	-	2/7/12/14	-
1	PSU	1A	2605	1,55	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32,55	-	0/11/29/30	0/3/3/3
1	5MC	2A	1962	1,55	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32,55	-	0/9/27/28	0/3/3/3
1	OMU	1A	2552	1,55	-	0/9/27/28	0/2/2/2
32	UR3	2a	1498	32,55	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	32	-	3/7/25/26	0/3/3/3
1	5MU	2A	1939	1,55	-	2/7/25/26	0/2/2/2

All (123) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.99	1.69	1.82
43	1l	92	0TD	CB-SB	-10.63	1.71	1.82
32	2a	1400	5MC	C5-C4	7.55	1.49	1.44
32	2a	967	5MC	C5-C4	6.94	1.49	1.44
32	1a	1407	5MC	C5-C4	6.41	1.49	1.44
32	1a	1404	5MC	C5-C4	6.13	1.48	1.44
1	2A	1962	5MC	C5-C4	5.80	1.48	1.44
1	1A	1942	5MC	C5-C4	5.60	1.48	1.44
32	2a	1404	5MC	C5-C4	5.52	1.48	1.44
1	2A	1942	5MC	C5-C4	5.31	1.48	1.44
32	2a	1407	5MC	C5-C4	5.17	1.48	1.44
32	2a	527	G7M	C5-N7	-5.09	1.33	1.39
32	1a	967	5MC	C5-C4	5.06	1.47	1.44
32	1a	1400	5MC	C5-C4	4.97	1.47	1.44
32	1a	527	G7M	C5-N7	-4.92	1.33	1.39
1	1A	1962	5MC	C5-C4	4.67	1.47	1.44
1	2A	2503	2MA	C5-C4	3.89	1.46	1.39
1	1A	1939	5MU	C4-N3	-3.88	1.31	1.38
1	2A	1917	PSU	C6-C5	3.85	1.39	1.35
1	1A	1911	PSU	C6-C5	3.75	1.39	1.35
1	1A	2503	2MA	C5-N7	-3.69	1.32	1.39
32	2a	966	M2G	C2-N2	3.59	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	516	PSU	C6-C5	3.58	1.39	1.35
1	2A	1915	5MU	C2-N1	3.55	1.44	1.38
1	2A	1939	5MU	C4-N3	-3.49	1.32	1.38
1	1A	1917	PSU	C6-C5	3.46	1.39	1.35
1	1A	2605	PSU	C6-C5	3.38	1.39	1.35
1	2A	2552	OMU	C4-N3	-3.35	1.32	1.38
1	1A	1915	5MU	C2-N1	3.34	1.43	1.38
32	1a	966	M2G	C5-C4	3.30	1.47	1.38
1	2A	2605	PSU	C6-C5	3.28	1.38	1.35
32	1a	527	G7M	C5-C4	3.27	1.46	1.38
1	2A	1911	PSU	C6-C5	3.27	1.38	1.35
1	2A	1939	5MU	C4-C5	3.27	1.50	1.44
1	1A	2503	2MA	C5-C4	3.20	1.44	1.39
1	2A	1915	5MU	C6-C5	3.17	1.39	1.34
32	1a	1400	5MC	C6-N1	-3.16	1.32	1.38
1	2A	2503	2MA	C5-N7	-3.16	1.33	1.39
32	2a	527	G7M	C5-C4	3.16	1.46	1.38
32	2a	1207	2MG	C5-C4	3.15	1.47	1.38
43	2l	92	0TD	CB-CA	-3.13	1.53	1.54
32	2a	967	5MC	C6-C5	3.11	1.39	1.34
1	1A	1939	5MU	C6-N1	-3.10	1.32	1.38
1	1A	1939	5MU	C6-C5	3.08	1.39	1.34
1	1A	1939	5MU	C2-N3	-3.07	1.32	1.38
1	2A	1915	5MU	C4-C5	3.06	1.49	1.44
32	2a	966	M2G	C5-C4	3.03	1.47	1.38
1	2A	2552	OMU	C2-N3	-3.03	1.32	1.38
1	2A	1939	5MU	C6-C5	2.98	1.39	1.34
1	2A	1942	5MC	C6-C5	2.92	1.39	1.34
1	1A	2605	PSU	C4-N3	-2.91	1.33	1.38
32	2a	516	PSU	C6-C5	2.90	1.38	1.35
1	1A	2503	2MA	C8-N9	-2.88	1.32	1.37
1	2A	2251	OMG	C5-C4	2.86	1.46	1.38
32	1a	1207	2MG	C5-C4	2.82	1.46	1.38
1	1A	2251	OMG	C5-N7	-2.82	1.33	1.39
1	1A	1962	5MC	C6-N1	-2.81	1.33	1.38
1	1A	1942	5MC	C6-N1	-2.80	1.33	1.38
1	2A	1911	PSU	C4-N3	-2.79	1.33	1.38
32	2a	1400	5MC	C6-C5	2.78	1.39	1.34
1	1A	2251	OMG	C5-C4	2.77	1.46	1.38
1	1A	2552	OMU	C4-N3	-2.77	1.33	1.38
32	1a	1207	2MG	C6-N1	-2.76	1.33	1.38
1	1A	2251	OMG	C6-N1	-2.76	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1939	5MU	C2-N3	-2.74	1.33	1.38
32	2a	1407	5MC	C6-C5	2.72	1.39	1.34
32	1a	966	M2G	C2-N2	2.70	1.40	1.35
32	1a	1400	5MC	C6-C5	2.68	1.39	1.34
1	1A	1917	PSU	C4-N3	-2.68	1.33	1.38
32	1a	966	M2G	C6-N1	-2.67	1.33	1.38
1	2A	1962	5MC	C6-C5	2.67	1.39	1.34
1	1A	1942	5MC	C6-C5	2.66	1.38	1.34
1	1A	1915	5MU	C4-N3	-2.65	1.33	1.38
1	1A	2503	2MA	C4-N9	-2.65	1.32	1.37
32	2a	966	M2G	C4-N9	-2.63	1.31	1.38
32	1a	967	5MC	C6-C5	2.63	1.38	1.34
32	1a	527	G7M	C4-N9	-2.60	1.31	1.38
1	2A	2552	OMU	C5-C4	-2.59	1.38	1.43
1	2A	1917	PSU	C4-N3	-2.56	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.56	1.34	1.38
32	1a	1407	5MC	C6-C5	2.55	1.38	1.34
32	2a	1404	5MC	C6-N1	-2.53	1.33	1.38
1	2A	2251	OMG	C5-N7	-2.52	1.34	1.39
1	1A	1915	5MU	C6-C5	2.50	1.38	1.34
32	2a	1404	5MC	C6-C5	2.44	1.38	1.34
32	2a	516	PSU	C4-N3	-2.43	1.34	1.38
1	2A	1911	PSU	C2-N3	-2.43	1.33	1.37
32	1a	527	G7M	C6-N1	-2.43	1.34	1.38
1	2A	2503	2MA	C8-N9	-2.42	1.33	1.37
32	2a	1207	2MG	C6-N1	-2.40	1.34	1.38
32	1a	1404	5MC	C6-C5	2.40	1.38	1.34
32	2a	527	G7M	C6-N1	-2.34	1.34	1.38
1	1A	2552	OMU	C2-N3	-2.34	1.33	1.38
32	1a	516	PSU	C4-N3	-2.32	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.29	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.27	1.34	1.39
32	2a	1400	5MC	C6-N1	-2.27	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.27	1.34	1.38
43	2l	92	0TD	CSB-SB	-2.26	1.75	1.79
1	1A	1962	5MC	C6-C5	2.25	1.38	1.34
1	1A	2605	PSU	O4'-C1'	-2.23	1.40	1.43
1	2A	1917	PSU	C2-N3	-2.18	1.33	1.37
32	2a	527	G7M	C4-N9	-2.17	1.32	1.38
32	2a	966	M2G	C6-N1	-2.14	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.13	1.34	1.38
1	2A	2503	2MA	C4-N9	-2.13	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	C5-C4	-2.11	1.39	1.43
32	2a	1498	UR3	C6-C5	2.10	1.40	1.35
1	1A	2251	OMG	C8-N9	-2.10	1.32	1.37
32	1a	966	M2G	C4-N9	-2.09	1.32	1.38
43	1l	92	0TD	CSB-SB	-2.08	1.75	1.79
1	1A	1915	5MU	C2-N3	-2.07	1.34	1.38
1	2A	1962	5MC	C6-N1	-2.07	1.34	1.38
32	1a	1407	5MC	C6-N1	-2.06	1.34	1.38
32	2a	516	PSU	O4'-C1'	-2.05	1.41	1.43
32	2a	967	5MC	C6-N1	-2.04	1.34	1.38
1	1A	1920	OMC	C5-C4	-2.04	1.38	1.42
1	1A	1915	5MU	C4-C5	2.03	1.48	1.44
32	1a	1498	UR3	C6-C5	2.02	1.39	1.35
32	2a	1407	5MC	C6-N1	-2.01	1.34	1.38
32	2a	1402	4OC	C6-C5	2.01	1.39	1.35
32	1a	516	PSU	C2-N3	-2.01	1.34	1.37
32	2a	1207	2MG	C4-N9	-2.00	1.33	1.38

All (225) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	1l	92	0TD	CSB-SB-CB	-9.94	84.49	102.36
1	2A	2503	2MA	C5-C4-N3	-9.60	117.06	127.18
1	2A	2503	2MA	N3-C4-N9	8.87	138.24	126.99
1	1A	2503	2MA	C5-C4-N3	-8.73	117.99	127.18
32	1a	1207	2MG	C2-N3-C4	7.74	121.68	112.00
32	2a	1498	UR3	C4-N3-C2	-7.63	118.44	124.58
1	1A	2503	2MA	N3-C4-N9	7.35	136.32	126.99
1	2A	2605	PSU	N1-C2-N3	7.24	122.81	115.17
1	2A	1917	PSU	N1-C2-N3	7.07	122.62	115.17
32	1a	1498	UR3	C4-N3-C2	-6.80	119.11	124.58
32	2a	1207	2MG	C2-N3-C4	6.70	120.38	112.00
1	1A	1917	PSU	N1-C2-N3	6.38	121.90	115.17
1	1A	1911	PSU	N1-C2-N3	6.30	121.82	115.17
1	1A	2251	OMG	C5-C4-N3	-6.30	118.36	128.39
32	2a	516	PSU	N1-C2-N3	6.28	121.80	115.17
32	1a	1207	2MG	C5-C4-N3	-6.19	118.54	128.39
1	1A	2605	PSU	N1-C2-N3	5.95	121.45	115.17
1	2A	1939	5MU	N3-C2-N1	5.94	122.62	114.89
1	2A	2503	2MA	N6-C6-N1	5.93	125.03	117.03
1	2A	1939	5MU	C4-N3-C2	-5.87	119.64	127.34
1	1A	1939	5MU	C5-C4-N3	5.85	120.41	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2251	OMG	C5-C4-N3	-5.82	119.13	128.39
32	2a	1207	2MG	C5-C4-N3	-5.67	119.36	128.39
1	2A	1911	PSU	N1-C2-N3	5.58	121.06	115.17
1	1A	1915	5MU	C4-N3-C2	-5.56	120.04	127.34
1	1A	1942	5MC	C5-C6-N1	-5.54	117.30	123.31
1	1A	1915	5MU	C5-C4-N3	5.51	120.11	115.32
43	2l	92	0TD	CSB-SB-CB	-5.48	92.51	102.36
1	2A	2605	PSU	C4-N3-C2	-5.41	118.91	126.37
32	1a	966	M2G	C5-C4-N3	-5.40	119.80	128.39
1	2A	1939	5MU	C5-C4-N3	5.25	119.89	115.32
1	1A	1915	5MU	N3-C2-N1	5.22	121.69	114.89
1	1A	1939	5MU	C4-N3-C2	-5.19	120.53	127.34
1	1A	2552	OMU	C4-N3-C2	-5.05	120.35	126.61
32	2a	1400	5MC	C5-C6-N1	-4.99	117.89	123.31
32	2a	527	G7M	N9-C4-N3	4.95	135.84	125.95
1	2A	1915	5MU	C4-N3-C2	-4.91	120.90	127.34
32	2a	527	G7M	C5-C4-N3	-4.85	118.99	128.15
1	1A	1939	5MU	C5-C6-N1	-4.84	118.05	123.31
1	1A	2503	2MA	N6-C6-N1	4.79	123.49	117.03
1	2A	1915	5MU	N3-C2-N1	4.78	121.11	114.89
1	2A	1939	5MU	C5-C6-N1	-4.77	118.13	123.31
32	2a	516	PSU	C4-N3-C2	-4.76	119.81	126.37
32	1a	516	PSU	N1-C2-N3	4.71	120.14	115.17
1	1A	2251	OMG	C2-N3-C4	4.70	120.40	112.30
1	1A	1915	5MU	O4-C4-C5	-4.70	119.54	124.92
32	2a	966	M2G	C5-C4-N3	-4.67	120.95	128.39
1	1A	2251	OMG	N9-C4-N3	4.65	135.25	125.95
1	2A	1915	5MU	C5-C4-N3	4.63	119.35	115.32
1	2A	2251	OMG	C2-N3-C4	4.62	120.26	112.30
1	1A	1917	PSU	O2-C2-N1	-4.62	118.03	122.79
32	2a	527	G7M	C2-N3-C4	4.60	120.22	112.30
32	1a	1207	2MG	C6-C5-N7	4.57	138.60	130.29
1	2A	2605	PSU	O2-C2-N1	-4.51	118.14	122.79
32	2a	1404	5MC	C5-C6-N1	-4.50	118.42	123.31
32	2a	1518	MA6	N1-C2-N3	-4.48	121.80	128.58
32	1a	527	G7M	N9-C4-N3	4.48	134.90	125.95
32	2a	967	5MC	C5-C6-N1	-4.47	118.45	123.31
1	1A	1939	5MU	N3-C2-N1	4.45	120.69	114.89
1	2A	2251	OMG	N9-C4-N3	4.45	134.85	125.95
1	2A	2552	OMU	C4-N3-C2	-4.42	121.13	126.61
32	1a	527	G7M	C5-C4-N3	-4.41	119.82	128.15
32	1a	1518	MA6	N1-C2-N3	-4.40	121.93	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1962	5MC	C5-C6-N1	-4.38	118.56	123.31
32	1a	966	M2G	N9-C4-N3	4.36	134.67	125.95
32	1a	1518	MA6	C2-N1-C6	4.27	122.25	111.83
32	2a	1519	MA6	C5-C4-N3	-4.20	120.94	126.72
32	2a	1519	MA6	N1-C2-N3	-4.19	122.24	128.58
1	1A	1939	5MU	O4-C4-C5	-4.18	120.13	124.92
1	2A	2552	OMU	C5-C4-N3	4.11	120.56	114.80
32	2a	966	M2G	C2-N3-C4	4.11	120.11	112.51
32	1a	1519	MA6	N1-C2-N3	-4.10	122.38	128.58
32	2a	1518	MA6	C5-N7-C8	4.07	109.85	103.45
32	1a	527	G7M	C2-N3-C4	4.05	119.27	112.30
1	2A	2552	OMU	N3-C2-N1	4.04	120.15	114.89
32	1a	1519	MA6	C5-C4-N3	-4.03	121.16	126.72
1	2A	1915	5MU	O4-C4-C5	-4.03	120.31	124.92
1	2A	1915	5MU	C1'-N1-C2	4.02	124.81	117.59
1	1A	1911	PSU	C4-N3-C2	-4.02	120.83	126.37
32	2a	1518	MA6	C5-C4-N3	-4.01	121.20	126.72
32	2a	1518	MA6	C2-N1-C6	3.98	121.56	111.83
32	1a	1518	MA6	C4-C5-N7	-3.98	106.03	110.58
32	2a	966	M2G	C6-C5-N7	3.98	137.53	130.29
32	1a	1518	MA6	C5-N7-C8	3.96	109.67	103.45
32	2a	1519	MA6	C4-C5-N7	-3.94	106.08	110.58
32	1a	1519	MA6	C2-N1-C6	3.93	121.43	111.83
32	1a	967	5MC	C5-C6-N1	-3.91	119.06	123.31
1	1A	2552	OMU	N3-C2-N1	3.91	119.98	114.89
1	1A	2552	OMU	C5-C4-N3	3.88	120.23	114.80
32	2a	1518	MA6	N9-C8-N7	-3.85	108.47	113.94
32	2a	1519	MA6	C2-N1-C6	3.84	121.21	111.83
1	2A	1911	PSU	C4-N3-C2	-3.83	121.10	126.37
32	2a	1519	MA6	C5-N7-C8	3.81	109.44	103.45
32	1a	1207	2MG	C4-C5-N7	-3.80	104.66	110.67
1	2A	1942	5MC	C5-C6-N1	-3.79	119.20	123.31
32	1a	1404	5MC	C5-C6-N1	-3.78	119.21	123.31
32	2a	1518	MA6	C4-C5-N7	-3.76	106.28	110.58
32	2a	1207	2MG	N9-C4-N3	3.76	133.47	125.95
1	1A	1915	5MU	C1'-N1-C2	3.72	124.27	117.59
1	1A	1917	PSU	C4-N3-C2	-3.70	121.27	126.37
1	2A	1917	PSU	C4-N3-C2	-3.69	121.29	126.37
32	1a	516	PSU	C4-N3-C2	-3.66	121.33	126.37
1	2A	2503	2MA	C4-N9-C8	3.64	109.56	105.74
32	1a	1207	2MG	N1-C2-N2	3.63	120.27	116.56
32	1a	1400	5MC	C5-C4-N3	-3.61	118.06	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1519	MA6	C4-C5-N7	-3.59	106.48	110.58
1	1A	2605	PSU	C4-N3-C2	-3.54	121.50	126.37
32	1a	966	M2G	C2-N3-C4	3.53	119.04	112.51
32	1a	1518	MA6	C5-C4-N3	-3.53	121.85	126.72
1	2A	1915	5MU	C1'-N1-C6	-3.53	115.34	121.15
32	1a	1518	MA6	N9-C8-N7	-3.51	108.96	113.94
32	1a	1519	MA6	C5-N7-C8	3.48	108.93	103.45
32	2a	1407	5MC	C5-C6-N1	-3.46	119.56	123.31
32	1a	1207	2MG	N9-C4-N3	3.45	132.84	125.95
1	2A	1917	PSU	O2-C2-N1	-3.42	119.26	122.79
1	2A	2503	2MA	C5-C6-N6	-3.41	114.84	123.29
1	1A	1962	5MC	C5-C6-N1	-3.41	119.61	123.31
1	1A	2503	2MA	C4-N9-C8	3.39	109.30	105.74
32	2a	1402	4OC	C6-C5-C4	3.35	121.04	117.00
1	1A	2251	OMG	C4-C5-N7	-3.34	105.37	110.67
32	2a	1519	MA6	N9-C8-N7	-3.33	109.21	113.94
1	2A	1962	5MC	C5-C4-N4	-3.30	116.74	121.39
1	1A	2251	OMG	C6-C5-N7	3.28	136.26	130.29
1	1A	1911	PSU	O2-C2-N1	-3.26	119.42	122.79
1	2A	1942	5MC	C5-C4-N3	-3.25	118.42	121.75
32	2a	1207	2MG	C6-C5-N7	3.24	136.18	130.29
1	1A	1915	5MU	C1'-N1-C6	-3.18	115.91	121.15
1	1A	2503	2MA	C4-C5-N7	-3.17	106.96	110.58
32	2a	1207	2MG	N1-C2-N2	3.15	119.78	116.56
1	2A	2251	OMG	C6-C5-N7	3.13	135.98	130.29
32	1a	1498	UR3	C5-C4-N3	3.12	119.16	115.04
1	1A	1915	5MU	C5-C6-N1	-3.11	119.93	123.31
32	1a	1400	5MC	C5-C6-N1	-3.11	119.94	123.31
1	1A	1962	5MC	C1'-N1-C6	-3.09	116.06	121.15
32	2a	1519	MA6	C2-N3-C4	3.05	119.27	111.83
32	1a	1407	5MC	C5-C6-N1	-3.04	120.01	123.31
32	2a	1518	MA6	C2-N3-C4	3.03	119.22	111.83
32	2a	516	PSU	O2-C2-N1	-3.02	119.67	122.79
32	2a	1498	UR3	C5-C4-N3	3.00	118.99	115.04
32	1a	1519	MA6	N9-C8-N7	-2.96	109.73	113.94
32	2a	966	M2G	N9-C4-N3	2.94	131.84	125.95
1	1A	2605	PSU	O2-C2-N1	-2.87	119.82	122.79
1	2A	1939	5MU	O2-C2-N1	-2.86	119.08	122.80
32	1a	1404	5MC	C5-C4-N3	-2.85	118.84	121.75
32	2a	966	M2G	C4-C5-N7	-2.84	106.16	110.67
32	1a	1519	MA6	C4-C5-C6	2.84	118.84	115.91
32	1a	1519	MA6	C2-N3-C4	2.82	118.73	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1407	5MC	O2-C2-N3	-2.80	117.91	122.33
32	2a	1207	2MG	N2-C2-N3	-2.79	116.95	120.51
1	2A	2605	PSU	O4-C4-C5	-2.78	117.09	124.01
1	1A	2251	OMG	C8-N7-C5	2.78	109.22	104.26
1	1A	2552	OMU	O4-C4-C5	-2.78	120.36	125.16
1	2A	2251	OMG	C4-C5-N7	-2.78	106.27	110.67
32	1a	1207	2MG	O3'-C3'-C2'	2.78	120.72	111.82
1	1A	2503	2MA	C5-N7-C8	2.77	107.81	103.45
1	1A	1915	5MU	O2-C2-N3	-2.76	116.40	121.49
32	1a	1518	MA6	C2-N3-C4	2.74	118.52	111.83
32	1a	966	M2G	C6-C5-N7	2.70	135.19	130.29
1	2A	1962	5MC	N4-C4-N3	2.69	123.38	118.51
32	2a	527	G7M	O6-C6-C5	-2.69	122.01	128.01
32	1a	1207	2MG	N2-C2-N3	-2.68	117.10	120.51
32	1a	527	G7M	O6-C6-C5	-2.64	122.11	128.01
32	1a	1404	5MC	CM5-C5-C6	-2.62	119.31	122.85
1	2A	2552	OMU	O2-C2-N1	-2.61	119.40	122.80
1	1A	2503	2MA	N9-C8-N7	-2.60	110.24	113.94
32	2a	1518	MA6	N3-C4-N9	2.60	131.59	127.17
32	2a	1207	2MG	C4-C5-N7	-2.59	106.57	110.67
1	2A	2552	OMU	CM2-O2'-C2'	-2.58	107.85	114.47
32	2a	527	G7M	C5-C6-N1	2.55	117.10	111.84
32	2a	516	PSU	C5-C6-N1	-2.54	118.62	122.14
32	2a	1498	UR3	C3U-N3-C2	2.52	121.72	117.33
32	2a	1519	MA6	C4-C5-C6	2.52	118.52	115.91
32	1a	1407	5MC	C5-C4-N3	-2.51	119.19	121.75
1	2A	2251	OMG	O6-C6-C5	-2.49	119.95	126.53
43	2l	92	0TD	OD2-CG-CB	2.48	118.52	113.15
32	1a	1207	2MG	C8-N7-C5	2.47	108.67	104.26
32	2a	1407	5MC	C5-C4-N3	-2.46	119.23	121.75
1	1A	2552	OMU	C5-C6-N1	-2.43	117.88	121.84
32	1a	1207	2MG	O3'-C3'-C4'	2.42	118.03	111.08
32	2a	1518	MA6	C4-C5-C6	2.40	118.39	115.91
32	1a	1518	MA6	C4-C5-C6	2.40	118.39	115.91
32	2a	1519	MA6	N3-C4-N9	2.39	131.23	127.17
1	1A	1911	PSU	C5-C6-N1	-2.36	118.86	122.14
1	2A	1915	5MU	C5-C6-N1	-2.34	120.77	123.31
32	1a	516	PSU	C6-C5-C4	-2.34	116.59	118.17
32	2a	1400	5MC	CM5-C5-C6	-2.34	119.69	122.85
32	2a	1518	MA6	C4-N9-C8	2.33	108.18	105.74
1	2A	2251	OMG	C8-N7-C5	2.32	108.39	104.26
1	1A	1962	5MC	C5-C4-N3	-2.31	119.39	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1404	5MC	O2-C2-N3	-2.31	118.70	122.33
43	1l	92	0TD	OD2-CG-CB	2.30	118.13	113.15
32	2a	1404	5MC	N1-C2-N3	2.30	122.80	118.80
1	2A	2251	OMG	CM2-O2'-C2'	-2.30	108.58	114.47
1	2A	1915	5MU	C5M-C5-C4	2.26	121.19	118.78
32	1a	1519	MA6	N3-C4-N9	2.25	130.99	127.17
32	1a	1407	5MC	CM5-C5-C6	-2.24	119.83	122.85
1	1A	2503	2MA	C5-C6-N6	-2.23	117.77	123.29
1	2A	1939	5MU	O4-C4-C5	-2.21	122.39	124.92
32	1a	527	G7M	C8-N7-C5	-2.20	105.03	107.78
32	1a	516	PSU	O4'-C1'-C2'	2.19	108.18	105.15
1	2A	1911	PSU	C6-C5-C4	-2.19	116.70	118.17
32	2a	1400	5MC	C5-C4-N3	-2.17	119.53	121.75
1	1A	1911	PSU	O4'-C1'-C2'	2.14	108.11	105.15
1	1A	1939	5MU	O2-C2-N1	-2.14	120.01	122.80
1	2A	2503	2MA	C4-C5-N7	-2.14	108.14	110.58
1	2A	2503	2MA	N9-C8-N7	-2.13	110.91	113.94
32	1a	1498	UR3	C3U-N3-C2	2.13	121.05	117.33
32	2a	516	PSU	O4'-C1'-C2'	2.13	108.09	105.15
1	2A	1911	PSU	C5-C6-N1	-2.12	119.19	122.14
32	1a	966	M2G	CM2-N2-CM1	2.12	122.64	115.87
32	2a	516	PSU	O4-C4-C5	-2.11	118.77	124.01
1	2A	1917	PSU	O2-C2-N3	-2.11	118.12	121.86
1	2A	1915	5MU	O2-C2-N3	-2.09	117.62	121.49
1	2A	1911	PSU	O2-C2-N3	-2.09	118.14	121.86
32	1a	966	M2G	C4-C5-N7	-2.09	107.36	110.67
32	2a	1402	4OC	C5-C4-N3	-2.08	119.34	122.60
32	1a	1402	4OC	C6-C5-C4	2.08	119.51	117.00
1	2A	2503	2MA	C5-N7-C8	2.07	106.70	103.45
32	2a	527	G7M	CN7-N7-C5	2.06	129.37	126.80
1	2A	1911	PSU	O4'-C1'-C2'	2.05	107.99	105.15
1	1A	2605	PSU	O4-C4-C5	-2.05	118.92	124.01
32	1a	1207	2MG	C2'-C1'-N9	-2.04	107.57	113.25
32	1a	1400	5MC	O2-C2-N3	-2.04	119.12	122.33
1	1A	1942	5MC	N1-C2-N3	2.03	122.33	118.80
32	1a	1207	2MG	C3'-C2'-C1'	-2.03	97.63	101.46

There are no chirality outliers.

All (31) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C6
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	O-C-CA-CB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1404	5MC	C3'-C4'-C5'-O5'
1	2A	1917	PSU	O4'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
1	2A	1939	5MU	O4'-C4'-C5'-O5'
32	1a	527	G7M	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
32	1a	1402	4OC	C3'-C4'-C5'-O5'
1	2A	2503	2MA	C4'-C5'-O5'-P
1	1A	1962	5MC	C2'-C1'-N1-C6
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
1	1A	2251	OMG	C4'-C5'-O5'-P
32	1a	1519	MA6	C4'-C5'-O5'-P
32	2a	1404	5MC	O4'-C4'-C5'-O5'
1	2A	1939	5MU	C3'-C4'-C5'-O5'
1	1A	1962	5MC	O4'-C1'-N1-C6

There are no ring outliers.

29 monomers are involved in 52 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1402	4OC	4	0
1	1A	2503	2MA	1	0
1	2A	2251	OMG	2	0
1	1A	1917	PSU	1	0
32	2a	1518	MA6	2	0
32	2a	1404	5MC	1	0
1	2A	2503	2MA	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	1942	5MC	1	0
1	1A	1920	OMC	2	0
1	2A	2552	OMU	1	0
32	2a	1519	MA6	3	0
32	1a	1407	5MC	1	0
32	1a	1400	5MC	2	0
32	1a	1518	MA6	4	0
32	1a	516	PSU	1	0
1	1A	1939	5MU	2	0
32	2a	1400	5MC	2	0
1	2A	1911	PSU	1	0
32	1a	1519	MA6	4	0
32	2a	516	PSU	1	0
1	2A	1915	5MU	1	0
32	1a	1402	4OC	3	0
32	2a	1207	2MG	3	0
43	1l	92	0TD	4	0
43	2l	92	0TD	1	0
32	1a	1207	2MG	2	0
1	1A	2552	OMU	1	0
32	2a	1498	UR3	1	0
32	1a	527	G7M	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2538 ligands modelled in this entry, 2532 are monoatomic - leaving 6 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	$\#\|Z\| > 2$
57	MPD	2A	3746	-	7,7,7	0.43	0	9,10,10	0.50	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	SF4	1d	306	35	0,12,12	-	-	-		
57	MPD	1T	206	-	7,7,7	0.35	0	9,10,10	0.57	0
57	MPD	18	102	-	7,7,7	0.40	0	9,10,10	0.62	0
59	SF4	2d	501	35	0,12,12	-	-	-		
56	ARG	1B	232	55	10,11,11	0.94	1 (10%)	9,13,13	1.13	1 (11%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	MPD	2A	3746	-	-	4/5/5/5	-
59	SF4	1d	306	35	-	-	0/6/5/5
57	MPD	1T	206	-	-	3/5/5/5	-
57	MPD	18	102	-	-	2/5/5/5	-
59	SF4	2d	501	35	-	-	0/6/5/5
56	ARG	1B	232	55	-	3/11/11/11	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	1B	232	ARG	OXT-C	-2.75	1.21	1.30

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1B	232	ARG	OXT-C-O	-3.08	117.09	124.08

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	18	102	MPD	C2-C3-C4-O4
56	1B	232	ARG	NE-CD-CG-CB
56	1B	232	ARG	CA-CB-CG-CD
56	1B	232	ARG	OXT-C-CA-N
57	18	102	MPD	C2-C3-C4-C5
57	2A	3746	MPD	C2-C3-C4-C5
57	1T	206	MPD	O2-C2-C3-C4

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Mol	Chain	Res	Type	Atoms
57	2A	3746	MPD	O2-C2-C3-C4
57	1T	206	MPD	C2-C3-C4-O4
57	2A	3746	MPD	C2-C3-C4-O4
57	1T	206	MPD	CM-C2-C3-C4
57	2A	3746	MPD	C1-C2-C3-C4

There are no ring outliers.

5 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1d	306	SF4	1	0
57	1T	206	MPD	1	0
57	18	102	MPD	5	0
59	2d	501	SF4	1	0
56	1B	232	ARG	4	0

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	2861/2915 (98%)	-0.46	194 (6%) 23 19	17, 32, 89, 101	0
1	2A	2856/2915 (97%)	-0.03	203 (7%) 22 17	26, 48, 89, 100	0
2	1B	120/121 (99%)	-0.16	2 (1%) 69 64	29, 48, 62, 79	0
2	2B	120/121 (99%)	0.48	2 (1%) 69 64	49, 68, 75, 83	0
3	1D	275/276 (99%)	-0.39	3 (1%) 78 74	17, 32, 45, 72	0
3	2D	275/276 (99%)	-0.07	3 (1%) 78 74	26, 41, 54, 75	0
4	1E	204/206 (99%)	-0.26	1 (0%) 87 85	17, 35, 58, 75	0
4	2E	204/206 (99%)	0.08	1 (0%) 87 85	28, 48, 64, 73	0
5	1F	203/210 (96%)	-0.27	2 (0%) 79 76	16, 36, 63, 74	0
5	2F	203/210 (96%)	0.30	1 (0%) 87 85	28, 57, 71, 81	0
6	1G	181/182 (99%)	0.55	8 (4%) 39 33	44, 60, 74, 83	0
6	2G	181/182 (99%)	1.33	36 (19%) 3 2	62, 74, 81, 85	0
7	1H	174/180 (96%)	0.07	3 (1%) 69 64	32, 47, 61, 67	0
7	2H	173/180 (96%)	1.06	16 (9%) 14 11	61, 71, 80, 83	0
8	1I	147/148 (99%)	0.63	2 (1%) 73 69	38, 64, 73, 80	0
8	2I	146/148 (98%)	0.60	4 (2%) 56 50	47, 64, 75, 81	0
9	1N	140/140 (100%)	-0.27	0 100 100	24, 34, 56, 63	0
9	2N	140/140 (100%)	0.21	2 (1%) 73 69	37, 54, 67, 74	0
10	1O	122/122 (100%)	-0.33	0 100 100	26, 35, 52, 58	0
10	2O	122/122 (100%)	-0.01	0 100 100	37, 46, 60, 68	0
11	1P	149/150 (99%)	-0.18	1 (0%) 84 82	18, 40, 60, 76	0
11	2P	149/150 (99%)	0.36	3 (2%) 65 60	30, 59, 73, 82	0
12	1Q	141/141 (100%)	-0.23	1 (0%) 84 82	24, 36, 48, 69	0
12	2Q	141/141 (100%)	0.35	2 (1%) 73 69	37, 54, 66, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.39	0 100 100	23, 31, 42, 52	0
13	2R	118/118 (100%)	0.04	0 100 100	33, 45, 54, 62	0
14	1S	110/112 (98%)	0.06	0 100 100	36, 49, 60, 66	0
14	2S	110/112 (98%)	0.80	7 (6%) 25 20	55, 64, 70, 74	0
15	1T	131/146 (89%)	-0.09	4 (3%) 51 45	30, 39, 61, 75	0
15	2T	131/146 (89%)	0.29	3 (2%) 61 55	42, 50, 71, 77	0
16	1U	116/118 (98%)	-0.50	1 (0%) 81 78	20, 28, 42, 61	0
16	2U	116/118 (98%)	0.20	0 100 100	32, 48, 64, 71	0
17	1V	101/101 (100%)	-0.44	0 100 100	20, 38, 52, 59	0
17	2V	101/101 (100%)	0.39	1 (0%) 79 76	34, 59, 67, 73	0
18	1W	112/113 (99%)	-0.38	1 (0%) 81 78	19, 27, 47, 80	0
18	2W	112/113 (99%)	-0.07	1 (0%) 81 78	33, 42, 57, 81	0
19	1X	95/96 (98%)	-0.17	1 (1%) 78 74	25, 34, 59, 69	0
19	2X	95/96 (98%)	0.36	3 (3%) 50 44	37, 51, 65, 73	0
20	1Y	107/110 (97%)	0.11	3 (2%) 55 49	31, 44, 60, 72	0
20	2Y	107/110 (97%)	0.90	11 (10%) 12 9	48, 61, 72, 75	0
21	1Z	203/206 (98%)	0.48	8 (3%) 43 38	39, 54, 69, 82	0
21	2Z	201/206 (97%)	0.89	10 (4%) 34 28	56, 68, 77, 88	0
22	10	77/85 (90%)	-0.16	0 100 100	27, 35, 55, 57	0
22	20	77/85 (90%)	0.55	1 (1%) 75 71	44, 55, 65, 72	0
23	11	97/98 (98%)	-0.05	2 (2%) 63 58	23, 39, 62, 69	0
23	21	97/98 (98%)	0.26	4 (4%) 41 36	33, 49, 66, 72	0
24	12	70/72 (97%)	-0.02	1 (1%) 73 69	29, 43, 52, 79	0
24	22	70/72 (97%)	0.62	2 (2%) 53 48	52, 60, 69, 75	0
25	13	59/60 (98%)	-0.32	1 (1%) 69 64	26, 33, 56, 67	0
25	23	59/60 (98%)	0.25	2 (3%) 48 42	42, 52, 67, 72	0
26	14	69/71 (97%)	1.12	16 (23%) 2 1	53, 73, 85, 87	0
26	24	69/71 (97%)	1.94	25 (36%) 1 0	70, 80, 89, 91	0
27	15	59/60 (98%)	-0.36	0 100 100	17, 31, 53, 62	0
27	25	59/60 (98%)	-0.04	0 100 100	29, 43, 59, 68	0
28	16	53/54 (98%)	-0.38	0 100 100	30, 37, 51, 54	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.24	0 100 100	44, 52, 61, 65	0
29	17	48/49 (97%)	-0.31	4 (8%) 17 13	19, 23, 50, 61	0
29	27	48/49 (97%)	-0.02	3 (6%) 26 20	28, 34, 58, 66	0
30	18	64/65 (98%)	-0.44	0 100 100	25, 30, 38, 44	0
30	28	64/65 (98%)	0.14	0 100 100	37, 46, 52, 59	0
31	19	37/37 (100%)	-0.13	0 100 100	27, 36, 52, 56	0
31	29	37/37 (100%)	0.76	2 (5%) 31 26	47, 56, 64, 70	0
32	1a	1488/1521 (97%)	0.50	100 (6%) 24 19	30, 64, 87, 100	0
32	2a	1492/1521 (98%)	0.57	100 (6%) 24 19	38, 67, 87, 101	0
33	1b	231/256 (90%)	1.18	31 (13%) 7 5	59, 72, 82, 91	0
33	2b	231/256 (90%)	1.33	46 (19%) 3 2	61, 74, 83, 86	0
34	1c	206/239 (86%)	0.93	14 (6%) 23 19	58, 70, 79, 83	0
34	2c	206/239 (86%)	1.33	31 (15%) 5 4	66, 76, 81, 85	0
35	1d	208/209 (99%)	0.97	16 (7%) 19 15	49, 65, 74, 80	0
35	2d	208/209 (99%)	0.87	11 (5%) 32 26	51, 63, 72, 77	0
36	1e	148/162 (91%)	0.49	0 100 100	37, 59, 70, 77	0
36	2e	148/162 (91%)	0.81	9 (6%) 27 22	49, 64, 74, 80	0
37	1f	100/101 (99%)	0.63	2 (2%) 65 60	49, 62, 71, 76	0
37	2f	100/101 (99%)	0.35	3 (3%) 52 47	49, 60, 69, 70	0
38	1g	155/156 (99%)	0.82	8 (5%) 33 27	59, 67, 75, 81	0
38	2g	155/156 (99%)	1.10	18 (11%) 9 7	64, 72, 78, 82	0
39	1h	137/138 (99%)	0.53	2 (1%) 72 68	50, 61, 67, 72	0
39	2h	137/138 (99%)	0.68	2 (1%) 72 68	54, 63, 69, 74	0
40	1i	127/128 (99%)	1.75	50 (39%) 1 0	58, 75, 80, 85	0
40	2i	126/128 (98%)	1.89	55 (43%) 0 0	64, 77, 81, 83	0
41	1j	97/105 (92%)	1.71	29 (29%) 1 1	62, 75, 83, 88	0
41	2j	96/105 (91%)	2.11	46 (47%) 0 0	69, 78, 84, 86	0
42	1k	114/129 (88%)	0.51	6 (5%) 32 26	37, 57, 69, 77	0
42	2k	114/129 (88%)	0.67	4 (3%) 47 41	47, 61, 73, 76	0
43	1l	121/132 (91%)	0.36	1 (0%) 82 80	42, 52, 63, 69	0
43	2l	121/132 (91%)	0.51	3 (2%) 58 52	46, 57, 66, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/126 (92%)	0.99	12 (10%) 12 9	56, 68, 75, 81	0
44	2m	114/126 (90%)	1.27	14 (12%) 8 6	69, 75, 80, 83	0
45	1n	60/61 (98%)	1.18	7 (11%) 9 7	61, 69, 72, 74	0
45	2n	60/61 (98%)	1.83	22 (36%) 1 0	69, 75, 80, 82	0
46	1o	88/89 (98%)	0.55	5 (5%) 29 24	44, 61, 73, 76	0
46	2o	88/89 (98%)	0.58	4 (4%) 38 32	48, 61, 71, 76	0
47	1p	82/88 (93%)	1.22	11 (13%) 7 5	54, 65, 74, 80	0
47	2p	82/88 (93%)	0.89	7 (8%) 16 13	52, 62, 71, 75	0
48	1q	99/105 (94%)	0.68	2 (2%) 65 60	50, 61, 70, 77	0
48	2q	99/105 (94%)	0.52	2 (2%) 65 60	48, 61, 69, 73	0
49	1r	68/88 (77%)	0.55	3 (4%) 39 33	49, 60, 74, 77	0
49	2r	68/88 (77%)	0.47	1 (1%) 72 68	51, 59, 71, 74	0
50	1s	83/93 (89%)	1.28	19 (22%) 2 2	57, 71, 80, 84	0
50	2s	83/93 (89%)	1.62	25 (30%) 1 1	70, 77, 83, 87	0
51	1t	96/106 (90%)	1.01	11 (11%) 9 7	55, 65, 74, 77	0
51	2t	98/106 (92%)	0.87	9 (9%) 14 11	52, 61, 74, 75	0
52	1u	23/27 (85%)	1.49	4 (17%) 4 3	63, 67, 72, 74	0
52	2u	23/27 (85%)	2.21	13 (56%) 0 0	70, 75, 77, 83	0
53	1y	97/113 (85%)	0.48	5 (5%) 33 27	45, 57, 66, 75	0
53	2y	96/113 (84%)	1.20	14 (14%) 6 4	61, 68, 76, 80	0
54	1z	18/18 (100%)	0.97	2 (11%) 10 8	58, 65, 76, 77	0
54	2z	18/18 (100%)	1.35	6 (33%) 1 1	68, 74, 83, 83	0
All	All	20802/21504 (96%)	0.30	1392 (6%) 24 19	16, 56, 81, 101	0

All (1392) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1064	C	9.3
45	2n	2	ALA	8.2
1	1A	1076	C	8.0
1	2A	2174	C	7.9
1	2A	2173	A	7.9
1	2A	2124	G	7.6
45	1n	2	ALA	7.4

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Mol	Chain	Res	Type	RSRZ
1	2A	2125	G	7.3
1	1A	2117	A	7.2
1	1A	1087	G	7.2
1	1A	1074	G	7.1
1	2A	2147	G	7.1
1	1A	1075	C	6.9
1	1A	2173	A	6.6
1	2A	1067	A	6.6
24	12	70	GLN	6.6
1	2A	2172	U	6.5
1	2A	2793	G	6.4
1	1A	2176	A	6.4
1	1A	2123	G	6.3
1	2A	2176	A	6.2
3	1D	276	LYS	6.2
1	1A	2161	C	6.1
32	1a	1001	A	6.1
1	1A	2172	U	6.1
1	2A	2896	C	6.1
1	2A	2802	G	6.1
1	1A	1086	A	6.1
1	1A	2174	C	6.0
1	1A	2805	G	6.0
1	2A	2118	U	6.0
1	2A	2175	C	5.9
32	2a	1030(B)	C	5.9
1	1A	1091	G	5.9
1	2A	2803	C	5.9
1	1A	1077	A	5.9
1	1A	2125	G	5.8
1	1A	1063	G	5.8
1	2A	1085	A	5.8
1	2A	2162	G	5.8
53	1y	98	ALA	5.7
1	2A	2148	G	5.7
1	1A	2793	G	5.7
1	2A	2116	G	5.7
1	2A	1095	A	5.6
32	1a	1493	A	5.6
1	1A	1081	U	5.6
1	1A	1089	G	5.6
53	2y	98	ALA	5.6

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Mol	Chain	Res	Type	RSRZ
1	1A	1066	U	5.6
51	2t	6	PRO	5.6
32	2a	1030(A)	G	5.5
1	1A	1092	C	5.5
1	2A	2120	G	5.5
1	1A	2804	C	5.5
40	2i	11	LYS	5.4
1	2A	2804	C	5.4
1	1A	1057	A	5.4
1	1A	1067	A	5.4
1	1A	1072	C	5.4
1	2A	1046	A	5.3
1	1A	1104	C	5.3
1	1A	2116	G	5.3
1	1A	1078	U	5.3
1	1A	2147	G	5.2
32	1a	1003	G	5.2
1	2A	2602	A	5.2
1	2A	2126	A	5.2
1	2A	1076	C	5.2
1	2A	2138	C	5.2
1	2A	1091	G	5.1
1	2A	2160	G	5.1
1	2A	1064	C	5.1
1	2A	1536	C	5.1
15	2T	131	ALA	5.1
1	2A	2110	G	5.1
1	2A	1070	A	5.1
1	1A	1093	G	5.1
1	2A	2146	C	5.1
1	2A	2161	C	5.1
1	1A	1083	U	5.0
1	1A	1079	C	5.0
1	1A	1102	C	5.0
1	1A	2803	C	5.0
26	24	45	GLY	5.0
26	24	49	PHE	5.0
1	1A	2108	C	5.0
32	1a	1001(A)	G	5.0
26	24	56	VAL	5.0
1	2A	2119	A	4.9
32	2a	1036	G	4.9

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Mol	Chain	Res	Type	RSRZ
1	2A	6	A	4.9
1	1A	2129	C	4.9
1	2A	2111	C	4.9
1	2A	2894	G	4.9
1	2A	2897	U	4.9
1	2A	2107	C	4.9
1	2A	2171	A	4.9
44	1m	2	ALA	4.8
1	2A	2145	C	4.8
1	2A	2179	C	4.8
32	1a	1029	C	4.8
32	1a	1030(B)	C	4.8
1	2A	1082	U	4.8
1	1A	1103	A	4.8
15	1T	131	ALA	4.8
32	1a	1002	G	4.8
41	2j	36	GLY	4.8
1	2A	1066	U	4.7
1	1A	2111	C	4.7
1	1A	1065	U	4.7
1	1A	2112	G	4.7
32	1a	1036	G	4.7
1	1A	2119	A	4.7
1	1A	2109	U	4.7
32	1a	1028	C	4.7
40	1i	128	ARG	4.7
1	1A	1084	A	4.7
1	1A	2160	G	4.7
1	2A	2165	G	4.6
1	2A	2109	U	4.6
1	2A	2130	U	4.6
5	1F	208	GLY	4.6
1	2A	2108	C	4.6
1	2A	2136	C	4.6
1	1A	2124	G	4.6
1	2A	2121	G	4.6
1	2A	2123	G	4.6
32	1a	1030(A)	G	4.6
23	11	2	SER	4.6
23	21	2	SER	4.6
44	2m	102	ARG	4.6
1	1A	1062	G	4.6

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Mol	Chain	Res	Type	RSRZ
1	1A	1082	U	4.6
1	1A	1085	A	4.5
26	24	65	ASP	4.5
1	1A	2162	G	4.5
1	2A	2154	G	4.5
1	2A	2139	C	4.5
32	1a	1027	C	4.5
20	1Y	92	ASN	4.5
51	1t	103	GLY	4.5
1	2A	1071	G	4.5
1	1A	1080	C	4.4
32	2a	1286	A	4.4
1	1A	2144	U	4.4
1	2A	1072	C	4.4
1	2A	1092	C	4.4
1	1A	1088	A	4.4
40	2i	126	SER	4.4
26	14	63	TYR	4.4
1	1A	1090	U	4.4
1	2A	652(B)	A	4.4
32	1a	1000	U	4.4
50	1s	13	ASP	4.4
1	1A	1071	G	4.4
1	1A	1176	G	4.4
1	1A	2110	G	4.4
32	2a	1001(A)	G	4.4
32	1a	1286	A	4.3
1	1A	2175	C	4.3
1	1A	1073	A	4.3
6	2G	146	TYR	4.3
7	1H	2	SER	4.3
15	1T	130	ALA	4.3
33	2b	237	ALA	4.3
1	2A	2122	U	4.3
1	2A	2137	C	4.3
32	2a	1027	C	4.3
1	1A	2135	A	4.3
32	2a	1040	U	4.3
1	1A	2128	C	4.3
1	1A	2148	G	4.3
1	2A	614(B)	G	4.3
1	2A	2128	C	4.3

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Mol	Chain	Res	Type	RSRZ
32	2a	1026	G	4.3
36	2e	21	ALA	4.2
1	2A	2170	A	4.2
1	1A	1058	G	4.2
1	2A	2127	G	4.2
32	1a	1026	G	4.2
32	1a	65	U	4.2
1	1A	2794	C	4.2
32	2a	1256	A	4.2
1	2A	2893	G	4.2
32	2a	1030(C)	G	4.2
1	2A	1083	U	4.1
1	2A	1084	A	4.1
1	1A	2136	C	4.1
41	1j	32	ALA	4.1
41	2j	75	ILE	4.1
1	1A	2115	G	4.1
32	1a	630	G	4.1
1	1A	2118	U	4.1
1	1A	2126	A	4.1
32	2a	1028	C	4.1
33	1b	127	ILE	4.1
33	1b	229	VAL	4.1
1	2A	2133	G	4.0
32	2a	1002	G	4.0
1	1A	2113	U	4.0
33	1b	237	ALA	4.0
52	2u	9	ARG	4.0
26	14	56	VAL	4.0
1	1A	888	C	4.0
1	1A	2107	C	4.0
1	1A	2145	C	4.0
6	2G	45	GLU	4.0
52	2u	2	GLY	4.0
1	2A	1089	G	4.0
1	1A	2602	A	4.0
42	1k	25	TYR	4.0
41	2j	72	VAL	4.0
1	1A	1105	U	4.0
1	1A	2150	U	4.0
1	1A	2166	G	3.9
1	2A	2792	G	3.9

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Mol	Chain	Res	Type	RSRZ
32	1a	1031	G	3.9
32	2a	1032	G	3.9
40	2i	102	LEU	3.9
40	2i	5	TYR	3.9
32	1a	1257	U	3.9
33	1b	232	PRO	3.9
6	2G	35	GLU	3.9
1	1A	2127	G	3.9
1	2A	2115	G	3.9
1	2A	2140	C	3.9
1	1A	1101	U	3.9
44	1m	102	ARG	3.9
32	1a	1041	A	3.9
32	1a	1030	C	3.9
1	1A	1099	G	3.8
1	1A	2168	G	3.8
1	2A	2106	G	3.8
1	2A	2112	G	3.8
6	1G	76	SER	3.8
41	2j	32	ALA	3.8
1	2A	2794	C	3.8
1	1A	2167	U	3.8
32	2a	1257	U	3.8
41	2j	79	ARG	3.8
1	1A	1068	G	3.8
1	2A	2153	G	3.8
1	2A	2805	G	3.8
32	2a	1003	G	3.8
32	2a	1031	G	3.8
1	1A	2169	A	3.8
1	2A	2129	C	3.8
40	1i	46	ALA	3.8
33	1b	7	VAL	3.8
41	2j	34	VAL	3.8
1	1A	1069	A	3.8
1	1A	2134	A	3.8
1	1A	2171	A	3.8
1	1A	2894	G	3.8
1	2A	2168	G	3.8
33	2b	236	TYR	3.8
1	1A	1053	C	3.8
34	2c	207	VAL	3.8

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Mol	Chain	Res	Type	RSRZ
1	2A	2169	A	3.7
6	2G	43	LEU	3.7
1	1A	2138	C	3.7
15	1T	37	GLY	3.7
40	2i	10	ARG	3.7
41	2j	46	ARG	3.7
26	24	50	VAL	3.7
33	2b	136	VAL	3.7
1	2A	653	A	3.7
34	1c	2	GLY	3.7
1	2A	2180	U	3.7
32	1a	1040	U	3.7
1	1A	2141	G	3.7
32	1a	1024	G	3.7
40	2i	2	GLU	3.7
26	24	67	TYR	3.7
40	1i	106	ALA	3.7
40	2i	9	ARG	3.7
1	1A	1046	A	3.7
1	2A	2135	A	3.7
1	1A	12	U	3.7
20	2Y	1	MET	3.7
35	1d	179	GLU	3.7
1	2A	2182	G	3.7
32	2a	1039	C	3.7
38	2g	156	TRP	3.7
3	2D	276	LYS	3.7
33	1b	236	TYR	3.7
1	1A	2170	A	3.6
32	1a	1030(C)	G	3.6
32	2a	1037	C	3.6
18	1W	112	GLY	3.6
40	1i	102	LEU	3.6
1	1A	271(K)	U	3.6
1	1A	1070	A	3.6
1	2A	2892	A	3.6
1	2A	11	G	3.6
1	2A	2181	G	3.6
32	1a	1032	G	3.6
42	1k	14	VAL	3.6
33	2b	121	LEU	3.6
52	2u	24	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
41	2j	76	ASN	3.6
1	2A	1057	A	3.6
6	2G	2	PRO	3.6
34	1c	87	LEU	3.6
1	1A	2146	C	3.6
1	1A	2159	G	3.6
32	2a	1034	G	3.6
40	2i	125	TYR	3.6
47	1p	82	GLN	3.6
6	2G	52	ILE	3.5
32	1a	1007	C	3.5
1	1A	2149	G	3.5
1	1A	2792	G	3.5
1	1A	2893	G	3.5
1	2A	2152	G	3.5
40	1i	21	PRO	3.5
41	2j	37	PRO	3.5
8	1I	147	GLN	3.5
26	24	66	SER	3.5
1	1A	2139	C	3.5
1	2A	2177	C	3.5
32	2a	1149	C	3.5
1	2A	2149	G	3.5
1	2A	2895	U	3.5
26	14	52	THR	3.5
21	1Z	51	ALA	3.5
40	1i	85	LEU	3.5
40	2i	65	VAL	3.5
1	1A	2143	C	3.5
1	2A	1509	C	3.5
32	2a	1038	C	3.5
1	1A	2155	G	3.5
1	1A	2132	U	3.5
26	24	44	THR	3.5
41	2j	55	LYS	3.5
1	1A	2892	A	3.5
32	1a	1492	A	3.5
32	2a	1030(D)	A	3.5
33	2b	97	TRP	3.5
1	2A	2105	C	3.4
51	2t	7	LYS	3.4
1	1A	2153	G	3.4

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Mol	Chain	Res	Type	RSRZ
1	2A	2155	G	3.4
32	1a	1034	G	3.4
32	2a	1033	G	3.4
1	2A	2801(A)	A	3.4
54	1z	17	ARG	3.4
29	27	48	LYS	3.4
45	2n	17	LYS	3.4
1	2A	1075	C	3.4
1	2A	2163	C	3.4
32	2a	1029	C	3.4
51	2t	103	GLY	3.4
40	1i	91	ASP	3.4
51	1t	10	LEU	3.4
1	2A	2167	U	3.4
1	1A	1056	G	3.4
32	1a	79	G	3.4
1	2A	1096	A	3.4
32	2a	1447	A	3.4
32	2a	1492	A	3.4
53	1y	2	THR	3.4
15	2T	130	ALA	3.4
50	1s	12	ASP	3.4
1	1A	1100	C	3.4
1	1A	2130	U	3.4
1	2A	2113	U	3.4
26	24	63	TYR	3.4
1	1A	2133	G	3.4
1	2A	2807	G	3.4
32	1a	1023	G	3.4
1	1A	887	A	3.4
1	2A	229	A	3.4
32	2a	1493	A	3.4
36	2e	22	GLY	3.4
53	2y	97	ALA	3.4
38	1g	156	TRP	3.3
34	1c	47	LEU	3.3
50	2s	2	PRO	3.3
1	1A	2158	A	3.3
1	2A	2117	A	3.3
1	1A	10	G	3.3
32	1a	1033	G	3.3
40	2i	127	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
53	2y	8	LYS	3.3
1	2A	1097	U	3.3
2	1B	1	U	3.3
40	2i	7	THR	3.3
1	1A	2163	C	3.3
21	2Z	58	VAL	3.3
1	1A	6	A	3.3
1	1A	2114	A	3.3
1	2A	652(U)	G	3.3
1	2A	2159	G	3.3
1	2A	2186	G	3.3
40	1i	14	VAL	3.3
44	2m	116	THR	3.3
1	2A	652(T)	C	3.2
1	2A	2103	C	3.2
1	2A	2143	C	3.2
1	2A	2178	C	3.2
32	1a	1037	C	3.2
1	2A	887	A	3.2
32	1a	1447	A	3.2
40	2i	103	THR	3.2
36	2e	20	GLN	3.2
50	2s	84	GLY	3.2
6	1G	50	ALA	3.2
1	1A	2151	G	3.2
33	2b	7	VAL	3.2
34	1c	207	VAL	3.2
26	24	55	ARG	3.2
1	2A	34	C	3.2
41	2j	86	MET	3.2
42	2k	13	GLN	3.2
41	1j	27	ALA	3.2
49	1r	20	ALA	3.2
42	2k	117	ASN	3.2
34	1c	62	ASP	3.2
1	1A	11	G	3.2
51	1t	8	ARG	3.2
2	2B	1	U	3.2
33	1b	10	LEU	3.2
33	2b	99	GLY	3.2
40	1i	125	TYR	3.2
32	2a	1001	A	3.2

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Mol	Chain	Res	Type	RSRZ
33	2b	21	ARG	3.2
33	2b	133	LYS	3.2
52	2u	23	PRO	3.2
1	1A	1097	U	3.2
1	1A	2152	G	3.2
1	1A	2165	G	3.2
1	2A	2144	U	3.2
32	1a	1025	U	3.2
44	1m	116	THR	3.2
6	2G	50	ALA	3.2
32	2a	1006	C	3.1
38	1g	153	HIS	3.1
6	2G	151	ALA	3.1
32	2a	1025	U	3.1
38	2g	83	ALA	3.1
40	2i	13	ALA	3.1
7	2H	45	VAL	3.1
43	1l	18	VAL	3.1
1	1A	2120	G	3.1
1	2A	1087	G	3.1
1	2A	2100	G	3.1
6	2G	53	LEU	3.1
1	2A	2101	G	3.1
1	2A	1080	C	3.1
32	2a	1030	C	3.1
6	1G	52	ILE	3.1
1	1A	2790	A	3.1
33	1b	97	TRP	3.1
29	17	48	LYS	3.1
40	1i	17	VAL	3.1
40	1i	56	LEU	3.1
1	2A	10	G	3.1
1	2A	2206	G	3.1
26	24	19	GLY	3.1
26	24	61	ARG	3.1
1	1A	2177	C	3.1
6	2G	149	VAL	3.1
40	1i	18	PHE	3.1
40	2i	17	VAL	3.1
32	2a	1005	A	3.0
26	14	67	TYR	3.0
41	2j	78	ASN	3.0

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Mol	Chain	Res	Type	RSRZ
4	2E	204	ALA	3.0
53	2y	3	MET	3.0
33	2b	70	PHE	3.0
33	2b	163	PHE	3.0
32	2a	630	G	3.0
32	2a	1021	G	3.0
50	2s	71	LEU	3.0
1	1A	34	C	3.0
1	1A	2896	C	3.0
33	1b	125	PRO	3.0
41	1j	77	PRO	3.0
40	2i	105	ASP	3.0
47	2p	82	GLN	3.0
1	2A	9	U	3.0
1	2A	2808	U	3.0
41	1j	31	GLY	3.0
45	2n	38	GLY	3.0
33	2b	231	GLU	3.0
32	1a	78	G	3.0
1	2A	885	C	3.0
1	2A	2789	C	3.0
32	2a	999	C	3.0
1	1A	548	A	3.0
1	1A	1095	A	3.0
1	2A	2158	A	3.0
50	1s	15	LEU	3.0
40	1i	126	SER	3.0
7	2H	21	PRO	3.0
40	2i	64	THR	3.0
40	2i	72	GLY	3.0
32	1a	200	G	3.0
32	2a	1009	G	3.0
32	2a	1023	G	3.0
1	1A	889	C	3.0
1	1A	2137	C	3.0
1	2A	1109	C	3.0
1	2A	2164	C	3.0
1	1A	1096	A	3.0
1	1A	2629	A	3.0
1	2A	1073	A	3.0
1	2A	2629	A	3.0
41	2j	83	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
38	1g	154	TYR	2.9
38	2g	154	TYR	2.9
6	2G	118	ARG	2.9
35	1d	3	ARG	2.9
40	2i	66	ARG	2.9
41	1j	87	THR	2.9
33	2b	123	ALA	2.9
41	1j	34	VAL	2.9
1	1A	2131	G	2.9
1	2A	1063	G	2.9
32	1a	163	C	2.9
32	1a	1039	C	2.9
50	1s	14	HIS	2.9
1	2A	1086	A	2.9
33	1b	133	LYS	2.9
1	1A	1175	U	2.9
1	2A	1090	U	2.9
32	1a	202	U	2.9
42	1k	13	GLN	2.9
19	2X	68	ARG	2.9
38	1g	84	ASN	2.9
4	1E	204	ALA	2.9
40	2i	106	ALA	2.9
32	1a	1035	A	2.9
38	2g	115	ARG	2.9
1	1A	2156	G	2.9
1	1A	2802	G	2.9
32	1a	1020	U	2.9
6	2G	147	ASP	2.9
26	14	51	ASP	2.9
41	2j	87	THR	2.9
33	1b	123	ALA	2.9
19	1X	95	LEU	2.9
39	2h	112	LEU	2.9
50	1s	9	VAL	2.9
50	2s	15	LEU	2.9
12	2Q	59	ARG	2.9
1	1A	1061	U	2.9
1	1A	2122	U	2.9
1	1A	2164	C	2.9
1	2A	2102	U	2.9
1	2A	2114	A	2.9

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Mol	Chain	Res	Type	RSRZ
32	2a	1041	A	2.9
34	2c	25	GLY	2.9
36	2e	133	TYR	2.9
1	2A	1537	G	2.9
32	2a	1010	G	2.9
20	2Y	91	GLU	2.8
7	2H	41	MET	2.8
35	2d	5	ILE	2.8
41	1j	4	ILE	2.8
26	14	64	GLY	2.8
26	24	51	ASP	2.8
52	2u	18	TYR	2.8
6	2G	145	THR	2.8
1	1A	9	U	2.8
26	14	59	PHE	2.8
32	1a	1004	A	2.8
32	1a	1005	A	2.8
1	2A	652(C)	G	2.8
1	2A	1533	G	2.8
1	2A	2190	G	2.8
1	2A	2319	G	2.8
21	2Z	4	ARG	2.8
32	1a	1131	G	2.8
51	2t	86	ARG	2.8
33	2b	127	ILE	2.8
40	2i	81	ILE	2.8
42	1k	36	ASP	2.8
33	1b	33	TYR	2.8
40	1i	62	TYR	2.8
40	2i	62	TYR	2.8
41	2j	26	ALA	2.8
53	1y	97	ALA	2.8
7	2H	44	VAL	2.8
41	1j	72	VAL	2.8
7	1H	6	ARG	2.8
38	2g	79	ARG	2.8
46	2o	68	ARG	2.8
1	1A	2142	C	2.8
33	2b	222	ILE	2.8
1	2A	2104	G	2.8
6	1G	46	ALA	2.8
6	2G	28	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
21	2Z	192	ALA	2.8
45	1n	16	PHE	2.8
25	23	2	PRO	2.8
26	24	13	ARG	2.8
29	17	47	ARG	2.8
38	2g	4	ARG	2.8
24	22	70	GLN	2.8
32	2a	1148	U	2.8
1	1A	2801(A)	A	2.8
1	2A	886	C	2.8
50	1s	4	SER	2.8
40	1i	6	GLY	2.8
50	2s	16	LEU	2.8
54	1z	18	GLY	2.8
54	2z	18	GLY	2.8
17	2V	22	VAL	2.8
21	1Z	192	ALA	2.8
40	1i	61	ALA	2.8
40	1i	86	VAL	2.8
40	2i	12	GLU	2.8
1	1A	275	G	2.8
1	1A	2157	G	2.8
1	2A	2166	G	2.8
34	1c	193	TYR	2.8
40	1i	20	ARG	2.8
47	1p	75	ARG	2.8
41	2j	33	GLN	2.7
1	1A	2102	U	2.7
1	2A	1081	U	2.7
32	1a	203	U	2.7
41	2j	40	LEU	2.7
41	2j	71	LEU	2.7
26	24	17	GLY	2.7
52	2u	16	GLY	2.7
1	2A	652(V)	C	2.7
1	2A	888	C	2.7
1	2A	1079	C	2.7
1	2A	2142	C	2.7
6	2G	54	GLU	2.7
14	2S	46	VAL	2.7
26	24	57	GLU	2.7
32	2a	1018	C	2.7

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Mol	Chain	Res	Type	RSRZ
40	1i	15	ALA	2.7
40	2i	14	VAL	2.7
38	1g	85	TYR	2.7
51	2t	98	PRO	2.7
33	2b	95	GLN	2.7
1	1A	2182	G	2.7
1	1A	2190	G	2.7
1	2A	545	G	2.7
1	2A	2151	G	2.7
40	2i	115	GLY	2.7
41	1j	76	ASN	2.7
8	2I	146	ALA	2.7
40	2i	59	PHE	2.7
40	2i	91	ASP	2.7
45	2n	10	ALA	2.7
47	1p	41	PRO	2.7
33	2b	148	TYR	2.7
1	1A	886	C	2.7
1	1A	1509	C	2.7
1	1A	2178	C	2.7
32	2a	1119	C	2.7
6	2G	34	LEU	2.7
1	1A	2206	G	2.7
32	1a	77	G	2.7
23	21	83	GLU	2.7
41	1j	78	ASN	2.7
26	24	59	PHE	2.7
41	2j	58	ASP	2.7
41	2j	63	PHE	2.7
53	2y	53	THR	2.7
1	2A	1060	U	2.7
33	2b	22	LYS	2.7
35	1d	169	LYS	2.7
40	1i	127	LYS	2.7
40	2i	21	PRO	2.7
45	1n	15	LYS	2.7
52	1u	23	PRO	2.7
53	2y	45	PRO	2.7
32	2a	1004	A	2.7
41	2j	98	ILE	2.7
32	1a	201	C	2.7
32	1a	219	C	2.7

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Mol	Chain	Res	Type	RSRZ
32	2a	1325	C	2.7
21	1Z	1	MET	2.7
41	1j	8	LEU	2.7
33	2b	19	HIS	2.7
14	2S	17	ARG	2.7
33	1b	94	ASN	2.7
33	2b	124	SER	2.7
38	2g	84	ASN	2.7
20	2Y	89	PHE	2.7
33	2b	229	VAL	2.7
45	2n	33	VAL	2.7
1	1A	1042	G	2.6
1	1A	2154	G	2.6
1	1A	2207	G	2.6
1	2A	2157	G	2.6
32	2a	993	G	2.6
32	2a	1013	G	2.6
32	2a	1094	G	2.6
1	1A	1094	U	2.6
26	14	32	TYR	2.6
32	1a	162	A	2.6
40	2i	104	ARG	2.6
41	1j	5	ARG	2.6
41	1j	79	ARG	2.6
50	2s	47	HIS	2.6
6	1G	48	GLU	2.6
20	2Y	93	GLY	2.6
26	14	54	GLY	2.6
26	24	64	GLY	2.6
1	1A	2103	C	2.6
32	1a	1019	C	2.6
21	2Z	191	VAL	2.6
29	27	45	ALA	2.6
40	2i	15	ALA	2.6
41	1j	35	SER	2.6
52	2u	5	ASP	2.6
41	1j	74	ILE	2.6
44	1m	4	ILE	2.6
47	1p	19	ILE	2.6
1	2A	362	U	2.6
1	2A	1058	G	2.6
1	2A	1094	U	2.6

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Mol	Chain	Res	Type	RSRZ
1	2A	2132	U	2.6
1	2A	2150	U	2.6
1	2A	2189	U	2.6
32	1a	841	U	2.6
14	2S	32	LEU	2.6
41	2j	88	LEU	2.6
11	2P	15	ARG	2.6
52	1u	22	ARG	2.6
41	1j	83	GLU	2.6
1	1A	1098	A	2.6
1	1A	1460	A	2.6
32	1a	1256	A	2.6
14	2S	61	ASN	2.6
26	14	49	PHE	2.6
35	1d	195	ALA	2.6
40	2i	18	PHE	2.6
49	2r	20	ALA	2.6
1	1A	2179	C	2.6
41	1j	6	ILE	2.6
41	2j	38	ILE	2.6
7	2H	171	LEU	2.6
40	1i	19	LEU	2.6
41	1j	85	LEU	2.6
40	1i	104	ARG	2.6
32	2a	1281	U	2.6
34	2c	26	LYS	2.6
1	1A	2121	G	2.6
1	2A	2131	G	2.6
33	2b	93	VAL	2.6
38	2g	80	VAL	2.6
40	2i	123	PRO	2.6
49	1r	24	ALA	2.6
51	2t	9	ASN	2.6
34	2c	192	THR	2.6
50	2s	48	THR	2.6
35	2d	158	ILE	2.6
14	2S	58	LEU	2.6
32	2a	1019	C	2.6
20	2Y	55	TYR	2.6
38	2g	5	ARG	2.6
53	2y	44	GLU	2.6
44	2m	100	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
1	1A	2897	U	2.6
32	1a	173	U	2.6
32	1a	204	U	2.6
32	2a	1219	U	2.6
40	2i	94	ALA	2.6
46	2o	60	VAL	2.6
1	1A	2181	G	2.5
1	2A	1056	G	2.5
32	1a	156	G	2.5
32	1a	181	G	2.5
32	1a	183	G	2.5
32	1a	1022	G	2.5
7	2H	136	ILE	2.5
34	1c	77	ILE	2.5
1	2A	1088	A	2.5
41	1j	65	LEU	2.5
7	2H	175	LYS	2.5
33	2b	132	LYS	2.5
45	2n	34	TYR	2.5
52	1u	18	TYR	2.5
33	2b	134	GLU	2.5
1	1A	2140	C	2.5
32	1a	1043	C	2.5
8	1I	90	GLY	2.5
50	1s	68	GLY	2.5
41	2j	41	PRO	2.5
38	2g	2	ALA	2.5
40	1i	94	ALA	2.5
40	1i	7	THR	2.5
41	2j	42	THR	2.5
44	1m	105	THR	2.5
1	1A	1963	U	2.5
1	2A	1065	U	2.5
32	2a	1020	U	2.5
32	2a	1446	U	2.5
20	2Y	90	LEU	2.5
23	11	26	ARG	2.5
35	2d	115	ARG	2.5
38	2g	76	ARG	2.5
40	1i	66	ARG	2.5
45	2n	3	ARG	2.5
50	1s	3	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
52	1u	9	ARG	2.5
1	2A	1171	G	2.5
1	1A	229	A	2.5
32	1a	149	A	2.5
40	2i	114	TYR	2.5
50	1s	84	GLY	2.5
40	1i	90	PRO	2.5
45	2n	18	VAL	2.5
40	1i	52	ALA	2.5
45	2n	30	ALA	2.5
1	2A	1104	C	2.5
32	1a	92	C	2.5
21	1Z	132	ASN	2.5
41	2j	35	SER	2.5
50	2s	4	SER	2.5
20	2Y	34	LYS	2.5
6	2G	82	LEU	2.5
6	1G	146	TYR	2.5
44	2m	24	GLY	2.5
50	2s	68	GLY	2.5
40	2i	98	PRO	2.5
41	2j	91	PRO	2.5
1	1A	1045	A	2.5
1	1A	1047	G	2.5
1	1A	2191	G	2.5
1	2A	171	G	2.5
1	2A	1068	G	2.5
32	1a	1030(D)	A	2.5
32	2a	1130	A	2.5
33	1b	15	VAL	2.5
50	2s	9	VAL	2.5
33	1b	17	PHE	2.5
36	2e	45	PHE	2.5
26	24	52	THR	2.5
41	2j	67	THR	2.5
51	1t	11	SER	2.5
1	2A	1049	C	2.5
32	1a	217	C	2.5
32	1a	1038	C	2.5
32	2a	202	U	2.5
32	2a	1000	U	2.5
35	1d	124	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
33	1b	131	PRO	2.5
36	2e	10	MET	2.5
50	1s	2	PRO	2.5
20	2Y	57	GLN	2.5
29	17	45	ALA	2.5
41	2j	54	PHE	2.5
1	2A	1045	A	2.4
32	2a	1092	A	2.4
38	2g	27	ILE	2.4
40	2i	99	LEU	2.4
1	1A	1055	G	2.4
1	1A	1106	G	2.4
1	2A	1074	G	2.4
32	2a	1042	G	2.4
32	2a	1202	G	2.4
32	2a	1255	G	2.4
33	1b	140	HIS	2.4
25	23	60	GLU	2.4
1	1A	1584	C	2.4
1	1A	2188	C	2.4
32	2a	470	C	2.4
1	2A	614(A)	U	2.4
7	2H	22	GLY	2.4
32	2a	1235	U	2.4
35	2d	167	GLY	2.4
40	1i	8	GLY	2.4
44	2m	113	PRO	2.4
34	2c	48	TYR	2.4
34	2c	201	TYR	2.4
34	1c	135	LYS	2.4
45	2n	4	LYS	2.4
45	1n	20	ALA	2.4
45	2n	16	PHE	2.4
45	2n	13	THR	2.4
46	2o	88	ARG	2.4
11	1P	99	LEU	2.4
33	1b	213	LEU	2.4
34	2c	182	ILE	2.4
38	2g	16	LEU	2.4
48	1q	98	LEU	2.4
1	2A	1913	A	2.4
32	1a	160	A	2.4

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Mol	Chain	Res	Type	RSRZ
32	1a	1183	A	2.4
32	2a	1067	A	2.4
35	2d	156	GLU	2.4
1	1A	2100	G	2.4
1	2A	2156	G	2.4
6	2G	44	GLY	2.4
23	21	78	LYS	2.4
34	2c	135	LYS	2.4
1	2A	645	C	2.4
6	2G	41	GLN	2.4
32	2a	1260	C	2.4
40	1i	92	TYR	2.4
21	2Z	164	ALA	2.4
38	1g	2	ALA	2.4
44	2m	11	ARG	2.4
51	1t	66	ALA	2.4
40	2i	19	LEU	2.4
41	1j	71	LEU	2.4
41	2j	65	LEU	2.4
41	2j	100	THR	2.4
52	2u	13	ILE	2.4
33	2b	40	HIS	2.4
26	14	66	SER	2.4
33	1b	129	GLU	2.4
50	2s	34	TRP	2.4
32	2a	1035	A	2.4
18	2W	112	GLY	2.4
20	2Y	53	PRO	2.4
34	1c	27	LYS	2.4
50	2s	18	LYS	2.4
26	24	54	GLY	2.4
33	1b	38	GLY	2.4
33	2b	165	VAL	2.4
40	2i	108	VAL	2.4
47	1p	2	VAL	2.4
1	2A	2141	G	2.4
1	2A	2318	G	2.4
26	24	32	TYR	2.4
32	1a	1011	G	2.4
33	2b	17	PHE	2.4
44	1m	59	TYR	2.4
44	2m	87	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
45	2n	20	ALA	2.4
46	1o	88	ARG	2.4
33	1b	11	LEU	2.4
45	1n	7	ILE	2.4
46	2o	3	ILE	2.4
50	2s	22	LEU	2.4
1	1A	154(A)	C	2.4
32	1a	182	U	2.4
50	2s	31	ILE	2.4
32	2a	972	C	2.4
35	2d	152	SER	2.4
50	2s	27	GLU	2.4
33	1b	132	LYS	2.4
33	1b	227	GLY	2.4
23	21	26	ARG	2.4
44	1m	3	ARG	2.4
44	2m	88	ARG	2.4
47	2p	75	ARG	2.4
52	2u	15	ARG	2.4
32	2a	1357	A	2.4
44	2m	42	ALA	2.4
37	1f	19	LEU	2.3
41	1j	90	LEU	2.3
33	2b	185	ILE	2.3
33	2b	214	ILE	2.3
34	2c	152	ILE	2.3
44	2m	37	THR	2.3
21	2Z	121	HIS	2.3
34	2c	3	ASN	2.3
32	1a	90	U	2.3
32	1a	1021	G	2.3
32	1a	1135	U	2.3
32	2a	1024	G	2.3
1	2A	277	C	2.3
3	2D	38	LYS	2.3
32	2a	980	C	2.3
32	2a	1249	C	2.3
32	2a	1354	C	2.3
41	2j	30	SER	2.3
48	2q	100	LYS	2.3
15	1T	129	ARG	2.3
24	22	9	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
40	1i	39	GLY	2.3
39	2h	122	ARG	2.3
41	1j	33	GLN	2.3
9	2N	140	VAL	2.3
40	2i	28	VAL	2.3
45	1n	18	VAL	2.3
34	2c	10	PHE	2.3
45	2n	6	LEU	2.3
1	2A	1048	A	2.3
32	1a	171	A	2.3
47	1p	43	LYS	2.3
1	1A	1026	U	2.3
32	1a	220	G	2.3
32	1a	1042	G	2.3
1	1A	645	C	2.3
1	2A	2183	C	2.3
1	2A	2185	C	2.3
2	2B	88	C	2.3
26	14	55	ARG	2.3
32	1a	345	C	2.3
35	1d	132	ARG	2.3
35	2d	131	ARG	2.3
38	1g	4	ARG	2.3
38	2g	32	ARG	2.3
40	1i	67	GLY	2.3
53	1y	95	ARG	2.3
26	24	35	VAL	2.3
49	1r	86	VAL	2.3
6	2G	57	ALA	2.3
33	1b	225	ALA	2.3
33	2b	44	LEU	2.3
40	1i	13	ALA	2.3
41	2j	85	LEU	2.3
53	1y	94	ALA	2.3
51	1t	55	ILE	2.3
51	2t	100	ILE	2.3
50	2s	61	TYR	2.3
41	2j	7	LYS	2.3
44	1m	115	LYS	2.3
41	2j	19	SER	2.3
33	1b	234	PRO	2.3
45	2n	14	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
45	2n	31	ARG	2.3
47	1p	81	ARG	2.3
50	2s	42	PRO	2.3
33	1b	228	GLY	2.3
35	1d	180	GLY	2.3
53	2y	9	GLN	2.3
53	2y	46	GLN	2.3
32	2a	992	U	2.3
32	2a	1012	U	2.3
21	1Z	191	VAL	2.3
40	1i	53	VAL	2.3
40	1i	65	VAL	2.3
50	1s	19	VAL	2.3
33	2b	10	LEU	2.3
34	1c	101	LEU	2.3
50	1s	71	LEU	2.3
1	1A	1173	G	2.3
6	2G	88	ILE	2.3
32	1a	999	C	2.3
32	1a	1010	G	2.3
32	2a	1011	G	2.3
32	2a	1017	G	2.3
34	2c	5	ILE	2.3
35	1d	5	ILE	2.3
32	1a	1140	C	2.3
32	1a	1249	C	2.3
40	1i	58	HIS	2.3
6	1G	75	LYS	2.3
53	2y	87	LYS	2.3
7	2H	36	PRO	2.3
26	24	29	PRO	2.3
38	2g	14	PRO	2.3
40	1i	16	ARG	2.3
40	1i	42	ARG	2.3
40	1i	83	ARG	2.3
52	2u	6	ARG	2.3
32	1a	1285	A	2.3
40	2i	73	GLN	2.3
6	2G	29	TRP	2.3
33	2b	228	GLY	2.3
42	2k	118	GLY	2.3
52	2u	14	TRP	2.3

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Mol	Chain	Res	Type	RSRZ
33	2b	230	VAL	2.3
43	2l	55	VAL	2.3
41	2j	47	PHE	2.3
1	1A	362	U	2.2
32	2a	1125	U	2.2
41	2j	82	ILE	2.2
42	1k	60	ALA	2.2
45	2n	59	ALA	2.2
9	2N	10	GLU	2.2
11	2P	149	GLU	2.2
34	2c	193	TYR	2.2
35	1d	4	TYR	2.2
47	2p	38	TYR	2.2
32	1a	1452	C	2.2
32	2a	1128	C	2.2
1	2A	7	G	2.2
1	2A	1062	G	2.2
1	2A	2207	G	2.2
1	2A	2751	G	2.2
32	2a	1117	G	2.2
6	1G	83	ARG	2.2
41	1j	46	ARG	2.2
52	2u	10	ARG	2.2
26	14	60	GLN	2.2
40	1i	57	GLY	2.2
40	2i	6	GLY	2.2
52	2u	11	GLY	2.2
26	14	50	VAL	2.2
33	1b	136	VAL	2.2
33	2b	187	LEU	2.2
33	2b	196	LEU	2.2
34	2c	75	VAL	2.2
34	2c	130	VAL	2.2
35	1d	170	VAL	2.2
38	2g	9	VAL	2.2
1	1A	1913	A	2.2
1	2A	1098	A	2.2
21	2Z	78	LYS	2.2
33	2b	39	ILE	2.2
33	2b	122	PHE	2.2
41	2j	68	HIS	2.2
44	2m	36	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
51	2t	38	LYS	2.2
54	2z	11	PHE	2.2
50	2s	66	MET	2.2
21	1Z	203	GLU	2.2
50	2s	63	THR	2.2
50	2s	64	GLU	2.2
42	1k	75	TYR	2.2
15	2T	112	ARG	2.2
35	2d	35	ARG	2.2
50	2s	29	ARG	2.2
21	2Z	68	PRO	2.2
40	1i	98	PRO	2.2
32	1a	1006	C	2.2
32	2a	848	C	2.2
6	2G	42	GLY	2.2
6	2G	150	ASP	2.2
38	1g	55	GLY	2.2
53	2y	64	SER	2.2
1	2A	1047	G	2.2
1	2A	1170	G	2.2
40	2i	47	LEU	2.2
34	2c	76	VAL	2.2
40	2i	78	LYS	2.2
40	2i	86	VAL	2.2
43	2l	23	LYS	2.2
45	2n	61	TRP	2.2
47	1p	48	TRP	2.2
50	1s	34	TRP	2.2
51	1t	100	ILE	2.2
6	2G	48	GLU	2.2
33	2b	67	THR	2.2
40	1i	2	GLU	2.2
1	2A	2134	A	2.2
32	1a	152	A	2.2
1	1A	2189	U	2.2
1	2A	271(K)	U	2.2
1	2A	2506	U	2.2
50	1s	29	ARG	2.2
40	1i	5	TYR	2.2
40	2i	4	TYR	2.2
47	1p	38	TYR	2.2
33	2b	78	GLN	2.2

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Mol	Chain	Res	Type	RSRZ
34	2c	107	GLN	2.2
6	2G	182	LYS	2.2
34	2c	62	ASP	2.2
40	1i	78	LYS	2.2
47	2p	60	LEU	2.2
51	1t	96	GLY	2.2
34	1c	68	VAL	2.2
34	2c	151	VAL	2.2
1	2A	884	C	2.2
6	2G	20	ILE	2.2
6	2G	77	ILE	2.2
12	2Q	104	PHE	2.2
32	1a	1141	C	2.2
36	2e	129	ILE	2.2
8	2I	63	ALA	2.2
41	1j	20	ALA	2.2
1	1A	2106	G	2.2
32	1a	198	G	2.2
32	2a	998	G	2.2
34	2c	95	THR	2.2
40	1i	64	THR	2.2
29	27	47	ARG	2.2
34	1c	190	ARG	2.2
40	2i	42	ARG	2.2
41	1j	43	ARG	2.2
54	2z	17	ARG	2.2
1	2A	1069	A	2.2
1	2A	1847	A	2.2
25	13	2	PRO	2.2
32	2a	1280	A	2.2
40	2i	92	TYR	2.2
47	1p	17	TYR	2.2
1	2A	272(A)	U	2.2
32	1a	1446	U	2.2
35	1d	201	GLN	2.2
43	2l	17	LYS	2.2
6	2G	3	LEU	2.2
44	1m	100	GLY	2.2
45	2n	39	LEU	2.2
6	2G	76	SER	2.2
7	2H	17	VAL	2.2
14	2S	28	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
21	1Z	52	SER	2.2
33	1b	214	ILE	2.2
41	1j	44	VAL	2.2
44	2m	4	ILE	2.2
47	2p	19	ILE	2.2
33	1b	62	ALA	2.1
11	2P	98	GLU	2.1
3	2D	262	ARG	2.1
21	1Z	131	ARG	2.1
26	24	68	ARG	2.1
32	1a	1137	C	2.1
41	2j	43	ARG	2.1
1	1A	2833	G	2.1
1	2A	2187	G	2.1
32	1a	1139	G	2.1
32	2a	1022	G	2.1
32	2a	1138	G	2.1
40	1i	49	PRO	2.1
41	2j	77	PRO	2.1
46	1o	19	PRO	2.1
35	1d	166	LYS	2.1
40	2i	29	ASN	2.1
37	2f	4	TYR	2.1
39	1h	94	TYR	2.1
40	1i	4	TYR	2.1
40	2i	97	LYS	2.1
41	2j	84	GLN	2.1
51	1t	68	LYS	2.1
19	2X	92	LEU	2.1
40	2i	40	LEU	2.1
40	2i	100	GLY	2.1
6	2G	157	ILE	2.1
42	2k	36	ASP	2.1
53	2y	60	VAL	2.1
54	2z	4	SER	2.1
34	2c	128	PHE	2.1
34	2c	100	ALA	2.1
47	2p	7	ALA	2.1
50	1s	24	ALA	2.1
51	1t	67	ALA	2.1
35	1d	168	ARG	2.1
40	1i	10	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
50	2s	81	ARG	2.1
40	2i	118	LYS	2.1
44	1m	113	PRO	2.1
54	2z	3	LYS	2.1
1	1A	1532	C	2.1
2	1B	3	C	2.1
32	1a	48	C	2.1
32	1a	67	C	2.1
32	1a	218	C	2.1
32	1a	848	C	2.1
32	2a	1452	C	2.1
6	2G	12	TYR	2.1
6	2G	139	LEU	2.1
37	1f	100	ASN	2.1
44	2m	59	TYR	2.1
31	29	21	GLY	2.1
34	1c	25	GLY	2.1
41	2j	31	GLY	2.1
44	2m	78	ILE	2.1
45	2n	7	ILE	2.1
46	1o	3	ILE	2.1
47	1p	16	HIS	2.1
1	2A	1044	G	2.1
31	29	16	VAL	2.1
32	1a	1134	G	2.1
32	2a	68	G	2.1
35	1d	88	VAL	2.1
6	2G	141	PHE	2.1
33	2b	105	PHE	2.1
41	1j	54	PHE	2.1
50	1s	35	SER	2.1
1	1A	271(N)	U	2.1
1	1A	2506	U	2.1
1	2A	8	A	2.1
1	2A	12	U	2.1
32	2a	532	A	2.1
34	2c	24	ALA	2.1
40	2i	43	ALA	2.1
53	2y	21	ALA	2.1
8	2I	60	GLU	2.1
34	2c	161	GLU	2.1
20	2Y	50	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
46	1o	68	ARG	2.1
48	1q	91	ARG	2.1
50	2s	79	THR	2.1
6	2G	74	LYS	2.1
45	2n	11	LYS	2.1
33	2b	48	MET	2.1
39	1h	2	LEU	2.1
40	1i	99	LEU	2.1
50	1s	23	ASN	2.1
7	2H	120	GLY	2.1
41	2j	93	GLY	2.1
50	2s	14	HIS	2.1
51	1t	69	GLY	2.1
1	1A	2183	C	2.1
7	2H	19	VAL	2.1
21	2Z	105	VAL	2.1
32	2a	1277	C	2.1
32	2a	1359	C	2.1
33	2b	200	ILE	2.1
36	2e	13	ILE	2.1
40	2i	37	PHE	2.1
7	2H	3	ARG	2.1
22	20	11	ARG	2.1
29	17	23	ARG	2.1
34	2c	206	GLU	2.1
35	2d	73	ARG	2.1
40	2i	111	ARG	2.1
41	1j	28	ARG	2.1
1	1A	363	G	2.1
1	1A	2104	G	2.1
1	1A	2807	G	2.1
1	1A	1420	U	2.1
1	2A	405	U	2.1
3	1D	38	LYS	2.1
7	1H	175	LYS	2.1
32	2a	1182	G	2.1
32	1a	1148	U	2.1
32	2a	975	A	2.1
32	2a	1044	A	2.1
32	2a	1093	A	2.1
32	2a	1123	A	2.1
45	2n	22	THR	2.1

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Mol	Chain	Res	Type	RSRZ
7	2H	118	PRO	2.1
3	1D	37	LEU	2.1
19	2X	95	LEU	2.1
34	2c	34	LEU	2.1
34	2c	42	LEU	2.1
34	2c	43	LEU	2.1
46	1o	57	LEU	2.1
51	2t	10	LEU	2.1
40	1i	89	ASN	2.1
34	2c	2	GLY	2.1
41	2j	52	GLY	2.1
50	1s	57	HIS	2.1
53	2y	92	GLY	2.1
14	2S	36	TYR	2.1
44	1m	117	VAL	2.1
50	2s	45	VAL	2.1
38	2g	43	PHE	2.1
7	2H	6	ARG	2.0
12	1Q	5	ARG	2.0
33	2b	88	ALA	2.0
34	1c	71	ALA	2.0
34	2c	92	ALA	2.0
36	2e	113	ALA	2.0
40	2i	61	ALA	2.0
45	1n	30	ALA	2.0
32	2a	1007	C	2.0
32	2a	1141	C	2.0
41	2j	57	LYS	2.0
54	2z	2	LYS	2.0
5	2F	172	TRP	2.0
6	2G	100	TRP	2.0
20	1Y	1	MET	2.0
20	2Y	106	LEU	2.0
32	1a	1278	U	2.0
32	2a	5	U	2.0
32	2a	1159	U	2.0
1	2A	890	A	2.0
1	2A	1050	A	2.0
1	2A	1111	A	2.0
32	1a	66	G	2.0
32	1a	93	G	2.0
32	1a	143	A	2.0

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Mol	Chain	Res	Type	RSRZ
8	2I	71	ILE	2.0
34	2c	77	ILE	2.0
41	1j	75	ILE	2.0
50	1s	26	GLY	2.0
35	1d	121	VAL	2.0
37	2f	6	VAL	2.0
37	2f	90	VAL	2.0
38	2g	44	TYR	2.0
26	14	48	ARG	2.0
33	1b	226	ARG	2.0
33	2b	79	ASP	2.0
40	1i	105	ASP	2.0
21	2Z	14	LYS	2.0
5	1F	14	PRO	2.0
26	24	11	PRO	2.0
44	1m	63	THR	2.0
1	1A	1052	C	2.0
1	1A	2791	C	2.0
16	1U	117	GLN	2.0
20	1Y	57	GLN	2.0
32	1a	1129	C	2.0
32	1a	1354	C	2.0
32	2a	1008	C	2.0
32	2a	1118	C	2.0
33	2b	142	LEU	2.0
48	2q	98	LEU	2.0
47	2p	16	HIS	2.0
1	1A	2099	U	2.0
1	2A	1108	U	2.0
32	2a	1136	U	2.0
35	2d	180	GLY	2.0
1	2A	1077	A	2.0
7	2H	169	VAL	2.0
26	14	58	ARG	2.0
32	1a	344	A	2.0
32	2a	1157	A	2.0
33	1b	197	VAL	2.0
33	2b	137	ARG	2.0
35	1d	178	VAL	2.0
35	2d	92	VAL	2.0
41	2j	45	ARG	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MU	2A	1915	21/22	0.85	0.11	68,75,79,92	0
1	5MU	1A	1915	21/22	0.86	0.12	65,76,82,86	0
32	2MG	2a	1207	24/25	0.89	0.12	71,75,81,84	0
1	PSU	1A	1917	20/21	0.90	0.12	56,65,71,77	0
32	5MC	2a	967	21/22	0.91	0.14	58,65,76,82	0
32	M2G	2a	966	25/26	0.91	0.14	55,64,75,76	0
1	PSU	1A	1911	20/21	0.92	0.10	55,61,66,67	0
32	G7M	2a	527	24/25	0.93	0.11	53,59,63,65	0
32	2MG	1a	1207	24/25	0.93	0.10	60,68,72,75	0
1	PSU	2A	1911	20/21	0.93	0.08	56,60,74,78	0
32	5MC	1a	967	21/22	0.93	0.11	56,62,71,77	0
32	4OC	2a	1402	22/23	0.93	0.10	47,51,57,62	0
1	PSU	2A	1917	20/21	0.94	0.07	57,66,72,77	0
32	M2G	1a	966	25/26	0.94	0.10	54,58,63,68	0
43	0TD	2l	92	10/11	0.94	0.10	52,57,60,65	0
32	PSU	1a	516	20/21	0.95	0.10	50,59,64,68	0
32	G7M	1a	527	24/25	0.95	0.10	43,52,54,57	0
32	PSU	2a	516	20/21	0.95	0.08	63,67,73,74	0
43	0TD	1l	92	10/11	0.96	0.09	49,51,56,58	0
1	OMC	1A	1920	21/22	0.96	0.09	47,52,56,60	0
32	5MC	1a	1400	21/22	0.96	0.09	47,53,57,61	0
32	5MC	1a	1407	21/22	0.96	0.10	39,46,51,53	0
32	5MC	2a	1400	21/22	0.96	0.10	49,60,64,68	0
1	5MC	2A	1962	21/22	0.96	0.08	31,39,45,54	0
32	5MC	2a	1404	21/22	0.96	0.08	41,48,51,54	0
32	UR3	2a	1498	21/22	0.96	0.09	47,51,54,60	0
32	MA6	2a	1518	24/25	0.96	0.09	41,52,55,57	0
32	UR3	1a	1498	21/22	0.96	0.10	40,46,48,60	0
32	5MC	1a	1404	21/22	0.97	0.07	39,43,46,48	0
1	5MC	1A	1942	21/22	0.97	0.07	25,32,35,40	0
1	5MC	1A	1962	21/22	0.97	0.07	25,32,37,44	0
1	OMC	2A	1920	21/22	0.97	0.08	52,57,60,61	0
1	5MC	2A	1942	21/22	0.97	0.07	39,44,50,51	0
32	MA6	1a	1518	24/25	0.97	0.08	36,41,46,46	0
32	5MC	2a	1407	21/22	0.97	0.07	43,50,55,58	0
1	PSU	2A	2605	20/21	0.97	0.07	28,32,36,40	0
32	MA6	1a	1519	24/25	0.97	0.09	37,42,46,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	MA6	2a	1519	24/25	0.97	0.09	47,50,55,59	0
32	4OC	1a	1402	22/23	0.97	0.09	47,50,55,58	0
1	OMU	1A	2552	21/22	0.98	0.08	23,26,28,33	0
1	OMG	2A	2251	24/25	0.98	0.09	28,34,37,40	0
1	2MA	2A	2503	23/24	0.98	0.06	20,27,30,32	0
1	OMU	2A	2552	21/22	0.98	0.07	27,34,38,39	0
1	PSU	1A	2605	20/21	0.98	0.07	21,23,29,31	0
1	5MU	1A	1939	21/22	0.98	0.08	20,24,26,28	0
1	OMG	1A	2251	24/25	0.98	0.06	20,23,27,28	0
1	5MU	2A	1939	21/22	0.98	0.07	27,31,34,35	0
1	2MA	1A	2503	23/24	0.98	0.06	15,19,22,24	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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1B	230	1/1	0.24	0.28	86,86,86,86	0
55	MG	1A	3751	1/1	0.33	0.24	64,64,64,64	0
55	MG	1A	3893	1/1	0.35	0.25	48,48,48,48	0
55	MG	2A	3347	1/1	0.36	0.25	80,80,80,80	0
55	MG	2a	3173	1/1	0.40	0.27	82,82,82,82	0
55	MG	1a	3115	1/1	0.47	0.25	86,86,86,86	0
55	MG	1a	3201	1/1	0.50	0.29	79,79,79,79	0
55	MG	1A	3645	1/1	0.53	0.28	60,60,60,60	0
55	MG	2a	3123	1/1	0.54	0.29	74,74,74,74	0
55	MG	1a	3199	1/1	0.54	0.32	81,81,81,81	0
55	MG	2A	3083	1/1	0.56	0.19	75,75,75,75	0
55	MG	1A	3756	1/1	0.57	0.42	60,60,60,60	0
55	MG	2a	3176	1/1	0.57	0.29	75,75,75,75	0
55	MG	2A	3242	1/1	0.58	0.28	79,79,79,79	0
55	MG	1a	3207	1/1	0.58	0.33	81,81,81,81	0
55	MG	2A	3693	1/1	0.58	0.20	77,77,77,77	0
55	MG	1a	3059	1/1	0.59	0.24	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3292	1/1	0.59	0.16	80,80,80,80	0
55	MG	2a	3039	1/1	0.61	0.18	83,83,83,83	0
55	MG	2A	3428	1/1	0.61	0.21	52,52,52,52	0
55	MG	1A	3693	1/1	0.62	0.15	76,76,76,76	0
55	MG	1a	3150	1/1	0.63	0.25	60,60,60,60	0
55	MG	2a	3072	1/1	0.63	0.19	70,70,70,70	0
55	MG	2A	3631	1/1	0.63	0.20	68,68,68,68	0
55	MG	1a	3170	1/1	0.63	0.31	68,68,68,68	0
55	MG	2A	3702	1/1	0.63	0.18	57,57,57,57	0
55	MG	2a	3128	1/1	0.64	0.26	65,65,65,65	0
55	MG	2A	3116	1/1	0.64	0.18	73,73,73,73	0
55	MG	1A	3798	1/1	0.64	0.30	61,61,61,61	0
55	MG	1A	3519	1/1	0.65	0.22	59,59,59,59	0
55	MG	1A	3971	1/1	0.65	0.30	88,88,88,88	0
55	MG	1a	3041	1/1	0.66	0.27	69,69,69,69	0
55	MG	1A	3997	1/1	0.66	0.35	35,35,35,35	0
55	MG	1a	3160	1/1	0.66	0.37	73,73,73,73	0
55	MG	1A	3835	1/1	0.67	0.23	56,56,56,56	0
55	MG	2a	3033	1/1	0.67	0.36	69,69,69,69	0
55	MG	1A	3994	1/1	0.67	0.28	81,81,81,81	0
55	MG	1a	3154	1/1	0.67	0.17	56,56,56,56	0
55	MG	2A	3129	1/1	0.68	0.27	64,64,64,64	0
55	MG	1A	3974	1/1	0.68	0.21	63,63,63,63	0
55	MG	2a	3048	1/1	0.68	0.27	73,73,73,73	0
55	MG	2A	3585	1/1	0.68	0.19	68,68,68,68	0
55	MG	2a	3066	1/1	0.69	0.16	82,82,82,82	0
55	MG	2A	3639	1/1	0.69	0.47	58,58,58,58	0
55	MG	1a	3253	1/1	0.69	0.17	69,69,69,69	0
55	MG	2G	203	1/1	0.70	0.18	74,74,74,74	0
55	MG	2a	3107	1/1	0.70	0.21	86,86,86,86	0
55	MG	1a	3216	1/1	0.70	0.20	66,66,66,66	0
55	MG	2A	3144	1/1	0.70	0.22	73,73,73,73	0
55	MG	2a	3150	1/1	0.70	0.28	87,87,87,87	0
55	MG	2A	3477	1/1	0.70	0.34	80,80,80,80	0
55	MG	1A	3652	1/1	0.70	0.26	70,70,70,70	0
55	MG	1A	4023	1/1	0.71	0.19	46,46,46,46	0
55	MG	2A	3527	1/1	0.71	0.24	75,75,75,75	0
55	MG	2A	3532	1/1	0.71	0.24	78,78,78,78	0
55	MG	2A	3538	1/1	0.71	0.20	69,69,69,69	0
55	MG	1A	3699	1/1	0.71	0.16	56,56,56,56	0
55	MG	2A	3368	1/1	0.71	0.26	65,65,65,65	0
55	MG	1A	3909	1/1	0.71	0.18	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3237	1/1	0.72	0.17	58,58,58,58	0
55	MG	1a	3238	1/1	0.72	0.45	81,81,81,81	0
55	MG	1A	3686	1/1	0.72	0.18	69,69,69,69	0
55	MG	1A	3359	1/1	0.72	0.19	54,54,54,54	0
55	MG	1D	317	1/1	0.73	0.20	42,42,42,42	0
55	MG	1N	203	1/1	0.73	0.14	55,55,55,55	0
55	MG	1A	3725	1/1	0.73	0.17	54,54,54,54	0
55	MG	1A	3275	1/1	0.73	0.40	63,63,63,63	0
55	MG	1A	3813	1/1	0.73	0.24	80,80,80,80	0
55	MG	2a	3063	1/1	0.73	0.35	83,83,83,83	0
55	MG	2A	3223	1/1	0.73	0.24	71,71,71,71	0
55	MG	2A	3627	1/1	0.74	0.18	87,87,87,87	0
55	MG	2A	3105	1/1	0.74	0.39	64,64,64,64	0
55	MG	1A	3639	1/1	0.74	0.31	33,33,33,33	0
55	MG	1a	3246	1/1	0.74	0.18	73,73,73,73	0
55	MG	1a	3159	1/1	0.74	0.29	77,77,77,77	0
55	MG	2A	3183	1/1	0.74	0.14	68,68,68,68	0
55	MG	2A	3049	1/1	0.74	0.24	70,70,70,70	0
55	MG	2A	3224	1/1	0.74	0.18	63,63,63,63	0
55	MG	1A	3839	1/1	0.74	0.19	49,49,49,49	0
55	MG	1a	3079	1/1	0.75	0.20	63,63,63,63	0
55	MG	2A	3745	1/1	0.75	0.16	71,71,71,71	0
55	MG	2G	202	1/1	0.75	0.22	81,81,81,81	0
55	MG	1A	3894	1/1	0.75	0.18	58,58,58,58	0
55	MG	2A	3458	1/1	0.75	0.24	64,64,64,64	0
55	MG	1A	3762	1/1	0.75	0.21	54,54,54,54	0
55	MG	1A	3337	1/1	0.75	0.21	64,64,64,64	0
55	MG	2A	3063	1/1	0.75	0.24	67,67,67,67	0
55	MG	2j	201	1/1	0.75	0.14	77,77,77,77	0
55	MG	2A	3262	1/1	0.76	0.26	66,66,66,66	0
55	MG	1a	3108	1/1	0.76	0.15	79,79,79,79	0
55	MG	2A	3359	1/1	0.76	0.25	77,77,77,77	0
55	MG	1a	3179	1/1	0.76	0.15	87,87,87,87	0
55	MG	1A	3823	1/1	0.76	0.25	76,76,76,76	0
55	MG	1A	3643	1/1	0.76	0.42	35,35,35,35	0
55	MG	2A	3470	1/1	0.76	0.16	50,50,50,50	0
55	MG	1A	4007	1/1	0.76	0.17	53,53,53,53	0
55	MG	2A	3490	1/1	0.76	0.15	63,63,63,63	0
55	MG	2a	3065	1/1	0.76	0.29	61,61,61,61	0
55	MG	1A	3644	1/1	0.76	0.17	65,65,65,65	0
55	MG	2a	3071	1/1	0.76	0.27	67,67,67,67	0
55	MG	1a	3222	1/1	0.76	0.15	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3080	1/1	0.76	0.29	70,70,70,70	0
55	MG	1A	3667	1/1	0.76	0.26	58,58,58,58	0
55	MG	2A	3579	1/1	0.76	0.19	54,54,54,54	0
55	MG	1a	3161	1/1	0.76	0.26	69,69,69,69	0
55	MG	1a	3162	1/1	0.76	0.15	58,58,58,58	0
55	MG	2A	3230	1/1	0.76	0.14	51,51,51,51	0
55	MG	1a	3166	1/1	0.76	0.27	64,64,64,64	0
55	MG	2A	3665	1/1	0.76	0.15	74,74,74,74	0
55	MG	1A	3568	1/1	0.77	0.21	59,59,59,59	0
55	MG	2A	3412	1/1	0.77	0.19	57,57,57,57	0
55	MG	1a	3003	1/1	0.77	0.47	74,74,74,74	0
55	MG	2A	3436	1/1	0.77	0.28	37,37,37,37	0
55	MG	1b	301	1/1	0.77	0.22	73,73,73,73	0
55	MG	2A	3464	1/1	0.77	0.14	74,74,74,74	0
55	MG	1A	3681	1/1	0.77	0.19	66,66,66,66	0
55	MG	1B	216	1/1	0.77	0.15	56,56,56,56	0
55	MG	2a	3108	1/1	0.77	0.22	61,61,61,61	0
55	MG	2A	3479	1/1	0.77	0.24	65,65,65,65	0
55	MG	1B	222	1/1	0.77	0.14	40,40,40,40	0
55	MG	2a	3135	1/1	0.77	0.20	71,71,71,71	0
55	MG	1A	3851	1/1	0.77	0.20	73,73,73,73	0
55	MG	21	101	1/1	0.77	0.15	80,80,80,80	0
55	MG	1A	3952	1/1	0.77	0.23	52,52,52,52	0
55	MG	1a	3140	1/1	0.77	0.25	78,78,78,78	0
57	MPD	1T	206	8/8	0.77	0.24	60,70,72,74	0
55	MG	1A	3534	1/1	0.78	0.11	44,44,44,44	0
55	MG	2A	3510	1/1	0.78	0.18	59,59,59,59	0
55	MG	11	104	1/1	0.78	0.14	53,53,53,53	0
55	MG	1a	3270	1/1	0.78	0.14	65,65,65,65	0
55	MG	1a	3273	1/1	0.78	0.18	68,68,68,68	0
55	MG	2A	3280	1/1	0.78	0.25	76,76,76,76	0
55	MG	1a	3151	1/1	0.78	0.15	65,65,65,65	0
55	MG	1o	101	1/1	0.78	0.27	68,68,68,68	0
55	MG	1A	3243	1/1	0.78	0.23	72,72,72,72	0
55	MG	1A	3579	1/1	0.78	0.18	40,40,40,40	0
55	MG	1A	3853	1/1	0.78	0.16	50,50,50,50	0
55	MG	1a	3218	1/1	0.78	0.36	69,69,69,69	0
55	MG	1A	3419	1/1	0.78	0.16	66,66,66,66	0
55	MG	2A	3721	1/1	0.78	0.26	85,85,85,85	0
55	MG	1a	3226	1/1	0.78	0.19	89,89,89,89	0
55	MG	1a	3230	1/1	0.78	0.17	48,48,48,48	0
55	MG	1A	3162	1/1	0.78	0.28	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3189	1/1	0.78	0.19	74,74,74,74	0
55	MG	1H	201	1/1	0.78	0.20	64,64,64,64	0
55	MG	2a	3005	1/1	0.78	0.24	61,61,61,61	0
55	MG	2a	3046	1/1	0.79	0.28	72,72,72,72	0
55	MG	1A	3152	1/1	0.79	0.21	74,74,74,74	0
55	MG	1A	3515	1/1	0.79	0.12	52,52,52,52	0
55	MG	2A	3637	1/1	0.79	0.21	61,61,61,61	0
55	MG	2A	3476	1/1	0.79	0.14	65,65,65,65	0
55	MG	2A	3337	1/1	0.79	0.20	57,57,57,57	0
55	MG	1r	101	1/1	0.79	0.18	62,62,62,62	0
55	MG	2A	3024	1/1	0.79	0.17	69,69,69,69	0
55	MG	2a	3089	1/1	0.79	0.30	66,66,66,66	0
55	MG	2A	3706	1/1	0.79	0.18	61,61,61,61	0
55	MG	1a	3172	1/1	0.79	0.21	63,63,63,63	0
55	MG	2A	3512	1/1	0.79	0.18	66,66,66,66	0
55	MG	2B	210	1/1	0.79	0.26	51,51,51,51	0
55	MG	2D	308	1/1	0.79	0.21	63,63,63,63	0
55	MG	2A	3369	1/1	0.79	0.14	71,71,71,71	0
55	MG	1A	3576	1/1	0.79	0.28	70,70,70,70	0
55	MG	1A	3737	1/1	0.79	0.18	54,54,54,54	0
55	MG	2A	3555	1/1	0.79	0.22	69,69,69,69	0
55	MG	1A	3311	1/1	0.79	0.20	81,81,81,81	0
55	MG	2p	101	1/1	0.79	0.34	62,62,62,62	0
55	MG	2A	3247	1/1	0.79	0.14	62,62,62,62	0
55	MG	1D	315	1/1	0.80	0.10	61,61,61,61	0
55	MG	1a	3148	1/1	0.80	0.19	73,73,73,73	0
55	MG	1y	203	1/1	0.80	0.18	70,70,70,70	0
55	MG	1A	3692	1/1	0.80	0.18	76,76,76,76	0
55	MG	2A	3044	1/1	0.80	0.30	64,64,64,64	0
55	MG	2A	3047	1/1	0.80	0.24	67,67,67,67	0
55	MG	2A	3552	1/1	0.80	0.12	45,45,45,45	0
55	MG	2A	3355	1/1	0.80	0.21	69,69,69,69	0
55	MG	1A	3300	1/1	0.80	0.11	48,48,48,48	0
55	MG	2a	3067	1/1	0.80	0.24	69,69,69,69	0
55	MG	2a	3070	1/1	0.80	0.15	65,65,65,65	0
55	MG	1A	3792	1/1	0.80	0.26	65,65,65,65	0
55	MG	2A	3587	1/1	0.80	0.14	49,49,49,49	0
55	MG	1A	3880	1/1	0.80	0.17	33,33,33,33	0
55	MG	1A	3600	1/1	0.80	0.17	56,56,56,56	0
55	MG	2A	3415	1/1	0.80	0.23	66,66,66,66	0
55	MG	2A	3420	1/1	0.80	0.12	76,76,76,76	0
55	MG	2A	3423	1/1	0.80	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3040	1/1	0.80	0.17	73,73,73,73	0
55	MG	1A	4008	1/1	0.80	0.10	98,98,98,98	0
55	MG	2A	3441	1/1	0.80	0.18	66,66,66,66	0
55	MG	1A	3421	1/1	0.80	0.15	63,63,63,63	0
55	MG	2A	3173	1/1	0.80	0.20	82,82,82,82	0
55	MG	1A	3509	1/1	0.80	0.20	47,47,47,47	0
55	MG	1a	3090	1/1	0.80	0.23	49,49,49,49	0
55	MG	1A	3189	1/1	0.80	0.29	73,73,73,73	0
55	MG	1A	3969	1/1	0.80	0.18	60,60,60,60	0
55	MG	2W	203	1/1	0.81	0.21	70,70,70,70	0
55	MG	1a	3231	1/1	0.81	0.24	67,67,67,67	0
55	MG	2A	3516	1/1	0.81	0.24	56,56,56,56	0
55	MG	2a	3025	1/1	0.81	0.15	68,68,68,68	0
55	MG	2A	3344	1/1	0.81	0.18	63,63,63,63	0
55	MG	1a	3084	1/1	0.81	0.38	67,67,67,67	0
55	MG	2A	3097	1/1	0.81	0.31	67,67,67,67	0
55	MG	1E	307	1/1	0.81	0.15	52,52,52,52	0
55	MG	2a	3060	1/1	0.81	0.23	70,70,70,70	0
55	MG	1A	3926	1/1	0.81	0.15	27,27,27,27	0
55	MG	2a	3064	1/1	0.81	0.19	55,55,55,55	0
55	MG	1A	3932	1/1	0.81	0.21	59,59,59,59	0
55	MG	1a	3138	1/1	0.81	0.20	52,52,52,52	0
55	MG	2A	3162	1/1	0.81	0.22	69,69,69,69	0
55	MG	2A	3418	1/1	0.81	0.14	46,46,46,46	0
55	MG	1A	3096	1/1	0.81	0.19	57,57,57,57	0
55	MG	2A	3632	1/1	0.81	0.12	55,55,55,55	0
55	MG	1A	3383	1/1	0.81	0.19	55,55,55,55	0
55	MG	2A	3191	1/1	0.81	0.23	61,61,61,61	0
55	MG	2a	3096	1/1	0.81	0.20	67,67,67,67	0
55	MG	2A	3212	1/1	0.81	0.33	73,73,73,73	0
55	MG	2A	3691	1/1	0.81	0.11	56,56,56,56	0
55	MG	1A	3216	1/1	0.81	0.27	64,64,64,64	0
55	MG	1A	3559	1/1	0.81	0.17	54,54,54,54	0
55	MG	2A	3227	1/1	0.81	0.25	58,58,58,58	0
55	MG	1A	3147	1/1	0.81	0.26	60,60,60,60	0
55	MG	2a	3155	1/1	0.81	0.14	79,79,79,79	0
55	MG	2a	3171	1/1	0.81	0.14	62,62,62,62	0
55	MG	1a	3066	1/1	0.81	0.23	73,73,73,73	0
55	MG	1a	3223	1/1	0.81	0.27	70,70,70,70	0
55	MG	1A	3165	1/1	0.81	0.18	61,61,61,61	0
55	MG	2A	3264	1/1	0.81	0.19	63,63,63,63	0
55	MG	1a	3081	1/1	0.81	0.16	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2P	201	1/1	0.81	0.14	52,52,52,52	0
55	MG	2A	3461	1/1	0.82	0.14	68,68,68,68	0
55	MG	1a	3256	1/1	0.82	0.14	57,57,57,57	0
55	MG	2A	3467	1/1	0.82	0.14	58,58,58,58	0
55	MG	2A	3174	1/1	0.82	0.14	52,52,52,52	0
55	MG	1a	3269	1/1	0.82	0.16	71,71,71,71	0
55	MG	1A	3377	1/1	0.82	0.18	61,61,61,61	0
55	MG	1A	3295	1/1	0.82	0.20	62,62,62,62	0
55	MG	1a	3277	1/1	0.82	0.25	66,66,66,66	0
55	MG	2A	3504	1/1	0.82	0.17	66,66,66,66	0
55	MG	2A	3505	1/1	0.82	0.19	58,58,58,58	0
55	MG	1A	3808	1/1	0.82	0.45	48,48,48,48	0
55	MG	1e	204	1/1	0.82	0.29	58,58,58,58	0
55	MG	2A	3229	1/1	0.82	0.28	55,55,55,55	0
55	MG	1A	3242	1/1	0.82	0.11	60,60,60,60	0
55	MG	1A	3584	1/1	0.82	0.25	52,52,52,52	0
55	MG	2A	3537	1/1	0.82	0.18	61,61,61,61	0
55	MG	1a	3112	1/1	0.82	0.15	71,71,71,71	0
55	MG	2A	3010	1/1	0.82	0.36	58,58,58,58	0
55	MG	1A	3309	1/1	0.82	0.18	70,70,70,70	0
55	MG	1a	3135	1/1	0.82	0.20	53,53,53,53	0
55	MG	1A	3601	1/1	0.82	0.14	48,48,48,48	0
55	MG	1A	3684	1/1	0.82	0.13	63,63,63,63	0
55	MG	1A	3431	1/1	0.82	0.19	52,52,52,52	0
55	MG	1A	3862	1/1	0.82	0.20	66,66,66,66	0
55	MG	2A	3090	1/1	0.82	0.11	79,79,79,79	0
55	MG	2a	3112	1/1	0.82	0.19	66,66,66,66	0
55	MG	2A	3093	1/1	0.82	0.26	67,67,67,67	0
55	MG	1A	3999	1/1	0.82	0.20	36,36,36,36	0
55	MG	1A	4000	1/1	0.82	0.41	52,52,52,52	0
55	MG	2A	3108	1/1	0.82	0.12	62,62,62,62	0
55	MG	1A	3766	1/1	0.82	0.14	40,40,40,40	0
55	MG	2A	3121	1/1	0.82	0.21	71,71,71,71	0
55	MG	1A	3772	1/1	0.82	0.18	58,58,58,58	0
55	MG	2A	3133	1/1	0.82	0.31	55,55,55,55	0
55	MG	2A	3137	1/1	0.82	0.24	65,65,65,65	0
55	MG	2B	207	1/1	0.82	0.15	66,66,66,66	0
55	MG	1A	4021	1/1	0.82	0.33	37,37,37,37	0
55	MG	1a	3068	1/1	0.82	0.18	64,64,64,64	0
55	MG	1A	3577	1/1	0.83	0.14	57,57,57,57	0
55	MG	2A	3531	1/1	0.83	0.20	60,60,60,60	0
55	MG	2a	3022	1/1	0.83	0.29	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3181	1/1	0.83	0.10	53,53,53,53	0
55	MG	2A	3533	1/1	0.83	0.14	52,52,52,52	0
55	MG	2A	3387	1/1	0.83	0.10	43,43,43,43	0
55	MG	1a	3104	1/1	0.83	0.20	66,66,66,66	0
55	MG	1a	3011	1/1	0.83	0.24	64,64,64,64	0
55	MG	2A	3192	1/1	0.83	0.14	67,67,67,67	0
55	MG	2a	3062	1/1	0.83	0.26	68,68,68,68	0
55	MG	2A	3205	1/1	0.83	0.40	65,65,65,65	0
55	MG	1a	3029	1/1	0.83	0.24	58,58,58,58	0
55	MG	1A	3960	1/1	0.83	0.14	45,45,45,45	0
55	MG	1a	3134	1/1	0.83	0.10	57,57,57,57	0
55	MG	2A	3440	1/1	0.83	0.15	45,45,45,45	0
55	MG	1A	3964	1/1	0.83	0.16	68,68,68,68	0
55	MG	1a	3189	1/1	0.83	0.17	60,60,60,60	0
55	MG	1A	3854	1/1	0.83	0.12	33,33,33,33	0
55	MG	2A	3107	1/1	0.83	0.24	58,58,58,58	0
55	MG	1a	3065	1/1	0.83	0.33	68,68,68,68	0
55	MG	2A	3252	1/1	0.83	0.40	43,43,43,43	0
55	MG	2A	3699	1/1	0.83	0.12	74,74,74,74	0
55	MG	2A	3261	1/1	0.83	0.29	59,59,59,59	0
55	MG	1a	3146	1/1	0.83	0.23	75,75,75,75	0
55	MG	1A	3585	1/1	0.83	0.22	64,64,64,64	0
55	MG	2A	3483	1/1	0.83	0.11	56,56,56,56	0
55	MG	1l	202	1/1	0.83	0.12	64,64,64,64	0
55	MG	2A	3496	1/1	0.83	0.23	65,65,65,65	0
55	MG	2B	216	1/1	0.83	0.13	73,73,73,73	0
55	MG	2B	219	1/1	0.83	0.23	74,74,74,74	0
55	MG	1A	3973	1/1	0.83	0.11	46,46,46,46	0
55	MG	1A	3615	1/1	0.83	0.18	33,33,33,33	0
55	MG	2a	3182	1/1	0.83	0.18	56,56,56,56	0
55	MG	10	106	1/1	0.83	0.16	59,59,59,59	0
55	MG	2e	201	1/1	0.83	0.24	56,56,56,56	0
55	MG	2h	201	1/1	0.83	0.22	63,63,63,63	0
55	MG	2I	201	1/1	0.83	0.12	67,67,67,67	0
55	MG	1a	3155	1/1	0.83	0.10	57,57,57,57	0
55	MG	1A	3886	1/1	0.83	0.23	56,56,56,56	0
55	MG	2A	3216	1/1	0.84	0.24	64,64,64,64	0
55	MG	1A	3840	1/1	0.84	0.11	44,44,44,44	0
55	MG	2A	3427	1/1	0.84	0.15	54,54,54,54	0
55	MG	1A	4009	1/1	0.84	0.18	33,33,33,33	0
55	MG	2A	3574	1/1	0.84	0.13	49,49,49,49	0
55	MG	2a	3051	1/1	0.84	0.13	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3056	1/1	0.84	0.20	70,70,70,70	0
55	MG	2A	3430	1/1	0.84	0.27	56,56,56,56	0
55	MG	1T	204	1/1	0.84	0.10	77,77,77,77	0
55	MG	1a	3204	1/1	0.84	0.16	60,60,60,60	0
55	MG	1A	3708	1/1	0.84	0.19	48,48,48,48	0
55	MG	2A	3241	1/1	0.84	0.17	61,61,61,61	0
55	MG	2A	3460	1/1	0.84	0.10	61,61,61,61	0
55	MG	1d	301	1/1	0.84	0.17	71,71,71,71	0
55	MG	2a	3068	1/1	0.84	0.20	83,83,83,83	0
55	MG	1e	201	1/1	0.84	0.30	58,58,58,58	0
55	MG	1A	3587	1/1	0.84	0.19	65,65,65,65	0
55	MG	2A	3670	1/1	0.84	0.21	89,89,89,89	0
55	MG	1A	3982	1/1	0.84	0.18	61,61,61,61	0
55	MG	1A	3814	1/1	0.84	0.20	25,25,25,25	0
55	MG	2a	3091	1/1	0.84	0.16	57,57,57,57	0
55	MG	1A	3818	1/1	0.84	0.11	38,38,38,38	0
55	MG	1a	3032	1/1	0.84	0.27	61,61,61,61	0
55	MG	2A	3320	1/1	0.84	0.12	47,47,47,47	0
55	MG	2A	3489	1/1	0.84	0.13	53,53,53,53	0
55	MG	1a	3037	1/1	0.84	0.25	63,63,63,63	0
55	MG	1D	310	1/1	0.84	0.30	40,40,40,40	0
55	MG	2A	3025	1/1	0.84	0.18	54,54,54,54	0
55	MG	1a	3168	1/1	0.84	0.15	72,72,72,72	0
55	MG	1A	3669	1/1	0.84	0.16	73,73,73,73	0
55	MG	2A	3189	1/1	0.84	0.25	62,62,62,62	0
55	MG	2E	304	1/1	0.84	0.33	61,61,61,61	0
55	MG	2A	3514	1/1	0.84	0.18	64,64,64,64	0
55	MG	2A	3515	1/1	0.84	0.11	49,49,49,49	0
55	MG	1A	3099	1/1	0.84	0.17	43,43,43,43	0
55	MG	2A	3522	1/1	0.84	0.22	63,63,63,63	0
55	MG	2A	3060	1/1	0.84	0.19	56,56,56,56	0
55	MG	2A	3204	1/1	0.84	0.28	68,68,68,68	0
55	MG	1A	3177	1/1	0.84	0.25	52,52,52,52	0
55	MG	1a	3187	1/1	0.84	0.11	53,53,53,53	0
55	MG	1A	3589	1/1	0.85	0.13	43,43,43,43	0
55	MG	10	107	1/1	0.85	0.14	54,54,54,54	0
55	MG	1B	211	1/1	0.85	0.37	64,64,64,64	0
55	MG	1a	3244	1/1	0.85	0.18	66,66,66,66	0
55	MG	1a	3167	1/1	0.85	0.21	75,75,75,75	0
55	MG	2A	3448	1/1	0.85	0.10	52,52,52,52	0
55	MG	1A	3987	1/1	0.85	0.13	52,52,52,52	0
55	MG	1B	218	1/1	0.85	0.18	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3944	1/1	0.85	0.12	49,49,49,49	0
55	MG	1a	3173	1/1	0.85	0.22	64,64,64,64	0
55	MG	1A	3617	1/1	0.85	0.12	45,45,45,45	0
55	MG	1a	3184	1/1	0.85	0.12	86,86,86,86	0
55	MG	1A	3620	1/1	0.85	0.19	62,62,62,62	0
55	MG	1D	313	1/1	0.85	0.23	49,49,49,49	0
55	MG	1A	3790	1/1	0.85	0.12	53,53,53,53	0
55	MG	2A	3291	1/1	0.85	0.21	66,66,66,66	0
55	MG	2a	3078	1/1	0.85	0.28	56,56,56,56	0
55	MG	1e	203	1/1	0.85	0.31	60,60,60,60	0
55	MG	1a	3050	1/1	0.85	0.21	59,59,59,59	0
55	MG	2A	3731	1/1	0.85	0.14	66,66,66,66	0
55	MG	1h	201	1/1	0.85	0.14	68,68,68,68	0
55	MG	2B	205	1/1	0.85	0.23	54,54,54,54	0
55	MG	1a	3051	1/1	0.85	0.23	60,60,60,60	0
55	MG	2A	3349	1/1	0.85	0.19	69,69,69,69	0
55	MG	1A	3730	1/1	0.85	0.14	52,52,52,52	0
55	MG	1A	3109	1/1	0.85	0.13	51,51,51,51	0
55	MG	2A	3361	1/1	0.85	0.14	73,73,73,73	0
55	MG	2D	309	1/1	0.85	0.15	62,62,62,62	0
55	MG	1t	201	1/1	0.85	0.17	61,61,61,61	0
55	MG	2a	3165	1/1	0.85	0.11	61,61,61,61	0
55	MG	1a	3153	1/1	0.85	0.14	59,59,59,59	0
55	MG	1F	319	1/1	0.85	0.18	57,57,57,57	0
55	MG	2A	3410	1/1	0.85	0.30	62,62,62,62	0
55	MG	2A	3528	1/1	0.85	0.26	57,57,57,57	0
55	MG	1A	3289	1/1	0.85	0.17	57,57,57,57	0
55	MG	2A	3196	1/1	0.85	0.26	59,59,59,59	0
55	MG	2A	3203	1/1	0.85	0.14	51,51,51,51	0
55	MG	1A	4012	1/1	0.85	0.15	46,46,46,46	0
55	MG	1a	3228	1/1	0.85	0.20	67,67,67,67	0
55	MG	1A	3698	1/1	0.85	0.14	59,59,59,59	0
55	MG	2a	3012	1/1	0.86	0.15	63,63,63,63	0
55	MG	1A	3278	1/1	0.86	0.12	48,48,48,48	0
55	MG	1A	3965	1/1	0.86	0.15	53,53,53,53	0
55	MG	1a	3255	1/1	0.86	0.17	69,69,69,69	0
55	MG	1A	3221	1/1	0.86	0.14	59,59,59,59	0
55	MG	1a	3262	1/1	0.86	0.10	52,52,52,52	0
55	MG	1a	3007	1/1	0.86	0.16	68,68,68,68	0
55	MG	2A	3234	1/1	0.86	0.15	55,55,55,55	0
55	MG	1a	3132	1/1	0.86	0.23	73,73,73,73	0
55	MG	1A	3274	1/1	0.86	0.18	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3243	1/1	0.86	0.24	58,58,58,58	0
55	MG	1a	3275	1/1	0.86	0.10	76,76,76,76	0
55	MG	1A	3604	1/1	0.86	0.28	45,45,45,45	0
55	MG	1a	3137	1/1	0.86	0.12	65,65,65,65	0
55	MG	2A	3122	1/1	0.86	0.13	49,49,49,49	0
55	MG	2A	3690	1/1	0.86	0.11	63,63,63,63	0
55	MG	1a	3195	1/1	0.86	0.21	71,71,71,71	0
55	MG	1A	3710	1/1	0.86	0.13	50,50,50,50	0
55	MG	1A	3978	1/1	0.86	0.15	46,46,46,46	0
55	MG	2A	3310	1/1	0.86	0.22	67,67,67,67	0
55	MG	2A	3314	1/1	0.86	0.15	66,66,66,66	0
55	MG	2A	3713	1/1	0.86	0.22	63,63,63,63	0
55	MG	2a	3084	1/1	0.86	0.36	63,63,63,63	0
55	MG	2A	3717	1/1	0.86	0.13	52,52,52,52	0
55	MG	1A	3413	1/1	0.86	0.20	57,57,57,57	0
55	MG	2A	3728	1/1	0.86	0.11	76,76,76,76	0
55	MG	2A	3152	1/1	0.86	0.18	50,50,50,50	0
55	MG	2A	3736	1/1	0.86	0.13	45,45,45,45	0
55	MG	1A	3325	1/1	0.86	0.20	65,65,65,65	0
55	MG	1A	3731	1/1	0.86	0.14	43,43,43,43	0
55	MG	1A	3995	1/1	0.86	0.10	49,49,49,49	0
55	MG	1A	3548	1/1	0.86	0.09	43,43,43,43	0
55	MG	2a	3139	1/1	0.86	0.10	59,59,59,59	0
55	MG	1a	3062	1/1	0.86	0.14	71,71,71,71	0
55	MG	2a	3151	1/1	0.86	0.10	73,73,73,73	0
55	MG	1A	3626	1/1	0.86	0.12	58,58,58,58	0
55	MG	1A	3829	1/1	0.86	0.13	58,58,58,58	0
55	MG	1A	4002	1/1	0.86	0.17	81,81,81,81	0
55	MG	2D	310	1/1	0.86	0.28	36,36,36,36	0
55	MG	1A	3753	1/1	0.86	0.11	28,28,28,28	0
55	MG	2A	3037	1/1	0.86	0.15	51,51,51,51	0
55	MG	2a	3188	1/1	0.86	0.17	77,77,77,77	0
55	MG	1T	202	1/1	0.86	0.15	63,63,63,63	0
55	MG	1A	3633	1/1	0.86	0.12	19,19,19,19	0
55	MG	2A	3211	1/1	0.86	0.19	51,51,51,51	0
55	MG	2A	3534	1/1	0.86	0.15	74,74,74,74	0
55	MG	2A	3536	1/1	0.86	0.14	48,48,48,48	0
55	MG	1A	3037	1/1	0.86	0.23	53,53,53,53	0
55	MG	1A	3258	1/1	0.87	0.16	59,59,59,59	0
55	MG	2A	3471	1/1	0.87	0.16	71,71,71,71	0
55	MG	1A	3269	1/1	0.87	0.11	52,52,52,52	0
55	MG	1a	3219	1/1	0.87	0.18	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3313	1/1	0.87	0.13	39,39,39,39	0
55	MG	1A	3164	1/1	0.87	0.26	59,59,59,59	0
55	MG	1A	3634	1/1	0.87	0.15	60,60,60,60	0
55	MG	1a	3030	1/1	0.87	0.18	50,50,50,50	0
55	MG	1A	3434	1/1	0.87	0.15	43,43,43,43	0
55	MG	2A	3076	1/1	0.87	0.17	56,56,56,56	0
55	MG	2A	3082	1/1	0.87	0.16	54,54,54,54	0
55	MG	1a	3035	1/1	0.87	0.25	68,68,68,68	0
55	MG	1a	3233	1/1	0.87	0.10	63,63,63,63	0
55	MG	1B	219	1/1	0.87	0.17	62,62,62,62	0
55	MG	2a	3011	1/1	0.87	0.21	65,65,65,65	0
55	MG	2A	3274	1/1	0.87	0.24	57,57,57,57	0
55	MG	1A	3857	1/1	0.87	0.17	54,54,54,54	0
55	MG	2A	3098	1/1	0.87	0.23	58,58,58,58	0
55	MG	2A	3294	1/1	0.87	0.13	60,60,60,60	0
55	MG	1A	3977	1/1	0.87	0.10	37,37,37,37	0
55	MG	1a	3043	1/1	0.87	0.18	61,61,61,61	0
55	MG	2A	3317	1/1	0.87	0.12	44,44,44,44	0
55	MG	1A	3640	1/1	0.87	0.13	56,56,56,56	0
55	MG	1A	3703	1/1	0.87	0.16	51,51,51,51	0
55	MG	1A	3882	1/1	0.87	0.13	45,45,45,45	0
55	MG	1a	3061	1/1	0.87	0.29	60,60,60,60	0
55	MG	2A	3128	1/1	0.87	0.15	50,50,50,50	0
55	MG	2A	3548	1/1	0.87	0.09	79,79,79,79	0
55	MG	2A	3350	1/1	0.87	0.11	43,43,43,43	0
55	MG	1A	3795	1/1	0.87	0.10	56,56,56,56	0
55	MG	1a	3164	1/1	0.87	0.14	72,72,72,72	0
55	MG	2A	3575	1/1	0.87	0.11	38,38,38,38	0
55	MG	1a	3064	1/1	0.87	0.11	59,59,59,59	0
55	MG	2A	3583	1/1	0.87	0.14	44,44,44,44	0
55	MG	1a	3274	1/1	0.87	0.14	75,75,75,75	0
55	MG	2a	3074	1/1	0.87	0.30	62,62,62,62	0
55	MG	1D	318	1/1	0.87	0.13	54,54,54,54	0
55	MG	2A	3617	1/1	0.87	0.14	33,33,33,33	0
55	MG	2A	3381	1/1	0.87	0.10	28,28,28,28	0
55	MG	2A	3158	1/1	0.87	0.23	54,54,54,54	0
55	MG	1A	3441	1/1	0.87	0.14	43,43,43,43	0
55	MG	2A	3635	1/1	0.87	0.09	73,73,73,73	0
55	MG	1A	3592	1/1	0.87	0.18	65,65,65,65	0
55	MG	1a	3069	1/1	0.87	0.20	62,62,62,62	0
55	MG	1d	302	1/1	0.87	0.20	71,71,71,71	0
55	MG	2a	3114	1/1	0.87	0.15	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1G	201	1/1	0.87	0.12	73,73,73,73	0
55	MG	2a	3124	1/1	0.87	0.24	78,78,78,78	0
55	MG	1A	3712	1/1	0.87	0.16	59,59,59,59	0
55	MG	1A	3911	1/1	0.87	0.07	15,15,15,15	0
55	MG	1e	206	1/1	0.87	0.15	65,65,65,65	0
55	MG	2A	3429	1/1	0.87	0.22	67,67,67,67	0
55	MG	1A	3563	1/1	0.87	0.24	63,63,63,63	0
55	MG	1A	3448	1/1	0.87	0.16	55,55,55,55	0
55	MG	2a	3161	1/1	0.87	0.14	78,78,78,78	0
55	MG	10	105	1/1	0.87	0.12	51,51,51,51	0
55	MG	1A	3573	1/1	0.87	0.19	40,40,40,40	0
55	MG	2A	3719	1/1	0.87	0.11	57,57,57,57	0
55	MG	2A	3446	1/1	0.87	0.16	56,56,56,56	0
55	MG	2A	3725	1/1	0.87	0.34	40,40,40,40	0
55	MG	1A	3462	1/1	0.87	0.17	60,60,60,60	0
55	MG	1a	3119	1/1	0.87	0.18	68,68,68,68	0
55	MG	2A	3215	1/1	0.87	0.22	58,58,58,58	0
55	MG	2A	3744	1/1	0.87	0.10	54,54,54,54	0
55	MG	2A	3005	1/1	0.87	0.13	51,51,51,51	0
55	MG	2A	3219	1/1	0.87	0.14	55,55,55,55	0
55	MG	1a	3123	1/1	0.87	0.14	72,72,72,72	0
57	MPD	2A	3746	8/8	0.87	0.20	47,56,64,69	0
55	MG	2A	3140	1/1	0.88	0.10	64,64,64,64	0
55	MG	1A	3408	1/1	0.88	0.18	72,72,72,72	0
55	MG	1a	3141	1/1	0.88	0.19	69,69,69,69	0
55	MG	2A	3155	1/1	0.88	0.27	54,54,54,54	0
55	MG	1a	3015	1/1	0.88	0.19	72,72,72,72	0
55	MG	1A	3837	1/1	0.88	0.12	50,50,50,50	0
55	MG	1A	4025	1/1	0.88	0.15	63,63,63,63	0
55	MG	1A	3962	1/1	0.88	0.13	60,60,60,60	0
55	MG	2A	3433	1/1	0.88	0.16	57,57,57,57	0
55	MG	1A	3231	1/1	0.88	0.20	32,32,32,32	0
55	MG	2A	3439	1/1	0.88	0.22	75,75,75,75	0
55	MG	1A	3354	1/1	0.88	0.09	31,31,31,31	0
55	MG	1a	3038	1/1	0.88	0.45	70,70,70,70	0
55	MG	2B	213	1/1	0.88	0.17	70,70,70,70	0
55	MG	1A	3768	1/1	0.88	0.07	25,25,25,25	0
55	MG	1A	3606	1/1	0.88	0.10	40,40,40,40	0
55	MG	2A	3452	1/1	0.88	0.12	54,54,54,54	0
55	MG	2A	3456	1/1	0.88	0.24	52,52,52,52	0
55	MG	1A	3609	1/1	0.88	0.14	60,60,60,60	0
55	MG	2A	3199	1/1	0.88	0.18	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3045	1/1	0.88	0.27	55,55,55,55	0
55	MG	1A	3201	1/1	0.88	0.14	50,50,50,50	0
55	MG	1A	3717	1/1	0.88	0.35	26,26,26,26	0
55	MG	2A	3468	1/1	0.88	0.17	62,62,62,62	0
55	MG	2R	3302	1/1	0.88	0.19	51,51,51,51	0
55	MG	2T	201	1/1	0.88	0.17	51,51,51,51	0
55	MG	2A	3207	1/1	0.88	0.19	51,51,51,51	0
55	MG	2A	3210	1/1	0.88	0.16	60,60,60,60	0
55	MG	1A	3721	1/1	0.88	0.16	29,29,29,29	0
55	MG	1A	3800	1/1	0.88	0.18	66,66,66,66	0
55	MG	1A	3986	1/1	0.88	0.14	66,66,66,66	0
55	MG	1n	101	1/1	0.88	0.16	64,64,64,64	0
55	MG	1A	3376	1/1	0.88	0.12	65,65,65,65	0
55	MG	1A	3520	1/1	0.88	0.08	19,19,19,19	0
55	MG	1a	3177	1/1	0.88	0.15	67,67,67,67	0
55	MG	2A	3498	1/1	0.88	0.11	63,63,63,63	0
55	MG	2A	3501	1/1	0.88	0.21	62,62,62,62	0
55	MG	2A	3503	1/1	0.88	0.14	58,58,58,58	0
55	MG	2a	3053	1/1	0.88	0.33	57,57,57,57	0
55	MG	1a	3178	1/1	0.88	0.13	70,70,70,70	0
55	MG	2a	3059	1/1	0.88	0.17	69,69,69,69	0
55	MG	1A	3202	1/1	0.88	0.11	43,43,43,43	0
55	MG	2a	3061	1/1	0.88	0.17	52,52,52,52	0
55	MG	1A	3906	1/1	0.88	0.12	58,58,58,58	0
55	MG	2A	3231	1/1	0.88	0.12	53,53,53,53	0
55	MG	1A	3817	1/1	0.88	0.18	50,50,50,50	0
55	MG	2A	3236	1/1	0.88	0.20	61,61,61,61	0
55	MG	1a	3076	1/1	0.88	0.25	60,60,60,60	0
55	MG	2A	3520	1/1	0.88	0.10	56,56,56,56	0
55	MG	2A	3035	1/1	0.88	0.23	60,60,60,60	0
55	MG	1a	3193	1/1	0.88	0.14	68,68,68,68	0
55	MG	2A	3043	1/1	0.88	0.14	30,30,30,30	0
55	MG	1a	3078	1/1	0.88	0.19	50,50,50,50	0
55	MG	2A	3256	1/1	0.88	0.19	57,57,57,57	0
55	MG	1S	201	1/1	0.88	0.18	58,58,58,58	0
55	MG	1A	3222	1/1	0.88	0.12	49,49,49,49	0
55	MG	1a	3082	1/1	0.88	0.16	52,52,52,52	0
55	MG	2A	3265	1/1	0.88	0.10	57,57,57,57	0
55	MG	1a	3205	1/1	0.88	0.15	50,50,50,50	0
55	MG	2A	3071	1/1	0.88	0.34	54,54,54,54	0
55	MG	1A	3915	1/1	0.88	0.12	28,28,28,28	0
55	MG	1a	3086	1/1	0.88	0.24	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3295	1/1	0.88	0.14	45,45,45,45	0
55	MG	2a	3113	1/1	0.88	0.17	66,66,66,66	0
55	MG	1W	201	1/1	0.88	0.20	40,40,40,40	0
55	MG	1a	3097	1/1	0.88	0.19	64,64,64,64	0
55	MG	1a	3099	1/1	0.88	0.25	52,52,52,52	0
55	MG	2a	3127	1/1	0.88	0.13	60,60,60,60	0
55	MG	2A	3096	1/1	0.88	0.16	65,65,65,65	0
55	MG	1A	4004	1/1	0.88	0.16	67,67,67,67	0
55	MG	1A	3445	1/1	0.88	0.13	35,35,35,35	0
55	MG	2A	3100	1/1	0.88	0.13	66,66,66,66	0
55	MG	1A	3447	1/1	0.88	0.19	57,57,57,57	0
55	MG	11	101	1/1	0.88	0.46	46,46,46,46	0
55	MG	1A	3942	1/1	0.88	0.14	42,42,42,42	0
55	MG	2A	3115	1/1	0.88	0.10	51,51,51,51	0
55	MG	13	102	1/1	0.88	0.12	68,68,68,68	0
55	MG	2A	3663	1/1	0.88	0.09	50,50,50,50	0
55	MG	15	106	1/1	0.88	0.16	40,40,40,40	0
55	MG	17	104	1/1	0.88	0.28	37,37,37,37	0
55	MG	1a	3241	1/1	0.88	0.29	64,64,64,64	0
55	MG	2A	3385	1/1	0.88	0.14	43,43,43,43	0
55	MG	2a	3193	1/1	0.88	0.26	67,67,67,67	0
55	MG	1A	3831	1/1	0.88	0.19	32,32,32,32	0
55	MG	2A	3390	1/1	0.88	0.12	42,42,42,42	0
55	MG	1A	4018	1/1	0.88	0.31	60,60,60,60	0
55	MG	2A	3703	1/1	0.88	0.10	64,64,64,64	0
55	MG	2A	3704	1/1	0.88	0.23	61,61,61,61	0
55	MG	1a	3010	1/1	0.88	0.35	66,66,66,66	0
55	MG	1A	3263	1/1	0.89	0.10	70,70,70,70	0
55	MG	2A	3484	1/1	0.89	0.10	56,56,56,56	0
55	MG	1A	3637	1/1	0.89	0.12	45,45,45,45	0
55	MG	1A	3998	1/1	0.89	0.11	34,34,34,34	0
55	MG	1A	3522	1/1	0.89	0.10	51,51,51,51	0
55	MG	2A	3277	1/1	0.89	0.18	55,55,55,55	0
55	MG	2D	311	1/1	0.89	0.08	21,21,21,21	0
55	MG	1a	3271	1/1	0.89	0.15	58,58,58,58	0
55	MG	1T	203	1/1	0.89	0.08	53,53,53,53	0
55	MG	2A	3293	1/1	0.89	0.12	44,44,44,44	0
55	MG	1A	3801	1/1	0.89	0.14	63,63,63,63	0
55	MG	2O	201	1/1	0.89	0.13	51,51,51,51	0
55	MG	2A	3507	1/1	0.89	0.12	60,60,60,60	0
55	MG	1a	3073	1/1	0.89	0.30	60,60,60,60	0
55	MG	2A	3305	1/1	0.89	0.15	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2T	203	1/1	0.89	0.11	60,60,60,60	0
55	MG	1A	3807	1/1	0.89	0.09	32,32,32,32	0
55	MG	1A	3528	1/1	0.89	0.16	52,52,52,52	0
55	MG	25	102	1/1	0.89	0.13	34,34,34,34	0
55	MG	1A	3193	1/1	0.89	0.18	58,58,58,58	0
55	MG	2a	3006	1/1	0.89	0.24	61,61,61,61	0
55	MG	1A	3539	1/1	0.89	0.28	25,25,25,25	0
55	MG	1A	3599	1/1	0.89	0.14	49,49,49,49	0
55	MG	1A	3729	1/1	0.89	0.13	34,34,34,34	0
55	MG	1A	3540	1/1	0.89	0.17	41,41,41,41	0
55	MG	2a	3026	1/1	0.89	0.21	51,51,51,51	0
55	MG	1A	3662	1/1	0.89	0.14	58,58,58,58	0
55	MG	1a	3093	1/1	0.89	0.18	51,51,51,51	0
55	MG	2a	3041	1/1	0.89	0.27	58,58,58,58	0
55	MG	2A	3171	1/1	0.89	0.17	61,61,61,61	0
55	MG	1A	3957	1/1	0.89	0.19	19,19,19,19	0
55	MG	2a	3050	1/1	0.89	0.31	73,73,73,73	0
55	MG	1a	3190	1/1	0.89	0.19	55,55,55,55	0
55	MG	2A	3366	1/1	0.89	0.18	61,61,61,61	0
55	MG	1A	3367	1/1	0.89	0.07	41,41,41,41	0
55	MG	2a	3057	1/1	0.89	0.22	58,58,58,58	0
55	MG	1a	3005	1/1	0.89	0.17	50,50,50,50	0
55	MG	1B	208	1/1	0.89	0.13	52,52,52,52	0
55	MG	1A	3375	1/1	0.89	0.12	42,42,42,42	0
55	MG	2A	3559	1/1	0.89	0.12	60,60,60,60	0
55	MG	2A	3567	1/1	0.89	0.10	65,65,65,65	0
55	MG	2A	3386	1/1	0.89	0.20	41,41,41,41	0
55	MG	1A	3486	1/1	0.89	0.09	19,19,19,19	0
55	MG	2A	3195	1/1	0.89	0.26	61,61,61,61	0
55	MG	2A	3396	1/1	0.89	0.19	59,59,59,59	0
55	MG	1A	3495	1/1	0.89	0.11	47,47,47,47	0
55	MG	1a	3023	1/1	0.89	0.24	63,63,63,63	0
55	MG	1a	3215	1/1	0.89	0.21	66,66,66,66	0
55	MG	1a	3128	1/1	0.89	0.10	64,64,64,64	0
55	MG	1A	3968	1/1	0.89	0.17	52,52,52,52	0
55	MG	2A	3206	1/1	0.89	0.19	55,55,55,55	0
55	MG	1A	3758	1/1	0.89	0.19	46,46,46,46	0
55	MG	1A	3848	1/1	0.89	0.12	47,47,47,47	0
55	MG	2a	3086	1/1	0.89	0.10	70,70,70,70	0
55	MG	2a	3088	1/1	0.89	0.13	60,60,60,60	0
55	MG	1A	3572	1/1	0.89	0.16	51,51,51,51	0
55	MG	2A	3640	1/1	0.89	0.10	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3659	1/1	0.89	0.14	51,51,51,51	0
55	MG	1A	3691	1/1	0.89	0.11	60,60,60,60	0
55	MG	2A	3050	1/1	0.89	0.10	50,50,50,50	0
55	MG	2A	3054	1/1	0.89	0.20	53,53,53,53	0
55	MG	2A	3055	1/1	0.89	0.29	66,66,66,66	0
55	MG	2A	3222	1/1	0.89	0.19	58,58,58,58	0
55	MG	2A	3056	1/1	0.89	0.35	67,67,67,67	0
55	MG	2A	3058	1/1	0.89	0.38	64,64,64,64	0
55	MG	1A	3498	1/1	0.89	0.08	60,60,60,60	0
55	MG	2A	3062	1/1	0.89	0.15	56,56,56,56	0
55	MG	2a	3129	1/1	0.89	0.12	48,48,48,48	0
55	MG	1A	3271	1/1	0.89	0.29	39,39,39,39	0
55	MG	2A	3457	1/1	0.89	0.14	64,64,64,64	0
55	MG	1A	3787	1/1	0.89	0.14	27,27,27,27	0
55	MG	2A	3715	1/1	0.89	0.13	60,60,60,60	0
55	MG	1A	3870	1/1	0.89	0.09	53,53,53,53	0
55	MG	2a	3157	1/1	0.89	0.09	76,76,76,76	0
55	MG	1a	3235	1/1	0.89	0.09	71,71,71,71	0
55	MG	2a	3163	1/1	0.89	0.12	61,61,61,61	0
55	MG	2A	3462	1/1	0.89	0.12	36,36,36,36	0
55	MG	1F	311	1/1	0.89	0.20	49,49,49,49	0
55	MG	2A	3727	1/1	0.89	0.10	59,59,59,59	0
55	MG	2A	3465	1/1	0.89	0.13	49,49,49,49	0
55	MG	1F	315	1/1	0.89	0.24	34,34,34,34	0
55	MG	1F	316	1/1	0.89	0.09	38,38,38,38	0
55	MG	1A	3204	1/1	0.89	0.18	62,62,62,62	0
55	MG	1A	3130	1/1	0.89	0.12	43,43,43,43	0
55	MG	2B	203	1/1	0.89	0.22	58,58,58,58	0
55	MG	2B	204	1/1	0.89	0.14	71,71,71,71	0
55	MG	2A	3253	1/1	0.89	0.32	60,60,60,60	0
55	MG	1a	3156	1/1	0.89	0.12	55,55,55,55	0
55	MG	2B	208	1/1	0.89	0.12	74,74,74,74	0
55	MG	1a	3157	1/1	0.89	0.16	63,63,63,63	0
55	MG	2B	202	1/1	0.90	0.20	58,58,58,58	0
55	MG	1z	101	1/1	0.90	0.20	72,72,72,72	0
55	MG	1A	3688	1/1	0.90	0.13	32,32,32,32	0
55	MG	1A	3366	1/1	0.90	0.18	60,60,60,60	0
55	MG	2A	3016	1/1	0.90	0.25	64,64,64,64	0
55	MG	1A	3200	1/1	0.90	0.12	39,39,39,39	0
55	MG	1A	3435	1/1	0.90	0.10	48,48,48,48	0
55	MG	1a	3180	1/1	0.90	0.12	73,73,73,73	0
55	MG	2A	3466	1/1	0.90	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3225	1/1	0.90	0.26	61,61,61,61	0
55	MG	1a	3181	1/1	0.90	0.10	67,67,67,67	0
55	MG	2A	3469	1/1	0.90	0.14	57,57,57,57	0
55	MG	1A	3967	1/1	0.90	0.18	59,59,59,59	0
55	MG	1A	3533	1/1	0.90	0.10	26,26,26,26	0
55	MG	1a	3070	1/1	0.90	0.19	48,48,48,48	0
55	MG	2E	305	1/1	0.90	0.09	25,25,25,25	0
55	MG	1A	3436	1/1	0.90	0.11	51,51,51,51	0
55	MG	2A	3478	1/1	0.90	0.11	41,41,41,41	0
55	MG	1a	3074	1/1	0.90	0.12	61,61,61,61	0
55	MG	1A	3607	1/1	0.90	0.11	27,27,27,27	0
55	MG	1A	3826	1/1	0.90	0.20	35,35,35,35	0
55	MG	2Q	204	1/1	0.90	0.09	66,66,66,66	0
55	MG	1A	3535	1/1	0.90	0.14	47,47,47,47	0
55	MG	1H	202	1/1	0.90	0.10	49,49,49,49	0
55	MG	1A	3538	1/1	0.90	0.16	59,59,59,59	0
55	MG	1P	205	1/1	0.90	0.07	59,59,59,59	0
55	MG	1A	3616	1/1	0.90	0.11	40,40,40,40	0
55	MG	2A	3260	1/1	0.90	0.11	43,43,43,43	0
55	MG	1A	3716	1/1	0.90	0.16	28,28,28,28	0
55	MG	1A	3440	1/1	0.90	0.14	48,48,48,48	0
55	MG	2a	3007	1/1	0.90	0.12	63,63,63,63	0
55	MG	2a	3010	1/1	0.90	0.41	63,63,63,63	0
55	MG	2A	3080	1/1	0.90	0.10	48,48,48,48	0
55	MG	1a	3095	1/1	0.90	0.12	48,48,48,48	0
55	MG	1A	3371	1/1	0.90	0.10	47,47,47,47	0
55	MG	1A	3989	1/1	0.90	0.12	48,48,48,48	0
55	MG	1a	3225	1/1	0.90	0.18	58,58,58,58	0
55	MG	2A	3281	1/1	0.90	0.13	25,25,25,25	0
55	MG	2a	3037	1/1	0.90	0.13	59,59,59,59	0
55	MG	2a	3038	1/1	0.90	0.12	60,60,60,60	0
55	MG	2A	3518	1/1	0.90	0.10	29,29,29,29	0
55	MG	2A	3282	1/1	0.90	0.23	52,52,52,52	0
55	MG	2a	3043	1/1	0.90	0.30	61,61,61,61	0
55	MG	1a	3102	1/1	0.90	0.14	54,54,54,54	0
55	MG	1A	3169	1/1	0.90	0.09	48,48,48,48	0
55	MG	2a	3049	1/1	0.90	0.39	66,66,66,66	0
55	MG	1A	3630	1/1	0.90	0.11	48,48,48,48	0
55	MG	2A	3099	1/1	0.90	0.17	56,56,56,56	0
55	MG	2A	3302	1/1	0.90	0.14	58,58,58,58	0
55	MG	1A	3996	1/1	0.90	0.08	19,19,19,19	0
55	MG	1A	3552	1/1	0.90	0.25	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3014	1/1	0.90	0.29	56,56,56,56	0
55	MG	11	105	1/1	0.90	0.10	39,39,39,39	0
55	MG	2A	3112	1/1	0.90	0.36	44,44,44,44	0
55	MG	2A	3330	1/1	0.90	0.13	56,56,56,56	0
55	MG	2A	3549	1/1	0.90	0.10	64,64,64,64	0
55	MG	1A	3055	1/1	0.90	0.12	41,41,41,41	0
55	MG	2A	3341	1/1	0.90	0.23	60,60,60,60	0
55	MG	1a	3131	1/1	0.90	0.13	63,63,63,63	0
55	MG	1A	3449	1/1	0.90	0.11	36,36,36,36	0
55	MG	1a	3245	1/1	0.90	0.12	58,58,58,58	0
55	MG	1A	3257	1/1	0.90	0.20	72,72,72,72	0
55	MG	1A	4003	1/1	0.90	0.12	59,59,59,59	0
55	MG	1A	3755	1/1	0.90	0.09	23,23,23,23	0
55	MG	1A	3464	1/1	0.90	0.12	44,44,44,44	0
55	MG	1A	3405	1/1	0.90	0.15	44,44,44,44	0
55	MG	2A	3608	1/1	0.90	0.10	29,29,29,29	0
55	MG	2A	3612	1/1	0.90	0.09	52,52,52,52	0
55	MG	1A	3888	1/1	0.90	0.07	23,23,23,23	0
55	MG	1A	3280	1/1	0.90	0.10	52,52,52,52	0
55	MG	2A	3628	1/1	0.90	0.12	30,30,30,30	0
55	MG	2A	3630	1/1	0.90	0.11	52,52,52,52	0
55	MG	2A	3372	1/1	0.90	0.12	63,63,63,63	0
55	MG	2a	3097	1/1	0.90	0.10	35,35,35,35	0
55	MG	1a	3021	1/1	0.90	0.09	52,52,52,52	0
55	MG	2A	3634	1/1	0.90	0.08	66,66,66,66	0
55	MG	2A	3384	1/1	0.90	0.11	48,48,48,48	0
55	MG	1A	3647	1/1	0.90	0.10	25,25,25,25	0
55	MG	2A	3638	1/1	0.90	0.12	56,56,56,56	0
55	MG	1A	3086	1/1	0.90	0.17	57,57,57,57	0
55	MG	1A	3769	1/1	0.90	0.09	51,51,51,51	0
55	MG	2a	3125	1/1	0.90	0.20	68,68,68,68	0
55	MG	1A	3655	1/1	0.90	0.16	56,56,56,56	0
55	MG	2A	3393	1/1	0.90	0.24	67,67,67,67	0
55	MG	1B	203	1/1	0.90	0.36	63,63,63,63	0
55	MG	1A	3505	1/1	0.90	0.09	41,41,41,41	0
55	MG	1A	3195	1/1	0.90	0.12	48,48,48,48	0
55	MG	2a	3141	1/1	0.90	0.09	70,70,70,70	0
55	MG	2A	3185	1/1	0.90	0.10	57,57,57,57	0
55	MG	2A	3187	1/1	0.90	0.14	43,43,43,43	0
55	MG	2a	3153	1/1	0.90	0.11	48,48,48,48	0
55	MG	1A	3294	1/1	0.90	0.12	70,70,70,70	0
55	MG	2A	3421	1/1	0.90	0.09	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3517	1/1	0.90	0.14	50,50,50,50	0
55	MG	2A	3424	1/1	0.90	0.13	52,52,52,52	0
55	MG	2A	3705	1/1	0.90	0.11	58,58,58,58	0
55	MG	1A	3683	1/1	0.90	0.08	57,57,57,57	0
55	MG	2A	3194	1/1	0.90	0.15	59,59,59,59	0
55	MG	1A	3950	1/1	0.90	0.12	51,51,51,51	0
55	MG	1g	3101	1/1	0.90	0.24	57,57,57,57	0
55	MG	2a	3184	1/1	0.90	0.10	67,67,67,67	0
55	MG	1A	3424	1/1	0.90	0.11	29,29,29,29	0
55	MG	2A	3201	1/1	0.90	0.12	48,48,48,48	0
55	MG	1a	3165	1/1	0.90	0.14	71,71,71,71	0
55	MG	1m	202	1/1	0.90	0.22	59,59,59,59	0
55	MG	1A	3955	1/1	0.90	0.11	25,25,25,25	0
55	MG	1a	3052	1/1	0.90	0.24	60,60,60,60	0
55	MG	2n	101	1/1	0.90	0.20	67,67,67,67	0
55	MG	1a	3056	1/1	0.90	0.23	61,61,61,61	0
55	MG	1D	311	1/1	0.90	0.24	35,35,35,35	0
55	MG	1A	3596	1/1	0.90	0.17	51,51,51,51	0
55	MG	1A	3983	1/1	0.91	0.13	51,51,51,51	0
55	MG	1a	3111	1/1	0.91	0.17	51,51,51,51	0
55	MG	2A	3730	1/1	0.91	0.12	68,68,68,68	0
55	MG	1A	3373	1/1	0.91	0.15	42,42,42,42	0
55	MG	2A	3182	1/1	0.91	0.18	54,54,54,54	0
55	MG	2A	3741	1/1	0.91	0.11	57,57,57,57	0
55	MG	1A	3443	1/1	0.91	0.12	44,44,44,44	0
55	MG	1Z	301	1/1	0.91	0.09	51,51,51,51	0
55	MG	1a	3121	1/1	0.91	0.16	60,60,60,60	0
55	MG	10	102	1/1	0.91	0.21	43,43,43,43	0
55	MG	1A	3988	1/1	0.91	0.10	51,51,51,51	0
55	MG	1A	3197	1/1	0.91	0.25	49,49,49,49	0
55	MG	1A	3990	1/1	0.91	0.12	22,22,22,22	0
55	MG	1A	3992	1/1	0.91	0.10	68,68,68,68	0
55	MG	11	102	1/1	0.91	0.11	46,46,46,46	0
55	MG	1d	303	1/1	0.91	0.08	69,69,69,69	0
55	MG	2B	214	1/1	0.91	0.08	81,81,81,81	0
55	MG	1A	3446	1/1	0.91	0.09	42,42,42,42	0
55	MG	1e	202	1/1	0.91	0.25	62,62,62,62	0
55	MG	2D	305	1/1	0.91	0.45	37,37,37,37	0
55	MG	1A	3677	1/1	0.91	0.12	56,56,56,56	0
55	MG	1A	3167	1/1	0.91	0.12	42,42,42,42	0
55	MG	2A	3463	1/1	0.91	0.20	66,66,66,66	0
55	MG	13	103	1/1	0.91	0.17	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3255	1/1	0.91	0.15	37,37,37,37	0
55	MG	1a	3147	1/1	0.91	0.20	70,70,70,70	0
55	MG	2E	307	1/1	0.91	0.15	58,58,58,58	0
55	MG	2G	201	1/1	0.91	0.12	85,85,85,85	0
55	MG	1l	201	1/1	0.91	0.13	54,54,54,54	0
55	MG	1A	3872	1/1	0.91	0.09	24,24,24,24	0
55	MG	17	106	1/1	0.91	0.13	50,50,50,50	0
55	MG	1A	3877	1/1	0.91	0.10	65,65,65,65	0
55	MG	2A	3217	1/1	0.91	0.30	61,61,61,61	0
55	MG	2Q	202	1/1	0.91	0.14	48,48,48,48	0
55	MG	2A	3218	1/1	0.91	0.15	60,60,60,60	0
55	MG	1A	3767	1/1	0.91	0.12	42,42,42,42	0
55	MG	2A	3221	1/1	0.91	0.20	51,51,51,51	0
55	MG	1A	3380	1/1	0.91	0.11	37,37,37,37	0
55	MG	1A	3556	1/1	0.91	0.14	47,47,47,47	0
55	MG	20	101	1/1	0.91	0.11	50,50,50,50	0
55	MG	1A	3168	1/1	0.91	0.08	30,30,30,30	0
55	MG	1a	3013	1/1	0.91	0.16	63,63,63,63	0
55	MG	25	103	1/1	0.91	0.12	53,53,53,53	0
55	MG	2a	3004	1/1	0.91	0.10	56,56,56,56	0
55	MG	2A	3002	1/1	0.91	0.10	43,43,43,43	0
55	MG	2A	3493	1/1	0.91	0.13	57,57,57,57	0
55	MG	1A	3891	1/1	0.91	0.09	42,42,42,42	0
55	MG	2a	3009	1/1	0.91	0.17	57,57,57,57	0
55	MG	1A	3779	1/1	0.91	0.08	29,29,29,29	0
55	MG	1A	3561	1/1	0.91	0.14	56,56,56,56	0
55	MG	2A	3017	1/1	0.91	0.21	45,45,45,45	0
55	MG	1A	3897	1/1	0.91	0.34	26,26,26,26	0
55	MG	2a	3024	1/1	0.91	0.34	61,61,61,61	0
55	MG	2A	3238	1/1	0.91	0.21	56,56,56,56	0
55	MG	1A	4015	1/1	0.91	0.08	41,41,41,41	0
55	MG	2a	3029	1/1	0.91	0.10	52,52,52,52	0
55	MG	2a	3030	1/1	0.91	0.17	52,52,52,52	0
55	MG	2a	3031	1/1	0.91	0.21	56,56,56,56	0
55	MG	2A	3032	1/1	0.91	0.22	57,57,57,57	0
55	MG	2a	3035	1/1	0.91	0.24	60,60,60,60	0
55	MG	1A	3389	1/1	0.91	0.13	40,40,40,40	0
55	MG	1A	3791	1/1	0.91	0.09	26,26,26,26	0
55	MG	2A	3038	1/1	0.91	0.13	62,62,62,62	0
55	MG	1A	3622	1/1	0.91	0.11	17,17,17,17	0
55	MG	1A	4024	1/1	0.91	0.17	55,55,55,55	0
55	MG	1a	3169	1/1	0.91	0.12	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3011	1/1	0.91	0.17	56,56,56,56	0
55	MG	2A	3526	1/1	0.91	0.11	54,54,54,54	0
55	MG	1B	201	1/1	0.91	0.15	50,50,50,50	0
55	MG	1B	202	1/1	0.91	0.25	64,64,64,64	0
55	MG	2A	3529	1/1	0.91	0.12	61,61,61,61	0
55	MG	1a	3044	1/1	0.91	0.18	53,53,53,53	0
55	MG	1A	3925	1/1	0.91	0.14	55,55,55,55	0
55	MG	1a	3046	1/1	0.91	0.22	66,66,66,66	0
55	MG	1A	3261	1/1	0.91	0.09	31,31,31,31	0
55	MG	1A	3175	1/1	0.91	0.18	45,45,45,45	0
55	MG	1A	3211	1/1	0.91	0.27	36,36,36,36	0
55	MG	2A	3067	1/1	0.91	0.10	40,40,40,40	0
55	MG	2A	3542	1/1	0.91	0.11	36,36,36,36	0
55	MG	2A	3547	1/1	0.91	0.11	57,57,57,57	0
55	MG	2A	3070	1/1	0.91	0.23	50,50,50,50	0
55	MG	1A	3943	1/1	0.91	0.08	53,53,53,53	0
55	MG	2A	3075	1/1	0.91	0.13	42,42,42,42	0
55	MG	1A	3802	1/1	0.91	0.08	78,78,78,78	0
55	MG	2A	3557	1/1	0.91	0.27	42,42,42,42	0
55	MG	1a	3060	1/1	0.91	0.26	65,65,65,65	0
55	MG	1A	3945	1/1	0.91	0.08	55,55,55,55	0
55	MG	2A	3312	1/1	0.91	0.20	53,53,53,53	0
55	MG	1A	3947	1/1	0.91	0.08	27,27,27,27	0
55	MG	2A	3316	1/1	0.91	0.12	49,49,49,49	0
55	MG	2A	3581	1/1	0.91	0.12	68,68,68,68	0
55	MG	2A	3085	1/1	0.91	0.17	51,51,51,51	0
55	MG	1A	3156	1/1	0.91	0.16	41,41,41,41	0
55	MG	2a	3090	1/1	0.91	0.35	55,55,55,55	0
55	MG	2A	3091	1/1	0.91	0.10	36,36,36,36	0
55	MG	2A	3335	1/1	0.91	0.10	26,26,26,26	0
55	MG	1A	3021	1/1	0.91	0.10	42,42,42,42	0
55	MG	2a	3106	1/1	0.91	0.15	65,65,65,65	0
55	MG	1A	3713	1/1	0.91	0.16	42,42,42,42	0
55	MG	2A	3621	1/1	0.91	0.11	35,35,35,35	0
55	MG	2a	3109	1/1	0.91	0.14	58,58,58,58	0
55	MG	2a	3111	1/1	0.91	0.17	63,63,63,63	0
55	MG	2A	3622	1/1	0.91	0.10	65,65,65,65	0
55	MG	1D	314	1/1	0.91	0.15	53,53,53,53	0
55	MG	1A	3355	1/1	0.91	0.07	17,17,17,17	0
55	MG	2a	3122	1/1	0.91	0.10	56,56,56,56	0
55	MG	2A	3629	1/1	0.91	0.12	36,36,36,36	0
55	MG	1A	3959	1/1	0.91	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
55	MG	1A	3816	1/1	0.91	0.16	30,30,30,30	0
55	MG	1A	3641	1/1	0.91	0.10	18,18,18,18	0
55	MG	1A	3720	1/1	0.91	0.11	54,54,54,54	0
55	MG	1A	3822	1/1	0.91	0.10	43,43,43,43	0
55	MG	1A	3033	1/1	0.91	0.08	48,48,48,48	0
55	MG	1A	3224	1/1	0.91	0.09	47,47,47,47	0
55	MG	1A	3034	1/1	0.91	0.11	37,37,37,37	0
55	MG	2A	3118	1/1	0.91	0.18	57,57,57,57	0
55	MG	1A	3438	1/1	0.91	0.24	54,54,54,54	0
55	MG	2A	3383	1/1	0.91	0.14	63,63,63,63	0
55	MG	1A	3232	1/1	0.91	0.12	54,54,54,54	0
55	MG	2A	3124	1/1	0.91	0.11	70,70,70,70	0
55	MG	1a	3087	1/1	0.91	0.20	60,60,60,60	0
55	MG	1a	3088	1/1	0.91	0.12	45,45,45,45	0
55	MG	2A	3388	1/1	0.91	0.13	35,35,35,35	0
55	MG	2a	3167	1/1	0.91	0.18	49,49,49,49	0
55	MG	1A	3735	1/1	0.91	0.07	30,30,30,30	0
55	MG	1a	3091	1/1	0.91	0.22	61,61,61,61	0
55	MG	1N	204	1/1	0.91	0.11	62,62,62,62	0
55	MG	2a	3180	1/1	0.91	0.10	63,63,63,63	0
55	MG	1A	3654	1/1	0.91	0.11	44,44,44,44	0
55	MG	1R	203	1/1	0.91	0.11	48,48,48,48	0
55	MG	2a	3187	1/1	0.91	0.15	69,69,69,69	0
55	MG	1A	3746	1/1	0.91	0.19	54,54,54,54	0
55	MG	2A	3711	1/1	0.91	0.22	58,58,58,58	0
55	MG	2A	3712	1/1	0.91	0.09	43,43,43,43	0
55	MG	1T	201	1/1	0.91	0.18	45,45,45,45	0
55	MG	1a	3103	1/1	0.91	0.16	66,66,66,66	0
55	MG	2A	3163	1/1	0.91	0.13	50,50,50,50	0
55	MG	2A	3718	1/1	0.91	0.11	51,51,51,51	0
55	MG	1A	3842	1/1	0.91	0.07	42,42,42,42	0
55	MG	2y	201	1/1	0.91	0.14	82,82,82,82	0
55	MG	2A	3172	1/1	0.91	0.24	63,63,63,63	0
55	MG	2A	3425	1/1	0.91	0.07	24,24,24,24	0
55	MG	1A	3793	1/1	0.92	0.15	53,53,53,53	0
55	MG	1a	3017	1/1	0.92	0.17	60,60,60,60	0
55	MG	1A	3116	1/1	0.92	0.27	34,34,34,34	0
55	MG	1A	4026	1/1	0.92	0.11	50,50,50,50	0
55	MG	1a	3024	1/1	0.92	0.11	46,46,46,46	0
55	MG	2B	206	1/1	0.92	0.21	62,62,62,62	0
55	MG	1A	3934	1/1	0.92	0.23	54,54,54,54	0
55	MG	1y	202	1/1	0.92	0.09	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3259	1/1	0.92	0.08	43,43,43,43	0
55	MG	1A	3695	1/1	0.92	0.14	60,60,60,60	0
55	MG	1A	3345	1/1	0.92	0.11	44,44,44,44	0
55	MG	1B	210	1/1	0.92	0.15	54,54,54,54	0
55	MG	1A	3127	1/1	0.92	0.11	53,53,53,53	0
55	MG	2D	304	1/1	0.92	0.25	44,44,44,44	0
55	MG	2A	3220	1/1	0.92	0.11	57,57,57,57	0
55	MG	1a	3039	1/1	0.92	0.26	61,61,61,61	0
55	MG	1A	3128	1/1	0.92	0.09	67,67,67,67	0
55	MG	2A	3475	1/1	0.92	0.15	51,51,51,51	0
55	MG	1A	3707	1/1	0.92	0.07	32,32,32,32	0
55	MG	2D	312	1/1	0.92	0.16	62,62,62,62	0
55	MG	1A	3618	1/1	0.92	0.23	42,42,42,42	0
55	MG	1A	3080	1/1	0.92	0.12	36,36,36,36	0
55	MG	1A	3360	1/1	0.92	0.14	54,54,54,54	0
55	MG	1A	3958	1/1	0.92	0.07	10,10,10,10	0
55	MG	1A	3442	1/1	0.92	0.14	50,50,50,50	0
55	MG	2A	3487	1/1	0.92	0.11	60,60,60,60	0
55	MG	2A	3040	1/1	0.92	0.15	55,55,55,55	0
55	MG	1D	312	1/1	0.92	0.32	34,34,34,34	0
55	MG	2A	3235	1/1	0.92	0.12	55,55,55,55	0
55	MG	1A	3714	1/1	0.92	0.18	38,38,38,38	0
55	MG	1a	3055	1/1	0.92	0.30	52,52,52,52	0
55	MG	2A	3048	1/1	0.92	0.15	53,53,53,53	0
55	MG	1A	3629	1/1	0.92	0.13	51,51,51,51	0
55	MG	1A	3363	1/1	0.92	0.07	40,40,40,40	0
55	MG	2V	201	1/1	0.92	0.16	51,51,51,51	0
55	MG	1A	3207	1/1	0.92	0.24	46,46,46,46	0
55	MG	2A	3248	1/1	0.92	0.10	58,58,58,58	0
55	MG	2A	3508	1/1	0.92	0.07	62,62,62,62	0
55	MG	1A	3210	1/1	0.92	0.16	47,47,47,47	0
55	MG	1A	3171	1/1	0.92	0.16	37,37,37,37	0
55	MG	28	102	1/1	0.92	0.20	50,50,50,50	0
55	MG	2a	3002	1/1	0.92	0.14	45,45,45,45	0
55	MG	2A	3057	1/1	0.92	0.22	57,57,57,57	0
55	MG	2A	3259	1/1	0.92	0.09	54,54,54,54	0
55	MG	1A	3141	1/1	0.92	0.18	48,48,48,48	0
55	MG	1a	3191	1/1	0.92	0.11	59,59,59,59	0
55	MG	2A	3519	1/1	0.92	0.10	49,49,49,49	0
55	MG	1A	3045	1/1	0.92	0.24	44,44,44,44	0
55	MG	1A	3569	1/1	0.92	0.15	40,40,40,40	0
55	MG	2A	3524	1/1	0.92	0.20	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3014	1/1	0.92	0.29	62,62,62,62	0
55	MG	2a	3015	1/1	0.92	0.23	51,51,51,51	0
55	MG	2a	3016	1/1	0.92	0.16	47,47,47,47	0
55	MG	2a	3017	1/1	0.92	0.23	63,63,63,63	0
55	MG	1a	3196	1/1	0.92	0.10	63,63,63,63	0
55	MG	2A	3271	1/1	0.92	0.14	40,40,40,40	0
55	MG	1A	3732	1/1	0.92	0.12	57,57,57,57	0
55	MG	2A	3276	1/1	0.92	0.13	52,52,52,52	0
55	MG	2a	3027	1/1	0.92	0.31	59,59,59,59	0
55	MG	2a	3028	1/1	0.92	0.22	51,51,51,51	0
55	MG	2A	3530	1/1	0.92	0.07	43,43,43,43	0
55	MG	1A	3187	1/1	0.92	0.09	49,49,49,49	0
55	MG	1G	203	1/1	0.92	0.12	63,63,63,63	0
55	MG	1a	3072	1/1	0.92	0.26	59,59,59,59	0
55	MG	1A	3188	1/1	0.92	0.09	53,53,53,53	0
55	MG	2A	3535	1/1	0.92	0.10	53,53,53,53	0
55	MG	2A	3290	1/1	0.92	0.16	54,54,54,54	0
55	MG	1a	3211	1/1	0.92	0.12	71,71,71,71	0
55	MG	2a	3040	1/1	0.92	0.20	61,61,61,61	0
55	MG	1A	3979	1/1	0.92	0.08	44,44,44,44	0
55	MG	1A	3742	1/1	0.92	0.07	25,25,25,25	0
55	MG	2a	3045	1/1	0.92	0.14	69,69,69,69	0
55	MG	1A	3474	1/1	0.92	0.12	43,43,43,43	0
55	MG	2a	3047	1/1	0.92	0.21	51,51,51,51	0
55	MG	1A	3984	1/1	0.92	0.10	54,54,54,54	0
55	MG	1R	202	1/1	0.92	0.28	30,30,30,30	0
55	MG	1A	3985	1/1	0.92	0.10	39,39,39,39	0
55	MG	2A	3554	1/1	0.92	0.08	62,62,62,62	0
55	MG	1A	3750	1/1	0.92	0.12	54,54,54,54	0
55	MG	2a	3054	1/1	0.92	0.15	53,53,53,53	0
55	MG	1a	3085	1/1	0.92	0.09	62,62,62,62	0
55	MG	1A	3855	1/1	0.92	0.10	37,37,37,37	0
55	MG	2A	3560	1/1	0.92	0.12	69,69,69,69	0
55	MG	2A	3561	1/1	0.92	0.14	45,45,45,45	0
55	MG	2A	3566	1/1	0.92	0.09	63,63,63,63	0
55	MG	1A	3483	1/1	0.92	0.08	32,32,32,32	0
55	MG	2A	3568	1/1	0.92	0.13	64,64,64,64	0
55	MG	2A	3569	1/1	0.92	0.10	61,61,61,61	0
55	MG	1A	3040	1/1	0.92	0.09	51,51,51,51	0
55	MG	1A	3865	1/1	0.92	0.08	55,55,55,55	0
55	MG	1U	208	1/1	0.92	0.29	42,42,42,42	0
55	MG	1A	3489	1/1	0.92	0.07	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3114	1/1	0.92	0.20	44,44,44,44	0
55	MG	2A	3343	1/1	0.92	0.11	27,27,27,27	0
55	MG	1a	3094	1/1	0.92	0.09	58,58,58,58	0
55	MG	2a	3073	1/1	0.92	0.10	69,69,69,69	0
55	MG	1A	3993	1/1	0.92	0.16	46,46,46,46	0
55	MG	2A	3610	1/1	0.92	0.10	63,63,63,63	0
55	MG	1A	3492	1/1	0.92	0.08	30,30,30,30	0
55	MG	2a	3081	1/1	0.92	0.09	49,49,49,49	0
55	MG	2A	3615	1/1	0.92	0.13	40,40,40,40	0
55	MG	10	104	1/1	0.92	0.10	47,47,47,47	0
55	MG	1A	3873	1/1	0.92	0.10	41,41,41,41	0
55	MG	1a	3251	1/1	0.92	0.07	52,52,52,52	0
55	MG	2A	3126	1/1	0.92	0.34	37,37,37,37	0
55	MG	1A	3056	1/1	0.92	0.15	49,49,49,49	0
55	MG	1A	3194	1/1	0.92	0.08	40,40,40,40	0
55	MG	1A	3107	1/1	0.92	0.14	43,43,43,43	0
55	MG	2a	3104	1/1	0.92	0.13	47,47,47,47	0
55	MG	1a	3257	1/1	0.92	0.09	47,47,47,47	0
55	MG	2A	3373	1/1	0.92	0.13	45,45,45,45	0
55	MG	1a	3261	1/1	0.92	0.09	36,36,36,36	0
55	MG	1A	3671	1/1	0.92	0.08	48,48,48,48	0
55	MG	1a	3266	1/1	0.92	0.10	74,74,74,74	0
55	MG	1a	3268	1/1	0.92	0.16	70,70,70,70	0
55	MG	1A	3673	1/1	0.92	0.12	47,47,47,47	0
55	MG	1A	3196	1/1	0.92	0.14	52,52,52,52	0
55	MG	2a	3118	1/1	0.92	0.13	59,59,59,59	0
55	MG	2A	3648	1/1	0.92	0.09	73,73,73,73	0
55	MG	1A	3892	1/1	0.92	0.06	44,44,44,44	0
55	MG	2A	3661	1/1	0.92	0.10	89,89,89,89	0
55	MG	2A	3165	1/1	0.92	0.20	46,46,46,46	0
55	MG	2a	3126	1/1	0.92	0.19	55,55,55,55	0
55	MG	1A	3312	1/1	0.92	0.15	40,40,40,40	0
55	MG	1A	3777	1/1	0.92	0.06	31,31,31,31	0
55	MG	2A	3672	1/1	0.92	0.10	29,29,29,29	0
55	MG	2a	3133	1/1	0.92	0.11	66,66,66,66	0
55	MG	1a	3127	1/1	0.92	0.06	54,54,54,54	0
55	MG	1A	3896	1/1	0.92	0.15	36,36,36,36	0
55	MG	2A	3413	1/1	0.92	0.11	61,61,61,61	0
55	MG	2A	3697	1/1	0.92	0.12	64,64,64,64	0
55	MG	2A	3178	1/1	0.92	0.14	49,49,49,49	0
55	MG	2A	3416	1/1	0.92	0.13	56,56,56,56	0
55	MG	2A	3180	1/1	0.92	0.09	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	17	105	1/1	0.92	0.15	54,54,54,54	0
55	MG	1A	3415	1/1	0.92	0.09	46,46,46,46	0
55	MG	2A	3422	1/1	0.92	0.14	53,53,53,53	0
55	MG	19	102	1/1	0.92	0.14	52,52,52,52	0
55	MG	1a	3001	1/1	0.92	0.08	68,68,68,68	0
55	MG	1A	4011	1/1	0.92	0.18	40,40,40,40	0
55	MG	2A	3188	1/1	0.92	0.12	64,64,64,64	0
55	MG	2a	3174	1/1	0.92	0.11	55,55,55,55	0
55	MG	1a	3004	1/1	0.92	0.13	57,57,57,57	0
55	MG	2A	3190	1/1	0.92	0.14	55,55,55,55	0
55	MG	1A	3781	1/1	0.92	0.12	44,44,44,44	0
55	MG	2A	3720	1/1	0.92	0.13	60,60,60,60	0
55	MG	1a	3006	1/1	0.92	0.09	59,59,59,59	0
55	MG	1A	3058	1/1	0.92	0.16	50,50,50,50	0
55	MG	1f	201	1/1	0.92	0.15	51,51,51,51	0
55	MG	2a	3192	1/1	0.92	0.38	60,60,60,60	0
55	MG	1A	3603	1/1	0.92	0.07	30,30,30,30	0
55	MG	1g	3102	1/1	0.92	0.14	56,56,56,56	0
55	MG	2A	3200	1/1	0.92	0.22	46,46,46,46	0
55	MG	2A	3732	1/1	0.92	0.11	48,48,48,48	0
55	MG	1A	3315	1/1	0.92	0.11	38,38,38,38	0
55	MG	2A	3739	1/1	0.92	0.15	63,63,63,63	0
55	MG	1A	3323	1/1	0.92	0.12	32,32,32,32	0
55	MG	2A	3743	1/1	0.92	0.24	58,58,58,58	0
55	MG	2A	3455	1/1	0.92	0.11	49,49,49,49	0
55	MG	2A	3447	1/1	0.93	0.06	45,45,45,45	0
55	MG	1a	3129	1/1	0.93	0.23	51,51,51,51	0
55	MG	2A	3450	1/1	0.93	0.23	49,49,49,49	0
55	MG	1d	305	1/1	0.93	0.07	79,79,79,79	0
55	MG	1A	4014	1/1	0.93	0.14	45,45,45,45	0
55	MG	1A	3310	1/1	0.93	0.08	37,37,37,37	0
55	MG	1a	3002	1/1	0.93	0.14	50,50,50,50	0
55	MG	1A	3139	1/1	0.93	0.10	48,48,48,48	0
55	MG	1A	4019	1/1	0.93	0.11	46,46,46,46	0
55	MG	1A	3082	1/1	0.93	0.20	45,45,45,45	0
55	MG	2A	3202	1/1	0.93	0.13	46,46,46,46	0
55	MG	1A	3142	1/1	0.93	0.05	31,31,31,31	0
55	MG	1A	3190	1/1	0.93	0.18	30,30,30,30	0
55	MG	1a	3143	1/1	0.93	0.18	54,54,54,54	0
55	MG	1i	201	1/1	0.93	0.19	66,66,66,66	0
55	MG	1A	3702	1/1	0.93	0.13	53,53,53,53	0
55	MG	2A	3209	1/1	0.93	0.21	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3936	1/1	0.93	0.10	52,52,52,52	0
55	MG	1A	3937	1/1	0.93	0.11	58,58,58,58	0
55	MG	1A	3318	1/1	0.93	0.12	41,41,41,41	0
55	MG	2A	3474	1/1	0.93	0.07	29,29,29,29	0
55	MG	1A	3804	1/1	0.93	0.06	24,24,24,24	0
55	MG	1o	102	1/1	0.93	0.14	44,44,44,44	0
55	MG	1a	3019	1/1	0.93	0.11	55,55,55,55	0
55	MG	1a	3020	1/1	0.93	0.09	53,53,53,53	0
55	MG	2F	302	1/1	0.93	0.10	42,42,42,42	0
55	MG	1B	206	1/1	0.93	0.18	56,56,56,56	0
55	MG	2A	3481	1/1	0.93	0.07	42,42,42,42	0
55	MG	1A	3805	1/1	0.93	0.19	52,52,52,52	0
55	MG	1B	209	1/1	0.93	0.07	41,41,41,41	0
55	MG	1a	3027	1/1	0.93	0.26	56,56,56,56	0
55	MG	1A	3038	1/1	0.93	0.09	48,48,48,48	0
55	MG	2A	3006	1/1	0.93	0.12	57,57,57,57	0
55	MG	1A	3387	1/1	0.93	0.09	21,21,21,21	0
55	MG	2A	3494	1/1	0.93	0.10	52,52,52,52	0
55	MG	2A	3495	1/1	0.93	0.07	67,67,67,67	0
55	MG	1a	3031	1/1	0.93	0.33	57,57,57,57	0
55	MG	1a	3163	1/1	0.93	0.25	58,58,58,58	0
55	MG	2A	3023	1/1	0.93	0.16	54,54,54,54	0
55	MG	1B	212	1/1	0.93	0.10	58,58,58,58	0
55	MG	1A	3810	1/1	0.93	0.10	48,48,48,48	0
55	MG	23	101	1/1	0.93	0.08	44,44,44,44	0
55	MG	1B	217	1/1	0.93	0.13	47,47,47,47	0
55	MG	1A	3047	1/1	0.93	0.27	44,44,44,44	0
55	MG	1A	3953	1/1	0.93	0.08	49,49,49,49	0
55	MG	1A	3543	1/1	0.93	0.10	36,36,36,36	0
55	MG	2a	3003	1/1	0.93	0.17	56,56,56,56	0
55	MG	2A	3511	1/1	0.93	0.11	63,63,63,63	0
55	MG	1B	227	1/1	0.93	0.08	42,42,42,42	0
55	MG	2A	3042	1/1	0.93	0.10	40,40,40,40	0
55	MG	2A	3246	1/1	0.93	0.12	57,57,57,57	0
55	MG	1a	3171	1/1	0.93	0.16	62,62,62,62	0
55	MG	1A	3391	1/1	0.93	0.09	23,23,23,23	0
55	MG	2A	3046	1/1	0.93	0.22	58,58,58,58	0
55	MG	1A	3551	1/1	0.93	0.27	59,59,59,59	0
55	MG	1A	3454	1/1	0.93	0.07	44,44,44,44	0
55	MG	1A	3820	1/1	0.93	0.10	52,52,52,52	0
55	MG	2A	3525	1/1	0.93	0.08	39,39,39,39	0
55	MG	1a	3047	1/1	0.93	0.22	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3019	1/1	0.93	0.23	46,46,46,46	0
55	MG	1A	3554	1/1	0.93	0.15	69,69,69,69	0
55	MG	2a	3023	1/1	0.93	0.10	45,45,45,45	0
55	MG	1A	3455	1/1	0.93	0.09	47,47,47,47	0
55	MG	2A	3263	1/1	0.93	0.24	58,58,58,58	0
55	MG	1a	3182	1/1	0.93	0.15	68,68,68,68	0
55	MG	1A	3825	1/1	0.93	0.15	27,27,27,27	0
55	MG	2A	3267	1/1	0.93	0.14	45,45,45,45	0
55	MG	1A	3966	1/1	0.93	0.08	60,60,60,60	0
55	MG	1A	3457	1/1	0.93	0.11	54,54,54,54	0
55	MG	1A	3638	1/1	0.93	0.13	39,39,39,39	0
55	MG	2a	3032	1/1	0.93	0.16	67,67,67,67	0
55	MG	1E	309	1/1	0.93	0.11	48,48,48,48	0
55	MG	2A	3065	1/1	0.93	0.28	54,54,54,54	0
55	MG	1A	3460	1/1	0.93	0.06	18,18,18,18	0
55	MG	2A	3540	1/1	0.93	0.07	40,40,40,40	0
55	MG	1A	3397	1/1	0.93	0.08	40,40,40,40	0
55	MG	2A	3287	1/1	0.93	0.12	34,34,34,34	0
55	MG	1A	3567	1/1	0.93	0.10	43,43,43,43	0
55	MG	1a	3197	1/1	0.93	0.09	74,74,74,74	0
55	MG	2a	3044	1/1	0.93	0.23	74,74,74,74	0
55	MG	2A	3550	1/1	0.93	0.09	68,68,68,68	0
55	MG	1a	3198	1/1	0.93	0.08	60,60,60,60	0
55	MG	2A	3553	1/1	0.93	0.07	59,59,59,59	0
55	MG	2A	3077	1/1	0.93	0.34	49,49,49,49	0
55	MG	1A	3327	1/1	0.93	0.09	53,53,53,53	0
55	MG	1F	320	1/1	0.93	0.08	47,47,47,47	0
55	MG	1A	3975	1/1	0.93	0.11	35,35,35,35	0
55	MG	2a	3052	1/1	0.93	0.30	65,65,65,65	0
55	MG	2A	3308	1/1	0.93	0.15	60,60,60,60	0
55	MG	2A	3309	1/1	0.93	0.12	52,52,52,52	0
55	MG	1A	3473	1/1	0.93	0.07	37,37,37,37	0
55	MG	2A	3086	1/1	0.93	0.10	47,47,47,47	0
55	MG	2A	3088	1/1	0.93	0.42	49,49,49,49	0
55	MG	2A	3315	1/1	0.93	0.13	48,48,48,48	0
55	MG	1A	3248	1/1	0.93	0.10	34,34,34,34	0
55	MG	1a	3208	1/1	0.93	0.12	49,49,49,49	0
55	MG	2A	3092	1/1	0.93	0.10	63,63,63,63	0
55	MG	1A	3741	1/1	0.93	0.17	48,48,48,48	0
55	MG	1a	3212	1/1	0.93	0.09	60,60,60,60	0
55	MG	1N	202	1/1	0.93	0.17	42,42,42,42	0
55	MG	1A	3253	1/1	0.93	0.26	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3588	1/1	0.93	0.11	36,36,36,36	0
55	MG	2A	3590	1/1	0.93	0.11	50,50,50,50	0
55	MG	2A	3593	1/1	0.93	0.07	61,61,61,61	0
55	MG	2A	3594	1/1	0.93	0.12	51,51,51,51	0
55	MG	2A	3603	1/1	0.93	0.07	54,54,54,54	0
55	MG	2A	3606	1/1	0.93	0.12	55,55,55,55	0
55	MG	2a	3077	1/1	0.93	0.09	53,53,53,53	0
55	MG	1A	3351	1/1	0.93	0.07	57,57,57,57	0
55	MG	1a	3077	1/1	0.93	0.20	53,53,53,53	0
55	MG	2A	3101	1/1	0.93	0.08	49,49,49,49	0
55	MG	1O	201	1/1	0.93	0.08	51,51,51,51	0
55	MG	2a	3085	1/1	0.93	0.32	50,50,50,50	0
55	MG	1A	3155	1/1	0.93	0.13	35,35,35,35	0
55	MG	2A	3351	1/1	0.93	0.12	45,45,45,45	0
55	MG	2A	3354	1/1	0.93	0.11	44,44,44,44	0
55	MG	2A	3626	1/1	0.93	0.09	51,51,51,51	0
55	MG	1a	3080	1/1	0.93	0.40	66,66,66,66	0
55	MG	1A	3293	1/1	0.93	0.12	46,46,46,46	0
55	MG	1A	3494	1/1	0.93	0.10	28,28,28,28	0
55	MG	2a	3098	1/1	0.93	0.12	74,74,74,74	0
55	MG	2a	3100	1/1	0.93	0.24	61,61,61,61	0
55	MG	1A	3858	1/1	0.93	0.11	46,46,46,46	0
55	MG	2A	3367	1/1	0.93	0.09	53,53,53,53	0
55	MG	1A	3860	1/1	0.93	0.24	36,36,36,36	0
55	MG	2A	3633	1/1	0.93	0.07	52,52,52,52	0
55	MG	1a	3232	1/1	0.93	0.25	69,69,69,69	0
55	MG	2A	3370	1/1	0.93	0.16	50,50,50,50	0
55	MG	1A	3213	1/1	0.93	0.10	35,35,35,35	0
55	MG	1A	3668	1/1	0.93	0.15	27,27,27,27	0
55	MG	1A	3757	1/1	0.93	0.10	49,49,49,49	0
55	MG	2a	3117	1/1	0.93	0.14	55,55,55,55	0
55	MG	2A	3382	1/1	0.93	0.10	49,49,49,49	0
55	MG	2A	3642	1/1	0.93	0.13	62,62,62,62	0
55	MG	1a	3089	1/1	0.93	0.18	56,56,56,56	0
55	MG	2A	3652	1/1	0.93	0.08	75,75,75,75	0
55	MG	1a	3240	1/1	0.93	0.21	67,67,67,67	0
55	MG	1A	3430	1/1	0.93	0.10	29,29,29,29	0
55	MG	2A	3132	1/1	0.93	0.14	56,56,56,56	0
55	MG	1V	206	1/1	0.93	0.12	62,62,62,62	0
55	MG	2A	3135	1/1	0.93	0.20	49,49,49,49	0
55	MG	2a	3130	1/1	0.93	0.11	69,69,69,69	0
55	MG	2A	3389	1/1	0.93	0.11	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3680	1/1	0.93	0.09	56,56,56,56	0
55	MG	2A	3685	1/1	0.93	0.08	56,56,56,56	0
55	MG	1A	3065	1/1	0.93	0.09	46,46,46,46	0
55	MG	1A	3507	1/1	0.93	0.10	65,65,65,65	0
55	MG	1A	3595	1/1	0.93	0.10	42,42,42,42	0
55	MG	2A	3694	1/1	0.93	0.10	59,59,59,59	0
55	MG	2A	3400	1/1	0.93	0.07	46,46,46,46	0
55	MG	2A	3402	1/1	0.93	0.07	54,54,54,54	0
55	MG	2A	3146	1/1	0.93	0.13	62,62,62,62	0
55	MG	1a	3252	1/1	0.93	0.08	53,53,53,53	0
55	MG	1A	3678	1/1	0.93	0.15	55,55,55,55	0
55	MG	1a	3098	1/1	0.93	0.17	61,61,61,61	0
55	MG	1A	3679	1/1	0.93	0.08	48,48,48,48	0
55	MG	1A	3680	1/1	0.93	0.10	61,61,61,61	0
55	MG	1A	3773	1/1	0.93	0.10	42,42,42,42	0
55	MG	1A	3298	1/1	0.93	0.16	41,41,41,41	0
55	MG	1a	3265	1/1	0.93	0.13	59,59,59,59	0
55	MG	1A	3513	1/1	0.93	0.08	16,16,16,16	0
55	MG	1A	3217	1/1	0.93	0.31	34,34,34,34	0
55	MG	2A	3175	1/1	0.93	0.15	60,60,60,60	0
55	MG	1A	4006	1/1	0.93	0.15	55,55,55,55	0
55	MG	1A	3786	1/1	0.93	0.08	44,44,44,44	0
55	MG	1a	3117	1/1	0.93	0.14	63,63,63,63	0
55	MG	1A	3002	1/1	0.93	0.09	43,43,43,43	0
55	MG	1A	3602	1/1	0.93	0.07	35,35,35,35	0
55	MG	2A	3435	1/1	0.93	0.14	56,56,56,56	0
55	MG	1A	3437	1/1	0.93	0.10	56,56,56,56	0
55	MG	1a	3124	1/1	0.93	0.13	54,54,54,54	0
55	MG	1a	3126	1/1	0.93	0.08	52,52,52,52	0
55	MG	2t	201	1/1	0.93	0.17	51,51,51,51	0
55	MG	2A	3737	1/1	0.93	0.09	58,58,58,58	0
55	MG	1A	3910	1/1	0.93	0.20	32,32,32,32	0
55	MG	1A	4013	1/1	0.93	0.10	54,54,54,54	0
58	ZN	24	501	1/1	0.93	0.17	132,132,132,132	0
55	MG	1A	3459	1/1	0.94	0.12	30,30,30,30	0
55	MG	1a	3149	1/1	0.94	0.11	47,47,47,47	0
55	MG	1A	3782	1/1	0.94	0.10	43,43,43,43	0
55	MG	1A	3023	1/1	0.94	0.31	37,37,37,37	0
55	MG	1a	3152	1/1	0.94	0.24	53,53,53,53	0
55	MG	1A	3918	1/1	0.94	0.08	37,37,37,37	0
55	MG	2B	209	1/1	0.94	0.08	71,71,71,71	0
55	MG	1a	3018	1/1	0.94	0.08	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3226	1/1	0.94	0.09	44,44,44,44	0
55	MG	1A	3676	1/1	0.94	0.20	33,33,33,33	0
55	MG	2B	215	1/1	0.94	0.09	58,58,58,58	0
55	MG	1A	3930	1/1	0.94	0.10	54,54,54,54	0
55	MG	1a	3158	1/1	0.94	0.12	52,52,52,52	0
55	MG	1a	3022	1/1	0.94	0.14	54,54,54,54	0
55	MG	1B	207	1/1	0.94	0.14	57,57,57,57	0
55	MG	1A	3378	1/1	0.94	0.07	27,27,27,27	0
55	MG	1A	3097	1/1	0.94	0.10	51,51,51,51	0
55	MG	1A	3025	1/1	0.94	0.24	49,49,49,49	0
55	MG	1A	3581	1/1	0.94	0.09	29,29,29,29	0
55	MG	1A	3940	1/1	0.94	0.07	51,51,51,51	0
55	MG	2E	302	1/1	0.94	0.27	41,41,41,41	0
55	MG	1A	3234	1/1	0.94	0.24	33,33,33,33	0
55	MG	1a	3033	1/1	0.94	0.13	33,33,33,33	0
55	MG	1a	3034	1/1	0.94	0.06	42,42,42,42	0
55	MG	2F	301	1/1	0.94	0.18	43,43,43,43	0
55	MG	2A	3226	1/1	0.94	0.08	52,52,52,52	0
55	MG	2A	3036	1/1	0.94	0.22	52,52,52,52	0
55	MG	1A	3302	1/1	0.94	0.13	36,36,36,36	0
55	MG	1A	3305	1/1	0.94	0.11	45,45,45,45	0
55	MG	2A	3039	1/1	0.94	0.18	48,48,48,48	0
55	MG	2N	201	1/1	0.94	0.10	69,69,69,69	0
55	MG	2A	3232	1/1	0.94	0.16	58,58,58,58	0
55	MG	2A	3233	1/1	0.94	0.15	50,50,50,50	0
55	MG	1A	3588	1/1	0.94	0.08	40,40,40,40	0
55	MG	1A	3235	1/1	0.94	0.39	36,36,36,36	0
55	MG	1A	3949	1/1	0.94	0.12	41,41,41,41	0
55	MG	1a	3176	1/1	0.94	0.08	64,64,64,64	0
55	MG	2T	202	1/1	0.94	0.08	62,62,62,62	0
55	MG	2A	3239	1/1	0.94	0.23	47,47,47,47	0
55	MG	2A	3240	1/1	0.94	0.22	48,48,48,48	0
55	MG	2V	202	1/1	0.94	0.21	45,45,45,45	0
55	MG	2A	3502	1/1	0.94	0.11	47,47,47,47	0
55	MG	1B	228	1/1	0.94	0.10	65,65,65,65	0
55	MG	1B	229	1/1	0.94	0.07	62,62,62,62	0
55	MG	1A	3400	1/1	0.94	0.05	15,15,15,15	0
55	MG	25	101	1/1	0.94	0.26	45,45,45,45	0
55	MG	2A	3245	1/1	0.94	0.08	48,48,48,48	0
55	MG	1D	302	1/1	0.94	0.15	43,43,43,43	0
55	MG	2A	3509	1/1	0.94	0.11	44,44,44,44	0
55	MG	1D	303	1/1	0.94	0.13	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3051	1/1	0.94	0.26	56,56,56,56	0
55	MG	2A	3250	1/1	0.94	0.08	56,56,56,56	0
55	MG	1A	3951	1/1	0.94	0.07	40,40,40,40	0
55	MG	1A	3806	1/1	0.94	0.11	48,48,48,48	0
55	MG	2A	3254	1/1	0.94	0.20	55,55,55,55	0
55	MG	1A	3102	1/1	0.94	0.13	44,44,44,44	0
55	MG	1A	3406	1/1	0.94	0.16	41,41,41,41	0
55	MG	1A	3598	1/1	0.94	0.14	38,38,38,38	0
55	MG	2A	3059	1/1	0.94	0.10	37,37,37,37	0
55	MG	2A	3523	1/1	0.94	0.15	48,48,48,48	0
55	MG	1A	3811	1/1	0.94	0.09	55,55,55,55	0
55	MG	1a	3058	1/1	0.94	0.20	44,44,44,44	0
55	MG	1A	3812	1/1	0.94	0.12	66,66,66,66	0
55	MG	1A	3500	1/1	0.94	0.07	29,29,29,29	0
55	MG	2a	3020	1/1	0.94	0.15	73,73,73,73	0
55	MG	2A	3066	1/1	0.94	0.07	42,42,42,42	0
55	MG	2A	3268	1/1	0.94	0.11	54,54,54,54	0
55	MG	1A	3961	1/1	0.94	0.12	42,42,42,42	0
55	MG	1A	3502	1/1	0.94	0.16	56,56,56,56	0
55	MG	1A	3701	1/1	0.94	0.16	59,59,59,59	0
55	MG	1A	3105	1/1	0.94	0.19	38,38,38,38	0
55	MG	1A	3032	1/1	0.94	0.10	37,37,37,37	0
55	MG	1a	3067	1/1	0.94	0.29	55,55,55,55	0
55	MG	1a	3206	1/1	0.94	0.19	68,68,68,68	0
55	MG	1A	3508	1/1	0.94	0.11	51,51,51,51	0
55	MG	2A	3289	1/1	0.94	0.07	41,41,41,41	0
55	MG	1A	3158	1/1	0.94	0.29	35,35,35,35	0
55	MG	2A	3541	1/1	0.94	0.08	55,55,55,55	0
55	MG	1a	3209	1/1	0.94	0.08	77,77,77,77	0
55	MG	1A	3314	1/1	0.94	0.25	29,29,29,29	0
55	MG	1a	3071	1/1	0.94	0.39	60,60,60,60	0
55	MG	1A	3514	1/1	0.94	0.06	30,30,30,30	0
55	MG	2A	3299	1/1	0.94	0.06	30,30,30,30	0
55	MG	1A	3972	1/1	0.94	0.19	43,43,43,43	0
55	MG	2A	3303	1/1	0.94	0.10	55,55,55,55	0
55	MG	1A	3608	1/1	0.94	0.28	29,29,29,29	0
55	MG	1A	3043	1/1	0.94	0.18	27,27,27,27	0
55	MG	2A	3094	1/1	0.94	0.12	37,37,37,37	0
55	MG	1a	3221	1/1	0.94	0.10	60,60,60,60	0
55	MG	1A	3115	1/1	0.94	0.17	42,42,42,42	0
55	MG	1A	3428	1/1	0.94	0.07	25,25,25,25	0
55	MG	1A	3319	1/1	0.94	0.25	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3020	1/1	0.94	0.17	37,37,37,37	0
55	MG	1Q	204	1/1	0.94	0.14	32,32,32,32	0
55	MG	2A	3104	1/1	0.94	0.17	43,43,43,43	0
55	MG	2A	3572	1/1	0.94	0.16	49,49,49,49	0
55	MG	1A	3324	1/1	0.94	0.12	51,51,51,51	0
55	MG	2a	3058	1/1	0.94	0.13	53,53,53,53	0
55	MG	1A	3841	1/1	0.94	0.08	32,32,32,32	0
55	MG	1A	3122	1/1	0.94	0.08	27,27,27,27	0
55	MG	2A	3340	1/1	0.94	0.10	43,43,43,43	0
55	MG	1A	3203	1/1	0.94	0.23	48,48,48,48	0
55	MG	1A	3123	1/1	0.94	0.13	30,30,30,30	0
55	MG	1A	3537	1/1	0.94	0.12	40,40,40,40	0
55	MG	1A	3267	1/1	0.94	0.16	30,30,30,30	0
55	MG	2A	3348	1/1	0.94	0.08	35,35,35,35	0
55	MG	1U	201	1/1	0.94	0.15	30,30,30,30	0
55	MG	1A	3124	1/1	0.94	0.22	50,50,50,50	0
55	MG	2a	3069	1/1	0.94	0.21	55,55,55,55	0
55	MG	1a	3242	1/1	0.94	0.09	54,54,54,54	0
55	MG	1a	3092	1/1	0.94	0.16	62,62,62,62	0
55	MG	1V	204	1/1	0.94	0.11	31,31,31,31	0
55	MG	2A	3357	1/1	0.94	0.11	47,47,47,47	0
55	MG	1A	3740	1/1	0.94	0.08	47,47,47,47	0
55	MG	1V	207	1/1	0.94	0.06	55,55,55,55	0
55	MG	2A	3365	1/1	0.94	0.17	47,47,47,47	0
55	MG	1A	3019	1/1	0.94	0.19	38,38,38,38	0
55	MG	1X	101	1/1	0.94	0.07	56,56,56,56	0
55	MG	2A	3623	1/1	0.94	0.09	28,28,28,28	0
55	MG	1A	3859	1/1	0.94	0.09	49,49,49,49	0
55	MG	2A	3136	1/1	0.94	0.13	54,54,54,54	0
55	MG	1a	3101	1/1	0.94	0.13	52,52,52,52	0
55	MG	2A	3371	1/1	0.94	0.06	31,31,31,31	0
55	MG	2A	3138	1/1	0.94	0.28	53,53,53,53	0
55	MG	1A	3048	1/1	0.94	0.25	37,37,37,37	0
55	MG	2a	3092	1/1	0.94	0.15	52,52,52,52	0
55	MG	2A	3375	1/1	0.94	0.11	61,61,61,61	0
55	MG	2A	3379	1/1	0.94	0.09	52,52,52,52	0
55	MG	2A	3141	1/1	0.94	0.13	63,63,63,63	0
55	MG	2A	3142	1/1	0.94	0.09	48,48,48,48	0
55	MG	2a	3102	1/1	0.94	0.25	44,44,44,44	0
55	MG	2a	3103	1/1	0.94	0.10	52,52,52,52	0
55	MG	2A	3636	1/1	0.94	0.10	49,49,49,49	0
55	MG	2a	3105	1/1	0.94	0.15	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3259	1/1	0.94	0.08	51,51,51,51	0
55	MG	2A	3145	1/1	0.94	0.07	41,41,41,41	0
55	MG	1A	3357	1/1	0.94	0.10	24,24,24,24	0
55	MG	2A	3149	1/1	0.94	0.10	33,33,33,33	0
55	MG	1A	3089	1/1	0.94	0.11	33,33,33,33	0
55	MG	1a	3264	1/1	0.94	0.08	68,68,68,68	0
55	MG	2A	3157	1/1	0.94	0.13	68,68,68,68	0
55	MG	2A	3657	1/1	0.94	0.06	48,48,48,48	0
55	MG	1A	3869	1/1	0.94	0.16	28,28,28,28	0
55	MG	2A	3392	1/1	0.94	0.18	62,62,62,62	0
55	MG	2a	3121	1/1	0.94	0.12	59,59,59,59	0
55	MG	1A	3179	1/1	0.94	0.12	53,53,53,53	0
55	MG	1A	3553	1/1	0.94	0.06	25,25,25,25	0
55	MG	2A	3397	1/1	0.94	0.09	50,50,50,50	0
55	MG	2A	3164	1/1	0.94	0.09	54,54,54,54	0
55	MG	2A	3674	1/1	0.94	0.07	41,41,41,41	0
55	MG	1a	3113	1/1	0.94	0.12	52,52,52,52	0
55	MG	2A	3681	1/1	0.94	0.09	62,62,62,62	0
55	MG	2A	3403	1/1	0.94	0.09	50,50,50,50	0
55	MG	2A	3406	1/1	0.94	0.10	63,63,63,63	0
55	MG	2a	3131	1/1	0.94	0.09	59,59,59,59	0
55	MG	2a	3132	1/1	0.94	0.13	52,52,52,52	0
55	MG	2A	3408	1/1	0.94	0.07	35,35,35,35	0
55	MG	1A	3279	1/1	0.94	0.20	62,62,62,62	0
55	MG	1A	3874	1/1	0.94	0.11	64,64,64,64	0
55	MG	1A	3183	1/1	0.94	0.48	37,37,37,37	0
55	MG	1A	3281	1/1	0.94	0.07	37,37,37,37	0
55	MG	1A	4005	1/1	0.94	0.12	60,60,60,60	0
55	MG	2a	3152	1/1	0.94	0.07	68,68,68,68	0
55	MG	2A	3417	1/1	0.94	0.12	41,41,41,41	0
55	MG	1A	3648	1/1	0.94	0.09	46,46,46,46	0
55	MG	2a	3156	1/1	0.94	0.12	73,73,73,73	0
55	MG	2A	3179	1/1	0.94	0.15	45,45,45,45	0
55	MG	17	101	1/1	0.94	0.14	24,24,24,24	0
55	MG	2A	3707	1/1	0.94	0.08	53,53,53,53	0
55	MG	2A	3710	1/1	0.94	0.14	45,45,45,45	0
55	MG	1A	3560	1/1	0.94	0.12	52,52,52,52	0
55	MG	2a	3169	1/1	0.94	0.10	67,67,67,67	0
55	MG	1A	3765	1/1	0.94	0.12	49,49,49,49	0
55	MG	1A	3450	1/1	0.94	0.06	38,38,38,38	0
55	MG	1A	3288	1/1	0.94	0.30	42,42,42,42	0
55	MG	2A	3186	1/1	0.94	0.10	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3660	1/1	0.94	0.06	33,33,33,33	0
55	MG	1A	3661	1/1	0.94	0.08	18,18,18,18	0
55	MG	1A	3895	1/1	0.94	0.09	46,46,46,46	0
55	MG	1A	3566	1/1	0.94	0.13	53,53,53,53	0
55	MG	2A	3434	1/1	0.94	0.14	42,42,42,42	0
55	MG	1e	205	1/1	0.94	0.17	62,62,62,62	0
55	MG	1A	3665	1/1	0.94	0.07	18,18,18,18	0
55	MG	2A	3437	1/1	0.94	0.09	62,62,62,62	0
55	MG	1A	3902	1/1	0.94	0.07	46,46,46,46	0
55	MG	2f	201	1/1	0.94	0.14	38,38,38,38	0
55	MG	1A	3184	1/1	0.94	0.16	42,42,42,42	0
55	MG	1a	3142	1/1	0.94	0.09	49,49,49,49	0
55	MG	2A	3442	1/1	0.94	0.08	48,48,48,48	0
55	MG	2A	3445	1/1	0.94	0.09	55,55,55,55	0
55	MG	2A	3197	1/1	0.94	0.09	54,54,54,54	0
55	MG	2A	3198	1/1	0.94	0.16	41,41,41,41	0
55	MG	1a	3008	1/1	0.94	0.09	58,58,58,58	0
55	MG	1a	3009	1/1	0.94	0.21	47,47,47,47	0
55	MG	1A	3092	1/1	0.94	0.21	31,31,31,31	0
55	MG	1A	3064	1/1	0.95	0.18	58,58,58,58	0
55	MG	1A	3727	1/1	0.95	0.07	38,38,38,38	0
55	MG	1A	3613	1/1	0.95	0.14	27,27,27,27	0
55	MG	1A	3051	1/1	0.95	0.15	27,27,27,27	0
55	MG	1A	3866	1/1	0.95	0.08	38,38,38,38	0
55	MG	2B	212	1/1	0.95	0.06	42,42,42,42	0
55	MG	1y	201	1/1	0.95	0.06	58,58,58,58	0
55	MG	1A	3160	1/1	0.95	0.07	28,28,28,28	0
55	MG	1A	3328	1/1	0.95	0.07	26,26,26,26	0
55	MG	1A	3734	1/1	0.95	0.08	56,56,56,56	0
55	MG	2A	3001	1/1	0.95	0.28	55,55,55,55	0
55	MG	2D	301	1/1	0.95	0.15	34,34,34,34	0
55	MG	2D	303	1/1	0.95	0.50	40,40,40,40	0
55	MG	1A	3432	1/1	0.95	0.09	19,19,19,19	0
55	MG	1A	3531	1/1	0.95	0.12	39,39,39,39	0
55	MG	2D	307	1/1	0.95	0.16	47,47,47,47	0
55	MG	1A	4017	1/1	0.95	0.15	44,44,44,44	0
55	MG	1A	3875	1/1	0.95	0.05	35,35,35,35	0
55	MG	2A	3012	1/1	0.95	0.09	49,49,49,49	0
55	MG	1a	3014	1/1	0.95	0.09	56,56,56,56	0
55	MG	1A	3330	1/1	0.95	0.17	45,45,45,45	0
55	MG	2E	301	1/1	0.95	0.09	54,54,54,54	0
55	MG	2A	3473	1/1	0.95	0.07	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3016	1/1	0.95	0.10	63,63,63,63	0
55	MG	1A	3625	1/1	0.95	0.12	25,25,25,25	0
55	MG	1A	3161	1/1	0.95	0.26	30,30,30,30	0
55	MG	2A	3026	1/1	0.95	0.12	41,41,41,41	0
55	MG	2A	3228	1/1	0.95	0.07	45,45,45,45	0
55	MG	2A	3029	1/1	0.95	0.05	40,40,40,40	0
55	MG	1A	3743	1/1	0.95	0.10	46,46,46,46	0
55	MG	1A	3744	1/1	0.95	0.06	17,17,17,17	0
55	MG	1A	3889	1/1	0.95	0.08	75,75,75,75	0
55	MG	1A	3890	1/1	0.95	0.07	28,28,28,28	0
55	MG	1A	3745	1/1	0.95	0.05	37,37,37,37	0
55	MG	1A	3344	1/1	0.95	0.10	51,51,51,51	0
55	MG	1a	3025	1/1	0.95	0.09	57,57,57,57	0
55	MG	1A	3749	1/1	0.95	0.07	63,63,63,63	0
55	MG	1a	3028	1/1	0.95	0.12	64,64,64,64	0
55	MG	1A	3225	1/1	0.95	0.14	27,27,27,27	0
55	MG	1A	3632	1/1	0.95	0.07	27,27,27,27	0
55	MG	1A	3349	1/1	0.95	0.07	30,30,30,30	0
55	MG	1A	3125	1/1	0.95	0.18	40,40,40,40	0
55	MG	1a	3175	1/1	0.95	0.07	56,56,56,56	0
55	MG	1A	3227	1/1	0.95	0.12	33,33,33,33	0
55	MG	1A	3068	1/1	0.95	0.25	37,37,37,37	0
55	MG	2A	3506	1/1	0.95	0.10	33,33,33,33	0
55	MG	1A	3907	1/1	0.95	0.07	54,54,54,54	0
55	MG	1A	3545	1/1	0.95	0.07	29,29,29,29	0
55	MG	1A	3760	1/1	0.95	0.06	33,33,33,33	0
55	MG	1A	3287	1/1	0.95	0.19	25,25,25,25	0
55	MG	27	101	1/1	0.95	0.26	37,37,37,37	0
55	MG	28	101	1/1	0.95	0.09	53,53,53,53	0
55	MG	1B	220	1/1	0.95	0.05	51,51,51,51	0
55	MG	1A	3764	1/1	0.95	0.14	47,47,47,47	0
55	MG	2A	3257	1/1	0.95	0.17	49,49,49,49	0
55	MG	2A	3258	1/1	0.95	0.15	41,41,41,41	0
55	MG	1B	223	1/1	0.95	0.13	53,53,53,53	0
55	MG	1a	3188	1/1	0.95	0.06	57,57,57,57	0
55	MG	1B	226	1/1	0.95	0.08	41,41,41,41	0
55	MG	2a	3008	1/1	0.95	0.21	55,55,55,55	0
55	MG	2A	3064	1/1	0.95	0.11	26,26,26,26	0
55	MG	1A	3549	1/1	0.95	0.16	39,39,39,39	0
55	MG	1A	3358	1/1	0.95	0.08	44,44,44,44	0
55	MG	1A	3071	1/1	0.95	0.06	30,30,30,30	0
55	MG	2a	3013	1/1	0.95	0.07	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	3049	1/1	0.95	0.12	49,49,49,49	0
55	MG	1A	3129	1/1	0.95	0.07	31,31,31,31	0
55	MG	1A	3291	1/1	0.95	0.09	65,65,65,65	0
55	MG	2A	3272	1/1	0.95	0.12	31,31,31,31	0
55	MG	1A	3074	1/1	0.95	0.06	29,29,29,29	0
55	MG	1A	3649	1/1	0.95	0.06	30,30,30,30	0
55	MG	2A	3078	1/1	0.95	0.10	47,47,47,47	0
55	MG	2A	3279	1/1	0.95	0.17	48,48,48,48	0
55	MG	1A	3651	1/1	0.95	0.16	38,38,38,38	0
55	MG	2A	3081	1/1	0.95	0.08	48,48,48,48	0
55	MG	1a	3057	1/1	0.95	0.07	66,66,66,66	0
55	MG	2A	3284	1/1	0.95	0.06	44,44,44,44	0
55	MG	2A	3285	1/1	0.95	0.08	11,11,11,11	0
55	MG	1A	3778	1/1	0.95	0.08	45,45,45,45	0
55	MG	2A	3084	1/1	0.95	0.08	50,50,50,50	0
55	MG	1A	3557	1/1	0.95	0.10	44,44,44,44	0
55	MG	1A	3653	1/1	0.95	0.09	30,30,30,30	0
55	MG	2A	3087	1/1	0.95	0.17	33,33,33,33	0
55	MG	2a	3034	1/1	0.95	0.26	58,58,58,58	0
55	MG	1A	3239	1/1	0.95	0.24	30,30,30,30	0
55	MG	2A	3089	1/1	0.95	0.09	37,37,37,37	0
55	MG	2A	3297	1/1	0.95	0.06	34,34,34,34	0
55	MG	1D	316	1/1	0.95	0.10	52,52,52,52	0
55	MG	1a	3210	1/1	0.95	0.07	54,54,54,54	0
55	MG	1a	3063	1/1	0.95	0.12	69,69,69,69	0
55	MG	2A	3304	1/1	0.95	0.18	58,58,58,58	0
55	MG	1A	3783	1/1	0.95	0.12	20,20,20,20	0
55	MG	2A	3306	1/1	0.95	0.07	30,30,30,30	0
55	MG	1a	3213	1/1	0.95	0.08	83,83,83,83	0
55	MG	2A	3095	1/1	0.95	0.19	46,46,46,46	0
55	MG	1a	3214	1/1	0.95	0.09	62,62,62,62	0
55	MG	1A	3131	1/1	0.95	0.15	41,41,41,41	0
55	MG	2A	3313	1/1	0.95	0.09	46,46,46,46	0
55	MG	1A	3018	1/1	0.95	0.21	23,23,23,23	0
55	MG	2A	3570	1/1	0.95	0.09	54,54,54,54	0
55	MG	2A	3571	1/1	0.95	0.07	31,31,31,31	0
55	MG	1E	308	1/1	0.95	0.05	28,28,28,28	0
55	MG	2a	3055	1/1	0.95	0.23	49,49,49,49	0
55	MG	1A	3562	1/1	0.95	0.05	32,32,32,32	0
55	MG	1A	3456	1/1	0.95	0.11	45,45,45,45	0
55	MG	2A	3103	1/1	0.95	0.10	37,37,37,37	0
55	MG	2A	3323	1/1	0.95	0.08	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3324	1/1	0.95	0.10	56,56,56,56	0
55	MG	1F	313	1/1	0.95	0.10	27,27,27,27	0
55	MG	1A	3664	1/1	0.95	0.10	42,42,42,42	0
55	MG	2A	3106	1/1	0.95	0.30	60,60,60,60	0
55	MG	1A	3244	1/1	0.95	0.25	49,49,49,49	0
55	MG	2A	3591	1/1	0.95	0.09	77,77,77,77	0
55	MG	1A	3247	1/1	0.95	0.26	45,45,45,45	0
55	MG	1A	3301	1/1	0.95	0.11	43,43,43,43	0
55	MG	2A	3596	1/1	0.95	0.08	30,30,30,30	0
55	MG	2A	3600	1/1	0.95	0.11	66,66,66,66	0
55	MG	1A	3461	1/1	0.95	0.07	38,38,38,38	0
55	MG	2A	3346	1/1	0.95	0.06	30,30,30,30	0
55	MG	1G	202	1/1	0.95	0.17	49,49,49,49	0
55	MG	1A	3172	1/1	0.95	0.24	50,50,50,50	0
55	MG	1G	204	1/1	0.95	0.12	42,42,42,42	0
55	MG	2A	3119	1/1	0.95	0.07	36,36,36,36	0
55	MG	2A	3120	1/1	0.95	0.18	55,55,55,55	0
55	MG	1a	3234	1/1	0.95	0.17	73,73,73,73	0
55	MG	1A	3252	1/1	0.95	0.31	28,28,28,28	0
55	MG	2A	3123	1/1	0.95	0.19	45,45,45,45	0
55	MG	2A	3624	1/1	0.95	0.08	47,47,47,47	0
55	MG	2A	3625	1/1	0.95	0.10	71,71,71,71	0
55	MG	1A	3675	1/1	0.95	0.07	41,41,41,41	0
55	MG	1A	3574	1/1	0.95	0.10	41,41,41,41	0
55	MG	1A	3575	1/1	0.95	0.07	33,33,33,33	0
55	MG	1A	3307	1/1	0.95	0.06	42,42,42,42	0
55	MG	1A	3308	1/1	0.95	0.04	41,41,41,41	0
55	MG	2a	3094	1/1	0.95	0.08	62,62,62,62	0
55	MG	1P	203	1/1	0.95	0.12	27,27,27,27	0
55	MG	1A	3809	1/1	0.95	0.08	62,62,62,62	0
55	MG	1A	3036	1/1	0.95	0.07	41,41,41,41	0
55	MG	1A	3485	1/1	0.95	0.07	26,26,26,26	0
55	MG	1A	3583	1/1	0.95	0.16	29,29,29,29	0
55	MG	1R	204	1/1	0.95	0.11	55,55,55,55	0
55	MG	1a	3254	1/1	0.95	0.15	56,56,56,56	0
55	MG	1A	3016	1/1	0.95	0.31	33,33,33,33	0
55	MG	2A	3143	1/1	0.95	0.10	42,42,42,42	0
55	MG	1A	3487	1/1	0.95	0.08	64,64,64,64	0
55	MG	1A	3586	1/1	0.95	0.07	30,30,30,30	0
55	MG	1a	3258	1/1	0.95	0.29	61,61,61,61	0
55	MG	2a	3110	1/1	0.95	0.18	48,48,48,48	0
55	MG	2A	3147	1/1	0.95	0.09	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3396	1/1	0.95	0.06	34,34,34,34	0
55	MG	2A	3658	1/1	0.95	0.09	79,79,79,79	0
55	MG	2A	3150	1/1	0.95	0.11	49,49,49,49	0
55	MG	2a	3115	1/1	0.95	0.15	57,57,57,57	0
55	MG	2A	3151	1/1	0.95	0.15	52,52,52,52	0
55	MG	1a	3260	1/1	0.95	0.11	49,49,49,49	0
55	MG	2A	3153	1/1	0.95	0.24	48,48,48,48	0
55	MG	1A	3256	1/1	0.95	0.17	37,37,37,37	0
55	MG	1A	3144	1/1	0.95	0.05	32,32,32,32	0
55	MG	1a	3100	1/1	0.95	0.24	56,56,56,56	0
55	MG	2A	3160	1/1	0.95	0.09	30,30,30,30	0
55	MG	1A	3591	1/1	0.95	0.10	56,56,56,56	0
55	MG	1A	3059	1/1	0.95	0.15	50,50,50,50	0
55	MG	1A	3594	1/1	0.95	0.10	22,22,22,22	0
55	MG	2A	3404	1/1	0.95	0.09	51,51,51,51	0
55	MG	1A	3700	1/1	0.95	0.45	42,42,42,42	0
55	MG	2A	3166	1/1	0.95	0.10	69,69,69,69	0
55	MG	2A	3695	1/1	0.95	0.06	45,45,45,45	0
55	MG	2A	3170	1/1	0.95	0.11	56,56,56,56	0
55	MG	2A	3698	1/1	0.95	0.07	71,71,71,71	0
55	MG	1A	3212	1/1	0.95	0.26	36,36,36,36	0
55	MG	2A	3700	1/1	0.95	0.08	38,38,38,38	0
55	MG	2a	3143	1/1	0.95	0.06	61,61,61,61	0
55	MG	2a	3144	1/1	0.95	0.06	71,71,71,71	0
55	MG	2a	3147	1/1	0.95	0.07	39,39,39,39	0
55	MG	1A	3830	1/1	0.95	0.07	10,10,10,10	0
55	MG	1A	3117	1/1	0.95	0.10	47,47,47,47	0
55	MG	1A	3411	1/1	0.95	0.17	39,39,39,39	0
55	MG	1a	3114	1/1	0.95	0.16	52,52,52,52	0
55	MG	1a	3276	1/1	0.95	0.07	67,67,67,67	0
55	MG	1A	3503	1/1	0.95	0.07	40,40,40,40	0
55	MG	1A	3262	1/1	0.95	0.14	38,38,38,38	0
55	MG	1A	3991	1/1	0.95	0.07	45,45,45,45	0
55	MG	2a	3162	1/1	0.95	0.07	62,62,62,62	0
55	MG	1A	3709	1/1	0.95	0.08	47,47,47,47	0
55	MG	1A	3214	1/1	0.95	0.07	36,36,36,36	0
55	MG	2a	3166	1/1	0.95	0.06	62,62,62,62	0
55	MG	2A	3714	1/1	0.95	0.08	63,63,63,63	0
55	MG	1d	304	1/1	0.95	0.10	69,69,69,69	0
55	MG	2a	3170	1/1	0.95	0.09	51,51,51,51	0
55	MG	1A	3417	1/1	0.95	0.10	20,20,20,20	0
55	MG	2a	3172	1/1	0.95	0.06	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3846	1/1	0.95	0.12	41,41,41,41	0
55	MG	1A	3418	1/1	0.95	0.08	14,14,14,14	0
55	MG	1A	3512	1/1	0.95	0.08	22,22,22,22	0
55	MG	2a	3177	1/1	0.95	0.17	58,58,58,58	0
55	MG	2A	3431	1/1	0.95	0.07	25,25,25,25	0
55	MG	2A	3432	1/1	0.95	0.09	54,54,54,54	0
55	MG	1A	3605	1/1	0.95	0.09	48,48,48,48	0
55	MG	15	103	1/1	0.95	0.14	32,32,32,32	0
55	MG	1A	3320	1/1	0.95	0.18	31,31,31,31	0
55	MG	2A	3193	1/1	0.95	0.09	45,45,45,45	0
55	MG	2a	3191	1/1	0.95	0.34	51,51,51,51	0
55	MG	1a	3133	1/1	0.95	0.22	51,51,51,51	0
55	MG	15	107	1/1	0.95	0.08	52,52,52,52	0
55	MG	1A	3719	1/1	0.95	0.09	31,31,31,31	0
55	MG	1a	3136	1/1	0.95	0.24	62,62,62,62	0
55	MG	1A	4001	1/1	0.95	0.23	37,37,37,37	0
55	MG	2A	3742	1/1	0.95	0.12	43,43,43,43	0
55	MG	2k	201	1/1	0.95	0.12	53,53,53,53	0
55	MG	2A	3444	1/1	0.95	0.11	51,51,51,51	0
55	MG	1k	201	1/1	0.95	0.12	41,41,41,41	0
55	MG	2r	101	1/1	0.95	0.09	63,63,63,63	0
55	MG	1A	3856	1/1	0.95	0.10	40,40,40,40	0
55	MG	1A	3060	1/1	0.95	0.14	32,32,32,32	0
55	MG	1m	201	1/1	0.95	0.09	69,69,69,69	0
57	MPD	18	102	8/8	0.95	0.11	31,33,34,41	0
55	MG	1A	3423	1/1	0.95	0.07	25,25,25,25	0
58	ZN	14	501	1/1	0.95	0.15	115,115,115,115	0
55	MG	2A	3451	1/1	0.95	0.07	54,54,54,54	0
55	MG	1A	3465	1/1	0.96	0.07	38,38,38,38	0
55	MG	1A	3466	1/1	0.96	0.07	49,49,49,49	0
55	MG	2B	218	1/1	0.96	0.06	67,67,67,67	0
55	MG	15	101	1/1	0.96	0.12	35,35,35,35	0
55	MG	2B	220	1/1	0.96	0.07	51,51,51,51	0
55	MG	1A	3468	1/1	0.96	0.07	36,36,36,36	0
55	MG	15	104	1/1	0.96	0.20	28,28,28,28	0
55	MG	1A	3578	1/1	0.96	0.10	19,19,19,19	0
55	MG	1A	3472	1/1	0.96	0.09	49,49,49,49	0
55	MG	2A	3237	1/1	0.96	0.29	39,39,39,39	0
55	MG	15	108	1/1	0.96	0.11	60,60,60,60	0
55	MG	1A	3580	1/1	0.96	0.12	24,24,24,24	0
55	MG	17	102	1/1	0.96	0.08	23,23,23,23	0
55	MG	2A	3045	1/1	0.96	0.11	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3073	1/1	0.96	0.17	27,27,27,27	0
55	MG	1A	3237	1/1	0.96	0.25	35,35,35,35	0
55	MG	2A	3485	1/1	0.96	0.12	26,26,26,26	0
55	MG	2E	303	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3689	1/1	0.96	0.06	48,48,48,48	0
55	MG	1A	3821	1/1	0.96	0.09	36,36,36,36	0
55	MG	1A	3477	1/1	0.96	0.06	18,18,18,18	0
55	MG	1A	3381	1/1	0.96	0.12	41,41,41,41	0
55	MG	1A	3106	1/1	0.96	0.12	35,35,35,35	0
55	MG	1A	3694	1/1	0.96	0.09	42,42,42,42	0
55	MG	1A	3827	1/1	0.96	0.22	42,42,42,42	0
55	MG	1A	3828	1/1	0.96	0.16	26,26,26,26	0
55	MG	1A	3385	1/1	0.96	0.05	23,23,23,23	0
55	MG	1A	3303	1/1	0.96	0.06	41,41,41,41	0
55	MG	1a	3174	1/1	0.96	0.09	59,59,59,59	0
55	MG	1A	3388	1/1	0.96	0.05	21,21,21,21	0
55	MG	1A	3833	1/1	0.96	0.04	20,20,20,20	0
55	MG	1A	3834	1/1	0.96	0.06	47,47,47,47	0
55	MG	1A	3057	1/1	0.96	0.12	19,19,19,19	0
55	MG	1A	3836	1/1	0.96	0.08	43,43,43,43	0
55	MG	1A	3150	1/1	0.96	0.06	41,41,41,41	0
55	MG	2A	3068	1/1	0.96	0.05	42,42,42,42	0
55	MG	2A	3266	1/1	0.96	0.10	35,35,35,35	0
55	MG	1A	3593	1/1	0.96	0.09	54,54,54,54	0
55	MG	2V	203	1/1	0.96	0.06	46,46,46,46	0
55	MG	2A	3513	1/1	0.96	0.11	37,37,37,37	0
55	MG	1A	3151	1/1	0.96	0.07	38,38,38,38	0
55	MG	2A	3072	1/1	0.96	0.22	39,39,39,39	0
55	MG	1A	3496	1/1	0.96	0.09	49,49,49,49	0
55	MG	2A	3517	1/1	0.96	0.09	48,48,48,48	0
55	MG	1a	3185	1/1	0.96	0.07	72,72,72,72	0
55	MG	2A	3275	1/1	0.96	0.06	61,61,61,61	0
55	MG	1a	3186	1/1	0.96	0.08	56,56,56,56	0
55	MG	1A	3075	1/1	0.96	0.27	36,36,36,36	0
55	MG	1A	3153	1/1	0.96	0.09	42,42,42,42	0
55	MG	1A	3199	1/1	0.96	0.12	40,40,40,40	0
55	MG	1A	3850	1/1	0.96	0.12	38,38,38,38	0
55	MG	1A	3711	1/1	0.96	0.07	37,37,37,37	0
55	MG	1A	3110	1/1	0.96	0.12	27,27,27,27	0
55	MG	1a	3194	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3407	1/1	0.96	0.08	20,20,20,20	0
55	MG	1A	3112	1/1	0.96	0.12	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3409	1/1	0.96	0.07	18,18,18,18	0
55	MG	1A	4022	1/1	0.96	0.06	56,56,56,56	0
55	MG	1A	3410	1/1	0.96	0.06	34,34,34,34	0
55	MG	1A	3718	1/1	0.96	0.08	43,43,43,43	0
55	MG	1A	3079	1/1	0.96	0.18	34,34,34,34	0
55	MG	1A	3010	1/1	0.96	0.10	46,46,46,46	0
55	MG	1A	3049	1/1	0.96	0.12	32,32,32,32	0
55	MG	1A	3864	1/1	0.96	0.09	40,40,40,40	0
55	MG	2A	3539	1/1	0.96	0.06	43,43,43,43	0
55	MG	1A	3119	1/1	0.96	0.19	34,34,34,34	0
55	MG	1B	204	1/1	0.96	0.08	38,38,38,38	0
55	MG	1B	205	1/1	0.96	0.21	34,34,34,34	0
55	MG	2A	3544	1/1	0.96	0.05	29,29,29,29	0
55	MG	1A	3726	1/1	0.96	0.07	23,23,23,23	0
55	MG	2A	3307	1/1	0.96	0.05	20,20,20,20	0
55	MG	1A	3209	1/1	0.96	0.17	38,38,38,38	0
55	MG	1A	3611	1/1	0.96	0.24	35,35,35,35	0
55	MG	2A	3551	1/1	0.96	0.06	47,47,47,47	0
55	MG	2A	3102	1/1	0.96	0.15	43,43,43,43	0
55	MG	1A	3612	1/1	0.96	0.18	34,34,34,34	0
55	MG	1A	3518	1/1	0.96	0.08	42,42,42,42	0
55	MG	1A	3322	1/1	0.96	0.07	27,27,27,27	0
55	MG	1A	3050	1/1	0.96	0.11	31,31,31,31	0
55	MG	2A	3558	1/1	0.96	0.06	56,56,56,56	0
55	MG	1a	3048	1/1	0.96	0.14	47,47,47,47	0
55	MG	1a	3220	1/1	0.96	0.11	48,48,48,48	0
55	MG	2A	3318	1/1	0.96	0.07	35,35,35,35	0
55	MG	2A	3111	1/1	0.96	0.11	65,65,65,65	0
55	MG	2A	3322	1/1	0.96	0.06	31,31,31,31	0
55	MG	1B	213	1/1	0.96	0.04	49,49,49,49	0
55	MG	2a	3042	1/1	0.96	0.24	55,55,55,55	0
55	MG	1A	3521	1/1	0.96	0.17	33,33,33,33	0
55	MG	2A	3325	1/1	0.96	0.06	31,31,31,31	0
55	MG	1A	3088	1/1	0.96	0.10	35,35,35,35	0
55	MG	2A	3331	1/1	0.96	0.07	36,36,36,36	0
55	MG	2A	3573	1/1	0.96	0.06	60,60,60,60	0
55	MG	2A	3332	1/1	0.96	0.07	35,35,35,35	0
55	MG	1A	3739	1/1	0.96	0.19	37,37,37,37	0
55	MG	1A	3885	1/1	0.96	0.08	19,19,19,19	0
55	MG	1A	3525	1/1	0.96	0.06	35,35,35,35	0
55	MG	1a	3229	1/1	0.96	0.08	53,53,53,53	0
55	MG	1A	3265	1/1	0.96	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
55	MG	1A	3529	1/1	0.96	0.14	51,51,51,51	0
55	MG	1A	3425	1/1	0.96	0.10	35,35,35,35	0
55	MG	1A	3627	1/1	0.96	0.13	47,47,47,47	0
55	MG	1A	3326	1/1	0.96	0.09	23,23,23,23	0
55	MG	1A	3166	1/1	0.96	0.06	28,28,28,28	0
55	MG	1A	3747	1/1	0.96	0.06	34,34,34,34	0
55	MG	2A	3595	1/1	0.96	0.07	29,29,29,29	0
55	MG	1B	231	1/1	0.96	0.05	46,46,46,46	0
55	MG	1A	3031	1/1	0.96	0.15	47,47,47,47	0
55	MG	1A	3536	1/1	0.96	0.08	50,50,50,50	0
55	MG	1A	3270	1/1	0.96	0.28	50,50,50,50	0
55	MG	1A	3898	1/1	0.96	0.09	43,43,43,43	0
55	MG	1A	3636	1/1	0.96	0.12	46,46,46,46	0
55	MG	1A	3905	1/1	0.96	0.04	32,32,32,32	0
55	MG	1A	3333	1/1	0.96	0.05	26,26,26,26	0
55	MG	1A	3091	1/1	0.96	0.14	28,28,28,28	0
55	MG	2A	3620	1/1	0.96	0.07	21,21,21,21	0
55	MG	1A	3052	1/1	0.96	0.16	24,24,24,24	0
55	MG	1A	3542	1/1	0.96	0.10	24,24,24,24	0
55	MG	1a	3075	1/1	0.96	0.24	51,51,51,51	0
55	MG	1A	3170	1/1	0.96	0.28	34,34,34,34	0
55	MG	1E	304	1/1	0.96	0.11	19,19,19,19	0
55	MG	1A	3642	1/1	0.96	0.11	41,41,41,41	0
55	MG	2a	3079	1/1	0.96	0.16	57,57,57,57	0
55	MG	2A	3374	1/1	0.96	0.07	40,40,40,40	0
55	MG	1A	3347	1/1	0.96	0.05	40,40,40,40	0
55	MG	2a	3083	1/1	0.96	0.31	50,50,50,50	0
55	MG	2A	3376	1/1	0.96	0.07	59,59,59,59	0
55	MG	2A	3377	1/1	0.96	0.14	51,51,51,51	0
55	MG	1A	3547	1/1	0.96	0.05	26,26,26,26	0
55	MG	2a	3087	1/1	0.96	0.13	51,51,51,51	0
55	MG	1A	3348	1/1	0.96	0.08	45,45,45,45	0
55	MG	1F	312	1/1	0.96	0.09	30,30,30,30	0
55	MG	1A	3927	1/1	0.96	0.11	31,31,31,31	0
55	MG	1A	3928	1/1	0.96	0.06	51,51,51,51	0
55	MG	1A	3646	1/1	0.96	0.12	49,49,49,49	0
55	MG	2a	3093	1/1	0.96	0.06	60,60,60,60	0
55	MG	1F	317	1/1	0.96	0.18	48,48,48,48	0
55	MG	1A	3931	1/1	0.96	0.05	53,53,53,53	0
55	MG	1A	3276	1/1	0.96	0.12	41,41,41,41	0
55	MG	1A	3218	1/1	0.96	0.10	54,54,54,54	0
55	MG	2a	3099	1/1	0.96	0.11	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3641	1/1	0.96	0.09	68,68,68,68	0
55	MG	1A	3770	1/1	0.96	0.09	42,42,42,42	0
55	MG	2A	3644	1/1	0.96	0.10	68,68,68,68	0
55	MG	2A	3646	1/1	0.96	0.08	54,54,54,54	0
55	MG	1A	3771	1/1	0.96	0.05	22,22,22,22	0
55	MG	2A	3649	1/1	0.96	0.14	57,57,57,57	0
55	MG	2A	3168	1/1	0.96	0.08	44,44,44,44	0
55	MG	1A	3220	1/1	0.96	0.09	26,26,26,26	0
55	MG	1A	3941	1/1	0.96	0.09	54,54,54,54	0
55	MG	1A	3650	1/1	0.96	0.13	34,34,34,34	0
55	MG	1A	3774	1/1	0.96	0.05	18,18,18,18	0
55	MG	1A	3775	1/1	0.96	0.06	30,30,30,30	0
55	MG	1A	3776	1/1	0.96	0.05	38,38,38,38	0
55	MG	2A	3669	1/1	0.96	0.06	47,47,47,47	0
55	MG	2A	3405	1/1	0.96	0.08	27,27,27,27	0
55	MG	1A	3067	1/1	0.96	0.09	34,34,34,34	0
55	MG	2A	3673	1/1	0.96	0.09	30,30,30,30	0
55	MG	2A	3407	1/1	0.96	0.08	36,36,36,36	0
55	MG	2A	3678	1/1	0.96	0.06	55,55,55,55	0
55	MG	1P	201	1/1	0.96	0.36	32,32,32,32	0
55	MG	1A	3004	1/1	0.96	0.08	39,39,39,39	0
55	MG	1A	3286	1/1	0.96	0.18	31,31,31,31	0
55	MG	2A	3686	1/1	0.96	0.08	51,51,51,51	0
55	MG	1Q	201	1/1	0.96	0.24	41,41,41,41	0
55	MG	1A	3098	1/1	0.96	0.16	29,29,29,29	0
55	MG	2A	3692	1/1	0.96	0.05	48,48,48,48	0
55	MG	1R	201	1/1	0.96	0.18	34,34,34,34	0
55	MG	1A	3070	1/1	0.96	0.17	30,30,30,30	0
55	MG	1A	3657	1/1	0.96	0.16	49,49,49,49	0
55	MG	2A	3419	1/1	0.96	0.21	52,52,52,52	0
55	MG	1A	3658	1/1	0.96	0.18	51,51,51,51	0
55	MG	1A	3659	1/1	0.96	0.07	29,29,29,29	0
55	MG	2a	3140	1/1	0.96	0.08	66,66,66,66	0
55	MG	1A	3788	1/1	0.96	0.10	34,34,34,34	0
55	MG	2a	3142	1/1	0.96	0.11	58,58,58,58	0
55	MG	1A	3789	1/1	0.96	0.08	40,40,40,40	0
55	MG	1A	3361	1/1	0.96	0.07	34,34,34,34	0
55	MG	2a	3145	1/1	0.96	0.07	57,57,57,57	0
55	MG	1a	3122	1/1	0.96	0.10	60,60,60,60	0
55	MG	2A	3426	1/1	0.96	0.07	47,47,47,47	0
55	MG	1A	3453	1/1	0.96	0.10	56,56,56,56	0
55	MG	1T	205	1/1	0.96	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
55	MG	1A	3134	1/1	0.96	0.25	32,32,32,32	0
55	MG	1U	202	1/1	0.96	0.23	31,31,31,31	0
55	MG	1U	204	1/1	0.96	0.07	48,48,48,48	0
55	MG	1A	3963	1/1	0.96	0.05	46,46,46,46	0
55	MG	1a	3130	1/1	0.96	0.06	42,42,42,42	0
55	MG	1V	202	1/1	0.96	0.17	24,24,24,24	0
55	MG	1A	3663	1/1	0.96	0.07	16,16,16,16	0
55	MG	2a	3164	1/1	0.96	0.07	53,53,53,53	0
55	MG	1V	205	1/1	0.96	0.07	45,45,45,45	0
55	MG	1A	3794	1/1	0.96	0.07	22,22,22,22	0
55	MG	2A	3438	1/1	0.96	0.05	47,47,47,47	0
55	MG	1A	3136	1/1	0.96	0.07	38,38,38,38	0
55	MG	2A	3722	1/1	0.96	0.09	44,44,44,44	0
55	MG	1A	3565	1/1	0.96	0.09	45,45,45,45	0
55	MG	1W	202	1/1	0.96	0.15	47,47,47,47	0
55	MG	2A	3208	1/1	0.96	0.08	45,45,45,45	0
55	MG	2A	3729	1/1	0.96	0.06	63,63,63,63	0
55	MG	2A	3443	1/1	0.96	0.06	36,36,36,36	0
55	MG	1A	3799	1/1	0.96	0.08	72,72,72,72	0
55	MG	2a	3178	1/1	0.96	0.06	64,64,64,64	0
55	MG	2A	3003	1/1	0.96	0.06	48,48,48,48	0
55	MG	2A	3733	1/1	0.96	0.07	28,28,28,28	0
55	MG	1A	3228	1/1	0.96	0.05	31,31,31,31	0
55	MG	1A	3137	1/1	0.96	0.23	32,32,32,32	0
55	MG	2A	3213	1/1	0.96	0.09	51,51,51,51	0
55	MG	2A	3449	1/1	0.96	0.06	52,52,52,52	0
55	MG	2A	3008	1/1	0.96	0.17	35,35,35,35	0
55	MG	1A	3372	1/1	0.96	0.08	50,50,50,50	0
55	MG	2A	3011	1/1	0.96	0.09	36,36,36,36	0
55	MG	2A	3453	1/1	0.96	0.11	47,47,47,47	0
55	MG	2B	201	1/1	0.96	0.07	67,67,67,67	0
55	MG	1A	3803	1/1	0.96	0.06	42,42,42,42	0
55	MG	2A	3013	1/1	0.96	0.09	17,17,17,17	0
55	MG	1a	3145	1/1	0.96	0.07	56,56,56,56	0
55	MG	1A	3100	1/1	0.96	0.19	31,31,31,31	0
55	MG	2A	3018	1/1	0.96	0.19	41,41,41,41	0
55	MG	2A	3019	1/1	0.96	0.29	43,43,43,43	0
55	MG	2A	3022	1/1	0.96	0.36	45,45,45,45	0
55	MG	1A	3571	1/1	0.96	0.07	39,39,39,39	0
56	ARG	1B	232	12/12	0.96	0.09	28,40,45,47	0
55	MG	1A	3674	1/1	0.96	0.06	34,34,34,34	0
55	MG	2B	211	1/1	0.96	0.17	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3233	1/1	0.96	0.13	25,25,25,25	0
55	MG	1A	3297	1/1	0.96	0.10	9,9,9,9	0
55	MG	1A	3008	1/1	0.96	0.05	39,39,39,39	0
58	ZN	2n	102	1/1	0.96	0.05	97,97,97,97	0
55	MG	1A	3748	1/1	0.97	0.11	39,39,39,39	0
55	MG	1A	3879	1/1	0.97	0.07	46,46,46,46	0
55	MG	1A	3321	1/1	0.97	0.06	21,21,21,21	0
55	MG	1A	3149	1/1	0.97	0.16	31,31,31,31	0
55	MG	1A	3884	1/1	0.97	0.07	28,28,28,28	0
55	MG	1A	3635	1/1	0.97	0.07	41,41,41,41	0
55	MG	1a	3012	1/1	0.97	0.07	17,17,17,17	0
55	MG	2A	3472	1/1	0.97	0.08	53,53,53,53	0
55	MG	1A	3752	1/1	0.97	0.07	45,45,45,45	0
55	MG	1A	3085	1/1	0.97	0.31	34,34,34,34	0
55	MG	1A	3113	1/1	0.97	0.07	26,26,26,26	0
55	MG	1A	3063	1/1	0.97	0.08	27,27,27,27	0
55	MG	1A	3087	1/1	0.97	0.06	37,37,37,37	0
55	MG	2A	3053	1/1	0.97	0.05	32,32,32,32	0
55	MG	1A	3427	1/1	0.97	0.11	22,22,22,22	0
55	MG	2A	3480	1/1	0.97	0.06	61,61,61,61	0
55	MG	1A	3154	1/1	0.97	0.27	33,33,33,33	0
55	MG	2D	302	1/1	0.97	0.11	41,41,41,41	0
55	MG	1A	3429	1/1	0.97	0.06	12,12,12,12	0
55	MG	2A	3249	1/1	0.97	0.21	46,46,46,46	0
55	MG	1A	3763	1/1	0.97	0.06	37,37,37,37	0
55	MG	2D	306	1/1	0.97	0.08	34,34,34,34	0
55	MG	2A	3486	1/1	0.97	0.06	33,33,33,33	0
55	MG	1A	3028	1/1	0.97	0.09	35,35,35,35	0
55	MG	1a	3183	1/1	0.97	0.08	42,42,42,42	0
55	MG	1A	3118	1/1	0.97	0.19	29,29,29,29	0
55	MG	2A	3491	1/1	0.97	0.06	48,48,48,48	0
55	MG	1A	3541	1/1	0.97	0.04	17,17,17,17	0
55	MG	1A	3157	1/1	0.97	0.10	34,34,34,34	0
55	MG	1A	3433	1/1	0.97	0.05	27,27,27,27	0
55	MG	1A	3544	1/1	0.97	0.06	36,36,36,36	0
55	MG	1A	3334	1/1	0.97	0.07	10,10,10,10	0
55	MG	2A	3499	1/1	0.97	0.06	28,28,28,28	0
55	MG	2A	3500	1/1	0.97	0.08	45,45,45,45	0
55	MG	1B	224	1/1	0.97	0.07	54,54,54,54	0
55	MG	1A	3546	1/1	0.97	0.10	43,43,43,43	0
55	MG	2F	303	1/1	0.97	0.12	40,40,40,40	0
55	MG	2F	304	1/1	0.97	0.13	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3069	1/1	0.97	0.17	44,44,44,44	0
55	MG	1A	3336	1/1	0.97	0.05	26,26,26,26	0
55	MG	1A	3205	1/1	0.97	0.29	36,36,36,36	0
55	MG	1A	3912	1/1	0.97	0.09	17,17,17,17	0
55	MG	2A	3073	1/1	0.97	0.10	44,44,44,44	0
55	MG	1A	3913	1/1	0.97	0.06	31,31,31,31	0
55	MG	2A	3269	1/1	0.97	0.04	19,19,19,19	0
55	MG	2Q	201	1/1	0.97	0.08	41,41,41,41	0
55	MG	1A	3339	1/1	0.97	0.06	31,31,31,31	0
55	MG	2Q	203	1/1	0.97	0.05	57,57,57,57	0
55	MG	1A	3917	1/1	0.97	0.08	13,13,13,13	0
55	MG	1A	3340	1/1	0.97	0.04	28,28,28,28	0
55	MG	1a	3200	1/1	0.97	0.07	64,64,64,64	0
55	MG	1D	304	1/1	0.97	0.17	31,31,31,31	0
55	MG	1D	306	1/1	0.97	0.10	32,32,32,32	0
55	MG	2T	204	1/1	0.97	0.09	49,49,49,49	0
55	MG	2A	3278	1/1	0.97	0.05	33,33,33,33	0
55	MG	1a	3042	1/1	0.97	0.14	54,54,54,54	0
55	MG	1D	308	1/1	0.97	0.05	40,40,40,40	0
55	MG	2W	201	1/1	0.97	0.20	38,38,38,38	0
55	MG	2W	202	1/1	0.97	0.19	44,44,44,44	0
55	MG	1D	309	1/1	0.97	0.23	28,28,28,28	0
55	MG	1A	3919	1/1	0.97	0.09	20,20,20,20	0
55	MG	2A	3521	1/1	0.97	0.08	30,30,30,30	0
55	MG	1A	3921	1/1	0.97	0.04	13,13,13,13	0
55	MG	1A	3923	1/1	0.97	0.16	34,34,34,34	0
55	MG	1A	3268	1/1	0.97	0.21	28,28,28,28	0
55	MG	2A	3288	1/1	0.97	0.06	31,31,31,31	0
55	MG	1A	3206	1/1	0.97	0.12	46,46,46,46	0
55	MG	1A	3029	1/1	0.97	0.04	26,26,26,26	0
55	MG	1A	3159	1/1	0.97	0.06	32,32,32,32	0
55	MG	2a	3001	1/1	0.97	0.07	44,44,44,44	0
55	MG	1A	3780	1/1	0.97	0.10	17,17,17,17	0
55	MG	1a	3054	1/1	0.97	0.14	46,46,46,46	0
55	MG	1a	3217	1/1	0.97	0.10	58,58,58,58	0
55	MG	1A	3120	1/1	0.97	0.07	18,18,18,18	0
55	MG	2A	3298	1/1	0.97	0.06	28,28,28,28	0
55	MG	1E	301	1/1	0.97	0.10	26,26,26,26	0
55	MG	2A	3300	1/1	0.97	0.08	25,25,25,25	0
55	MG	1E	303	1/1	0.97	0.14	26,26,26,26	0
55	MG	1A	3558	1/1	0.97	0.07	40,40,40,40	0
55	MG	1E	306	1/1	0.97	0.09	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3121	1/1	0.97	0.07	32,32,32,32	0
55	MG	1a	3224	1/1	0.97	0.06	70,70,70,70	0
55	MG	1A	3784	1/1	0.97	0.20	38,38,38,38	0
55	MG	1A	3352	1/1	0.97	0.05	27,27,27,27	0
55	MG	2A	3543	1/1	0.97	0.06	31,31,31,31	0
55	MG	1a	3227	1/1	0.97	0.05	71,71,71,71	0
55	MG	2A	3546	1/1	0.97	0.04	48,48,48,48	0
55	MG	1F	302	1/1	0.97	0.23	26,26,26,26	0
55	MG	1F	306	1/1	0.97	0.18	33,33,33,33	0
55	MG	1F	308	1/1	0.97	0.09	32,32,32,32	0
55	MG	2A	3109	1/1	0.97	0.09	40,40,40,40	0
55	MG	1F	309	1/1	0.97	0.19	25,25,25,25	0
55	MG	1A	3090	1/1	0.97	0.07	43,43,43,43	0
55	MG	2A	3113	1/1	0.97	0.10	46,46,46,46	0
55	MG	1A	3277	1/1	0.97	0.11	40,40,40,40	0
55	MG	2A	3319	1/1	0.97	0.06	25,25,25,25	0
55	MG	1A	3163	1/1	0.97	0.06	23,23,23,23	0
55	MG	1F	314	1/1	0.97	0.22	33,33,33,33	0
55	MG	2A	3117	1/1	0.97	0.22	48,48,48,48	0
55	MG	1A	3066	1/1	0.97	0.12	25,25,25,25	0
55	MG	1A	3215	1/1	0.97	0.26	27,27,27,27	0
55	MG	2A	3565	1/1	0.97	0.06	57,57,57,57	0
55	MG	2A	3326	1/1	0.97	0.08	36,36,36,36	0
55	MG	2A	3328	1/1	0.97	0.04	27,27,27,27	0
55	MG	1a	3239	1/1	0.97	0.08	55,55,55,55	0
55	MG	1A	3015	1/1	0.97	0.15	34,34,34,34	0
55	MG	1F	318	1/1	0.97	0.18	39,39,39,39	0
55	MG	2A	3333	1/1	0.97	0.08	40,40,40,40	0
55	MG	1A	3284	1/1	0.97	0.18	47,47,47,47	0
55	MG	2A	3336	1/1	0.97	0.15	48,48,48,48	0
55	MG	1A	3362	1/1	0.97	0.05	8,8,8,8	0
55	MG	2A	3125	1/1	0.97	0.06	39,39,39,39	0
55	MG	2A	3577	1/1	0.97	0.06	28,28,28,28	0
55	MG	2A	3578	1/1	0.97	0.07	36,36,36,36	0
55	MG	1A	3094	1/1	0.97	0.11	26,26,26,26	0
55	MG	2A	3127	1/1	0.97	0.06	34,34,34,34	0
55	MG	2A	3582	1/1	0.97	0.08	57,57,57,57	0
55	MG	1A	3364	1/1	0.97	0.05	15,15,15,15	0
55	MG	2A	3345	1/1	0.97	0.10	37,37,37,37	0
55	MG	2A	3586	1/1	0.97	0.04	37,37,37,37	0
55	MG	1a	3250	1/1	0.97	0.05	55,55,55,55	0
55	MG	1A	3365	1/1	0.97	0.06	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3053	1/1	0.97	0.25	27,27,27,27	0
55	MG	2A	3134	1/1	0.97	0.19	44,44,44,44	0
55	MG	1A	3054	1/1	0.97	0.13	30,30,30,30	0
55	MG	1A	3368	1/1	0.97	0.05	26,26,26,26	0
55	MG	2A	3352	1/1	0.97	0.05	31,31,31,31	0
55	MG	1a	3083	1/1	0.97	0.05	46,46,46,46	0
55	MG	2A	3597	1/1	0.97	0.06	51,51,51,51	0
55	MG	2A	3599	1/1	0.97	0.07	46,46,46,46	0
55	MG	1A	3369	1/1	0.97	0.07	31,31,31,31	0
55	MG	2A	3602	1/1	0.97	0.06	55,55,55,55	0
55	MG	2A	3356	1/1	0.97	0.20	45,45,45,45	0
55	MG	1A	3012	1/1	0.97	0.26	43,43,43,43	0
55	MG	2A	3607	1/1	0.97	0.06	29,29,29,29	0
55	MG	1A	3013	1/1	0.97	0.07	20,20,20,20	0
55	MG	1A	3685	1/1	0.97	0.14	25,25,25,25	0
55	MG	2A	3611	1/1	0.97	0.05	51,51,51,51	0
55	MG	2A	3364	1/1	0.97	0.06	52,52,52,52	0
55	MG	2A	3614	1/1	0.97	0.06	29,29,29,29	0
55	MG	2a	3075	1/1	0.97	0.21	39,39,39,39	0
55	MG	2a	3076	1/1	0.97	0.09	46,46,46,46	0
55	MG	1A	3223	1/1	0.97	0.10	23,23,23,23	0
55	MG	2A	3616	1/1	0.97	0.06	64,64,64,64	0
55	MG	1A	3374	1/1	0.97	0.07	25,25,25,25	0
55	MG	2A	3619	1/1	0.97	0.05	46,46,46,46	0
55	MG	1P	204	1/1	0.97	0.05	41,41,41,41	0
55	MG	2a	3082	1/1	0.97	0.28	57,57,57,57	0
55	MG	1A	3046	1/1	0.97	0.07	22,22,22,22	0
55	MG	1A	3478	1/1	0.97	0.07	25,25,25,25	0
55	MG	1Q	203	1/1	0.97	0.12	37,37,37,37	0
55	MG	1A	3479	1/1	0.97	0.05	20,20,20,20	0
55	MG	1Q	205	1/1	0.97	0.07	35,35,35,35	0
55	MG	1a	3096	1/1	0.97	0.12	50,50,50,50	0
55	MG	1A	3480	1/1	0.97	0.07	18,18,18,18	0
55	MG	2A	3154	1/1	0.97	0.08	36,36,36,36	0
55	MG	1A	3481	1/1	0.97	0.07	22,22,22,22	0
55	MG	2A	3156	1/1	0.97	0.09	38,38,38,38	0
55	MG	2A	3378	1/1	0.97	0.04	60,60,60,60	0
55	MG	1A	3482	1/1	0.97	0.09	39,39,39,39	0
55	MG	2A	3380	1/1	0.97	0.05	23,23,23,23	0
55	MG	1A	3815	1/1	0.97	0.07	42,42,42,42	0
55	MG	2A	3159	1/1	0.97	0.20	51,51,51,51	0
55	MG	1R	205	1/1	0.97	0.07	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3161	1/1	0.97	0.07	55,55,55,55	0
55	MG	2a	3101	1/1	0.97	0.05	42,42,42,42	0
55	MG	1A	3697	1/1	0.97	0.11	44,44,44,44	0
55	MG	1A	3132	1/1	0.97	0.38	38,38,38,38	0
55	MG	1A	3590	1/1	0.97	0.06	46,46,46,46	0
55	MG	1a	3105	1/1	0.97	0.11	52,52,52,52	0
55	MG	1A	3484	1/1	0.97	0.08	21,21,21,21	0
55	MG	1a	3110	1/1	0.97	0.07	34,34,34,34	0
55	MG	2A	3169	1/1	0.97	0.25	44,44,44,44	0
55	MG	2A	3647	1/1	0.97	0.07	56,56,56,56	0
55	MG	1A	3173	1/1	0.97	0.07	35,35,35,35	0
55	MG	1A	3174	1/1	0.97	0.17	35,35,35,35	0
55	MG	1A	3133	1/1	0.97	0.14	25,25,25,25	0
55	MG	2A	3399	1/1	0.97	0.14	48,48,48,48	0
55	MG	1A	3704	1/1	0.97	0.12	34,34,34,34	0
55	MG	1A	3706	1/1	0.97	0.17	34,34,34,34	0
55	MG	2a	3116	1/1	0.97	0.07	61,61,61,61	0
55	MG	2A	3660	1/1	0.97	0.04	47,47,47,47	0
55	MG	1U	205	1/1	0.97	0.35	32,32,32,32	0
55	MG	2a	3119	1/1	0.97	0.10	63,63,63,63	0
55	MG	2a	3120	1/1	0.97	0.17	58,58,58,58	0
55	MG	2A	3176	1/1	0.97	0.11	45,45,45,45	0
55	MG	2A	3664	1/1	0.97	0.10	62,62,62,62	0
55	MG	2A	3177	1/1	0.97	0.15	34,34,34,34	0
55	MG	2A	3666	1/1	0.97	0.05	45,45,45,45	0
55	MG	2A	3668	1/1	0.97	0.04	42,42,42,42	0
55	MG	1a	3118	1/1	0.97	0.07	32,32,32,32	0
55	MG	1U	207	1/1	0.97	0.09	34,34,34,34	0
55	MG	2A	3671	1/1	0.97	0.07	32,32,32,32	0
55	MG	1A	3488	1/1	0.97	0.07	16,16,16,16	0
55	MG	2A	3409	1/1	0.97	0.05	35,35,35,35	0
55	MG	1A	3299	1/1	0.97	0.19	31,31,31,31	0
55	MG	2A	3675	1/1	0.97	0.07	30,30,30,30	0
55	MG	2A	3676	1/1	0.97	0.06	17,17,17,17	0
55	MG	1A	3597	1/1	0.97	0.05	46,46,46,46	0
55	MG	2a	3138	1/1	0.97	0.13	54,54,54,54	0
55	MG	1A	3491	1/1	0.97	0.04	55,55,55,55	0
55	MG	2A	3184	1/1	0.97	0.04	47,47,47,47	0
55	MG	1A	3003	1/1	0.97	0.06	19,19,19,19	0
55	MG	1A	3384	1/1	0.97	0.05	34,34,34,34	0
55	MG	2A	3689	1/1	0.97	0.04	34,34,34,34	0
55	MG	1A	3178	1/1	0.97	0.16	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3386	1/1	0.97	0.06	24,24,24,24	0
55	MG	2a	3146	1/1	0.97	0.08	61,61,61,61	0
55	MG	1A	3135	1/1	0.97	0.06	46,46,46,46	0
55	MG	2a	3149	1/1	0.97	0.07	57,57,57,57	0
55	MG	1A	3180	1/1	0.97	0.28	39,39,39,39	0
55	MG	1A	3838	1/1	0.97	0.06	42,42,42,42	0
55	MG	1A	3501	1/1	0.97	0.09	46,46,46,46	0
55	MG	1A	3304	1/1	0.97	0.08	36,36,36,36	0
55	MG	2a	3154	1/1	0.97	0.06	51,51,51,51	0
55	MG	1A	3390	1/1	0.97	0.05	30,30,30,30	0
55	MG	1A	3182	1/1	0.97	0.13	25,25,25,25	0
55	MG	1A	3722	1/1	0.97	0.17	31,31,31,31	0
55	MG	2A	3701	1/1	0.97	0.06	33,33,33,33	0
55	MG	1A	3847	1/1	0.97	0.23	46,46,46,46	0
55	MG	1A	3723	1/1	0.97	0.06	30,30,30,30	0
55	MG	1A	3724	1/1	0.97	0.06	20,20,20,20	0
55	MG	1A	3394	1/1	0.97	0.08	17,17,17,17	0
55	MG	1A	3610	1/1	0.97	0.19	32,32,32,32	0
55	MG	1a	3144	1/1	0.97	0.13	49,49,49,49	0
55	MG	1A	3236	1/1	0.97	0.21	27,27,27,27	0
55	MG	15	102	1/1	0.97	0.27	30,30,30,30	0
55	MG	2A	3009	1/1	0.97	0.08	40,40,40,40	0
55	MG	1A	3103	1/1	0.97	0.20	27,27,27,27	0
55	MG	1A	3238	1/1	0.97	0.20	30,30,30,30	0
55	MG	15	105	1/1	0.97	0.18	23,23,23,23	0
55	MG	1A	3614	1/1	0.97	0.09	31,31,31,31	0
55	MG	2A	3014	1/1	0.97	0.10	39,39,39,39	0
55	MG	1A	3076	1/1	0.97	0.22	25,25,25,25	0
55	MG	1A	3185	1/1	0.97	0.18	29,29,29,29	0
55	MG	1A	3078	1/1	0.97	0.08	34,34,34,34	0
55	MG	2a	3183	1/1	0.97	0.05	49,49,49,49	0
55	MG	2A	3214	1/1	0.97	0.17	29,29,29,29	0
55	MG	2a	3186	1/1	0.97	0.07	61,61,61,61	0
55	MG	2A	3723	1/1	0.97	0.05	49,49,49,49	0
55	MG	2A	3724	1/1	0.97	0.08	52,52,52,52	0
55	MG	1A	3140	1/1	0.97	0.05	31,31,31,31	0
55	MG	2A	3726	1/1	0.97	0.07	67,67,67,67	0
55	MG	2A	3020	1/1	0.97	0.14	38,38,38,38	0
55	MG	2A	3021	1/1	0.97	0.05	37,37,37,37	0
55	MG	1A	3245	1/1	0.97	0.24	33,33,33,33	0
55	MG	1A	3035	1/1	0.97	0.07	28,28,28,28	0
55	MG	1A	3316	1/1	0.97	0.14	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	18	101	1/1	0.97	0.21	36,36,36,36	0
55	MG	19	101	1/1	0.97	0.26	40,40,40,40	0
55	MG	2A	3735	1/1	0.97	0.09	34,34,34,34	0
55	MG	2A	3454	1/1	0.97	0.05	46,46,46,46	0
55	MG	2A	3027	1/1	0.97	0.07	41,41,41,41	0
55	MG	1A	3108	1/1	0.97	0.23	32,32,32,32	0
55	MG	1A	3026	1/1	0.97	0.28	26,26,26,26	0
55	MG	2A	3033	1/1	0.97	0.08	48,48,48,48	0
55	MG	2A	3459	1/1	0.97	0.07	23,23,23,23	0
55	MG	2A	3034	1/1	0.97	0.14	36,36,36,36	0
55	MG	1A	3628	1/1	0.97	0.09	16,16,16,16	0
55	MG	1A	3523	1/1	0.97	0.07	13,13,13,13	0
58	ZN	1n	102	1/1	0.97	0.05	77,77,77,77	0
55	MG	1A	3062	1/1	0.97	0.08	37,37,37,37	0
55	MG	1A	3527	1/1	0.97	0.34	31,31,31,31	0
55	MG	1F	304	1/1	0.98	0.23	28,28,28,28	0
55	MG	2A	3592	1/1	0.98	0.05	60,60,60,60	0
55	MG	2A	3398	1/1	0.98	0.04	27,27,27,27	0
55	MG	1A	3954	1/1	0.98	0.08	55,55,55,55	0
55	MG	1F	307	1/1	0.98	0.19	33,33,33,33	0
55	MG	2A	3401	1/1	0.98	0.08	28,28,28,28	0
55	MG	1A	3824	1/1	0.98	0.08	20,20,20,20	0
55	MG	1A	3077	1/1	0.98	0.14	28,28,28,28	0
55	MG	1A	3550	1/1	0.98	0.06	60,60,60,60	0
55	MG	2A	3601	1/1	0.98	0.08	54,54,54,54	0
55	MG	2A	3052	1/1	0.98	0.16	37,37,37,37	0
55	MG	1A	3208	1/1	0.98	0.16	33,33,33,33	0
55	MG	1a	3053	1/1	0.98	0.04	38,38,38,38	0
55	MG	1a	3202	1/1	0.98	0.09	45,45,45,45	0
55	MG	1a	3203	1/1	0.98	0.07	71,71,71,71	0
55	MG	1A	3728	1/1	0.98	0.04	71,71,71,71	0
55	MG	2A	3411	1/1	0.98	0.11	40,40,40,40	0
55	MG	1A	3392	1/1	0.98	0.06	25,25,25,25	0
55	MG	2A	3613	1/1	0.98	0.03	31,31,31,31	0
55	MG	1A	3471	1/1	0.98	0.06	39,39,39,39	0
55	MG	1A	3393	1/1	0.98	0.06	17,17,17,17	0
55	MG	2A	3061	1/1	0.98	0.06	33,33,33,33	0
55	MG	1A	3832	1/1	0.98	0.07	19,19,19,19	0
55	MG	1A	3555	1/1	0.98	0.07	43,43,43,43	0
55	MG	1A	3290	1/1	0.98	0.12	42,42,42,42	0
55	MG	1A	3395	1/1	0.98	0.05	22,22,22,22	0
55	MG	1A	3736	1/1	0.98	0.08	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3475	1/1	0.98	0.05	12,12,12,12	0
55	MG	1A	3338	1/1	0.98	0.09	24,24,24,24	0
55	MG	2a	3018	1/1	0.98	0.10	36,36,36,36	0
55	MG	1A	3009	1/1	0.98	0.10	18,18,18,18	0
55	MG	1A	3039	1/1	0.98	0.12	35,35,35,35	0
55	MG	1A	3401	1/1	0.98	0.08	21,21,21,21	0
55	MG	1N	201	1/1	0.98	0.11	36,36,36,36	0
55	MG	1A	3402	1/1	0.98	0.04	16,16,16,16	0
55	MG	1A	3843	1/1	0.98	0.08	37,37,37,37	0
55	MG	1A	3845	1/1	0.98	0.06	34,34,34,34	0
55	MG	1A	3564	1/1	0.98	0.03	47,47,47,47	0
55	MG	1A	3980	1/1	0.98	0.04	18,18,18,18	0
55	MG	2A	3079	1/1	0.98	0.07	50,50,50,50	0
55	MG	1P	202	1/1	0.98	0.15	28,28,28,28	0
55	MG	1A	3403	1/1	0.98	0.05	18,18,18,18	0
55	MG	1A	3404	1/1	0.98	0.03	19,19,19,19	0
55	MG	1A	3341	1/1	0.98	0.07	22,22,22,22	0
55	MG	1A	3342	1/1	0.98	0.09	37,37,37,37	0
55	MG	1A	3343	1/1	0.98	0.06	34,34,34,34	0
55	MG	2a	3036	1/1	0.98	0.14	28,28,28,28	0
55	MG	1A	3570	1/1	0.98	0.10	12,12,12,12	0
55	MG	2A	3251	1/1	0.98	0.33	40,40,40,40	0
55	MG	2A	3643	1/1	0.98	0.05	58,58,58,58	0
55	MG	1A	3030	1/1	0.98	0.07	14,14,14,14	0
55	MG	2A	3645	1/1	0.98	0.05	63,63,63,63	0
55	MG	1A	3101	1/1	0.98	0.22	29,29,29,29	0
55	MG	1A	3656	1/1	0.98	0.04	39,39,39,39	0
55	MG	2A	3255	1/1	0.98	0.16	40,40,40,40	0
55	MG	1A	3754	1/1	0.98	0.06	30,30,30,30	0
55	MG	2A	3650	1/1	0.98	0.04	41,41,41,41	0
55	MG	2A	3651	1/1	0.98	0.05	65,65,65,65	0
55	MG	1A	3250	1/1	0.98	0.05	35,35,35,35	0
55	MG	2A	3653	1/1	0.98	0.05	47,47,47,47	0
55	MG	2A	3654	1/1	0.98	0.04	29,29,29,29	0
55	MG	1a	3236	1/1	0.98	0.06	53,53,53,53	0
55	MG	1A	3490	1/1	0.98	0.03	35,35,35,35	0
55	MG	1A	3296	1/1	0.98	0.06	18,18,18,18	0
55	MG	1A	3863	1/1	0.98	0.06	28,28,28,28	0
55	MG	1A	3181	1/1	0.98	0.15	27,27,27,27	0
55	MG	2A	3662	1/1	0.98	0.09	47,47,47,47	0
55	MG	1A	3759	1/1	0.98	0.09	31,31,31,31	0
55	MG	1A	3350	1/1	0.98	0.04	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3867	1/1	0.98	0.05	44,44,44,44	0
55	MG	1A	3081	1/1	0.98	0.11	36,36,36,36	0
55	MG	2A	3667	1/1	0.98	0.08	47,47,47,47	0
55	MG	1A	3042	1/1	0.98	0.11	11,11,11,11	0
55	MG	1U	203	1/1	0.98	0.24	29,29,29,29	0
55	MG	1A	3353	1/1	0.98	0.04	21,21,21,21	0
55	MG	2A	3270	1/1	0.98	0.14	32,32,32,32	0
55	MG	1A	3420	1/1	0.98	0.03	24,24,24,24	0
55	MG	1A	3666	1/1	0.98	0.03	52,52,52,52	0
55	MG	2A	3273	1/1	0.98	0.24	39,39,39,39	0
55	MG	1A	3582	1/1	0.98	0.09	40,40,40,40	0
55	MG	1A	3876	1/1	0.98	0.04	32,32,32,32	0
55	MG	2A	3677	1/1	0.98	0.04	60,60,60,60	0
55	MG	1V	203	1/1	0.98	0.16	28,28,28,28	0
55	MG	2A	3679	1/1	0.98	0.05	66,66,66,66	0
55	MG	1A	3104	1/1	0.98	0.34	27,27,27,27	0
55	MG	2A	3110	1/1	0.98	0.06	17,17,17,17	0
55	MG	1A	3878	1/1	0.98	0.04	19,19,19,19	0
55	MG	1A	3422	1/1	0.98	0.10	24,24,24,24	0
55	MG	2A	3688	1/1	0.98	0.07	32,32,32,32	0
55	MG	1A	4010	1/1	0.98	0.06	13,13,13,13	0
55	MG	1a	3107	1/1	0.98	0.10	33,33,33,33	0
55	MG	1A	3083	1/1	0.98	0.12	30,30,30,30	0
55	MG	1a	3109	1/1	0.98	0.06	39,39,39,39	0
55	MG	1A	3356	1/1	0.98	0.09	25,25,25,25	0
55	MG	1A	3506	1/1	0.98	0.06	18,18,18,18	0
55	MG	1a	3267	1/1	0.98	0.05	64,64,64,64	0
55	MG	2A	3696	1/1	0.98	0.07	31,31,31,31	0
55	MG	1Y	201	1/1	0.98	0.08	59,59,59,59	0
55	MG	1A	3186	1/1	0.98	0.17	38,38,38,38	0
55	MG	2A	3292	1/1	0.98	0.07	32,32,32,32	0
55	MG	10	101	1/1	0.98	0.06	40,40,40,40	0
55	MG	1A	3219	1/1	0.98	0.17	22,22,22,22	0
55	MG	1a	3116	1/1	0.98	0.08	59,59,59,59	0
55	MG	10	103	1/1	0.98	0.06	37,37,37,37	0
55	MG	1A	4016	1/1	0.98	0.05	45,45,45,45	0
55	MG	2a	3095	1/1	0.98	0.09	70,70,70,70	0
55	MG	1A	3887	1/1	0.98	0.03	41,41,41,41	0
55	MG	1A	3084	1/1	0.98	0.19	35,35,35,35	0
55	MG	2A	3301	1/1	0.98	0.05	36,36,36,36	0
55	MG	2A	3708	1/1	0.98	0.04	38,38,38,38	0
55	MG	2A	3709	1/1	0.98	0.06	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3510	1/1	0.98	0.06	18,18,18,18	0
55	MG	2A	3492	1/1	0.98	0.09	31,31,31,31	0
55	MG	2A	3130	1/1	0.98	0.15	35,35,35,35	0
55	MG	2A	3131	1/1	0.98	0.25	41,41,41,41	0
55	MG	1A	3005	1/1	0.98	0.09	20,20,20,20	0
55	MG	1A	3306	1/1	0.98	0.29	39,39,39,39	0
55	MG	2A	3716	1/1	0.98	0.04	51,51,51,51	0
55	MG	1A	3006	1/1	0.98	0.05	22,22,22,22	0
55	MG	1A	3682	1/1	0.98	0.09	51,51,51,51	0
55	MG	13	101	1/1	0.98	0.12	31,31,31,31	0
55	MG	1A	3264	1/1	0.98	0.12	36,36,36,36	0
55	MG	2A	3311	1/1	0.98	0.11	33,33,33,33	0
55	MG	1A	3516	1/1	0.98	0.07	22,22,22,22	0
55	MG	1A	3069	1/1	0.98	0.26	37,37,37,37	0
55	MG	1A	3266	1/1	0.98	0.12	25,25,25,25	0
55	MG	1A	3785	1/1	0.98	0.05	24,24,24,24	0
55	MG	1A	3899	1/1	0.98	0.03	22,22,22,22	0
55	MG	1A	3192	1/1	0.98	0.17	35,35,35,35	0
55	MG	1A	3903	1/1	0.98	0.04	48,48,48,48	0
55	MG	1A	3904	1/1	0.98	0.03	16,16,16,16	0
55	MG	1A	3024	1/1	0.98	0.20	27,27,27,27	0
55	MG	2A	3321	1/1	0.98	0.04	42,42,42,42	0
55	MG	2A	3148	1/1	0.98	0.07	36,36,36,36	0
55	MG	1A	3690	1/1	0.98	0.03	38,38,38,38	0
55	MG	2A	3734	1/1	0.98	0.11	45,45,45,45	0
55	MG	1A	3111	1/1	0.98	0.17	31,31,31,31	0
55	MG	17	103	1/1	0.98	0.09	30,30,30,30	0
55	MG	1A	3908	1/1	0.98	0.09	52,52,52,52	0
55	MG	2A	3738	1/1	0.98	0.08	50,50,50,50	0
55	MG	1A	3017	1/1	0.98	0.11	23,23,23,23	0
55	MG	2A	3740	1/1	0.98	0.14	47,47,47,47	0
55	MG	1A	3439	1/1	0.98	0.04	10,10,10,10	0
55	MG	1B	214	1/1	0.98	0.06	39,39,39,39	0
55	MG	2a	3134	1/1	0.98	0.06	49,49,49,49	0
55	MG	1B	215	1/1	0.98	0.05	36,36,36,36	0
55	MG	2a	3136	1/1	0.98	0.05	54,54,54,54	0
55	MG	2a	3137	1/1	0.98	0.07	54,54,54,54	0
55	MG	1A	3524	1/1	0.98	0.05	44,44,44,44	0
55	MG	2A	3334	1/1	0.98	0.11	27,27,27,27	0
55	MG	1A	3370	1/1	0.98	0.05	30,30,30,30	0
55	MG	1A	3696	1/1	0.98	0.05	48,48,48,48	0
55	MG	1A	3072	1/1	0.98	0.09	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3916	1/1	0.98	0.05	25,25,25,25	0
55	MG	1B	221	1/1	0.98	0.04	36,36,36,36	0
55	MG	1A	3796	1/1	0.98	0.05	33,33,33,33	0
55	MG	1A	3797	1/1	0.98	0.07	63,63,63,63	0
55	MG	1A	3273	1/1	0.98	0.21	25,25,25,25	0
55	MG	2a	3148	1/1	0.98	0.09	36,36,36,36	0
55	MG	1A	3920	1/1	0.98	0.13	53,53,53,53	0
55	MG	2A	3004	1/1	0.98	0.06	33,33,33,33	0
55	MG	1A	3317	1/1	0.98	0.19	38,38,38,38	0
55	MG	1A	3530	1/1	0.98	0.04	22,22,22,22	0
55	MG	2A	3007	1/1	0.98	0.07	31,31,31,31	0
55	MG	1A	3924	1/1	0.98	0.04	37,37,37,37	0
55	MG	1A	3229	1/1	0.98	0.30	34,34,34,34	0
55	MG	2A	3353	1/1	0.98	0.11	27,27,27,27	0
55	MG	2B	217	1/1	0.98	0.06	52,52,52,52	0
55	MG	2a	3158	1/1	0.98	0.06	46,46,46,46	0
55	MG	2a	3159	1/1	0.98	0.05	38,38,38,38	0
55	MG	2a	3160	1/1	0.98	0.08	39,39,39,39	0
55	MG	1A	3138	1/1	0.98	0.16	20,20,20,20	0
55	MG	1D	301	1/1	0.98	0.28	35,35,35,35	0
55	MG	1A	3114	1/1	0.98	0.13	28,28,28,28	0
55	MG	1A	3007	1/1	0.98	0.07	25,25,25,25	0
55	MG	2A	3358	1/1	0.98	0.03	27,27,27,27	0
55	MG	1A	3027	1/1	0.98	0.12	37,37,37,37	0
55	MG	2A	3360	1/1	0.98	0.07	47,47,47,47	0
55	MG	2A	3015	1/1	0.98	0.15	29,29,29,29	0
55	MG	2A	3363	1/1	0.98	0.06	33,33,33,33	0
55	MG	1D	305	1/1	0.98	0.11	36,36,36,36	0
55	MG	1A	3379	1/1	0.98	0.09	47,47,47,47	0
55	MG	1D	307	1/1	0.98	0.07	9,9,9,9	0
55	MG	1A	3093	1/1	0.98	0.10	36,36,36,36	0
55	MG	1A	3061	1/1	0.98	0.03	26,26,26,26	0
55	MG	1A	3382	1/1	0.98	0.07	44,44,44,44	0
55	MG	1A	3619	1/1	0.98	0.09	26,26,26,26	0
55	MG	2a	3179	1/1	0.98	0.04	56,56,56,56	0
55	MG	1A	3938	1/1	0.98	0.07	38,38,38,38	0
55	MG	2a	3181	1/1	0.98	0.08	58,58,58,58	0
55	MG	1A	3146	1/1	0.98	0.05	29,29,29,29	0
55	MG	1A	3621	1/1	0.98	0.04	33,33,33,33	0
55	MG	1A	3282	1/1	0.98	0.27	40,40,40,40	0
55	MG	2a	3185	1/1	0.98	0.04	51,51,51,51	0
55	MG	1A	3623	1/1	0.98	0.05	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3028	1/1	0.98	0.04	33,33,33,33	0
55	MG	1A	3624	1/1	0.98	0.07	22,22,22,22	0
55	MG	2A	3030	1/1	0.98	0.10	34,34,34,34	0
55	MG	2a	3190	1/1	0.98	0.06	64,64,64,64	0
55	MG	2A	3031	1/1	0.98	0.10	18,18,18,18	0
55	MG	1A	3283	1/1	0.98	0.04	33,33,33,33	0
55	MG	1A	3946	1/1	0.98	0.05	49,49,49,49	0
55	MG	1E	302	1/1	0.98	0.31	40,40,40,40	0
55	MG	1a	3036	1/1	0.98	0.07	33,33,33,33	0
55	MG	1A	3001	1/1	0.98	0.05	30,30,30,30	0
55	MG	1A	3948	1/1	0.98	0.04	21,21,21,21	0
55	MG	1A	3148	1/1	0.98	0.04	28,28,28,28	0
55	MG	1A	3332	1/1	0.98	0.04	18,18,18,18	0
55	MG	1A	3463	1/1	0.98	0.07	44,44,44,44	0
55	MG	2A	3041	1/1	0.98	0.12	40,40,40,40	0
55	MG	1A	3241	1/1	0.98	0.14	29,29,29,29	0
55	MG	2R	3301	1/1	0.98	0.13	43,43,43,43	0
55	MG	2A	3391	1/1	0.98	0.11	37,37,37,37	0
55	MG	2A	3584	1/1	0.98	0.09	37,37,37,37	0
55	MG	1F	301	1/1	0.98	0.15	26,26,26,26	0
55	MG	1A	3631	1/1	0.98	0.06	18,18,18,18	0
55	MG	2A	3394	1/1	0.98	0.07	33,33,33,33	0
55	MG	2A	3395	1/1	0.98	0.07	32,32,32,32	0
58	ZN	2Y	501	1/1	0.98	0.04	78,78,78,78	0
55	MG	2A	3589	1/1	0.98	0.06	46,46,46,46	0
58	ZN	29	501	1/1	0.98	0.04	54,54,54,54	0
55	MG	1F	303	1/1	0.98	0.15	27,27,27,27	0
55	MG	2A	3655	1/1	0.99	0.03	38,38,38,38	0
55	MG	2A	3656	1/1	0.99	0.03	54,54,54,54	0
55	MG	1A	3346	1/1	0.99	0.07	24,24,24,24	0
55	MG	2A	3327	1/1	0.99	0.11	28,28,28,28	0
55	MG	2E	306	1/1	0.99	0.07	22,22,22,22	0
55	MG	1a	3263	1/1	0.99	0.06	47,47,47,47	0
55	MG	2A	3329	1/1	0.99	0.09	26,26,26,26	0
55	MG	1A	3844	1/1	0.99	0.06	31,31,31,31	0
55	MG	2A	3139	1/1	0.99	0.09	27,27,27,27	0
55	MG	1A	3041	1/1	0.99	0.04	24,24,24,24	0
55	MG	1A	3251	1/1	0.99	0.15	38,38,38,38	0
55	MG	2A	3545	1/1	0.99	0.10	23,23,23,23	0
55	MG	1Q	202	1/1	0.99	0.04	25,25,25,25	0
55	MG	1A	3976	1/1	0.99	0.03	17,17,17,17	0
55	MG	1A	3143	1/1	0.99	0.12	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3526	1/1	0.99	0.07	22,22,22,22	0
55	MG	2A	3338	1/1	0.99	0.09	30,30,30,30	0
55	MG	2A	3339	1/1	0.99	0.04	33,33,33,33	0
55	MG	1A	3095	1/1	0.99	0.07	10,10,10,10	0
55	MG	1B	225	1/1	0.99	0.04	39,39,39,39	0
55	MG	2A	3342	1/1	0.99	0.07	35,35,35,35	0
55	MG	1A	3451	1/1	0.99	0.06	21,21,21,21	0
55	MG	2A	3556	1/1	0.99	0.04	74,74,74,74	0
55	MG	1A	3981	1/1	0.99	0.06	24,24,24,24	0
55	MG	1A	3852	1/1	0.99	0.04	35,35,35,35	0
55	MG	2A	3244	1/1	0.99	0.05	37,37,37,37	0
55	MG	1A	3452	1/1	0.99	0.06	20,20,20,20	0
55	MG	1A	3914	1/1	0.99	0.02	45,45,45,45	0
55	MG	2A	3682	1/1	0.99	0.03	55,55,55,55	0
55	MG	2A	3683	1/1	0.99	0.04	50,50,50,50	0
55	MG	2A	3684	1/1	0.99	0.02	30,30,30,30	0
55	MG	2A	3562	1/1	0.99	0.03	54,54,54,54	0
55	MG	2A	3563	1/1	0.99	0.03	18,18,18,18	0
55	MG	2A	3687	1/1	0.99	0.07	59,59,59,59	0
55	MG	2A	3564	1/1	0.99	0.04	46,46,46,46	0
55	MG	1A	3254	1/1	0.99	0.12	37,37,37,37	0
55	MG	23	102	1/1	0.99	0.10	44,44,44,44	0
55	MG	1A	3329	1/1	0.99	0.07	17,17,17,17	0
55	MG	1a	3106	1/1	0.99	0.04	30,30,30,30	0
55	MG	1a	3026	1/1	0.99	0.03	35,35,35,35	0
55	MG	1a	3192	1/1	0.99	0.03	59,59,59,59	0
55	MG	1A	3532	1/1	0.99	0.04	55,55,55,55	0
55	MG	1A	3272	1/1	0.99	0.28	24,24,24,24	0
55	MG	1A	3705	1/1	0.99	0.04	37,37,37,37	0
55	MG	1A	3398	1/1	0.99	0.03	15,15,15,15	0
55	MG	1A	3493	1/1	0.99	0.06	18,18,18,18	0
55	MG	1A	3922	1/1	0.99	0.05	40,40,40,40	0
55	MG	2A	3576	1/1	0.99	0.06	47,47,47,47	0
55	MG	1A	3861	1/1	0.99	0.12	12,12,12,12	0
55	MG	1U	206	1/1	0.99	0.21	29,29,29,29	0
55	MG	2A	3362	1/1	0.99	0.03	29,29,29,29	0
55	MG	2A	3580	1/1	0.99	0.04	53,53,53,53	0
55	MG	2A	3074	1/1	0.99	0.06	23,23,23,23	0
55	MG	2A	3167	1/1	0.99	0.07	35,35,35,35	0
55	MG	1A	3426	1/1	0.99	0.11	19,19,19,19	0
55	MG	1A	3458	1/1	0.99	0.04	50,50,50,50	0
55	MG	1V	201	1/1	0.99	0.10	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3399	1/1	0.99	0.06	17,17,17,17	0
55	MG	1a	3120	1/1	0.99	0.08	33,33,33,33	0
55	MG	1A	3497	1/1	0.99	0.07	21,21,21,21	0
55	MG	1A	3761	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3929	1/1	0.99	0.07	49,49,49,49	0
55	MG	1A	3331	1/1	0.99	0.06	21,21,21,21	0
55	MG	2a	3021	1/1	0.99	0.05	35,35,35,35	0
55	MG	1a	3125	1/1	0.99	0.05	48,48,48,48	0
55	MG	1A	3868	1/1	0.99	0.07	37,37,37,37	0
55	MG	1A	3499	1/1	0.99	0.03	34,34,34,34	0
55	MG	1A	3933	1/1	0.99	0.03	38,38,38,38	0
55	MG	1A	3198	1/1	0.99	0.11	30,30,30,30	0
55	MG	1A	3935	1/1	0.99	0.08	29,29,29,29	0
55	MG	2A	3598	1/1	0.99	0.07	25,25,25,25	0
55	MG	1A	3871	1/1	0.99	0.06	30,30,30,30	0
55	MG	1A	3715	1/1	0.99	0.04	30,30,30,30	0
55	MG	1E	305	1/1	0.99	0.07	41,41,41,41	0
55	MG	2A	3488	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3240	1/1	0.99	0.13	27,27,27,27	0
55	MG	2A	3604	1/1	0.99	0.03	36,36,36,36	0
55	MG	2A	3605	1/1	0.99	0.06	31,31,31,31	0
55	MG	1A	3939	1/1	0.99	0.04	39,39,39,39	0
55	MG	1A	3670	1/1	0.99	0.03	41,41,41,41	0
55	MG	2A	3283	1/1	0.99	0.04	27,27,27,27	0
55	MG	2A	3609	1/1	0.99	0.03	39,39,39,39	0
55	MG	1A	3145	1/1	0.99	0.04	24,24,24,24	0
55	MG	2a	3168	1/1	0.99	0.04	52,52,52,52	0
55	MG	1A	3819	1/1	0.99	0.08	29,29,29,29	0
55	MG	2A	3286	1/1	0.99	0.04	51,51,51,51	0
55	MG	1a	3139	1/1	0.99	0.06	47,47,47,47	0
55	MG	2A	3497	1/1	0.99	0.03	26,26,26,26	0
55	MG	1A	3672	1/1	0.99	0.04	38,38,38,38	0
55	MG	1A	3230	1/1	0.99	0.14	31,31,31,31	0
55	MG	2a	3175	1/1	0.99	0.10	48,48,48,48	0
55	MG	11	103	1/1	0.99	0.04	42,42,42,42	0
55	MG	2A	3618	1/1	0.99	0.05	35,35,35,35	0
55	MG	1A	3504	1/1	0.99	0.09	33,33,33,33	0
55	MG	1F	305	1/1	0.99	0.16	25,25,25,25	0
55	MG	1A	3044	1/1	0.99	0.06	5,5,5,5	0
55	MG	1A	3881	1/1	0.99	0.03	27,27,27,27	0
55	MG	1A	3260	1/1	0.99	0.23	27,27,27,27	0
55	MG	2A	3296	1/1	0.99	0.05	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3883	1/1	0.99	0.04	30,30,30,30	0
55	MG	1F	310	1/1	0.99	0.12	28,28,28,28	0
55	MG	1A	4020	1/1	0.99	0.07	21,21,21,21	0
55	MG	1A	3467	1/1	0.99	0.04	40,40,40,40	0
55	MG	1A	3191	1/1	0.99	0.16	39,39,39,39	0
55	MG	1A	3469	1/1	0.99	0.03	44,44,44,44	0
55	MG	1A	3470	1/1	0.99	0.06	22,22,22,22	0
55	MG	1A	3511	1/1	0.99	0.05	17,17,17,17	0
55	MG	1A	3022	1/1	0.99	0.06	15,15,15,15	0
55	MG	1A	3956	1/1	0.99	0.03	22,22,22,22	0
55	MG	1a	3243	1/1	0.99	0.06	43,43,43,43	0
55	MG	1A	3246	1/1	0.99	0.21	33,33,33,33	0
55	MG	1A	3176	1/1	0.99	0.17	22,22,22,22	0
55	MG	1A	3126	1/1	0.99	0.12	33,33,33,33	0
55	MG	2A	3414	1/1	0.99	0.03	42,42,42,42	0
55	MG	1a	3247	1/1	0.99	0.05	59,59,59,59	0
55	MG	1a	3248	1/1	0.99	0.03	42,42,42,42	0
55	MG	1a	3249	1/1	0.99	0.03	58,58,58,58	0
55	MG	1A	3733	1/1	0.99	0.04	21,21,21,21	0
55	MG	1A	3412	1/1	0.99	0.03	22,22,22,22	0
55	MG	1A	3687	1/1	0.99	0.07	30,30,30,30	0
55	MG	1A	3249	1/1	0.99	0.36	28,28,28,28	0
55	MG	1A	3414	1/1	0.99	0.03	31,31,31,31	0
55	MG	1A	3738	1/1	0.99	0.06	35,35,35,35	0
58	ZN	1Y	202	1/1	0.99	0.02	50,50,50,50	0
55	MG	1A	3285	1/1	0.99	0.06	20,20,20,20	0
58	ZN	15	109	1/1	0.99	0.03	47,47,47,47	0
58	ZN	16	501	1/1	0.99	0.02	29,29,29,29	0
58	ZN	19	103	1/1	0.99	0.02	38,38,38,38	0
55	MG	1A	3900	1/1	0.99	0.03	33,33,33,33	0
55	MG	1A	3901	1/1	0.99	0.05	36,36,36,36	0
55	MG	1A	3444	1/1	0.99	0.04	19,19,19,19	0
58	ZN	26	501	1/1	0.99	0.04	54,54,54,54	0
55	MG	1A	3970	1/1	0.99	0.10	43,43,43,43	0
55	MG	1A	3416	1/1	0.99	0.06	24,24,24,24	0
59	SF4	1d	306	8/8	0.99	0.06	55,64,69,72	0
59	SF4	2d	501	8/8	0.99	0.04	58,66,69,73	0
58	ZN	25	104	1/1	1.00	0.02	55,55,55,55	0
55	MG	2A	3482	1/1	1.00	0.04	28,28,28,28	0
55	MG	1A	3849	1/1	1.00	0.03	18,18,18,18	0
55	MG	1A	3335	1/1	1.00	0.04	24,24,24,24	0
55	MG	1a	3272	1/1	1.00	0.06	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3476	1/1	1.00	0.04	30,30,30,30	0

6.5 Other polymers (i)

There are no such residues in this entry.